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## Corporate governance and expropriation of minority shareholders' rights: Evidence from Latin America

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CORPORATE GOVERNANCE AND EXPROPRIATION OF MINORITY  
SHAREHOLDERS' RIGHTS: EVIDENCE FROM LATIN AMERICA.

A DISSERTATION

By

MARISELA SANTIAGO-CASTRO

Submitted to the Graduate School of the  
University of Texas-Pan American  
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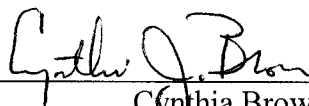
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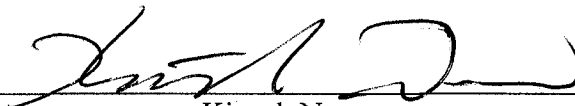
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## ABSTRACT

Santiago-Castro, Marisela, Corporate Governance and Expropriation of Minority shareholders' Rights: Evidence from Latin America. Dissertation (Ph.D.), May 2005, 135 pp., 24 tables, 1 figure, references, 145 titles.

The dissertation empirically examines whether the internal corporate governance mechanisms of the firms represented in Latin American equity markets lead to the expropriation of minority shareholders' rights; and whether such expropriation leads to economic underperformance. Specifically, the dissertation answers the following: Is there a relationship between the board of director's characteristics and the expropriation of minority shareholders rights in Latin American firms? Is there a relationship between the ownership structure of Latin American firms and the expropriation of minority shareholders rights? Moreover, does the expropriation of minority shareholders rights lead to economic underperformance among Latin American firms?

Several hypotheses were developed to empirically relate the internal corporate governance mechanisms with the expropriation of minority shareholders' rights, and the latter with performance. The hypotheses were tested using a sample of 97 companies from Brazil, Chile, and Mexico, for a three-year period (2000 – 2002).

Univariate analyses were employed to examine the differences in means between the three countries for several variables of interest. In addition, multivariate tests, including panel analysis, were utilized to test the specific hypotheses.

The results suggest that there is a relationship between the characteristics of a firm's board of directors and the expropriation of minority shareholders' rights. In particular, there is a positive association between board size and CEO ownership and the expropriation. By contrast, there is a negative relationship between the number of interlocking directorates and grupo affiliation with the expropriation of minority shareholders' rights. The findings also support a positive relation between family ownership and expropriation of minority shareholders' rights. Finally, this dissertation provides evidence that expropriation of minority shareholders' rights lead to under performance in emerging economies.

The contribution of the dissertation is twofold: (a) fills a gap in the current corporate governance literature investigating an unexplored geographic area: Latin America; and (b) it is the first attempt to empirically measure the degree of expropriation of minority shareholders' rights, and its relationship with corporate governance mechanisms and performance.

## DEDICATION

*In memory of my beloved husband Iván A. Malpica (1971-2004) who gave me the best nine and half years of my life, and the most precious gift...Dyann Marie.*

*A la memoria de mi amado esposo Iván A. Malpica (1971-2004) quien me brindó los mejores nueve años y medios de mi vida y el más valioso regalo...Dyann Marie.*

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## CHAPTER I

### INTRODUCTION

Latin America provides an unique scenario to expand current research on corporate governance. First, the source of agency problems in the region stem from the misalignment of goals and objectives between the majority and minority shareholders, and not from the diverse interests of management and owners. Second, corporate governance mechanisms that may be available to mitigate agency problems are inefficient or not existent. Third, the lack of institutional protection for minority shareholders' rights enhances the potential of agency problems, especially for the expropriation of minority shareholders' rights. Therefore, in light of these distinctive characteristics, this dissertation empirically examines whether the internal corporate governance mechanisms of firms represented in Latin American (LA) equity markets lead to the expropriation of minority shareholders' rights, and whether such expropriation leads to economic underperformance.

LA equity markets are significantly underdeveloped in comparison with other emerging economies in Asia or Eastern Europe. LA exchanges lack retail, institutional, and international investors. Moreover, these markets cannot attract enough domestic companies willing to list their shares. Overall, LA exchanges are characterized by low volume, decreasing market capitalization, low liquidity, and scant Initial Public Offering

(IPO) activity. Table 1 describes LA equity markets compared to other countries, both developed and developing markets around the world. LA countries have an average ratio of stock market capitalization held by minorities to gross national product (GNP) of 24 percent, less than half the percentage of both the United States (U.S.) (58%) and the average of the English-origin<sup>1</sup> countries (60%). LA countries have seven listed firms per one million people (on average), compared to 11 for the French-origin<sup>2</sup> countries, 30 for the U.S., and 36 for the English-origin countries. Finally, for the period July 1995 through June 1996, LA countries averaged 0.09 IPO activity per million people, well below the averages for French-origin countries (0.27), the U.S. (3.11), and English-origin countries (2.16). These statistics show the critical situation of LA exchanges, and provide evidence on the difficulty for LA firms of getting access to equity financing.

LA equity markets lack the necessary depth to have active trading activity, since the majority of companies' shares are in the control of wealthy families who do not wish to surrender their power. These wealthy families might use corporate resources for their own interests while the minority shareholders bear the costs. For example, in January 2000, a British mobile phone operator bought a minority stake in Iusacell, the Mexican mobile company, and excluded small shareholders from the deal. The buyer bought its 34.5% share from the controlling family, rather than offering to buy shares at the same price from minority investors (*Equal rights for all*, 2001).

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<sup>1</sup> The English-origin countries are those under common-law family that included the law of England and those laws modeled on English law.

<sup>2</sup> The French-origin countries are those under the French-civil-law family that is a product of the Roman law and the French Commercial Code.

Table 1

*External Capital Markets Indicators (Aggregate data)*

Country/Country Group	External Capitalization/GNP	Domestic firms/Population <sup>d</sup>	IPOs/Population
Argentina	0.07	4.58	0.20
Brazil	0.18	3.48	0.00
Chile	0.80	19.92	0.35
Colombia	0.14	3.13	0.05
Ecuador	-	13.18	0.09
Mexico	0.22	2.28	0.03
Peru	0.40	9.47	0.13
Uruguay	-	7.00	0.00
Venezuela	0.08	4.28	0.00
<b>LA Countries average</b>	<b>0.24</b>	<b>7.48</b>	<b>0.09</b>
<b>French-origin average<sup>a,b</sup></b>	<b>0.16</b>	<b>11.13</b>	<b>0.27</b>
<b>U.S.</b>	<b>0.58</b>	<b>30.11</b>	<b>3.11</b>
<b>English-origin average<sup>b,c</sup></b>	<b>0.60</b>	<b>35.76</b>	<b>2.16</b>

*Note.* From “Legal Determinants of External Finance,” by R. La Porta, et al., 1997, *Journal of Finance*, 52 pp. 1138.

<sup>a</sup> Re-calculated without LA countries’ figures. <sup>b</sup> Include the following emerging economies: French origin: Egypt, Indonesia, Jordan, Philippines, and Turkey; English origin: India, Israel, Kenya, Malaysia, New Zealand, Nigeria, Pakistan, Singapore, Sri Lanka, Zimbabwe; German-origin: South Korea, Taiwan. <sup>c</sup> Re-calculated without U.S. figures. <sup>d</sup> Measured in millions.

The excessive control and ownership of wealthy families in Latin America is well documented in the work of La Porta and his colleagues (1997, 1998, 1999). For instance, they report that for the 10 largest non-government firms in French-civil-law countries, including Latin America, the three largest shareholders account, on average, for 54% of the outstanding shares of these companies (La Porta, Lopez-De-Silanes, Shleifer, & Vishny, 1998). Moreover, they report that among the 49 countries sampled, LA countries had the highest ownership concentration.

Shareholders of LA firms often have significant control rights over firms in excess of their cash flows rights, particularly with pyramids<sup>3</sup> and participation in management in more than one business. These types of arrangements are known in the region as grupos económicos (henceforth grupos), which are the dominant form of large private business organizations throughout the region and characterize the LA business culture. Typical grupos are run by controlling shareholders, not by professional managers with little equity ownership. Sargent and Ghaddar (2001) summarize the characteristics of the LA grupos as follows:

1. Large, diversified conglomerates organized within a holding company.
2. Close ties with government decision makers, and actively lobby for regulatory actions.
3. Controlled-firms dominated by a family or families, one of whose member serves as CEO, and other family members may serve in top positions.

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<sup>3</sup> Pyramids are organizational arrangements in which a holding company at the top owns shares in subsidiaries, which in turn have subsidiaries of their own (Nicodano, 1998, p. 1118).



4. Corporation controlled by a family who retains the majority position on full voting stocks.
5. Little competition among grupos due to the inter-group linkages through marriage ties among families.

There are two reasons why minority investors are discouraged from investing in LA firms. First, the controlling families are reluctant to trade companies' shares, which may result in the dilution of their power. Second, the weak legal environment serves as a disincentive for minority investors to invest in LA firms. The potential for expropriation of minority shareholders' rights is very high in Latin America, as depicted in Table 2.

Table 2 presents data on shareholders' rights<sup>4</sup> in Latin America, French-origin countries, the U.S., English-origin countries, German-origin countries, and Scandinavian-origin countries. Specifically, the table indicates how strongly the legal systems of the countries favor minority shareholders. In general, LA countries' ratings confirm the weak legal protection that minority shareholders have. Although appear to be average as far as cumulative voting (44%) and better than average on preemptive rights (78%), they have the lowest (0%) incidence of allowing voting by mail, a low (67%, though not as low as German-origin and other French-origin countries) incidence of not blocking shares for shareholder meetings, a low (44%, though not as low as Scandinavian-origin and other French-origin countries) incidence of laws protecting oppressed minorities, and the highest (18%) percentage of share capital needed to call an extraordinary shareholders' meeting. The aggregate antidirector rights score is low (2.67) in comparison with the

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<sup>4</sup> La Porta et al. (1998) analyze the voting procedures to determine the protection to shareholders around the world. For a complete definition of the variables refer to pages 1122 – 1123.

Table 2

*Shareholders Rights around the World*<sup>a</sup>

Country	Proxy by Mail	Shares not blocked before meeting	Cumulative Voting	Oppressed Minority	Preemptive Right	% of share capital to call extraordinary meeting	Antidirector Rights <sup>b</sup>	Mandatory Dividend
Argentina	0	0	1	1	1	.05	4	.00
Brazil	0	1	0	1	0	.05	3	.50
Chile	0	1	1	1	1	.10	5	.30
Colombia	0	1	1	0	1	.25	3	.50
Ecuador	0	1	0	0	1	.25	2	.50
Mexico	0	0	0	0	1	.33	1	.00
Peru	0	1	1	0	1	.20	3	.00
Uruguay	0	0	0	1	1	.20	2	.20
Venezuela	0	1	0	0	0	.20	1	.00
<b>LA Countries average</b>	<b>.00</b>	<b>.67</b>	<b>.44</b>	<b>.44</b>	<b>.78</b>	<b>.18</b>	<b>2.67</b>	<b>.22</b>
<b>French-origin average<sup>c,d</sup></b>	<b>.08</b>	<b>.42</b>	<b>.17</b>	<b>.17</b>	<b>.50</b>	<b>.11</b>	<b>2.08</b>	<b>.03</b>
<b>U.S.</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>.10</b>	<b>5.00</b>	<b>.00</b>
<b>English-origin average<sup>c,e</sup></b>	<b>.35</b>	<b>1</b>	<b>.24</b>	<b>.94</b>	<b>.47</b>	<b>.09</b>	<b>3.94</b>	<b>.00</b>
<b>German-origin average</b>	<b>.00</b>	<b>.17</b>	<b>.33</b>	<b>.50</b>	<b>.33</b>	<b>.05</b>	<b>2.33</b>	<b>.00</b>
<b>Scandinavian-origin average</b>	<b>.25</b>	<b>1</b>	<b>.00</b>	<b>.00</b>	<b>.75</b>	<b>.10</b>	<b>3.00</b>	<b>.00</b>

Note. From "Law and Finance," by La Porta et al., 1998, *Journal of Political Economy*, 106, pp. 1130-1131.

<sup>a</sup> 1 = Investor protection is in the Law. <sup>b</sup> Aggregate measure of all the previous columns. <sup>c</sup> Includes the following emerging economies: French-origin: Egypt, Indonesia, Jordan, Philippines, and Turkey; English-origin: India, Israel, Kenya, Malaysia, New Zealand, Nigeria, Pakistan, Singapore, Sri Lanka, Zimbabwe; German-origin: South Korea, Taiwan. <sup>d</sup> Re-calculated without LA countries' figures. <sup>e</sup> Re-calculated without U.S. figures.

U.S., English-origin countries, and Scandinavian-origin countries. Finally, the last column, mandatory dividend, represents a legal substitute for the weakness of other protections. Latin America scores the highest (22%) suggesting that indeed this protection is needed in the absence of the other more traditional methods of protecting minority shareholders.

The expropriation of minority shareholders' rights has been defined as the misalignment of interests between shareholder groups and/or substantial ownership of cash flow rights, leading to controlling management, insulation from external corporate control mechanisms (takeovers and/or tender offers), excessive salaries and/or dividends, or family in the board of directors without the necessary qualifications (Young, Peng, Ahlstrom, & Bruton, 2002).<sup>5</sup> The possibility for expropriation of minority shareholders' rights, along with lower economic performance and scarce investment opportunities in the region, limits the interest and investment of foreign investors, aggravating the actual low turnover on regional stock exchanges.

Corporate governance mechanisms exist to protect and enhance the interests of shareholders of business enterprises (Fama & Jensen, 1983a) by guaranteeing the investors a return on their investments (Shleifer & Vishny, 1997). If such mechanisms are present, they should lower the potential for expropriation of minority shareholders' rights and economic underperformance in companies.<sup>6</sup> Corporate governance

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<sup>5</sup> Expropriation is known as the Principal-Principal Agency (PPA) in management literature and tunneling in economics and finance literature. Relating it to the agency problem described by Jensen and Meckling (1976), expropriation means that "the insiders use the profits of the firm to benefit themselves rather than return the money to the outside investors" (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000b, p. 4)

<sup>6</sup> Klapper and Love (2003) conclude, after sampling firms from 14 emerging countries in 1998, that better corporate governance is highly correlated with better operating performance and market valuation, and that firm-level governance is lower in countries with weaker legal systems. From this evidence, it can be argued that firms in countries with weak legal systems have worse corporate governance and, thus, have

mechanisms include, among others: board of directors, interlocking directorships, audit committees, ownership structure, and external audits. There is no theory or evidence that tells which of such systems is the best and these systems differ around the world (Shleifer & Vishny, 1997). Agrawal and Knoeber (1996) find empirical evidence of interdependence among different mechanisms for controlling agency problems, and a trade-off between the mechanisms is possible (Booth, Cornett, & Tehranian, 2002; Rediker & Seth, 1995).

Classic agency theory framework and corporate mechanisms do not apply to the circumstances of LA countries, as shown in Table 3. Agency problems do not arise with the separation of owners and managers; instead, agency problems might stem from the misalignment of interests between majority and minority shareholders. Moreover, corporate governance mechanisms differ from those in developed economies: (a) It seems that board of directors in Latin America are under the influence of controlling shareholders and do not perform their legitimate fiduciary duty to safeguard minority shareholders' interests; (b) ownership structure is concentrated in the hands of family; and (c) formal institutional protection is often lacking, corrupted, or not enforced. Looking to the LA scenario, the internal corporate governance mechanisms (board of directors and ownership structure)<sup>7</sup> provide the opposite point from current research and may not provide the necessary protection as described by theory and suggested by the empirical evidence in developed economies, warranting the importance of the dissertation.

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worse operating performance. A consequence of worse corporate governance is an increase in the potential for expropriation of minority shareholders' rights.

<sup>7</sup> Internal mechanisms also include: compensation plans and debt structure (Denis, 2001) that are beyond the scope of the dissertation.

Given the unique circumstances presented on Table 3, this dissertation empirically examines the link between the internal corporate governance mechanisms, the expropriation of minority shareholders' rights, and performance of firms in LA equity markets. Specifically, the dissertation answers the following questions: Is there a relationship between the board of director's characteristics and the expropriation of minority shareholders' rights in LA firms? Is there a relationship between the ownership structure of LA firms and the expropriation of minority shareholders' rights? If there is expropriation of minority shareholders' rights does such expropriation lead to economic underperformance in Latin America?

Nine hypotheses empirically relate the internal corporate governance mechanisms with the expropriation of minority shareholders' rights and performance. Data on companies from Brazil, Chile, and Mexico was collected for fiscal years ending from 2000 to 2002. Then, univariate and multivariate tests are utilized to test the hypotheses.

First, ANOVA was employed to examine the difference in means between the three countries. Next, panel analyses employing the different internal corporate governance mechanisms, ownership structure, proxy of expropriation of minority shareholders' rights, and performance, were utilized to test the specific hypotheses.

In sum, the results of this work provide empirical evidence that in Latin America minority shareholders' rights can be usurped in the presence and/or lack of specific internal corporate governance mechanisms. In firms with a large controlling shareholder – a family – bringing several independent outside directors to serve on the board, lowering the percentage of CEO ownership, allowing longer tenure for independent outside directors, and adding more interlock directors will lower the possibility of

Table 3

*Agency Problem and Corporate Governance Mechanisms – Developed Economies versus Latin America*

	Developed Economies	Latin America
Agency problem	Dispersed ownership and control lead to misalignment of goals and objectives between <b>hired professional managers and the dispersed shareholders.</b>	Concentrated ownership – typically a prominent family or business group – have placed family members or associates as top executives. There is a misalignment of goals and objectives between the <b>majority and minority shareholders.</b>
Results of agency problems	Strategies that benefit entrenched managers <b>at the expense of shareholders</b> , such as shirking, excessive consumption of perquisites, excessive compensation, and pet projects.	Strategies that benefit majority shareholders <b>at the expense of minority shareholders</b> , such as minority shareholder expropriation, nepotism, and political corruption.
Top management team	<b>Professional managers</b> who often have made their way up through the ranks or are hired from outside after an extensive search and scrutiny of qualifications. Monitored internally by boards of directors and externally by market for corporate control.	Typically <b>family members or associates</b> (through relationship of business groups or marriage). Monitored mainly through family consensus.

	Developed Economies	Latin America
Boards of directors	<b>Legitimate legal and social institutions</b> with fiduciary duty to safeguard shareholders' interests.	Need to establish institutional legitimacy. Boards often are regarded as " <b>rubber stamp</b> " of the controlling shareholders and, thus, are <b>ineffective</b> .
Ownership	<b>Dispersed</b> – 5-20% is considered concentrated ownership	<b>Concentrated</b> – typically at least 50% is controlled by majority shareholders
Institutional Protection for minority shareholders	<b>Formal constraints</b> set an upper bound on potential expropriation. Informal norms promote shareholder wealth maximization.	Formal institutional protection is often <b>lacking, corrupted, or not enforced</b> . Informal norms typically hold the interests of major shareholders.

*Note.* Adapted from "Governing the Corporation in Emerging Economies: A Principal-Principal Perspective," by M. N. Young, M. Peng, D. Ahlstrom, and G. D. Bruton, 2002, *Academy of Management Proceedings*.

expropriation of minority shareholders' rights. Moreover, if such conditions are not present, the performance of the firms could be jeopardized, further lowering the benefits to minority shareholders.

The contribution of the dissertation is twofold: (a) it fills a gap in the current corporate governance literature by investigating an unexplored geographic area: Latin America; and (b) it is the first attempt to empirically measure the degree of expropriation, and its relationship to corporate governance mechanisms and performance.

The analysis proceeds as follows. Chapter II details the theory and empirical evidence among corporate governance, expropriation of minority shareholders' rights, and performance. Hypothesis development is presented in Chapter III. Chapter IV describes the data sources, sample selection, variables of interest and the descriptive statistics. The methodology employed to test the hypotheses is explained in Chapter V. The empirical results are discussed in Chapter VI. Concluding remarks as well as possible directions for future research are presented at Chapter VII.



## CHAPTER II

### LITERATURE REVIEW

The theory and evidence behind the relationship between corporate governance, expropriation of minority shareholders' rights, and performance has been developed based solely on the U.S. and other developed economies. First, as a general consensus of this literature, corporate governance mechanisms' effectiveness against the potential of expropriation of minority shareholders' rights is a function of the strength of the legal environment of each country. Second, emerging economies, such as those in Latin America, are characterized by a weak legal system with concentrated ownership, which might lead to inefficiencies of corporate governance mechanisms. Such inefficiencies lay the basis for the potential for expropriation of minority shareholders' rights. Third, as expropriation increases, firms tend to underperform.

#### *Theory of Corporate Governance Mechanisms*

Corporate governance deals with the ways investors assure themselves of a return on their investment (Shleifer & Vishny, 1997). The necessity for corporate governance arises from the separation of ownership and control in a firm, defined as the agency problem in the finance literature (Fama & Jensen, 1983a). Such problems may arise

when managers and owners do not have the same interests. Corporate governance mechanisms<sup>8</sup>, economic and legal institutions that can be altered through the political process (Shleifer & Vishny, 1997), deal with these potential problems. In situations where the classic agency problem does not exist, such as in the case of many LA firms, corporate governance refers to the mechanisms through which outside investors protect themselves against expropriation by insiders (La Porta et al., 2000b).

Under the contracting theory (Coase, 1937; Fama & Jensen, 1983a; Jensen & Meckling, 1976), contracts may be enforced to align management's and investors' interests. However, future contingencies are hard to describe and/or foresee in such contracts (Shleifer & Vishny, 1997), therefore a complete contract is not feasible (Fama & Jensen, 1983a; Jensen & Meckling, 1976). Consequently, managers bear residual control rights, i.e., the right to make decisions in situations not fully foreseen in the contracts (Shleifer & Vishny, 1997). Furthermore, managers may also acquire substantial residual control rights due to the lack of information and/or qualifications of investors (Fama & Jensen, 1983a). In practice, the agency problem is complicated due to the role of courts in enforcing contracts as well as the free rider problem<sup>9</sup> (Shleifer & Vishny, 1997). The control of residual rights provides a chance for managerial opportunism. In this situation, managers expropriate investors' funds by taking residual cash flows to consume or under-invest in suboptimal projects. In addition, managers can expropriate funds by entrenching themselves or staying on the job even if they are no longer competent (Shleifer & Vishny, 1997). The result of managerial opportunism is to

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<sup>8</sup> Corporate governance has also been defined as the set of institutional and market mechanisms that induce self-interested managers (the controllers) to maximize the value of the residual cash flows of the firm on behalf of its shareholders (the owners) (Denis, 2001; Denis & McConnell, 2003).

<sup>9</sup> The free rider problem occurs when small investors do not have the interest or power to get the necessary information about their investments (Shleifer & Vishny, 1986).

decrease the funds investors are willing to put up ex ante (Shleifer & Vishny, 1997). However, the theory and empirical evidence suggest that corporate governance mechanisms do serve to increase such funds.

In Latin America, families, i.e. controlling and majority shareholder(s), bear the residual control rights due to the lack of information provided to minority shareholders and the inactivity of the courts. In this scenario, “majority shareholder(s) opportunism”, not managerial opportunism, may lead to a decrease in the incentives minority shareholders may have to invest in LA companies. Then, do the corporate governance mechanisms that are present in Latin America help to increase the funds investors are willing to put ex ante?

Corporate governance mechanisms include: legal protection to investors, large investors, takeover threats, boards of directors, interlocking directorships, and incentive contracts. Shleifer and Vishny (1997) conclude, after surveying the literature on corporate governance in the United States (U.S.), Japan, and Germany, that the three principal corporate governance systems are: legal protection, takeovers, and large investors. There is no theory or evidence that tells which of such systems is the best, and these systems differ around the world. Empirically, evidence suggests that firms may alternate different corporate governance mechanisms to achieve the same level of performance, rather than using only one of those mechanisms (Agrawal & Knoeber, 1996; Booth et al., 2002; Rediker & Seth, 1995).

Research on corporate governance among Asian firms has created a debate. Some observers point to the absence of adequate corporate governance as the underlying cause of the Asian crisis of 1997 (Johnson, Boone, Breach, & Friedman, 2000a; Phan,

2001). However, others argue that corporate governance theory is based on the U.S., and therefore, not applicable to Asian firms. In the middle ground of this debate is Carney & Gedajlovic (2001), who argue that national systems of corporate governance are comprised of evolving institutional structures designed to exploit the advantages of corporations while mitigating the agency costs consistent with a society's history, legal, political, and social traditions.

Another difference found in the Asian evidence on corporate governance is the role of interlocking directorates (Mizruchi, 1996). Using resource dependence theory as their framework, Au, Peng, and Wang (2000) and Peng, Au, and Wang (2001) argue that Asian firms use interlocking directorships to achieve better coordination with other firms. This helps to deal with the uncertainties of the environment and thus lowers uncertainty in the business environment. Companies in Asia have a limited number of outside directors to choose from for serving on their board of directors, making interlock directorates an important strategy for access to critical resources.

For Latin America, there is little research on corporate governance. However, it can be argued that given the lack of legal protection for shareholders, there is a high concentration of ownership that tends to be in the hands of elite families (Sargent & Ghaddar, 2001) that may lead to inefficient corporate governance behavior. For example, in Mexico legislation provides for the basic institutions needed for an effective defense of the rights of minority investors but the lack of specificity in the laws opens up the possibility for controlling shareholders to use them to their advantage and to the detriment of minorities (Babatz Torres, 1997).

### *Boards of Directors*

Boards of directors are one of the elements of corporate governance. Of all the corporate governance mechanisms, boards of directors have been under intensive scrutiny as to whether or not they are effective to lower the agency problems. The literature on board of directors lacks a formal theory, but is full of empirical evidence, especially from the U.S. and other developed countries. Hermalin and Weisbach (2003, p.1) define board of directors as “an economic institution that, in theory, helps to solve the agency problems inherent in managing an organization”. The organizational environment determines their economic function. However, in general, the agency theory framework foresees boards of directors as the ultimate mechanism of corporate control. Boards monitor and discipline the different agents a company may have acting on behalf of the principal (owner). Without boards’ monitoring, agents may pursue their own interests at the expense of the principal (Jensen, 1986; Jensen & Meckling, 1976).

The importance of boards of directors as a control mechanism has been under debate by researchers for several years. Financial economists, such as Hart (1983), downplay the importance of boards of directors, suggesting that markets provide powerful incentives to align the interests of managers and shareholders (Rosenstein & Wyatt, 1990). On the other hand, others (Fama, 1980; Fama & Jensen, 1983a) acknowledge the role of boards by separating management and control of decision making. Management initiates and implements decisions, while the control aspect (played by the board of directors) involves the ratification, implementation, and monitoring of the decisions.

The empirical work on boards of directors have resulted in a series of empirical regularities (Hermalin & Weisbach, 2003):

1. Board composition may or may not be correlated with firm performance, depending on the measures used, i.e. insider-outsider ratio, number of outside directors, or total number of directors.
2. Board actions (such as decisions concerning acquisitions, poison pills, and chief executive officer (CEO) replacement) appear to be related to board characteristics, such as size and composition.
3. Boards are not static; they appear to evolve over time depending on the bargaining position of the CEO relative to that of the existing directors. Factors such as, firm performance, CEO turnover, and changes in ownership structure, tend to affect the board composition.

The research on boards of directors has two related strands of literature. The first examines the impact of board characteristics on firm performance, either directly or indirectly, while the second examines how boards accomplish some of the responsibilities commonly assigned to directors.

#### *Board Characteristics and Performance*

The studies that examine the relationship between board characteristics and corporate performance address the effectiveness of the board in performing its monitoring function. The evidence, though mixed, suggests that boards of directors play an important monitoring role (John & Senbet, 1998). The main empirical issue of this strand of research is proxing the degree of independence of the board from the CEO.

Then, the adopted assumption is that the characteristics (such as composition, size, and CEO duality) of boards are related to the degree of independence.

### *Board Composition*

The composition or the type of members of a board of directors determines its independence, which in turn determines the degree of its monitoring function. Baysinger and Butler (1985) and Byrd and Hickman (1992) classify board members into three categories: inside directors, affiliated outside directors, and independent outside directors. Inside directors are typically corporate officers or retirees and members of their families. Affiliated outside directors are not full-time employees but are somewhat associated with the firm. This class includes investment bankers, commercial bankers that have made loans to the firm, lawyers providing services to the firm, consultants, officers and directors of the firm's suppliers and customers, and interlocking directors. Independent outside directors have no affiliation with the firm other than directorship, such as private investors, business executives, academicians, and decision makers from the public sector (Byrd & Hickman, 1992). The degree of independence depends on the number of outside directors.

The Securities Exchange Commission (SEC) provides specific guidelines for determining director independence. Regulation 14A, Item 6(b) requires that publicly-traded corporations report in their proxy materials information regarding non-management directors' personal and/or professional relationships with the firm or firm management (Daily & Dalton, 1994). Any director that meets any of the following criteria is considered an affiliated director and, thus, impairs the independence of the board (Johnson, Daily, & Ellstrand, 1996):

1. Employment by the firm or an affiliate within the past five years.
2. Family relationship by blood or marriage with a top manager or other director.
3. Affiliation with the firm as a supplier, banker or creditor within the past two years.
4. Affiliation with the firm as an investment banker within the past two years or for the upcoming year.
5. Association with a law firm engaged by the corporation.
6. Stock ownership resulting in the SEC designation of control person.

The importance of this classification rests on the premise that board members of different classes possess different incentives, and thus may act differently. The results from studies differ depending on the type of directors under consideration; however, empirical work consequently supports the importance of outside directors (Rosenstein & Wyatt, 1990). The empirical evidence documents that the inclusion of outside directors leads to a positive relationship with performance (Baysinger & Butler, 1985; Hermalin & Weisbach, 1988; Mishra & Nielsen, 2000; Rosenstein & Wyatt, 1990; Weisbach, 1988) suggesting that outside directors provide a better monitoring role than inside directors. On the other hand, some studies report a negative (Agrawal & Knoeber, 1996; Bathala & Rao, 1995) or an inconclusive (Hermalin & Weisbach, 1991) relationship between board composition and performance.

First, Baysinger and Butler (1985) analyze the changes in board composition of 266 U.S. firms over the 1970-80 period. They find weak evidence that firms with more outside directors in 1970 had higher industry-adjusted returns on equity in 1980. They



also argue that the ratio of independent to inside directors required for satisfactory financial performance appears to be well below that suggested by other research.

Using a similar sample of Forbes 500 largest firms for the period of 1974-83, Weisbach (1988) reports that CEO turnover is more highly correlated with firm performance in corporations having a majority of outside directors than in those where insiders dominate. These results imply that there is a significant difference in the pattern of monitoring management between inside and outside director-dominated boards. Moreover, Hermalin and Weisbach (1988) find that outsiders are more likely to join a board after a firm performs poorly or leaves an industry, inferring a need for additional outside guidance when a shift in strategy is required.

The work of Rosenstein and Wyatt (1990) provides evidence of the market's confidence in outside directors' monitoring effectiveness. After examining 1,251 *Wall Street Journal* announcements of management's appointment of an outside director and using standard event-time methodology to measure abnormal returns, they conclude that, on average, shareholders' wealth increases with such appointments. The results imply that the expected benefits of outside guidance gained from these appointments outweigh the expected costs of potential managerial entrenchment and inefficient decision-making.

Finally, Mishra and Nielsen (2000) examine the association between organizational structure and financial performance in large bank holding companies and non-financial firms. They regress accounting returns on measures of board independence and CEO pay-performance sensitivity, and report that accounting performance and the number of outside director is positively related. This research also supports the hypothesis of the board of directors as a control mechanism.

The evidence on the negative relationship between board composition and performance suggests that the mere inclusion of outside directors on the board will not improve the performance of a firm. Instead, these directors are part of other control mechanisms (shareholdings of insiders, institutions, and large blockholders; debt policy; managerial labor market; and market for corporate control) that may be employed to reduce the agency costs. It is important to note that these studies still stress the monitoring role of outside directors. For instance, Bathala and Rao (1995) find a negative relationship between the proportion of outside directors on the board and the dividend payout ratio for 261 firms of Forbes 500 in 1987. Nonetheless, they conclude that different firms may have different optimal board compositions depending on the extent to which they rely on other agency conflict-controlling mechanisms.

In a similar fashion, Agrawal and Knoeber (1996) estimate a simultaneous system of firm performance, board composition, and other control mechanisms<sup>10</sup> using a sample of 383 firms from the Forbes 800 in 1987, and report that more outsiders on the board of directors negatively affects performance. However, they agree that alternative mechanisms can be used to control agency problems, and the extent to which several of the control mechanisms are used is decided within the firm. Moreover, since the control mechanisms are substitutes for each other, greater use of one need not be positively related to firm performance, and where one specific mechanism is used less, others may be used more, resulting in equally good performance.

The results of no relationship between board composition and performance lack robustness and generalizability. Hermalin and Weisbach (1991) use panel data from 142

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<sup>10</sup> The other mechanisms of control included in this research were: shareholdings of insiders, institutions and large blockholders; use of outside directors; debt policy; the managerial labor market; and the market for corporate control.

NYSE firms and conclude that there is little or no relationship between board composition and firm performance. Using instrumental variables, such as shareholdings of directors and tenure, they control for possible biases due to the joint endogeneity of the variables and the spurious relationships between ownership, board composition, and performance. However, their tests are insufficiently powerful and "... our results do suggest that even if such a relation exist, it is small, with little economic significance" (p. 111).

In sum, research on the relationship between board composition and performance in the U.S. has evolved to examining the role of outside directors on firms' performance. The results are mixed, though the majority documents a positive relationship between the number of outside directors and the different measures for performance. Thus, it appears that firms include outside directors as an effective monitoring device of management.

The international evidence on the relationship between board composition and firm performance is scarce and focuses on developed economies, such as Japan and Europe (Denis & McConnell, 2003). The first non-U.S. evidence on boards of directors comes from Japan in the work of Kaplan and Minton (1994). They find that appointments of outside directors increase following poor stock performance and earnings losses, and these appointments are more likely in firms with significant bank borrowings, concentrated shareholders, and membership in a corporate group (Denis & McConnell, 2003). Dehaene, De Vuyst, and Ooghe (2001) also document a positive relationship between the number of outside directors and company performance for 122 Belgian companies for 1995.

Evidence on the role of outside directors in developing/emerging economies is scattered. Hossain, Prevost, and Rao (2001) examine the relation between firm performance and the outside directors in New Zealand companies both before and after the 1993 Companies Act. They report that a higher fraction of outside directors leads to better performance. Santiago-Castro and Baek (2003) report no link between the board composition and accounting performance among 71 large companies from nine LA countries listed in the U.S. as American depository receipts (ADR).<sup>11</sup>

### *Size*

A corporate board's ability to monitor management increases as the number of directors increases. However, this benefit may be outweighed by the incremental cost of poorer communication and decision-making associated with larger groups (Jensen, 1993; Lipton & Lorsch, 1992). Yermarck (1996) provides an empirical analysis of the effect of board size versus performance for a sample of 792 companies for the period 1984-91. He finds an inverse relationship between the firms' market valuation and the size of the boards of directors. In addition, his research documents that for companies with small boards, CEO's compensation incentives and the threat of dismissal are greater, two monitoring devices used by outside directors for disciplining or controlling managers. Huther (1997) tests the influence of board size on firm efficiency of the rural electric cooperative industry for calendar year 1994. He finds that there are efficiency gains for U.S. firms that reduce the size of their governing boards.

The negative relationship between board size and performance has also been documented internationally. For instance, Eisenberg, Sundgren, and Wells (1998) find a

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<sup>11</sup> These results may not be representative because they are limited to one year of data.

significant negative correlation between board-size and profitability in a random sample of approximately 900 small Finnish firms.

### *CEO Duality*

The power of the CEO over the board can influence the board's ability to carry out its legal role of representing shareholder interests (Pearce & Zahra, 1991) or its independence. If the CEO is also the chairman of the board (CEO Duality), independence may be adversely affected. Also, since the CEO has the ability to shape board membership over time (Alderfer, 1986), the CEO can gain power the longer he/she holds the position (CEO Tenure) (Mishra & Nielsen, 2000). Therefore, these situations may also alter board independence. Arthur (2001) concludes that more powerful CEOs, having a dual title and a longer tenure on a board, face a lower level of monitoring, and, thus, less independent boards.

Among large U.S. firms, the incidence of CEO duality is very high when compared with other countries. Dalton and Kesner (1987), find that in the 50 largest firms in the U.S., 82 percent had CEO duality<sup>12</sup>, compared to 30 percent and 11 percent in the U.K. and Japan, respectively. Researchers have argued that such a high proportion of CEO duality in the U.S. results from a leadership structure closely related to the choice of other governance mechanisms, especially with the composition of boards of directors (Coles, McWilliams, & Sen, 2001).

The empirical evidence on the relationship between CEO duality and firm performance within U.S. firms is inconclusive (Judge, Naoumova, & Koutzevol, 2003). Two meta-analyses, done by Dalton, Daily, Ellstrand, and Johnson (1998), and Rhoades,

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<sup>12</sup> Brickley, Coles, & Jarrell (1997) also report a high incidence of CEO duality among large U.S. firms between 70 and 80 percent.

Rechner, and Sundaramurthy (2001) covering over 18,000 firms in the U.S., provide no evidence for a strong relationship between board leadership structure and firm performance. However, the costs related to separating titles of CEO and chairman, are important in determining the leadership structures in U.S. firms (Brickley et al., 1997).

The limited international empirical evidence suggests that non-American boards are structured and function quite differently from their American counterparts. It appears that the varied leadership structure of boards outside the U.S. may lead to a different relationship with firm performance.<sup>13</sup> Moreover, it is suggested that informal, behind-the-scenes boards' activities are more important than formal structural arrangements (Judge et al., 2003).

#### *Board of Directors' Responsibilities*

The other strand of the board of directors' literature examines how boards accomplish some of their responsibilities. These studies provide more powerful empirical evidence relative to the studies previously discussed. First, since performance can be affected by multiple factors, studying directors' tasks as a function of the boards' characteristics, avoids the problem of unobservable factors not being included in the statistical relationship. Second, the possibility of the endogeneity of board composition affecting the results is eliminated (Hermalin & Weisbach, 2003).

One way to analyze the performance of boards of directors is to look at the quality of their decisions. Since the most discussed responsibility of the board is to choose and monitor the CEO, researchers have documented the relationship between CEO dismissal and performance. A large number of studies report a positive relationship between CEO

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<sup>13</sup> Judge, et al. (2003) find a negative relationship between "informal" CEO duality and firm performance among a sample of 45 Russian firms in 2002. "Informal" CEO duality occurs when the CEO and Chairman roles are formally separated, but the CEO still controls the board through informal means.

turnover and poor performance (Coughlan & Schmidt, 1985; Denis & Sarin, 1999; Jensen & Murphy, 1990; Kaplan, 1994; Parrino, Sias, & Starks, 2003; Warner, Watts, & Wruck, 1988; Weisbach, 1988). These results can be seen as a measure of the board's monitoring ability. When a firm is performing poorly, the board is more likely to hold the current CEO accountable and make a change (Hermalin & Weisbach, 2003).

Literature posits that poor performance precedes CEO turnover (Coughlan & Schmidt, 1985; Warner et al., 1988). Moreover, boards with more outside directors tend to add firm value through their CEO changes, and this addition is largest when preceded by poor performance (Weisbach, 1988). The relationship between CEO turnover and firm performance could have a positive or negative effect in the presence of a large shareholder. Gibson (2003) reports that large shareholders have, on net, a negative effect in emerging markets. The effect is strongest if the ultimate owner is a family. The negative effect include insulating managers from outside pressure, allowing managers to pursue other interests rather than shareholder value maximization. Examples might include: 1) extracting rents from the firm through other relationship that the CEO might have with the firm such as a supplier or customer; or 2) CEOs facilitating direct transfers from minority shareholders to the family.

Internationally, evidence on the relationship between CEO turnover and firm performance is scarce. Consistent with U.S. evidence, Renneboog (2000) documents that boards with a greater number of outside directors are more likely to dismiss top management in Belgian poorly performance firms. On the other hand, Brunello, Graziano, and Parigi (2002) document a negative relation between CEO turnover and firm performance of Italian firms, but this relationship holds only if the controlling

shareholder is not the CEO, providing an opposite picture from that in the U.S.. An explanation for this divergence may be that the sample consisted of only firms with insider-dominated boards, very common in Italy where families often run companies.

### *Interlocking Directorates*

Among emerging economies, the use of interlocking directorates is very common. These directors serve different strategic duties in the boards of firms in these countries that are surrounded by many market failures. International evidence shows that such interlocking directorates are beneficial to the firms in that they may help to cap with the uncertainties of the infant financial markets.

Board interlocks occur when a firm's employee sits on another firm's board and that firm's employee sits on the first board (Mizruchi, 1996). These employees are generally the CEO or another top manager in their respective firms. Companies may exchange directors to bond a contracting relationship, such as with a supplier. In the U.S., Section 8 of the Clayton Act of 1914 prohibits interlocks between firms deemed to be competing in the same market. Yet, 70 percent of U.S. firms had a least one officer who sat on the board of a financial institution (Mizruchi, 1996).

Hallock (1997) finds that 20 percent of the 500 largest American companies in 1992 have at least one current or retired employee sitting on the board of another firm and vice versa, and roughly eight percent of firms are current-CEO interlocked. He documents that the return to firms with interlocking directorates was higher in the 1970s than in the early 1990s.

Interlocks ease the resource provider's management, serve as an information mechanism, and facilitate the political unity necessary for effective political action.



Although it seems that interlocks only benefit the firm, Fich and White (2004) conclude, after examining the reciprocal interlocking of 576 firms, that CEO interlocks primarily benefit the CEO and not the shareholders. Moreover, Hallock (1997) finds that CEOs with interlocking directorships are paid more than otherwise similar CEOs.

The benefits for CEOs serving on other firms' board of directors not only comes in the form of higher compensation, but also from being able to become better managers, and thus, a better resource for the corporate control market. CEOs can become more effective managers within their own firm by serving as outside directors in several ways (Booth & Deli, 1996):

1. CEOs can confirm whether the policies and practices of their own firms are followed by others;
2. CEOs can adapt innovations followed by other firms that they serve;
3. CEOs can broaden their knowledge by serving in different types of institutions;
4. CEOs can modify their own management styles as they become aware of better ways of managing firms;
5. CEOs can consult with other CEOs about their own worries on how to run their own firms.

Despite these potential benefits, CEOs' directorships are not free of costs, and the evidence on the relationship between interlock directorates and firm performance is mixed. For instance, Kaplan and Reishus (1990) and Gilson (1990) find that the probability of a CEO interlock is positively related to a firm's performance, whereas

Booth and Deli (1996) document a negative relationship between CEO interlock and a firm's growth opportunities.

In emerging economies, such as Asia (Au et al., 2000; Peng et al., 2001) and New Zealand (Roy, Fox, & Hamilton, 1994), researchers argue that firms use interlocking directorships to achieve better coordination with other firms to deal with the uncertainties of the environment and to lower uncertainty in the business environment.

### *Ownership Structure*

Ownership structure around the world is very diverse. Emerging economies are characterized by concentrated ownership, whereas in developed economies ownership is more diffused. Research suggests that ownership concentration might have both benefits and costs to minority shareholders. In terms of benefits, concentration of ownership allows firms to survive in inefficient markets. At the same time, such concentration leads to expropriation of minority shareholders' rights.

Agency theory predicts that share ownership can be an important incentive for management, board of directors, and outside blockholders. As argued by Jensen and Meckling (1976), managers perform better as their ownership stake increase. However, this stake should not give control to managers because it leads to management entrenchment, and in turn firm value decreases. Managers usually have effective control at less than 50 percentage ownership (Jensen & Warner, 1988).

The incentive of ownership for members of board of directors and blockholders might increase these groups' monitoring role. Morck, Shleifer and Vishny (1988) find a monotonic relationship between performance measures and ownership stake of the outside directors. Specifically, as board ownership increases from zero to five percent

and beyond 25 percent performance increases, and from five to 25 percent range of ownership, performance decreases. This evidence implies a trade-off between alignment of manager/shareholder interest and management entrenchment or a nonmonotonic relation between insider holdings and value of a given firm.

The previous theoretical arguments are well suited for a widely-diffused ownership environment as first described by Berle and Means (1932). However, corporation ownership has changed dramatically over the years. For example, the mean percentage of common stock held by a firm's officers and directors as a group rose from 13 percent in 1935 to 21 percent in 1995<sup>14</sup> (Holderness, Kroszner, & Sheehan, 1999). The first legal requirement for public reporting of ownership came in Section 16 of the Securities and Exchange Act of 1934. This reporting has become the source for virtually all ownership data used in academic research that focus on the effects of internal (managerial, directors, or family) and external (institutional and foreign) concentration of ownership (Holderness, 2003).

After surveying the literature on large-percentage shareholders in public corporations in the U.S., Holderness (2003) concludes that:

1. Block ownership is motivated both by the shared benefits of control<sup>15</sup> (Demsetz & Lehn, 1985) and by the private benefits of control<sup>16</sup> (Barclay & Holderness, 1989; Barclay, Holderness, & Pontiff, 1993).

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<sup>14</sup> Taking into account the importance of the dollar value of holdings, the insiders' stock holdings have risen (in real terms) from \$18 million in 1935 to \$73 million in 1995, across all firm sizes (Holderness, 2003).

<sup>15</sup> The shared benefits of control arise from the superior management or monitoring; blockholders have the incentive and the opportunity to increase a firm's expected cash flows that accrue to all shareholders.

<sup>16</sup> The private benefits of control arise when blockholders have the incentive to consume corporate resources or to enjoy corporate benefits that are not shared with minority shareholders.

2. Few major corporate decisions<sup>17</sup> have been shown to be different in the presence of a blockholder.
3. Ownership concentration appears to have a limited impact on firm value (Demsetz & Lehn, 1985; McConnell & Servaes, 1990; Mehran, 1995; Morck et al., 1988).

### *Managerial (Directors) Ownership*

The literature on managerial ownership is divided in two strands: its determinants and its effect on firm performance. Demsetz and Lehn (1985) show that the level of managerial ownership is determined by the level of firm risk, measured by the volatility of the stock price. Building on this evidence, Himmelberg, Hubbard, and Palia (1999) show that managerial ownership is explained by key variables<sup>18</sup> in the contracting environment in ways consistent with the predictions of principal-agent models.

The evidence on the relationship between managerial ownership and firm performance is mixed.<sup>19</sup> However, Kole (1995) attributes the mixed results to the disparities in firm size. The positive relationship between a low level of managerial ownership and performance is interpreted as evidence of incentive alignment, and the negative relationship at high levels of managerial ownership as evidence that managers

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<sup>17</sup> The corporate decisions include: executive compensation (Holderness & Sheehan, 1988; Mehran, 1995); leverage (Holderness et al., 1999; Mikkelsen & Partch, 1989; Stulz, 1988); and takeover activity (Holderness & Sheehan, 1988; Mikkelsen & Partch, 1989; Walkling & Long, 1984).

<sup>18</sup> Variables that are associated with a reduction in managerial stakes: firm size, fixed capital intensity, and R&D intensity; while advertising intensity, operating income, and investment rate have positive effects on ownership stakes. Despite these results, Himmelberg and his colleagues stress that a large fraction of the cross-sectional variation in managerial ownership is explained by unobserved firm heterogeneity.

<sup>19</sup> Morck et al. (1988) find that performance, measured by Tobin's Q, increases and then decreases with managerial (board) ownership. McConnell and Servaes (1990), examining a larger sample than Morck et al., find an inverted U-shaped relation between Tobin's Q and managerial ownership, with an inflection point between 40 and 50 percent ownership. Hermalin and Weisbach (1991) find that Q rises with ownership up to a level of one percent, the relation is negative in the range of one to five percent, becomes positive again at the range of five to 20 percent, and turns negative for ownership levels exceeding 20 percent.

become entrenched and can indulge in non-value-maximizing activities without being disciplined by shareholders.

#### *Family Ownership*

In the U.S., founding-family ownership and control is perceived as leading to poor performance due to the inefficiencies of such an ownership structure. Fama and Jensen (1983a) argue that combining ownership and control allows block shareholders to exchange profits for private rents. However, Demsetz and Lehn (1985) note that large shareholders can mitigate managerial expropriation through their monitoring and historical presence.

Empirical evidence provides mixed results about the relationship between family control and performance. Anderson and Reeb (2003) conclude, after sampling S&P 500 firms from 1992 through 1999, that family firms perform better than non-family firms. This conclusion is also supported by the results of Daily and Dollinger (1992) after surveying 186 small manufacturing businesses. Their results are inconsistent with the hypothesis that minority shareholders are adversely affected by family ownership, and suggest that family ownership is an effective organizational structure. On the other hand, DeAngelo and DeAngelo (2000) conclude that families' desire for special dividends can lead to poor performance.

#### *Institutional Ownership*

“Institutional investors have the potential to influence management’s activities directly through their ownership, and indirectly by trading their shares” (Gillan & Starks, 2003, p.4). The strength of the legal environment and corporate governance of any country directly affects the influence of institutional investors. Given the differences in

strength of the legal environment and corporate governance mechanisms across countries, institutional investors have become a significant, if not majority, component of equity markets in some countries. For instance, according to the Board of Governors of the Federal Reserve System, in the U.S., by 2002 institutional investment accounted for over 50 percent of aggregate ownership of equities. In the European Union, total financial assets held by institutions grew more than 150 percent between 1992 and 1999.

The role of institutional shareholders is seen as either a monitoring device or a transmission mechanism of information into the financial markets. Despite the existing regulations that impair governance by encouraging disperse ownership, institutional investors have increased their non-control-related monitoring over time (Gillan & Starks, 2003).

After surveying the literature on the role of institutional investors in financial markets, Gillan and Starks (2003) conclude, that the international variation of ownership structure is remarkable. For example, La Porta et al., (1999) report that for a sample of large publicly traded firms around the world<sup>20</sup>, 36 percent are widely-held<sup>21</sup>, 30 percent are family-controlled, 18 percent are state-controlled, and the remaining 15 percent exhibited a variety of other ownership structures. In emerging economies, ownership concentration is more pronounced as evidenced by Wiwattanakantang (2001) and Claessens, Djankov, and Lang (2000).<sup>22</sup>

Theoretically, concentration of ownership in emerging markets should lower the incidence of agency problems because those shareholders internalize the externality

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<sup>20</sup> These figures are for the largest 20 firms in each country.

<sup>21</sup> Primarily in the U.S. and other common-law countries, where investors' protection laws are strong and enforced.

<sup>22</sup> Claessens, et al. (2000) find that more than two-thirds of publicly traded firms in nine East Asian countries, have a dominant owner who is a family.

inherent in providing monitoring services (Shleifer & Vishny, 1986). Nevertheless, in emerging markets that monitoring is inadequate for several reasons (Khanna & Palepu, 2000b):

1. Absence of specialized intermediaries that perform monitoring services or with the lack of skills in or incentives offered to such intermediaries as do exist.<sup>23</sup> For example, in Chile, managers report that, even after two decades of financial market reforms, domestic analysts lack the necessary skills as compared to foreign analysts.
2. Poor availability of information as the disclosure and enforcement of accounting norms and rules are generally lax in emerging markets.
3. Emerging markets have barriers that preclude monitoring even in the presence of the necessary skills and information. These barriers include large insider shareholding<sup>24</sup> and political connections that make disciplinary actions impractical.

These variations in ownership structures along with the differences in legal environment across countries have driven research in recent years. In general, the empirical evidence suggests that the presence of controlling shareholders is associated with higher performance in emerging economies (Wiwattanakantang, 2001; Xu & Wang, 1999).

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<sup>23</sup> The question of why competent intermediaries do not exist is under discussion. It centers on the circumstances under such intermediaries will find profitable to collect and communicate information. Under an assumption of fixed costs of gathering information, intermediaries should emerge (Diamond, 1984), but perhaps markets are too small (Grossman & Stiglitz, 1980) or illiquid (Holmström & Tirole, 1993) to pursue this process.

<sup>24</sup> The high level of insider shareholding leads to insufficient shares trade.

In many countries of Europe, large blockholders exist and can exercise control over management. However, there is a lower incidence of multiple class voting shares or pyramid structures (Faccio & Lang, 2002). In contrast pyramidal structures are the general rule in Asia and Latin America business groups.<sup>25</sup>

Business groups have alternative definitions/descriptions in the literature. These include: long-term associations of many firms and the men who own and manage them (Strachan, 1979); collection of firms bound together in some formal and/or informal way (Granovetter, 1994); a set of firms linked by formal/informal ties (Khanna & Rivkin, 2001). Granovetter (1994) discusses the primary dimensions along which business groups vary. These dimensions are:

1. Ownership relations – not all groups are owned in the same way; from the Chaebols being owned by a single individual or family, to direct ownership through a series of crossholding in grupos, to managing agency system in India, to networks with elaborate systems of cooperation in Italy to members of a group holding one another's stock in Japan.
2. The principles of solidarity are given by ethnicity, foreign capital or region.
3. The authority structure can be vertical or horizontal.
4. The role of banks differs markedly across countries. In Japan banks are a central member, but in Chaebols the intervention of banks is prohibited by law (Amsden, 1997).
5. Relationship with the state – the Korean government became creditor and supporter for Chaebols allowing their development (Amsden, 1997).

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<sup>25</sup> Business groups are found around the world with different names: Grupos Económicos in Latin America, business houses in India, Chaebols in South Korea, Keiretsu in Japan, and “the 22 families” of Pakistan.



Moreover, case studies in East Asia suggest that the dominance of most business groups lies in the privileges that they solicit from the government (Claessens et al., 2000). In Mexico, the government was crucial for the survival of Monterrey business groups during the economic crisis of 1982 (Pozas, 1993).

There are three theoretical perspectives for explaining the existence of business groups (Guillén, 2000; Khanna & Rivkin, 2000b; Sargent, 2002). First, business groups are responses to economic problems, such as the market failure in less developed countries (Aubey, 1970; Chang & Hong, 2000). However, if this is correct, it is difficult to explain the persistence of business groups in advanced capitalist economies, such as Japan, Korea, and Western Europe (Granovetter, 1994). Second, from the sociological perspective, groups are considered a manifestation of their controlling shareholders, which are usually family and/or group of wealthy families (Sargent, 2002). Finally, the political economy perspective (Khanna & Rivkin, 2000b) argue that one expects to see such groups arise in situations where they provide some type of economic advantage.

Latin American business groups are good examples of how these groups are responses to market failures. In Latin America, private-sector capital mobilization has been from families to the groups and later from capital markets. Initially, elite families are the ones with access to capital. As individual families are not longer capable of supplying the necessary capital or management skills, they look to other families and organizations thereby forming groups. Once these groups are no longer capable of providing the necessary capital, then it becomes necessary to go to the organized exchanges. However, this last stage has not been completed in Latin America (Aubey,

1970). More evidence is provided by Nicaragua's business groups where the core firm is a bank or is bank-related in the major groups (Strachan, 1979). These facts evidence that groups need to provide their own capital for operations since there are insufficient outside facilitators of capital as one would normally find in the U.S. or other developed economies.

From the Asian perspective, both views of why groups exist are prevalent in the literature. On one hand, research argues that business groups are not purely responses to capital markets' imperfections or rent-seeking devices (Khanna & Palepu, 2000a; Khanna & Rivkin, 2001). After studying business groups from 14 countries, Khanna and Rivkin (2001) concludes that groups exist for different reasons and perform different functions depending on the institutional context in question. On the other hand, contrary to these arguments, after studying Korean Chaebols, Chang and Hong (2000) conclude, that business groups are efficient economic organizations that lower the transaction costs resulting from market inefficiencies.

The family involvement in both the ownership and management of business groups are not systematically addressed from the institutional voids framework and the resource based view of groups adopted by Asian researchers (Sargent, 2002). However, this critical characteristic of groups and their entrepreneurial capitalism limits their managerial capacity, and precludes them from competing internationally. These enterprises have oriented their operations toward the domestic market, which in turn are small, prolonging their inefficiencies. There is a correlation between family control, scarce diversification, limited expansion abroad, and fear of losing control and/or privacy, especially as it relates to Italian and Latin American groups (Amatori, 1997;

Sargent, 2001). For example, in Mexico, many of the managers of the groups had only completed high school (especially true for the Gomez model of Mexico City) and the enterprises are characterized by the subordination of the needs of the group to the grand family (Sargent, 2001). In contrast, Asian business groups have been able to diversify and compete internationally (Amsden, 1997)). In Japan, the headship of firms is passed to the male with superior ability, even to a son in law, and not to the eldest. Today, keiretsus are no longer composed of consanguine families (Bhappu, 2000).

### *Investor Protection*

Differences in investor protections against expropriation by insiders, as reflected by the legal rules and the quality of their enforcement, might help to explain the nature and effectiveness of financial systems (La Porta, Lopez-De-Silanes, Shleifer, & Vishny, 1997), and why firm ownership structures differ across countries (La Porta et al., 1998). La Porta et al. (1997; 1998) show that legal rules and the quality of their enforcement varies considerable across countries. They find that countries with common-law origin<sup>26</sup> give shareholders the strongest protection, and French-civil-law<sup>27</sup> countries the weakest. Moreover, richer countries enforce laws better than poorer countries. After controlling for per capita income, French-civil-law countries have the lowest quality of law enforcement, as well. Finally, the evidence suggests that a further response to the lack of legal protection is a high ownership concentration (La Porta et al., 2000b)<sup>28</sup> to deal with other markets deficiencies, such as the lack of financing sources.

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<sup>26</sup> The common-law sample includes 18 countries, such as the U.S., Canada, Australia, and India.

<sup>27</sup> The French-civil-law sample includes 21 countries such as Latin America, Italy, Spain, and the Philippines.

<sup>28</sup> The available evidence suggests that countries with poor investor protection typically exhibit control that is more concentrated. The evidence comes from the work of La Porta et al. (1999) for 49 countries, both in developed and developing economies; Claessens, Djankov, and Lang (2000) for nine East Asian countries; and Volpin (2002) for Italy.

In general, theory predicts that in an environment of weak legal protection and enforcement, expropriation is likely on a substantial scale, usually by the controlling shareholders. Moreover, control acquires huge value because it gives the insiders the opportunity to expropriate efficiently. There are several reasons why control is so valuable in these circumstances:

1. If expropriation requires secrecy, sharing control may restrain the entrepreneur beyond his wishes (La Porta et al., 1999),
2. “Private benefits” premium in a takeover are given up by entrepreneurs if control is dispersed (La Porta et al., 1999; Zingales, 1995),
3. Control is needed to keep the entrepreneur or his family reputation in order and raise external funds in poorly protected environments (La Porta et al., 2000b).

Expropriation can take a variety of forms: (a) The sale of the output, the assets or additional securities at below market prices (Chang & Hong, 2000); (b) appointments of family to top management positions to further family interests (Claessens et al., 2000); (c) tunneling<sup>29</sup> (Bertrand et al., 2002); (d) propping<sup>30</sup> (Friedman et al., 2003); and/or (e) the diversion of corporate opportunities (La Porta et al., 2000b). Such actions may not be technically illegal, but they lower the competitiveness and performance of emerging economy firms (Young et al., 2002).

Expropriation of minority rights usually is associated with emerging economies where there is lower investor protection. However, after examining well-known cases of

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<sup>29</sup> Tunneling refers the transfer of assets and profits out of firms for the benefit of those who control them (Johnson, La Porta, Lopez-De-Silanes, & Shleifer, 2000b). Usually, this type of expropriation is present in pyramids (Bertrand, Mehta, & Mullainathan, 2002).

<sup>30</sup> Propping refers to the use of private funds by an entrepreneur to benefit minority shareholders. The concept of propping is viewed as the opposite of tunneling (Friedman, Johnson, & Mitton, 2003).

tunneling in France, Italy, and Belgium, Johnson, La Porta, Lopez-De-Silanes, & Shleifer (2000b) argue, that even in developed countries, expropriation in the form of tunneling can be substantial, much of it is legal, and can take a variety of forms. The main difference with emerging economies is how courts approach tunneling cases in developed countries. In civil-law countries, tunneling is often seen as consistent with directors' duties, especially if the controlling shareholder is another firm in the group. In contrast, in common-law courts, the burden of proof of tunneling cases is favorable to outside shareholders. These findings are consistent with the notion that civil-law countries are less protective of minority shareholders than common-law countries.

Due primarily to measurement difficulties empirical evidence about the consequences of expropriation and its impact on the activities of firms is scarce. Some recent works have suggested several ways to assess the potential propensity and magnitude of the expropriation of minority rights by insiders: (a) Number of family members in management and board structures; (b) ownership patterns (concentration, pyramids, cross-holdings); and (c) strategic actions (related-party transactions, business groups) (Claessens et al., 2000; Faccio, Lang, & Young, 2001; Johnson et al., 2000a; Johnson et al., 2000b; La Porta et al., 1997, 1998).

Previous research shows that a number of important differences in financial systems among countries are shaped by the extent of legal protection against the expropriation of minority shareholders' rights. The findings show that better legal protection of minority shareholders is associated with (a) more valuable stock markets (La Porta et al., 1997; Modigliani & Perotti, 1997), (b) a higher number of listed firms (La Porta et al., 1997), (c) higher valuation of listed firms relative to their assets

(Claessens, Djankov, Fan, & Lang, 2002; La Porta, Lopez-De-Silanes, Shleifer, & Vishny, 2002), (d) greater dividend payouts (La Porta, Lopez-De-Silanes, Shleifer, & Vishny, 2000a), (e) lower ownership concentration and control (Claessens et al., 2000; La Porta et al., 1999), and (f) lower private benefits of control (Nenova, 2003).

In summary, there is a clear gap in the literature for studying the relationship between the internal corporate governance mechanisms and the expropriation of minority shareholders' rights in emerging economies, especially in Latin America. Moreover, there is not empirical research linking the expropriation of minority shareholders' rights to the apparent under performance. The following chapter develops the hypotheses to test these relationships.

## CHAPTER III

### HYPOTHESES

The preceding discussion illustrates the need to study the role of the board of directors and ownership structures in the expropriation of minority shareholders' rights, and whether such expropriation leads to economic underperformance of firms in Latin America. These research opportunities arise from the differences in the legal and organizational structures of LA firms. The distinctive characteristics of such firms are: weak legal environment, concentrated ownership and control by elite families, interlocking directorates, and the prevalence of interconnected business groups. The dissertation test which of all of these governance characteristics might play an effective role in the protection of the minority shareholders and their rights.

#### *Characteristics of Board of Directors*

The degree of board of directors' independence affects the potential for expropriation of minority shareholders' rights. In general, as the degree of boards'

independence increases, the higher is the monitoring role and lower is the opportunity for expropriation by majority shareholders; and vice versa.<sup>31</sup> The degree of independence of a board of directors is a function of different characteristics, namely: board composition, board size, tenure of both the CEO and directors, leadership structure of the board, and ownership of both the CEO and directors. Empirical studies describing the monitoring roles of different board members indicate that outside directors play a larger role in monitoring management than inside members (Weisbach, 1988). Fama (1980) argues:

The probability [of top management – whether they are professional managers or family members - colluding and expropriating shareholder wealth] might be lowered, and the viability of the board as a market-induced mechanism for low-cost internal transfer of control might be regarded as professional referees whose task is to stimulate and oversee the competition among the firm's top management (pp. 293 – 294).

Outside directors tend to diligently perform their duty, even when they have no financial stake in the company. Generally, outside directors are respected leaders from the business or academic community whose reputations suffer when associated with poorly performing companies (Fama, 1980; Fama & Jensen, 1983a; Weisbach, 1988). Top managers, when monitored by outside directors, will have less opportunity to pursue their own interests, and as such tend to perform better than those without such monitoring.

The effective monitoring role of outside directors should not be limited to firms where top managers are professional executives. The need for monitoring is also

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<sup>31</sup> Nevertheless, the relationship may not exist if the incentives that make directors work on behalf of shareholders are lacking in LA countries, i.e., market for corporate control and compensation.



expected when top management is composed of members of the controlling family, as in the case of Latin America. Therefore, it is expected that as the number of outside directors increases in LA boards, the possibility of minority shareholders' rights expropriation falls, due to the effective monitoring of such members.

Researchers propose three main sources for board-size effects (a) increased communication and coordination problems, (b) decreased ability of the board to control management, and (c) the spread among a larger group of the cost of poor decision making (Eisenberg et al., 1998; Yermack, 1996). First, as groups increase in size, losses in productivity and efficiency arise due to coordination and process problems (Jensen, 1993; Lipton & Lorsch, 1992). This in turn, leads to ineffective monitoring and control of management by the board of directors.

Despite the documented negative effects, companies still have large board of directors. Jensen (1993) and Yermack (1996) suggest that the reason for the lack of an adjustment to smaller boards is because larger boards reduce the board's ability to resist CEO control due to less candid discussion of managerial performance. Thus, CEO performance incentives through compensation and the threat of dismissal are weaker as board size increases. Therefore, since the CEO is the one that often determines board composition, he or she often considers a larger board of directors beneficial.

Finally, there is a positive correlation between the proportion of outside directors and board size (Yermack, 1996). In addition, shareholding by outside directors are usually a small percentage of firms. If firms' projects fail and firms have financial difficulties, outside directors bear a reputation cost. On the other hand, their share of gain from successful projects is limited, due to their small shareholdings. This asymmetry

suggests that outside directors have a bias against projects with high variance despite positive net present value, increasing the probability of bankruptcy (Eisenberg et al., 1998).

In Latin America, little separation of ownership and control presumably exists, which invalidates all of the explanations arising from firms in developed economies. Still, it is expected that as the size of the board of directors increases, the potential for expropriation also increases because communication and coordination problems may exist, as it is a behavioral phenomenon. Moreover, the outside director effects may not diminish, and as the size of boards increases, the expropriation of minority shareholders' rights may increase as well.

A powerful CEO can influence the board's ability to carry out its legal role of representing shareholder interests or its independence (Pearce & Zahra, 1991). Since a CEO has the ability to shape board membership over time (Alderfer, 1986), the CEO can gain power the longer he/she holds the position (Mishra & Nielsen, 2000). Moreover, if a CEO is also the chairman of the board, independence may be adversely affected. The dual leadership structure allows the CEO to exert more power over the decisions and practices of the board, and also permits the CEO to effectively control the information available to other members of the board (Booth et al., 2002).

In a typical large LA firm, the CEO usually is part of the controlling family; therefore, his/her influence over the board of directors may be greater than that in the U.S., thus hampering the independence of the board. For example, in Mexico, Babatz Torres (1997) reports CEO duality in 85 percent of the firms trading shares at the NYSE in 1996, and in practically every case the same individual is the largest shareholder.

Therefore, whenever a firm has a dual leadership and/or the longer the tenure of the CEO, higher expropriation of minority shareholders' rights is expected. At the same time, as the outside director's tenure increases, his/her monitoring role increases and the potential for expropriation of minority shareholders' rights decreases.

Some researchers argue that the shareholding of the CEO, rather than the number of outside directors, determines the board's level of monitoring. Weisbach (1988) presents evidence that CEOs with more share ownership have increased power in the firm. This may provide an incentive to avoid including outsiders on the boards. A complementary argument, from Jensen and Meckling (1976), is that when an owner-manager's shareholding grows as a fraction of his/her wealth, his/her interests become more aligned with shareholders'. Thus, there may be less need for monitoring by outside directors when the CEO has a large stake in the firm (Weisbach, 1988).

In Latin America, directors usually are well-known businesspeople who serve on more than one board of directors, usually from the same grupo. Their multiple directorships help to establish the necessary links to survive in the less-developed market that surrounds LA businesses. For instance, Husted and Serrano (2002) find that in a sample of the 90 largest Mexican companies, only 16 have no interlocking directorates, and these firms tend not to belong to any grupo.

Peng et al. (2001) discuss how interlocking of directors may allow firms to tap into some of the resources needed by the multinational corporations (MNCs) in emerging markets to achieve better coordination with other organizations and to decrease risk. Interlocking allows firms in developing economies to acquire resources from interrelated

companies. Interlocking directors bring information, assert power and influence on other companies they serve, and stabilize transaction relationships (Peng et al., 2001).

Moreover, in emerging markets given the limited pool of possible individuals that can become outside directors these interlocking directors become more valuable. The expertise of these outside directors increases their value. As in the case of CEOs, outside interlocking directors internalize efficiencies from the firms they serve, and provide better corporate governance practices. Since many of the firms in LA are connected directly or indirectly through business grupos, pyramids, and family relationships, it is expected that there is a limited pool of individuals that may serve as directors. Hence, as the number of interlocking directorates increases in a board, the expropriation of minority shareholders' rights is expected to decrease.

In sum, the different characteristics of boards of directors indirectly affect the expropriation of minority shareholders' rights. Such characteristics influence the degree of independence of boards, which in turn, have a direct effect on the expropriation of minority shareholders' rights. Therefore, a negative relationship is expected between the measures of board independence and the expropriation of minority shareholders' rights.

Thus, the following hypotheses of these relationships will be tested:

*H<sub>1a</sub>: The lower the number of independent outside directors on a board, the higher the potential for expropriation of minority shareholders' rights.*

*H<sub>1b</sub>: The higher the number of total directors on a board, the higher the potential for expropriation of minority shareholders' rights.*

*H<sub>1c</sub>: The longer the CEO tenure, the higher the potential for expropriation of minority shareholders' rights.*

*H<sub>1d</sub>: The shorter the tenure of independent outside directors, the higher the potential for expropriation of minority shareholders' rights.*

*H<sub>1e</sub>: In a firm, if the CEO and the Chairman of the board is the same individual, the higher the potential for expropriation of minority shareholders' rights.*

*H<sub>1f</sub>: The higher the proportion of CEO ownership, the higher the potential for expropriation of minority shareholders' rights.*

*H<sub>1g</sub>: The lower the ownership of the independent outside directors, the higher the potential for expropriation of minority shareholders' rights.*

*H<sub>1h</sub>: The lower the number of interlocking directorates on a board of directors, the higher the potential for expropriation of minority shareholders' rights.*

### *Ownership Structure*

Previous literature documents that controlling shareholders might use their power to consume corporate resources for their own interests at the expense of minority shareholders and other stakeholders (Johnson et al., 2000b; La Porta et al., 1999; Shleifer & Vishny, 1997). Moreover, the weak legal environment in Latin America might increase the potential for transfer of companies' resources.

In Latin America, family control is very valuable, due to large private benefits (Nenova, 2003), and families are not willing to relinquish it. Families ensure their control in several ways, such as maintaining top managerial positions, through coalitions of entrepreneurs (business groups), and low turnover of shares.

Another aspect of LA firms that increases the incentive for controlling shareholders to abuse their power is the existence of dual-class shares. Dual-class shares involve the issuance of two classes of shares, "regular" voting shares and some with no voting rights or some other form of restriction on voting rights. In such instances, a controlling shareholder can maintain control of the firm with less than majority ownership. Usually, these dual-class structures are introduced to minimize the capital

invested and hence the cost of exercising control. Nenova (2003) reports that such dual class share are commonly used in Brazil, Chile, and Mexico.

Research suggests that the external monitoring of grupos poses more challenges than that of non-grupo firms. First, grupos lack transparency relative to non-grupo firms and, thereby, are less susceptible to pressures from external monitors. Second, transparency problems are aggravated in the presence of equity interlocks, a common characteristic of grupos, particularly when the interlocks involve non-public firms. Third, grupos are generally able to reap economies of scale by lobbying and securing favors from politicians and bureaucrats (Khanna & Palepu, 2000b). Since the LA business environment is characterized by controlling families and grupos and such challenges are more likely to occur, the following hypotheses are proposed:

*H<sub>2a</sub>: The higher the degree of family-ownership, the higher the potential for expropriation of minority shareholders' rights.*

*H<sub>2b</sub>: When firms are affiliated with a grupo, the higher the potential for expropriation of minority shareholders' rights.*

### *Performance*

The weakness in LA's legal environment is well documented. Previous literature has shown a negative relationship between strength of the legal environment and firms' performance. This relationship can be explained in a number of ways. First, there is a positive correlation between weak legal environment and concentrated ownership. In turn, these controlling shareholders are more likely to exploit minority shareholders due to the lack of legal remedies against them. One way of exploiting these minority shareholders is through lower efficiency of the firms, for example from paying out dividends or consuming corporate resources that leads to a lower return on investment.

Moreover, these controlling shareholders may pay out the companies' cash flows to themselves, leading to "economic underperformance" of the firms (Wiwattanakantang, 2001).

Second, in countries with weak law enforcement, the adoption of firm-specific governance mechanisms may be less effective than in countries with good enforcement. The main reason is that the lack of enforcement provisions and additional monitoring mechanisms will render minority shareholders powerless to discipline insiders (Klapper & Love, 2003). In light of such lack of monitoring, performance might be jeopardized. The following hypothesis is proposed to test this relationship.

*H<sub>3</sub>: The higher the degree of expropriation, the lower the measures of firm performance.*

The preceding hypotheses empirically relate the internal corporate governance mechanisms with the expropriation of minority shareholders' rights, and the latter with performance. Following is a discussion of the selected methodology to empirically test these hypotheses.

## CHAPTER IV

### METHODOLOGY

Univariate and multivariate tests are utilized to analyze the relationships between board of directors' characteristics, ownership structure, expropriation, and performance for the period 2000 to 2002. First, univariate tests examine the differences in means between the three countries, Brazil, Chile, and Mexico, for several variables of interest: board size, board independence, ownership structure, and performance. Next, multivariate tests, including panel analyses with different specifications of the alternative measures of board independence, each of which employs the different variables, test the specific hypotheses.

#### *Univariate tests*

One-way analysis of variance (ANOVA) is used to test the hypothesis that the means of the following groups of variables among three countries are equal: characteristics of board of directors, alternative independence measures, ownership characteristics, and performance. ANOVA does not identify where the significant differences in means lie, if there are more than two groups. Accordingly, the Scheffé<sup>32</sup> method is utilized to further investigate the specific country mean differences.

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<sup>32</sup> Of all the post hoc methods to identify differences between individual groups, the Scheffé method is chosen because it is the most conservative and can accommodate unequal sample sizes, as in the case of this sample.



*Multivariate tests*

Empirically, corporate governance research often relies on Ordinary Least Squares (OLS) estimations. However, these model specifications come from ad hoc, rather than well-specified theoretical models, which may compromise the sensitivity of the results. This limitation arises because a formal model has not been developed to test the relationship between corporate governance mechanisms and performance, and a variety of models exist that are similar in concept but different in specification, functional form, and control variables (Barnhart & Rosenstein, 1998).<sup>33</sup> Moreover, traditional corporate governance studies ignore the fact that board composition is endogenously determined, which may also bias the results (Hermalin & Weisbach, 1991). Corporate governance variables are usually highly correlated, leading to the identification of spurious relationships.<sup>34</sup>

To overcome these limitations this dissertation employs a panel data analysis. Benefits of panel data analysis over other methodologies include (Baltagi, 1995):

1. It controls for individual heterogeneity. The sample for the dissertation represents three distinct countries, which differ in terms of their financial institutions, political regimes, legal protection, and accounting standards. These country-specific differences may influence variables of interest. Not accounting for this heterogeneity causes misspecification of the models.

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<sup>33</sup> For example, OLS models with and without industry dummy variables might or might not support a relation between managerial ownership and performance (Barnhart & Rosenstein, 1998).

<sup>34</sup> For instance, Hermalin and Weisbach (1988) find that inside directors can be replaced with outside directors after poor performance. Therefore, a constantly poor-performing firm could have a higher than average proportion of outside directors on the board. Such a firm could result in a positive relationship between outside directors and poor performance, if such a firm is included in a regression of firm performance and board composition (Hermalin & Weisbach, 1991).

2. It gives more informative data, more variability, less collinearity among variables, more degrees of freedom, and more efficiency. The efficiency comes from more reliable parameter estimates that take into account variation between the companies of the three countries and variation within the companies of the same country.
3. It eliminates the biases resulting from aggregation over firms since panel data accounts for information on micro units, i.e. each specific company.
4. It is able to better identify and measure effects that are simply not detectable in pure cross-section or pure time-series data, since it considers both effects simultaneously.

Panel analyses allow for the consideration of both the cross-sectional and time-series effects in the sample, and helps in identifying the sources of possibly mingled effects. The basic structure for analyzing the panel data is given by the following equation:

$$Y_{it} = \alpha + X_{it}'\beta + u_{it}, \quad i = 1, \dots, N; t = 1, \dots, T \quad (2)$$

where  $i$  denotes the company (the cross-section dimension), and  $t$  denotes time (the time-series dimension). Therefore,  $Y_{it}$  is the dependent variable pooling  $N$  cross-sectional observations and  $T$  time-series observations, and  $X_{it}$ s are the independent variables pooling  $N$  cross-sectional observations and  $T$  time-series observations.  $\alpha$  is a constant term for  $N$  cross-sectional observations,  $\beta$  is the coefficient of vectors across cross-sectional observations, and  $u_{it}$  is a random error.  $u_{it} = \mu_i + v_{it}$ , where  $\mu_i$  denotes the unobservable individual specific effect and  $v_{it}$  denotes the remainder of the disturbance.

Panel data analysis estimates Equation (2) by OLS techniques. There are two main models in panel analysis regarding the assumptions concerning  $\mu_i$ : fixed- and random-effects. The fixed-effects model assumes that differences across units can be captured in the constant term, while in the random-effects model these differences are assumed to be randomly distributed across cross-sectional units (Greene, 2000).

Specifically, in the fixed-effects model,  $\mu_i$  is assumed to be the fixed parameter to be estimated and the remainder of the disturbance is stochastic where  $v_{it} \sim \text{IID}(0, \sigma_v^2)$ . The  $X_{it}$ s are assumed independent of the  $v_{it}$  for all  $i$  and  $t$ . In the random-effects model,  $\mu_i \sim \text{IID}(0, \sigma_\mu^2)$ ,  $v_{it} \sim \text{IID}(0, \sigma_v^2)$ , and the  $\mu_i$  are independent of  $v_{it}$ . In addition, the  $X_{it}$  are independent of the  $\mu_i$  and  $v_{it}$  for all  $i$  and  $t$ .

The distinction between the fixed- versus random-effects model has been suggested as erroneous interpretations (Greene, 2000).<sup>35</sup> However, the appropriateness of utilizing one over the other can be tested using the Breusch-Pagan<sup>36</sup> and/or Hausman tests.<sup>37</sup>

There are several ways to fit the random-effects model's estimators: generalized least squares (GLS), maximum likelihood estimator (MLE), and population-averaged. In

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<sup>35</sup> From a purely practical standpoint, with the fixed-effects model there is no justification for treating the individual effects as uncorrelated with the other regressors, as assumed by the random-effects. However, this approach is costly in terms of the lost of degree of freedom due to the use of dummy variables. The random-effects specification seems to be more intuitive for a wide, longitudinal data set, but the estimations might be inconsistent due to the omitted variables (Greene, 2000).

<sup>36</sup> Stata reports the Lagrange multiplier test for random error effects developed by Breusch and Pagan (1980) and modified for unbalanced panels by Baltagi and Li (1990). It tests that  $\text{Var}(v_i) = 0$ , indicating that if the null hypothesis is rejected then a random-effects is more appropriate.

<sup>37</sup> Stata reports Hausman's (1978) specification test. This test examines, under the hypothesis of no correlation, that both OLS in the fixed-effect model and GLS are consistent, but OLS is inefficient. Therefore, under the null hypothesis, the two estimates should not differ systematically. In other words, if the null hypothesis cannot be rejected then the individual effects are uncorrelated with the other regressors in the model, and the random-effects model is a better choice.

addition, there are several modifications to each of these models, depending on the assumptions and circumstances of the sample, i.e. Swamy-Arora feasible GLS estimator, Hausman-Taylor estimator, and Amemiya-MaCurdy estimator, among others.<sup>38</sup> For this study, a full feasible GLS estimator model is employed. This model provides the most efficient estimation under the assumption of heteroskedastic panels (Maddala & Mount, 1973).

First, a fixed-effect model is estimated. However, the estimation process drops the time invariant variables; i.e. dummies for industries, and grupo affiliation. Since the model estimates 19 parameters, there is also a substantial loss in the degrees of freedom. Additionally, the fixed-effects model poorly tests for between-country effects, a factor that may compromise the sensitivity of the results. In other words, these factors indicate that the model is not adequately specifying the relationship between the internal corporate governance mechanisms and the expropriation of minority shareholders' rights. Furthermore, these factors may aggravate the multicollinearity among regressors, jeopardizing the results.

Next, a GLS random-effect model is estimated. Both Breusch-Pagan and Hausman tests, fail to reject the appropriateness of the random-effects model<sup>39</sup>; i.e. that country effects are random. Then, other specifications for the random-effects model were estimated: GLS with the Swamy-Arora estimator<sup>40</sup>, MLE<sup>41</sup>, and population-averaged.<sup>42</sup>

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<sup>38</sup> For a detailed examination of these modifications the reader can consult Baltagi (1995).

<sup>39</sup> For the Breusch and Pagan test, the Lagrange multiplier test statistic ( $\lambda_{LM}$ ) was 183.09 with a probability  $> \chi^2 = 0.000$ . For the Hausman test, the Wald test statistic (W) was 37.85 with a probability  $> \chi^2 = 0.001$ .

<sup>40</sup> The Swamy-Arora specification, runs two regressions (within and between regressions, respectively) to get estimates of the variance components from the corresponding mean square errors of these regressions. Stata provides a small sample adjustment for unbalanced panels derived by Baltagi and Chang (1994).

<sup>41</sup> The MLE specification uses a log likelihood function for estimating the random-effects estimator.

<sup>42</sup> The population-averaged specification uses a generalized estimating equation (GEE) approach to estimate the random-effects estimator.

The standard error component given by each of these specifications assumes that the regression disturbances are homoskedastic with the same variance across time and firms. However, the sample includes three countries with unequal observations for some companies, which violates such a restrictive assumption. Therefore, a heteroskedastic panel corrected standard error OLS estimation is also considered.<sup>43</sup> A full feasible GLS estimation produces the most efficient<sup>44</sup> results.

The model employed in this analysis is given by Equation (2), and is unbalanced in the sense that there are  $N$  firms observed over varying time-periods. The full feasible GLS results are given by

$$\begin{aligned}\hat{\beta}_{GLS} &= (X\hat{\Omega}^{-1}X)^{-1}X\hat{\Omega}^{-1}y \\ \text{Var}(\hat{\beta}_{GLS}) &= (X\hat{\Omega}^{-1}X)^{-1}\end{aligned}\quad (3)$$

where  $\Omega = \sigma_v^2\Sigma = E(uu')$ . Since the sample includes companies from different countries and industries, heteroskedasticity across panels (i.e. each company) is assumed such that

$$\Omega = \begin{bmatrix} \sigma_1^2 I & 0 & \dots & 0 \\ 0 & \sigma_2^2 I & \dots & 0 \\ \vdots & \vdots & \ddots & \vdots \\ 0 & 0 & \dots & \sigma_m^2 I \end{bmatrix}$$

<sup>43</sup> This specification produces panel-corrected standard error estimates for linear cross-sectional time-series models where the parameters are estimated by OLS, and the disturbances are assumed to be heteroskedastic. Two different specifications is considered: first, the disturbances are assumed to be panel-level heteroskedastic, and second, the disturbances are assumed to be independent across panels.

<sup>44</sup> Maddala and Mount (1973), using their Monte Carlo study, find little difference between different methods and favor feasible GLS as easier to compute. Similarly, Baltagi and Chang (1994) performed an extensive Monte Carlo study using an unbalanced panel and conclude that the simple feasible GLS estimator compares well with the more complicated estimators.

To measure the relationship between the potential for expropriation of minority shareholders' rights and each the characteristics of the board of directors and the firm's ownership structure, the following model is estimated.

$$Expropriation_i = \alpha_0 + \sum_{k=1}^m \alpha_1 Board_{ki} + \alpha_2 Ownership_i + \sum_{j=1}^n \alpha_3 Control_{ji} + e_i \quad (4)$$

where

Expropriation = Ownership concentration measure of company i,  
 Board = Characteristics of company i's board of directors  
 Ownership = Dummy variables for family controlled company i,  
 Control = Control variables

Equation (5) captures the relationship between the performance and the measure of expropriation.

$$Performance_i = \beta_0 + \beta_1 Expropriation_i + \sum_{j=1}^n \beta_3 Control_{ji} + u_i \quad (5)$$

where

Performance = Accounting-based and market-based performance measures of company i

The above discussion explains why the panel is being analyzed using a full feasible GLS random-effects estimation process. This specification yields the most efficient results without sacrificing the simplicity of the methodology. The data, descriptive statistics, and the results of estimating the model using the sample of 269 observations are presented in the following chapters, respectively.

## CHAPTER V

### DATA

#### *Data Description*

Corporate data for LA businesses is challenging to obtain, particularly, information on the characteristics of the board of directors and the ownership structure of the firm. LA firms, even public ones, are not required to disclose these matters. To overcome this obstacle, a sample was drawn from LA companies with shares traded on U.S. exchanges as ADR. These foreign companies trade under the regulations of the U.S. Securities Exchange Commission (SEC), which require foreign firms to disclose a set of information including the Form 20-F.<sup>45</sup> This form includes the board of directors' composition, ownership structure information, and financial statements, among other things. The data sources for 20-F forms were *Lexis<sup>®</sup>-Nexis<sup>®</sup> Academic Universe*, the individual company's web pages, and the Securities Exchange Commission (SEC) EDGAR service. Performance measures of the companies in the sample is obtained from the *Datastream* database.

Previous research on emerging economies dealing with the relationship between the expropriation of minority shareholders' rights, corporate governance mechanisms,

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<sup>45</sup> Most foreign issuers file the Form 20-F annually six months after the end of their fiscal year.

and performance usually employs one year data<sup>46</sup>, primarily due to data gathering constraints. However, this study utilizes three years of data, fiscal years ending from 2000 to 2002. This results in a sample among the larger LA samples employed in existing research.

As of December 31, 2002<sup>47</sup>, there were 134 LA companies listing ADRs on U.S. exchanges, with firms from Argentina, Brazil, Chile, and Mexico accounting for 93 percent of these.<sup>48</sup> The original sample included all 124 firms listed as ADRs on the different U.S. exchanges. Initial assessment of the data required to test the proposed hypotheses revealed that none of the Argentinean companies had data for the three-year period under consideration. Thus, the companies from Argentina were dropped from the sample.<sup>49</sup>

The final sample includes 269 observations, with a least one observation per year per company.<sup>50</sup> These observations includes 97 firms divided by countries as follows: Brazil (34), Chile (28), and Mexico (35).

Seventy four percent of the firms in the sample are affiliated with a grupo, each firm is a unique entity, and the manner in which companies deal with their grupo or

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<sup>46</sup> For instance, Lins (2003) uses financial data for the fiscal year-end closest to December 31, 1995 to investigate whether management stock ownership and large non-management blockholder share ownership are related to firm value across a sample of firms from 18 emerging markets. Claessens et al. (2000) examine the separation of ownership and control for corporations in nine East Asian countries as of the end of fiscal year 1996. Babatz Torres (1997), in his unpublished dissertation, analyses the effects of weak protection of minority shareholders' rights has had on the ownership structure, voting structure, and corporate practices of the 25 firms in Mexico that filed a Form 20-F with the SEC during 1996. Other studies that utilizes only one year of data in emerging markets are: Wiwattanakantang (2001) for Thailand; Mak and Li (2001) for Singapore; and Ghaddar (2003) for Chile.

<sup>47</sup> As of the official list from the SEC.

<sup>48</sup> The number of ADRs per country is as follows: Argentina (24), Brazil (39), Chile (24), and Mexico (37).

<sup>49</sup> The unstable economic environment in Argentina during 2001 was another factor for the exclusion of this country.

<sup>50</sup> See Table A1 in the Appendix for a list of the companies and years that comprised the final sample. The sample utilized by the panel analysis differs from these numbers, due to missing data in one or more variables for a specific company within a country.



parent affiliation varies. For instance, some companies file one Form 20-F, but present separate information for each entity, such as the Brazilian company, *Unibanco Holdings* and *Unibanco*. In other cases, companies from the same grupo prepare and file separate Forms with their particular information, such as *Iusacell* and *Iusacell Celular*, and *TVAzteca* and *TV Azteca Holdings*, from Mexico.

#### *Variables*

To empirically test the hypotheses, it is necessary to use a proxy to measure the expropriation of minority shareholders' rights. Following previous research (Lins, 2003; Nenova, 2003), a measure of ownership concentration of the top five controlling shareholders, those who own at least five percent of the firms' stocks, is constructed to be used in the analysis. In addition, characteristics of the board of directors, such as board size, board composition, and interlocking directorates, are collected to measure the degree of independence of the board for each company. To capture the ownership structure of firms, the largest shareholder was determined and categorized into dummy variables, representing family-management, non-affiliated companies, government, institutions, individual investors, and miscellaneous. Both accounting-based and market-based measures of performance were gathered for the analysis. All the data necessary for these variables is available from the Form 20-F, with the exception of the performance measures and a control variable for company size that are obtained from *Datastream*. Table 4 summarizes the definitions for all the variables.

Table 4

*Variables definition*

Variable	Definition
OUTSIDERS	Independent outside directors.
INSIDERS	Inside directors.
B_SIZE	Total number of active board members.
CEO_TNR	Total years of CEO in that position.
OUT_TNR	Aggregate average tenure of independent outside directors; the average tenure is determined by dividing the total number of years for all the independent outside directors by the total number of those outside directors.
CEO_OWN	Percentage of CEO ownership.
INTER	Number of interlocking directorates on a board.
OUT_SZ	Total number of independent outside directors to board size.
INS_SZ	Total number of inside directors to board size.
OUT_INS	Total number of independent outside directors to inside directors.
FAM	Dummy variable where it takes 1 if the ultimate owner is a family or management, and 0 otherwise.
NON-AFF_CO	Dummy variable where it takes 1 if the ultimate owner is a non-affiliated company, and 0 otherwise.
GOV	Dummy variable where it takes 1 if the ultimate owner is a stated-owned agency, and 0 otherwise.
INST	Dummy variable where it takes 1 if the ultimate owner is an institution, and 0 otherwise.
INDV	Dummy variable where it takes 1 if the ultimate owner is an individual, and 0 otherwise.
MISC	Dummy variable where it takes 1 if the ultimate owner is miscellaneous, and 0 otherwise.
NO_ID	Dummy variable where it takes 1 if the ultimate owner is not identifiable, and 0 otherwise.
EXPROP	Sum of squares of the top share blockholders holding at or above the five percent level.
ROA	Ratio of earnings before interest and taxes to total assets.

Variable	Definition
ROE	Ratio of earnings before interest and taxes to total equity.
LN_MV	Log of market value of the firm.
CO_SIZE	Natural log of total employees.
GRP	Dummy variable where it takes the value of 1 if the company is affiliated with a grupo, and 0 otherwise.
SH_DUAL	Dummy variable where it takes the value of 1 if the company issues dual-class shares, and 0 otherwise.
LN_AGE	Natural log of the age of the company, calculated from the date of establishment.
BNK	Dummy variable, based on the SIC code, where it takes 1 if the company is a financial institution, and 0 otherwise.
CONST	Dummy variable, based on the SIC code, where it takes 1 if the company is related to construction industry, and 0 otherwise.
MANUF	Dummy variable, based on the SIC code, where it takes 1 if the company is related to manufacturing industry, and 0 otherwise.
SERV	Dummy variable, based on the SIC code, where it takes 1 if the company is related to services industry, and 0 otherwise.
TRD	Dummy variable, based on the SIC code, where it takes 1 if the company is related to trade industry, and 0 otherwise.
TRANSP	Dummy variable, based on the SIC code, where it takes 1 if the company is related to transportation industry, and 0 otherwise.
UTIL	Dummy variable, based on the SIC code, where it takes 1 if the company is related to utilities industry, and 0 otherwise.
CHILE	Dummy variable, where it takes 1 if the company is from a Chile, and 0 otherwise.

*Dependent variables*

*Expropriation of Minority Shareholders' Rights*

Measuring expropriation of minority shareholders' rights can be difficult given its numerous definitions and manifestations. However, emerging markets research suggests that concentrated ownership is correlated with a lack of investor protection (Claessens et al., 2000; Denis & McConnell, 2003; La Porta et al., 1999; La Porta et al., 1998; Shleifer & Vishny, 1997). Thus, a measure of ownership concentration of the top five blockholders may be used to assess the degree of expropriation of minority shareholders' rights.

In Latin America, where there is a weak legal protection environment, control has an incremental value for controlling shareholders because it provides large private benefits (Barclay & Holderness, 1989; Nenova, 2003).<sup>51</sup> The incremental value of control usually exceeds the cash flow rights a shareholder may have. Controlling shareholders employ different mechanisms to maintain control, such as placing themselves in top managerial positions and as members of board of directors, avoiding the trade of shares on exchanges, and/or forming a coalition of entrepreneurs.<sup>52</sup> Worldwide, control in excess of proportional ownership is usually achieved through other deviations: dual-class shares, pyramids, cross-holdings, and subsidiaries (Claessens et al., 2000; Lins, 2003).

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<sup>51</sup> Research has documented the existence of such large private benefits. For example, Barclay and Holderness (1989) document average premiums of 20 percent on trading of blocks of at least 5 percent of common stock traded at NYSE and AMEX. Moreover, Nenova (2003), after analyzing 18 countries, reports that the value of control varies by country from 0 percent to 50 percent of firm market value.

<sup>52</sup> A group of entrepreneurs forms a coalition getting a blockholding stake in several firms and controlling their board of directors to ultimately control such firms. For example, in Chile, this ownership variant is very popular. The Sigdo Koppers group is a coalition of several individuals each of whom has less than 10 percent stake in group firms but who collectively maintain majority ownership in these firms (Ghaddar, 2003). Furthermore, Babatz Torres (1997) report that among Mexican NYSE listed companies, 44 percent have a coalition of shareholders owning a majority stake in the firm.

Through these deviations, the controlling shareholder gains control while minimizing the capital invested and the cost of exercising that control. In Latin America, contrary to the evidence of developed economies<sup>53</sup>, dual-class structures are used by controlling shareholders for the purpose of holding control with a minimum of equity. For example, in Mexico, Babatz Torres (1997) finds that that the largest shareholders in Mexico hold very little non-voting equity. Moreover, the largest shareholder in a firm typically controls the majority of the votes, without owning the required amount of stocks for such control. In a pyramid ownership structure, a family typically occupies the top position, and, in turn, usually holds the largest block of shares of the company. In these arrangements, there is a significant overlap between the top firm's management group and the managers of each firm down the line in the pyramid, as illustrated in Figure A1 in the Appendix. Thus, the controlling family is able to effectively control all the firms, while bearing relatively less of the cash flow consequences for exercising such control (Lins, 2003).

Following prior research on ownership concentration (Claessens et al., 2000; Demsetz & Lehn, 1985; Goergen & Renneboog, 2001; Nenova, 2003), this study utilizes the Herfindahl index (HI) to measure ownership concentration and to proxy for the expropriation of minority shareholders' rights. This index captures both the inequality of shares among stockholders and the number of shareholders as well as better reflecting the true levels of ownership concentration in any company (Barabanov & McNamara,

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<sup>53</sup> In developed economies, evidence suggests that dual-class shares are not used for holding control with a minimum of equity: (1) differential voting rights are infrequently used in many stock markets; (2) the largest shareholder tends to own a larger equity percentage than the minimum required to guarantee control; and (3) there is no relationship between the degree of departure from one-share-one-vote and the actual concentration of ownership (Babatz Torres, 1997).

2002).<sup>54</sup> The HI is usually calculated as the sum of squares of the shareholdings of a certain number of stockholders.<sup>55</sup> For this study, the top ultimate share blockholders holding at or above the five percent level is used. The average percentage holding of the top ultimate share blockholders for the sample is 39.1 percent.

To calculate the HI, the ultimate ownership of both direct and indirect control and cash flows rights of each firm in the sample was traced for each of the three years (2000 – 2002) under consideration. To do so, data is first analyzed to determine the direct ownership of control rights for all owners with stakes at or above a five percent threshold. Then the ultimate control of these direct owners was traced, using the same threshold of five percent ownership. Form 20-F usually traces the identity of ultimate control owners with at least five percent ownership. When the Form 20-F did not provide the necessary information for determining the ultimate owners, other sources of information were utilized, such as the web pages of the companies.

Once these ultimate owners are identified, control rights are determined for the sample company and categorized into one of the following groups: family-management ownership group, non-affiliated company ownership group, government ownership group, institutional ownership group, individual ownership group, and miscellaneous ownership group, following Lins (2003). Included in the first group are family members

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<sup>54</sup> Barabanov & McNamara (2002) provide the following example considering two companies A and B. In Company A 75 percent of all shares are held by a blockholder X, the rest (25 percent) is dispersed among small investors. At Company B, top five owners each owns 15 percent of all the shares, and the rest (25 percent) is dispersed among small investors. If the percentage of holdings owned by top five shareholders is used as a proxy for concentration, then the ownership structure of A and B is misrepresented. Both companies have almost the same proportion of shares held by the top five shareholders. Company A, however, has 75 percent of its shares controlled by a single owner.

<sup>55</sup> Researchers have used different variants of the Herfindahl index to measure ownership concentration, such as the top 20 stockholders shareholdings (Demsetz & Lehn, 1985), the top ten stockholders shareholdings (Claessens et al., 2000), the top five stockholders shareholdings (Nenova, 2003), and even the largest three stakes held by each category of owner (institutions, individual companies, families, and directors) (Goergen & Renneboog, 2001).

(based on overlapping last names or known familial relations) and any management official or director. The non-affiliated company ownership group consists of ownership by other companies not affiliated with family-management. Direct and indirect ownership by all the agencies and companies identified as state-owned comprise the government ownership group. The institutional ownership group includes ownership held by pension funds, insurance companies, and/or banks. Individuals who are not family members or managers are categorized in the individual ownership group. Finally, the miscellaneous ownership group includes any ownership that cannot be classified in the other five groups. In the case where the ultimate controller cannot be clearly identified as being part of any of the groups, that position was considered not identifiable.

Once the ownership group of each firm was classified, the HI index was based on the holdings of the owners in each ownership group. The total HI was calculated across the six ownership groups as the sum of squares of each owner group  $l$ 's number of shares as a proportion of total shares outstanding:

$$HI = \sum_{l=1}^n (S_{li} / \#totalshares)^2, \quad (1)$$

where  $S_{li}$  represents the number of shares of company  $i$  owned by group  $l$  (Barabanov & McNamara, 2002).

$HI$  measures ownership concentration and becomes a proxy for the expropriation of minority shareholder's right (EXPROP). The procedure to calculate EXPROP can be illustrated using the information from Empresa Latinoamericana as shown in Figure A1 in the Appendix:

1. Identification of the direct ownership of control rights for all owners with stakes at or above five percent (ownership percentages shown in parentheses):

Non-Affiliated Company #1 (7.47 percent), Company B (18.36 percent), and Investment Company T (24.45 percent).

2. Identification of ultimate indirect owners and their control rights: Family Member #1 (18.61 percent) and Non-Affiliated Group (14.42 percent) for the Investment Company T; and Family Members #2 (0.17 percent), #3 (0.13 percent), and #4 (0.13 percent) for Company B. No further analysis is required for Non-Affiliated Company #1 because it did not have owners with share holdings of five percent or more.
3. Categorization of ultimate owners, both direct and indirect, into groups: family-management ownership group (Family Members #1, #2, #3, and #4, with 38.25 percent of control rights); and non-affiliated company ownership group (Non-Affiliated Company #1 and Non-Affiliated Group, with a 21.89 percent of control rights).
4. Calculation of  $HI_j = [(0.3825)^2 + (0.2189)^2] = 0.1942$ .

Thus, Empresa Latinoamericana has an expropriation measure (EXPROP) of 19.42 percent.

### *Performance*

Performance was measured using two accounting-based measures and one market-based measure, all of which are commonly used in corporate governance research. Expropriation of minority shareholders' rights through the extraction of corporate resources by controlling shareholders may affect both the balance sheet and income statement. Therefore, the accounting measures should incorporate the effects of such expropriation in both the balance sheet and the income statement. For the analysis



two alternative accounting measures of performance were calculated: return on assets (ROA), and return on equity (ROE). ROA are calculated as the ratio of earnings before interest and taxes<sup>56</sup> to total assets, and ROE was computed as earnings before interest and taxes over total equity.<sup>57</sup>

Accounting data in emerging economies, such as Latin America, may not accurately measure a firm's performance primarily because earnings may be easily manipulated by management due to the ineffective enforcement of laws. To compensate for this possible weakness in the accounting data and to account for all the possible agency costs that are not reflected in the accounting measures, a market-based measure of performance is also analyzed. Datastream provides a market value measure of companies, which was used for the analysis. The measure of market value is expressed in local currency. The exchange rate of the currency to U.S. dollars as of December 31<sup>st</sup> of each year was used to convert market value into U.S. dollars for consistency across the sample.

#### *Independent variables*

The independent variables to test the hypotheses proposed are classified into three groups: board of directors' characteristics, ownership structure, and control variables. Each of these groups is defined in the following sections.

#### *Board of directors' characteristics*

Board of directors' characteristics do not directly influence the degree of expropriation of minority shareholders' rights by a firm. Instead, these characteristics

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<sup>56</sup> Earnings before interest and taxes will be employed to calculate ROA and ROE to avoid the effect of firms' discretion choices of capital structure (Wiwattanakantang, 2001). In addition, to avoid any miscalculation that might arise due to differences in tax law across countries.

<sup>57</sup> Datastream accounts' reference numbers: total assets (392), equity (305), and EBIT (1300).

affect the independence of the board, and, in turn, the possibility for expropriation. In general, the less independence a board exhibits, the lower its monitoring role, and minority rights may be abused more easily.

#### *Independence measures*

Size, composition, CEO and directors' ownership, CEO and directors' tenure, the presence of dual leadership structure, and interlock directorates each affect the degree of independence of a board of directors. The size variable (B\_SIZE) will represent the total number of active board members as of reported in the company's annual Form 20-F for the periods ending 2000 - 2002. LA boards include alternate directors, members authorized to serve on the board in place of the directors unable to attend meeting or otherwise participate in board activities. These alternate directors will not be considered for the analysis to avoid double counting of directors, since their contribution is dependent on the absence of an active member<sup>58</sup>.

Board composition is key to determining a board's independence. Using the traditional classification of directors proposed by Baysinger and Butler (1985), members of a board were classified as inside directors, affiliated outside directors ("gray directors") or independent outside directors. Outside directors (OUTSIDERS) were the independent outside directors, excluding the affiliated outside directors. The "gray directors" were considered inside directors due to their close relationship with the firm. In some cases, Form 20-F indicates whether an individual is an outsider or an insider.<sup>59</sup>

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<sup>58</sup> The mean number of alternate directors for the whole sample is 2.69. 63.9 percent of the sample did not have any alternate directors.

<sup>59</sup> Although, some companies identified individuals as independent outside directors for reporting and compliance purposes, such directors failed the rules of this work's classification. For example, Elektra reported in 2000 that it approved in October 1999 some amendments to its by-laws that require that the number of independent directors increased from three to four. Specifically, that company requires that its Investment Committee should include at least two independent directors. After examining the composition

In cases where such indications are not clearly specified on the form, the names of the individuals were linked to the families by their last names or biographical description<sup>60</sup> provided for each of them. In addition, the management list is reviewed to determine whether such a director was included or not. Once the classification is made, the following alternative measures of board composition are determined for each of the three years under consideration: (a) total number of outside directors to board size (OUT\_SZ); (b) percentage of outside directors to inside directors (OUT\_INS); and (c) percentage of inside directors to board size (INS\_SZ).

For every outside director and the CEO, the number of years in the position is determined from the biographical description provided in the Form 20-F. Thus, the following two tenure measures are calculated: 1) total years of CEO in that position (CEO\_TNR), and 2) the aggregate average tenure of outside directors<sup>61</sup> (OUT\_TNR).

In addition, for every outside director and the CEO, the share of equity owned was established to calculate: 1) percentage of CEO ownership (CEO\_OWN), and 2) percentage of outside directors' ownership (OUT\_OWN).<sup>62</sup>

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of the Committee, it was concluded that only one director was independent because the other "outside" director in reality had an interlock directorate, excluding him from being considered truly independent for this work. In other instance, in 2001, ICA clearly highlights seven individuals as its outside directors. However, only two were truly outsiders.

<sup>60</sup> The biographical description usually includes the name, age, education, time with the company and interlock directorates of each member of the board of director and management team.

<sup>61</sup> The average tenure of outside directors is determined dividing by the total number of years for all the outside directors by the total number of those outside directors.

<sup>62</sup> The mean of this variable is 0.00011, only for Chilean companies. Companies did not disclose the exact amount of share ownership of CEOs and directors when lower than 1 percent. Usually the firms disclose "all executive officers and directors is X percent". Either this percent was less than 1 or it included the holdings of the controlling family. Once the holdings of the family were discounted, the percentage of other directors and officers resulted in no ownership at all or usually less than 1 percent, which was impossible to distribute among these other individuals. Since such small share of outside directors own shares, it appears that this outsiders ownership will not influence firms' decisions. Therefore, outsiders' ownership and thus hypothesis 1<sub>a</sub> are eliminated from further analysis.

A dummy variable (CEO\_D) to indicate the presence of dual leadership was created, where it takes the value of 1 if the CEO is also the Chairman of the board, and 0 otherwise.<sup>63</sup>

Finally, the number of interlocking directorates (INTER) on a board was determined by reading the bibliography or personal description<sup>64</sup> of each member. An individual serving on the board of another company that is part of the grupo will be considered as having an interlocking directorate.

#### *Ownership structure*

A series of dummy variables are created to account for the largest owner of each firm for the three years under consideration. The major block shareholder was categorized in one of the following groups: family-management group (FAM), non-affiliated company group (NON-AFF\_CO), government group (GOV), institutional group (INST), individual group (INDV), miscellaneous group (MISC), or not identifiable group (NO\_ID).

#### *Control Variables*

Control variables are included in the models to account for differences in company size, industry, group affiliation, age, dual-class shares, and country. To control for size, a continuous variable (CO\_SIZE) is created using the natural log of total

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<sup>63</sup> The mean of this variable was 19 percent, considering all the observations. For Chile, this variable was zero because the corporation law (No. 18.046, Title 4, Article 49) does not allow that the CEO and the Chairman of the board be the same person. For Brazil and Mexico, the means were 18 and 35 percent, respectively. Since it seems that CEO duality is a characteristics only present in Mexican firms, this variable, and thus, hypothesis 1<sub>c</sub> are eliminated from further analysis.

<sup>64</sup> The bibliographical descriptions sometimes were missing or too vague (*this director serves on several boards of other companies*) without mentioning the specific company of the interlock directorates. Therefore, this measure was constructed taking into account only the directorships among the companies sampled.

employees.<sup>65</sup> Industry dummies were created based on the Standard Industrial Classification (SIC) code of each company and include: financial institutions (BNK), manufacturing (MANUF), services (SERV), construction (CONST), trade (TRD), transportation (TRANSP), and utilities (UTIL).<sup>66</sup> A dummy variable (GRP) controls whether the company is affiliated with a grupo or not. The age of the company (LN\_AGE) is a continuous variable calculated from the date of establishment of each firm. A dummy variable (SH\_DUAL) controls whether or not the company issue dual-class shares.

Finally, a country dummy variable (CHILE) to control for Chilean companies is included in the analysis of the relationship between performance and expropriation of minority shareholders' rights. Chile's economic environment seems to be more developed than those of Mexico or Brazil. As presented on Table 1, Chile has the highest external capital markets indicators of Latin America. Even the ratio of stock market capitalization held by minorities to GNP of Chile is higher than that for the U.S. In addition, Chile has a higher economic freedom index<sup>67</sup>, 0.936, than Brazil and Mexico, with scores of 0.791 and 0.595, respectively.

### *Descriptive Statistics*

Tables 5 through 10 provide descriptive statistics for sample firms. Table 5 summarizes the descriptive statistics for the 269 observations that comprise the whole

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<sup>65</sup> Datastream account reference number: 219. It is more common to use market capitalization or total assets to control for company size, however, those figures were not available in a common currency. To avoid introducing further noise into the analysis, from the volatility of LA exchange rates, total number of employees is utilized instead.

<sup>66</sup> A dummy variable for mining was included, but none of the sample firms was from that industry. Therefore, that dummy was dropped from further analysis.

<sup>67</sup> The index, developed by the Heritage Foundation, represents an average of 10 individual factors that allows the classification of the countries. The factors include: trade policy, government intervention, foreign investment, wages and prices, regulation, fiscal burden, monetary policy, banking and finance, property rights, and black market (Lovell, Rivas, & Jackson, forthcoming).

sample. The table includes the mean, standard deviation, and observations of the characteristics of independence of board of directors, alternate board composition measures, ownership characteristics, performance, and control variables for Brazil, Chile, and Mexico aggregating all the observations for the three years under consideration (2000, 2001, 2002).

On average, LA companies have nine members on their board of directors, of whom eight are insiders. Note that 40.5 percent of the observations had no outside directors serving on the board, indicating companies dominated and controlled by families. Mexican companies tend to have larger boards, 11 members on average, in comparison with their counterparts in Brazil and Chile, with an average of eight members.

The CEOs in the sample have served in their position for eight years in comparison with less than three years (2.68 years) for outside directors. The tenure of both CEOs (12.9 years) and outsider board members (3.9 years) from Mexico is longer than those from either Brazil (5.8 and 1.6 years) or Chile (5.0 and 2.3 years) for CEOs and outsiders, respectively.

The CEO is also the Chairman of the board in 19 percent<sup>68</sup> of the observations. This contradicts the profile in the U.S., with Brickley, Coles and Jarell (1997) reporting a combined leadership rate in U.S. companies between 70 and 80 percent. CEOs only own 7 percent of shares on average when considering the whole sample. CEOs with Mexican companies have the largest proportion of ownership with 17 percent. A possible explanation of why the magnitude of the ownership is low is that LA companies are

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<sup>68</sup> This percentage represents 18 firms or 21 percent for 2000, and 16 firms or 18 percent for 2001 and 2002.

Table 5

*Descriptive Statistics, Means and Standard Deviation in parentheses.*

Variable	All	Brazil	Chile	Mexico
OUTSIDERS	1.42 (1.68)	1.30 (1.44)	1.47 (1.86)	1.50 (1.77)
INSIDERS	8.29 (3.52)	7.63 (3.06)	6.62 (2.22)	10.19 (3.86)
B_SIZE	9.72 (3.62)	8.93 (3.56)	8.08 (1.53)	11.69 (3.9)
CEO_TNR	8.13 (8.91)	5.82 (6.15)	5.04 (3.82)	12.85 (11.64)
OUT_TNR <sup>a</sup>	2.65 (4.5)	1.61 (2.02)	2.32 (2.69)	3.90 (6.59)
CEO_OWN <sup>b</sup>	7.43% (16.8)	2.15 (7.78)	0.857 (2.11)	17.48 (23.55)
INTER	2.06 (2.21)	1.60 (2.15)	1.89 (1.83)	2.62 (2.41)
OUT_SZ	14.40% (16.8)	13.00 (13.6)	18.10 (21.8)	12.80 (14.9)
INS_SZ	85.60% (16.77)	86.95 (13.61)	81.89 (21.82)	87.17 (14.93)
OUT_INS	27.68% (75.97)	18.19 (20.82)	50.74 (137.02)	19.70 (31.11)
EXPROP	39.08% (26.00)	37.31 (25.78)	32.87 (23.28)	45.55 (26.96)
ROA <sup>c</sup>	8.31% (14.84)	9.41 (10.33)	4.44 (6.00)	9.97 (21.31)
ROE <sup>d</sup>	29.09% (149.87)	26.72 (62.58)	13.81 (20.05)	42.79 (238.28)
LN_MV <sup>e</sup>	12.88 (1.40)	12.95 (1.26)	13.09 (1.39)	12.61 (1.54)

Variable	All	Brazil	Chile	Mexico
CO_SIZE	8.51 (1.33)	8.65 (1.31)	8.02 (1.02)	8.71 (1.45)
LN_AGE	3.18 (1.15)	27.18 (24.34)	64.93 (38.24)	32.22 (25.24)
FAM	0.58	0.43	0.48	0.79
NON-AFF_CO	0.14	0.06	0.25	0.13
GOV	0.03	0.06	0.03	
INST	0.18	0.30	0.23	0.01
INDV	0.02		0.01	0.04
MISC	0.04	0.10		
GRP	0.74	0.72	0.96	0.57
SH_DUAL	0.24	0.14	0.07	0.48
BNK	0.15	0.10	0.23	0.12
CONST	0.01			0.03
MANUF	0.35	0.27	0.36	0.44
SERV	0.01	0.03		
TRD	0.08	0.03	0.14	0.09
TRANSP	0.30	0.45	0.12	0.29
UTIL	0.07	0.09	0.15	
CHILE	0.27			
	N 269	98	73	98

*Note.* See Table 4 for complete definition of variables.

<sup>a</sup>n = 268; 1 missing value for Chile. <sup>b</sup>n = 266; 2 missing values for Chile, and 1 missing value for Mexico. <sup>c</sup>n = 267; 2 missing values for Chile. <sup>d</sup>n = 213; 18, 8, and 30 missing values for Brazil, Chile, and Mexico, respectively.



hiring professional CEOs to manage the firms. In fact, in 29 percent of the sampled companies, the CEO was part of the controlling family.<sup>69</sup> However, this consistent with CEO duality, with Mexican firms also having both a higher proportion of CEO duality and a higher proportion of CEOs from the controlling family. In Mexico, where more CEOs are also the Chairmen of the board and part of the controlling family, it is not surprising to see that they own a larger portion of the firms.

The alternative board composition measures also reflect the reality of inside directors' dominance on the board of directors. On average, there are 14.4 percent of outside directors to total directors; 27.7 percent of outside directors to inside directors, and 85.6 percent of inside directors to total directors. Chile exhibits the highest proportion of outsiders to both insiders and total directors, with 50.1 and 18.1 percent, respectively. This may reflect that Chilean firms may be adopting better corporate governance practices, such as bringing more outside directors to the boards. However, a different story appears when detailed examination is done of the annual trend of this variable (Table 6). Chile presents a decreasing trend on the inclusion of independent outside directors.

The ultimate owner of the majority of the firms (58.2 percent) is a family, management or director. Mexican companies are clearly dominated by families with 79 percent of all the companies being classified in this group, while Brazil and Chile have family ownership of 42.9 and 47.9 percent of the firms, respectively. Institutional ownership is the second largest group of ultimate owners of Brazilian firms (29.6 percent) and third (23.3 percent), after non-affiliated companies, for Chilean companies.

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<sup>69</sup> It was found that in 28 companies that the CEO was related to the controlling family. Mexico had the higher count with 20 firms, followed by Chile and Brazil each with four companies.

Firms included in the sample have a mean index of expropriation of 39.1 percent. From the sampled countries, Mexican companies have the highest potential of expropriation of minority shareholders' rights with an index of 45.5 percent, followed by Brazil with 37.3 percent and Chile with 32.9 percent. These indexes are consistent with prior research in emerging economies. For instance, Lins (2003) reports a range from 5 to 46 as values for ownership concentration for 22 emerging economies. Additionally, Ghaddar (2003) reports a mean index of 36.59 percent for her sample of Chilean firms.

The majority of the sample has grupo affiliation (74 percent), with Chile (96 percent) the country with the highest proportion of grupo affiliation, followed by Brazil (72 percent) and Mexico (57 percent). Companies in the sample are comparable in terms of their market value and size.

Tables 6 through 10 present descriptive statistics of the variables partitioned by country and year. Table 6 summarizes the mean and standard deviation of the characteristics of independence of board of directors. Despite the efforts of equity markets in enforcing better corporate governance<sup>70</sup> such as requiring more outside directors on the boards, all three countries present a decreasing trend in the inclusion of such directors. Most remarkable is Chile where the average of outside directors fell from 1.7 to 1.29. The board size of all three countries remains almost constant during the three years. Once more contradicting results appear when examining other related variables. The proportion of outside directors to size (OUT\_SZ) for both Brazil and Mexico increases during the years (Table 7). For Brazil, the proportion of outside directors to inside directors (OUT\_INS) also increased during the years.

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<sup>70</sup> On March 2002, in Brazil, law amendments took effect to increase transparency and encourage small investors. On June 2001, in Mexico, amendments to the security law took effect to encourage the protection of minority shareholders.

Table 6

*Descriptive Statistics by Country and Year – Characteristics of Board of Directors**Independence, Means and Standard Deviation in parentheses.*

Variable	Brazil			Chile			Mexico		
	2000	2001	2002	2000	2001	2002	2000	2001	2002
OUTSIDERS	1.35 (1.64)	1.21 (1.39)	1.32 (1.34)	1.71 (2.03)	1.40 (1.83)	1.29 (1.86)	1.53 (1.81)	1.50 (1.76)	1.47 (1.80)
INSIDERS	7.61 (3.00)	7.58 (3.23)	7.71 (3.04)	6.33 (2.43)	6.76 (2.03)	6.75 (2.25)	10.28 (3.82)	10.41 (4.01)	9.91 (3.86)
B_SIZE	8.97 (3.60)	8.79 (3.71)	9.03 (3.49)	8.04 (1.68)	8.16 (1.49)	8.04 (1.46)	11.81 (4.00)	11.91 (3.89)	11.38 (3.91)
CEO_TNR	5.45 (6.01)	5.88 (6.18)	6.09 (6.42)	4.79 (3.83)	5.12 (3.52)	5.21 (4.23)	12.47 (11.44)	12.84 (11.95)	13.21 (11.89)
OUT_TNR	1.40 (1.91)	1.39 (1.89)	2.01 (2.24)	2.67 (3.02)	1.97 (2.32)	2.34 <sup>b</sup> (2.76)	3.92 (7.03)	4.37 (7.52)	3.43 (5.25)
CEO_OWN	2.27 (8.06)	2.13 (7.82)	2.07 (7.71)	0.84 (2.10)	0.84 <sup>a</sup> (2.12)	0.89 <sup>b</sup> (2.19)	20.1 <sup>c</sup> (24.79)	17.28 (24.11)	15.31 (22.31)
INTER	2.03 (2.79)	1.61 (1.98)	1.21 (1.53)	2.04 (1.60)	1.60 (1.73)	2.04 (2.16)	2.53 (2.41)	2.69 (2.47)	2.65 (2.42)
N	31	33	34	24	25	24	32	32	34

*Note.* See Table 4 for complete definition of variables. N= number of companies.

<sup>a</sup>n = 24. <sup>b</sup>n = 23. <sup>c</sup>n = 31.

Mexican CEOs, on average, have twice the tenure as those from Brazil and Chile. The longest CEO tenure is 53 years in a Mexican company (2002). This situation is consistent with the reality of family-based businesses, where the company's founder usually presides until death. This argument is further supported by the increasing trend in

the mean years of CEOs' tenure for the three countries. In addition, none of the Chilean CEOs has served more than 14 years.

The average tenure of outsider Mexican directors is the longest (3.90 years), almost twice the time of Brazilian and Chilean outside directors (1.61 and 2.32 years, respectively). Mexico also has the highest number of firms where the CEO holds the position of the Chairman of the board. It is interesting to point out that many LA companies include their CEO as board members but not necessarily as the Chairman. None of the Chilean firms has a CEO who is also Chairman since Chilean law requires the inclusion of the CEO on the board of directors without any power to vote.

On average, share ownership by CEOs is very low, less than one percent. Mexican CEOs own the highest stake, ranging from 0.20 to 0.15 percent over the three years. Such low ownership can be explained by the hiring of professional managers as CEOs. Not only was the percentage of CEOs related to the controlling family low as explained before, but the trend of CEO duality in the two countries, where it is legal, is also decreasing. As more professionals are hired as CEOs, they do not serve as Chairmen because this is a position usually reserved for family members.

The presence of interlocking directorates is quite modest. Mexican firms have the highest frequency, on average, of interlocking directorates, 2.62 directors. This finding contradicts the expectations of a high number of interlock directorates among LA firms. However, the lack of these directorates might be due to the way this variable was measured. This variable was determined taking into consideration only the directorships among the companies sampled due to the lack of complete information for all the members of the board of directors.

Table 7 summarizes the descriptive statistics of the alternative board composition measures partitioned by country and years. Although Chile shows a decreasing trend in the inclusion of outside directors, it still exhibits the highest level of independence, when considering all three measures. The total average proportion of outside directors to board size in Chile ranges from 21.5 to 16.3 percent versus a range of 12.6 to 13.8 percent for Brazil and Mexico. These figures contrast with the U.S., where the trend of including independent directors have increased since 1987, i.e. from 70.6 percent (1987) up to 81.9 percent (1995) (Nelson, 2005). Chilean firms' total average proportion of outside directors to inside directors is more than double the proportion of Brazil and Mexico for 2000 and 2001. However, this variable falls from 50.5 percent (2001) to 35.3 (2002). Concluding that Chile is moving away from good corporate governance practices could be dangerous without data for the following years, not available for this research.

Brazil presents an increasing trend in both OUT\_SZ and OUT\_INS, implying that companies in this country are beginning to adopt better corporate governance practices. This finding is perhaps driven by the fact that Brazilian regulators overhauled the securities market legislation in 2000 - 2001. Moreover, Brazil had a wave of foreign investment, especially in telecommunications, from developed economies that might already have had better corporate governance practices.

Table 8 reports the descriptive statistics of the ownership characteristics of the sample. It summarizes the ownership classification of the major shareholder for each company. The table includes the mean of each ownership group by country and year. The family group is the largest owner for the three countries and years. Mexico shows the highest proportion of firms in this category; ranging from 77.4 percent (2000), 84.4

Table 7

*Descriptive Statistics by Country and Year – Alternative Independence**Measures, Means and Standard Deviation in parentheses.*

Variable	Brazil			Chile			Mexico		
	2000	2001	2002	2000	2001	2002	2000	2001	2002
OUT_SZ	12.60 (14.42)	12.64 (13.37)	13.85 (13.46)	21.53 (24.07)	16.62 (20.54)	16.25 (21.26)	12.63 (14.82)	13.12 (15.10)	12.74 (15.30)
INS_SZ	87.40 (14.42)	87.36 (13.37)	86.15 (13.46)	78.47 (24.07)	83.38 (20.54)	83.75 (21.26)	87.37 (14.82)	86.88 (15.10)	87.26 (15.30)
OUT_INS	17.97 (22.61)	17.35 (19.53)	19.21 (20.92)	66.45 (165.28)	50.52 (157.70)	35.27 (70.66)	19.37 (31.63)	20.09 (31.45)	19.63 (31.26)
N	31	33	34	24	25	24	32	32	34

*Note.* See Table 4 for complete definition of variables.

percent (2001), and 82.4 percent (2002). Both, Brazil and Chile, present a decreasing trend in this ownership category. The second largest group of owners is the institutional group, with Brazil having the highest proportion of firms in this category. By contrast, in Mexico there is no institutional ownership in 2001 and 2002.

Table 9 summarizes the mean, standard deviation, and number of observations of the dependent variables (EXPROP, ROA, ROE, and LN\_MV) partitioned by country and year. Mexican firms have the highest expropriation index for all three years; 43.1 percent (2000), 48.3 percent (2001), and 45.2 percent (2002) followed by Brazil; 35.9 percent (2000) and 37.7 percent (2001), and 38.2 percent (2002), and Chile; 27.9 percent (2000), 33.9 percent (2001), and 36.8 percent (2002). Increasing ownership concentration appears in Chile, consistent with the decreasing trend in the presence of independent

Table 8

*Descriptive Statistics by Country and Year – Ownership Characteristics*

Variable	Brazil			Chile			Mexico		
	2000	2001	2002	2000	2001	2002	2000	2001	2002
FAM	0.45	0.42	0.41	0.54	0.48	0.42	0.77	0.84	0.82
NON-AFF_CO	0.07	0.06	0.06	0.17	0.24	0.33	0.13	0.13	0.15
GOV	0.07	0.06	0.06		0.04	0.04			
INST	0.32	0.27	0.29	0.29	0.24	0.17	0.03		
INDV						0.04	0.07	0.03	0.03
MISC	0.07	0.12	0.12						
NO_ID	0.03	0.06	0.06						
N	31	33	34	24	25	24	31	32	34

*Note.* See Table 4 for complete definition of variables. N = number of companies

outside directors. There is a clear decreasing trend in the ROA, ROE (with the exception of Brazil that has a peak in 2001), and LN\_MV for the three countries. The spillover effects of the Asian financial crisis 1997-1998 may be the rationale for lower market capitalization of LA companies. Another event that might negatively affect the LA markets, and thus LN\_MV, is the de-listing of domestic firms from domestic exchanges.<sup>71</sup>

The descriptive statistics for the control variables are summarized in Table 10.

The size of the companies in the sample is fairly consistent across the three countries.

<sup>71</sup> The number of Mexican companies listed on domestic exchanges fell from 195 to 170 between 1998 and 2002 – with a further 35 suspended pending de-listing. (*Annual Report on Standards and Compliance, Corporate Governance Assessment: Mexico, 2003, p.1*)

Table 9

*Descriptive Statistics by Country and Years – Dependent Variables, Means and Standard Deviation in parentheses.*

Variable	Brazil			Chile			Mexico		
	2000	2001	2002	2000	2001	2002	2000	2001	2002
EXPROP	35.92 (26.27)	37.70 (26.17)	38.20 (25.70)	27.88 (19.54)	33.86 (25.06)	36.80 (24.80)	43.07 <sup>h</sup> (26.55)	48.35 (27.56)	45.20 (27.30)
ROA	10.29 (9.73)	9.19 (9.35)	8.82 (11.91)	5.63 <sup>d</sup> (5.55)	4.67 <sup>f</sup> (5.59)	3.31 (6.94)	13.02 (31.52)	7.86 (8.97)	9.09 (17.64)
ROE	26.05 (20.42)	29.21 (38.32)	24.92 (98.48)	17.42 (18.97)	16.56 <sup>f</sup> (16.08)	6.94 (24.08)	108.48 (388.50)	23.62 (29.78)	-1.00 (133.27)
LN_MV	13.25 <sup>a</sup> (1.15)	13.05 <sup>b</sup> (1.19)	12.58 <sup>c</sup> (1.37)	13.03 <sup>e</sup> (1.15)	13.31 <sup>e</sup> (1.03)	12.91 <sup>g</sup> (1.26)	12.73 <sup>e</sup> (1.61)	12.65 <sup>d</sup> (1.44)	12.46 <sup>d</sup> (1.61)
N	31	33	34	24	25	24	32	32	34

*Note.* See Table 4 for complete definition of variables.

<sup>a</sup>n=25. <sup>b</sup>n=27. <sup>c</sup>n=28. <sup>d</sup>n=23. <sup>e</sup>n=22. <sup>f</sup>n=24. <sup>g</sup>n=21. <sup>h</sup>n=31.

Chilean companies are the oldest, followed by the Mexican and Brazilian companies.

The relatively young age of Brazilian companies may be a reflection of the new companies included in the sample. These new companies are the result of the privatization of cellular telecommunications in Brazil in 1998.<sup>72</sup> The highest proportion

<sup>72</sup> In January 1998, Telebras, the federal government telecommunications company restructured and privatized its operations. The cellular telecommunications operations were spun-off into 12 new holding companies.



Table 10

*Descriptive Statistics by Country and Year – Control Variables,*

*Means and Standard Deviation in parentheses.*

Variable	Brazil			Chile			Mexico		
	2000	2001	2002	2000	2001	2002	2000	2001	2002
CO_SIZE	8.59 (1.31)	8.67 (1.30)	8.68 (1.38)	8.06 (0.93)	7.99 (1.07)	8.04 (1.10)	8.75 (1.51)	8.74 (1.46)	8.65 (1.44)
LN_AGE	2.60 (1.33)	2.73 (1.20)	2.88 (1.10)	4.04 (0.66)	3.86 (1.02)	3.87 (0.91)	3.09 (0.98)	3.08 (1.06)	3.08 (0.98)
GRP	0.71	0.73	0.74	0.96	0.96	0.96	0.56	0.56	0.59
SH_DUAL	0.13	0.15	0.15	0.08	0.08	0.04	0.47	0.50	0.47
BNK	0.10	0.09	0.12	0.25	0.24	0.05	0.13	0.13	0.001
CONST							0.03	0.03	0.03
MANUF	0.26	0.27	0.27	0.26	0.36	0.38	0.47	0.44	0.41
SERV	0.03	0.03	0.03						
TRD	0.03	0.03	0.03	0.17	0.12	0.09	0.09	0.09	0.09
TRANSP	0.45	0.46	0.44	0.13	0.12	0.13	0.25	0.28	0.32
UTIL	0.10	0.09	0.09	0.13	0.16	0.17			
N	31	33	34	24	25	24	32	32	34

*Note.* See Table 4 for complete definition of variables. N = number of companies.

(96 percent) of Grupo affiliation found is in Chile firms, followed by Brazil and Mexico.

Almost half (48 percent) of Mexican companies have issued dual-class shares in comparison with 14 percent for Brazil and 7 percent for Chile.

*Univariate analysis*

Table 11 provides the results of the univariate analysis to compare the mean values of the variables among the three countries for each year. In general, Mexican firms seem to be different from Brazilian and Chilean companies in the following aspects: board size, CEO tenure, CEO ownership, and family ownership. This is, Mexican boards of directors seem to be larger, Mexican CEOs remain in their position longer and have a larger proportion of company ownership, and companies are more apt to be family owned. The average outsiders' tenure, CEO duality, the number of interlocking directorates, the ownership concentration, the alternative independence measures, and the performance measures appear to be similar across countries.

#### *Sensitivity analysis*

The sample for this research is drawn exclusively from ADRs, and these companies may not reflect the characteristics of domestically traded companies. Firms that trade ADRs seem to be regarded as the big companies, with better corporate governance and distinct from non-ADRs. For robustness, a convenience sample of Mexican companies not trading ADRs was gathered to determine whether the ADR sample was representative. The non-ADRs sample consisted of 14 companies.<sup>73</sup> Data was gathered for 2001 and 2002 from the annual report presented under *Circular 11-33*. This report contains almost the same information as Form 20-F, and is required by the Mexican Exchange. *T*-tests of mean differences were conducted and the results are presented in Table 12. There is no significant differences between Mexican ADRs and non-ADRs.

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<sup>73</sup> Refer to Table 2 in the appendix for a complete list.

Table 11

*Univariate Analysis – Brazil, Chile, and Mexico*

Variable	Mean difference between: ( <i>t</i> -Test Probability)								
	Brazil – Chile			Brazil - Mexico			Chile – Mexico		
	2000	2001	2002	2000	2001	2002	2000	2001	2002
<i>Characteristics of board of directors</i>									
B_SIZE	0.93 (0.60)	0.63 (0.78)	0.99 (0.53)	-2.84 (0.01)	-3.12 (0.00)	-2.35 (0.02)	-3.77 (0.00)	-3.75 (0.00)	-3.34 (0.00)
CEO_TNR	0.85 (0.25)	0.66 (0.96)	0.76 (0.94)	-7.02 (0.00)	-6.96 (0.00)	-7.12 (0.00)	-7.68 (0.00)	-7.72 (0.00)	-8.00 (0.00)
OUT_TNR	-1.27 (0.61)	-0.57 (0.90)	-0.34 (0.95)	-2.53 (0.11)	-2.97 (0.05)	-1.43 (0.30)	-1.25 (0.62)	2.40 (0.18)	-1.09 (0.56)
CEO_OWN	0.01 (0.95)	0.01 (0.95)	0.01 (0.96)	-0.18 (0.00)	-0.15 (0.00)	-0.13 (0.00)	-0.19 (0.00)	-0.16 (0.00)	-0.14 (0.00)
INTER	-0.01 (1.00)	0.01 (1.00)	-0.84 (0.32)	-0.50 (0.71)	-1.08 (0.12)	-1.44 (0.02)	-0.49 (0.75)	-1.09 (0.16)	-0.61 (0.55)
<i>Alternate independence measures</i>									
OUT_SZ	-0.09 (0.19)	-0.04 (0.65)	-0.02 (0.86)	-0.0004 (1.00)	-0.01 (0.99)	0.01 (0.96)	0.09 (0.18)	0.04 (0.72)	0.04 (0.72)
INS_SZ	-0.09 (0.19)	0.04 (0.65)	0.02 (0.86)	0.0004 (1.00)	0.01 (0.99)	-0.01 (0.96)	-0.09 (0.18)	-0.04 (0.72)	-0.04 (0.73)
OUT_INS	-0.48 (0.15)	-0.33 (0.35)	-0.16 (0.37)	-0.01 (1.00)	-0.03 (0.99)	-0.004 (1.00)	0.47 (0.16)	0.30 (0.42)	0.16 (0.39)

Variable	Mean difference between: ( <i>t</i> -Test Probability)								
	Brazil – Chile			Brazil – Mexico			Chile – Mexico		
	2000	2001	2002	2000	2001	2002	2000	2001	2002
Ownership characteristics									
FAM	-0.09 (0.79)	-0.01 (0.90)	-0.01 (1.00)	-0.30 (0.06)	-0.42 (0.00)	-0.41 (0.00)	-0.21 (0.29)	-0.36 (0.01)	-0.41 (0.01)
EXPROP	0.08 (0.49)	0.04 (0.86)	0.02 (0.98)	-0.07 (0.53)	-0.11 (0.27)	-0.07 (0.55)	-0.15 (0.08)	-0.14 (0.13)	-0.08 (0.49)
Performance									
ROA	0.05 (0.71)	0.05 (0.14)	0.06 (0.31)	-0.03 (0.87)	0.01 (0.82)	-0.003 (1.00)	-0.07 (0.42)	-0.03 (0.37)	-0.06 (0.28)
ROE	0.09 (0.99)	0.13 (0.31)	0.18 (0.80)	-0.82 (0.39)	0.06 (0.76)	0.26 (0.58)	-0.91 (0.38)	-0.07 (0.70)	0.08 (0.96)
LN_MV	0.21 (0.89)	-0.25 (0.77)	-0.34 (0.71)	0.51 (0.52)	0.40 (0.52)	0.12 (0.96)	0.30 (0.81)	0.65 (0.21)	0.46 (0.57)

*Note.* See Table 4 for complete definition of variables.

Table 12

*Univariate Analysis – Mexican ADRs vs. Mexican Non ADRs*

Variable	2001		2002	
	Mean difference	t-Test Probability	Mean difference	t-Test Probability
<b>Characteristics of board of directors</b>				
B_SIZE	1.27	0.32	0.81	0.51
CEO_TNR	0.13	0.97	2.07	0.57
OUT_TNR	1.01	0.64	-0.7	0.66
CEO_OWN	0.12	0.08	0.1	0.11
INTER	-0.81	0.38	-1.06	0.24
<b>Alternate independence measures</b>				
OUT_SZ	0.02	0.78	-0.003	0.94
INS_SZ	-0.01	0.78	0.003	0.94
OUT_INS	0.04	0.64	0.02	0.80
<b>Ownership characteristics</b>				
FAM	0.2	0.13	0.25	0.07
EXPROP	-0.01	0.94	-0.02	0.78
<b>Performance</b>				
ROA	-0.02	0.43	0.02	0.72
ROE	0.02	0.79	-0.15	0.68

*Note.* See Table 4 for complete definition of variables.

In sum, it seems that the internal corporate governance mechanisms of Brazil, Chile, and Mexico have some similarities and some differences. Such traits may or may not have a relationship with the expropriation of minority shareholders' rights, and thus, with the performance. In order to determine whether such relationships exist, further empirical analysis was conducted and the results are presented in the following chapter.

## CHAPTER VI

### RESULTS

Univariate analysis indicates differences and similarities among the internal corporate governance mechanisms of Brazil, Chile, and Mexico. More through empirical analysis may determine whether there is a relationship between these mechanisms and the expropriation of minority shareholders' rights, and ultimately with performance.

Two panel regressions are estimated to test the hypothesized relationships between the variables. The first model relates the ownership concentration measure as proxy for the degree of expropriation of minority shareholders' rights to characteristics of board of directors and ownership structure. The second model looks at the relationship between the performance and the degree of expropriation of minority shareholders' rights.

In general, the results show that: as board size increase, through the inclusion of more independent outside directors, the lower the potential for expropriation of minority shareholders' rights. The potential for expropriation is further lowered as independent outside directors' tenure increases, as the CEOs' shareholdings decrease, and as more

interlock directors serve on the board. Furthermore, if the ultimate owner of the firm is a family, the potential for expropriation appears higher, but is lower with company grupo affiliation. Finally, a higher degree of expropriation leads to under performance.

*Expropriation of minority shareholders' rights*

The first model aims at investigating the relationship between the potential for expropriation of minority shareholders' rights and (1) the characteristics of board of directors and (2) ownership structure. The analysis controls for company size (natural log of total employees), industries (financial institutions, construction, manufacturing, trade, utilities, transportation, and services), firms' age (natural log of age of the firms), and dual-class shares (a dummy variable assigned a value of one if the company have dual-class shares). Table 13 summarizes the results using the total number of outside directors to size (OUT\_SZ) as the measure of board composition. To test the robustness of the measure of board independence, the model is also estimated using percentage of outside directors to inside directors (OUT\_INS) and percentage of inside directors to size (INS\_SZ), respectively. The results are similar to those obtained from the total number of outside directors to size, and are shown in Tables A3 and A4 in the appendix. The first model's alternative estimations (fixed-effect, GLS random-effect, GLS random-effects with Swamy-Arora adjustment, MLE random-effects, GEE population averaged random-effects, and linear regression with heteroskedatic (independent) panel corrected standard error) results are in the appendix Tables A5 through A11.

First, the hypotheses tested related the characteristics of independence of board of directors. The first hypothesis (Hypothesis 1<sub>a</sub>) proposes that the lower the number of independent outside directors on a board, the higher the potential for expropriation of

Table 13

*Panel results – Random-Effects Full Feasible GLS Estimation*

Dependent Variable = HI	Coef.	Standard Error	P> z
Constant	0.3067***	0.0479	0.000
Characteristics of independence of board of directors			
OUT_SZ	0.6634***	0.1812	0.000
LN_BRDSZ	0.0362**	0.0153	0.018
OUT_SZ*LN_BRDSZ	-0.3549***	0.0849	0.000
LN_CEOTNR	-0.0037	0.0065	0.575
LN_OUTNR	-0.0153**	0.0068	0.025
CEO_OWN	0.3657***	0.0366	0.000
INTER	-0.0239***	0.0027	0.000
Ownership characteristics			
FAM	0.0412***	0.0130	0.001
Control variables			
CO_SIZE	0.0320***	0.0044	0.000
GRP	-0.0932***	0.0197	0.000
SH_DUAL	-0.0216*	0.0117	0.065
LN_AGE	-0.0120**	0.0056	0.033
CONST	-0.3160***	0.0176	0.000
MANUF	-0.1344***	0.0145	0.000
SERV	-0.0935***	0.0273	0.001
TRD	-0.0085	0.0201	0.674
TRANSP	-0.2131***	0.0176	0.000
UTIL	-0.1455***	0.0336	0.000

*Note.* See Table 4 for complete definition of variables. N = 95 companies; 264 observations.  
 Prob >  $\chi^2$  = 0.0000. \*\*\* and \*\* denote significance at 1% and 5% level, respectively.



minority shareholders' rights. However, the mere inclusion of independent outside directors on a board does not appear to lower the potential for expropriation of minority shareholders' rights as stated in Hypothesis 1<sub>a</sub>. The coefficient of the variable of total number of outside directors to size (OUT\_SZ) is positive and statistically significant. Thus, the traditional monitoring role of outside directors seems to be either not present or ineffective in LA companies.

The second hypothesis (Hypothesis 1<sub>b</sub>) posits that a larger board size leads to increased potential for expropriation of minority shareholders' rights. The positive and statistically significant coefficient of the variable LN\_BRDSZ<sup>74</sup> indicates that larger boards increase the potential for expropriation. This finding supports the argument that there is less communication and more coordination problems arising as more people make decisions (Eisenberg et al., 1998; Yermack, 1996). These problems lead to an ineffective monitoring and control of management and board of directors, since bigger groups are more difficult to manage. Moreover, CEOs tend to prefer larger boards due to the less candid discussion of managerial performance (Jensen, 1993).

To further explore the positive relationship between share of outside directors to total board size to the potential for expropriation of minority shareholders' rights an interaction term (OUT\_SZ \* LN\_BRDSZ) is included. If firms include additional independent outside directors, although their board size may also increase, and this, decreases the potential for expropriation of minority shareholders' rights. The interaction term is statistically significant and negative. In other words, when the number of directors serving on a board grows because of the inclusion of additional outside

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<sup>74</sup> The natural log of the board size (LN\_BRDSZ) was utilized in the panel analyses because the dependent variable (HI) is a ratio.

directors, there is a decrease in the expropriation of minority shareholders' rights. This interaction term suggests that LA companies are increasing their boards' size to accommodate the outside directors without sacrificing seats allocated to family members.<sup>75</sup> In addition, these outside directors perform their monitoring duty more effectively as they find other outside directors in the same board. The mere inclusion of an outside director into a small board may not improve the minority shareholders' situation. However, inclusion of several outside directors may provide a safer environment for the minority shareholders.<sup>76</sup>

The incentives that make outside directors work on behalf of minority shareholders, such as the market for corporate control or compensation, are lacking in Latin America. However, these individuals desire to safeguard their reputations. LA companies may be including respected leaders from the business or academic community that will diligently perform their duty even if they have no financial stake in the company to avoid harming their reputation association with poorly performing companies (Fama, 1980; Fama & Jensen, 1983a; Weisbach, 1988).

Another perspective of including respected independent outside directors comes from the fact that once the companies grow beyond the family's expectations, either nationally or internationally, the family may lack the necessary managerial and/or

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<sup>75</sup> Yermack (1996) report a positive correlation between the proportion of outside directors and board size.

<sup>76</sup> An interaction term was also used with the other two alternate board composition measures, i.e. INS\_SZ and OUT\_INS (See Tables A3 and A4 in the Appendix). INS\_SZ \* LN\_BRDSZ was significant and positive. As the percentage of inside directors increases relative to the total size of the board, the potential for expropriation of minority shareholders' rights increase as well. Inside directors does not have the incentives to monitor management nor look after minority shareholders' rights. Moreover, in Latin America these inside directors are part of the controlling family that only looks for the benefits of themselves. This result also highlights that indeed in LA companies controlling families manage firms and might abuse minority shareholders. OUT\_INS \* LN\_BRDSZ was significant and negative. Therefore, as the proportion of independent outside directors to inside director increases relative to the total size of the board, the potential for expropriation of minority shareholders' decreases.

educational skills to manage the firms (Amatori, 1997; Sargent, 2001). In an effort to improve their performance or prolong their existence, companies bring in independent outside directors with the necessary expertise, but without surrendering the managerial power to non-family members.

The third hypothesis (Hypothesis 1<sub>c</sub>) states that the longer the CEO tenure, the higher the potential for expropriation of minority shareholders' rights. The coefficient for LN\_CEOTNR<sup>77</sup> was not statistically significant, therefore, a positive relationship between CEO tenure and the potential for expropriation of minority shareholders' rights is not supported. Other research suggests that the power of a CEO over the board and its member increases with time (Alderfer, 1986; Mishra & Nielsen, 2000). However, Gibson (2003) found, in emerging markets, no link between CEO turnover and performance in the presence of large domestic shareholders.<sup>78</sup> Thus, in emerging markets such as Latin America, the CEO actions or tenure may not affect other aspects of the firm, such as performance or corporate governance, as occurs in developed economies. Furthermore, although the CEO can gain power the longer in position, it may be mitigated by the controlling power of the family and other inside directors.

The fourth hypothesis (Hypothesis 1<sub>d</sub>) suggests that the shorter the independent outside directors' tenure, the higher the potential for expropriation of minority shareholders' rights. The negative and statistically significant coefficient of LN\_OUTNR<sup>79</sup> supports a negative relationship between the independent outside

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<sup>77</sup> The natural log of CEO tenure (LN\_CEOTNR) was utilized for the panel analyses because the dependent variable (HI) is a ratio.

<sup>78</sup> Gibson (2003) defined a large domestic shareholder as one private domestic entity directly holding at least 20 percent of the firm's equity. The private domestic entity might be another firm, a family or an individual.

<sup>79</sup> The natural log of outsiders' tenure (LN\_OUTNR) was utilized for the panel analyses because the dependent variable (HI) is a ratio.

directors' tenure and the potential for expropriation of minority shareholders' rights. The longer an outside director serves on a board of directors, the lower the potential for expropriation of minority shareholders' rights. This result is consistent with the literature and previous results on the monitoring role of outside directors (Mishra & Nielsen, 2000).

Hypothesis 1<sub>f</sub> proposes that the higher the CEO ownership, the higher the potential for expropriation of minority shareholders' rights. The coefficient of the CEO\_OW variable is positive and statistically significant. Thus, CEOs' shareholdings appear to lower the level of monitoring that may negatively affect minority shareholders, without the presence of other internal corporate governance mechanisms. This finding supports the classic agency theory argument that when managers' shareholdings grow as a fraction of personal wealth, their interest becomes more aligned with the majority shareholder-owner (Jensen & Meckling, 1976; Weisbach, 1988). Thus, as LA CEOs shareholdings increase, their objectives more closely match those of the controlling family, and minority shareholders may lose an important monitoring device for good corporate governance. This supports the findings of Gibson (2003) who showed that minority investors in emerging markets controlled by a large shareholder, i.e. family, should be aware that managers may favor the large shareholder at the expense of the minority shareholders.

The last hypothesis of the first group, Hypothesis 1<sub>h</sub>, states that the lower the number of interlocking directorates on a board of directors, the higher the potential for expropriation of minority shareholders' rights. The negative and statistically significant coefficient of INTER supports the expected relationship between the number of

interlocking directorates on a board of directors and the potential for expropriation of minority shareholders' rights. Therefore, including interlocking directors on LA boards may lower the potential for expropriation of minority shareholders' rights. The rationale for this finding rests on the same logic as that for the benefits that CEOs obtain when they serve as outside directors in other firms. This is, in emerging markets, interlocking directors, whether or not they are also the CEOs, become more effective in their monitoring role as they serve in other boards, thus decreasing the potential for expropriation of the minority shareholders' rights. Interlocking directors internalize efficiencies from the diverse firms they serve.

This rationale contradicts the idea that interlocking directors come from the same grupo, family and/or close business relationships, which should serve the interests of the majority shareholders. However, the results support the theory of better monitoring of interlocking directors due to their increased expertise acquired for serving in various boards. A different result may be obtained if information on all the interlock directorates is accounted for all the directors. Recall that the measurement difficulties associated with this variable discussed in Chapter V (see page 68).

The second set of hypotheses deal with the ownership structure. First, Hypothesis 2<sub>a</sub> suggests that a higher degree of family ownership increases the potential for expropriation of minority shareholders' rights. This hypothesis was supported by a statistically significant and positive dummy variable. This finding is consistent with prior research that documents controlling shareholders may use their power to abuse minority shareholders (La Porta et al., 1999). Moreover, the weak legal environment of LA countries fosters such abuses, since there is no legal remedy to contest them. The lack of

enforcement provisions indicates that even additional monitoring mechanisms will be powerless to discipline insiders (Klapper & Love, 2003).

The second hypothesis (Hypothesis 2<sub>b</sub>) of ownership structure posits that when firms are affiliated with a grupo, the higher the potential for expropriation of minority shareholders' rights. Contrary to the expectations, when a company is affiliated with a grupo, there appear to be lower the potential for expropriation of minority shareholders' rights. The dummy variable for grupo was statistically significant and negative. Possibly business groups' roles may be changing over time as the institutional context within which grupos operate evolves (Ghaddar, 2003; Khanna & Palepu, 2000a). The idea that grupos are formed in response to capital imperfections (Aubey, 1970) may be outdated as today's emerging markets environments evolve. Khanna and Palepu (2000a) provide evidence on the decreasing benefits of grupo affiliation in Chile over 1988-1996 period. Moreover, grupos may have become more efficient with increased international presence<sup>80</sup> and better adoption of corporate governance rules and laws. Being part of a grupo implies more press coverage, larger size and less information asymmetries leading to lower agency costs and less abuse of minority shareholders.

Minority shareholders may consider these findings be robust across industries, with the exception of trade. The coefficient of the dummy variables for industries, with the exception of trade, were statistically significant and negative, relative to financial institutions. The coefficients of the dummy variables of company size (positive) and age (negative) were statistically significant. These findings suggest that minority shareholders should exercise caution when investing in younger and/or bigger companies

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<sup>80</sup> Lovell, Rivas and Jackson (forthcoming) report that banks associated to grupos, as compared to foreign banks, are more efficient in Chile. They attribute the difference to increased availability of capital that is a result of more economically free markets.

because their rights may be abused. Finally, it was found that, in fact, the use of dual-class shares can lead to more expropriation of minority shareholders' rights as reported by Nenova (2003). The coefficient of the dummy variable for dual-class shares was negative and statistically significant.

The evidence so far implies that the monitoring role of independent outside directors may be effective in LA board of directors, especially when they are additional members to the board. The longer the independent outside directors serve and the higher the number of interlocking directors serve to increase benefits for minority shareholders. However, CEO and family ownership may adversely affect such monitoring.

#### *Performance*

The second model tests the relationship between performance and the degree of expropriation of minority shareholders' rights, controlling for company size, industries, age, grupo affiliation, shares duality, and country effect (a dummy variable assigned a value of one if the company is from Chile). Table 14 summarizes the results for the three measures of performance: ROA, ROE, and LN\_MV. Performance, no matter how it is measured, decreases as the degree of minority shareholders' rights increases in LA firms. The variable of expropriation (HI) is negative and statistically significance for the three measures.

These results are consistent with previous research that documents a positive correlation between weak legal environment and concentrated ownership, which in turn lower firms' performance. For instance, Lemmon and Lins (2003) report that the Tobin's Q of Asian firms, where minority shareholders are most subject to expropriation, declines

Table 14

*Panel Analysis – Random Effects Full Feasible GLS Estimation, Coefficients**and Standard Errors in parentheses*

Dependent variable	ROA	ROE	LN_MV
Constant	0.1791 *** (0.028)	-0.0908 (0.072)	8.6377 *** (0.398)
HI	-0.0346 *** (0.0108)	-0.1232 *** (0.0405)	-1.3887 *** (0.2176)
CO_SIZE	-0.0117 *** (0.0024)	0.0076 (0.0101)	0.5476 *** (0.0469)
GRP	0.0272 *** (0.075)	0.1423 *** (0.0299)	0.7937 *** (0.1427)
SH_DUAL	0.0213 *** (0.0055)	0.1660 *** (0.0289)	0.2331 *** (0.0811)
LN_AGE	0.0058 ** (0.0029)	0.1661 *** (0.0120)	-0.0340 (0.0474)
CONST	-0.1693 *** (0.0550)	-0.9575 *** (0.1814)	-2.2544 *** (0.3075)
MANUF	-0.0040 (0.0095)	-0.3901 *** (0.0237)	-0.8534 *** (0.1040)
SERV	0.2087 *** (0.0801)	0.0143 (0.0646)	
TRD	0.0246 ** (0.0010)	-0.3081 *** (0.0358)	-1.5120 *** (0.1789)
TRANSP	-0.0483 *** (0.0117)	-0.1879 *** (0.0234)	-0.5438 *** (0.1349)
UTIL	-0.0242 ** (0.0103)	-0.1571 *** (0.0450)	0.5200 *** (0.1852)
CHILE	-0.0715 *** (0.0075)	-0.3398 *** (0.0229)	0.2610 ** (0.1196)
N	266	266	212

*Note.* See Table 4 for complete definition of variables.  $\text{Prob} > \chi^2 = 0.0000$ . \*\*\* and \*\* denote significance at 1% and 5% level, respectively.



more than 12 percent compared to other firms. Moreover, Young, et al. (2002) argue that expropriations lower competitiveness and performance.

The results in Table 14 provide further evidence that grupo affiliation positively affects individual firms. The dummy variable for grupo was statistically significant and positive for the three specifications. Thus, companies affiliated with grupos appear to perform better.

In sum, the second model provides the necessary evidence to conclude that ownership concentration, in emerging markets leads to under performance of the firm. Moreover, the results provide empirical support for the argument that one of the results of expropriation of minority shareholders' rights may be economic underperformance.

The results provide empirical evidence that in Latin America minority shareholders' rights may be usurped in the presence and/or lack of specific internal corporate governance mechanisms. In firms with a large controlling shareholder – a family – bringing several independent outside directors to serve in the boards may benefit the minority shareholders. Moreover, lowering the CEO ownership, allowing for longer independent outside directors' tenure, and adding more interlocking directors may further lower the possibility of abuses to minority shareholders. Finally, if such conditions are not present, the performance of the firms may be jeopardized, further lowering the benefits of minority shareholders.

## CHAPTER VII

### CONCLUSIONS

LA markets has distinctive characteristics that provides an unique scenario to expand the current research on corporate governance. First, the misalignment of interest between majority and minority shareholders is the root of agency problems and not the divergence between goals and objectives of management and owners. Second, inefficient or not existent corporate governance mechanisms to alleviate agency problems. Third, weak legal environment enhances the potential of agency problems, especially the expropriation of minority shareholders' rights. Therefore, the purpose of this work is to empirically examine the link between the internal corporate governance mechanisms, the expropriation of minority shareholders' rights, and performance of firms represented in LA equity markets. The results suggest a relationship between the board of directors' characteristics and the expropriation of minority shareholders' rights. There appears to be a negative relationship between the number of interlocking directorates and grupo affiliation with the expropriation of minority shareholders' rights. By contrast, there is a positive association between board size and CEO ownership and expropriation. Moreover, the findings support a positive relationship between family ownership and expropriation of minority shareholders' rights. Finally, this dissertation provides

evidence that expropriation of minority shareholders' rights may lead to under performance by firms in emerging economies.

While not every hypothesis is supported by the empirical findings, the following conclusions can be drawn regarding the relationship between corporate governance mechanisms and the expropriation of minority shareholders' rights within LA firms' context:

1. Larger boards increase the expropriation of minority shareholders' rights. However, when the size increment is due to the inclusion of more independent outside directors, then such expropriation may be controlled. Independent outside directors seem to be complying with their monitoring role, despite the lack of incentives in Latin America.
2. Longer tenure of independent outside directors lowers the expropriation of minority shareholders' rights, providing additional evidence in favor of the effectiveness of independent outside directors on boards.
3. CEOs' shareholdings lower the level of monitoring and increase the expropriation of minority shareholders' rights. CEOs that are not family related may favor the controlling family at the expense of the minority shareholders as the CEO's interests become more aligned with the family, with increased shareholdings.
4. Interlocking directorates lower the expropriation of minority shareholders' rights. Interlocking directors appear to be effective monitors as they serve on other companies' boards.

5. Family-controlled companies lead to expropriation of minority shareholders' rights.
6. Grupo companies lower the expropriation of minority shareholders' rights.

In addition, the following conclusions can be drawn from the relationship between performance and the expropriation of minority shareholder's rights in the LA context:

1. Expropriation of minority shareholders' rights leads to under performance.
2. Grupo companies perform better than non-grupo companies.

The main contribution of this research is twofold. First, the study serves the purpose of empirically relating a measurement of expropriation of minority shareholders' rights to several internal corporate governance mechanisms. The results generally support the postulated relationships and add to the body of empirical evidence supporting these relationships hypothesized in the prior research. Second, this analysis furthers the understanding of performance and expropriation of minority shareholders' rights in a under studied environment. The study of this relationship in the LA context brings new insights into these emerging economies.

As in all studies, this research has its limitations. The narrow sample period is one of weak points of the analysis. Observations spanning over only three years may not be representative of the relationship between corporate governance mechanisms, expropriation of minority shareholders' rights, and performance, hindering the general applicability of the results. The use of only three countries may also be considered as a similar shortcoming. Nevertheless, the present work sheds light into an unexplored area in finance.

Another limitation may be the way in which the expropriation of minority shareholders' rights was proxied. Prior research had proposed several methods to proxy the expropriation without concluding which better captures the concept. However, the HI index is widely used to proxy for the expropriation of minority shareholders' rights.

Future research in this area can be pursued in several manners. First, within the sampled countries, extend the time-period of the analysis. Including more LA countries is another natural extension of this work.

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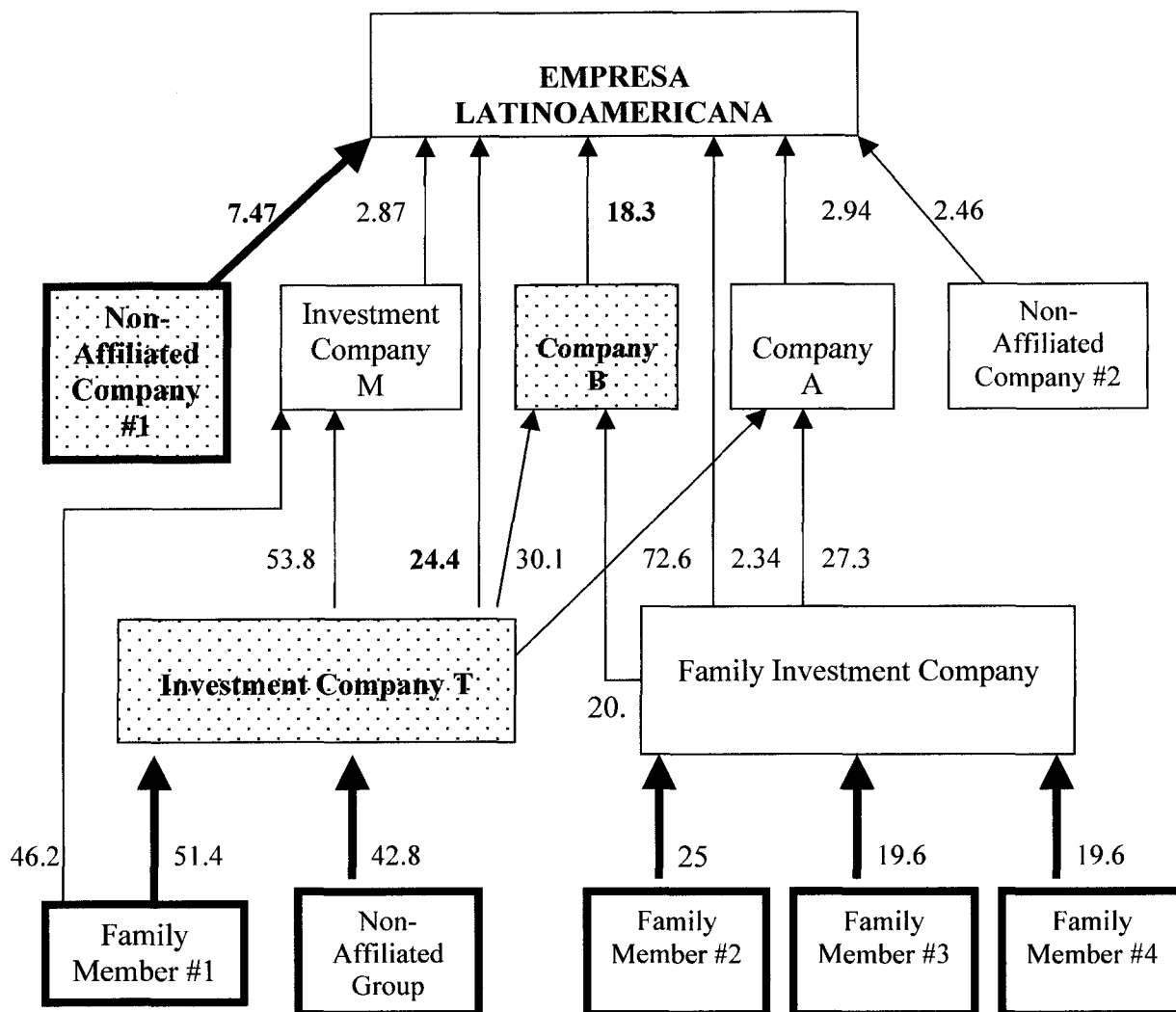
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## APPENDIX

Figure A1. Ownership structure of a Latin American firm<sup>81</sup>. (Numbers by the lines represent the direct ownership percentage of that entity).



Direct owners over five percent: Non-Affiliated Company #1, Company B, and Investment Company T

Top ultimate owners: Non-Affiliated Company, Family Member #1, Non-Affiliated Group, Family Member #2, Family Member #3, and Family Member #4

Top ultimate block owners: Family-Management ownership group (Family Member #1, Family Member #2, Family Member #3, and Family Member #4), Non-affiliated Company ownership group (Non-Affiliated Company and Non-Affiliated Group)

Largest shareholder: Family-Management group

<sup>81</sup> Information taken from ownership structure of an actual Chilean company.

Table A1

*Companies included in the Sample by Country***Brazil**

Aracruz Celulose SA	Perdigao SA
Banco Bradesco SA <sup>a</sup>	Sadia SA <sup>a</sup>
Banco Itau SA <sup>b</sup>	Tele Celular Sul Participacoes SA
Brasil Telecom Participacoes SA	Tele Centro Oeste Celular Participacoes SA
Brasil Telecom SA <sup>a</sup>	Tele Leste Celular Participacoes SA <sup>c</sup>
Companhia Energetica de Minas Gerais – CEMIG	Tele Nordeste Celular Participacoes SA
Companhia Brasileira de Distribuicao – CBD	Tele Norte Celular Participacoes SA
Companhia de Bebidas das Americas – AMBEV	Tele Norte Leste Celular Participacoes SA
Companhia Paranaense de Energia – COPEL	Tele Sudeste Celular Participacoes SA
Companhia Siderurgica Nacional – CSN	Telecomunicacoes de Sao Paulo SA – TELESP
Companhia Petroquimica do Nordeste SA – COPENE\Braskem	Telemig Celular Participacoes SA
Empresa Brasileira de Aeronautica SA – EMBRAER	Telesp Celular Participacoes SA
Embratel Participacoes SA	Tevecap SA
Espirito Santo Centrais Eletricas SA – ESCELSA	Ultrapar Participacoes SA
Gerdau SA	Unibanco Holdings SA
Globo Cabo SA	Uniao de Banco Brasileiros SA – UNIBANCO
Localiza Rent-A-Car SA	Votorantim Celulose e Papel SA



*Companies included in the Sample by Country*

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**Chile**

Administración Fondos de Pensiones Provida SA	Embotelladora Andina SA
AES Gener SA	Empresa Nacional de Electricidad SA – ENDESA
Banco A. de Edwards <sup>c</sup>	Enersis SA
Banco de Chile <sup>b</sup>	HQI Translec Chile SA <sup>a</sup>
Banco Santander – Chile <sup>c</sup>	Laboratorios Chile <sup>d</sup>
Banco Santiago <sup>c</sup>	Lanchile SA
Banco Santander – Chile <sup>b</sup>	Madeco SA
BBVA Banco BHIF	Masisa SA
Celulosa Arauco y Constitucion	Quinenco SA
Coca Cola Embonor SA	Santa Isabel SA
Compañía Cervecerías Unidas	Sociedad Química y Minera SA – SQM <sup>a</sup>
Cristalerías de Chile SA	Supermercados Unimarc SA
Compañía Telecomunicaciones de Chile – CTC	Telex–Chile SA
Distribución y Servicio SA – D&S	Viña Concha y Toro SA

**Mexico**

Alestra S de RL de CV	Grupo Iusacell SA de CV
América Móvil SA de CV <sup>a</sup>	Grupo Mexicano de Desarrollo SA
Cementos Mexicanos SA de CV – CEMEX	Grupo Radio Centro SA de CV
Coca Cola Femsa SA de CV	Grupo Simec SA de CV
Consortium G Dina Group SA de CV <sup>d</sup>	Grupo Televisa SA
Controladora Comercial Mexicana SA de CV – CCM	Grupo Transportación Marítima Mexicana SA de CV – TMM

*Companies included in the Sample by Country*

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Copamex Industrias SA de CV	Industrias Bachoco SA de CV
Desc SA de CV	Innova S de RL <sup>b</sup>
Empresas ICA Sociedad Controladora SA	Internacional de Ceramica SA de CV
Fomento Económico Mexicano SA de CV – FEMSA	Pepsi – Gemex SA de CV
Gruma SA de CV	Satélites Mexicanos
Grupo Aeroportuario del Sureste SA de CV – ASUR	Savia SA de CV
Grupo Casa Saba SA de CV	Teléfonos de Mexico SA de CV – TELMEX
Grupo Elektra SA	TFM SA de CV <sup>b</sup>
Grupo Imsa SA de CV	Tubos de Acero de Mexico SA
Grupo Industrial Durango SA de CV	TV Azteca SA de CV
Grupo Industrial Maseca SA de CV	Vitro SA
Grupo Iusacell Celular SA de CV	

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<sup>a</sup> For 2001 – 2002 only. <sup>b</sup> For 2002 only. <sup>c</sup> For 2000 – 2001 only. <sup>d</sup> For 2000 only.

## Table A2

*Mexican Non-ADRs Companies Included in the Sample*

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Alfa SA de CV

Alsea SA de CV

American Telecom SA de CV

Consortio Ara SA de CV

Embotelladoras Arca

Empresas Cablevisión SA de CV

Corporación Interamericana de Entretenimiento SA de CV

G Acción SA de CV

Grupo Carso SA de CV

Grupo Cementos de Chihuahua SA de CV

Corporación Geo SA de CV

Grupo Industrial Saltillo SA de CV

Hylsamex SA de CV

Grupo Minsa SA de CV

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Table A3

*Panel results – Random-Effects Full Feasible GLS Estimation (INS\_SZ)*

Dependent Variable = HI	Coef.	Standard Error	P> z
Constant	0.9702***	0.1706	0.000
Characteristics of independence of board of directors			
INS_SZ	-0.6634***	0.1812	0.000
LN_BRDSZ	-0.3187***	0.0781	0.000
OUT_SZ*LN_BRDSZ	0.3549***	0.0849	0.000
LN_CEOTNR	-0.0037	0.0065	0.575
LN_OUTNR	-0.0153**	0.0068	0.025
CEO_OWN	0.3657***	0.0366	0.000
INTER	-0.0239***	0.0027	0.000
Ownership characteristics			
FAM	0.0412***	0.0130	0.001
Control variables			
CO_SIZE	0.0320***	0.0044	0.000
GRP	-0.0932***	0.0197	0.000
SH_DUAL	-0.0216*	0.0117	0.065
LN_AGE	-0.0120**	0.0056	0.033
CONST	-0.3160***	0.0176	0.000
MANUF	-0.1344***	0.0145	0.000
SERV	-0.0935***	0.0273	0.001
TRD	-0.0085	0.0201	0.674
TRANSP	-0.2131***	0.0176	0.000
UTIL	-0.1455***	0.0336	0.000

*Note.* See Table 4 for complete definition of variables. N = 95 companies; 264 observations. Prob >  $\chi^2$  = 0.0000. \*\*\*, \*\*, and \* denote significance at 1%, 5%, and 10% level, respectively.

Table A4

*Panel results – Random-Effects Full Feasible GLS Estimation (OUT\_INS)*

Dependent Variable = HI	Coef.	Standard Error	P> z
Constant	0.2865***	0.0471	0.000
Characteristics of independence of board of directors			
OUT_INS	0.4267***	0.0995	0.000
LN_BRDSZ	0.0318**	0.0156	0.042
OUT_SZ*LN_BRDSZ	-0.2027***	0.0465	0.000
LN_CEOTNR	-0.0070	0.0061	0.250
LN_OUTNR	-0.0228***	0.0070	0.001
CEO_OWN	0.3636***	0.0353	0.000
INTER	-0.0240***	0.0027	0.000
Ownership characteristics			
FAM	0.0527***	0.0128	0.000
Control variables			
CO_SIZE	0.0341***	0.0043	0.000
GRP	-0.0960***	0.0207	0.000
SH_DUAL	-0.0202*	0.0115	0.079
LN_AGE	-0.0117**	0.0058	0.043
CONST	-0.3161***	0.0185	0.000
MANUF	-0.1307***	0.0146	0.000
SERV	-0.0849***	0.0279	0.002
TRD	-0.0197	0.0184	0.282
TRANSP	-0.2064***	0.0173	0.000
UTIL	-0.1387***	0.0326	0.000

*Note.* See Table 4 for complete definition of variables. N = 95 companies; 264 observations. Prob >  $\chi^2$  = 0.0000. \*\*\*, \*\*, and \* denote significance at 1%, 5%, and 10% level, respectively.

Table A5

*Panel results – Fixed-Effects Estimation*

Dependent Variable = HI	Coef.	Standard Error	P> z
Constant	0.3084	0.3069	0.317
Characteristics of independence of board of directors			
OUT_SZ	0.1068	0.4067	0.793
LN_BRDSZ	0.0604	0.0531	0.257
OUT_SZ*LN_BRDSZ	-0.0848	0.2049	0.680
LN_CEOTNR	-0.0396***	0.0127	0.002
LN_OUTNR	0.0106	0.0141	0.456
CEO_OWN	0.6589***	0.1412	0.000
INTER	0.0035	0.0063	0.575
Ownership characteristics			
FAM	-0.0273	0.0421	0.517
Control variables			
CO_SIZE	-0.0318	0.0304	0.297
SH_DUAL	-0.1681***	0.0503	0.001
LN_AGE	0.0910**	0.0439	0.040

*Note.* See Table 4 for complete definition of variables. N = 95 companies; 264 observations.

Prob >  $\chi^2 = 0.0000$ . \*\*\* and \*\* denote significance at 1% and 5% level, respectively.

Table A6

*Panel results – Random-Effects GLS Estimation*

Dependent Variable = HI	Coef.	Standard Error	P> z
Constant	0.4436**	0.1815	0.015
Characteristics of independence of board of directors			
OUT_SZ	0.3468	0.3808	0.362
LN_BRDSZ	0.0372	0.0468	0.427
OUT_SZ*LN_BRDSZ	-0.2188	0.1860	0.239
LN_CEOTNR	-0.0313***	0.0121	0.010
LN_OUTNR	0.0064	0.0136	0.638
CEO_OWN	0.5458***	0.1048	0.000
INTER	-0.0065	0.0057	0.249
Ownership characteristics			
FAM	0.0065	0.0357	0.856
Control variables			
CO_SIZE	0.0119	0.0175	0.498
GRP	-0.1200**	0.0577	0.038
SH_DUAL	-0.0901**	0.0401	0.025
LN_AGE	-0.0086	0.0223	0.699
CONST	-0.3085	0.2438	0.206
MANUF	-0.1002	0.0741	0.176
SERV	-0.0783	0.2475	0.752
TRD	-0.0525	0.1058	0.620
TRANSP	-0.2120***	0.0805	0.008
UTIL	-0.0877	0.1100	0.425

*Note.* See Table 4 for complete definition of variables. N = 95 companies; 264 observations. Prob >  $\chi^2$  = 0.0000. \*\*\* and \*\* denote significance at 1% and 5% level, respectively.

Table A7

*Panel results – Random-Effects GLS Estimation – Swamy-Arora Adjustment*

Dependent Variable = HI	Coef.	Standard Error	P> z
Constant	0.4446**	0.1822	0.015
Characteristics of independence of board of directors			
OUT_SZ	0.3451	0.3800	0.364
LN_BRDSZ	0.0375	0.0467	0.423
OUT_SZ*LN_BRDSZ	-0.2178	0.1856	0.241
LN_CEOTNR	-0.0314***	0.0121	0.009
LN_OUTNR	0.0065	0.0135	0.630
CEO_OWN	0.5473***	0.1049	0.000
INTER	-0.0064	0.0056	0.257
Ownership characteristics			
FAM	0.0060	0.0356	0.867
Control variables			
CO_SIZE	0.0116	0.0176	0.511
GRP	-0.1202**	0.0581	0.039
SH_DUAL	-0.0909**	0.0401	0.024
LN_AGE	0.0090	0.0223	0.686
CONST	-0.3086	0.2455	0.209
MANUF	-0.1000	0.0746	0.180
SERV	-0.0785	0.2491	0.753
TRD	-0.0524	0.1065	0.623
TRANSP	-0.2116***	0.0810	0.009
UTIL	-0.0881	0.1107	0.426

*Note.* See Table 4 for complete definition of variables. N = 95 companies; 264 observations.

Prob >  $\chi^2$  = 0.0000. \*\*\* and \*\* denote significance at 1% and 5% level, respectively.



Table A8

*Panel results – Random-Effects MLE Estimation*

Dependent Variable = HI	Coef.	Standard Error	P> z
Constant	0.4420**	0.1742	0.011
<i>Characteristics of independence of board of directors</i>			
OUT_SZ	0.3496	0.3685	0.343
LN_BRDSZ	0.0367	0.0452	0.417
OUT_SZ*LN_BRDSZ	-0.2203	0.1799	0.221
LN_CEOTNR	-0.0311***	0.0118	0.008
LN_OUTNR	0.061	0.0132	0.641
CEO_OWN	0.5433***	0.1019	0.000
INTER	-0.0067	0.0056	0.230
<i>Ownership characteristics</i>			
FAM	0.0072	0.0347	0.834
<i>Control variables</i>			
CO_SIZE	0.0124	0.0171	0.468
GRP	-0.1197**	0.0551	0.030
SH_DUAL	-0.0889**	0.0394	0.024
LN_AGE	-0.0079	0.0217	0.715
CONST	-0.3083	0.2324	0.185
MANUF	-0.1005	0.0707	0.155
SERV	-0.0781	0.2359	0.741
TRD	-0.0526	0.1010	0.602
TRANSP	-0.2125***	0.0769	0.006
UTIL	-0.0871	0.1049	0.407

*Note.* See Table 4 for complete definition of variables. N = 95 companies; 264 observations.

Prob >  $\chi^2 = 0.0000$ . \*\*\* and \*\* denote significance at 1% and 5% level, respectively.

Table A9

*Panel results – Random-Effects GEE Population Averaged Estimation*

Dependent Variable = HI	Coef.	Standard Error	P> z
Constant	0.4347**	0.1741	0.013
Characteristics of independence of board of directors			
OUT_SZ	0.3622	0.38	0.346
LN_BRDSZ	0.0345	0.05	0.459
OUT_SZ*LN_BRDSZ	-0.2269	0.19	0.225
LN_CEOTNR	-0.0300**	0.01	0.014
LN_OUTNR	0.0050	0.01	0.714
CEO_OWN	0.5316***	0.10	0.000
INTER	-0.0077	0.01	0.173
Ownership characteristics			
FAM	0.0111	0.04	0.754
Control variables			
CO_SIZE	0.0148	0.02	0.381
GRP	-0.1183**	0.05	0.028
SH_DUAL	-0.0832**	0.04	0.036
LN_AGE	-0.0050	0.02	0.814
CONST	-0.3075	0.23	0.176
MANUF	-0.1019	0.07	0.142
SERV	-0.0771	0.23	0.739
TRD	-0.0532	0.10	0.591
TRANSP	-0.2150***	0.08	0.004
UTIL	-0.0843	0.10	0.412

*Note.* See Table 4 for complete definition of variables. N = 95 companies; 264 observations.  
 Prob >  $\chi^2 = 0.0000$ . \*\*\* and \*\* denote significance at 1% and 5% level, respectively.

Table A10

*Panel results – Linear Regression – Heteroskedastic Panel Corrected Standard Error**Estimation*

Dependent Variable = HI	Coef.	Standard Error	P> z
Constant	0.2582*	0.1422	0.069
Characteristics of independence of board of directors			
OUT_SZ	0.8233	0.5814	0.157
LN_BRDSZ	0.0371	0.0492	0.451
OUT_SZ*LN_BRDSZ	-0.4197	0.2578	0.104
LN_CEOTNR	-0.0031	0.0169	0.855
LN_OUTNR	-0.0275	0.0268	0.305
CEO_OWN	0.3829***	0.0794	0.000
INTER	-0.0308***	0.0069	0.000
Ownership characteristics			
FAM	0.0616*	0.0339	0.069
Control variables			
CO_SIZE	0.0377***	0.0114	0.001
GRP	-0.0937**	0.0372	0.012
SH_DUAL	-0.0084	0.0355	0.813
LN_AGE	-0.0092	0.0159	0.562
CONST	-0.3238***	0.0532	0.000
MANUF	-0.1342***	0.0424	0.002
SERV	-0.1166***	0.0538	0.030
TRD	-0.0546	0.0591	0.355
TRANSP	-0.2201***	0.0448	0.000
UTIL	-0.0918	0.0596	0.124

*Note.* See Table 4 for complete definition of variables. N = 95 companies; 264 observations. Prob >  $\chi^2 = 0.0000$ . \*\*\*, \*\*, and \* denote significance at 1%, 5%, and 10% level, respectively.

Table A11

*Panel results – Linear Regression – Independent Panel Corrected Standard Error*

*Estimation*

Dependent Variable = HI	Coef.	Standard Error	P> z
Constant	0.2582*	0.1393	0.064
Characteristics of independence of board of directors			
OUT_SZ	0.8233	0.5637	0.144
LN_BRDSZ	0.0371	0.0502	0.460
OUT_SZ*LN_BRDSZ	-0.4197	0.2564	0.102
LN_CEOTNR	-0.0031	0.0177	0.861
LN_OUTNR	-0.0275	0.0198	0.165
CEO_OWN	0.3829***	0.0937	0.000
INTER	-0.0308***	0.0068	0.000
Ownership characteristics			
FAM	0.0616**	0.0362	0.089
Control variables			
CO_SIZE	0.0377***	0.0125	0.003
GRP	-0.0937***	0.0327	0.004
SH_DUAL	-0.0084	0.0357	0.814
LN_AGE	-0.0092	0.0149	0.536
CONST	-0.3238***	0.1318	0.014
MANUF	-0.1342***	0.0431	0.002
SERV	-0.1166	0.1349	0.387
TRD	-0.0546	0.0629	0.385
TRANSP	-0.2201***	0.0466	0.000
UTIL	-0.0918	0.0635	0.148

*Note.* See Table 4 for complete definition of variables. N = 95 companies; 264 observations. Prob >  $\chi^2 = 0.0000$ . \*\*\* and \*\* denote significance at 1% and 10% level, respectively.

## VITA

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University of Texas - Pan American	Ph.D.	Finance – International Business May 2005
University of Akron	MBA	Accounting – International Business August 1998
University of Puerto Rico Rio Piedras Campus	BBA	Accounting – Marketing August 1995, <i>Summa Cum Laude</i>

### PUBLICATIONS

“Board Composition and Firm Performance of Large Latin American Firms: An Exploratory View” (2003), 4(2), Latin American Business Review, with H.Y. Baek.

"Building the Research Culture Among Puerto Rican Professors" (2001), EI CPA, 13, pp. 22.

### CONFERENCE PRESENTATIONS AND PROCEEDINGS

*Academy of International Business Annual Conference, “A Modern Challenge to Financial Accounting Information: NAFTA”, San Juan, Puerto Rico, July 1, 2002.*

*Business Association of Latin American Studies (BALAS), “Board Composition and Firm Performance: Evidence from Latin America”, Tampa, Florida, March 22, 2002.*

First Summit of Research on Administrative and Economical Sciences, “Variations on Accounting Reporting Practices Among NAFTA Companies”, San Juan, Puerto Rico, February 16, 2001.

### ACADEMIC EXPERIENCE

University of Texas – Pan American	TA, RA	Summer 2000 – Spring 2005
University of Monterrey	Lecturer	Summer 2001
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American Accounting Association, Financial Management Association, Academy of International Business, and Business Association of Latin American Studies