

# Equity Ownership and Firm Value in Emerging Markets

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## Abstract

This paper investigates whether management stock ownership and large non-management blockholder share ownership are related to firm value across a sample of 1433 firms from 18 emerging markets. When a management group's control rights exceed its cash flow rights, I find that firm values are lower. I also find that large non-management control rights blockholdings are positively related to firm value. Both of these effects are significantly more pronounced in countries with low shareholder protection. One interpretation of these results is that external shareholder protection mechanisms play a role in restraining managerial agency costs and that large non-management blockholders can act as a partial substitute for missing institutional governance mechanisms.

## I. Introduction

Recent research shows that large blockholders dominate the ownership structures of firms not domiciled in the U.S. or a few other developed countries (Shleifer and Vishny (1997), La Porta, Lopez-de-Silanes, Shleifer, and Vishny (LLSV) (1998), La Porta, Lopez-de-Silanes, and Shleifer (1999), Claessens, Djankov, and Lang (2000), and Denis and McConnell (2003)). This research suggests that such concentrated ownership coincides with a lack of investor protection because owners who are not protected from controllers will seek to protect themselves by becoming controllers. When control has incremental value beyond any cash flow rights associated with equity ownership, shareholders will seek to obtain control rights that exceed cash flow rights in a given firm. Around the world, control in

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excess of proportional ownership is usually achieved through pyramid structures in which one firm is controlled by another firm, which may itself be controlled by some other entity.

The management group (and its family members) is usually the largest blockholder of a firm at the top of the pyramid and there is significant overlap between the top firm's management group and the managers of each firm down the line in the pyramid. Thus, the controlling managers at the top of a pyramid are generally able to exercise effective control of all the firms in the pyramid, while they bear relatively less of the cash flow consequences of exercising their control in each firm down the line. Finally, irrespective of pyramiding, managers of a given firm sometimes issue and own shares with superior voting rights to achieve control rights that exceed their cash flow rights in the firm (Zingales (1994), Nenova (2003)). Taken together, the net result is that a great number of firms around the world have managers who possess control rights that exceed their cash flow rights in the firm, which, fundamentally, gives rise to potentially extreme managerial agency problems.

The extent to which managerial agency problems affect firm value is likely to depend on several factors. If there are cash flow incentives that align managers' interests with those of outside shareholders, this should raise firm values. Alternatively, if a management group is insulated from outside shareholder demands, a situation often referred to as managerial entrenchment, managers might choose to use their control to extract corporate resources; this consumption (or expected consumption) of the private benefits of control should reduce firm values. When managers have control in excess of their proportional ownership, the consumption of private control benefits is especially likely since this type of ownership structure both reduces cash flow incentive alignment and increases the potential for managerial entrenchment. Conversely, if managers act in the best interest of all shareholders, then firm values should not depend on managerial control rights. Finally, to the extent that management's control rights are correlated with its cash flow rights, additional managerial control could result in higher firm values.

Non-management blockholders might also impact firm value. If there are large non-management shareholders that have both the incentive to monitor management and enough control to influence management such that cash flow is increased, firm values should be higher because all equity holders share in this benefit of control. Of course, as with managers, large non-management blockholders might choose to use their power to extract corporate resources, which would reduce firm values. Finally, all of these factors are potentially even more important where external shareholder protection is the weakest. This paper tests the above hypotheses using a sample of 1433 firms from 18 emerging markets.

Emerging markets provide an excellent laboratory to study the valuation effects of ownership structure for several reasons. First, pyramid ownership structures are prevalent across virtually all emerging markets. Second, emerging markets generally suffer from a lack of shareholder and creditor protection and have poorly developed legal systems (LLSV (1998)). Finally, markets for corporate control (i.e., the takeover market) are generally underdeveloped in emerging markets (*The Economist Intelligence Unit* (1998)). Overall, where external corporate governance is weak and managerial control often exceeds its proportional owner-

ship, extreme managerial agency problems may arise because the private benefits of control are large.<sup>1</sup> Non-management blockholders may be especially beneficial to minority shareholders if they help fill the external governance void.

LLSV (2002) and Claessens, Djankov, Fan, and Lang (2002) provide some evidence on the relation between firm value, as measured by Tobin's  $Q$ , and ownership structure across different economies. Both papers focus exclusively on the ownership characteristics of a firm's largest shareholder, which is usually, but not always, the management group and its family. These papers do not explicitly test how the relation between management/family ownership and firm value could be affected by other blockholders that are not part of the management/family group. LLSV study the 20 largest firms in each of 27 wealthy economies and report that the cash flow rights held by the largest blockholder are positively related to firm value. They find no relation between  $Q$  and a separation in the control rights and cash flow rights held by the largest blockholder.<sup>2</sup> Claessens et al. (2002) study a large set of firms from eight East Asian emerging economies and also find that the cash flow rights held by the largest blockholder are positively related to value. Additionally, they find that a difference in the control rights and cash flow rights held by the largest blockholder is negatively related to firm value.

This paper builds on previous work relating ownership structure to firm value in several ways. First, in all of my sample firms, I explicitly account for the effect of management group (and its family) ownership and whether there is a large non-management blockholder present in the ownership structure. Since it is the management group that actually administers a firm, the reduction in value from potentially costly agency problems may be even worse when the management group has sufficient control to exploit minority shareholders and there is no large non-affiliated blockholder to constrain it from doing so. Backman (1999) details many examples of listed emerging market firms engaging in sometimes egregious expropriation of minority shareholders through related-party transactions.<sup>3</sup> Second, because not every emerging market has identical external corporate governance features, I test whether any valuation effects associated with ownership structure are more pronounced when shareholder protections are the weakest. Finally, I expand considerably the number of less developed countries in which ownership and valuation are studied and use a broad cross section of firms from each.<sup>4</sup>

For all of my sample firms, I trace out ultimate ownership, which includes both directly and indirectly held control and cash flow rights. I employ a broad definition of management group ownership, consisting of a firm's officers, directors, and top-level managers, as well as their family members. I find that management group blockholdings of control (i.e., voting) rights average 30% across

<sup>1</sup>Bebchuk, Kraakman, and Triantis (2000) argue that agency problems in emerging markets may be an order of magnitude larger than those in developed economies.

<sup>2</sup>In contrast, Morck, Stangeland, and Yeung (2000) find that family control through pyramids reduces market value for Canadian companies.

<sup>3</sup>My sample contains several of these firms—CAM International, Cheung Kong Holdings, Hyundai Corporation, Pacific Chemicals, Shangri-La Asia, and Wembley Industries—all of which have the management group as the largest blockholder and most of which also have pyramid ownership structures.

<sup>4</sup>For some country-specific evidence on ownership concentration and valuation in emerging markets, see Denis and McConnell (2003), Claessens and Djankov (1999), Claessens (1997), and Xu and Wang (1997).

my sample. I also group non-management blockholders into various categories. Interestingly, I find that the control rights blockholdings of other shareholders not affiliated with management average almost 20%, which indicates that large non-management blockholders may play an important corporate governance role in emerging market firms. Managers and their families are the largest blockholder in two-thirds of sample firms, consistent with Claessens et al. (2002) and La Porta et al. (1999). I also find that managers make extensive use of pyramid ownership structures in all sample countries and that managers of Latin American firms frequently use shares with superior voting rights to further increase the control rights associated with their cash flow rights.

My valuation analysis contains three sets of tests. The first uses regression models to test the relation between Tobin's  $Q$  and managerial equity holdings, ignoring the effect of the holdings of non-management blockholders. This approach facilitates direct comparison with LLSV (2002) and Claessens et al. (2002). When a management group's control rights exceed its cash flow rights (because of pyramiding and/or superior voting equity), I find that firm values are lower. I also conduct tests using breakpoints in the level of managerial control and find that managerial control between 5% and 20% is negatively related to  $Q$ , consistent with the U.S. results of Morck, Shleifer, and Vishny (MSV) (1988). These results support the managerial entrenchment hypothesis and indicate that the costs of the private benefits of control are capitalized into share prices in emerging markets. Unlike LLSV (2002) and Claessens et al. (2002), I find no evidence that increases in managerial cash flow rights affect Tobin's  $Q$ .

My second set of tests provides new evidence that large non-management blockholders can reduce the valuation discount associated with expected managerial agency problems in emerging markets. I categorize firms based on whether the management group is the largest blockholder of control rights and find that management control in the 5% to 20% range is associated with a substantial reduction in  $Q$  only when the management group is the largest blockholder of control rights. When a larger non-management blockholder is present, management control in the 5% to 20% range does not affect firm value. Regressions also show that  $Q$  is positively related to the level of non-management control and to whether a non-management entity is the largest blockholder of control rights.

In my third set of tests, I present evidence that the valuation impact of pyramid structures and non-management blockholdings depends on the level of shareholder protection in a country. When managers have control rights that exceed their proportional ownership, firm values are significantly lower in countries with low shareholder protection. These findings suggest that external governance mechanisms play a role in restraining managers who do not bear the full cash flow consequences of exercising their private benefits of control. I also find that the presence of large non-management blockholders is more positively related to value in low protection countries. One interpretation of this result is that non-management blockholders are a substitute for formal external governance mechanisms.

The next section of the paper describes the sample selection process and the ownership variables used in the paper. Section III discusses the methodology

and describes the results. Section IV conducts tests of robustness and Section V concludes.

## II. Data

### A. Sample Selection and Ownership Categorization

To construct my sample, I obtain firm level financial data for the fiscal year-end closest to December 31, 1995, from the 1997 *Worldscope* database for all countries considered to have emerging markets by *The Economist* magazine. I eliminate financial firms from the analysis because Tobin's  $Q$  ratios are not suitable valuation measures for these firms and eliminate firms not listed on the stock exchange(s) of a given country to maintain consistency in within-country reporting requirements. I also eliminate 15 firms with negative book equity values to avoid capturing effects that may be related to extreme financial distress.<sup>5</sup> My potential sample includes 2533 firms from 26 emerging markets.

I compile data on ultimate shareholdings, in which directly and indirectly held shares and superior voting rights shares, if any, are taken into consideration. I begin by collecting direct (first-level) ownership of control rights for all blockholders with stakes at or above a 5% threshold from the most comprehensive source for each country. A detailed description of ownership sources is provided in the Appendix. I investigate whether any differential voting rights shares exist using Datastream, Global Data Direct, and country handbooks.<sup>6</sup> Countries are eliminated if no primary data source can be obtained that reports ownership for at least 50% of the potential sample firms in the country (based on market capitalization) or if direct blockholdings are generally reported as categorical data (e.g., "other companies"), which cannot be traced backward. These screens result in a loss of 521 firms. Because my hypotheses focus specifically on the valuation effects of different types of blockholders, I remove 164 widely held firms (i.e., firms with no blockholders at the 5% level) from the analysis.

Once the direct blockholders of my sample firms are established, I trace out the ultimate control of these direct blockholders. To do so, I use country and regional handbooks and firm-level searches on Lexis-Nexis. I categorize a firm's ultimate block ownership into Management Group ownership as well as ownership by various non-management entities. I define management group ownership broadly, comprising persons listed as: CEO, CFO, President, or any other officer and director of the company; Executive, Deputy, or Honorary Chairman; Treasurer or General Manager; and their family members (based on overlapping surnames). Non-Affiliated Company Ownership is defined as the ownership position of companies not affiliated with management. Government Ownership comprises

<sup>5</sup>Removing these firms is also important because cross-country differences exist in several factors that influence the likelihood of observing firms with negative book equity, such as whether an automatic stay on assets is allowable and whether an equity capital reserve must be maintained (see LLSV (1998)). I can identify the largest blockholder in eight of these firms. Ownership is similar to the full sample—the management controls six of the eight firms (four of these six have pyramids), the government controls one firm, and a bank controls one firm.

<sup>6</sup>I include non-voting stock designated as preferred stock in this measure when the dividend rights and payments are equal to those of the common stock.

direct and indirect ownership by all agencies and companies that I can identify as being state-controlled (e.g., Temasek Holdings in Singapore). I define Institutional Ownership as ownership by pension funds, mutual funds, insurance companies, and direct ownership by banks. I classify ownership by persons who are not managers (or family members) as Individual Ownership. Miscellaneous refers to ownership not categorized elsewhere (e.g., religious/educational foundations and employees). If the ultimate controller of a direct blockholder of a sample firm cannot be clearly identified as being part of the management group or belonging to another category, that blockholding position is coded as unobservable.

Nominee accounts are used extensively in Asia. Fortunately, the Thornton Guide to Asian Companies identifies the ultimate owner of the nominee accounts for a large number of Asian firms—such information is generally not available in *Worldscope* or the handbooks used in other ownership studies. Still, it is often impossible for me to identify the ultimate owners of some nominee accounts. Also, I am sometimes unable to find ownership and management data on some of the companies that are direct blockholders of sample firms. I eliminate firms if I cannot identify the ultimate controllers of at least 90% of a firm's direct blockholdings. I also eliminate China and Poland because I am unable to identify the control of at least 90% of the blockholdings in more than half of the sample firms.<sup>7</sup> My sample with ultimate ownership data on control rights contains 1433 firms from 18 countries.<sup>8</sup>

Figure 1 illustrates how I compute management group control rights using a Brazilian firm, Acos Villares, SA. Whenever the managers of Acos Villares or their family members are also the largest shareholders of one of its blockholders, I classify these shareholdings in the management group category. Thus, the 50.1% of the voting shares owned by Industrias Villares, SA are designated as management group control rights. I also classify a blockholder as controlled by the management group if the managers of Acos Villares or their family members are part of the management of the blockholder. Thus, the 5.8% of the voting shares held by Acesita are also assigned to the management group. I define "management group control rights" as the sum of direct block ownership and indirect control blocks held by managers and their families, which equals 55.9% for Acos Villares, SA.<sup>9</sup>

I use my direct and indirect ownership information to determine what fraction of the cash flow rights is controlled by the management group. I sum the

<sup>7</sup>See Tian (2001) for an ownership structure study on China using customized data.

<sup>8</sup>One concern that arises in my sample selection process is whether the firms for which I can gather ownership data are measurably different from the potential sample. To assess this possibility, I compare, by country, summary statistics for the financial variables listed in Table 1 between my potential sample of 2533 firms and my final sample. I find significant differences only for Argentina and Indonesia (65 firms in total). For robustness, I verify that all results obtained in the valuation section hold when these countries are removed.

<sup>9</sup>My method of assigning control rights differs somewhat from the method used by La Porta et al. (1999) and Claessens et al. (2000). Both papers assign control based on the weakest link along the chain of control, in which case the family (management) control rights assigned to Industrias Villares would equal 32.1%. Also, these papers do not assign control based on management overlap without corresponding cash flow ownership. As such, La Porta et al. and Claessens et al. would classify the control of Acesita as either held by a financial firm or widely held, depending upon the concentration of ownership within the pension funds that control Acesita.

directly and indirectly obtained cash flow rights held by the management group, including the effects of any superior voting rights shares, and call this measure "management group cash flow rights." This ownership is not always observable since some of my ultimate ownership sources report the management structures or beneficiaries of the blockholders of my sample firms, but not their corresponding cash flow rights. When this occurs, I retain a firm only if the ultimate cash flow rights of at least 90% of the firm's total blockholdings can be observed. This reduces my sample for tests involving cash flow rights to 1130 firms.

I next construct a measure called "management cash flow rights leverage" that identifies how much the management group of a firm levers its cash flow rights into greater control rights. This measure is computed as management group control rights divided by management group cash flow rights.<sup>10</sup> Cash flow rights leverage will be above unity when managers hold indirect stakes with less than full ownership or shares with superior voting rights. To lessen the impact of outliers, I censor the values for cash flow rights leverage at the 95th percentile by setting outlying values to the 95th percentile.

As a simple example of management cash flow rights leverage, suppose the management of Firm A owns 50% of the shares of Firm B that owns 50% of the shares of Firm A. I compute management cash flow rights ownership as 25% (50% of 50%), management control rights ownership as 50%, and management cash flow rights leverage as two (50%/25%). A more complicated example of the computation of management cash flow rights leverage is presented in Figure 1. The figure details how the management group of Acos Villares SA uses both a pyramid structure and non-voting shares to lever 2% of the cash flow rights into 56% of the control rights for a management cash flow rights leverage value of 28 (the 95th percentile for this measure is about 10).

For robustness, I gather information on exchange-specific regulations regarding the reporting of ownership positions and then recompute all ownership levels counting only those positions that are above the required disclosure level (using 10% and then 20% as a cutoff when a specific level is not reported).<sup>11</sup> I find that my results are similar and often stronger (not tabulated).

## B. Overall Summary Statistics

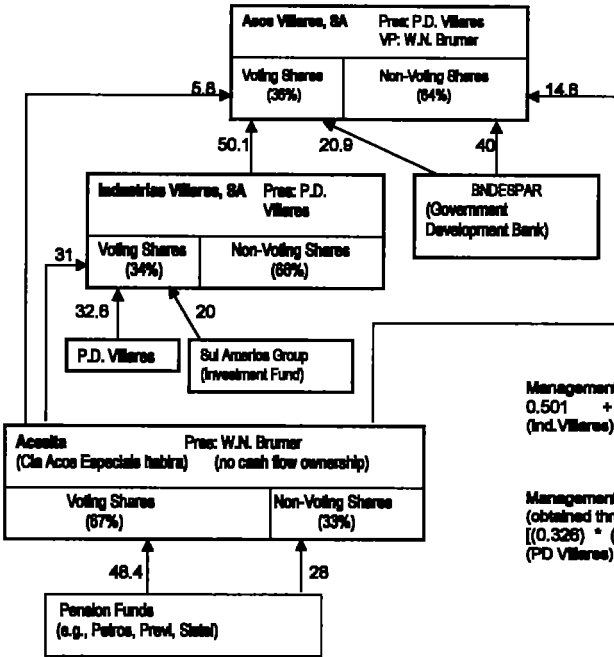
Table 1 reports summary statistics for financial variables (panel A) and ultimate ownership variables (panel B). The first column of panel A lists means of my primary valuation measure, Tobin's  $Q$ , which is computed as the market value of equity plus book assets less the book value of equity, all divided by assets. To alleviate the influence of extreme values, Tobin's  $Q$  is censored at the first and 99th percentiles by setting outlying values to the first and 99th percentiles, respectively. The second column shows that the sample is made up of relatively

<sup>10</sup>My variable for the spread between control and cash flow rights is different from that used in LLSV (2002) and Claessens et al. (2002). Both papers compute the measure as the *difference* between control and cash flow rights (rather than the *ratio*) and, as noted in the Introduction, do so only for each firm's largest blockholder.

<sup>11</sup>Data on required reporting come from a worldwide survey of stock exchange regulations (Zeaner (1995)).

FIGURE 1

Ownership Structure of Acos Villares, SA



Sample Calculations

Management Group Control Rights:  
 $0.501 + 0.068 = 0.568$   
 (Ind. Villares) (Accelita)

Management Group Cash Flow Rights:  
 (obtained through Ind. Villares only)  
 $[(0.326) * (0.34)] + [(0.501) * (0.36)] = 0.02$   
 (PD Villares) voting (Ind. Villares) voting  
 fraction fraction

large firms, with mean assets of \$886 million. The third column shows that South Korean firms have the most debt as measured by total liabilities to assets.

The first two columns of panel B show that about 50% of a firm's control rights are held by 5% (or greater) blockholders, on average. Of these, about 60% are held by the management group. Thus, the percentage of blockholder control rights held by entities other than management is also substantial, averaging almost 40% of total blockholdings. The latter columns of panel B list the frequency that a given type of owner is the largest ultimate blockholder of control rights. The table shows that the management group is, by far, the dominant type of blockholder in emerging markets, controlling 69% of sample firms, followed by companies not affiliated with the management group (16%) and the government (7%). Financial entities are rarely a firm's largest ultimate blockholder in emerging markets.

Table 2 reports statistics on the mechanisms used to achieve managerial control using the 1012 firms for which the management group is the largest blockholder of the control rights of a firm. Panel A reports that 66% of management-controlled firms use pyramids to increase their control rights.<sup>12</sup> I also find that

<sup>12</sup>My results for South Korea, Taiwan, and Thailand differ somewhat from those reported by Claessens et al. (2000) who find a higher incidence of pyramids for the controlling shareholder. I study only management-controlled firms and my classification mechanisms focus on establishing management control at any level above 5%, whereas they report pyramid data only for firms with a 20% or larger blockholder. Firms in which management control is less than 20%, but management is still the



TABLE 1  
Summary Statistics

Country	Panel A. Financial Variables					Panel B. Ultimate Ownership Variables							
	N	Tobin's Q	Total Assets	Debt Ratio	Capex/ Assets	Control Rights		Frequency of Control by Blockholder Type					
						Mgmt. BH	Non-Mgmt. BH	Mgmt.	Non-Affiliated Co.	Gov't.	Inst.	Non-Affiliated Indiv.	Misc.
Argentina	8	1.14	3147	0.42	0.11	18	38	33	67	0	0	0	0
Brazil	59	0.81	2685	0.44	0.07	34	38	52	25	16	3	2	3
Chile	30	1.61	1257	0.36	0.08	45	14	83	13	0	7	0	0
Czech Rep.	10	1.13	158	0.41	0.11	21	22	80	40	0	10	0	0
Hong Kong	219	1.24	824	0.45	0.08	41	12	80	18	1	2	0	0
Indonesia	53	1.33	446	0.45	0.09	36	23	65	19	7	2	8	0
Israel	12	1.34	989	0.49	0.07	31	19	87	25	8	0	0	0
Malaysia	262	2.24	514	0.45	0.09	29	25	69	11	13	8	0	0
Peru	10	1.82	318	0.42	0.10	41	22	70	20	0	10	0	0
Philippines	35	1.61	489	0.33	0.11	44	11	83	6	9	6	0	0
Portugal	28	0.90	520	0.52	0.05	31	23	69	12	8	16	0	0
Singapore	148	1.84	447	0.43	0.09	33	26	86	10	12	11	0	1
So. Africa	96	1.48	935	0.44	0.07	34	26	57	16	0	26	1	0
So. Korea	163	1.03	237	0.72	0.09	16	8	73	8	7	6	5	1
Sri Lanka	7	1.11	59	0.40	0.13	30	7	85	0	0	14	0	0
Taiwan	119	1.67	436	0.38	0.08	18	5	82	10	3	2	1	2
Thailand	149	1.36	387	0.53	0.09	21	20	56	34	6	2	2	1
Turkey	26	1.88	330	0.47	0.07	31	34	50	25	18	4	0	4
All Countries	1433	1.52	686	0.48	0.08	30	19	69	16	7	7	1	1

Summary statistics are reported for financial variables in panel A and for ultimate ownership variables in panel B. In panel A, Tobin's Q is computed as the market value of equity plus book assets less the book value of equity all divided by assets and is censored at the 1st and 99th percentiles by setting outlying values to the first and 99th percentiles, respectively. Total Assets are reported in millions of \$U.S. The Debt Ratio is computed as total liabilities to assets. Mean Values are reported in panel A. Panel B lists the percentage of total Control Rights held by blockholders and the frequency that an ownership type is the largest blockholder of control rights. The Management (Mgmt.) group category aggregates direct ownership of voting shares and indirect control obtained through pyramids for persons listed as CEO, CFO, President, or other officers and directors, Executive, Deputy, or Honorary Chairman, and General Manager, as well as family members of these managers. Non-Affiliated Company Ownership is defined as the ownership position of companies not affiliated with management. Government (Gov't.) Ownership comprises direct and indirect ownership by all agencies and companies that I can identify as being state-controlled. Institutional Ownership (Inst.) is ownership by pension funds, mutual funds, insurance companies, and direct ownership by banks. I classify ownership by persons who are not managers (or family members) as Non-Affiliated Individual (Indiv.) Ownership. Miscellaneous (Misc.) refers to ownership not categorized elsewhere (e.g., religious/educational foundations and employees). Non-management control rights aggregate the ultimate control rights held by all entities other than management. BH refers to blockholdings.

shares with superior voting rights are used extensively in Brazil and Peru, but rarely are used by sample firms outside of Latin America.<sup>13</sup> Panel B of Table 2 reports statistics on management cash flow rights leverage. The panel shows that controlling managers are able to turn one cash flow right into 2.7 control rights, on average.

In panel C of Table 2, I dig more deeply into management usage of shares with superior voting rights in the two sample countries in which superior voting shares are prevalent, Brazil and Peru. Note from panel A that managers of firms from these countries use pyramids frequently. Panel C summarizes the fraction of non-voting shares in the common equity capital structure overall and by largest blockholder type. I find that the equity structures of management-controlled firms are heavily weighted toward non-voting shares. The median non-voting equity percentage of 63% is very close to the legally permitted threshold of 66% in these

largest blockholder, occur frequently in these three countries and management usually holds its shares directly in these cases.

<sup>13</sup>Nenova (2003) also finds substantial use of non-voting equity by Brazilian firms.

TABLE 2  
Mechanisms to Achieve Management Control

Country	Panel A. Firms with Mgmt. Control Rights Obtained Indirectly		Panel B. Mgmt. Cash Flow Rights Leverage	
	N	%	N	(Mean)
Argentina	3	100	0	—
Brazil	30	73	12	4.43
Chile	25	92	11	5.53
Czech Rep.	6	100	6	5.34
Hong Kong	179	67	147	1.58
Indonesia	37	81	22	1.30
Israel	8	75	4	3.62
Malaysia	189	85	110	3.39
Peru	8	88	3	1.58
Philippines	29	90	22	3.02
Portugal	18	61	9	2.00
Singapore	99	83	60	4.63
So. Africa	55	89	29	3.02
So. Korea	119	30	115	2.58
Sri Lanka	6	67	4	1.38
Taiwan	102	37	88	2.54
Thailand	83	38	68	1.98
Turkey	16	100	9	1.72
All Countries	1012	68	719	2.68

Panel C. Management Use of Differential Voting Rights Shares

Countries	Largest Blockholder							
	All Firms		Mgmt Group (N = 36)		Non-Mgmt Group (N = 32)		Difference (p-value)	
	Mean	Med	Mean	Med	Mean	Med	Mean	Med
Brazil, Peru								
N = 68								
Fraction of non-voting shares	0.45	0.51	0.53	0.63	0.39	0.41	0.14 (0.01)	0.22 (0.00)

The sample used in this table includes only those firms for which the management group is the largest blockholder of the control rights of a firm. Panel A reports the percentage of firms for which the management group obtains some control rights indirectly. Panel B reports mean management cash flow rights leverage, which is computed as management group control rights divided by management group cash flow rights and includes both pyramid and superior voting equity effects. This variable is coded as missing if the fraction of unobserved management group cash flow rights exceeds 10% of the management groups' ultimate blockholdings of control rights. The values for cash flow rights leverage have been truncated at the 95th percentile. Panel C summarizes the fraction of non-voting shares in the equity capital structure for the two sample countries (Brazil and Peru) in which non-voting equity shares are prevalent. The fraction of non-voting shares cannot be determined for three firms. The difference in means is computed using a *t*-test and the difference in medians is computed using a Wilcoxon rank-sum test. *p*-values are listed in parentheses.

two countries. In contrast, firms controlled by other entities have mostly voting shares in their equity structure.

To further investigate management's usage of superior-voting equity in Latin America, I examine the 64 Mexican firms for which I could not obtain consistent ownership data and find that almost half of these firms have limited or non-voting equity in their capital structures. In La Porta et al. (1999), all 20 sample firms in Mexico are controlled by management/families. It appears that, relative to managers elsewhere, managers of Latin American companies are unique in their propensity to use superior voting rights shares to separate control rights from cash flow rights. This observation warrants further study.

Overall, the ownership structures summarized in Tables 1 and 2 indicate that emerging markets provide a rich setting to test whether potential managerial agency problems are capitalized in firm values and whether large non-management blockholders play a governance role.

### III. Valuation Methodology and Results

#### A. Valuation Methodology

To assess the relation between ownership structure and firm value, I first use basic OLS regressions in which Tobin's  $Q$  is the dependent variable and ownership and control variables are the independent variables. In Section IV, I implement regression techniques that consider potential endogeneity between ownership and Tobin's  $Q$  and also consider alternate firm value measures.

My regressions include a variety of control variables to ensure that the effects I attribute to ownership are not due to other correlated factors. I control for firm size with the log of assets (in U.S. dollars). I use the ratio of capital expenditures to assets as a proxy for potential investment opportunities.<sup>14</sup> I control for debt to account for the possibility that creditors are able to lessen managerial agency problems (McConnell and Servaes (1995) and Harvey, Lins, and Roper (2002)). I measure debt as the ratio of total liabilities to assets, which incorporates structural differences between countries in the types of short- and long-term financing instruments used by firms (Demirgüç-Kunt and Maksimovic (1999)). All regressions include industry dummy variables based on industry groupings defined in Campbell (1996).<sup>15</sup>

To account for the possibility that inter-country variation in accounting treatments affects the measurement of  $Q$  and other variables, I include country dummies in all regressions. I consider models in which country effects are allowed to be random as my base case for all regressions, but choose a fixed effects framework for two reasons. First, a fixed effects model is designed to test for variation in the ownership and  $Q$  relation within a country. Second, the Hausman test rejects the null that country effects are random in (unreported) regressions with management ownership and shareholder protection interactions and in many of the basic ownership regressions using alternative measures of firm value.<sup>16</sup>

#### B. Valuation Results—Management Group Ownership

In this section, I construct tests that consider only the relation between managerial ownership characteristics and firm value and do not account for the presence of outside blockholders. This approach facilitates comparison with previous international ownership structure studies. The first model in panel A of Table 3 tests a simple version of the managerial entrenchment hypothesis by regressing Tobin's  $Q$  on the percentage of control rights held by management. The model

<sup>14</sup>An alternative proxy for investment opportunities used by LLSV (2002) is annual growth in sales over prior years. This proxy does not work well for my emerging markets sample because *Worldscope* does not report pre-1995 data for a significant portion of my firms. I note that annual sales growth (where available) is highly correlated ( $p$ -value < 0.000) with the capex/assets ratio of sample firms.

<sup>15</sup>These industry groupings are commonly used in international firm valuation studies (see Lins and Servaes (1999), (2002) in addition to Claessens et al. (2002)).

<sup>16</sup>The choice between fixed and random effects is often subject to interpretation, even in the absence of a rejection by the Hausman test. Greene (1997), p. 623, provides an example analogous to my framework in which fixed effects are chosen in an inter-country comparison because the sample includes a nearly exhaustive set of countries (e.g., emerging markets) for which it is reasonable to assume that the model is constant.

provides no evidence (at conventional significance levels) that higher management control rights are linked to lower firm values.

I next perform tests of the managerial entrenchment hypothesis that take into account potential non-linearities in the relation between management ownership and firm value along the lines of MSV (1988). I use control rights ownership for these tests since they will always be equal to or higher than the cash flow rights held by management and I can observe control rights more frequently for my sample firms. MSV argue that management entrenchment effects dominate incentive alignment effects over a low to intermediate level of management group ownership. They choose breakpoints in the range of management ownership at 5% and 25%, although they note that these cutoffs were chosen to fit their data. For my tests, I use a 5% to 20% range because it is likely that effective control can be obtained at relatively low levels in emerging markets. I create a dummy variable equal to one when the management group has between 5% and 20% of the control rights of a firm and a dummy equal to one if management controls more than 20% of the firm. These dummy variables keep the interpretation of coefficients simple—similar dummy variables for management ownership cells were used in working paper predecessors to MSV (1988). I also follow MSV (1988) and estimate a piecewise linear regression using a variable for the level of management control between 5% and 20% computed as actual management control rights if they fall within this range, 0.20 if management control rights exceed 20%, and zero if no blockholdings are held by management. Similarly,

TABLE 3  
Relation between Ownership and Firm Value in Emerging Markets

<i>Panel A. Management Group Ownership</i>					
	(1)	(2)	(3)	(4)	(5)
Constant	1.949 (0.00)	2.030 (0.00)	2.735 (0.00)	1.891 (0.00)	1.841 (0.00)
Log of Assets	-0.076 (0.00)	-0.079 (0.00)	-0.078 (0.00)	-0.070 (0.00)	-0.068 (0.00)
Leverage Ratio	-0.368 (0.01)	-0.357 (0.01)	-0.363 (0.00)	-0.379 (0.00)	-0.301 (0.04)
Capital Expenditures to Assets	0.258 (0.33)	0.247 (0.35)	0.248 (0.35)	0.224 (0.39)	0.275 (0.35)
Mgmt. Group Control Rights %	-0.144 (0.11)				
Dummy If Mgmt. Controls between 5% and 20%		-0.178 (0.01)			
Dummy If Mgmt. Controls above 20%		-0.131 (0.01)			
Level of Mgmt. Control between 5% and 20%			-0.885 (0.03)		
Level of Mgmt. Control above 20%			0.112 (0.39)		
Mgmt. Indirect Control Dummy				-0.090 (0.04)	
Mgmt. Cash Flow Rights Leverage					-0.022 (0.02)
Adj. $R^2$	0.25	0.25	0.25	0.25	0.27
No. of Obs.	1433	1433	1433	1433	1130

(continued on next page)

TABLE 3 (continued)  
 Relation between Ownership and Firm Value In Emerging Markets

Panel B. Non-Management Blockholders				
	(1)	(2)	(3)	(4)
Constant	1.871 (0.00)	1.824 (0.00)	1.882 (0.00)	2.014 (0.00)
Log of Assets	-0.077 (0.00)	-0.077 (0.00)	-0.078 (0.00)	-0.078 (0.00)
Leverage Ratio	-0.352 (0.01)	-0.352 (0.01)	-0.359 (0.01)	-0.361 (0.01)
Capital Expenditures to Assets	0.246 (0.35)	0.242 (0.36)	0.245 (0.35)	0.225 (0.36)
Non-Mgmt. Group Control Rights %	0.259 (0.01)	0.321 (0.01)		
Mgmt. Group Control Rights %		0.083 (0.53)		
Dummy if Mgmt. Group is not the Largest Blockholder			0.142 (0.00)	
Dummy if Mgmt. Group Controls between 5% and 20% and is the Largest Blockholder				-0.264 (0.00)
Dummy if Mgmt. Group Controls between 5% and 20% and is not the Largest Blockholder				-0.021 (0.83)
Dummy if Mgmt. Group Controls above 20% and is the Largest Blockholder				-0.127 (0.01)
Adj. R <sup>2</sup>	0.25	0.25	0.25	0.25
No. of Obs.	1433	1433	1433	1433

Regression analysis of the dependent variable Tobin's *Q* on categories of management ownership and controls. Tobin's *Q* and most of the independent variables are defined in Tables 1 and 2. Variables new to this table are as follows. Dummy if Management (Mgmt.) Controls between 5% and 20% is an indicator variable set equal to one if management control rights fall within this range and zero otherwise. Dummy if Management Controls above 20% is an indicator variable set equal to one if management control rights exceed 20% and zero otherwise. Level of Management Control between 5% and 20% is set equal to: actual management control rights if they fall within this range; 0.20, if management control rights exceed 20%; and zero if management has no control rights block ownership. Level of Management Control above 20% is set equal to: actual management control rights if they exceed 20%; and zero otherwise. Management Indirect Control Dummy equals one if the management group obtains at least some of its control rights indirectly. Dummy if Management Group is not the Largest Blockholder is set equal to one if a non-management entity is the largest control rights blockholder. Panel A regressions focus on management group ownership variables. Model (3) is a piecewise linear regression similar to MSV (1988). Model (5) is estimated on the subsample of firms for which management cash flow rights leverage can be computed. The regressions in panel B include non-management control rights variables. All regression models include country and industry fixed effects (coefficients not reported). Industry groupings are based on Campbell (1995). The *p*-value of the *t*-test of equality of each coefficient to zero is reported in parentheses.

a variable for the level of management control above 20% is set equal to actual management control rights if they exceed 20%, and zero otherwise.

Model (2) of panel A shows that the dummy variables for management group control between 5% and 20% and above 20% are both significantly negatively related to firm value. While the coefficient on the 5% to 20% range is more negative, it is not significantly different from the above 20% coefficient. Model (3) reports the results of the piecewise linear regression in which the slope of managerial control is allowed to change. The coefficient on managerial control between 5% and 20% is -0.865, which indicates that, among firms with potential managerial entrenchment problems, each percentage point increase in managerial control rights is associated with a 0.0087 decline in Tobin's *Q*. The coefficient on the level of managerial control above 20% is not significant. To the extent that managerial control in the 5% to 20% range proxies for potential managerial entrenchment, the

results of models (2) and (3) provide support for the hypothesis that firm values are lower as the potential for management entrenchment increases.<sup>17</sup>

The last two models of panel A investigate the valuation impact of mechanisms used by management to separate control rights from cash flow rights in emerging markets. In model (4), I regress Tobin's  $Q$  on a dummy variable equal to one if the management group obtains at least some of its control rights through pyramids and find a negative and significant coefficient on this dummy variable. The coefficient indicates that when managers use pyramids to obtain some of their control, Tobin's  $Q$  values are 0.09 lower. Model (5) tests the relation between management cash flow rights leverage and firm value using the sample of 1130 firms for which management cash flow rights, and thus management cash flow rights leverage, can be computed. This model shows that firm value declines as the separation of management group control and cash flow rights gets larger. The coefficient of  $-0.022$  indicates that, all else equal, a firm with an extreme cash flow rights leverage value of 10 would have a 0.198 lower  $Q$  value than a firm with a cash flow rights leverage value of one (no separation).

The results from models (4) and (5) highlight the overall loss in firm value that results when the management group's control exceeds its proportional ownership. Thus, these results are consistent with the hypothesis that the expected private benefits of control affect firm value in emerging markets. In an unreported model, I regress  $Q$  on the cash flow rights held by management (which are highly correlated with control rights;  $\rho = 0.60$ ,  $p$ -value  $< 0.0000$ ), but find that they are not significantly related to value. These results provide no support for the Jensen and Meckling (1976) convergence-of-interests hypothesis in emerging markets and differ from those reported by LLSV (2002) and Claessens et al. (2002).

### C. Valuation Results—Non-Management Blockholders

The previous sets of tests provide evidence that potential managerial agency problems are related to the valuation of firms from emerging markets. However, these tests do not tell the full story of firm-level corporate governance, since they fail to take into account any positive or negative impact that large non-management blockholders might have on the actions of management. Panel B of Table 3 contains regression models that incorporate the control rights held by blockholders that are not part of the management group, an approach similar to the one taken by McConnell and Servaes (1990) for U.S. firms. Overall, my results show that it is beneficial to separately investigate the valuation effects of management and non-management blockholders, rather than focusing solely on the category of "largest blockholder" as has been done previously in international ownership studies.

Model (1) of panel B shows that the control rights held by non-management blockholders are positively related to firm value, which is consistent with the hypothesis that these blockholders play a monitoring role of some sort in emerg-

<sup>17</sup>In unreported models, I test cutoffs of 15%, 25%, and 30% using both dummy and level variables and find similar results. I also regress  $Q$  on management control rights and the square of management control rights (Stulz (1988) and McConnell and Servaes (1990)) and find that the coefficient on management control rights is negative and significant at the 5% level, while the coefficient on the squared term is insignificant.

ing markets. This conclusion is reaffirmed in regression model (2), which includes both management and non-management control rights. The control of non-management blockholders remains positively and significantly related to firm value, while the control rights of the management group are again not significantly related to firm value.

To isolate situations in which large blockholders are likely to have the greatest influence over the management of a firm, I create a dummy variable equal to one when the management group is not the largest blockholder of the control rights of a firm. This is the case for about one third of my sample firms (see Table 1). Model (3) of panel B of Table 3 shows that a controlling non-management blockholder is associated with an increase of 0.142 in Tobin's  $Q$ . This result is again consistent with the idea that large non-management blockholders can provide beneficial governance in emerging markets.<sup>18</sup>

Model (4) of panel B is designed to assess whether controlling non-management blockholders might be able to lessen the agency costs of managerial entrenchment that can be inferred from models (2) and (3) of panel A.<sup>19</sup> I create an interaction between the 5% to 20% management control rights dummy and the dummy when management is the largest single blockholder of control rights. This interaction variable should capture the type of management ownership that is most likely to face the entrenchment problems described in MSV (1988). I also create a dummy equal to one if management controls between 5% and 20% and is not the largest blockholder. The coefficient on this interaction variable will provide an indication of whether the presence of a large external blockholder reduces the loss in firm value associated with potential agency costs of managerial entrenchment.<sup>20</sup> Finally, I compute a dummy variable equal to one when management controls more than 20% and is the largest blockholder. Again, the use of dummy variables for these ranges eases the interpretation of the interaction coefficients.

<sup>18</sup>To see if specific types of non-management blockholders affect firm value differently, I construct dummy variables equal to one if the largest blockholder of control rights is a non-affiliated company, is the government, or is an institutional owner, and estimate a model that includes these three largest blockholder dummies. I find a significant difference (at the 10% level) only between the dummy when the largest blockholder is a non-affiliated company and the dummy when the largest blockholder is an institution. Since this result does not provide compelling evidence that the relation between firm value and a large non-management blockholder depends on the type of non-management blockholder, I continue to group all non-management blockholders together when conducting my valuation tests.

<sup>19</sup>It is possible that the significance of the coefficients on managerial control contained in models (2) and (3) of Table 3 is due to spurious correlation, since non-management blockholdings, which are significantly related to Tobin's  $Q$ , are omitted from these models. It is not appropriate, however, to test this conjecture by including in these models non-management control rights or a dummy if the management group is not the largest blockholder, because both measures are highly negatively correlated with management control above 20%. Instead, I use a dummy equal to one if there are any non-management blockholdings as a coarse, but not highly correlated, control for non-management effects on value. I find that this dummy is positively and significantly related to  $Q$  and that the coefficients for both dummies and levels of managerial control in the 5% to 20% and above 20% ranges retain their magnitude and significance (if any) from prior regressions.

<sup>20</sup>With the exception of majority ownership work by Holderness and Sheehan (1988) and Denis and Denis (1994), prior research on managerial ownership and value has not explicitly studied whether a differential valuation relation exists when managers are the largest controlling entity (see Himmelberg, Hubbard, and Palia (1999), Holderness, Kroszner, and Sheehan (1999), Cho (1998), Loderer and Martin (1997), Kole (1996), McConnell and Servaes (1995), and Hermalin and Weisbach (1991), among others, in addition to previously referenced papers).

Recall that panel A shows a negative and significant relation between firm value and the dummy variable for management group control between 5% and 20%, irrespective of whether this is the largest block position. The results are much different, however, when I isolate firms in which the management group controls between 5% and 20%, but the management group is *not* the largest blockholder. As model (4) of panel B shows, the coefficient on this interaction dummy is insignificant. Conversely, when management controls between 5% and 20% and it is also the largest blockholder, a situation in which management may have both the ability and desire to consume private benefits of control, the regression coefficient is strongly negative. The coefficient indicates a reduction in Tobin's  $Q$  of 0.264 in this case.<sup>21</sup> These findings demonstrate again the governance potential of large investors in emerging markets, since management group control in the "entrenchment" range does not correspond to a reduction in firm value when a non-management entity controls the firm.

#### D. Valuation Results—Ownership and Shareholder Protection

Emerging markets are usually, but not always, associated with low shareholder protection. Since there is some dispersion in protection, one might expect that managers can more easily consume the private benefits of control in countries where investors are least protected by the law (LLSV (2000)). If this potential incremental consumption of private benefits is priced, one should observe lower values for firms with potentially extreme managerial agency problems as shareholder protection declines. To test whether shareholder protection matters, I combine measures of shareholders' legal rights and the enforcement of such rights obtained from LLSV (1998). The first is the "Antidirector Rights" score, which ranges from zero to five with lower scores corresponding to fewer shareholder rights. The second is the "Rule of Law" score for a country, which ranges from zero to 10 with lower scores corresponding to less tradition for law and order. These variables are not reported for the Czech Republic so firms from this country are excluded from this analysis.

In my empirical tests, I first use a random effects model that interacts management group ownership variables and a country's weighted average Antidirector Rights and Rule of Law score. This type of model has the potential to incorporate both between- and within-country effects of ownership on value—a fixed effects model is poorly suited for testing between-country effects. Unfortunately, the Hausman test rejects the null specification that country effects are random in these models. Since a random effects model is inappropriate, I test whether management agency problems are more severe in low protection countries by estimating my previous country fixed-effects models on a subset of firms from countries with low Antidirector Rights and a low Rule of Law. This "low protection" subsample includes countries that score at or below four on the Antidirector Rights measure

<sup>21</sup>In unreported models, I test dummies for management group control between 5% and 15%, 25%, and 30% when management is also the largest blockholder. The coefficients on these dummies are always strongly negative and significant ( $p$ -value = 0.00), indicating that my result is robust to changes in the choice of an ownership cutoff point.



and at or below seven on the Rule of Law measure. This subsample excludes firms from Chile, Hong Kong, Portugal, Singapore, South Africa, and Taiwan.<sup>22</sup>

Table 4 reports ownership structure tests using the low protection subsample. The models reported correspond exactly to those in Table 3. Mean Tobin's  $Q$  in the low protection subsample is 1.58, which is close to the mean  $Q$  value of 1.52 for the full sample. Therefore, for the purpose of assessing economic effects, the regression coefficients for the low protection subsample can essentially be directly compared to those from Table 3 featuring the full emerging markets sample. The first model of panel A in Table 4 shows that management group control rights have a negative and significant relation to firm value in emerging markets with relatively weak external governance mechanisms. This coefficient is different from the high protection subsample coefficient on managerial control at the 5% level (significance based on combined regression tests). This finding lends some support to the hypothesis that the valuation consequences of managerial agency problems are worse when external governance is weak. Models (2) and (3) of Table 4 conduct subsample tests using dummies and levels for management control in the 5% to 20% and above 20% ranges, without regard to whether management is the largest blockholder. In both models, the coefficients on managerial control in the 5% to 20% range are more negative in the low protection subsample, but not significantly so. Thus, it does not appear that management entrenchment effects measured using the 5% to 20% range of management control are any worse when shareholder protection is weak.

Model (4) of panel A in Table 4 tests whether the valuations of firms with potential managerial agency problems stemming from pyramid ownership structures are lower when shareholder protection is the weakest. The coefficient on the management indirect control dummy of  $-0.19$  is significant at the 1% level and is significantly different from the high protection coefficient at the 1% level. This compares to a Table 3 coefficient on management indirect control of  $-0.09$  in the full emerging markets sample. Model (5) shows a larger negative coefficient on the cash flow rights leverage variable in low protection countries ( $-0.037$  compared to  $-0.022$ ). The difference in this coefficient between low and high protection subsamples, however, is not significant at conventional levels ( $p$ -value = 0.11). Taken together, models (4) and (5) in panel A of Table 4 provide support for the hypothesis that the negative relation between firm value and a separation in management control and cash flow rights is more pronounced where external corporate governance mechanisms are weakest.

In panel B of Table 4, I test whether the positive relation between large non-management blockholders and firm value is more pronounced in countries with low external shareholder protection. The first model shows that non-management control rights are again strongly positively related to firm value when shareholder protection is relatively weak. The difference in this relation between low and high protection subsamples is significant at the 10% level. Model (2) incorporates both

<sup>22</sup> I also attempt a country-by-country analysis in which the relation between ownership and value is obtained for each country and then the ownership coefficients from each country are regressed on measures of shareholder protection. Unfortunately, I am unable to obtain meaningful results using this procedure because the ownership coefficients are rarely significant in the countries with small sample sizes.

TABLE 4

## Relation between Ownership, Firm Value, and Shareholder Protection in Emerging Markets

*Panel A. Management Group Ownership*

	(1)	(2)	(3)	(4)	(5)
Constant	2.720 (0.00)	2.634 (0.00)	3.863 (0.00)	2.564 (0.00)	2.267 (0.00)
Log of Assets	-0.120 (0.00)	-0.126 (0.00)	-0.101 (0.01)	-0.108 (0.00)	-0.081 (0.01)
Leverage Ratio	-0.408 (0.04)	-0.387 (0.05)	-0.148 (0.61)	-0.426 (0.03)	-0.327 (0.14)
Capital Expenditures to Assets	0.058 (0.87)	0.048 (0.89)	0.003 (0.81)	0.009 (0.97)	-0.001 (0.77)
Mgmt. Group Control Rights %	-0.318** (0.03)		-0.013 (0.06)		
Dummy if Mgmt. Controls between 5% and 20%		-0.250 (0.01)			
Dummy if Mgmt. Controls above 20%		-0.218* (0.01)			
Level of Mgmt. Control between 5% and 20%			-0.865 (0.03)		
Level of Mgmt. Control above 20%			0.112 (0.39)		
Mgmt. Indirect Control Dummy				-0.180*** (0.01)	
Mgmt. Cash Flow Rights Leverage					-0.037 <sup>†</sup> (0.01)
Adj. R <sup>2</sup>	0.29	0.30	0.37	0.30	0.30
No. of Obs.	789	789	381	789	621

*Panel B. Non-Management Blockholders*

	(1)	(2)	(3)	(4)	
Constant		2.567 (0.00)	2.600 (0.00)	2.787 (0.00)	2.829 (0.00)
Log of Assets		-0.123 (0.00)	-0.127 (0.00)	-0.122 (0.00)	-0.125 (0.00)
Leverage Ratio		-0.381 (0.05)	-0.381 (0.05)	-0.401 (0.04)	-0.401 (0.04)
Capital Expenditures to Assets		0.052 (0.86)	0.053 (0.88)	0.021 (0.95)	-0.001 (0.98)
Non-Mgmt. Group Control Rights %		0.394* (0.01)	0.343 (0.08)		
Mgmt. Group Control Rights %			-0.073 (0.71)		
Dummy if Mgmt. Group is not the Largest Blockholder				0.221** (0.00)	
Dummy if Mgmt. Group Controls between 5% and 20% and is the Largest Blockholder					-0.356 (0.00)
Dummy if Mgmt. Group Controls between 5% and 20% and is not the Largest Blockholder					-0.063 (0.48)
Dummy if Mgmt. Group Controls above 20% and is the Largest Blockholder					-0.218* (0.00)
Adj. R <sup>2</sup>		0.30	0.29	0.30	0.30
No. of Obs.		789	789	789	789

Regression analysis of the dependent variable Tobin's *Q* on categories of management group ownership and controls estimated on a subsample of countries with low shareholder protection as measured by Antidirector Rights and Rule of Law. Antidirector Rights values range from zero to five and are taken from Table 2 of LLSV (1998). Rule of Law values range from zero to 10 and are taken from Table 5 of LLSV (1998). The low protection subsample used in all models includes countries that score at or below four on the Antidirector Rights measure and at or below seven on the Rule of Law measure. All variables have been defined previously in Tables 1-3. In panel A, Model (5) is estimated on the subsample of firms for which management group cash flow rights can be established. All regressions include country and industry fixed effects (coefficients not reported). Industry groupings are based on Campbell (1996). The *p*-value of the *F*-test of equality of each coefficient to zero is reported in parentheses. \*\*\*, \*\*, \*, and <sup>†</sup> indicate that an ownership coefficient is statistically different from that for the high protection subsample at the 1%, 5%, 10%, and 15% levels, respectively. Significance levels are based on full-sample regressions with interactions for all coefficients.

non-management and management control rights and again shows that only non-management control rights are related to value. The coefficient of 0.343 in the low protection subsample is slightly more positive than that for the full sample, but the difference between high and low protection samples is not significant. These tests provide weak evidence that increases in the percentage of control held by non-management blockholders are more positively related to value when shareholder protection is low.

I next test the effect of a controlling block held by a non-management entity and the results are much stronger than those for the overall sample. Model (3) of panel B, Table 4 reports a positive coefficient of 0.221 on the controlling non-management blockholder dummy in low shareholder protection countries, which is different from the high protection subsample at the 3% significance level. This model supports the hypothesis that the internal governance provided by controlling non-management blockholders matters more when external shareholder protection mechanisms are relatively weak.

Finally, model (4) investigates whether the interactions between large non-management blockholders and managerial control in the 5% to 20% and above 20% ranges have a different impact on firm value when shareholder protection is lower. The coefficients on management control in both the 5% to 20% and above 20% ranges when management is also the largest blockholder are more negative in the low shareholder protection subsample. However, the difference between the low and high protection subsamples is significant for only one of the coefficients, so it is hard to conclude much from this model.

Summing up, the low shareholder protection subsample tests conducted in Table 4 contain two important findings. Where external shareholder protection is relatively weak, the relation between a separation of management control rights and cash flow rights and firm value is more negative and the relation between a controlling non-management blockholder and firm value is more positive. These results are consistent with the hypothesis that potential managerial agency problems are reflected in lower firm values when external governance mechanisms are least effective. These results are also consistent with the idea that large non-management blockholders provide minority shareholders with an even greater monitoring benefit when shareholder protection is weak. One caveat about my conclusions on the importance of shareholder protection is that I cannot rule out the possibility that these results are driven by other variables correlated with shareholder protection, such as corruption, financial market development, and GDP, rather than shareholder protection itself.

## IV. Robustness Tests

### A. Endogeneity of Ownership

If ownership and value are endogenously determined, then cross-sectional regressions that indicate a relation between ownership variables and firm value cannot be used to make inferences about the causality of the relation. For instance, the negative relation between management group control in excess of its proportional cash flow and firm value could indicate that firm values are lower

as a result of the market's expectation of costly agency problems. However, it is also plausible that managers will increase their separation of cash flow rights and control rights if they want to maintain their control, but have knowledge that the cash flows of their firm will be lower in the future. In this case, expected poor performance causes a higher separation of cash flow and control rights, rather than the other way around. Similarly, regressions that show a positive relation between large non-management blockholders and firm value could indicate that monitoring of managers by large external blockholders lessens actual or expected managerial agency problems. Conversely, it could be the case that high firm values lead to increased ownership by these blockholders (Rouwenhorst (1999) and Chui, Titman, and Wei (2000)).

It is difficult to disentangle endogeneity and causality problems in order to draw inferences on whether a firm's ownership structure affects its value (Lemmon and Lins (2003)). Because I lack time-series data on ownership structures, I cannot test whether changes in ownership relate to changes in firm value.<sup>23</sup> Instead, I model the endogeneity within a cross-sectional framework (e.g., Demsetz and Lehn (1985), Loderer and Martin (1997), Cho (1998), Himmelberg, Hubbard, and Palia (1999), and Demsetz and Villalonga (2001)).

Table 5 reports the coefficients on two-stage least squares (2SLS) regressions in which the structural model contains the valuation equation and the first-stage model contains an ownership equation. While a 2SLS estimation procedure allows for endogeneity between  $Q$  and ownership, one shortcoming of this technique is that it requires the identification of some number of exogenous variables that plausibly affect only value or ownership, but not both. In selecting my equation specifications, I follow the models of Demsetz and Villalonga (2001) since these models incorporate a range of variables used in prior 2SLS ownership and value studies. My models use management cash flow rights leverage and the percentage of non-management group control rights as the ownership variables of interest. I select these relatively simple ownership variables since they need to be both related to valuation and plausibly determined by a set of independent variables.

The valuation equation has Tobin's  $Q$  as the dependent variable, an ownership variable of interest, and capital expenditures to assets, leverage, and country and industry dummies as controls. The specification of my valuation equation matches my previously reported OLS regressions, except that firm size is not included. The ownership equations have the ownership variable from the valuation equation as the dependent variable, Tobin's  $Q$  as the simultaneously determined variable, and controls. I include country dummies and leverage as common controls across the valuation and ownership equations. LLS (1999) show that ownership structures differ substantially across countries. Leverage is included in the ownership equations to reflect the possibility that creditors can act as exter-

<sup>23</sup>I conduct one (unreported) time-series test that regresses Tobin's  $Q$  values for fiscal year 1996 on my 1995 ownership variables, which act as instrumental variables for 1996 ownership, and controls. If managers are able to increase the separation of their ownership and control when they expect their firm to perform poorly in the future, then one would expect a more negative relation between past ownership separation and current firm value. I find the opposite result—1996 firm values are still negatively and significantly related to 1995 management cash flow rights leverage, but the magnitude of the negative relation is less severe.

TABLE 5

## Two-Stage Least Squares Estimation of Ownership and Firm Value in Emerging Markets

	Structural Model	First Stage Regression	Structural Model	First Stage Regression
	Dependent Variable			
	Tobin's Q	Mgmt. Cash Flow Rights Leverage	Tobin's Q	Non-Mgmt. Group Control Rights %
	(1)	(2)	(3)	(4)
Mgmt. Cash Flow Rights Leverage	-0.462 (0.01)			
Non-Mgmt. Group Control Rights %			0.245 (0.05)	
Mgmt. Group Control Rights %			0.016 (0.86)	
Capital Expenditures to Assets	0.262 (0.52)		-0.015 (0.94)	
Leverage Ratio	-0.466 (0.09)	-0.131 (0.83)	-0.263 (0.12)	0.771 (0.81)
Country Dummies	Yes	Yes	Yes	Yes
Industry Dummies	Yes	No	Yes	No
Tobin's Q		0.005 (0.99)		0.404 (0.00)
Log of Assets		0.101 (0.13)		0.093 (0.15)
Beta		-0.182 (0.18)		-0.090 (0.81)
Alpha		-0.142 (0.01)		-0.058 (0.45)
No. of Obs.	830	830	1057	1057

Two-stage least squares analysis of the dependent variable Tobin's Q on categories of management ownership, non-management ownership, and controls. Alpha and Beta values are obtained from Worldscope. These are computed (by Worldscope) using between 23 and 35 consecutive month-end percentage price changes relative to a local market index. All other variables are described in Tables 1 and 2. Industry dummy variables are based on Campbell (1998). The p-value of the t-test of equality of each coefficient to zero is reported in parentheses.

nal monitors, which might affect the likelihood of observing ownership structures that facilitate managerial entrenchment. Firm size is in the ownership equation to control for the possibility that managers of large firms will use pyramids to obtain their control rights in order to conserve on cash or that non-management blockholders prefer ownership positions in large firms.

I also include Alpha and Beta values from Worldscope, which are computed using between 23 and 35 consecutive month-end percentage price changes relative to a local market index. To the extent that Alpha, which measures past "excess" returns, is a proxy for future expected excess returns, higher Alpha values should increase the willingness of both managers and non-managers to hold cash flow rights in a firm. As such, Alpha should be negatively related to management cash flow rights leverage. Demsetz and Villalonga (2001) argue that higher market risk (Beta) indicates better prospects for managers to profit from inside information and for outside shareholders to engage in profitable monitoring of managers. Thus, Beta should be positively related to the cash flow rights blockholdings of both managers and outsiders and negatively related to management cash flow rights leverage. Inclusion of Alpha and Beta reduces the sample size by about 25%.

The Table 5 2SLS regressions provide mixed evidence on the causality of my OLS results. The first valuation equation (equation (1)) shows that, controlling for simultaneity, firm values are still significantly lower when management has control in excess of its proportional ownership. The ownership equation (equation (2)) indicates that a firm's  $Q$  value does not influence management cash flow rights leverage. Thus, these results are consistent with an interpretation that management cash flow rights leverage reduces firm value. Equation (3) shows, as before, that firm values are higher as the control rights of non-management blockholders increase. However, equation (4) indicates that there is simultaneity between  $Q$  and non-management ownership, with non-management blockholders more likely to own control rights in firms with higher  $Q$  values. For this reason, it is best to interpret the results of the OLS regression models with non-management blockholders as demonstrating a relation, but not necessarily causation, between non-management blockholders and firm value.

## B. Measurement Issues

The process of constructing ultimate ownership data for emerging market firms requires data sources that capture the full breadth of any overlap among family members, other companies, and other institutions. I follow the convention of La Porta et al. (1999) by matching managers and family based on family surname, but this match will obviously be imperfect when family members do not share the same surname. Similarly, it is plausible that I omitted firms due to my inability to obtain data on their direct blockholdings when such data do, in fact, exist. It is not clear whether these potential misclassifications will cause a bias in the sample or will simply add noise to the ownership measures.

For robustness, I compare my data with the ownership structure data for East Asian firms used in the Claessens et al. (2000) study and for Portuguese firms used in the Faccio and Lang (2002) study.<sup>24</sup> I find a very strong and significant correlation, but not a perfect correlation. To see if these differences affect my results, I replace my ownership values with those of Claessens et al. and Faccio and Lang where they are different, and re-estimate my models. I find that all of my results are similar in both magnitude and significance when I incorporate data compiled by these other authors. As such, my results appear to be robust to measurement issues relating to ownership structure classification.

I next conduct robustness tests using two alternate measures of firm performance as dependent variables, since the suitability of Tobin's  $Q$  as a measure of firm value may be compromised by differences in accounting practices or reporting across the countries in my sample. I use the market-to-book equity ratio, defined as the market value of equity divided by the book value of equity, and operating return on assets, defined as operating income deflated by assets. These performance measures are also censored at the first and 99th percentiles to alleviate the influence of outliers. Overall, I find that all of the previous ownership

<sup>24</sup>Unique coding strategies used during data collection limit my ability to fully incorporate some of these data. Specifically, I cannot use the Claessens et al. data in my tests of management group control between 5% and 20% because they code the control rights of the second through fifth largest blockholders in increments of five percentage points, rounding down (my variables use one percentage point increments).

and value relations hold using the market-to-book equity value measure, while some, but not all, of these relations hold when I specify operating return as the performance metric.

I also control for the possibility that majority-controlled firms, in which no takeover is possible, might account for some of my findings since managers are, by far, the largest blockholders in emerging markets. I re-estimate my previous models, excluding firms when a single blockholder holds a majority of the firm's control rights, and find that all results continue to hold. Finally, I perform all robustness tests using the low shareholder protection subsample and find that my previous results still obtain.

## V. Conclusion

This paper investigates the relation between ownership structure and firm value across 1433 firms from 18 emerging markets. I depart from previous cross-country research on ownership and valuation by explicitly examining management and family ownership across all of my sample firms and whether large non-management blockholders provide monitoring. I also investigate whether the relation between ownership and value depends upon the level of external shareholder protection in a country.

This paper contains several interesting results. First, I find that management group control in excess of its proportional ownership is negatively related to Tobin's  $Q$  in emerging markets. Managerial control in the 5% to 20% range is also negatively related to  $Q$ . These results indicate that investors discount firms with potentially severe managerial agency problems resulting from misaligned incentives and managerial entrenchment. Second, I provide evidence that large non-management blockholders can mitigate the valuation discount associated with these expected agency problems. Managerial control in the 5% to 20% range is only associated with lower firm values when the management group is also the largest blockholder. When a larger non-management blockholder is present, managerial control in the 5% to 20% range does not affect firm value. Regressions also show that large non-management blockholdings are positively related to Tobin's  $Q$  values.

Next, I examine whether the relation between ownership and value depends on the level of shareholder protection in a country. When managers have control rights that exceed their proportional ownership, firm values are significantly lower in countries with low shareholder protection. I also find that the relation between large non-management blockholders and value is significantly more positive in low protection countries. These findings suggest that external shareholder protection mechanisms play a role in restraining managerial agency costs. They also indicate that large non-management blockholders may act as a substitute for missing institutional governance mechanisms.

Interesting topics for future ownership structure research include identifying the factors that drive the presence of large non-management blockholders and studying why Latin American firms use non-voting equity structures much more frequently than do other emerging market firms.

APPENDIX  
Sources of Control Rights and Cash Flow Rights Ownership Data

*Panel A. Overall Data Sources Used Frequently for All Countries*

Ultimate Ownership Data	Non-Voting Equity Shares
Lexis-Nexis, Worldscope, Extel Cards, Global Data Direct (FS online), Hopenstedt Affiliations and Corporate Structures, Nelson's Public Company Profiles, Hoover's Company Capsules, ELC Largest Companies, ICC Financial Analysts reports, Creditreform German Companies, Creditreform Swiss Companies, Who Owns Whom, company-specific websites	Datstream, Worldscope, Global Data Direct

*Panel B. Direct Ownership Data Sources and Additional Ultimate Ownership Data Sources per Country*

Country	Direct Ownership Data	Ultimate Ownership Data (and non-voting share data)
Argentina	Argentina Company Handbook (CH), 1997, Hoover's Inc., Austin, TX	Argentina CH; Brazil CH; Latin American Companies Handbook, 1995, Moody's Investors Service, NY, NY; Hoover's Master List of Latin American Companies 1996-1997, The Reference Press, Austin, TX
Brazil	Brazil Company Handbook, 1997, Hoover's Inc., Austin, TX	Brazil CH; Argentina CH; Latin American Companies Handbook, 1995; Hoover's Master List of Latin American Companies 1996-1997
Chile	Worldscope	Argentina CH; Brazil CH; Latin American Companies Handbook, 1995; Hoover's Master List of Latin American Companies 1996-1997
Czech Rep.	Czech Stock Market Guide, 1996, Aspekt Klicoušen s.r.o., Prague, Czech Republic	Czech Stock Market Guide; World Bank data files
Hong Kong	Thornton Guide to Asian Companies, 1996, Edinburgh Financial Publishing Asia, Hong Kong	Thornton Guide; Asian CH; Japan Company Handbook, 1997, Toyo Keizai Inc., Tokyo, Japan
Indonesia	Indonesian Capital Market Directory, 1993, Institute for Economic and Financial Research, Jakarta Stock Exchange, Jakarta	Indonesian Directory; Thornton Guide; Asian CH; Japan CH
Israel	Global Data Direct, Financial Information Services Online	
Malaysia	Thornton Guide to Asian Companies	Thornton Guide; Asian CH; Japan CH
Peru	Global Data Direct	Argentina CH; Brazil CH; Latin American Companies Handbook, 1995; Hoover's Master List of Latin American Companies 1996-1997
Philippines	Investments Guide, 1997, Research Department, Philippine Stock Exchange, Manila	Investments Guide—Philippine Stock Exchange, Thornton Guide; Asian CH; Japan CH
Portugal	Worldscope	
Singapore	Thornton Guide to Asian Companies	Thornton Guide; Asian CH; Japan CH
So. Africa	Global Data Direct	
So. Korea	Worldscope	Thornton Guide; Asian CH; Japan CH
Sri Lanka	Global Data Direct	
Taiwan	Thornton Guide to Asian Companies	Thornton Guide; Asian CH; Japan CH
Thailand	Thornton Guide to Asian Companies	Thornton Guide; Asian CH; Japan CH; MFC Investment Handbook, 1998, Mutual Fund Public Company Limited, Bangkok
Turkey	Worldscope	

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