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Corporate Governance and Firm Valuation in Colombia

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Abstract[*]

This paper studies the separation of ownership and control of 108 listed companies in Colombia from 1996 to 2002, finding that voting rights are greater than cash flow rights because of indirect ownership across firms. The paper also examines the association of various ownership and control measures and separation ratios with a firm's value and performance for the same sample of companies that traded their stock from 1998 to 2002. Large blockholders were found to exert a positive influence upon a firm's valuation and performance, which validates the positive monitoring approach of large shareholders, but this relationship is not monotonic. The paper further reports results from a 2004 survey which suggests that Colombian firms have been slow to improve their corporate governance practices.

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1. Introduction

The analysis of corporate governance systems has attracted attention in recent years. Some studies have examined the connection between ownership structures and performance, while more recently others have focused on the relationship between corporate governance indexes at the firm level and a firm's valuation and performance. In the first set of papers, researchers have tested two opposite effects of ownership upon performance. On the one hand, large blockholders who have good information on their firms have incentives to monitor managers and to minimize problems of management entrenchment. This monitoring effect is positive. On the other hand, large blockholders' incentives may be at odds with those of minority shareholders. Some of these incentives can be empire-building, excessive risk-taking, and the like. This has been called the tunneling effect, which is of course negative upon a firm's valuation and performance.

The second set of research has examined firm-level corporate governance mechanisms, and most has focused on cross-country analyses where the emphasis is on the effect upon governance of the legal systems across countries. La Porta, López-de-Silanes and Shleifer (1999) argue that an investor's protection tends to be greater when the legal environment is stronger, and therefore his willingness to invest tends to increase. They tested whether corporate governance helps explain a firm's valuation and performance, finding a strong positive association.

This paper addresses both types of research for first time for the Colombian context. It first reports results that link different ownership and control measures and separation ratios with a firm's value and performance for 108 non-financial firms that traded their stock during the period 1998 to 2002. After controlling for a variety of control variables, evidence was found that large blockholders exert a positive influence upon a firm's valuation and performance, which validates the monitoring approach, but it was also found that this relation is not monotonic, implying that when the separation of control and ownership tends to increase, a negative effect is exerted on a firm's valuation.

In order to analyze the effects of corporate *best practices* on firm performance and valuation, we report the results of a survey of corporate governance practices conducted in 2004 for 43 Colombian non-financial companies. For 10 additional companies the questionnaire was filled out based on official documentation such as companies' shareholder general meetings reports and board of directors minutes filed at the Superintendency of Securities (now Financial

Superintendency). These practices were turned into a corporate governance index (CGI) that includes information on six different criteria: independence, accountability, fairness, responsibility, transparency and discipline. The outcome suggests that the implementation of good governance in Colombian firms has been slow and poor as measured by a CGI average that is less than half of the maximum attainable value. The Colombian stock market is still underdeveloped and needs further deepening. In fact, during the period analyzed, that market shrank if one measures it by the number of firms that have traded their stocks in the last five years. This paper, then, tries to address the question of whether better governance practices lead to better (accounting) performance. Using standard OLS and correcting for endogeneity, the results were not robust. Performance is not explained by good governance practices. This is the first attempt that has been made for the case of Colombia that try to verify such hypothesis, and despite the outcome, this study helps broaden the understanding of corporate practices in emerging markets.

Section 2 explains the used dataset of stockholders stakes used as well as the methodology followed to measure integrated ownership as a proxy of investors' voting rights. It also presents the explanation of the final working panel of firms where there is a matching among ownership statistics indicators, firm market valuation and performance indicators. Section 3 presents the core results of corporate ownership and control statistics for the sample of companies that traded their stocks during the period 1998-2002, as well as an analysis of ultimate owner. Section 4 shows the main result of corporate best practices based on a survey carried out during the third quarter of 2004, which is the first survey conducted for Colombia following the Credit Lyonnais Security Asia (CLSA) structure. Section 5 reports the econometric analysis of corporate control and ownership with firm valuation and performance. Furthermore, it includes a statistical analysis of the determinants of our corporate governance index. Section 6 summarizes the study main results and highlights the policy implications regarding future achievements of better corporate governance practices.

2. Data and Methodology

The data on corporate shareholders used in this study come from two sources: 1) the Superintendency of Securities (*Superintendencia de Valores*, SVAL) and 2) the Superintendency of Commercial Societies (*Superintendencia de Sociedades*, SSOC). These two institutions are

responsible for inspecting and overseeing equity-issuing corporations and larger unlisted firms, respectively. The SVAL ownership database is based on National Equity Registry Forms, which record information on a company's top 20 shareholders. This form is mandatory for all equity issuers that are under the oversight of SVAL and must be updated on a yearly basis. The form also records the names of board members, the number of outstanding shares, the number of preferred dividend shares and the nominal value for each type of shares. Corporate law in Colombia, according to the Commercial Code, forbids dual shares and any other kind of legal deviations from the one-share-one-vote rule.

We assembled a comprehensive dataset of shareholder records for 233 real sector companies that were listed during 1996-2002. This database was used in the study of Gutiérrez, Pombo and Taborda (2006) on the ownership and control for the largest listed non-financial Colombian corporations. Having a panel dataset of ownership improves the analysis because we can capture ownership dynamics, an element not usually included in international studies of corporate control.[1] At most, this database provides first or second ownership layers. In order to complete a company's second, third, and higher ownership layers, we assembled a dataset of information on major shareholders of unlisted firms who showed up as major shareholders of a listed corporation and who were affiliated with a business group. This information came from the SSOC records of the largest stakeholders for open but not public corporations, as well as from partnership distributions for limited liability and all other firm legal types. Thus, we could gather complementary ownership information for about 431 unlisted firms for the 1996-2002 period.

Appendix 1 explains how the ownership dataset was compiled. The top of the figure shows the listed firms included in the analysis of ownership and control. This group of firms is referred to as the SVAL dataset. The largest shareholders can be an individual or family, a listed firm, an unlisted firm, a non-profit organization, a holding investment or trust fund, or other legal contractual forms allowed by law.[2] If the shareholder is a firm, it can be listed or unlisted. In the first case, a second layer is added from the SVAL dataset, and in the second case the original information is complemented with information from the Superintendency of Commercial

[1] We excluded all companies subject to special regulations such as public utilities, financial intermediaries, educational institutions, and livestock funds since their performance might be affected by regulation and State property participation, which makes results not comparable. The listing status criterion refers to whether a listed firm was still listed by the end of 2002 or had canceled its equity registry and was de-listed.
[2] For instance, there are inheritance and estate taxes.

Societies or SSOC dataset; the process is continued until a third layer is completed for most listed companies.

From the abovementioned shareholders' ownership dataset a sample of 108 companies was extracted whose stocks were traded at least *once* in a year during 1998 to 2002. It means that all Colombian companies that traded their stocks during that period were included, as were the year(s) in which the stock was actually traded, while those years in which their stocks were not traded were excluded. This was done for the following reasons. First, companies can issue several types of securities such as stocks, bonds, and commercial papers. However, stocks are the only securities that have variable returns depending on how well a firm is managed and how well its corporate governance is conducted. Bonds and other types of fixed-return securities can be assimilated to bank loans. Second, reliable data for (average) annual market prices of stocks is almost non-existent and/or difficult to obtain for years other than the period selected. Since one of the objectives of this study is to test how firm-valuation measures (e.g., Tobin's q) are related to ownership and other control variables, it was essential to obtain the stock market prices, and that was only possible for firms that satisfied the first and second points. Third, the data were limited to just the year(s) in which the stocks were actually traded at least once during that year, making it a complete, unbalanced panel. The rationale for doing this stems from an interest in studying how the relationships of interest evolved during that period for firms that traded their stocks during all five years versus those that traded for four years or less.

2.1 Ownership and Control Definitions

This section discusses conceptual and methodological issues regarding measurement of cash flow rights and voting rights, which are central for the analysis of firms' ownership and control separation. The study of ultimate ownership or shareholder controller starts with the fundamental question of who really owns a firm: the investor who has greater direct stakes or the investor who controls. The corporate finance view is based on the delegation problem in the principal-agent framework of shareholders and company executives. Since Grossman and Hart (1982), this literature has understood owners as those who control the firm.

Studies of ownership and control have followed two complementary approaches to identify and measure ultimate controllers. The first follows the La Porta, López-de-Silanes and Shleifer (1999) methodology that defines a firm's ultimate controller as those shareholders

whose direct and indirect voting rights exceed 20 percent. Under a one-share-one vote rule this methodology says that if a shareholder has a direct stake in a company, it is necessary to add something through indirect ownership along the property chain. Thus, the ratio of cash flow to voting rights is less than or equal to 1, meaning that 1 dollar of direct investment will provide (1+x) voting rights if there is any indirect ownership.

The second approach follows a portfolio view of a company's direct investments. This methodology uses an input-output methodology to compute *integrated ownership* stakes as the sum of direct and indirect ownership. This approach has been used in several case studies in Japan and continental Europe, where business group structures are more complex than those in the United States and United Kingdom due to the existence of cross-share holdings, rings, pyramidal cascades, interlocks with financial institutions and high concentration levels of voting and direct ownership stakes.[3] This methodology defines *cash flow rights* as *direct ownership* and *voting rights* as *integrated ownership.*

The integrated ownership formula comes from Baldone's (1997) paper, which defines integrated ownership as *"… the sum of percentage shares of total equity shareholder i holds in firm j directly, through cross-shareholdings and indirectly.*" This definition in matrix algebra is equivalent to

$$\mathbf{Y} = \underbrace{\mathbf{A}}_{\text{Direct Ownership}} + \underbrace{\mathbf{YA}}_{\text{Indirect Ownership}} - \underbrace{\mathbf{D}(\mathbf{Y})\mathbf{A}}_{\text{Reciprocal or cross-shareholding ownership}} \qquad (1)$$

where: $\mathbf{A}$ is the matrix of direct equity held by firm ***i*** in firm ***j***, $\mathbf{D}(\mathbf{Y})$ stands for the diagonal elements of $\mathbf{Y}$ and $\mathbf{I}$ is an $(N \times N)$ identity matrix. The solution for $\mathbf{Y}$ in equation (1) is:

$$\mathbf{Y} = \left(\mathbf{D}(\mathbf{I} - \mathbf{A})^{-1}\right)^{-1} \mathbf{A}(\mathbf{I} - \mathbf{A})^{-1} \qquad (2)$$

Thus, we used formula (2) to estimate integrated ownership for all affiliated firms in our sample, whose complete derivation is presented and analyzed in Gutierrez et al. (2006).[4] Lastly, firms'

[3] For instance, see the studies of Flath (1992), Baldone et al. (1997), and Barca and Becht (2001). The latter applies the matrix formula of Baldone et al. to analyze corporate structure and voting blocks in European conglomerates in seven countries.

[4] There is a common critique to this methodology in the way of counting voting rights, since there might be double counting in cross-shareholdings and thus integrated ownership statistics might overestimate the concentration of

direct ownership was estimated through concentration ratios (CR) for the largest shareholder (CR_1), the sum of the two largest shareholders (CR_2), and so on, as desired. The concentration ratio at *r* level for a total of *N* individuals is given by

$$CR_r = \frac{\sum_{i=1}^{r} a_{ij}}{\sum_{i=1}^{N} a_{ij}} \quad \text{and} \quad r < N \qquad (3)$$

2.2 Valuation and Performance Measures

This study focuses on firms listed during the period 1998 to 2002 where we were able to compute valuation measures such as Tobin's q.[5] The estimation of Tobin's q follows Black, Jang and Kim (2003), who defined it as the ratio between the market value of assets to the book value of assets. As in the case of Korean firms, Colombian accounting and tax regulations require that all firms update their book values yearly, so the use of the book value of assets must be very close to replacement costs. Market value of assets was estimated as the sum of book value of debt plus book value of preferred stocks plus market value of common stock. In turn, the yearly market value of common stocks was calculated as the product of the average market price times the number of common stocks. The book value of liabilities was taken as the book value of debts.

Researchers in the field of finance have recently suggested that for emerging economies, Tobin's q could not be a good indicator of firm value because of some measurement problems. They have proposed further related value measures. The first one is market-to-book ratio, *MTBR*, defined as the ratio between market value of common stock (as defined above) and book value of common stock; this latter estimated as the sum of the book value of assets minus the book value

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voting rights when the ultimate owner, such as a holding, cannot be fully traced down the chain of property. An interesting refinement of this methodology is in systems where there are no deviations from the one-share-one-vote rule. With the simple majority rule, a shareholder with direct shares above 50 percent will exert total company control. For details, see Becht (1997) and Chapelle (2004).

[5] Average market prices for Colombian firms are not quite updated and data sets usually present some differences. When a firm is not listed in the stock exchange, or de-listed, its market price is not reported, in which case it is impossible to obtain almost *any* market valuation.

of liabilities minus the book value of preferred stock. The second measure is market-to-sales ratio, *MTS*, market value of common stock divided by sales.

Unfortunately, firm market value cannot be obtained when firms are not listed or when they de-list or do not trade their stocks. Since two of the samples in this paper are composed of firms that fall into one or more of those categories, two accounting performance measures were also estimated, such as Returns on Assets (*ROA*) and Returns on Equity (*ROE)* following standard definitions. The financial data comes from companies' balance sheets and income statements reported to either SVAL or SSOC. When a firm is de-listed from the stock exchange it has to report to SSOC if the company fulfills the threshold in sales or size that is required by law.[6] All de-listed cases in the study sample of the 108 trading stock companies had records at SSOC and thus the financial variables could be chained for the whole period.

3. Corporate Ownership and Control

3.1 Ownership Statistics

It is well-known that corporate ownership and control is highly concentrated in Colombia. This fact has been tied to the formation of conglomerates and business groups from the 1950s to late 1970s, when vertical control provided the incentive for controlling productive chains from upstream to downstream industries. Most of these groups started as family businesses and then became corporate groups with strategic investments in their core business. Gutierrez et al. (2006) show that there are four facts regarding corporate ownership and control for the entire sample of listed companies during the 1996-2002 period:

a) Corporate ownership is highly concentrated. The top four largest shareholders have more than 51 percent of a firm's cash flow rights in almost all companies. Under one-vote-one-share rule this provides a private control to the largest shareholders. Moreover, for affiliated companies the largest voting blocks belong to the same business group.

[6] The Superintendencia de Sociedades (Supersociades) oversees all commercial firms with assets, or annual earnings of at least 20 thousand legal minimum salaries or around US$2.3 million; must report their financial statements to Supersociedades according to Decree 3100 of 1997. From 1995 to 2000 and average of nine thousand firms reported data to Supersociedades.

b) Ownership concentration has increased. The frequency distribution of concentration ratios for the top-four voting blocks (CR4) became left skewed from 1996 to 2002. On average the four largest shareholders had more than 80 percent of cash flow rights in 45 percent of the sample firms in 2002. This number was around 32 percent in 1996.

c) There are low separation ratios within the largest voting block, at the top-four voting blocks and at ultimate owner levels. Nonetheless there are cases were there is evidence of full separation at controlling shareholders level.

d) Investment firms play a central role as controlling shareholders.

In this section we test if the above patterns hold for the sample of 108 trading stock companies. Table 1 reports the main results of the measurements of direct ownership stakes for the total sample and time-period. The study-sample represents 60 percent of total listed-companies were ownership data was collected. These numbers are similar to those stated in the first stylized fact above-mentioned. In fact, concentration ratios are high and imply that there is a company's control within the top four voting blocks. On average, the largest shareholder has 30 percent of cash flow right, while the top-four have 60 percent. Ownership concentration increased across the two periods. The median of the largest stake rose 6 points, while it did in 5 percentage points across the top-four shareholders. Together these companies exhibit low liquidity according to the trading indicator. It measures the percentage of days in which stocks were traded over a year's working days. Half of those companies trade less that 3 percent and on average traded 16 (19) percent between periods.

These numbers suggest a change in the distribution over of ownership concentration. Figures 1 and 2 depict and contrast the change in ownership concentration distribution at the CR4 ratio between the years 1996 and 2002. The histograms show that the CR4 distribution became left skewed, meaning higher concentration within firms. In 1996 there were two peaks in the frequency distribution at the 0.55-0.65 and 0.9-1.0 bins. For the first peak, around 25 percent of the firms in the sample, the four largest shareholders had on average control of 60 percent of voting rights. The second peak indicates that 15 percent of the firms the top-four shareholders had more than 90 percent of voting rights. In 2002 the four-largest stakes had direct voting rights

above 90 percent in 20 percent of the firms and between 70-80 percent in 15 percent of the companies. Thus, structural changes took place within the largest voting blocks across trading firms. Breaking out those measurements by economic sector, as shown in Table 2, one finds similar patterns for ownership structure, where the mean (median) of the top four direct stakes ownership is above 51 percent—with the exception of firms in agriculture and livestock activities, where the mean (median) is around 0.34 (0.35) for the entire period. The most concentrated corporations are located in manufacturing, where the mean (median) increased from 0.62 (0.63) to 0.66 (0.68) and health and personal services whose mean (median) slightly decreased from 0.85 (0.93) to 0.83 (0.87) between periods.[7]

[7] One point regarding the health care companies in the sample requires further explanation. The health system in Colombia has two types of private health care providers. One type consists of so-called Health Promotion Companies, which belong to the mandatory health program. Their prices are regulated, and they receive cross subsidies from the social security system. Their main source of income is the social security deductibles from all workers in the country with formal labor contracts. The second type of provider consists of pre-paid medical companies, the Colombian equivalent to Health Maintenance Organizations (HMOs) in the United States, which work through direct contracts that are not price regulated. The main regulation that these companies face is quality service regulation that is similar to that in any industry required to comply with safe product regulation. The companies in the sample used in this paper are pre-paid medicine companies and private clinics.

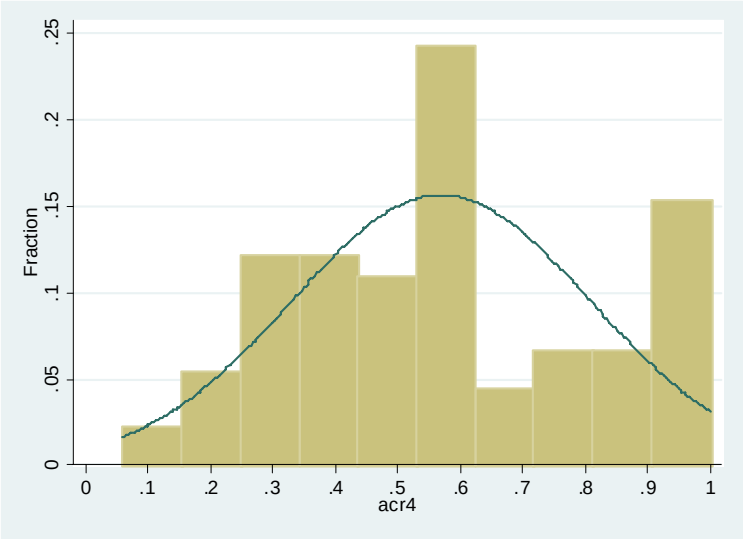
Table 1. Sample of Trading Companies, Ownership Statistics: Number of Firms, Sample Coverage, and Direct Ownership Stakes (Direct Voting Rights)

Indicator/statistic	**1996-1999**	**2000-2002**
Sample Firms	90	83
Total listed firms 1/	148	133
Coverage	0.6064	0.6216
Share top-20 shareholders		
N	90	83
Mean	0.7336	0.7537
Median	0.8104	0.8340
75th percentile	0.9290	0.9586
25th percentile	0.5776	0.6017
Standard deviation	0.2355	0.2381
Interquantile range	0.3514	0.3568
Share largerst shareholder: CR1		
N	90	83
Mean	0.3106	0.3476
Median	0.2509	0.3172
75th percentile	0.4396	0.4836
25th percentile	0.1372	0.1678
Standard deviation	0.2164	0.2185
Interquantile range	0.3024	0.3158
Share top-four shareholders: CR4		
N	90	83
Mean	0.5902	0.6171
Median	0.5877	0.6331
75th percentile	0.7912	0.8092
25th percentile	0.3975	0.4327
Standard deviation	0.2469	0.2546
Interquantile range	0.3937	0.3765
Trading		
N	42	58
Mean	0.1596	0.1952
Median	0.0250	0.0350
75th percentile	0.1184	0.2442
25th percentile	0.0100	0.0133
Standard deviation	0.2742	0.2920
Interquantile range	0.1084	0.2309

*Source***:** Own estimations based on new assembled dataset from SVAL Registry Forms.

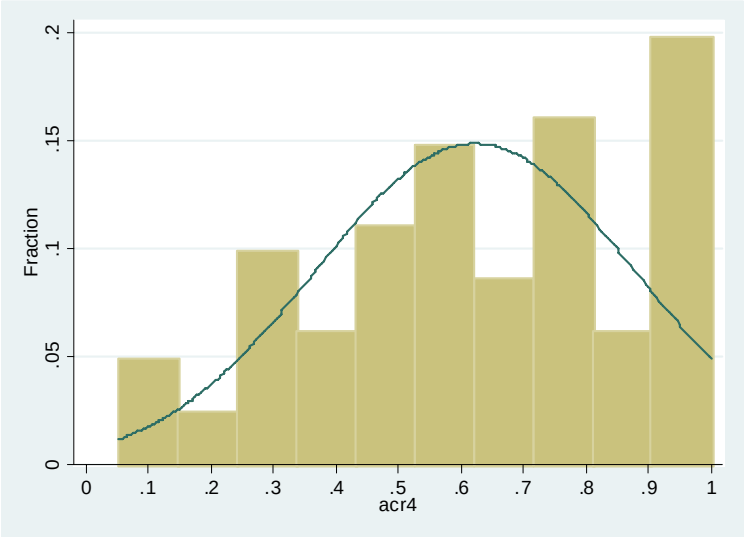
Notes: Direct stakes are equal to direct voting rights under the one-share-one-vote rule. Firm sample excludes financial institutions, utilities, and livestock funds. Trading stock variable from 1998.

Figure 1. Histogram of the Top Four Shareholders (CR4), 1996



Source: Authors' calculations based on new dataset compiled from SVAL National Equity Registry Forms (RNVIs).

Figure 2. Histogram of the Top Four Shareholders (CR4), 2002



Source: Authors' calculations based on new dataset compiled from SVAL Equity Registry Forms (RNVIs).

Table 2. Sample of Trading Companies,
Direct Ownership Stakes by Industry Group

ISIC	Largest Voting Block (CR1)		Top-four Voting Blocks (CR4)	
	1996-99	**2000-02**	**1996-99**	**2000-02**
1 Agriculture, Hunting, Forestry and Fishing				
N	5	5	5	5
mean	0.1507	0.1934	0.3223	0.3672
median	0.1227	0.1629	0.3029	0.4073
2 Mining and Quarrying				
N	2	2	2	2
mean	0.2713	0.3642	0.5979	0.6301
median	0.2713	0.3642	0.5979	0.6301
3 Manufacturing				
N	48	43	48	43
mean	0.3295	0.3784	0.6203	0.6555
median	0.2838	0.3566	0.6273	0.6799
5 Construction				
N	4	3	4	3
mean	0.1940	0.1944	0.4956	0.4490
median	0.1950	0.1874	0.5591	0.4975
6 Wholesale, Retail Trade, Restaurants, Lodging Services				
N	9	7	9	7
mean	0.3256	0.3281	0.6207	0.6420
median	0.2976	0.3015	0.6389	0.6862
7 Transport, Storage and Communication				
N	6	6	6	6
mean	0.2487	0.3620	0.6189	0.6839
median	0.1930	0.2857	0.6018	0.6737
8 Financing, Insurance, Real State				
N	10	11	10	11
mean	0.2306	0.2269	0.4434	0.4636
median	0.1909	0.1905	0.3990	0.4033
9 Community, Social and Personal Sevices				
N	5	5	5	5
mean	0.5894	0.5634	0.8546	0.8328
median	0.5558	0.5173	0.9372	0.8707
10 Other non-classified business activities				
N	2		2	
mean	0.3026		0.5174	
median	0.3026		0.5174	

Source: Authors' calculations based on new dataset compiled from SVAL Equity Registry Forms (RNVIs).

3.2 Separation between Ownership and Control

Berle and Means (1932) stressed the difference between ownership and control. In their work, they estimated separation of ownership and control among the 200 largest American corporations. For them, it was clear that *"Since direction over the activities of a corporation is exercised through the board of directors, we may say for practical purposes that control lies in the hands of the individual or group who have the actual power to select the board of directors (or its majority), either by mobilizing the legal right to choose them—'controlling' a majority of the votes directly or through some legal device—or by exerting pressure which influences their choice"* (Berle and Means, 1932: 69). However, corporate research for many years focused only on the structure of corporate ownership, setting aside the overwhelming differences between control and ownership. In the United States, the main early works were conducted by Demsetz and Lehn (1985) and Mork, Shleifer, and Vishny (1988), who used corporate ownership estimates to test whether such measures had any bearing on a corporation's profitability. Prowse (1992) conducted similar research on Japanese corporations.

More recently, La Porta et al. (1999) returned to the seminal analyses of Merle and Means by looking at what they called "ultimate owners." In their words *"…a corporation has a controlling shareholder (ultimate owner) if this shareholder's direct and indirect voting rights in the firm exceed 20 percent"* (La Porta et al., 1999: 476). That percentage was estimated following a chain of control's links of votes. Claessens et al. (2000) and Claessens et al. (2002) also studied the separation of ownership and control for almost 3,000 East Asian corporations. The used a slightly different measure than La Porta et al.; and estimated the separation ratio as follows: *"suppose that a family owns 11 percent of the stock of firm B. We then say that the family controls 11 percent of firm B—the weakest link on the chain of control rights. In contrast, we say that the family owns about 2 percent of the cash-flow rights of firm B, the product of the two ownership stakes along the chain."* In both studies, researchers used different cutoff points to determine effective control either at 10 or 20 percent.

The separation of ownership and control in this study follows the portfolio or input-output methodology that yields not only the ultimate owner, as in La Porta et al. (1999), but also any blocks of *selected* ultimate owners (see Brioschi, Buzzachi and Colombo, 1989; Ellerman, 1991; and the recent papers by Chapelle and Szafarz, 2002, and Chapelle, 2004). Gutiérrez et al. (2006) provide a thoroughly detailed explanation of the methodology and present general

estimates for a sample of about 148 Colombian companies, some of which will be used here when testing the hypothesis.

The measurement of voting rights under the portfolio view relies on the concept of a shareholder's integrated ownership (direct + indirect), while cash flow is associated with direct ownership. In terms of control, the former provides indirect votes, and the latter provides direct votes. Through this way one can defined different separation levels as concentration ratios are being measured. The ratio of cash-flow rights to voting rights of the largest, the top-two largest, the top-four largest, and the *n*-top largest shareholders are defined by, *SR1, SR2, SR4 and SRn*. Thus, the separation ratios are defined from zero to one interval by construction. One says that there is a complete separation when such ratio approaches to zero, meaning that the controlling shareholder is an investor who is able to control a company without having too much firm's direct equity but through its investments along company's ownership chain.

Table 3 displays the results regarding the measurements of the separation ratio for the top-four (SR4) largest shareholders under the 20 percent cutoff level, where in most cases the ultimate owner belongs to these voting blocks. The measurement was applied to the 108 stock trading firms who form the study sample of companies that firm's market value can be proxied by Tobin's Q. Two-time spans were considered before and after the year 2000. Several facts are visible from that table. First, separation ratios are low meaning that they are close to one. This result goes in the same direction than those presented in Gutiérrez et al. (2006) for all non-financial listed firms in Colombia. The mean (median) of the separation ratios for the four-largest shareholders (SR4) is 0.88 (0.98) and 0.87(0.94) for each of the two periods respectively. The numbers for the whole sample of listed firms are lower in more than ten basic points. The mean (median) of the SR4 in each period are 0.77 (0.84) and 0.74 (0.81) respectively.

This outcome implies that firm control is exerted through direct ownership. Corporate structure thus follows a strong owner management (private) bias. In other words, owners command and control boards and appoint CEOs. Second the control levels proxied by these separation ratios have remained constant across the two periods. Third, concentration of voting is greater in construction, manufacturing, and health and personal services. The SR4 mean for construction firms is around 0.97, for manufacturing 0.87 and for health companies is 0.98 for both periods. Financial and insurance companies, composed of holding investment or trust funds, and play the role of ultimate controllers within the business groups. Voting concentration

decreased slightly in the two periods from 0.88 to 0.85, so these ultimate owners are still strategically the same.

Table 3. Separation of Cash Flow to Voting Rights
Top-four voting blocks by industry group (averages per period)

ISIC	N	mean	Median	P25
			1996-1999	
Agriculture, Hunting, Forestry and Fishing	5	0.9181	0.8967	0.8954
Mining and Quarrying	2	0.7816	0.7816	0.5633
Manufacturing	48	0.8732	0.9753	0.7570
Construction	4	0.9745	1.0000	0.9345
Wholesale, Retail Trade, Restaurants, Lodging Services	9	0.9263	0.9666	0.8639
Transport, Storage and Communication	6	0.7919	0.8098	0.6219
Financing, Insurance, Real State	10	0.8786	0.9850	0.8580
Community, Social and Personal Sevices	5	0.9913	1.0000	1.0000
Other non-classified business activities	2	0.9592	0.9592	0.9184
Total sample	90	0.8885	0.9803	0.8187
Total listed firms /1	148	0.7697	0.8409	0.8378
			2000-2002	
Agriculture, Hunting, Forestry and Fishing	5	0.8877	0.8857	0.8586
Mining and Quarrying	2	0.8090	0.8090	0.6179
Manufacturing	43	0.8650	0.9592	0.7446
Construction	3	0.9807	1.0000	0.9420
Wholesale, Retail Trade, Restaurants, Lodging Services	7	0.8876	0.9237	0.7701
Transport, Storage and Communication	6	0.8258	0.8367	0.6979
Financing, Insurance, Real State	11	0.8528	0.9038	0.7862
Community, Social and Personal Sevices	5	0.9747	1.0000	1.0000
Other non-classified business activities				
Total sample	83	0.8711	0.9421	0.7719
Total Listed Firms /1	133	0.7398	0.8134	0.7573

Source: Authors' calculations based on new dataset compiled from SVAL National Equity Registry Forms (RNVIs).
Notes: Separation ratio = direct ownership /integrated ownership.

The overall ratios tend to be slightly higher in Colombia (0.88, 0.87) than those found in other studies. Although here we show the SR4 ratios they do not differ significantly from the largest voting block ratio (SR1), whose means are 0.92 and 0.93 for each of the two-periods. For instance, Chapelle (2001) reports a 0.80 separation ratio for the largest voting block for 135 listed Belgian firms in 1995. Claessens et al. (2000) report an overall ultimate controller separation ratio average of 0.74 for 2,611 publicly traded East Asian corporations for 1997, with a ratio of 0.88 for Hong Kong, 0.90 for the Philippines and 0.94 for Thailand. In addition, La

Porta et al. (1999) find that in Argentina and Mexico ultimate controllers need approximately 19.6 percent and 16.5 percent of cash flow, respectively, to obtain 20 percent of voting rights. Therefore, highly equity concentration is associated with low separation ratios and induces a strong control bias toward owners, and there is no need for further voting leverage through indirect ownership investments.

Table 4 reports the ultimate owner analysis for our study-sample of 108 stock trading companies for the years 1996 and 2002, which are the starting and ending dates of the working panel. The results make more robust our findings concerning the separation ratios. Controlling shareholders have on average 32 percent of cash flow rights and around 34 percent of voting rights for the two chosen years. In 1996 widely held companies represented 32 percent of ultimate owners, which means that 68 percent of those companies had ultimate owners. The later number increased to 86% in 2002 because widely held corporations decreased their participation as ultimate owners. Second, domestic corporations are the main source of controlling shareholders. Most of these firms are unlisted non-public corporations. They increased their participation from 26 percent to 33 percent as ultimate owners.

Third investment firms play a central role as a controlling voting block. As shown in Gutiérrez et al. (2006) investment firms play a central role not only as controlling shareholders of affiliated corporations but also for the entire business group. Usually family owners are hidden within those investment firms and trust fund contracts. A fourth result is that financial institutions play a limited role as controlling shareholders; While regulations prohibit banks from having direct stakes in real sector companies, banks participate through subsidiary firms such as trust funds, investment banks, and insurance companies. For both years, though, financial institutions represent less than 9 percent of the controlling owners. This finding is consistent with the figures reported in La Porta et al. (1999) and Claessens et al. (2000).

The finding regarding the role of families as ultimate owners deserves particular attention. At first glance, the table shows that the weight of families is less than 6 percent and decreased during the period to 4 percent in 2002. This finding is the opposite of what has been found in international studies of corporate control in emerging markets. For instance, the study of La Porta et al. (1999) reports that family-controlled firms represent 65 percent of Argentinean corporations and 100 percent of Mexican large and medium-size publicly traded firms. Claessens et al. (2000) report similar results. In particular, under the 20 percent cutoff, family-controlled

firms represent on average 58 percent of the East Asian corporations studied. Indonesia has the highest rate, at 71.5 percent, and the Philippines has the lowest rate, at 45 percent. The exception is Japan, an OECD country, where approximately 10 percent of firms are family-controlled firms.

Table 4. Sample of Stock Trading Companies, Ultimate Shareholders' Composition and Separation of Ownership and Control (20% cutoff)

TOTAL SAMPLE 1996							
	Number	Part	Cash-Flow	Voting	Separation Ratio		
type	Corporations	%	Rights	Rights	mean	Min	Max
Family	5	5.5	0.341	0.341	1	1	1
Investment firms	14	15.4	0.297	0.330	0.885	0	0.906
Trust funds	3	3.3	0.254	0.254	1.000	0.999	1.000
Financial Institutions	8	8.8	0.256	0.291	0.877	0.601	0.895
Domestic Corporations	24	26.4	0.434	0.473	0.879	0.402	0.895
Limited Liability	1	1.1	0.133	0.133	1	1	1
Widely Held	29	31.9	0.179	0.186	0.930	0	0.991
Foreign Firm	4	4.4	0.368	0.368	1	1	1
State	1	1.1	0.797	0.797	1	1	1
Missellaneous	2	2.2	0.430	0.430	1	1	1
Total Sample	**91**	**100**	0.303	0.323	0.917	0	1
TOTAL SAMPLE 2002							
Family	3	3.8	0.405	0.405	1	1	1
Investment firms	19	24.1	0.268	0.286	0.935	0.587	1
Trust funds	4	5.1	0.355	0.356	0.994	0.976	1
Financial Institutions	4	5.1	0.354	0.354	1	1	1
Domestic Corporations	26	32.9	0.399	0.441	0.873	0.089	1
Limited Liability	1	1.3	0.500	0.500	1	1	1
Widely Held	11	13.9	0.198	0.252	0.921	0.181	1
Foreign Firm	5	6.3	0.325	0.325	1.000	0.999	1
State	3	3.8	0.493	0.493	0.999	0.996	1
Missellaneous	3	3.8	0.246	0.330	0.720	0.160	1
Total Sample	**79**	**100**	0.329	0.358	0.921	0.089	1

Source: Authors' calculations based on new dataset compiled from SVAL National Equity Registry Forms (RNVIs) and shareholder information from the SSOC files.

A closer look of the data and ownership layers show that families are hidden behind some firm legal types such as investment firms, fiduciary contracts and the so-called *sociedades en comandita (societes en commandité*).[8] If one classifies all investment firms, trust fund contracts and around 50 percent of limited partnership as well as unlisted corporations as family-controlled firms, it can be seen that they represent 38 percent of the total sample in 1996 and 50 percent in 2002. Those numbers are more than twice what is commonly observed for continental Europe (18 percent), but still significantly lower than the levels in Argentina and Mexico, but similar to countries such as the Philippines.

Last, the separation ratios across firm types of ultimate owners show that investment firms, widely held companies and domestic corporations show the higher separation ratios (closer to zero) for both years within the sample of stock trading firms. These results are in accordance to what has been found for holding firms as explained in detail in Gutierrez et al. (2006). A strong evidence of voting leverage is the fact that there are cases where the separation ratio of controlling shareholders is zero according to the minimum values recorded within investment firms in 1996, or the 0.08 within domestic corporations in 2002. This means that in some companies there are ultimate owners who have low cash flow and nonetheless have the greatest voting right levels. This strong outcome reinforces the previous results and constitutes evidence of the real voting power leverage that takes place within affiliated companies.

4. Corporate Best Practices

Corporate best practices are indeed the market signaling that firms send regarding investor protection, payout policies, board of directors ruling, and managerial strategies and accountability. According to Jensen (1993), four mechanisms of corporate governance are worth studying. The first one refers to legal and regulatory mechanisms; the second is internal; the third is external; and the last is product-market competition.[9] However, is evident that for most emerging economies, the third and last mechanisms are less valuable since the main mechanism of the third group, takeovers, is almost nonexistent given the high degree of control among the

[8] Corporate law in Colombia follows the French system. The *Societes en Commandité* are firms with two types of partnerships: passive ones (*les commanditaires*) and active ones (*les commandites*). The former delegate control over the latter and are accountable for the firm's liabilities. There are two types of such companies: Simple (Limited Liability) and *Par Actions (Incorporate).*

[9] A slightly different classification of mechanisms is found in Agrawal and Knoeber (1996). These are: shareholding of insiders, institutions, and large blockholders; use of outside directors; debt policy; the managerial labor market; and the market for corporate control.

largest shareholder(s), and for the fourth group, one assumes that either in case of the agency problems of management entrenchment or in the case of ownership concentration, firms are efficient under the market structure in which they compete. Thus, the mechanisms belonging to the first two groups remain.

Although a country's legal system is given and is the same for all the firms, firms with good governance in weak legal systems like the Colombian case would try to differentiate themselves from badly governed ones going beyond the legal system. Or else, in a more global and interrelated capital markets, firms that want to get capital in external markets need to adopt internationally recognized corporate governance standards that are usually stricter than those imposed by domestic legal rules. Regarding the second group, the main mechanisms are the board of directors, executive compensation and ownership, minority privileges, and the like.

Research on corporate governance has been mostly conducted on mechanisms like ownership and boards of directors. More recently, research has turned to the use of surveys to obtain information regarding how firms set the different governance mechanisms included in groups one and two. That information has come primarily from reports from specialized international agencies like *Credit Lyonnais Securities Asia (CLSA*), *Deminor, Standard and Poor*, and others, which calculate indices of corporate governance rankings. For instance, Klapper and Love (2002) used the CLSA ranking as a proxy of firm-level corporate governance for 495 companies across 14 emerging economies. They then address the question of how firm-level performance is explained by that index. In a cross-country study on 859 firms in 27 countries, Durnev and Kim (2005) also used the CLSA ranking as a proxy of firm corporate governance and complemented it with the Standard and Poor's measure of corporate disclosure practices (as a proxy of firm disclosure) to test whether that index could explain a firm's performance.

Black et al. (2003) also constructed an index of corporate governance for a (very large) sample of Korean listed firms from a questionnaire designed by the Korean Stock Exchange. In this case, the authors took the survey's results and proceeded to design the index. Black (2001) used a corporate governance ranking developed by a Russian investment bank to test whether this ranking was correlated to firm value. The ranking ranges from zero to 60, with 60 being the worst corporate ranking. Finally, Gompers, Ishii and Metrick (2003) constructed an

index of corporate governance for a sample of U.S. firms, based on some anti-takeover defense provisions along the lines of the third group of governance mechanisms outlined above.

4.1 The Index of Corporate Governance

The questionnaire used in this study followed the structure of CLSA format. Some key differences do exist, however. First, the questionnaire used here was sent directly to a company's CEOs, while in the case of CLSA, its own team of financial analysts responded to the forms. Second, the questionnaire used here initially consisted of 67 questions organized around four criteria: general principles, senior management and the board, shareholders and disclosure. The second criterion consisted of 25 questions, and the third 20, with 11 for each of the two others. Unlike the CLSA, there was not any ex-ante weight assigned to any criterion. However, the questionnaire was subject to revisions and/or refinements after answers were received, and some questions were deleted. Third, the way of how the questions were posed differs. For instance, the CLSA posed some questions in this manner: "Is it true that there has been no controversy….?" A "yes" answer was then assigned a one and a "no" answer received a zero. In ours, some questions were posed as: "Has the board received any complaints from shareholders in the last three years?" It is clear that a yes-answer has to receive a lower valuation than a no-answer. For all other questions, a "yes" answer is interpreted as a pro-shareholder action and was assigned a value of one.

Last, some refinements were made in order to reduce subjectivity and get a more robust index. Some questions were deleted due to the fact that they had no bearing in the Colombian corporate legal framework.[10] To further reduce subjectivity, some other questions were erased due to the low or null variability of answers; it was very confusing or ambiguous as to which answer indicated better governance; or the questions overlapped highly with other question(s). Questions were bundled as much as possible, around the same criteria established by CLSA. Hence, there were six criteria (number of questions): discipline (4), accountability (2), responsibility (3), independence (4), transparency (13) and fairness (5).

[10] One example is worth illustrating. The election of the external auditor is the responsibility of the General Assembly of shareholders and so is not delegated to the board or any committee. There was a question regarding the existence of a committee of selection for external auditor. Hence, this question and some others closely related to it did not make sense at all and were eliminated.

As a result of the refinements, transparency got a greater number of questions while accountability had very few. After the final refinements, there were six sub-indices, each one standardized to have a value between 0 and 100/6. The sum over those sub-indices gives the overall corporate governance index.[11] Appendix 2 depicts the survey's questions and the number of responses.

4.2 Sample of Companies

The number of non-financial companies registered as issuers of any kind of securities was about 104 in 2004. The questionnaires were sent to 99 companies belonging to different industries that were listed in the second half of 2004. The criteria of selection of firms were motivated by considerations like size, measured either by sales or assets, importance within a business group, and weight within the Colombian stock market. Five companies refused to answer the questionnaire, arguing that the information was "confidential," a response that is at odds with being a "public." Thirty-nine of the surveyed companies responded to the questionnaire. To get a higher number of companies in the final sample, it was necessary to selectively fill out the questionnaires for 10 companies that did not respond. The criteria for selecting those "extra" companies was whether the gathered information was publicly and non-publicly available and of high quality. Ten companies met the criteria, resulting in a total sample of 49 companies. However, three companies belonged to regulated industries, and for another three, the financial statements were unobtainable. Therefore, the final index is based on a final sample of 43 non-financial companies.

4.3 Survey Results

Table 5 summarizes the main results in the measurement of a Corporate Governance Index (CGI) for Colombia for 2004. Three main outcomes are worth mentioning. First, the implementation of corporate governance practices has been very poor among the sample of surveyed companies according to the median of such index. Half of the sample is below 47 out of 100 possible points. Second, independence and discipline are practices that do not seem to be implemented by firms in this sample since averages (medians) are only close to 40 (25) percent of the maximum attainable. Third, the responsibility component received the highest median at approximately 67

[11] To obtain each standardized sub-index the raw sub-index was multiplied by 16.6; although this method introduces a subjective weighting, it is a common procedure (see Black et al., 2003).

percent of the maximum attainable. This result, however, might be associated more with legal compliance than a voluntary best practice. Colombia belongs to the group of Latin American countries that have issued a Code of Commerce following the German tradition. It means that many practices are already regulated, in contrast to other jurisdictional systems where the regulation of many commercial practices is regulated by Civil Law. Two out of the three questions are mandatory by law, which explains the relative high number of positive answers.

The above outcome, although it followed a different survey structure, goes in the same direction of previous corporate best practices surveys done in the country. For instance, the Confederation of Chambers of Commerce undertook in 2001 the first survey of leading CG indicators for 20 listed Colombian companies. Their overall corporate governance index scored 3.4 over 8.5 maximum points given by the benchmarking of the best scored country.[12] Hence, Colombian companies show an important lag in adopting and implementing good principles of Corporate Governance.

Table 5. Descriptive Statistics,
Corporate Governance Index and Subcomponents

	Firms	Mean	Std. Dev.	Min	Max	Median
Discipline	43	6.88	4.63	0.00	16.67	4.17
Accountability	43	10.08	3.43	8.33	16.67	8.33
Responsibility	43	8.66	4.25	0.00	16.67	11.11
Independence	43	6.30	3.07	0.00	12.50	4.17
Transparency	43	8.77	2.42	2.56	12.82	8.97
Fairness	43	8.76	3.99	0.00	16.67	6.67
CGI	43	49.44	9.61	34.47	69.21	47.41

Source: Authors' measurements based on the CG survey in Appendix 2.

[12] The selected countries were Belgium, Colombia, France, Germany, Netherlands, United Kingdom and the United States.

5. Ownership, Control and Firm Valuation

Two of the most important features of modern corporations in most economies are the separation of ownership and control, and the concentration of equity among shareholders and has been supported by many studies since the influential work of La Porta et al (1999) who provide comprehensive evidence that modern corporations around the world exhibit high degrees of ownership concentration and a strong separation between cash-flow rights and control rights. For the case of Colombia the above patterns holds according to the novel evidence analyzed in Gutiérrez el al (2006) and it also applies for the sub-sample of trading companies as shown in Section 3.

Agency problems also arise in these structures. In particular, concerns are now related to the divergence of interest between large blockholders and minority shareholders. Large shareholders can transfer *"resources from the firm for (their) own benefit through self-dealing transactions …but also [through] asset sales and contracts such as transfer pricing advantageous to the controlling shareholding, excessive executive compensation, loan guarantees, expropriation of corporate opportunities and so on…. [The] controlling shareholdings can increase their share of the firm without transferring any assets through delays in share issues[,]… insider trading …or any other financial transactions that discriminate against minorities"* (Johnson et al., 2000: 22-23). This kind of conduct has been called "tunneling" or search for private benefits of control (see also Bertrand, Mehta and Mullainathan, 2002; and Holderness, 2003).

From a different perspective, some authors have argued that large blockholders can have a positive effect on a firm's valuation and performance. For instance, Shleifer and Vishny (1986) argued that, based on the assumption that large shareholders are disconnected from management, a large shareholder would have an incentive to carry out some *monitoring activity* of the incumbent management. Hence, some degree of ownership concentration could improve control over management and so increase *firm value*. This second type of large blockholder behavior represents the "monitoring of management view," which clearly must have a positive effect.

Furthermore, it has also been documented that in addition to the fact that most firms are owned by large shareholders, they in most cases belong to business groups as well.[13] This dimension of ownership can deepen the agency problem of tunneling outlined above. Therefore, from a theoretical perspective, there are no expected unambiguous effects that should dominate. It will depend on whether the monitoring effect (a positive effect that supposes large blockholders can induce large profits and better share prices) will outweigh the tunneling or rent-extraction effect (a negative effect that supposes that blockholders will be rent-seekers and then be highly risk averse).

5.1 Working Hypotheses

This section presents the main hypotheses related to the effects of block ownership on firm valuation and performance. In particular we want to test if privately if control bias or private monitoring of the largest voting blocks affects positively firm valuation. Also we want to provide evidence regarding the determinants of corporate governance index and its relation with firms' profitability measures. The evidence of high ownership concentration, the voting leverage through pyramids and cross-share holdings in Colombian corporations leads to the following working hypotheses:

Hypothesis 1: Higher cash-flow rights (direct ownership) and direct voting rights by the four largest controlling shareholders are associated with higher corporate valuation and better performance.

Hypothesis 2: Higher separation of voting from cash flow rights by controlling shareholders is associated with lower corporate valuation and worse performance.

Hypothesis 3: Affiliated firms with one or several controlling shareholders display higher valuation and better performance than non-affiliated firms.

The regression equations try to capture the CG mechanisms while controlling by firm characteristics, business group affiliation, firm investment opportunities and leverage. The

[13] See for example Barca and Betch, 2001; Denis and McConnell, 2003; Holderness, 2003; Chang and Choi, 1988; Ghemawat and Khanna, 1998; Khanna and Palepu, 2000a, and 2000b; Bianco and Casavola, 1999; Khanna and Rivkin, 2001; and Bae, Kang and Kim, 2002.

following panel specifications are estimated given the panel structure of the assembled ownership and financial datasets for the 1998-2002 period:

$$VAL_{it} = \alpha_i + \beta_1 OWN_{it} + \beta_2 (OWN)^2_{it} + \beta_3 Wedge_{it} + \beta_4 BGA_i + \beta_5 Lyears_i + \sum_{k=1}^{K} \delta_k X_{k,i,t} + \sum_{j=1}^{J} \phi SIC_J + \varepsilon_{it} \quad (4)$$

where VAL states for valuation or performance variable such as Tobin's q, returns to assets (ROA) or return on equity (ROE); *OWN* is direct ownership by the four largest shareholders; $(OWN)^2$ is ownership to the square; and *Wedge* is a measure of the separation of control rights from cash-flow rights. This measure can be proxied either by the direct to integrated ownership, or the difference between the share of control rights and the share of voting rights for the largest, second largest, n-largest shareholders. *BGA* is the affiliation of a firm with a business group and *Lyears* is number of years a firm has been listed. *X*'s are control variables, *SIC* is an industry dummy; *i* is the firm; and ε is an error term.[14]

Equation (4) is estimated by means of two-way error component model, in which the time varying component is relaxed in order to get pooled-OLS, and FGLS regressions. The different specifications of Eq. (4) will depend on the dataset structure. For instance, for the small sample of 43 firms that responded to the questionnaire of corporate governance, FGLS cannot be performed since only one observation per firm is available. On the other hand, FGLS and panel data regressions can be run for the balanced datasets for the 1998-2002 period.

To assess the relationship between corporate governance index and firm attributes, each firm's corporate governance score is run on other attributes of governance, and controlling for other characteristics of firm. The estimating cross section is

$$CGI_i = \alpha + \beta_1 SalesGrowth_i + \beta_2 Size_i + \beta_3 K/S_i + \beta_4 BGA + \beta_5 Lyears + \sum_{k=1}^{K} \delta_k X_{k,i} + \varepsilon_i \quad (5)$$

where the vector *X* contains a set of further control variables. As Durnev and Kim (2005) stress, one must be cautious when drawing inferences from the results of this equation because of the

[14] When the dependent variable is a performance variable, returns on assets (ROA) or returns on equity (ROE) will be used. As explained in the main text, Tobin's q requires having some market valuation on common stocks, which unfortunately is not available if a firm's stocks are not listed.

potential problems of endogeneity. Nonetheless, in order to reduce endogeneity, robustness checks and regressions were run using instrumental variables.

5.2 Econometric Results

This section reports the findings for firms that traded their stocks at least once in a year during the period 1998-2002. The data set is very unbalanced since some firms only traded theirs stock a single year, others traded two, three or four years, and a small number traded all five years. Regressions follow the estimating equation (4) for a firm's valuation measures: Tobin's q, and firm's performance measures such as return on equity (ROE) and return on assets (ROA).

Table 6 reports the results of firm valuation regressions proxied by Tobin's q as the dependent variable. The first basic specification includes the size of the firm, sales growth, debt-to-asset ratio, intangibles, affiliation with a business group, presence of foreign ownership, number of years the firm listed its stocks, a recession dummy, and industry dummies to capture idiosyncratic characteristics of every industry such as technology, market competition and the like. The second specification adds the direct ownership stake of largest four shareholders and its square to capture non-monotonicity relations. The third adds to the previous the square of sales as in Himmelberg et al. (1999). The fourth and fifth specifications drop ownership variables and replace them with voting rights (integrated ownership) of the four largest shareholders. The sixth and seventh regressions control for different wedge measures following Claessens et al. (2002). The first regressor is *DIF1*, which is a continuous variable that measures the *difference* between direct and integrated ownership in hands of the top-four shareholders. WEDGE10 takes the value of one if control rights exceed cash flow rights. This dummy was proposed by Durnev and Kim (2005). This set of regressions tries to test the three above-mentioned hypotheses.[15]

The results of regressions (2) to (9) clearly validate *Hypothesis 1*, that higher cash-flow rights (direct ownership) and direct voting rights by the four largest controlling shareholders are associated with higher corporate valuation and better performance. Regardless of the variable of ownership or control taken, the stakes of the four largest shareholders are positive and are associated with higher firm valuation at significance levels of 10 percent or better. In all cases, the coefficients are similar, ranging from a low 0.66 to a high 0.76, which shows the robustness

[15] There should be no significant collinearities in the regressions since correlations among independent variables are very low, as shown in Appendix 3.

of the results. The magnitude of the coefficients also shows that the effects are economically very significant. For instance, taking specification (2), a one standard deviation increase in ownership concentration of the four largest shareholders induces a 0.066 increase in Tobin's q, which represents an increase of about 8 percent of the average Tobin's q (0.82). However, the relationship is clearly non-monotonic since, in all specifications, increases in the direct stakes of ownership are negatively associated and are significant with Tobin's q. Thus, although the positive effect of ownership over firm value is validated, there are thresholds after which firm value starts declining. The combining effect of direct ownership and its squared value on a firm's value is negative but economically insignificant (-0.2 percent), which means a decrease of 0.0018 points over the mean of the Tobin's q.

Hypothesis 2 is partially validated. We got the expected signed in both separation variables but only *DIF1* turned out significant at 10 percent. Two other findings in regressions (2) to (9) are worth explaining. The first one refers to the positive association found between a firm's affiliation with a business group and firm value. The coefficients are similar and economically significant, which strongly validates *Hypothesis 3*, that affiliated firms with one or several controlling shareholders display higher valuation and better performance than non-affiliated firms. The second finding concerns with a firm's listing experience. LYEARS is statistically significant in all regressions and negatively associated with firm value. On average, an additional year of being listed implies that Tobin's q declines by 0.3 percent. This result at first glance sounds counterintuitive. However, Black et al. (2003) and other authors took listed years as a proxy for age. They concluded *"more recently listed firms are likely to be faster-growing…"*

Other control variables turned out significant. The debt-to-asset ratio was positively associated with firm value in all regressions, and the capital intensity variable was negatively associated with Tobin's q. Both variables are statistically significant at 5 percent. Regarding, the debt-to-asset ratio outcome, some theories have been posed to explain such positive relation. For instance, De Jong (2002) summarized theories explaining the disciplinary role of leverage. He explained that some scholars view leverage as a device used to discipline the incentives that managers have to expand firm size and obtain private benefits. Debt must be paid out of the cash flow the firm generates. On the other hand, others believe leverage can generate opposite incentives for managers or owners given the existence of corporate governance mechanisms. If

managers want to retain control and increase firm size they are forced to issue debt since issuing stocks will dilute their control.

Disciplinary corporate governance devices such as the threat of takeover also lead them to increase leverage. In the Colombian case, owners have been afraid of losing control given the weak legal framework, and have historically only traded a small amount of their firm's shares in the stock exchanges. They have expanded the firm's size and retained control via leverage. Thus, it is plausible to find a positive relationship between leverage and firm value (see similar findings for the Korean case in Black et al., 2003). The economic significance of this variable is high, since it shows that a one standard deviation increase in debt-to-ratio increases *Tobin's q* by 0.07 points, a 9 percent increase relative to the 0.82 sample mean.

Table 6. Firm Valuation, Corporate Ownership and Control
Pooled-OLS regressions - Dependent Variable: Tobin's Q

Independent Variable	Eq. (1)	Eq. (2)	Eq. (3)	Eq. (4)	Eq. (5)	Eq. (6)	Eq. (7)	Eq. (8)	Eq. (9)
CR_4		0.7283	0.6788			0.7001	0.6579	0.7622	0.7077
		(2.13)	**(1.96)**			**(2.05)**	**(1.90)**	**(2.19)**	**(2.00)**
Squared-CR_4		-0.6290	-0.5847			-0.6514	-0.6094	-0.6563	-0.6081
		(-2.10)	**(-1.94)**			**(-2.17)**	**(-2.01)**	**(-2.12)**	**(-1.94)**
Voting $rights_4$				0.1469	0.1392				
				(1.97)	**(1.86)**				
Squared-Voting $rights_4$				-0.2593	-0.2478				
				(-2.07)	**(-1.96)**				
DIF1						0.1861	0.1689		
						(1.86)	**(1.65)**		
WEDGE10								-0.0182	-0.0152
								(-0.38)	(-0.31)
Ln-(Sales)	-0.0149	-0.0234	-0.1542	-0.0171	-0.1527	-0.0267	-0.1447	-0.0230	-0.1527
	(-0.90)	(-1.39)	**(-2.03)**	(-1.00)	**(-2.01)**	(-1.55)	**(-1.90)**	(-1.36)	**(-2.00)**
Squared-Ln (Sales)			0.0062		0.0065		0.0056		0.0062
			(1.76)		**(1.79)**		**(1.57)**		**(1.73)**
Growth-Sales	0.0029	0.0031	0.0027	0.0028	0.0024	0.0030	0.0026	0.0031	0.0027
	(1.50)	(1.55)	(1.34)	(1.48)	(1.25)	(1.51)	(1.32)	(1.55)	(1.34)
Debt-Ratio	0.7591	0.7939	0.7997	0.7379	0.7450	0.7895	0.7952	0.7957	0.8012
	(7.86)	**(8.51)**	**(8.62)**	**(7.52)**	**(7.59)**	**(8.45)**	**(8.56)**	**(8.61)**	**(8.71)**
PPE-Sales ratio	-0.0344	-0.0350	-0.0378	-0.0338	-0.0367	-0.0349	-0.0375	-0.0351	-0.0378
	(-2.89)	**(-2.85)**	**(-3.16)**	**(-2.84)**	**(-3.22)**	**(-2.85)**	**(-3.13)**	**(-2.86)**	**(-3.17)**
BGA	0.1804	0.2105	0.2178	0.1758	0.1835	0.1809	0.1903	0.2145	0.2211
	(3.13)	**(3.65)**	**(3.75)**	**(3.08)**	**(3.21)**	**(2.95)**	**(3.07)**	**(3.73)**	**(3.81)**
Foreign-owner	-0.0869	-0.0841	-0.0895	-0.0870	-0.0937	-0.0703	-0.0765	-0.0880	-0.0928
	(-1.65)	(-1.52)	**(-1.62)**	**(-1.64)**	**(-1.75)**	(-1.26)	(-1.37)	(-1.55)	(-1.63)
LYEARS	-0.0038	-0.0036	-0.0038	-0.0033	-0.0036	-0.0035	-0.0037	-0.0036	-0.0038
	(-4.75)	**(-3.84)**	**(-4.04)**	**(-3.77)**	**(-3.96)**	**(-3.74)**	**(-3.93)**	**(-3.77)**	**(-3.96)**
Rdummy	0.0500	0.0378	0.0473	-0.0441	0.0542	0.0361	0.0448	0.0385	0.0478
	(1.55)	(1.21)	(1.53)	(1.38)	**(1.70)**	(1.16)	(1.44)	(1.23)	(1.54)
Constant	0.8179	0.7517	1.4380	0.7438	1.4512	0.8284	1.4419	0.7385	1.4204
Industry Dummy	yes	yes	yes	yes	yes	yes	yes	yes	yes
Regression Statistics									
R^2	0.4578	0.4931	0.4972	0.4671	0.4714	0.4973	0.5006	0.4934	0.4974
Num Obs	328	321	321	328	328	321	321	321	321
F-test	17.05	22.53	22.40	16.75	15.82	21.68	20.81	21.55	21.66
Prob > F	[0.0000]	[0.0000]	[0.0000]	[0.0000]	[0.0000]	[0.0000]	[0.0000]	[0.0000]	[0.0000]

Source: Authors' estimations
Notes: White-Hubert robust standard errors; *t*-statistics in parenthesis and in boldface means that regression coefficients are significant at the 10 percent level; p-values in brackets. Variable definitions and methodology are in Appendix 4.

Regarding the relationship between capital intensity – property, plant and equipment to sales ratio – and *Tobin's q*, two aspects must be analyzed. The first is the expected negative association found. Bearing in mind that the indicator measures "the alleviation of agency problems due to the fact that such assets are easily monitored and provide good collateral," the negative sign means that the stock market values the intangibles of the firm more than that what is represented in book values. Another interpretation may be that an intangible of the firms is their high collateralization of assets, which helps leverage. Nonetheless the size of the coefficients is low.

Last, a negative association between a firm's size measured by sales and Tobin's q was always expected, and in some of the regressions, the association was statistically significant. Larger firms are assimilated to mature industries that have lower growth opportunities and so lower market valuation. The moving average of sales growth in the past three years also had the expected positive sign but in none of the specification was it statistically significant, and the economic magnitude of the coefficient was very poor. The presence of foreign ownership was not significant, either, and had the opposite of the expected sign. All of the above results are very robust according also with the regression statistics.

The next step in this analysis consists of considering the relationship between firms' ownership and control and performance variables proxied by ROA and ROE. In order to have the maximum degrees of freedom in the regression equations, the sample was expanded by including, whenever possible more years for each individual. This procedure makes the panel as balanced as possible, since for each firm there are financial data for the entire period. The ownership structure was kept constant, which is a reasonable assumption on a short-run basis. Thus, the scope of this exercise is to study how firms' accounting performances evolved during a longer period regardless of whether their stocks were traded. To do so, a dummy variable–*Stock Traded*–was included that takes a value of one if a firm traded its stocks in a year, and zero otherwise.[16] The analysis of ROA or ROE allows including some companies where their market price was not possible since they did not record any trade in their common stocks.

Tables 7 and 8 report the findings using *ROA* and *ROE* as dependent variables and running both feasible generalized least square (FGLS) and fixed effects panel data. There are

[16] The fact that a firm's stocks were not traded in a given year does not mean that the firm's securities were not listed.

several results worth highlighting. First, *Hypothesis 1* is again verified. Cash flow rights held by the four largest blockholders is positively associated with a firm's ROA and negatively, as expected, with its squared. The effect is higher when one controls by fixed effects. A 10 percent increase in cash flow rights will increase ROA by 6.4 percent on average, while at the same time the effect is offset by its square by 4.7 percent. Regarding ROE regressions, *Hypothesis 1* only is verified by the FGLS estimations, where a 10 percent increase in cash flow implies on average a 2.2 percent increase on ROE, but its square reduces that effect by 1.9 percent. Hence, the overall effect is positive and variables are significant at 5 percent.

Second, *Hypothesis 2* is verified under the FGLS specifications. The regressions included two additional measures of separation between control and ownership besides *DIF1*, as suggested in Claessens et al. (2002). *DIF2* is a dummy variable equal to one if control exceeds ownership and zero otherwise, and *DIF3* is another dummy variable that takes the value of one if control is greater than ownership, and if this difference is greater than the median separation in firms where control and ownership differ (for the top four owners), and is zero otherwise. For both *ROA* and *ROE* the separation proxies are negatively related verifying that as a firm's wedge between control and ownership stakes increases, the firm's returns fall. On average, if a firm's wedge increases by 10 percent, *ROA* falls by 0.15 percent and ROE declines by 0.7 percent. Hence, greater separation implies additional monitoring costs between managers and stakeholders. Third, *Hypothesis 3* is again verified: affiliation with business groups raises firms' profitability.

All regressions control for whether or not a firm's stocks were traded during a year. One would expect that, since public firms are more scrutinized by regulators and private investors, they would be more careful with risk-taking and so their performance (and valuation) would be better when their stocks are traded than when they are not because of public attention, which would encourage them to conduct better management and governance practices. *Stock Trade* has the expected positive relationship with both accounting measures, and in most cases there is a strong statistical significance validating this conjecture. Listing experience, measured by *LYEARS*, is still negatively related with *ROA* without controlling for firm fixed effects, keeping the same observation stated in the Tobin's q regressions.

Table 7. Return on Assets, Corporate Ownership and Control, FGLS and FE Regressions (Dependent Variable: ROA)

	FGLS				Fixed Effects			
Independent Variable	Eq. 1	Eq. 2	Eq. 3	Eq. 4	Eq. 1	Eq. 2	Eq. 3	Eq. 4
CR_4	0.1379	0.1515	0.1516	0.1290	0.6161	0.6043	0.6551	0.6300
	(3.18)	**(3.43)**	**(3.26)**	**(2.75)**	**(2.57)**	**(2.52)**	**(2.72)**	**(2.61)**
Squared-CR_4	-0.1320	-0.1441	-0.1360	-0.1175	-0.4717	-0.4565	-0.4945	-0.4812
	(-3.56)	**(-3.82)**	**(-3.48)**	**(-2.89)**	**(-2.36)**	**(-2.27)**	**(-2.47)**	**(-2.40)**
DIF1		-0.0026				-0.0324		
		(-0.28)				(-0.72)		
DIF2			-0.0190				-0.0344	
			(-1.98)				(-0.26)	
DIF3				-0.0104				-0.0131
				(-1.61)				(-0.54)
Ln (Sales)	0.0129	0.0127	0.0119	0.0131	-0.0028	-0.0026	-0.0021	-0.0029
	(7.97)	**(7.57)**	**(7.25)**	**(7.74)**	**(-0.34)**	**(-0.33)**	**(-0.26)**	**(-0.35)**
Growth-Sales	0.0002	0.0003	0.0003	0.0003	0.0012	0.0012	0.0012	0.0011
	(0.44)	(0.52)	(0.46)	(0.54)	**(2.2)**	**(2.21)**	**(2.20)**	**(2.20)**
Debt-Ratio	-0.1670	-0.1640	-0.1682	-0.1700	-0.0834	-0.0834	-0.0842	-0.0834
	(-14.00)	**(-13.32)**	**(-13.86)**	**(-14.47)**	**(-6.42)**	**(-6.42)**	**(-6.48)**	**(-6.42)**
PPE-sales ratio	-0.0002	-0.0002	-0.0002	-0.0002	-0.0001	-0.0001	-0.0001	-0.0001
	(-3.10)	**(-2.95)**	**(-2.90)**	**(-2.47)**	(-0.29)	(-0.28)	(-0.24)	(-0.29)
Foreign-owner	-0.0555	-0.0579	-0.0551	-0.0544	-0.0664	-0.0651	-0.0662	-0.0671
	(-10.03)	**(-10.78)**	**(-9.53)**	**(-8.48)**	(-0.84)	(-0.82)	(-0.84)	(-0.85)
BGA	0.0126	0.0125	0.0300	0.0159				
	(2.37)	**(2.09)**	**(2.94)**	**(2.60)**				
LYEARS	-0.0002	-0.0002	-0.0002	-0.0002	0.0027	0.0027	0.0026	0.0028
	(-1.58)	**(-1.77)**	**(-1.80)**	**(-1.75)**	(1.03)	(1.02)	(0.97)	(1.04)
Rdummy	-0.0335	-0.0347	-0.0329	-0.0329	-0.0265	-0.0259	-0.0264	-0.0271
	(-10.13)	**(-10.26)**	**(-9.62)**	**(-9.40)**	**(-2.27)**	**(-2.21)**	**(-2.27)**	**(-2.31)**
Stocks-Traded	0.0066	0.0083	0.0067	0.0070	0.0295	0.0318	0.0307	0.0295
	(1.6)	**(1.85)**	**(1.57)**	**(1.54)**	**(2.07)**	**(2.18)**	**(2.15)**	**(2.07)**
Constant	-0.0490	-0.0977	-0.0606	-0.0521	-0.1573	-0.1584	-0.1562	-0.1572
Industry Dummy	yes	yes	yes	yes				
Regression Statistics								
Num of firms	101	101	101	101	101	101	101	101
Num Obs	455	455	455	455	455	455	455	455
F-test					6.6	6.04	6.15	6.01
Prob > F					[0.0000]	[0.0000]	[0.0000]	[0.0000]
Wald chi2	1252.8	1085.7	1164.8	1163.1				
Prob > chi2	[0.0000]	[0.0000]	[0.0000]	[0.0000]				

Source: Authors' estimations.

Notes: White-Hubert robust standard errors; t-statistics in parenthesis and in boldface means that regression coefficients are significant at the 10 percent level; p-values in brackets. Variable definitions and methodology are in Appendix 4.

Table 8. Return on Equity, Corporate Ownership and Control,
FGLS and FE Regressions- Dependent Variable: ROE

	FGLS				Fixed Effects			
Independent Variable	Eq. 1	Eq. 2	Eq. 3	Eq. 4	Eq. 1	Eq. 2	Eq. 3	Eq. 4
CR_4	0.1379	0.2062	0.1913	0.3745	0.6480	0.6337	0.7226	0.6610
	(3.18)	**(3.76)**	**(3.28)**	**(5,89)**	(1,09)	(1,07)	(1,21)	(1,10)
Squared-CR_4	-0.1320	-0.2055	-0.1712	-0.2937	-0.5116	-0.4822	-0.5555	-0.5217
	(-3.56)	**(-4,41)**	**(-3.68)**	**(-5,75)**	(-1,01)	(-0,95)	(-1,09)	(-1,02)
DIF1		0.0129				-0.1342		
		(0,73)				(-1,23)		
DIF2			-0.0706				-0.0613	
			(-6,93)				(-0.95)	
DIF3				-0.0661				-0.0092
				(-11,34)				(-0,16)
Ln (Sales)	0.0116	0.0114	0.0103	0.0142	0.0165	0.0171	0.0180	0.0165
	(4,18)	**(3,98)**	**(3,57)**	**(5,29)**	(0,88)	(0.91)	(0.95)	(0.88)
Growth-Sales	0.0021	0.0021	0.0032	0.0031	-0.0028	-0.0028	-0.0028	-0.0028
	(0,68)	(0.70)	(1,07)	(1,03)	**(-2,20)**	**(-2,19)**	**(-2,21)**	**(-2,20)**
Debt-Ratio	0.0200	0.0212	0.0183	0.0167	0.0536	0.0515	0.0505	0.0533
	(1,52)	**(1,60)**	(1,36)	(1,20)	**(4,09)**	**(3,89)**	**(3,74)**	**(4,02)**
PPE-sales ratio	-0.0002	-0.0015	0.0000	-0.0001	0.0003	0.0003	0.0004	0.0003
	(-1,22)	(-1,08)	(-0,04)	(-0,45)	(0.44)	(0.47)	(0.50)	(0.45)
Foreign-owner	-0.0560	-0.0547	-0.0570	-0.0674	-0.2357	-0.2312	-0.2350	-0.2364
	(-7,47)	**(-7,08)**	**(-7,38)**	**(-7,89)**	(-1,26)	(-1,24)	(-1,26)	(-1,26)
BGA	0.0600	0.0562	0.1214	0.0991				
	(5,88)	**(5,07)**	**(8,98)**	**(8,16)**				
LYEARS	-0.0001	-0.0001	-0.0003	-0.0002	0.0156	0.0156	0.0152	0.0156
	(-0,76)	(-0,54)	(-1.53)	(-0,74)	**(2,30)**	**(2,31)**	**(2,24)**	**(2,30)**
Rdummy	-0.0403	-0.0392	-0.0428	-0.0452	-0.0151	-0.0122	-0.0149	-0.0155
	(-8,14)	**(-7,71)**	**(-8,56)**	**(-7,97)**	(-0,54)	(-0,43)	(-0,53)	(-0,55)
Stocks Traded	0.0291	0.0255	0.0383	0.0377	0.1207	0.1291	0.1226	0.1205
	(3,28)	**(2,72)**	**(4,08)**	**(3,69)**	**(3,57)**	**(3,74)**	**(3,62)**	**(3,56)**
Constant	-0.1368	-0.2279	-0.1351	-0.2381	-0.7001	-0.7126	-0.7021	-0.7023
Industry Dummy	yes	yes	yes	yes	No	No	No	No
Regression Statistics								
Num of firms	101	101	101	101	101	101	101	101
Num Obs	450	450	455	455	450	455	455	455
F-test					4.57	4.30	4.20	4.15
Prob > F					[0.0000]	[0.0000]	[0.0000]	[0.0000]
Wald chi2	644.6	607.3	725.5	714.2				
Prob > chi2	[0.0000]	[0.0000]	[0.0000]	[0.0000]				

Source: own-estimations
Notes: White-Hubert robust standard errors; t-statistics in parenthesis and in boldface means that regression coefficients are significant at the 10 percent level; p-values in brackets. Variable definitions and methodology are in Appendix 4.

Summing up, for both profitability indicators and after controlling for unobserved heterogeneity, the positive effect of ownership by the largest shareholders on performance can be confirmed, but that relationship is not monotonic. These results reconfirm that a firm's performance falls whenever there is a separation between ownership and control. The positive effect of a firm's affiliation with an economic conglomerate is also confirmed. The conjecture that firms behave better when they face more accountability was also validated.

The next step in the analysis focuses on the corporate governance index determinants. The estimating sample is 43 firms that responded to a questionnaire on corporate governance practices in 2004. The objective is to evaluate the relationship between the CGI and some control variables associated with firm characteristics and other controls as specified in Equation (4). Table 9 presents the main results. Several comments arise from that table. First, the growth of sales in the past three years maintained a consistent significant positive relation with the corporate governance index. On average, a 1 percent increase in the rate of growth in sales during the previous three years will raise the CGI by 11 basis points.

Second, firm size is also positively associated in all specifications, but it turned out not to be statistically significant. Furthermore, variables such as business group affiliation or type of security issued (i.e., stocks versus other type of securities) were very sensitive to the inclusion of other control variables, changing signs in most cases or displaying the wrong sign. The non-robustness of *BGA* as a control variable suggests that, despite its importance in firm's valuation or profitability, the decision of implementing good CG practices of CG is more an individual choice rather than a holding command. Also, this outcome might reflect the incipient process of CG has taken place within holding companies. Thus, a peer-group effect cannot be captured yet.

Regression equations (4) and (5) in the table include two additional variables that turned out robust regressors. The first is *CGC,* which is a dummy variable that takes a value of one if the firm has voluntarily issued a code of good corporate governance practices, and zero otherwise. The second is *Bursatil*, a variable that measures the level and intensity of stock trading. Two insights are noteworthy. The coefficients of these two variables are very high and are positively associated with the corporate governance index, meaning that firms that issued a corporate governance code actually had better scores in governance practices. It also means that firms that traded most of their stocks also had better governance practices. In other words, as

companies become more "public" the implementation and adoption of codes of corporate governance is more likely.

Table 9. Determinants of Corporate Governance, Cross-section regressions (Dependent Variable: CGI

Independent Variable	Eq. 1	Eq. 2	Eq. 3	Eq. 4	Eq. 4
Ln (Sales)	1.7361	1.6234	2.0266	0.7156	0.9654
	(1.27)	(0.94)	(1.21)	(0.45)	(0.51)
Growth-Sales	11.3	14.0	14.0	11.9	10.2
	(2.49)	**(2.33)**	**(2.34)**	**(2.48)**	**(1.69)**
LYEARS		-0.0198	-0.0211	-0.0149	-0.1578
		(-0.30)	(-0.31)	(-0.23)	(-1.59)
BG-Affiliation		-1.9378	-2.8750	-4.0695	-4.2839
		(-0.50)	(-0.76)	(-1.26)	(-1.22)
Tsecurity		3.2114	3.5951	3.4570	-1.7744
		(0.97)	(1.08)	(1.16)	(-0.42)
CG-Code				8.1638	
				(2.64)	
Debt-Ratio		2.3910	2.8430	5.3520	6.3740
		(0.23)	(0.28)	(0.64)	(0.65)
PPE-sales ratio		2.4730	2.0750	1.7780	0.4454
		(1.59)	(1.20)	(1.14)	(0.22)
Members			-0.5515	-0.7473	-0.8376
			(-0.99)	(-1.15)	(-1.23)
bursatil					1.7780
					(1.86)
Constant	26.9	25.1	26.4	40.4	44.3
Regression Statistics					
R^2	0.1034	0.1797	0.1976	0.3457	0.2631
Num Obs	43	43	43	43	43
F-test	3.9900	1.6600	1.7000	6.3000	3.1800
Prob > F	[0.0263]	[0.1507]	[0.1334]	[0.0000]	[0.0071]

Source: Authors' estimations.
Notes: White-Hubert robust standard errors; t-statistics in parenthesis and in boldface means that regression coefficients are significant at the 10 percent level; p-values in brackets. Variable definitions and methodology are in Appendix 4.

Last, the goodness of fit of the model is low according to R2 statistics. On average the model explains at most 35 percent of the CGI.

There is in the literature a general concern regarding the *endogeneity problem* in estimating equations of CGI. For example, Klapper and Love (2002) raised the concern of the *"likely endogeneity of corporate governance practices."* They argue that *"a growing firm with large needs of outside financing has more incentive to adopt better governance practices in*

order to lowers its cost of capital. These growth opportunities would also be reflected in the market valuation of the firm, thus inducing a positive correlation between governance and Tobin's Q."

To address this problem, and given that their governance data has *no time variation***,** as is the case here, they suggest that one must control for it by using variables like size, growth opportunities, and the rate of investment. Regressions in Table 9 did not include any performance or valuation variable on the right hand side. This specification reduces the *endogeneity problem* but it does not mean that it has been eliminated.[17]

6. Final Remarks and Policy Implications

This study has conducted an in-depth analysis of the separation of ownership and control in real sector for a sample of listed companies that traded their stocks at least once during the 1998-2002 period, providing evidence of direct measures of voting rights at the ultimate shareholder level following the modern approach of recent studies of corporate ownership and control undertaken for East Asia and European countries.

There are four main conclusions from the measurement analysis of control and cash flow rights. First, equity concentration is high within Colombian corporations that effectively trade stocks or have some float trading in the stock exchange. Further, concentration has risen mainly within the top-four largest shareholders. The stake of the top-four largest shareholders is about 60 percent, matching the power level of the largest blocks observed in countries such as Austria, Belgium, Italy, and Spain according to the numbers reported in Becht's study of control in corporate Europe. It was also found that ownership concentration has risen about 5 percent from 1996 to 2002, but no single voting block has 51 percent absolute direct control under a one share-one vote regime. In particular, the median of the concentration ratios for the top four shareholders increased from 58 percent to 63 percent between 1996 and 2002, and the share of firms where the top four voting blocks control between 90 percent and 100 percent of a company increased from 15 percent to 20 percent during those years.

Second, separation of cash flow to voting rights ratios are low. On average, the top-four voting blocks is 0.88 for the entire period. The separation slightly decreases—that is, it comes

[17] Indeed we run several instrumental variable or simultaneous equations models between the CGI and ROA. In general, results were not robust at all. For more details on those results see Gutierrez and Pombo (2005).

closer to one if such a measurement is restricted to to controlling shareholders. In particular, it is found that the separation ratio for ultimate owners on average was 0.91, which is similar to numbers reported for some East Asian markets such as Thailand (0.94) and Hong Kong (0.88). This constitute a strong evidence that corporate control is privately-owned biased where controlling voting blocks effectively set firms' managerial policies.

Third, the composition of ultimate owners shows that investment firms play a strategic role as a controlling shareholder. They increased from 15 to 24 percent their weight as ultimate owners during the analyzed period. In contrast widely-held firms drastically reduced their weight as ultimate owners in 18 basic points, moving from 32 to 14 percent of the sample. This result is a direct consequence from the rise of equity concentration. Families (natural persons) indeed are behind most of those holding investment firms and most of the non-public or unlisted corporations that show up as controlling shareholders. Hence, families constitute the main source of ultimate owners as shown in studies for other emerging markets cases.

On the other hand, this study provides answers to the following questions regarding the effects of corporate control on firm valuation and performance. To what extent is valuation and performance driven by ownership and control? Do firms affiliated with business groups perform better and have better valuation than unaffiliated firms? Does the implementation of good corporate governance lead to better accounting performance?

The answer to the first two questions is positive. Evidence was found that the cash-flow rights of the top largest shareholders are positively associated with a firm's better valuation and performance, but that the relationship is not monotonic. It was also found that wedge, or separation between cash-flow rights and voting rights, has a negative effect on a firm's valuation and performance. Strong evidence was found indicating that affiliated firms also enjoyed better market valuation and had better performance. More research must be conducted to disentangle an explanation. One can hypothesize that, since the Colombian legal and regulatory framework is weak as measured by international standards, investors may have feared expropriation via tunneling effects or management entrenchments. Since ownership has been highly and historically concentrated, they have realized that the second concern is not viable in the country, and since firms have expanded via high levels of leverage, investors may have trusted firms affiliated with large and very politically influential business groups.

This study did not find evidence that firms with better standards of corporate governance enjoy better performance despite recent efforts by authorities and regulators to promote better governance practices. The results of the survey proved illuminating. The most important observation is that, on average, firms have been reluctant or very slow to implement such good practices. This result partially confirms other findings in surveys conducted by the government and chambers of commerce about the poor and low adoption of good governance rules by Colombian firms.

What can explain this conduct? The answer is complex and can be understood by examining the ways domestic firms have traditionally financed their need for capital expansion. In the exposition of motives of the Bill of Capital Markets (presented to the Colombian Congress in 2004), the Ministry of Finance reported that only large Colombian firms have made use of bonds and other types of securities to finance their needs for capital, and even for those firms the amount collected by this type of financing has not represented, on average, more than 5 percent of total financing. Medium and small firms did not make use of the capital markets when they have looked for financing. Forty-three percent of large firms' financing has consisted of reimbursement of a company's profits and loans from suppliers. The remainder has come from financial obligations, mainly banking loans. This clearly shows that Colombian listed firms, usually the largest ones, have not been and may not be very interested in implementing better governance practices. Funds can be obtained through other sources, although it may be argued, at higher prices. Nor is it surprising that most of the firms listed in the Colombian stock exchange belonged to a business group, and it is less surprising that investors acknowledge it by paying a small premium for the stocks of those companies because those firms have traditionally faced lesser financial constraints.

New regulations by the Superintendency of Securities as well as a congressional bill on capital market can have little influence, if any, on companies adopting better corporate governance practices. It is overwhelmingly evident in all studies on the subject that firms with better governance standards get, on average, better valuation and performance, and so the attempts of the Colombian government to encourage the adoption of such good practices by Colombian firms are understandable. The government looks for better protection for investors, more disclosure of relevant and timely information, and better information systems. To that end, it has proposed putting a limit on the number of members of boards of directors, to ensuring that

minority shareholders have a greater presence and voice on the boards of directors, and increasing the number of “independents” on the boards of directors. These types of proposals follow general recommendations found in the seminal papers of La Porta, López-de-Silanes, Shleifer, and Vishny (1999, 2000a, and 2000b) and have been adopted by many countries around the world.

However, these regulations have not addressed the two main trends in the stock exchanges in recent years: listed firms (trading stocks) have been decreasing in number, and more and more the firms that remain in the stock market belong to business groups. It has been very common to criticize business groups, saying that they are the root of all problems, but the research presented here indicates that investors value them. This fact is the response, as in any other emerging markets in Latin America, to missing capital market institutions, where despite the insider dominance of such groups, they do not seem to harm their own shareholders (Bergloff and Von Thadden, 1999). Hence, these are the challenging issues for the future agenda in reforming and deepening the capital market in the country.

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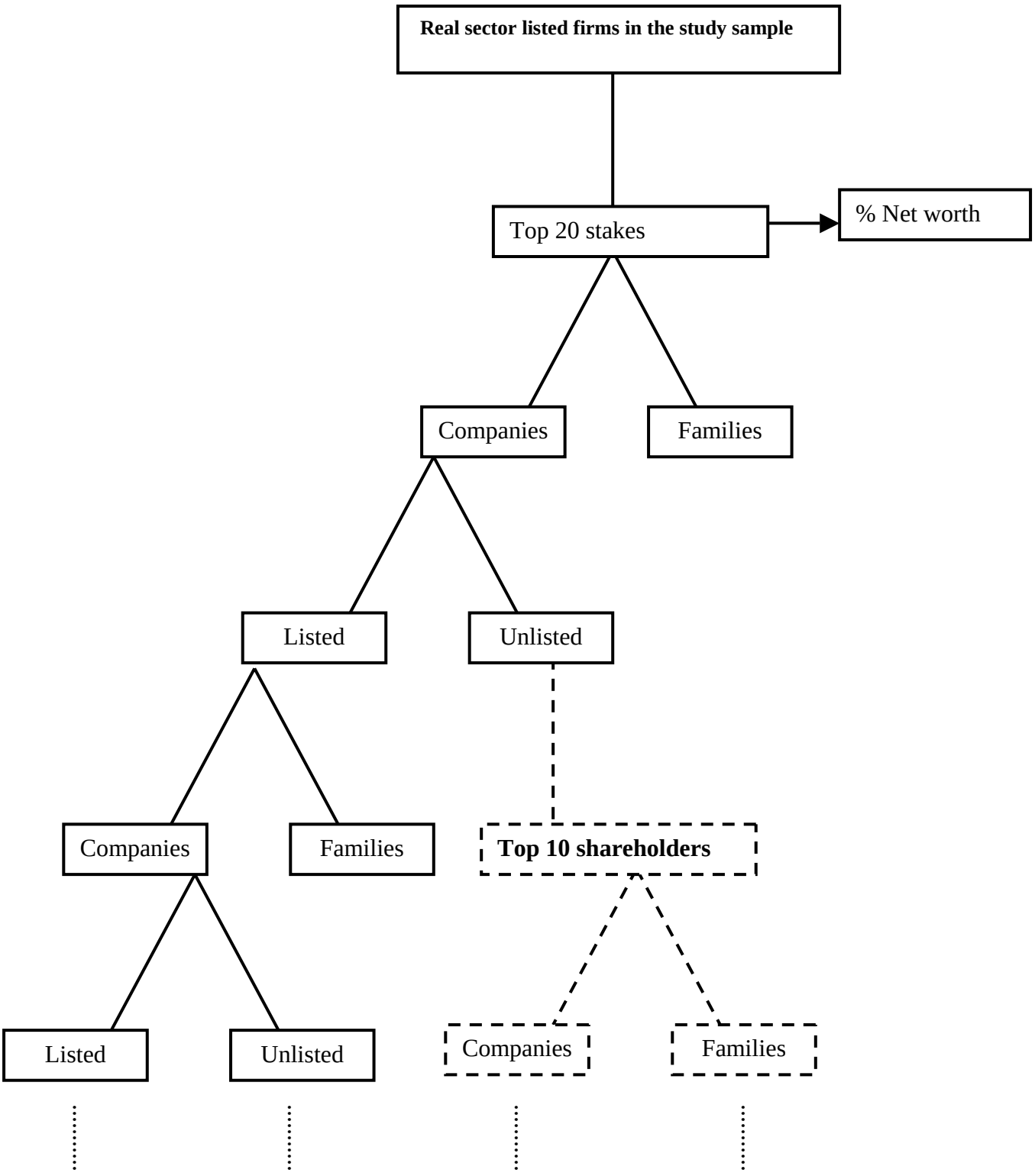

Appendix 1. Ownership Data Structure and Methodology

Notes: Solid line of the scheme shows full disclosure / no statistical constraint by the Superintendency of Securities. Dotted line of the scheme shows no disclosure status.

Appendix 2. Corporate Governance Index: Elements and Summary Statistics

This table describes the final 31 elements and the summary statistics included in the overall Corporate Governance Index for a total of 43 firms. Six firms that responded to the questionnaire were eliminated.

Subindex A. Discipline 4

Variable	Summary of the Variable	Yes	No	Responses	No. of "yes" Responses	Mean
A.1	Does the company's Annual Report include a section devoted to the company's performance in implementing corporate governance principles? Survey question 2.	1	0	43	14	0.33
A.2	Does the company have a code of conduct with corporate governance principles? Survey question 3.	1	0	43	23	0.53
A.3	Does the company adhere to a local code of best practice? This was the question made in Spanish. However, the question in English also asked "If so, what is its compliance rate (how many of the principles does it adhere to?" Survey question 4.	1	0	43	16	0.37
A.4	Is the firm trading in the stock market? Survey question 5.	1	0	43	18	0.42

Subindex B. Accountability 2

Variable	Summary of the Variable	Yes	No	Responses	No. of "yes" Responses	Mean
B.1	Are full Board meetings held at least once a quarter? In the Spanish questionnaire it was added a question initially into brackets in the English survey "Please also indicate frequency" Survey questions 8 and 8.1. However, the question 8.1 was not scored.	1	0	43	40	0.93
B.2	Are there any foreign nationals on the board? In the Spanish questionnaire the question "Which countries do they come from?" was turned into a different question. Survey question 22 and 22.1 respectively. However, the question 22.1 was not scored.	1	0	43	12	0.28

Subindex C. Responsibility 3

Variable	Summary of the Variable	Yes	No	Responses	No. of "yes" Responses	Mean
C.1	Are members allowed to send substitutes? Since Colombian code of commerce allows the existence of substitutes, the question seems out of place. However, there could be situations where in a complete year substitutes would not attend any single board meeting. Survey question 10.	1	0	43	12	0.28
C.2	Does the company disclose its ownership structure (i.e. the ownership by large shareholders? Under Law 222 of 1995, all companies registered at the RNVI must fulfill this obligation. Survey question 42.	1	0	43	33	0.77
C.3	Do shareholders with conflicts of interest in transactions need to disclose the conflicts if it goes to a vote to the assembly? Survey question 44.	1	0	43	22	0.51

Subindex D. Independence 4

Variable	Summary of the Variable	Yes	No	Responses	No. of "yes" Responses	Mean
D.1	Do the Chairman of the Board and the CEO belong to the same family/controlling group? Survey question 12.	1	0	43	13	0.30
D.2	Is the Chairman of the Board an independent, non-affiliated director? Survey question 14.	1	0	43	18	0.42
D.3	Are there any members of the board that are independent board members? Survey question 15.	1	0	43	5	0.12
D.4	Is any board member also board members/executives of firms belonging to the same economic group? How many members fall in this category? Survey question 28.	1	0	43	29	0.67

Appendix 2 (continued).

Subindex E. Transparency 13

Variable	Summary of the Variable	Yes	No	Responses	No. of "yes" Responses	Mean
E.1	If a manager or a director has a conflict of interest in a transaction (i.e. he owns, is a director of, or works in a firm with whom the company is planning to do the transaction), does he need to disclose such conflict? Survey question 23.	0	-1	43	33	0.77
E.2	Does he need to get out of the room for the deliberations on the transaction to take place? Survey question 23.1.	0	-1	43	18	0.42
E.3	Does the company disclose executive compensation and benefits? Survey question 24.	1	0	43	25	0.58
E.4	Does the company disclose board compensation and benefits? Survey question 25.	1	0	43	36	0.84
E.5	Does the company publish its Annual Report within four months of the end of the financial year? Survey question 56.	1	0	43	38	0.88
E.6	57. Does the company publish/announce semiannual reports within two months of the end of the half-year? Survey question 57.	1	0	43	29	0.67
E.7	Does the company publish/announce quarterly reports within two months of the end of the quarter? Survey question 58.	1	0	43	38	0.88
E.8	Has the public announcement of results been no longer than two working days of the Board meeting? Survey question 59.	1	0	43	15	0.35
E.9	Has management disclosed three years performance targets? Survey question 60.	1	0	43	14	0.33
E.10	Has the company hired its external auditors for consulting purposes in the last three years? Survey question 62.	-1	0	43	25	0.58
E.11	Does the company have a website where results and other announcements are updated promptly (no later than one business day)? Survey question 63.	1	0	43	20	0.47
E.12	Does the company disclose ownership information? Survey question 64.	1	0	43	30	0.70
E.13	Does the company disclose related party transactions and/or conflicts of interest of managers and directors on the board? Survey question 67.	1	0	43	24	0.56

Subindex F. Fairness 5

Variable	Summary of the Variable	Yes	No	Responses	No. of "yes" Responses	Mean
F.1	What percentage of the shares is needed to call an Extraordinary Shareholders meeting? Under Law 222 of 1995, the minimum percentage to call ESM is 25%. However companies can opt out by determining a lower percentage. So, a one was assigned for those responses wiht percentage lower than 25%. Survey question 40.	1		43	11	0.26
F.2	Can shareholders ask management to include items in the list of topics to be dealt with during the shareholders' meetings? Survey question 41.	1	0	43	33	0.77
F.3	Can minority shareholders add agenda items to the meeting? Survey question 41.1.	1	0	43	30	0.70
F.4	Do minority shareholders have rights of first refusal to purchase additional shares at the same price they are offered to a third party? Survey question 49.	1	0	43	13	0.30
F.5	Can minority shareholders have tag-along rights to sell shares at the same price as the controlling shareholder when the company is sold? Survey question 51.	1	0	43	26	0.60

Appendix 3. Correlation Matrix of Selected Variables

num	Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1	Tobin's Q	1.00																			
2	ROA	0.03	1.00																		
3	ROE	0.01	**0.86**	1.00																	
4	CR4	**0.14**	0.02	-0.01	1.00																
5	Voting-Rights4	**0.17**	0.09	0.02	**0.84**	1.00															
6	Separation-ratio4	**-0.10**	**-0.15**	-0.05	0.01	**-0.48**	1.00														
7	Dif1	**0.14**	**0.09**	0.02	**0.19**	**0.66**	**-0.75**	1.00													
8	Dif2	**0.15**	0.03	-0.03	**-0.12**	**0.20**	**-0.62**	**0.50**	1.00												
9	Dif3	**0.12**	**0.15**	0.03	**0.14**	**0.53**	**-0.78**	**0.77**	**0.52**	1.00											
10	Wedge	**0.13**	0.03	-0.04	-0.05	**0.23**	**-0.63**	**0.41**	**0.43**	**0.49**	1.00										
11	Lnrsales	0.04	**0.25**	**0.13**	**0.13**	**0.21**	**-0.26**	**0.17**	**0.17**	**0.19**	**0.11**	1.00									
12	Growth-sales	0.01	-0.02	0.00	-0.05	-0.05	0.04	-0.04	-0.07	-0.04	-0.03	**-0.13**	1.00								
13	PPE-sales ratio	**-0.16**	**-0.21**	**-0.15**	**-0.11**	**-0.11**	0.05	-0.07	0.01	**-0.09**	-0.01	**-0.37**	**0.18**	1.00							
14	Debt-Ratio	**0.41**	**-0.29**	**-0.23**	**0.19**	**0.13**	0.06	-0.03	-0.06	0.02	-0.08	**0.21**	-0.08	**-0.19**	1.00						
15	Trading	-0.08	**0.20**	0.07	**-0.19**	-0.06	**-0.34**	**0.09**	**0.26**	**0.26**	**0.18**	**0.40**	-0.03	**-0.12**	**-0.19**	1.00					
16	bursatil	**-0.10**	**0.22**	0.08	**-0.11**	0.04	**-0.36**	**0.14**	**0.21**	**0.28**	**0.18**	**0.46**	-0.06	**-0.14**	**-0.19**	**0.86**	1.00				
17	Lyears	**-0.25**	0.01	0.05	**-0.12**	-0.02	**-0.20**	**0.12**	**0.11**	**0.19**	-0.01	**0.26**	-0.05	-0.01	0.05	**0.37**	**0.37**	1.00			
18	BGA	0.07	0.08	0.00	**-0.34**	-0.04	**-0.49**	**0.26**	**0.66**	**0.29**	**0.34**	**0.21**	-0.09	0.08	**-0.12**	**0.27**	**0.26**	0.06	1.00		
19	Rdummy	**0.20**	**-0.23**	**-0.11**	-0.01	-0.03	**0.11**	0.01	-0.05	-0.03	-0.02	**-0.22**	0.04	0.02	**0.12**	-0.08	**-0.10**	**-0.11**	**-0.12**	1.00	
20	Fowner	-0.07	-0.07	**-0.15**	**0.17**	0.02	**0.23**	**-0.15**	**-0.10**	**-0.18**	**-0.19**	**0.28**	-0.04	-0.01	0.01	**0.10**	**0.14**	-0.03	**-0.09**	-0.04	1.00

Note: See Appendix 4 for variables definitions

Appendix 4. Variable Definitions

Variable	Description
Tobin's Q	Tobin's Q was estimated as the ratio of market value of of assets to book value of assets. Market value of assets is the sum of the book value of debt, book value of preferred stock (if any), and market value of common stocks.
MTBR	Market-to-book ratio is the market value of common stock divided by the book value of common stock
MTS	Market-to-sale ratio is the ratio of market stock of common stock to operational income.
ROA	is total profits before tax divided by total assets
ROE	is total profits before tax divided by book value of equity
Total Debt	is the book value of total liabilities in Colombian pesos
Total Assets	is the book value of total assets in Colombian pesos
CR4	is the sum of the direct ownership of the four largest shareholders
Square-CR4	is the square of CR4
Voting rights	is the percentage of control that the four largest shareholders has in the firm. The methodology is explained in detail in Gutiérrez and Pombo (2006).
Square-Voting rights	is the square of Voting rights
Dif1	is the difference between the voting rights and CR4
Dif2	is a dummy variable that takes the value of one if control rights exceed cash-flow rights, and zero otherwise
Dif3	a dummy variable that takes the value of one if ownership stakes exceeds control rights of a given number of chosen shareholders and if this difference is above the median separation, and zero otherwise
Wedge 10	is a measure of separation of control rights from cash-flow rights.
LnSales	is the natural logarithm of operational income in Colombian pesos of 1998
SqLnSales	is the square of LnSales
Growth-Sales	is the average of previous three years of annual growth rates of operational income in Colombian pesos of 1998.
Debt-Ratio	is leverage measured as total debt divided by total assets.
PPE-sales rattio	is the book value of property, plant, and equipment divided by operational income
Trading	shows the ratio of the numbers of days a firm's stocks were traded during a year to the total days the stock exchange was opened.
Bursatil	is a liquidity variables estimated by the Financial Superintendency that takes into account numbers of days the stock is traded, the monetary volume of trade, and the number of shares that are traded.
BGA	is a dummy variable that takes a value of one if the firm is affiliated to a business group, and zero otherwise.
Fowner	is a dummy variable that takes a value of one if among the first four largest shareholders there is a foreign owner, an zero otherwise.
Lyears	is the number of years the firm have been listed in the RNVI of Financial Superintendency
Rdummy	is a dummy variable that takes the value of one for the years 1998 and 1999, and zero otherwise.

Notes: Value series are in constant 1998 prices.