

OWNERSHIP, CONTROL, VALUATION AND PERFORMANCE OF BRAZILIAN CORPORATIONS

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Abstract

This paper analyzes the ownership and control structure of Brazilian companies and the effect of cash flow and voting rights on firm valuation and performance. Ownership is quite concentrated in Brazil with most companies being controlled by a single direct shareholder. We find evidence that non-voting shares and indirect control structures are largely used to concentrate control with reduced overall investment in the company. Our results support the hypothesis that firm valuation and performance are positively related to cash flow concentration, and negatively related to voting concentration and to the separation of voting from cash flow rights. Moreover, firm valuation and performance are relatively higher for firms with controlling shareholders when compared to firms without controlling shareholders.

Keywords: corporate control, ownership, corporate performance

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1. Introduction

The purpose of this paper is to analyze the ownership and control structure of Brazilian companies and the effect of cash flow and voting rights on firm valuation and performance. This paper follows an extensive literature on the effects of ownership structures on firm valuation and performance. Jensen and Meckling (1976) suggest that concentrated ownership may be beneficial for corporate valuation, because large investors are better at monitoring managers. Morck, Shleifer, and Vishny (1988) distinguish between the negative control effects and the positive incentive effects of high stakes of ownership, and point out that the separation between ownership and control increases the conflicts of interest and thus decreases firm valuation. The relationship between control rights concentration and value may be concave function in the US, with value increasing at control rights concentration increases up to an inflection point when value starts to decrease, possibly due to greater expropriation potential at higher control concentration levels.

The presence of controlling shareholders may be harmful to the firm because their interests may not align with those of non-controlling shareholders (Shleifer and Vishny (1997), La Porta et al. (1998, 2000, 2002), and Claessens et al. (2000, 2002)). The power of controlling shareholders to expropriate outside investors is moderated by their financial incentives not to do so. An important source of such

incentives is equity or cash flow ownership by the controlling shareholder. In general, expropriation is costly and therefore higher cash flow ownership should lead to lower expropriation, other things equal.

Recent research (Shleifer and Vishny (1997), La Porta et al. (1998, 2000, 2002), and Claessens et al. (2002)) suggests that greater cash flow rights (incentives) are associated with greater valuation. In contrast, greater concentration of control rights (entrenchment) and the separation of voting from cash flow rights have a negative effect on firm value, with Claessens et al (2002) finding evidence of the concave relationship advanced by Morck et al (1988) in Asia. At large control concentrations, controlling shareholders actions may result in the expropriation of minority shareholders. Such companies are unattractive to small shareholders and their shares have lower valuation. Lins (2003) finds stronger evidence for entrenchment than for incentives and that the presence of indirect control structures are associated with lower valuations in a cross-section analysis of 18 emerging markets that includes Brazil. He maintains that the presence of large non-managerial block holders mitigates the negative effect of control concentration on value, particularly in countries with poor legal protection.

Wiwattanakitang (2001) investigates the effects of controlling shareholders on corporate performance in Thailand. Her results indicate that the presence of controlling shareholders is associated with better performance when assessed by accounting measures

such as return on assets (ROA) and the sales-to-assets ratio. Since most firms in her sample do not implement mechanisms to separate voting from cash flow rights, controlling shareholders might be self-constrained and do not extract private benefits.

Klapper and Love (2004) conclude that better corporate governance practices are associated with greater market value for a cross-section sample of 14 emerging markets. They also note that Brazil and Chile present low relative market valuations while showing relatively high firm level governance indicators. These results, nevertheless, should be taken with caution because the number of companies covered in that study in Brazil (24) and in Chile (13) is very small, including mostly companies that listed ADRs in the US and are, therefore, very similar in terms of their governance practices. Durnev and Kim (2005) included 30 Brazilian firms and 15 Chilean firms in their sample, with similar results.

Our study advances this research by verifying if control and ownership concentration affect value in a much larger sample of firms in Brazil and expands the existing literature on ownership and control structure of Brazilian firms (such as Leal and Carvalho da Silva (2005), among others) by providing an analysis of the relation between the governance structure and firm valuation and performance across different groups of companies classified according to the ultimate control percentages resulting from their usage of indirect control structures.

2. Data and Methodology

Our sample comes from the companies listed on the São Paulo stock exchange (Bovespa) in 1998, 2000 and 2002. The sample includes both financial institutions and non-financial institutions and excludes companies with incomplete or unavailable information and with negative book value of assets, negative book value of common equity and firms that had no trade on the São Paulo stock exchange during the sample period. We analyze two forms of shareholding: direct and indirect. Direct shareholders are those who own shares in the public company itself. We consider all shareholders with 5% or more of the voting capital. This is because 5% is the threshold for mandatory identification of shareholders in Brazil. Indirect shareholding represents stockholders who ultimately own the company.

We analyze both control (voting shares) and cash flow rights (voting and non-voting shares). We compute the ultimate percentage ownership differently for cash flow and control rights. For example, if a shareholder has 60% of the total capital of company B that owns 70% of the total capital of company A, the shareholder ultimately owns 42% of the total capital of company A (60% times 70%). Assuming that all shares have equal voting rights, the shareholder controls 60% of company A (the minimum between 60% and 70%). The computation

of the ultimate control ownership uses the weakest link method commonly employed in the literature (La Porta et al. (2000, 2002) and Claessens et al. (2000)). We also consider existing shareholder's agreements in order to adjust the cash flow and voting rights percentages for the entire controlling block.

Our ownership analysis is possible because mandatory annual filings with the regulatory authority show the shareholding composition of parent companies. Thus, we analyze the shareholding composition backwards until we are able to classify the ultimate owners into one of the following groups: individuals or families, institutional investors (banks, insurance companies, pension funds, foundations or mutual funds), foreigners (either individuals or entities) and the government. We do this for the filings relative to 1998, 2000, and 2002. Data on the shareholding structure come from the Infoinvest database, which gathers information directly from the Brazilian Securities Exchange Commission (CVM). The market and accounting information comes from the Economatica, a financial database that contains a wide coverage of the Brazilian stock market.

In order to analyze the relation between the governance structure and firm valuation and performance across different types of firms, we successively classify companies in our sample into six groups according to their ownership and control characteristics. The groups are formed by answering ("yes" or "no") the following questions: Is there a direct major shareholder? Is there an indirect structure? Does the shareholder keep control indirectly? Is the indirect control higher, equal or lower than the direct one? Figure 1 shows the questions used to form the ownership and control groups of companies.

Figure 1 about here

The indirect structure allows the controlling shareholder to leverage his or her position. In Brazil companies are permitted to issue shares without voting rights in an amount up to two-thirds of the total capital (Law 6404/76 - Law of Corporations). Thus, the minimum to maintain control of a company without resorting to indirect structures is one-sixth (16.67%) of the total capital, by holding just over 50% of the voting capital when this represents the lower legal limit of one-third of the total capital. This allows companies to issue shares without relinquishing control and is therefore a way of separating ownership from control and to maintain distance from the one share-one vote rule. In 2001, the "New Law of Corporations" (Law 10303/01) changed the maximum amount of non-voting shares from 2/3 to 50% of total capital, but this rule is mandatory only for non-public firms that decide to go public after the enactment of the law and for new corporations.

3. Empirical Results

3.1. Direct Shareholding Composition

Table 1 shows the direct ownership and control structure of Brazilian companies classified in two major groups: with and without a controlling shareholder. Our results reveal that most companies have a single shareholder holding more than 50% of the voting capital: 82% (196 out of 240) in 1998, 83% (197 out of 236) in 2000, and 86% (184 out of 214) in 2002. In these companies, the largest shareholder has an average of 77% of the voting capital. Among the companies where control is not held by only one shareholder, the largest one owned an average of 33% of the voting capital in 2002. This shows that even when a single shareholder does not have the majority of the votes, the largest shareholder holds a considerable portion of them. Considering the sample as a whole, the largest, the three largest, and the five largest shareholders had, respectively, 71%, 83% and 86% of the voting capital in 2002.

Table 1 about here

We also note a reasonable difference between the percentage of voting and total capital held by large shareholders. The issuance of non-voting shares appears to be used by large shareholders to maintain control of the firm without having to hold 50% of the total capital. In companies with a controlling shareholder, this investor had on average 77% of the votes but only 56% of the total capital. Considering the entire sample, the five largest shareholders had 86% of the voting capital but only 64% of the total capital in 2002. The average voting to total capital ratio by the controlling shareholder is 1.69, indicating a huge departure from the one-share-one-vote rule.

3.2. Indirect Shareholding Composition

Table 2 shows the indirect ownership and control structure of Brazilian companies. In companies with a controlling shareholder, the majority shareholder indirectly owned on average 70% of the voting capital and 46% of the total capital in 2002. Comparing the results from Tables 1 and 2, we note that the stake owned directly by the controlling shareholders is generally higher than that owned indirectly. Nevertheless, the lower indirect participation of large shareholders does not occur in the case of companies where there is no single majority owner. On the contrary, the data actually show a small increase in the voting capital. The voting to total capital ratio is higher indirectly (ranging from 1.82 to 2.97) than directly (ranging from 1.55 to 1.69).

Table 2 about here

These results may indicate a certain utilization of indirect (pyramidal) structures or publicly traded

subsidiaries to maintain control with reduced overall investment in the company. If such pyramidal structure occurs at several levels, the separation between ownership and control, and also the disparity from the one share-one vote rule become even greater. Considering the entire sample in 2002, the five largest shareholders had 82% of the voting capital and 56% of the total capital, and the average voting to total capital ratio was 1.82, indicating a huge departure from the one-share-one-vote rule. The voting to capital rights ratio is much larger for the major shareholder than for the 3 or 5 largest shareholders, suggesting that it is the controlling shareholder that uses this kind of leverage the most.

Then the companies in our sample are classified into six groups according to their ownership and control characteristics as shown in Figure 1. Table 3 reports the proportion of firms in each group as well as their direct and indirect ownership and control structures. Overall, there are no significant changes within groups from 1998 to 2002.

Table 3 about here

The "SameControl" group, which contains companies in which the controlling shareholder has the same voting power directly and indirectly, has the highest proportion of firms (35% in 2002), while the "DecreaseControl" group, which represents companies in which the controlling shareholder has less voting power indirectly than he does directly, has the lowest proportion of firms (6% in 2002). The proportion of firms in which there is no controlling shareholder ("NoMajor") or the controlling shareholders loses the control indirectly ("LoseControl") represented 14% and 15% in 2002.

In 2002, the indirect voting to total capital ratio varied a lot across the different groups, ranging from 1.50 ("NoIndirect") to 4.36 ("DecreaseControl"). We can note that the highest voting to total capital ratio is associated with groups in which the control is not kept (4.30) or decreases indirectly (4.36). Therefore, even when the controlling shareholders reduce their voting power indirectly, their overall investment in total capital decreases much more, which is reflected on the high voting to total capital ratios for these groups of companies.

These results indicate that indirect control structures are very common in Brazil and are used to at least keep (and sometimes increase) the voting power by controlling shareholders at a lower cost, that is, with a lower investment in the total capital. It is also clear from Table 3 that the voting to total capital ratios are higher indirectly (ranging from 1.46 to 4.94) than directly (ranging from 1.34 to 1.92) for all groups of companies and a lower control percentage of the controlling shareholder in the indirect structure is accompanied by greater deviations from the one share one vote rule.

Table 4 about here

Table 4 shows other ownership characteristics of our sample. Ultimate foreign ownership represents between 25% and 29%. Ultimate government as well as institutional ownership stay between 8% and 9% of the total of firms. About 77% of firms present an indirect control structure and 20% of firms have agreements amongst their largest shareholders. Non-voting shares have typically represented a 45% of the total number of shares, while free floating shares outstanding are about 47% of total shares. As expected, these last two percentages are very close, since most shares that trade at the São Paulo stock exchange are non-voting shares.

Table 5 reports the ownership characteristics according to the type of the controlling shareholder (family, foreigners, government, or institutions). In general, there is no significant difference in the direct stake of voting and total capital across the different types of shareholders. Family-owned firms tend to have the highest voting to total capital ratio, both directly (1.81 in 2002) and indirectly (3.13 in 2002). The voting concentration in government-owned firms is the highest both directly (74%) and indirectly (72%). However, its voting to total capital ratio tends to be lower than that of most other groups (1.50 directly and 1.75 indirectly). This indicates that the government not only controls the votes but also holds a high stake in the firm's total capital. The largest indirect deviations from the one share one vote rule occur in family and institutional investor controlled firms.

Table 5 about here**3.3. Ownership, Control and Firm Valuation**

Researchers have employed Tobin's Q to measure the discount in market values resulting from expropriation (Morck, Shleifer, and Vishny (1988), La Porta et al. (2002)). It is constructed as the market value of assets divided by the replacement cost of assets. DaDalt et al. (2003) assert that Tobin's original intent was to measure the firm's propensity to invest. However, Q has been used as a general measure of relative value of firms and its original intent is not inconsistent with our own purposes to measure the relative market valuation of firms.

An estimate of the numerator of Tobin's Q is the book value of assets minus the book value of common equity plus the market value of common equity. The denominator is the book value of assets. Other forms of computing Q are described in DaDalt et al. (2003). These authors find that simpler computations of Q should be preferred over more complex estimates, particularly when data availability is a concern, which is our case.

In our analysis, we also use the return on assets

(ROA) as a proxy for profitability, and the price-to-book ratio (P/B) as an alternate proxy for relative firm market value. The ROA is measured by the ratio of operating income to total assets at year-end, while P/B is the market value of stock divided by the book value of stock.

We only include in our sample companies that had shares traded on the São Paulo stock exchange in 1998, 2000 and 2002. In order to compute the market value of common equity we multiply the number of shares outstanding by the average price of the last trade date in December of each year. We do not compute Tobin's Q for companies with incomplete or unavailable information and for companies with negative book value of assets and negative book value of common equity.

In order to analyze the relation between firm valuation (Tobin's Q and P/B ratio) and performance (ROA) and the ownership and control structure, the following panel data regression is specified:

$$Q, ROA, P/B = \beta_0 + \beta_1 \text{VotDir} + \beta_2 \text{TotDir} + \beta_3 \text{Vot/TotDir} + \beta_4 \text{VotInd} + \beta_5 \text{TotInd} + \beta_6 \text{Vot/TotInd} + \beta_7 \text{NoIndirect} + \beta_8 \text{LoseControl} + \beta_9 \text{IncreaseControl} + \beta_{10} \text{SameControl} + \beta_{11} \text{DecreaseControl} + \beta_{12} \text{Foreign} + \beta_{13} \text{Government} + \beta_{14} \text{Institutional} + \beta_{15} \text{Others} + \varepsilon$$

where *VotDir* is the percentage of voting capital owned directly by the largest shareholder, *TotDir* is the percentage of total (voting and non-voting) capital owned directly by the largest shareholder, *Vot/TotDir* is the ratio of voting to total capital owned directly by the largest shareholder, *VotInd* is the percentage of voting capital owned indirectly by the largest shareholder, *TotInd* is the percentage of total capital owned indirectly by the largest shareholder, *Vot/TotInd* is the ratio of voting to total capital owned indirectly by the largest shareholder, *NoIndirect* is a dummy variable that takes the value 1 if the company does not use indirect structures, *LoseControl* is a dummy variable that takes the value 1 if the largest shareholder does not keep more than 50% of the voting capital indirectly, *IncreaseControl* is a dummy variable that takes the value 1 if the controlling shareholder's voting capital is higher indirectly than directly, *SameControl* is a dummy variable that takes the value 1 if the controlling shareholder's voting capital is the same indirectly and directly, *DecreaseControl* is a dummy variable that takes the value 1 if the controlling shareholder's voting capital is lower indirectly than directly, *Foreign* is a dummy variable that takes the value 1 if the largest ultimate shareholder is a foreign investor, *Government* is a dummy variable that takes the value 1 if the largest ultimate shareholder is the government, *Institutional* is a dummy variable that takes the value 1 if the largest ultimate shareholder is an institutional investor (banks, insurance companies, pension funds, foundations or mutual funds), *Others* is a set of firm-specific control variables such as industry (according to the industry classification of the Ecomatrica database), firm size (natural logarithm of book value of total assets), volatility (annualized standard deviation of daily stock prices from the previous 12

months), growth (average annual growth of sales over the past 3 years), and ε is an error term.

To estimate the above equation, it is natural to use panel data techniques such as fixed-effects or random effects. The results (not reported) of the Hausman (1978) test show that the random effects model is rejected and thus require the estimation of the fixed-effects model.

Table 6 reports the results of three different specifications of regressions for each dependent variable (Q, ROA and P/B). Regressions I, IV, and VII do not include the controlling shareholder's stake of capital, Regressions II, V, and VIII add the controlling shareholder's direct stake of capital, while Regressions III, VI, and IX add the controlling shareholder's indirect stake of capital.

Table 6 about here

The coefficients for *VotDir* and *VotInd* are negative and statistically significant at the 1% level for 3 (out of 6) specifications, while the coefficients for *TotDir* and *TotInd* are positive and statistically significant at the 1%, 5% and 10% levels in 5 (out of 6) specifications. The coefficients for *Vot/TotDir* and *Vot/TotInd* are negative and statistically significant at the 1% and 10% levels in 3 (out of 6) specifications. These results tend to support our hypothesis that firm valuation and performance are positively related to cash flow concentration, and negatively related to voting concentration and to the separation of voting from cash flow rights.

It is also clear from Table 6 that firm valuation and performance are relatively higher for firms with controlling shareholders when compared to firms without controlling shareholders. The coefficients for *NoIndirect*, *IncreaseControl*, *SameControl* are usually positive and statistically significant at the 1% and 5% levels.

In contrast, the coefficients for *LoseControl* and *DecreaseControl* are generally negative and statistically significant at the 1%, 5% and 10% levels. The coefficient for *LoseControl* tends to be less than that of *DecreaseControl*. One possible reason is that the latter represents companies where the controlling shareholder's voting capital is lower indirectly than directly, but it is higher than 50%, while the former consists of companies in which the controlling shareholder loses control by keeping an indirect voting capital lower than 50%.

Note that both the *LoseControl* and *DecreaseControl* groups have a direct controlling shareholder, however their market valuation and performance are lower than those of firms without a direct controlling shareholder. The *NoMajor* group is our benchmark in the dummy analysis. This indicates that the market underestimates much more the valuation of firms in which the direct shareholder reduces or loses control indirectly when compared to firms with no direct controlling shareholder.

We also can note that firms controlled by the government, foreign and institutional investors generally have significantly higher valuation and performance when compared to family-owned firms. One possible explanation for the lower valuation of family-owned firms may be associated with the evidence by Cronqvist and Nilsson (2003) in Sweden. They find that agency costs of family owners are larger than those of other controlling investors, and that family-owned firms have a higher discount on firm value, and are less likely to be taken over compared to other firms. This is also consistent with the fact that family-owned firms tend to have the highest voting to total capital ratio (see Table 5), indicating a lower market valuation due to a potential minority shareholder expropriation.

4. Conclusion

Our results indicate that ownership and control are quite concentrated with most companies being controlled by a single direct shareholder. There is also a significant difference between the percentage of voting and total capital held by large shareholders. The issuance of non-voting shares appears to be used by large shareholders to maintain control of the firm without having to hold 50% of the total capital. The disparity from the one share-one vote rule becomes even greater through the use of indirect control structures.

Panel data regressions support the hypothesis that firm valuation and performance are positively related to cash flow concentration, and negatively related to voting concentration and to the separation of voting from cash flow rights. Moreover, firm valuation and performance are relatively higher for firms with controlling shareholders when compared to firms without controlling shareholders. Family-owned firms are most common in Brazil, and generally have the highest disparity from the one share-one vote and significantly lower valuation and performance when compared to companies controlled by the government, foreign and institutional investors.

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Appendices

Table 1. Direct Shareholding Composition of Brazilian Corporations

Direct shareholding composition of Brazilian corporations. Average voting capital, total capital, and voting to total capital ratio of firms with and without a controlling shareholder. A company with a controlling shareholder is one where a single owner has directly more than 50% of the voting capital. Data collected from annual reports in 1998, 2000 and 2002.

Panel A: 1998

	Firms with a Controlling Shareholder (196 Firms)			Firms without a Controlling Shareholder (44 Firms)			Total Sample (240 Firms)		
	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital
Largest Shareholder	76.85	55.35	1.62	36.67	22.07	1.91	69.48	49.25	1.68
3 Largest Shareholders	86.02	62.92	1.56	64.68	42.90	1.77	82.11	59.25	1.60
5 Largest Shareholders	87.35	64.08	1.55	73.61	49.49	1.73	84.83	61.40	1.58

Panel B: 2000

	Firms with a Controlling Shareholder (197 firms)			Firms without a Controlling Shareholder (39 firms)			Total Sample (236 firms)		
	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital
Largest Shareholder	77.36	56.22	1.62	36.54	22.63	1.92	70.62	50.67	1.67
3 Largest Shareholders	86.97	65.12	1.53	63.55	42.46	1.78	83.10	61.38	1.57
5 Largest Shareholders	88.42	66.52	1.51	69.47	47.25	1.74	85.29	63.34	1.55

Panel C: 2002

	Firms with a Controlling Shareholder (184 firms)			Firms without a Controlling Shareholder (30 firms)			Total Sample (214 firms)		
	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital
Largest Shareholder	77.09	55.70	1.65	32.93	20.27	1.92	70.90	50.71	1.69
3 Largest Shareholders	87.41	65.34	1.56	56.99	37.72	1.74	83.14	61.46	1.58
5 Largest Shareholders	88.69	66.90	1.54	67.04	45.48	1.69	85.66	63.90	1.56

Table 2. Indirect Shareholding Composition of Brazilian Corporations

Indirect shareholding composition of Brazilian corporations. Average voting capital, total capital, and voting to total capital ratio of firms with and without a controlling shareholder. The indirect composition is calculated backwards until the effective shareholder is revealed to be from one of the following groups: individuals, institutions (banks, insurance companies, pension funds, foundations or mutual funds), foreigners and the government. Data collected from annual reports in 1998, 2000 and 2002.

Panel A: 1998

	Firms with a Controlling Shareholder (196 Firms)			Firms without a Controlling Shareholder (44 Firms)			Total Sample (240 Firms)		
	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital
Largest Shareholder	67.37	41.82	2.81	46.82	27.90	2.27	63.60	39.27	2.71
3 Largest Shareholders	79.74	50.82	2.18	67.79	44.33	1.89	77.55	49.63	2.13
5 Largest Shareholders	82.66	53.68	2.03	74.00	47.25	1.93	81.07	52.50	2.02

Panel B: 2000

	Firms with a Controlling Shareholder (197 firms)			Firms without a Controlling Shareholder (39 firms)			Total Sample (236 firms)		
	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital
Largest Shareholder	69.36	44.57	3.05	44.43	26.05	2.55	65.24	41.51	2.97
3 Largest Shareholders	81.42	53.50	2.31	64.17	40.78	1.93	78.57	51.40	2.25
5 Largest Shareholders	84.08	56.92	1.86	68.37	44.24	1.89	81.48	54.83	1.87

Panel C: 2002

	Firms with a Controlling Shareholder (184 firms)			Firms without a Controlling Shareholder (30 firms)			Total Sample (214 firms)		
	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital
Largest Shareholder	69.81	45.69	2.81	39.37	22.41	2.26	65.54	42.43	2.74
3 Largest Shareholders	82.36	55.34	2.13	60.22	37.50	1.84	79.25	52.84	2.09
5 Largest Shareholders	84.84	58.53	1.83	67.05	43.56	1.79	82.35	56.43	1.82

Table 3. Ownership and Control of Brazilian Corporations Classified into Groups

Average voting capital, total capital, and voting to total capital ratio of firms classified into six groups according to their ownership and control characteristics: *NoMajor* (firms without a direct controlling shareholder), *NoIndirect* (firms with a controlling shareholder without indirect structures), *LoseControl* (firms with a controlling shareholder in which the control is not kept at some level of the indirect structure), *IncreaseControl* (firms in which the largest shareholder has a greater voting power indirectly than he does directly), *SameControl* (firms where the controlling shareholder has the same voting power directly and indirectly), and *DecreaseControl* (firms in which the controlling shareholder has less voting power indirectly than he does directly). Data collected from annual reports in 1998, 2000 and 2002.

Panel A: 1998

Groups	% of Firms in Each Group	Direct Stake of the Controlling Shareholder			Indirect Stake of the Controlling Shareholder		
		Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital
NoMajor	18.33	36.67	22.07	1.91	46.82	27.90	2.27
LoseControl	15.00	77.38	53.58	1.72	25.50	10.39	4.11
IncreaseControl	11.25	62.78	40.56	1.78	78.27	45.75	2.03
SameControl	31.67	78.69	54.80	1.69	78.69	45.82	3.26
DecreaseControl	5.83	92.29	78.60	1.20	63.15	38.96	2.60
NoIndirect	17.92	76.94	59.54	1.46	76.94	59.54	1.46

Panel B: 2000

Groups	% of Firms in Each Group	Direct Stake of the Controlling Shareholder			Indirect Stake of the Controlling Shareholder		
		Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital
NoMajor	16.53	36.54	22.63	1.92	44.43	26.05	2.55
LoseControl	14.41	77.94	55.86	1.72	28.41	14.16	4.94
IncreaseControl	12.29	63.97	45.90	1.68	83.87	55.60	1.76
SameControl	32.20	78.90	56.11	1.63	78.90	50.60	3.07
DecreaseControl	7.20	88.32	72.25	1.34	60.68	28.76	4.96
NoIndirect	17.37	78.98	57.38	1.58	78.98	57.38	1.58

Panel C: 2002

Groups	% of Firms in Each Group	Direct Stake of the Controlling Shareholder			Indirect Stake of the Controlling Shareholder		
		Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital
NoMajor	14.02	32.93	20.27	1.92	39.37	22.41	2.26
LoseControl	14.95	77.07	55.43	1.66	28.01	14.71	4.30
IncreaseControl	13.08	63.72	45.46	1.67	80.36	52.69	1.83
SameControl	35.05	79.24	55.97	1.74	79.24	51.20	2.95
DecreaseControl	5.61	81.49	60.31	1.50	61.87	28.28	4.36
NoIndirect	17.29	81.43	61.66	1.50	81.43	61.66	1.50

Table 4. Ownership and Control Characteristics of Brazilian Corporations

Ultimate ownership by foreigners, government, and institutions (banks, insurance companies, pension funds, foundations or mutual funds) are calculated after considering indirect control structures and shareholder agreements. The remaining balance is owned by individuals or families. The percentage of companies with indirect control structures (*Indirect*) and shareholder agreements (*Agreement*) is also reported. *Non-Voting* is the percentage of non-voting shares in the total capital. *Free float* is the percentage of shares (voting and non-voting) outstanding, available for trading in the market. Data collected from the annual reports in 1998, 2000 and 2002.

	1998	2000	2002
Foreign	28.75%	28.39%	25.23%
Government	8.75%	8.90%	7.94%
Institutional	8.33%	8.47%	8.88%
Indirect	75.83%	78.39%	76.64%
Agreement	20.00%	19.49%	21.50%
Non-Voting	45.58%	44.99%	44.40%
Free Float	49.17%	46.99%	46.72%

Table 5. Ownership and Control of Brazilian Firms by Type of Controlling Shareholders

Direct and indirect shareholding composition of Brazilian corporations classified according to the type of controlling shareholders: families, foreigners, government, and institutions (banks, insurance companies, pension funds, foundations or mutual funds). Average voting capital, total capital, and voting to total capital ratio in 1998, 2000 and 2002.

Panel A: Direct Structure

Type of Controlling Shareholder	1998			2000			2002		
	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital
Family	68.48	44.52	1.82	66.91	43.03	1.81	69.08	46.49	1.81
Government	71.58	54.59	1.50	74.62	57.57	1.48	74.30	56.99	1.50
Institutional	70.92	52.80	1.47	76.27	63.40	1.35	71.76	57.87	1.44
Foreign	70.31	55.52	1.51	74.76	59.31	1.54	73.70	56.05	1.57

Panel B: Indirect Structure

Type of Controlling Shareholder	1998			2000			2002		
	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital
Family	64.07	33.96	3.33	63.78	34.61	3.70	65.23	37.84	3.13
Government	70.11	46.53	1.76	68.63	46.61	1.85	71.95	49.23	1.75
Institutional	53.64	37.59	2.20	54.82	39.31	2.75	55.26	37.56	3.00
Foreign	63.62	47.56	1.96	70.09	53.76	2.00	67.86	52.53	2.04

Table 6. Ownership, Control and Firm Valuation and Performance

The dependent variables in each regression are the Tobin's Q, return on assets (ROA) and price/book (P/B) ratio. All coefficients are obtained by estimating linear fixed-effects panel data models. Definitions for each of the variables can be found in Table 6. Year and industry dummies are included in each regression but are not reported. Data include Brazilian corporations in 1998, 2000 and 2002. The p-values are shown in parentheses. ***, **, * denote statistical significance at the 1%, 5% and 10%, respectively.

Variables	Tobin's Q				ROA			Price/Book	
	I	II	III	IV	V	VI	VII	VIII	IX
VotDir		-0.00 (1.00)			-0.19*** (0.00)			-3.22*** (0.00)	
TotDir		0.10** (0.04)			0.08*** (0.00)			4.74*** (0.00)	
Vot/TotDir		-0.06* (0.09)			0.01 (0.12)			-0.57*** (0.00)	
VotInd			-0.09 (0.16)			-0.09*** (0.00)			-1.11 (0.12)
TotInd			0.09* (0.08)			0.00 (0.89)			2.86*** (0.00)
Vot/TotInd			-0.01*** (0.00)			-0.00 (0.15)			-0.04 (0.15)
IncreaseControl	0.04 (0.22)	0.05 (0.13)	0.02 (0.44)	0.00 (0.74)	0.02*** (0.00)	0.03*** (0.00)	0.02 (0.88)	0.02 (0.91)	-0.04 (0.92)
SameControl	0.14*** (0.00)	0.13*** (0.00)	0.11*** (0.00)	0.01 (0.70)	0.03*** (0.00)	0.03*** (0.00)	0.45*** (0.01)	0.17 (0.27)	0.27 (0.37)
DecreaseControl	0.06 (0.15)	0.07 (0.19)	0.04 (0.18)	-0.00 (0.95)	-0.02*** (0.00)	0.07 (0.50)	-0.20 (0.44)	-0.33* (0.08)	0.29 (0.49)
LoseControl	-0.04*** (0.00)	-0.06** (0.05)	-0.04 (0.13)	-0.00 (0.88)	-0.02*** (0.00)	-0.04*** (0.00)	-0.44** (0.05)	-0.46** (0.04)	-0.32 (0.31)
NoIndirect	0.10*** (0.00)	0.13** (0.02)	0.08*** (0.00)	0.01 (0.68)	0.05*** (0.00)	0.04*** (0.00)	0.47*** (0.01)	-0.12 (0.58)	-0.25 (0.46)
Foreign	0.08** (0.05)	0.06 (0.33)	0.11*** (0.00)	0.04 (0.12)	0.03** (0.03)	0.03 (0.25)	-0.41 (0.15)	0.50 (0.31)	-0.46 (0.29)
Government	0.08 (0.61)	0.05 (0.66)	0.12 (0.16)	0.06 (0.33)	0.04*** (0.01)	0.05 (0.09)	0.54*** (0.01)	0.39 (0.52)	-0.45 (0.49)
Institutional	0.20 (0.12)	0.17 (0.17)	0.24*** (0.00)	0.05 (0.15)	0.05*** (0.00)	0.05* (0.07)	-0.49 (0.21)	0.21 (0.61)	1.43*** (0.00)
Size	-0.00 (0.92)	0.00 (0.70)	0.01 (0.39)	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)	0.46*** (0.00)	-0.03 (0.83)	0.40** (0.05)
Volatility	-0.00 (0.87)	-0.01 (0.60)	-0.00 (0.70)	-0.00 (0.47)	0.00*** (0.01)	0.01* (0.10)	0.74*** (0.00)	0.68*** (0.00)	0.78*** (0.00)
Growth	0.03 (0.33)	0.02 (0.37)	0.03 (0.18)	0.01 (0.66)	0.01 (0.24)	0.01 (0.45)	0.05 (0.68)	0.36 (0.00)	-0.40 (0.04)
Observations	691	691	691	691	691	691	691	691	691
Adjusted R ²	0.40	0.39	0.40	0.53	0.53	0.53	0.34	0.34	0.35

Figure 1. Ownership and Control Groups of Companies

Companies are classified into six groups according to their ownership and control characteristics. Groups are formed by answering ("yes" or "no") the following questions: Is there a direct major shareholder? Is there an indirect structure? Does the shareholder keep control indirectly? Is the indirect control higher, equal or lower than the direct one?

