

CONTROLLING SHAREHOLDERS AND CORPORATE VALUATION IN BRAZIL

Ricardo P. C. Leal*, Andre Carvalho da Silva**

Abstract

This paper investigates the relation between the ownership structure, valuation and performance of Brazilian companies. The results show that large shareholders keep control while holding only a small fraction of cash flow rights. The evidence also indicates that non-voting shares and pyramiding are the main devices set to entrench the large controlling shareholder. There is some evidence that firm valuation and performance are negatively related to voting concentration, and that foreign-owned firms perform the best while government-owned firms perform the worst.

Keywords: ownership, control, valuation, performance, Brazil

* Coppead Graduate School of Business, Federal University of Rio de Janeiro (UFRJ), PO Box 68514 - Rio de Janeiro - RJ - 21941-972 - Brazil

Phone: (+55-21) 2598-9871, Fax (+55-21) 2598-9817, E-mail: ricardoleal@coppead.ufrj.br

** Coppead Graduate School of Business, Federal University of Rio de Janeiro (UFRJ), PO Box 68514 - Rio de Janeiro - RJ - 21941-972 - Brazil

Phone: (+55-21) 2598-9878, Fax (+55-21) 2598-9817, E-mail: andrec@coppead.ufrj.br

1. Introduction

Recent studies (Shleifer and Vishny (1997), La Porta et al. (1999), Claessens et al. (2000)) provide evidence that the presence of controlling shareholders is very common throughout the world, even in developed countries, contrasting with the Berle and Means' (1932) model of widely diffused corporate ownership.

The presence of controlling shareholders may be harmful to the firm because their interests may not align with those of non-controlling shareholders. The power of the 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.

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.

Shleifer and Vishny (1997), La Porta et al. (1998, 2000, 2002), and Claessens et al. (2002) suggest that greater cash flow rights are associated with greater valuation. In contrast, concentration of

control rights and the separation of voting from cash flow rights have a negative effect on firm value. When large investors control a corporation, their policies may result in the expropriation of minority shareholders. Such companies are unattractive to small shareholders and their shares have lower valuation.

This paper expands the existing literature on ownership and control structure in Brazil (Valadares and Leal (2000), Leal et al. (2000), Carvalho da Silva and Leal (2005), Leal and Carvalho da Silva (2005), Da Silveira et al. (2003), and Da Silveira (2004)). Our purpose is to investigate the relation between the ownership structure, valuation and performance of Brazilian listed companies.

Our results show that large shareholders keep most voting rights (control) while holding only a small fraction of cash flow rights (ownership). Non-voting shares and pyramiding are the main devices set to entrench the large controlling shareholder. Furthermore, there is some evidence that firm valuation and performance are negatively related to voting concentration, and that foreign-owned firms perform the best while government-owned firms perform the worst.

The paper is structured as follows. Section 2 describes the data and methodology. Section 3 presents the empirical results for the direct and indirect shareholding structures as well as the evidence on their effect on firm valuation and performance. Section 4 concludes.

2. Data and Methodology

Our sample includes the companies listed on the São Paulo stock exchange (Bovespa) in 2002. We exclude 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 Sao Paulo stock exchange during the sample period. The final sample consists of 214 firms, which represent 54% of the number of listed companies and 67% of the market capitalization.

Two forms of shareholding are analyzed: 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). 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)). For example, if a shareholder has 80% of the total capital of company B that owns 90% of the total capital of company A, the shareholder ultimately owns 72% of the total capital of company A (80% times 90%). Assuming that all shares have equal voting rights, the shareholder controls 80% of company A (the minimum between 80% and 90%).

The shareholding composition is analyzed 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 and the government. Data on the shareholding structure come from the Infoinvest database, while the market and accounting information comes from the Economatica database.

We use Tobin's Q in order to analyze the relation between the ownership structure and firm valuation. Tobin's Q has been employed in the literature 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. 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 assets¹.

We also use the return on assets (ROA), the ratio of operating income to total assets, as a proxy for performance. The following linear regression is specified to analyze the relation between ownership

structure, firm valuation (Tobin's Q) and performance (ROA).

$$Q, ROA = \beta_0 + \beta_1 \text{VotDir} + \beta_2 \text{TotDir} + \beta_3 \text{Vot/TotDir} + \beta_4 \text{VotInd} + \beta_5 \text{TotInd} + \beta_6 \text{Vot/TotInd}$$

$$+ \beta_7 \text{Foreign} + \beta_8 \text{Government} + \beta_9 \text{Institutional} + \beta_{10} \text{Others} + \varepsilon$$

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, 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 institution investor, Others is a set of firm-specific control variables such as industry, firm size, volatility, growth, and ε is an error term. The description of each variable can be found in Table 1.

Table 1

3. Results

Table 2 reports the summary statistics of our sample. The average (median) Tobin's Q is 0.99 (0.92), ranging from 0.07 to 4.77, while the mean ROA is 11.33%, ranging from -27.17% to 38.10%. There is a high degree of concentration of capital. On average, one large shareholder controls directly more than 70% of the votes. Not surprisingly, the voting rights differ substantially from cash flow rights.

Most companies are family-owned. However the opening process of the Brazilian economy and mass privatizations in the 90's enabled the entrance of foreign and institutional investors. We can also note that Brazilian firms are highly volatile (average annual volatility of 83%), and present high annual growth of sales (23% on average).

Table 2

Table 3 shows the ownership and control structure of Brazilian companies. Our results reveal that the largest shareholder controls directly an average of 71% of the voting capital. We also can note that there is a huge difference between the percentage of voting and total capital held by large shareholders. The controlling shareholder has on average 71% of the votes but only 51% of the total

¹ DaDalt et al. (2003) describe other forms of computing Tobin's Q, but suggest that simpler computations should be preferred over more complex estimates.

capital. Considering the five largest shareholders, these investors have 86% of the voting capital but only 64% of the total capital. 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.

Table 3

The stake owned directly by the controlling shareholders is generally higher than that owned indirectly. However, the voting to total capital ratio is higher indirectly than directly. These results indicate that indirect (pyramidal) structures are largely used to maintain control with reduced overall investment in the company, making the disparity from the one share-one vote rule become even greater.

Table 4 shows the indirect ownership characteristics according to the type of the controlling shareholder (families, foreigners, government, and institutions). Most companies (58%) are controlled by families, followed by foreigners (25%), institutions (9%), and the government (8%). Family-owned firms tend to have the highest voting to total capital ratio (3.13), while the government-owned firms presents the lowest departure from the one share-one vote rule (1.75). Foreign-owned firms seem to have the highest valuation and performance (1.08 and 15.44%, respectively). In contrast, government-owned firms present the lowest Tobin's Q (0.84) and ROA (8.55%).

Table 4

Table 5 reports the results of four different specifications of regressions for each dependend variable (Tobin's Q and ROA). Regressions I, II, V, and VI include the controlling shareholder's direct stake of capital, while Regressions III, IV, VII, and VIII consider the controlling shareholder's indirect stake of capital,

Table 5

The coefficients for *VotDir* and *VotInd* are negative and statistically significant at the 5% and 10% levels in all specifications. The coefficients for *TotDir* and *TotInd* are positive but not statistically significant, while the coefficients for *Vot/TotDir* and *Vot/TotInd* are negative and not statistically significant.

These results provide evidence that firm valuation and performance are negatively related to voting concentration. In contrast, the relation between ownership concentration, separation of ownership and control, firm valuation and performance does not seem to be statistically significant.

It is also clear from Table 5 that firm performance is relatively higher in foreign-owned firms. On the other hand, firms controlled by the government generally have significantly lower valuation and performance when compared to other companies. This is consistent with the fact that family-owned firms have the highest voting to total capital ratio (see Table 4), suggesting a lower market valuation due to a potential minority shareholder expropriation.

4. Conclusion

This paper investigates the relation between the ownership structure, valuation and performance of Brazilian companies. The results show that large shareholders keep control while holding only a small fraction of cash flow rights. The evidence also indicates that non-voting shares and pyramiding are the main devices set to entrench the large controlling shareholder. The disparity from the one share-one vote rule becomes even greater through the use of indirect control structures.

There is evidence that firm valuation and performance are negatively related to voting concentration. In contrast, the relation between ownership concentration, separation of ownership and control, firm valuation and performance does not seem to be statistically significant.

Firm performance is relatively higher in foreign-owned firms. 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. This is consistent with the fact that family-owned firms have the highest voting to total capital ratio, suggesting a lower market valuation due to a potential minority shareholder expropriation.

References

1. Berle, A., Means, G., 1932. *The Modern Corporation and Private Property*. New York: MacMillan.
2. Carvalhal da Silva, A., Leal, R., 2005. Corporate governance index, firm valuation and performance in Brazil. *Revista Brasileira de Finanças*, forthcoming.
3. Claessens, S., Djankov, S. Lang, L., 2000. The separation of ownership and control in East Asian corporations. *Journal of Financial Economics* 58, 81-112.
4. Claessens, S., Djankov, S., Fan, J., Lang, L., 2002. Disentangling the incentive and entrenchment effects of large shareholdings. *Journal of Finance* 57, 2741-2771.
5. Dadalt, P., Donaldson, J., Garner, J., 2003. Will any q do? *Journal of Financial Research* 26, 535-551.

6. Da Silveira, A., Barros, L., Famá, R., 2003. Estrutura de governança e valor das companhias abertas brasileiras. *Revista de Administração de Empresas* 43, 50-64.
7. Da Silveira, A., 2004. Governança corporativa e estrutura de propriedade: determinantes e relação com o desempenho da empresa. Tese de Doutorado, São Paulo University.
8. Jensen, M., Meckling, W., 1976. Theory of the firm: managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics* 11, 5-50.
9. La Porta, R., Lopez-De-Silanes, F., Shleifer, A., 1999. Corporate ownership around the world. *Journal of Finance* 54, 471-517.
10. La Porta, R., Lopez-De-Silanes, F., Shleifer, A., Vishny, R., 1998. Law and finance. *Journal of Political Economy* 106, 1113-1155.
11. _____, 2000. Investor protection and corporate governance. *Journal of Financial Economics* 58, 3-28.
12. _____, 2002. Investor protection and corporate valuation. *Journal of Finance* 57, 1147-1170.
13. Leal, R., Carvalhal da Silva, A., Valadares, S., 2000. Ownership, control and corporate valuation of Brazilian companies. *Proceedings of the Latin American Corporate Governance Roundtable*.
14. Leal, R., Carvalhal da Silva, A., 2005. Corporate governance and value in Brazil and Chile. *Inter-American Development Bank Working Paper*.
15. Morck, R., Shleifer, A., Vishny, R., 1988. Management ownership and market valuation: an empirical analysis. *Journal of Financial Economics* 20, 293-315.
16. Shleifer, A., Vishny, R., 1997. A survey of corporate governance. *Journal of Finance* 52, 737-783.
17. Valadares, S., Leal, R., 2000. Ownership and control structure of Brazilian companies. *Abante* 3, 29-56.

Appendices

Table 1. Description of Variables

Variable	Description
Tobin's Q	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, while the denominator is the book value of assets.
ROA	Return on assets measured by the ratio of operating income to total assets at year-end.
VotDir	Percentage of voting capital owned directly by the largest shareholder.
TotDir	Percentage of total capital owned directly by the largest shareholder.
Vot/TotDir	Ratio of voting to total capital owned directly by the largest shareholder.
VotInd	Percentage of voting capital owned indirectly by the largest shareholder.
TotInd	Percentage of total capital owned indirectly by the largest shareholder.
Vot/TotInd	Ratio of voting to total capital owned indirectly by the largest shareholder.
Foreign	Dummy variable that takes the value 1 if the largest ultimate shareholder is a foreign investor.
Government	Dummy variable that takes the value 1 if the largest ultimate shareholder is the government.
Institutional	Dummy variable that takes the value 1 if the largest ultimate shareholder is an institution (banks, insurance companies, pension funds, foundations or mutual funds).
Size	Firm size measured by the natural logarithm of book value of total assets at year-end.
Volatility	Annualized standard deviation of daily stock prices from the previous 12 months.
Growth	Average annual growth of sales over the past 3 years.

Table 2. Summary Statistics of Selected Variables

Descriptive statistics of selected variables used in our sample. Definitions for each of the variables can be found in Table 1.

Variable	Mean	Median	Stdev	Min	Max
Tobin's Q	0.99	0.92	0.45	0.07	4.77
ROA	11.33%	11.45%	9.77%	-27.17%	38.10%
VotDir	70.90%	71.22%	22.65%	11.39%	100.00%
TotDir	50.71%	49.88%	26.22%	7.10%	100.00%
Vot/TotDir	1.69	1.44	0.89	0.72	10.29
VotInd	65.54%	67.50%	26.44%	6.00%	100.00%
TotInd	42.43%	35.50%	28.02%	1.00%	100.00%
Vot/TotInd	2.74	1.67	4.96	0.87	56.94
Foreign	0.25	0.00	0.44	0.00	1.00
Government	0.08	0.00	0.27	0.00	1.00
Institutional	0.09	0.00	0.29	0.00	1.00
Volatility	82.69%	70.00%	66.69%	10.00%	520.00%
Growth	22.88%	16.93%	56.49%	-85.99%	778.04%
Size	13.71	13.90	1.82	8.96	18.62

Table 3. Ownership Structure of Brazilian Corporations

Direct and indirect shareholding composition of Brazilian corporations in 2002. Average voting capital, total capital, and voting to total capital ratio of firms. 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 the annual reports.

	Direct Structure			Indirect Structure		
	Voting Capital (%)	Total Capital (%)	Voting/Total Capital	Voting Capital (%)	Total Capital (%)	Voting/Total Capital
Largest Shareholder	70.90	50.71	1.69	65.54	42.43	2.74
3 Largest Shareholders	83.14	61.46	1.58	79.25	52.84	2.09
5 Largest Shareholders	85.66	63.90	1.56	82.35	56.43	1.82

Table 4. Ownership Structure, Valuation and Performance of Brazilian Firms by Type of Controlling Shareholders

Indirect shareholding composition, firm valuation (Tobin's Q), and performance (ROA) 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, voting to total capital ratio, Tobin's Q and ROA in 2002. Definitions for each of the variables can be found in Table 1. Data collected from the annual reports and Economatica database.

Type of Controlling Shareholder	Proportion (%) of Firms	Tobin's Q	ROA (%)	Voting Capital (%)	Total Capital (%)	Voting/Total Capital
Family	57.95	0.96	9.85	65.23	37.84	3.13
Government	7.94	0.84	8.55	71.95	49.23	1.75
Institutional	8.88	1.07	11.86	55.26	37.56	3.00
Foreign	25.23	1.08	15.44	67.86	52.53	2.04

Table 5. Ownership Structure, Firm Valuation and Performance

The dependent variables in each regression are the Tobin's Q, and return on assets (ROA). All coefficients are obtained by estimating linear regression models. Definitions for each of the variables can be found in Table 1. Industry dummies are included in each regression but are not reported. Data include Brazilian corporations in 2002. The p-values are shown in parentheses. ***, **, * denote statistical significance at the 1%, 5% and 10%, respectively.

	Tobin's Q				ROA			
	I	II	III	IV	V	VI	VII	VIII
VotDir	-0.28** (0.03)	-0.27** (0.04)			-0.01* (0.08)	-0.01* (0.08)		
TotDir		0.02 (0.18)				0.00 (0.35)		
Vot/TotDir	-0.01 (0.84)	-0.01 (0.79)			-0.00 (0.51)	-0.00 (0.49)		
VotInd			-0.11** (0.03)	-0.11* (0.07)			-0.03** (0.02)	-0.03** (0.04)
TotInd				0.17 (0.37)				0.00 (0.95)
Vot/TotInd			-0.00 (0.80)	-0.00 (0.87)			-0.00 (0.79)	-0.00 (0.80)
Foreign	0.08 (0.29)	0.08 (0.29)	0.08 (0.29)	0.06 (0.44)	0.04*** (0.01)	0.04*** (0.01)	0.04*** (0.01)	0.04** (0.02)
Government	-0.18 (0.12)	-0.18 (0.12)	-0.19* (0.10)	-0.20* (0.08)	-0.04* (0.09)	-0.04* (0.09)	-0.04* (0.08)	-0.04* (0.08)
Institutional	0.06 (0.56)	0.03 (0.77)	0.07 (0.52)	0.06 (0.59)	0.00 (0.84)	0.00 (0.99)	-0.00 (0.98)	-0.00 (0.97)
Size	0.05*** (0.00)	0.04*** (0.00)	0.05*** (0.00)	0.06*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
Volatility	0.20*** (0.00)	0.20*** (0.00)	0.21*** (0.00)	0.21*** (0.00)	-0.04*** (0.00)	-0.04*** (0.00)	-0.03*** (0.00)	-0.03*** (0.00)
Growth	-0.08 (0.15)	-0.08 (0.14)	-0.07 (0.17)	-0.08 (0.15)	-0.01 (0.59)	-0.01 (0.58)	-0.01 (0.52)	-0.01 (0.51)
Observations	214	214	214	214	214	214	214	214
Adjusted R ²	0.09	0.09	0.08	0.07	0.14	0.14	0.14	0.14