

Corporate Governance Index, Firm Valuation and Performance in Brazil

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Abstract

This study investigates the relationship between the quality of a firm's corporate governance practices and its valuation and performance, through the construction of a broad firm-specific corporate governance index for Brazilian listed companies. The empirical results indicate a high degree of ownership and control concentration. We can also note a significant difference between the voting and total capital owned by the largest shareholders, mainly through the existence of non-voting shares. Panel data results indicate that less than 4% of Brazilian firms have "good" corporate governance practices, and that firms with better corporate governance have significantly higher performance (return on assets). There is also a positive relationship between Tobin's Q and better corporate governance practices although the results are not statistically significant.

Resumo

Este estudo investiga a relação entre a qualidade das práticas de governança corporativa das empresas e seu valor de mercado e desempenho, através da construção de um índice de governança corporativa para as empresas brasileiras listadas. Os resultados empíricos indicam um alto grau de concentração do controle e propriedade. Pode-se notar também uma diferença significativa entre o capital votante e o capital total dos maiores acionistas, principalmente através da existência de ações sem direito de voto. Os resultados da análise de painel indicam que menos de 4% das firmas brasileiras possuem "boas" práticas de governança corporativa e que as firmas com melhor governança corporativa tem um desempenho (retorno sobre o ativo) significativamente superior. Existe também uma relação positiva entre o Q de Tobin e a qualidade das práticas de governança corporativa, embora os resultados não sejam estatisticamente significativos.

Keywords: corporate governance index; firm valuation and performance; Brazil.

JEL codes: G32; G34.

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1. Introduction

The corporate governance concept itself is very broad, and different governance mechanisms have been suggested in the literature to alleviate the agency problems between managers and shareholders, and between controlling and minority shareholders. The relationship between corporate governance and firm valuation has attracted particular attention. One corporate governance aspect that has been widely analyzed is the relationship between ownership (cash flow rights) and control (voting rights) structures and firm valuation. Shleifer and Vishny (1997) consider that the ownership structure, along with the country legal protection, is one of the most important determinants of corporate governance.

Most of the literature that first studied the problem of the separation between ownership and control has done it in an environment where ownership was diffuse, i.e., there were many small shareholders, each one with a very small portion of the capital. Berle and Means (1932) studied the ownership structure of large firms in the United States and observed that most of them had their capital diluted among many small shareholders. This idea was extensively accepted as the corporation model in modern economies. However, recent studies (La Porta et al., 1998, 1999) concluded that very few countries are actually characterized by diffuse ownership firms.

The understanding of corporate governance structures is very important since it influences directly the efficiency of the market for corporate control and may have a positive impact on firm valuation and performance. First, corporate governance structures show a potential agency problem in the management of the firm. Agency problems make investors pessimistic about firm performance, because managers may not be maximizing shareholder's value. When there is a stockholder that exerts control of a company, a new agency problem can arise between controlling and minority shareholders. Claessens et al. (2000a,b) point out that good corporate governance practices decrease the firm cost of capital because they reduce shareholders' monitoring and auditing costs, decreasing the possibility of expropriation of minority shareholders.

Jensen and Meckling (1976) and Morck et al. (1988) have provided important contributions to the research on ownership structures and corporate valuation. Jensen and Meckling concluded that concentrated ownership is beneficial for corporate valuation because large investors are better at monitoring managers. Morck et al distinguish between the negative control effects and the positive incentive effects of higher shares of ownership. They suggest that the absence of separation between ownership and control reduces conflicts of interest and thus increases shareholder value.

Recent research suggests that higher cash flow rights are associated with higher valuation. In contrast, the concentration of control rights and the separation of voting from cash flow rights have a negative effect on firm value. Shleifer and Vishny (1997), La Porta et al. (1998, 1999, 2000, 2002), Morck et al. (1988) and Claessens et al. (2000a,b) studied the conflicts of interest between large and small

shareholders. 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 present lower market valuations.

Besides ownership and control structures, previous studies concentrated on other specific aspects of governance, such as takeover defenses (Gompers et al., 2003), executive compensation (Loderer and Martin, 1997), blockholdings (Demsetz and Lehn, 1985), board size (Yermack, 1996) and (Eisenberg et al., 1998), or board composition (Hermalin and Weisbach, 1991) and (Bhagat and Black, 2002).

However, all these governance mechanisms can be adopted simultaneously or alternatively to some extent. Therefore, in order to analyze the relationship between the quality of a firm's corporate governance practice and its valuation and performance, we construct a broad firm-specific Corporate Governance Index (CGI) for Brazilian listed companies.

This approach has become popular in the literature only recently. For example, Black et al. (2003), Klapper and Love (2004), Drobetz et al. (2004), and Beiner et al. (2003) construct a survey-based governance index and report that better-firm level corporate governance is associated with higher firm valuation. In Brazil, Leal and Carvalho da Silva (2005) and Da Silveira (2004) use this method. Leal (2004) reviews the recent empirical literature on the subject in Brazil and elsewhere.

Brazil is a particularly interesting case to analyze, because the debate about corporate governance structures was intensified only in the last decade, when factors such as privatizations, the opening of the economy, the entrance of new investors especially foreign and institutional ones, have stimulated new efforts towards better corporate governance practices.

Although the market for corporate control has developed slowly during the nineties, there have been great structural changes in the Law of Corporations and observable attempts by many firms to adopt internationally recognized governance principles in recent years. For example, the "New Law of Corporations" (Law 10303), passed in 2001, increased minority shareholder's rights and enhanced the quality of information commonly provided by companies.

In Brazil, companies were allowed to issue non-voting shares in an amount up to two-thirds of the total capital (Law 6404 – "Law of Corporations"). In 2001, the "New Law of Corporations" (Law 10303) changed the maximum amount of non-voting shares from 2/3rds to 50% of the total capital, but this rule is mandatory only for firms that decided to go public after October 2001 and for new corporations. This mechanism allows companies to issue shares without relinquishing control and is therefore a way of separating ownership from control.

Another important initiative to improve corporate governance in Brazil was the creation of the "Code of Best Practices" by the Brazilian Institute of Corporate Governance (IBGC), the "Corporate Governance Recommendations" by the Brazilian Securities Exchange Commission (CVM), and the "New Market" by the São Paulo Stock Exchange (BOVESPA), which is a listing segment designed for the trading of shares issued by companies that voluntarily undertake good corpo-

rate governance practices and disclosure requirements in addition to those already required by the Brazilian legislation. Companies are classified into 3 levels, depending on the degree of commitment to corporate governance assumed by the firm. The main requirements to a Level I firm are: the maintenance of a free-float of at least 25% of total capital; improved disclosure of quarterly information; disclosure of shareholding agreements and stock option programs; and provision of an annual calendar of corporate events. To be classified as Level II, in addition to the obligations of Level I, the company must adopt a much broader range of corporate governance practices and minority shareholder's rights, such as a single one-year mandate for the entire board of directors; the annual balance sheet available in accordance to US or IAS GAAP; granting all common shareholders the same conditions obtained by the controlling shareholders on the transfer of the firm control and 70% of these conditions to non-voting shareholders ("tag along rights"); voting rights granted to non-voting shares in certain circumstances, such as transformation, incorporation, spin-off and merger of the company; adherence to arbitration as the vehicle to resolve corporate conflicts. To be classified as Level III (called New Market), in addition to the obligations of Level II, the company may not issue non-voting shares.

The purpose of this paper is to construct a broad corporate governance index, in order to provide a comprehensive description of firm-level corporate governance of Brazilian firms and to analyze the relationship between the quality of a firm's corporate governance and its valuation and performance. The paper is structured as follows. The next section describes the data and the methodology used in the tests. Section 3 presents the empirical results for the corporate governance index and its relationship with valuation and performance of Brazilian firms. Section 4 concludes.

2. Data and Methodology

From an empirical point of view, there has been a long debate in the literature on how to measure the quality of firm corporate governance. In order to analyze the relationship between corporate governance and firm valuation and performance, we use a broad corporate governance index, instead of looking at a single control mechanism, to provide a comprehensive description of firm-level corporate governance for a broad sample of Brazilian firms. This approach has recently become very popular in the literature (Black et al., 2003, Klapper and Love, 2004, Drobetz et al., 2004, Beiner et al., 2003).

Our corporate governance index, further referred to as CGI, is not survey-based. Therefore, all questions are answered from public information disclosed by listed companies and not by means of potentially subjective or qualitative interviews. Sources of information are company filings, charters, and annual reports. The financial and accounting information comes from the Economatica database, which contains financial statements and time series data of companies for the main Latin American countries.

The CGI serves as a broad measure of firm-specific corporate governance quality and reflects different governance attributes, which are not legally required but considered as a “good” corporate governance practice by international standards. It is also based on the recommendations and suggestions of the Brazilian Institute of Corporate Governance (IBGC), the Brazilian Securities Exchange Commission (CVM), and the Sao Paulo Stock Exchange (BOVESPA), which establish guidelines - not legally required - for publicly listed companies in an attempt to improve the overall level of corporate governance.

The CGI is a composite of 15 items, covering 4 broad categories: disclosure, board composition and functioning, ownership and control structure, and shareholder rights. The number of items was set so that it is neither too small, that would not capture the multivariate nature of corporate governance, nor too large, that would render data gathering difficult and subjective. Each item corresponds to a “yes” or “no” answer to a specific question. If the answer is “yes”, then the value of 1 is attributed to the question, otherwise the value is 0. The index is the sum of the points for each question. The maximum index value is 15. Index categories are simply for presentation purposes and there is no weighing among questions. Table 1 shows the CGI questions applied to Brazilian companies.

Table 1
Corporate governance index questions applied to Brazilian companies

Disclosure
1. Does the company produce its legally required financial reports by the required date?
2. Does the company use an international accounting standard (IASB or US GAAP)?
3. Does the company use one of the leading global auditing firms?
Board Composition and Functioning
4. Are the Chairman of the Board and the CEO not the same person?
5. Is the board clearly not made up of corporate insiders and controlling shareholders?
6. Is the board size between 5 and 9 members?
7. Do board members serve consecutive one-year terms?
8. Is there a permanent Fiscal Board?
Ownership and Control Structure
9. Do controlling shareholders own less than 50% of the voting shares?
10. Is the percentage of voting shares in total capital more than 80%?
11. Is the controlling shareholders' ratio of cash-flow rights to voting rights greater or equal to 1?
12. Is the free-float greater than or equal to what is required in the São Paulo Stock Exchange “New Market” (25%)?
Shareholder's Rights
13. Does the company charter establish arbitration to resolve corporate conflicts?
14. Does the company charter grant additional voting rights beyond what is legally required?
15. Does the company grant tag along rights beyond what is legally required?

Each question corresponds to a “yes” or “no” answer. If the answer is “yes”, then the value of 1 is attributed to the question, otherwise the value is 0. The index is the sum of the points for each question. The maximum index value is 15. Index dimensions are simply for presentation purposes and there is no weighing among questions. All questions are answered from public information disclosed by listed companies and not by means of potentially subjective interviews. Sources of information are company filings, charters, and annual reports.

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2.1 Disclosure

The disclosure category contains 3 governance attributes: disclosure date of financial reports, the utilization of an international accounting standard (US or IASB GAAP), and the quality of the auditing firm. Firms adopting international accounting standards must meet a number of requirements that make them disclose more information and be more transparent. Greater disclosure in general leads to more value (Klapper and Love, 2004). Michaely and Shaw (1995) finds that more prestigious auditors are associated with US IPO's that are less risky and that perform better in the long run. Coffee (2003) presents a thorough legal and economic discussion about the role of the external auditor. Therefore, our hypotheses are that firms which produce financial reports by the legally required date, use an international accounting standard and one of the leading global auditing firms are considered to have “good” corporate governance disclosure.

2.2 Board composition and functioning

The second category is related to board composition and functioning. The board size is an important control mechanism because the board of directors' role is to monitor and discipline firm's management. Lipton and Lorsch (1992) and Jensen (1993) argue that large boards may be less effective than small boards because large boards can make coordination and decision making more cumbersome. Yermack (1996) finds an inverse relationship between board size and firm value in the U.S. On the other hand, a small board size may prevent minority shareholders' access to the board of directors, and may have a negative effect on firm valuation because of potential expropriation. Jensen (1993) suggests an optimal board size of 7 to 8 directors, while the Brazilian Institute of Corporate Governance suggests an ideal board size of 5 to 9 directors.

The Brazilian Institute of Corporate Governance also establishes one-year consecutive terms for board members. According to the Law of Corporation, shareholders are allowed to use a mechanism known as the multiple vote, in which they can concentrate all of their votes on a single candidate in order to elect that individual to the board of directors. In a system in which board terms are unified and renewed yearly, the multiple vote mechanism becomes more efficient, since it enables investors to more easily and quickly elect a director.

Another point is that, when there are short consecutive terms, if board members are pursuing shareholders' interests, they probably will be re-elected. On the other

hand, if board members have poor performance, new directors will replace them. It is therefore believed that one-year consecutive terms create an incentive to prevent severe governance malfunctions.

The independence of the board is related to the presence of outside directors in the board. Since the board of directors is responsible for evaluating senior management and replacing it if it does not pursue shareholder's interests, an independent board is considered a mechanism to prevent governance malpractices. Rosenstein and Wyatt (1990) and Agrawal and Knoeber (1996) find that there is a relationship between the representation of outsiders on the board and firm valuation.

We verified the names of the board members and analyzed if they were related to the controlling shareholders (for example, belonging to the same family). We also compared the names of the board members with those of key executives of the company. Although the Law of Corporations allows up to 1/3 of the board members to belong to the company's management, only firms with board members different from the management executives were classified as having independent board of directors in our study.

We also analyzed if the CEO and the Chairman of the Board of Directors are the same person, suggesting that these firms are less likely to remove the CEO, because he may have influence not only on senior management, but also on other board members. Therefore, it is believed that firms where the CEO and the Chairman of the Board of Directors are the same person have a low valuation. Da Silveira et al. (2003) present Brazilian evidence that supports this aspect.

Another important board functioning aspect in Brazil is the "fiscal board", whose role is somewhat similar to that of the audit committee in other countries. Fiscal boards, however, do not get as much involved in the planning and supervision of the audit process, in the hiring and firing of auditors, and in other key aspects of corporate risk management and of handling conflicts of interest. The Brazilian "Law of Corporations" requires the existence of the fiscal board, but companies are free to establish if it is a transitory or permanent board. Therefore, if the fiscal board is not permanent, shareholders must call a meeting in order to elect it. Our hypothesis is that a permanent fiscal board is more effective in monitoring and disciplining firm's management.

2.3 Ownership and control structure

The ownership and control structure category is related to the recent literature (Shleifer and Vishny, 1997), La Porta et al. (1998, 1999, 2000, 2002), Morck et al. (1988) and Claessens et al. (2000a,b) suggesting that the concentration of voting rights and the separation of voting from cash flow rights have a negative effect on firm valuation because of the potential expropriation of minority shareholders. Such companies are unattractive to small shareholders and their shares have lower valuation.

Carvalho da Silva (2004) and Leal et al. (2002) provide evidence of the high degree of ownership and control concentration in Brazil, mainly through the vio-

lation of the one share-one vote rule. On average, the majority shareholder owns 76% of the voting capital and voting shares represent 53% of the total capital, a little higher than the minimum amount of 50% required by the “New Law of Corporations”.

In this paper, our attributes related to “good” ownership and control structures are: the largest shareholder has less than 50% of the voting capital; the controlling shareholders’ ratio of cash-flow rights to voting rights is greater than or equal to 1; the percentage of voting shares in total capital is more than 80%, and the free-float is greater than or equal to what is required by the “New Market” of the São Paulo Stock Exchange (25%).

2.4 Shareholder rights

The shareholder rights dimension contains 3 attributes, all of which related to rights granted by the company charter to its shareholders beyond what is legally required, especially minority shareholders. Nenova (2001) reports that when the law grants more rights to shareholders (for example, tag along rights), corporate values tend to rise. Our questions are related to the use of arbitration as the vehicle to resolve corporate conflicts, additional voting and tag along rights granted to minority shareholders beyond what is legally required.

2.5 Sample and potential bias

Our sample consists of firms listed in São Paulo Stock Exchange (Bovespa) from 1998 to 2002. We collected information on the shareholding structure from the Infoinvest Database (Bowne Global Solutions). Our sample does not include financial institutions, companies with incomplete or unavailable information, and firms whose shares were not traded in Bovespa during the 1998-2002 period. The final sample consists of 131 firms, which represent about 25% of the number of firms listed by the end of 1998 and 33% of the firms listed by the end of 2002, and approximately 71% of total market capitalization of Bovespa.

Our sample represents a snapshot of companies during a specific period of time (1998-2002), which raises concerns about survivorship bias. Their governance practices are probably better than that of companies that de-listed, of companies that remain private, or of companies with incomplete or unavailable information, and firms whose shares were not traded in Bovespa. However, including firms that did not have complete information or did not have any market liquidity would not allow us to compute some of the variables (specially the corporate governance index) we need in our research.

Therefore, our results are representative of currently listed companies in Brazil but most likely overstate the quality and importance of corporate governance practices for other public Brazilian companies that are not listed or that are listed and were not included in the sample.

2.6 Description of variables and model

In order to analyze the relationship between the quality of corporate governance practices, measured by the CGI, and firm valuation and performance, we used Tobin's Q and return on assets (ROA) as dependent variables. Return on assets (ROA) is measured as the EBITDA/Asset ratio.

Researchers have employed Tobin's Q to measure the discount in market values resulting from expropriation (Morck et al., 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 this use. 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.

To provide an integrated framework, we also investigate other crucial control mechanisms that are not contained in the CGI, but might influence the dependent variables, previously identified and selected from the literature, such as leverage (debt/asset ratio), size ($\ln(\text{assets})$), and ROA (EBITDA/Asset ratio). These variables were investigated by Klapper and Love (2004), Durnev and Kim (2003), and Black et al. (2003) in order to control for endogeneity in case the control variables are determinants of corporate governance practices. They believe that if governance is determined by their control variables, then, when those are included in a model of performance as a function of governance and governance turns out to be significant, that would control for endogeneity.

Since we have time-series cross-section data, we employed panel data analysis, allowing flexibility in modeling differences in behavior across firms and time. Equations 1 and 2 show the variables included in each model.

$$Tobin's\ Q_{it} = \alpha_i + \beta_1 CGI_{it} + \beta_2 Leverage_{it} + \beta_3 Size_{it} + \beta_4 ROA_{it} + \epsilon_{it} \quad (1)$$

$$ROA_{it} = \alpha_i + \beta_1 CGI_{it} + \beta_2 Leverage_{it} + \beta_3 Size_{it} + \epsilon_{it} \quad (2)$$

The firm effect α_i is taken to be constant over time t and specific to the firm cross-sectional unit i . There are two basic frameworks used to generalize this model. The fixed effects approach takes α_i to be a firm specific constant term in the regression model. The random effects approach specifies that α_i is a firm specific disturbance. We considered these two approaches in this study. We ran the Hausman (1978) test in order to check the more efficient model between fixed and random effects.

We also included industry dummy variables to control inherent characteristics of specific sectors of the economy. The idea behind this adjustment is that each industry may be in a different stage of maturity, growth and present some peculiarities that determine the firm valuation and performance. We also included year dummy variables to capture macroeconomic changes during the period.

3. Empirical Results

Table 2 shows descriptive statistics of all variables included in our analysis. The average value of Tobin's Q increased from 0.79 in 1998 to 1.07 in 2002, while average ROA increased from 5.58% in 1998 to 8.49% in 2002. The mean of CGI increased from 5.78 in 1998 to 5.90 in 2002, while the median of CGI is 6, indicating a relatively symmetric distribution. There are substantial differences in firm level corporate governance between the 131 firms in our sample. The minimum value is 1, and the maximum value is 14. This suggests that our CGI is adequately selected to reach a sufficiently wide distribution.

Table 2
Summary statistics

Panel A: Year 2002									
	CGI	Q	ROA (%)	SIZE	LEV (%)	VOT CAP (%)	TOT CAP (%)	VOT/TOT (%)	FREE-FLOAT (%)
Mean	5.90	1.07	8.49	14.28	72.62	74.57	49.94	50.21	49.08
Min	2.00	0.41	-22.33	9.87	13.88	14.31	7.10	30.94	0.10
Max	14.00	7.85	34.46	18.62	761.80	100.00	99.00	100.00	92.90
Stdev	2.11	0.73	8.64	1.72	70.06	20.67	24.68	20.39	25.32
Median	6.00	0.95	8.42	14.33	63.01	77.81	48.13	40.83	51.53
Panel B: Year 2001									
	CGI	Q	ROA (%)	SIZE	LEV (%)	VOT CAP (%)	TOT CAP (%)	VOT/TOT (%)	FREE-FLOAT (%)
Mean	5.82	1.00	8.93	14.17	65.89	73.76	49.27	50.70	49.83
Min	1.00	0.41	-10.54	9.76	23.45	14.31	7.00	31.03	0.38
Max	12.00	6.59	34.27	18.47	642.69	100.00	99.00	100.00	93.00
Stdev	2.03	0.59	7.64	1.68	56.84	21.03	24.73	20.51	25.34
Median	6.00	0.91	9.07	14.17	59.95	76.34	46.61	41.50	52.40
Panel C: Year 2000									
	CGI	Q	ROA (%)	SIZE	LEV (%)	VOT CAP (%)	TOT CAP (%)	VOT/TOT (%)	FREE-FLOAT (%)
Mean	5.81	1.04	7.97	14.09	62.16	72.13	47.36	51.23	51.78
Min	2.00	0.36	-16.88	9.96	16.66	16.05	7.00	31.03	0.38
Max	10.00	5.38	27.38	18.39	515.33	100.00	99.00	100.00	93.00
Stdev	1.85	0.55	6.97	1.65	46.37	20.58	23.15	20.66	23.91
Median	6.00	0.93	8.12	14.09	56.44	75.23	44.55	42.34	54.70
Panel D: Year 1999									
	CGI	Q	ROA (%)	SIZE	LEV (%)	VOT CAP (%)	TOT CAP (%)	VOT/TOT (%)	FREE-FLOAT (%)
Mean	5.76	1.11	6.74	13.97	61.25	71.52	47.46	52.29	52.02
Min	2.00	0.32	-40.62	9.96	13.47	16.10	7.00	31.03	0.38
Max	10.00	4.38	28.42	18.26	397.09	100.00	99.22	100.00	93.00
Stdev	1.82	0.55	8.37	1.61	39.48	21.03	23.69	21.04	23.96
Median	6.00	0.98	6.74	13.94	57.12	75.23	45.26	44.95	54.50

Panel E: Year 1998

	CGI	Q	ROA (%)	SIZE	LEV (%)	VOT CAP (%)	TOT CAP (%)	VOT/ TOT (%)	FREE-FLOAT (%)
Mean	5.78	0.79	5.58	13.84	55.61	70.51	46.29	53.36	52.72
Min	2.00	0.22	-64.88	10.22	16.06	16.07	6.47	31.03	0.00
Max	10.00	1.76	26.01	18.29	168.67	100.00	100.00	100.00	93.53
Stdev	1.85	0.26	9.40	1.57	22.81	20.84	23.18	20.89	23.42
Median	6.00	0.77	5.75	13.80	53.13	70.92	44.17	47.20	55.83

CGI is a firm-level corporate governance ranking. Tobin's Q is used as a proxy for market valuation and is defined as the market value of assets divided by the book value of assets. ROA is a firm-level measure of firm performance and is defined as EBITDA divided by total assets. Firm size is defined as the natural log of total assets. Leverage is calculated as the total debt/total asset ratio. VOT CAP is the portion of voting capital controlled by the largest shareholder. TOT CAP is the portion of total capital owned by the largest shareholder. VOT/TOT is the percentage of voting capital in the total capital of the firm. FREE FLOAT is the percentage of outstanding shares available for trading. Panel A through Panel E show summary statistics for these variables during the 1998-2002 period.

Our results show a high degree of concentration of voting and total capital. The largest shareholder owned on average 74.57% of the voting capital and 49.94% of total capital in 2002. In 1998, the controlling shareholder's portion of voting and total capital was 70.51% and 46.29%, respectively. Due to this high concentration of capital, the average free float of outstanding shares has been around 50% of the total capital since 1998.

We also note a reasonable difference between the percentage of voting and total capital held by large shareholders. In Brazil, 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. This mechanism allows companies to issue shares without relinquishing control and is therefore a way of separating ownership from control. The issuance of non-voting shares is common in Brazil and voting shares represented, on average, 51% of the total capital during the 1998-2002 period.

Table 3 classifies our sample of 131 firms into three groups, according to their CGI: "good" corporate governance (CGI from 10 to 15), "medium" corporate governance (CGI from 5 to 9), "poor" corporate governance (CGI from 0 to 4). Looking at the year 2002, the results indicate that most of the Brazilian firms (70%) are at the "medium" corporate governance practices level in 2002. Moreover, less than 4% of the firms are at the "good" corporate governance practices level, although there has been a small increase in the number of firms in this segment since 1998. Firms with poor corporate governance represented 26% of our sample.

Table 3
Corporate governance rating

Rating	CGI	2002	2001	2000	1999	1998
"Good" Corporate Governance	15	0.00%	0.00%	0.00%	0.00%	0.00%
	14	0.76%	0.00%	0.00%	0.00%	0.00%
	13	0.00%	0.00%	0.00%	0.00%	0.00%
	12	0.00%	0.76%	0.00%	0.00%	0.00%
	11	0.00%	0.00%	0.00%	0.00%	0.00%
	10	3.06%	2.29%	2.29%	1.53%	1.53%
	"Good" CG	3.82%	3.05%	2.29%	1.53%	1.53%
"Medium" Corporate Governance	9	6.10%	4.58%	4.58%	3.82%	3.82%
	8	12.98%	12.98%	13.74%	12.21%	14.50%
	7	16.03%	16.03%	13.74%	19.09%	16.03%
	6	17.56%	22.90%	21.37%	18.32%	19.85%
	5	17.56%	13.74%	19.85%	21.37%	22.13%
	"Medium" CG	70.23%	70.23%	73.28%	74.81%	76.33%
"Poor" Corporate Governance	4	12.98%	12.21%	13.74%	11.45%	9.17%
	3	7.63%	9.17%	6.87%	7.63%	7.63%
	2	5.34%	4.58%	3.82%	4.58%	5.34%
	1	0.00%	0.76%	0.00%	0.00%	0.00%
	0	0.00%	0.00%	0.00%	0.00%	0.00%
	"Poor" CG	25.95%	26.72%	24.43%	23.66%	22.14%

CGI is a firm-level corporate governance index, composed of 15 questions. All questions are answered from public information disclosed by listed companies and not by means of potentially subjective interviews. Sources of information are company filings, charters, and annual reports. Each question corresponds to a "yes" or "no" answer. If the answer is "yes", then the value of 1 is attributed to the question, otherwise the value is 0. The index is the sum of the points for each question. The maximum index value is 15. The 131 firms were classified into three groups, according to their CGI: "good" corporate governance (CGI from 10 to 15), "medium" corporate governance (CGI from 5 to 9), "poor" corporate governance (CGI from 0 to 4). The percentage of firms belonging to each group is shown for the 1998-2002 period.

Table 4 analyzes our sample according to each of the 15 attributes of the CGI. Looking only at the year 2002, 92.4% of the firms published their financial reports by the legally required date, 38.2% use international accounting standards (US or IASB GAAP), and 82.4% use global auditing firms. In 64.9% of the companies, the Chairman of the Board and the CEO are not the same person, although only a few boards (36.6%) are not clearly made up of corporate insiders and controlling shareholders. Board sizes between 5 and 9 members are very common (59.5% of the firms), while consecutive one-year terms for board members are present only in 26% of the firms in Brazil.

Table 4

Corporate governance index descriptive statistics

	2002	2001	2000	1999	1998
Financial reports published by the required date	92.37%	96.18%	96.18%	96.95%	97.71%
International accounting standards	38.17%	38.17%	38.17%	38.17%	38.17%
Global auditing firms	82.44%	83.97%	86.26%	84.73%	84.73%
Different Chairman of the Board and CEO	64.89%	65.65%	63.36%	63.36%	68.70%
Independent board members	36.64%	32.06%	29.01%	25.95%	25.19%
Board size between 5 and 9 members	59.54%	62.60%	61.83%	61.07%	61.83%
Board members serve consecutive one-year terms	25.95%	23.66%	24.43%	21.37%	18.32%
Permanent Fiscal Board	27.48%	25.95%	25.95%	25.95%	26.72%
Controlling shareholder owns < 50% of the votes	6.87%	9.16%	9.16%	10.69%	10.69%
% voting capital in total capital > 80%	12.21%	12.98%	13.74%	14.50%	15.27%
Controlling shareholders' cash-flow/vote ratio > 1	10.69%	12.21%	13.74%	13.74%	11.45%
Free-float greater than or equal to 25%	77.10%	77.86%	83.97%	83.97%	84.73%
Arbitration to solve corporate conflicts	3.05%	2.29%	0.00%	0.00%	0.00%
Additional rights beyond what is legally required	38.17%	36.64%	35.11%	35.11%	34.35%
Tag along rights beyond what is legally required	15.27%	2.29%	0.00%	0.00%	0.00%

CGI is a firm-level corporate governance index, composed of 15 questions. All questions are answered from public information disclosed by listed companies and not by means of potentially subjective interviews.

Sources of information are company filings, charters, and annual reports. Each question corresponds to a "yes" or "no" answer. If the answer is "yes", then the value of 1 is attributed to the question, otherwise the value is 0. The percentage of firms with an answer "yes" for each of the 15 corporate governance attributes is shown for the 1998-2002 period.

CGI is a firm-level corporate governance index, composed of 15 questions. All questions are answered from public information disclosed by listed companies and not by means of potentially subjective interviews. Sources of information are company filings, charters, and annual reports. Each question corresponds to a "yes" or "no" answer. If the answer is "yes", then the value of 1 is attributed to the question, otherwise the value is 0. The percentage of firms with an answer "yes" for each of the 15 corporate governance attributes is shown for the 1998-2002 period.

There are some corporate governance practices that are not very common in Brazilian companies: the permanent fiscal board (27.5% of the firms), the use of arbitration as a means to resolve corporate conflicts (3.1% of the firms), a controlling shareholder with less than 50% of voting capital (6.9% of the firms), a percentage of voting capital in total capital of more than 80% (12.2% of the firms), and a controlling shareholder's ratio of cash-flow to voting rights greater than or equal to 1 (10.7% of the firms). A free-float equal to or greater than 25% is common in 77.1% of the companies, while additional voting and tag along rights are present in only 38.2% and 15.3% of the Brazilian companies, respectively. It is worth noting that the number of companies granting tag along rights to minority shareholders has been increasing since the publication of the New Law of Corporations in 2001.

Table 5 presents the results from the panel regressions (fixed and random effects) for Tobin's Q and the ROA on the CGI, along with other control variables. The fixed effects model, which assumes that differences across firms can be captured by differences in the constant term, does not show significant results. The Hausman test statistic presents insignificant p-values and indicates the random ef-

fects model is more efficient and should be used in order to make sure that the results are consistent. The results for the random effects model indicate that CGI has a statistically significant – at the 1% level – positive effect on firm performance (ROA) even with the inclusion of control variables. Table 5 also shows that the Tobin’s *Q* is positively related to the CGI, although the results are not statistically significant. Therefore, our findings for the Tobin’s *Q* are weaker compared to the ROA analysis but the hypothesized positive sign is maintained.

Table 5
Corporate governance, firm valuation and performance

Variables	Dependent Variable			
	Tobin’s Q		ROA	
	Fixed Effects	Random Effects	Fixed Effects	Random Effects
Constant	-	0.1166 (0.5704)	-	0.0353 (0.4361)
CGI	0.0018 (0.8815)	0.0101 (0.3099)	0.0016 (0.6282)	0.0070* (0.0047)
Leverage	0.8765* (0.0000)	0.9084* (0.0000)	0.0180 (0.1048)	-0.0119 (0.1441)
Size	0.1474* (0.0002)	0.0049 (0.7537)	-0.0057 (0.5981)	-0.0009 (0.7864)
ROA	0.5133* (0.0013)	0.7053* (0.0000)	-	-
Industry Dummy	Yes	Yes	Yes	Yes
Year Dummy	Yes	Yes	Yes	Yes
Hausman Test	7.90 (0.44)		5.12 (0.65)	
Adj <i>R</i> ²	0.86	0.86	0.51	0.49

The dependent variables, Tobin’s *Q* and ROA, measure firm valuation (market value of assets divided by the book value of assets) and firm performance (EBITDA divided by total assets), respectively. CGI is a firm-level corporate governance ranking. Firm size is defined as the natural log of total assets. Leverage is calculated as the total debt/total asset ratio. Panel data are modeled using fixed and random effects. The intercept terms for fixed effects, and the coefficients of industry and year dummy variables are not reported. The Hausman (1978) test statistic indicates that the random effects model is more efficient than fixed effects. The numbers in parentheses are the p-values. *, ** and *** indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Our results support the hypothesis that firms with better corporate governance have significantly higher performance (ROA). The Tobin’s *Q* is positively related to better corporate governance practices but the results are not statistically significant. We must note that our results may be biased in favor of larger firms due to our own sample selection and possibly to the inclusion of questions 2 and 3 as well.

4. Conclusion

Recent research suggests that corporate governance is associated with greater firm valuation and performance. The purpose of this paper was to analyze the relationship between the quality of a firm's corporate governance practices and its valuation and performance through the construction of a broad firm-specific corporate governance index for Brazilian listed companies.

The CGI serves as a broad measure of firm-specific corporate governance quality and reflects different governance attributes, which are not legally required but considered as "good" corporate governance practices by international standards. It is also based on the recommendations and suggestions of the Brazilian Institute of Corporate Governance (IBGC), the Brazilian Securities Exchange Commission (CVM), and the São Paulo Stock Exchange (BOVESPA).

Brazil is a particularly interesting case to analyze because the debate about corporate governance structures was intensified only in the last decade, when factors such as privatizations, the opening process of the economy, the entrance of new investors – especially foreign and institutional ones, have stimulated new efforts towards better corporate governance practices.

Our results show a high degree of concentration of voting and total capital. 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.

Panel data analysis is employed in order to allow flexibility in modeling differences in behavior across firms and time. The results indicate that less than 4% of Brazilian firms present "good" corporate governance practices and that firms with better corporate governance have significantly higher performance (return on assets). There is also a positive relationship between Tobin's Q and better corporate governance practices although the results are not statistically significant. Our results may be biased in favor of larger firms.

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