Control structure and financial performance: An analysis of listed and delisted Brazilian companies negotiated in Brazil and in the USA
(Estrutura de controle e performance financeira: Uma análise de empresas brasileiras listadas e deslistadas, negociadas no Brasil e nos Estados Unidos)

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Abstract
The present work sought to identify the influence of the control structure of the major shareholder on the accounting and market performance of listed and delisted Brazilian companies traded only on B3, as compared to those with a double listing with the US (ADRs). For this purpose, linear regressions were applied by GMM-Sys with unbalanced panel data. The evidence shows that the control structure of the major shareholder is negatively related to financial performance for companies listed only on B3, and positively related for B3 delisted ones, outweighing shareholder conflict. This context is inverse to that found in the analysis of ADRs, where control structure is positively related to financial performance while listed, and negatively related when delisting occurs, proving that, in this case, agency conflicts prevail. This study confirms that US Common Law also affects Brazilian companies that are traded in the US.

Keywords: Control structure; delisting; performance; ADRs
JEL Code: G11, G12.

1. Introduction
Since the 1980s, a process of economic and financial interdependence between countries has strengthened, driving the speed and performance of market agents. This phenomenon presents an intense and uneven acceleration of technological change between economies, as well as a new way of managing business (Dani, Santos, Santos & Toledo, 2016). In Brazil, financial globalization stands out in the 1990s with, according to Dani et al. (2016), two central axes: (i) the easing of the entry of foreign investors into the Brazilian financial market, and (ii) the adaptation of the domestic regulatory framework to the contemporary model of international financing, anchored in the issuance of securities and shares.

In corroboration, Alves (2016) points out that Brazilian companies in many sectors of activity have sought foreign markets to increase their sales, by means of mergers and acquisitions of foreign companies, and new
factories and franchises abroad, among other efforts. According to the author, financial liberalization provides corporations with more investment and financing options across borders, which ultimately affects their capital structure. According to Errunza & Miller (2000), this liberalization consolidated alternative portfolio investments and new sources of funding, such as the popularization of American Depositary Receipts (ADR). In 2017, there are more than 2,000 ADRs available, representing shares of companies located in more than 70 countries. Latin America has an estimated value of ADRs in the amount of USD 48.6 billion, with approximately 84% of this value in Brazil. In 2016, there were 125 Brazilian ADRs (Bank of New York Mellon, 2017).

Previous research has addressed the issues of listing and dual-listing of capital and its determinants. However, the reversal of this logic in Brazil and in other countries is perceived as a recent phenomenon. Brazilian companies are practicing delisting (Going Private Transactions - GPT). While the listing decision is commonly seen as a stage in a company’s growth, many questions remain about the conditions in which a company closes its capital, and the reasons for this phenomenon. Djama, Martinez & Serve (2012) emphasize that the magnitude of the phenomenon of delisting is strongly linked to the presence of institutional mechanisms that reinforce corporate governance.

This is due to the trade-off between benefits and costs originated from the listing as well as double-listing in the North American market. The maintenance of securities trading on the capital market requires compliance with governance, transparency, disclosure, maintenance costs of the listing. These costs inherent to legal and institutional requirements may lead to the decision to delist. This scenario is even stronger when Brazilian companies negotiate their stocks in the US, due to the more rigorous conditions that characterize the differentiation between the central governance issues as well as the corporate control forces.

According to Berk & DeMarzo (2006) the extensive relationship between the factors of differentiation of corporate governance models is based on at least four approaches: i) Prowse’s approach focuses on the board of directors’ constitutions and other internal mechanisms of governance; ii) La Porta, Lopes-de-Silanes and Shleifer’s approach emphasizes the concentration of ownership/control and protection of minority shareholders; iii) Berglöf’s approach stresses the predominant financing sources, pointing out the differences between the market-oriented and bank-oriented models; and, iv) Frank and Mayer’s approach emphasizes the differences attributed to internal and external control forces and their efficiency in generating systems of good governance. Berk & DeMarzo (2006) generate some differentiation factors between governance models, including (i) stage in the adoption of good governance practices; (ii) type of agency conflicts; (iii) legal protection of minority interests; and (iv) separation of ownership and management or separation between ownership and control. This paper is based on La Porta, Lopes-de-Silanes and Shleifer’s approach.

In this context, the Anglo-Saxon model (USA, UK) is characterized by strong corporate governance given its legal origin in Common Law, strong legal protection of minority shareholders, distributed shareholder control and agency conflict between the agent and the principal. Unlike the Anglo-Saxon model, the Latin American model (Brazil, Argentina, Mexico) stands out for some characteristics such as embryonic corporate governance given its legal origin in Civil Law, generally weak minority legal protection, concentration of shareholder control. These features produce the main agency conflict between major and minority shareholders (Berk & DeMarzo, 2006).

Given this differentiation, Brazilian companies that have double-listing through ADRs are subject to different corporate governance standards, that is, to different legal requirements, regulations, accounting standards, and agency conflicts. It is necessary to understand the possible influences of corporate governance and whether they change from country to country, as indicated by literature. As mentioned above, governance establishes mechanisms that strengthen the institutional and legal context of the capital market, increasing the chances of mitigating possible agency conflicts between controlling shareholders and executives or between controlling and minority shareholders. To accomplish this, several internal and external mechanisms of governance are instituted, one of which is the control structure. Thus, the basis of control (concentrated or dissipated) can influence the financial performance of the company; however different models of corporate governance will condition this influence.

The presence of a controlling shareholder in the US may have benefits for the company. The controlling
shareholder has a large percentage of control, for which it will seek to maximize its value. It can actively monitor contracted agents and as a consequence will reduce agency costs (Denis & McConnell, 2003; Shleifer & Vishny, 1997; Jensen & Meckling, 1976). These benefits are referred to as the alignment effect. Alternatively, the presence of a controlling shareholder in Brazil is not an ideal way to mitigate such a conflict, especially when the objectives of the controlling shareholder are in conflict with those of the minorities shareholders, due to poor shareholder protection (La Porta, Lopez-De-Silanes, Shleifer & Vishny, 1999). This phenomenon is entitled the entrenchment effect.

In this context, the paper aims to identify the influence of the control structure of the major shareholder on the accounting and market performance of listed and delisted Brazilian companies traded only on B3 in comparison with those with a cross-listing with the US (ADRs).

In general, the main results indicate that the control structure of the major shareholder is negatively related to financial performance for delisted ADRs and positively related for the listed ADRs. These results corroborate those of Jensen & Meckling (1976), since the authors state that the more concentrated ownership structure can mitigate agency problems, providing more efficient monitoring mechanisms. As for the Brazilian companies listed on B3, the control structure of the major shareholder was positively related to the financial performance for delisted companies and negatively related for the listed companies. These results are in step with La Porta et al. (1999) and Sonza & Kloekner (2014), who indicate that weak legal protection in countries with civil law, as in the case of Brazil, makes the concentration detrimental to financial performance. This article presents empirical contributions, being the first to show the influence of a governance mechanism — control structure — on the financial performance of companies traded on B3 in comparison with those of American Depository Receipts. Our aim is to highlight the differences in terms of governance between countries and the possible influences of this on the financial performance of companies. Therefore, this paper confirms that common laws also affect Brazilian companies that are traded in the US.

The paper is organized as follows. Section 2 presents a theoretical review on the subject. Section 3 presents the methodological aspects used in the research. Section 4 presents the results and discussions. Finally, Section 5 presents final considerations and references used as basis for the development of the study.

2. Governance, Control Structure and Delisting: Concepts and Hypotheses

Understanding corporate governance structures is important for a more efficient corporate market control, and to better evaluate a company’s financial performance. Corporate governance guides transactions between companies and countries, and separation in terms of investment and control within the firm (Alves, 2016). Recently, companies’ concerns over corporate governance practices have intensified, due to the recognition in the capital market of the importance of such practices.

Recently in Brazil, corporate governance has undergone changes. In 2002, differentiated levels of Corporate Governance were introduced, which gave a greater incentive to promote disclosure (transparency of information) in companies. In the same year, the Brazilian Securities and Exchange Commission (CVM) published recommendations in the form of a booklet (Castro, Conceição & Santos, 2011), stimulating corporate governance and best capital market practices. These publications, together with the Corporate Governance Best Practices Code of IBGC - Brazilian Institute of Corporate Governance, Law 10.303/11 and the adoption of international accounting practices promulgated by Law no. 11.638/2007, were milestones in the adoption of governance practices in the country (Ponte, Oliveira, Luca, Oliveira, Aragão & Sena, 2012).

In the US, the strengthening of governance occurred after successive accounting scandals. It was necessary to institute more stringent measures, such as the SOX Act, a normative instrument of corporate governance that seeks to curb the conflict of interests between agents and shareholders, among other measures, determining the public disclosure of internal controls used by companies and certification of responsibility by decision-makers (CEO and CFO) on the information provided (Souza, Vicente, Borba & Lunkes, 2011; Saito & Padilha, 2015).

Following the creation of SOX, as required by the SEC in the United States, Brazilian companies with shares traded on the US capital market (ADR) had to meet the new standards. Corporate governance has raised compliance costs: elements of auditing costs, disclosure costs, legal assistance, compensation awards for non-
executive directors, and strategic distortion of decision-making, among others (Bortolon & da Silva Jr, 2015b). Because of these rising costs, many managers may decide not to be part of the capital market (Bortolon & da Silva Jr, 2015b). This trend is identified by Leuz, Triantis & Wang (2008), who emphasize that the recent increase in ADRs delisting is actually associated with the passage of SOX.

However, Mapurunga, Ponte & Oliveira (2015) identify that, in a general way, corporate governance through SOX tends to increase the continuity of the listing of companies in the capital market and to maximize wealth of the shareholders. With greater transparency and reliability of the information, it generates security for the external public. The adoption of corporate governance practices brings several benefits, such as protecting investors against expropriation, reducing conflicts between majority and minority shareholders; increasing transparency in management; reducing agency costs; increasing investor interest in the company’s shares; and increasing trading volume, liquidity and share prices in the capital market (Souza et al., 2011).

The main discussions regarding corporate governance relate to the degree to which control is separated from ownership and the problems arising from the concentration, since the studies of Berle & Means (1932), Gordon (1940) and Jensen & Meckling (1976). These conflicts are better examined through the ownership and control structure. This is defined by Sonza & Kloekner (2014) as the distribution of company capital in terms of votes and the degree of concentration/participation of owners in capital. These factors can influence the company’s results. Discussions on property structure began with the seminal work of Berle & Means (1932), who empirically analyze the shareholding structure of large American firms and discuss the conflicts of interests that dissipated ownership structures could have on the performance and value of the companies.

This divergence of individual interests was also later analyzed by Jensen & Meckling (1976) in the context of Agency Theory, whereby agents within organizations do not necessarily act in the interest of fund providers. In addition, Jensen & Meckling (1976) integrate elements of agency, rules of property, and financial theory to develop a consistent theoretical framework of a firm’s ownership structure.

Investor protection, in the United States, is considered one of the best in the world (Berk & DeMarzo, 2006). The degree to which investors are protected against expropriation, and even the degree to which their rights are guaranteed, vary widely in different countries and regimes. According to La Porta, Lopez-De-Silanes, Shleifer & Vishny (1998) the degree of investor protection is largely determined by the legal origin of the country, specifically whether its legal system is based on British common law (highest protection) or German, Scandinavian and French civil law (less protection). Rosetti & Andrade (2014) point out that the fundamental agency conflict in the US is that involving majority shareholders and CEOs.

In the United States, agency disputes stemming from such separation result in actions to monitor managers and block management practices that counteract the interest of shareholders, seeking outside force activism to adopt best corporate governance practices. In this sense, Rosetti & Andrade (2014) point out that the US model is strongly market oriented, with a regulatory structure and strong legal protection to minority shareholders, avoiding their expropriation.

According to Jensen & Meckling (1976), a more concentrated ownership structure can mitigate agency problems, providing more efficient monitoring mechanisms, because the greater the concentration of shareholders, the greater the incentive for them to monitor the company with lower added cost. To test the theory, Jensen & Meckling (1976) analyze the effect of outside capital on agency costs by comparing the behavior of the executive who owns 100% of the company and its behavior when it sells a share to outsiders.

Thus, if the company is managed by the owner, it will make decisions that will maximize the utility of the firm (through pecuniary and non-pecuniary benefits). If the owner sells a portion of the company’s capital, the divergence of interest between shareholders generates agency costs (Jensen & Meckling, 1976). The more shares this person sells, the greater the monitoring costs with respect to minority shareholders. According to the authors, as ownership decreases, there is a tendency to increase monitoring efforts and decrease creative efforts for strategic decisions.

Shleifer & Vishny (1997) argue that having a concentrated structure is the best way to help investors get a satisfactory return on their investment, where large investors are effective in solving common law problems. In this context, Brazilian companies that have American Depositary Receipts programs are expected to have a
positive relationship between control structure and financial performance, praising an incentive to maintain their listing, given the high concentration of shareholding. This is due to the fact explained by Jensen & Meckling (1976) mentioned above. Based on these assumptions, the following hypotheses are formulated:

\[ H_1 : \text{A more concentrated control structure positively influences the financial performance of Brazilian listed ADRs}; \]

\[ H_{1A} : \text{A more concentrated control structure negatively influences the financial performance of the Brazilian delisted ADRs.} \]

Unlike the US, the Brazilian scenario is considered precarious in terms of the corporate governance system. La Porta et al. (1998) introduce the effect of legal protection on the minority shareholders of the company and demonstrate that other conflicts may arise that are not related to the principal and the agent, as seen in the US, but related to majority and minority shareholders. These authors classify four different types of laws related to this protection that end up significantly influencing the control structure (governance mechanism). According to the authors, countries with common laws, such as the United States and the United Kingdom, have greater protection for shareholders, leading to fewer expropriations of minority shareholders; countries with French civil laws such as Brazil, Belgium and France; German such as Japan, Germany and Austria; and Scandinavian, such as Denmark, Finland and Switzerland, have less protection for shareholders, facilitating the expropriation of minority shareholders.

In Brazil, shareholders who hold most of the control tend to use capital and power in favor of their interests, against what minority shareholders expect (Silveira, 2004). Sonza & Kloekner (2014) indicate that the high concentration of control may undermine the financial performance of Brazilian companies due to expropriation. La Porta, Lopez-de Silanes, Shleifer & Vishny (1999, 1998) argue that, in the absence of adequate protection of minorities, investors seek to protect their investments by exercising direct control through large blocks of stock. Thus, companies located in countries with greater shareholder protection tend to decrease control concentration after the Initial Public Offering (IPO). If control remains concentrated, it will not cause problems due to the high protection of the legislation (Alves, 2016). This fact is not evident in other legal systems, culminating in a high concentration of capital and control. As a result of this, agency problems arise, not only between managers and shareholders, but also in relation to the organization’s control structure, that is, between minority and majority shareholders (Shleifer & Vishny, 1997). This is, in Brazil, the most common form of conflict, caused by the great concentration of ownership and control (Sonza & Kloekner, 2014).

When it comes to the decision to delist, poor financial performance in capital markets represents a relevant factor for closing of capital. In this type of market, listed companies are commonly undervalued due to agency problems. These are acquired by other companies and withdrawn from the stock exchange to undergo a process of restructuring the corporate governance model, becoming more efficient and effective and, consequently, more valued than when they were listed on the stock exchange (Bortolon & da Silva Jr, 2015a). Corroborating this, Alves (2016) points out that Brazilian companies are marked by a great concentration of shareholding and control. For Brazilian companies whose shares are traded only in Brazil, a negative relationship between control structure and financial performance is expected, highlighting an incentive for delisting. This is due to the fact explained by La Porta et al. (1998), cited above.

Based on these assumptions, the following hypotheses are formulated:

\[ H_2 : \text{A more concentrated control structure negatively influences the financial performance of Brazilian companies listed in B3}; \]

\[ H_{2A} : \text{A more concentrated control structure positively influences the financial performance of Brazilian companies delisted on B3.} \]
3. Methods

In order to achieve the aim of this research, an exploratory-descriptive research based on quantitative methods is designed. Basic data on control structure, Balance Sheet, Income Statement, and more, are extracted from Economática. Data on the ADR’s control structure is taken from the American stock exchange and the SEC. The software used is Stata SE®. The firms making up the sample are Brazilian public companies that have common shares traded only on B3 (Brazil, Bolsa and Balcão) and Brazilian publicly-traded companies that have common shares traded on B3 with American Depositary Receipts (ADRs) programs.

For the Brazilian companies traded only on B3, the sample consists of 601 companies divided into two parts, with 340 still listed and 261 delisted. Between 1995 and 2016, 490 companies left the capital market for a variety of reasons; 261 due to voluntary delisting (53.27%), 138 by corporate restructuring (28.16%), 45 due to cancellation of office (9.18%), and 45 for special reasons (9.39%). As Junior and Horng (2005) identify, non-voluntary cancellations, unlike voluntary, occur mainly due to the deterioration of the company’s results. The default of the companies with the regulator for a long period is also common in these cases, which makes it difficult to obtain reports for analysis. Therefore, only data of voluntary delisting were used. For the Brazilian ADRs, the data collected were also on an annual basis, from 1995 to 2016 (22 years), constituting an average sample of 33 companies, with 23 listed ADRs and 13 voluntarily delisted ADRs.

First, descriptive statistic and correlation analysis were realized. Then, multiple linear regression models were applied in an unbalanced panel data, estimated by the Generalized Moments Method (GMM). Bond (2002) points out that this method allows investigating the properties of the individual series, being highly recommended when using GMM estimators for dynamic panel models (where the dependent variable lagged in a period is also considered independent in the model). Thus, the dynamic model also avoids possible distortions in the analysis.

The GMM, in addition to solving the problem of endogeneity, offers a more efficient structure to obtain estimators. In this case, as shown by Mátyás (1999), efficiency gains are allowed by the relaxation of the condition of homoscedasticity, because of its more robust assumption.

As for GMM, there are two possible estimators: the first one is GMM-Diff (in differences), proposed by Arellano & Bond (1991); the second one is the GMM-Sys, proposed by Blundell & Bond (1998). As Bond (2002) argues, this latter methodology is able to overcome possible problems of GMM estimators in differences (GMM-dif) due to the persistent effects of time series that end up making the lags of the variables unfeasible as appropriate instruments for the endogenous variables. Therefore, we choose GMM-Sys due to the fact that this model accepts a set of available instruments and allows more precise estimates, although the assumptions about the initial conditions are more restrictive.

The tests applied in the study include (i) Arellano & Bond (1991), to identify if there is serial correlation; (ii) correlation analysis; (iii) Chi-squared test; and (iv) Hansen’s (1982) overidentification test, to check the instruments. To reduce the presence of outliers, the variables are winsorized at 1%. Equation (1) is used in the study to identify the relationship of variables due to the delisting process:

\[
D_{i,t} = \beta_1 + \beta_2 D_{i,t-1} + \beta_3 CS_{i,t} + \beta_4 FF_{i,t} + \beta_5 Div_{i,t} + \beta_6 AL_{i,t} + \beta_7 CML_{i,t} + \beta_8 SOX_{i,t} + \beta_9 Liq_{i,t} + \beta_{10} AT_{i,t} + EFind_t + EFtemp_t + \epsilon_t
\]

The dependent variables of the model are divided into two categories: (i) accounting profitability indicator: ROE (Return on Shareholders’ Equity); and (ii) market indicator: MB (Market-to-Book). The principal independent variable of the model is the control structure (AP) of the major shareholder. Regarding the control variables, the following measures are considered: (i) Free Float (FF); (ii) Dividends paid (Div); (iii) Leverage (AL); (iv) Costs for the Maintenance of the listing (CML); (v) SOX Dummy (SOX); (vi) Liquidity (Liq); (vii) Size (AT); (viii) Industrial fixed effects (EFind); and (x) Temporal fixed effects (EFtemp). The description of these variables are in Table 1.

In particular, we consider that the independent variable of interest (control structure of the majority shareholder) is susceptible to changes throughout the historical series that are not completely observable. Thus, it is necessary to use the time fixed effects to control possible significant heterogeneities among the structures.
Table 1
Definition of variables

<table>
<thead>
<tr>
<th>dependent variables</th>
<th>independent variables</th>
<th>definition</th>
<th>references</th>
<th>situation</th>
<th>signal</th>
<th>description</th>
</tr>
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<tbody>
<tr>
<td>ROE</td>
<td>return on equity = net profit divided by equity (accounting performance measure) as in Chung &amp; Pruitt (1994), MVE denotes the firm’s share price multiplied by the number of common shares outstanding, PS is the settlement value of the preferred shares outstanding, and D is the debt (current liabilities minus current assets plus inventories and long-term debt)</td>
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<tr>
<td>MB</td>
<td>market-to-book ratio = (MVE+PS+D)/equity value</td>
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<table>
<thead>
<tr>
<th>AP</th>
<th>percentage of common shares owned by largest shareholder</th>
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<tr>
<td></td>
<td>reference situation signal description</td>
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<tr>
<td></td>
<td>La Porta et al. (1999), Silveira (2004), Sonza and Kloekner (2014) listed</td>
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<tr>
<td></td>
<td>Bortolon &amp; da Silva Jr (2015a) delisted</td>
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<td></td>
<td>Jensen &amp; Meckling (1976), Djama et al. (2012), Lawrence (1986) ADR listed</td>
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<tr>
<td></td>
<td>Doidge, Karolyi &amp; Stulz (2010), Leuz et al. (2008), Hostak, Lys &amp; Yang (2013) ADR delisted</td>
</tr>
<tr>
<td>FCL</td>
<td>free float divided by total assets</td>
</tr>
<tr>
<td>Div</td>
<td>value of dividends paid divided by net profit</td>
</tr>
<tr>
<td>AL</td>
<td>leverage = liabilities divided by equity</td>
</tr>
<tr>
<td>CML</td>
<td>costs for maintenance of the listing in Brazil/US divided by net revenues(^{(a)})</td>
</tr>
<tr>
<td>SOX</td>
<td>indicator equal to 1 within SOX period (2003 to 2016) and 0 otherwise</td>
</tr>
<tr>
<td>Liq</td>
<td>average liquidity of the most liquid stock, as calculated by Economatica(^{(b)})</td>
</tr>
<tr>
<td>AT</td>
<td>logarithm of total assets</td>
</tr>
</tbody>
</table>

\(^{(a)}\) Annual cost at B3 is R$ 35,000.00 plus 0.005% of the company’s share capital, whereas it comprises audit rates, tax rates and other taxes for ADRs, according to SEC 20-F reports.

\(^{(b)}\) As stated by Bortolon & da Silva Jr (2015b), \(L = \frac{P}{\sqrt{npv}}\), where \(P\) is the number of days trading in the stock market, \(p\) is the total number of trading days in the market, \(n\) is the number of trades with the share, \(N\) is the total number of trades in the market, \(v\) is the volume traded with the share and \(V\) is the total volume traded in the market.

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of the companies correlated to the control structure, indirectly impacting on the financial performance of the firms. In addition to these, as can be seen in Table 2, there are significant differences between the companies classified as listed and delisted, both for those traded on B3 and those with ADRs. Besides this, it was verified that there are significant differences between these companies within each sector. In most cases, this difference was significant at 1%. Therefore, to avoid possible distortions, time fixed effects and sector fixed effects were included.

4. Analysis of results

To best describe the results, the analysis is divided into 2 parts, as follows: (i) Descriptive statistics and correlation; and (ii) Influence of the control structure of the major shareholder in the financial performance of the companies negotiated in B3 and Brazilian ADRs.

4.1 Descriptive statistics and correlation

As identified in the methodology, before starting the analysis, the correlation test and the verification of the consistency of the data through the descriptive statistics are applied. To avoid possible collinearity problems (very high correlations between variables) none of the variables with high correlation was used in the same regression.

Afterwards, the descriptive statistics are performed both on the companies that remain listed in B3 and on the companies voluntarily delisted. The same is true for ADRs. As shown in Table 2, after winsorizing at 1%, the variables present very close means and medians, with the exception of the size, which requires a transformation, applying logarithm. To evaluate the significance of the differences between listed and delisted companies the t-statistic is used, as shown in the right corner of Table 2.

The Brazilian companies traded on B3 which had delisted have a concentration of control in relation to the major shareholder of 62.57%, while for the listed companies, the major shareholder concentration is lower, totaling 47.44%, with the difference significant at 1%.

Those ADRs that left the US stock exchanges presented a concentration of control of 56.61% for the major shareholder, while for the listed ADRs, the stock concentration reaches 47.66%. This difference is also significant at 1%. The average Return on Equity (ROE) in Brazil is very similar for listed and delisted companies, but the difference is significant at 1%. For Brazilian ADRs, this ratio is quite different, ranging from positive to negative. Both samples present similar averages for the MB, but only in the Brazilian companies listed in B3, was this difference significant at 1%.

Brazilian companies pay, on average, 56.51% of net annual revenues to maintain the company listed on B3, while companies that canceled their registration, at the time they were listed, paid an average 44.46% of net annual revenues. In the same way, for the companies that have a dual listing, the cost of maintenance of this in the US are, on average, 48.6% of net annual revenues for the listed ADR, while the ADRs that canceled their registration, at the time they were listed, paid an average 20.08% of net annual revenues. These relations are significant at 1%.

In general, it is evident that the canceled Brazilian companies traded on B3 are, on average, less leveraged, smaller, have a more concentrated control structure, lower return on equity and market performance, are less liquid and have lower maintenance costs of the listing. Finally, it is evident that canceled Brazilian ADRs are, on average, more leveraged, smaller, have a more concentrated control structure, lower return on equity and market performance, are more liquid and have lower maintenance costs of cross-listing.

4.2 Influence of the control structure of the major shareholder in the financial performance

In order to analyze the results, the unbalanced panel data method is applied by GMM-Sys. As shown in the lower part of Table 3, the Arellano & Bond (1991) tests AR1 and AR2 indicate that, for firms negotiated only in B3, the model rejects the null hypothesis of no serial correlation in the first-order residuals (at a significance level of 10%) and does not reject the second-order serial correlation, justifying the use of the GMM-Sys dynamic model. In most analyses for listed and delisted ADRs, regressions do not present serial correlation, but to
maintain the standard of analysis for comparative purposes, the same method is applied. With Hansen’s (1982) test, in all analyses, the null hypothesis is not rejected, which shows that there are no specification problems in the instrumental variables. The instruments used are the lagged variables, as suggested by Almeida, Campello & Galvão (2010), in which, in all analyses, the control concentration of the main shareholder of the ADRs is used, lagged one period. Finally, the chi-square test is applied, where, in all analyses, the null hypothesis is rejected, indicating that there is association between the groups of variables.

In the upper part of Table 3, the regressions of the listed and delisted companies are shown, considering the two dependent variables related to performance for the major shareholder. In general, the control structure of major shareholder is negatively related to financial performance both in the analysis of the company’s profitability (ROE) and in the market performance (MB) for the listed companies. Thus, a 1% increase in the control structure of the major shareholder generates a decrease of 0.26% of the return on equity and 0.48% in the market-to-book, both at a significance level of 5%. The same inference is found in the studies of La Porta et al. (1999) and Sonza & Kloekner (2014), who infer that the weak legal protection in countries with civil laws, as in the case of Brazil, makes the concentration detrimental to financial performance.

As aforementioned, the Brazilian scenario, unlike the US, is considered precarious in terms of the corporate governance system. Silveira (2004) argues that, in the Brazilian context, shareholders who hold the most control tend to use capital and power in favor of their interests, against what minority shareholders expect. Sonza & Kloekner (2014) indicate that the high concentration of shareholding may undermine the performance of Brazilian companies due to this expropriation. La Porta, Lopez-de Silanes, Shleifer & Vishny (1997, 1998) argue that, in the absence of adequate protection of minorities in countries with civil laws, as in the case of Brazil, investors seek to protect their investments by exercising direct control through large blocks of stock. Lawrence (1986), Michelsen & Klein (2011), and Pour & Lasfer (2013) also corroborate this idea.

The opposite is found in the analyses of delisted companies, where the control structure is positively related to financial performance in practically all cases. For these companies, the 1% increase in the control structure of the major shareholder generates a 0.74% increase in return on equity, at a significance level of 1%. With respect to market performance, a 1% increase in the controlling shareholder structure generates a 0.49% increase in the Market-to-Book, at a significance level of 5%. This result corroborates with Bortolon & da Silva Jr (2015a), who affirm that these companies undergo a process of restructuring the corporate governance model, which leads to better financial performance and value than when they were listed.

Regarding the Brazilian ADRs, the opposite of the results obtained for companies traded only in Brazil is evident. In general, the control structure of the major shareholder is positively related to the accounting financial performance for the listed ADRs. Thus, a 1% increase in the major shareholder structure generates a 0.96% increase on return on equity (ROE), at a significance level of 1%. The positive sign holds for the financial market performance, however the relationship is not statistically significant. These findings are in line with those of Jensen & Meckling (1976) and Djama et al. (2012), who point out that concentration of control structure decreases agency costs. According to the authors, a more concentrated ownership structure can mitigate agency problems by providing more efficient monitoring mechanisms, since the higher the concentration of shareholders, the greater their incentive to monitor the agents (under common law). In contrast, if this structure is distributed, the monitoring costs are higher. Shleifer & Vishny (1997) concur with this argument, proving that a concentrated structure is the best way to help investors get a satisfactory return on their investment, and large investors are effective in solving agency problems.

The opposite is found in the analyses of delisted ADRs, where the control structure is negatively related to financial performance. The descriptive statistics show that the canceled ADRs present a higher control concentration compared to the listed ADRs, nevertheless, they also present a worse performance. For these companies, the 1% increase in the control structure of the major shareholder generated a 2.22% decrease in the return on equity, at a significance level of 1%. With respect to market performance, again, the sign is maintained, but the ratio is also statistically non-significant. This result corroborates with Doidge et al. (2010), Leuz et al. (2008), and Hostak et al. (2013), who affirm that the legal protection for minority shareholders is impaired due to the lack of protection mechanisms such as SOX, and that this automatically allows the controller
### Table 2
Descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>listed on B3</th>
<th></th>
<th>delisted on B3</th>
<th></th>
<th>diff</th>
<th>t-stat</th>
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<tbody>
<tr>
<td></td>
<td>mean</td>
<td>median</td>
<td>variance</td>
<td>std error</td>
<td>skew</td>
<td>kurt</td>
</tr>
<tr>
<td>ROE</td>
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<td>0.07</td>
<td>0.03</td>
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<tr>
<td>MB</td>
<td>0.82</td>
<td>0.55</td>
<td>0.78</td>
<td>0.88</td>
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<td>12.29</td>
</tr>
<tr>
<td>AP</td>
<td>0.47</td>
<td>0.45</td>
<td>0.06</td>
<td>0.26</td>
<td>0.39</td>
<td>2.09</td>
</tr>
<tr>
<td>AL</td>
<td>1.76</td>
<td>1.23</td>
<td>2.93</td>
<td>1.71</td>
<td>1.66</td>
<td>5.20</td>
</tr>
<tr>
<td>AT</td>
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<td>5.27\times10^5</td>
<td>62\times10^{12}</td>
<td>7.87\times10^7</td>
<td>5.31</td>
<td>34.98</td>
</tr>
<tr>
<td>FCL</td>
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<td>−823.01</td>
<td>7.2\times10^{10}</td>
<td>268.60</td>
<td>−3.74</td>
<td>21.95</td>
</tr>
<tr>
<td>Div</td>
<td>0.52</td>
<td>0.33</td>
<td>0.32</td>
<td>0.56</td>
<td>1.50</td>
<td>4.69</td>
</tr>
<tr>
<td>CML</td>
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<td>1.16</td>
<td>1.07</td>
<td>2.75</td>
<td>9.55</td>
</tr>
<tr>
<td>Liq</td>
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<td>0.04</td>
<td>0.03</td>
<td>0.19</td>
<td>3.40</td>
<td>14.37</td>
</tr>
<tr>
<td></td>
<td>mean</td>
<td>median</td>
<td>variance</td>
<td>std error</td>
<td>skew</td>
<td>kurt</td>
</tr>
<tr>
<td>ROE</td>
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<td>0.07</td>
<td>0.27</td>
<td>−2.05</td>
<td>31.61</td>
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<tr>
<td>MB</td>
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<td>0.36</td>
<td>1.09</td>
<td>1.04</td>
<td>2.51</td>
<td>9.31</td>
</tr>
<tr>
<td>AP</td>
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<td>0.50</td>
<td>0.04</td>
<td>0.21</td>
<td>0.01</td>
<td>2.83</td>
</tr>
<tr>
<td>AL</td>
<td>1.64</td>
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<td>4.95</td>
<td>2.22</td>
<td>3.47</td>
<td>39.48</td>
</tr>
<tr>
<td>AT</td>
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<td>1.01\times10^7</td>
<td>7.45\times10^{15}</td>
<td>8.6\times10^7</td>
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<td>8.86</td>
</tr>
<tr>
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<td>−0.01</td>
<td>0.01</td>
<td>0.06</td>
<td>−0.74</td>
<td>4.21</td>
</tr>
<tr>
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<td>9.08</td>
<td>92.83</td>
</tr>
<tr>
<td>Liq</td>
<td>0.22</td>
<td>0.01</td>
<td>0.28</td>
<td>0.53</td>
<td>4.16</td>
<td>21.88</td>
</tr>
</tbody>
</table>

Legend: ROE = return on equity, MB = market-to-book ratio, AP = largest shareholder, AL = leverage, AT = total assets in thousands, FCL = float free

Div = dividend payment, CML = cost to keep the company listed, Liq = liquidity, and std error = standard error.

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to incur greater private benefits. Therefore, as Doidge et al. (2010) state, in the absence of a US cross-listing, minority shareholders are adversely affected by the delisting, as the controlling shareholder avoids monitoring and pursues more private benefits.

In terms of control variables, the leverage presents quite adverse results. For delisted companies, in general, there is a negative relation with the financial performance, corroborating with Bharath & Dittmar (2010), Renneboog, Simons & Wright (2007), Michelsen & Klein (2011), and Aslan & Kumar (2011). These authors point out that the companies that have been canceled have a higher level of leverage to compensate for the lack of access to new funding in the stock market, increasing the risk of financial difficulties. Thus, for the companies that remain listed, this result is opposite. Indeed, Pour & Lasfer (2013), Alves (2016) and Sonza & Kloekner (2014) affirm that, while listed, companies increase their level of transparency and, as a result, they have greater bargaining power with banks, resulting in lower financial constraints and a diversification of funding sources.

In most analyses, size does not significantly influence corporate returns. This relationship is only significant for the analysis of Brazilian companies with ADRs for the accounting performance indicator. Thus, for the Brazilian ADRs that are listed, this influence is negative, and for the canceled ones it is positive. This result is opposite to what has previously been reported in the literature. One possible explanation for this contradictory result is the significant negative correlation between firm size and governance quality. Thus, firms with higher propensities for mismanagement are significantly larger than firms with high governance quality, negatively impacting financial performance (Ginglinger & Saddour, 2008). For firms that have been canceled, the direct relationship between firm size and financial performance may be a consequence of not having to incur higher costs to maintain listing (5.1% of total assets, on average).

The free float has a significant positive relation with the financial performance in practically all the analyses, corroborating with the literature. Jensen (1986), Alves (2016), Lehn & Poulson (1989), and Leuz et al. (2008) identify that companies with relevant free float require greater monitoring of managers in order to ensure the correct use of resources in the search for growth, so they would be more likely to operate as non-traded firms. However, Renneboog et al. (2007), Aslan & Kumar (2011), and Pour & Lasfer (2013) argue that increased cash flow does not bring any losses in terms of returns to listed companies. With regard to ADRs, it is also evident that, in all free cash flow analyses, a positive relation with financial performance is identified, except for the return on equity (ROE) analysis of the listed ADRs.

Regarding the payment of dividends, almost all the analyses lack significance, showing that they appear not to affect the financial performance of the Brazilian companies traded on B3. With respect to ADRs, this variable is negatively related to performance, both for listed and delisted companies (with exception of the accounting performance for delisted and the market performance for listed companies, which was not significant). This finding differs from that of Bortolon & da Silva Jr (2015b), who point out that dividends are a way of signaling to minority shareholders that they will not be expropriated. On other hand, it corroborates with the findings of Jensen (1986), Weir et al. (2005), and Michelsen & Klein (2011), who point out that mature companies, with low investment needs, may experience high dividend payments, generating additional expenses that could be reinvested in the company.

The CML (costs to maintain listing) variable shows the relations suggested by theory for both analyses (positive for listed and negative for delisted companies), although it did not show significance in any of the regressions related to companies traded only on B3. These results corroborate with those of Eid Jr & Horng (2005) and Saito & Padilha (2015), who affirm that high costs, for some small and liquid companies, produce few incentives to remain listed. For listed firms, according to Engel et al. (2006), this cost is small compared to earnings, not affecting financial performance.

In addition to the cost of maintaining the dual listing of ADRs, a dummy is used to represent the Act that promulgates these regulations (Sarbanes-Oxley). This shows a negative influence on the accounting performance of Brazilian companies listed on the US stock exchange. This influence demonstrates that the relationship between financial performance and SOX is totally exogenous, which may reflect more consistent results for the analysis. Leuz et al. (2008) reiterate that companies with weaker governance aspects (due to legal protection) are more likely to be negatively influenced by instruments such as SOX. However, for the regressions related
Influence of the main shareholder in the financial performance

We report the GMM-Sys estimation results for companies listed in Brazil with and without ADRs. As a robustness check, we also estimate by GMM-Diff, obtaining practically the same relationships between control structure and financial performance for both active and delisted firms. GMM-Sys estimates seem more robust, capturing more clearly the influence of the controlling shareholder on financial performance. Accordingly, we report only GMM-Sys estimates and their robust standard errors within parentheses.

Table 3

Control structure and financial performance: An analysis of listed and delisted Brazilian companies

In this table, the dependent variable is the ROE of the Brazilian companies traded on B3 with ADR programs, showing that the dependent variable of the Brazilian companies traded on B3 with ADR programs, at least

\[
D_{t-1} = \beta_0 + \beta_1 (\text{ROE-C}) + \beta_2 (\text{ROE-A}) + \beta_3 (\text{MB-C}) + \beta_4 (\text{MB-A}) + \epsilon
\]

\[
\text{ROE} = \frac{\text{Net Income}}{\text{Averages Equity}}
\]

with the market performance, this variable is positively related, showing that the severity of the act can generate positive aspects for the company’s visibility in the American capital market.

Finally, in terms of stock liquidity, most of the analyses present expected results, with delisted companies showing a negative (albeit not significant) relation between this variable and financial performance, and the opposite occurring with the listed companies. This result corroborates with Junior and Horng (2005), Bharath and Dittmar (2010), Weir et al. (2005) and Michelsen & Klein (2011), who claim that more liquid companies may be able to raise funds more easily. It is also in agreement with Mehran & Peristiani (2010) and Bharath & Dittmar (2010), who affirm that companies that do not have a high trading volume end up generating costs so that they do not pay to continue in the capital market.

The dynamic variable is positive and significant in most analyses, showing that the dependent variable of

\[
\text{ROE} = \frac{\text{Net Income}}{\text{Averages Equity}}
\]

In order to verify the mixed effect of the variable $D_{t-1}$ on the ROE of the Brazilian companies traded on B3 with ADR programs, a model was estimated using the ordinary least squares method (MQO) with fixed effects and the same results were verified in part.
a previous period positively affects this same variable in the current period. The fixed industrial and temporal effects in this analysis are also considered.

5. Conclusion and contributions of the study

In general, the present paper sought to verify the influence of the control structure of the major shareholder on the financial performance of Brazilian companies listed and delisted only on B3, in comparison with those that have a cross-listing in the USA. As shown, the control structure affects these groups differently. If traded on B3, the results identify, in almost all regressions, that the control structure is negatively related to financial performance for listed companies and positively related to financial performance for canceled companies. However, if these companies also have shares traded in the United States, this influence is reversed, making the control structure positively related to the financial performance of the listed ADRs and negatively related to the financial performance of the delisted ADRs. These findings do not reject the hypotheses H1, H1A, H2 and H2A of the study.

As stated in literature, La Porta et al. (1998) point out that the degree of investor protection is largely determined by the legal origin of the country, specifically whether the legal system is based on common law or civil law. The United States has its legal origin in common law, with investor protection being among the best in the world (Berk & DeMarzo, 2006). In the same vein, Bessler, Kaen, Kurmann & Zimmermann (2012) emphasize that, in the US, the corporate and legal governance system is superior, protects minority shareholders, ensures transparency of financial reporting, and reduces managers’ ability to derive private benefits.

As pointed out in the introduction to this article, the Brazilian governance model is Latin American, which, unlike the Anglo-Saxon model (USA, UK, among others), has the following characteristics: embryonic corporate governance, given its legal origin in civil law; weak legal protection of minorities; proprietary concentration (voting right plus cash right); and concentration of control (right to vote), among others. Because of these characteristics of the Brazilian governance model, the likelihood of minority expropriation increases, leading the controlling shareholder structure to negatively influence the financial performance of the shares negotiated on B3 (Berk & DeMarzo, 2006; Rosetti & Andrade, 2014).

Given this differentiation, Brazilian companies that have double-listing through ADRs are subject to different corporate governance standards, that is, to different legal requirements, regulations, and accounting standards. The aforementioned results show that the influence of the control structure of the main shareholder is conditioned to the different model of corporate governance, changing from country to country, as pointed out by literature.

Therefore, the presence of a controlling shareholder in the US may have benefits for the firm, as the principal has a large percentage of control, and will also have an interest in maximizing its value so that it can actively monitor contracted agents and as a consequence will reduce agency costs reducing agency costs (Denis & McConnell, 2003; Shleifer & Vishny, 1997; Jensen & Meckling, 1976). Alternatively, in Brazil, the presence of a controlling shareholder is not an ideal way to mitigate conflict, due to poor shareholder protection. This is especially true when the controlling shareholders’ objectives are different from those of the minorities shareholders (La Porta et al., 1999).

This article presents empirical contributions, being the first to show the influence of a governance mechanism — control structure — on the financial performance of companies traded on B3, in comparison with those of American Depository Receipts. The goal of the study is to highlight the differences in terms of governance between countries and the possible influences of this on the financial performance of enterprises. Therefore, this paper confirms that common law also affects Brazilian companies that are traded in the US. One limitation to be considered is the scarcity of studies carried out in Brazil on delisting. Another constraint concern is that the relationship between financial performance and control structure may be endogenous. One suggestion for future research is to estimate a logistic panel regression to analyze if bad financial performance is significant for the listed ADRs, it was verified that the major shareholder control structure positively influences the performance, at a significance level of 1%. However, for the listed ADRs, this relationship was not significant.
to explain the choice for delisting on B3 and the US stock exchange. This may help evaluate whether reverse causality is significant. A final suggestion would be to extend this study, dividing it into sectors.

Referências


