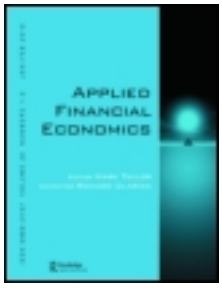

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Voluntary corporate governance with an empirical application

Rodrigo Zeidan[ab]
[a] Fundação Dom Cabral, Av. Princesa Diana 760, Nova Lima 34000000, Brazil
[b] Nottingham University Business School China, UNNC, Ningbo 315100, China
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Voluntary corporate governance with an empirical application

Rodrigo Zeidan[a,b]

[a]*Fundação Dom Cabral, Av. Princesa Diana 760, Nova Lima 34000000, Brazil*
[b]*Nottingham University Business School China, UNNC, Ningbo 315100, China*
E-mail: rodrigo.zeidan@fdc.org.br

The main idea of the article is to advance some arguments regarding a paradox of corporate governance: if it creates so much value for shareholders why in most countries governance is still heavily regulated by strict codes? The article advances a theoretical framework for the voluntary adoption of better corporate governance practices as influenced by four dimensions: ownership and control issues, capital structure, exit strategies and market performance. I estimate probit panel models with data from Brazilian companies that voluntarily moved to the Novo Mercado (New Market). Results indicate as significant variables representing the need for exit strategies through liquidity and the existence of shareholders' agreements, while higher capital concentration implies a lower probability of companies voluntarily adopting better governance practices. Also, market drivers such as lower capital costs and performance are not statistically significant.

Keywords: voluntary corporate governance; probit panel data; corporate governance codes; exit strategies; value creation

JEL Classification: G34; G32

I. Introduction

The main paradox of corporate governance is that a big part of the literature recognizes that governance creates value for companies, but in most countries companies are bound to achieve better standards of corporate governance by codes and regulations. The main question of this article is then: why aren't companies in emerging markets voluntarily adopting better corporate governance practices that should create value for shareholders? This article contributes to the literature by first developing a theoretical framework that accounts for the voluntary adoption of better governance practices, dividing companies' strategies on four dimensions: capital structure, exit, ownership and control and market performance. Second, I test the determinants of voluntary corporate governance in the Brazilian market, in particular considering the voluntary switch of companies to the Brazilian Novo Mercado (New Market), in which corporate governance practices are stringent.[1] It is expected that if companies see better governance practices as value enhancing, they would rapidly move to the New Market and gladly adhere to the stringent rules. From the 365 companies listed at the Bolsa de Valores de Sao Paulo (Bovespa) during the period analysed, 81 migrated to some level of the New Market, of which 18 moved to the New Market proper (henceforth NM).

For the test of the determinants of voluntary corporate governance in the Brazilian market, the sample is composed of a panel of Brazilian listed companies in the

[1] The Brazilian New Market has three levels: N1, N2 and the New Market per se (from here on NM). N1 and N2 are intermediate levels for which governance rules are not that stringent. The NM follows most of the OECD's (1999) principles, with some peculiarities regarding the Brazilian market. See Section II for more details.

period 2000 to 2008, with quarterly data. I estimate probit panel data models, with the dependent variable a company moving to the NM level of the New Market. Exogenous variables represent capital structure, exit strategies, ownership and control issues and market performance. I also add controls and present a counterfactual based on variables representing transaction costs for the move to the NM. It would be expected that if the market variables are the main determinants for the decision (for instance, Leal and Carvalhal-da-Silva, 2005; Carvalho, 2008 posit the importance of value creation and lower capital costs in the Brazilian setting), then capital structure and market performance variables, as well as low transaction costs, would be relevant to the decision of firms to migrate to stringent levels of corporate governance. However, estimation results indicate that exit strategies are particularly relevant to explain this decision, while concentrated ownership hinders it.

The present article departs from the literature, because the search for better corporate governance and the meeting of agency problems that are at the core of corporate governance theory is usually done by improvement on enforcement issues. In the last years, many agencies around the world have been set up to monitor and design better governance rules. Since the Cadbury Report of 1992, different corporate governance best practice codes have surfaced, with true internalization achieved after the publication of OECD's 'Principles of corporate governance' in 1999. Becht *et al.* (2003) analyse some of the codes that developed through the 1990s and find that their focus are on board and board-related issues, even though the codes made recommendations on many issues, from shareholder voting to capital structure. The main thrust of the corporate governance literature is then on enforcement issues and the design of codes that can turn into rules and regulations to be applied on capital markets around the world. In this sense, the corporate governance discussion is exogenous to organizations and capital markets, a *deus ex-machina* that strives to solve agency problems that arise in capital markets around the world.

However, at the same time, there is a vast literature that tries to link governance best practices with value creation (e.g. Bruno and Claessens, 2007; Carlsson, 2007; Dittmar and Mahrt-Smith, 2007; Huse, 2007). If governance best practices are in fact relevant to value creation, firms should be anxiously driving towards said practices. We arrive then at two polar views: one in which corporate governance is a classic case for economic regulation and another in which organizations would voluntarily and endogenously search for better governance practices.

There are only a few papers on voluntary adoption of better governance practices. Black *et al.* (2006) analyse how regulatory, industry and economic factors affect firms' governance practices. de Jong *et al.* (2005) tackle voluntary choice by examining a self-regulation initiative in the Netherlands. The results are disheartening, however, with the authors concluding that the initiative had no effect on corporate governance characteristics or their relationship with firm value, and that little should be expected from initiatives that rely on monitoring without enforcement.

Our results reinforce two different views: companies eventually seek better corporate governance as value enhancing, but this process may be slow due to the benefits of ownership concentration. In emerging markets, in particular, benefits from minority expropriation are probably larger than effective corporate governance. The switch (as in the case of looking for the Novo Mercado) is due to ownership restructuration. As companies evolve, this would become more common and corporate governance would improve. However, in the meantime, regulation has an important role in monitoring and nudging those companies to improve corporate governance, reducing the expropriation premia.

II. Voluntary Adoption of Better Corporate Governance

There is a clear dichotomy in the literature about the role of corporate governance mechanisms. The dichotomy emerges from different views on the role of institutions and market mechanisms. In their excellent survey, Shleifer and Vishny (1997) define corporate governance mechanisms as economic and legal institutions that can be altered through the political process. However, in the long run, market competition would force firms to minimize costs, and corporate governance mechanisms would enable them to raise external capital at the lowest cost (Shleifer and Vishny, 1997, p. 738). There are then two different drivers for corporate governance practices: the external drive of institutions and the internal driver of competition and profit maximization.

Shleifer and Vishny (1997) are sceptical of competition as a sole solver of agency problems. A complete theory of corporate governance would have to separate external from internal pressures to adopt better governance mechanisms, even if one concludes that one type of pressure is more relevant. In the last decade, many different codes have emerged, and many regulations are passed in order to bring better governance mechanisms to markets around the world. However, there are still only a few papers that deal with voluntary compliance with corporate governance codes due to the difficulty in separating external and internal pressures (see, e.g. Berglo and Pajuste, 2005). In the present article, the interest is solely on the voluntary search for better corporate governance mechanisms. The main question is which variables are relevant to a company seeking better governance mechanisms.

Other than lower capital costs, gains from disclosure and adoption of other mechanisms can create pressures on firms to adopt better corporate governance. Aguilera and Jackson (2003) formulate a theoretical model in which the variation in corporate governance across developed countries is a function of how multiple institutions can exert interdependent effects on firm-level outcomes. Even though Aguilera and Jackson (2003) focus mostly on external factors, they argue that management plays a significant role in shaping the corporate governance landscape.

There is a gap in the literature concerning voluntary adoption of corporate governance. Presently, I propose a general framework for the problem based on previous works in the subject. I postulate that a proper framework for this problem would present four reasons for a company to voluntarily adopt better corporate governance mechanisms: (1) capital structure, (2) ownership and control, (3) exit strategies and (4) market performance.

Hypothesis (1) – Capital structure: There is a relative consensus on the literature that better corporate governance mechanisms enhance a firm's credibility and lower its capital cost. As previously observed, that is the reason why Shleifer and Vishny (1997) argue that competition would yield better corporate governance in the long run. Stulz (1999) ascribes globalization as the main driver for voluntary corporate governance practices, since lower capital costs would only be available to companies that could access the global capital markets, and international investors prefer companies with good governance practices. Ashbaugh-Skaife *et al.* (2006) provide empirical reasons for the relation between corporate governance mechanisms and lower capital costs, concluding that their analysed provisions are statistically significant when relating it to the capital structure. Klock *et al.* (2005) investigate the relationship between antitakeover provisions and capital costs and conclude that there is a negative correlation, as expected, between the provisions and the cost of debt financing.

Hypothesis (2) – Ownership and control: The seminal work of La Porta *et al.* (1998) shows that the degree of expropriation possible by majority shareholders is dependent on many country characteristics. Enforcement issues are dependent on the capital markets' structure, and the institutional framework is the main determinant of agency problems in many countries (see, for instance, Doidge *et al.*, 2007). There is a simple and strong enough argument that there should a negative correlation between the possibilities of expropriating minority shareholders and the degree of voluntary corporate governance mechanisms.

Hypothesis (3) – Exit strategy: This is what Aguilera and Jackson (2003) call liquidity, or 'the ability of owners to exit by selling their stakes without a loss of price (p. 451)'. That corporate governance can help liquidity is pretty straightforward. Moreover, most corporate governance codes have the goal of improving liquidity on bonds and stocks. Exit strategies would be particularly interesting to major shareholders who would like to sell part or their total stake in the company. A liquid market would improve the value that they would receive if they could or would not sell their stake as a block. Exit strategy is more than just liquidity however, since it also encompasses changes in the ownership structure to facilitate exit. Aguilera and Jackson (2003), in investigating the institutional framework that leads to different corporate governance mechanisms in different countries, separate commitment from liquidity, defining commitment as the expropriation from asset returns. The authors also contrast the concentrated ownership in certain countries derived from commitment (since dispersion of large blocks is difficult) to the fragmented ownership resulting from liquidity. We contend that even in environments where commitment is the norm, some firms can opt for liquidity as capital markets develop. This is especially true when specific strategies by institutional investors are taken into account. For instance, pension funds or venture capital funds need improved liquidity to be able to exit as part of their return strategy. Companies with large share blocks in the hands of such investors may search for better corporate governance mechanisms to provide an exit strategy. Even family-owned firms can go this route, particularly when the family is trying to get out of the business for some reason, or at least to dilute their stake. The need for an exit strategy can then be a major driver for voluntary corporate governance.

Hypothesis (4) – Market performance: The company may seek better corporate governance practices simply to augment its value to shareholders, by stock values or operating performance. Information disclosure is usually linked to stock valuation, although empirical evidence is mixed. Karpoff *et al.* (1996) find little evidence that operating returns improve after governance proposals. But Lazonick and O'Sullivan (2000) argue that shareholder value is a cornerstone of corporate governance in the United States and Gompers *et al.* (2003) find strong evidence that firms with stronger shareholder rights in the United States had higher firm value, higher profits and higher sales. The evidence for the rest of the world is favourable to a positive relationship between corporate governance and stock returns or operating performance. While Drobetz *et al.* (2003) for Germany, Black *et al.* (2006) for Korea, de Jong *et al.* (2005) for the Netherlands, Beiner *et al.* (2006) for Switzerland, Leal and Carvalhal-da-Silva (2005) for Brazil and Black (2001) for Russia find a positive relationship between corporate governance and market performance, Bauer *et al.* (2004, 2008) present mixed results for Europe and Japan, and Florackis and Ozkan (2008) result for UK firms is that the impact exerted by internal governance

mechanisms on agency costs varies with firms' growth opportunities.

The idea of a voluntary choice model is a departure from the literature insofar as it does not deal with the institutional framework that shapes corporate governance but with the internal decision by the firm to adopt better corporate governance practices. Also, there is no explicit need for the construction of a governance index to relate the endogenous variables to the adoption of better corporate governance practices. In the present setting, I investigate an optimal scenario in which companies can choose to move to follow better governance or stay put in markets with less developed governance regulations.

III. The Brazilian Novo Mercado (New Market)

The first stock exchange in Brazil is from 1895. In 1967, the stock market is reformed and the still-running Bovespa is born. Nowadays, Bovespa is one of the largest stock exchanges in the world, with market capitalization of over US$2 trillion in 2012, with over US$3 billion being traded daily. On March 2014, Bovespa records 12.1 million transactions, totalling over US$ 80 billion. It attracts many international investors who are responsible for over 40% of transactions.

The Brazilian Novo Mercado (New Market) is an interesting background on which to test propositions regarding the adoption of voluntary corporate governance practices. It is created in 2000, with the goal of listing companies with the highest level of corporate governance. The idea is to build an attractive environment to international investors and the goal to make the New Market the focal point of the evolution of capital markets in Latin America. The New Market has three levels, N1, N2 and the NM. The first two levels are entry levels, steps before the ultimate goal of inclusion in the NM – N1 and N2 exist to allow a smooth transition towards the New Market. If it works, it should offer international investors a listing of companies that adhere to stringent corporate governance rules. The resulting investments in these companies would provide liquidity and other companies would eventually migrate to the New Market, helping develop Brazilian capital markets.

The rules to enter the New Market are many, and some are very stringent, especially if one takes the business culture of Brazil into consideration. Some important rules are:

- 100% tag along to minority shareholders;
- Rules for the composition of the Board of Directors: minimum of five members; minimum of 20% of independent directors; mandate of 2 years, with the possibility of re-election;
- Information disclosure: various rules for information disclosure, ranging from the obligation of publishing financial reports in English in compliance with IFRS and US GAAP to presenting more accurate information on cash flows and other kinds of financial information to investors. Also, an obligation to divulge monthly statistics on all dealings of bonds and shares;
- Voting shares: changing the stock structure to transform all nonvoting shares in voting shares – the principle of one share one vote;
- Free float: at least 25% of the company stock has to be available for trading;
- Market arbitration panel (CAM – Câmara de Arbitragem do Mercado): companies are required to adhere to the market arbitration panel to resolve any kind of shareholders' dispute.

In the Brazilian culture, especially stringent rules are the requirements to have only one class of shares, the free float of 25% and the Board of Directors composition. All these rules are in direct contrast with the Brazilian corporate culture that preaches concentrated ownership and tight control over the company (for more on the subject, see Zeidan and Fontes Filho, 2012).

From 2000 to 2008, 163 companies come to the New Market, with 44 going for the N1 level, 19 to N2 and 100 companies entering the most stringent level, NM. From these 100 companies, 82 entered through initial public offerings (IPOs) and 18 moved from the regular listing, while, for the period analysed, 284 companies remain in the regular listing. Although the New Market is decidedly relevant for new companies, there is a sense that it somewhat fails in bringing more companies from the regular listing. Even so, being strictly voluntary, the New Market is a very interesting experience from the point of view of academic research, because it provides a controllable environment on which to test the hypothesis regarding corporate governance mechanisms. In the present context, we concentrate on New Market because the N1 level is very similar to the regular listing – there are only information disclosure clauses and one stringent rule, about free float on this level, while only three companies moved to the N2 level from the regular listing, and those companies eventually moved to the NM. There is a consensus that the N1 level is not the relevant corporate governance level in the Brazilian market, and here I focus on the NM as the ultimate level of corporate governance in the Brazilian Market, even though in the econometric analysis, there is a test with companies that moved to the N1 level.

The main purpose of the article is to test the hypotheses in Section III. Incidentally, we also test some hypothesis concerning the behaviour of Brazilian companies. Zeidan

and Fontes Filho (2012) show some interesting relevant facts about the evolution of Brazilian firms: most companies have a high degree of ownership control and are family owned, with low degree of separation between control and management. Also, funding comes, in this order, from retained profits, the government (usually through the Brazilian state-owned banks), commercial banks and the stock market, with a bias towards the pecking-order theory of capital structure. The Brazilian companies are the true offspring, in terms of corporate governance, of the German–Japanese model, in which the stock market plays a relatively smaller role in monitoring firms (see Shleifer and Vishny, 1997, for a better description of the dichotomy between the Anglo-Saxon and the German–Japanese model). The typical Brazilian company has then the following characteristics: a concentrated ownership structure, a low debt/asset ratio and operational performance based on self-funding and opportunities for some kind of government funding. Equity is an uncommon strategy for Brazilian companies, but not unheard of.

Since true transparency is anathema to the entrepreneurial culture of Brazil, I formulate the following hypotheses concerning the dimensions for voluntary corporate governance by Brazilian companies, based on the four hypotheses in Section III:

The relevant dimensions for voluntary corporate governance by Brazilian companies are exit strategies and ownership and control issues, while market performance would not interest Brazilian entrepreneurs enough for a move to the New Market. If these hypotheses are correct, liquidity and exit would be the major reasons for the migration of Brazilian companies to the New Market. Due to expropriation premium offered to Brazilian majority shareholders, the only reason to give up control in entering the New Market would be to improve liquidity and allow easier exit for some of the shareholders. Even so, the remaining shareholders could try to maintain control by changes in the ownership and control structure to reinforce their power to expropriate minority shareholders (for instance, by shareholders' agreements). By the same argument, better market performance would not be enticing enough for shareholders to give up control, and I postulate that the market performance dimension is irrelevant, in the Brazilian case, for companies to move to the New Market. I make no hypothesis on the behaviour of the capital structure dimension since companies could be trying to increase their leverage or trying to access new forms of capital. I also argue, but do not test for it, that the corporate culture of maintaining tight control or the cost of regulation can be good explanations for the decision of staying in the regular listing.

IV. Econometric Specification and Data

The econometric analysis is be divided into two steps to try to capture the different aspects of the general model of voluntary governance: the first uses a panel data with listed companies and the second matches companies that moved to the New Market with similar companies as defined by the Mahalanobis metric. All models are probit models. The decision to move to the New Market is a binary choice for a company, that can choose or not to comply with the rules and stringent requirements for listing at the New Market.

I follow all the dimensions in Section III through time, arriving at a panel of 107 companies (in which 41 moved to any level of the New Market and 16 moved to the NM level)[2] from the fourth quarter of 2000 to the first quarter of 2008. I stop there because the Financial Crisis freezes IPOs and major movements in the Brazilian stock market for a relevant period. The endogenous variable, the moving decision, assumes value 0 for the period on which the companies were not part of the New Market and value 1 from the moving date on. Table 1 gives the companies that moved to the NM level, moving date and the anterior listing (some companies are in the traditional listing and others migrate from intermediate levels of the New Market, either N1 or N2).

Although the NM level was created in 2000, only in 2002 the first company moved from the traditional listing, and most companies that decided to follow did so from 2005 on.

The argument is that the four dimensions previously discussed are the independent variables that influence that decision. A static model then becomes:

$$\text{Prob}(y_{it} = 1 | x_{it}) = \varphi(c_i + \beta' x_{it}) + \varepsilon_{it} \qquad (1)$$

I estimate static probit panel data models using STATA. Instead of the typical fixed-effect model, I introduce industry-specific dummies to account for heterogeneity between companies. The idea is that the dummies would prevent some of the problems of serial dependence and unobserved heterogeneity created by the strong assumption, on the error term, of a simple pooled regression, but won't represent the loss of as many degrees of freedom as it would be under a full company-specific fixed-effect model. If the static model is valid, estimators are biased, but the marginal effects present only a small bias due to the fact that we are not taking into account possible dynamic effects (Fernández-Val, 2009). The static model is supported on the idea that a firm each period decides independently if it is going to move to the New Market or not. Moreover, as shown in Liesenfeld *et al.* (2007), the

[2] Although 18 companies moved to the NM level, we excluded two companies, Banco do Brasil and IdeaisNet. The first one because it is a fully state-owned company that migrated to issue new stock and the second because it is structured as a venture capital fund.

Table 1. Companies and moving information to the New Market

Company	Date to NM	Previous level date	Level
SABESP	24 April 2002		
LOJAS RENNER	1 July 2005		
CYRELA REALT	21 September 2005		
TRACTEBEL	16 November 2005		
ROSSI RESID	27 January 2006	5 February 2003	N1
LIGHT S/A	28 July 2005		
PERDIGAO S/A	12 April2006	26 June 2001	N1
EMBRAER	5 June 2006		
ETERNIT	17 August 2006	2 March 2005	N2
SAO CARLOS	14 December 2006		
INDS ROMI	23 March 2007		
CIA HERING	16 May 2007	13 December 2002	N1
WEG	22 June 2007	26 June 2001	N1
DROGASIL	3 July 2007		
IOCHP-MAXION	24 March 2008	10 November 2005	N1
MAGNESITA SA	2 April 2008		

Source: BMF&Bovespa, 2014 (www.bmfbovespa.com.br).

difference in estimates between static and dynamic probit panel data models is very small if both are valid.

In the end, estimation is straightforward: we have a dependent variable and the models use those listed below as independent variables.

Data description

This section discusses the variables that comprise the dimensions of the model. There is no single variable that perfectly represents a dimension, and each dimension is a vector comprised of the component variables. Thus, the final model is a linear probit model, with each of the variables below as independent variables. For capital structure and market performance, we select two variables, for exit strategies three variables and for ownership and control four variables. The selected variables are:

Hypothesis (1) – capital structure.

- Hypothesis (1.1) – Access to foreign markets (FOR): Access to foreign markets is a major drive for companies to adopt better corporate governance mechanisms, especially companies in developing countries (Klapper and Love, 2004). Presently, the variable representing this access is the existence of American Depositary Receipts, which represents the trading of the company's stock in the American market. Although a Brazilian company can in principle try to access any capital market in the world, most, if not all, companies that move to international capital markets first enter the American market. FOR is 1 for companies with ADRs and 0 otherwise. Data come from the companies' quarterly reports filed with CVM (Comissão de Valores Mobiliários), the Brazilian securities and exchange commission.
- Hypothesis (1.2) – Debt (DEB): There is a strong belief that entering the New Market lowers a company's capital cost. If the need for more debt is the reason for migrating to the New Market, this would be shown in financial statements as a higher debt/assets ratio – this ratio would be a measure of the impact of debt accrual on the decision to migrate to the New Market. In particular, I use the ratio between short- and long-run financing and total assets. Data come from Economatica.

Hypothesis 2 – ownership and control.

- Hypothesis (2.1) – Stock concentration over 5% (CON): I consider the sum of share in total stocks of shareholders with holdings over 5%. The idea is that higher concentration leads to a higher probability that majority shareholders could expropriate minority shareholders. Higher concentration would hinder corporate governance practices, and thus the expected sign from this variable would be negative. Variable is uniform and data source is the DIVX system of CVM.
- Hypothesis (2.2) – Shareholders' agreement (AGR): Although the stated purpose of shareholders' agreement is to discipline the relationship between shareholders, they can also be used to provide major shareholders with expropriation rights, especially regarding anti-takeover clauses and the establishment of major shareholders' rights to control the company even though they have a lesser stake than other shareholders. We see today in

the case of companies such as Google and Facebook that dual-class share systems can impose a concentrated ownership structure even in the face of diluted economic interests. Here we assume that AGR is a binary variable, with the existence of a formal shareholders' agreement that separates ownership and economic interests indicating value 1 and 0 otherwise. Data are hand collected from quarterly reports.

- Hypothesis (2.3) – Ordinary shares (ORD): Brazil has a dual-class stock system. Brazil preferential shares are the majority of traded stocks since companies had a history of highly concentrated control and a culture of IPOs without changing the ownership structure (for more on the subject, see Zeidan and Fontes Filho, 2012). The transformation of stock into ordinary-only stock is regarded as the main deterrent to the migration to the New Market (Grün, 2005). Some companies undergo a stock restructuration before migrating, while others migrated before restructuring their stock class system. Having a single-class stock should be an incentive to move to the NM. Here we consider ORD a binary variable, with value 1 for a company with ordinary-only stock and value 0 otherwise. Data source is the DIVX system.
- Hypothesis (2.4) – Relationship with investment banks (IBK): There is a wave of IPOs from 2002 to 2008 in the Brazilian market – especially in 2006 and 2007. It is a window of opportunity used by investment banks to close deals with many companies. We consider that companies already in dealings with investment banks would have higher incentives to go on SEOs and/or move the corporate governance ladder. Therefore, it is plausible that companies with prior relationship with investment banks are more likely to switch to the NM. Variable is binary and data are from the quarterly reports.

Hypothesis 3 – exit strategies.

- Hypothesis (3.1) – Private equity (PEQ): Private equity funds operate on a cycle of investments and disinvestments on which the timing of disinvestments could bring an important incentive for voluntary governance. Improving liquidity through corporate governance could be relevant for a private equity fund in search of shedding its stake in the company. PEQ assumes a value of 1 if a private equity fund is a major shareholder and 0 otherwise. Data come from Economatica.
- Hypothesis (3.2) – Liquidity (LIQ): Improved liquidity would make it easier for major shareholders to dilute their holdings if there is a need for exit. The variable is constructed through the volume of traded shares. I postulate that increase in liquidity is the natural outcome of the search for better corporate governance. Data are from Economatica. The variable is defined by:

$L = 100\frac{p}{P}\sqrt{\frac{n}{N}\frac{v}{V}}$, where L is liquidity, p is the number of days with at least one stock being traded, P is the total number of days (in this case, 90 since the data are quarterly), n is the number of dealing with the stock, N is the total number of dealings, v is the value of stocks traded in the period and V is the total value of stock in the period.

- Hypothesis (3.3) – Free float (FLO): Liquidity would not only come through the volume of traded shares but also through the availability of shares. FLO is the share of free-floating stocks in the total company stock. As previously observed, the minimum requirement is 25%, but companies are encouraged to improve the availability of tradable shares. More shares indicate a dilution of controlling shareholders and thus exit through the NM. Data are from the DIVX system.

Hypothesis 4 – market performance.

- Hypothesis (4.1) – Market value (VAL): Market value is given by market capitalization, defined as the mean value of the total shares at market price over the period, in log. Data are from Economatica.
- Hypothesis (4.2) – Return over asset (ROA): Corporate governance may also make the company more profitable; hence, I use the standard ROA as a measure of profitability. Data are from Economatica.

Figure 1 summarizes the hypotheses being tested with the expected signals.

Controls. Log of sales (SAL) and a dummy for a company being family owned (FAM) are used as controls, as well as some transparency variables. For instance, as in Ho and Wong (2001), the personality of the CEO can have an impact on agency problems. We don't have a measure for CEO personality, but we consider that if the CEO is also the Chairman of the Board (which is a common feature of Brazilian companies), agency problems can become more relevant, so we create a control binary variable for CEO duality, which assumes a value of 1 if the CEO is also the Chairman of the Board and value 0 otherwise. Other control variables are the existence of a permanent

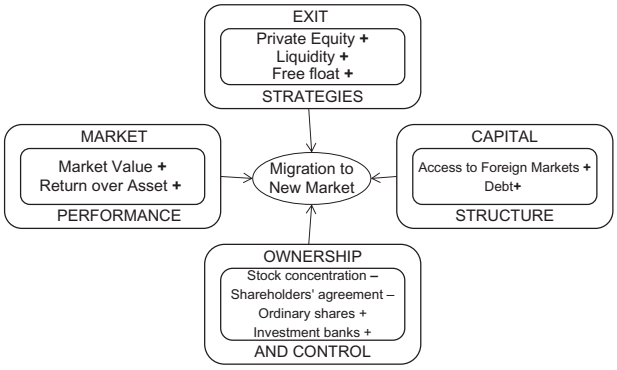

Fig. 1. Dimensions and variables of voluntary corporate governance

Advisory Committee (ADV),[3] which assumes a value of 1 for its existence and 0 otherwise, and the percentage of independent Board members (IND). All control variables are hand collected, with sales coming from Economatica.

Descriptive statistics

In Table 2, we have the descriptive statistics for the companies that moved to the New Market. These companies comprise the population that chose to move, and it is revealing to look at the patterns in the data previous to the econometric estimation.

The descriptive statistics for the continuous variables of the companies that moved to the New Market are presented in Table 2.

Table 2. Descriptive statistics for the selected companies

	Mean	SD	Kurtosis	Maximum	Minimum
CON	0.6823	0.2216	−0.4592	1.0000	0.0568
LIQ	0.1985	0.3114	2.1997	1.4213	0.0000
FLO	0.0985	0.1433	3.7308	0.6930	0.0000
VAL	13.5149	1.7864	−1.1172	16.6709	9.8685
DEB	0.2753	0.1844	−0.2380	0.9190	0.0004
ROA	0.0343	0.0560	0.0650	0.2727	−0.3257

The variables of the capital structure dimension have different patterns. While access to foreign markets (FOR) is monotonously increasing, the debt/asset ratio (DEB) actually decreases over a significant period of time, a fact that is surprising given it is expected that companies are able to raise more capital at a lower cost in the NM. Both variables are below the expected values of public listed companies, with debt peaking at a little bit over 30% and access to foreign markets never reaching 20% of the firms that migrate to the New Market (Fig. 2).

Two variables of the ownership and control dimension behave as expected – concentration (CON) and ordinary shares (ORD). While the first decreases, the second monotonically increases, reflecting the need for transforming all shares into ordinary shares. However, the frequency of ordinary shares before companies migrated to the New Market, around 20%, indicates a massive restructuring of companies' stocks. As for shareholders' agreement, it actually increased over time, which could mean that companies are using it to offset the many control-sharing clauses embedded in the New Market regulations.

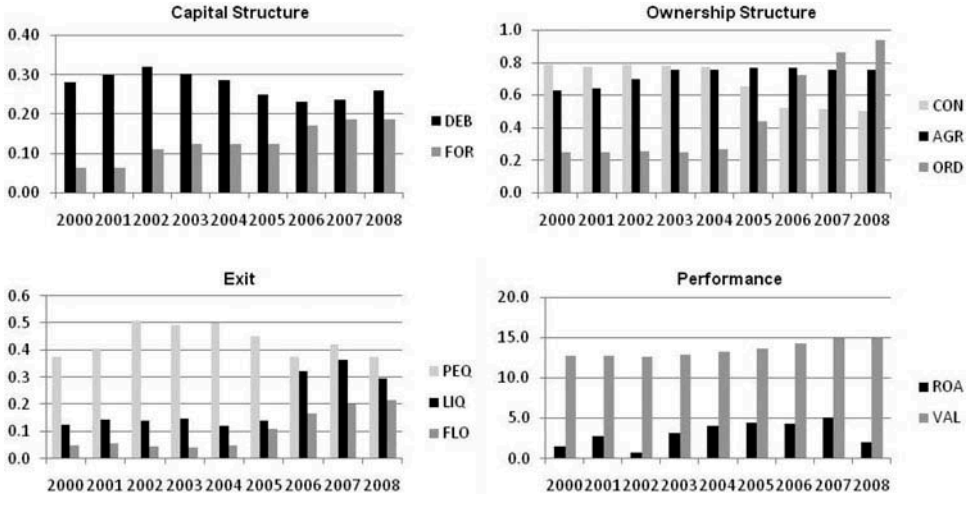

Fig. 2. Values on the dimensions of corporate governance

[3] The Advisory Committee (Conselho Fiscal) is an institution that does not have an easily translatable international counterpart. Its purpose is to generate fiscal reports on the companies' expenditures, and it also approves the independent auditors' reports. It works somewhat like a Board of Trustees, but its role is not as fiduciary, and it does not have as many powers inside a company. Its institution is voluntary, but it is recommended by all Brazilian corporate governance codes.

Liquidity (LIQ) and free float (FLO) behave as expected on the exit dimension. Both sharply increase after 2005, the period in which most companies migrate to the NM. Private equity (PEQ) presents a nonlinear pattern, increasing before 2005 and decreasing afterwards.

Both variables for market performance –ROA and market capitalization (VAL) – increase after 2003, but ROA decreases in 2008. This pattern coincides with a bonanza period of the Brazilian economy, which experience accelerated growth during the period 2003 to 2007. However, the growth of ROA and VAL is less accentuated for the set of companies in the present study than in many other companies over the analysed period.

V. Estimation Results

As previously observed, for a full-blown econometric analysis, three probit panel data models are estimated. The first is composed of 107 Brazilian companies, including the 16 selected companies that moved to the NM level of the New Market. In this model, the dependent variable assumes a value of 1 for a move to any level of the New Market. For the second model, the dependent variable assumes a value of 1 for a move to the NM level. The third model uses the Mahalanobis metric to match the listed companies that are more similar to the 16 selected companies that moved to the NM.

The common features of the models are:

- The empirical specifications are based on the previous selection of variables and are probit panel static models estimated through limited dependent variable regressions.
- Diagnostic tests are used to verify the regressions: a Chow poolability test points to a panel specification instead of firm-by-firm regressions (a *F*-statistic test in which H_0 is for distinct regressions for each individual); the Hausman test points weakly to fixed effects (H_0 is that u_i are correlated with the regressors); the cross-dependence (CD) test based on Pesaran (2004) and Hsiao *et al.* (2012) indicates independence across the sample (it is based on the Lagrange multiplier, and the null hypothesis is for cross-section independence – H_0: $R = I_N$). Results are reported alongside regression estimators.
- The general model is given by Equation 1, in which *C* is the vector of controls and *D* is the vector of sector dummies:

$$Yit = 1\left\{\begin{array}{l}\beta_1 FOR + \beta_2 DEB + \beta_3 CON + \beta_4 AGR + \beta_5 ORD + \beta_6 IBK + \beta_7 PEQ + \\ \beta_8 LIQ + \beta_9 FLO + \beta_{10} VAL + \beta_{11} ROA + \nabla' C + \nabla' D - \varepsilon_{it}\end{array}\right\} \geq 0 \quad (1)$$

The comprehensive model

As of March 2008, there are 447 public listed companies in Brazil, with 19% being companies that made their IPOs since 2004. In the first model, I select all listed nonfinancial companies with market capitalization equal to or higher than the smallest company that entered the NM level of the New Market, and which possess data for the entire period. The rationale is simple: it is too costly to a small firm to adopt all the NM level rules; consequently, this company is not able to choose to switch to a higher level of market listing. Small firms are then excluded from the sample and, moreover, the variable VAL captures firm size. The resulting sample is then of 107 companies, including the 16 companies that move to the NM. To better capture the effect of a move to any level of better corporate governance, there are two results, one in which the dependent variable assumes a value of 1 only for a move to the NM level and another in which the value is 1 for a move to any level, including level 1 (in this case, the number of companies that moved increased from 16 to 41). In this last case, value 1 is assigned to the first move, even when the company eventually moves to other levels of better corporate governance, which happens in four cases.

The Mahalanobis metric

The idea behind using a propensity score matching is to try to match the companies that move to the New Market with the most similar companies – in the present case, the variables selected for the matching process are size (measured by market capitalization) and industrial sector. The matching is done through first combining the variables one wants to match on into a distance measure and to then match on the resulting scalar variable (Blundell *et al.*, 2005). The main advantage is that it offers an unit free metric, which is essential when the matching variables have different units (Blundell *et al.*, 2005). In the present context, the metric is defined based on the size and industrial sector, and then the probit panel data are run with the 32 companies (the 16 companies that moved to the NM level and the 16 matched companies).

The results from the estimation are presented in Table 3 – controls are omitted.

Results are interpreted as follows: for the statistical significant variables, a positive sign means that the presence of the variable indicates a higher probability that the company is going to migrate to the New Market, while a negative sign indicates the opposite.

Table 3. Results from the probit panel data model

		All levels		New Market only		Mahalanobis	
		B	σ	β	σ	β	σ
Capital structure	H(1.1) FOR	0.24	0.85	−0.23	0.87	0.18	0.22
	H(1.2) DEB	1.25	2.44	0.56	0.99	−0.73	1.30
Ownership and control	H(2.1) CON	−2.18*	1.45	−2.70*	0.45	−3.99*	0.48
	H(2.2) AGR	−0.54	0.74	0.43*	0.16	0.62*	0.14
	H(2.3) IBK	0.44*	0.12	0.15	0.68	0.30	0.83
	H(2.4) ORD	0.05	0.42	0.78	0.63	0.45*	0.12
Exit strategies	H(3.1) PEQ	2.54	3.54	1.84*	0.60	1.84*	0.21
	H(3.2) LIQ	2.34	3.62	4.59*	1.54	7.73*	1.71
	H(3.3) FLO	3.91	3.22	1.33	1.27	6.51*	1.11
Market value	H(4.1) ROA	−0.56	0.96	−4.04*	0.89	1.85	1.56
	H(4.2) VAL	0.2	0.66	−0.51	1.02	−0.85*	0.17
Observations		77 040		77 040		23 040	
Pseudo-R^2		0.37		0.38		0.48	
Log-likelihood function		−10 654.83		−12 781.61		−15 688.94	
Chi-squared		3527.24		4524.55		5238.40	
Significance level		0.00		0.00		0.00	
Chow poolability		0.000		0.000		0.001	
Hausman		0.044		0.046		0.033	
Cross-dependence		0.015		0.015		0.003	

Note: *Variable significant at 5%.

The marginal effect suffers from a small bias, as shown by Fernández-Val (2009), so we concentrate on the positive or negative impact of the variables on the decision to move to the New Market. Causality is not assured as in regular regression models, but the indication of a higher or lower probability is sufficient to represent the impact of the variables on the decision for a voluntary adoption of better corporate governance mechanisms.

First, for the comprehensive model that considers a move to any level of the New Market, the only hypotheses verified are H2.1 (CON) and H2.4 (IBK). Both hypotheses follow from the ownership and control dimension. It is expected that for the comprehensive model most variables would not be significant, because as previously observed, the first level of corporate governance, N1, requires little change for the companies; hence, it does not mean a voluntary adherence for strict governance rules. The interesting result is that ownership and control issues seem to impact a move to any level of the New Market, while no other dimension presents significant results. In the case of the Brazilian market, ownership issues are definitely relevant, and the result that concentrated ownership deters moves to better corporate governance is hardly surprising. However, that relationship with investment banks improves voluntary governance is a more surprising result, and it shows weakly that market pressures can lead to better governance.

There is a pattern regarding the other two models on the decision to a move to the NM level. For both models, no hypotheses of capital structure are relevant, variables regarding ownership and control issues and exit strategies are significant and market performance presents the inverse expected signal.

For ownership and control issues, both the comprehensive and Mahalanobis metric models present as valid H2.1 (CON) and H2.2 (AGR), with the expected signs. The Mahalanobis metric models also present as valid H2.4 (ORD). The results indicate that the control premium is relevant to Brazilian companies, because high ownership concentration impacts negatively on the decision to adopt better governance practices. Also, this can be mitigated by the existence of shareholders' agreements, which indicates that the lost control of diluted shares can be offset by the drafting of agreements that would maintain control in the hands of controlling shareholders.

There is overwhelming evidence that exit strategies increase the probability of companies moving to the NM. For the comprehensive model, H3.1 (PEQ) and H3.2 (LIQ) are significant and posit the expected sign, while for the Mahalanobis metric model, H3.3 (FLO) is also significant and with the expected sign. That means that the presence of private equity funds and the need for more liquidity both influence the decision by Brazilian companies to move to the NM level of the New Market.

For the market performance dimension, H4.1 (VAL) is valid for the comprehensive model, while H4.2 (ROA) is valid for the Mahalanobis metric model. However, both variables present the reverse expected signals. There is no clear explanation for this fact, and here I assume that this dimension is not relevant for the decision of Brazilian companies to move to the NM level.

The results seem to corroborate the predominant view in Brazil that corporate culture dictates that control is not something to be lightly shared. The two surprising results are due to the capital structure and the market performance dimensions. That would be consistent with the culture of Brazilian companies, which posits a trade-off between control and management professionalization.

Going further with speculation over the results, I argue that the move to the New Market is a decision that is not influenced by management considerations, but relates only to the need of major shareholders, since market mechanisms that should be the focus of better governance mechanisms like lower capital costs and better market performance are, in the results, irrelevant to the decision of migrating to the NM level of the New Market. In this sense, we can formulate a hypothesis consistent with the results of the estimation and that could signal further research: the adoption of better governance mechanisms in Brazilian companies is the result of owners' concerns, and not management considerations. We can build a case of agency issues at hand, and true separation between ownership and control shaping the behaviour of listed companies, in this case, in the direction of better corporate governance mechanisms.

The main result of the present article is that exit through liquidity and ownership considerations are the main motivations for the move to adopt better corporate governance. Results seem to corroborate the scepticism of Shleifer and Vishny (1997) regarding competition as the main driver of good corporate governance. Here, I favour a life-cycle corporate governance hypothesis: in the long run, companies are going to move to better corporate governance practices because either controlling shareholders want to exit (portfolio considerations) or institutional investors do (following Aguilera and Jackson, 2003). However, in the short run, shareholders' agreements and the control premium may hinder advances in corporate governance practices. In this sense, regulation has an important role in the short run, but maybe markets will become more relevant as inductors of better corporate governance practices in the long run. We find no evidence of the relationship between market mechanisms and corporate governance in the short run, as in Ashbaugh-Skaife *et al.* (2006). The life-cycle view reconciles many results in the literature, from those finding links between performance and corporate governance in emerging markets – companies that are more advanced in the life cycle should perform better – to mixed evidence in developed markets, in which relatively better corporate governance is the norm.

VI. Counterfactual and Sensitivity Analysis

The main counterfactual to the results presented is related to low transaction costs for the migration to the New Market. The rationale is that only firms which already present the necessary requirements for the NM level are the ones most likely to migrate. One such transaction cost, dealt in the estimation, is represented by the variable ORD. However, only four companies already had in place the necessary condition of one share one vote in the first period of the sample, which means that the majority of companies that moved to the NM level have to undertake a stock restructuration process.

I build additional variables to try to measure if low transaction costs are the major reason for companies to move to the NM level: a binary variable representing 100% tag along minority shareholders (TAG); a binary variable representing compliance with the rules for the composition of the Board of Directors (BOD) and a binary variable representing reasonable compliance with information disclosure (INF). It would be expected that if low transaction costs are the main drivers of the move to the NM, these variables would be significant in the regressions for the determinants of the migration to the NM level. Simple descriptive analysis does not reveal a pattern to these variables.

I then put these variables as control variables and run regressions including it as sole regressors alongside ORD and also as explanatory variables in the previous three versions of the model. I also restrict the original models by dropping the control variables altogether.

The three additional equations are:

$$Yit = 1\{\beta_1 ORD + \beta_2 TAG + \beta_3 BOD + \beta_4 INF + \nabla' C - \varepsilon_{it}\} \geq 0 \tag{2}$$

$$Yit = 1\left\{\begin{array}{l}\beta_1 FOR + \beta_2 DEB + \beta_3 CON + \beta_4 AGR + \beta_5 ORD + \beta_6 IBK + \beta_7 PEQ + \\ \beta_8 LIQ + \beta_9 FLO + \beta_{10} VAL + \beta_{11} ROA + \beta_{12} TAG + \beta_{13} BOD + \beta_{14} INF + \nabla' C - \varepsilon_{it}\end{array}\right\} \geq 0 \tag{3}$$

$$Yit = 1\left\{\begin{array}{l}\beta_1 FOR + \beta_2 DEB + \beta_3 CON + \beta_4 AGR + \beta_5 ORD + \beta_6 IBK + \beta_7 PEQ + \\ \beta_8 LIQ + \beta_9 FLO + \beta_{10} VAL + \beta_{11} ROA - \varepsilon_{it}\end{array}\right\} \geq 0 \tag{4}$$

Results are presented in Tables 4, 5 and 6.

The results summarized in Table 4 show that the variables representing low transaction costs have a very low explanatory power on the decision of companies to move to the NM level of the New Market – only ORD presents statistical significance in the Mahalanobis metric model. The result is somewhat the same when the variables are included as control in the three models, with a significantly lesser number of variables statistically significant, and none of the transaction costs for any model. As for the restricted models, for the Mahalanobis metric estimation – H(1.1) – access to foreign markets is positive and statistically significant. This result is interesting in that it is the only indication that capital structure may matter to the decision of companies to move to the New Market.

VII. Final Comments

The literature on corporate governance is a vast landscape of ideas trying to show, among other things, how to pave the way for better governance practices. This is usually done through the establishment of codes of conduct and market regulation. We deviate from the bulk of the literature by focusing on the voluntary decision to adopt better

Table 4. Results from the low transaction costs model

	All levels		New Market only		Mahalanobis	
	B	σ	β	σ	*B*	σ
ORD	0.12	0.55	0.30	0.21	0.66*	0.19
TAG	−0.55	1.25	−0.12	0.26	−0.01	0.15
BOD	0.04	0.16	0.02	0.17	−0.05	0.23
INF	−0.04	0.28	−0.12	0.29	0.14	0.16
Observations	54 570		54 570		16 320	
Pseudo-R^2	0.03		0.04		0.07	
Log-likelihood function	−4329.10		−5489.88		−6954.70	
Chi-squared	1025.01		1482.36		1559.02	
Significance level	0.07		0.08		0.05	
Cross-dependence (H_0: $R = I_N$)	0.027		0.085		0.091	

Note: *Variable significant at 5%.

Table 5. Results from low transaction variables as controls

		All levels		New Market only		Mahalanobis	
		B	σ	β	σ	*B*	σ
Capital structure	H(1.1) FOR	0.45	0.91	−0.31	0.96	0.25	0.24
	H(1.2) DEB	1.26	2.52	0.71	1.07	−0.89	1.44
Ownership and control	H(2.1) CON	−2.36*	1.47	−2.77*	0.55	−4.16*	0.53
	H(2.2) AGR	−0.74	0.95	0.45	0.34	0.66*	0.17
	H(2.3) IBK	0.58	0.59	0.38	0.93	0.30	0.86
	H(2.4) ORD	0.29	0.64	0.92	0.80	0.59*	0.13
Exit strategies	H(3.1) PEQ	2.70	3.74	1.06*	0.49	1.97*	0.27
	H(3.2) LIQ	2.38	3.64	4.78*	1.64	7.84*	1.72
	H(3.3) FLO	4.05	3.44	1.34	1.45	6.54*	1.23
Market value	H(4.1) ROA	−0.80	1.04	−4.23*	0.99	1.91	1.77
	H(4.2) VAL	0.36	0.72	−0.69	1.11	−0.95	1.23
Transaction costs	TAG	0.05	0.21	0.54	0.39	0.41	0.77
	BOD	−0.07	0.16	0.09	0.26	−0.36	0.29
	INF	−0.02	0.11	−0.12	0.33	−0.05	0.33
Observations		86 670		86 670		25 920	
Pseudo-R^2		0.16		0.18		0.22	
Log-likelihood function		−9874.37		−10 111.20		−10 629.06	
Chi-squared		2755.11		2967.08		3122.05	
Significance level		0.00		0.00		0.00	
Cross-dependence (H_0: $R = I_N$)		0.027		0.085		0.091	

Note: *Variable significant at 5%.

Table 6. Results from restricted models

		All levels		New Market only		Mahalanobis	
		B	σ	β	σ	*B*	σ
Capital structure	H(1.1) FOR	0.34	0.87	−0.21	0.88	0.02	0.29
	H(1.2) DEB	1.34	2.45	0.57	1.05	−0.99	1.39
Ownership and control	H(2.1) CON	−2.84*	1.74	−3.52*	0.54	−3.84*	0.58
	H(2.2) AGR	−0.46	0.74	0.52*	0.24	0.67*	0.24
	H(2.3) IBK	0.53	0.56	0.25	0.74	0.39	1.13
	H(2.4) ORD	0.12	0.42	0.86	0.72	0.47	0.25
Exit strategies	H(3.1) PEQ	2.62	3.55	1.92*	0.69	1.91*	0.25
	H(3.2) LIQ	2.34	3.68	4.66	1.69	7.79*	1.78
	H(3.3) FLO	3.95	3.27	1.34	1.52	6.60*	1.13
Market value	H(4.1) ROA	−0.87	0.98	−5.90*	0.96	1.91	1.64
	H(4.2) VAL	0.25	0.73	−0.42	1.06	−0.79*	0.21
Observations		35 310		35 310		10 560	
Pseudo-R^2		0.17		0.18		0.22	
Log-likelihood function		−5622.34		−4522.18		−6569.64	
Chi-squared		7576.31		3219.17		5344.01	
Significance level		0.00		0.00		0.00	
Cross-dependence (H_0: $R = I_N$)		0.002		0.015		0.000	

Note: *Variable significant at 5%.

corporate governance, following research by de Jong *et al.* (2005), among others.

First, I developed a theoretical framework to encompass the possible dimensions of voluntary adoption of better corporate governance. The main argument is that the following dimensions comprise this framework: ownership and control issues, capital structure, exit strategies and market performance. The next step is to estimate a formal model of voluntary decision, with data from the Brazilian Novo Mercado (New Market). The New Market makes an excellent environment on which to test corporate governance issues, since adhesion to the market is voluntary. The companies in the sample are Brazilian nonfinancial companies in the 2000 to 2008 period. I estimated three static probit panel data models, one with the dependent variable assuming a value of 1 for a move to any level of the New Market, another considering a value of 1 for a move only to the NM level and the last one a Mahalanobis metric model that matches 16 companies to the companies that move to the NM level. I also perform a sensitivity analysis, considering the idea that low transaction costs would be responsible for the move to the New Market.

Results corroborate some hypotheses regarding the Brazilian market. The main result is that exit strategies are particularly relevant for companies to voluntarily adopt better corporate governance practices, increasing the probability of a company moving from the traditional listing to the NM level of the New Market. The second salient result is that higher capital concentration indicates a lower probability of companies searching for better corporate governance, a result which corroborates the predominant view that Brazilian companies give a high value to the control premium. Capital structure and market performance do not present, in our context, relevance for the decision to migrate to the NM level of the New Market. This could explain why more companies do not move from the regular listing, since lower capital costs and market performance seem to be not enticing enough for major shareholders of Brazilian companies. Only those companies in which major shareholders have the intention of exiting would make the transition to provide liquidity to their holdings, and even so hindered by ownership issues. This would also explain why control variables regarding management issues are not relevant. The results presented here seem to corroborate the scepticism of Shleifer and Vishny (1997) regarding competition as the main driver of good corporate governance. Instead of companies searching for better governance to access capital at lower costs and becoming more efficient, the environment is that of companies using the New Market as a way for shareholders to sell their stake, or trying to improve liquidity without losing control by means of shareholders' agreements. Competition would enhance social welfare by more transparency and network externalities – as companies that move gain advantages more companies would follow – while exiting merely services the interest of shareholders and does not lead to more companies following. In this sense, I argue that codes and regulations are still necessary in emerging markets where companies are known to present corporate governance problems. The main conclusion is that I favour a life-cycle corporate governance hypothesis: in the long run, companies are going to move to better corporate governance practices because either controlling shareholders want to exit

(portfolio considerations) or institutional investors do. However, in the short run, shareholders' agreements and the control premium may hinder advances in corporate governance practices. In this sense, regulation has an important role in the short run, but maybe markets will become more relevant as inductors of better corporate governance practices in the long run.

There are many avenues to follow the present work. It would be particularly interesting to have more tests of the voluntary corporate governance framework presented here but in other markets. Also, a more comprehensive definition of exit with formal tests on the particular patterns of exit could enlighten the decision by the companies that moved to the New Market.

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