Facing the Regulators: Non-Compliance with Detailed Mandatory Compensation Disclosure in Brazil

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Abstract

This paper examines the overt non-compliance with a regulation mandating detailed compensation disclosure in Brazil. A preliminary court injunction was used by a substantial number of firms to omit the most sensitive part of the compensation information and the main argument was that such disclosure posed a security threat to managers and directors. However, our empirical analysis suggests that the decision to avoid full compliance with the disclosure regulation is more plausibly motivated by agency conflicts. Specifically, we find that non-complying companies tend to have lower corporate governance quality and higher ownership concentration. They also tend to be larger and less profitable. Finally, state and foreign entity owned companies are significantly less likely to rank among non-compliers. Our event study shows that price revisions around the day when this decision became public were significantly worse for firms that are perceived as having higher governance quality, suggesting that these firms negatively surprised their outside shareholders by failing to comply with a regulation aligned with good corporate governance practices.

Keywords: compensation disclosure; compliance; corporate governance; ownership structure; Brazil.

JEL Codes: G32; G34.

1. Introduction

The corporate governance literature usually assesses the voluntary compliance of firms with recommended practices (Chhaochharia and Laeven, 2009; MacNeil and Li, 2006; Nowak, Rott, and Mahr, 2006; Berglöf and Pajuste, 2005). Regulatory demands, on the other hand, are of a mandatory nature and one usually expects all firms to comply.

A recent regulation introduced in Brazil in 2010 requires public firms to provide more details about the compensation of the management team and board of directors (BOD). It demands reporting the maximum, average, and minimum individual compensation of both top managers and directors, in addition to many other requirements. Reporting the maximum individual compensation of directors and senior managers was considered by some to be akin to revealing the compensation of the BOD chair and Chief Executive Officer (CEO), respectively, even though the new regulation does not require the reporting of compensation on an individual and identified basis.

A number of corporate representatives voiced their concerns about the new regulation using their personal safety as pretext and claiming that Brazilian crime rates are high.[1] The Brazilian Institute of Finance Executives (IBEF, *Instituto Brasileiro de Executivos de Finanças*) is an association whose membership includes many senior financial officers in the country. It obtained a preliminary injunction providing companies the right not to comply with the new regulation. Regulators tried to overturn it but companies may have this non-compliance option for many years given the Brazilian judiciary slowness (Gilson, Hansmann, and Pargendler, 2010).

The Brazilian Institute of Corporate Governance (IBGC, *Instituto Brasileiro de Governança Corporativa*) and the Brazilian Securities Commission (CVM, *Comissão de Valores Mobiliários*) produced codes of good corporate governance practices that recommend

full and individual disclosure of compensation information. However, adherence to the Brazilian codes is strictly voluntary, with no "comply or explain" requirement.

The decision to resort to an overt legal right of non-compliance with disclosure regulations constitutes an interesting case because it offers an opportunity to investigate a situation of explicit and full non-compliance with corporate governance law and the nature of the companies that decided to exercise it, instead of defective or partial compliance. This collective refusal to comply may be considered a setback in the recently developed reputation of Brazil as a country with good corporate governance practices, at least among emergent markets, because transparency regarding BOD and executive compensation is a key recommendation of codes of best practices around the world (Berglöf and Pajuste, 2005).

The successful introduction of premium listing segments in 2000 is at the heart of the recently acquired Brazilian reputation for good corporate governance practices among developing nations. Companies may voluntarily join or migrate to the premium lists by means of a private contract with the Brazilian Securities, Commodities, and Futures Exchange (BM&FBovespa) wherein they agree to enact several disclosure and corporate governance practices besides what is legally required.

The Brazilian case permits to ascertain the kind of company that is more prone to shun regulatory compensation disclosure, thus publicly confronting corporate governance practices widely appreciated by investors. Companies that decide not to comply with the new compensation disclosure rule in Brazil may have similarities regarding their adherence to corporate governance practices, ownership concentration, controlling shareholder type, and financial performance, for example. In contrast, if the non-compliance decision is not associated to any of these characteristics, then the alleged personal safety of the highest paid individuals may be the actual reason.

We formulate and test a set of hypotheses related to the determinants of the decision not to comply and also to the market reaction around the date when it became public. We find that non-complying firms score significantly lower in corporate governance practices and are less frequently listed in the two most demanding premium-listing segments of BM&FBovespa. Ownership is substantially more concentrated and there are significantly less foreign-controlled and state-owned companies among non-complying firms. Larger companies and those exhibiting lower profitability are also less likely to comply with the new regulation.

The peculiar Brazilian situation also offers an opportunity to verify how market prices respond when firms choose not to comply with the law, rather than with voluntary "comply or explain" provisions. Our event study around the non-compliance date reveals that its market impact is worse for companies with better corporate governance standards, which probably surprised their outside shareholders negatively by deciding not to comply with a regulation aligned with good corporate governance practices.

Overall, we provide suggestive evidence that relevant agency conflicts have partly motivated the decision to challenge the regulation. Therefore, our findings may contribute to weaken the arguments based on the security threat posed by the disclosure of detailed compensation information and to justify the negative reactions of shareholders and investor advisors (see, for example, Carvalho and Torres, 2011).

This paper is organized as follows. Section 2 presents a review on the corporate governance and disclosure compliance literature most closely associated with our paper. In section 3 we provide some background information about the Brazilian case. Section 4 presents our hypotheses, while Section 5 offers a description of the sample, operational definitions of our main variables, and descriptive statistics. In section 6 we discuss the results from the analysis of the determinants of non-compliance, while section 7 presents evidence from the event study. Section 8 describes robustness checks and section 9 concludes.

2. Literature review

Our article stems from the corporate governance and disclosure compliance literature that suggests that there is ample room for firm choice given that corporate governance practices that may impact value and the enforcement of such rules tend to vary both at the firm as well as the country levels (Black, Carvalho, and Gorga, 2012; Robinson, Xue, and Yu, 2011; Silveira, Leal, Carvalhal-da-Silva, and Barros, 2010; Aggarwal, Erel, Stulz, and Williamson, 2009; Dahya, Dimitrov, and McConnell, 2008; Berglöf and Pajuste, 2005).

Robinson *et al.* (2011) investigate disclosure defects, defined as partial non-compliance with new US Securities and Exchange Commission (SEC) compensation disclosure regulations from 2006. They affirm that no company in a random sample of 336 firms selected by the SEC disclosed without defects, which vary across firms in gravity and kind. The authors also admit that firms selected by the SEC corrected the problems after some time while firms in another random sample compiled by the authors did not, which suggests that non-compliance was a choice rather than a mistake. They also find that non-disclosure is related to excessive compensation and previous negative media attention about it.

Berglöf and Pajuste (2005) build a measure of the deviation between what was actually reported by firms and what was required by regulators and concluded that firm-level financial variables do not explain deviations from mandatory disclosure while country-level measures convey that disclosure is positively and significantly related with a "rule of law" measure. The authors show that, on average, firms in six out of ten Central and Eastern European countries disclose less than what was legally required in 2003. They argue (p. 182) that large controlling shareholders may influence lawmaking, regulators, and enforcers through their political connections, weakening enforcement efforts. Thus, they conjecture that there is less disclosure when ownership concentration is greater.

Chhaochharia and Grinstein (2007) report that the introduction of the Sarbanes-Oxley Act and other accompanying regulatory changes had a value increasing effect on larger firms that were previously less compliant with these new provisions, while smaller firms experienced value reduction, probably due to their greater cost to comply. Chhaochharia and Laeven (2009) affirm that firms that adopt corporate governance practices beyond what is commonly observed by all firms in a country present greater valuations in a sample of 2701 companies in 23 developed countries. They also conclude that the market rewards companies that display better practices than what is required by the law in their jurisdictions or generally practiced by their country peers, akin to what was verified for Brazil (Carvalho and Pennacchi, 2012; Braga-Alves and Shastri, 2011; Chavez and Silva, 2009; Leal and Carvalhal-da-Silva, 2007).

The value effect of an announcement of compliance with voluntary "comply or explain" corporate governance provisions depends on the nature of the provision (Fernández-Rodríguez, Gómez-Ansón, and Cuervo-García, 2004). There is also evidence that investors are complacent with serial non-compliers with the "comply or explain" Combined Code in the UK, as long as their financial performance is good. Self-regulation may not be strong enough in the UK and Germany, where there were no wealth effects resulting from the announcement of compliance with the German Corporate Governance Code, and maybe it should be incorporated into the law (MacNeil and Li, 2006; Nowak *et al.*, 2006).

In Brazil, Costa, Galdi, Motoki, and Sanchez (2012) relate direct disclosure costs, represented by personal security risk, with disclosure decisions and conclude that crime and CEO compensation levels are associated to the decision of non-compliance with compensation disclosure demanded by the new regulation. They also claim that non-compliant firms present greater market risk, represented by their larger bid-ask spread, as well as a decline in market trading liquidity. Schiehll, Terra, and Victor (forthcoming) analyze the

determinants of voluntary executive stock options disclosure in a sample of 68 Brazilian firms prior to the introduction of the mandatory detailed compensation disclosure in 2009. They conclude that family controlled companies tend to disclose less and that companies with larger BODs, that employ compensation committees, and that are audited by one of the big-four auditors, disclose more. Silveira and Dias Jr. (2009) find that news that expose conflicts of interest between controlling and minority shareholders in Brazil are value reducing with a potentially permanent effect.

3. The Brazilian case

Article 152 of Law 6404 of 1976, the Brazilian corporate law, requires companies to disclose solely the sum of the total maximum annual pay of the BOD and top management authorized by shareholders in their annual meeting. Thus, companies usually did not provide any details about the composition of compensation.

The fourth version of the code of corporate governance practices produced by the IBGC in 2009 recommended, for the first time, that compensation should be preferably disclosed for each individual in the BOD and senior management. Alternatively, it admitted that the total amounts paid to the BOD and top management could be disclosed separately, detailing their fixed and variable portions. IBGC, thus, implicitly admitted that the non-disclosure of individual compensation was an acceptable disclosure practice.

Instruction CVM 480 of 7 December 2009 introduced drastic changes in disclosure that became mandatory from 1 January 2010. It requires firms to present detailed annual filings through a document called "Reference Form" (FR, *Formulário de Referência*). The FR brought about many new disclosure demands in its numerous sections regarding risk management policies and procedures, internal controls, management and discussion analysis (MD&A), and compensation, among many other topics.

Instruction CVM 480 also requires that firms publish the maximum, average and minimum compensation paid to BOD and senior management members separately but not individually. Section 13 of the FR addresses BOD and senior management pay compensation and has 16 items dealing with, among other issues: compensation policy; total compensation; variable compensation details, including options and their pricing, as well as stock plans; retirement and insurance benefits; and the minimum, maximum, and average individual compensation, which is the item under legal dispute. Non-disclosure of individual compensation was, once again, admitted, with regulatory strength this time around.

The new pay disclosure rules prompted vigorous reactions from the Brazilian corporate establishment. The main argument against them was that the maximum pay disclosure singled out the most important person in the company (either the CEO or the BOD chair, depending on the company), violated their privacy, and turned them into targets for criminals.

The Brazilian Association of Public Companies (Abrasca, *Associação Brasileira das Companhias Abertas*) is an organization that represents those that command Brazilian corporations. It argued that kidnappers would have greater negotiating power with detailed compensation information in their hands (Tanoue, 2010). The Brazilian corporate world mirrors the income inequality of the country. Brazilian executives earn 10 times more than a professional, while this rate is 4.4 in UK and 4 in the US (Fonseca, 2012). Thus, income inequality discourages high pay disclosure because companies could also become targets of fiercer union pressures (Tanoue, 2010).

The arguments, however, seem weak for several reasons. The marginal impact that new information on compensation would have on the personal safety of administrators is probably negligible because they already displayed obvious and explicit signs of wealth in a country of large income inequality such as Brazil. The Brazilian press usually discloses celebrity pay, such as those of TV stars and footballers, with no evidence of greater occurrence of

kidnappings among them. Finally, crime has diminished substantially in Brazil. For example, the state of São Paulo is the richest, headquarters many listed companies, and experienced a decline of 83.1% in the number of kidnappings from 2002 through 2008.

About one quarter of Brazilian public companies refused to comply with the new rule. They resorted to a preliminary injunction obtained in court by IBEF, which certainly has members in most relevant corporations. The preliminary injunction enabled companies where IBEF members work to adjourn detailed compensation disclosure. It may take years for courts to reach a final decision regarding the IBEF lawsuit.[2] In the meantime, companies benefiting from the preliminary injunction cite the lawsuit instead of providing details about their pay practices in item 13.11 of the FR.

A few interesting developments after the introduction of Instruction CVM 480 are worth mentioned. A top management and BOD compensation proposal was rejected in a shareholders meeting for the first time in Brazil in 2011. Glass, Lewis & Co., a US proxy advisory services company, recommended a dissenting vote in shareholders meetings for over 50 companies, mostly as a result of the refusal to inform the maximum, average, and minimum pay values (Carvalho and Torres, 2011). Companies started to revise their compensation plans based on the information disclosed by other companies, frequently by installing compensation committees (Fregoni and Torres, 2011). Finally, the Brazilian Central Bank Resolution 3921 introduced in 2010 mandates that financial institutions constitute a compensation committee and imposes limits on stock options based compensation, deferrals on variable compensation, and claw-back provisions. Articles that have summarized recent events in the Brazilian capital market, not necessarily related to compensation disclosure, include (Braga-Alves and Shastri, 2011; Leal, 2010; Silveira and Saito, 2009; Chavez and Silva, 2009), among others.

Even though Pinto and Leal (2013) did not have the maximum compensation figures for management and the BOD, they found evidence that family controlled companies pay more to their CEO and BOD when relevant shareholders or their relatives are directors for a sample of 315 companies in 2010. It is also important to highlight that power and ownership in Brazilian corporations are still quite concentrated (Sternberg, Leal, and Bortolon, 2011).

The highest earners in corporations may be reluctant to publicize how much they make for a number of reasons. It is quite possible that safety is a concern, but it is almost certainly not the only one, and possibly not the main one. Tax authorities may be another concern as well as the risk of legal litigation, such as in labor, family, tax, creditor and corporate legal disputes, because those that control corporations may be personally liable in many ways[3]. It is also notorious that many employ legal stratagems to hide personal assets, such as placing them in friendly hands, because of potential liabilities[4]. Disclosing their compensation possibly does not provide information that is entirely new, but it places a reliable number on what was only inaccurately estimated, particularly in what regards variable compensation, supplying legal opponents with better ammunition.

The controlling shareholders of the largest Brazilian companies can be powerful beyond the scope of their businesses. They may be politically connected and influence lawmakers and enforcers as well as government controlled financial institutions and those deciding about concessions, purchases, and investments. Thus, they may not be financially constrained and capital market financing is not their sole or even main source of financing.

4. Hypotheses

It is reasonable to expect that the quality of corporate governance practices is associated with a greater propensity to disclose new mandatory information without resorting to legal stratagems. For example, Schiehll *et al.* (forthcoming) show that Brazilian companies with

larger BODs, that employ compensation committees, and are audited by big-four auditors are more inclined to voluntarily disclose executive stock options programs. Thus, our first hypothesis is:

H1: Non-compliance is more likely for firms with lower quality of corporate governance practices, represented by a score of corporate governance practices (CGI) or by listing in one of the two most demanding listing levels of BM&FBovespa.

Berglöf and Pajuste (2005) assume that firms that rely more on capital markets may have stronger incentives to disclosure.[5] Capital market relevance may decrease for companies with concentrated control in the hands of influential individuals or with the state as part of the controlling coalition because they may have easier access to financing by means of government institutions. Berglöf and Pajuste (2005) also conjecture that greater ownership concentration leads to lower disclosure because powerful owners could be perceived as effective overseers of managers. Finally, if there are potentially relevant costs associated with compensation disclosure, such as personal security costs and those related to family, tax, creditor or corporate law litigations, influential controlling shareholders should find it easier to bypass governance restrictions and impose on the firm their unwillingness to comply. Thus, a second testable hypothesis is:

H2: Non-compliance is more likely when the ownership concentration is greater, represented by the proportion of the voting and non-voting stocks held by the three and five largest shareholders.

Pinto and Leal (2013) show that Brazilian family controlled firms tend to pay more to their CEOs and BOD members when controlling shareholders or their relatives act as directors. Schiehll *et al.* (forthcoming) also assert that family controlled firms tend not to voluntarily disclose their executive stock options plans. Therefore, we conjecture that non-compliance should be more frequent among family-controlled firms. On the other hand, we suppose that compliance should be greater among state-owned and foreign-controlled companies.

Two reasons motivate our argument about state-owned companies. First of all, the government appointees who run them indirectly represent the very entity that enacted the norm requiring compliance. Second, top management pay in state-owned companies have been historically capped in Brazil to the highest remunerations in the executive branch of government.[6] As a result, senior management compensation in listed state-owned companies is lower than in other listed firms according to Pinto and Leal (2013) and a 2012 IBGC survey.[7]

Many foreign-controlled companies have to comply with similar or more stringent regulation on executive pay disclosure in their home countries. They would be less likely to spend corporate resources with a legal injunction in order to avoid disclosing information that is already public in their home countries. Thus, our third hypothesis on the relation between the type of the controlling shareholder and the likelihood of compliance with the new norm follows:

H3: Non-compliance is more likely in family controlled firms and less likely in state-owned and foreign-controlled companies.

Berglöf and Pajuste (2005) hypothesize that financially constrained firms disclose less because bad news may worry markets and disclosure costs money. They consider that larger and more profitable firms are less constrained. Chhaochharia and Grinstein (2007) also conjecture that the compliance cost is significant for smaller firms. Thus, it could be that smaller firms are less inclined to comply. However, the average administrator pay in the larger Brazilian firms is greater (Pinto and Leal, 2013). It is possible that larger firms are less inclined to comply because of the magnitude of their compensation packages. Related testable hypotheses are:

H4: Non-compliance is more likely in more financially constrained firms, represented by younger, smaller, and lower ROA firms.

H5: Non-compliance is more likely in larger firms because they are expected to offer greater compensation packages.

Berglöf and Pajuste (2005) and Aggarwal *et al.* (2009) argue that external capital dependence may lead companies to greater disclosure and better corporate governance practices. Berglöf and Pajuste (2005) represent external capital dependence through a number of variables, such as leverage, previous performance, and the market-to-book ratio. Our sixth testable hypothesis addresses capital dependence, which is represented by similar variables:

H6: Non-compliance is less likely for firms with greater external capital dependence, represented by greater leverage and market-to-book ratios.

Firms that adopt better corporate governance practices are associated with greater valuations and more independent-minded BODs that may limit potentially damaging self-

serving acts of controlling shareholders (Ammann, Oesch, and Schmid, 2011; Dahya *et al.* 2008; Leal and Carvalhal-da-Silva, 2007). Announcements of negative conflict of interest related news are received with declines in market valuations in Brazil and so are changes in regulation unfavorable to minority shareholders (Silveira and Dias Jr., 2009). Outside shareholders of a non-compliant company that supposedly practices good quality corporate governance may experience a relatively larger loss in market value than those of other non-compliers. These shareholders are likely to be surprised by this decision because it is inconsistent with the perceived corporate governance practices quality standards of the firm. Thus, the incentives that controlling shareholders have not to comply would have to be greater than the costs of non-compliance, which may be quite damaging to minority shareholders. As a result, our seventh and last hypothesis is:

H7: The announcement of non-compliance will lead to a decrease in the market value of the announcing company, particularly for those perceived to have better corporate governance practices.

5. Sample and method

5.1. Sample and variable definitions

We begin with all publicly traded companies listed in BM&FBovespa. A liquidity index minimum of 0.01 limited the sample to 214 companies. Roughly, this liquidity index value indicates that the company accounts for 0.01% of the total volume traded on the exchange[8]. The inclusion of a liquidity constraint is important because many listed companies trade lightly and our price impact study depends on daily price availability.

We analyze data from 2010 filings relative to 2009, the year following the introduction of the new regulation when companies used the court injunction to avert compliance. The dependent variable assumes the value of "1" when the firm does not comply with section 13.11 of the FR and "0" otherwise. The zero score, therefore, indicates that firms followed the rule by informing the minimum, average, and maximum compensation paid to the senior management team and BOD, separately.

Table 1 presents our set of explanatory variables. The Corporate Governance Index (CGI) is our main explanatory variable and consists of a score that represents the firm-level quality of corporate governance practices of listed Brazilian companies. The CGI score consists of objective “yes” (1 point) or “no” (0 points) answers. A partial answer is acceptable in a few questions and the score is 0.5 in this case. An affirmative answer denotes the presence of a good corporate governance practice. The original CGI was developed by Leal and Carvalhal-da-Silva (2007). We used the company scores relative to 2009 provided by the IBGC and professors André L. Carvalhal-da-Silva and Ricardo P. C. Leal, who hold joint rights of its use.

The Annex displays the questionnaire used to obtain the scores employed in our article. The questions include only issues that may be verified from publicly available information in order to have the largest possible sample and avoid subjectivity. An important limitation of such device is that one cannot detect the presence of some corporate governance practices from publicly available information and evaluate how well a company applies the practices it reports.

The questionnaire is based on the code of good corporate governance practices produced by the IBGC. It reflects adoption of corporate governance practices beyond what is legally required in Brazil and not compliance with the law. Thus, it is equivalent in spirit to the Adjusted CG Index computed by Chhaochharia and Laeven (2009), which reflected firm-

level corporate governance adjusted for country-level governance requirements in a multi-country sample. The use of such scores is common in the literature. Other examples include Berglöf and Pajuste (2005), who use one for Central and Eastern European countries, and Ammann *et al.* (2011) and Aggarwal *et al.* (2009) for multi country samples.

[Table 1 about here]

An alternative operational definition for the firm-level corporate governance quality is a dummy for listing in one of BM&FBovespa premium listing segments. These segments were created at the end of 2000. Companies listed in the traditional listing segment, the only one up to that point, can migrate to a new listing level if they sign a contract with BM&FBovespa committing to meet its requirements. Companies that go public to list at BM&FBovespa opt for one of the listing levels. The premium-listing levels do not have requirements regarding the disclosure of management and BOD compensation and, as such, companies listed in those segments may decide not to comply with the new compensation disclosure regulation and still fulfill their premium listing level commitments.[9]

The set of ownership variables presented in Table 1 contains dummy variables to indicate when the controlling shareholder is a family, the state, or a foreign entity. Control is attained when a shareholder owns 50 percent or more of the votes. Brazilian voting shares may have only one vote per share, multiple vote shares are not allowed by the law. Companies controlled by institutional investors, such as private equity or pension funds, or by a pool of shareholders involving, at least, one individual and one company or institution, acting in concert, are classified under "shared control". Companies are classified as "Dispersed" if there is no shareholder with more than 10% of the voting shares. Two additional variables are the sum of the percentage holdings of voting and non-voting shares of the three and five largest shareholders. Ownership information and the identity of the main shareholders were hand collected from the FR.

Our set of variables also includes: proxies for company size (natural logarithm of total assets or of operational revenues by the end of 2009); profitability measures (the returns on equity and on assets); relative value ratios (price-earnings and price-to-book ratios); a leverage measure (total debt relative to total assets ratio); and the age of the company. Financial data come from the Economatica® database.

5.2. Descriptive statistics

Table 2 shows descriptive statistics for our sample according to compliance to the new regulation. Panel A depicts the CGI, dummies for listing on BM&FBovespa premium segments, and ownership concentration measures. Non-complying firms display significantly lower CGI scores. Forty percent of the non-complying firms belong to the two most demanding premium-listing segments of the exchange while 32 percent are listed on *Novo Mercado*, the most demanding premium segment. The ownership structure is significantly more concentrated among non-complying firms. Overall, Panel A of Table 2 suggests that non-complying firms score lower in corporate governance practices and display greater ownership concentration.

Panel B of Table 2 focuses on the identity of the largest shareholder. Individuals or families own most firms in the sample (47 percent) and an even larger proportion of non-complying firms (55 percent). The difference between these proportions, however, for complying and non-complying firms is not statistically significant. State-owned and widely held firms are significantly fewer among non-complying firms.

There are no significant differences between complying and non-complying firms regarding some of the selected general characteristics of the sample conveyed by the variables portrayed in Panel C of Table 2. The exception is a greater median ROA for complying firms, which is consistent with the financial constraint and the pay and performance disconnection

hypotheses (Bebchuk and Fried, 2003; Berglöf and Pajuste, 2005). The average asset size was BRL 2.26 billion (about USD 1.13 billion in December of 2009).

The median total debt to asset ratio was 25.56 percent, while the median ROA and ROE were 4.01 and 14.30 percent, respectively. We did not include the debt ratios for the 17 banks in the sample. Thus, we excluded banks when we estimate models including the leverage proxy. The median firm was 36 years old, but the sample comprises both newly created firms as well as centenary firms such as the 202 years old state-owned Banco do Brasil, the largest bank in Brazil at the time. The median market multiples by the end of 2009 were 13.32 for the P/E ratio and 1.85 for the price-to-book ratio. Average trading volume was not different between the two groups and we do not show statistics for this variable. The presence of some outliers is very clear among the variables in Table 2.

[Table 2 about here]

We employed the Economatica database industry classification comprised of twenty categories. Industry representation in the sample of 214 firms includes more firms in the electricity, finance and insurance, building, textiles, and steel industries. No industry contains more than ten percent of the firms in the sample, with the exception of the "other" classification. Industry level statistics are not presented for the sake of brevity but are available upon request. Compliance was higher in the oil and gas, building, finance and insurance, electric and electronics, and food and beverage industries, and lower in the paper and pulp and software industries.

The correlation matrix among selected variables presented in Table 3 confirms the significant association between compliance with the regulation, CGI score, *Novo Mercado* dummy, and state control. Naturally, firms with higher CGI scores tend to be listed in *Novo Mercado*, as these variables are proxies for the same concept. Family and foreign-controlled companies are associated with lower CGI scores, probably for very different reasons, as

foreign-controlled companies may often be little more than fully owned subsidiaries of larger parent companies headquartered in economies with developed capital markets where financing may be cheaper and more abundant. As such, they may not see an advantage to practice the same corporate governance standards as in their home country, as preconized by Aggarwal *et al.* (2009). Among the remaining variables, some usual relationships emerge, such as greater leverage, ROA and trading volume for larger firms.

[Table 3 about here]

6. Determinants of the non-compliance decision

Based on our hypotheses, we model the decision not to comply with section 13.11 of Instruction 480 as a function of the: quality or firm-level corporate governance; concentration of ownership structure; identity of the controlling shareholder; firm size; firm age; financial leverage; profitability; relative market value; and industry affiliation. Proxies for these potential determinants are included in the vector X shown in equation (1) below:

$$NonComply_i = \alpha + \beta' X_i + v_i \quad (1)$$

where $NonComply_i$ is an indicator variable, so that $NonComply_i = 1$ if firm i has failed to comply with section 13.11 of Instruction 480.

Table 4 presents five variations of the model described above. Model A is the baseline regression. The first column of Table 4 shows that the CGI score is negatively and significantly related to the non-complying decision. Therefore, better-governed corporations appear to be less likely to exercise their option of not complying via the legal injunction. The coefficient estimate for the CGI score in Model A implies that a firm with a score equal to 3.5

(our sample minimum) is expected to be 7.4 times more likely to fail to comply with the regulation than a similar firm with a CGI score equal to 19 (our sample maximum)[10].

Models B and C replace the CGI score with dummies that assume a value of 1 for companies that voluntarily joined *Novo Mercado* or Level 2, the two most demanding stock exchange premium listing segments in terms of disclosure and other corporate governance practices. The results are similar, suggesting that firms with better governance practices are less prone to fail to comply with the new requirements on compensation disclosure. Specifically, the coefficient estimate for N2NM in Model C implies that a firm that is not listed on either *Novo Mercado* or Level 2 is expected to be 2.31 times more likely not to comply than a similar firm that is listed in one of these segments. It is important to note that none of the premium-listing segments include among their demands a detailed disclosure of compensation such as the one required by Instruction CVM 480. Models D and E are similar to Models A and C, excluding the leverage variable, for which we had fewer observations because we do not compute leverage for banks. The results remain essentially unchanged, corroborating our Hypothesis 1 that non-compliance is significantly more likely for firms with lower quality of corporate governance.

[Table 4 about here]

We include only the ownership concentration for the three largest shareholders in the models reported in Table 4 because there is obviously a high correlation between the percentage of shares held by the three and five largest shareholders. Ownership concentration is negatively and significantly associated with the decision to disclose compensation in all models. The coefficient for this variable in Model A suggests that a firm increasing its ownership concentration from the sample median value of 55.35% to the sample maximum of 100% would become approximately twice as likely not to comply with the disclosure

regulation. Overall, we find support for our Hypothesis 2 that non-compliance is likelier when ownership concentration is greater.

The analysis of the effect of the identity of the controlling shareholder indicates that state and foreign ownership are significantly associated with a lower likelihood of non-compliance. The magnitude of their coefficient estimates in Model A suggests that the likelihood of non-compliance is expected to be over four times lower for a state-owned firm and over two and a half times lower for a foreign-controlled firm compared, in both cases, to an otherwise identical family-controlled firm. The inference is similar if we use shared or dispersed control as the comparison group. The coefficient estimates for our family control dummy are not significantly different from zero, which means that the likelihood of non-compliance for family firms does not significantly differ from that of shared-control firms, which is the excluded category. Therefore, we find partial support for Hypothesis 3 because non-compliance is significantly less likely for both state-owned and foreign-controlled firms but it is not distinctly more likely for family controlled firms.

We also find mixed support for Hypothesis 4, which states that non-compliance should be more likely for more financially constrained firms, represented by younger and smaller firms, as well as by those with lower profitability. In line with this prediction, non-compliance seems indeed more likely for companies with lower profitability ratios, although the significance of the estimates is sensitive to the specification of the model. However, firm age does not seem to be associated with the compliance decision. Moreover, larger companies are significantly less likely to comply, which means that, contrary to Hypothesis 4, non-compliance is less likely for smaller firms. This result is compatible with our Hypothesis 5, whose rationale is that BOD members and senior managers in larger companies are more hostile to the idea of accepting the new regulation because these companies usually grant their administrators greater compensation packages.

Finally, we do not find evidence that supports Hypothesis 6 that non-compliance should be less likely for firms with greater external capital dependence because the estimates for the proxies for financial leverage and relative market value are non-significant in all regressions.

Summing up, companies with lower corporate governance scores, greater ownership concentration, larger, and with lower profitability ratios are more inclined not to comply with the new regulation requiring disclosure of details about the compensation of their senior management and BOD. In contrast, companies controlled by foreigners or by the state are more likely to comply.

7. Impact on share price from non-compliance decision

We surveyed company announcements and the Brazilian business media to find the exact date when the market became aware of the non-compliance decision. There are three possibilities to obtain this date: (1) when the first shareholders meeting is invoked and the agenda includes the executive compensation plan; (2) when the FR is published on the website of CVM; and (3) in any news published in the largest circulation Brazilian business daily called "Valor Econômico", prior to the FR publication.

In almost all cases (approximately 95%), the non-compliance event date coincided with the day when the firm filed its FR with the compensation information missing. Therefore, in these cases, the non-compliance date coincides with the disclosure of other potentially relevant corporate information, such as dividend policy, financial statements, risk policies, etc. The FR encompasses a wide variety of company information, including its financial statements, as described in section 2.

After identifying the event date (day 0), we compute cumulative abnormal returns (CAR) for three event windows: from day 0 to day +1; from day -2 to day +2; and from day -

5 to day +10. Correspondingly, we also compute CARs for the complying firms around the day of their filing containing the required compensation disclosure. Thus, we are able to contrast share price changes for complying and non-complying firms around the disclosure of their FR.

Daily abnormal returns (AR) are computed using the market excess method and the market model method. The market excess (abnormal) return is computed as $AR_{i,t} = R_{i,t} - R_{IBOV,t}$, where $R_{i,t}$ is the stock return of firm i in day t and $R_{IBOV,t}$ is the day t return of the Ibovespa index[11]. The market model abnormal return is computed as $AR_{i,t} = R_{i,t} - \beta_i R_{IBOV,t}$. The coefficients β_i are estimated using 99 daily returns beginning 109 days and ending 11 days before the event day. After computing the CARs for each event window we estimate our baseline model:

$$CAR_i = \alpha_0 + \alpha_1 NonComply_i + \varepsilon_i \quad (2)$$

where CAR_i is the cumulative abnormal return of firm i. All other factors influencing CAR_i are included in the error term ε_i. A negative estimate for α_1 would indicate a negative market reaction to the non-complying decision, that is, a lower average CAR for non-complying firms. The estimates in Table 5, columns A and B, show that the average CAR (using the 0 to +1 event window) is not significantly different from zero in our sample, for both complying and non-complying firms. This result is robust to the length of the event window and to the estimation method.

Taken at face value, the evidence suggests that investors did not care much about the non-disclosure decision. However, a plausible alternative explanation is that the resistance of some firms to disclose such sensitive information came as no surprise to outside investors and therefore did not warrant a share price revision. Indeed, we have shown that non-complying

firms tend to be poorly governed relative to complying firms. Thus, if our conjecture is correct, we should detect a negative market reaction only for non-complying firms with relatively high corporate governance standards because their shareholders are more likely to be (unexpectedly) disappointed. This argument implies, for example, that non-complying firms listed in the *Novo Mercado* segment should experience a significantly worse market reaction than those listed in the traditional listing segment. We test this hypothesis by estimating model (3):

$$CAR_i = \delta_0 + \delta_1 NonComply_i + \delta_2 CGI_i + \delta_3 (NonComply_i \times CGI_i) + \Gamma' W_i + u_i \qquad (3)$$

where CGI_i is the CGI score of firm i and $NonComply_i \times CGI_i$ is its interaction with $NonComply_i$. Our hypothesis implies that the estimate for δ_3 should be significantly negative. W_i is a vector of firm characteristics that might simultaneously affect CAR_i, CGI_i, and the decision not to comply.

Columns C and D of Table 5 display OLS regressions without control variables. They show a negative and statistically significant interaction coefficient, consistent with the hypothesis that the market reaction to the non-complying decision crucially depends on the ex-ante quality of corporate governance practices. In columns E and F of Table 5 we estimate model 3 including the set of controls, comprising potential determinants of the complying decision previously described, plus the interaction of $NonComply_i$ and a proxy for ownership concentration.

The results show that the magnitude and significance of $\hat{\delta}_3$ is little changed[12]. In Table 6, from columns A through D, we show similar results using the NM and NMN2 dummies that take the value 1 for firms that are listed in the most demanding premium listing segment in BM&FBovespa, *Novo Mercado* only or *Novo Mercado* and Level 2, respectively. The

estimates for the interaction coefficient are only slightly lower than those shown in Table 5 and remain negative and statistically significant. Interestingly, when we use NMN2, the interaction estimates, although still negative, become much lower and are no longer statistically different from zero. This result, shown in Table 6, columns E and F, is consistent with our conjecture because the Level 2 segment allows non-voting shares, while *Novo Mercado* requires that the equity capital is comprised solely of voting shares with one vote each, which makes it more advanced from a governance perspective.

The interpretation of our estimates is straightforward. For example, holding constant all other factors that influence the CAR, a hypothetical increase in the CGI governance score from its sample minimum of 3.5 to its sample maximum of 17 (both for the subsample of non-complying firms, as shown in Table 2) is associated with a change in the expected CAR equal to $\hat{\delta}_3 \times (17 - 3.5)$. Using the estimate reported in Table 5, column E, we would have $-0.0031 \times (17 - 3.5) = -0.042$. Thus, the expected CAR (using the market model and the 0 to +1 event window) associated with non-complying would be 4.2 p.p. lower for the highest CGI firm compared to the lowest CGI firm (in the subsample of non-complying firms). Analogously, the variation in the expected CAR associated with the change in listing segment from NM to non-NM is $\hat{\delta}_3 \times (1 - 0)$. Using the estimate in Table 6, column C, we infer that non-complying is expected to yield a CAR (using the market model and the 0 to +1 event window) 2.36 p.p. lower for NM listed firms. Considering that the unconditional average CAR is close to zero, these estimates seem to be economically relevant and suggest that the outside shareholders of relatively better governed firms were negatively surprised with the non-compliance event. However, we note that these inferences hold only for the event window from day 0 to day +1. All analyses using the windows from day -2 to day +2 and from day -5 to day +10 yield much weaker and usually non-significant estimates. These

results (omitted for space reasons) suggest that the price reaction to the non-compliance event was concentrated around day 0 (as expected) and that its effect was not persistent.

8. Robustness checks

We run regressions (omitted for space reasons) with alternative operational definitions of some variables. Specifically, we replace: i) the equity stake held by the three largest shareholders (our main variable of ownership concentration) for the equity stake held by the five largest shareholders; ii) the return on assets (proxy for profitability) for the return on equity; iii) the price-to-book ratio (proxy for relative market value) for the price-to-earnings ratio; iv) the total debt over total assets (proxy for financial leverage) for the net debt over equity. In all these cases, the main results remain essentially unchanged. We also find similar results after rerunning all regressions without excluding an outlier leverage ratio with a value of 7155% for one company in financial distress and virtually no assets, but still listed.

9. Conclusion

This article analyzed the case of overt non-compliance with compensation disclosure regulations by means of a court injunction. The event resulted from new regulation passed in 2009 in Brazil, a market where ownership concentration is very high and new premium listing segments as well as other self-regulatory corporate governance initiatives have been well received by investors.

Roughly 28% of the firms in our sample comprising 214 market-traded firms chose not to comply with the disclosure regulation. We formulate and test a set of hypotheses related to the determinants of this decision and also to the market reaction around the date when it became public.

We find strong support for the hypothesis that non-compliance is more likely for firms with lower quality of corporate governance practices. Our estimates imply that a firm with a governance score equal to the minimum value in our sample is expected to be over 7 times more likely to fail to comply with the regulation than an otherwise identical firm with a governance score equal to our sample maximum. Similarly, we find that a firm that is not listed on either *Novo Mercado* or Level 2 (the two most demanding BM&FBovespa premium listing segments) is expected to be over twice as likely not to comply as an otherwise identical firm that is listed in one of these segments. This result is consistent with the extant literature. For example, Berglöf and Pajuste (2005) find a negative association between deviations from mandatory disclosure and country-level corporate governance quality, while Schiehll *et al*. (forthcoming) show that better governed Brazilian companies are more inclined to voluntarily disclose executive stock options programs.

Our results also lend support for the hypothesis that influential controlling shareholders are more inclined towards not complying. It is possible that they have personal motivations to adjourn compensation disclosure, such as avoiding security costs, potential family or tax litigations, or even creditor and corporate law litigation, which may affect their personal assets. In addition, influential controlling shareholders should find it easier to bypass corporate governance restrictions and impose their will on the firm. Finally, these individuals may be less concerned about the financial consequences of their decision either because they have greater clout over politicians, law enforcers, and state-controlled financing sources or because powerful owners could be perceived as effective overseers of managers, thus lowering the importance of disclosure to outside investors.

We find that state-owned firms are substantially less likely to become non-compliers. This result is unsurprising because top management pay in these firms has been historically capped in Brazil and because the managers of state-owned companies indirectly represent the

very entity that enacted the norm requiring compliance. Foreign-controlled companies are also less likely to rank among non-compliers, perhaps because they are used to disclose similar information in their home countries. In contrast, we find no evidence that family-controlled firms are particularly less likely to comply.

Previous research documents that larger companies tend to pay larger compensations to their senior managers and directors in many countries, including Brazil (Pinto and Leal, 2013). Consistent with the hypothesis that the willingness to disclose detailed compensation information is inversely related to the level of compensation, we find that larger firms are significantly more likely to become non-compliers. Profitability is negatively associated with the non-compliance decision in most regressions. This result is consistent with the conjectures that companies that are financially constrained and/or whose compensation packages are incompatible with their performance are more likely to become non-compliers (Bebchuk and Fried, 2003). Finally, we find no support for the hypothesis that non-compliance is less likely for firms with greater external capital dependence.

After examining the determinants of the decision not to comply we investigate the share price revisions around the day when this decision became public. As hypothesized, we find worse market reactions for firms that are perceived to have better corporate governance practices. For example, one of our estimates implies that non-complying is expected to yield a cumulative abnormal return (using the 0 to +1 event window) 2.36 p.p. lower for a firm listed in *Novo Mercado* than for an otherwise identical firm listed in a less demanding segment of the market. These results suggest that the outside shareholders of relatively better-governed firms were negatively surprised with the non-compliance event. We find much weaker support for the hypothesis that the non-compliance decision leads on average to a decrease in the market value of the announcing company since, in some regressions, we find no statistically significant difference between the average CARs of complying and of non-

complying firms around the day when their *Formulário de Referência* was filed. We note, however, that these estimates do not necessarily imply that investors cared little about this event. The reason is that even if non-compliance is perceived as a negative event by investors, any differential reaction between complying and non-complying firms may be attenuated by the fact that complying firms disclose potentially damaging information about the way managers are compensated, while non-complying firms are not exposed to such evaluation. Indeed, the expectation of an adverse market reaction may have contributed to the non-disclosure decision in the first place.

Taken together, our analysis suggests that the decision to avoid full compliance with the disclosure regulation is partly motivated by agency conflicts. Accordingly, the negative reaction of outside shareholders focused on the firms from which a different behavior was expected (that is, those perceived to have better governance). Such evidence is consistent with previous research. For example, Robinson *et al.* (2011) report that non-disclosure for US firms is related to excessive compensation. Importantly, our findings weaken the arguments related to personal security costs and justify the reactions of the investor advisors that recommended a dissenting vote in shareholders meetings of non-complying firms (Carvalho and Torres, 2011).

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TABLE 1 – Variable Definitions

The table describes the variables used in this study. The data source is Economatica, except where noted.

Concept	Variable Names and Operational Definitions
Non-compliance decision	**Non-comply** – assumes the value of "1" if the firm does not comply with the Brazilian Securities Commission (CVM – *Comissão de Valores Mobiliários*) regulation to report compensation in section 13.11 of the Reference Form; "0" otherwise. This variable was computed by the authors from the observation of the contents of section 13.11.
Firm-level corporate governance quality	**CGI** – Corporate Governance Index of practices with a set of 20 questions, based on that created by Leal and Carvalhal-da-Silva (2007); points are attributed when a good corporate governance practice is present ("1" or "0.5", depending on the question). Scores range from 0 to 20. Details in the Annex. The source is the annual scoring performed on behalf of the Brazilian Corporate Governance Institute under the supervision of Profs. André L. Carvalhal-da-Silva and Ricardo P. C. Leal. Used with permission.
	NM – is assigned "1" when the company is listed on the *Novo Mercado* segment and "0" otherwise.
	N2NM - is assigned "1" when the company is listed on the Level 2 or *Novo Mercado* segments and "0" otherwise.
Identity of the Controlling Shareholder	**Family** – "1" for companies controlled by individuals or families; "0" otherwise. Control exists when a shareholder has 50% or more of the votes. **State** – "1" for companies controlled by the state; "0" otherwise. **Foreign** – "1" for companies controlled by foreign entities such as multinationals; "0" otherwise. **Shared** – "1" for companies controlled by a pool of shareholders involving at least one individual and one company or institution (such as institutional investors) acting in concert; "0" otherwise. **Dispersed** – "1" for companies with widely held shareholding structure in which the largest shareholder holds less than 10% of voting shares; "0" otherwise.
Ownership Concentration	**3Largest** – aggregate percentage of total shares (both voting and non-voting) held by the three largest shareholders.
	5Largest – aggregate percentage of total shares (both voting and non-voting) held by the five largest shareholders.
Firm Size	**Ln of Total Assets –**Natural logarithm of the firm total assets, expressed in thousands of Brazilian Reais.
	Ln of Total Revenues – Natural logarithm of the firm operational revenues, expressed in thousands of Brazilian Reais.
Firm Age	**Age** – Natural logarithm of the number of years since company foundation.
Profitability	**ROA** – percent return on assets at the end of 2009. ROA is computed as {net income + [interest expense on debt-interest capitalized × (1 – tax rate)]} / last year's total assets
	ROE –return on equity at the end of 2009. ROE is computed as net income / last year's equity
Relative market value	**P/E** – price-earnings ratio (firm's share price divided by the most recent earnings per share) at the end of 2009.
	P/B – price-to-book ratio (firm's share price divided by the book value of its equity per share) ratio at the end of 2009.
Financial leverage	**Gross debt / total assets**– (Short term debt and current portion of long term debt + long term debt) / total assets. We do not compute this variable for banks.
Industry	Twenty industry dummy variables using the Economatica database classification.
Cumulative Abnormal Return (CAR)	Daily **abnormal returns** (**AR**) are computed alternatively as $AR_{i,t} = R_{i,t} - R_{IBOV,t}$, where $R_{i,t}$ is the stock return of firm i in day t and $R_{IBOV,t}$ is the day t return of the Ibovespa index or as $AR_{i,t} = R_{i,t} - \beta_i R_{IBOV,t}$. The coefficients β_i are estimated using 99 daily returns beginning 109 days and ending 11 days before the event day. **Cumulative abnormal returns** (**CAR**) are computed by summing ARs over three alternative event windows: from day 0 to day +1; from day -2 to day +2; and from day -5 to day +10.

TABLE 2 – Descriptive statistics

The table shows descriptive statistics according to compliance to section 13.11 of the Reference Form, the new regulation. Table 1 contains all variable definitions. "*" indicates significance at the five percent level. "N/A" means "not applicable". The t-statistics refers to the non-compliance ("1") minus the compliance ("0") sample mean differences. The $\chi 2$ statistics tests that the two samples come from populations with the same median. The t-test for "Lev" was repeated without the maximum observation (7155.05). The average "Lev" was 25.59 for the complying group, still with no significance for the difference.

Panel A: Corporate governance index, premium listing dummies, and ownership concentration

	CGI	**NM**	**N2NM**	**3Largest**	**5Largest**
Comply=No					
Mean	11.38	0.32	0.40	61.41	66.07
Median	11.50	0.00	0.00	60.70	68.28
St. Deviation	3.77	0.47	0.49	19.90	18.56
Minimum	3.50	0.00	0.00	27.01	31.57
Maximum	17.00	1.00	1.00	99.35	99.64
No. Obs.	60	60	60	60	60
Comply=Yes					
Mean	13.80	0.58	0.66	54.23	59.46
Median	14.50	1.00	1.00	53.78	62.44
St. Deviation	3.08	0.49	0.47	22.05	21.26
Minimum	4.00	0.00	0.00	4.37	4.37
Maximum	19.00	1.00	1.00	100.00	100.00
No. Obs.	154	154	154	154	154
t-statistic	*-4.41**	*-3.69**	*-3.53**	*2.29**	*2.24**
χ^2	*8.55**	*N/A*	*N/A*	*1.48*	*0.37*
Comply=Both					
Mean	13.12	0.51	0.59	56.24	61.32
Median	14.00	1.00	1.00	55.35	63.01
St. Deviation	3.45	0.50	0.49	21.67	20.71
Minimum	3.50	0.00	0.00	4.37	4.37
Maximum	19.00	1.00	1.00	100.00	100.00
No. Obs.	214	214	214	214	214

Panel B: Identity of Largest Shareholder

	Family	State	Foreign	Shared	Dispersed
Comply=No					
Mean	0.55	0.02	0.10	0.32	0.02
Median	1.00	0.00	0.00	0.00	0.00
St. Deviation	0.50	0.13	0.30	0.47	0.13
Minimum	0.00	0.00	0.00	0.00	0.00
Maximum	1.00	1.00	1.00	1.00	1.00
No. Obs.	60	60	60	60	60
Comply=Yes					
Mean	0.44	0.09	0.08	0.28	0.11
Median	0.00	0.00	0.00	0.00	0.00
St. Deviation	0.50	0.29	0.28	0.45	0.31
Minimum	0.00	0.00	0.00	0.00	0.00
Maximum	1.00	1.00	1.00	1.00	1.00
No. Obs.	154	154	154	154	154
t-statistic	*1.51*	*-2.60**	*0.35*	*0.53*	*-3.09**
χ^2	*2.29*	*3.65**	*0.13*	*0.29*	*4.92**
Comply=Both					
Mean	0.47	0.07	0.09	0.29	0.08
Median	0.00	0.00	0.00	0.00	0.00
St. Deviation	0.50	0.26	0.29	0.45	0.28
Minimum	0.00	0.00	0.00	0.00	0.00
Maximum	1.00	1.00	1.00	1.00	1.00
No. Obs.	214	214	214	214	214

Panel C: Other Variables

	LnAssets	Lev	ROA	ROE	P/E	P/B	Age
Comply=No							
Mean	14.95	27.84	0.98	20.50	15.58	3.69	42.40
Median	14.89	22.90	2.37	10.49	13.17	1.87	33.00
St. Deviation	2.27	18.05	16.41	49.92	105.10	6.26	33.84
Minimum	8.44	0.00	-97.69	-45.47	-481.77	-0.24	0.00
Maximum	20.23	61.06	51.58	300.89	577.06	29.66	113.00
No. Obs.	60	57	59	52	57	58	60
Comply=Yes							
Mean	14.65	76.51	0.30	20.87	55.89	2.70	39.15
Median	14.52	25.65	4.78	14.78	13.35	1.85	36.50
St. Deviation	1.69	602.84	62.64	59.32	427.49	9.00	31.31
Minimum	7.66	0.00	-756.79	-98.68	-155.65	-50.54	2.00
Maximum	20.38	7155.05	61.26	647.63	5103.58	85.34	202.00
No. Obs.	153	140	153	144	143	143	154
t-statistic	*0.91*	*-0.95*	*0.12*	*-0.04*	*-1.05*	*0.89*	*0.64*
χ^2	*0.92*	*0.18*	*3.97**	*0.94*	*0.02*	*0.00*	*0.05*
Comply=Both							
Mean	14.74	62.43	0.49	20.77	44.40	2.99	40.06
Median	14.63	25.56	4.01	14.30	13.32	1.85	36.00
St. Deviation	1.87	508.24	53.86	56.85	365.85	8.30	31.99
Minimum	7.66	0.00	-756.79	-98.68	-481.77	-50.54	0.00
Maximum	20.38	7155.05	61.26	647.63	51003.58	85.34	202.00
No. Obs.	213	197	212	196	200	201	214

TABLE 3 – Correlations between selected variables

The table displays Pearson correlation coefficients. Table 1 contains all variable definitions. "*" indicates significance at the five percent level.

	Comply	CGI	NM	Family	State	Foreign	Shared
CGI	0.3144*	–	–	–	–	–	–
NM	0.2406*	0.7378*	–	–	–	–	–
Family	-0.1035	-0.2226*	-0.1299*	–	–	–	–
State	0.1306*	0.0091	-0.1699*	-0.2571*	–	–	–
Foreign	-0.0246	-0.1395*	-0.1866*	-0.2924*	-0.0857	–	–
Shared	-0.0371	0.1483*	0.1941*	-0.5982*	-0.1753*	-0.1994*	–
Dispersed	0.1517*	0.2924*	0.2638*	-0.2838*	-0.0832	-0.0946	-0.1935*

	Comply	LnAssets	Lev	ROA	ROE	P/E
LnAssets	-0.0710	–	–	–	–	–
Lev	-0.0505	0.0277	–	–	–	–
ROA	-0.0057	0.2894*	-0.9717*	–	–	–
ROE	0.0029	-0.0629	-0.1732*	0.5425*	–	–
P/E	0.0499	0.0722	-0.0130	0.0046	-0.0275	–
P/B	-0.0543	-0.0222	-0.0293	0.0942	0.8944*	0.0359

TABLE 4 – Determinants of the non-compliance decision

Probit regressions to test the corporate attributes associated with the decision not to comply with CVM (Brazilian Securities Commission) Instruction 480 by disclosing the maximum, average and minimum individual compensation paid to the board of directors and the management team as a body in section 13.11 of the Reference Form (Brazil's official annual filing). The dependent variable is "Non-comply", the dummy indicating non-compliance ("1") or compliance ("0") with the new regulation. Table 1 contains the definitions of all variables. Heteroskedasticity-robust *z*-statistics are in parentheses. ***, ** and * denote significance at the 1, 5, and 10% levels, respectively.

	(A)	(B)	(C)	(D)	(E)
	Dependent Variable: Non-compliance with section 13.11 of Reference Form				
CGI	-0.1673***			-0.1863***	
	(-4.1075)			(-4.7872)	
NM		-0.6256**			
		(-2.2347)			
N2NM			-0.9876***		-0.9247***
			(-3.4059)		(-3.4835)
3Largest	0.0252***	0.0226***	0.0227***	0.0192***	0.0148**
	(3.6327)	(3.4021)	(3.3100)	(3.2149)	(2.5740)
Family	0.0198	-0.0594	-0.0222	0.1068	0.0776
	(0.0672)	(-0.2031)	(-0.0745)	(0.3752)	(0.2833)
State	-1.4436*	-1.5163**	-1.8175**	-1.2776*	-1.5908**
	(-1.8911)	(-2.1655)	(-2.4939)	(-1.8385)	(-2.4622)
Foreign	-1.0966**	-0.9276*	-1.1165**	-0.9025*	-0.7345
	(-2.0259)	(-1.8541)	(-2.1979)	(-1.8438)	(-1.4880)
Dispersed	-0.2829	-0.5852	-0.4994	-0.3459	-0.7055
	(-0.3879)	(-0.8899)	(-0.7531)	(-0.5373)	(-1.1655)
Shared	*dropped*	*dropped*	*dropped*	*dropped*	*dropped*
Ln of Total Assets	0.2637***	0.1868**	0.1978**	0.2493***	0.1796**
	(2.8210)	(2.0857)	(2.2362)	(3.0232)	(2.1528)
Age	0.0050	0.0069	0.0056	0.0012	0.0022
	(0.8704)	(1.3323)	(1.0230)	(0.2375)	(0.4402)
Gross debt / total assets	0.0005	0.0012	0.0009		
	(0.0616)	(0.1653)	(0.1216)		
ROA	-0.0320***	-0.0362***	-0.0347***	0.0012	0.0002
	(-2.8793)	(-3.0529)	(-2.9012)	(0.8061)	(0.1129)
P/B	0.0129	0.0109	0.0094	0.0050	-0.0014
	(1.0976)	(0.9637)	(0.8582)	(0.4843)	(-0.1371)
Industry dummies	YES	YES	YES	YES	YES
Constant	-3.3762**	-3.9874***	-3.8992***	-2.6625**	-3.2951**
	(-2.3193)	(-2.8276)	(-2.8219)	(-2.0347)	(-2.4645)
Number of observations	176	176	176	197	197
Pseudo R-squared	0.322	0.268	0.291	0.293	0.241
Chi2	61.10	52.54	54.24	70.28	51.10
Chi2 (p-value)	< 0.001	0.00332	0.00209	< 0.001	0.00486

TABLE 5 – Market reaction to the non-complying decision and the CGI

Table 5 shows the results of OLS regressions examining the market reaction associated with the decision not to comply with CVM (Brazilian Securities Commission) Instruction 480 by disclosing the maximum, average and minimum individual compensation paid to the board of directors and the management team as a body in section 13.11 of the Reference Form (Brazil's official annual filing). The dependent variable is the cumulative abnormal return (CAR) using the event window from day 0 (event date) to day +1. CARs are computed using the market excess method and the market model method. Table 1 contains the definitions of all variables. Heteroskedasticity-robust *t*-statistics are in parentheses. ***, ** and * denote significance at the 1, 5, and 10% levels, respectively.

	(A) CAR (0 +1) Market Excess	(B) CAR (0 +1) Market Model	(C) CAR (0 +1) Market Excess	(D) CAR (0 +1) Market Model	(E) CAR (0 +1) Market Excess	(F) CAR (0 +1) Market Model
Non-comply	-0.0008	-0.0049	0.0389**	0.0232	0.0637**	0.0331
	(-0.1702)	(-1.1953)	(2.0506)	(1.4342)	(2.4343)	(1.5864)
CGI			0.0014**	0.0003	0.0023**	0.0007
			(1.9813)	(0.9780)	(2.2881)	(1.1426)
Non-comply × CGI			-0.0032**	-0.0024*	-0.0031**	-0.0021*
			(-2.1199)	(-1.8373)	(-2.0102)	(-1.7463)
3Largest					0.0000	-0.0000
					(0.2054)	(-0.6199)
Non-comply × 3Largest					-0.0003	-0.0002
					(-1.1062)	(-0.7531)
Family					-0.0082	-0.0005
					(-0.8363)	(-0.0773)
State	*dropped*	*dropped*	*dropped*	*dropped*	*dropped*	*dropped*
Foreign					-0.0045	-0.0083
					(-0.4248)	(-1.3117)
Dispersed					-0.0184	-0.0086
					(-1.6011)	(-1.3289)
Shared					-0.0107	-0.0068
					(-1.0809)	(-1.0981)
Ln of Total Assets					-0.0047***	-0.0027*
					(-2.6137)	(-1.8383)
Age					0.0000	-0.0001
					(0.0829)	(-1.0302)
Gross debt / total assets					0.0000	0.0000
					(0.1809)	(1.0429)
ROA					0.0001	0.0002
					(0.3836)	(1.0638)
P/B					-0.0003	-0.0002
					(-1.1650)	(-1.0268)
Industry dummies	NO	NO	NO	NO	YES	YES
Constant	-0.0009	0.0014	-0.0197**	-0.0032	0.0316	0.0422*
	(-0.3929)	(1.1855)	(-2.1199)	(-0.6513)	(0.9729)	(1.6681)
Number of observations	202	202	202	202	178	178
R-squared	0.0002	0.0127	0.0296	0.0532	0.2175	0.2619
F	0.0290	1.429	1.934	1.948	4.284	3.151
F (p-value)	0.87	0.23	0.13	0.12	< 0.001	< 0.001

TABLE 6 – Market reaction to the non-complying decision and the premium listing segments of BMFBovespa

Table 6 shows the results of OLS regressions examining the market reaction associated with the decision not to comply with CVM (Brazilian Securities Commission) Instruction 480 by disclosing the maximum, average and minimum individual compensation paid to the board of directors and the management team as a body in section 13.11 of the Reference Form (Brazil's official annual filing). The dependent variable is the cumulative abnormal return (CAR) using the event window from day 0 (event date) to day +1. CARs are computed using the market excess method and the market model method. Table 1 contains the definitions of all variables. Heteroskedasticity-robust *t*-statistics are in parentheses. ***, ** and * denote significance at the 1, 5, and 10% levels, respectively.

	(A) CAR (0 +1) Market Excess	(B) CAR (0 +1) Market Model	(C) CAR (0 +1) Market Excess	(D) CAR (0 +1) Market Model	(E) CAR (0 +1) Market Excess	(F) CAR (0 +1) Market Model
Non-comply	0.0056	0.0017	0.0358*	0.0166	0.0296	0.0086
	(0.9631)	(0.3474)	(1.9598)	(1.1425)	(1.6039)	(0.5728)
NM – Novo Mercado	0.0007	0.0018	0.0051	0.0026		
	(0.1474)	(0.7765)	(0.8198)	(0.7331)		
Non-comply × NM	-0.0187*	-0.0187**	-0.0236*	-0.0179*		
	(-1.8728)	(-2.2002)	(-1.8432)	(-1.8155)		
N2NM – Level 2/Novo Mercado					0.0073	0.0029
					(1.1214)	(0.8063)
Non-comply × N2NM					-0.0123	-0.0042
					(-1.1023)	(-0.4982)
3Largest			0.0000	-0.0001	0.0000	-0.0001
			(0.1306)	(-0.6991)	(0.1469)	(-0.6927)
Non-comply × 3Largest			-0.0004	-0.0002	-0.0003	-0.0001
			(-1.2768)	(-0.9034)	(-1.0566)	(-0.6081)
Family			-0.0106	-0.0016	-0.0108	-0.0010
			(-1.0128)	(-0.2620)	(-1.0468)	(-0.1566)
State	*dropped*	*dropped*	*dropped*	*dropped*	*dropped*	*dropped*
Foreign			-0.0060	-0.0086	-0.0056	-0.0077
			(-0.5399)	(-1.3484)	(-0.5146)	(-1.2089)
Dispersed			-0.0156	-0.0086	-0.0163	-0.0083
			(-1.2800)	(-1.3341)	(-1.3448)	(-1.2523)
Shared			-0.0104	-0.0068	-0.0115	-0.0072
			(-1.0073)	(-1.1082)	(-1.1209)	(-1.1831)
Ln of Total Assets			-0.0045***	-0.0030**	-0.0045**	-0.0030*
			(-2.6363)	(-1.9918)	(-2.5916)	(-1.9272)
Age			-0.0000	-0.0001	-0.0000	-0.0000
			(-0.4993)	(-1.2899)	(-0.0604)	(-0.7064)
Gross debt / total assets			0.0000	0.0000	0.0000	0.0000
			(0.1528)	(0.9840)	(0.0977)	(0.8326)
ROA			0.0001	0.0002	0.0001	0.0002
			(0.4140)	(1.0412)	(0.3518)	(0.8912)
P/B			-0.0003	-0.0002	-0.0003	-0.0002
			(-1.1462)	(-1.0616)	(-1.1624)	(-1.0410)
Industry dummies	NO	NO	YES	YES	YES	YES
Constant	-0.0013	0.0004	0.0665**	0.0563**	0.0605*	0.0514**
	(-0.4129)	(0.2164)	(2.1391)	(2.2387)	(1.9756)	(2.0516)
Number of observations	202	202	178	178	178	178
R-squared	0.0236	0.0591	0.2065	0.2699	0.1921	0.2424
F	1.380	2.083	4.366	3.139	4.510	2.987
F (p-value)	0.25	0.11	< 0.001	< 0.001	< 0.001	< 0.001

Annex: Questionnaire, answering procedure and scoring criteria

Question	Answering procedure and scoring criteria
1. Does any company public document includes information about policies and established mechanisms to handle conflict of interest situations and/or related party transactions?	Verify the FR, code of ethics or conduct, and corporate charter. The score is: 0 if the company does not disclose this information; 0.5 if the company discloses something about this information; 1 if the company discloses substantial information.
2. Does the company disclose compensation information for senior management and board members, separating the amounts paid to management and board, and the variable and fixed proportions?	Verify item 13 of FR. The score is: 0 if the company does not separate board and management and fixed and variable compensation; 0.5 if it separates board and management or fixed or variable; 1 if it separates board and management and fixed and variable.
3. Did the company present any opinion in the independent auditor report in the last five years that was not unqualified?	Verify explanatory notes in the financial statements. The score is: 0 if answer is no; 1 if answer is yes.
4. Does the company website have an investors relations section containing its Annual Report?	The document must be clearly identified as the Annual Report from the previous year, must be in the Investors Relations area, and cannot be the Management Report, required by CVM. The score is: 0 if answer is no; 1 if answer is yes.
5. Does the company website contain the presentations made to securities analysts?	Presentations must refer, at least, to the last quarter of the previous year or previous year. The score is: 0 if answer is no; 1 if answer is yes.
6. Does the Annual Report includes a specific section dedicated to the implementation of corporate governance principles?	Verify the Annual Report and website. The information must be substantial and not simply descriptive of board membership and ownership structure. The score is: 0 if answer is no; 1 if answer is yes.
7. Are the Board of Directors Chair and the CEO different persons?	Verify the FR. The score is: 0 if answer is no; 1 if answer is yes.
8. Does the company have board committees reported in public information such as the Corporate Charter, Annual Report, website, FR?	Financial institutions must have an audit committee to comply with Central Bank regulation and those do not count for a positive score. The score is: 0 if answer is no; 1 if answer is yes.
9. Is the board only made up of outside directors, with the exception of the CEO?	Verify the FR. The score is: 0 if there are other managers in addition to the CEO; 1 otherwise.
10. Is the board size between 5 and 9 members, as	Verify the FR. The score is: 0 if answer is no; 1

recommended by the IBGC Code of Best Practices?	if answer is yes.
11. Do board members serve consecutive one or two-year terms, as recommended by the IBGC Code of Best Practices?	Verify the FR. The score is: 0 if answer is no; 1 if answer is yes.
12. Is the percentage of non-voting shares in total capital less than 20%?	Verify the FR. The score is: 0 if answer is no; 1 if answer is yes.
13. Is the percentage of voting shares of the controlling block equal or less than its percentage of all kinds of shares altogether?	Verify the company charter and shareholders agreement. The score is: 0 if answer is no; 1 if answer is yes.
14. Are loans to the controlling shareholder or other related parties prohibited in the company charter or shareholders agreement?	Verify the FR. The score is: 0 if answer is no; 1 if answer is yes.
15. Does the corporate charter facilitate shareholder participation in general meetings by not requiring the previous remittance of documentation proving the shareholder status and adopting the principle of good faith?	Verify the company charter. The score is: 0 if the company requires both the previous remittance of documentation proving the shareholder status and does not adopt the principle of good faith; 0.5 if it either requires the previous remittance of documentation proving the shareholder status or does not adopt the principle of good faith; 1 if answer is yes.
16. At least one of the affirmatives below is true: a) the company concedes one vote to each share, of any kind b) the company concedes the right to vote to non-voting shares in greater impact decisions	Verify the company charter. The score is: 0 if non-voting shares never vote; 0.5 the company concedes the right to vote to non-voting shares in greater impact decisions or if the company has only voting shares but presents voting limits per shareholder or golden shares; 1 if it abides to the one share, one vote, principle.
17. Does the company grant mandatory bid rights besides what is legally required?	The score is: 0 if no rights besides the legal rights are granted; 0.5 the company extend extra mandatory bid rights to either voting or non-voting shares, but not both; 1 the company extend extra mandatory bid rights to both voting and non-voting shares, if any.
18. Is the company control direct?	The score is: 1 if the direct controlling shareholder is an individual, institutional investor, foreign entity, the state, or a fully owned holding company of one of the previous owner types; 0 otherwise.
19. Do shareholders agreements abstain from directing or constraining the right to vote of any board member,	Verify FR and shareholders agreements. The score is 0 if the answer is no; 1 if answer is yes.

or from appointing any senior manager?	
20. Is the free-float equal or larger than 25%, as required by the premium listing segments of BM&FBovespa?	Verify the FR. The score is: 0 if answer is no; 1 if answer is yes.

Endnotes:

[1] Brazil's murder rate is 21 per 100 000 people, lower than those of Colombia, Venezuela, Mexico, and South Africa, among the larger emerging economies, but higher than other large emerging and developed markets, such as the US, where the rate is 4.8, according to the Wikipedia website information extracted from the latest United Nations Office on Drugs and Crime (UNODC) statistics (http://en.wikipedia.org/wiki/List_of_countries_by_intentional_homicide_rate, retrieved on 11 February 2013).

[2] *Medida Cautelar* n. 17350-RJ (2010/0168534-8) is the injunction relief, in legal suit n. 2010.5101002888-5 filed at the *5ª Vara Federal do Rio de Janeiro, RJ*, the 5th Federal Court of the state of Rio de Janeiro.

[3] Controlling shareholders are liable for minority shareholders losses that stem from several types of acts, such as corporate restructuring events and related party transactions, among others, that result in gains to controlling shareholders in detriment of other shareholders, according to article 117 of Law 6404 of 1976, the corporate law.

[4] Labor, tax, and family court judges are notorious for using the on-line seizure of the personal bank accounts of the administrators of companies, a behavior that is deemed abusive by many law professionals, as well as the seizure of assets and properties. Thus, business owners, given the constant risk of exposure to labor courts, for instance, have incentives to place some of their assets in friendly hands or disguise their ownership of businesses, by making other people legally responsible for them. The deadly fire of the Kiss nightclub in southern Brazil, that killed 241 young people, gained the world news in 2013. Police investigation revealed that the legal owners of the nightclub were actually the sister and mother of one of its de facto owners. See, for example, http://jus.com.br/revista/texto/6428/os-principios-constitucionais-a-luz-da-celeridade-processual-e-a-penhora-on-line, regarding abuses of the on-line asset seizure by judges.

[5] There is an important caveat peculiar to Brazil that should be noted. The National Economic and Social Development Bank (BNDES) is a large institution and the main source of long-term debt financing in the country, with disbursements of the order of US$ 78 billion in 2012, placing it among the most important world development institutions when compared to the total World Bank Group gross disbursements of US$ 24 billion in 2012 (The World Bank Group, 2012, p. 20).

[6] This results from an interpretation of article 37 of the Constitution of Brazil. However, the pay cap for state-owned company managers is been currently challenged in court. For more details on this issue, please see http://www.conjur.com.br/2012-nov-16/sociedades-economia-mista-nao-submetem-teto-remuneratorio.

[7] (IBGC - Instituto Brasileiro de Governança Corporativa, 2012) surveys remuneration in Brazilian listed companies and reports a median total annual compensation of BRL 465,174 (about USD 232,600) for senior executives in state-owned companies, contrasting with a median of BRL 1,191,131 in family-controlled firms and BRL 2,971,000 in widely-held companies. The survey recounts a median total annual compensation of BRL 74,063 for directors of state-owned companies, compared to medians of BRL 144,000 and BRL 157,115 in family-controlled and widely held companies, respectively. Pinto and Leal (2013) report similar results. The survey (in Portuguese) is available for download at the IBGC website at http://www.ibgc.org.br/Pesquisas.aspx.

[8] The liquidity index is computed as $100 \times (p/P) \times [(n/N) \times (v/V)]^{0,5}$ by the Economatica® database, where, for a certain period and specific company, p is the number of days with at least one trade in the stock, P is the total number of days, n is the number of trades in the stock, N is the total number of trades in the market, v is volume traded in the stock, and V is total volume traded in the market.

[9] The interested reader may obtain more details about the requirements of each level at the BM&FBovespa website (http://www.bmfbovespa.com.br) or in the articles by Carvalho and Pennacchi (2012), Braga-Alves and Shastri (2011), Leal (2010), Silveira and Saito (2009), and Chavez and Silva (2009).

[10] We draw these inferences by estimating the Average Partial Effect (APE) after the Probit estimation. The first step to estimate the APE is to compute the probability of non-compliance for each firm in our sample after fixing the variable of interest at some specific value (for example, CGI score = 19) while all other variables take their original value in the sample. Then, we compute the sample average of these estimated probabilities. Next, we repeat the procedure fixing the variable of interest at another specific value (for example, CGI score = 3.5). The difference between the two resulting averages (the APE) is an estimate of the effect of changing the variable of interest (for example, the CGI score from 19 to 3.5) while holding constant all other variables. For details, see Wooldridge (2010, p. 577). The other APEs reported in the paper were computed analogously.

[11] The Ibovespa is the most widely followed Brazilian market index. It is computed from a portfolio of the most liquid stocks and the number of stocks in the index varies, depending on the liquidity cut-off for the rebalancing made every four months. In December of 2011 there were 68 stocks in the index. It usually represents about 80% of the trading volume and 70% of the market capitalization at the Exchange.

[12] Adding other interactions with NonComply as controls does not materially change the coefficients of interest but in some cases introduces a multicollinearity problem, substantially inflating the standard errors.