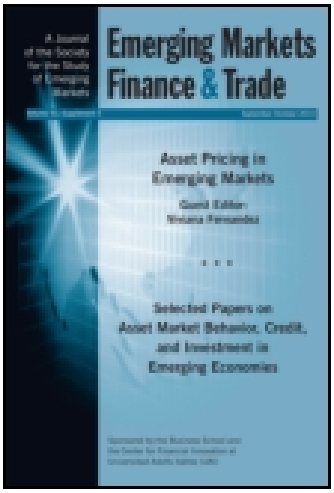

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Facing the Regulators: Noncompliance With Detailed Mandatory Compensation Disclosure in Brazil

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Facing the Regulators: Noncompliance With Detailed Mandatory Compensation Disclosure in Brazil

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ABSTRACT: A preliminary court injunction based on alleged personal security risks gave Brazilian public companies the option of noncompliance with new executive and director compensation disclosure rules. We find that noncompliance is possibly motivated by agency conflicts and not by crime rates in the state where the company is headquartered. Noncompliers tend to present lower corporate governance (CG) quality, higher ownership concentration, larger total assets, and less profitability. State- and foreign-owned companies are significantly less likely noncompliers. Shareholders correctly anticipated that lower CG quality firms were more likely noncompliers but may have been negatively surprised when some higher CG quality firms did not comply.

KEY WORDS: Brazil, compensation disclosure, compliance, corporate governance, ownership structure

The corporate governance (CG) literature usually assesses firm-level and country-level determinants of voluntary compliance with recommended practices (Berglöf and Pajuste 2005; Chhaochharia and Laeven 2009; MacNeil and Li 2006; Nowak et al. 2006). Regulatory demands, however, are of a mandatory nature, and one usually expects all firms to comply.

A regulation that was introduced in Brazil in 2009 and became effective in 2010 requires public firms to provide more details about the compensation of senior management and the board of directors (BOD). Companies must report the maximum, minimum, and average individual compensation of both senior managers and directors, in addition to many other requirements. The new regulation does not require the reporting of compensation on an individual and identified basis.

Corporate representatives voiced their concerns about the new regulation using their personal safety as pretext, claiming that Brazilian crime rates are high and disclosing the maximum individual compensation among directors and senior managers was akin to revealing the compensation of the BOD chair and chief executive officer (CEO). 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 maximum compensation disclosure.[1] Regulators tried to overturn it, but a higher court upheld the lower court injunction. Companies may have this noncompliance option for many years given the Brazilian judiciary slowness (Gilson et al. 2010).

The decision to resort to an overt legal right of noncompliance with disclosure regulations constitutes an interesting case because it offers an opportunity to investigate a situation of explicit and full noncompliance with CG law that is backed by courts, instead of defective or partial

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compliance with voluntary CG recommendations, as well as the nature of noncomplying companies. Companies that decide not to comply may have similarities regarding their adherence to CG practices, ownership concentration, controlling shareholder type, and financial performance, for example. By contrast, if the noncompliance decision is not associated with any of these characteristics, then the alleged personal safety of the highest-paid individuals may be the actual reason.

We find that the likelihood of noncompliance is unrelated to crime rates within the state where the firm is headquartered. Noncomplying firms score significantly lower in CG practices and are less frequently listed in the two most demanding premium-listing segments of the Brazilian exchange. Ownership is substantially more concentrated, and there are significantly fewer foreign- and state-owned companies among noncomplying firms. Larger companies with higher aggregate compensation offered to senior managers and directors and those exhibiting lower profitability are also less likely to comply with the new regulation.

This peculiar Brazilian situation also offers an opportunity to check 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 confirmation of the preliminary injunction by a higher court, which effectively granted firms the option not to comply with the disclosure regulation, suggests that shareholders correctly anticipated that firms with better CG practices were less likely to use the injunction. The results from a second event study, around the date reports are filed, are weaker but consistent with the idea that the market effect is worse for companies with better CG standards that may have surprised their outside shareholders negatively by deciding not to comply with a regulation aligned with good CG 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 weakening the arguments based on the security threat posed by the disclosure of detailed compensation information as well as to justifying the negative reactions of shareholders and investor advisors when companies opt to be opaque about the compensation of their managers.

Literature Review and Brazilian Case Background

Corporate governance and transparency practices and the enforcement of rules tend to vary at the firm and country levels. Robinson et al. (2011) investigate partial noncompliance with new 2006 U.S. Securities and Exchange Commission (SEC) compensation disclosure regulations. They argue that all 336 companies in an SEC-selected random sample disclosed with defects varying in gravity and kind. The authors indicate that these firms corrected the problems after some time, but those in another random sample they compiled did not. This suggests that noncompliance was a choice rather than a mistake. The authors also find that nondisclosure is related to excessive compensation and previous negative media attention about it.

Berglöf and Pajuste (2005) build a measure of the deviation between what firms report and what regulators require. They conclude that country-level measures convey that disclosure relates positively and significantly with a "rule-of-law" measure while firm-level financial variables do not explain deviations from mandatory disclosure. Berglöf and Pajuste (2005) show that the average firm in six out of ten Central and Eastern European countries disclosed less than what was legally required in 2003 and argue that large controlling shareholders may influence lawmaking and regulators through their political connections, weakening enforcement.

Brazilian listed companies historically did not provide any details about the composition of the compensation of their top management because Article 152 of the Brazilian corporate law (Law 6404 of 1976) solely required companies to disclose the sum of the total maximum annual pay to top management and the BOD authorized in the annual shareholders meeting. Instruction CVM 480 of December 7, 2009, introduced drastic changes in disclosure that became mandatory from January 1, 2010. It required 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. Section 13 contains sixteen 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 for the BOD and senior management, which is the item under legal dispute. Instruction CVM 480, however, did not require individual compensation disclosure.

The new pay disclosure rules prompted vigorous reactions from the Brazilian corporate establishment. The main argument 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 made them targets for criminals, especially kidnappers. These arguments, however, seem weak. The marginal effect that new information on compensation would have on their personal safety is probably negligible because they already display obvious and explicit signs of wealth in a country with large income inequality. The Brazilian press usually discloses pay to celebrities with no evidence of greater occurrence of kidnappings among them. Finally, crime, and kidnappings in particular, has diminished substantially in Brazil since the 1990s. The state of São Paulo, the richest state in the country and headquarters of many listed companies, experienced a decline of 83.1 percent in the number of kidnappings from 2002 through 2008.

About one-quarter of Brazilian public listed companies refused to comply by resorting to the preliminary court injunction secured by IBEF, which certainly has members in most listed companies. The preliminary injunction enabled companies where IBEF members work to adjourn detailed compensation disclosure until a final court decision is reached, which may take many years. In the meantime, companies cite the preliminary injunction instead of providing details about their pay practices in item 13.11 of the FR.

Costa et al. (2012) is a closely related article that relates direct disclosure costs, represented by personal security risk, with disclosure decisions in Brazil. They conclude that local crime and CEO compensation levels are associated with the decision of noncompliance with the compensation disclosure demanded by the new CVM regulation. They also claim that noncompliant firms present greater market risk, represented by their larger bid-ask spread, as well as a decline in market trading liquidity.

We identified a clear outlier after carefully analyzing the database used by Costa et al. (2012). Minas Gerais is the second-most-populous state of Brazil and reported much lower robbery rates than other states. In fact, the significance of the coefficients for car theft and total robbery rates was entirely due to the inclusion of this outlier state in our reproduction of their analysis. We researched this puzzling issue further and found new security data for Minas Gerais state in the 2011 and 2012 editions of the Brazilian Yearbook of Public Safety. The crime rates previously attributed to Minas Gerais in 2009 were wrong and underestimated by a factor of fifteen according to this official Brazilian government publication. We use the new and more accurate data from 2012 and observe no statistical association between any of the local crime rate variables and the noncompliance decision, as will be discussed in our results section.

The highest earners in corporations may be reluctant to publicize how much they make for a number of additional reasons. Even if safety is possibly not the main concern, the risk of legal litigation, such as in labor, family, tax, creditor, and corporate legal disputes, may affect individuals that control corporations because they may be personally liable. The press occasionally reports that personally liable senior corporate managers may transfer personal assets to family and associates. The disclosure of their compensation possibly does not provide entirely new information, but offers a more reliable number about what was only inaccurately estimated, particularly regarding variable compensation, supplying legal opponents with better ammunition.

Brazil is a concentrated-ownership country. The controlling shareholders of the largest Brazilian companies can be powerful beyond the scope of their businesses. They may be politically connected and may 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. However,

it is a common practice to demand the personal pledge of controlling shareholders in relevant corporate financing.

Pinto and Leal (2013) argue that family-controlled companies pay more to their CEO and BOD when dominant shareholders or their relatives are directors in a 2010 sample of 315 firms. Schiehll et al. (2013) analyze the determinants of voluntary executive stock options disclosure in a sample of sixty-eight 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 are audited by one of the big-four auditors disclose more.

Hypothesis, Sample, and Method

Hypothesis

It is reasonable to expect that the quality of CG practices is associated with a greater propensity to disclose new mandatory information without resorting to legal stratagems. Schiehll et al. (2013) suggest that Brazilian firms that are more likely to voluntarily disclose executive stock options programs may have better CG practices because they tend to use compensation committees and big-four auditors, for example. Thus, our hypothesis is as follows:

Hypothesis 1: Noncompliance is more likely for firms with lower quality of CG practices, represented by a score of CG practices (CGI) or by listing in one of the two most demanding listing levels of BM&FBovespa, the Brazilian Securities, Merchandise, and Futures Exchange.

Sample and Definitions of Variables

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 percent of the total volume traded on the exchange. The liquidity index is computed by the Economatica database. The help section of the database or the authors may provide more details to the interested reader.

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 is equal to one if the firm does not comply with section 13.11 of the FR, which requires information about the maximum compensation to senior management and BOD members, and zero otherwise.

The Appendix presents our set of explanatory variables. The CG Index (CGI) is our main explanatory variable and consists of a twenty-question score that represents the firm-level quality of CG practices of listed Brazilian companies based on the score originally developed in Leal and Carvalhal-da-Silva (2007). The answers are obtained from publicly available information. An affirmative answer denotes the voluntary adoption of a good CG practice and corresponds to one point; negative answers get zero points. Some questions admit an intermediate score of 0.5. The questionnaire, together with the scoring criteria, is available upon request and reflects the adoption of CG 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 reflects firm-level CG adjusted for country-level CG requirements in a multicountry sample.

An alternative operational definition for the firm-level CG quality is a dummy for listing in one of the BM&FBovespa premium listing segments (NM and N2NM). 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 voluntarily contract with BM&FBovespa and commit to meeting its requirements. The premium-listing levels do not have requirements regarding the disclosure of senior management and BOD compensation. Companies listed therein may decide not to comply with the new compensation disclosure regulation and still fulfill their premium-listing commitments. The

interested reader may obtain more details about the requirements of each listing level at the BM&FBovespa website (http://www.bmfbovespa.com.br).

Berglöf and Pajuste (2005) conjecture that greater ownership concentration leads to lower disclosure because powerful owners could be perceived as effective overseers of managers. We employ the sum of the percentage holdings of voting and nonvoting shares of the three largest shareholders to represent ownership concentration. The Brazilian evidence from Pinto and Leal (2013) and Schiehll et al. (2013) suggests that the identity of the dominant shareholder matters too. The set of ownership variables presented in the Appendix contains dummy variables to indicate whether the controlling shareholder is family, state, or foreign. Control is attained when a shareholder owns 50 percent or more of the votes. Brazilian law does not allow multiple-votes shares. We also classify control as "shared control" (when a pool of shareholders act in concert to exercise control) and "dispersed" (when no shareholder owns more than 10 percent of voting shares). Ownership information and the identity of the main shareholders were hand-collected from the FR.

Berglöf and Pajuste (2005) hypothesize that financially constrained firms disclose less because bad news may worry markets and disclosure costs money. 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, but Pinto and Leal (2013) assert that the average compensation increases with company size in Brazil. Thus, it is possible that larger firms are less inclined to comply because of their potentially large agency costs associated with the free cash flow problem. Berglöf and Pajuste (2005) argue that external capital dependence may lead companies to greater disclosure and better CG practices. They represent external capital dependence through a number of variables, such as leverage, previous performance, and the market-to-book ratio. Thus, our set of control variables also includes proxies for company size, age, profitability, relative market-value ratios, and leverage. This data come from the Economatica database.

Descriptive Statistics

Table 1 shows descriptive statistics for our sample according to compliance with the new regulation. It depicts the CGI, dummies for listing on BM&FBovespa premium segments, and ownership concentration measures. Noncomplying firms display significantly lower CGI scores. Nonetheless, 40 percent of the noncomplying firms belong to the two most demanding premium-listing segments of the exchange while 32 percent are listed in *Novo Mercado*, the most demanding premium segment. The ownership structure is significantly more concentrated among noncomplying firms. The last five columns in Table 1 show that individuals or families own most firms in the sample (47 percent) and an even larger proportion of noncomplying firms (55 percent). The difference between the proportions for complying and noncomplying firms, however, is not statistically significant. State-owned and widely held firms are significantly fewer among noncomplying firms. Overall, Table 1 suggests that noncomplying firms score lower in CG practices and display greater ownership concentration.

Statistics for the general financial characteristics, industry, and correlations among variables are not presented for the sake of brevity but are available upon request. Except for a greater median return on assets (ROA) for complying firms, there are no significant differences between complying and noncomplying firms regarding some of the selected general characteristics of the sample (age, leverage, size, price-to-earnings [P/E] ratio, and price-to-book [P/B] ratio).

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 was 4.01 percent. We did not include the debt ratios for the seventeen banks in the sample. Thus, we exclude banks when we estimate models with the leverage proxy. The median firm was thirty-six years old, but the sample comprises both newly created firms and centenary firms such as the 202-year-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 P/B ratio.

Table 1. Descriptive statistics

	CGI	NM	N2NM	3Largest	Family	State	Foreign	Shared	Dispersed
Comply = No (60 observations)									
Mean	11.38	0.32	0.40	61.41	0.55	0.02	0.10	0.32	0.02
Median	11.50	0.00	0.00	60.70	1.00	0.00	0.00	0.00	0.00
Standard deviation	3.77	0.47	0.49	19.90	0.50	0.13	0.30	0.47	0.13
Minimum	3.50	0.00	0.00	27.01	0.00	0.00	0.00	0.00	0.00
Maximum	17.00	1.00	1.00	99.35	1.00	1.00	1.00	1.00	1.00
Comply = Yes (154 observations)									
Mean	13.80	0.58	0.66	54.23	0.44	0.09	0.08	0.28	0.11
Median	14.50	1.00	1.00	53.78	0.00	0.00	0.00	0.00	0.00
Standard deviation	3.08	0.49	0.47	22.05	0.50	0.29	0.28	0.45	0.31
Minimum	4.00	0.00	0.00	4.37	0.00	0.00	0.00	0.00	0.00
Maximum	19.00	1.00	1.00	100.00	1.00	1.00	1.00	1.00	1.00
t-statistic	*–4.41**	*–3.69**	*–3.53**	*2.29**	*1.51*	*–2.60**	*0.35*	*0.53*	*–3.09**
χ^2	*8.55**	*N/A*	*N/A*	*1.48*	*2.29*	*3.65**	*0.13*	*0.29*	*4.92**
Comply = Both (214 observations)									
Mean	13.12	0.51	0.59	56.24	0.47	0.07	0.09	0.29	0.08
Median	14.00	1.00	1.00	55.35	0.00	0.00	0.00	0.00	0.00
Standard deviation	3.45	0.50	0.49	21.67	0.50	0.26	0.29	0.45	0.28
Minimum	3.50	0.00	0.00	4.37	0.00	0.00	0.00	0.00	0.00
Maximum	19.00	1.00	1.00	100.00	1.00	1.00	1.00	1.00	1.00

Notes: The table shows descriptive statistics of selected corporate governance and ownership variables according to compliance to section 13.11 of the Reference Form (Brazil's official annual filing), the new regulation. The Appendix contains all variable definitions. N/A = not applicable. The *t*-statistic refers to the noncompliance (1) minus the compliance (0) sample mean differences. The χ^2 statistic tests that the two samples come from populations with the same median. *Significance at the 5 percent level.

We employed the Economatica database industry classification composed of twenty categories. No industry contains more than 10 percent of the firms in the sample, with the exception of the "other" classification. 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 confirms the significant association between the compliance with regulation dummy and the CGI score, *Novo Mercado* dummy, and state control. Firms with higher CGI scores tend to be listed in *Novo Mercado*, as these variables are proxies for the same concept. Among the remaining variables, some usual relationships emerge, such as greater leverage and ROA for larger firms.

Determinants of the Noncompliance Decision

We model the decision not to comply with section 13.11 of Instruction 480 as a function of firm-level CG scores controlling for ownership concentration, controlling shareholder identity, and firm characteristics such as size, age, financial leverage, profitability, relative market value, and industry affiliation. Proxies for these potential determinants are included in the vector $\mathbf{X_i}$ in Equation 1, where $NonComply_i$ is an indicator variable equal to 1 if firm i failed to comply with section 13.11 of Instruction 480.

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

Table 2 presents five variations of the model in Equation 1. Model A is the baseline regression and shows that the CGI score is negatively and significantly related to the noncomplying decision. Better-

Table 2. Determinants of the noncompliance decision

	(A)	(B)	(C)	(D)	(E)
	Dependent variable: Noncompliance with section 13.11 of Reference Form				
CGI	–0.1673***			–0.2263***	
	(–4.1075)			(–4.8078)	
NM		–0.6256**			
		(–2.2347)			
N2NM			–0.9876***		–0.9247***
			(–3.4059)		(–3.4835)
3Largest	0.0252***	0.0226***	0.0227***	0.0334***	0.0148**
	(3.6327)	(3.4021)	(3.3100)	(4.0784)	(2.5740)
Family	0.0198	–0.0594	–0.0222	–0.2423	0.0776
	(0.0672)	(–0.2031)	(–0.0745)	(–0.7349)	(0.2833)
State	–1.4436*	–1.5163**	–1.8175**	–1.7273*	–1.5908**
	(–1.8911)	(–2.1655)	(–2.4939)	(–1.9267)	(–2.4622)
Foreign	–1.0966**	–0.9276*	–1.1165**	–2.0619**	–0.7345
	(–2.0259)	(–1.8541)	(–2.1979)	(–3.1002)	(–1.4880)
Dispersed	–0.2829	–0.5852	–0.4994	–0.3692	–0.7055
	(–0.3879)	(–0.8899)	(–0.7531)	(–0.5508)	(–1.1655)
Shared	*dropped*	*dropped*	*dropped*	*dropped*	*dropped*
Total compensation				0.4733**	
				(2.4621)	
Ln of total assets	0.2637***	0.1868**	0.1978**	0.3286**	0.1796**
	(2.8210)	(2.0857)	(2.2362)	(2.5728)	(2.1528)
Age	0.0050	0.0069	0.0056	0.0057	0.0022
	(0.8704)	(1.3323)	(1.0230)	(0.9892)	(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***	–0.0019	0.0002
	(–2.8793)	(–3.0529)	(–2.9012)	(–1.0822)	(0.1129)
P/B	0.0129	0.0109	0.0094	–0.0008	–0.0014
	(1.0976)	(0.9637)	(0.8582)	(–0.0667)	(–0.1371)
Industry dummies	YES	YES	YES	YES	YES
Constant	–3.3762**	–3.9874***	–3.8992***	–12.2326***	–3.2951**
	(–2.3193)	(–2.8276)	(–2.8219)	(–4.0473)	(–2.4645)
Number of observations	176	176	176	166	197
Pseudo *R*-squared	0.322	0.268	0.291	0.385	0.241
Chi2	61.10	52.54	54.24	71.77	51.10
Chi2 (*p*-value)	< 0.001	0.00332	0.00209	< 0.001	0.00486

Notes: 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 senior management team as a body in section 13.11 of the Reference Form (Brazil's official annual filing). The Appendix contains the definitions of all variables. Heteroskedasticity-robust *z*-statistics are in parentheses. *Significance at the 10 percent level; **significance at the 5 percent level; ***significance at the 1 percent level.

governed corporations appear to be less likely to exercise the noncompliance option granted by the court 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).[2]

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 CG practices. The results are similar to those with the CGI score. 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 (and including total compensation in Model D), for which we had fewer observations because we do not compute leverage for banks. The results remain essentially unchanged.

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 percent to the sample maximum of 100 percent would become approximately twice as likely not to comply with the disclosure regulation.

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 noncompliance. The magnitude of their coefficient estimates in Model A suggests that the likelihood of noncompliance is expected to be over 4 times lower for a state-owned firm and over 2.5 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 noncompliance for family firms does not significantly differ from that of shared-control firms, which is the excluded category.

Model D in Table 2 indicates that companies that display larger compensation to the BOD and senior management are more inclined not to comply. Consistently, larger companies are significantly less likely to comply. This result is compatible with the conjecture 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 them larger compensation packages. Noncompliance seems more likely for companies with lower profitability ratios, although the significance of the estimates is sensitive to the specification of the model. Firm age, financial leverage, and relative market value are nonsignificant in all regressions.

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

Table 3 shows that there is no statistical association between any of the company headquarter state crime rate variables and the noncompliance decision. Costa et al. (2012) conclude that local crime rates, particularly robbery rates, are positively associated with noncompliance. We started with the same database as Costa et al. (2012) from 2009 and observed mixed results. Homicide and robbery followed by homicide rates were not related to noncompliance whereas car theft and total robbery rates were, in line with Costa et al. (2012). However, as mentioned before, we verified a mistake in the source of their data. Crime rates for the second-most-populous Brazilian state were grossly underreported. Crime rate significance disappears when we use new and more accurate data from 2012 in Table 3.

We run regressions (omitted in the interest of space) with alternative operational definitions of some variables as additional robustness checks. Specifically, we replace (1) the equity stake held by the three largest shareholders (our main variable of ownership concentration) with the equity stake held by the five largest shareholders; (2) the return on assets (proxy for profitability) with the return on equity; (3) the price-to-book ratio (proxy for relative market value) with the price-to-earnings ratio; (4) the total debt over total assets (proxy for financial leverage) with the net debt over equity. The main results remain essentially unchanged in all cases.

Table 3. Crime rates and the noncompliance decision

	(A)	(B)	(C)
	Dependent variable: Noncompliance with section 13.11 of Reference Form		
Robbery rate	0.0007		
	(1.2255)		
Robbery followed by homicide rate		–0.0661	
		(–0.3430)	
Homicide rate			–0.0052
			(–0.3460)
CGI	–0.1843***	–0.1856***	–0.1847***
	(–4.5155)	(–4.7432)	(–4.6529)
3Largest	0.0207***	0.0193***	0.0193***
	(3.2057)	(3.2073)	(3.1932)
Family	0.1221	0.1056	0.1032
	(0.4207)	(0.3701)	(0.3614)
State	–1.0330	–1.2167	–1.2483*
	(–1.2618)	(–1.6124)	(–1.7738)
Foreign	–1.1439**	–0.9125*	–0.9102*
	(–2.1862)	(–1.8485)	(–1.8371)
Dispersed	–0.3839	–0.3507	–0.3559
	(–0.5924)	(–0.5436)	(–0.5554)
Shared	*dropped*	*dropped*	*dropped*
Ln of total assets	0.2648***	0.2509***	0.2529***
	(3.1590)	(3.0308)	(3.0949)
Age	–0.0001	0.0015	0.0013
	(–0.0194)	(0.2762)	(0.2457)
ROA	0.0012	0.0012	0.0010
	(0.8381)	(0.7823)	(0.6960)
P/B	0.0059	0.0045	0.0050
	(0.5678)	(0.4278)	(0.4820)
Industry dummies	YES	YES	YES
Constant	–3.2596**	–2.6638**	–2.6706**
	(–2.3676)	(–2.0228)	(–2.0461)
Number of observations	187	197	197
Chi2	69.75	71.66	69.86
Chi2 (*p*-value)	< 0.001	< 0.001	< 0.001

Notes: Probit regressions including state-level crime rates as potential determinants of 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). Crime variables are provided per 100 thousand inhabitants by the 2011 and 2012 editions of the Brazilian Yearbook of Public Safety. The Appendix contains the definitions of all variables. Heteroskedasticity-robust *z*-statistics are in parentheses. *Significance at the 10 percent level; **significance at the 5 percent level; ***significance at the 1 percent level.

Noncompliance and Share Prices

We run two event studies to address the share price effect associated with noncompliance. First, we investigate whether the noncomplying propensity of weaker CG firms was anticipated by market participants and reflected in share price revisions around the date when a higher court confirmed the injunction. Second, we investigate the conjecture that investors were negatively surprised by non-compliance by firms that supposedly displayed better CG practices.

Share Prices Around the Injunction Confirmation

We investigate the behavior of share prices around the date when Brazilian firms were effectively granted the option not to comply with the compensation disclosure regulation. This event happened when *Superior Tribunal de Justiça* (STJ), the highest court of appeals for nonconstitutional matters in Brazil, confirmed the preliminary injunction petitioned by IBEF, dismissing the regulator's (CVM) appeal. Any firm could choose not to comply from that moment until there is a final judicial decision on the case, which can take longer than a decade. In this setting, we are able to check whether investors correctly anticipated which firms would later use the option and whether they perceived it as bad news. In particular, we check whether investors anticipated that firms with lower CG quality were more likely to shun their compensation disclosure.

STJ confirmed the injunction on April 13, 2010. Curiously, however, media coverage of this decision was sparse for the following couple of days. Only on April 16, 2010, did the major business newspapers publicize it (for example, the largest circulation business newspaper, *Valor Econômico*). Thus, it is plausible that we observe price reactions, if any, spread over a few days following April 13, 2010. To account for the media coverage delay, we compute cumulative abnormal returns (CAR) for a set of alternative event windows, encompassing the period from April 13 (day 0) through April 17 (day +4). Daily abnormal returns (AR) are computed using the market excess method and the market model method, as described in the Appendix. We estimate Equation 2 after computing the CARs for each event window, where CAR_i is the cumulative abnormal return of firm i; CG_i is a proxy for CG quality; and the $NonComply_i$ dummy indicates whether firm i would eventually use the option not to comply.

$$CAR_i = \delta_0 + \delta_1 CG_i + \delta_2 NonComply_i + \varepsilon_i \tag{2}$$

Our proxies for CG quality yield strongly positive and significant coefficient estimates in all specifications in Panel A of Table 4, suggesting that shareholders anticipated that poorly governed firms were more likely to become noncompliers and that noncompliance was perceived as a value-destroying event. The effect is also economically significant. For example, the coefficient estimates shown in Column A of Table 4, Panel A, imply that a hypothetical decrease in the CGI score from its sample maximum of 19 to its sample minimum of 3.5 would lead to a 6.37 percentage points (p.p.) decrease in expected CAR during the event window, all else equal. Analogously, the estimates shown in Column F of Table 4, Panel A, imply that, all else equal, the expected CAR during the event window is 1.9 p.p. lower for firms that are not listed in *Novo Mercado*. Consistent with the media coverage delay noted earlier, the coefficient estimates are substantially larger in the (0 + 4) window than in the (0 + 1) window.

Panel A of Table 4 displays the nonsignificance of the coefficient estimates for the *NonComply* dummy. This is another relevant result that suggests that market participants did not fully anticipate which firms would fail to comply; that is, firms with relatively high CGI score or listed in *Novo Mercado* that would eventually use the injunction.

The main concern with this event study is the possibility that our estimates are simply picking up a positive trend in returns for good CG firms or some other confounding effect coinciding with the event period. To address these issues, we first search for other relevant, market-wide, CG-related news in the business media during our event windows and find none. Second, we run several "placebo tests" to check whether good CG firms had a positive trend in returns prior to the confirmation of the injunction. For instance, in Table 4, Panel B, we estimate regressions using CARs computed over two "nonevent" windows before April 13, 2010; that is, encompassing days when no relevant market-wide CG-related news was released (for example, the window encompassing the two trading days immediately before April 13, 2010). As shown in Table 4, Panel B, none of our CG proxies remain positive and significant when we use these windows (in some specifications, their signs actually flip from positive to negative), suggesting that our results are driven by the CG-related innovation conveyed by the decision of the court of appeals.

Table 4. Share prices around the injunction confirmation

Panel A: Market reaction around the date when a higher court confirmed the injunction

	(A)	(B)	(C)	(D)	(E)	(F)
	CAR (0 +1)	CAR (0 +4)	CAR (0 +1)	CAR (0 +4)	CAR (0 +1)	CAR (0 +4)
	Market Model	Market Model	Market Excess	Market Excess	Market Model	Market Model
CGI	0.0017***	0.0041***	0.0016***	0.0030***		
	(4.1529)	(3.8925)	(3.9434)	(3.0005)		
NM					0.0068**	0.0190***
					(2.0737)	(3.2982)
NonComply	0.0007	0.0003	0.0019	0.0006	–0.0021	–0.0056
	(0.2184)	(0.0513)	(0.5407)	(0.0918)	(–0.6280)	(–0.9129)
Constant	–0.0214***	–0.0536***	–0.0218***	–0.0281*	–0.0013	–0.0078
	(–3.6346)	(–3.3829)	(–3.7822)	(–1.8547)	(–0.4741)	(–1.4930)
Number of observations	199	199	199	199	199	199
R^2	0.0675	0.1226	0.0587	0.0673	0.0269	0.0664
F	9.654	9.818	8.376	5.612	2.823	7.311
F (p-value)	< 0.001	< 0.001	< 0.001	0.0043	0.0619	< 0.001

Panel B: Placebo regressions: Abnormal returns around selected nonevent days

	(A)	(B)	(C)	(D)	(E)	(F)
	CAR (-12 -11)	CAR (-2 -1)	CAR (-12 -11)	CAR (-2 -1)	CAR (-12 -11)	CAR (-2 -1)
	Market Model	Market Model	Market Excess	Market Excess	Market Model	Market Model
CGI	–0.0002	–0.0000	–0.0005	–0.0006		
	(–0.3151)	(–0.0255)	(–0.7854)	(–1.0350)		
NM					–0.0065*	0.0047
					(–1.8671)	(1.3762)
NonComply	0.0053	–0.0053	0.0058	–0.0057	0.0043	–0.0041
	(1.2710)	(–1.3868)	(1.3502)	(–1.4958)	(0.9430)	(–1.0758)
Constant	–0.0030	0.0032	0.0034	0.0190**	–0.0020	0.0003
	(–0.3185)	(0.3768)	(0.3570)	(2.1893)	(–0.6939)	(0.1165)
Number of observations	199	199	199	199	199	199
R^2	0.0112	0.0105	0.0185	0.0134	0.0260	0.0204
F	0.830	1.033	1.180	1.333	2.175	2.196
F (p-value)	0.4376	0.3579	0.3096	0.2662	0.1164	0.1140

Notes: Panel A shows the results of OLS regressions. The court decision dates from April 13, 2010 (day 0), but media coverage peaked only on April 16 (day +3). The dependent variable is the cumulative abnormal return (CAR) (for example, CAR (0 +4) represents the CAR from day 0 to day +4). Panel B shows the results of OLS placebo regressions around two nonevent days. CAR (-12 -11) and CAR (-2 -1) represent the cumulative abnormal return from day -12 to day -11 and from day -2 to day -1, respectively (day 0 is April 13, 2010). CARs are computed using the market excess method and the market model method. The Appendix contains the definitions of all variables. Heteroskedasticity-robust t-statistics are in parentheses. *Significance at the 10 percent level; **significance at the 5 percent level; ***significance at the 1 percent level.

Share Prices Around the Announcement of the Noncompliance Decision

As noted above, some firms with high CGI scores and listed in *Novo Mercado* used the injunction to avoid full disclosure of their managerial compensation (indeed, 32 percent of noncompliers were listed in *Novo Mercado*). Thus, it seems plausible that, by using the injunction, these firms negatively

surprised their minority shareholders. To investigate this conjecture, we look at share price revisions around the date when investors became aware of each firm's decision.

We begin by surveying company announcements and the Brazilian business media to find the exact date when each firm made public its decision not to comply with the compensation disclosure regulation. We check three possibilities: (1) when the first shareholders' meeting is summoned and the agenda includes the executive compensation plan; (2) when the FR is published in the CVM website; and (3) when news regarding the noncompliance of the firm is published in *Valor Econômico*.

The noncompliance event date coincided with the day when the firm filed its FR with the compensation information missing in approximately 95 percent of the cases in our sample. Therefore, in these cases, the noncompliance date coincides with the disclosure of other potentially relevant corporate information, such as dividend policy, financial statements, risk-management policies, and much more because the FR encompasses a wide variety of company information, including its financial statements.

After identifying the event date (day 0), we compute CARs from day 0 to day +1. Correspondingly, we also compute CARs for the complying firms around the day of their FR filing containing the required compensation disclosure. Thus, we are able to contrast share price changes for complying and noncomplying firms around the disclosure of their FR. The estimates shown in Table 5 are based on Equation 3, where $NonComply_i \times CG_i$ is the interaction of the proxy for CG quality (CG_i) and the $NonComply_i$ dummy.

$$CAR_i = \alpha_0 + \alpha_1 NonComply_i + \alpha_2 CG_i + \alpha_3 (NonComply_i \times CG_i) + u_i \quad (3)$$

Consistent with our conjecture, columns A through D in Table 5 show a negative and statistically significant interaction coefficient (although only at the 10 percent level in some cases). Interestingly, the interaction estimates, though still negative, become smaller and are no longer statistically different from zero when we use *NMN2* as the CG proxy. This result, shown in columns E and F in Table 5, is unsurprising, however, since the CG provisions of Level 2 segment are less demanding than those of the *Novo Mercado* segment (correspondingly, the mean CGI score is substantially lower for Level 2 firms compared with *Novo Mercado* firms).

The estimates in Table 5, Column A, imply that, all else equal, a hypothetical increase in the CGI score from 3.5 to 19 is associated with a 3.16 p.p. decrease in expected CAR if the firm is a noncomplier. Analogously, using the estimates in Table 5, Column C, we infer that, for noncomplying firms, entering the *Novo Mercado* segment is associated with a 1.69 p.p. decrease in expected CAR during the event window. An important caveat applies to these inferences, however. Since almost all actual noncompliance/compliance events coincide with the filing of the FR, our inferences might be contaminated by the effect of other unexpected price-relevant information contained in the FR (to the extent that this effect is systematically different for complying and noncomplying firms). Unfortunately, our data do not allow us to adequately control for such confounding effects. Finally, we note that using other event windows yields much weaker and usually nonsignificant estimates.

Concluding Remarks

A new regulation passed in 2009 mandates detailed, but not individual, compensation disclosure in Brazil. A court injunction based on alleged personal security risks allowed noncompliance with these new rules. Roughly 28 percent of the 214 listed firms in our sample chose not to comply.

Our evidence suggests that noncompliance is more likely due to lower quality of CG practices and ownership structure rather than crime rates. We use updated state-level crime data and find no connection between crime rates of any kind within the state where the firm is headquartered and its propensity not to comply. This contrasts with Costa et al. (2012), who, as we found out, were sidetracked by a grossly underreported crime rate for the second-most-populous Brazilian state.

Holding constant other characteristics, a firm displaying a CG score equal to the minimum value in our sample is over seven times as likely to be a noncomplier as a firm with the maximum score. A firm that is not in the two most demanding premium exchange listing segments in terms of CG and transparency

Table 5. Share prices around the noncompliance decision announcement

	(A)	(B)	(C)	(D)	(E)	(F)
	CAR (0 +1)	CAR (0 +1)	CAR (0 +1)	CAR (0 +1)	CAR (0 +1)	CAR (0 +1)
	Market Model	Market Excess	Market Model	Market Excess	Market Model	Market Excess
NonComply	0.0232	0.0389**	0.0017	0.0056	–0.0009	0.0048
	(1.4342)	(2.0506)	(0.3474)	(0.9631)	(–0.1620)	(0.7517)
CGI	0.0003	0.0014**				
	(0.9780)	(1.9813)				
NonComply × CGI	–0.0024*	–0.0032**				
	(–1.8373)	(–2.1199)				
NM			0.0018	0.0007		
			(0.7765)	(0.1474)		
NonComply × NM			–0.0187**	–0.0187*		
			(–2.2002)	(–1.8728)		
N2NM					0.0023	0.0036
					(0.9789)	(0.8001)
NonComply × N2NM					–0.0083	–0.0111
					(–0.9932)	(–1.1424)
Constant	–0.0032	–0.0197**	0.0004	–0.0013	–0.0001	–0.0033
	(–0.6513)	(–2.1199)	(0.2164)	(–0.4129)	(–0.0513)	(–0.9813)
Number of observations	202	202	202	202	178	178
R^2	0.0532	0.0296	0.0591	0.0236	0.0213	0.0072
F	1.948	1.934	2.083	1.380	0.915	0.466
F (p-value)	0.1231	0.1253	0.1037	0.2499	0.4348	0.7065

Notes: OLS regressions examining abnormal returns around the date when each firm made public its decision not to comply with the compensation disclosure regulation (section 13.11 of the Reference Form, Brazil's official annual filing, according to CVM Instruction 480). CARs are computed using the market excess method and the market model method. The Appendix contains the definitions of all variables. Heteroskedasticity-robust t-statistics are in parentheses.
*Significance at the 10 percent level; **significance at the 5 percent level; ***significance at the 1 percent level.

practices is over twice as likely to be a noncomplier as a firm listed in one of these segments. This is consistent with the related literature, such as Berglöf and Pajuste (2005) and Schiehll et al. (2013).

Firms displaying more-concentrated control rights are more inclined toward not complying. State-owned and foreign-controlled firms are substantially less likely to become noncompliers. By contrast, we find no evidence that family-controlled firms are particularly less likely to comply. The willingness to disclose detailed compensation information is inversely related to the level of compensation and profitability. Larger firms are significantly more likely to become noncompliers. This is consistent with Robinson et al. (2011).

We run an event study around the date when the preliminary injunction was confirmed by a higher court, effectively granting firms the option not to comply, to check whether the market anticipated noncompliance by poorly governed firms. We find a positive association between our CG quality proxies and abnormal returns over the event window, suggesting that market participants correctly anticipated that lower CG quality firms were more likely to use the noncomplying option in the future and that this was perceived as a value-destroying decision.

We also investigate share price revisions around the day noncompliance became public. We find worse market reactions for firms that are perceived to have better corporate CG practices, suggesting that the outside shareholders of relatively better-governed firms did not expect noncompliance. However, this result should be interpreted with extra care because it may be contaminated by a plethora of information contained in the securities exchange filing that became public at the same time.

Taken together, our findings weaken the arguments related to personal security costs and justify the reactions of investment advisors that recommended a dissenting vote in shareholders meetings of noncomplying firms.

Notes

1. *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.

2. 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 noncompliance 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, 577). The other APEs reported in the article were computed analogously.

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Appendix

Definitions of variables

Concept	Variable names and operational definitions
Noncompliance decision	**NonComply:** 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 (Brazil's official annual filing); 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. 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.
Identity of the controlling shareholder	**NM:** is assigned 1 when the company is listed in the *Novo Mercado* segment and 0 otherwise. **N2NM:** is assigned 1 when the company is listed in the Level 2 or *Novo Mercado* segments and 0 otherwise. **Family:** 1 for companies controlled by individuals or families; 0 otherwise. Control exists when a shareholder has 50 percent 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 percent of voting shares; 0 otherwise.
Ownership concentration	**3Largest:** aggregate percentage of total shares (both voting and nonvoting) held by the three largest shareholders.
Compensation	**Total Compensation**: total compensation paid to the senior management team and the board of directors in aggregate, expressed in Brazilian reais.
Firm size	**Ln of Total Assets:** natural logarithm of total assets, 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
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 $AR_{i,t} = R_{i,t} - R_{IBOV,t}$ ("market excess" method), 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 $AR_{i,t} = R_{i,t} - \alpha_i - \beta_i R_{IBOV,t}$ ("market model" method). The parameters α_i and 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 alternative event windows.

Source: Economatica, except where noted.