Corporate Governance, Violations and Market Reactions

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Abstract

We test the relation between firm-level corporate governance and the market reaction to announcements of violations of rules and regulations by Thai listed firms. We find that the market reacts strongly when firms commit violations classified as severe: the average abnormal returns are -3.55% on day +1 and -4.57% on day 0,+1. We find no significant difference in market reaction when firms with high and low governance scores commit violations. However, we do find a large negative abnormal return when firms with low past violation records violate the rules, compared to firms with high past violations. The evidence suggests that investors do not attach much value to the adoption of corporate governance policies by firms, but that the market rather discounts the firm's track record of past violations.

Keywords: corporate governance, violations, event study, market reaction
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I. INTRODUCTION

In this paper we test whether the market reacts differently when firms with good and poor governance commit violations of the listing rules. In theory corporate governance should decrease the firm's discount rate and increase firm value, as governance mechanisms are designed to mitigate agency conflicts and prevent expropriation by managers and/or controlling shareholders. However, in practice minority shareholders typically face a severe asymmetric information problem when assessing a firm's corporate governance practices. The problem for outside investors is to determine whether the adoption of formal good governance policies is a sign of good governance practices, or window-dressing to improve a firm's external image.

Violation of listing rules by firms can provide new information to the market about whether firms implement governance policies substantively or not. We expect that the market reacts more negatively when firms with high governance scores violate the listing rules, compared to firms with low governance scores. Violations by a firm with a high governance score can reveal that the firm window dresses corporate governance, leading to a negative surprise and a higher discount rate, whereas expectations are lower to begin with for firms with low poor governance scores. Failure to detect a significant difference between market reactions to violations between firms with low and high governance scores would lead to doubts about whether governance scores provide relevant information to the market about substantive governance practices that is reflected in firm-level discount rates.

We use a short-window event study of firm listed on the Thai stock exchange to uncover the relation between governance and market reactions to violations. We sort listed firms into two groups based on a score for the adoption of good governance policies. The governance policies include having a high proportion of independent directors, separation of the positions of chairman and CEO and the establishment of a remuneration committee, amongst others. We carry out an event study to test whether the market reacts differently when firms with high and low governance scores violate the listing rules. As a benchmark for comparison, we also sort firms based on past violations into good firms (with a record of low past violations) and bad firms (with high past violations). If a firm's historical violation record affects the discount rate, announcements of violations by good firms (with low past violation record) should

lead to a stronger marker reaction than new violations by bad firms (with high past violations).

We find that the market reacts strongly when firms commit violations classified as severe, but there is no significant market reaction when firms commit non-severe violations. The average abnormal return in case of severe violations is -4.57% for day 0,1 (the event day and one day after the event). Surprisingly, we find no significant difference in the market reaction to violations between firms with high and low CG scores: the average abnormal return is -1.64% on day 0,1 for high CG firms and -1.13% for low CG firms, but the difference is not statistically significant. When we consider only severe violations, the difference in market reaction between low and high CG firms is not significant either. In sum, it seems that the adjustment of the firm's value after news about violations is not different for firms with low and high governance scores.

In stark contrast, we do find a large and statistically significant difference in market reaction between firms with low and high past violation records. The average abnormal return on day 0,1 is -2.86% for good firms (low past violations), while for bad firms the market reaction is only -0.37% on day 0,1. Further, the market reacts strongly negative when good firms violate any type of rule, regardless of severity: violations classified as minor and medium also lead to a significantly negative market reaction. For bad firms the market reaction is only significant in case of severe violations. A possible explanation is that minor and medium violations by good firms create an unexpected signal to investors that severe violations are more likely in the future than previously expected. In response, investors require a higher risk premium. In other words, minor and medium violations by good firms destroy their good reputation (track record) and lead to a higher discount rate. The market does not respond to minor or medium violations by bad firms, as the market has already applied a higher discount rate for these firms and non-severe violations do not lead to an immediate loss of wealth.

Our paper is indirectly related to several studies that investigate the effect of corporate governance on firm value, such as Klapper and Love (2004), Durnev and Kim (2005) and Black, Jang and Kim (2006), amongst many others.[1] Most studies

[1] See, for example: Gompers, Ishii and Metrick (2003), Bauer, Guenster and Otten (2004), Drobetz, Schillhofer and Zimmermann (2004), Beiner, Drobetz, Schmid and Zimmermann (2006), Bhagat and Bolton (2008).

find a positive relation, suggesting that the adoption of good governance policies helps to increase firm value. Another strain of research, for example Chen, Chen and Wei (2009), focuses on the effect of corporate governance on firm valuation through the cost of capital (or discount rate). Effective corporate governance may lower the risk premium required by investors, and thereby decrease a firm's cost of capital and increase firm value. All of these studies suffer from potential validity problems due to endogeneity and reverse causality. Our study compliments the existing literature by investigating the effect of corporate governance on firm value indirectly, through market reactions to violation announcements.

This paper is organized as follows. Section II provides the theoretical framework and develops the hypotheses. Section III explains the methodology and the data used for the study. Section IV provides empirical results and Section V concludes the paper.

II. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

A. Hypothesis Development

Effective corporate governance may lower the risk premium required by investors, and thereby decrease the firm's cost of capital and increase firm value. Several studies, including Klapper and Love (2004) and Durnev and Kim (2005), investigate the direct effect of corporate governance on firm value and they find a positive relation suggesting that the adoption of good governance policies helps to increase shareholder value. However, potential endogeneity can create a problem in these studies as relevant variables affecting both corporate governance and firm value may have been omitted. Reverse causality is another problem that may arise because firm value can also affect the adoption of corporate governance policies. Our study investigates the effect of corporate governance on firm valuation indirectly. We test whether the market reaction to violations of listing rules by firms depends on the governance policies adopted by the firm.

We focus on Thai firms that violate the rules and regulations set by the Thai SEC and Stock Exchange of Thailand. Our first hypothesis is that the announcement of violations by firms is bad news for investors, a sign of potential negligence or

expropriation, and hence the market reacts negatively. We also classify violations based on severity into minor, medium and severe violations, and we expect the market to react more negatively when the violation is more severe.

Hypothesis 1a: The market reacts negatively to the announcements of violations of rules and regulations.

Hypothesis 1b: The market reacts more negatively to announcements of more severe violations of rules and regulations.

In the theory corporate governance policies can mitigate agency conflicts and help prevent expropriation, thereby lowering the required risk premium demanded by investors and increasing firm value. However, in practice investors face an asymmetric information problem when assessing whether a firm implements governance policies substantively or symbolically. Announcements of violations provide new information to the market about whether firms implement corporate governance policies substantively or window dress governance. Especially for firms with high governance scores the occurrence of violations or fraud should create a negative surprise and lead to doubts about whether the governance policies have been truly implemented. On the other hand, for firms with low governance scores the market should anticipate a higher frequency of violations and discount the market value in advance. Hence, we expect that the market reacts more negatively when firms with high governance scores commit violations, compared to firms with low governance scores.

Hypothesis 2: The market reacts more negatively to the announcement of violations of rules and regulations by firms with high corporate governance scores, compared to firms with low corporate governance scores.

Failure to detect a significant difference between market reactions to violations between firms with low and high governance scores would lead to doubts about whether governance scores provide relevant information to the market about substantive governance practices that is reflected in firm-level discount rates. Another source of information that investors can exploit to assess governance practices, and

the likelihood of future violations, is the firm's past violation track record. For ease of exposition, we refer to firms with more past violations as 'bad firms', whereas firms with less past violations are referred to as 'good firms'. We expect that the announcement of violations committed by good firms is more surprising for investors and leads to a stronger market reaction, as the firm's good track record deteriorates. In contrast, for bad firms violations are in line with prior expectations. Thus, our third hypothesis is as follows:

Hypothesis 3: The market reacts more negatively to the announcement of violations of rules and regulations by good firms, compared to bad firms.

Apart from testing hypotheses 1, 2 and 3 separately, we also estimate a multiple regression model with the abnormal return around the violation date as dependent variable, and using violation severity, firm-level governance scores and the number of past violations as explanatory variables.

B. Related Literature

We expect the market to react negatively to announcements of violations, as these events can damage the reputation of the firm and may also lead to direct loss of wealth through penalties, legal costs and settlements. The existing empirical literature confirms that the market reacts negatively to fraud cases (Karpoff and Lott, 1993) and that the market responds negatively to earning restatements by firms (Palmrose, Richardson and Scholz, 2004, Agrawal and Chadha, 2005). Karpoff, Lee, and Martin (2008) find that most of the long-term loss in firm value results from damaged firm reputation, including a higher cost of capital, and not from direct penalties.

In theory corporate governance mechanisms mitigate agency problems and can reduce expropriation by managers and controlling shareholders (see, e.g., Durnev and Kim, 2005, and Doidge, Karolyi and Stulz, 2007). The existing empirical evidence in the literature indeed confirms that several firm-level governance mechanisms, such as having independent directors and having financial experts in the audit committee, are associated with a lower frequency of fraud and earnings restatements (see, e.g., Beasley, 1996, Uzun, Szewczyk, and Varma, 2004, Agrawal and Chadha, 2005, Farber, 2005, and Chen, Firth, Gao and Rui, 2006).

Our paper also relates to the study by Chhaochharia and Grinstein (2007) on the effect of the Sarbanes–Oxley Act on firm value. Chhaochharia and Grinstein (2007) investigate the market reaction to the introduction of SOX, focusing in particular on firms that are less compliant with the rules. Chhaochharia and Grinstein (2007) find positive abnormal returns for firms with lower SOX compliance around the announcement of SOX, suggesting that investors expect these firms to benefit more from the mandatory imposition of stricter governance than other, more compliant, firms. Whereas Chhaochharia and Grinstein (2007) study if firms with relatively poor governance have positive abnormal returns when SOX is announced, our study investigates if the market reacts more negatively when firms with high governance scores violate the listing rules.

III. METHODOLOGY AND DATA

A. Methodology

We use a short-window event study to investigate the market reaction to the announcements of violations of listing rules detected by the SET and SEC. We focus on abnormal return for days -1, 0, +1, and 0,1 where day 0 is the announcement date of the violation. Abnormal return (AR) for violation of firm *j* on day *t* is defined as

$$AR_{jt} = r_{jt} - r_{mt} \tag{1}$$

where r_{jt} and r_{mt} are continuously compounded total returns for the stock of firm *j* and the SET market index on day *t*. We use market adjusted returns, rather than the market model, to calculate abnormal returns because about one-third of firms in our study (33 out of 93 firms) are illiquid with an average freefloat of 27% in 2002; hence the market beta may not be a reliable proxy for risk. For each day in the event period, the average abnormal return (AAR) is averaged across the number of violations,

$$AAR_t = \frac{\sum_{j=1}^{j=N_t} AR_{jt}}{N_t} \tag{2}$$

where N_t is the number of violations over which AR is averaged on day t.

The cumulative abnormal return for a violation of firm j over days (t_1, t_2) is measured as

$$CAR^{j}_{t_1,t_2} = \sum_{t=t_1}^{t_2} AR_{jt} \tag{3}$$

The cumulative average abnormal return over days (t_1, t_2) is measured as

$$CAAR_{t_1,t_2} = \frac{\sum_{j=1}^{j=N} CAR^{j}_{t_1,t_2}}{N} \tag{4}$$

where N is the number of cumulative abnormal returns.

B. Data

1. Violations of Rules and Regulations

Announcements of violations used for our study include when the Thai SEC announces offences of securities law by listed firms regarding expropriation of firms' assets by insiders, falsification of financial statements, insider trading and market manipulation. We also include violations of listing rules detected by the SET. Examples include (i) violations of rules regarding the disclosure of related party transactions and other material information, (ii) violations of rules and procedures regarding financial statements (financial statements submitted by the firms contains errors, or does not comply with generally accepted accounting principles, or financial statements were not submitted by the deadline, or not submitted following the relevant procedures), (iii) violations of rules regarding tender offers, (iv) when the firm's auditor issues a qualified opinion, and adverse opinion, or a disclaimer of opinion about the firm's financial statement. SET announces violations of listing rules to the market by posting trading signs (Notice Pending, Halt, and Suspension), accompanied by a brief written statement explaining the violation.

Table 1 provides an overview of all the SEC and SET information used to measure violations, as well as the number of violations involved. The total number of

violations in the sample period 2003-2006 is 226, committed by 93 listed firms. However, we can only include 160 violations (71%) in our study because the remaining violations were committed by firms in rehabilitation, with the shares suspended from trading for a prolonged period of time.[2]

We also classify violations based on severity, into minor, medium and severe violations (see column 3 in Table 1). Out of 160 violations in our sample, 35%, 34%, and 31% are minor, medium and severe, respectively. We use the severity-weighted average number of violations during 1990-2002 (*Violtot02S)* as a proxy to classify firms into bad firms (with high past violations) vs. good firms (low past violations) to test Hypothesis 3.

2. Corporate Governance Score

In March 2002, the Stock Exchange of Thailand (SET) introduced a corporate governance code for listed companies consisting of 15 principles of good governance, similar to existing codes in developed markets (e.g., the U.K.). The code addresses the protection of rights of minority shareholders and other stakeholders, the importance of independent directors and the disclosure of potential conflicts of interest, among other issues (see Table 2 for some of the policies). Adoption of the Thai code is voluntary. Only a small number of policies are mandated by law or part of the SET listing regulations: establishing a proxy, having an audit committee, and having at least three independent directors.

In 2003 the Corporate Governance Center of the SET conducted a study that measured the adoption of the governance code based on firms' disclosed information for fiscal year 2002. The governance index constructed by SET is a weighted average of 15 sub scores, one for each of the 15 principles of good governance described in the Thai code. Following Ananchotikul, Kouwenberg and Phunnarungsi (2010), we only use 9 of the 15 sub scores that are most relevant and do not overlap with the measurement of past violations. Table 2 shows these 9 principles from the Thai Code, divided into the following three main categories: A. Policy Statements (*CG Policy)*, B. Shareholder Rights (CG *Shareholders)*, and C. Board Structure and Independence (*CG Board)*. The overall governance score, *CG Total*, is an equally-weighted average

[2] Shares of listed companies in rehabilitation, usually involving reorganization and debt restructuring, do not trade until the reorganization has been completed successfully.

of *CG Policy*, *CG Shareholders* and *CG Board*. We use *CG Total* to classify firms into high CG vs. low CG, to test Hypothesis 2. Table 3 shows descriptive statistics of all governance measures for the 93 firms with violations included in the event study, and for the full sample of 333 firms with CG data.

IV. EMPIRICAL RESULTS

A. Event Study and Abnormal Returns

Table 4 shows the average abnormal return (AAR) and cumulative average abnormal return (CAAR) during a period of 30 days before and 30 days after the violation announcement (day 0). On the day immediately after the violation announcement (day +1), the abnormal return is -1.61% and significantly different from zero (*t*-stat = -2.590, *p*-value = 0.011). The first four days after the violations announcement all have negative abnormal returns, with a cumulative AAR of -3.25%. On the event day itself the abnormal return is not significantly different from zero.[3] Before the event day no leakage of information seems to take place, as the abnormal return on most days is insignificant and the CAAR in the pre-event period is positive.

Table 5 shows the abnormal return on the three days surrounding the announcement date (day 0), namely days -1, 0, +1, and 0,1 (days 0 and +1 combined), classified by severity of the violation. For severe violations the market reaction is significantly negative on day 1 (-3.55%) and on day 0,1 (-4.57%). For minor and medium violations the abnormal return is not significant. When all types of violations are combined, we only find a significant negative return of -1.61% on day 1. In sum, we find that the market only reacts significantly negative to severe violations (on day +1 and day 0,1), but not to medium and minor violations. Further, there is no sign of information leakage during the period before the announcement day.

To test Hypothesis 1b we compare the magnitude of the mean (and median) abnormal return between the categories of violations. We find that the AAR of severe violations (-4.57%) on day 0,1 is significantly more negative than the AAR of medium violations for day 0,1 (-0.35%), supporting Hypothesis 1b (*t*-stat = 2.081,

[3] On the event day (day 0) the number of violations used for calculating AAR is relatively low because some stocks are temporarily suspended from trading by SET.

p-value = 0.041). However, we cannot reject the null hypothesis that the median abnormal return of severe and medium violations are equal (Wilcoxon/Mann-Whitney statistic = 1.495, *p*-value = 0.135). Table 5 also shows that on day +1 and day 0,1 the mean and the median abnormal return of severe violations are significantly higher than for minor violations, while the median abnormal return for medium violations is significantly higher than for minor violations.

B. Hypothesis Test Results about CG and Past Violations

To test Hypothesis 2 we use the median of *CGTotal* for 333 firms (71.46) to classify firms into high CG firms vs. low CG firms. We then compare AAR for days -1, 0, +1, and 0,1 between these two groups. Table 6 shows the results. The abnormal return on day +1 and day 0,1 in both groups is not significantly different from zero. The AAR on day 0,1 of high CG firms (-1.64%) is slightly lower than that of low CG firms (-1.13%), but the difference is not significant (*p*-value = 0.760). We also cannot reject the null hypothesis that the median abnormal return of high CG and low CG firms are equal (*p*-value = 0.634). In sum, the empirical results do not support Hypothesis 2: we find no difference in market reaction when low CG and high CG firms violate the rules.

To test Hypothesis 3 we use the median of *Violtot02S* for 333 firms (0.23) to classify firms into bad firms (high past violations) vs. good firms (low past violations). We then compare the abnormal return for days -1, 0, +1, and 0,1 between these two groups. Table 7 shows the test results. The abnormal returns for bad firms are small and not significantly different from zero: -0.32% for day +1 and -0.37% for day 0,1. However, when good firms violate the rules the average abnormal return is large and significant: -3.69% on day +1 and -2.86% on day 0,1. We also find a significant difference in the mean (and median) abnormal return on day +1 between good firms and bad firms. Thus, the results support Hypothesis 3. Investors may not expect that good firms will violate the rules, and hence they react more negatively when good firms actually do violate, while investors seem less surprised when bad firms violate the listing rules.

When we compare the market reactions to the announcement of violations by high CG firms and good firms, we find that investors seem to attach more value to a firm's past violations record than the adoption of CG policies. For example, for good

firms we find a significant AAR of -3.69% on day +1 (Table 7), compared to an insignificant AAR of -1.32% for high CG firms on day +1 (Table 6).

As a robustness check, we further classify the violations based on severity and re-examine Hypotheses 2 and 3. A drawback is that test power is much lower due to the relatively low number of observations in each violation category (minor, medium and severe), making it more difficult to find significant differences in abnormal returns. The results are shown in Appendix A and B. In Appendix A we compare the abnormal return of violations classified by severity between low CG firms and high CG firms. We find that the market reacts negatively when firms commit severe violations—the negative abnormal return for day +1 and day 0,1 for severe violations of both low CG firms and high CG firms is significant. However, we again find no significant difference between the mean (and median) abnormal return of high CG firms and low CG firms when they violate the severe rules.[4]

In Appendix B we compare the abnormal return of violations classified by their severity between bad and good firms. We find that the market reacts negatively when good firms commit minor and medium violations (-1.78% and -4.46% on day +1), but there is no negative market reaction when bad firms commit minor or medium violations (+1.43% and +0.65%). The difference in the mean (and median) abnormal return on day +1 between good and bad firms is significant for minor and medium violations. Medium and minor violations may matter for good firms because these violations could create an unexpected signal to investors that more severe violations are possible in the future. This may change the discount rate of the firm as investors would require a higher premium to compensate them for bearing the additional risk. In other words, minor or medium violations may destroy the good reputation (track record) of good firms and lead to a higher discount rate. While this is not the case for bad firms because the market has already applied a higher discount rate, and minor or medium violations may not lead to an immediate loss of wealth.

Appendix B also shows that the abnormal return in case of severe violations is not significantly different between bad and good firms, even though the magnitude of the difference is large: AAR is -6.35% for good firms, and -2.59% on day +1 for bad firms. The power of the test may be hampered, however, by the low number of severe

[4] Interestingly, low CG firms show a stronger negative market reaction (-4.63% on day 1) than high CG firms (-2.64% on day 1), which is opposite to Hypothesis 2. A potential explanation is that severe violations by low CG create greater loss to investors. But, the difference is not statistically significant, so any interpretation is very tentative.

violations committed by good firms (only 9 observations). Another potential explanation is that severe violations create an immediate loss of firm wealth, regardless whether the firm is good or bad.

C. Regression Model and the Determinants of Violation Announcement Abnormal Returns

The results of the event study in the previous section do not control for other variables that may explain the market reaction to violation announcements. In this section we estimate a regression model to examine the factors explaining the stock market reaction to the announcement of violations. The model is described below, whereas the details of the independent variables used in the model are explained in Table 8.

$$AR_i = \beta_0 + \beta_1 D\_Severe_i + \beta_2 D\_HighCG_i + \beta_3 D\_GoodFirm_i + \boldsymbol{\beta}_4' \boldsymbol{X}_i + \varepsilon_{i,} \qquad (5)$$

where AR_i is the dependent variable (either the abnormal return on day +1, or on day 0,1), D_Severe_i, D_HighCG_i, and $D\_GoodFirm_i$ are independent variables, $\boldsymbol{X}_i$ is a (k x 1)-vector of control variables, $\boldsymbol{\beta}_4$ is a (k x 1)-vector with regression coefficients, and ε_i is a normally distributed error term with constant variance. Detailed explanations of the variables and expected signs are shown in Table 8, whereas descriptive statistics of variables used in the regression model are shown in Table 9.

Table 10 shows the estimation results. The fourth and seventh columns include all independent and control variables. The results confirm the findings from the event study. The market reacts negatively when firms violate the severe rules, as the coefficients for *D_Severe* are significant. The market also reacts more negatively when good firms violate the rules: the coefficient of *D_GoodFirm* is negative and significant at the 1% level for both *AR+1* and *AR 0,1*. The regression results also confirm that the market reaction to violations does not depend on corporate governance adoption, because the coefficients for *D_HighCG* are insignificant. On the other hand, a firm's track record of past violations firms is a very relevant explanatory variable: the adjusted R^2 of the model drops from 0.164 to 0.022 when *D_GoodFirm* is excluded (when using *AR+1* as the dependent variable).

For the control variables, we find that there is a stronger negative reaction when popular firms violate the rules because the coefficients for *Popularity,* the

number of analysts covering the firm, are significant at 5% level. Doukas, Kim and Pantzalis (2000) argue that by providing recommendations to investors, stock analysts act as a monitoring mechanism that can mitigate agency problems. Thus, it would create a stronger negative surprise for investors when there is a violation announcement for firms with high analyst coverage. Among the other control variables, none of the coefficients of the proxies for agency conflicts except *ROA* is significant. The coefficient for *ROA* is positive and significant at the 10% level when we use *AR+1* as the dependent variable. It seems that when low profitable firms violate the rules, it creates a stronger negative market reaction. Investors may perceive that the managers or controlling shareholders of such firms are trying to expropriate their wealth, as firms with low profitability have a higher incentive to do so (Durnev and Kim, 2005). Thus, the violation announcement may signal investors about possible expropriation.

As the market tends to react negatively mainly to announcements of severe violations, we re-estimate Equation (5) using severe violations only. Independent variables include *D_HighCG* and *D_GoodFirm*, while the control variables are *PastAAR*, *Popularity*, *LnAsset*, and *D_Big4*. We do not include proxies for agency conflicts except *ROA*, because the number of observations is small and none of these variables are significant when using all violations. The results when we use *AR+1* as the independent variable are the same as in the full sample: *D_GoodFirm*, *Popularity*, and *ROA* are significant. Thus, when firms violate the severe rules, the market reacts more negatively for good firms, but the market reaction does not depend on firm-level governance. The results when we use *AR0,1* as the dependent variable are insignificant for all independent variables.

As another robustness check, we re-estimate Equation (5) using the full sample of violations and *CG Policy*, *CG Shareholders*, and *CG Board* as proxies for corporate governance adoption, rather than a dummy for firms with *CG Total* greater than the median. The results shown in Appendix C confirm that the market does not attach value to the adoption of corporate governance when firms violate the listing rules, because the coefficients of the three CG measures are all insignificant. The additional results do confirm the previous result, namely that severe violations create a stronger market reaction, and that the market reacts more negatively when good firms violate the rules.

We also re-estimate Equation (5) using measures of costless and costly governance policies adopted by the firm. The measure *Costless CG* includes if a firm has a written corporate governance policy (*Costless CG Policy*), or business ethic codes for directors and employees (*Costless CG Ethics*), or has some remarks about corporate governance adoption in their annual report or information disclosure form (*Costless CG Remarks*). These governance policies seem costless to the firm and they can also be easily mimicked by firms with lower quality. *Costly CG* is an index measuring when firms have a higher than average proportion of independent board members, a remuneration committee, a nomination committee, and separation of the positions of Chairman of the Board and the Chief Executive Officer. These policies are costly for firms due to the fees paid to the directors, and also implicitly costly because the managers of the firm may have less opportunity to expropriate or shirk when there is better monitoring. The results in Appendix C confirm all the previous findings: the market reacts more strongly to severe violations and violations by good firms, while the coefficients of *Costless CG* and *Costly CG* are insignificant.

V. CONCLUSION

In this paper we study the market reaction to announcement of violations of rules and regulations by Thai listed firms. First, we find that the market reacts negatively when firms commit violations of listing rules and regulations classified as severe. In particular, we document a significant average abnormal return of -3.55% and -4.57% for day +1 and day 0,1 when severe violations by firms are announced. We find no significant market reaction when firms commit violations classified as non-severe. Second, we find no significant difference between the negative abnormal return of firms with high corporate governance scores and low governance scores. However, we do find a significant difference in market reaction when we classify firms as "good" or "bad" based on their past violation track record (below or above the median). We find that the market reacts negatively when good firms violate the rules, regardless of the severity of the violation, whereas the market reaction is only negative when bad firms violate severe rules.

One plausible interpretation for the negative market reaction when good firms commit relatively minor violations of the listing rules is that such violations give an

unexpected signal to investors that severe violations are more likely in the future than initially expected. This may increase the discount rate of the firm, as investors require a higher premium to compensate them for bearing the additional risk. In other words, minor or medium violations may destroy the good reputation (track record) of good firms and thus lead to a higher discount rate. On the other hand, for bad firms the market has already applied a higher discount rate and minor or medium violations do not come as a surprise, nor lead to an immediate loss of wealth.

Remarkably, we do not find a significant difference in market reaction to violation announcements between firms with low and high governance policy adoption scores. Further, the market does not react to minor and medium violations committed by firms with high governance scores (in contrast with the significant reaction to minor and medium violations by firms with low past violations). These results suggest that the market does not attach much value to the adoption of corporate governance policies, and instead focuses on a firm's past track record of violations. A potential explanation is that in practice minority shareholders face difficulties in assessing whether the adoption of formal good governance policies by a firm is a sign of good governance practices, or window-dressing to improve a firm's external image. The firm's track record of violations, on the other hand, provides indirect evidence about whether the firm implements good governance policies substantively or not.

Results from a regression model, with the abnormal market return as the dependent variable and several control variables, confirm the main findings from the event study: the market reacts negatively when firms commit violations classified as severe and when good firms violate any type of rule (regardless of severity). Proxies for governance policy adoption are insignificant in all regression model specifications.

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Table 1
Violations of SET and SEC rules, 2003-2006

This table summarizes the data on violations of rules and regulations from the Stock Exchange of Thailand (SET) and the Securities Exchange Commission (SEC). The column "Total Violations" shows the total number of violations committed by 93 firms during 2003-2006, for each type of violation separately. The column "Numbers of Violations" shows the total number of violations during 2003-2006 (excluding violations of firms in the Rehabilitation sector) that can be included in the study. The column "Percentage of Violations" shows the percentage of each type of violation over total 160 violations. The column "Source" shows the data source (SET or SEC). The classification for the level of severity is as follows: 1 = Severe violation of corporate governance principles; 2 = Medium; and 3 = Minor violation.

Violation	Source	Level of Severity	Total Violation	Total Violation included in the Study		Description of Violation
				Number	Percentage	
Financial Statements Not Correct						
Accounting Violation	SET	1	1	1	1%	Financial statements failed to comply with Generally Accepted Accounting Standards.
Financial Statement Amendment	SET	1	9	9	6%	Company was required to amend their financial statements.
Adverse Opinion	SET	1	48	21	13%	Auditors issued an adverse opinion on the firm's financial statement.
Disclaimer of Opinion	SET	2	38	24	15%	Auditors issued a disclaimer of opinion on the firm's financial statement.
Qualified Opinion	SET	2	2	2	1%	Auditors issued a qualified opinion on the firm's financial statement.
Failure to Disclose Information						
Connected Party Transaction	SET	1	2	1	1%	Company failed to, and hence was forced to, disclose a connected party transaction by the SET.
Material Information	SET	1	16	15	9%	Company failed to, and hence was forced to, disclose material information to the public by the SET.
Incomplete Information	SET	2	6	6	4%	Company submitted incomplete and/or unclear information, and the SET summoned the company to submit complete information.

Table 1 (continued)

Violation	Source	Level of Severity	Total Violation	Total Violation included in the Study		Description of Violation
				Number	Percentage	
Failure to Submit Financial Statements according to the Procedure						
Information Deadline	SET	2	39	16	10%	Company failed to submit financial statements or other documents by the deadline.
Information Procedure, #1	SET	3	46	46	29%	Company failed to submit financial statements or other documents by the procedures as specified by the SET.
Information Procedure, #2	SET	3	9	9	6%	Company submitted financial statements or other documents to SET but such information was not completely released to the public.
Information Procedure, #3	SET	3	1	1	1%	Company submitted financial statements or documents during trading hours.
Violation of Rules Related to Tender Offers						
Tender Offer	SET/ SEC	1	1	1	1%	Company failed to conduct a tender offer when required to so.
Reporting of Share Holdings	SEC	1	1	1	1%	Company failed to report when the number of stocks held of another company reached a multiple of 5% of the total number.
Takeover Information	SET	2	7	7	4%	Company failed to submit or submitted incomplete and/or unclear information about a tender offer to the SET or general investors.
			226	160		

Table 2
Good corporate governance principles recommended by the Thai code

This table presents a list of nine good governance principles from the Thai code that meet the criteria for the study, divided into three main categories: A. Policy Statements, B. Shareholder Rights, and C. Board Structure and Independence. Below each principle we briefly describe the information used by the Thai stock exchange to assess the adoption of that principle by listed firms in 2002.

A. Policy Statements (CG Policy):

Principle 1: Policy on Corporate Governance
- The company has a written corporate governance policy

Principle 7: Business Ethics
- The board of directors provides a code of ethics or statement of business conduct for all directors and employees

Principle 5: Leadership and Vision
- The company provides information on its corporate vision / mission

B. Formal Policies Related to Shareholder Rights (CG Shareholders):

Principle 4: Shareholder Rights and Equitable Treatment
- Implementation of the "one-share-one-vote" principle
- Procedures facilitating voting through proxy

Principle 2: Shareholders' Meeting
- Providing notice of a shareholder meeting well in advance
- Providing sufficient information on each agenda item of the shareholder meeting, including names and background information when the appointment of a director or auditor is proposed
- Encouraging shareholders to express their opinion and ask questions

C. Board Structure and Independence (CG Board):

Principle 8: Balance of Power in the Board
- Proportion of independent directors on the Board
- Number of independent directors on the Board
- Firm provides its own definition of an independent director

Principle 9: Segregation of Positions
- The titles and authority of the Board's Chairman and head of the management team are clearly separated
- The Chairman of the Board is independent

Principle 12: Committees
- The firm has an audit committee, and a remuneration committee
- The audit committee has at least three members and at least one of the members has knowledge of, or experience in, accounting and/or finance
- The majority of members of the remuneration committee are non-executive directors and the committee's chairman is independent

Principle 14: Directors' Reporting
- The board of directors provides a statement of its responsibilities concerning the company's financial reports, presented alongside the auditor's report and the audit committee report
- The Director's report is signed by all board members

Table 3
Descriptive statistics of CG scores and past violations

This table presents descriptive statistics of CG scores (*CG Policy*, *CG Shareholders, CG Board,* and *CG Total*) and past violations in the period 1990-2002 (*Violtot02S*) of 93 firms with violations included in the study. The table also compares those variables with 333 listed firms having CG data in 2002. See Table 2 for the definition of the governance variables.

Variable	Description	Number of Firms	Mean	Median	Std. Dev.	Min	Max	Skew	Kurtosis
CG Policy	An equally-weighted average of CG Principles 1,7 and 5.	93	51.237	55.000	30.366	0.000	95.000	-0.195	-0.808
		333	58.544	55.000	29.349	0.000	100.000	-0.399	2.448
CG Shareholders	An equally-weighted average of CG Principles 4 and 2.	93	70.084	70.000	10.450	21.905	94.762	-2.261	9.655
		333	72.745	72.619	9.946	21.905	95.476	-1.812	11.772
CG Board	An equally-weighted average of CG Principles 8, 9, 12 and 14.	93	74.074	75.000	12.594	36.806	97.917	-0.596	0.367
		333	77.640	78.472	11.568	36.111	100.000	-0.714	3.675
CG Total	An equally-weighted average of CG Policy, CG Shareholders and CG Board.	93	65.063	68.248	14.996	29.651	89.286	-0.665	-0.468
		333	69.771	71.463	14.197	28.588	96.054	-0.758	3.140
Violtot02S	Average number of severity-weighted violations per year listed, in the period 1990-2002, weighted by severity (x1 for minor, x2 for medium and x3 for severe).	93	0.526	0.257	0.851	0.000	7.200	5.528	41.132
		333	0.341	0.231	0.534	0.000	7.200	7.212	87.461

Table 4
Average and cumulative average daily abnormal return of all violations

This table summarizes the average and cumulative average daily abnormal returns during day -30 to day +30 around the violation announcement date (day 0). The daily return is calculated using continuously compounded total returns. Abnormal returns are market-adjusted, with the SET Total Return Index as the market index. The average abnormal return (AAR) is calculated based on Equation (2) and cumulative average abnormal return is calculated based on Equation (4). Values significantly different from zero at a significance level of 10%, 5%, and 1% are marked *, **, and *** respectively. The number of violations used for calculating AAR on day 0 is relatively low because some stocks are temporarily suspended from trading by SET. On other days the number of violations used varies as some stocks are illiquid and have no closing price on that particular day.

Event day	No. of Violations	AAR	Std. Dev.	*t*-statistics	No. of Violations	CAAR	Std. Dev.	*t*-statistics
-30	123	0.18%	4.88%	0.409	123	0.18%	4.88%	0.409
-25	121	-0.49%	3.49%	-1.542	121	-0.18%	9.16%	-0.221
-20	129	0.25%	3.71%	0.761	129	1.90%	19.57%	1.104
-15	126	-0.04%	3.65%	-0.121	126	2.15%	21.57%	1.118
-10	129	0.06%	3.56%	0.198	129	3.02%	24.33%	1.409
-9	126	0.07%	3.46%	0.232	126	3.10%	25.38%	1.369
-8	130	-0.64%	3.64%	-1.994 **	130	3.91%	27.40%	1.625
-7	130	0.62%	4.68%	1.521	130	4.54%	28.32%	1.826 *
-6	129	-0.36%	4.21%	-0.984	129	3.72%	28.53%	1.481
-5	128	-0.25%	2.83%	-1.000	128	2.95%	26.60%	1.253
-4	128	0.04%	4.49%	0.106	128	2.99%	27.46%	1.230
-3	124	-0.04%	3.90%	-0.123	124	4.24%	30.92%	1.527
-2	130	-0.40%	3.64%	-1.263	130	2.37%	27.65%	0.975
-1	126	-0.44%	8.40%	-0.596	126	2.04%	30.38%	0.757
0	77	0.61%	5.39%	0.995	77	3.46%	21.49%	1.422
+1	114	-1.61%	6.65%	-2.590 **	114	2.06%	32.37%	0.683
+2	114	-0.41%	4.27%	-1.035	114	1.23%	33.98%	0.385
+3	116	-0.29%	4.16%	-0.761	116	0.65%	34.15%	0.205
+4	118	-1.21%	7.31%	-1.802 *	118	0.21%	35.37%	0.066
+5	120	0.23%	5.08%	0.486	120	2.15%	38.31%	0.615
+6	121	0.71%	7.49%	1.042	121	1.11%	37.17%	0.328
+7	120	-0.49%	3.96%	-1.365	120	0.55%	37.42%	0.162
+8	120	-0.43%	5.46%	-0.856	120	-0.40%	38.67%	-0.113
+9	118	0.09%	4.31%	0.224	118	0.20%	40.07%	0.054
+10	118	0.41%	5.79%	0.771	118	0.45%	40.39%	0.122
+15	121	0.57%	4.71%	1.326	121	1.66%	43.49%	0.421
+20	126	0.24%	5.00%	0.529	126	2.21%	42.63%	0.582
+25	125	0.04%	4.48%	0.107	125	-0.78%	45.81%	-0.190
+30	125	-0.29%	3.55%	-0.906	125	-3.34%	45.26%	-0.824

Table 5
Abnormal return surrounding violation on day 0 classified by severity of violations

This table summarizes descriptive statistics of abnormal return surrounding violation on day 0 classified by severity of violations. Daily return is calculated based on continuously compounded total returns. Abnormal returns are market-adjusted, with the SET Total Return Index as the market index. Row "Violations (Number)" is the number of violations having abnormal return (trading) data on that day under each category. Row "Negative Abnormal Return (%)" is the percentage of violations with negative abnormal return over the total number of violations in each event window. Mean abnormal return (AAR) significantly different from zero at a significance level of 10%, 5%, and 1% are marked *, **, *** respectively.

	Minor Violation				**Medium Violation**			
	Day -1	Day 0	Day +1	Day 0,1	Day -1	Day 0	Day +1	Day 0,1
Mean (AAR)	0.05%	0.50%	0.01%	0.71%	-0.14%	2.21%	-1.62%	-0.35%
Median	0.11%	0.47%	-0.06%	0.84%	-0.11%	0.25%	-1.39%	-1.85%
Max	8.34%	15.93%	12.74%	28.66%	13.03%	22.84%	24.78%	27.80%
Min	-5.39%	-11.13%	-10.22%	-19.85%	-16.75%	-11.53%	-19.07%	-18.31%
Std. Dev.	2.87%	4.62%	4.64%	8.12%	5.01%	7.09%	7.70%	9.48%
t- statistics	0.11	0.72	0.02	0.55	-0.19	1.36	-1.27	-0.23
Violations (Number)	42	44	43	40	46	19	36	37
Negative Abnormal Return (%)	48%	45%	51%	43%	52%	37%	67%	68%

	Severe Violation				**All Violations**			
	Day -1	Day 0	Day +1	Day 0,1	Day -1	Day 0	Day +1	Day 0,1
Mean (AAR)	-1.33%	-1.20%	-3.55%	-4.57%	-0.44%	0.61%	-1.61%	-1.33%
Median	0.01%	0.41%	-3.52%	-3.74%	-0.01%	0.34%	-1.16%	-1.74%
Max	25.21%	5.92%	14.81%	15.23%	25.21%	22.84%	24.78%	28.66%
Min	-72.71%	-11.76%	-25.78%	-24.63%	-72.71%	-11.76%	-25.78%	-24.63%
Std. Dev.	14.12%	4.92%	7.31%	7.72%	8.40%	5.39%	6.65%	8.66%
t- statistics	-0.58	-0.91	-2.88 ***	-3.55 ***	-0.60	1.00	-2.59 **	-1.64
Violations (Number)	38	14	35	36	126	77	114	113
Negative Abnormal Return (%)	50%	36%	74%	72%	50%	41%	63%	61%

Table 5 (continued)

Tests in the difference of the means / the difference of the medians

Difference of the means					Difference of the medians				
	Day -1	Day 0	Day +1	Day 0,1		Day -1	Day 0	Day +1	Day 0,1
Severe vs. Medium:					Severe vs. Medium:				
t-statistic	0.534	1.544	1.083	2.081	Wilcoxon / Mann-Whitney statistic	0.126	0.820	1.121	1.495
p -value	0.595	0.133	0.283	0.041	*p* -value	0.900	0.412	0.262	0.135
Severe vs. Minor:					Severe vs. Minor:				
t-statistic	0.671	1.193	2.686	2.970	Wilcoxon / Mann-Whitney statistic	0.569	0.621	2.824	3.070
p -value	0.504	0.238	0.009	0.004	*p* -value	0.569	0.535	0.005	0.002
Medium vs. Minor:					Medium vs. Minor:				
t-statistic	0.359	1.105	1.241	0.610	Wilcoxon / Mann-Whitney statistic	0.489	0.618	2.065	1.813
p -value	0.721	0.273	0.219	0.544	*p* -value	0.625	0.536	0.039	0.070

Table 6
Abnormal return surrounding violation on day 0 classified by CG score

This table summarizes descriptive statistics of abnormal returns surrounding violation on day 0 classified by CG score. Low (high) CG firms are firms with *CGTotal* lower (higher) than the median of *CGTotal* for 333 firms (71.46). Daily return is calculated based on continuously compounded total returns. Abnormal returns are market-adjusted, with the SET Total Return Index as the market index. Row "Violations (Number)" is the number of violations having abnormal return (trading) data on that day under each category. Row "Negative Abnormal Return (%)" is the percentage of violations with negative abnormal return over the total number of violations during each event window. Mean abnormal return (AAR) significantly different from zero at a significance level of 10%, 5%, and 1% are marked *, **, *** respectively.

Low CG Firm				
	Day -1	Day 0	Day +1	Day 0,1
Mean (AAR)	-1.05%	1.31%	-1.81%	-1.13%
Median	-0.10%	0.40%	-1.04%	-1.59%
Max	18.83%	22.84%	22.03%	28.66%
Min	-72.71%	-11.13%	-25.78%	-24.63%
Std. Dev.	9.65%	6.10%	6.92%	9.54%
t- statistics	-0.93	1.44	-2.14	-0.98
Violations (Number)	73	45	67	68
Negative Abnormal Return (%)	55%	38%	64%	57%

High CG Firm				
	Day -1	Day 0	Day +1	Day 0,1
Mean (AAR)	0.38%	-0.35%	-1.32%	-1.64%
Median	0.39%	0.20%	-1.71%	-2.08%
Max	25.21%	7.88%	24.78%	27.80%
Min	-25.52%	-11.76%	-13.89%	-18.85%
Std. Dev.	6.33%	4.11%	6.33%	7.26%
t- statistics	0.44	-0.49	-1.45	-1.53
Violations (Number)	54	33	48	46
Negative Abnormal Return (%)	44%	45%	63%	65%

Tests in the difference of the means / the difference of the medians

Low CG Firm vs. High CG Firm				
	Day -1	Day 0	Day +1	Day 0,1
Difference of the means:				
t-statistic	0.951	1.356	0.388	0.306
p -value	0.343	0.179	0.699	0.760
Difference of the medians:				
Wilcoxon/Mann-Whitney	0.622	0.885	0.224	0.476
p -value	0.534	0.376	0.823	0.634

Table 7
Abnormal return surrounding violation on day 0 classified by past violations

This table summarizes descriptive statistics of abnormal returns surrounding violation on day 0 classified by CG score. Bad (good) firms are firms with *Violtot02S* higher (lower) than the median of *Violtot02S* for 333 firms (0.23). Daily return is calculated based on continuously compounded total returns. Abnormal returns are market-adjusted, with the SET Total Return Index as the market index. Row "Violations (Number)" is the number of violations having abnormal return (trading) data on that day under each category. Row "Negative Abnormal Return (%)" is the percentage of violations with negative abnormal return over the total number of violations during each event window. Mean abnormal return (AAR) significantly different from zero at a significance level of 10%, 5%, and 1% are marked *, **, *** respectively.

Bad Firm

	Day -1	Day 0	Day +1	Day 0,1
Mean (AAR)	0.41%	0.30%	-0.32%	-0.37%
Median	0.10%	0.23%	-0.54%	-1.67%
Max	25.21%	15.93%	24.78%	28.66%
Min	-25.52%	-11.76%	-14.13%	-24.63%
Std. Dev.	5.86%	4.71%	6.92%	8.76%
t- statistics	0.62	0.45	-0.39	-0.36
Violations (Number)	81	51	71	70
Negative Abnormal Return (%)	47%	45%	56%	60%

Good Firm

	Day -1	Day 0	Day +1	Day 0,1
Mean (AAR)	-1.94%	1.19%	-3.69%	-2.86%
Median	-0.79%	0.91%	-1.71%	-1.77%
Max	13.03%	22.84%	3.19%	21.98%
Min	-72.71%	-9.63%	-25.78%	-23.68%
Std. Dev.	11.52%	6.53%	5.67%	8.37%
t- statistics	-1.14	0.95	-4.32 ***	-2.27 **
Violations (Number)	46	27	44	44
Negative Abnormal Return (%)	57%	33%	75%	61%

Tests in the difference of the means / the difference of the medians

Bad Firm vs. Good Firm

	Day -1	Day 0	Day +1	Day 0,1
Difference of the means:				
t-statistic	1.520	0.698	2.714	1.499
p -value	0.131	0.487	0.008	0.137
Difference of the medians:				
Wilcoxon/Mann-Whitney	0.705	0.536	2.190	1.138
p -value	0.481	0.592	0.029	0.255

Table 8
Independent variables and expected signs for the model explaining the stock market reaction to violation announcements

This table presents the definitions of all variables used in the regression model for explaining the stock market reaction to violation announcements in Equation (5).

Variable	Definition	Sign, Stock market reactions
Dependent:		
AR +1	Abnormal return of the violation announcement one day after the announcement date (day 0).	
AR 0,1	Abnormal return of the violation announcement during day 0 to day 1.	
Independent:		
D_Severe	A dummy variable that equals 1 for severe violations and 0 for non-severe violations (medium or minor).	-
D_HighCG	A dummy variable if a firm's *CG_Total* is greater than the median of *CG_Total* for 333 firms.	-
D_GoodFirm	A dummy variable if a firm's *Violtot02S* is less than the median of *Violtot02S* for 333 firms.	-
Control for company characteristics:		
PastAAR	Average abnormal return during 2002, where abnormal return is calculated from the market adjusted model.	-
Popularity	A dummy variable that equals 1 when the firm has at least one analyst coverage; 0 otherwise.	-
LnAsset	Natural logarithm of total assets.	-
D_Big4	A dummy variable that equals 1 when the firm's auditor is a Big 4 firm; 0 otherwise.	-
Control for agency conflicts:		
Leverage	Total debt to assets ratio, winsorized at the 99% percentile (right tail).	-
Div. payout	Dividend payout ratio: dividends divided by earnings, winsorized at the value 200%, and negative payout ratios replaced with 200%.	-
Tangibility	Ratio of plant, property and equipment to total assets.	-
ROA	Return on assets, winzorized at the 1% and 99% percentile.	-
Control	A dummy variable equals 1 when a firm has at least one controlling shareholder with 25% or larger block (any type); 0 otherwise.	+/-

Table 9
Descriptive statistics of variables for Equation (5)

This table presents descriptive statistics of the variables in the regression model for explaining the stock market reaction to violation announcements (Equation 5). The descriptive statistics of all variables are based on 105 observations, except AR 0,1 is based on 104 observations. See Table 8 for the definitions of the variables.

Variable	Mean	Median	Std. Dev.	Min	Max	Skew	Kurtosis
AR +1	-0.016	-0.011	0.069	-0.258	0.248	0.515	6.663
AR 0,1	-0.017	-0.018	0.084	-0.246	0.287	0.640	6.233
D_Severe	0.314	0.000	0.466	0	1	---	---
D_HighCG	0.429	0.000	0.497	0	1	---	---
D_GoodFirm	0.343	0.000	0.477	0	1	---	---
PastAAR	-0.003	0.000	0.019	-0.065	0.050	-2.064	10.021
Popularity	0.286	0.000	0.454	0	1	---	---
LnAsset	-0.218	-0.456	0.791	-2.733	1.371	0.100	2.991
D_Big4	0.571	1.000	0.497	0	1	---	---
Leverage	0.385	0.307	0.268	0.000	0.923	0.388	2.125
Div. payout	0.137	0.000	0.284	0.000	1.000	2.024	5.835
Tangibility	0.438	0.463	0.259	0.031	0.945	0.050	1.713
ROA (%)	-0.847	-0.463	1.492	-3.871	2.424	-0.389	2.271
Control	0.752	1.000	0.434	0	1	-1.169	2.368

Table 10
Estimation results for the model explaining the stock market reaction to violation announcements

This table presents the estimation results of the regression model for explaining the stock market reaction to the violation announcements (Equation 5). The second, third and fourth columns show the estimated coefficients using abnormal return on day +1 (AR+1) whereas the fifth, sixth, and seventh columns show the estimated coefficients using abnormal return during day 0,1 (AR 0,1) as the dependent variable. Standard errors are reported below the estimated coefficients in parentheses. See Table 8 for the definitions of the variables and the expected signs of the coefficients. Coefficients significantly different from zero at a significance level of 10%, 5%, and 1% are marked *,**, and *** respectively.

Dependent variable	***AR +1***			***AR 0,1***		
Constant	0.007	0.084	0.086	0.014	0.079	0.089
	(0.034)	*(0.035)*	*(0.037)*	*(0.042)*	*(0.043)*	*(0.046)*
D_Severe	-0.027 *	-0.032 **	-0.031 **	-0.047 **	-0.053 ***	-0.051 ***
	(0.015)	*(0.014)*	*(0.014)*	*(0.019)*	*(0.017)*	*(0.018)*
D_HighCG	0.007	---	-0.002	-0.005	---	-0.013
	(0.016)	---	*(0.015)*	*(0.020)*	---	*(0.019)*
D_GoodFirm	---	-0.079 ***	-0.080 ***	---	-0.082 ***	-0.083 ***
	---	*(0.019)*	*(0.019)*	---	*(0.024)*	*(0.025)*
PastAAR	1.055	0.178	0.183	0.881	-0.154	-0.105
	(0.683)	*(0.663)*	*(0.667)*	*(0.846)*	*(0.847)*	*(0.853)*
Popularity	-0.021	-0.044 **	-0.044 **	-0.029	-0.053 **	-0.055 **
	(0.017)	*(0.017)*	*(0.017)*	*(0.021)*	*(0.021)*	*(0.021)*
LnAsset	0.010	-0.002	-0.002	0.009	-0.006	-0.005
	(0.013)	*(0.012)*	*(0.012)*	*(0.016)*	*(0.015)*	*(0.016)*
D_Big4	0.004	-0.025	-0.025	0.011	-0.015	-0.015
	(0.021)	*(0.021)*	*(0.021)*	*(0.026)*	*(0.026)*	*(0.026)*
Leverage	0.001	-0.017	-0.019	0.006	-0.001	-0.010
	(0.035)	*(0.031)*	*(0.033)*	*(0.043)*	*(0.038)*	*(0.041)*
Div. payout	0.008	0.0004	0.001	0.055	0.043	0.048
	(0.032)	*(0.029)*	*(0.030)*	*(0.041)*	*(0.038)*	*(0.039)*
Tangibility	0.034	-0.003	-0.003	0.007	-0.023	-0.025
	(0.029)	*(0.028)*	*(0.029)*	*(0.037)*	*(0.036)*	*(0.036)*
ROA	0.004	0.014 *	0.014 *	-0.0002	0.012	0.012
	(0.007)	*(0.007)*	*(0.007)*	*(0.009)*	*(0.009)*	*(0.009)*
Control	-0.030	-0.022	-0.022	-0.026	-0.016	-0.016
	(0.022)	*(0.020)*	*(0.020)*	*(0.026)*	*(0.025)*	*(0.025)*
Observations	105	105	105	104	104	104
Adj. R^2	0.022	0.173	0.164	0.015	0.121	0.115

Appendix A
Abnormal return surrounding violation on day 0 of low CG firms and high CG firms classified by severity of violations

This table summarizes descriptive statistics of abnormal returns surrounding violation on day 0 of low CG firms and high CG firms classified by severity of violations. Low (high) CG firms are firms with *CGTotal* lower (higher) than the median of *CGTotal* for 333 firms (71.46). Daily return is calculated based on continuously compounded total returns. Abnormal returns are market-adjusted, with the SET Total Return Index as the market index. Row "Violations (Number)" is the number of violations having abnormal return (trading) data on that day under each category. Row "Negative Abnormal Return (%)" is the percentage of violations with negative abnormal return over the total number of violations during each event window. Mean abnormal return (AAR) significantly different from zero at a significance level of 10%, 5%, and 1% are marked *, **, *** respectively.

Low CG Firm

	Minor				Medium				Severe			
	Day -1	Day 0	Day +1	Day 0,1	Day -1	Day 0	Day +1	Day 0,1	Day -1	Day 0	Day +1	Day 0,1
Mean (AAR)	-0.40%	1.14%	0.33%	1.92%	-0.35%	3.59%	-1.96%	-0.23%	-3.14%	-1.54%	-4.63%	-6.14%
Median	-0.01%	1.10%	0.07%	1.44%	-0.31%	0.23%	-1.39%	-1.73%	-0.46%	0.40%	-3.41%	-6.65%
Max	8.34%	15.93%	12.74%	28.66%	13.03%	22.84%	22.03%	22.06%	18.83%	2.54%	14.81%	15.23%
Min	-5.39%	-11.13%	-10.22%	-19.85%	-16.75%	-1.87%	-19.07%	-18.31%	-72.71%	-8.12%	-25.78%	-24.63%
Std. Dev.	2.86%	5.60%	5.42%	9.38%	5.01%	7.52%	6.47%	8.60%	18.22%	4.02%	8.75%	9.69%
t- statistics	-0.67	0.98	0.29	0.94	-0.40	1.72	-1.60	-0.14	-0.73	-1.15	-2.12 *	-2.69 **
Violations (Number)	23	23	23	21	32	13	28	29	18	9	16	18
Negative Abnormal Return (%)	52%	39%	48%	33%	56%	38%	68%	66%	56%	33%	81%	72%

High CG Firm

	Minor				Medium				Severe			
	Day -1	Day 0	Day +1	Day 0,1	Day -1	Day 0	Day +1	Day 0,1	Day -1	Day 0	Day +1	Day 0,1
Mean (AAR)	0.59%	-0.20%	-0.35%	-0.63%	0.35%	-0.77%	-0.46%	-0.82%	0.21%	-0.48%	-2.64%	-2.98%
Median	0.44%	-0.18%	-0.10%	-0.24%	0.42%	1.09%	-2.86%	-2.84%	0.20%	0.53%	-3.94%	-2.96%
Max	6.96%	7.88%	9.09%	16.97%	11.13%	3.02%	24.78%	27.80%	25.21%	5.92%	13.26%	4.74%
Min	-4.43%	-9.26%	-9.59%	-18.85%	-7.01%	-11.53%	-13.89%	-14.45%	-25.52%	-11.76%	-10.68%	-12.93%
Std. Dev.	2.86%	3.23%	3.66%	6.44%	5.15%	5.45%	11.54%	12.90%	9.02%	6.04%	5.78%	4.73%
t- statistics	0.90	-0.28	-0.42	-0.43	0.25	-0.35	-0.11	-0.18	0.11	-0.19	-2.04 *	-2.75 **
Violations (Number)	19	21	20	19	14	6	8	8	21	6	20	19
Negative Abnormal Return (%)	42%	52%	55%	53%	43%	33%	63%	75%	48%	33%	70%	74%

Appendix A (continued)

Tests in the difference of the means / the difference of the medians												
	Minor				Medium				Severe			
	Day -1	Day 0	Day +1	Day 0,1	Day -1	Day 0	Day +1	Day 0,1	Day -1	Day 0	Day +1	Day 0,1
Difference of the means:												
t-statistic	1.116	0.957	0.469	0.993	0.434	1.268	0.479	0.154	0.744	0.412	0.819	1.268
p -value	0.271	0.344	0.641	0.327	0.667	0.222	0.635	0.878	0.462	0.687	0.418	0.213
Difference of the medians:												
Wilcoxon/Mann-Whitney	1.011	1.175	0.231	1.246	0.131	0.219	0.019	1.015	0.070	0.412	0.525	1.140
p -value	0.312	0.240	0.817	0.213	0.896	0.826	0.985	0.310	0.944	0.680	0.599	0.254

Note: We do not test the significant differcenes of abnormal return among the severity of violations since only abnormal return of the severe violations are negatively significant differences from zero on day +1 and day 0,1 and none of the abnormal return for medium and minor violations are negatively significant.

Appendix B
Abnormal return surrounding violation on day 0 of bad firms and good firms classified by severity of violations

This table summarizes descriptive statistics of abnormal returns surrounding violation on day 0 of bad firms and good firms classified by severity of violations. Bad (good) firms are firms with *Violtot02S* higher (lower) than the median of *Violtot02S* for 333 firms (0.23). Daily return is calculated based on continuously compounded total returns. Abnormal returns are market-adjusted, with the SET Total Return Index as the market index. Row "Violations (Number)" is the number of violations having abnormal return (trading) data on that day under each category. Row "Negative Abnormal Return (%)" is the percentage of violations with negative abnormal return over the total number of violations during each event window. Mean abnormal return (AAR) significantly different from zero at a significance level of 10%, 5%, and 1% are marked *, **, *** respectively.

Bad Firm

	Minor				Medium				Severe			
	Day -1	Day 0	Day +1	Day 0,1	Day -1	Day 0	Day +1	Day 0,1	Day -1	Day 0	Day +1	Day 0,1
Mean (AAR)	0.50%	1.03%	1.43%	3.13%	0.15%	0.17%	0.65%	0.71%	0.59%	-1.20%	-2.59%	-3.82%
Median	0.40%	-0.18%	0.45%	1.13%	0.10%	0.23%	-0.46%	-1.82%	-0.05%	0.42%	-3.29%	-3.35%
Max	8.34%	15.93%	12.74%	28.66%	11.13%	6.26%	24.78%	27.80%	25.21%	5.92%	14.81%	15.23%
Min	-5.39%	-11.13%	-5.85%	-6.12%	-7.01%	-11.53%	-13.89%	-14.45%	-25.52%	-11.76%	-14.13%	-24.63%
Std. Dev.	3.19%	4.95%	4.92%	8.62%	4.14%	3.87%	8.68%	9.27%	8.54%	5.24%	6.61%	7.40%
t- statistics	0.75	1.04	1.43	1.67	0.19	0.17	0.33	0.35	0.37	-0.76	-2.03 *	-2.73 **
Violations (Number)	23	25	24	21	29	15	20	21	29	11	27	28
Negative Abnormal Return (%)	39%	52%	42%	43%	48%	40%	50%	57%	52%	36%	74%	75%

Good Firm

	Minor				Medium				Severe			
	Day -1	Day 0	Day +1	Day 0,1	Day -1	Day 0	Day +1	Day 0,1	Day -1	Day 0	Day +1	Day 0,1
Mean (AAR)	-0.50%	-0.20%	-1.78%	-1.98%	-0.63%	9.88%	-4.46%	-1.75%	-6.90%	-0.87%	-6.35%	-6.70%
Median	-0.88%	0.91%	-0.57%	0.53%	-0.46%	8.63%	-3.60%	-2.87%	-0.38%	0.22%	-5.44%	-5.34%
Max	5.99%	5.97%	2.13%	4.74%	13.03%	22.84%	2.51%	21.98%	8.64%	2.29%	3.19%	2.08%
Min	-4.34%	-9.63%	-10.22%	-19.85%	-16.75%	-0.57%	-19.07%	-18.31%	-72.71%	-6.23%	-25.78%	-23.68%
Std. Dev.	2.38%	4.17%	3.65%	6.77%	6.32%	11.53%	5.23%	9.88%	23.38%	3.70%	8.58%	8.34%
t- statistics	-0.91	-0.21	-2.12 *	-1.27	-0.41	1.71	-3.41 ***	-0.71	-0.93	-0.47	-2.22 *	-2.41 **
Violations (Number)	19	19	19	19	17	4	16	16	10	4	9	9
Negative Abnormal Return (%)	58%	37%	63%	42%	59%	25%	88%	81%	50%	25%	78%	67%

Appendix B (continued)

Tests in the difference of the means / the difference of the medians between good firms and bad firms

	Minor				Medium				Severe			
	Day -1	Day 0	Day +1	Day 0,1	Day -1	Day 0	Day +1	Day 0,1	Day -1	Day 0	Day +1	Day 0,1
Difference of the means:												
t-statistic	1.126	1.153	2.371	2.070	0.508	2.885	2.069	0.777	1.489	0.114	1.373	0.985
p -value	0.267	0.256	0.023	0.045	0.614	0.010	0.046	0.442	0.145	0.911	0.179	0.331
Difference of the medians:												
Wilcoxon/Mann-Whitney	1.314	0.208	1.846	1.110	0.182	1.250	2.117	1.272	0.048	0.326	0.840	0.726
p -value	0.189	0.835	0.065	0.267	0.856	0.211	0.034	0.203	0.962	0.744	0.401	0.468

Tests in the difference of the means / the difference of the medians among good firms

	Day +1 Severe vs. Medium	Day +1 Severe vs. Minor	Day +1 Medium vs. Minor
Difference of the means			
t-statistic	0.686	2.002	1.782
p -value	0.499	0.056	0.084
Difference of the medians			
Wilcoxon / Mann-Whitney	0.425	1.476	1.772
p -value	0.671	0.140	0.076

Note: We only test the significant differences of abnormal return among the severity of violations on day +1 of good firms since their abnormal returns are negatively significant differences from zero.

Appendix C
Re-examination of the model explaining the stock market reaction to violation announcements

This table presents the estimation results of the regression model explaining the stock market reaction to violation announcements (Equation 5). The second and the fourth columns show the estimated coefficients using abnormal return on day +1 (AR+1) whereas the third and the fifth columns show the estimated coefficients using abnormal return during day 0,1 (AR 0,1) as the dependent variable. Standard errors are reported below the estimated coefficients in parentheses. *Costless CG Policy* is a dummy variable equal to 1 when a firm has its own written corporate governance policy and approved by the Board of directors; 0 otherwise. *Costless CG Remarks* is a dummy variable equal to 1 when a firm does not have written corporate governance policy but has some remarks about the adoption of corporate governance principles in their annual report or Form 56.1; 0 otherwise. *Costless CG Ethics* is a dummy variable when a firm has a written code of ethics or statement of business conduct for their directors and employees; 0 otherwise. *Costly CG* is an index of costly corporate governance policies including when firms have (higher than average) independent board members, a remuneration committee, a nomination committee, and separation of Chairman of the Board and the Chief Executive Officer. See Table 2 for the definitions of *CG Policy*, *CG Shareholders*, and *CG Board*. Also see Table 8 for the definitions of the control variables and the expected signs of the coefficients. Coefficients significantly different from zero at a significance level of 10%, 5%, and 1% are marked *,**, and *** respectively.

Appendix C (continued)

Dependent variable	***AR +1***	***AR 0,1***	***AR +1***	***AR 0,1***
Constant	0.109	0.138	0.119	0.107
	(0.074)	*(0.094)*	*(0.040)*	*(0.049)*
D_Severe	-0.032 **	-0.052 ***	-0.027 *	-0.051 ***
	(0.014)	*(0.018)*	*(0.014)*	*(0.018)*
D_HighCG	---	---	---	---
	---	---	---	---
CG Policy	0.0001	0.0001	---	---
	(0.0003)	*(0.0003)*	---	---
CG Shareholders	0.001	0.001	---	---
	(0.001)	*(0.001)*	---	---
CG Board	-0.001	-0.001	---	---
	(0.001)	*(0.001)*	---	---
Costless CG Policy	---	---	0.079	0.100
	---	---	*(0.071)*	*(0.090)*
Costless CG Remarks	---	---	-0.026	-0.010
	---	---	*(0.019)*	*(0.024)*
Costless CG Ethics	---	---	0.003	0.002
	---	---	*(0.015)*	*(0.019)*
Costly CG	---	---	-0.005	-0.013
	---	---	*(0.007)*	*(0.009)*
D_GoodFirm	-0.078 ***	-0.081 ***	-0.085 ***	-0.089 ***
	(0.019)	*(0.025)*	*(0.019)*	*(0.025)*
PastAAR	0.213	-0.141	0.265	-0.072
	(0.669)	*(0.854)*	*(0.671)*	*(0.860)*
Popularity	-0.049 ***	-0.060 ***	-0.050 ***	-0.061 ***
	(0.018)	*(0.022)*	*(0.018)*	*(0.022)*
LnAsset	0.0001	-0.002	-0.001	-0.004
	(0.012)	*(0.016)*	*(0.012)*	*(0.016)*
D_Big4	-0.026	-0.014	-0.029	-0.016
	(0.021)	*(0.026)*	*(0.021)*	*(0.026)*
Leverage	-0.019	-0.008	-0.023	-0.009
	(0.033)	*(0.041)*	*(0.031)*	*(0.039)*
Div. payout	-0.003	0.033	0.002	0.042
	(0.030)	*(0.039)*	*(0.030)*	*(0.039)*
Tangibility	0.008	-0.007	0.003	-0.023
	(0.030)	*(0.039)*	*(0.029)*	*(0.038)*
ROA	0.014 *	0.013	0.014 *	0.013
	(0.007)	*(0.010)*	*(0.007)*	*(0.009)*
Control	-0.028	-0.021	-0.030	-0.018
	(0.021)	*(0.026)*	*(0.021)*	*(0.026)*
Observations	105	104	105	104
Adj. R^2	0.163	0.109	0.179	0.116