Market Reactions to the Reform of Shareholder Derivative Litigation in Japan Shingo Kawashima Fumiko Takeda*

1. INTRODUCTION

The litigation environment has been changing for the past 20 years in Japan. In the present study, we analyze the effect of the recent changes in the litigation environment in Japan by focusing on two amendments to the Commercial Code as applied to shareholder derivative suits. Shareholder derivative suits are defined as lawsuits brought on behalf of a corporation by one or more of its shareholders against its managers or auditors to pursue their liability. If managers or auditors neglect their duties, they are liable to the company for damages arising from the misconduct. Japanese law permits individual shareholders to sue on behalf of the corporation to remedy the wrongful conduct. Thus, the derivative suit mechanism can be a means for shareholders to monitor the conduct of corporate managers.

The fundamental idea behind shareholder derivative suits against managers or auditors is to improve corporate governance by imposing penalties for wrongful conducts. However, whether the implementation of such a system increases firm value is a controversial issue, because some lawsuits are of questionable merit, and the cost to the firm of contesting or settling such a suit may exceed any harm suffered by investors. In fact, prior research that examines the impact of the Private Securities Litigation Reform Act of 1995 (PSLRA)

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hereafter) in the U.S., which increased restrictions on private litigation for securities fraud, provide mixed results (Spiess and Tkac 1997; Johnson *et al.* 2000; Ali and Kallapur 2001).

U.S. evidence regarding the results of litigation reform is mixed. In the present study we utilize a Japanese sample to investigate market reactions to the news that led to the amendment of the Commercial Code as it applies to shareholder derivative litigation. Japan provides an ideal setting to measure the effect of the change in the litigation environment on firm value, because the litigation threat was new to managers and auditors in Japan, who had weak protection against the assertion of shareholders' rights.

In the present study, we investigate how stock prices of three high-litigation-risk industries, namely, the pharmaceutical, retailing, and electronics industries, reacted to the news leading to two amendments of the Japanese Commercial Code. The 1993 Commercial Code amendments lowered the filing fees for bringing derivative actions, while the 2001 Commercial Code amendments attempted to reduce abusive shareholder derivative suits. We find that the stock prices of the pharmaceutical industry tended to react negatively to the news that increased the likelihood of the passage of the 1993 amendment, while stock prices of the retailing and electronics industries tended to react positively to the news that increased the likelihood of the passage of the 2001 amendment. In other words, Japanese investors were likely to regard the increase of shareholder derivative suits as having questionable merit and

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¹ Francis *et al.* (1994) find that these industries are subject to a high incidence of litigation. Rogers and Van Buskirk (2009) also find firms in these industries experienced a high incidence of lawsuit filings during the period between 1996 and 2005. More recently, Kim and Skinner (2012) confirm these prior findings.

to consider that the cost to high-litigation-risk industries of contesting or settling such suits might exceed any harm suffered by investors.

The rest of the article is organized as follows. Section 2 provides a literature review, background information, and hypothesis development. Section 3 explains the methodology and data. Section 4 discusses the empirical results, and concluding remarks are provided in Section 5.

2. LITERATURE REVIEW, BACKGROUND, AND HYPOTHESES

DEVELOPMENT

2.1 Literature review

The fundamental idea behind shareholder lawsuits against managers or auditors is to implement a system that polices and penalizes corporate frauds to establish the primary vehicle for compensating defrauded investors (Johnson *et al.* 2000). The underlying premise of such a system is that securities law, the legal/judicial system, and investors' protection can create an incentive that influences the behaviors of corporate executives and auditors. Having a legal system in which both laws and their enforcement can protect outside investors is crucial because they provide funds, to a large extent, based on the premise that investors' rights are protected (La Porta *et al.* 2000).

The concept of implementing a penalty to improve corporate governance is a controversial issue, however, because some lawsuits are of questionable merit, and the cost to

firms of contesting or settling such suits may exceed any harm suffered by investors. In fact, prior research that examines the impact of U.S.'s PSLRA, which increased restrictions on private litigation for securities fraud, provides mixed results.

Earlier studies on the PSLRA find an overall positive reaction to its enactment (Spiess and Tkac 1997; Johnson et al. 2000). For instance, Spiess and Tkac (1997) examine the stock price performance of firms in four industries (biotechnology, computers, electronics, and retailing), and find that the positive effects of the PSLRA predominated. Likewise, Johnson et al. (2000) show that the PSLRA was wealth-increasing, on average, for shareholders of hightechnology firms. At the same time, they report that the PSLRA reduced the incremental probability of being sued for committed fraud. These findings indicate that investors will benefit, on average, from the PSLRA's restrictions on private securities litigation, which are likely to limit lawsuits of questionable merit.

In contrast, Ali and Kallapur (2001) provide evidence that shareholders in the four highlitigation-risk industries (computers, electronics, pharmaceuticals & biotechnology, and retailing) reacted negatively on average to PSLRA's restrictions on their ability to bring securities-related lawsuits. In addition, other studies show that the PSLRA resulted in an increase in earnings management for Big six auditors clients (Lee and Mande 2003; Boone et al. 2009). Lee and Mande (2003) provide evidence that clients of Big six firms increased

² Francis and Krishnan (2002) find fewer going-concern qualifications after the PSLRA, which may have

their accounting discretion after the implementation of the PSLRA. Boone *et al.* (2009) also find an increase in accounting discretion associated with the PSLRA. Their results are consistent with a model developed by Chan and Pae (1998) that shows that, in the absence of joint-and-several liability, auditors reduce their effort.³

The U.S. evidence regarding the results of litigation reform is mixed. In contrast, the Japanese setting provides an interesting opportunity to gather evidence on the pure impact of the change in litigation risk, because the litigation threat was new to managers and auditors in Japan, who had weak protection against the assertion of shareholders' rights. Specifically, we utilize a Japanese sample to investigate market reactions to the news that would have led to the amendment of the Commercial Code on shareholder derivative litigation.

2.2 Japanese setting

An interesting aspect of the Japanese evidence of the effect of litigation reform is the recent change in the legal environment in Japan, which provides a unique opportunity to test the effect of shareholder derivative litigation on firm value. Despite a well-established judiciary system, Japan has been known as a low litigation country. However, the rise and fall of the economic bubble as well as a prolonged recession gave rise to a series of corporate

changed behavior, though they are uncertain whether it is for better or for worse.

³ Zeff (2003a & b) also suggests that after the PSLRA, audit firms did less work, adding to the moral hazard problem. This result could have contributed to the scandals that followed, but no clear causal link has been established.

scandals due to questionable business decisions and practices. The change in the corporate culture led to the introduction of a Western style of investor protection in Japan. The measures taken include reforms of civil procedures and corporate law, a law regarding information disclosures, and amendment of the Certified Public Accountants Law. In particular, the 1993 Commercial Code amendments provided the impetus for the dramatic increase in derivative suits by lowering the filing fees required to bring derivative actions. By studying the Japanese situation, we aim to investigate how market participants perceive the effect of imposing shareholder derivative litigation risk.

Recent studies on Japanese shareholder derivative suits mainly focus on the effect of reforms of the Commercial Code in 1993 and 2001 (Oshima 2001; Otsuki 2004; Kobayashi and Takahashi 2008; Takahashi 2008). The shareholder derivative suits were introduced in Japan in 1950. Only ten cases were brought to the court for the first 40 years after the introduction of this reform. However, after the collapse of the economic bubble, several high-profile corporate scandals were revealed. These include illegal loss compensation, provision of illicit benefits to "sokaiya," offering of bribery, and collusive bidding. The legal reforms of 1993 aimed to prevent such illegal activities by strengthening the monitoring of management by shareholders (Kawashima and Sakurai 1997; Kobayashi and Takahashi 2008; Takahashi 2008).

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⁴ The term "sokaiya" is a professional racketeer who extorts money from a company by threatening to cause trouble at a shareholders' meeting.

The 1993 Commercial Code amendments aimed to revitalize the system of shareholder derivative suits by lowering the hurdle to bringing lawsuits forward. Specifically, the 1993 amendments included two major changes. The first change was that the costs of shareholders derivative suits were reduced to be uniformly 8,200 yen, regardless of the amount of the claim for damages. The second change was that shareholders winning the lawsuit could claim a reasonable amount of money, including not only attorneys' fees, but also other costs of the lawsuits. These revisions reduced the costs of shareholders suing a corporation, resulting in changes in the litigation environment. The first change was an increase in the number of shareholder derivative lawsuits, in particular, lawsuits against managers of large companies. The other change was a rise in the amounts of claims for damages (Kawashima and Sakurai 1997; Oshima 2001; Otsuki 2004).

A negative effect of the changes following the introduction of reform was an increase in the number of abuses of process or strike suits. For instance, sokaiya sued company managers to enhance their own reputation and obtain unjust benefits. Another example is that a citizen's movement utilized a lawsuit against companies. The 1993 Commercial Code amendments did not take into account the measures to prevent such unjust lawsuits. Therefore, the defendant tended to file the petition for the court to order such shareholder to provide reasonable security [Article 267 of the Commercial Code].

Based on the criticism that the 1993 Commercial Code amendments led to the increase

in the number of meritless shareholders derivative suits and the rise of amounts of claims for damages, as well as the unjust lawsuits, the Commercial Code was again revised in 2001 and included four major changes (Takahashi 2008). First, directors can be exempted partially from liability with the consent of all shareholders [Article 266 (7-16) of Commercial Code]. Second, a stock company is allowed to intervene in a suit relating to an action for pursuing liability, to assist its management personnel, if the company obtains the consent of company auditors [Article 268 of Commercial Code]. Third, the conditions for reconciliation were made more attainable. Fourth, shareholders must inform the defendant that the shareholder derivative suits were to be filed.

In sum, Japan has experienced two important changes regarding shareholder derivative suits in the past twenty years. The first change increased the number of derivative suits, while the second change aimed to prevent unjust suits. To examine the effect of litigation risk on firm value in Japan, in the next section we develop hypotheses regarding the relationship between the litigation reforms and firm value reflected in stock price performance.

2.3 Hypotheses development

As explained in the previous subsection, existing studies on the PSLRA suggest that there are two competing hypotheses regarding the effect of the reforms of shareholder derivative suits on shareholder wealth. Correspondingly, we also can consider two competing

views regarding the litigation reforms in Japan. First, one may argue that investors would have been harmed, on average, from the 1993 Commercial Code amendments that reduced restrictions on shareholder derivative suits, while they would have benefitted from the 2001 amendments that aimed to prevent meritless shareholder derivative suits, because many lawsuits were considered to be of questionable merit, and the cost to firms of contesting or settling such suits may have greatly exceeded any harm suffered by investors.

In contrast, others may claim that reduced restrictions to shareholder derivative suits by the 1993 Commercial Code amendments was value-increasing, while the reduction of meritless suits intended by the 2001 amendments was value-decreasing, on average, because it may fail to deter the possible earnings management and accounting discretion problems. Considering these two possible views, we set the following null hypotheses on stock price reactions of high-litigation-risk industries to the two Commercial Code amendments regarding shareholder derivative suits in Japan:

 H_1 : Stock prices of high-litigation-risk industries did not react to the news that was likely to increase the passage of the 1993 reform.

 H_2 : Stock prices of high-litigation-risk industries did not react to the news that was likely to increase the passage of the 2001 reform.

3. METHODOLOGY AND DATA

In the present study, we analyze the effect of Commercial Code amendments on shareholder derivative suits in 1993 and 2001. We first search for news leading to the 1993 amendments and the 2001 amendments by using the following keywords: the Commercial Code, amendments, and shareholder derivative suits. We select 9 events for the 1993 amendments (which range from February 1992 to June 1993), and 12 events for the 2001 reform (which range from September 2000 to April 2002). The event description is given in Panel A of Tables 1 and 2 for the 1993 and 2001 amendments, respectively. All events in Table 1 were regarded to increase the likelihood of the passage of the 1993 amendments, while Events 5 and 8 in Table 2 were likely to delay the passage of the 2001 amendments.

We note that a simple event study methodology in which the abnormal returns of individual stocks are aggregated may cause a clustering problem in evaluating the market-wide effect. That is, the cross-sectional dependence among abnormal returns can generate bias in the test results. To avoid this potential bias, we estimate the following model based on a portfolio approach:

$$R_{p,t} = \alpha_p + \beta_p R_{m,t} + \sum_{k=1}^n \gamma_{p,k} D_k + \varepsilon_{p,t}$$
(1)

The dependent variable $R_{p,t}$ is the return of an equally-weighted portfolio of each highlitigation-risk industry p on day t. D_k is a dummy variable that takes a value of 1 for the threeday event window (-1, 1) of Event k and zero otherwise. $R_{m,t}$ represents the return of the Tokyo Stock Price Index (TOPIX) on day t. $\varepsilon_{p,t}$ represents the zero-mean disturbance term. The coefficient on each event dummy variable ($\gamma_{p,k}$) represents an estimate of the average daily abnormal return related to the event. The estimation period is set at 600 trading days from January 28, 1991 to July 1, 1993 for the 1993 amendments and 657 trading days from August 27, 1999 to April 30, 2002 for the 2001 amendments.

The high-litigation-risk portfolio consists of firms that belong to high-litigation-risk industries, namely, pharmaceutical, retailing, and electronics industries. We select firms listed on the first section of the Tokyo Stock Exchange that have stock price data for the estimation periods. There are data for 33 pharmaceutical firms for the two amendments, for 88 retailing firms for the 1993 amendments and 65 for the 2001 amendments, and for 140 electronics firms for the 1993 amendments and 137 for the 2001 amendments. We also estimate, using equation (1), for our two event classifications: (a) events that increased the likelihood of the passage of the amendments, and (b) events that decreased it. Descriptive statistics on stock return data for the Commercial Code amendments in 1993 and 2001 are presented in Table 1.

[Table 1 here]

4. RESULTS

Panel A of Table 2 shows the results from ordinary least squares regression based on equation (1), where dependent variables are daily portfolio returns for high-litigation-risk industries and independent variables consist of daily returns for TOPIX and dummy variables for event dates leading to the 1993 Commercial Code amendments. We employ White heteroskedasticity-consistent standard errors and covariance. Among nine events that increased the likelihood of the passage of the 1993 amendments, coefficients on four events are significantly negative for the pharmaceutical industry, as are coefficients on two events for the retailing industry and coefficients on five events for the electronics industry, while one event has significantly positive coefficient for the retailing industry, and two events for the electronics industry.

[Table 2 here]

As a display of the average effect, Panel B presents results for aggregated event dummies. It shows that on average the pharmaceutical industry experienced significantly negative reactions to the events leading to the 1993 Commercial Code amendments, while the retailing and electronics industries experienced insignificant reactions. In other words, investors expected that the pharmaceutical industry would have been negatively affected by the

increase of shareholder derivative suits, while the retail and electronics industries would not.

Likewise, Panel A of Table 3 shows the results from ordinary least squares regression based on equation (1), where dependent variables are daily portfolio returns for high-litigation-risk industries while independent variables consist of daily returns for TOPIX and dummy variables for event dates leading to the 2001 Commercial Code amendments. The events with superscript + were expected to have decreased the likelihood of the passage of the 2001 amendments, while other events were expected to have increased it. Among ten events that increased the likelihood of the passage of the 2001 amendments, the coefficient on Event 7 is significantly positive for the pharmaceutical industry, as are the coefficients on Events 3 and 6 for the electronics industry. Among two events that decreased the likelihood of the passage of the 2001 amendments, a coefficient on Event 5 is significantly positive for the retailing industry, while the coefficient on Event 8 is significantly positive for the electronics industry but negative for the pharmaceutical industry.

[Table 3 here]

As a display of the average effect, Panel B presents results for aggregated event dates. Events A are expected to have increased the likelihood of the passage of the 2001 amendments, while Events B, which consists of Events 5 and 8, are expected to have

decreased it. The panel shows that, on average, the pharmaceutical industry experienced insignificant reactions to both Events A and B, while the retailing and electronics industries experienced significantly positive reactions to Event B. In other words, investors expected that the retail and electronics industries would have been positively affected by the delay in the passage of the 2001 amendments, while the pharmaceutical industry would not have been positively affected by the delay.

In sum, our results show that stock prices of high-litigation-risk industries tended to react negatively to the news that increased the likelihood of the passage of the 1993 amendments, while they tended to react positively to the news that delayed the passage of the 2001 amendments. These findings indicate that many investors expected that the increase of shareholder derivative litigation risk would decrease the firm value of high-litigation-risk industries. In other words, Japanese investors were likely to believe that many lawsuits were of questionable merit, and the cost to firms of contesting or settling such suits may have greatly exceeded any harm suffered by investors.

5. CONCLUDING REMARKS

This article investigates how stock prices of high-litigation-risk industries reacted to the news on changes in shareholder lawsuits in Japan. Specifically, we focus on two amendments to the Japanese Commercial Code. The 1993 Commercial Code amendments lowered the filing fees required to bring derivative actions, while the 2001 Commercial Code amendments attempted to reduce abusive shareholder derivative suits. We find stock prices of the pharmaceutical industry tended to react negatively to the news that increased the likelihood of the passage of the 1993 amendment, while stock prices of the retailing and electronics industries tended to react positively to the news that increased the likelihood of the passage of the 2001 amendment.

Our results indicate that the increase of shareholder derivative litigation might be more costly for shareholders of high-litigation-risk industries, despite its merit of possible decrease in earnings management and accounting discretion. However, the present study does not deny the possibility that whether costs exceed benefits may depend on industries or other characteristics held by firms. Thus, further research is needed to draw conclusions on the pros and cons of the change in the litigation environment.

References

- Ali, A. and S. Kallapur. (2001) "Securities Price Consequences of the Private Securities Litigation Reform Act of 1995 and Related Events." The Accounting Review, 6(3): 431-460.
- Boone, J. P., I. K. Kharana, and K. K. Raman. (2009) "Litigation reform, accounting discretion, and the cost of equity." Journal of Contemporary Accounting & Economics 5: 80-94.
- Bush, T., S. Fearnley, and S. Sunder (2007) "Auditor Liability Reforms in the UK and the US." A Comparative Review, Working paper, Available at SSRN: http://ssrn.com/abstract=1011235.
- Chan, D and Pae, S. (1998) An analysis of the economic consequences of the proportionate liability rule. Contemporary Accounting Research 15 (Winter): 457-480.
- Francis, J.R., and J. Krishnan. (1999) "Accounting Accruals and Auditor Reporting Conservatism." Contemporary Accounting Research 16.
- Francis, J., Philbrick, D., Schipper, K., (1994) Shareholder litigation and corporate disclosures, Journal of Accounting Research 22: 137-164.
- Johnson, M, R. Kasznik and K. Nelson. (2000) "Shareholder effects of the Private Securities Litigation Reform Act of 1995." Review of Accounting Studies, 5(3): 217-233.
- Kawashima, S. and S. Sakurai. (1997) "Shareholder Derivative Litigation in Japan: Law, Practice, and Suggested Reforms." Stanford Journal of International Law, Winter 1997.
- Kim, I. Y., and D. J. Skinner. (2012) "Measuring Securities Litigation Risk." Journal of Accounting and Economics 53(1-2): 290-310.
- Kobayashi, H., and H. Takahashi. (2008) Shareholder Lawsuits and Corporate Governance (Kabunushi Daihyo Sosho to Corporate Governance in Japanese). Nihon Hyoron Sha: Tokyo.
- Lee, H. Y., and V. Mande. (2003) "The Effect of the Private Securities Litigation Reform Act of 1995 on Accounting Discretion of Client Managers of Big 6 and Non-Big 6 Auditors." Auditing: A Journal of Practice & Theory, 22(1): 93-108.
- Lys, T. and R. L. Watts. (1994) "Lawsuits against Auditors." Journal of Accounting Research, Vol. 32: 65-93.
- Oshima, K. (2001) "On the change of Japanese derivative action: part 1 (Kabunushi daihyo sosho wo meguru ugoki: sono 1 in Japanese)." (The Kobe Gaidai Ronso in Japanese) 52(3): 75-90.
- Otsuki, T. (2004) "The Business Law of Shareholder Derivative Suit (Business ho ni okeru kabunushi daihyo sosho heno jokyoku in Japanese)." The Chuo University Review of Economics and Commerce (Chuo Gakuin Daigaku Shokei Ronso in Japanese) 18: 23-33.
- Rogers, L. J., A. Van Buskirk. (2009) Shareholder litigation and changes in disclosure behavior. Journal of Accounting and Economics. 47: 136-156.

- Spiess, D. K., and P. A. Tkac. (1997) "The Private Securities Litigation Reform Act of 1995: The Stock Market Casts its Vote... Managerial and Decision Economics, 18(7-8): 545-561.
- Takahashi, H. (2008) Theory of Shareholder Lawsuits and Lessons from Instituitional Change (Kabunushi Daihyo Sosho no Riron to Seido Kaisei no Kadai in Japanese). Dobunkan Shuppan: Tokyo.
- Zeff, S.A. (2003a) How the U.S. Accounting Profession Got Where it is Today Part 1. Accounting Horizons 17(3): 189-205.
- Zeff, S.A. (2003b). How the U.S. Accounting Profession Got Where it is Today Part 2. Accounting Horizons 17(4): 267-286.

Table 1: Descriptive Statistics on Stock Return Data over the Estimation Period for the Commercial Code Amendments in 1993 and 2001 The estimation period for the 1993 amendments is the 600 trading days during the period between 1/28/91 and 7/1/93. The estimation period for the 2001 amendments is the 657 trading days during the period between 8/27/99 and 4/30/02. Unit: %

| | Stock price | data for the 1 | 993 amendme | Stock price data for the 2001 amendments | | | | |
|--------------|----------------|----------------|-------------|--|----------------|-----------|-------------|---------|
| | Pharmaceutical | Retailing | Electronics | TOPIX | Pharmaceutical | Retailing | Electronics | TOPIX |
| Mean | 0.042 | 0.028 | 0.027 | -0.004 | 0.021 | -0.040 | -0.038 | -0.068 |
| Median | -0.028 | 0.009 | -0.045 | -0.106 | -0.012 | -0.094 | -0.050 | -0.147 |
| Maximum | 5.301 | 3.714 | 6.919 | 7.556 | 6.882 | 5.148 | 6.003 | 6.319 |
| Minimum | -4.508 | -3.352 | -4.878 | -5.239 | -6.539 | -5.849 | -8.003 | -6.362 |
| Std. Dev. | 1.248 | 0.884 | 1.255 | 1.301 | 1.162 | 1.061 | 1.576 | 1.432 |
| Skewness | 0.346 | 0.224 | 0.581 | 0.727 | 0.405 | 0.157 | -0.284 | -0.056 |
| Kurtosis | 2.042 | 1.775 | 2.893 | 4.558 | 4.947 | 2.931 | 2.233 | 1.559 |
| Sum | 25.167 | 16.641 | 16.278 | -2.582 | 12.468 | -24.280 | -22.814 | -40.765 |
| Observations | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |

Table 2: Results from Ordinary Least Squares Regression of Daily Portfolio Returns for High-Litigation-Risk Industries on Market Index and Dummy Variables for Event Dates Leading to the 1993 Commercial Code Amendments

The estimation period is the 600 trading days during the period between 1/28/91 and 7/1/93.

Model:
$$R_{p,t} = \alpha_p + \beta_p R_{m,t} + \sum_{k=1}^n \gamma_{p,k} D_k + \varepsilon_{p,t}$$

Variable definitions:

 $R_{p,t}$ = high-litigation-industry portfolio daily stock return (%);

 $R_{m,t}$ = Tokyo Stock Price Index (TOPIX) daily value-weighted market return (%);

 $D_k = 1$ if the day corresponds to event window k, and 0 otherwise.

Panel A: Results from least squares regression on dummy variables for each event date

| Event | Event | Pharr | naceutical | Re | tailing | Ele | ectronics | |
|--------|-----------|--------|-------------|--------|-------------|-----------|-------------|--|
| number | date, k | βр | (t-stat) | βр | (t-stat) | βp | (t-stat) | Event Description |
| | Intercept | 0.060 | (1.89) * | 0.032 | (1.35) | 0.037 | (1.36) | |
| | $R_{m,t}$ | 0.762 | (26.74) *** | 0.525 | (20.69) *** | 0.834 | (32.03) *** | |
| 1 | 2/6/92 | 0.349 | (1.49) | 0.631 | (10.89) *** | 0.080 | (0.39) | The LDP decided to make an action plan to revitalize securities markets. |
| 2 | 3/9/92 | -0.570 | -(1.68) * | -0.180 | -(3.34) *** | -0.564 | -(3.39) *** | The Ministry of Justice will prepare for the Commercial Code amendments by introducing the system of external auditors, improving shareholder derivative suits, and strengthening the right to inspect the books and records. |
| 3 | 4/7/92 | -0.158 | -(0.70) | 0.116 | (0.95) | 0.985 | (5.42) *** | The subcommittee on the Commercial Code of the LDP legal committee discussed the Commercial Code amendments. |
| 4 | 8/10/92 | -1.410 | -(7.77) *** | -1.020 | -(3.18) *** | -0.998 | -(7.21) *** | The subcommittee on the Commercial Code of the Legistlative Council of the Ministry of Justice started to revise the Commercial Code related to shareholder derivative suits system, external auditor system, expansion of minority shareholders, and so on. |

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| 5 | 1/25/93, 1/27/93, 1/30/93 | 0.066 | (0.37) | -0.046 | -(0.47) | -0.128 | -(0.95) | The Ministry of Justice decided to make shareholder derivative suits easier by lowering filing fees required to bring the suits (1/25/93). The subcommittee of the Legistlative Council of the Ministry of Justice agreed on the reduction of filing fee (1/27/93). The Ministry of Justice accounced the proposal for the revisions of the Commercial Code, which is supposed to submit to the current Diet session. The revision includes improvement of shareholder derivative suits, expansion of minority shraholders, introduction of external auditor system, and so on (1/30/93). |
|---|---------------------------------|--------|------------|--------|---------|--------|------------|---|
| 6 | 2/11/93, | 0.117 | (0.54) | 0.109 | (0.58) | -0.415 | -(4.08) ** | The subcommittee on the Commercial Code of the Legistlative Council of the Ministry of Justice approved of the proposal for the Commercial Code amendments (2/11/93). The subcommittee on the Commercial Code of the LDP legal committee approved of the proposal of the Ministry of Justice for the Commercial Code amendments (2/16/93). |
| 7 | 2/25/93, 3/2/93 | -0.100 | -(0.73) | -0.197 | -(1.62) | -0.090 | -(2.02) ** | The Legistlative Council submitted a proposal for the Commercial Code amendments to the Minister of Justice (2/25/93). The LDP approved of the proposal for the Commercial Code amendments at the joint meeting of legal and financial committees (3/2/93). |
| 8 | 3/6/93, | -0.500 | -(1.86) * | 0.088 | (0.62) | -0.191 | -(1.69) * | The LDP approved of the proposal for the Commercial Codeamendments at the meeting of affairs committee (3/6/93). The government decided to submit the proposal for the Commercial Code amendments to the current Diet session at the Cabinet meeting (3/9/93). |
| 9 | 6/3/93, 6/4/93 | -0.546 | -(2.19) ** | 0.234 | (1.09) | 0.608 | (1.77) * | The Committee on Judicial Affairs of the House of Councils approved of the Commercial Code amendments (6/3/93). The House of Councils approved of the Commercial Code amendments (6/4/93). |
| | Adj. R ² | 0.648 | | 0.617 | | 0.754 | | |

Note: ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel B: Results from least squares regression on dummy variables for aggregated event dates

| | Phari | naceutical | R | etailing | Electronics | | |
|---------------------|--------|-------------|--------|-------------|-------------|-------------|--|
| | βр | (t-stat) | βр | (t-stat) | βp | (t-stat) | |
| | | | | | | | |
| Intercept | 0.060 | (1.90) * | 0.032 | (1.35) | 0.037 | (1.37) | |
| $R_{m,t}$ | 0.768 | (27.60) *** | 0.532 | (21.68) *** | 0.833 | (32.62) *** | |
| All events | -0.231 | -(2.19) ** | -0.026 | -(0.33) | -0.089 | -(0.91) | |
| Adj. R ² | 0.645 | | 0.611 | | 0.747 | | |

Note: ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3: Results from Ordinary Least Squares Regression of Daily Portfolio Returns for High-Litigation-Risk Industries on Market Index and Dummy Variables for Event Dates Leading to the 2001 Commercial Code Amendments

The estimation period is the 657 trading days during the period between 8/27/99 and 4/30/02.

Model:
$$R_{p,t} = \alpha_p + \beta_p R_{m,t} + \sum_{k=1}^n \gamma_{p,k} D_k + \varepsilon_{p,t}$$

Variable definitions:

 $R_{p,t}$ = high-litigation-industry portfolio daily stock return (%);

 $R_{m,t}$ = Tokyo Stock Price Index (TOPIX) daily value-weighted market return (%);

 $D_k = 1$ if the day corresponds to event window k, and 0 otherwise.

Panel A: Results from least squares regression on dummy variables for each event date

| Event | Event | Phari | naceutical | Re | tailing | Ele | ectronics | |
|--------|-----------|-----------|-------------|-----------|-------------|--------------------|-------------|--|
| number | date, k | βp | (t-stat) | βp | (t-stat) | βp (t-stat) | | Event Description |
| | Intercept | 0.052 | (1.33) | 0.003 | (0.09) | 0.045 | (1.45) | |
| | $R_{m,t}$ | 0.463 | (12.94) *** | 0.559 | (22.94) *** | 0.962 | (36.19) *** | |
| 1 | 9/23/2000 | 0.193 | (1.42) | -0.099 | -(0.33) | -0.467 | -(1.28) | The subcommittee on the Commercial Code of the LDP legal committee agreed on the submission of the reform bill of the Commercial Code on corporate governance to the project team on the Commercial Code of ruling parties. |
| 2 | 12/8/2000 | 0.033 | (0.11) | -0.227 | -(0.88) | -0.033 | -(0.08) | The project team on the Commercial Code of ruling parties discussed the reform of shareholder derivative suits. |
| 3 | 1/26/2001 | 0.361 | (0.52) | 0.047 | (0.28) | -0.442 | -(2.46) ** | New Komeito (New Clean Government Party) made a draft of the reform of shareholder derivative suit system to limit the amount of liability for sued directors at the meeting of the project team on corporate law. |
| 4 | 3/29/2001 | 0.171 | (1.21) | 0.103 | (0.18) | 0.157 | (0.51) | The project team on the Commercial Code of ruling parties discussed the reform of shareholder derivative suits to limit the amount of liabilities for suied directors if general meeting of shareholders approves of the extraordinary resolution. |

| 5+ | 4/15/2001, 4/19/2001, 4/21/2001 | 0.151 | (0.75) | | 0.693 | (2.96) | *** | 0.148 | (1.06) | The reform bill of the Commercial Code was not likely to be submitted to the current Diet session, because of the gap in opinions between the LDP and New Komeito (4/15/2001). The Legistlative Council of the Ministry of Justice made a draft on the reform bill of the Commercial Code (4/19/2001). The project team on the Commercial Code of ruling partiesmade a draft of the reform bill of the Commercial Code to revise the shareholder derivative suit system (4/21/2001). |
|----|--|--------|---------|-----|--------|---------|-----|--------|-------------|--|
| 6 | 5/16/2001 | 0.006 | (0.04) | | 0.010 | (0.05) | | -0.449 | -(4.71) *** | The LDP decided to submit the reform bill of the Commercial Code to the current Diet session. |
| 7 | 5/31/2001 | 0.913 | (3.80) | *** | 0.065 | (0.33) | | -0.209 | -(0.60) | Ruling parties submitted the reform bill of the Commercial Code to the House of Representatives, which includes the revision of the shareholder derivate suits. |
| 8+ | 11/4/2001 | -0.340 | -(1.65) | * | -0.198 | -(1.16) | | 0.683 | (10.84) *** | The currence Diet session might not be able to discuss the reform bill of the Commercial Code to limit the ammount of liability for sued directors. |
| 9 | 11/22/2001, 11/23/2001, 11/29/2001 | 0.057 | (0.22) | | 0.077 | (0.63) | | 0.063 | (0.19) | The currence Diet session would discuss the reform bill of the Commercial Code to limit the ammount of liability for suied directors (11/22/2001). Ruling parties and the Democratic Party agreed on the reform bill of the Commercial Code to limit the amount of liability for sued directors (11/23/2001). The House of Representatives approved on the reform bill of the Commercial Code (11/29/2001). |
| 10 | 12/5/2001 | -0.452 | -(1.06) | | -0.088 | -(0.35) | | 0.508 | (1.08) | The House of Councils approved on the reform bill of the Commercial Code. |
| 11 | 2/7/2002 | 0.083 | (0.27) | | -0.064 | -(0.34) | | -0.221 | -(0.58) | The Ministry of Justice plans to enforce the revised Commercial Code from June. |
| 12 | 4/12/2002 | -0.350 | -(3.72) | *** | 0.002 | (0.01) | | -0.006 | -(0.04) | The government decided to enforce the revised Commercial Code on May 1. |
| | Adj. R ² | 0.319 | | | 0.577 | | | 0.768 | | |

^{1. ***, **,} and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

^{2. +} indicates events that decreased the likelihood of the passage of the 2001 Commercial Code amendments.

Panel B: Results from least squares regression on dummy variables for aggregated event dates

| | Pharma | iceutical | Re | tailing | Electronics | | |
|---------------------|--------|-------------|--------|-------------|-------------|-------------|--|
| | βр | (t-stat) | βр | (t-stat) | βр | (t-stat) | |
| Intercept | 0.052 | (1.34) | 0.002 | (0.09) | 0.045 | (1.46) | |
| $R_{m,t}$ | 0.460 | (13.05) *** | 0.559 | (23.14) *** | 0.963 | (36.70) *** | |
| Events A | 0.096 | (0.78) | -0.006 | -(0.07) | -0.090 | -(0.73) | |
| Events B | 0.018 | (0.10) | 0.450 | (2.11) ** | 0.294 | (2.32) ** | |
| Adj. R ² | 0.324 | | 0.580 | | 0.769 | | |

- 1. *** indicates statistical significance at the 1% level.
- 2. Events A are expected to have increased the likelihood of the passage of the 2001 Commercial Code amendments.
- 3. Events B are expected to have decreased the likelihood of the passage of the 2001 Commercial Code amendments.