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## **Cross-Listed Firms and Shareholder-Initiated Lawsuits: The Market Penalties of Securities Class Action Lawsuits against Foreign Firms**

Kathryn Mary Schumann  
*University of Tennessee - Knoxville*, [kschuma1@utk.edu](mailto:kschuma1@utk.edu)

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I am submitting herewith a dissertation written by Kathryn Mary Schumann entitled "Cross-Listed Firms and Shareholder-Initiated Lawsuits: The Market Penalties of Securities Class Action Lawsuits against Foreign Firms." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Business Administration.

Larry A. Fauver, Major Professor

We have read this dissertation and recommend its acceptance:

Alvaro Taboada, Thomas P. Boehm, Joan M. Heminway

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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The Market Penalties of Securities Class Action Lawsuits against Foreign Firms**

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Degree  
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The views expressed here are solely the responsibility of the author and any errors are my own.

## **Abstract**

This paper examines the market penalties levied by shareholders against firms that are alleged to have violated securities laws within the U.S. Using a sample of private securities class action cases brought against foreign firms that cross-list on the major U.S. exchanges, this paper presents evidence that the enforcement risk criticism may not be as severe as initially thought. I examine market penalties at alleged violation disclosure dates and securities class action filing dates and find that each event corresponds to an economically and statistically significant loss of value for the accused firm. On average I find that the violation results in a loss of more than eighteen percent of market value, corresponding to an average of almost \$600 million in dollars lost on the U.S. markets alone. When violation and filing date losses are taken together these losses average more than \$700 million for foreign cross-listed firms. Further, an examination of the determinants of the reputational penalties assessed during this period indicates that reputational penalties are greater in cases where investors perceive the minority shareholder protection to be better in the home country.

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## **Chapter 1**

### **Introduction**

The potential benefits of cross-listing on major U.S. exchanges are well-documented in previous academic literature. Even though recent evidence suggests that involuntary listings may cause declines in valuation (Iliev, et al. 2011), the decision of a firm to voluntarily list through U.S. exchanges is largely considered to be value enhancing via benefits such as lower costs of capital, increased access to capital, increased liquidity and bonding (Doidge et al., 2004; Coffee, 1999; Stulz, 1999; Reese and Weisbach, 2002; Lambert et al. 2007; Merton 1987; Karolyi, 1998; Karolyi and Stulz, 2002; Errunza and Miller, 2000; Karolyi and Foester, 1993; Roell, 1995). Cross-listing in the U.S. has been suggested as a bonding mechanism by which firms in weak legal systems can reassure outside investors of their intention to act in the best interest of shareholders. As first proposed by Coffee (1999, 2002) and Stulz (1999), bonding to a strong legal system such as the United States signals a desire to improve corporate governance and limit expropriation by insiders through increased disclosure and richer financial information as well opening themselves up to actions based on the enforcement powers of the SEC, private class actions and derivative actions in response to violations of the stricter standards.

Though some research finds support for the bonding hypothesis, critics of the hypothesis argue the effectiveness of U.S. securities regulation on foreign firms. One of the primary criticisms of bonding is the lack of any real enforcement threat to foreign firms. The SEC does not prosecute foreign firms often for violations of securities laws and any settlement amounts for public or private cases tend to be low. Therefore, there is a lack of any perceived threat of punishment for U.S. law violations (Siegel, 2005; Licht 2003). Given this debate about whether cross-listings can effectively bond to the U.S. legal system or whether enforcement is so weak that bonding is ineffective, analyzing the impact of private securities class action lawsuits as a possible enforcement mechanism is a potential avenue to provide additional

evidence of whether the enforcement of securities law violations by foreign issuers are as limited as previously thought.<sup>1</sup> It is possible that the reputational and legal penalties assessed for securities laws violations and subsequent shareholder initiated actions are large enough to serve as a disincentive for violations by foreign firms in spite of any lack of SEC enforcement against such firms. To the best of my knowledge, this is the first paper to empirically examine total market losses suffered by cross-listing firms in the U.S. markets during the process of a securities class action lawsuit. I also present the first examination of the determinants of the reputational penalties imposed on foreign firms for violations of U.S. securities laws. Though prior literature has suggested that settlement amounts for private class actions are too low to serve as a violation deterrent alone (Siegel, 2005), the size of the total market penalties and the resulting reputational penalties associated with U.S. securities violations on foreign cross-listing firms has yet to be empirically examined. By analyzing these penalties and filling this empirical gap, this paper adds to the debate surrounding the effectiveness of bonding in the cross-listing literature as well as providing additional evidence of the severity of market penalties for securities law violations that may serve as a supplement for the limited SEC regulatory enforcement of foreign firms.

It is important to note that the criticisms of effective enforcement associated with foreign firms primarily stem from arguments concerning the leniency of reporting requirements for foreign firms and the effectiveness of the SEC in enforcing its policy on foreign issuers. These studies tend to discount private enforcement as a mechanism for enforcing bonding in the U.S. regulatory system. In contrast, I focus this study specifically on private enforcements by examining private shareholder initiated class-actions, which are being used with increasing frequency in response to violations of U.S. securities laws for foreign firms. Rather than focus solely on legal penalties, I examine the overall market penalties associated with private shareholder-initiated cases of securities law violations. Not only do I document an economically and statistically significant negative reaction at the filings of such lawsuits of over \$185

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<sup>1</sup> Securities class action lawsuits are those class actions that are brought by shareholders against the corporation, its officer and directors, and others on behalf of a group of investors who have suffered an economic loss in a security as the result of fraudulent stock manipulation or other violations of securities laws by the issuer.

million lost but, using a methodology similar to Karpoff and Lott (1993), I also demonstrate that the total losses from the violations that lead to such suits average more than \$700 million to the foreign firms in the U.S. markets alone. These losses correspond to an average eighteen percent loss in market capitalization. Furthermore, the significant losses are not limited to the U.S. I find that firms listing in their home markets also suffer severe losses during these events with an average total of sixteen percent decline in market capitalization in the home market over the events.

Comparing these losses to those of a control sample of domestic firms subject to private securities class action lawsuits indicates that there is no significant difference in market reaction around the announcement of various case dates. Thus it appears that foreign firms are not punished less than domestic firms by shareholders, as would be argued by critics of legal bonding, but are in fact punished in equal measure for their violations of securities laws by U.S. shareholders. Furthermore, by separating the legal and reputational penalties of these market reactions, I examine the determinants of reputational losses for foreign issuers. Using two different measures of reputational penalties I find that foreign firms suffer greater reputational penalties in cases where investors perceive the minority shareholder protection in the home market of the firm to be greater. These results are robust to the addition of several controls. I also find some limited evidence that the economic situation of the home market for a firm has some determinant power on reputational losses, though this result is only significant at the ten percent level.

In an independent and contemporaneous study, Gande and Miller (2011), also document market reactions at the news of a securities class action lawsuit filed by U.S. shareholders against foreign firms. Their study is similar to mine in sample periods and research methods employed. However, there are several important differences between the two studies. The first difference is that, unlike Gande and Miller, I initially restrict my sample to include only firms that trade on the major U.S. exchanges and are not incorporated in Bermuda at the time of the lawsuit filing. I restrict my sample in this manner to provide a more direct measure of the penalties assessed against foreign firms that voluntarily choose to

list shares in the U.S. markets as a bonding signal for two reasons. First, Level I ADRs can be involuntarily listed through the OTC-BB and the bonding hypothesis applies more directly to firms that voluntarily choose to list on U.S. exchanges. Second, a majority of Bermuda firms with lawsuits filed against them were previously incorporated in the U.S. and maintain headquarters and most assets within the U.S. Thus these firms are less likely to be cross-listing for bonding purposes. Using this restricted sample, I document an average of \$185 million in U.S. dollars lost in the three days surrounding the announcement of the filing of a securities class action lawsuit, while the less restrictive sample used by Gande and Miller documents \$392 million in U.S. dollars lost on average. The second difference is that, while both papers examine the market reaction at the news of the filing of a securities class action lawsuit, I extend my analysis to cover several other key event dates for the lawsuit including the announcement of the initial violation of U.S. securities law and the announcement of any settlement of the lawsuit. In addition, I examine the determinants of the reputational penalties imposed at the initial violation announcement. This provides a more cumulative measure of the market penalties assessed from the U.S. securities law violation than a sole focus on filing date and it allows for an examination of the differences in reputational and legal penalties assessed at the news of a securities law violation for foreign cross-listing firms. The last difference is that, while Gande and Miller examine the characteristics of securities class action and characteristics likely to result in a lawsuit, I focus on an examination of these foreign firms as compared to all U.S. incorporated firms that are subject to a class action lawsuit during the sample period. This approach allows me to compare both the market reaction at several case dates and the determinants of the market penalties for the foreign firms to that of all other domestic cases to establish whether any differences exist in market penalties and whether the determinants of these penalties differ based on whether a firm is a U.S. incorporated firm or a foreign incorporated firm.

The rest of the paper proceeds as follows. Chapter 2 reviews the relevant literature on cross-listing, discusses the securities laws of the United States, and introduces the hypotheses and general

methodology that will be employed to test the hypotheses. Within this Chapter, Section I reviews the relevant literature on cross-listing and bonding criticisms, Section II reviews the securities laws as they apply to foreign firms and the process of shareholder-initiated securities class action lawsuits and Section III discusses the hypotheses presented and the methodology used. Chapter 3 presents the initial sample collection method and the univariate analysis of the firm characteristics and market reactions between the sample and the control group of U.S. firms. Within this Chapter, Section IV presents the data collection method. Section V presents the results of empirical tests using U.S. market reactions at various announcement dates while Section VI presents the foreign market penalties associated with these announcement dates for the sample. Section VII verifies these results with several robustness measures. Chapter 4 presents the regression model for the multivariate analysis of reputational penalties. Within this Chapter, Section VIII discusses the method of separation of legal and reputational penalties, Section IX examines cross-sectional determinants of these reputational penalties and Section X presents the robustness measures employed to verify the regression results. Section XI presents an alternate test of reputational penalties using a logit regression followed by the conclusion of the results of the paper in Chapter 5.

## Chapter 2

### Cross Listing Literature and Securities Class Actions Review

#### I. Review of cross-listing literature and enforcement criticism

A firm that wishes to cross-list shares on a U.S. exchange may do so by employing one of two methods. The firm can either list its shares directly on the exchange or use an American Depositary Receipt (ADR). First issued in 1927 by JPMorgan, ADRs are securities issued by a U.S. depository bank to domestic buyers and serve as a substitute for direct ownership of stock in the foreign corporation. A sponsored ADR is created at the request of a company by an American broker purchasing the company's shares in their home market and establishing them at a custodian bank, which in turn issues the depository receipts. ADRs were created to circumvent difficulties in dealing with various currencies in foreign markets as investors are able to diversify their portfolios into foreign markets while trading in the U.S. stock markets. Each ADR represents either a fraction of a foreign share or one or many shares (known as the ADR ratio). This ADR ratio is decided upon by the depository institution. Currently there are four major commercial banks that provide depository services: JPMorgan, Citibank, Deutsche Bank, and the Bank of New York Mellon.

The use of ADR programs has increased dramatically in the past two decades. According to the Bank of New York Mellon database,<sup>2</sup> there were over 700 shares of ADRs trading OTC or on the major exchanges at the end of 2009 as opposed to 215 shares in 1992. Currently, firms from 40 countries list ADR programs and the total global market capitalization of companies issuing depository receipts exceeded \$12 trillion at the close of 2009. ADRs are listed as Level I, Level II, or Level III and each level has differing disclosure requirements from the SEC with increasing requirements and disclosure costs at each level. Level I ADRs are exempted from the SEC reporting requirements yet still incur listing fees

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<sup>2</sup> Bank of New York ADR Fact Sheets can be found at [http://www.adrbnymellon.com/classic\\_index\\_factSheet.jsp](http://www.adrbnymellon.com/classic_index_factSheet.jsp)

and legal fees. In addition to the fees and the loss of private control benefits, Level II and Level III ADRs are required to have reconciled with U.S. GAAP concerning disclosure of nonfinancial items and firms that trade on the major stock exchanges must comply with full registration and reporting standards of the exchanges.

Level II and Level III ADRs trade on the NYSE/NASDAQ while Level I ADRs typically are traded on the over-the-counter markets via Pink Sheets or NASDAQ Bulletin Board. The majority of foreign firms cross-listing in the United States choose to do so via ADR programs. There is the option of direct cross-listing on a U.S. exchange that is utilized by some firms, primarily those from Canada or Israel.<sup>3</sup> Since direct cross-listing and listing via an ADR program on the major U.S. exchanges involve essentially the same listing and reporting requirements and the same level of information disclosure, I examine both direct cross-listing and Level II and Level III ADRs in this paper. I do not include Level I ADRs in the sample as, in addition to not reconciling with GAAP, these firms may not even be listed voluntarily in the U.S. markets due to the recent amendment of Rule 12g3-2(b) by the SEC that allows for automatic exemption from U.S. registration requirements.<sup>4</sup>

The motivation behind the decision for a firm to cross-list is one that has been extensively covered in academic literature. Research has pointed to several potential benefits of cross-listing for firms including increased access to capital, lower costs of capital, increased liquidity and firm visibility, and bonding (Doidge et al., 2004; Coffee, 1999; Stulz, 1999; Reese and Weisbach, 2002; Lambert et al. 2007; Merton 1987; Karolyi, 1998; Karolyi and Stulz, 2002; Errunza and Miller, 2000; Karolyi and Foester, 1993; Roell, 1995). The decision of if and where to cross-list depends on a cost-benefit analysis of these potential benefits against any additional direct and indirect costs, such as extra reporting requirements, registration and listing fees, and increased potential legal liability. If a firm believes the benefits will outweigh these additional costs then they will choose to cross-list on a foreign exchange.

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<sup>3</sup> Israeli firms tend to directly list shares on the U.S. stock exchanges as a response to a 2000 ruling by the Israeli Parliament that made it easier to list on the Tel Aviv Stock Exchange based on voluntary disclosures or disclosures they make under U.S. Law (Licht, 2002).

<sup>4</sup> 17 CFR 240.12g3-2

Prior research has found that firms that voluntarily cross-list tend to have higher valuations (Bianconi and Tan 2008; King and Segal, 2003), higher Tobin's q ratios (Doidge, Karolyi and Stulz, 2004), and experience favorable stock price reactions to announcements of cross-listing, though there is some debate as to whether this is a permanent or temporary effect (Karolyi 1998; Sarkissian and Schill, 2004; King and Segal, 2009). The improved information availability and investor recognition from listing in the U.S. helps explain the higher returns a firm experiences after cross-listing. Firms that cross-list on U.S. exchanges typically have an increase in secondary market liquidity, increased total trading value, decreased home market spreads, and fewer trading costs which contribute to higher visibility of the firm and better analyst coverage and forecasts (Merton, 1987; Foerster and Karolyi, 1998; Pagano, Roell, and Zechner, 2001; Foerster and Karolyi, 1999; Lang, Lins, and Miller, 2003; Bancel and Mittoo, 2001; Karolyi and Stulz, 2002). Additionally, upon cross-listing in the United States, U.S. ownership of a foreign firm roughly doubles, particularly in the case of firms from countries with weak accounting backgrounds, suggesting that the improvement in disclosure is valued by U.S. investors (Ammer et al 2006).

This increase in disclosure also signals a firm's desire to act in the best interest of shareholders that is central to the bonding hypothesis. As first proposed by Coffee (1999, 2002) and Stulz (1999), the bonding hypothesis applies to firms that need enhanced access to external finance and explains how these firms attempt to convey to potential investors their promise to improve their corporate governance and forgo private benefits. If a resolution is not available in the firm's home market, then a company will be able to list shares abroad to "bond" itself to a country with better minority shareholder protection, such as the U.S. stock exchanges. This forces the firm to respect minority shareholder rights, increases the amount of information disclosed about the firm, and serves as a signal of the firm's desire to act in the best interest of shareholders. The bonding hypothesis applies most directly to firms from emerging markets; however, it is also a potential reason for cross-listing for firms from various developed markets.



In his discussions of bonding, Coffee (2002) emphasized the legal bonding mechanism and argued that there are three mechanisms of U.S. listings that bond a firm to the legal system.<sup>5</sup> Specifically, he stresses that cross-listing bonds firms in the U.S. because (1) they are subject to enforcement powers of the SEC, (2) investors can exercise low-cost and effective actions that are not available in the home market (such as class actions and derivative actions) and (3) the firm commits to providing fuller financial information in response to SEC requirements and reconcile its financial statements with GAAP.

Bonding has found support in academic research (Reese and Weisbach, 2002; Doidge, 2004; Ayyagari, 2004; Doidge, Karolyi, Lins, Miller and Stulz, 2007; Doidge, Karolyi and Stulz, 2004; Gande and Miller, 2011) but it has also found some critics. The main argument against the bonding hypothesis is that the risk of enforcement associated with cross-listing in the U.S. is immensely overstated by its supporters. In several papers Licht (2001a, 2001b, and 2003) argues that the SEC does not enforce the corporate governance rules for foreign issuers and is therefore relatively inefficient because of this “hands-off” policy as well as having less stringent disclosure requirement for foreign firms as compared to domestic firms. The largest differences in disclosure requirements between foreign and domestic issuers in the U.S. pertain to conflicts of interest and corporate governance matters. Rather than having to disclose individual transactions, foreign issuers may only disclose aggregate remuneration and options to purchase securities, do not have to disclose data concerning material transactions with officers, and are allowed up to six months to file annual reports after the close of the fiscal year. Additionally, rather than reporting owners of more than five percent of voting securities, foreign issuers are only required to report owners of more than ten percent, are exempted from some proxy reporting requirements, and, in some situations, can avoid disclosure of business segment information. When violations of disclosure requirements are found, they are rarely punished by the SEC. In fact, Frost and Pownall (1994) do not find any instances where disclosure violations by foreign issuers were subject to enforcement actions by

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<sup>5</sup> A second form of bonding is reputational bonding which proposes that firms develop a reputation for good governance in the host country which ensures voluntary firm compliance (Siegel, 2005).

the SEC. In a similar argument, Siegel (2005) also addresses the lack of SEC enforcement and highlights several instances of flagrant fraud by cross-listing firms that are not pursued by the SEC. He considers cases of asset tunneling from a sample of Mexican ADR firms and finds that SEC response to these cases is weak. In a later study, Licht, Li, Poliquin and Siegel (2011) also argue that the positive market response to a recent Supreme Court decision that weakens SEC enforcement authority could be due to “the deficiencies in the current design of the U.S. civil liability regime, by which insiders accused of civil misconduct rarely pay out of pocket to compensate outside investors effectively.”

These challenges by Siegel, Licht, Frost and Pownall, and others emphasize the fact that legal enforcement in the U.S. is not perfect and possibly weaker than thought by those who initially argued for the bonding hypothesis and, at a minimum, casts some doubt on the efficacy of legal bonding. Interestingly, a vital point for the arguments for/against legal bonding is that these criticisms tend to focus on disclosure requirements or enforcement by the SEC and not on private legal enforcement. Legal bonding as proposed by Coffee is a larger issue than just SEC enforcement as bonding occurs not only from the threat of SEC enforcement but also from the fact that investors gain access to low-cost securities actions and gain access to fuller financial information of a firm, even if this increased disclosure is less than for U.S. firms because of exceptions. According to Coffee (2002), bonding occurs regardless of SEC enforcement because, when entering major U.S. markets, foreign issuers face strict liability for material statements or omissions and there is the presence of readily available private enforcement, such as contingent fees and class actions, which serve as a legal threat in the U.S. for violations. Typically in criticisms of bonding, private legal enforcement is discounted as a potential mechanism for legal enforcement against foreign issuers. Siegel (2005) does address the possibility of private class-actions as an enforcement mechanism but restricts his empirical analysis of these cases to that of documenting

settlement amounts and concludes that the actions were limited.<sup>6</sup> Thus the legal threat of private securities litigation to U.S. cross-listing firms remains a largely unexplored area in academic research.

Given this debate between the effectiveness of cross-listing firms bonding to the legal system of the U.S. or the weak enforcement of the SEC, analyzing the impact of private securities class action lawsuits is important as it may shed some light on whether the enforcement of securities law violations are as limited as thought. This paper seeks to answer the question of whether private securities class action lawsuits are serving as a mechanism for enforcement of securities class actions by analyzing the market reaction and the legal and reputational penalties assessed at the announcement of securities law violations for cross-listing firms on the major U.S. exchanges. By comparing these reactions to that of domestic firms and examining the determinants of these penalties, I am able to establish whether these reactions are significantly less for foreign firms or whether the market enforcement of violations is similar between foreign firms and domestic firms when violations of securities laws are disclosed. The analyses provide support to Coffee's argument that access to low-cost private actions for investors could potentially be functioning as an effective legal bonding mechanism for cross-listing firms in the United States and that firms are not "getting away with it" when they break laws.

## **II. U.S Securities Laws and Shareholder-initiated securities class action filings**

U.S. securities regulation is one of the most comprehensive in the world with the most important statutes governing U.S. securities laws being the Securities Act of 1933, as amended (the "Securities Act") and the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Under Rule 12b-1 of the Exchange Act, a foreign issuer must register its securities if it lists them on a U.S. stock exchange.<sup>7</sup> Once a company is listed in the U.S. it is subject to SEC regulations. Additionally, Rule 12g-3 of the

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<sup>6</sup> Licht et al. (2011) do briefly mention that private enforcement of securities laws may have some potential benefits.

<sup>7</sup> 17 C.F.R. § 240.12b-1

Exchange Act requires foreign issuers that meet certain criteria to register their equity and provide an annual report containing GAAP reconciled financial statements within six months of the end of each fiscal year.<sup>8</sup>

*a. Securities laws as applied to foreign firms*

Though the Securities Act and the Exchange Act define jurisdiction to cover domestic and foreign private issuers and does not make a distinction between them, in an effort to maintain attractiveness to foreign investors, the SEC provides a number of exemptions of reporting requirements for foreign issuers to decrease the costs associated with listing in the United States. As Licht (2003) discusses, there are five major differences related to disclosure of conflicts of interest and corporate governance matters between the 10-K annual report required of domestic issuers and the 20-F annual report required of foreign issuers. The first difference is that, rather than having to disclose individual transactions, foreign issuers only have to disclose aggregate remuneration and options to purchase securities. The second difference is that issuers do not have to disclose data concerning material transactions with officers and the third is that foreign firms are allowed up to six months to file annual reports after the close of the fiscal year rather than the 135 days required of domestic issuers. Rather than reporting owners of more than five percent of voting securities, the fourth difference results in foreign issuers are only required to report owners of more than ten percent. Lastly, unlike U.S. firms, foreign firms are exempted from some proxy reporting requirements, short-swing trading rules, and they can avoid disclosure of business segment information in some situations. A more recent development in regards to securities laws applied to foreign firms comes from the exceptions made in SOX for foreign issuers. The SEC determined that a foreign firm would be

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<sup>8</sup> 17 C.F.R. § 240.12g-3. Exemptions to this are for firms with equity held by less than 500 shareholders of which less than 300 reside in the U.S and total assets under \$5 million. Additionally, non-U.S. firms are exempt from filing if they do not list their shares on a U.S. securities exchange so firms listing on the pink sheets or OTC-BB will be exempt from reporting other than providing the SEC with copies of material information made public in their home market.

exempt from any law provisions of SOX that generates a conflict of interest with the foreign firm's home country laws.<sup>9</sup>

Critics of bonding argue that because of these exemptions foreign firms are not actually bonding to a stricter corporate governance system (Licht, 1998). In opposition, supporters of bonding argue that even though U.S. listings are not deterring the expropriation of all private benefits, the more relaxed standards of governance and disclosure for foreign firms does not change the fact that foreign issuers are still bound by relatively strict rules and thus are still bonding to a strong legal system with reliable underwriters and auditors, strict liability for misstatements and omissions, and the threat of private enforcement for violations (Coffee, 2002).

*b. Legal Enforcement*

Even though they have a lower burden of proof than private plaintiffs, the SEC does not file as many securities cases as private plaintiffs due to limited resources and rarely files against foreign firms. In fact, a search of cases from 1996-2009 finds that only six foreign firms that cross-list on the major exchanges have actions filed against them by the SEC pertaining to their securities and all six are in addition to ongoing private class actions.<sup>10</sup> In contrast to the limited SEC filings, the amount of private litigation against foreign issuers under federal securities laws has grown to represent approximately fourteen percent of cases filed each year and can therefore reasonably be considered the primary enforcement mechanism against foreign firms accused of securities law violations.

Class actions are defined as any “civil action brought under Rule 23 of the Federal Rules of Civil Procedure or similar State statute or rule of judicial procedure authorizing an action to be brought by one or more representative persons”.<sup>11</sup> The provisions of the Securities Act and the Exchange Act that give

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<sup>9</sup>An example would be German firms and the differing definition of independent board members on the supervisory board.

<sup>10</sup> The firms charged with securities violations by the SEC are Vivendi Universal, S.A. (2003), Royal Dutch Petroleum Company (2003), Koninklijke Ahold N.V. (2002), TV Azteca S.A. (2003), Bre-X Minerals, and Barclays Bank PLC (2007). Four additional ADR firms are subject charges of violations of the anti-bribery regulations by the SEC during this period but are excluded as this is not related to company securities.

<sup>11</sup> 28 U.S.C. § 1332 as listed at <http://www.law.cornell.edu/uscode/28/1332.shtml>.

rise to civil liabilities against foreign issuers are provisions §§ 11, 12 of the Securities Act, and § 10(b), 29(b) of the Exchange Act.<sup>12</sup> For domestic issuers, §16(b) of the Exchange Act would also be applicable.<sup>13</sup> The SEC, Justice Department, or private plaintiffs can file complaints against companies under any combination of these section violations in the Securities Act or the Exchange Act if they feel that manipulation of securities and deception of investors occur within the markets covered by these Acts.<sup>14</sup>

The focus of this paper, securities class action lawsuits, are those class actions that are brought by shareholders against the corporation, its officer and directors, and others on behalf of a group of investors who have suffered an economic loss in a security as the result of fraudulent stock manipulation or other violations of securities laws by the issuer. Typically these actions involve a plaintiff or a group of plaintiffs that allege a company has caused its securities to become overpriced either from failure to disclose material information to investors or from distribution of misleading or false information to investors. In general, securities class actions consist of actions that allege misrepresentations or omissions in registration statements (Section 11 of the Securities Act), prospectuses (Section 12(a)(2) of the Securities Act), and/or other SEC filings, as well as those actions that allege violations of the anti-fraud provision of the federal securities laws (Section 10(b) and Rule 10b-5 of the Exchange Act). These claims encompass actions such as investment fraud and manipulation, pricing violations, and improper execution of trades. In a federal class action a “lead plaintiff” consisting of one or more investors is typically assigned to the case to represent the entire class of investors who suffered financial loss as a result of the legal violation. The lead plaintiff represents only those persons who purchased stock during the court-certified class period. The "class period" is the time frame during which it is believed the alleged fraud or other securities law violation(s) artificially inflated the price of the stock in the case.

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<sup>12</sup> § 29(b) of the Securities Exchange Act of 1934, as amended (15 U.S.C. §78cc(b)) is a provision purporting to affect legal relationships between private parties, but not explicitly creating a right of action.

<sup>13</sup> 15 U.S.C. §78p(b)

<sup>14</sup> There is a time limit for charges of misconduct as charges must occur within two years of the date of discovery or within five years after the violation occurs, whichever is earlier.

Typically about one-third of securities class action lawsuits are dismissed and two-thirds settle with plaintiffs being granted relief in the form of financial recovery to the class members in the settlement.<sup>15</sup>

Most of the private securities suits filed are brought under the anti-fraud provisions Section 10(b) and Rule 10b-5 under it of the Exchange Act, which prohibits omissions of material fact, dissemination of any untrue statement, or the use of any manipulative device in connection with the purchase or sale of any security. Claims are filed under Section 10(b) and Rule 10b-5 of the Exchange Act if the plaintiff believes the defendant had malicious intent by way of a desire to deceive or commit fraud and these claims can apply in connection to proxy, voting, tender offer, or going private actions as well as basic sales of securities. Section 10(b) pertains to the purchase/sale of any security regardless of issuance and thus includes securities bought and sold in the aftermarket.<sup>16</sup> Under Section 10(b) is Rule 10b-5 which specifically prohibits misstatement and omissions to state material facts and states that:

“It shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality of interstate commerce, or of the mails, or of any facility of any national securities exchange

(a) to employ any device, scheme, or artifice to defraud

(b) to make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in light of circumstances under which they were made, not misleading, or

(c) to engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person, in connection with the purchase or sale of any security”<sup>17</sup>

The parties liable under Section 10(b) include anyone who has a duty to disclose but instead knowingly employs a manipulative (defined as exploitative conduct that manipulates the whole market) or deceptive

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<sup>15</sup> [http://law.freeadvice.com/litigation/class\\_actions/securities\\_class\\_action.htm](http://law.freeadvice.com/litigation/class_actions/securities_class_action.htm).

<sup>16</sup> 15 U.S.C. § 78j(b)

<sup>17</sup> 17 C.F.R. § 240.10b-5

(defined as dishonest conduct such as omitting something investors need in order to make a good decision, including half-truths, instead of full disclosure) devices in connection with the purchase or sale of a security.<sup>18</sup> If this action deceives investors or manipulates markets regulated by the SEC then the responsible party is liable to any purchasers/sellers of the security, the SEC, or the U.S. Attorney Department of Justice.<sup>19</sup> Further, many securities class action lawsuits are also filed alleging violations of Section 20(a) of the Exchange Act, which deals with the liability of the controlling persons. Violations of Section 20(a) concern the officers, controlling shareholders, board members, etc. that are liable for the fraudulent statements.<sup>20</sup>

Many securities class action cases are also filed alleging violations of one or more of Sections 11, 12(a)(2) or 15 of the Securities Act and are filed in connection with security issuances. Cases filed alleging violations of Section 11 of the Securities Act are alleging fraud in the registration documents in conjunction with the issuance of a security.<sup>21</sup> Section 11 covers misstatement or omission of material facts so that it is misleading in some way in any of the registration documents. Information is considered material if there is a substantial likelihood of it being significant to an investor. Those potentially liable under Section 11 are the issuing company, officers, underwriters, and company directors at the time of filing, any person named as a new director, and experts such as accountants. These parties are liable to any person that bought the security covered by the registration statement at the time it becomes effective. Purchases do not have to be the initial purchase, just any purchase that could reasonably be bought under the false or misleading statements on the registration.

Cases filed alleging violations of Section 12(a)(2) of the Securities Act are specifically focused on misstatements or omission of facts in the prospectus itself.<sup>22</sup> There is a separate burden of truth with Section 12(a)(2) than in Section 11. This is because Section 12(a)(2) violations cover more documents

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<sup>18</sup> Knowingly means the act is undertaken with scienter which means that the offending party has knowledge of the wrongness of the act prior to engaging in it.

<sup>19</sup> Approximately 80 percent of these suits are settled before any ruling is made (Martin et al., 1999).

<sup>20</sup> 15 U.S.C. § 78t(a)

<sup>21</sup> 15 U.S.C. § 77k

<sup>22</sup> 15 U.S.C. § 77l(a)(2)



than just the final prospectus and if earlier available versions of the registration documents contain the misstatement or omission and purchasers can prove that they used this earlier document as a basis for purchase then the company is liable under Section 12(a)(2). Under Section 12(a)(2) it is stated that any person who sells securities is liable for any known untruths or omissions in the prospectus as long as the plaintiff is not aware of the false or misleading statement in the prospectus. Cases filed alleging violations of Section 15 of the Securities Act pertain to the controlling person.<sup>23</sup> While Section 11 and Section 12(a)(2) list a set of liable parties for misstatements and omissions from various registration documents, Section 15 expands this definition to include any controlling persons (officers, controlling shareholders, board members, etc.) who controls the person that manages the questionable company registration documents. To illustrate a typical scenario, Appendix A provides two examples of cases that allege violations of these securities laws.

*c. Regulation changes due to Morrison v. National Australia Bank Ltd.*

On June 24, 2010, the U.S. Supreme Court defined the extraterrestrial reach of Section 10(b) of the Securities Exchange Act of 1934, as amended (and Rule 10b-5 as adopted by the U.S. Securities and Exchange Commission under Section 10(b)), in *Morrison v. Nat'l Austl. Bank Ltd.* Specifically, the Court held that “Section 10(b) reaches the use of a manipulative or deceptive device or contrivance only in connection with the purchase or sale of a security listed on an American stock exchange, and the purchase or sale of any other security in the United States.”<sup>24</sup>

Prior to this opinion, U.S. courts typically used two tests to determine whether the U.S. courts had jurisdiction with respect to foreign firms and satisfaction of either test would confer jurisdiction. The “effects” test considers “whether the wrongful conduct had a substantial effect in the United States or

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<sup>23</sup> 15 U.S.C. § 77o

<sup>24</sup> *Morrison v. Nat'l Austl. Bank Ltd.*, 130 S. Ct. 2869, 2888 (2010).

upon United States citizens.”<sup>25</sup> The “conduct” test, considers “the nature of conduct within the United States as it relates to carrying out the alleged fraudulent scheme.”<sup>26</sup>

Post-*Morrison*, a U.S. investor may not bring a securities fraud action under Section 10(b) in the United States if the investor purchased shares in a foreign market or country unless the shares are listed on an American stock exchange. In this one opinion, the Court has significantly altered the complexion of securities fraud enforcement involving foreign firms. However, *Morrison* has few (if any) effects on the utility of the findings in this paper. With the exception of one case, all of the sample cases in this study involve transactions affected on or securities listed on U.S. securities markets.<sup>27</sup> Even after the *Morrison* decision, U.S. courts would still have jurisdiction over the cases in the sample.

### III. Hypotheses and Methodology

Shareholder-initiated lawsuits typically receive extensive coverage in the business press, but there has been much less coverage of shareholder suits in published academic work. Of the existing literature, several papers examine the characteristics of the firms most likely to face securities class action lawsuits and the outcomes of these cases (Strahan, 1998; McTier and Wald, 2009; Martin et al., 1999; Cox and Thomas, 2008; Cheng et al. 2010). Additionally, the losses surrounding lawsuit announcements have been examined in previous literature (Griffin, et al., 2000; Gande and Lewis, 2009). However, none of these previous empirical studies have examined the differences between losses or characteristics based on country of incorporation and many prior studies focus solely on domestic firms rather than separating and examining foreign firms from the sample. The question of what specifically happens to international firms

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<sup>25</sup> *SEC v. Berger*, 322 F.3d 187, 192 (2d Cir. 2003)

<sup>26</sup> *Psimenos v. E.F. Hutton & Co.*, 722 F.2d 1041, 1045 (2d Cir. 1983).

<sup>27</sup> The exception is the 2005 case against Lernout & Hauspie Speech Products N.V. This case is filed on behalf of purchasers of the Company stock from April 28, 1998 through November 8, 2000 on the EASDAQ. Additionally, of the sample cases which clearly list the residence or address of the lead plaintiff, approximately 90 percent of cases have U.S.-based investors serving as a lead plaintiff while 10 percent of cases have a foreign listed investor serving as one of the lead plaintiffs.

around the events that lead to a lawsuit filing is largely unexplored in the literature and is the subject of this paper.

*a. Hypotheses*

The first question of interest in this paper is whether or not international firms are subject to similar punishments as domestic firms when they are faced with securities class action lawsuits. This paper attempts to determine these differences by comparing foreign cross-listed firms subject to securities class action lawsuits to the general population of domestic firms subject to securities class action lawsuits.

*Hypothesis 1: Market reaction at the disclosure of violations of U.S. securities laws and at the filing of a shareholder-initiated class action will be an economically and statistically significant event for the foreign firm.*

Initial research into the events around class actions finds evidence that there is a significantly negative short-term price response to the announcement of a securities class action. Griffin, et al. (2000) find statistically significant negative responses to the litigation announcement as well as a persistent negative stock response for several weeks after the securities class action filing announcement, which is more pronounced when the firm is smaller or is covered by fewer analysts. Later research also finds evidence of even larger initial stock price reactions when partial anticipation is accounted for. Gande and Lewis (2009) report a significantly negative stock price reaction to the news of a securities class action filing and they document evidence of an industry spillover effect where investors partially anticipate future lawsuits based on the firm's propensity to be sued. If private enforcement of securities laws is to be considered an effective mechanism for enforcement against foreign issuers, I expect to find similar statistically and economically significant market reactions at the disclosure of securities law violations

and the announcement of a private securities class action lawsuit against foreign issuers. Alternatively, it is possible that U.S. shareholders react significantly less negatively to the announcement of a violation of U.S. securities laws for a foreign firm based on the perception that it will be difficult for U.S. shareholders to bring actions against foreign firms when the firms do a substantial portion of business outside of the U.S. and thus an expected class action and potential settlement is not likely for these firms. This argument is common. In fact, many firms emphasize this view in their SEC registration statements by stating that there is a risk to U.S. investors that they may not be able to enforce actions against the firm in the event of a U.S. securities law violation.<sup>28</sup>

*Hypothesis 2: Reputational penalties assessed for violations of securities laws will be determined not only by the firm and case characteristics found in previous literature, but also by country specific characteristics that may indicate the likelihood of obtaining adequate compensation from the firm.*

In terms of firm characteristics and case outcomes of securities class action lawsuits, early literature on the characteristics of firms likely to face securities class actions finds that those firms that are more likely to suffer from agency problems are the ones that tend to face securities class actions. In particular, Strahan (1998) reports that large firms, young firms, risky firms, non-dividend paying firms and low market-to-book firms are more likely to be the subject of a securities class action. Additionally, firms that overinvest are more likely to face securities class action lawsuits (McTier and Wald, 2009). Post suit, firms tend to decrease any overinvestment activities and increase leverage and cash holdings, which is consistent with the view that firms attempt to at least partially resolve agency problems due to the increased scrutiny they receive during a securities class action case (McTier and Wald 2009).

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<sup>28</sup> For example, Lipman Engineering, an Israeli firm, states in their F-1 form that “*It may be difficult to enforce a U.S. judgment against us, our executive officers and directors and the selling shareholders.* Because substantially all of our assets and the assets of a substantial majority of our directors and executive officers and the selling shareholders, are located outside the U.S., a judgment obtained in the U.S. against us or any of them may not be collectible within the U.S. Furthermore, service of process upon these individuals, a substantial majority of whom reside outside the U.S., may be difficult to obtain within the U.S. In addition, there is doubt as to the enforceability of civil liabilities under the Securities Act and the Securities Exchange Act in original actions instituted in Israel.”

Generally speaking, class actions appear to concentrate in technology, healthcare, retail, and financial services industries and settlements are the largest in healthcare cases (Beasley et al., 2000; Martin et al., 1999; Francis et al., 1994) with median settlement amounts being larger and class periods being shorter for firms operating in technology industries (Carlton et al., 1996). According to Martin et al. (1999), eighty-three percent of securities class action cases eventually settle and most cases that are appealed are settled before resolution of the pending appeal. Rather than being attributable to the case merits, settlement size appears to be determined by the amount of provable investor losses, the availability of assets from the defendants, whether or not the defendant operates in the health services industry, and the length of the class period, while the existence of an institutional investor, an SEC investigation, or a bankruptcy filing has not been found to have significant effect on case outcome and settlement size (Martin et al. 1999; Cox and Thomas, 2008; Cheng et al. 2010).

Based on this prior research, I expect to see similar determinant power for the characteristics of firms subject to securities class action filings for the foreign sample in terms of firm size, firm performance, and case characteristics. However, in the case of firms incorporated in the United States, the enforcement of a judgment against a firm for a violation of U.S. securities laws is less risky than that of a foreign firm since a majority of the firm's assets and majority of executive officers and directors will also typically be located in the United States. Unique to the sample in this paper is the fact that in many cases the firm will have a substantial amount of assets and shareholders outside the United States which may make it more difficult to obtain a judgment against the firm. Thus, market penalties may also be determined by characteristics that indicate how easy it will be to bring a class action against the foreign firm and the likelihood of obtaining a settlement.

Specifically, I hypothesize that the level of prosperity in the home country, as measured by GDP and market capitalization, will impact the perception shareholders have of the firm's ability to pay and effect the penalties assessed at disclosure of a violation of securities laws. The potential of additional

class actions in the home country may also impact the reputational penalties measure as shareholders may adjust their expectation of future lawsuits based on whether there may be legal penalties in other countries. Additionally, the strength of corporate governance standards and protection of minority shareholder interests in the home market for foreign firms may influence the perception of whether the firm would be likely to violate securities laws. I hypothesize that firms coming from countries with strong corporate governance or strong minority shareholder protection will be perceived as less likely to violate securities laws and therefore may be subjected to larger reputational penalties in the event of a violation. Moreover, since firms in weaker governance countries or those with less protection of minority shareholders would be thought to be more likely to violate securities laws, shareholders may already have partially discounted this risk into the stock price prior to the disclosure of the malfeasance. In this situation the reputational penalties assessed in the days surrounding the disclosure of the violations from these firms will be less severe than firms coming from stronger shareholder protection countries.

The alternative would be that the country-level characteristics have no explanatory power on the size of the reputational penalties assessed. Since the difficulty of enforceability of violations of securities laws for cross-listing firms is often discussed as a risk even for firms coming from countries with strong governance and shareholder protection, the reputational penalties assessed at the news of a U.S. securities law violation may be similar across all foreign firms regardless of country of origin as investors may have partially discounted this risk into the stock price prior to the disclosure for all foreign firms.<sup>29</sup>

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<sup>29</sup> Firms from countries with no exchange controls and strong governance, such as Canada or the United Kingdom also list the difficulty of enforcing U.S. federal securities laws as a risk. For example, Corel Corp, a Canadian firm, listed in their 2006 Prospectus that “*You may be unable to enforce actions against us, certain of our directors and officers or our independent public accounting firm under U.S. federal securities laws.* A majority of our directors and officers, as well as our independent public accounting firm, reside principally in Canada. Because all or a substantial portion of our assets and the assets of these persons are located outside the U.S., it may not be possible for you to effect service of process within the U.S. upon us or those persons. Furthermore it may not be possible for you to enforce judgments obtained in U.S. courts based upon the civil liability provisions of the U.S. federal securities laws or other laws of the U.S. against us or those persons. There is doubt as to the enforceability in original actions in Canadian courts of liabilities based upon the U.S. federal securities laws, and as to the enforceability in Canadian courts of judgments of U.S. courts obtained in actions based upon the civil liability provisions of the U.S. federal securities laws. Therefore, it may not be possible to enforce those actions against us, certain of our directors and officers or the expert named in this prospectus.”

*Hypotheses 3: When the announcement of a violation occurs, the abnormal returns in the home market of a sample firm will be significantly negative and CARs will closely mirror the reaction in the U.S. markets, particularly in home markets where information asymmetries are less pronounced or exchange controls do not exist.*

Several empirical studies have found that in the absence of exchange controls there are no arbitrage opportunities with regards to stocks listed on multiple-exchanges (e.g. Pagano and Roell, 1991 and 1993; Chen and Knez, 1995; Ben-Zion et al. 1996; Domowitz et al. 1997).<sup>30</sup> As a result, I expect that the negative news concerning violations of U.S. securities laws will be quickly reflected in foreign markets as well as the U.S. markets. When global price movements from the U.S markets and the firm's home market are considered, I expect the combined penalties associated with violations of U.S. securities laws to represent very economically significant losses for cross-listing firms.

However, in addition to documenting the full effect of the penalties imposed by shareholders for violations of U.S. securities laws, determining whether prices change equally for markets with differing geographic distances or in those countries with exchange controls may yield additional insight into capital market integration. A well-known event concerning cross-market arbitrage is that of dominant and satellite markets where cross-market arbitrage is found to not be fully effective in the short-term due to information segmentation.<sup>31</sup> Though market participants will act quickly to close the gap in prices between markets, prior research finds that as information is revealed in the dominant market the satellite markets will "chase" the dominant one due to information asymmetries (e.g. Nuermark et al., 1991; Ben-Zion et al. 1996). Since research has found evidence of geographic information asymmetries (e.g. Hau, 2001; Choe et al., 2000) and exchange controls can create arbitrage opportunities, I expect to see larger

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<sup>30</sup> This is because of the economic "law of one price" which holds that two assets with identical payoffs in all states of the world should sell for the same price, barring transaction costs. In terms of capital market integration, markets are perfectly integrated if the law holds across all markets.

<sup>31</sup> For a more detailed explanation of this phenomenon, see Licht (1998).

reaction differences in home market and U.S. market CARs from firms that have home markets with either condition. Though the market reaction is predicted to be significantly negative in all markets, I expect firms coming from countries with no exchange controls and geographically close, such as Canada, to have more similar home market reactions as compared to the U.S. market reaction than firms coming from countries with exchange controls or large geographic distances, such as China or India. These types of countries are expected to have less negative reactions in the home country as compared to the U.S. market around the disclosure of U.S. securities law violations. Alternatively, it could be that there are no noticeable differences between market reactions from firms based on country of incorporation or headquarters. Finding that there are no differences in market reactions based on these differences in country characteristics could be attributed to either the fact that many cross-listing firms are large multinational corporations which are well covered in the press no matter what country they are incorporated in or that the presence of exchange controls or distance does not impact market reactions for the disclosure of violations of securities laws or the news of securities class action filings.

*b. Methodology Overview*

To test these hypotheses, I use a methodology similar to that found in other papers that examine penalties associated with corporate misconduct. To measure the market reaction around incidents of securities class action lawsuits, I follow standard event study methodology similar to those employed by Karpoff and Lott (1993) where U.S. market reactions are measured for various event dates pertaining to the securities law violation events as discussed in Chapter 3. The abnormal returns are then cumulated into a single enforcement measure and compared to that of a control sample of domestic cases to determine whether there are differences in penalties assessed by the market based on foreign or domestic firms, as one would expect if enforcement of foreign firms is weak. I repeat this process for reactions on



the home markets where information is available for the sample firm to determine a measure of foreign market losses as well as U.S. market losses and compare the differences between the different markets.

I separate out the legal and reputational penalties following a similar methodology of measuring reputation loss as utilized in studies such as Peltzman (1981), Jarrell and Peltzman (1985), Karpoff and Lott (1993), Karpoff, Lee, and Vondracik (1999), and Karpoff, Lott, and Wehrly (2005) in Chapter 4. I compare these penalties to those of domestic firms to determine whether they are significantly different as critics of enforcement would most likely believe. Additionally, I examine possible determinants of reputation loss to determine if country-level legal environments and governance indicators are related to reputation loss in the cross-section.

## Chapter 3

### Market Reactions to Securities Class Actions

#### IV. Sample collection

##### *a. Summary statistics*

The initial sample of cross-listing firms subject to securities class actions is collected from the Stanford Securities Class Action Clearinghouse and Institutional Shareholder Services (ISS) Governance Analytics Class Actions.<sup>32</sup> To collect both the sample and the control, I merged the securities class action lawsuits listed from 1996-2009 in the Stanford Securities Class Action Clearinghouse with the listing of class actions in Institutional Shareholder Services (ISS) Governance Analytics Class Actions. Institutional Shareholder Services (ISS) Governance Analytics Class Actions database contains federal, SEC, state, and international court records and, as I am only interested in securities class action cases, I restricted filings the sample cases to those filed in or transferred to the federal courts. Since numerous studies have shown there is a significant difference between the types and outcomes of cases before and after the passing of the Private Securities Litigation Reform Act of 1995 (PSLRA) I do not include cases prior to 1996 (Johnson, Nelson and Pritchard, 2006; Talley and Johnsen, 2004; Helland, 2006). The initial merge from these sources consists of 3,411 cases at 2,726 unique organizations.

From the sample of foreign firms, firms that list in Bermuda are excluded because these firms often are U.S. firms incorporating in Bermuda primarily for tax benefits. Level I ADR programs are excluded because firms that cross-list on the OTC Bulletin Boards/Pink Sheets are not required to reconcile with U.S. GAAP and their accounting statements would not be comparable. Additionally, Level I ADR programs are not considered since the recent amendment of Rule 12g3-2(b) by the SEC that

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<sup>32</sup> The Stanford Securities Class Action Clearinghouse can be found at <http://securities.stanford.edu/index.html> and ISS Governance Analytics can be found at <https://ga.issproxy.com/>.

allows for automatic exemption from U.S. registration requirements creates an avenue that allows for depository banks and stock markets to establish unsponsored/involuntary Level I ADRs.<sup>33</sup> The bonding hypothesis and the associated criticisms more directly apply to firms that voluntarily choose to list on U.S. exchanges so this exclusion guarantees no involuntary listings are included in the sample. In total this process excludes 101 cases. After merging the databases and excluding the firms as discussed above, in total there are 3,320 cases filed in the federal courts from 1996-2009 at 2,655 unique defendant organizations named as the primary defendant firm. Case characteristics are determined from examination of Bloomberg, the Stanford Securities Class Action Clearinghouse, Institutional Shareholder Services (ISS) Governance Analytics Class Actions, and filings in EDGAR. After excluding those cases that are missing information from these sources, the initial sample of cross-listed firms subject to securities class action lawsuits consists of 234 cases at 193 unique firms while the control consists of 3,088 cases filed at 2,464 unique U.S. firms from 1996-2009.

The cases filed per year against the sample and control firms are presented in Table 1A.<sup>34</sup> As evidenced in Panel A of Table 1A, an average of eight percent of cases are filed against firms that cross-list on the major U.S. exchanges per year and in the last five years of the sample period approximately ten percent of cases files are against sample firms.<sup>35</sup> Panel B lists the number of firms that cross-list on the major U.S. exchanges (NYSE/AMEX and NASDAQ) per sample year and the number of cases filed per year against firms on these exchanges. An average of 2.5 percent of firms listing each year on these exchanges have a securities class action lawsuit filed against them by shareholders with the latter years of the sample increasing to more than three percent of foreign firms cross-listing on major exchanges.<sup>36</sup> Of cases filed, the number against firms listing on NYSE or NASDAQ is roughly the same where 50 percent

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<sup>33</sup> 17 CFR 240.12g3-2. The rule provides automatic exemptions for firms that make material information available on its website and maintains a listing on one or more non-U.S. exchanges. <http://www.sec.gov/news/speech/2008/spch021308ebs-fhk.htm>.

<sup>34</sup> All tables and figures are located in Appendix C

<sup>35</sup> When all foreign firms are considered the cases against foreign firms average approximately 14% of cases filed per year (See Clearinghouse Research at [http://securities.stanford.edu/clearinghouse\\_research.html](http://securities.stanford.edu/clearinghouse_research.html))

<sup>36</sup> This is similar to the percent of U.S. firms with securities class action filings each year. Gande and Miller (2011) find that an average of 2.41 percent of U.S. firms listing on U.S. exchanges are the subject of securities class action lawsuits from 1996-2009.

list on the NYSE and 49 percent list on NASDAQ. The remaining one percent of sample firms list on AMEX. Table 1B lists the country and region of incorporation for firms in the sample alongside the country and region of primary headquarters and primary sales as determined from company annual reports in the year of the lawsuit filing. Almost half of the sample firms list the United States as the country of primary sales and the majority of cases are filed against firms incorporated and headquartered in developed markets with approximately 64 percent of sample cases being filed against firms that are incorporated in either Western Europe or Canada. The numbers of firms incorporated and headquartered in most regions are similar with the exception of emerging Asia and the Caribbean as only four percent of sample firms are incorporated in emerging Asia Pacific but almost 13 percent of sample firms are headquartered there. This is due primarily to several sample firms that incorporate in the Cayman Islands but are headquarters in China.

*- Insert Table 1 about here-*

Next, firm financial information and stock price information is collected from COMPUSTAT and CRSP where available. Foreign home market stock price information is collected using DataStream where available. Any information on cases, firm governance, and shareholders not available from these sources is collected from the firm's website information, Bloomberg Law, and Lexis-Nexis searches. Of the control and sample firms, 2,457 are corporations that list identifiers in CRSP. The organizations that do not have records in CRSP are excluded from the analysis as the vast majority of them are LLC, LLP, or various mutual funds. Due to missing data from the listed sources, an additional 41 cases are excluded from the analysis and the final sample consists of 191 cases at 160 unique firms.

*- Insert Table 2 about here-*

Case characteristics for these sample firms are listed with the information for domestic firms in Table 2 alongside tests for differences in mean and median values. The violation period and delay for shareholder initiated securities class action filings after the disclosure of the violation are not significantly

different between domestic and foreign cases. Violation periods have median values of approximately one year and the median case filing delays of approximately one month after the disclosure of the violation. Almost half of the cases filed allege violations of GAAP while approximately twenty percent allege violations in the registration documents or prospectus of an equity issuance. Lead plaintiff identity is significantly different between foreign and domestic firm cases as over forty percent of foreign cases have one or more institutional lead plaintiffs on average while only thirty-five percent of domestic cases have an institutional investor serving as a lead plaintiff. Additionally, foreign firms tend to have more analysts following them at the time of the lawsuit filing, though this is only significantly different in the median and is expected due to the typically larger size of cross-listing firms. As expected, cases tend to concentrate in the technology, retail and finance industries. Approximately the same percentage of cases are against firms in these industries between the sample and control though there is a slightly higher percentage of technology firms in the sample of foreign firms and a higher percentage of retail firms for the domestic firms.

*- Insert Table 3 about here -*

Table 3 compares accounting and U.S. market performance indicators for the sample and control in the year prior to the filing of the lawsuit. Typical of cross-listing firms, the sample firms are much larger than the domestic firms in terms of total assets held, market capitalization, and sales. Additionally, domestic firms tend to have lower free cash flows and higher Tobin's q with more leverage than sample firms while market performance measured in terms of prior one- and three- year market adjusted compounded returns are similar between the control and sample. In unreported tables the same statistics are also calculated for the year prior to the disclosure event and domestic and foreign comparison results are unchanged.

*b. Event Dates*

To determine market penalties for the securities law violations, I separate each case into three distinct events which are cumulated into an overall reaction. The first event date is the “disclosure date” which coincides with the date listed in the complaint document from which the information of the violation becomes public.<sup>37</sup> Of the sample cases, the alleged U.S. securities law violation was initially disclosed as a company issued press release 59.57 percent of the time. The violation was initially disclosed by the U.S. press or government 31.3 percent of the time and foreign press or government initially disclosed the violation 7.39 percent of the time. The second event date is the “filing date” which is the first date of the filed complaint in the first district.<sup>38</sup> For many violations, in the days following the initial complaint there are other cases filed from other attorney’s offices in other districts that are later consolidated into one class action. To avoid double-counting the cases, I only use the first filing date as the event date.<sup>39</sup> Lastly, for the cases in which an outcome is determined, I capture the date of the decision announcement. If a settlement is announced, I capture the “settlement date” as the first date in which the news of a settlement is announced in the press. In many cases a tentative settlement agreement is announced prior to the finalized settlement. In this case I use the tentative settlement announcement since it would be the first notice of the intention of the firm to settle and the probable terms of settlement. If a dismissal is announced, I capture the “dismissal date” as the first date in which the news of the case dismissal is publicly announced.

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<sup>37</sup> This is the date listed from the court documents as which the materially false or misleading information becomes public.

<sup>38</sup> There are times when the disclosure date and the filing date are within ten days of each other. Griffin et al. (2000) classify this as a “rapid filing.” To avoid any potentially confounding effects in tests, in unreported tables I also exclude cases where the filing date and disclosure date are within +/- five days. CAR and economic effect results are unchanged when these cases are excluded.

<sup>39</sup> This approach potentially causes a slight downward bias to results for filing date effects. Since the argument is that the filing date reactions should be significant, this biases my results against finding significant reactions.

## V. U.S. Market penalties

### a. *Change in market capitalization around event dates*

The change in market capitalization is computed and reported in Table 4 for the domestic and foreign firms around significant case event dates. Two commonly computed measures of Maximum Dollar Loss (MDL) and Disclosure Dollars Loss (DDL) are presented for domestic firms in the U.S. market and for the sample firms in the U.S. market and the firm's home market if available. The MDL is defined as the as change in the defendant firm's market capitalization from the trading day with the highest U.S. market capitalization during the class period to the trading day immediately following the end of the class period and the DDL is calculated as the change in the defendant firm's U.S. market capitalization between the trading day immediately preceding the end of the class period and the trading day immediately following the end of the class period.<sup>40</sup> DDL and MDL are simplified measures of losses and are used as estimates of the impact of the information revealed at the end of the class period. Additionally, the dollar losses for the remaining case event dates are also reported for the filing date, settlement date and dismissal date. Results are presented as both U.S. dollars lost and as a percentage of lost market capitalization. As reported in Table 4, for both foreign and domestic issuers, the percentage of market value loss averages sixty percent over the violation class period and approximately eighteen percent at the disclosure of the violation. As evidenced in Panel B, foreign firms also are subject to large changes in market capitalization in their home market at the news of a securities law violation as the MDL in the home market is over fifty percent on average and the disclosure results in almost sixteen percent loss in market capitalization.

*- Insert Table 4 about here-*

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<sup>40</sup> Cornerstone Research publishes the MDL and DDL measures for all cases each year in the "Year in Review" that can be found in the Stanford Securities Class Action Clearinghouse research publications.

The announcement of a securities class action filing accounts for between negative 1.99 percent (foreign) and 2.44 percent change (domestic) in market capitalization for a firm on average. The resolution of the case, whether dismissed or settled, does not result in a large change in market capitalization as the average loss or gain is less than one percent. Taken together, all event dates cumulate to between sixteen and nineteen percent loss in market capitalization for domestic firms (18.46 percent) and foreign firms (17.93 percent).

*b. Event Studies*

The MDL and DDL measures in Table 4 indicate that the losses in market capitalization at the disclosure of violation information are similar for international cross-listing firms and domestic firms subject to securities class action lawsuits. To further examine this, I study the market reaction to the news of violations and lawsuit filings by conducting an event study around the various event dates discussed in the previous section.

I follow standard event study methodology and measure the share price response to the lawsuit filing date over the event period using the market model as the pricing benchmark. Daily abnormal returns are computed as the actual return minus the market model predicted return:

$$AR_{jt} = R_{jt} - (\hat{\alpha}_j + \hat{\beta}_j R_{mt}) \quad (1)$$

Where  $\hat{\alpha}_j$  and  $\hat{\beta}_j$  are OLS estimates of firm  $j$ 's market model parameters ( $\alpha_j$  and  $\beta_j$ ),  $R_{jt}$  is the rate of return on stock  $j$  over day  $t$  and  $R_{mt}$  is the rate of return on the value-weighted index companies on CRSP over day  $t$ . Results are robust to using the market model with the equal-weighted index and using the market adjusted returns model.

Abnormal returns are based on market model parameter estimates over the 125-trading-day period from day -135 to day -11, where day 0 is the lawsuit filing date or other event date. Cumulative



abnormal returns (CARs) are computed as the sum of the abnormal returns beginning in day  $T_1$  and ending day  $T_2$ , where  $T_1, T_2$  is the event window specified in the tables.

$$CAR_{T_1, T_2} = \frac{1}{N} \sum_{j=1}^N \sum_{t=T_1}^{T_2} AR_{jt} \quad (2)$$

A variety of event windows are examined to determine whether there is a difference between sample and control firms around the securities law violation dates. The event date is used as day 0 for analysis of market reactions around the disclosure, trigger and settlement dates. Similar to Gande and Lewis (2009), event windows as far back as [-10, +1] are utilized. A search of Lexis-Nexis around the filing date of the lawsuits indicates that using windows that account for more than a week post-filing will increase the chance of capturing additional events such as product or earnings announcements that may skew results. Thus windows of more than [+1, +10] are not considered in this analysis.

Using this methodology, market model event studies were performed using the value-weighted index for the sample and the control and CARs were compared for differences.<sup>41</sup> Results are presented in Table 5A. Results are presented for the estimation window of [-135, -11], though all results are robust to various other estimation windows used in prior literature on securities class action lawsuits.<sup>42</sup> Figure 1 displays the average daily abnormal returns for the sample and control over the twenty days surrounding the event date. As predicted, both domestic and foreign firms follow similar patterns in reaction around the disclosure of a malfeasance. The same is true of the filing date, however there is a slight difference in pre- and post- for the sample as there are more negative pre-event abnormal returns and more positive post-event returns for the sample as compare to domestic filings. I attribute this to the probability of information leakage about the filing of the case against the foreign firm since these firms are larger and tend to be more visible.

*- Insert Figure 1 about here -*

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<sup>41</sup> Market adjusted model event studies were also conducted and results are robust to either method.

<sup>42</sup> [-171, -11], [-200,-11], [-244, -11], [-244, -6], and [ 351, -51] are other estimation windows examined (see, for example, Doidge 2004, Bhagat et al 1998, Gande and Lewis 2009, Niehaus and Roth 1999 and others) and results are robust to other estimation windows.

The first three sections of Table 5 Panel A list the CARs for the case event dates for three windows of [-10, +1], [-1, +1] and [+1, +10] surrounding the event date. At the date of disclosure of violations of U.S. securities laws both the sample and the control are subjected to significantly negative market reactions. In the three days surrounding the disclosure of the violation both the sample and the control CARs average approximately -18.5 percent. In the days surrounding the announcement of the filing of a private securities class action lawsuit both foreign and domestic issuers suffer additional significantly negative market reactions though as indicated by Figure 1 Panel B, the reaction is slightly, though not significantly, less in the case of foreign firms. In the three days surrounding the filing CARs average -4.23 percent for domestic issuers and -3.22 percent for foreign issuers. These results are similar to those found in Gande and Lewis (2009) who find -4.66 percent in the three days surrounding a filing of a securities class action lawsuit. The differences in the three days surrounding the event date between foreign and domestic firms are insignificant for all four event dates. The only noticeable differences are seen in the ten days post event date as foreign firms tend to revert to the mean at a faster pace and rise to abnormally positive as evidenced by Figure 1 Panel B on average. This reaction is explored in more detail in section VII.

*c. Combined Losses*

Following the methodology of Karpoff and Lott (1993), after determining the market reactions for the different event dates, I cumulate the abnormal returns for the three case event dates (disclosure, filing, and settlement/dismissal) and different event windows into a single combined CAR measure of the losses over the enforcement period related to securities law violations. Since each event date conveys additional information to the market about the violation and the subsequent cost to the firms, the combined measure will reflect a combination of all these impacts on valuation (Bhagat and Romano, 2002a; 2002b). It should be noted that this approach will yield conservative estimates of total losses for

firms because it is likely that there are times when news about the violation and class action case leaks to the market outside of the specific case dates examined. I do not cumulate abnormal returns over the full enforcement period because the average enforcement period from disclosure to settlement is more than three years and cumulating returns over this period of time would most certainly capture events that are unrelated to the securities class action case.<sup>43</sup> Therefore, the combined abnormal return for each case ( $CAR_e$ ) is defined as:

$$CAR_e = \sum_{d=1}^n AR_{jt} \quad (3)$$

where  $d = 1$  is the starting event date and  $n$  is the final event date of the window.

The combined CARs for different event windows are also reported in Table 5 Panel A. Cumulated over all event dates, the average CAR for both domestic and foreign firms is more than twenty percent negative on average in the three days surrounding the event dates.

*- Insert Table 5 about here -*

After creating the combined CAR measure, I convert the valuation effect into dollars for each day in the event period by multiplying each  $AR_{jt}$  by the firm's market capitalization on date  $t-1$  and then cumulate the losses over the event windows of  $[-1, +1]$ ,  $[-10, +1]$ , and  $[+1, +10]$  to determine the cumulative economic effect for each event date. To illustrate, the cumulative economic effect,  $CEE_{jk}$ , for lawsuit  $k$  for firm  $j$  over the event window specified in the tables,  $T_1, T_2$ , is calculated as

$$CEE_{jk}(T_1, T_2) = \sum_{t_1+T_1}^{t_1+T_2} DE_{j(t_1+T_1)} \quad (4)$$

where DE is the valuation effect converted into dollars for each day in the event period.

To get a total measure of dollars lost I then sum each of these event date dollars lost into one measure of overall economic effect for each enforcement period. The results of this process are listed in

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<sup>43</sup> The average length of time from filing to announcement of a resolution is 1151 (3.15 years) days and the median length is 914 days (2.5 years).

Table 5 Panel B. As evidenced by this table, the dollars lost in the three days surrounding the disclosure and filing announcements are economically significant amounts for the firms in the sample and the control. At the disclosure of a violation of securities laws foreign firms lose an average of \$575 million dollars in the U.S. markets alone and lose an average of an additional \$184 million at the announcement of a filing of a securities class action lawsuit in the three days surrounding each event. The average losses for the sample firms are more than the control firms in terms of dollars lost but this is mainly a reflection of the average size of the sample firms as compared to domestic firms as cross-listing firms tend to be very large firms. For both domestic and foreign firms the economic losses of the violation of securities laws and case events account for over \$700 million in losses on average.

In total, after combining the reactions into total losses, it is clear that foreign firms subject to securities class action filings suffer statistically and economically significant losses at the filing of a shareholder-initiated lawsuit. As large as these losses are, the losses at the disclosure of a securities law violation eclipse the filing date reaction and the two events combine into more than twenty percent negative abnormal returns on market value in the U.S equity markets. As compared to domestic filings the losses are insignificantly different at disclosure and filings, which, consistent with the predictions of Hypotheses 1, indicates that foreign firms are not receiving a “break” in the U.S. market penalties assessed for violations of U.S. securities law and are in fact being penalized in equal measure in the U.S. markets.

## **VI. Foreign Market penalties**

Results presented thus far have only utilized information from the U.S. exchange in which the foreign firms in the sample trade. Results from this analysis of U.S. market reactions surrounding the event dates indicate that foreign firms suffer substantial losses at the announcement of violations of U.S.

securities laws. However, this reaction is only a measure of the punishment of U.S. market shareholders and does not reflect changes in market value for those markets outside the United States. The vast majority of foreign firms that cross-list on major U.S. exchanges list on multiple exchanges globally and thus the U.S. market for the foreign firms only represents a fraction of the shares the company trades. Therefore, examining the reaction of shareholders on any foreign market on which the firm lists, particularly if the firm lists in its home market, will give additional insight into the total cost of violations of U.S. securities law for foreign firms and will also yield a measure of insight into the level of responsiveness at negative news announced in the U.S. markets to foreign investors.

To explore the extent that foreign investors penalize the foreign firms in the sample for the events that lead to securities class actions, I examine the reaction of the foreign markets around the disclosure and filing of the lawsuits to determine whether the punishment is more or less severe than that of the U.S. market and if there is a delay in reaction due to information asymmetry between the home market and the U.S. market. To measure the market reaction at the news of securities law violations and subsequent securities class action lawsuits, prices and returns are obtained from DataStream for the home market of each firm if it is available during the event windows. Those firms that do not have data available in the home market are primarily are incorporated in the Caribbean or elsewhere that is not covered in DataStream or do not trade in their home markets during the event windows and therefore a home market analysis is not possible. Returns for each security are calculated from the TDS return index as the percentage change in the return index. As Ince and Porter (2006) note, these returns are occasionally incorrect. To verify my results for this I also calculate returns from prices and compare them to the returns index as a robustness check. After collecting the home market stock information from DataStream and calculating the market return index from the indices total return index, the returns on the securities in the sample are checked for data problems as discussed in Ince and Porter (2006). Any nonlocal firms and types not equal to EQ are removed and names are checked for key words or phrases that indicate that the

security is not common equity. Additionally, any returns that are above 200 percent that are reversed in one month are set to missing. After all filters are accounted for and returns checked for the lawsuit event dates, the subsample for this section consists of 129 cases that have both home and U.S. market information available.

*-Insert Figure 2 about here –*

I calculate the market model returns for estimation periods of [-135, -11] similar to that performed in Section VI. Since I utilize the DataStream calculated market returns index (TOTMK) from the home market of the firm to perform the event study, I also utilize the DataStream calculated market returns index for the United States for the U.S. market reaction comparison rather than the CRSP calculated value- or equal-weighted returns. Abnormal returns over the twenty days surrounding the disclosure and filing dates in the home markets are displayed in Figure 2. As compared to the U.S. market returns, the abnormal returns at the disclosure of the violation follow a similar pattern to that seen in Figure 1 where the largest reactions tend to occur at day 0 and day 1 of the disclosure. Filing abnormal returns show a slightly smaller reaction in the days leading up to the lawsuit filing than in the U.S. market but the overall pattern of negative returns in the days prior to the lawsuit remains the same.

*- Insert Table 6 about here-*

Cumulative abnormal returns for the home markets are listed in Table 6 alongside the cumulative abnormal returns in the U.S. markets for the same firms as a comparison. In general, as compared to the U.S. markets, the CARs around the event dates are slightly less in the home market. The reactions are compared for each firm and the differences are statistically significant in the days surrounding the disclosure announcement but are insignificantly different at the announcement of a securities class action lawsuit. In the home market the disclosure of a violation of U.S. securities laws results in an average negative abnormal return of almost sixteen percent in the three days surrounding the announcement and the announcement of the filing of a securities class action is met with an additional loss of almost five

percent on average. Following the same methodology as Section VI, the combined abnormal return for each case ( $CAR_e$ ) are computed as:

$$CAR_e = \sum_{d=1}^n AR_{jt} \quad (3)$$

where  $d = 1$  is the starting event date and  $n$  is the final event date of the window. The combined CARs are also reported in Table 6. When reactions to disclosure announcement, filing announcement and settlement/dismissal announcements are combined, the average CAR for the sample foreign firms is between negative eighteen and nineteen percent on average in the home market and the U.S. market. To better demonstrate the magnitude of these losses, I also calculate the valuation effect into dollars by multiplying each  $AR_{jt}$  by the firm's home market capitalization on date  $t-1$  and then cumulate the losses over the various event windows to determine the cumulative economic effect for each event date in the home market. To get a total measure of dollars lost I then sum each of these event date dollars lost into one measure of overall economic effect for each enforcement period. The results of this process are listed in Table 7. Consistent with the predictions of Hypothesis 3, when the home market is considered, market value changes around the disclosure of a violation of U.S. securities laws cause an average of \$3.486 billion in lost market capitalization and a the subsequent lawsuit filing results in an additional \$925 million in lost market capitalization.

*- Insert Table 7 about here-*

As Table 8 demonstrates, the significant differences reported in Table 8 between economic losses in the home and U.S. markets is unsurprising when considering that the number of shares traded in the home market on average represent nearly seventy percent of the combined shares of the two markets for a firm. When Canadian firms are not considered this difference in number of shares held between the two markets is nearly eighty percent on average and over ninety percent in the median.

*- Insert Table 8 about here-*

To determine whether there are differences between geographically separated markets I separate the sample by regions of incorporation in Table 9. To distinguish between geographic locations, I separate the sample into firms incorporated in Europe, Canada or elsewhere. As evidenced by Table 9 Panel B, the home market reaction for Canadian incorporated firms is virtually indistinguishable from the U.S. market reaction with both markets averaging approximately twenty percent negative CARs in the disclosure date and five percent at the filing date. As predicted, firms that are incorporated further geographic distances have significantly less severe market reactions in the home market in the days surrounding the event dates with firms from the European region and from Asia and the Middle East having significantly less negative reactions in their home markets at the announcement of a U.S. securities law violation. It is interesting to note that, in the ten days following the announcement of a securities law violation, firms from Europe tend to have similar CARs in the home and U.S. markets while firms from Asia and the Middle East continue to have more negative CARs in the home market as compared to the U.S. This pattern could be the result of the information asymmetries and exchange controls that tend to exist in these markets as the news would be slower to reach the home market.

*- Insert Table 9 about here -*

To explore this reaction further, I separate the sample based on whether or not the firm is incorporated in a country with exchange controls at the time of the securities class action filing. The results of a comparison between these subsets are presented in Table 10. Panel A contains a comparison of the U.S. market CARs between firms incorporated in countries with exchange controls and those without exchange controls while Panel B compares the home market reaction to the U.S. market reactions for each subset. Inconsistent with the predictions of Hypothesis 3, there are no significant differences in market reaction between the home and U.S. markets for the firms in the subsets in Panel B. Though firms incorporated in countries with exchange controls generally have more negative reactions at case event dates than those not incorporated in countries with exchange controls, in the three days surrounding the



case event dates there is no significant difference in the mean or median CARs in the home and U.S. markets for the sample firms. The only significant differences are presented in Panel A with the disclosure CARs for the comparison of firms incorporated in a country with and without exchange controls. Firms incorporated in countries with exchange controls have an average of negative twenty-five percent cumulative abnormal returns in the three days surrounding the violation disclosure while those sample firms incorporated in countries without exchange controls have an average of 17.5 percent negative cumulative abnormal returns, though this is only significantly different at the 10 percent level.

*-Insert Table 10 about here-*

The evidence presented in this section is partially consistent with the predictions of Hypothesis 3. Without question there are significant losses for firms accused of violations of securities law violations in both their home and U.S. markets and in many cases they are as severe in the home market as they are in the U.S. market for the firm. However, the second prediction of Hypothesis 3 is a little less clearly supported. As evidenced in Tables 9 and 10 whether or not the country-level characteristics of distance and exchange controls create differences in reaction is less clear on a univariate level. Table 9 presents some evidence that reactions from geographically close markets are most similar to U.S. market reactions but there is less evidence that exchange controls potentially impact the market reactions at the news of violations. Unfortunately, the separation into subsets in this section yields subsamples that are too small to reliably examine for differences with a multivariate study. Thus, this analysis will have to be left to future research when the sample number of firms receiving securities class action lawsuits is large enough to separate into smaller subsets.

## VII. Event Study Robustness Measures

### a. Size Matched

As previously discussed in Table 3, foreign firms subject to securities class action filings in the U.S. are significantly larger than the average domestic firm subject to securities class action filings in terms of total assets, market capitalization and sales. To verify that results are not driven by size, I match each firm based on total assets and industry in the year of the lawsuit filing with a domestic firm that is subject to a securities class action lawsuit rather than the entire securities class action domestic firm universe.<sup>44</sup> Table 11 displays the summary statistics for the sample and the matched control.

*-Insert Table 11 about here-*

Similar to that of Table 2 and Table 3, case characteristics and descriptive statistics are similar between the matched sample and control firms with the exception being the number of analysts following the firm at the time of the violation, the size of the firm as measured by market capitalization and the log of sales, and the performance as measured by Tobin's q. The number of analysts following the firm remains significantly lower for foreign cross-listing firms as compared to domestic firms. The size of the sample firms as compared to the matched control is significantly lower and Tobin's q remains significantly lower for the sample firms as compared to the matched control in the year prior to the violation.

Market model event studies are performed for the sample and matched firms for the dates surrounding the lawsuit and results are displayed in Table 12. As Panel A demonstrates, similar to the unmatched sample, the CARs at disclosure, filing, settlement and combined announcement dates remain fundamentally similar between the sample and the matched control with the exception being in the [+1, +10] window where, as before in the unmatched sample, the sample firms tend to perform better. The only noticeable difference between the sample and the control firms is seen in Panel B as the conversion

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<sup>44</sup> Matches are determined based on +/- 25 percent and within the same 2-digit SIC code. If a match is unavailable then a firm is matched based on +/- 35 percent and within the same 1-digit SIC code. A matching firm was unavailable for one firm in the sample and thus only 190 firms are examined in this section.

to market value losses displays a much larger economic loss for domestic firms as compared to foreign firms in the disclosure and combined measures. However, this difference is expected as it is primarily due to the number of shares outstanding that a large domestic firm has on U.S. markets as compared to a foreign cross-listing firm on the major U.S. exchanges.<sup>45</sup>

*-Insert Table 12 about here-*

As additional robustness tests of results, firms that have trading prices of less than one dollar during the event periods are dropped to verify that the any large percentage changes reported for small increases or decreases in prices are not driving results. Results remain unchanged after these firms are dropped. Lastly, to determine whether corporations that use shell companies in tax haven countries are not skewing results, sample firms that are incorporated in the Cayman Islands, British Virgin Islands, Luxembourg, Marshall Islands, Panama and the Island of Guernsey are dropped and CARs are reexamined with results remaining the same when these firms are not dropped from the sample.

*b. Market reactions for differing outcomes*

At the time of disclosure is it likely that investors weigh the chances of a securities class action filing and other adverse events such as accounting write-offs or legal penalties based on the severity of the allegations and the resulting share price drop is a reflection of these expectations as well as the reputational loss (Karpoff et al., 2008). To verify that the large losses are not just driven by investor expectations of large settlements for severe violations, the sample of foreign firms and domestic firms subject to securities class action lawsuits are separated into subsets based on whether they are dismissed or settled. Table 13 displays the results of a comparison of CARs for this split. As Panel A demonstrates there are no significant differences in the CARs between foreign firm violations that are eventually dismissed and foreign firm violations that are eventually settled at the disclosure of the violation. Though

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<sup>45</sup> In the year of the lawsuit filing, domestic matched firms have a mean of 595 million and a median of 78 million shares outstanding while foreign cross-listing firms have a mean of 207 million and a median of 47.8 million shares outstanding on the U.S. exchanges.

the differences are significant for domestic firms, the reactions in larger windows around the event dates are insignificantly different for both domestic and foreign cases. For both the foreign firms and the domestic firms the reaction is larger in the mean and median at the filing of the lawsuit. However, this difference is insignificant for the sample firms though it is significantly different for the control of domestic firms. This slightly larger effect could be evidence that investors are reacting more to the filing of cases that have a higher likelihood of settlement, suggesting there is a market adjustment for the severity of violations that leads to cases that are settled rather than dismissed and for expected settlement payments. In either case the losses are still significant at disclosure and filing and thus indicative that investors punish investors severely for alleged securities law violations regardless of eventual outcome.

*-Insert Table 13 about here-*

*c. Winsorized CARs*

To verify that outliers are not driving the similarities between the control and the sample, the CARs are winsorized at the one and five percent levels and compared similar to the comparison in Table 5.<sup>46</sup> Table 14 presents the results at the five percent level though all results are robust at the one percent as well. Though the winsorizing slightly lessens the negative reaction at the event dates, it is still statistically significant in the disclosure and filing dates for both the sample and the control and thus it does not appear that outliers are driving the CAR comparison results. By comparing Table 5 to Table 14 it can be seen that the average CAR at the event dates remain largely insignificantly different from each other in the event dates as disclosure CARs still average more than eighteen percent for both the foreign and domestic firms and the combined CARs are still around negative twenty percent. Similar to the original comparison, the only differences between foreign and domestic cases are found in the [+1, +10] window with the foreign firms being less negative.

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<sup>46</sup> Winsorizing at the five percent level involves replacing five percent of the values from both ends of the data with the observations closest to them making this method less sensitive to outliers because it replaces them with less influential values. Values are not dropped with this method.

*-Insert Table 14 about here-*

*d. Noisy Events Around the Filing Date*

Lastly, as discussed in section VI and seen in Figure 1 Panel B, the filing dates for the sample has an unusual reversion in the ten days post filing in the mean CAR that is not seen in the control. The filing date CAR window is more than three percent positive on average in the [+1, +10] window for foreign firms. To verify that the market is not actually reacting positively to the news of a securities class action filing but rather the positive average CAR is a reflection of other events, a search of Lexis-Nexis is conducted for the +/- thirty days around the filing date for each firm. Any event in this window other than the lawsuit filing is noted and if it occurs within ten days of the filing it is not included in the analysis in this section. Table 15 displays the CARs for the noise restricted sample and Figure 3 shows the mean and median abnormal returns for each day in the twenty days surrounding the lawsuit filing for this cleaned sample.

*-Insert Figure 3 about here-*

The mean and median abnormal returns in Figure 3 follow a similar pattern as that observed in Figure 1 with the largest mean reactions seen around the -4 to -1 day window. However, the jump in mean abnormal return in the post-filing window largely disappears in Figure 3 and, as seen in Table 15, the exclusion of the firms with other events in the post-ten days after the filing results in a much lower and insignificantly different CAR than the market in the [+1, +10] window.

*-Insert Table 15 about here-*

## Chapter 4

### Determinants of Reputational Losses

#### VIII. Legal and Reputational Penalties

Section VI of Chapter 3 presents evidence that the losses associated with violations of securities laws are economically and statistically significant events for foreign firms that cross-list on U.S. exchanges. Such large losses provide a reasonable argument that the legal system in the United States does provide a level of enforcement for foreign firms that violate securities laws. Literature on corporate crime often examines the penalties that compose these large losses separately to determine what proportion of the market reaction is based on the expectation of upcoming legal penalties and what proportion is based on lost reputation. Following the methodology of Peltzman (1981), Karpoff and Lott (1993) and others, I also separate the different penalties from the initial adjustment of market value at the announcement of a securities law violation. Separating out the penalties in this manner allows me the ability to analyze whether or not the legal and reputational penalties assessed by the market are substantially different for domestic and foreign firms as well as allowing me to analyze the cross-sectional determinants of these penalties.

To start analysis of the separate penalties, I define the change in firm value when news of the misconduct is disclosed as:

$$\Delta MV_t = MV_{t+1} - MV_{t-1} \quad (5)$$

where  $MV$  is the market value of the firm at disclosure date  $t$

According to Karpoff, Lee and Martin (2008), monetary penalties result from shareholder class-action suits nearly five times as often as from regulatory actions by the SEC and DOJ. To determine legal penalties, monetary settlement amounts are collected for each case in which a settlement is determined as listed in Institutional Shareholder Services (ISS) Governance Analytics Class Actions.<sup>47</sup> A comparison of the settlement amounts to those of domestic filings is shown in Table 16. Similar to what has been found in previous research, the settlement amounts average to approximately 27 million for the cases that are settled and as noted by Seigel (2005), the amounts are insignificantly different for foreign and domestic issuers.

- Insert Table 16 about here-

After defining legal penalties, reputational penalties (*RLoss*) are computed as the change in market value from Equation 5 minus any legal penalties assessed from the settlement of the litigation. *RLoss* is therefore defined as:

$$RLoss = \Delta MV_t - LegalPenalties \quad (6)$$

Table 16 also lists the summary statistics of the reputation penalties. As seen by Table 16, although the legal penalties are sometimes very large, they are very small in comparison to the market value losses reported at the disclosure of the securities law violation. Reputational penalties account for more than \$550 million for both the sample and the control firms and the penalties are insignificantly different from each other.

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<sup>47</sup> It should be noted that legal penalties are taken from those reported in the Institutional Shareholder Services (ISS) Governance Analytics Class Actions database. It is possible that additional legal penalties were incurred by firms that were not reported by the firm or captured in this database. In this case the reputational penalties could be slightly overstated.

## IX. Cross-Sectional determinants of reputational penalties Tobit regression

This section examines some possible determinants of the reputational penalties assessed by the market at the disclosure of a violation of U.S. securities laws. The univariate analysis presented in the preceding chapter demonstrates that there is a significant statistical relationship between the market reaction and the news of a violation of U.S. securities laws that leads to a securities class action lawsuit. However, this result does not control for other factors that may show a similar relationship. In this section, I attempt to explain the cross-sectional distribution of the reputational penalties by including several factors that potentially affect investors' reaction to the news of violations. I separately estimate the sample and control in the regressions and compare the coefficients for differences using the natural logarithm of the dollar amount of the reputational penalties as the dependent variable in the regressions (*LNRLoss*). Since some firms can have a negative reputational penalty, which makes disclosure of violations appear to be actually reputational improving events, I set each negative reputational penalty value to zero. I classify the factors that most likely are related to the market reaction around the filing of a securities class action into categories based on firm-specific variables, merits and potential damages estimates and litigation environment factors. A detailed description of the measurement of each independent variable is listed in Appendix B.

### *a. Information transparency, reputation and the importance of the firm*

A firm that is visible to investors and of a good reputation to shareholders should have a larger reputation loss at the news of a violation of securities laws. To proxy for size and visibility I use the log of total assets in the fiscal year-end immediately prior to the disclosure of the violation (*LnAssets*).<sup>48</sup> As an additional proxy for visibility I first use a measure of analyst coverage (*NumEst*) defined as the number

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<sup>48</sup> I use a log transformation for this variable since it otherwise is highly skewed and would lead to unreliable coefficients of the explanatory power of the variable.



of analysts following the firm in the reporting period prior to the violation disclosure. However, since the correlation between *LnAssets* and *NumEst* is high, I only use *LnAssets* in the regressions to proxy for visibility measures in the reported regressions.<sup>49</sup> Additionally, the reputation of the firm may also affect how severely a market judges a securities law violation. A firm of good reputation could be subjected to larger reputational penalties as the news of a violation would be more surprising to investors. On the other hand, a firm of poor reputation could be subjected to larger reputational penalties if investors believe the poor performance coupled with violation of securities laws is an indication of worsening conditions at a firm. To proxy for this reputation effect I use a measure of prior firm performance, return on assets (*ROA*), which is defined as net income divided by sales in the year prior to the violation disclosure.

*b. Liquidity, risk and agency costs*

Firms more likely to suffer from agency problems are more likely to face securities class action lawsuits. On the other hand, those that do face securities class actions are more likely to take steps to resolve agency problems. In fact, Ferris et al. (2007) suggest that shareholders target firms with greater agency costs for governance improvement. Since shareholders become more aware of a firm during litigation activities, monitoring should increase and it is possible that shareholders react to the news of a securities law violation differently based on how strong the agency conflicts are at the time of the disclosure. In terms of liquidity, firms with greater exposure to securities litigation have been found to hold significantly more cash in anticipation of settlements (Arena and Julio, 2011; Iliev, et al. 2011). To measure any potential agency costs and liquidity, I use the measures of leverage (*Leverage*), free cash flow (*FCF*), and share turnover / liquidity (*Turnover*) as measured in the reporting period prior to the disclosure date. Firms with higher leverage should face lower reputational penalties as they are less equity based and those with higher amounts of cash and turnover measures should face higher reputational penalties due to the increased agency costs.

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<sup>49</sup> Correlation between the variables is 0.61. Regression results are similar if *NumEst* is used instead of *LnAssets*.

*c. Merits and potential damage of the lawsuit*

The market reaction around the news of a potential securities law violation may also be different depending on how firm shareholders view the damages and the potential for a loss of wealth through settlement. Similar to the method of Cheng et al. 2010, I use allegation type, case outcome, and class period variables to proxy for case merits. Allegation types are divided into binary variables to indicate whether the case contains an IPO violation accusation (*IPOVio*) or a Generally Accepted Accounting Principles (GAAP) violation accusation (*GAAPVio*). Accusations of GAAP violations tend to be more severe than other allegations so these should have higher reputational penalties while those of IPO violation accusations should have lower reputational penalties. I also include a binary variable for case outcome (*Settled*) that indicates whether the case is settled or dismissed. Though the outcome of a case is unknown at the time of the disclosure of wrongdoing, this variable is included to serve as a proxy for case merit since cases that are dismissed are likely to be less meritorious than those cases that are eventually settled. Since settlement typically includes a large legal penalty I expect settled cases to contain a smaller reputational penalty as investors will have taken the legal penalty into account. Length of class period (*ClassPeriodLength*) is calculated as the period of wrongdoing as defined by the lawsuit Complaint. A longer class period could indicate to shareholders whether the case has merit and a settlement is likely since scienter may be easier to establish with a long window.<sup>50</sup> Conversely, a longer class period could allow for some information leakage prior to disclosure so the losses in the three-day window could be less severe in these cases. As an additional measure of severity of violation, I use a binary measure of ongoing investigations by other regulatory commissions (*OtherCase*) that includes concurrent investigations by

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<sup>50</sup> Scienter is defined as willingly or knowingly and refers to the state of mind necessary to be legally accountable for actions. To establish a Section 10(b) violation a plaintiff needs to establish there was reckless disregard, willingness or bad intent to deceive.

either the SEC or the home-market regulatory commission of the foreign firm.<sup>51</sup> Since these cases will typically be more severe violations I expect a larger reputational penalty.

*d. Industry affiliation , litigation environment and year effects*

Prior research has indicated that industry is an important consideration in predicting the likelihood of securities class action filings as firms operating in highly volatile sectors and those in technology, healthcare and financial services are most likely to be subject to a securities class action and settlements are more likely/larger for technology and healthcare firms (Martin et al. 1999; Carleton et al., 1996). Additionally, for firms that are in industries that are often the subject of securities class actions, there is a partial anticipation and a negative effect on stock price in the days prior to the lawsuit (Gande and Lewis, 2009) as investors adjust expectations in anticipation of a lawsuit. Thus, I control for these industries in which suits are more likely as investors are more likely to adjust expectations prior to any disclosure of securities law violations and this may subsequently lessen reputational penalties. I control for firms in the financial industry (*FIN*) and technology (*TECH*) industries.<sup>52</sup> I also use a measure of expectations based on whether this is the first securities class action in the sample period for the firm (*FIRSTCASE*). If it is the first malfeasance for a firm, I expect a larger reputational penalty as shareholders are not expecting or monitoring for these securities law violations. On the other hand, it is possible that lower reputational penalties would be assessed in this situation as firms that are repeatedly accused of violations may receive higher reputational penalties than first time offenders. Additionally, I control for differences across years and other potential unspecified factors in all regressions.

For cross-listing firms the characteristics of the firm's home country are also used as control in addition to the firm-specific, litigation environment, and case merit controls discussed above. Since a

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<sup>51</sup> There are several informal investigations that are concurrent with the securities class action (for example there are several instances of SEC informal inquiries that are not filed as cases). In my sample, Canadian firms have 10 such instances (16 percent), Israeli firms have 3 such instances (13 percent) and all other firms have 27 instances (19 percent).

<sup>52</sup> I do not control for the healthcare industry because there are no such designated firms in my sample

firm's home market could be considered the country of incorporation or the country of headquarters, a binary variable indicating the presence of market exchange controls in the country of incorporation (*IncControl*) or country of headquarters (*HQControl*) is used as a control for the closedness of each economy in different regressions. There should be a positive relationship between the level of closedness and the reputational penalties. Additionally, in some specifications I also control for whether or not the home country allows class actions as the expectation of legal penalties in a second country could impact the reputation loss at the news of a securities law violation. A binary variable is used to indicate whether the firm is incorporated (*IncAllowClass*) or headquartered (*HQAllowClass*) in one of the eighteen countries that allow some form of class action at the time of the lawsuit filing.<sup>53</sup> The expected relationship for this variable is not clear. It is possible that the availability of class actions in the home market would have a negative relationship with reputational penalties as investors might expect the firm to be subject to class actions in the home country for the same malfeasance and thus lower reputational penalties in the U.S. markets. The other possibility is that shareholders will expect class actions in the home market and believe that legal penalties in this country would also be possible, or that it would be easier to get settlements in the U.S., and thus would encompass these expected foreign legal penalties in the reputational penalties measure in this study, creating a positive relationship.

To proxy for economic development, I use the log of the GDP per capita (*GDPperCap (Log)*) for the country in the year prior to the disclosure date and to proxy for financial development I use the stock market capitalization (*Cstmktcap*) of the country in the year prior to the disclosure date. The predicted relationship is unclear for economic development variables as operating in a weaker economy could be seen as evidence the firm will not be able to pay legal penalties and investors may subject firms to higher reputational penalties as a result, or they may subject them to lower reputational penalties due to the lack

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<sup>53</sup> The relevant countries that allow some sort of class action as of 2011 are Austria, Australia, Belgium, Canada, Denmark, England, Finland, France, Germany, India, Israel, Italy, Netherlands, Norway, Portugal, South Korea, Spain, and Sweden. Since many of these countries first began to allow class actions during the sample period, the variable *AllowClass* is only equal to one for the sample firm if the lawsuit filing date is after the country began to allow class actions.

of surprise at the violation. The perception of governance or legal protection in the home country of the firm may also influence reputational penalties assessed by shareholders at the disclosure date. Investors would be more surprised at violation allegations from firms that come from countries with good governance or strong protection of minority shareholders and thus would subject them to larger reputational penalties. To proxy for the level of legal protection of minority shareholders in the home country for firms in the sample I use the anti-self-dealing index (*Antiselfdeal*) developed in Djankov et al. (2008). To proxy for governance I use the average of the six governance indicators (*GovIndex*) as reported by Kauffmann et al. (2009) for the most recent year available prior to the violation. The dimensions measured are Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. Though *Antiselfdeal* and *GovIndex* are related, they are not significantly correlated with each other and therefore both measures are included in the model.<sup>54</sup>

To avoid treating reputational penalties as value-enhancing, I set any negative reputational penalties to zero. Because of this censoring treatment, a Tobit with left censoring at zero to estimate determinates of reputational is utilized. Model 1 is listed as Equation 7 and is used as the model for both the sample and the control firms as a comparison. Model 2 is the same as Model 1 only the country-level variables of *AntiSelfDeal*, *GovIndex*, *Cstmkcap*, *LogGDPperCap*, *AllowClass* and *Control* are added for either the country of incorporation (*IncAllowClass*, *IncControl*, *IncAntiSelfDeal*, *IncGovIndex*, *IncCstmkcap*, and *IncGDPperCap(Log)*), the country of headquarters (*HQCountry*, *HQAllowClass*), or the country of primary sales (*PriSaleCstmkcap* and *PriSaleGDPperCap(Log)*) as specified in the results tables and this model is only used for analysis on the sample firms. Model 1 and Model 2 are Tobit regressions of the basic forms:

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<sup>54</sup> For the regressions I only use case information for firms that have decided outcomes (settled or dismissed). Excluding those firms and collecting the data for the firm-specific, litigation environment, and case merit controls drops an additional 15 cases due to active status from the sample leaving 176 sample firms and 1936 control cases for Model 1. For the second regression that includes country-level characteristics an additional 11 are lost due to missing country-level variable information which leaves 165 firms in the sample for Model 2.

*Model 1*

$$\begin{aligned}
 LNRLoss_i^* &= \beta_0 + \beta_1 LNASSETS_i + \beta_2 ROA_i + \beta_3 LEVERAGE_i + \beta_4 FCF_i + \beta_5 TURNOVER_i \\
 &+ \beta_6 IPOVIO_i + \beta_7 GAAPVIO_i + \beta_8 OTHERCASE_i + \beta_9 CLASSPERIODLENGTH_i \\
 &+ \beta_{10} FIN_i + \beta_{11} TECH_i + \beta_{12} FIRSTCASE_i + \beta_{13} SETTLED_i + \varepsilon_i
 \end{aligned} \tag{7}$$

where

$$LNRLoss_i^* = \begin{cases} \beta_0 + \beta_1 LNASSETS_i + \beta_2 ROA_i + \beta_3 LEVERAGE_i + \beta_4 FCF_i \\ + \beta_5 TURNOVER_i + \beta_6 IPOVIO_i + \beta_7 GAAPVIO_i \\ + \beta_8 OTHERCASE_i + \beta_9 CLASSPERIODLENGTH_i + \beta_{10} FIN_i \\ + \beta_{11} TECH_i + \beta_{12} FIRSTCASE_i + \beta_{13} SETTLED_i + \varepsilon_i & \text{if } LNRLoss_i > 0 \\ 0 & \text{if } LNRLoss_i \leq 0 \end{cases}$$

*Model 2*

$$\begin{aligned}
 LNRLoss_i^* &= \beta_0 + \beta_1 LNASSETS_i + \beta_2 ROA_i + \beta_3 LEVERAGE_i + \beta_4 FCF_i + \beta_5 TURNOVER_i \\
 &+ \beta_6 IPOVIO_i + \beta_7 GAAPVIO_i + \beta_8 OTHERCASE_i + \beta_9 CLASSPERIODLENGTH_i \\
 &+ \beta_{10} FIN_i + \beta_{11} TECH_i + \beta_{12} FIRSTCASE_i + \beta_{13} SETTLED_i + \beta_{14} CONTROL_i + \beta_{15} ALLOWCLASS_i \\
 &+ \beta_{16} ANTISELFDEAL_i + \beta_{17} GOVINDEX_i + \beta_{18} CSTMKTCAP_i + \beta_{19} LOGGDPPERCAP_i + \varepsilon_i
 \end{aligned} \tag{8}$$

where

$$LNRLoss_i^* = \begin{cases} \beta_0 + \beta_1 LNASSETS_i + \beta_2 ROA_i + \beta_3 LEVERAGE_i + \beta_4 FCF_i + \beta_5 TURNOVER_i \\ + \beta_6 IPOVIO_i + \beta_7 GAAPVIO_i + \beta_8 OTHERCASE_i + \beta_9 CLASSPERIODLENGTH_i \\ + \beta_{10} FIN_i + \beta_{11} TECH_i + \beta_{12} FIRSTCASE_i + \beta_{13} SETTLED_i + \beta_{14} CONTROL_i \\ + \beta_{15} ALLOWCLASS_i + \beta_{16} ANTISELFDEAL_i + \beta_{17} GOVINDEX_i + \beta_{18} CSTMKTCAP_i + \\ \beta_{19} LOGGDPPERCAP_i + \varepsilon_i & \text{if } LNRLoss_i > 0 \\ 0 & \text{if } LNRLoss_i \leq 0 \end{cases}$$

Results from the regression models are shown in Table 17. Model 1 results for the sample and the control are shown in Columns 1 and 2. Model 2 results are shown in Columns 3-11 in the table. The  $\chi^2$  goodness of fit test indicates that a significant portion of the cross-sectional variation is captured in both models and several of the individual coefficients are statistically significant. As predicted, firm-specific

and case-specific determinants are similar for both foreign and domestic issuers in Model 1. Across all columns the coefficient on *Settled* is negative and significant at the one percent level suggesting that cases that are settled are subject to lower reputational penalties as predicted due to a shift in proportion to legal penalties. In most columns the class period (*ClassPeriodLength*) coefficient is negative and significant which indicates that smaller class periods are subject to larger reputational penalties for both foreign and domestic firms. Additionally, the coefficient on the size of the firm is positive and significant which indicates larger firms are subject to larger reputational penalties. As predicted, GAAP violations are subject to larger reputational losses and financial firms are subject to smaller reputational losses. For domestic cases, the allegation of an IPO violation results in a smaller reputational penalty and firms of better reputation as measured by ROA suffer larger reputational penalties though these variables are only significant at the ten percent level. Additionally, for foreign issuers, larger reputational penalties exist for cases where there is another enforcement action in either the U.S. markets by the SEC or the home market securities commission (e.g. OSC or ISA). This measure (*OtherCase*) needs to be carefully interpreted as it serves as a proxy for case merits since the eventual filing of these actions by the regulatory bodies are not known at the time of disclosure. Thus, the interpretation of the coefficient would indicate that, as expected, cases against foreign issuers where violations are so egregious that regulatory commissions are eventually involved are met with higher reputational penalties for disclosure of violations of securities laws.

- Insert Table 17 about here -

When country-level variables are added to the regression in Model 2 in Columns 3-11, the coefficients from Model 1 remain significant for sample firms. Consistent with the predictions of Hypothesis 2, there is evidence that the characteristics of the country of incorporation influences the reputational penalties assessed by shareholders at the news of a violation of securities laws. In all models that include country-level variables, the anti-self-dealing index is positively significant at the one percent

level. As previously discussed, the anti-self-dealing index is a measure of legal protection of minority shareholders against expropriation by corporate insiders developed by Djankov, et al. (2008). Thus it appears that firms that come from countries with higher levels of legal protection of minority shareholders are subject to larger reputational penalties. A potential explanation for this reaction is that violations from firms that come from countries with stronger protection of minority shareholders will come as a larger surprise to shareholders when violations are disclosed. A more severe reputational penalty will be assessed in this case because shareholders had not anticipated violations from firms in these countries as much as they had from firms in weaker legal protection countries. An alternate explanation is that shareholders believe that foreign firms that are incorporated in countries with stronger protection of minority shareholders will make it easier to get settlements. Thus the larger market reactions are a reflection of the expectation of more and larger settlement amounts, regardless of whether the eventual legal penalties are larger.

The significance of the anti-self-dealing index is robust to the addition of controls for the presence of exchanges controls in the incorporation or headquarters country, the addition of an indicator of whether or not the home country allows class actions within the foreign country, changing the financial and economic measurement to the country of primary sales, and controlling for the region of incorporation as demonstrated in Columns 4-11 of Table 17.<sup>55</sup> When region of incorporation is not controlled for, a one unit increase results in the log of reputational penalties changing ten to eleven units. When region of incorporation is controlled for, a one unit increase results in the log of reputational penalties increasing twenty-one to twenty-three units.<sup>56</sup> In addition to the anti-self-dealing index, the economic and financial development measures of country market capitalization and GDP per capita are also significant for the country of incorporation, with negative coefficients significant at the ten percent

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<sup>55</sup> Sample firms are grouped by region of incorporation in Columns 9, 10 and 11 of Table 17. These regions consist of the United Kingdom, Israel, China, Other Western Europe (excluding the United Kingdom), Developed Asia, Emerging Asia (excluding China), Caribbean and Latin America, Eastern Europe, the Middle East and Africa (excluding Israel) and the Canadian Provinces of Ontario, British Columbia, Quebec, New Brunswick, Yukon, Alberta, and Nova Scotia.

<sup>56</sup> Though this effect seems large, the anti-self-dealing index only varies from 0 to 1 in the sample.



level for both variables indicating that firms from countries with weaker economic and financial development are subject to larger reputational penalties. The independent variables are significant at the ten percent level but the significance disappears once the region of incorporation is controlled for in Columns 9-11.

*- Insert Table 18 about here-*

The coefficients of the Tobit presented in Table 17 are the changes in the mean on the latent dependent variable.<sup>57</sup> For comparison purposes, two additional forms of marginal effects are also computed to allow for a better interpretation of the magnitude of changes predicted in this model. These additional forms are presented in Table 18 for the changes in the unconditional expected value of the observed dependent variable and for the changes in the probability of being censored.<sup>58</sup> The coefficients on the unconditional expected value calculations in Table 18 are similar to those in Table 17 for all models. In particular, the coefficient on the Tobit estimator for the anti-self-dealing index measure is similar whether it is expressed as the marginal effect on the latent variable or on the censored dependent variable.

## **X. Regression Robustness Measures**

Initial evidence indicates that, consistent with Hypothesis 2, country-level characteristics that serve as an indication of the reputation of the firm can have an effect on the reputational penalties assessed when news of the violation is disclosed to investors. To verify these results, several robustness tests are performed.

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<sup>57</sup> Given a Tobit of the form  $y_i^* = \begin{cases} y_i & \text{if } 0 < y_i \\ 0 & \text{if } y_i < 0 \end{cases}$ , the beta coefficients are the changes in the mean of the latent dependent variable  $\beta = \partial E(y_i) / \partial x_i$

<sup>58</sup> The changes in the unconditional expected value of the observed dependent variable is calculated as  $= \partial E(y_i^*) / \partial x_i$  and the changes in the probability of being uncensored is calculated as  $= \partial P(a < y_i^* < b) / \partial x_i$

*a. Winsorized Reputational Penalties*

To verify that outliers are not driving the results of the regressions, the reputational penalties are winsorized at the one and five percent levels and results of the five percent winsorized regressions are presented in Table 19. As evidenced in Table 19, the result from winsorizing reputational penalties does not drastically change the regression results discussed in the previous section. The  $\chi^2$  goodness of fit test still indicates that a significant portion of the cross-sectional variation is captured in both models and several of the individual coefficients are statistically significant. With the exception of the length of class period, which loses significance for the sample, the sign and significance of the independent variables in the regression output does not change substantially from the original regressions.

*- Insert Table 19 about here-*

*b. Truncated Legal Penalties*

As previously discussed, the average settlement amount for securities class action lawsuits is twenty-seven million and the median amount is five million. The large difference between the two statistics is primarily due to a few very large settlement amounts from severe cases of violations from large firms. To demonstrate, Table 20 lists the top fifteen settlement amounts from cases filed between 1996 and 2009. As shown in this table, in the sample period there are only nine cases where the settlement amounts were above one billion. The settlement amounts drop dramatically after this and, by the time the top one hundred highest settlement cases are excluded, the settlement amounts are at 100 million or less.

*- Insert Table 20 about here-*

Two sample cases are included in the top fifteen settlements and these and other very large settlements could potentially impact regression results. To verify that these outliers are not impacting results, I

truncate the top and bottom settlement amounts at the one and five percent level with results presented in Table 21 at the five percent truncated level.

*- Insert Table 21 about here-*

As evidenced in Table 21, the result from truncating legal penalties does not drastically change the regression results discussed in the previous sections. The  $\chi^2$  goodness of fit test still indicates that a significant portion of the cross-sectional variation is captured in both models and several of the individual coefficients are statistically significant, including the anti-self-dealing index measure. In general, the sign and significance of the independent variables in the regression output does not change significantly from the original regressions. The exceptions to this are the financial firm control, which loses significance for some of the sample models, and the economic and financial country-level variables. The economic and financial development variables were significant at the ten percent in the original regression level but lose significance once the legal penalties are truncated.

*c. Cases that allege financial misrepresentation*

In a recent paper by Karpoff, Lee and Martin (2008), it is suggested that movements around the disclosure of some violations of U.S. securities laws reflect not only the market adjustment for expected legal costs and a punishment of reputation, but also an expectation for future adjustments of financial statements in cases where financial statements misrepresentations are alleged. To verify that the determinants of the large reputational market penalties assessed by shareholders are unchanged in these situations, I utilize the methodology proposed by Karpoff, Lee and Martin (2008) and create a readjustment effect measure to adjust the market value losses based on the write-offs for the cases in my sample which allege financial misrepresentation. I define the readjustment effect as the difference between the firm value when the financial information available was misstated and what the firm value should have been if all financial statement information were correctly known. To estimate this effect I

employ the asset restatement measure as proposed by Karpoff et al. (2008) because it excludes fewer firms due to data availability issues and produces larger estimates of the readjustment effect, which yields conservative reputational penalty calculations than other measures of readjustment. The asset restatement approach utilizes a measure of asset write-off that is calculated as the sum of special items, accounting changes and, for financial firms, net charge-offs. The readjustment effect (*Readjustment*) is calculated as the book value of assets of the largest incidence of the calculated write-offs during each year of the enforcement period multiplied by the median market-to-book ratio for all firms listed in Compustat with the same two-digit SIC code for the year corresponding to the write-off. After computing the readjustment effects, reputational penalties (*RLoss*) for each firm are redefined from Equation 6 as:

$$RLoss = \Delta MV_t - LegalPenalties - Readjustment \quad (9)$$

Table 22 lists the penalties assessed for firms in the sample and the control when the readjustment effect has been considered in the calculation of reputational penalties. As evidenced in Table 22, this significantly lowers the reputational penalties mean and median though the new reputational penalties are still insignificantly different between the sample and the control.

*-Insert Table 22 about here-*

Using the same methodology as Section VIII, I run a Tobit model with left censoring at zero to verify that the determinants of the reputational penalties assessed do not change when the readjustment measure is utilized. Again utilizing Equations 7 and 8, I separately estimate the sample and control in the regressions and compare the coefficients for differences using the natural logarithm of the dollar amount of the reputational penalties as the dependent variable in the regressions. Since some firms can have a negative reputational penalty, which makes disclosure of violations appear to be actually reputational improving events, I again set each negative reputational penalty value to zero. Table 23 displays the results of the two models and Table 24 displays the computed additional marginal effects on the unconditional expected value. The results are similar to those run in Section VIII as the determinants of

reputations penalties are mostly unchanged when readjustments for financial misrepresentations are considered.

*-Insert Table 23 about here-*

*-Insert Table 24 about here-*

The notable exceptions to this are that operating in the financial industry and size as measured by the log of total assets becomes insignificant for the sample and firm reputation as measured by ROA becomes significantly positive, indicating that when write-offs are excluded from the penalties measure firms with higher ROAs are assessed larger reputational penalties at the news of wrongdoing. Whether the case is the first securities class action for the firm (*FirstCase*) is also significant though the signs are switched for the foreign and domestic firms. For domestic firms, larger reputational penalties are assessed if this is the first violation for the firm, which can be explained if shareholders are not expecting or monitoring the firm for these types of violations. For foreign firms, smaller reputational penalties are assessed if this is the first violation for the firm, which is possible as firms repeatedly accused of violations may receive higher reputational penalties than first time offenders. For foreign firms the case outcome of settled/dismissed is also insignificant in most specifications but remains significant for the domestic cases in Model 1. Of the country-level variables of interest, the anti-self-dealing index measure remains a strong predictor of the reputational penalties assessed. Additionally, using this measure of reputational penalties, the coefficient for the indicator of a possibility of a class action in the country of incorporation or headquarters is negative and significant. Thus, reputational penalties are less severe for firms from countries that allow some type of class action. This effect could possibly be attributed to expectations from shareholders that the firm will also be subject to class actions in the home country and thus lower reputational penalties are assessed by shareholders of the U.S.

d. *Ordinary Least Squares*

All of the models previously examined were estimated by a Tobit estimator as the reputational penalties have been censored at zero to avoid treating securities law violation disclosures and securities class action lawsuits as reputationally enhancing. As a verification of these results, I estimate the model by OLS using only observations with reputational penalties above zero.

In the original measurement of reputational penalties for the sample 28 observations are left censored out of the 176 non-active cases (16 percent) and when financial misrepresentation cases are adjusted approximately 56 observations are left censored out of the 176 non-active sample cases (32 percent). A Tobit estimator is the primary method employed in this paper because an OLS model on the whole sample or just the uncensored sample can provide inconsistent estimates of  $\beta$ . However, there is such a low percentage of censored dependent variables in the original sample that I next verify my results with an OLS regression of the form:<sup>59</sup>

$$\begin{aligned} LNRLoss_i = & \beta_0 + \beta_1 LNASSETS_i + \beta_2 ROA_i + \beta_3 LEVERAGE_i + \beta_4 FCF_i + \beta_5 TURNOVER_i \\ & + \beta_6 IPOVIO_i + \beta_7 GAAPVIO_i + \beta_8 OTHERCASE_i + \beta_9 CLASSPERIODLENGTH_i \\ & + \beta_{10} FIN_i + \beta_{11} TECH_i + \beta_{12} FIRSTCASE_i + \beta_{13} SETTLED_i + \beta_{14} INCCONTROL_i + \beta_{15} ALLOWCLASS_i \\ & + \beta_{16} ANTISELFDEAL_i + \beta_{17} GOVINDEXT_i + \beta_{18} CSTMKTCAP_i + \beta_{19} LOGGDPPERCAP_i + \varepsilon_i \end{aligned} \quad (10)$$

Results from this regression are presented in Table 25 for the original measurement of reputational penalties. In this table Panel A presents the OLS estimators of only the observations for which the reputational penalties are above the censoring level of zero. Panel B presents the OLS estimators of all cases. Since the results for these two estimators are similar, they will be discussed jointly rather than separately. In unreported tables the estimators are compiled for OLS using the dependent variable of the financial misrepresentation adjusted reputational penalties and results are similar to those in Table 23.

- Insert Table 25 about here-

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<sup>59</sup> If  $y$  and  $X$  are normally distributed with censoring from below, as in this case, the OLS slope parameters converge to  $k$  times the true slope parameter, where  $k$  is the fraction of the sample that is uncensored. This proportionality result provides a good empirical approximation of the inconsistency of OLS if a Tobit model is appropriate. <https://files.nyu.edu/mrg217/public/tobit1.pdf>

Using an OLS model does not significantly alter the conclusions from the Tobit models. In general, the coefficients of the independent variables have the anticipated signs though the coefficients tend to be less in this model. For the country-level independent variables, though the economic development indicator is no longer significant at the ten percent level, the financial development variable remains significant at the ten percent level and the anti-self-dealing index measure is still positive and significant at the one percent level.

### **XI. Size-matched Logit**

So far all regressions have been estimated separately for the domestic firms and the foreign firm sample since country-level controls were being analyzed for predictive power on reputational penalties. A separate question that can be asked is whether or not the reputational penalties tend to be more or less for foreign firms as compared to domestic firms and whether or not the variables of interest have some predictive influence on whether the reputational penalties are more for foreign firms. To measure this, a logit regression is run on the size-matched sample as discussed in Chapter 3. The sample is constructed by matching each foreign firm based on total assets and industry in the year of the lawsuit filing with a domestic firm that is subject to a securities class action lawsuit rather than the entire securities class action domestic firm universe.<sup>60</sup> The reputational penalties for each foreign firm and its match are compared and an indicator is created that is equal to one if the reputational penalty for the foreign firm is larger than its domestic matched firm. A logistic regression analysis is conducted based on this match and results are presented in Table 26 with alongside the marginal effects of each specification.

*- Insert Table 26 about here-*

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<sup>60</sup> Matches are determined based on +/- 25 percent and within the same 2-digit SIC code. If a match is unavailable then a firm is matched based on +/- 35 percent and within the same 1-digit SIC code. A matching firm was unavailable for one firm in the sample and thus only 175 firms are examined in this section.

When country-level controls are added to the model, the  $\chi^2$  goodness of fit test indicates that a significant portion of the cross-sectional variation is captured in the model, though it is not as strong as in the previous analysis. The variable of *AllowClass* is negative and significant in this table, indicating that it is a strong determinant of whether the foreign firm will have a larger penalty than a domestic firm. If a country is incorporated in a country that allows class actions then the foreign firm is less likely to have larger reputational penalties assessed in the U.S. This effect could possibly be attributed to expectations from shareholders that the firm will also be subject to class actions in the home country and thus lower reputational penalties are assessed by shareholders of the U.S. Additionally, when the region of incorporation is controlled for in the last two specifications, the anti-self-dealing index is positive and significant, indicating that foreign firms from countries with stronger minority protection are subject to larger reputational penalties than domestic firms.



## **Chapter 5**

### **Conclusion**

Coffee (2002) argues that there are three mechanisms that serve to bond a foreign firm to the legal system of the country in which the firm cross-lists. Specifically, he stressed that cross-listing bonds firms in the U.S. because (1) they are subject to enforcement powers of the SEC, (2) investors can exercise low-cost and effective actions that are not available in the home market (such as class actions and derivative actions) and (3) the firm commits to providing fuller financial information in response to SEC requirements and reconcile its financial statements with GAAP. This legal bonding as proposed by Coffee has become the subject of some debate. The majority of critics of the bonding hypothesis have focused on whether or not the SEC is effective in enforcing securities regulations on foreign firms. These critics have argued that the SEC does not file many proceedings against foreign firms that are suspected of securities law violations and as a result foreign firms are going unpunished for breaking U.S. securities laws.

Though evidence of SEC enforcement is indeed limited, the critics have tended to ignore the potential of private litigations as a way to enforce bonding within the U.S. regulatory system. This paper provides evidence that, despite the appearance of a lack of SEC enforcement, foreign firms that violate securities law are not given a free pass by shareholders. Using a sample of private securities class action cases brought against foreign firms that cross-list on the major U.S. exchanges, this paper presents evidence that the enforcement risk criticism may not be as troubling as initially thought. The analyses presented here indicate that investors are the exercising low-cost actions as proposed by Coffee's legal bonding theory. Total losses for foreign firms at the disclosure and filing of shareholder-initiated class action lawsuits average more than \$740 million dollars for the foreign firms in the sample in the U.S. markets alone and the CARs and dollars lost are insignificantly different between domestic and foreign

issuers. In addition to the U.S. markets, firms subjected to allegations of violations of securities laws also average more than \$4.37 billion in the firm's home market in total losses around the case event dates. Though there is mixed evidence as to whether the losses are greater based on characteristics of the home market such as geographic distance or existence of exchange controls, it is clear that the disclosure of a securities law violation is an equally large and economically significant event for the violating firm in both the home and U.S. markets. As the sample size is currently too small to further explore the mixed results on differing market reactions based on country characteristics, this must be left to future research once the numbers of class actions has grown to a large enough sample size.

For the average foreign firm in the sample, market capitalization drops an average of eighteen percent in the three days around the case event dates. Thus it is reasonable to argue that these losses are large enough to potentially serve as an effective mechanism for deterrence and provides some evidence of enforcement of U.S. securities regulations. At a minimum, documenting this economically significant loss at disclosure and filing provides evidence inconsistent with the argument that, because of reluctance of the SEC to act as enforcers of U.S. securities regulations against foreign firms, violations by cross-listing firms will go unpunished. Thus it appears that the evidence supports the second bonding mechanism proposed by Coffee (2002) whereby foreign firms are bonding because investors gain access to the potential to exercise private actions.

Additionally, by separating out the reputational penalties from the market reactions, I am able to provide the first evidence that country-level variables have some determinant power in the reputational penalties assessed by the market when violations of securities laws by firms are first exposed. The result of the regression analysis indicates that foreign firms suffer greater reputational penalties in cases where investors perceive the minority shareholder protection in the home market of the firm to be greater. As measured by the anti-self-dealing index (Djankov et al., 2008), the level of legal protection of minority shareholders in the home country serves as a determinant for the reputational penalties. I posit that this

reaction is the result of investor expectations as violations by those firms that come from countries with stronger protection of minority shareholders will come as a larger surprise to shareholders when violations are disclosed. As a result, a more severe reputational penalty will be assessed by minority shareholders because they had not anticipated violations from firms in these countries as much as they had from firms in weaker legal protection countries.

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# Appendices



## Appendix A: Securities Class Action Examples<sup>61</sup>

### Example 1: Gravity Co., Ltd.

- The original complaint against Gravity was filed on May 18, 2005 in the United States District Court for the Southern District of New York and charges the Company and certain officers and directors with violations of Sections 11, 12(a)(2), and 15 of the Securities Act of 1933, as amended and Sections 10(b) and 20(a) and Rule 10b-5 promulgated there under of the Securities Exchange Act of 1934, as amended. The complaint alleges that the defendants issued a Prospectus and Registration Statement as well as numerous press releases in connection with the Company's IPO that were materially false and misleading because they failed to disclose decreased customer demand for the Company's core product and a weakening in the Company's animation business.
- The Company conducted its IPO on February 7, 2005 and sold shares at a price of \$13.50 per share. On May 12, 2005 the Company announced that its financial results for the first quarter of 2005 were lower than expected. On this news the ADR price for the company fell to \$5.60 per share, which represents more than 70 percent decline from the IPO prices.
- During the following months several additional complaints were filed and on December 13, 2005 the Court consolidated these complaints and appointed Pipefitters, Locals 522 & 633 Pension Trust Fund as Lead Plaintiff.
- On July 11, 2006, the plaintiffs filed a Consolidated Class Action Complaint and the defendants responded by filing a motion to dismiss the Consolidated Class Action Complaint.
- On June 11, 2007 the Company announced that it had reached an agreement in principle to settle the class action litigation for \$10 million.
- On November 21, 2007 the Court approved the settlement.
- On January 7, 2008 the Company announced that the settlement of \$10 million was approved and had passed the 30-day appeal period.

### Example 2: LDK Solar Company Ltd.

- The original Complaint against LDK Solar Company was filed on October 9, 2007 in the U.S. District Court for the Southern District of California. The Complaint alleges violations of Sections 10(b) and 20(a) and Rule 10b-5 of the Securities Exchange Act of 1934, as amended and states that defendants knowingly concealed material information pertaining to how badly flawed the Company's internal controls were in accurately reporting inventory. According to the Complaint, during the Class Period the Company's inventories were overstated by an estimated 25 percent.
- The disclosure occurred on October 3, 2007 when the Company announced that the financial controller had resigned and that the controller had reported vast inventory overestimation and internal control problems to the SEC and the Company's external auditor, KPMG. The Company also announced an internal investigation in to the claims of the financial controller. After the announcement shares fell 24.39 percent during the October 3, 2007 trading day.
- In the following months several class action complaints were filed in the U.S. District Courts for the Southern District of New York and Northern District of California.
- On December 14, 2007 the case was transferred to the Northern District of California.
- On January 4, 2008 the Lead Plaintiff was appointed and the lead counsel was approved on February 8, 2008.
- On March 10, 2008 a Consolidated Class Action Complaint was filed and the defendants filed a motion to dismiss.
- On March 29, 2008 the motion to dismiss was denied.
- The plaintiff's motion to certify the class was approved on January 28, 2009.
- On February 16, 2010 a proposed settlement agreement was entered to the court and it was approved on February 17, 2008.
- On June 22, 2010 the settlement of 16 million was approved and the case was dismissed with prejudice.

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<sup>61</sup> Case information is collected from court documents as listed on the Stanford Securities Class Action Clearinghouse at <http://securities.stanford.edu/companies.html>

## Appendix B: Variable Definitions

Category	Variable Names	Pred Sign	Definitions
<i>Information Transparency, Firm Reputation and importance</i>			
	<b>LNASSETS</b>	(+)	Log of total assets in the fiscal year-end immediately prior to the disclosure. It is calculated as = $\log(AT)$
	<b>ROA</b>	(?)	Return on assets is the ratio of earnings before interest and taxes to total assets, net of the median for all firms in the same two-digit SIC code in the fiscal year-end immediately prior to the filing. It is calculated as Net Income divided by Sales = $\text{Income Before Extraordinary Items} / \text{Total Assets (IB / AT)}$
<i>Liquidity, risk and potential agency costs</i>			
	<b>LEVERAGE</b>	(-)	Leverage in the fiscal year-end immediately prior to the filing, calculated as Debt in Current Liabilities + Long-Term Debt divided by Total Assets = $(\text{Debt in Current Liabilities} + \text{Long-Term Debt}) / \text{Total Assets}$ = $(\text{DLC} + \text{DLTT}) / \text{AT}$
	<b>FCF</b>	(+)	Free Cash Flow in the fiscal year-end immediately prior to the filing, calculated as Operating income before depreciation minus total income tax minus gross interest expense minus total amount of preferred dividend minus total amount of common dividend. = $\text{OIBDP} - \text{TAX} - \text{XINT} - \text{DVP} - \text{DVC}$ ; where OpIncome= operating income before depreciation (OIBDP or EBITDA), TAX = Total Income Taxes - minus change in deferred taxes from the previous year to the current year (TXT-chTXDITC), INTEXP = Interest Expense (either TIE or (XINST+XINTD)), DVP = Preferred Dividends, DVC = Common Dividends; (Lehn and Poulson 1989)
	<b>TURNOVER</b>	(+)	Volume computed as the average monthly trading volume for the 6 mo preceding the date of the filing with NASDAQ trading volume divided by two to correct for double counting. Turnover is defined as volume divided by the number of shares outstanding.
<i>Merits and Potential Damage</i>			
	<b>IPOVIO</b>	(-)	One if an IPO violation is alleged and zero otherwise
	<b>GAAPVIO</b>	(+)	One if a Generally Accepted Accounting Principles (GAAP) violation is alleged and zero otherwise
	<b>CLASSPERIODLENGTH</b>	(?)	Length of class period in number of days
	<b>SETTLED</b>	(-)	One if the case is eventually settled and zero otherwise
	<b>OTHERCASE</b>	(+)	One if another investigation (SEC, OSC, Israeli investigation, etc.) is ongoing at the firm during the same time for the alleged violation and zero otherwise
<i>Industry and Litigation Environment Control</i>			
	<b>FIN</b>	(-)	One if the firm belongs to an industry in the financial services sector (SIC Codes: 6000-6799 ) and zero otherwise
	<b>TECH</b>	(-)	One if the firm belongs to an industry in the technology sector (SIC Codes: 2833-2836, 3570-3577, 3600-3674, 7371-7379, or 8731-8734) and zero otherwise
	<b>FIRSTCASE</b>	(?)	One if this is the first securities class action that the firm faces since 1996 and zero otherwise.
<i>Country-Level Control</i>			
	<b>GDPPERCAP(LOG)</b>	(?)	Log of GDP per capita of the sample firm country of incorporation in the year prior to the disclosure. (IncGDPperCap(Log) is utilized as the GDP of the country of incorporation, PriGDPperCap(Log) is utilized as the GDP of the country of the primary sales)
	<b>CSTMKTCAP</b>	(?)	Stock market capitalization of the sample firm country of incorporation in the year prior to the disclosure. (IncCostMktCap is utilized as the market cap of the country of incorporation, PriCostMktCap is utilized as the market cap of the country of the primary sales)
	<b>ANTISELFDEAL</b>	(+)	Anti-self-dealing index measure as defined by Djankov et al. (2008). From 1996-2009 the index ranged from 0 to 1. (IncAntiSelfDeal is utilized as the index from the country of incorporation)
	<b>GOVINDEXT</b>	(+)	Average of the six governance indicators as reported by Kauffmann et al. (2009). From 1996-2009 the index ranged from -2.5 to 1.9. (IncGovIndex is utilized as the index from the country of incorporation)
	<b>INCCONTROL</b>	(+)	One if the firms is incorporated in a country with market exchange controls at the time of the lawsuit and zero otherwise (HQControl is utilized as one if the firm is headquartered in such a country)
	<b>INCALLOWCLASS</b>	(?)	One if the firms is incorporated in a country that allows some form of class action at the time of the lawsuit and zero otherwise (HQAllClass is utilized as one if the firm is headquartered in such a country)

## Appendix C: Tables and Figures

**Table 1A: Securities Class Action Filings by Year**

*Panel A:* Securities Class Actions listed by year for the total number of filings, the total number of filings when mutual funds, LLCs and LLPs are excluded are presented in Table 1. From the full sample the number of cases filed against domestic firms and foreign firms is reported and the number of Canadian firms and other foreign firms that cross-list are separated. *Panel B:* Number of cases compared to firms listing on the major U.S. Exchanges per year. Data from 2000-2009 is from the Securities Exchange Commission Archives of International Registered and Reporting Companies.<sup>62</sup>

<i>Panel A: Cases Filed</i>							<i>Panel B: Number of Cross-listing Firms on major exchanges</i>			
<b>Year</b>	<b>All Cases (no exclusions)</b>	<b>All Cases</b>	<b>Domestic Cases</b>		<b>Sample Cases</b>		<b>Year</b>	<b>Number of Firms on a Major Exchange (NYSE/AMEX/NASDAQ)</b>	<b>Sample Cases</b>	<b>Percent of cases for firms listing on exchanges</b>
1996	119	118	113	96%	5	4%	1996	696	5	0.72%
1997	195	193	186	96%	7	4%	1997	756	7	0.93%
1998	274	270	255	94%	15	6%	1998	N/A	15	N/A
1999	231	225	219	97%	6	3%	1999	N/A	6	N/A
2000	238	236	224	95%	12	5%	2000	825	12	1.45%
2001	516	506	470	93%	36	8%	2001	812	36	4.43%
2002	285	275	260	95%	15	6%	2002	765	15	1.96%
2003	250	243	225	93%	18	8%	2003	739	18	2.44%
2004	260	244	219	90%	25	11%	2004	745	25	3.36%
2005	193	185	168	91%	17	10%	2005	751	17	2.26%
2006	133	129	120	93%	9	8%	2006	739	9	1.22%
2007	206	201	177	88%	24	14%	2007	707	24	3.39%
2008	276	268	243	91%	25	10%	2008	675	25	3.70%
2009	246	229	209	91%	20	10%	2009	644	20	3.11%
<b>Total</b>	<b>3422</b>	<b>3320</b>	<b>3088</b>	<b>93%</b>	<b>234</b>	<b>8%</b>				

<sup>62</sup> Figures taken from SEC market summaries at <http://www.sec.gov/divisions/corpfin/internatl/companies.shtml>. Numbers for 1999 and 1998 are not reported by the SEC.

**Table 1B: Cases filed against sample firms by country of incorporation, headquarter, and primary sales segment.**

Securities class action lawsuits filed against foreign firms by country of incorporation and principle headquarters as reported on company annual reports in the year of the lawsuit filing as reported from the firm annual report. The country of primary sales are determined from the firm annual reports Segments information in the year of the lawsuit filing as reported in Compustat or the 10-K, 40-F, or 20-F SEC filing.

	Incorporation		Headquarters		Primary Sales			Incorporation		Headquarters		Primary Sales	
<b>Western Europe</b>	<b>86</b>	<b>36.75%</b>	<b>82</b>	<b>35.04%</b>	<b>44</b>	<b>18.80%</b>	<b>United States</b>	<b>0</b>	<b>0.00%</b>	<b>13</b>	<b>5.56%</b>	<b>115</b>	<b>49.15%</b>
Belgium	4	1.71%	5	2.14%	0	0.00%							
Cyprus	1	0.43%	0	0.00%	0	0.00%	<b>Canada</b>	<b>65</b>	<b>27.78%</b>	<b>60</b>	<b>25.64%</b>	<b>16</b>	<b>6.84%</b>
England	25	10.68%	23	9.83%	18	7.69%	Ontario	43	18.38%	43	18.38%		
Finland	1	0.43%	1	0.43%	0	0.00%	Quebec	5	2.14%	6	2.56%		
France	8	3.42%	7	2.99%	6	2.56%	Vancouver	4	1.71%	5	2.14%		
Germany	11	4.70%	11	4.70%	10	4.27%	Yukon	3	1.28%	0	0.00%		
Greece	0	0.00%	1	0.43%	0	0.00%	Nova Scotia	2	0.85%	1	0.43%		
Guernsey	1	0.43%	1	0.43%	0	0.00%	New Brunswick	2	0.85%	0	0.00%		
Ireland	7	2.99%	5	2.14%	1	0.43%	Alberta	6	2.56%	5	2.14%		
Italy	1	0.43%	1	0.43%	0	0.00%							
Luxembourg	1	0.43%	1	0.43%	0	0.00%	<b>Latin American &amp; Caribbean</b>	<b>35</b>	<b>14.96%</b>	<b>10</b>	<b>4.27%</b>	<b>6</b>	<b>2.56%</b>
Netherlands	12	5.13%	11	4.70%	2	0.85%	Argentina	1	0.43%	2	0.85%	1	0.43%
Spain	2	0.85%	4	1.71%	3	1.28%	Brazil	2	0.85%	2	0.85%	3	1.28%
Sweden	1	0.43%	1	0.43%	0	0.00%	British Virgin Islands	7	2.99%	0	0.00%	0	0.00%
Switzerland	11	4.70%	10	4.27%	4	1.71%	Cayman Islands	19	8.12%	0	0.00%	0	0.00%
							Mexico	1	0.43%	1	0.43%	1	0.43%
<b>Developed Asia Pacific</b>	<b>9</b>	<b>3.85%</b>	<b>9</b>	<b>3.85%</b>	<b>12</b>	<b>5.13%</b>	Panama	4	1.71%	1	0.43%	0	0.00%
Australia	2	0.85%	2	0.85%	2	0.85%	Puerto Rico	1	0.43%	1	0.43%	0	0.00%
Hong Kong	0	0.00%	2	0.85%	1	0.43%	Bermuda	0	0.00%	3	1.28%	0	0.00%
Japan	3	1.28%	2	0.85%	4	1.71%	Uruguay	0	0.00%	0	0.00%	1	0.43%
Singapore	4	1.71%	3	1.28%	5	2.14%							
							<b>Middle East and Africa</b>	<b>27</b>	<b>11.54%</b>	<b>27</b>	<b>11.54%</b>	<b>5</b>	<b>2.14%</b>
							Ghana	1	0.43%	1	0.43%	1	0.43%
<b>Emerging Asia Pacific</b>	<b>10</b>	<b>4.27%</b>	<b>30</b>	<b>12.82%</b>	<b>29</b>	<b>12.39%</b>	Israel	24	10.26%	24	10.26%	1	0.43%
China	1	0.43%	21	8.97%	21	8.97%	South Africa	2	0.85%	2	0.85%	2	0.85%
India	3	1.28%	3	1.28%	1	0.43%	Africa General	0	0.00%	0	0.00%	1	0.43%
Korea	4	1.71%	4	1.71%	1	0.43%							
Marshall Island	1	0.43%	0	0.00%	0	0.00%	<b>Eastern Europe</b>	<b>2</b>	<b>0.85%</b>	<b>3</b>	<b>1.28%</b>	<b>3</b>	<b>1.28%</b>
Philippines	1	0.43%	1	0.43%	0	0.00%	Russia	1	0.43%	2	0.85%	2	0.85%
Taiwan	0	0.00%	1	0.43%	4	1.71%	Turkey	1	0.43%	1	0.43%	1	0.43%
Asia General	0	0.00%	0	0.00%	1	0.43%							
Malaysia	0	0.00%	0	0.00%	1	0.43%	Not Available	0	0.00%	0	0.00%	4	1.71%

**Table 2: Case Characteristics**

This table presents case characteristic information for both sample and control with p-values of differences between the groups. The class period is the length of time between the start of the wrongdoing by the corporation and the date which the information is discovered. Wherever possible, the court certified class period was used. The filing lag represents the number of days between the end of the certified class period and the original complaint filing in the securities class action lawsuit. IPO Violation is a dummy variable equal to one if the case alleges violations in the IPO. GAAP violation is a dummy variable equal to one if the case alleges GAAP violations. Inst Lead Plaintiff is the percentage of cases that have one or more institutional investors serving as a lead plaintiff. Number of Analysts is the number of analysts reporting as following the firm in the period prior to the filing of the lawsuit. Finance is the percentage of firms in the financial industry. Technology is the percentage of firms in the technology industry and retail is the percentage of firms in the retail industry. Settled is the percent of cases that are settled and dismissed is the percent of cases dismissed.

Variable	Non-Sample firms subject to Class Action Lawsuits from 1996-2009 (N = 2268)					NASDAQ or NYSE Cross-listing Firms subject to lawsuits 1996-2009 (N = 191)					Difference (P-Value)	
	Mean	Median	StDev	25%	75%	Mean	Median	StDev	25%	75%	Mean	Median
Class Period (days)	520.90	371	501.621	196	676	518.90	371	461.083	204	702	0.9562	0.9451
Filing Lag (days)	95.03	29	216.643	2	196	108.28	30.5	203.807	5	211	0.4012	0.2440
IPO Violation	18.73%	0	0.390	0	0	22.28%	0	0.417	0	0	0.2169	0.2168
GAAP Violation	48.46%	0	0.500	0	1	43.56%	0	0.497	0	1	0.1810	0.1809
Inst Lead Plaintiff	34.98%	0	0.477	0	1	42.08%	0	0.495	0	1	<b>0.0425</b>	<b>0.0425</b>
Number of Analysts	10.01	7	8.221	4	15	9.39	6	10.076	3	12	0.3307	<b>0.0087</b>
Finance	16.12%	0	0.368	0	0	14.07%	0	0.349	0	0	0.4485	0.4484
Technology	22.55%	0	0.418	0	0	29.65%	0	0.458	0	1	<b>0.0222</b>	<b>0.0223</b>
Retail	4.72%	0	0.212	0	0	0.50%	0	0.071	0	0	<b>0.0053</b>	<b>0.0053</b>
Settled (%)	59.09%	1	0.505	0	1	62.38%	1	0.525	0	1	0.3750	0.3750
Dismissed (%)	36.02%	0	0.480	0	1	33.17%	0	0.472	0	1	0.4162	0.4162

**Table 3: Firm Level Descriptive Statistics by Company Year**

Firm characteristics from Compustat as measured for all firms subject to a securities class action lawsuit as reported on the Stanford Clearinghouse for the years 1996-2009. Accounting information is reported for the year prior to the filing of the lawsuit. The p-values of t-test and Wilcoxon-test of the difference in mean and median respectively are shown in the difference columns. Firm characteristics from Compustat as measured for all firms subject to a securities class action lawsuit as reported on the Stanford Securities Class Action Clearinghouse for the years 1996-2009. To capture all firms independently, unconsolidated cases were used to determine firms. Accounting information is reported for the year prior to the filing of the lawsuit. The p-values of t-test and Wilcoxon-test of the difference in mean and median respectively are shown in the difference columns. ROA is calculated as Net Income divided by Sales. ROE is calculated as Net Income divided by Shareholder Equity. Leverage is calculated as Debt in Current Liabilities + Long-Term Debt divided by Total Assets. Market to Book is calculated as Market Capitalization divided by Stockholders Equity where market capitalization is the market price times common shares outstanding. Operating Return on Sales is calculated as EBITDA divided by Sales. Price to Book is calculated as market price divided by total assets minus intangible assets. Change in sales is calculated as Current year's sales minus last year's sales divided by last year's sales. Free cash flow is calculated as suggested by Lehn and Poulson (1989) where free cash flow is equal to operating income before depreciation minus total income tax minus gross interest expense minus total amount of preferred dividend minus total amount of common dividend.

Variable	Non-Sample firms subject to Class Action Lawsuits from 1996-2009 (N = 2218)					NASDAQ or NYSE Cross-listing Firms subject to lawsuits 1996-2009 (N = 191)					Difference (P-value)	
	Mean	Median	StDev	25%	75%	Mean	Median	StDev	25%	75%	Mean	Median
TA (\$mil)	38261	473	189625	123	3227	138499	1358	519964	234	14512	<b>0.0000</b>	<b>0.0000</b>
TA (Log)	6.62	6.16	2.61	4.81	8.08	7.70	7.21	2.96	5.45	9.58	<b>0.0000</b>	<b>0.0000</b>
Sales (\$mil)	5920	349	18966	84	2155	16414	800	37270	144	9950	<b>0.0000</b>	<b>0.0001</b>
Sales (Log)	5.93	5.67	2.50	4.24	7.52	6.74	6.35	2.82	4.58	9.18	<b>0.0000</b>	<b>0.0003</b>
MKCAP (\$mil)	8650	655	29530	181	3187	15367	1668	32067	296	12049	<b>0.0030</b>	<b>0.0000</b>
FCF (\$mil)	497.53	11.82	2,268.55	-15.04	127.00	1,225.93	31.96	3,883.58	-22.83	460.81	<b>0.0003</b>	<b>0.0063</b>
ROA	-16.61%	0.27%	0.814	-16.39%	4.77%	-5.39%	0.68%	0.273	-9.28%	6.81%	<b>0.0513</b>	<b>0.0371</b>
ROE	-31.00%	3.40%	7.410	-22.30%	14.20%	-6.10%	2.80%	1.416	-17.20%	15.10%	0.6480	0.7160
P/B	0.09	0.025	0.313	0.005	0.079	0.044	0.008	0.116	0.001	0.04	<b>0.0620</b>	<b>0.0000</b>
Leverage	24.96%	16.82%	0.329	1.17%	38.31%	19.83%	14.45%	0.210	1.96%	30.47%	<b>0.0294</b>	0.1979
CAPEX	0.06	0.036	0.072	0.014	0.071	0.064	0.037	0.087	0.014	0.072	0.1920	0.8380
Op ROS	-1.12	0.101	13.064	-0.051	0.217	-0.933	0.119	8.922	0.004	0.249	0.8510	0.1350
Cash/TA	0.15	0.083	0.176	0.024	0.212	0.158	0.099	0.178	0.03	0.22	0.6110	0.3280
M/B	2.63	2.23	40.240	1.16	4.35	2.98	2.05	5.440	1.03	3.36	0.9050	<b>0.0440</b>
Tobin's q	2.52	1.68	2.05	1.107	3.162	1.813	1.081	1.693	0.856	2.045	<b>0.0001</b>	<b>0.0000</b>
Prior 1 Yr	-0.07	-0.236	1.001	-0.582	0.115	-0.103	-0.196	0.606	-0.492	0.129	0.6120	0.2320
Prior 3 Yr	0.68	-0.093	3.704	-0.571	0.637	0.344	-0.146	2.115	-0.494	0.502	0.3070	0.9650

**Table 4: Change in Market Capitalization around Event Dates**

This table reports the change in firm market values for the event dates surrounding securities class action lawsuit dates. All market capitalizations are calculated as the price\*shares outstanding as reported in CRSP or DataStream and is presented in the thousands. The change in market value is calculated as the beginning market capitalization minus the ending market capitalization. Percentage change is calculated as (beginning market capitalization minus the ending market capitalization) divided by beginning market capitalization. Maximum Dollar Loss (MDL) is calculated as the value change in the defendant firm's market capitalization from the trading day with the highest market capitalization during the class period to the trading day immediately following the end of the class period. Disclosure Dollar Lost (DDL) is calculated as the value change in the defendant firm's market capitalization between the trading day immediately preceding the end of the class period and the trading day immediately following the end of the class period. Filing MV is the difference around the filing date, Dismissal MV is the difference around the dismissal announcement and Settle MV is the difference around the settlement announcement. Combined MV is the sum of the disclosure, filing and dismissal/settlement changes.

	Mean	Median	Std Dev	25th Pctl	75th Pctl
<b>Panel A: Foreign Firms - US Market (N= 191)</b>					
Maximum MV change over the class period (MDL)	-5,070,329	-927,639	14,639,195	-2,767,917	-275,399
Disclosure MV change (-1, +1) (DDL)	-587,336	-77,870	2,357,604	-435,056	-9,351
Filing MV Change (-1,+1)	-48,121	-1,798	737,946	-33,956	7,731
Dismissal MV Change (-1,+1)	-8,635	-2,343	893,726	-70,066	23,328
Settle MV Change (-1,+1)	31,207	301	338,470	-2,128	11,952
Combined MV losses (-1,+1)	-565,957	-53,277	2,433,984	-287,245	-3,387
Maximum percent MV change over the class period (MDL)	-59.19%	-62.94%	0.271	-81.54%	-40.68%
Disclosure percent MV change (-1, +1) (DDL)	-18.43%	-13.40%	0.202	-29.57%	-4.55%
Filing percent MV Change (-1,+1)	-1.99%	-1.39%	0.122	-5.58%	2.43%
Dismissal percent MV Change (-1,+1)	-1.43%	-0.48%	0.065	-3.45%	1.63%
Settle percent MV Change (-1,+1)	2.59%	0.53%	0.088	-1.50%	3.69%
Combined percent change in MV losses (-1,+1)	-17.93%	-13.84%	0.273	-29.17%	-1.81%
<b>Panel B: Foreign Firms - Home Market (N= 129)</b>					
Foreign Maximum MV change over the class period (MDL)	-16,968,963	-4,367,295	27,307,898	-19,661,649	-815,653
Foreign Disclosure MV change (-1, +1) (DDL)	-1,848,225	-312,529	3,910,944	-1,983,102	-3,748
Foreign Filing MV Change (-1,+1)	-484,442	-3,096	3,231,113	-118,538	43,495
Foreign Dismissal MV Change (-1,+1)	294,445	91	1,630,855	-56,580	211,386
Foreign Settle MV Change (-1,+1)	63,385	0	434,592	-3,220	18,311
Foreign Combined MV losses (-1,+1)	-2,053,470	-220,303	6,430,569	-1,930,224	0
Foreign Maximum percent MV change over the class period (MDL)	-52.60%	-52.14%	0.278	-76.07%	-33.53%
Foreign Disclosure percent MV change (-1, +1) (DDL)	-15.73%	-8.56%	0.210	-28.98%	-1.08%
Foreign Filing percent MV Change (-1,+1)	-2.25%	-0.42%	0.116	-4.48%	2.82%
Foreign Dismissal percent MV Change (-1,+1)	0.39%	0.08%	0.048	-1.40%	2.66%
Foreign Settle percent MV Change (-1,+1)	0.93%	0.00%	0.050	-1.33%	1.75%
Foreign Combined percent change in MV losses (-1,+1)	-16.33%	-8.31%	0.282	-28.16%	0.00%
<b>Panel C: U.S. Firms - U.S. Market (N=2218)</b>					
Maximum MV change over the class period (MDL)	-5,839,223	-780,087	19,696,007	-3,017,853	-254,797
Disclosure MV change (-1, +1) (DDL)	-543,228	-66,872	2,327,776	-291,994	-7,230
Filing MV Change (-1,+1)	-62,824	-1,928	1,389,816	-22,212	7,319
Dismissal MV Change (-1,+1)	-24,823	0	1,028,967	-12,806	25,267
Settle MV Change (-1,+1)	-4,835	204	465,368	-7,493	9,931
Combined MV losses (-1,+1)	-563,667	-54,126	2,883,044	-280,564	-3,750
Maximum percent MV change over the class period (MDL)	-60.99%	-65.84%	0.267	-82.19%	-44.09%
Disclosure percent MV change (-1, +1) (DDL)	-18.19%	-15.15%	0.337	-31.68%	-3.40%
Filing percent MV Change (-1,+1)	-2.44%	-1.04%	0.125	-5.71%	2.22%
Dismissal percent MV Change (-1,+1)	0.57%	0.00%	0.067	-2.41%	2.58%
Settle percent MV Change (-1,+1)	1.18%	0.10%	0.092	-2.22%	3.20%
Combined percent change in MV losses (-1,+1)	-18.46%	-14.88%	0.355	-32.86%	-1.83%

**Table 5: Cumulative Abnormal Returns Associated with Announcements of Alleged Securities Law Violations, Securities Class Action Lawsuit Filings and Resolution Announcements**

Panel A presents the market model event study results utilizing a 125-day trading period from day -135 to day -11. Mean and median abnormal returns for enforcement actions calculated using the value-weighted CRSP index for enforcement event dates. Disclosure events are identified as the date in the original case complaint in which the misleading information was disclosed to shareholders. Filing events are identified as the first date of a securities class action lawsuit filing. Settlement dates are the date the settlement is first announced in the press. Combined reaction is the summation of the cumulative abnormal returns for each enforcement event date window. Panel B presents the valuation effect in dollars for each enforcement period event and the combined dollars lost over all event dates. Daily economic effect is calculated as the abnormal return for each firm multiplied by the firm's market capitalization on the previous day for all dates in the event window. The daily economic effects are cumulated over separate event windows as a measure of total losses. The t-test and Wilcoxon-test of the difference in mean and median between the foreign and domestic firm market reactions respectively are shown in the difference columns with those significantly different than zero in bold.

*Panel A: Cumulative Abnormal Returns around case event dates*

	Non-Sample firms subject to Class Action Lawsuits from 1996-2009 (N = 2218)					NASDAQ or NYSE Cross-listing Firms subject to lawsuits 1996-2009 (N = 191)					P-Values	
	Mean	Median	StDev	25%	75%	Mean	Median	StDev	25%	75%	Mean	Median
<b>Disclosure CAR</b>												
(-1,1)	-18.10%	-15.44%	0.3749	-33.25%	-2.48%	-18.60%	-12.44%	0.2279	-32.89%	-3.97%	0.8550	0.8258
(-10,1)	-23.57%	-20.84%	0.4329	-42.46%	-4.02%	-22.96%	-18.76%	0.2746	-37.98%	-5.10%	0.8469	0.4830
(1,10)	-11.99%	-8.69%	0.2823	-25.89%	2.37%	-8.34%	-6.43%	0.2123	-18.87%	3.10%	<b>0.0826</b>	0.0813
<b>Filing CAR</b>												
(-1,1)	-4.23%	-1.40%	0.1734	-7.49%	2.48%	-3.22%	-0.99%	0.1591	-7.23%	3.11%	0.4366	0.5089
(-10,1)	-9.18%	-4.53%	0.4144	-22.98%	5.61%	-10.23%	-3.97%	0.2795	-21.46%	6.32%	0.7310	0.8508
(1,10)	-0.94%	-0.70%	0.2007	-8.89%	6.73%	3.09%	1.25%	0.2009	-5.74%	8.69%	<b>0.0077</b>	<b>0.0182</b>
<b>Settle CAR*</b>												
(-1,1)	0.93%	-0.17%	0.1111	-2.88%	3.19%	2.54%	0.73%	0.1094	-2.00%	4.24%	0.2610	0.1888
(-10,1)	2.28%	0.15%	0.2014	-5.58%	6.83%	1.17%	-0.44%	0.1705	-5.96%	9.50%	0.6626	0.9293
(1,10)	0.02%	-0.22%	0.1711	-6.74%	5.14%	2.90%	1.65%	0.1716	-5.10%	6.78%	0.1911	0.2344
<b>Dismissal CAR**</b>												
(-1,1)	-0.20%	-0.17%	0.0748	-3.03%	2.19%	-0.86%	-0.63%	0.0744	-2.58%	0.76%	0.5712	0.7598
(-10,1)	-0.02%	-0.57%	0.1811	-7.20%	5.92%	0.99%	0.28%	0.1094	-4.06%	5.05%	0.7159	0.3611
(1,10)	1.16%	0.18%	0.1440	-4.34%	5.94%	3.59%	2.14%	0.0897	-2.34%	6.42%	0.2754	<b>0.0881</b>
<b>Combined CAR</b>												
(-1,1)	-21.62%	-17.40%	0.4193	-37.51%	-2.48%	-20.97%	-14.09%	0.3200	-32.15%	-2.25%	0.8332	0.3682
(-10,1)	-31.32%	-25.51%	0.7716	-57.35%	-3.11%	-32.21%	-19.48%	0.4615	-54.22%	-1.66%	0.8737	0.4619
(1,10)	-12.31%	-9.37%	0.3808	-31.03%	6.61%	-3.81%	-5.30%	0.3280	-18.30%	10.16%	<b>0.0027</b>	<b>0.0025</b>

\*Settlement CAR = 107

\*\*Dismissal CAR = 69



**Table 5: Cumulative Abnormal Returns Associated with Announcements of Alleged Securities Law Violations, Securities Class Action Lawsuit Filings and Resolution Announcements cont'd**

Panel A presents the market model event study results utilizing a 125-day trading period from day -135 to day -11. Mean and median abnormal returns for enforcement actions calculated using the value-weighted CRSP index for enforcement event dates. Disclosure events are identified as the date in the original case complaint in which the misleading information was disclosed to shareholders. Filing events are identified as the first date of a securities class action lawsuit filing. Settlement dates are the date the settlement is first announced in the press. Combined reaction is the summation of the cumulative abnormal returns for each enforcement event date window. Panel B presents the valuation effect in dollars for each enforcement period event and the combined dollars lost over all event dates. Daily economic effect is calculated as the abnormal return for each firm multiplied by the firm's market capitalization on the previous day for all dates in the event window. The daily economic effects are cumulated over separate event windows as a measure of total losses. The t-test and Wilcoxon-test of the difference in mean and median between the foreign and domestic firm market reactions respectively are shown in the difference columns with those significantly different than zero in bold.

*Panel B: Dollars Lost (in thousands) at case event dates*

	Mean	Median	StDev	25%	75%	Mean	Median	StDev	25%	75%	Mean	Median
<b>Disclosure CDE</b>												
(-1,1)	-558,251	-69,712	2,391,270	-292,373	-6,328	-575,475	-70,179	2,120,739	-437,180	-6,300	0.9231	0.4067
(-10,1)	-739,428	-98,216	3,925,105	-395,505	-12,508	-812,471	-100,568	3,321,708	-487,915	-9,902	0.8026	0.8862
(1,10)	-344,333	-33,807	2,241,145	-192,294	2,852	-344,253	-27,576	2,040,539	-156,377	2,314	0.9996	0.4842
<b>Filing CDE</b>												
(-1,1)	-154,522	-2,821	2,260,448	-34,024	8,114	-183,924	-2,872	2,059,747	-30,797	10,472	0.8620	0.8211
(-10,1)	-427,921	-13,514	3,316,221	-166,095	10,294	-492,008	-9,452	3,146,591	-172,817	13,236	0.7967	0.6187
(1,10)	13,424	-2,204	1,827,960	-34,367	26,053	141,881	644	1,088,682	-16,026	41,267	0.3386	<b>0.0323</b>
<b>Settle CDE*</b>												
(-1,1)	-23,952	-375	586,181	-13,814	8,801	20,751	394	183,437	-3,147	13,409	0.5377	<b>0.0535</b>
(-10,1)	2,923	-736	1,378,938	-25,845	18,781	1,627	-916	310,151	-17,997	6,577	0.9939	0.6535
(1,10)	36,707	-733	965,188	-23,206	21,916	4,457	914	266,794	-7,439	10,501	0.7869	0.4967
<b>Dismissal CDE**</b>												
(-1,1)	-5,721	-507	1,333,796	-21,140	17,192	-224	-1,600	1,438,556	-19,107	15,915	0.9790	0.7422
(-10,1)	-74,797	-2,138	2,790,973	-58,035	37,817	38,106	362	1,504,093	-36,402	143,957	0.7907	0.1801
(1,10)	240,887	-238	2,578,702	-37,741	40,445	485,109	6,394	3,202,952	-38,732	87,680	0.5549	0.2587
<b>Combined CDE</b>												
(-1,1)	-704,608	-70,343	3,708,547	-335,345	-5,836	-740,686	-62,943	4,061,327	-422,282	-7,199	0.8970	0.7563
(-10,1)	-1,155,486	-125,815	5,548,216	-555,315	-13,051	-1,275,150	-98,100	6,230,609	-534,951	-10,926	0.7747	0.5950
(1,10)	-247,469	-36,216	3,204,444	-206,537	7,216	-87,815	-20,125	2,660,140	-137,371	17,679	0.5017	<b>0.0405</b>

\*Settlement CAR = 107

\*\*Dismissal CAR = 69

**Table 6: Market Reactions at significant case dates of the U.S. exchange as compared to the home market exchange for NASDAQ or NYSE Cross-listing Firms subject to lawsuits 1996-2009**  
 Market model event study results utilizing a 125-day trading period from day -135 to day -11 are presented. Mean and median abnormal returns for enforcement actions calculated using the total return index for enforcement event dates as reported in DataStream. Disclosure events are identified as the date in the original case complaint in which the misleading information was disclosed to shareholders. Filing events are identified as the first date of a securities class action lawsuit filing. Combined reaction is the summation of the cumulative abnormal returns for each enforcement event date window. The t-test and Wilcoxon-test of the difference in mean and median between the home and U.S. market reactions respectively are shown in the difference columns with those significantly different than zero in bold.

	Home Market Reaction (N=129)					U.S. Market Reaction (N=129)					Difference (p-values)	
	Mean	Median	StDev	25%	75%	Mean	Median	StDev	25%	75%	Mean	Median
Disclosure CARS												
(-1,1)	-15.80%	-7.24%	0.228	-30.68%	-0.53%	-17.47%	-11.37%	0.228	-30.60%	-2.63%	<b>0.0005</b>	<b>0.0002</b>
(-10,1)	-17.81%	-11.38%	0.271	-32.86%	-0.84%	-22.13%	-17.89%	0.281	-36.96%	-4.38%	<b>0.0179</b>	<b>0.0024</b>
(1,10)	-8.95%	-4.19%	0.187	-16.38%	2.63%	-7.36%	-5.57%	0.212	-19.06%	4.34%	0.5846	0.9057
Filing CARS												
(-1,1)	-4.85%	-0.07%	0.174	-3.95%	2.21%	-3.85%	-1.03%	0.169	-6.92%	2.40%	0.9845	0.4198
(-10,1)	-8.82%	-1.19%	0.263	-11.74%	4.83%	-12.33%	-4.42%	0.383	-22.52%	5.84%	0.1146	0.1860
(1,10)	1.54%	0.50%	0.116	-4.38%	5.52%	0.86%	0.78%	0.331	-5.84%	8.42%	0.2597	0.7667
Combined CAR												
(-1,1)	-17.94%	-5.75%	0.341	-25.83%	0.36%	-19.48%	-13.09%	0.322	-30.53%	-1.08%	<b>0.0099</b>	<b>0.0009</b>
(-10,1)	-23.83%	-6.97%	0.462	-35.98%	1.95%	-32.50%	-17.62%	0.539	-54.12%	-0.08%	<b>0.0203</b>	<b>0.0044</b>
(1,10)	-7.10%	-1.93%	0.238	-17.94%	7.64%	-4.89%	-4.81%	0.415	-18.51%	10.31%	0.1880	0.8675

**Table 7: Market value conversions of market reactions at significant case dates of the U.S. exchange as compared to the home market exchange for NASDAQ or NYSE Cross-listing Firms subject to lawsuits 1996-2009**

The valuation effect in millions of dollars for each enforcement period event and the combined dollars lost over all event dates. Daily economic effect is calculated as the abnormal return for each firm multiplied by the firm's market capitalization on the previous day for all dates in the event window. The daily economic effects are cumulated over separate event windows as a measure of total losses. The t-test and Wilcoxon-test of the difference in mean and median between the home and U.S. market reactions respectively are shown in the difference columns with those significantly different than zero in bold.

	Home Market Reaction (N=129)					U.S. Market Reaction (N=129)					Difference (p-values)	
	Mean	Median	StDev	25%	75%	Mean	Median	StDev	25%	75%	Mean	Median
Disclosure CARS												
(-1,1)	-3,486.500	-290.442	13300.000	-1806.592	-4.020	-854.213	-135.222	2672.094	-749.512	-4.137	<b>0.0086</b>	<b>0.0001</b>
(-10,1)	-4,790.898	-386.965	24900.000	-2178.513	-8.967	-1129.976	-119.771	4115.470	-770.841	-11.683	<b>0.0522</b>	<b>0.0051</b>
(1,10)	-2,343.589	-66.998	14300.000	-719.716	82.207	-493.218	-36.802	2556.153	-271.799	12.249	<b>0.0769</b>	<b>0.0010</b>
Filing CARS												
(-1,1)	-925.600	-1.082	9876.849	-180.005	74.071	-293.419	-4.005	2575.642	-65.533	16.223	0.3356	0.4959
(-10,1)	-3,249.737	-40.864	20700.000	-818.105	80.881	-698.817	-17.347	3959.403	-209.187	37.497	<b>0.0962</b>	0.2083
(1,10)	278.869	-0.748	2830.437	-118.787	398.730	250.501	1.544	1287.908	-29.844	142.645	0.839	0.5008
Combined CAR												
(-1,1)	-4,367.094	-240.628	22300.000	-2082.672	-0.623	-1116.670	-121.766	5010.647	-809.793	-9.347	<b>0.0397</b>	<b>0.0114</b>
(-10,1)	-7,893.285	-330.212	44700.000	-3067.440	-3.006	-1780.601	-154.375	7730.435	-816.885	-13.160	<b>0.0670</b>	<b>0.0643</b>
(1,10)	-2,274.932	-62.864	15400.000	-1116.314	126.057	-246.601	-29.899	2706.998	-243.110	67.757	<b>0.0808</b>	<b>0.0031</b>

**Table 8: Differences in the number of shares held in the home market and the U.S. market during the disclosure and filing event dates.**

Difference in SHROUT is calculated as the difference between the shares outstanding in the home market and the shares outstanding in the U.S. in millions of shares. Percentage home shares is the percentage the home market represents of total shares traded on both U.S. and home markets and is calculated as number of shares on the home market divided by total shares listed on both markets.

	Full Sample (N = 129)					Non-Canadian Sample (N= 81)				
	<u>Mean</u>	<u>Median</u>	<u>StDev</u>	<u>25%</u>	<u>75%</u>	<u>Mean</u>	<u>Median</u>	<u>StDev</u>	<u>25%</u>	<u>75%</u>
Disclosure Date Window										
Difference in shares outstanding (in mil)	2,229.80	19.14	8,797.03	0.00	771.99	3,603.6	294.9	10,988.6	24.8	1,531.8
Percentage home shares	66.28%	52.29%	24.76%	50.00%	94.08%	77.63%	91.16%	23.68%	52.41%	97.72%
Filing Date Window										
Difference in shares outstanding (in mil)	2,255.37	33.65	8,355.44	0.00	867.43	3,483.35	351.54	10,198.48	34.61	1,502.00
Percentage home shares	67.30%	53.22%	24.53%	50.00%	94.15%	78.13%	90.41%	22.96%	53.11%	97.52%

**Table 9: Geographic Differences in CARs at significant case dates of the U.S. exchange as compared to the home market exchange for NASDAQ or NYSE Cross-listing Firms subject to lawsuits 1996-2009 by country of incorporation**

Market model event study results utilizing a 125-day trading period from day -135 to day -11 are presented. Mean and median abnormal returns for enforcement actions calculated using the total return index for enforcement event dates as reported in DataStream. Disclosure events are identified as the date in the original case complaint in which the misleading information was disclosed to shareholders. Filing events are identified as the first date of a securities class action lawsuit filing. Combined reaction is the summation of the cumulative abnormal returns for each enforcement event date window. The t-test and Wilcoxon-test of the difference in mean and median between the home and U.S. market reactions respectively are shown in the difference columns with those significantly different than zero in bold. Panel A1 contains CARs for sample firms incorporated in Europe, Panel A2 contains CARs for sample firms incorporated in Canada and Panel A3 contains CARs for sample firms incorporated in the Asia Pacific and Middle Eastern countries.

U.S. Market CARs						Home Market CARs					Difference (p values)	
<i>Panel A: Europe (N=65)</i>												
Disclosure	<u>Mean</u>	<u>Median</u>	<u>StDev</u>	<u>25%</u>	<u>75%</u>	<u>Mean</u>	<u>Median</u>	<u>StDev</u>	<u>25%</u>	<u>75%</u>	<u>Mean</u>	<u>Median</u>
(-1,1)	-18.82%	-8.80%	0.243	-32.36%	-0.96%	-15.10%	-6.91%	0.223	-20.07%	-1.40%	<b>0.0103</b>	<b>0.006</b>
(-10,1)	-20.66%	-11.28%	0.282	-35.90%	-3.46%	-17.16%	-11.28%	0.264	-31.13%	-1.35%	<b>0.0338</b>	<b>0.0736</b>
(1,10)	-6.16%	-3.31%	0.207	-18.52%	0.78%	-5.55%	-4.18%	0.205	-15.28%	3.06%	0.8122	0.9846
Filing												
(-1,1)	-3.70%	-0.37%	0.177	-3.14%	4.19%	-3.48%	0.51%	0.164	-2.47%	3.39%	0.7754	0.2356
(-10,1)	-9.07%	-1.00%	0.301	-14.68%	5.55%	-6.94%	-0.16%	0.275	-13.36%	6.21%	<b>0.0316</b>	<b>0.076</b>
(1,10)	3.16%	2.60%	0.165	-4.37%	8.69%	3.17%	1.80%	0.147	-2.01%	9.81%	0.9855	0.7812
Combined												
(-1,1)	-21.47%	-8.98%	0.357	-26.12%	-0.12%	-17.63%	-5.54%	0.332	-22.26%	-0.26%	<b>0.0253</b>	<b>0.0045</b>
(-10,1)	-28.37%	-10.57%	0.518	-43.24%	-0.69%	-22.39%	-10.39%	0.471	-36.03%	0.97%	<b>0.0076</b>	<b>0.0167</b>
(1,10)	-1.87%	-3.05%	0.244	-13.42%	9.95%	-1.13%	-1.42%	0.248	-15.49%	6.44%	0.6889	0.8943
<i>Panel B: Canada (N=45)</i>												
Disclosure												
(-1,1)	-19.70%	-17.88%	0.270	-37.71%	-2.67%	-19.57%	-17.20%	0.257	-37.05%	-0.36%	0.9291	0.7821
(-10,1)	-21.53%	-20.37%	0.350	-41.70%	-0.23%	-22.34%	-18.43%	0.318	-39.73%	-0.75%	0.6891	0.9325
(1,10)	-7.18%	-5.62%	0.220	-14.83%	5.48%	-7.41%	-5.46%	0.194	-13.06%	3.83%	0.9169	0.7222
Filing												
(-1,1)	-5.39%	-2.01%	0.142	-6.24%	1.32%	-5.17%	-0.71%	0.183	-3.90%	0.63%	0.8801	0.3674
(-10,1)	-13.07%	-4.08%	0.252	-31.25%	4.39%	-11.29%	-2.00%	0.261	-19.11%	2.35%	0.4085	0.6901
(1,10)	0.35%	0.38%	0.155	-6.79%	9.01%	0.64%	0.37%	0.145	-5.00%	7.42%	0.7817	0.7555
Combined												
(-1,1)	-24.28%	-21.81%	0.322	-36.85%	-2.30%	-23.76%	-19.78%	0.355	-28.97%	0.10%	0.7997	0.719
(-10,1)	-33.14%	-18.21%	0.479	-61.15%	-0.31%	-33.34%	-19.17%	0.451	-50.80%	-1.01%	0.9501	0.6189
(1,10)	-6.66%	-3.98%	0.277	-27.49%	11.40%	-7.92%	-2.37%	0.271	-21.59%	7.62%	0.5989	0.4849
<i>Panel C: Asia Pacific and Middle East (N=19)</i>												
Disclosure												
(-1,1)	-18.63%	-12.88%	0.212	-21.62%	-7.12%	-11.83%	-8.38%	0.192	-13.90%	-1.03%	<b>0.0063</b>	<b>0.0052</b>
(-10,1)	-21.97%	-16.40%	0.215	-34.81%	-6.41%	-13.50%	-11.62%	0.180	-22.73%	-3.02%	<b>0.0034</b>	<b>0.0023</b>
(1,10)	-11.32%	-8.07%	0.239	-18.27%	1.84%	-16.02%	-4.90%	0.215	-21.94%	-3.03%	0.5433	0.9588
Filing												
(-1,1)	-2.88%	0.46%	0.148	-5.00%	4.21%	-3.08%	-0.97%	0.158	-4.77%	5.91%	0.9058	0.8092
(-10,1)	-0.39%	-2.91%	0.210	-9.77%	6.96%	-1.14%	-0.33%	0.200	-10.66%	9.07%	0.7297	0.7782
(1,10)	9.89%	-1.00%	0.336	-4.46%	6.75%	-1.56%	-2.78%	0.103	-6.20%	2.61%	0.1436	0.1165
Combined												
(-1,1)	-15.48%	-11.93%	0.436	-22.32%	-5.56%	-12.74%	-7.67%	0.356	-14.52%	-0.09%	0.6138	<b>0.0626</b>
(-10,1)	-22.29%	-22.75%	0.418	-48.29%	0.60%	-14.58%	-7.77%	0.371	-39.22%	3.21%	<b>0.0871</b>	<b>0.0929</b>
(1,10)	-7.46%	-9.04%	0.510	-15.61%	7.58%	-15.37%	-9.43%	0.221	-23.50%	0.49%	0.1503	0.3812



**Table 11: Size-Matched Case and Firm Level Descriptive Statistics by Company Year**

Case Characteristic information for both sample and control with p-values of differences between the groups are presented. The class period is the length of time between the start of the wrongdoing by the corporation and the date which the information is discovered. Wherever possible, the court certified class period was used. The filing lag represents the number of days between the end of the certified class period and the original complaint filing in the securities class action lawsuit. Maximum Dollar Loss (MDL) is calculated as the percentage value change in the defendant firm's market capitalization from the trading day with the highest market capitalization during the class period to the trading day immediately following the end of the class period. DDL and Disclosure Dollar Lost (DDL) is calculated as the percentage value change in the defendant firm's market capitalization between the trading day immediately preceding the end of the class period and the trading day immediately following the end of the class period. MDL and DDL are used as estimates of the impact of the information revealed at the end of the class period. Firm characteristics from Compustat as measured for all firms subject to a securities class action lawsuit as reported on the Stanford Clearinghouse for the years 1996-2009. Accounting information is reported for the year prior to the filing of the lawsuit. The p-values of t-test and Wilcoxon-test of the difference in mean and median respectively are shown in the difference columns. Firm characteristics from Compustat as measured for all firms subject to a securities class action lawsuit as reported on the Stanford Securities Class Action Clearinghouse for the years 1996-2009. To capture all firms independently, unconsolidated cases were used to determine firms. Accounting information is reported for the year prior to the filing of the lawsuit. The p-values of t-test and Wilcoxon-test of the difference in mean and median respectively are shown in the difference columns. ROA is calculated as Net Income divided by Sales. ROE is calculated as Net Income divided by Shareholder Equity. Leverage is calculated as Debt in Current Liabilities + Long-Term Debt divided by Total Assets. Market to Book is calculated as Market Capitalization divided by Stockholders Equity where market capitalization is the market price times common shares outstanding. Operating Return on Sales is calculated as EBITDA divided by Sales. Price to Book is calculated as market price divided by total assets minus intangible assets. Change in sales is calculated as Current year's sales minus last year's sales divided by last year's sales. Free cash flow is calculated as suggested by Lehn and Poulson (1989) where free cash flow is equal to operating income before depreciation minus total income tax minus gross interest expense minus total amount of preferred dividend minus total amount of common dividend.

	NASDAQ or NYSE Cross-listing Firms subject to lawsuits 1996-2009 (N = 190)					Matched U.S. firms subject to Class Action Lawsuits from 1996-2009 (N = 190)					Difference	
	Mean	Median	StDev	25%	75%	Mean	Median	StDev	25%	75%	Mean	Median
Class Period	518.901	371	461.08	204	702	530.056	392.5	466.56	191	687	0.9838	0.7807
Filing Lag	108.282	30.5	203.81	5	211	126.972	56	253.35	6	233	0.2604	0.2278
IPO Vio	0.216	0	0.41	0	0	0.170	0	0.38	0	0	0.1049	0.1048
GAAP Vio	0.422	0	0.50	0	1	0.445	0	0.50	0	1	0.6091	0.6080
Inst Lead	0.399	0	0.49	0	1	0.440	0	0.50	0	1	0.3620	0.3608
NumEst	9.183	6	10.05	3	11	13.189	11	8.92	6	20.5	<b>0.0000</b>	<b>0.0000</b>
Dismissed (%)	33.03	0	0.47	0	100	34.86	0	0.48	0	100	0.6708	0.6698
Settled (%)	61.47	100	0.52	0	100	55.96	100	0.53	0	100	0.2066	0.2024
Turnover	0.259	0.155	0.44	0.058	0.271	0.213	0.155	0.19	0.092	0.274	0.1448	0.8579
TA (\$mil)	184687.3	1671.14	633874.50	240.792	23238.9	127545.700	1297.039	411790.5	248.715	14258.9	<b>0.0023</b>	0.8000
TA (Log)	7.849	7.420	3.08	5.484	10.054	7.832	7.168	2.87	5.516	9.565	0.5791	0.6254
Sales (\$mil)	16414.170	800.045	37270.48	144.93	9950.7	15855.900	910.169	37327.19	177.626	8984	0.6987	0.5110
Sales (Log)	6.845	6.522	2.85	4.746	9.202	6.953	6.632	2.62	5.048	9.095	<b>0.0400</b>	<b>0.0229</b>
MKCAP (\$mil)	15367.580	1668.06	32067.14	296.352	12049.6	23350.490	1250.467	56221.61	371.172	11335.74	<b>0.0083</b>	<b>0.0396</b>
FCF (\$mil)	1234.958	29.327	3881.21	-14.656	460	1475.983	39.3485	4931.04	-13.7835	517.3345	0.5135	0.3921
ROA (%)	-5.334	0.586	0.26	-9.281	6.523	-8.156	0.659	0.28	-10.435	5.405	0.2378	0.4369
ROE (%)	-6.100	2.800	1.42	-17.200	15.100	21.2	4.7	5.93	-15.8	15.9	0.5386	0.4688
P/B (%)	4.40	0.80	0.12	0.10	4.00	4.80	1.10	0.09	0.100	4.200	0.4292	0.1074
Leverage (%)	20.287	15.992	0.21	2.053	31.384	22.297	16.631	0.23	1.201	34.288	0.2603	<b>0.0649</b>
CAPEX	0.064	0.037	0.09	0.014	0.072	0.063	0.042	0.07	0.018	0.09	0.5768	0.4443
Op ROS	-0.933	0.119	8.92	0.004	0.249	-0.246	0.137	2.41	0.017	0.261	0.3119	0.7862
Cash/TA	0.158	0.099	0.18	0.03	0.22	0.153	0.065	0.19	0.026	0.214	0.8113	0.3277
M/B	2.977	2.048	5.45	1.029	3.359	3.425	2.167	5.90	1.227	3.986	0.4481	0.2503
Tobin's q	1.842	1.055	2.20	0.851	2.045	2.502	1.679	2.38	1.148	2.809	<b>0.0111</b>	<b>0.000</b>
Prior 1 Yr	-0.103	-0.196	0.61	-0.492	0.129	-0.142	-0.289	0.80	-0.576	0.026	0.5645	<b>0.0915</b>
Prior 3 Yr	0.344	-0.146	2.12	-0.494	0.502	0.696	-0.105	4.66	-0.523	0.699	0.5009	0.8006

**Table 12: Size-Matched Cumulative Abnormal Returns Associated with Announcements of Alleged Securities Law Violations, Securities Class Action Lawsuit Filings and Resolution Announcements for matched sample**

Panel A presents the market model event study results utilizing a 125-day trading period from day -135 to day -11. Mean and median abnormal returns for enforcement actions calculated using the value-weighted CRSP index for enforcement event dates. Disclosure events are identified as the date in the original case complaint in which the misleading information was disclosed to shareholders. Filing events are identified as the first date of a securities class action lawsuit filing. Settlement dates are the date the settlement is first announced in the press. Combined reaction is the summation of the cumulative abnormal returns for each enforcement event date window. Panel B presents the valuation effect in dollars for each enforcement period event and the combined dollars lost over all event dates. Daily economic effect is calculated as the abnormal return for each firm multiplied by the firm's market capitalization on the previous day for all dates in the event window. The daily economic effects are cumulated over separate event windows as a measure of total losses. The t-test and Wilcoxon-test of the difference in mean and median between the home and U.S. market reactions respectively are shown in the difference columns with those significantly different than zero in bold.

*Panel A: Cumulative Abnormal Returns around case event dates*

	NASDAQ or NYSE Cross-listing Firms subject to lawsuits 1996-2009 (N = 190)					Matched U.S. firms subject to Class Action Lawsuits from 1996-2009 (N = 190)					Difference	
	Mean	Median	StDev	25%	75%	Mean	Median	StDev	25%	75%	Mean	Median
Disclosure CARS												
(-1,1)	-18.42%	-12.41%	0.2272577	-32.36%	-3.86%	-18.60%	-14.21%	0.225	-30.81%	-3.20%	0.8636	0.9584
(-10,1)	-22.62%	-19.01%	0.2769033	-37.88%	-5.10%	-25.58%	-19.93%	0.2833	-40.61%	-7.25%	0.4453	0.3976
(1,10)	-7.87%	-6.28%	0.2170624	-18.74%	3.26%	-13.79%	-7.68%	0.2484	-24.71%	1.35%	<b>0.0121</b>	<b>0.0851</b>
Filing CARS												
(-1,1)	-2.97%	-0.71%	0.1540639	-6.72%	3.11%	-1.65%	-0.40%	0.145361	-5.29%	3.54%	0.2182	0.2036
(-10,1)	-9.74%	-3.77%	0.2774374	-21.39%	6.32%	-10.33%	-4.66%	0.2842738	-19.81%	4.78%	0.8741	0.9039
(1,10)	3.38%	0.88%	0.1990743	-5.67%	8.69%	-1.29%	0.34%	0.20027	-7.53%	6.85%	<b>0.0168</b>	<b>0.0704</b>
Dismissal CARS (N=69)												
(-1,1)	-0.79%	-0.61%	0.0721539	-2.52%	0.80%	-1.32%	-0.64%	0.0605546	-4.84%	1.97%	0.1628	0.2273
(-10,1)	1.22%	0.67%	0.1063106	-3.98%	5.76%	-2.78%	-2.45%	0.1719568	-10.32%	4.41%	<b>0.0456</b>	<b>0.0586</b>
(1,10)	3.25%	1.95%	0.0891672	-2.34%	6.13%	1.57%	0.63%	0.0992056	-4.34%	6.13%	0.2323	0.2772
Settlement CARS (N=107)												
(-1,1)	2.09%	0.19%	0.1093143	-2.37%	3.98%	-0.43%	-1.02%	0.0929819	-3.33%	1.50%	0.7025	0.6766
(-10,1)	0.18%	-0.45%	0.1767828	-7.02%	8.44%	2.22%	-2.18%	0.2359636	-7.47%	6.06%	0.9907	0.7982
(1,10)	2.57%	1.10%	0.1687036	-5.10%	5.16%	-2.78%	-1.11%	0.1200108	-7.24%	2.02%	<b>0.0220</b>	<b>0.0230</b>
Combined CAR												
(-1,1)	-19.66%	-13.58%	0.3133712	-30.42%	-0.99%	-19.70%	-16.30%	0.2942261	-34.01%	-1.62%	0.8590	0.7993
(-10,1)	-30.41%	-17.41%	0.4626839	-53.58%	-0.69%	-34.67%	-24.45%	0.4851608	-51.12%	-7.66%	0.4378	0.3984
(1,10)	-2.85%	-5.00%	0.3298377	-17.70%	10.18%	-14.54%	-8.07%	0.3431159	-27.23%	4.53%	<b>0.0006</b>	<b>0.0063</b>

**Table 12: Size-Matched Cumulative Abnormal Returns Associated with Announcements of Alleged Securities Law Violations, Securities Class Action Lawsuit Filings and Resolution Announcements for matched sample cont'd**

Panel A presents the market model event study results utilizing a 125-day trading period from day -135 to day -11. Mean and median abnormal returns for enforcement actions calculated using the value-weighted CRSP index for enforcement event dates. Disclosure events are identified as the date in the original case complaint in which the misleading information was disclosed to shareholders. Filing events are identified as the first date of a securities class action lawsuit filing. Settlement dates are the date the settlement is first announced in the press. Combined reaction is the summation of the cumulative abnormal returns for each enforcement event date window. Panel B presents the valuation effect in dollars for each enforcement period event and the combined dollars lost over all event dates. Daily economic effect is calculated as the abnormal return for each firm multiplied by the firm's market capitalization on the previous day for all dates in the event window. The daily economic effects are cumulated over separate event windows as a measure of total losses. The t-test and Wilcoxon-test of the difference in mean and median between the home and U.S. market reactions respectively are shown in the difference columns with those significantly different than zero in bold.

*Panel B: Dollars Lost (in thousands) at case event dates*

In thousands	NASDAQ or NYSE Cross-listing Firms subject to lawsuits 1996-2009 (N = 190)					Matched U.S. firms subject to Class Action Lawsuits from 1996-2009 (N = 190)					Difference	
	Mean	Median	StDev	25%	75%	Mean	Median	StDev	25%	75%	Mean	Median
Disclosure CDE												
(-1,1)	-597580.2	-68283.8	2141403	-437179.8	-5581.664	-987466.8	-134442	4048820	-820575.3	-29604.64	0.1695	<b>0.0005</b>
(-10,1)	-832260.9	-100331	3321878	-487914.5	-9901.59	-2114324	-179148.2	1.02E+07	-1216243	-48112.11	<b>0.0764</b>	<b>0.0000</b>
(1,10)	-362805.2	-27408.71	2053954	-158413.1	2874.449	-436275.7	-51865.54	3782949	-408693.5	2851.628	0.8616	<b>0.0248</b>
Filing CARs												
(-1,1)	-181218.8	-2262.687	1992628	-29962.86	11012.96	289202.6	-1013.828	3550957	-47839.17	30656.77	0.1513	0.1303
(-10,1)	-505416.3	-8845.503	3100133	-170402.4	15017.1	-559499.9	-38731.43	5279281	-353833.1	16880.9	0.914	0.6411
(1,10)	88068.09	723.5374	1246819	-12839.71	42789.14	-135352.9	-367.2011	3879294	-58806.03	57578.52	0.4589	0.8163
Dismissed CDE												
(-1,1)	-19245.8	-1251.814	1397086	-20632.35	9538.895	-97543.59	-10432.9	3986956	-196479.7	15978.31	0.7754	0.3341
(-10,1)	56181.75	7826.706	1458534	-24066.84	156557.2	173888.7	-33436.69	6458176	-530654.3	17115.05	0.579	0.1365
(1,10)	443704.9	5263.526	3136671	-38732.46	78898.21	625077	1855.339	5399176	-117673.9	93845.7	0.9239	0.9679
Settlement CDEs												
(-1,1)	13097.71	83.18136	187881.1	-3601.857	11723.06	-147132.7	-1690.261	1457850	-31685.77	21320.06	0.2879	0.6377
(-10,1)	-632.0043	-1496.353	303615.2	-22758.21	6368.164	20044.86	-4409.716	3817793	-40964.62	45030.86	0.399	0.9036
(1,10)	-13701.93	624.5673	300150.9	-7529.163	10049.98	447057.8	-6591.11	2653197	-59593.71	27132.7	0.1653	<b>0.0138</b>
Combined CDE												
(-1,1)	-733349.7	-52123.25	3943715	-392015.7	-3906.621	-750683.5	-120712.8	6190943	-760921.1	-16287.98	0.9664	<b>0.0147</b>
(-10,1)	-1258302	-85354.27	6099910	-465295.6	-7131.597	-2542183	-255532.4	1.17E+07	-1486942	-61608.38	0.1355	<b>0.0002</b>
(1,10)	-158413.5	-18692.5	2699756	-131133.3	27441.65	-242145.4	-61788.77	5693025	-358996.3	27693.36	0.8723	<b>0.0029</b>



**Table 13: CARs for Dismissed and Settled Subsets**

Panel A presents the market model event study results utilizing a 125-day trading period from day -135 to day -11 for the subset of foreign sample firms that have dismissed cases as compared to settled cases and the valuation effect in dollars for each enforcement period event and the combined dollars lost over all event dates for the subset of foreign sample firms that have dismissed cases as compared to settled cases. Panel B presents the market model event study results utilizing a 125-day trading period from day -135 to day -11 for the subset of control U.S. incorporated firms that have dismissed cases as compared to settled cases and the valuation effect in dollars for each enforcement period event and the combined dollars lost over all event dates for the subset of control U.S. incorporated firms that have dismissed cases as compared to settled cases. Mean and median abnormal returns for enforcement actions calculated using the value-weighted CRSP index for enforcement event dates. Disclosure events are identified as the date in the original case complaint in which the misleading information was disclosed to shareholders. Filing events are identified as the first date of a securities class action lawsuit filing. Settlement dates are the date the settlement is first announced in the press. Combined reaction is the summation of the cumulative abnormal returns for each enforcement event date window. Daily economic effect is calculated as the abnormal return for each firm multiplied by the firm's market capitalization on the previous day for all dates in the event window. The daily economic effects are cumulated over separate event windows as a measure of total losses. The t-test and Wilcoxon-test of the difference in mean and median between the foreign and domestic firm market reactions respectively are shown in the difference columns with those significantly different than zero in bold.

*Panel A: Foreign Firm CARs by outcome*

	Sample Settled Cases (N = 107)						Sample Dismissed Cases (N=69)						P-Values		
	N	Mean	Median	StDev	25%	75%	N	Mean	Median	StDev	25%	75%	Mean	Median	
<b>Disclosure CAR</b>							<b>Disclosure CAR</b>								
(-1,1)	107	-18.476%	-12.867%	0.239	-33.884%	-3.007%	(-1,1)	69	-18.846%	-12.233%	0.205	-31.576%	-4.770%	0.9158	0.9480
(-10,1)	107	-23.250%	-20.072%	0.281	-39.550%	-5.097%	(-10,1)	69	-22.374%	-18.268%	0.265	-35.493%	-5.390%	0.8358	0.8277
(1,10)	107	-8.405%	-6.435%	0.229	-23.133%	4.153%	(1,10)	69	-8.211%	-6.203%	0.176	-16.115%	0.733%	0.9527	0.8474
<b>Filing CAR</b>							<b>Filing CAR</b>								
(-1,1)	107	-3.331%	-1.245%	0.177	-7.899%	4.011%	(-1,1)	69	-2.991%	-0.411%	0.119	-5.108%	1.608%	0.8891	0.5397
(-10,1)	107	-10.492%	-5.112%	0.303	-25.003%	8.209%	(-10,1)	69	-9.714%	-3.424%	0.230	-11.353%	3.861%	0.8560	0.8510
(1,10)	107	2.642%	-0.242%	0.234	-8.154%	8.511%	(1,10)	69	3.967%	1.943%	0.111	-2.685%	8.688%	0.6670	0.1122
<b>Combined CAR</b>							<b>Combined CAR</b>								
(-1,1)	107	-20.386%	-14.082%	0.340	-32.199%	-1.735%	(-1,1)	69	-22.132%	-14.088%	0.279	-31.493%	-4.171%	0.7208	0.8063
(-10,1)	107	-32.783%	-21.370%	0.481	-56.648%	-1.270%	(-10,1)	69	-31.074%	-16.215%	0.423	-41.679%	-6.053%	0.8084	0.7605
(1,10)	107	-4.876%	-6.529%	0.368	-24.358%	10.135%	(1,10)	69	-1.740%	-2.614%	0.233	-14.591%	10.404%	0.5321	0.2863

*Panel B: U.S. Firm CARs by outcome*

	Control Settled Cases						Control Dismissed Cases						P-Values		
	N	Mean	Median	StDev	25%	75%	N	Mean	Median	StDev	25%	75%	Mean	Median	
<b>Disclosure CAR</b>							<b>Disclosure CAR</b>								
(-1,1)	1098	-17.084%	-14.326%	0.418	-30.944%	-1.948%	(-1,1)	838	-19.891%	-17.178%	0.282	-34.904%	-4.131%	<b>0.0800</b>	<b>0.0020</b>
(-10,1)	1098	-23.313%	-20.842%	0.470	-42.640%	-3.396%	(-10,1)	838	-24.027%	-20.843%	0.359	-42.452%	-5.030%	0.6998	0.4651
(1,10)	1098	-11.512%	-9.200%	0.300	-26.573%	3.426%	(1,10)	838	-12.809%	-8.175%	0.249	-24.931%	0.874%	0.2879	0.4614
<b>Filing CAR</b>							<b>Filing CAR</b>								
(-1,1)	1098	-5.075%	-1.774%	0.191	-8.960%	2.998%	(-1,1)	838	-2.739%	-1.053%	0.135	-5.335%	1.903%	<b>0.0018</b>	<b>0.0403</b>
(-10,1)	1098	-10.578%	-5.731%	0.454	-25.392%	5.525%	(-10,1)	838	-6.717%	-3.125%	0.333	-18.690%	5.673%	<b>0.0309</b>	<b>0.0031</b>
(1,10)	1098	-0.778%	-0.644%	0.222	-9.934%	7.395%	(1,10)	838	-1.217%	-0.841%	0.156	-7.293%	5.682%	0.6135	0.5387
<b>Combined CAR</b>							<b>Combined CAR</b>								
(-1,1)	1098	-21.164%	-16.477%	0.462	-38.039%	-1.389%	(-1,1)	838	-22.433%	-19.216%	0.329	-36.671%	-4.894%	0.4756	<b>0.0120</b>
(-10,1)	1098	-31.917%	-26.443%	0.858	-57.903%	-2.461%	(-10,1)	838	-30.247%	-23.913%	0.586	-55.739%	-4.249%	0.6100	0.7079
(1,10)	1098	-11.933%	-9.862%	0.409	-31.475%	7.781%	(1,10)	838	-12.989%	-8.893%	0.324	-30.685%	4.612%	0.5167	0.9879

**Table 14: Cumulative Abnormal Return's winsorized at five percent**

Panel A presents the market model event study results utilizing a 125-day trading period from day -135 to day -11 for which the CARs are winsorized at the five percent level. Mean and median abnormal returns for enforcement actions calculated using the value-weighted CRSP index for enforcement event dates. Disclosure events are identified as the date in the original case complaint in which the misleading information was disclosed to shareholders. Filing events are identified as the first date of a securities class action lawsuit filing. Settlement dates are the date the settlement is first announced in the press. Combined reaction is the summation of the cumulative abnormal returns for each enforcement event date window. Panel B presents the valuation effect in dollars for each enforcement period event and the combined dollars lost over all event dates. Daily economic effect is calculated as the abnormal return for each firm multiplied by the firm's market capitalization on the previous day for all dates in the event window. The daily economic effects are cumulated over separate event windows as a measure of total losses. The t-test and Wilcoxon-test of the difference in mean and median between the foreign and domestic firm market reactions respectively are shown in the difference columns with those significantly different than zero in bold.

Panel A	Non-Sample firms subject to Class Action Lawsuits from 1996-2009 (N = 2218)					NASDAQ or NYSE Cross-listing Firms subject to lawsuits 1996-2009 (N = 191)					Mean	Median	
	Mean	Median	StDev	25%	75%	Mean	Median	StDev	25%	75%			
<b>Disclosure CAR</b>						<b>Disclosure CDE</b>							
(-1,1)	-19.179%	-15.820%	0.2087	-33.656%	-2.899%	(-1,1)	-18.080%	-12.867%	0.1955	-32.360%	-3.968%	0.4936	0.6028
(-10,1)	-24.850%	-21.577%	0.2614	-42.957%	-4.488%	(-10,1)	-22.574%	-18.758%	0.2505	-37.530%	-5.097%	0.2586	0.2631
(1,10)	-12.522%	-9.076%	0.2261	-26.062%	1.991%	(1,10)	-9.134%	-6.539%	0.1948	-19.456%	3.102%	<b>0.0503</b>	<b>0.0747</b>
<b>Filing CAR</b>						<b>Filing CDE</b>							
(-1,1)	-3.817%	-1.406%	0.1147	-7.470%	2.498%	(-1,1)	-2.872%	-0.863%	0.1091	-6.535%	3.509%	0.2836	0.3038
(-10,1)	-10.005%	-4.501%	0.2433	-22.715%	5.602%	(-10,1)	-9.235%	-3.767%	0.2360	-19.294%	6.623%	0.6809	0.6270
(1,10)	-1.065%	-0.495%	0.1414	-8.820%	6.961%	(1,10)	1.900%	0.755%	0.1322	-5.738%	8.511%	<b>0.0063</b>	<b>0.0301</b>
<b>Settle CAR</b>						<b>Settle CDE</b>							
(-1,1)	0.494%	-0.261%	0.0632	-2.957%	2.908%	(-1,1)	1.592%	0.732%	0.0650	-1.843%	3.981%	0.1911	0.1359
(-10,1)	1.220%	0.146%	0.1275	-5.530%	6.780%	(-10,1)	1.345%	-0.439%	0.1303	-4.866%	9.500%	0.9411	0.9971
(1,10)	-0.296%	-0.337%	0.1170	-6.746%	5.098%	(1,10)	0.934%	1.351%	0.1056	-5.100%	6.777%	0.4248	0.2707
<b>Dismissal CAR</b>						<b>Dismissal CDE</b>							
(-1,1)	-0.276%	-0.171%	0.0526	-3.052%	2.187%	(-1,1)	-0.298%	-0.631%	0.0498	-2.651%	0.721%	0.9796	0.6570
(-10,1)	-0.291%	-0.641%	0.1141	-7.249%	5.904%	(-10,1)	1.229%	0.277%	0.0877	-4.147%	4.346%	0.3978	0.3639
(1,10)	0.609%	0.110%	0.1000	-4.508%	5.932%	(1,10)	3.532%	2.441%	0.0778	-1.676%	6.421%	<b>0.0671</b>	<b>0.0456</b>
<b>Combined CAR</b>						<b>Combined CDE</b>							
(-1,1)	-22.525%	-18.351%	0.2627	-38.227%	-3.202%	(-1,1)	-19.728%	-13.964%	0.2474	-32.148%	-2.161%	0.1642	0.1470
(-10,1)	-33.292%	-26.443%	0.4182	-57.698%	-3.885%	(-10,1)	-30.397%	-19.151%	0.4127	-52.654%	-1.336%	0.3674	0.2155
(1,10)	-13.153%	-10.032%	0.2957	-31.736%	6.717%	(1,10)	-5.642%	-5.164%	0.2617	-18.383%	10.176%	<b>0.0009</b>	<b>0.0015</b>
<b>Panel B</b>	<b>Mean</b>	<b>Median</b>	<b>StDev</b>	<b>25%</b>	<b>75%</b>	<b>Mean</b>	<b>Median</b>	<b>StDev</b>	<b>25%</b>	<b>75%</b>	<b>Mean</b>	<b>Median</b>	
<b>Disclosure CDE</b>						<b>Disclosure CDE</b>							
(-1,1)	-356,318	-73,322	678,254	-304,930	-7,633	(-1,1)	-382,633	-66,388	668,330	-437,180	-6,300	0.4936	0.6783
(-10,1)	-494,629	-103,476	964,222	-418,039	-14,582	(-10,1)	-472,542	-100,095	897,263	-468,427	-11,113	0.7658	0.5630
(1,10)	-234,462	-34,539	554,883	-194,977	1,952	(1,10)	-195,785	-27,576	488,261	-156,377	1,944	0.3631	0.3906
<b>Filing CDE</b>						<b>Filing CDE</b>							
(-1,1)	-56,640	-2,846	246,391	-31,657	8,378	(-1,1)	-38,334	-2,263	222,567	-28,373	11,013	0.3321	0.5407
(-10,1)	-248,818	-13,942	686,225	-166,220	10,278	(-10,1)	-211,663	-7,870	624,212	-138,217	13,133	0.4799	0.4579
(1,10)	1,655	-2,033	276,144	-33,804	27,732	(1,10)	33,526	577	259,684	-16,026	37,751	0.1330	<b>0.0757</b>
<b>Settle CDE</b>						<b>Settle CDE</b>							
(-1,1)	-6,793	-453	72,417	-13,832	8,789	(-1,1)	11,775	394	64,184	-3,147	13,409	<b>0.0514</b>	<b>0.0520</b>
(-10,1)	-3,652	-740	141,826	-25,062	19,375	(-10,1)	-1,328	-916	120,099	-17,997	6,368	0.9005	0.5383
(1,10)	10,445	-843	156,786	-24,884	22,210	(1,10)	8,313	698	135,771	-7,529	10,050	0.9175	0.6243
<b>Dismissal CDE</b>						<b>Dismissal CDE</b>							
(-1,1)	-10,015	-509	186,624	-21,194	17,332	(-1,1)	-20,498	-1,600	196,182	-20,632	9,539	0.7257	0.6208
(-10,1)	-4,154	-2,207	405,976	-60,928	34,794	(-10,1)	119,203	9,141	437,272	-19,291	163,862	0.3901	0.2217
(1,10)	47,423	-61	412,584	-37,741	39,591	(1,10)	-3,161	4,770	462,487	-49,487	78,898	0.8978	0.1413
<b>Combined CDE</b>						<b>Combined CDE</b>							
(-1,1)	-442,046	-78,659	891,111	-350,250	-7,805	(-1,1)	-407,456	-57,888	789,330	-422,282	-7,199	0.6107	0.8224
(-10,1)	-764,469	-137,232	1,575,084	-583,847	-17,417	(-10,1)	-709,850	-97,671	1,485,897	-496,408	-11,534	0.6506	0.3481
(1,10)	-229,270	-39,756	659,939	-214,430	7,444	(1,10)	-129,908	-19,979	545,215	-131,133	15,141	<b>0.0475</b>	<b>0.0268</b>

**Table 15: Sample with events removed that have noise in the plus-ten day window post filing**

The table reports the mean and median cumulative abnormal returns surrounding the filing of a securities class action lawsuit for cases in which there are no other events in the +/- ten day window. The filing date is measured as the date listed on the original filing complaint documents as reported by Stanford Securities Class Action Clearinghouse and Institutional Shareholder Services (ISS) Governance Analytics Class Actions. In situations where multiple lawsuits are filed the first lawsuit filing date is chosen for the issue in question. Market model parameters are estimated in the 125-trading days ending 11 days prior to the announcement. The number of observations and the number of positive and negative CARs are presented for each window. Average cumulative abnormal returns (CARs) are reported in the 3-day announcement period (-1, +1), the eleven-day announcement period (-10, +1) and the nine-day announcement period (+1, +10) alongside median CARs for the same windows. The results of the standardized residual test in Patell (1976) are reported with p-values in parentheses indicating the significance of the mean is significantly different from zero. The cross-sectional two-sided *t*-statistic of Boehmer, Musumeci, and Poulsen (1991) that control for event-induced increase in the variance of the abnormal returns around the announcement are reported as the StdCsect Z with the p-values in parentheses that indicate the significance of the mean. The generalized sign test in Cowan (1992) which controls for the normal asymmetry of positive and negative abnormal returns in the estimation period is reported with p-values in parentheses that indicate the significance of the percentage of positive CARs. The signed rank indicates the results of a Wilcoxon rank sum test for differences in the medians with p-values reported in parentheses indicating significance different than zero.

Days	N	+/-	Mean CAR	Median CAR	Patell Z	StdCsect Z	Generalized Sign Z	Signed Rank
(-1,+1)	114	46/68	-3.24%	-1.59%	-6.713 <b>(0.001)</b>	-2.923 <b>(0.003)</b>	-1.761 <b>(0.078)</b>	-950.5 <b>(0.007)</b>
(-10,+1)	114	37/77	-12.94%	-5.47%	-11.687 <b>(0.001)</b>	-4.765 <b>(0.001)</b>	-3.447 <b>(0.001)</b>	-1461.5 <b>(0.001)</b>
(+1,+10)	114	51/63	1.52%	-0.95%	0.61 (0.542)	0.46 (0.645)	-0.824 (0.410)	-142.5 (0.689)

**Table 16: Change in U.S. market value at violation disclosure and legal and reputational penalties**

This table presents the calculation of the different penalties assessed at the disclosure of an alleged securities law violation for foreign sample firms as compared to U.S. control firms. Market penalties are defined as the dollar change in the U.S. market value in the three days surrounding the disclosure of a violation of a securities law that leads to a private securities class action filed where market value is calculated as the difference in the market capitalization on the day prior to the disclosure to the day after the disclosure as reported in CRSP. Legal penalties are defined as the settlement amounts where available plus any court costs that can be determined as listed in the Stanford Securities Class Action Clearinghouse and ISS Governance Analytics Class Actions. Reputational penalties are calculated as the difference between the change in market value around disclosure and the legal penalties assessed during the case for each lawsuit for each firm. The t-test and Wilcoxon-test of the difference in mean and median between the foreign and domestic firm market reactions respectively are shown in the difference columns with those significantly different than zero in bold.

Penalties (millions)	Non-Sample firms subject to Class Action Lawsuits from 1996-2009 (N = 2218)					NASDAQ or NYSE Cross-listing Firms subject to lawsuits 1996-2009 (N = 191)					Difference (p-value)	
	<u>Mean</u>	<u>Median</u>	<u>StDev</u>	<u>25% range</u>	<u>75% range</u>	<u>Mean</u>	<u>Median</u>	<u>StDev</u>	<u>25% range</u>	<u>75% range</u>	<u>Mean</u>	<u>Median</u>
Change in MarketVal (-1,+1)	571.02	73.61	2309.20	9.90	302.11	571.56	67.83	2319.57	8.26	435.06	0.9976	0.6652
Legal Penalties	26.45	5.00	135.63	1.80	13.00	27.97	4.97	114.89	1.88	16.00	0.9099	0.5923
Reputational Penalties	594.05	65.30	2255.81	4.06	282.69	561.05	56.94	2231.38	2.47	419.06	0.8490	0.9686

**Table 17: Determinants of Reputational Penalties**

This table presents cross-sectional Tobit regression results to estimate the determinants of the reputational penalties for domestic and foreign firms subject to private securities class action lawsuits for violations of U.S. securities laws. In Models 1 and 2 the dependent variable is the natural logarithm of the reputation penalties (*RLoss*). Independent variable definitions are listed in Appendix B. The sample includes all cases against firms that are cross-listed on the major U.S. exchanges with decided outcomes (settled or dismissed) from 1996-2009. The control includes all cases against domestic firms that listed on the major U.S. exchanges with decided outcomes (settled or dismissed) from 1996-2009. Model 1 does not include country-level variables for the foreign firms while Model 2 includes combinations of governance, economic and financial development variables. Coefficients reported are the changes in the mean of the latent dependent variable. Table 18 contains coefficients for the changes in the unconditional expected value of the observed dependent variable. P-values are listed in parentheses. \* Significant at the .10 level on the basis of p-values, \*\* Significant at the .05 level on the basis of p-values and \*\*\* Significant at the .01 level on the basis of p-values.

Model	1	1	2	2	2	2	2	2	2	2	2
Variables	Control	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample
ClassPeriodLength	-0.003*** (0.000)	-0.003* (0.060)	-0.003** (0.044)	-0.003** (0.043)	-0.003** (0.042)	-0.003** (0.041)	-0.003** (0.044)	-0.003** (0.046)	-0.003* (0.072)	-0.003 (0.135)	-0.002 (0.200)
FirstCase	-0.144 (0.793)	-0.821 (0.659)	-1.302 (0.493)	-1.259 (0.509)	-1.124 (0.558)	-1.072 (0.577)	-1.222 (0.523)	-1.24 (0.516)	-0.247 (0.897)	-0.099 (0.960)	-0.397 (0.838)
IPOVio	-1.211* (0.059)	-1.588 (0.439)	-3.022 (0.207)	-3.173 (0.195)	-2.83 (0.240)	-2.992 (0.224)	-2.97 (0.215)	-3.182 (0.191)	-4.101 (0.130)	-4.102 (0.133)	-3.788 (0.163)
GAAPVio	0.800* (0.060)	4.509*** (0.001)	5.699*** (0.000)	5.671*** (0.000)	5.618*** (0.000)	5.586*** (0.000)	5.655*** (0.000)	5.677*** (0.000)	4.243** (0.011)	3.426** (0.045)	3.329** (0.049)
OtherCase	-0.526 (0.743)	6.376* (0.071)	9.303*** (0.010)	9.219** (0.011)	9.221** (0.011)	9.128** (0.012)	9.302*** (0.010)	9.132** (0.012)	9.627** (0.011)	9.188** (0.017)	10.095*** (0.009)
Turnover	1.738 (0.114)	0.167 (0.900)	0.462 (0.740)	0.482 (0.729)	0.413 (0.767)	0.435 (0.755)	0.433 (0.756)	0.462 (0.740)	0.299 (0.829)	-0.121 (0.930)	-0.574 (0.683)
ROA	0.541* (0.067)	-2.422 (0.305)	-2.649 (0.270)	-2.758 (0.256)	-2.5 (0.299)	-2.617 (0.283)	-2.587 (0.282)	-2.683 (0.266)	-3.038 (0.201)	-3.2 (0.184)	-2.42 (0.319)
LNAssets	0.489*** (0.000)	0.904** (0.023)	1.027** (0.015)	1.032** (0.015)	1.057** (0.013)	1.062** (0.013)	1.041** (0.014)	1.036** (0.015)	1.003** (0.034)	0.862* (0.073)	0.634 (0.200)
Leverage	-1.915** (0.013)	-1.659 (0.595)	-1.534 (0.649)	-1.780 (0.609)	-1.639 (0.627)	-1.912 (0.582)	-1.578 (0.640)	-2.06 (0.559)	-4.576 (0.202)	-5.484 (0.128)	-4.609 (0.202)
FCF	0.000 (0.268)	0.000 (0.252)	0.000 (0.568)	0.000 (0.542)	0.000 (0.518)	0.000 (0.490)	0.000 (0.550)	0.000 (0.524)	0.000 (0.511)	0.000 (0.669)	0.000 (0.975)
FIN	-2.635*** (0.000)	-5.814** (0.023)	-4.825* (0.084)	-4.909* (0.080)	-4.987* (0.075)	-5.085* (0.071)	-4.889* (0.080)	-5.068* (0.072)	-6.798** (0.021)	-7.272** (0.015)	-6.282** (0.037)
Tech	0.442 (0.369)	1.374 (0.343)	0.819 (0.606)	0.796 (0.617)	0.779 (0.624)	0.752 (0.636)	0.812 (0.609)	0.678 (0.674)	-0.463 (0.783)	0.020 (0.991)	0.140 (0.934)
Settled	-1.854*** (0.000)	-4.089*** (0.004)	-5.342*** (0.000)	-5.338*** (0.000)	-5.287*** (0.000)	-5.281*** (0.000)	-5.301*** (0.000)	-5.327*** (0.000)	-4.960*** (0.001)	-5.176*** (0.001)	-5.097*** (0.001)
IncControl					1.604 (0.537)	1.643 (0.528)			1.535 (0.637)	2.707 (0.384)	3.084 (0.320)
HQControl							0.763 (0.742)	0.686 (0.767)			
IncAllowClass				-0.489 (0.768)		-0.537 (0.746)					3.697 (0.104)
HQAllowClass								-0.802 (0.631)			
IncAntiselfdeal			11.317*** (0.000)	11.625*** (0.001)	10.826*** (0.001)	11.153*** (0.001)	11.123*** (0.001)	11.546*** (0.001)	21.962*** (0.000)	21.781*** (0.001)	22.849*** (0.000)
IncGovIndex			2.716 (0.274)	2.733 (0.271)	3.332 (0.213)	3.365 (0.208)	2.993 (0.253)	3.002 (0.251)	7.251 (0.157)	-0.093 (0.981)	0.696 (0.861)
IncCostMktCap			-0.032* (0.071)	-0.034* (0.069)	-0.034* (0.062)	-0.035* (0.059)	-0.033* (0.068)	-0.035* (0.059)	-0.026 (0.178)		
IncGDPPERCap(Log)			-6.108* (0.076)	-5.896* (0.093)	-5.860* (0.090)	-5.62 (0.112)	-6.005* (0.082)	-5.735 (0.100)	-7.526 (0.149)		
PriCostMktCap										0.02 (0.277)	0.028 (0.152)
PriGDPPERCap(Log)										-3.146 (0.279)	-3.272 (0.256)
Region	No	No	No	No	No	No	No	No	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	12.383*** (0.000)	15.675*** (0.002)	33.862** (0.014)	33.084** (0.018)	31.444** (0.027)	30.528** (0.036)	32.748** (0.021)	32.072** (0.024)	24.66 (0.206)	7.432 (0.596)	7.869 (0.572)
Sigma	8.961*** (0.000)	7.594*** (0.000)	7.484*** (0.000)	7.481*** (0.000)	7.474*** (0.000)	7.470*** (0.000)	7.481*** (0.000)	7.474*** (0.000)	7.111*** (0.000)	7.205*** (0.000)	7.145*** (0.000)
N	1936	176	165	165	165	165	165	165	165	165	165
$\chi^2$	196.290***	60.743***	70.944***	71.032***	71.327***	71.432***	71.053***	71.285***	87.052***	83.678***	86.359***
Prob > $\chi^2$	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000

**Table 18: Marginal Effects of Reputational Penalties**

Marginal effects on the latent variable are the coefficients of the Tobit. However, we are also interested in the changes in the unconditional expected value of the observed dependent variable. This table presents these coefficients and the changes in the probability of being uncensored. Given the Tobit model of the following relationship:  $y_i^* = \begin{cases} y_i & \text{if } 0 < y_i \\ 0 & \text{if } y_i < 0 \end{cases}$  the change in the unconditional expected

value of the observed dependent variable is calculated as  $\partial E(y_i^*) / \partial x_i$  and the change in the probability of being uncensored is calculated as  $\partial P(0 < y_i^*) / \partial x_i$ . The effects are presented for each model as specified in Table 17

	Model 1, Column 1		Model 1, Column 2		Model 2, Column 3		Model 2, Column 4		Model 2, Column 5		Model 2, Column 6	
	Unconditional Expected Value	Probability Uncensored	Unconditional Expected Value	Probability Uncensored	Unconditional Expected Value	Probability Uncensored	Unconditional Expected Value	Probability Uncensored	Unconditional Expected Value	Probability Uncensored	Unconditional Expected Value	Probability Uncensored
ClassPeriodLengt	-0.0028	0.0000	-0.0028	0.0000	-0.0032	0.0000	-0.0033	0.0000	-0.003	0.000	-0.003	0.000
FirstCase*	-0.1348	-0.0019	-0.7959	-0.0075	-1.2648	-0.0114	-1.2222	-0.0111	-1.092	-0.010	-1.041	-0.010
IPOVio*	-1.1304	-0.0175	-1.5272	-0.0174	-2.8888	-0.0373	-3.0318	-0.0396	-2.708	-0.034	-2.862	-0.037
GAAPVio*	0.7506	0.0108	4.3590	0.0433	5.5117	0.0547	5.4852	0.0543	5.435	0.054	5.404	0.053
OtherCase*	-0.4919	-0.0074	6.2785	0.0315	9.1967	0.0353	9.1138	0.0351	9.116	0.035	9.023	0.035
Turnover	1.6317	0.0235	0.1612	0.0016	0.4470	0.0045	0.4666	0.0047	0.400	0.004	0.420	0.004
ROA	0.5073	0.0073	-2.3406	-0.0237	-2.5619	-0.0259	-2.6681	-0.0269	-2.419	-0.024	-2.532	-0.025
LNAssets	0.4594	0.0066	0.8742	0.0089	0.9938	0.0100	0.9981	0.0101	1.022	0.010	1.028	0.010
Leverage	-1.7976	-0.0259	-1.6033	-0.0163	-1.4840	-0.0150	-1.7217	-0.0174	-1.586	-0.016	-1.850	-0.019
FCF	0.0001	0.0000	-0.0003	0.0000	-0.0001	0.0000	-0.0002	0.0000	0.000	0.000	0.000	0.000
Fin*	-2.4348	-0.0419	-5.4308	-0.0958	-4.5444	-0.0736	-4.6219	-0.0754	-4.694	-0.077	-4.782	-0.079
Tech*	0.4158	0.0059	1.3312	0.0126	0.7938	0.0077	0.7712	0.0075	0.755	0.007	0.729	0.007
Settled	-1.7404	-0.0251	-3.9526	-0.0401	-5.1666	-0.0522	-5.1633	-0.0521	-5.115	-0.051	-5.110	-0.051
IncControl*									1.560	0.014	1.598	0.014
IncAllowClass*							-0.4732	-0.0047			-0.520	-0.005
HQControl*												
HQAllowClass*												
IncAntiselfdeal					10.9459	0.1107	11.2451	0.1135	10.473	0.105	10.791	0.108
IncGovIn												
dex					2.6267	0.0266	2.6435	0.0267	3.223	0.032	3.256	0.033
IncCost												
MktCap					-0.0313	-0.0003	-0.0327	-0.0003	-0.033	0.000	-0.034	0.000
IncGDPPERCap(Log)					-5.9078	-0.0597	-5.7032	-0.0576	-5.669	-0.057	-5.438	-0.055
PriCostMktCap												
PriGDPPERCap(Log)												
Constant	11.6217	0.1677	15.150507	0.15369799	32.7527	0.3312	32.0023	0.3231	30.421	0.306	29.537	0.297

\* Indicates a dummy variable

**Table 18: Marginal Effects of Reputational Penalties cont'd**

Marginal effects on the latent variable are the coefficients of the Tobit. However, we are also interested in the changes in the unconditional expected value of the observed dependent variable. This table presents these coefficients and the changes in the probability of being uncensored. Given the Tobit model of the following relationship:  $y_i^* = \begin{cases} y_i & \text{if } 0 < y_i \\ 0 & \text{if } y_i < 0 \end{cases}$  the change in the unconditional expected value of the observed dependent variable is calculated as  $\partial E(y_i^*) / \partial x_i$  and the change in the probability of being uncensored is calculated as  $\partial P(0 < y_i^*) / \partial x_i$ . The effects are presented for each model as specified in Table 17

	Model 2, Column 7		Model 2, Column 8		Model 2, Column 9		Model 2, Column 10		Model 2, Column 11	
	Unconditional Expected Value	Probability Uncensored	Unconditional Expected Value	Probability Uncensored	Unconditional Expected Value	Probability Uncensored	Unconditional Expected Value	Probability Uncensored	Unconditional Expected Value	Probability Uncensored
ClassPeriodLength	-0.003	0.000	-0.003	0.000	-0.003	0.000	-0.002	0.000	-0.002	0.000
FirstCase*	-1.187	-0.011	-1.205	-0.011	-0.241	-0.002	-0.096	-0.001	-0.386	-0.004
IPOVio*	-2.841	-0.036	-3.041	-0.040	-3.920	-0.053	-3.910	-0.055	-3.621	-0.049
GAAPVio*	5.470	0.054	5.491	0.054	4.123	0.038	3.323	0.032	3.232	0.031
OtherCase*	9.196	0.035	9.028	0.035	9.539	0.031	9.093	0.033	10.003	0.033
Turnover	0.419	0.004	0.447	0.005	0.291	0.003	-0.118	-0.001	-0.557	-0.005
ROA	-2.503	-0.025	-2.596	-0.026	-2.952	-0.028	-3.102	-0.031	-2.349	-0.023
LNAssets	1.007	0.010	1.002	0.010	0.975	0.009	0.836	0.008	0.615	0.006
Leverage	-1.527	-0.015	-1.993	-0.020	-4.446	-0.042	-5.317	-0.053	-4.473	-0.043
FCF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Fin*	-4.604	-0.075	-4.767	-0.079	-6.333	-0.122	-6.720	-0.139	-5.870	-0.109
Tech*	0.786	0.008	0.657	0.006	-0.449	-0.004	0.020	0.000	0.136	0.001
Settled	-5.128	-0.052	-5.154	-0.052	-4.819	-0.045	-5.018	-0.050	-4.947	-0.048
IncControl*					1.498	0.012	2.644	0.020	3.018	0.022
IncAllowClass*										
HQControl*	0.740	0.007	0.665	0.006						
HQAllowClass*			-0.777	-0.008						
IncAntiselfdeal	10.759	0.109	11.170	0.112	21.337	0.201	21.116	0.209	22.175	0.214
IncGovIndex	2.895	0.029	2.904	0.029	7.044	0.066	-0.091	-0.001	0.675	0.007
IncCostMktCap	-0.032	0.000	-0.034	0.000	-0.025	0.000				
IncGDPPERCap(Log)	-5.808	-0.059	-5.549	-0.056	-7.312	-0.069				
PriCostMktCap							0.020	0.000	0.027	0.000
PriGDPPERCap(Log)							-3.050	-0.030	-3.176	-0.031
Constant	31.677	0.320	31.027	0.312	23.959	0.226	7.206	0.071	7.637	0.074

\* Indicates a dummy variable

**Table 19: Winsorized Reputational Penalties Results**

This table presents cross-sectional Tobit regression results to estimate the determinants of the reputational penalties for domestic and foreign firms subject to private securities class action lawsuits for violations of U.S. securities laws. In Models 1 and 2 the dependent variable is the natural logarithm of the reputation penalties (*RLoss*) where *RLoss* has been winsorized at the five percent level. Independent variable definitions are listed in Appendix B. The sample includes all cases against firms that are cross-listed on the major U.S. exchanges with decided outcomes (settled or dismissed) from 1996-2009. The control includes all cases against domestic firms that listed on the major U.S. exchanges with decided outcomes (settled or dismissed) from 1996-2009. Model 1 does not include country-level variables for the foreign firms while Model 2 includes combinations of governance, economic and financial development variables. P-values are listed in parentheses. \* Significant at the .10 level on the basis of p-values, \*\* Significant at the .05 level on the basis of p-values and \*\*\* Significant at the .01 level on the basis of p-values.

Model	1	1	2	2	2	2	2	2	2	2	2
Variables	Control	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample
ClassPeriodLength	-0.003*** (0.000)	-0.002 (0.142)	-0.002 (0.166)	-0.002 (0.165)	-0.002 (0.157)	-0.002 (0.156)	-0.002 (0.165)	-0.002 (0.181)	-0.002 (0.336)	-0.001 (0.596)	-0.001 (0.653)
FirstCase	0.095 (0.857)	-1.229 (0.510)	-1.673 (0.384)	-1.633 (0.395)	-1.481 (0.444)	-1.431 (0.460)	-1.582 (0.413)	-1.650 (0.393)	-0.556 (0.775)	-0.650 (0.741)	-0.764 (0.697)
IPOVio	-1.694*** (0.007)	-1.254 (0.539)	-2.904 (0.220)	-3.109 (0.197)	-2.698 (0.257)	-2.911 (0.229)	-2.846 (0.230)	-3.11 (0.195)	-4.133 (0.122)	-4.026 (0.133)	-3.927 (0.142)
GAAPVio	1.155*** (0.005)	4.569*** (0.001)	5.434*** (0.000)	5.417*** (0.001)	5.354*** (0.001)	5.332*** (0.001)	5.385*** (0.001)	5.441*** (0.001)	4.299*** (0.009)	3.418** (0.040)	3.306** (0.047)
OtherCase	0.75 (0.655)	6.524* (0.059)	8.942** (0.012)	8.811** (0.013)	8.845** (0.012)	8.701** (0.014)	8.936** (0.012)	8.700** (0.014)	8.629** (0.020)	8.076** (0.031)	8.705** (0.022)
Turnover	2.394** (0.027)	-0.104 (0.938)	0.441 (0.748)	0.481 (0.726)	0.383 (0.780)	0.423 (0.758)	0.404 (0.769)	0.450 (0.743)	0.306 (0.823)	-0.172 (0.900)	-0.476 (0.732)
ROA	0.370 (0.200)	-1.855 (0.424)	-2.32 (0.328)	-2.503 (0.297)	-2.151 (0.366)	-2.341 (0.331)	-2.246 (0.345)	-2.394 (0.315)	-2.511 (0.290)	-2.552 (0.286)	-2.064 (0.393)
LNAssets	0.378*** (0.001)	0.753* (0.061)	0.918** (0.031)	0.934** (0.029)	0.947** (0.029)	0.966** (0.024)	0.932** (0.029)	0.934** (0.029)	0.928** (0.047)	0.800* (0.090)	0.635 (0.197)
Leverage	-2.263*** (0.002)	-0.674 (0.827)	-0.276 (0.934)	-0.676 (0.844)	-0.373 (0.911)	-0.807 (0.815)	-0.319 (0.924)	-0.992 (0.776)	-3.049 (0.390)	-4.2 (0.236)	-3.634 (0.308)
FCF	0.000 (0.239)	0.000 (0.328)	0.000 (0.574)	0.000 (0.516)	0.000 (0.525)	0.000 (0.465)	0.000 (0.556)	0.000 (0.500)	0.000 (0.606)	0.000 (0.684)	0.000 (0.975)
FIN	-2.513*** (0.000)	-4.933* (0.058)	-5.197* (0.069)	-5.430* (0.062)	-5.390* (0.061)	-5.649* (0.053)	-5.278* (0.066)	-5.641* (0.053)	-7.488** (0.013)	-7.736** (0.011)	-6.690** (0.033)
Tech	0.460 (0.331)	1.837 (0.207)	0.877 (0.583)	0.813 (0.612)	0.835 (0.601)	0.764 (0.633)	0.871 (0.586)	0.672 (0.679)	-0.139 (0.934)	0.405 (0.811)	0.484 (0.775)
Settled	-1.619*** (0.000)	-3.934*** (0.004)	-5.095*** (0.001)	-5.090*** (0.001)	-5.028*** (0.001)	-5.020*** (0.001)	-5.044*** (0.001)	-5.070*** (0.001)	-4.702*** (0.002)	-4.811*** (0.002)	-4.854*** (0.002)
IncControl					1.715 (0.501)	1.779 (0.486)			1.213 (0.704)	2.495 (0.411)	2.769 (0.362)
IncAllowClass				-0.775 (0.643)		-0.834 (0.617)					2.712 (0.260)
HQControl							0.879 (0.699)	0.778 (0.732)			
HQAllowClass									-1.104 (0.509)		
IncAntiselfdeal			9.783*** (0.003)	10.301*** (0.003)	9.236*** (0.006)	9.775*** (0.006)	9.545*** (0.004)	10.124*** (0.003)	19.397*** (0.002)	18.428*** (0.003)	19.345*** (0.002)
IncGovIndex			2.875 (0.242)	2.9 (0.237)	3.539 (0.181)	3.591 (0.175)	3.195 (0.218)	3.203 (0.216)	8.05 (0.112)	0.754 (0.846)	1.331 (0.734)
IncCostMktCap			-0.023 (0.213)	-0.025 (0.186)	-0.024 (0.187)	-0.027 (0.160)	-0.023 (0.202)	-0.026 (0.167)	-0.017 (0.391)		
IncGDPperCap(Log)			-6.448* (0.056)	-6.109* (0.077)	-6.184* (0.069)	-5.807* (0.094)	-6.329* (0.062)	-5.946* (0.083)	-8.38 (0.103)		
PriCostMktCap										0.025 (0.175)	0.03 (0.117)
PriGDPperCap(Log)										-3.713 (0.192)	-3.72 (0.189)
Region	No	No	No	No	No	No	No	No	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	12.361*** (0.000)	16.225*** (0.001)	35.771*** (0.008)	34.465** (0.012)	33.201** (0.018)	31.694** (0.027)	34.496** (0.013)	33.464** (0.016)	27.955 (0.145)	11.03 (0.424)	11.098 (0.419)
Sigma	8.416*** (0.000)	7.410*** (0.000)	7.317*** (0.000)	7.309*** (0.000)	7.304*** (0.000)	7.295*** (0.000)	7.312*** (0.000)	7.299*** (0.000)	6.952*** (0.000)	7.011*** (0.000)	6.984*** (0.000)
N	1936	176	165	165	165	165	165	165	165	165	165
$\chi^2$	187.582***	50.844***	65.014***	65.230***	65.468***	65.719***	65.164***	65.602***	80.499***	78.565***	79.845***
Prob > $\chi^2$	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001



**Table 20: Top settlement amounts from 1996- 2009<sup>63</sup>**

This table presents the top fifteen settlement amounts from securities class action lawsuits filed between 1996 and 2009 as identified by the Stanford Securities Class Action Clearinghouse. Results are ranked by order from largest to smallest and the filing date of the lawsuit is included with the settlement amount and country of incorporation of the firm at the time of the lawsuit filing.

<b>Rank</b>	<b>Litigation Name</b>	<b>Filing Date</b>	<b>Settlement Amt</b>	<b>Incorporated</b>
1	Enron Corporation	10/22/2001	\$ 7,242,000,000	United States
2	WorldCom, Inc.	4/30/2002	\$ 6,156,100,714	United States
3	Tyco International Ltd.	2/4/2002	\$ 3,200,000,000	Bermuda
4	Cendant Corporation	4/16/1998	\$ 3,318,250,000	United States
5	Nortel Networks Corporation (Nortel I & II)	2/16/2001	\$ 2,935,900,000	Canada
6	Salomon Smith Barney, Inc. : Citigroup : WorldCom	5/14/2002	\$ 2,650,000,000	United States
7	AOL Time Warner, Inc.	7/18/2002	\$ 2,500,000,000	United States
8	Koninklijke Ahold NV : Royal Ahold Corporation	2/25/2003	\$ 1,100,000,000	Netherlands
9	McKesson HBOC, Inc.	4/28/1999	\$ 1,042,500,000	United States
10	American International Group, Inc. (AIG)	10/27/2000	\$ 992,000,000	United States
11	UnitedHealth Group, Inc.	5/5/2006	\$ 925,500,000	United States
12	HealthSouth Corporation	8/2/2004	\$ 804,500,000	United States
13	Xerox Corporation	8/24/2000	\$ 750,000,000	United States
14	Lucent Technologies, Inc.	1/7/2000	\$ 667,000,000	United States
15	Wachovia Corporation	3/6/2009	\$ 627,000,000	United States

<sup>63</sup> Taken from the top-ten list on Securities Class Action Clearinghouse found at [http://securities.stanford.edu/top\\_ten\\_list.html](http://securities.stanford.edu/top_ten_list.html) and settlement amounts as listed on Institutional Shareholder Services (ISS) Governance Analytics Class Actions

**Table 21: Truncated Legal Penalties Results**

This table presents cross-sectional Tobit regression results to estimate the determinants of the reputational penalties for domestic and foreign firms subject to private securities class action lawsuits for violations of U.S. securities laws where the top and bottom five percent of legal penalty cases have been truncated. In Models 1 and 2 the dependent variable is the natural logarithm of the reputation penalties (*RLOSS*). Independent variable definitions are listed in Appendix B. The sample includes all cases against firms that are cross-listed on the major U.S. exchanges with decided outcomes (settled or dismissed) from 1996-2009. The control includes all cases against domestic firms that listed on the major U.S. exchanges with decided outcomes (settled or dismissed) from 1996-2009. Model 1 does not include country-level variables for the foreign firms while Model 2 includes combinations of governance, economic and financial development variables. P-values are listed in parentheses. \* Significant at the .10 level on the basis of p-values, \*\* Significant at the .05 level on the basis of p-values and \*\*\* Significant at the .01 level on the basis of p-values.

Model	1	1	2	2	2	2	2	2	2	2	2
Variable	Control	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample
ClassPeriodLengt	-0.003*** (0.000)	-0.004*** (0.008)	-0.004** (0.027)	-0.004** (0.023)	-0.004** (0.026)	-0.004** (0.022)	-0.004** (0.027)	-0.004** (0.026)	-0.004** (0.038)	-0.003* (0.057)	-0.003* (0.082)
FirstCase	-0.080 (0.885)	-1.306 (0.481)	-1.408 (0.458)	-1.265 (0.506)	-1.270 (0.510)	-1.106 (0.567)	-1.388 (0.469)	-1.419 (0.458)	-0.476 (0.805)	-0.289 (0.883)	-0.383 (0.845)
IPOVio	-1.442** (0.025)	-1.814 (0.358)	-2.933 (0.202)	-3.347 (0.154)	-2.804 (0.227)	-3.215 (0.174)	-2.921 (0.205)	-3.389 (0.148)	-4.079 (0.118)	-3.903 (0.136)	-3.684 (0.161)
GAAPVio	0.766* (0.071)	3.794*** (0.006)	5.148*** (0.001)	5.061*** (0.001)	5.086*** (0.001)	4.989*** (0.001)	5.137*** (0.001)	5.179*** (0.001)	3.637** (0.028)	2.773* (0.098)	2.708 (0.105)
OtherCase	-0.367 (0.828)	6.816** (0.043)	9.559*** (0.006)	9.353*** (0.007)	9.494*** (0.006)	9.274*** (0.007)	9.556*** (0.006)	9.211*** (0.008)	9.731*** (0.007)	9.314** (0.011)	9.722*** (0.009)
Turnover	1.625 (0.136)	1.136 (0.405)	1.657 (0.254)	1.754 (0.228)	1.630 (0.262)	1.726 (0.235)	1.650 (0.257)	1.767 (0.225)	1.130 (0.244)	1.130 (0.433)	0.834 (0.574)
ROA	0.485* (0.095)	-2.022 (0.369)	-2.183 (0.339)	-2.515 (0.277)	-2.096 (0.360)	-2.427 (0.296)	-2.17 (0.343)	-2.413 (0.293)	-2.58 (0.251)	-2.693 (0.236)	-2.297 (0.321)
LNAssets	0.563*** (0.000)	0.663* (0.086)	0.704* (0.086)	0.703* (0.084)	0.726* (0.079)	0.733* (0.076)	0.707* (0.087)	0.686* (0.096)	0.692 (0.131)	0.575 (0.216)	0.473 (0.325)
Leverage	-1.717** (0.025)	-1.000 (0.739)	-0.006 (0.999)	-0.623 (0.852)	-0.096 (0.976)	-0.742 (0.825)	-0.019 (0.995)	-0.983 (0.772)	-3.011 (0.387)	-4.213 (0.225)	-3.888 (0.265)
FCF	0.000 (0.330)	0.000 (0.630)	0.000 (0.825)	0.000 (0.895)	0.000 (0.874)	0.000 (0.951)	0.000 (0.833)	0.000 (0.858)	0.000 (0.980)	0.000 (0.807)	0.000 (0.700)
FIN	-2.914*** (0.000)	-3.569 (0.149)	-3.625 (0.182)	-3.819 (0.160)	-3.747 (0.170)	-3.96 (0.148)	-3.642 (0.181)	-3.980 (0.146)	-5.418* (0.062)	-5.695* (0.054)	-5.293* (0.076)
Tech	0.359 (0.472)	0.893 (0.532)	0.607 (0.702)	0.444 (0.780)	0.567 (0.721)	0.395 (0.805)	0.604 (0.703)	0.207 (0.899)	-1.026 (0.546)	-0.689 (0.691)	-0.587 (0.735)
Settled	-1.729*** (0.000)	-4.383*** (0.002)	-5.650*** (0.000)	-5.706*** (0.000)	-5.600*** (0.000)	-5.651*** (0.000)	-5.638*** (0.000)	-5.755*** (0.000)	-5.278*** (0.001)	-5.528*** (0.001)	-5.467*** (0.001)
IncControl					1.055 (0.689)	1.175 (0.655)			0.289 (0.930)	1.358 (0.668)	1.732 (0.588)
IncAllowClass				-1.347 (0.409)		-1.386 (0.396)					1.836 (0.414)
HQControl							0.168 (0.942)	-0.042 (0.985)			
HQAllowClass								-1.728 (0.295)			
IncAntiselfdeal			9.036*** (0.004)	9.857*** (0.003)	8.756*** (0.007)	9.569*** (0.005)	9.000*** (0.005)	9.834*** (0.003)	18.77*** (0.002)	18.69*** (0.002)	19.40*** (0.002)
IncGovIndex			1.827 (0.451)	1.788 (0.459)	2.209 (0.396)	2.211 (0.394)	1.887 (0.460)	1.802 (0.479)	7.891 (0.113)	0.986 (0.804)	1.450 (0.718)
IncCostMktCap			-0.025 (0.161)	-0.028 (0.116)	-0.026 (0.148)	-0.03 (0.105)	-0.025 (0.161)	-0.029 (0.111)	-0.022 (0.260)		
IncGDPperCap(Log)			-5.301 (0.135)	-4.49 (0.220)	-5.059 (0.159)	-4.196 (0.258)	-5.271 (0.139)	-4.477 (0.216)	-7.925 (0.126)		
PriCostMktCap										0.021 (0.260)	0.024 (0.200)
PriGDPperCap(Log)										-3.810 (0.183)	-3.869 (0.176)
Region	No	No	No	No	No	No	No	No	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	12.301*** (0.000)	18.35*** (0.000)	34.504** (0.014)	31.625** (0.028)	32.539** (0.029)	29.351* (0.054)	34.219** (0.019)	32.159** (0.028)	32.043 (0.108)	15.912 (0.261)	15.58 (0.270)
Sigma	8.713*** (0.000)	7.198*** (0.000)	7.086*** (0.000)	7.066*** (0.000)	7.081*** (0.000)	7.059*** (0.000)	7.086*** (0.000)	7.056*** (0.000)	6.696*** (0.000)	6.771*** (0.000)	6.756*** (0.000)
N	2054	160	143	143	143	143	143	143	143	143	143
$\chi^2$	193.53***	54.605***	64.825***	65.51***	64.985***	65.71***	64.83***	65.936***	81.617***	78.94***	79.614***
Prob > $\chi^2$	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.002

**Table 22: Change in market value at violation disclosure and legal and reputational penalties assessed after readjustments for financial misrepresentations**

This table presents the calculation of the different penalties assessed at the disclosure of an alleged securities law violation for foreign sample firms as compared to U.S. control firms. Market penalties are defined as the dollar change in the U.S. market value in the three days surrounding the disclosure of a violation of a securities law that leads to a private securities class action filed where market value is calculated as the difference in the market capitalization on the day prior to the disclosure to the day after the disclosure as reported in CRSP. Legal penalties are defined as the settlement amounts where available plus any court costs that can be determined as listed in the Stanford Securities Class Action Clearinghouse and ISS Governance Analytics Class Actions. Reputational penalties are calculated as the difference between the changes in market value around disclosure minus the legal penalties assessed during the case for each lawsuit for each firm minus any readjustment effect. The readjustment effect is calculated as the book value of assets of the largest incidence of the calculated write-offs during each year of the enforcement period multiplied by the median market-to-book ratio for all firms listed in Compustat with the same two-digit SIC code for the year corresponding to the write-off. The t-test and Wilcoxon-test of the difference in mean and median between the foreign and domestic firm market reactions respectively are shown in the difference columns with those significantly different than zero in bold.

Penalties (millions)	Non-Sample firms subject to Class Action Lawsuits from 1996-2009 (N = 2218)					NASDAQ or NYSE Cross-listing Firms subject to lawsuits 1996-2009 (N = 191)					Difference (p-value)	
	Mean	Median	StDev	25% range	75% range	Mean	Median	StDev	25% range	75% range	Mean	Median
Change in MarketVal (-1,+1)	571.02	73.61	2309.20	9.90	302.11	571.56	67.83	2319.57	8.26	435.06	0.9976	0.6652
Legal Penalties	26.45	5.00	135.63	1.80	13.00	27.97	4.97	114.89	1.88	16.00	0.9099	0.5923
Reputational Penalties	392.46	6.32	1893.54	0.00	139.30	266.64	0.00	780.70	0.00	101.89	0.3722	0.1219

**Table 23: Determinants of Reputational Penalties after readjustments for financial misrepresentations**

This table presents cross-sectional Tobit regression results to estimate the determinants of the reputational penalties for domestic and foreign firms subject to private securities class action lawsuits for violations of U.S. securities laws. In Models 1 and 2 the dependent variable is the natural logarithm of the reputation penalties (*RLoss*) where reputational penalties are defined as the natural logarithm of the reputation penalties (*RLoss*) after the readjustment effect discussed by Karpoff, Lee and Martin (2008) is removed. Independent variable definitions are listed in Appendix B. The sample includes all cases against firms that are cross-listed on the major U.S. exchanges with decided outcomes (settled or dismissed) from 1996-2009. The control includes all cases against domestic firms that listed on the major U.S. exchanges with decided outcomes (settled or dismissed) from 1996-2009. Model 1 does not include country-level variables for the foreign firms while Model 2 includes combinations of governance, economic and financial development variables. P-values are listed in parentheses. \* Significant at the .10 level on the basis of p-values, \*\* Significant at the .05 level on the basis of p-values and \*\*\* Significant at the .01 level on the basis of p-values.

	1	1	2	2	2	2	2	2	2	2	2
	Control	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample	Sample
ClassPeriodLength	-0.005*** (0.000)	-0.008** (0.022)	-0.008** (0.043)	-0.008** (0.031)	-0.008** (0.044)	-0.008** (0.031)	-0.008** (0.043)	-0.008** (0.038)	-0.009** (0.020)	-0.009** (0.029)	-0.009** (0.021)
FirstCase	2.451** (0.014)	-5.75 (0.149)	-7.842* (0.066)	-7.033* (0.095)	-7.931* (0.066)	-7.103* (0.095)	-7.889* (0.066)	-8.225* (0.055)	-8.119* (0.059)	-7.683* (0.077)	-7.216* (0.097)
IPOVio	-4.218*** (0.000)	-3.285 (0.442)	-2.617 (0.613)	-5.025 (0.334)	-2.68 (0.606)	-5.073 (0.331)	-2.625 (0.612)	-4.374 (0.403)	-4.085 (0.491)	-2.741 (0.642)	-3.188 (0.589)
GAAPVio	-0.071 (0.925)	7.437** (0.014)	8.533** (0.015)	8.482** (0.015)	8.590** (0.015)	8.531** (0.015)	8.570** (0.015)	9.168** (0.010)	6.291* (0.092)	5.798 (0.125)	5.957 (0.115)
OtherCase	1.090 (0.707)	14.335*** (0.032)	18.774*** (0.009)	17.425*** (0.013)	18.851*** (0.009)	17.489*** (0.013)	18.790*** (0.009)	17.280*** (0.015)	25.749*** (0.002)	25.554*** (0.002)	24.178*** (0.003)
Turnover	3.652* (0.060)	-1.228 (0.735)	-3.805 (0.479)	-4.581 (0.414)	-3.714 (0.490)	-4.499 (0.425)	-3.721 (0.491)	-4.829 (0.407)	-2.767 (0.589)	-3.503 (0.492)	-3.239 (0.535)
ROA	4.637*** (0.000)	38.724*** (0.000)	36.092*** (0.001)	34.337*** (0.002)	35.865*** (0.002)	34.165*** (0.002)	35.950*** (0.002)	36.291*** (0.001)	33.974*** (0.003)	34.429*** (0.003)	33.146*** (0.004)
LNAssets	-0.744*** (0.000)	-1.173 (0.184)	-0.613 (0.534)	-0.627 (0.524)	-0.617 (0.531)	-0.629 (0.523)	-0.614 (0.533)	-0.657 (0.507)	0.176 (0.869)	0.129 (0.905)	0.422 (0.705)
Leverage	-3.610*** (0.010)	0.362 (0.961)	-5.689 (0.507)	-8.954 (0.300)	-5.688 (0.507)	-8.957 (0.300)	-5.686 (0.507)	-8.927 (0.309)	-9.395 (0.292)	-11.74 (0.187)	-12.707 (0.152)
FCF	0.000 (0.364)	0.000 (0.456)	0.000 (0.821)	0.000 (0.605)	0.000 (0.835)	0.000 (0.616)	0.000 (0.825)	0.000 (0.669)	0.000 (0.936)	0.000 (0.881)	0.000 (0.706)
FIN	-0.308 (0.797)	-2.162 (0.706)	-4.677 (0.493)	-5.43 (0.420)	-4.616 (0.499)	-5.382 (0.425)	-4.66 (0.495)	-5.813 (0.394)	-12.208* (0.084)	-10.739 (0.128)	-12.339* (0.087)
Tech	0.427 (0.626)	-1.031 (0.733)	-3.787 (0.280)	-3.731 (0.279)	-3.751 (0.286)	-3.699 (0.285)	-3.773 (0.282)	-4.641 (0.187)	-8.806** (0.026)	-7.810** (0.048)	-8.261** (0.037)
Settled	-2.790*** (0.000)	-3.515 (0.227)	-6.045* (0.075)	-5.690* (0.086)	-6.081* (0.074)	-5.721* (0.086)	-6.081* (0.074)	-5.921* (0.078)	-4.464 (0.196)	-4.262 (0.227)	-4.37 (0.212)
IncControl					-0.875 (0.878)	-0.713 (0.900)			-8.844 (0.201)	-7.060 (0.288)	-7.804 (0.240)
HQControl							-0.538 (0.914)	-1.378 (0.782)			
IncAllowClass				-7.795** (0.035)		-7.791** (0.035)					-5.632 (0.264)
HQAllowClass								-6.413* (0.089)			
IncAntiselfdeal			12.340* (0.097)	17.282** (0.026)	12.683 (0.103)	17.558** (0.030)	12.505* (0.100)	16.106** (0.041)	43.354*** (0.005)	39.421*** (0.009)	38.023** (0.010)
IncGovIndex			-5.249 (0.337)	-4.323 (0.421)	-5.553 (0.340)	-4.562 (0.423)	-5.414 (0.341)	-4.993 (0.372)	16.226 (0.153)	6.368 (0.469)	5.4 (0.532)
IncCostMktCap			0.002 (0.966)	-0.023 (0.587)	0.003 (0.950)	-0.022 (0.603)	0.002 (0.958)	-0.015 (0.724)	0.027 (0.546)		
IncGDPPERCap(Log)			0.228 (0.976)	3.073 (0.688)	0.072 (0.993)	2.932 (0.705)	0.135 (0.986)	1.729 (0.822)	-14.48 (0.216)		
PriCostMktCap										0.065 (0.131)	0.056 (0.194)
PriGDPPERCap(Log)										-6.051 (0.372)	-5.802 (0.380)
Region	No	No	No	No	No	No	No	No	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	12.148*** (0.000)	19.611* (0.055)	20.152 (0.517)	9.187 (0.766)	21.399 (0.506)	10.243 (0.749)	20.916 (0.512)	17.347 (0.581)	44.173 (0.304)	16.115 (0.602)	15.096 (0.620)
Sigma	14.933*** (0.000)	13.925*** (0.000)	14.008*** (0.000)	13.707*** (0.000)	14.011*** (0.000)	13.709*** (0.000)	14.010*** (0.000)	13.824*** (0.000)	12.742*** (0.000)	12.768*** (0.000)	12.675*** (0.000)
N	1936	176	165	165	165	165	165	165	165	165	165
$\chi^2$	267.667***	79.447***	76.774***	81.404***	76.797***	81.420***	76.786***	79.763***	96.784***	96.772***	98.043***
Prob > $\chi^2$	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**Table 24: Marginal Effects of the Reputational Penalties after readjustments for financial misrepresentations**

Marginal effects on the latent variable are the coefficients of the Tobit. However, we are also interested in the changes in the unconditional expected value of the observed dependent variable. This table presents these coefficients and the changes in the probability of being uncensored. Given the Tobit model of the following relationship:  $y_i^* = \begin{cases} y_i & \text{if } 0 < y_i \\ 0 & \text{if } y_i < 0 \end{cases}$  the change in the unconditional expected value of the observed

dependent variable is calculated as  $\partial E(y_i^*) / \partial x_i$  and the change in the probability of being uncensored is calculated as  $\partial P(0 < y_i^*) / \partial x_i$ . The effects are presented for each model as specified in Table 17

	Model 1, Column 1		Model 1, Column 2		Model 2, Column 3		Model 2, Column 4		Model 2, Column 5		Model 2, Column 6	
	Uncond't Expected Value	Prob Uncensor	Uncond't Expected Value	Prob Uncensor	Uncond't Expected Value	Prob Uncensor	Uncond't Expected Value	Prob Uncensor	Uncond't Expected Value	Prob Uncensor	Uncond't Expected Value	Prob Uncensor
Classperiodlength	-0.0031	-0.0001	-0.0037	-0.0002	-0.0034	-0.0002	-0.0036	-0.0002	-0.0034	-0.0002	-0.0036	-0.0002
Firstcase*	1.4787	0.0632	-3.1343	-0.1625	-4.1136	-0.2200	-3.6229	-0.2023	-4.1656	-0.2224	-3.6628	-0.2043
IPOvio*	-2.4857	-0.1095	-1.5113	-0.0934	-1.1173	-0.0732	-2.0235	-0.1411	-1.1422	-0.0749	-2.0400	-0.1424
GAAPvio*	-0.0442	-0.0018	3.6972	0.2106	3.9528	0.2383	3.9033	0.2418	3.9785	0.2398	3.9251	0.2431
Othercase*	0.6938	0.0274	9.5362	0.3591	12.6929	0.4483	11.5645	0.4347	12.7558	0.4494	11.6153	0.4357
Turnover	2.2757	0.0929	-0.5972	-0.0352	-1.7098	-0.1075	-2.0438	-0.1321	-1.6685	-0.1049	-2.0064	-0.1297
ROA	2.8895	0.1179	18.8324	1.1088	16.2200	1.0196	15.3192	0.9903	16.1126	1.0129	15.2360	0.9851
Lnassets	-0.4634	-0.0189	-0.5705	-0.0336	-0.2753	-0.0173	-0.2797	-0.0181	-0.2772	-0.0174	-0.2806	-0.0181
Leverage	-2.2499	-0.0918	0.1761	0.0104	-2.5566	-0.1607	-3.9948	-0.2582	-2.5553	-0.1606	-3.9942	-0.2582
FCF	0.0001	0.0000	-0.0002	0.0000	-0.0001	0.0000	-0.0001	0.0000	-0.0001	0.0000	-0.0001	0.0000
FIN*	-0.1912	-0.0079	-1.0012	-0.0616	-1.8731	-0.1284	-2.1099	-0.1509	-1.8510	-0.1268	-2.0931	-0.1495
TECH*	0.2676	0.0108	-0.4953	-0.0295	-1.6182	-0.1057	-1.5818	-0.1063	-1.6030	-0.1047	-1.5680	-0.1054
Settled	-1.7385	-0.0709	-1.7092	-0.1006	-2.7166	-0.1708	-2.5383	-0.1641	-2.7318	-0.1717	-2.5514	-0.1650
Incantiselfdeal					5.5454	0.3486	7.7101	0.4984	5.6980	0.3582	7.8301	0.5062
Incfigovindex					-2.3589	-0.1483	-1.9285	-0.1247	-2.4948	-0.1568	-2.0343	-0.1315
Incfcstmktcap					0.0008	0.0000	-0.0101	-0.0007	0.0012	0.0001	-0.0098	-0.0006
Incfllogdppercap					0.1025	0.0064	1.3711	0.0886	0.0322	0.0020	1.3076	0.0845
IncAllowClass*												
Incontrol*							-3.6902	-0.2234	-0.3855	-0.0246	-0.3129	-0.0205
HQcontrol*												
HQallowclass*												
Constant	7.5707	0.3089	9.537337	0.561528	9.0562	0.5693	4.0986	0.2649	9.6137	0.6044	4.5680	0.2953

	Model 2, Column 7		Model 2, Column 8		Model 2, Column 9		Model 2, Column 10		Model 2, Column 11	
	Uncond't Expected Value	Prob Uncensor	Uncond't Expected Value	Prob Uncensor	Uncond't Expected Value	Prob Uncensor	Uncond't Expected Value	Prob Uncensor	Uncond't Expected Value	Prob Uncensor
Classperiodlength	-0.0034	-0.0002	-0.0034	-0.0002	-0.0039	-0.0003	-0.0036	-0.0003	-0.0038	-0.0003
Firstcase*	-4.1415	-0.2213	-4.3059	-0.2335	-4.1635	-0.2498	-3.8571	-0.2365	-3.5872	-0.2241
IPOvio*	-1.1205	-0.0734	-1.7762	-0.1222	-1.5919	-0.1225	-1.0820	-0.0825	-1.2435	-0.0963
GAAPvio*	3.9701	0.2393	4.2060	0.2584	2.7594	0.1927	2.4921	0.1768	2.5596	0.1829
Othercase*	12.7054	0.4485	11.3778	0.4308	19.0298	0.5639	18.6964	0.5677	17.4432	0.5578
Turnover	-1.6719	-0.1051	-2.1423	-0.1380	-1.1826	-0.0852	-1.4713	-0.1073	-1.3586	-0.0999
ROA	16.1546	1.0154	16.1000	1.0368	14.5184	1.0460	14.4589	1.0540	13.9040	1.0220
Lnassets	-0.2759	-0.0173	-0.2914	-0.0188	0.0753	0.0054	0.0544	0.0040	0.1769	0.0130
Leverage	-2.5552	-0.1606	-3.9602	-0.2550	-4.0147	-0.2893	-4.9305	-0.3594	-5.3304	-0.3918
FCF	-0.0001	0.0000	-0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	0.0000
FIN*	-1.8671	-0.1280	-2.2250	-0.1593	-3.6613	-0.3209	-3.2988	-0.2871	-3.6002	-0.3215
TECH*	-1.6125	-0.1053	-1.9323	-0.1304	-3.2921	-0.2567	-2.9130	-0.2280	-3.0537	-0.2417
Settled	-2.7327	-0.1718	-2.6268	-0.1692	-1.9076	-0.1374	-1.7897	-0.1305	-1.8332	-0.1347
Incantiselfdeal	5.6192	0.3532	7.1451	0.4601	18.5271	1.3349	16.5553	1.2068	15.9497	1.1723
Incfigovindex	-2.4331	-0.1529	-2.2149	-0.1426	6.9339	0.4996	2.6744	0.1950	2.2654	0.1665
Incfcstmktcap	0.0010	0.0001	-0.0066	-0.0004	0.0116	0.0008	0.0273	0.0020	0.0234	0.0017
Incfllogdppercap	0.0609	0.0038	0.7672	0.0494	-6.1878	-0.4458	-2.5413	-0.1853	-2.4338	-0.1789
IncAllowClass*										
Incontrol*					-2.9864	-0.2487	-2.4564	-0.2018	-2.6530	-0.2221
HQcontrol*	-0.2392	-0.0152	-0.5932	-0.0392						
HQallowclass*			-3.0484	-0.1831						
Constant	9.3992	0.5908	7.6958	0.4956	18.8768	1.3601	6.7678	0.4934	6.3325	0.4654

\* Indicates a dummy variable

**Table 25: OLS Regression Results**

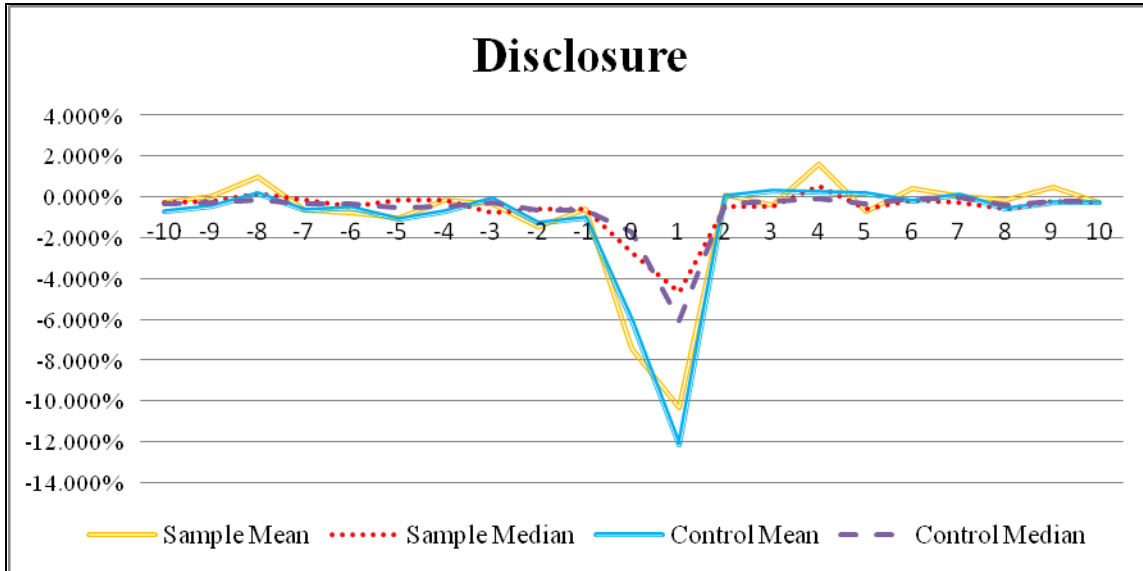
This table presents cross-sectional OLS regression estimators of the determinants of the reputational penalties for domestic and foreign firms subject to private securities class action lawsuits for violations of U.S. securities laws. Panel A contains OLS estimators for reputational penalties using only the reputational penalties that are above the censoring point of zero and Panel B contains OLS estimators for reputational penalties regardless of censoring. In Models 1 and 2 the dependent variable is the natural logarithm of the reputation penalties (*RLoss*). Independent variable definitions are listed in Appendix B. The sample includes all cases against firms that are cross-listed on the major U.S. exchanges with decided outcomes (settled or dismissed) from 1996-2009. The control includes all cases against domestic firms that listed on the major U.S. exchanges with decided outcomes (settled or dismissed) from 1996-2009. Model 1 does not include country-level variables for the foreign firms while Model 2 includes combinations of governance, economic and financial development variables. P-values are listed in parentheses. \* Significant at the .10 level on the basis of p-values, \*\* Significant at the .05 level on the basis of p-values and \*\*\* Significant at the .01 level on the basis of p-values.

	<i>Panel A: Above censoring reputational penalties</i>						<i>Panel B: All Cases</i>					
	1 Control	1 Sample	2 Sample	2 Sample	2 Sample	2 Sample	1 Control	1 Sample	2 Sample	2 Sample	2 Sample	2 Sample
ClassPeriodLength	-0.001*** (0.000)	-0.001** (0.010)	-0.001** (0.011)	-0.001 (0.109)	-0.001 (0.181)	-0.001 (0.118)	-0.002*** (0.000)	-0.003* (0.065)	-0.003** (0.048)	-0.003 (0.104)	-0.002 (0.170)	-0.002 (0.221)
FirstCase	-0.027 (0.787)	-0.876* (0.054)	-0.910* (0.071)	-1.141** (0.029)	-1.105** (0.042)	-1.055* (0.052)	-0.095 (0.829)	-0.873 (0.596)	-1.165 (0.500)	-0.529 (0.772)	-0.379 (0.839)	-0.628 (0.737)
IPOVio	-0.856*** (0.000)	-0.891* (0.088)	-1.104 (0.117)	-0.361 (0.642)	-0.337 (0.670)	-0.532 (0.509)	0.072** (0.036)	-1.359 (0.452)	-2.302 (0.287)	-3.093 (0.224)	-3.15 (0.221)	-2.941 (0.253)
GAAPVio	-0.217*** (0.006)	0.287 (0.411)	0.183 (0.650)	-0.06 (0.890)	-0.158 (0.727)	-0.139 (0.759)	0.627* (0.066)	3.76*** (0.002)	4.53*** (0.001)	3.533** (0.027)	2.840* (0.082)	2.784* (0.088)
OtherCase	0.030 (0.923)	0.730 (0.367)	0.756 (0.392)	0.251 (0.801)	0.152 (0.882)	-0.008 (0.994)	-0.439 (0.733)	5.461* (0.084)	7.513** (0.021)	7.906** (0.030)	7.556** (0.041)	8.272** (0.027)
Turnover	0.868*** (0.000)	-0.659** (0.047)	-0.662* (0.079)	-0.677* (0.083)	-0.780** (0.050)	-0.641 (0.120)	1.519* (0.086)	0.011 (0.993)	0.139 (0.911)	-0.029 (0.982)	-0.333 (0.802)	-0.667 (0.622)
ROA	0.077 (0.216)	1.357** (0.014)	1.086* (0.072)	1.244** (0.044)	1.213* (0.055)	1.030 (0.111)	0.389* (0.084)	-1.718 (0.415)	-1.831 (0.407)	-2.099 (0.360)	-2.260 (0.330)	-1.685 (0.475)
LNAssets	0.592*** (0.000)	0.497*** (0.000)	0.536*** (0.000)	0.715*** (0.000)	0.683*** (0.000)	0.722*** (0.000)	0.468*** (0.000)	0.806** (0.022)	0.933** (0.014)	0.876* (0.051)	0.775* (0.089)	0.600 (0.205)
Leverage	-0.830*** (0.000)	-0.809 (0.313)	-1.502 (0.129)	-1.410 (0.173)	-1.623 (0.126)	-1.778* (0.096)	-1.652*** (0.007)	-1.356 (0.621)	-1.608 (0.602)	-3.515 (0.297)	-4.145 (0.218)	-3.465 (0.307)
FCF	0.000** (0.030)	0.000 (0.144)	0.000 (0.130)	0.000 (0.465)	0.000 (0.519)	0.000 (0.368)	0.000 (0.226)	0.000 (0.271)	0.000 (0.475)	0.000 (0.526)	0.000 (0.653)	0.000 (0.894)
Fin	-1.086*** (0.000)	-1.342** (0.038)	-2.023*** (0.009)	-2.73*** (0.001)	-2.50*** (0.004)	-2.70*** (0.002)	-2.22*** (0.000)	-4.96** (0.027)	-4.221* (0.092)	-5.545** (0.047)	-6.174** (0.028)	-5.411* (0.059)
Tech	0.221** (0.014)	0.519 (0.138)	0.302 (0.460)	0.252 (0.577)	0.445 (0.333)	0.365 (0.431)	0.368 (0.353)	1.262 (0.326)	0.835 (0.559)	-0.043 (0.979)	0.341 (0.835)	0.402 (0.806)
Settled	-0.112 (0.142)	-0.314 (0.375)	-0.255 (0.535)	0.095 (0.827)	0.126 (0.783)	0.107 (0.815)	-1.49*** (0.000)	-3.400*** (0.005)	-4.2*** (0.001)	-3.99*** (0.006)	-4.13*** (0.005)	-4.1*** (0.006)
IncControl			-0.180 (0.793)	-0.809 (0.375)	-0.306 (0.718)	-0.475 (0.579)			1.464 (0.529)	1.476 (0.633)	2.285 (0.444)	2.523 (0.397)
IncAllowClass			-0.800* (0.081)			-0.797 (0.235)			-0.552 (0.709)			2.766 (0.203)
IncAntiselfdeal			1.174 (0.109)	3.818** (0.031)	3.671** (0.039)	3.243* (0.052)			8.67*** (0.005)	16.70*** (0.003)	16.58*** (0.004)	17.22*** (0.003)
IncGovIndex			0.956 (0.173)	4.522*** (0.003)	2.887** (0.020)	2.491* (0.052)			3.055 (0.204)	5.456 (0.253)	-0.247 (0.947)	0.200 (0.957)
IncCostMktCap			-0.007 (0.153)	-0.005 (0.397)					-0.029* (0.082)	-0.022 (0.215)		
IncGDPperCap(Log)			-0.398 (0.660)	-2.111 (0.151)					-4.608 (0.145)	-5.622 (0.252)		
PriCostMktCap					-0.001 (0.816)	-0.003 (0.946)					0.016 (0.362)	0.022 (0.237)
PriGDPperCap(Log)					0.004 (0.996)	0.052 (0.946)					-2.477 (0.376)	-2.561 (0.359)
Constant	15.3*** (0.000)	15.94*** (0.000)	16.81*** (0.000)	18.7*** (0.001)	11.61*** (0.002)	11.92*** (0.002)	13.6*** (0.000)	15.86*** (0.000)	28.0** (0.031)	22.783 (0.221)	9.908 (0.464)	10.534 (0.435)
Region	No	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	1634	148	139	139	139	139	1936	176	165	165	165	165
R-Square Adj	0.474	0.432	0.427	0.448	0.423	0.426	0.082	0.172	0.221	0.195	0.178	0.183

**Table 26: Matched Logit Table**

This table reports logit regressions estimating the likelihood of a foreign firm suffering a larger reputational penalty than the size and industry matched domestic firm, using financial data, country-level, and firm-level characteristics as the key explanatory variables. The dependent variable =1 if the reputational penalty is greater than the matched firm and 0 otherwise. Independent variable definitions appear in Appendix B. All independent variables are measured in the year prior to the filing of the lawsuit. Two-tailed p-values for the coefficient estimates are reported underneath, and \*\*\*, \*\*, \* represent statistical significance at the 1%, 5%, and 10% level, respectively. The marginal effects column shows the effects of a larger reputational penalties for the foreign firm to a one unit change in the variable of interest after standardizing the independent variables. Marginal effects are computed as:  $\beta * \pi(X) * [1 - \pi(X)]$ , where  $(X) = e^{\beta'X} / (1 + e^{\beta'X})$  and  $\beta'X$  is evaluated at the mean values of  $X$ . For the binary variables IncAllowClass, IncControl, Tech, Settled, OtherCase, GAAPVio, IPOVio and FirstCase, the marginal effect calculates the change from going from 0 to 1.

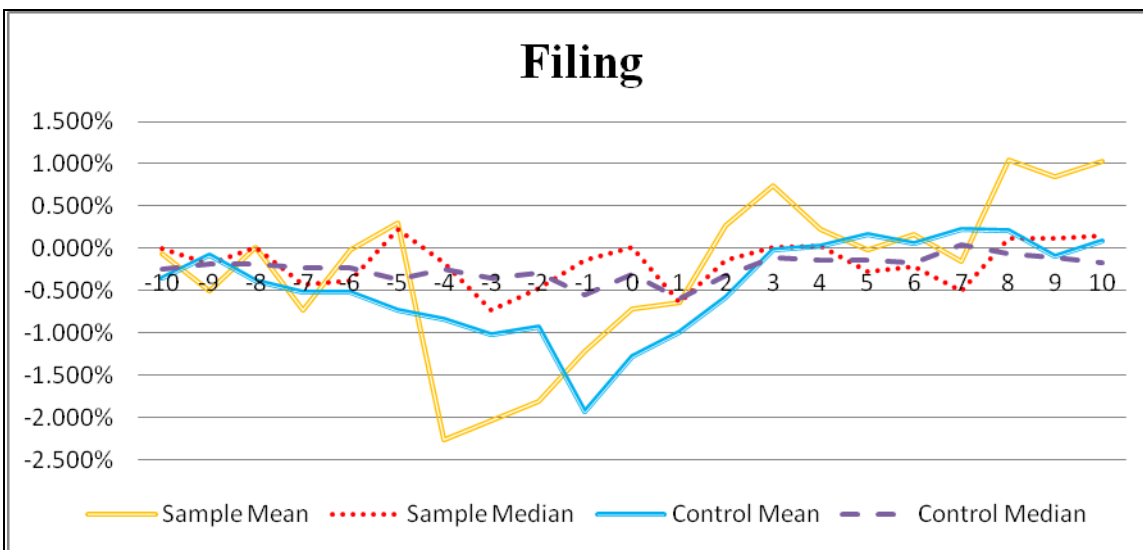
	Model 1 Estimated Coefficient	Marginal Effect	Model 2 Estimated Coefficient	Marginal Effect	Model 2 Estimated Coefficient	Marginal Effect	Model 2 Estimated Coefficient	Marginal Effect	Model 2 Estimated Coefficient	Marginal Effect
ClassPeriodLength	-0.0003 (0.373)	-0.0001	0.0001 (0.967)	0.0000	0.0002 (0.601)	0.0000	0.0002 (0.694)	0.0000	0.0001 (0.785)	0.0000
FirstCase	-0.5638 (0.159)	-0.1229	-0.5606 (0.204)	-0.1380	-0.5817 (0.192)	-0.1225	-0.4625 (0.371)	-0.1065	-0.4593 (0.385)	-0.1056
IPOVio	-0.5375 (0.259)	-0.1172	-0.8818 (0.131)	-0.2171	-1.1354 * (0.063)	-0.2392	-1.454 * (0.063)	-0.3349	-1.4828* (0.059)	-0.3409
GAAPVio	0.2393 (0.456)	0.0522	-0.7548** (0.030)	-0.1858	0.3849 (0.312)	0.0811	0.1726 (0.676)	0.0398	0.3379 (0.444)	0.0777
OtherCase	-0.5507 (0.481)	-0.1201	-0.1049 (0.895)	-0.0258	-1.1541 (0.156)	-0.2431	-1.0504 (0.264)	-0.2420	-0.9529 (0.311)	-0.2191
Turnover	-0.1088 (0.775)	-0.0237	-0.5659 (0.370)	-0.1393	-0.4976 (0.481)	-0.1048	-0.5492 (0.370)	-0.1265	-0.4905 (0.503)	-0.1128
ROA	-0.0365 (0.946)	-0.0080	0.5859 (0.374)	0.1434	-0.3718 (0.557)	-0.0783	0.0519 (0.942)	0.0120	0.0344 (0.961)	0.0079
LNAssets	-0.1149 (0.627)	-0.0251	-0.0545 (0.847)	-0.0134	-0.0366 (0.902)	-0.0077	-0.0725 (0.821)	-0.0167	-0.0405 (0.901)	-0.0093
Leverage	-1.743** (0.017)	-0.3800	-2.3033*** (0.007)	-0.5671	-2.7853*** (0.002)	-0.5868	-3.219*** (0.004)	-0.7415	-3.282*** (0.005)	-0.7545
FCF	0.001 (0.252)	0.0000	0.000 (0.885)	0.0000	0.001 (0.465)	0.0000	0.001 (0.408)	0.0000	0.000 (0.650)	0.0000
TECH	0.0072 (0.986)	0.0016	-0.3175 (0.503)	-0.0782	-0.0158 (0.975)	-0.0033	-0.3425 (0.516)	-0.0789	-0.4632 (0.404)	-0.1065
Settled	-0.8146** (0.013)	-0.1776	-0.1248 (0.704)	-0.0307	-0.7129* (0.057)	-0.1502	-0.5927 (0.142)	-0.1365	-0.5718 (0.164)	-0.1315
IncAntiselfdeal			0.8130 (0.409)	0.2002	1.0976 (0.306)	0.2312	6.756** (0.023)	1.5561	5.6059* (0.068)	1.2887
IncGovIndex			0.6594 (0.370)	0.1623	0.4559 (0.579)	0.0961	2.3814 (0.188)	0.5486	1.6559 (0.358)	0.3807
IncCostMktCap			-0.0042 (0.396)	-0.0010	-0.0010 (0.856)	-0.0002	0.0032 (0.654)	0.0007	-0.0012 (0.884)	-0.0002
IncGDPperCap(Log)			-1.2545 (0.272)	-0.3089	-0.7738 (0.497)	-0.1630	-2.177 (0.372)	-0.5015	-1.3599 (0.595)	-0.3126
IncControl					0.4406 (0.603)	0.0981	-0.5186 (0.639)	-0.1120	-0.5731 (0.594)	-0.1225
IncAllowClass			-0.260** (0.036)	-0.2601	-1.3416*** (0.010)	-0.2826			-1.5880* (0.071)	-0.3651
Year	Yes		Yes		Yes		Yes		Yes	
Region	No		No		No		Yes		Yes	
N	175		165		165		165		165	
chi2	25.305		43.059*		43.107*		52.346		55.883*	
Prob > $\chi^2$	0.445		0.058		0.073		0.09		0.074	



**Figure 1: Mean and Median Abnormal Returns Surrounding Event Dates**

The table reports the mean and median abnormal return for each day in the +/- ten days surrounding the disclosure or filing of a securities class action lawsuit for the foreign sample of cases and the control of domestic cases. The filing date is measured as the date listed on the original filing complaint documents as reported by Stanford Securities Class Action Clearinghouse and Institutional Shareholder Services (ISS) Governance Analytics Class Actions and the disclosure date is the date listed in the complaint in which it is claimed the information became publicly available. In situations where multiple lawsuits are filed the first lawsuit filing date is chosen for the issue in question. Market model parameters are estimated in the 125-trading days ending 11 days prior to the announcement using the market information as provided by CRSP. Abnormal returns are reported for days -10 through +10 around the disclosure (Panel A) or filing (Panel B) date.

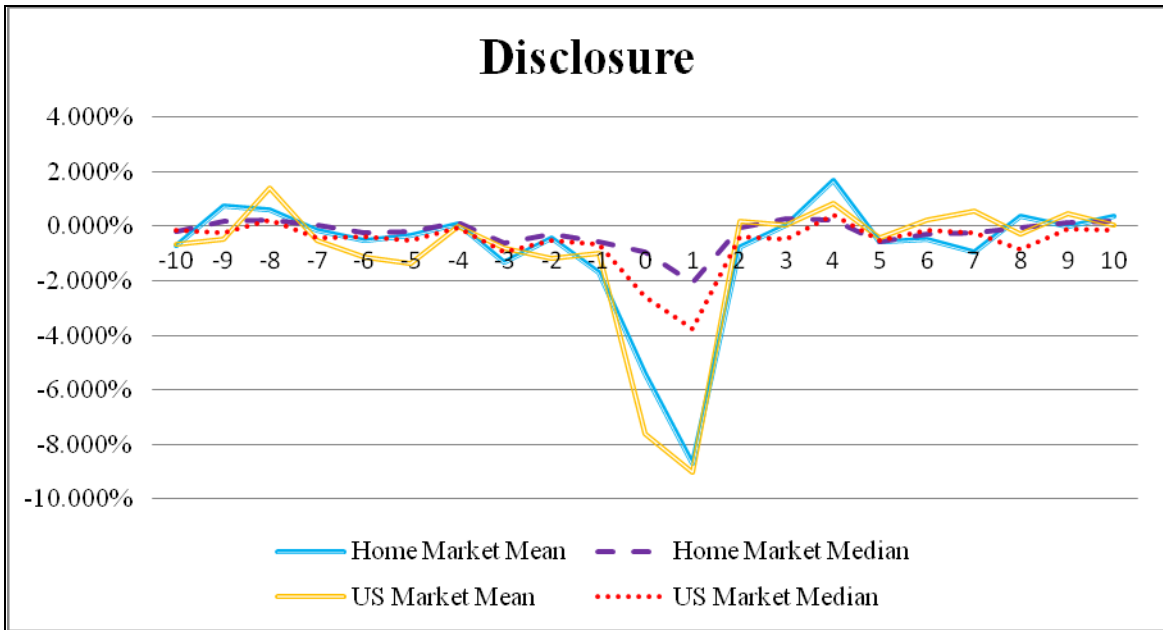
**Panel A:** Sample mean and median abnormal returns for the twenty days surrounding the disclosure date of the alleged violation of securities laws as compared to a control of domestic firms accused of violations of securities laws. Day 0 is the date of disclosure.



**Figure 1: Mean and Median Abnormal Returns Surrounding Event Dates**

**Panel B:** Sample mean and median abnormal returns for the twenty days surrounding the filing date of the securities class action lawsuit as compared to a control of domestic firms subject to securities class action files. Day 0 is the date of the filing of the first lawsuit.

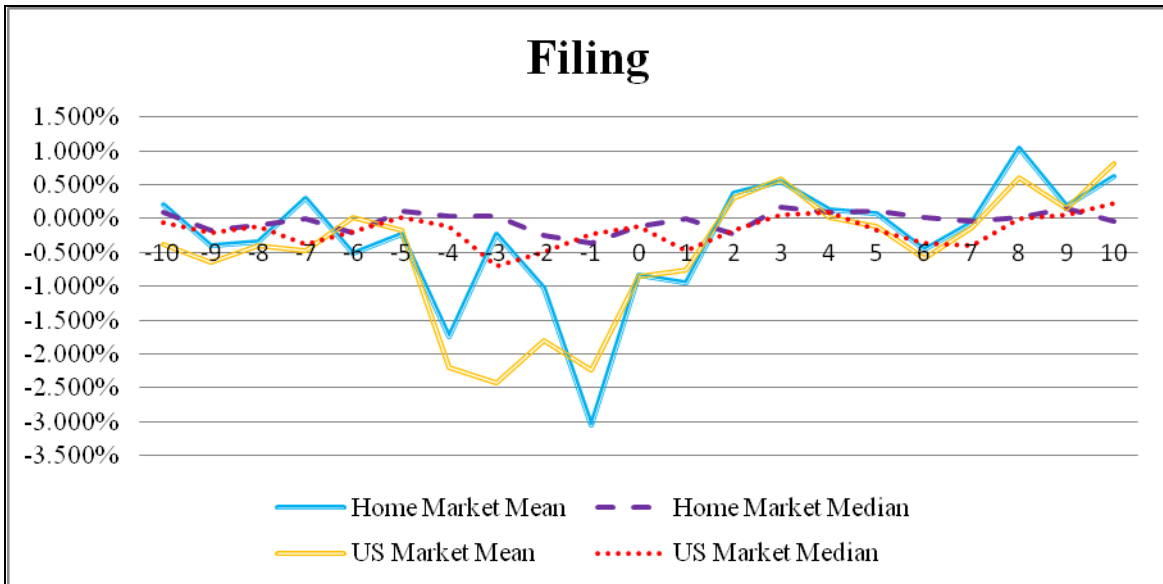




**Figure 2: Mean and Median Abnormal Returns on Sample Firm Home Markets Surrounding Event Dates**

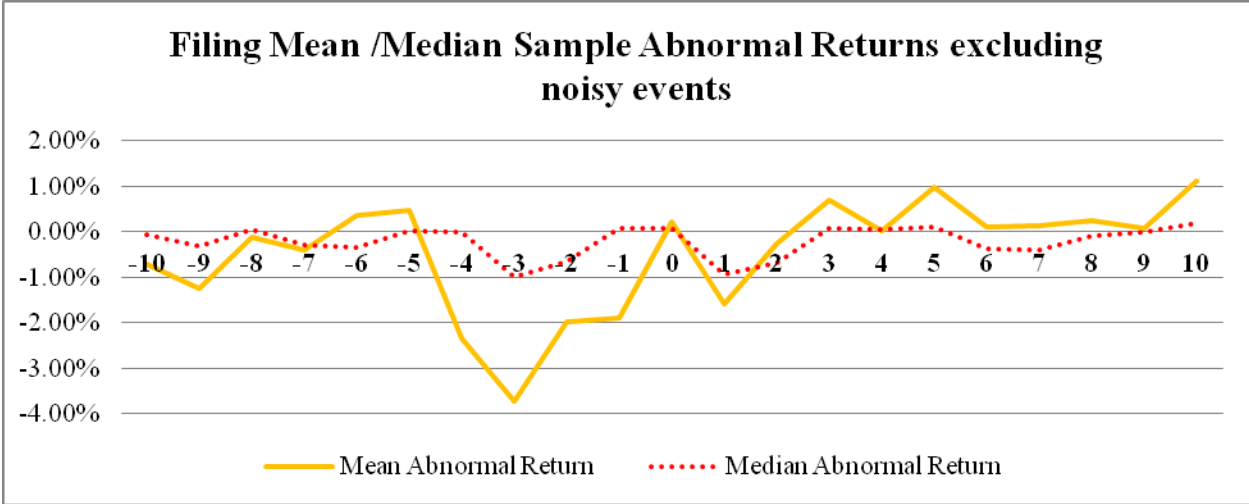
The table reports the mean and median abnormal return for each day in the +/- ten days surrounding the disclosure or filing of a securities class action lawsuit for the foreign sample firms in the U.S. market on which the firm lists and the home market, which is the market of the country in which the firm is incorporated. The filing date is measured as the date listed on the original filing complaint documents as reported by Stanford Securities Class Action Clearinghouse and Institutional Shareholder Services (ISS) Governance Analytics Class Actions and the disclosure date is the date listed in the complaint in which it is claimed the information became publicly available. In situations where multiple lawsuits are filed the first lawsuit filing date is chosen for the issue in question. Market model parameters are estimated in the 125-trading days ending 11 days prior to the announcement using the market information as provided by DataStream. Abnormal returns are reported for days -10 through +10 around the disclosure (Panel A) or filing (Panel B) date.

**Panel A:** Sample mean and median abnormal returns for the twenty days surrounding the disclosure date of the alleged violation of securities laws for the home market and the U.S. market of sample firms accused of violations of securities laws. Day 0 is the date of disclosure.



**Figure 2: Mean and Median Abnormal Returns on Sample Firm Home Markets Surrounding Event Dates**

**Panel B:** Sample mean and median abnormal returns for the twenty days surrounding the filing date of the securities class action lawsuit for the home market and the U.S. market of sample firms subject to securities class action files. Day 0 is the date of the filing of the first lawsuit.



**Figure 3: Abnormal Returns for noise removed sample**

The table reports the mean and median abnormal return for each day in the +/- ten days surrounding the filing of a securities class action lawsuit for cases in which there are no other events in the +/- ten day window. The filing date is measured as the date listed on the original filing complaint documents as reported by Stanford Securities Class Action Clearinghouse and Institutional Shareholder Services (ISS) Governance Analytics Class Actions. In situations where multiple lawsuits are filed the first lawsuit filing date is chosen for the issue in question. Market model parameters are estimated in the 125-trading days ending 11 days prior to the announcement. Abnormal returns are reported for days -10 through +10 around the filing date.

## VITA

Kathryn Schumann was born in Jefferson City, TN to Tom and Linda Schumann. She was raised in Jefferson City, TN with one sibling, Amanda. She attended Jefferson County High School and completed four years at Lincoln Memorial University in Harrogate, TN. She earned her undergraduate B.B.A. and B.A degrees at Lincoln Memorial University and was a member of the varsity soccer team from 1999-2003. She earned an M.B.A. from East Carolina University in 2005 and will finish her doctoral work at the University of Tennessee in August 2012. At that time she will join the faculty of the Department of Finance and Business Law at James Madison University in Harrisonburg, VA as an assistant professor.

Kathryn has worked as a Research Assistant for the University of Tennessee Department of Finance since 2007 and has taught undergraduate introductory finance courses during this time. She has been an adjunct professor for Lincoln Memorial University and Tennessee Tech University, teaching undergraduate level project management courses at Lincoln Memorial University in 2007 and an M.B.A. level risk management course at Tennessee Tech University in 2012. Prior to joining the University of Tennessee doctoral program, Kathryn worked as a Financial Aid Data Coordinator at Tusculum College and an Account Executive at Wells Fargo Financial. Her research interests include corporate governance, corporate finance, international finance, institutional investing, corporate misconduct, business ethics and corruption and her paper entitled “Corporate Governance of Banks in the United States” with Tracie Woidtke and Harold Black was published as a chapter in Anti-Crisis Paradigms of Corporate Governance in Banks: a New Institutional Outlook in 2010.