

Draft: October 5, 2004

Public and Private Enforcement of the Securities Laws: Have Things Changed Since Enron?

By

James D. Cox and Randall S. Thomas

The U.S. securities laws seek to fulfill a variety of social objectives.¹ The most obtuse of them is allocational efficiency. Mandatory disclosure requirements for public offerings facilitates the allocation of scarce capital directly among competing investment opportunities and periodic disclosure does so indirectly through its impact on investors' decisions with respect to the array of risk-return relationships that compete for their savings. Mandatory disclosure also reduces the frequency and magnitude of fraud thus reducing the risk and losses to investors. Furthermore, the greater transparency provided by SEC disclosure requirements is believed to reduce agency costs on the part of managers. Greater transparency not only protects investor-owners but also contributes positively to efficient deployment of firm resources.

The mechanisms for mandatory disclosure under the U.S. securities laws are well understood. Disclosure is mandated episodically for such events as public offerings,² proxy solicitations,³ and tender offers.⁴ Most public companies also face periodic disclosure requirements.⁵ Less formal requirements for disclosure arise by virtue of disclosure obligations anchored in the antifraud provision, such as the duty to update.⁶ These extensive disclosure requirements are backed up by a reasonably well-funded government agency, the Securities and Exchange Commission, as well as express and implied causes of actions for private litigants.⁷ Thus, a company manifesting anything less than undying obeisance to compliance with mandatory disclosure requirements must confront the possibility of a less than genteel encounter with the staff of the SEC's Division of Enforcement and/or the private class action attorney. America is unique in the governmental funds it commits to the enforcement of its securities laws, but also to the

¹ *See generally* International Organization of Securities Commissioners, Objectives and Principles of Securities Regulations §4.1 at 6 (Sept. 1998); Richard W. Jennings, et.al., Securities Regulations 1-6 (8th ed. 1997); Joel Seligman, The Historical Need for a Mandatory Corporate Disclosure System, 9 J. Corp. L. 1, 5 (1983).

² *See* Section 5 of the Securities Act, 15 U.S.C. § 77e.

³ *See* Section 14(a) of the Securities Exchange Act, 15 U.S.C. 78n(a) and Exchange Act Schedule 14A.

⁴ *See* Sections 13(d)(1) and 14(d)(1) of the Securities Exchange Act, 15 U.S.C. §§78m(d)(1) & 78n(d)(1).

⁵ The companies so subject the requirements are those falling within section 12(a) or 12(b) of the Securities Exchange Act, 15 U.S.C. §78l(a)(g) which for domestic issuers requires annual and quarterly reporting and sometimes relatively prompt reporting of certain events required to be disclosed on Form 8-K. *See also* Securities Exchange Act Section 13, 15 U.S.C. § 78m (setting forth the requirements and mechanisms for periodic reporting).

⁶ *See e.g.*, *Weiner v. Quaker Oats Co.*, 129 F.3d 310 (3d Cir. 1997)(Duty to disclose material change in financial limits on debt that would be required by forthcoming acquisition). Even broader than the duty to update is the case law surrounding half truths which impose a duty to disclose so as to avoid what has been represented not to be materially misleading in light of what has not been disclosed. *See generally*, Donald C. Langevoort, Half-Truths: Protecting Mistaken Inferences by Investors and Others, 52 Stan. L. Rev. 87 (1999).

⁷ *See generally* James D. Cox, Robert W. Hillman and Donald C. Langevoort, Securities Regulations Cases and Materials Chs. 12 & 13 (2004)(reviewing the SEC's enforcement authority and the scope of private actions under the antifraud provision).

extent that private suits for violations occur. The latter is not the product of rumored greater litigiousness of the U.S. citizens, but most likely reflects the effects of collateral legal rules such as the “American Rule” respecting parties’ responsibility for attorneys fees, the availability of contingent fees, and, of course, the class action.

So robust is the securities class action that with great confidence the attorney can advise her client that one is far more likely to encounter the plaintiffs’ securities class action lawyer than SEC enforcement personnel. This observation raises a wide range of questions which we seek to answer in this article. Foremost among our questions is the overall effectiveness of the public and private enforcement efforts. Given the doubts raised about the quality of American corporate governance practices after the collapse of Enron, World Com and other subsequent corporate disasters, this is a particularly timely issue.

We address this question by gathering evidence on how those corporations that have been the targets of SEC enforcement efforts compare in terms of their size and financial health vis-à-vis firms that are targeted only by the private securities class action. Related to this inquiry is whether the SEC or the private bar systematically proceeds against violators that cause the greatest loss to investors. As to the latter inquiry, we are intrigued by the most basic question posed by private suits, whether settlements bear any relationship to the losses suffered by the class and whether those losses bear any relationship to the size of either the firm itself or the duration of the class action. The data examined below is expanded beyond that in our earlier study contrasting the profile of firms that are the subject of SEC enforcement actions with firms that are prosecuted through a private class action suit.⁸ The evidence presented below provides additional insight into the social welfare implications of SEC enforcement heuristics as well as the overall performance of the securities class action.

I. Methodology

Our data set consists of 389 securities class action settlements that occurred between 1990 and 2003. For this data set, we obtained from the Compustat data base certain financial information, discussed below, regarding the companies that were the defendants in the settled securities class actions. We then reviewed the Enforcement Releases on the SEC’s website as well as conducting a search of the Lexis-Nexis data base. From these searches, we identified 73 cases, or 19 percent of our sample, that had a parallel SEC enforcement action challenging the same conduct that was the subject of the private suit.

A central reference point in our assessment of the effectiveness of SEC, or private, enforcement actions is to compare the dollar amount of the relief obtained from the defendants with the estimated “provable losses” their violation has caused investors. The standard measure of damages for securities class actions is the difference between the price at which the investors purchased or sold the security and what that price would have been but for the misrepresentation. We refer to this as the provable loss for the class. Because the defendant is responsible only for the harm it has caused by its misrepresentation, other events and forces that affect the securities

⁸ See James D. Cox and Randall S. Thomas (with the assistance of Dana Kiku), SEC Enforcement Heuristics: An Empirical Analysis, 53 Duke L. J.737 (2003)(Our earlier study included about forty percent fewer settlements than the present study since we have since expanded our data base to include settlements that extend into 2003).

price must be removed from the calculus for measuring the provable loss. To do this, we use the familiar market model to construct a “true-value line” for each of the 389 settlements in our data base.

The market model holds:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}$$

Where R_{it} is the return of a stock on day i for time period t , R_{mt} is the return of a market index for time period t , α_i is the asset specific intercept, β_i is the observed correlation of the individual return of security i , and ε_{it} is the so-called error term which is that portion of the stock return that cannot be explained by market-wide events.

We have used the Equal-Weighted Market Index provided by the Center for Research Securities Prices as our market index. To determine the individual security’s β , we used data on individual stock prices for a two-year period ending six months before the commencement of the class action period. We terminated our β calculations six months before the commencement of the class action period because our data sample consistently reflected abnormal stock price behavior in the three to six month period before the commencement of the class period. Using the market model, we estimated the unexplained return, ε_{it} .

We then derived the true value line by using our estimates of β and ε and going backward in time beginning with the company’s stock price the day after the close of the class action period (the security’s market price in response to disclosure of truthful information).⁹ After that we calculated the difference between the actual market price and the true value line at each point during the class period.

The next step toward measuring the provable losses for the class is to determine how to weigh these losses by estimating the trading that occurred during the class action period. Here there are two well-accepted approaches – the one-trader and the two-trader models.¹⁰ The one-trader model assumes that each share within the class period has an equal probability of being traded at a given time during the class period. Thus, on any given day during the class period, the shares that are sold are drawn randomly from all outstanding shares so that the resulting class is made up of shares that have not been traded since acquired in the class period and those that were acquired from others who purchased the securities within the class period. The two-trader model divides investors into two sets according to their probable trading propensities. One set is high-active traders and the other is low-active traders. We assume low-active traders hold about 63 percent of the shares and account for 17 percent of the trading, so that high-active traders hold 37

⁹ See generally De Silva, H., N.N. Lo, T.N. Nells, Securities Act Violations: Estimation of Damages, in *Litigation Services Handbook: Role of the Accountant as Expert Witness*, ch. 44 (1995); B. Cornell & R.G. Morgan, Using Finance Theory to Measure Damages in Fraud on the Market Cases, 37 U.C.L.A. L. Rev. 883 (1990).

¹⁰ See generally W. T. Carleton, M.S. Weisbach, E.J. Weiss, Securities Class Action Lawsuits: A Descriptive Study, 38 Ariz. L. Rev. 491 (1996).

percent of the shares and account for 83 percent of the trading.¹¹ These models, because they make different assumptions regarding to the magnitude of in-and-out trading yield quite different provable damage estimates. Because we believe that the two-trader model's assumptions are more consistent with observed market behavior, we use it in estimating provable losses.

II. Empirical Results

In our earlier work, we examined the overlap between securities fraud class actions filed solely by private plaintiffs and those class actions which accompany SEC enforcement actions.¹² We found that only about 15% of settled private actions in our sample of pre-2002 cases had accompanying SEC enforcement actions. In matters where both the SEC and private plaintiffs filed cases concerning the same alleged misconduct, the private plaintiffs recovered statistically significantly larger recoveries in cases that settled more rapidly than those class actions where the private plaintiffs proceeded alone. Several other important results emerged: (1) the SEC targeted statistically significantly smaller market capitalization companies than private plaintiffs who filed actions in matters which the government did not pursue; and (2) the SEC's choice of enforcement targets was best predicted by indicators of financial distress, while measures of provable losses, asset size and length of class period did not appear to influence the SEC's decision over which companies to pursue in enforcement cases.

A. Descriptive Statistics and Bi-Variate Analysis

In this paper, we have expanded our sample to include a larger number of class action settlements including many that occurred after 2001. More specifically, we now have a sample of 389 securities fraud class actions. Table 1 provides some descriptive statistics for the entire sample.

Table 1: Descriptive Statistics for Entire Sample

¹¹ We use data provided by Mayer M. Kramer, Best-Fit Estimation of Damage Volume in Shareholder Class Actions: the Multi-Sector, Multi-Trader Model of Investor Behavior, NERA Working Paper (Oct. 2000).

¹² James Cox and Randall S. Thomas (with the assistance of Dana Kiku), SEC Enforcement Heuristics: An Empirical Inquiry, 53 Duke L. J. 737 (2003).

| Settlement Amount of Private Actions (millions of dollars) | | | |
|--|---------|--------|------------------------|
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 11.5 | 5.3 | 316 |
| With a parallel SEC action | 23.6 | 8.0 | 73 |
| Total Sample | 13.8 | 5.7 | 389 |
| Market Capitalization of Defendant Companies (millions of dollars) | | | |
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 1,955.6 | 219.0 | 286 |
| With a parallel SEC action | 4,931.9 | 202.0 | 66 |
| Total Sample | 2,513.6 | 216.6 | 352 |
| Class Period (months) | | | |
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 11.7 | 9.0 | 316 |
| With a parallel SEC action | 17.7 | 15.7 | 73 |
| Total Sample | 12.8 | 10.5 | 389 |
| Time to Reach Settlement (months) | | | |
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 29.0 | 26.3 | 312 |
| With a parallel SEC action | 27.1 | 23.7 | 72 |
| Total Sample | 28.6 | 25.5 | 384 |
| Ratio of Settlement Amount to Provable Losses (%) | | | |
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 11.8% | 6.1% | 316 |
| With a parallel SEC action | 16.2% | 6.5% | 73 |
| Total Sample | 12.7% | 6.1% | 389 |

For the sample as a whole, what we see is that class actions without parallel SEC actions result in lower average (median) settlements, are brought against on average (but not median) smaller market capitalization companies, have shorter average (median) class periods, and take longer on average (median) to reach settlement.¹³ These results are similar to those in our earlier paper with the exception of the average market capitalization comparisons which show a large reversal (although the median values do not).

We also added to this table statistics on the ratio of absolute settlement amount to estimated provable losses. We see that the average ratio of settlement amount to provable losses is higher for private actions with parallel SEC actions, but that the median values are roughly the same. The differences in the median values are statistically insignificant.

¹³ The differences of the medians of the settlement amount and class period across the two sub-samples are statistically significant at the 1% level of significance. The other bi-variate comparative tests are statistically insignificant. Throughout the paper, we test the median differences for significance because of the presence of large outliers in the data.

However, these average values may conceal changes that have occurred in recent years after the collapse of Enron and ensuing corporate governance reforms. In particular, our data set permits us to determine if the SEC's approach to enforcement has changed during the post-Enron period. To examine this issue, we split our sample into pre-January 1, 2002 and post- January 1, 2002 (the divide being roughly one month after the Enron bankruptcy) and compare the two sub-samples. Tables 2 and 3 present these statistics.

Table 2: Descriptive Statistics for Settlements Prior to Jan. 1, 2002

| Settlement Amount of Private Actions (millions of dollars) | | | |
|--|---------|--------|------------------------|
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 10.1 | 5.0 | 248 |
| With a parallel SEC action | 11.5 | 6.6 | 52 |
| Total Sample | 10.3 | 5.5 | 300 |
| Market Capitalization of Defendant Companies (millions of dollars) | | | |
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 1,789.9 | 196.9 | 229 |
| With a parallel SEC action | 692.8 | 134.9 | 48 |
| Total Sample | 1,599.7 | 184.8 | 277 |
| Class Period (months) | | | |
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 11.2 | 9.0 | 248 |
| With a parallel SEC action | 15.4 | 12.9 | 52 |
| Total Sample | 12.0 | 9.6 | 300 |
| Time to Reach Settlement (months) | | | |
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 27.1 | 24.1 | 244 |
| With a parallel SEC action | 26.1 | 23.1 | 51 |
| Total Sample | 26.9 | 23.8 | 295 |
| Ratio of Settlement Amount to Provable Losses (%) | | | |
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 12.3% | 6.6% | 248 |
| With a parallel SEC action | 20.8% | 8.3% | 52 |
| Total Sample | 13.8% | 7.1% | 300 |

Our data for the pre-2002 period for our expanded sample show very similar patterns to those in our earlier paper. We see that private suits that are filed against companies without parallel SEC enforcement actions result in smaller settlements, target larger companies, have shorter class periods, and are slightly slower to settle. Moreover, if we look at the ratio of settlement to provable losses, we see that private suits without parallel SEC enforcement proceeding recover a lower percentage of losses.

When we test for the significance of these differences, we find that median market capitalization and median settlement-to-provable-losses ratios are statistically different across the two sub-samples at the 10% level of significance. The difference in median class periods is statistically significant at the 1% level.

Table 3 sets forth similar data on the settlements in our sample that occurred after January 1, 2002. We see a different pattern in the settlements during this time period.

Table 3: Descriptive Statistics for Settlements After Jan.1, 2002

| Settlement Amount of Private Actions (millions of dollars) | | | |
|--|----------|---------|------------------------|
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 16.6 | 5.6 | 68 |
| With a parallel SEC action | 53.7 | 16.0 | 21 |
| Total Sample | 25.4 | 7.1 | 89 |
| Market Capitalization of Defendant Companies (millions of dollars) | | | |
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 2,621.3 | 584.5 | 57 |
| With a parallel SEC action | 16,236.4 | 1,806.0 | 18 |
| Total Sample | 5,889.0 | 806.6 | 75 |
| Class Period (months) | | | |
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 13.5 | 9.0 | 68 |
| With a parallel SEC action | 23.3 | 20.6 | 21 |
| Total Sample | 15.8 | 12.7 | 89 |
| Time to Reach Settlement (months) | | | |
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 35.8 | 30.2 | 68 |
| With a parallel SEC action | 29.4 | 24.9 | 21 |
| Total Sample | 34.3 | 28.7 | 89 |
| Ratio of Settlement Amount to Provable Losses (%) | | | |
| | Mean | Median | Number of observations |
| Without a parallel SEC action | 10.2% | 4.3% | 68 |
| With a parallel SEC action | 4.8% | 2.4% | 21 |
| Total Sample | 8.9% | 4.0% | 89 |

The settlement amount data show a dramatic increase in the size of settlements in private actions where the SEC has also filed an enforcement case. During this time period, we see that the size of the average settlements shown in private suits with parallel SEC cases are more than triple those where there is a private class action alone, while the median values are almost triple. The

difference in the medians is statistically significant at the 1% level of significance. If we compare these values with those in the January 1, 2002 cases shown in Table 2, we see that the average settlement size increased for both categories but this increase was much larger for private cases with parallel SEC filings. The median values show little change for private suits alone over the two time periods, but a very large increase in median settlements for private suits with parallel SEC proceedings. Within the group of cases with a parallel SEC action, the difference in the medians of the settlement amount across the pre-January 1, 2002 and post-January 1, 2002 sub-samples is statistically significant at the 1% level.

Similarly striking changes occurred in the average market capitalization of defendant firms. If we compare the post-January 1, 2002 cases with those for the earlier time period, we see that average market capitalization more than tripled in the latter period. Median comparisons over time show an even more pronounced quadrupling in market capitalization, rising from 185 million to 807 million in the post-2001 period.

More importantly, the SEC appears to be targeting much larger companies during the post-January 1, 2002 period than it did in the earlier time frame. Average market capitalization for SEC enforcement targets was more than 23 times bigger in the post-January 1, 2002 time period than in the earlier period, while the median market capitalization went up by a multiple of over 13 times. These differences are significant at all conventional levels.

This large increase in the size of SEC targets carries over to comparisons with the size of defendant firms of private class actions alone. As we saw in Table 2, in the pre-January 1, 2002 time period private actions without parallel SEC proceedings targeted larger companies than those with parallel SEC proceedings. In the post-January 1, 2002 time frame, this pattern reverses: average market capitalization of firms subject to both private and SEC actions is more than 6 times greater than for firms that are the subject only to private actions. A similar but less pronounced pattern is observed in the median data. The median differences in firm size are statistically significant at the 10% level.

Both the length of class period and the time to reach settlement increase in the post-2001 cases, although the relative comparisons between cases with SEC parallel actions and those without remain the same. Average class period length, a proxy of the number of investors that may have been affected by fraud, increases from 12 months in the pre-January 1, 2002 period to 16 months in the post-January 1, 2002 period. The shift is even greater for companies with parallel SEC proceedings, as mean class period increases from 15 months in Table 2 to 23 months in Table 3. Similar patterns are visible in the time to settlement data, although the increase for private actions alone is larger than that for private actions with parallel SEC cases.

Finally, if we look at the ratio of settlement amount to provable losses, we see that the pattern in Table 2 of greater percentage recoveries in private actions with parallel SEC actions has reversed itself in the post-January 1, 2002 data shown in Table 3. After January 1, 2002, average recovery of potential damages for private cases with parallel SEC proceedings drops from 20.8% to 4.8%, while median losses decline from 8.3% to 2.4%. These changes are statistically significant at the 1% level. Given the large increase in the dollar settlements for the cases with parallel SEC actions, there must have been a very big jump in the amount of provable losses in

these cases, probably because the companies involved are much larger and the class periods somewhat longer.¹⁴ Private actions that do not have accompanying SEC actions show a smaller decrease in average and median levels.

B. Multivariate Analysis of Settlement Amounts

Our next step is to see if we can explain the size of dollar settlements using our data. In this section, we use multivariate regression analysis to see if we can determine what factors influence the size of settlements. As our dependent variable, we use a logarithmic transformation of the dollar amount of the settlement paid in each case. For independent variables, we look at the length of the class period in months, the log of provable losses, the log of total assets, a measure of financial distress, and a dummy variable for the presence of an SEC enforcement action.¹⁵

Our independent variables are defined as follows: First, we include a measure of provable losses for each private action. We calculate these values using the damage model that was discussed above. Provable losses are a measure of the losses that investors suffered as a result of the company's alleged fraud. Our hypothesis in this set of regressions is that larger provable losses should increase the size of the dollar settlement. We therefore anticipate that the sign of the coefficient on this variable should be positive.

Our second independent variable is a measure of financial distress for each firm. As a proxy for financial distress we use the change in the ratio of the company's book value to market value during the interval between the filing of the suit and the settlement of it. Our hypothesis is that companies that are in financial distress during the settlement negotiations will be less able to pay larger settlements. This leads us to expect a negative coefficient on this term.

As the third independent variable we added a measure of firm size, total asset value. This is defined as current assets plus net property, plant, and equipment plus other non-current assets including intangible assets, deferred charges, and investments and advances. Once again we do a logarithmic transformation of the variable. Our hypothesis is that larger companies have greater resources to use in settling actions, and we therefore expect that the sign of this term will be positive.

Fourth, we add the length of class period as an independent variable. This variable is measured in months. We include this term as a measure of the number of defrauded investors. We

¹⁴ This intuition is supported by the data in Table 3A below. It shows that the market capitalization of companies with relatively low settlement amount to provable loss ratios is much bigger than those with higher ratios.

Table 3A: Provable Loss Ratios by Market Capitalization

| Market Capitalization of Defendant Companies (millions of dollars) | | |
|--|--|---|
| | Ratio of Settlement Amount to Provable Losses <= 2% | Ratio of Settlement Amount to Provable Losses > 2% |
| Mean | 9,698.3 | 568.3 |
| Median | 1,176.6 | 155.9 |
| Number of observations | 75 | 277 |

¹⁵ We use a logarithmic transformation of the settlement amount, provable losses and total assets of the defendant companies to mitigate the effect of large outliers in the data.

believe that if there are more defrauded investors, then the company will be under more public pressure to increase the amount of the settlement.

Finally, to examine the effect of parallel SEC proceedings on private class action settlements, we augment our regression with a dummy variable that controls for the presence of an SEC enforcement action. This dummy variable equals 1 if a private class action is accompanied by parallel SEC proceedings, and 0 otherwise

Table 4 presents our regression results for the entire sample. The R-squared for the equation is 55.1%.

Table 4: Multivariate Regression Results for Entire Sample

| Dependent Variable: Log(Settlement Amount) | | | | |
|--|-------------|-------------------|-------------|-------|
| Variable | Coefficient | Robust Std. Error | t-Statistic | Prob. |
| Log(Provable Losses) | 0.32 | 0.04 | 7.23 | 0.00 |
| Measure of Financial Distress | -0.06 | 0.05 | -1.04 | 0.30 |
| Log(Total Assets) | 0.19 | 0.03 | 5.57 | 0.00 |
| Class Period | 0.02 | 0.01 | 2.81 | 0.01 |
| SEC | 0.29 | 0.12 | 2.41 | 0.02 |
| Intercept | 3.70 | 0.38 | 9.82 | 0.00 |
| Adjusted R-squared | 55.1% | | | |

Each of the independent variables has the expected sign and all of them except financial distress are highly significant. We interpret these results as consistent with our hypotheses that the absolute dollar amount of a settlement is increased by the size of estimated provable losses, the size of the target firm, the length of the class period and the presence of an SEC action.

We also estimated this equation with a dummy variable to control for pre- January 1, 2002 and post- January 1, 2002 to see if settlement sizes were statistically significantly larger in the latter time period. However, this variable was insignificant in all of the regressions (results not shown). Similarly, we tried various interaction terms to see if cases with parallel SEC actions had different characteristics than those without such cases, but all of these terms were statistically insignificant.

C. Multivariate Analysis of Determinants of SEC Enforcement Actions

The last empirical question we ask is what are the factors that lead the SEC to file an enforcement action? In our prior work, using a similar set of independent variables to those in section B above, we found that the only statistically significant determinant for SEC filing decisions was financial distress. Table 5 below revisits that question with our expanded sample that includes post-2001 settlements of SEC enforcement actions. Because the dependent variable is discontinuous, we use a probit analysis.

Our first four independent variables are provable losses, financial distress, market capitalization, and class period. These independent variables are defined as previously. We expect that larger provable losses will increase the likelihood of the SEC filing an enforcement proceeding as it tries to target bigger frauds. Our second hypothesis is that the SEC will also target financially distressed firms because it is very concerned about highly visible fraud at these companies that will have a high likelihood of hurting investors. For market capitalization, we are unsure what sign to expect because while the SEC could choose to go after larger companies that are more visible, it might also prefer to go after weaker targets. Finally, we expect a positive sign on the class period variable as a longer class period will mean a larger potential number of defrauded investors, which should make it more likely that the SEC will file an action.

To test for differences in SEC enforcement strategies between the pre-January 1, 2002 time period and post-January 1, 2002, we include time dummy variables for each independent variable as well as a separate dummy to pick up changes in the overall level of enforcement activity. Our bi-variate analysis leads us to suspect that the SEC changed its targeting techniques in the later time period.

Table 5: Determinants of SEC Enforcement Action Filing

| Dependent Variable: SEC | | | | |
|--|-------------|-------------------|-------------|-------|
| Variable | Coefficient | Robust Std. Error | t-Statistic | Prob. |
| Provable Losses | -0.04 | 0.08 | -0.53 | 0.60 |
| Provable Losses * Time Dummy | 1.83 | 0.55 | 3.35 | 0.00 |
| Measure of Financial Distress | 0.19 | 0.10 | 1.89 | 0.06 |
| Measure of Financial Distress * Time Dummy | -0.16 | 0.13 | -1.22 | 0.22 |
| Market Capitalization | -0.02 | 0.02 | -0.94 | 0.35 |
| Market Capitalization * Time Dummy | -0.10 | 0.04 | -2.57 | 0.01 |
| Class Period | 0.02 | 0.01 | 1.31 | 0.19 |
| Class Period * Time Dummy | 0.00 | 0.02 | -0.18 | 0.86 |
| Time Dummy | 0.06 | 0.43 | 0.14 | 0.89 |
| Intercept | -1.04 | 0.22 | -4.66 | 0.00 |
| McFadden R-squared | 10.8% | | | |

For the pre-January 1, 2002 time period, we find that financial distress is the only statistically significant predictor of SEC enforcement actions. This is consistent with the resulting in our earlier work. We interpret this to mean that prior to January 1, 2002, the SEC was most concerned with fraud at companies experiencing financial distress, probably because of the greater likelihood that investors at those companies would suffer permanent and irreversible losses. It could also reflect a potential preference by the SEC to choose weak opponents.

A very different pattern shows up in the post-January 1, 2002 dummy variables. We see that the time dummy variables for provable losses and market capitalization are statistically

significant, although the sign of the market capitalization variable is negative. We interpret these findings to indicate that the SEC prefers targets where shareholders have suffered greater provable losses with a bias toward selecting smaller firms.

Conclusions

Our data is consistent with the view that there was a shift in SEC enforcement actions after the end of 2001. We find that the SEC seems to have shifted its enforcement focus away from targeting frauds at firms in financial distress to seeking out frauds at companies where investors may have suffered larger losses, especially if they are smaller firms. This shift could be due to numerous factors. First, the national elections in 2000 ushered in not only a new set of commissioners but also a new Director of Enforcement at the SEC. These changes may well have influenced the case selection that led to settlements studied in our post-2001 cohort of settlements. Second, public concern about fraudulent practices at the largest corporations could well have provided impetus for the SEC's enforcement staff to involve itself with more "high profile" cases than it otherwise would have engaged.

We also add a note of caution about our interpretation of our findings about the SEC enforcement targeting. These results are based on dates of settlements and not on the date the SEC began its enforcement investigation of a company. We have focused on the dates of settlements because there frequently is little information when the SEC has commenced its investigation since its initial investigations lack the formality of public authorization by the commissioners. Thus, there is no accurate way available to us to determine when the SEC first began its investigation that ultimately led to the sanction being imposed on the respondent in that action. We nevertheless are comfortable that most of the cases settled after 2001 would have been at least initiated in the post-Enron atmosphere and in any case that the sanctions imposed in 2002 and later were indeed in the shadow of Enron.

With respect to settlement sizes in private class actions, we find that provable losses, total assets, class period and the presence of an SEC enforcement action, are all positively and significantly related to the dollar amount of the settlement obtained in a private action. These effects do not change over the time period of our sample. The fact that provable losses are such an important determinant of the size of actual recoveries supports the view that the "merits do matter."¹⁶

¹⁶ Compare Janet Cooper Alexander, *Do The Merits Matter? A Study of Settlements in Securities Class Actions*, 43 *Stan. L. Rev.* 497, 500 (1991)(claiming that all securities fraud cases in sample settled for approximately "one quarter of the potential damages...[so that] a strong case in this group appears to have been worth no more than a weak one.")