#### The Costs of Corporate Litigation in Australia: A Research Note

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## 1. Introduction

A significant debate has been taking place in Australia in relation to the costs of litigation. As part of this debate, the Australian Law Reform Commission conducted a major inquiry into litigation cost rules. The Commission's report stated that recommendations in this area must be informed by empirical evidence.<sup>1</sup> To the best of our knowledge, this is the first study in Australia that seeks to provide direct evidence on the costs of litigation involving listed companies using the event study methodology. The main objectives of this study are to measure the costs associated with corporate litigation for plaintiff and defendant companies around the: (a) litigation initiation date, (b) settlement date, and (c) judgment date. This analysis is conducted over the days surrounding the event date. The study also examines whether the previous findings on litigation events in the US apply to another country with a different legal structure.

The paper is organised as follows. Section 2 summarises the previous research relevant to this study. Section 3 outlines the research questions addressed in this study while Section 4 provides an overview of the data and methodology used. The results relating to the behaviour of abnormal returns around the litigation initiation, settlement and judgment announcement dates are presented in Section 5 while Section 6 concludes the paper.

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## 2. **Previous Literature**

Previous studies on the impact of litigation on company value have mainly been conducted in the US. The focus of earlier research was on the well-known Pennzoil v. Texaco case,<sup>2</sup> or on a small sample of cases.<sup>3</sup> These studies generally find an overall wealth loss to the litigating parties. Engelmann and Cornell<sup>4</sup> conclude that "corporate litigation can impose huge costs on major defendant corporations and that these costs greatly exceed the expected benefits to the plaintiff company."

The first comprehensive study using a large sample of litigation events is by Bhagat, Brickley and Coles<sup>5</sup> where the authors examine a sample of 550 litigation events in the US during 1981-83. They focus on litigation between pairs of listed companies and find that the defendant companies experience significant average abnormal returns of around -1%, while plaintiff companies do not experience any significant price changes. For the pair of companies involved the average combined drop in market value upon the litigation announcement is US\$21 million. However, much of this loss is regained if the lawsuit is settled. They also find that the negative abnormal returns experienced by defendant companies are related to a measure of the defendant's degree of financial distress. They conclude that the filing of a lawsuit imposes more severe costs on financially distressed companies than on other companies.

In a subsequent study, Bhagat, Bizjak and Coles<sup>6</sup> use a more comprehensive sample of litigation events where at least one of the parties involved, either as defendant or plaintiff, is a listed company.

<sup>&</sup>lt;sup>1</sup> Australian Law Reform Commission, *Who Should Pay? A Review of the Litigation Cost Rules*, 1994.

<sup>&</sup>lt;sup>2</sup> Cutler, D and L Summers, 'The Costs of Conflict Resolution and Financial Distress: Evidence From the Texaco-Pennzoil Litigation' (1988) 19 *Rand Journal of Economics* 157-172; Mnookin, R H and R B Wilson, 'Rational Bargaining and Market Efficiency: Understanding Pennzoil v Texaco' (1989) 75 *Virginia Law Review* 295-334; Fields, M, 'The Wealth Effects of Corporate Lawsuits: Pennzoil v Texaco' (1990) 21 *Journal of Business Research* 143-158.

<sup>&</sup>lt;sup>3</sup> Engelmann, K and B Cornell, 'Measuring the Cost of Corporate Litigation: Five Case Studies' (1988) 17 *Journal of Legal Studies* 377-399; Huth, W and D MacDonald, 'The Impact of Antitrust Litigation on Shareholder Returns' (1989) 37 *Journal of Industrial Economics* 411-426.

<sup>&</sup>lt;sup>4</sup> Engelmann and Cornell, n 3.

<sup>&</sup>lt;sup>5</sup> Bhagat, S, J Brickley and J L Coles, 'The Costs of Inefficient Bargaining and Financial Distress: Evidence from Corporate Lawsuits' (1994) 35 *Journal of Financial Economics* 221-247.

<sup>&</sup>lt;sup>6</sup> Bhagat, S, J Bizjak and J L Coles, 'The Shareholder Wealth Implications of Corporate Lawsuits' (1998) 27

Their sample consists of (a) 618 defendant and 261 plaintiff filings, and (b) 28 defendant and 12 plaintiff settlements, during 1981-83. They find that regardless of whether the litigation is initiated by another company, the government, or a private party, defendant companies experience a significant abnormal return of almost -1% at the announcement of the litigation.<sup>7</sup> Consistent with previous studies, they do not find a significant price response by plaintiff companies at the litigation announcement. They also find no significant price reaction for either defendants or plaintiffs at announcement of settlements. Among the different categories of lawsuits they find that defendants sued by the government and those involved in environmental lawsuits, product liability lawsuits, and violation of securities laws experience the most significant price declines.

## 3. Research Questions

The general rule for the allocation of legal costs in Australia is that the losing party pays the legal costs of both parties. Arguments offered in support of this rule are that it discourages frivolous or other unmeritorious claims and that it encourages settlement of disputes by adding to the amount at stake in the litigation.<sup>8</sup> In the US, the general rule for the allocation of legal costs is that each party bears its own legal costs. The effects of the Australian rule on litigation costs in relation to the incentive of plaintiffs to commence litigation cannot be predicted with certainty. On one hand, because plaintiffs in Australia bear larger costs if they lose, they should only bring cases which they feel they have a high probability of winning. On the other hand, because a plaintiff who wins in Australia will have the defendant pay their costs, this can provide an additional incentive to commence litigation. Given these competing considerations, it is not immediately evident whether we would expect plaintiffs in Australia to win a higher percentage of cases than in the US. If the Australian rule for allocating legal costs does have the effect that, compared to the US, plaintiffs bring litigation which has a higher prospect of success, this may have the effect of increasing the

Financial Management 5-27.

<sup>&</sup>lt;sup>7</sup> Bhagat, Bizjak and Coles define the announcement period as days -1 to 0 relative to the announcement day.

<sup>&</sup>lt;sup>8</sup> Australian Law Reform Commission, n 1.

impact of the announcement of a lawsuit on the defendant's market value, after controlling for the dollar amount of damages claimed, as compared to the US.

Based on the above discussion, the specific research questions addressed in this study can be summarised as follows.

- a) How does the market react to litigation initiations, settlements and judgments on the announcement dates for each of these events?
- b) How is the impact of an announcement of litigation initiation related to the type of plaintiff (government, corporate, individual, or foreign)? The impact of a given damages claim on the value of the defendant company will depend on several factors including the risk of follow-up litigation and the disruptive effects of litigation on the defendant's business. The impact of a lawsuit on the value of the defendant company may also be related to the perceived ability of the plaintiff to fund protracted litigation. Therefore, we would expect lawsuits by the government to have the greatest impact on company value, as observed by Bhagat, Bizjak and Coles.<sup>9</sup>
- c) Studies in the US have found that a judgment in favour of a plaintiff company causes the value of the defendant company to decrease by an amount greater than the increase in the value of the successful plaintiff (see, for example, Bhagat, Brickley and Coles and Engelmann and Cornell).<sup>10</sup> The results of these studies indicate that litigation imposes costs on defendant companies that greatly exceed the benefits to the plaintiff companies. The difference is attributable to increases in the expected costs the defendant must bear in addition to any payment to the plaintiff. The question remains as to the sources of these costs. We examine whether the type of legal issue being argued in the litigation has any bearing on

<sup>&</sup>lt;sup>9</sup> Bhagat, Bizjak and Coles, n 6.

<sup>&</sup>lt;sup>10</sup> Bhagat, Brickley and Coles, n 5 and Engelmann and Cornell, n 3.

these costs and the market's reaction on the announcement date. For example, do the costs differ according to whether the litigation involves a breach of contract, a trade practices matter, an intellectual property infringement or a contested takeover?

#### 4. Data and Method

This study covers all litigation events involving, as defendant or plaintiff, at least one company listed on the Australian Securities Exchange (ASX), and for which the relevant event dates could be identified during 1993-98. The period is long enough to allow the tracking of specific cases from their origin to disposition. Unlike previous research, we examine a wider class of litigation events and include not only the announcements of litigation, but settlements and judgments as well. Data on public announcements of litigations, settlements and judgments are obtained from the *Australian Financial Review* CD-ROM database.<sup>11</sup> Data on stock returns and market index returns are obtained from the *SIRCA* database. Additional company-specific data are obtained from the *AGSM* database.

We use the event study methodology to examine the effect of specific litigation events on stock prices. This method provides a measure of the average impact of each type of litigation event on the wealth of the defendant listed company, and allows us to measure the effect of initiating a lawsuit on the value of the plaintiff, in cases where the plaintiff is a listed company.

The event study methodology involves estimating the following market model:<sup>12</sup>

$$R_{jt} = \alpha_j + \beta_j R_{mt} + \varepsilon_{jt}, \qquad (1)$$

<sup>&</sup>lt;sup>11</sup> Compiling the dataset on litigation, settlement and judgment announcements involved a detailed search of several keywords followed by a complete reading of each potential announcement. The final sample included all announcements where at least one of the litigating parties was a currently or formerly listed company. Companies were included in the sample only if return data was available for them over the estimation and event periods.

<sup>&</sup>lt;sup>12</sup> MacKinlay, C, 'Event Studies in Economics and Finance' (1997) 35 Journal of Economic Literature 13-39.

where  $R_{jt}$  is the observed daily return for stock of company *j* at time *t*,  $R_{mt}$  is the observed daily returns for the market index at time *t*,  $\alpha_j$  is the estimate of the intercept for company *j*,  $\beta_j$  is the estimate of the beta of company *j*, and  $\varepsilon_{jt}$  is the residual error term. Our proxy for the market index is the All Ordinaries Index.

The parameters  $\alpha_j$  and  $\beta_j$  are estimated using the returns over days -300 to -21 relative to the announcement day (defined as day 0) and the Scholes and Williams<sup>13</sup> adjustment for nonsynchronous trading. The estimated parameters  $\hat{\alpha}_i$  and  $\hat{\beta}_i$  are then used to obtain the abnormal returns over the examination period of days -21 to +20 as:

$$AR_{jt} = R_{jt} - \hat{\alpha}_{j} - \hat{\beta}_{j}R_{mt}, \qquad t = -20, \dots + 20,$$
(2)

where  $AR_{it}$  is the abnormal return for the  $j^{th}$  stock. Next, we compute the average abnormal return across the companies in our sample as well as their cumulative average abnormal returns as follows:

$$AAR_{t} = \frac{\sum_{j=1}^{N} AR_{jt}}{N_{t}}, \text{ and}$$
(3)

$$CAR_{t} = \sum_{t=-20}^{t} AAR_{t} .$$
(4)

The cumulative average abnormal returns measure the overall impact of a particular event over a predefined number of days for our sample. Specifically, we define the announcement period as days -1 to +1 and we test the hypothesis that the cumulative average abnormal return over this window equals

<sup>&</sup>lt;sup>13</sup> Scholes, M and J Williams, 'Estimating Betas from Non-Synchronous Data' (1977) 5 Journal of Financial Economics 309-327.

zero.<sup>14</sup> In addition to the immediate days surrounding the announcement date we also examine the cumulative average abnormal returns over days -20 to +20 relative to the announcement day. This longer event window comprises around one month (in trading days) before and after the event day. It provides a measure of the average abnormal returns that investors would earn for the sample of companies experiencing the litigation event. The test statistics for the statistical significance of the cumulative average abnormal returns are estimated using the methodology described in Patell.<sup>15</sup> Also, to verify whether outliers may be affecting our results we use the generalised sign test, which examines whether the proportion of positive abnormal returns is statistically different from the abnormal returns during the estimation period.

## 5. Empirical Results

Panel A of Table 1 provides information on the sample of litigation announcements by type of opponent during 1993-98. Although not shown in the table, we find that the number of litigation announcements generally increases from 1993 to 1998. For litigation initiations, we find that 45.6% of defendants and 60.0% of the plaintiffs are ASX-listed companies, while unlisted companies and individuals make up the next largest group of defendants and plaintiffs at 28.9% and 16.7%, respectively. Listed companies also dominate the sample of settlement announcements at 38.7% and 60.0% for defendants and plaintiffs, respectively. In the sample of judgment announcements, however, unlisted companies and individuals are the dominant sub-group for defendants at 46.2%.

Panel B of Table 1 provides similar information by type of legal issue. For litigation initiations, the top three types of litigation in which defendants are involved relate to antitrust (16.7%), breach of

<sup>&</sup>lt;sup>14</sup> We use the interval of days -1 to +1 to take into account a possible lead or lag in the actual announcement made to the market relative to the recorded announcement day (that is, day 0). To check the robustness of our results to different methodologies, we also compute the abnormal returns using the market return adjusted model. In this model, the abnormal return for company *j* on day *t* is computed simply as the difference between the company's return and the return on the market portfolio on that day, that is,  $AR_{jt} = R_{it} - R_{mt}$ . The results obtained are qualitatively similar to those reported here.

<sup>&</sup>lt;sup>15</sup> Patell, J, 'Corporate Forecasts of Earnings Per Share and Stock Price Behavior: Empirical Tests' (1976) 14 *Journal of Accounting Research* 246–276.

contract (16.7%), and deceptive conduct (14.4%). For plaintiffs, the top three types of litigation relate to securities fraud (23.3%), breach of contract (21.7%) and deceptive conduct (18.3%). Settlement announcements are dominated by litigation involving deceptive conduct, breach of contract and damages, while litigation involving product liability and deceptive conduct tend to dominate announcements of judgments.

Table 2 shows the cumulative average abnormal returns for defendants and plaintiffs when the litigation is first initiated and announced to the market. Over days -1 to +1, we find that defendant companies experience abnormal returns of -0.66% which are not significantly different from zero (Panel A). For plaintiff companies we find abnormal returns of -1.07% which are significantly different from zero at the 10% level (Panel B). The sign test indicates that 40 of the 60 plaintiff companies experience negative abnormal returns and this statistic is significant at the 5% level. Over the longer period of days -20 to +20 relative to the announcement day we find that both defendants and plaintiffs experience statistically significant negative cumulative average abnormal returns of -4.9% and -5.3%, respectively. The sign tests are significant in both cases indicating that these results are not driven by outliers. These results differ from findings in the US. For example, Bhagat, Bizjak and Coles<sup>16</sup> find significantly negative abnormal returns for defendant companies and negative but statistically insignificant abnormal returns for plaintiff companies.<sup>17</sup> The negative abnormal returns for defendants are in line with the US studies and are to be expected given the uncertainty related to litigation and the always present potential that the defendant will lose the lawsuit. The negative abnormal returns experienced by plaintiffs are of note given the US studies which find that plaintiffs do not experience any significant price change. To what extent might the result for plaintiffs relate to the Australian rule on litigation costs which, as we have seen, is that the losing party pays the legal costs of both parties? As we saw in Section 3, one possible result of the rule is that, on average, Australian plaintiffs need to be more confident of victory than plaintiffs in countries with a rule that each party bears its own legal costs regardless of the outcome. This is because in Australia the

<sup>&</sup>lt;sup>16</sup> Bhagat, Bizjak and Coles, n 6.

plaintiff has to consider the prospect of paying the costs of both parties should the plaintiff lose. We therefore might expect this to mean that, other things being equal, the higher prospects of victory are reflected in positive abnormal returns for plaintiffs. However, we find that plaintiffs experience negative abnormal returns so this possible effect of the litigation rule is not supported by the evidence.

Table 2 also shows the announcement period abnormal returns for defendants and plaintiffs with the full sample partitioned by the type of opponent. The types of opponents we consider are: another ASX-listed company, a government entity, an unlisted company or individual and a foreign entity. Over days -1 to +1 we find that defendant companies experience negative cumulative average abnormal returns for all categories of litigants, except for unlisted companies or individuals (Panel A). Over the longer period of days -20 to +20 defendant companies experience negative cumulative average abnormal returns for all categories of litigants, with only the abnormal returns for unlisted companies or individuals not being statistically significant. For example, when a government entity initiates litigation defendant companies experience cumulative average abnormal returns of -9.1%. Similarly, when another listed company or a foreign entity initiate litigation action defendant companies experience cumulative average abnormal returns of -3.6% and -2.9%, respectively.<sup>18</sup> These results are similar to those reported by Bhagat, Bizjak and Coles<sup>19</sup> who also find a significant negative market reaction for the three categories opponents that they consider which are: another listed company, a government entity and a private entity.<sup>20</sup>

For plaintiff companies the abnormal returns over days -1 to +1 are also negative for each category of defendant other than for a foreign entity (Panel B). However, these abnormal returns are statistically significant only where the other party is another listed company. Over the longer period of days -20 to

<sup>&</sup>lt;sup>17</sup> In this context we note that Bhagat, Bizjak and Coles do not examine the longer event interval of days -20 to +20.

<sup>&</sup>lt;sup>18</sup> The sign tests are significant for cases where another listed company or a government entity initiates the litigation indicating that these results are not driven by outliers.

<sup>&</sup>lt;sup>19</sup> Bhagat, Bizjak and Coles, n 6.

<sup>&</sup>lt;sup>20</sup> Bhagat, Bizjak and Coles, n 6 do not consider a separate foreign entity category.

+20 in the case where the other party is an unlisted company or individual we find plaintiff companies experiencing a cumulative average abnormal return of -19.6%. However, in the context of a relatively small sample of 10 such events, it is difficult to draw definitive conclusions.

Table 3 shows the announcement period abnormal returns for defendants and plaintiffs when the litigation is first initiated with the full sample partitioned by the type of legal issue. For defendant companies, over days -1 to +1, we find negative abnormal returns associated with antitrust, corporate governance, deceptive conduct, environment, liquidation, product liability and government action related actions (Panel A). Of these, only product liability related actions are significantly different from zero. Over the longer period of days -20 to +20 we find significant negative cumulative average abnormal returns of -5.3% and -4.8% for corporate governance and deceptive conduct related actions, respectively. Also, although companies involved with securities fraud litigation experience large negative cumulative average abnormal returns of -3.9% over days -20 to +20 these returns are not statistically significant from zero.

For plaintiff companies, in several categories companies experience negative abnormal returns but only cases involving securities fraud are statistically significant (Panel B of Table 3). Over days -1 to +1 plaintiff companies experience significant negative cumulative average abnormal returns of -1.6% while over the longer interval of days -20 to +20 they experience negative abnormal returns of almost -8%. The abnormal returns for environment and liquidation related actions are significantly positive and negative, respectively. However, there is only one such event in each case so we are unable to draw any conclusions from these results.

In addition to the above analysis, we also examine the abnormal returns earned by companies around announcements of settlements and judgments for defendants and plaintiffs for the full samples as well as for sub-samples based on the type of opponents. Given the limited sample sizes for these events we

only summarise our main findings here.<sup>21</sup> Around settlement announcements, the cumulative average abnormal returns over days -1 to +1 for defendants are +0.7% but statistically insignificant. For plaintiffs the abnormal returns over this period are +1.9% and statistically significant at the 1% level. These results are driven by the sub-sample of the other party being another ASX-listed company as the abnormal returns for all other opponent types are statistically insignificant. These results differ from the results in the US. For example, Bhagat, Bizjak and Coles<sup>22</sup> find a statistically insignificant market reaction for both defendants and plaintiffs. We also separate our samples by the type of settlement outcome, that is, where the defendant or plaintiff wins the case, loses the case, or where the outcome is classified as being ambiguous. As expected, we find significant positive abnormal returns where the defendant wins (average CAR of 2.2%, N = 5) or plaintiff wins (average CAR of 5.9%, N = 10). Interestingly, while losing defendants and plaintiffs experience negative abnormal returns these are statistically insignificant.

Around announcements of judgments, the cumulative average abnormal returns over days -1 to +1 for defendants are -0.5% and for plaintiffs are +2.3%. However, neither of these abnormal returns is statistically significantly different from zero. Where the other party is another listed company, defendants experience a statistically significant cumulative average abnormal return of -2.7%. However, this result is based on a sample of only four announcements. We also separate the judgment samples by the type of outcome, that is, where the defendant or plaintiff wins or loses the case. The only significant result we find is for winning defendants who earn a negative abnormal return of -2.3%. However, this result is based on a relatively small sample of eight companies making it difficult to draw a definitive conclusion.

<sup>&</sup>lt;sup>21</sup> The detailed results are available from the authors upon request. We do not examine the type of legal issue here as most of these sub-samples are quite small.

### 6. Conclusions

This study seeks to provide direct evidence on the costs of litigation involving listed companies in Australia. We examine the market's reaction to corporate litigation announcements for defendant and plaintiff companies around the litigation initiation date, the settlement date and the judgment date. For announcements of litigation initiations we find that both defendants and plaintiffs experience statistically significant negative abnormal returns around the announcement date. While the negative abnormal returns experienced by defendants is to be expected, the negative abnormal returns earned by plaintiffs are if particular note given the US studies which find that plaintiffs do not experience any significant price change. We also find that defendant companies experience negative cumulative average abnormal returns when the other party is a listed company, a government entity or a foreign entity. In contrast, for plaintiff companies we find that the abnormal returns are statistically significantly negative only where the other party is a another listed company. Around settlement announcements, only plaintiffs companies experience statistically significantly positive abnormal returns when the other party is another listed company. Also, as expected, both defendant and plaintiff companies earn significant positive abnormal returns when they win the lawsuit. Interestingly, losing defendants and plaintiffs do not experience statistically significant negative abnormal returns around the settlement announcement date. Finally, around judgment announcements we do not, generally, observe any significant market reaction, but this finding is likely a function of the relatively small sample sizes.

<sup>&</sup>lt;sup>22</sup> Bhagat, Bizjak and Coles, n 6.

# Table 1: Sample Information for Litigation Initiations, Settlements and Judgments by Type of Opponent and Legal Issue

	Litigation	Initiations	Settler	ments	Judgn	Judgments	
Type of Opponent	Defendants	Plaintiffs	Defendants	Plaintiffs	Defendants	Plaintiffs	
Another Listed Company	41	36	12	15	4	4	
Government	18	7	5	4	8	0	
Unlisted Companies and Individuals	26	10	7	4	12	3	
Foreign	5	7	7	2	2	1	
Total	90	60	31	25	26	8	

Panel A: Litigation Initiations, Settlements and Judgments by Type of Opponent

Panel B: Litigation Initiations, Settlements and Judgments by Type of Legal Issue

	Litigation 1	Initiations	Settler	nents	Judgr	nents
Type of Legal Issue	Defendants	Plaintiffs	Defendants	Plaintiffs	Defendants	Plaintiffs
Antitrust	15	1	1	0	4	1
Breach of Contract	15	13	7	6	3	1
Damages	10	8	8	5	3	2
Corporate Governance	8	2	0	0	2	0
Environment	1	1	1	0	0	0
Deceptive Conduct	13	11	6	9	3	3
Liquidation	1	1	0	0	0	0
Patent Infringement	4	0	0	0	0	0
Product Liability	7	1	4	0	7	0
Securities Fraud	8	14	1	1	3	1
Government Action	4	3	1	1	0	0
Industrial Action	0	3	0	1	0	0
Other	4	2	2	2	1	0
Total	90	60	31	25	26	8

## Table 2: Summary of Cumulative Average Abnormal Returns for Defendants and Plaintiffs for Litigation Initiations by Type of Opponent

		Event				Generalised Sign	
Type of Opponent	Ν	Period	Average CARs	t-Statistic	Positive:Negative	Test z-Statistic	
Another Listed Company	41	(-1, +1)	-0.66%	-0.96	18:23	-0.76	
		(-20, +20)	-3.63	-2.17**	14:27	-2.01**	
Government	18	(-1, +1)	-2.27	-0.80	10:8	0.70	
		(-20, +20)	-9.07	$-1.70^{*}$	7:11	-2.14**	
Unlisted Companies and Individuals	26	(-1, +1)	0.62	0.01	16:10	1.25	
-		(-20, +20)	-4.70	-0.77	12:14	-0.32	
Foreign	5	(-1, +1)	-1.59	-1.83*	1:4	-1.34	
-		(-20, +20)	-2.94	-1.92*	1:5	-1.64	
Full Sample	90	(-1, +1)	-0.66	-1.41	45:45	0.15	
-		(-20, +20)	-4.87	-2.75***	32:58	-2.59***	

Panel A: Abnormal Returns Earned by Defendants for Litigation Initiations by Opponent Type

Panel B: Abnormal Returns Earned by Plaintiffs for Litigation Initiations by Opponent Type

		Event				Generalised Sign
Type of Opponent	Ν	Period	Average CARs	t-Statistic	Positive:Negative	Test z-Statistic
Another Listed Company	36	(-1, +1)	-0.88%	-1.76*	11:25	-2.27**
		(-20, +20)	-3.71	-1.43	12:24	-1.93*
Government	7	(-1, +1)	-1.06	-0.53	2:5	-1.34
		(-20, +20)	-0.04	-0.77	2:5	-1.34
Unlisted Companies and Individuals	10	(-1, +1)	-2.74	-0.80	4:6	-0.57
-		(-20, +20)	-19.56	-2.31**	4:6	-0.57
Foreign	7	(-1, +1)	0.35	0.52	3:4	-0.29
		(-20, +20)	1.42	0.53	4:3	0.47
Full Sample	60	(-1, +1)	-1.07	$-1.70^{*}$	20:40	-2.54**
_		(-20, +20)	-5.33	-2.13**	23:37	-1.77*

\*, \*\* and \*\*\* indicate statistical significance at the 0.10, 0.05 and 0.01 levels, respectively.

# Table 3: Summary of Cumulative Average Abnormal Returns for Defendants and Plaintiffs Around Litigation Initiations by Type of Legal Issue

Legal Issue	N	Event Period	Average CARs	t-Statistic	Positive:Negative	Generalised Sign Test z-Statistic
Antitrust	15	(-1, +1)	-2.42%	-0.51	11:4	2.05**
		(-20, +20)	-10.02	-1.24	4:11	-1.58
Breach of Contract	15	(-1, +1)	0.61	0.13	5:10	-1.28
		(-20, +20)	-7.08	-1.61	5:10	-1.28
Corporate Governance	8	(-1, +1)	-0.50	-0.83	4:4	0.03
•		(-20, +20)	-5.34	-2.15**	2:6	-1.38
Damages	10	(-1, +1)	0.21	0.52	4:6	-0.50
-		(-20, +20)	-8.37	-0.87	5:5	0.13
Deceptive Conduct	13	(-1, +1)	-0.39	-0.67	8:5	0.84
-		(-20, +20)	-4.81	-2.05**	4:9	-1.37
Environment	1	(-1, +1)	-0.03	-0.03	0:1	-1.00
		(-20, +20)	12.40	3.19***	1:0	1.00
Government Action	4	(-1, +1)	-2.46	-0.90	1:3	-1.18
		(-20, +20)	-2.34	-1.21	2:2	-0.18
Industrial Action	0	(-1, +1)				
		(-20, +20)				
Liquidation	1	(-1, +1)	-3.39	-1.49	0:1	-0.99
		(-20, +20)	10.91	1.30	1:0	1.01
Patent Infringement	4	(-1, +1)	0.07	0.28	2:2	0.02
		(-20, +20)	5.28	1.33	3:1	1.02
Product Liability	7	(-1, +1)	-1.19	-2.09**	4:3	0.35
		(-20, +20)	-2.13	-1.08	2:5	-1.26
Securities Fraud	8	(-1, +1)	0.07	0.09	5:3	0.76
		(-20, +20)	-3.90	-1.27	2:6	-1.36
Other	4	(-1, +1)	-1.23	-0.68	1:3	-0.93
		(-20, +20)	4.50	1.45	1:3	-0.93

Panel A: Abnormal Returns Earned by Defendants for Litigation Initiations by Legal Issue

Table 3 (Continued)

Panel B: Abnormal Returns Earned by Plaintiffs for Litigation Initiations by Legal Issu	Panel B: Abnormal F	Returns Earned by	y Plaintiffs for	Litigation Ir	nitiations by Legal Issue
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		Event				Generalised Sign
Legal Issue	Ν	Period	Average CARs	t-Statistic	Positive:Negative	Test z-Statistic
Antitrust	1	(-1, +1)	2.57%	1.19	1:0	1.04
		(-20, +20)	3.06	0.38	1:0	1.04
Breach of Contract	9	(-1, +1)	-1.77	-1.18	1:8	-2.22**
		(-20, +20)	2.36	0.06	4:5	-0.22
Corporate Governance	6	(-1, +1)	1.00	0.52	4:2	0.82
		(-20, +20)	2.46	0.26	4:2	0.82
Damages	8	(-1, +1)	-0.61	-0.81	2:6	-1.42
		(-20, +20)	-6.15	-0.87	3:5	-0.72
Deceptive Conduct	11	(-1, +1)	0.61	0.23	5:6	-0.30
		(-20, +20)	-9.00	-1.51	3:8	-1.51
Environment	1	(-1, +1)	9.91	$2.37^{**}$	1:0	0.97
		(-20, +20)	29.93	1.93*	1:0	0.97
Government Action	3	(-1, +1)	-3.71	-1.17	0:3	-1.99**
		(-20, +20)	8.18	0.54	2:1	0.34
Industrial Action	3	(-1, +1)	-1.18	-0.81	1:2	-0.52
		(-20, +20)	-5.30	-1.08	1:2	-0.52
Liquidation	1	(-1, +1)	-29.02	-2.73**	0:1	-0.95
		(-20, +20)	-138.14	-3.39***	0:1	-0.95
Patent Infringement	0	(-1, +1)				
		(-20, +20)				
Product Liability	1	(-1, +1)	-0.27	-0.12	0:1	-0.99
		(-20, +20)	3.32	0.38	1:0	1.01
Securities Fraud	14	(-1, +1)	-1.63	-1.65*	4:10	-1.57
		(-20, +20)	-7.90	-2.15**	2:12	-2.64***
Other	2	(-1, +1)	-0.76	-0.32	1:1	0.08
		(-20, +20)	-1.79	-0.14	1:1	0.76

 $^{*}$ ,  $^{**}$  and  $^{***}$  indicate statistical significance at the 0.10, 0.05 and 0.01 levels, respectively.