Is the One-Time Accounting Charge Really Trivial?—Evidence from the Insurance Industry

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Abstract: Motivated by the increasing use of one-time charges in the US insurance industry, this paper examines the information content of explicit announcements of such charges in the US insurance industry over the period 1990 to 2001. We find that, as expected, market reaction tends to vary according to the nature of one-time charges. Specifically, we observe a positive market response to one-time charges due to business restructure and lawsuit settlement, but a negative reaction to charges arising from accounting policy change, increasing loss reserve, and acquisition of other firms. These results are largely consistent with evidence obtained from the general corporate sectors. Additional regression analysis confirms a significant correlation between the magnitude of abnormal returns and the (relative) amount of one-time charges. At a time when more companies are being charged for misleading financial statements, our results provide important insights to industry regulators, company managers, and investors. [Key words: One-time charge, regulation, market sensitivity]

INTRODUCTION

Publicly listed firms in the United States (the US) are reported to be making increasing use of one-time charges. For some firms the practice has become a quarterly ritual, and some such charges are large enough to turn the positive pre-charge earnings into red (e.g., see Elliott and Hanna, 1996). "One-time charges" are non-recurring charges against a firm's earnings and so are normally disclosed separately from income of normal

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Journal of Insurance Issues, 2004, **27**, 2, pp. 160–180.

operations (e.g., see Eskew and Wright, 1976). Firms that use one-time charges may hope that investors will generally ignore them in forecasting growth potential. Indeed, investors and financial analysts have traditionally emphasized the use of recurring components of earnings (often referred to as "earnings before extraordinary items") that convey information about the future cash flows of a firm in their valuation. Elliott and Hanna (1996) and Clayman (1995) recognize that such practices by investors and financial analysts may create managerial incentives to strategically manage reported earnings—for example, by transferring normal components of operating expenses into one-time charges (or even "take a big bath" sometimes[1]) and thereby inflating both the current and future earnings before extraordinary items.[2] Consequently, the presence of one-time charges may obscure the information contained in reported earnings and complicate investors' assessment of recurring components of earnings in investment valuation (e.g., see Elliott and Hanna, 1996).

Because of the possibility of managerial opportunistic behavior, the information content of one-time charges has long been an interesting issue, and has been examined by many prior accounting and finance studies, using data from industrial firms.[3] For example, Eskew and Wright (1976) examine market reactions to extraordinary items and find the market's differential response to various types of extraordinary items. Strong and Meyer (1987) test the impact of asset write-downs (arising from corporate restructure) and observe a significant positive cumulative abnormal return following the announcements. Elliott and Hanna (1996) investigate the impact of frequent reporting of large write-offs in special items. They find that many so-called non-recurring items are recurring and that the market tends to respond negatively to firms that frequently report such items. Clayman (1995) extends the investigation to various types of one-time charges (including restructure charges, charges from discontinued operations, extraordinary items, and charges from accounting changes). She reports that firms with three or more instances of reporting of one-time charges between 1983 and 1994 consistently under-perform the S&P 500 in terms of cumulative (actual) stock returns.[4] She concludes that understanding the nature of one-time charges is critical in evaluating a firm's future cash flows and quality of management.

In this article, using a unique dataset from the US insurance industry, we examine the short-term market reaction to explicit announcements of one-time accounting charges.[5] The US insurance industry acts as an interesting environment within which to conduct this study in three important regards. First, previous studies on the market reaction to earnings (including one-time charges) and accounting choices invariably exclude insurance firms and other financial institutions. This is probably because insurers are

subject to different rules of financial reporting (Lamm-Tennant and Rollins, 1994) and/or insurers exhibit unique operating and financial characteristics (e.g., contingent liabilities and actuarially-determined loss reserves) that are not possessed by industrial firms (Akhigbe, Borde, and Madura, 1993). To our knowledge, no prior studies have examined the information content of one-time charges in the insurance industry.[6] Our study is thus the first to address this dearth in the literature and therefore represents an important extension of finance theories to insurance studies. If the market reaction to insurance firms' announcements of one-time charges departs from the extant evidence obtained from industrial firms, this finding should add to the understanding of the uniqueness of insurance firms. On the other hand, market reaction consistent with existing evidence will tend to strengthen the findings from industrial firms. Second, most prior studies examining the information content of extraordinary items have used data from multi-industry firms. As noted by Harrison (1977) and Elliott and Shaw (1988), the information content of extraordinary items could vary according to the firms' industry membership. By focusing on a single industry, we can remove possible variations in market reaction to announcements of extraordinary items resulting from confounding industry differences. Third, the insurance industry provides the insured with protections against potentially fortuitous risk and so is particularly well suited for a study of market reaction to one-time charges due to industry regulators' and the public's (e.g., policyholders', stockholders') concern over the solvency of insurers (Akhigbe et al., 1993). The public (particularly policyholders) should find it interesting to take a close look at the one-time-charge items of insurers, since any hint or signal of potential financial trouble may cast doubt on insurers' ability to fulfill their obligations to policyholders and elicit a sensitive reaction from the financial market.[7] This feature leads us to believe the insurance industry is a unique environment in which to examine the information content of one-time charges, and it could contribute insights that are not provided by prior industrial firm-based studies. Indeed, our results suggest that investors are sensitive to one-time charges containing negative information content (see section 5).

Examining the market impact of one-time charges could be of significant interest to various constituencies, including policyholders, investors, company managers, and insurance regulators. For example, the results of this study could help policyholders, investors, and regulators to better gauge insurers' performance and thereby assist investment decisions (Elliott and Hanna, 1996). Indeed, Thakor (1987, p. 62) argues that these one-time charges "have a price effect *not* because they mean much by themselves but because they are a *signal* of events to come." Additionally, evidence on the market's significant and differential response to one-time

charges could suggest that insurance managers should exercise caution when taking some forms of one-time charges. The negative implications of the result with regard to investors' sensitivity to some one-time charges could also prompt insurance regulators to carefully monitor the one-time-charge behavior of insurance firms.

The remainder of this paper is structured as follows. Section 2 develops hypotheses. Section 3 provides information on the data sample used, and section 4 describes the methodology used to study the equity response. Section 5 discusses the empirical results, and section 6 concludes the paper.

HYPOTHESIS DEVELOPMENT

One-time charges could generate market impact not because they mean much by themselves but because they can be a signal of imminent economic events (Thakor, 1987). Therefore, one-time charges may have implications about the future cash flows of a firm. Because one-time charges with different causes may contain different information content (Eskew and Wright, 1976; Clayman, 1995), we formulate our hypotheses separately for the different categories of one-time charges contained in our data sample (see section 3).

Non-Discretionary Accounting Changes

Harrison (1977) argues that discretionary and non-discretionary accounting changes may have different informational content and could thus lead to different market reactions. While discretionary accounting changes in insurance firms can be motivated by many factors (e.g., ownership control and management compensation) (see Lamm-Tennant and Rollins, 1994), these changes can convey information regarding a firm's underwriting and investment decisions by reflecting management's expectation about future cash flows (Harrison, 1977). For example, a discretionary accounting change that reduces net income (e.g., shortening the amortization period of policy acquisition expenses or revising actuarial assumptions to increase policy reserves) may communicate the signal that management optimistically expects future earnings to be adequate enough to offset the negative effect of accounting change on earnings. This should deliver a positive signal to the market participants about the firm's prospects. With non-discretionary accounting changes, however, company managers have less control over the content and the timing of such change than in discretionary accounting changes. While non-discretionary accounting changes (e.g., resulting from the implementation of new accounting rules) do not normally imply anything about underlying future

economic events, they do provide a signal about a firm's future cash flows (Harrison, 1977). For example, one-time charges that arise from new income-reducing accounting rules could be interpreted as a signal of management's overstatement bias in previously reported income and hence may serve as an unfavorable indication of a firm's cash flows (e.g., see Harrison, 1977; Clayman, 1995). An examination of the one-time charges in the sample reveals that most of the accounting changes were induced by exogenous influences (e.g., changes in generally accepted accounting practices) and so are non-discretionary. For example, in April 1993 the Citizens Insurance Company of America announced a one-time charge of 14 cents per share to reflect retrospective effects of adopting the Financial Accounting Standards Board's new rule 106, relating to postretirement benefits. Therefore, we hypothesize that one-time charges due to non-discretionary accounting changes are likely to induce a negative market reaction.

Business Restructure

A detailed review of our data sample reveals that most insurance firms' announcements on business restructure[8] are related to business refocusing activities (e.g., market pullout from non-core/segment business, termination of a poor investment, divestitures, entry into a new market) and voluntary staff layoffs. This implies that the restructure charges in our sample mainly reflect managerial decisions over real economic events rather than solely accounting-based bookkeeping changes (e.g., asset write-offs to recognize declines in asset values that occurred in prior periods). On the other hand, as Elliott and Shaw (1998) report, accounting write-offs sometimes could precede real economic events such as business restructure or reorganization. In both cases, one-time restructure charges could serve as signals of future economic consequences because they represent management's corrective action against unsuccessful past business decisions (Clayman, 1995). As a result, restructure efforts such as market pullout from, or divestiture of, unprofitable segments could act as a good signal and induce a positive market reaction, which is referred to as the *favorable resolution* hypothesis. The *favorable resolution* hypothesis contends that one-time restructure charges can signal to investors a serious effort on the part of management to resolve existing problems (e.g., worsening economic circumstances) (see Strong and Meyer, 1987; Elliott and Shaw, 1988). More importantly, the future financial performance of the restructured firm is expected to benefit from efficient assets reallocation (e.g., see Hite, Owers, and Rogers, 1987), elimination of negative synergies between divested and remaining assets (e.g., see John and Ofek, 1995),

and/or cost-effective financing (Lang, Poulsen, and Stulz, 1995).[9] Therefore, the *favorable resolution* hypothesis predicts a positive market response.

Because of adverse regulatory changes, natural disasters, and fierce market competition, insurers—particularly property-liability insurers that operate short-term business—could become unprofitable in certain business lines or certain geographic areas. For example, both the passage of Proposition 103 in California and Hurricane Andrew in Florida resulted in market withdrawal by some insurers from local markets. Such withdrawal from unprofitable segments and subsequent business restructure could represent a rational decision by company management. McNamara, Pruitt, Van Ness, and Charoenwong (1997) argue that such pullout not only stops loss in the segment market, but also helps to free up corporate resources for other value-increasing investments. They examine the market impact of property-liability insurers' market pullout announcements and find that, consistent with the *favorable resolution* hypothesis, market withdrawals by insurers are positively interpreted by financial market participants.

When a firm incurs large one-off costs to meet retirees' benefits, staff redundancy is trimmed and hence a firm's expected future cash flow situation is improved. Other types of business refocusing, such as entry into a new market, could alter a firm's growth prospects and so have economic and market impacts on a firm. Since prior studies (e.g., Strong and Meyer, 1987; Brickley and Van Drunen, 1990; Dechow, Huson, and Sloan, 1994; John and Ofek, 1995; McNamara et al., 1997) generally document positive market reactions to announcements of one-time corporate restructure charges, we hypothesize that such an announcement is likely to generate a positive stock price response.

Lawsuit Settlement

Lai, McNamara, and Oppenheimer (2002) argue that announcements of lawsuit awards or settlements often are anticipated losses because investors may know of the lawsuit during its filing, negotiation, and trial process. Therefore, such anticipated announcements of settlement may be treated as good news or bad news by the market depending on investors' expected value of the settlement before the announcement (Lai et al., 2002). For example, if the value of a settlement is larger than expected, a negative reaction should occur. In contrast, a smaller-than-expected settlement could result in a positive reaction. If lawsuit settlements are anticipated losses, the market reaction to announcements of lawsuit settlement could reflect the price adjustment made by investors on the basis of newly available settlement information. Additionally, in many insurance-related lawsuits, insurers could face (risky) long-tail liabilities. A quick and one-off settlement of a lawsuit can resolve uncertainty faced by both insurers

and investors. Therefore, another possibility is that an announcement of lawsuit settlement may result in a positive market response even though the actual value of settlement is slightly higher than expected. If announcements of lawsuit settlement are not anticipated by investors, however, the surprising announcements of losses are likely to lead to an immediate negative market reaction. The above reasoning thus suggests that the market impact of announcements of lawsuit settlement should be an empirical question.

Increase in Loss Reserve

Non-accounting-policy-change increases in loss reserves are likely to indicate that insurers have larger-than-expected loss claims (e.g., the occurrence of a large loss from a catastrophic event) (Lamm-Tennant and Rollins, 1994).[10] Sprecher and Pertl (1983) demonstrate that this can have a significant negative impact on shareholder wealth in an efficient stock market because insurers' reinsurance coverage often cannot absorb the full amount of the loss. Lai et al. (2002) further cite evidence that when a loss occurs, be it reinsured or unreinsured, anticipated or unanticipated, with or without loss estimate, equity markets tend to generate an immediate negative response. They conclude that investors as residual claimants appear to have an immediate perception that any loss will be borne by them. Therefore, we hypothesize that, other things being equal, one-time charges arising from non-accounting-policy-change increase in loss reserves are likely to elicit a negative market reaction following the announcement.

Mergers and Acquisitions

Cummins, Tennyson, and Weiss (1999) report that, in recent years, the insurance industry has experienced substantial consolidation as a result of mergers and acquisitions (M&A). The merger of two insurers may be value-enhancing through the achievement of economies of scale, reduction in redundancy, combination of different forms of expertise, and decrease in risk-profile (via diversification) (e.g., see Madura and Picou, 1993; Akhigbe and Madura, 2001). However, a lack of potential synergy and/or the self-interest motives of managers in acquiring firms may also lead to a value-destroying consolidation (Jensen, 1986). Prior studies examining the valuation effects of M&A announcements in industrial firms typically report a positive market reaction to target firms, but a mixed valuation effect for acquirers (e.g., see Jensen and Ruback, 1983). Akhigbe and Madura (2001) examine large insurance company mergers in the US insurance industry between 1985 and 1995 and find a positive market reaction to both target firms and acquiring firms. They attribute the distinctive favorable valuation effect on acquiring insurers to the relatively standardized service

among different insurers. This feature may make consolidation less problematic than it is with a non-standardized manufacturing merger, and as a result, insurance industry mergers could deliver a clear signal regarding expectations of acquiring firms. Madura and Picou (1993) study 87 insurance-related acquisitions from 1980 to 1989, and their results also indicate that the wealth effects are positive and significant for both targets and acquirers. In contrast, BarNiv and Hathorn (1997) analyze the US property-liability insurers between 1984 and 1992 and find that insurers acquiring a financially distressed insurer tend to experience significantly negative market returns in the long run. A detailed review of the sample reveals that, in almost all M&A announcements, insurers were involved as acquiring firms.[11] Therefore, the market reaction to announcements of insurance-firm mergers and acquisitions should be an empirical question.

DATA DESCRIPTION

We searched firms issuing one-time charges in quarterly financial reports during the period of 1990–2001.[12] Data were restricted to insurance firms only, including life and non-life insurers. Non-life insurers include property and liability insurance firms as well as title insurers. The data collection process entailed the use of several sources (i.e., DowJones News-Wires, Reuters, the *Wall Street Journal*, and Compustat), as the complete information required was not available from any single source. We found 102 announcements of one-time charges from life insurers and 89 charges from non-life insurers. After a detailed check with the Center for Research in Security Prices (CRSP) database, a total of 135 announcements were selected.[13] For each announcement, the sample data include report time, firm name, charge amounts (in millions), and the reason for the one-time charge. According to Campbell, Lo, and MacKinlay (1997), a detailed review reveals that there is no event clustering in the data sample.[14] To eliminate confounding effects, we further deleted events with potentially contaminating contemporaneous announcements in the estimation period of a market model. The final sample consisted of 99 explicit one-time charge announcements. A summary of the characteristics of the charges is provided in Table 1.

METHODOLOGY

Standard event study methodology (Brown and Warner, 1980, 1985) is used to analyze the market reaction to announcements of various one-time charges.[15] As in Lai et al. (2002), for firm *i*, stock returns are collected for

Table 1. Characteristics of Sample of One-Time Charges

	Number of observations
Total sample of charges	99
Grouped by magnitude	
Charges more than 10 million	48
Charges less than 10 million	51
Grouped by reasons	
Charges from accounting change	15
Charges from business restructure	35
Charges from increasing loss reserve	5
Charges from lawsuit settlement	10
Charges from M&A activities	16
Other charges	18

the period from 200 trading days to 21 trading days before the announcement. We apply the data to estimate the market model as follows:

$$R_{i,t} = \hat{a}_i + \hat{b}_i R_{m,t} \tag{1}$$

where $R_{i,t}$ is the return for security i on day t, and $R_{m,t}$ is the CRSP value-weighted return on day t. The trading day t is a relative number from –200 to –21. For each firm, the abnormal return on each trading day of the event period (from the preceeding twenty trading days to the twenty trading days after event) is determined by

$$\mathrm{AR}_{i,t} = R_{i,t} - (\hat{a}_i + \hat{b}_i R_{m,t}) \tag{2}$$

Let N_t be the number of observations on each relative trading day t; cross-sectional mean abnormal return on each relative trading day is obtained by

$$\overline{\mathrm{AR}}_t = \frac{\left[\sum_{i=1}^{N_t} AR_{i,t}\right]}{N_t}. \tag{3}$$

The cumulative mean abnormal return is the sum of individual mean abnormal return during a given period and is defined as

$$CAR_{T_1, T_2} = \sum_{t = T_1}^{T_2} \overline{AR}_t \quad (4)$$

Because some announcements are made after the market is closed, the trading day immediately following the announcement date is also included in the event window. Therefore, the event window is considered to be a two-day window ($t = 0$, $t = +1$).

EMPIRICAL RESULTS

Entire sample

The results for the entire sample are presented in the column labeled "All Insurers" in Table 2. $\overline{AR}_0$ (i.e., mean AR (see (3)) and the same hereafter), $\overline{AR}_1$, and $CAR_{0,1}$ (see (4)) all are insignificant at the 10 percent level. The results support the null hypothesis and suggest that the market does not count such charges on the firm's future growth perspective when all charges are mixed together.

Life vs. non-life insurers

The results are presented in Table 2. $\overline{AR}_0$, $\overline{AR}_1$, and $CAR_{0,1}$ are all insignificant for either life insurers or non-life insurers. These results again support the null hypothesis, which is not surprising given the mixture of various types of one-time charges.

Comparison among different one-time charge categories

According to the nature of one-time charges, we divide the entire sample into six categories: accounting change, business restructure, loss reserve increase, lawsuit settlement, M&A, and miscellaneous. The results for these categories are presented in Table 3 (the category "miscellaneous" is omitted).

Accounting changes: The $\overline{AR}_0$ is negative and significant at the 10 percent level, but the $\overline{AR}_1$ is insignificant. Instead, (negatively) significant $\overline{AR}$s occur on later days (e.g., $t = 3$). This could indicate that after initial (negative) reaction, investors need some time to gauge the actual impact of such a non-discretionary accounting change. We also observe that the

Table 2. Entire Sample vs. Life and Non-Life Sample[16]

Day	All insurers (N = 99) Mean AR	Life insurers (N = 57) Mean AR	Non–life insurers (N = 42) Mean AR
–3	–0.28%	0.09%	–0.79%
	(–0.87)	(0.24)	(–1.50)
–2	0.06%	0.22%	–0.17%
	(0.17)	(0.56)	(–0.32)
–1	–0.47%	0.32%	–1.55%
	(–1.45)	(0.81)	(–2.92)[c]
0	–0.02%	0.05%	–0.11%
	(–0.048)	(0.14)	(–0.21)
1	0.08%	–0.06%	0.28%
	(0.26)	(–0.16)	(0.52)
2	–0.15%	0.11%	–0.51%
	(–0.46)	(0.29)	(–0.95)
3	–0.26%	–0.21%	–0.33%
	(0.80)	(–0.52)	(–0.63)
Days	**All insurers (N = 99) Mean CAR**	**Life insurers (N = 57) Mean CAR**	**Non–life insurers (N = 42) Mean CAR**
(–2,–1)	–0.42%	0.54%	–1.72%
	(–0.91)	(0.97)	(–2.29)[b]
(0,+1)	0.07%	–0.01%	0.17%
	(0.15)	(–0.013)	(0.22)
(+2,+3)	–0.41%	–0.09%	–0.84%
	(–0.89)	(–0.16)	(–1.12)

The t-statistic is in parentheses.
AR = Abnormal return; CAR = Cumulative abnormal return.
[a, b, c]Significance at 10%, 5%, and 1%, respectively (two-tailed).

$CAR_{0,1}$ is insignificant. The results seem to support the hypothesis that charges on accounting changes have a negative (but weak) impact on the equity market.

Business restructure: The $\overline{AR}_t$s for days t = 0, 1, 2, 4, 5, and 7 are all significant; in other windows (except +2, +3), the CARs are not significant. There is thus evidence that a business restructure plan is applauded by investors. However, the positive outlook does not seem to persist (e.g., t = +2). Investors return to "normal" states several days after the announcements, which could represent the subsequent market adjustment to investors' (positive) overreaction on days 0 and 1. Since most of the business

restructures of sample firms are associated with positive changes, such as a repositioning of business strategies (see earlier section titled "Increase in Loss Reserve"), the market reads these tune-ups as positive activities toward better earning streams in the future.

Lawsuit settlement: The $\overline{AR}_0$, $\overline{AR}_2$, $CAR_{0,1}$, and $CAR_{2,3}$ are positive and significant. The observed positive abnormal returns could suggest that the announced actual value of lawsuit settlement is better than investors' prior anticipation. Alternatively, investors could perceive the settlement as removing long-tail liabilities and hence resolving the uncertainty of insurers.

***Loss reserve increase*:** Our results indicate the market may exhibit an over reaction and subsequent readjustment.[17] The significant $\overline{AR}$s and CARs are mostly negative. Consistent with Lai et al. (2002), it seems that investors view the loss reserve increases as a strongly negative signal for insurance firms' future financial perspective and react accordingly. However, because of the small number of observations, this result needs be interpreted with caution.

***M&A*: Bothe t**he $\overline{AR}_0$ and $\overline{AR}_1$ are negative but insignificant. The $\overline{AR}_2$ is significant at the 5 percent level. The $CAR_{0,1}$ is insignificant, but the $CAR_{2,3}$ is negatively significant at the 10 percent level. Overall, the market seems to respond negatively to the announcement of one-time charges by insurance acquirers. Interestingly, Akhigbe and Madura (2001) report that the market tends to react positively to the ex-ante announcement of acquisition made by insurers. Our finding, however, suggests that when it comes to the ex-post accounting charges arising from acquisition, investors' reaction tends to be negative. Perhaps the launched mergers and acquisitions did not meet the expectations of investors.

Signal Types

In this section, we divide the sample into three categories: good signal (e.g., business restructure), bad signal (e.g., accounting changes and loss reserve increase), and neutral signal. The good signal sub-sample consists of 38 events, while the bad-signal group consists of 21 events (see Table 4).[18] The classification criteria are presented in Section 2.

For the good signal sub-sample, the results support the alternative hypothesis that events giving good signals have a positive impact on market returns. Both the $\overline{AR}_0$ and the $CAR_{0,1}$ are significant at the 0.1 percent level. In the bad signal sub-sample, the results also support our alternative hypothesis. For example, the $CAR_{0,1}$ is negative and significant at the 0.1 percent level. However, the impacts from both good and bad signals are transitory in the sub-samples. We find insignificant CARs after

Table 3. Stock Returns vs. Charge Categories

Day	Mean AR Acc. change (N = 15)	Mean AR Bus. res. (N = 35)	Mean AR Law. set. (N = 10)	Mean AR LR incr. (N = 5)	Mean AR M&A (N = 16)
–3	–0.66% (0.62)	–0.05% (–0.093)	–1.76% (–1.62)	–0.98% (–0.91)	–0.56% (–1.15)
–2	0.08% (0.079)	0.16% (0.29)	–0.42% (–0.39)	–1.49% (–1.38)	–0.55% (–1.12)
–1	1.49% (1.38)	–1.48% (–2.62)[c]	0.05% (0.048)	–1.06% (–0.98)	1.00% (2.00)[b]
0	–2.08% (–1.93)[a]	1.63% (2.89)[c]	2.42% (2.23)[b]	–10.74% (–9.92)[d]	–0.45% (–0.91)
1	0.82% (0.76)	1.10% (1.94)[a]	0.69% (0.63)	–2.78% (–2.56)[c]	–0.46% (–0.94)
2	0.10% (0.093)	–0.95% (–1.69)[a]	2.07% (1.90)[a]	3.76% (3.47)[d]	–1.02% (–2.08)[b]
3	–2.15% (–2.00)[b]	–0.41% (–0.73)	1.11% (1.02)	–0.83% (–0.77)	–0.22% (–0.44)
Days	**Mean CAR Acc. change (N = 15)**	**Mean CAR Bus. res. (N = 35)**	**Mean CAR Law. set. (N = 10)**	**Mean CAR LR incr. (N = 5)**	**Mean CAR M & A (N = 16)**
(–2,–1)	1.57% (1.035)	–1.31% (–1.65)[a]	–0.37% (–0.24)	–2.55% (–1.66)[a]	0.46% (0.66)
(0,+1)	–1.26% (–0.83)	2.72% (3.42)[d]	3.11% (2.02)[b]	–13.52% (–8.83)[d]	–0.88% (–1.26)
(+2,+3)	–2.05% (–1.35)	–1.37% (–1.71)[a]	3.17% (2.07)[b]	2.93% (1.91)[a]	–1.23% (–1.78)[a]

The t-statistic is in parentheses.
AR = Abnormal return; CAR = Cumulative abnormal return.
Acc. change = Accounting change; Bus. res. = Business restructure; Law. set. = Lawsuit settlement; LR incr = Loss reserve increase; M&A = mergers & acquisitions.
[a, b, c, d] significance at 10%, 5%, 1%, and 0.1% respectively (two-tailed).

event day 1. The short-term market reaction appears to capture the impact of signal quality on shareholder value.

Relative one-time charge amount

In this section, we conduct a comparative analysis between different relative sizes of one-time charges. Following Lai et al. (2002), the entire sample is divided into two sub-samples according to one-time charge

Table 4. Stock Returns vs. Signal Quality

Day	Mean AR Good signal (N = 38)	Mean AR Bad signal (N = 21)
–3	–0.25% (–0.46)	0.07% (0.08)
–2	0.34% (0.63)	–0.07% (–0.082)
–1	–1.62% (–2.96)[c]	1.44% (1.69)[a]
0	1.84% (3.37)[d]	–4.52% (–5.29)[d]
1	0.85% (1.56)	–0.24% (–0.28)
2	–0.93% (–1.71)[a]	0.85% (0.99)
3	–0.14% (–0.26)	–1.63% (–1.91)[a]
Days	**Mean CAR Good signal (N = 38)**	**Mean CAR Bad signal (N = 21)**
(–2,–1)	–1.27% (–1.65)[a]	1.37% (1.13)
(0,+1)	2.69% (3.49)[d]	–4.76% (–3.94)[d]
(+2,+3)	–1.08% (–1.39)	–0.78% (–0.65)

The t-statistic is in parentheses.
AR = Abnormal return; CAR = Cumulative abnormal return.
[a, b, c, d] significance at 10%, 5%, 1%, and 0.1% respectively (two-tailed).

amount as a percentage of firm size (i.e., market value immediately before the announcement date[14]). One sub-sample consists of those events with relative charges more than the sample median –2 percent (large relative amount), and the other sub-sample includes those less than 2 percent (small relative amount). Some firms had no appropriate size information available and deleted from our sample. The sub-sample of large relative amounts has 48 events, while the sub-sample of small relative amounts has 45. The results are presented in Table 5.

For the sub-sample of large relative amounts, the results support the null hypothesis that $\overline{\text{AR}}$s and CARs are insignificant. For the small relative

Table 5. Stock Returns vs. Charge Magnitude

Day	Mean AR Large charges (N = 48)	Mean AR Small charges (N = 45)
–3	–0.90% (–2.08)[b]	0.67% (1.75)[a]
–2	0.57% (1.33)	–0.06% (–0.16)
–1	–1.62% (–3.75)[d]	0.50% (1.30)
0	0.48% (1.10)	–0.09% (–0.24)
1	0.14% (0.33)	–0.76% (–1.98)[b]
2	–0.20% (–0.46)	0.01% (0.025)
3	–0.31% (–0.72)	–0.10% (–0.25)
Days	**Mean CAR Large charges (N = 48)**	**Mean CAR Small charges (N = 45)**
(–2,–1)	–1.05% (–1.71)[a]	0.44% (0.81)
(0,+1)	0.62% (1.01)	–0.86% (–1.57)
(+2,+3)	–0.51% (–0.83)	–0.09% (–0.16)

The t-statistic is in parentheses.
AR = Abnormal return; CAR = Cumulative abnormal return.
[a, b, c, d] significance at 10%, 5%, 1%, and 0.1% respectively (two-tailed).

amount sub-sample, although the $\overline{AR}_1$ is significant at the 5 percent level, the $CAR_{0,1}$ is insignificant and thus seems to support the null hypothesis as well. Overall, we do not find significant difference in market reaction to small and large charges. This is surprising because we expect investors to differentiate between the charge amounts. Perhaps using 2 percent as a threshold is somewhat arbitrary. Alternatively, market reactions to different kinds of one-time charges could offset each other. In the next section, we conduct a more powerful regression test on the relation between the market reaction and the amount of one-time charges.

Second-Stage Regression Results

In this section, we conduct a second-stage regression analysis to examine the relation between the market reaction (i.e., the magnitude of abnormal returns) and the amount of one-time charges. Pooling various types of one-time charges into one regression has the advantage of increasing degrees of freedom, which is particularly useful for a small sample like the present study. The regression estimated is as follows:

$$\begin{aligned} AbRet_{it} = {} & \alpha + \beta_1 LnAmt_{it} + \beta_2 ReAmt_{it} + \beta_3 AcctDm_{it} + \\ & \beta_4 BzReDm_{it} + \beta_5 LossReDm_{it} + \beta_6 LawDm_{it} + \beta_7 MergeDm_{it} + \\ & \beta_8 LifeDm_{it} + \beta_9 Freq_{it} + \beta_{10} YR90 + \beta_{11} YR91 + \beta_{12} YR92 + \beta_{13} YR93 + \\ & \beta_{14} YR94 + \beta_{15} YR95 + \beta_{16 YR96} + \beta_{17} YR97 + \beta_{18} YR98 + \\ & \beta_{19} YR99 + \beta_{20} YR00 + \varepsilon_{it} \end{aligned} \quad (5)$$

In (5), the dependent variable is $\overline{AR}_0$ or $CAR_{0,1}$. Among explanatory variables, LnAmt is the natural log of inflation-adjusted charge amount and ReAmt is the size-adjusted charge amount, both of which are included to control for size-related effects (see Lai et al., 2002). Dummy variables[20] for category of one-time charges include AcctDm (1 = accounting changes), BzReDm (1 = business restructure), LossReDm (1 = increase of loss reserves), LawDm (1 = lawsuit settlement) and MergeDm (1 = M&A). LifeDm (1 = life insurers and 0 otherwise) is included to control for the possible difference in market reaction between life and non-life insurers. Freq is the frequency of reporting one-time charges and is included to control for the impact of frequent one-time charges.[21] Year dummies are also included to control for time-related effects. $\varepsilon_{it} \sim N(0,1)$ is a disturbance term.

The second-stage regression analysis (Table 6) shows that there is a positive and statistically significant relation between the magnitude of abnormal returns and the relative charge amount, although such significant correlation is absent between the inflation-adjusted charges and the abnormal returns. Our results suggest that investors pay more attention to the firm-size-controlled charge amounts than to the inflation-adjusted amounts. The results, as expected, also reveal a negative market reaction to non-discretionary change in accounting policy, increase of loss reserves, and M&A activities. We also observe a positive and significant correlation between the abnormal return and the insurer-type dummy (LifeDm), which suggests that investors are more sensitive to the one-time charges announced by life insurers than to those by non-life insurers. This makes sense, given that long-term life insurance represents an important investment for many families. However, the frequency of one-time charge reports

Table 6. Regression Results on Abnormal Return

	Expected sign	Dependent variable AR_0	Dependent variable $CAR_{(0,+1)}$
Intercept		0.031	0.029
	+/–	(0.64)	(0.58)
LnAmt		–0.0061	–0.0052
	+	(–0.92)	(–0.77)
ReAmt		0.14	0.13
	+	(8.06)[d]	(7.44)[d]
AcctDm		–0.062	–0.054
	–	(–1.69)[a]	(–1.67)[a]
BzReDm		–0.021	–0.0052
	+	(–0.61)	(–0.14)
LawDm		–0.029	–0.019
	+/–	(–0.61)	(–0.39)
LossReDm		–0.091	–0.13
	–	(–1.71)[a]	(–2.08)[b]
MergeDm		–0.077	–0.079
	+/–	(–2.01)[a]	(–2.00)[a]
LifeDm	+/–	0.066	0.062
		(2.39)[b]	(2.30)[b]
Freq	+	0.0064	0.0055
		(0.49)	(0.41)
F-test		4.71[d]	4.44[d]
Adjusted R^2		0.43	0.42

AR = abnormal return at $t = 0$; CAR = Cumulative abnormal returns at $t = 0$ and $t = +1$. The t-statistic is shown in parentheses. [a, b, c, d]significance at 10%, 5%, 1%, and 0.1% respectively; one-tailed significance is reported for uni-directional variables, otherwise two-tailed significance is reported.

is found to have little impact on the short-term market reactions, a finding that probably reflects the fact that most firms announced one-time accounting charges only once during the sample period. The same results hold when $CAR_{0,+1}$ is treated as the dependent variable at (5). An F-test of the joint significance of explanatory variables (excluding the intercept) is statistically significant in both models. The adjusted R-square values for both models are around 0.4, implying a moderate explanatory power of the models.

CONCLUSION

This study examines empirically the impact of one-time charge announcements on stock prices in the insurance industry. We find, as expected, that market reaction tends to vary according to the nature of one-time charges. Specifically, we observe a positive market response to one-time charges that are due to business restructure and lawsuit settlement, but a negative reaction to charges arising from accounting change, increasing loss reserve and acquiring other firms. These results are largely consistent with evidence obtained from general corporate sectors. The second-stage regression analysis shows that the magnitude of market reactions (abnormal returns) is positively correlated with the charge amounts. It also reveals that investors tend to be more sensitive to the one-time charges of life insurers than to those of non-life insurers.

A possible extension of our work is to investigate the relation between the frequency of one-time charges and a firm's long-run performance. When firms frequently report one-time charges, investors should be more cautious and the long-run stock performance is expected to deteriorate. Although Clayman (1995) identifies such a relationship by comparing the firm's long-run performance with a benchmark index's return, more rigorous analysis is required for a better understanding of this trend. A major limitation of our study is that the analysis of one-time charges by categories is tempered by the relatively small sample in this study. Therefore, some caution in interpreting the results is advised.

NOTES

[1] "Taking a big bath" refers to throwing as many charges as possible into a period of large losses, cleaning up the balance sheet and thereby boosting future earnings.

[2] This problem is most likely when earnings-based managerial compensation scheme can provide managers insulation from the impact of one-time charges (Dechow, Huson, and Sloan, 1994).

[3] Although unusual special items (or extraordinary items) can be both negative and positive figures, the requirement on separate disclosure of these special items means that non-recurring income is unlikely to be taken into account in investors' valuation of the firm. Therefore, it is more likely for opportunistic company managers to use negative special items (i.e., one-time charges) to manage reported earnings and thereby affect investors' valuation of the firm. This is why prior studies focus mainly on one-time charges. This approach is also adopted in the present study.

[4] However, these returns were not industry adjusted and no effort checking for confounding news events was made.

[5] Owing to data limitation, the present study is restricted to the short-term market reaction to the explicit announcement of one-time charges. The long-run market effect of frequent use of one-time charges should be an interesting topic for future research.

[6] The only relevant study conducted in the insurance industry is Lamm-Tennant and Rollins (1994). While these authors cover issues such as asset write-offs and changes in loss reserves, their primary focus is to identify the determinants of insurers' discretionary choice of accounting policies rather than examining the information content of the associated one-time charges.

[7] Indeed, the widely recognized lack of transparency in financial reporting by insurers to the public (e.g., due to actuaries' flexibility in choosing actuarial assumptions to determine the magnitude and timing of gains and losses) further underscores the market's sensitivity to information contained in one-time charges (Bell, 1998).

[8] "Business restructure" here refers to internal corporate restructure (e.g., business refocusing), as opposed to mergers and acquisitions.

[9] Lang et al. (1995) argue that when alternative financing (e.g., using capital markets) is too expensive (e.g., due to information asymmetry), firms could divest unwanted or unprofitable assets as a way to finance for other investments of positive net present value.

[10] For the influence of an increase in loss reserves that arises from a discretionary accounting policy change (i.e., loss strengthening), which is normally classified as accounting changes, see the section titled "Non-Discriminating Accounting Charge."

[11] Owing to data limitations, we are unable to identify the financial situations of target firms. Very often these target firms are not publicly listed, and the relevant announcements on M&A did not provide enough information to establish whether the target firm is financially distressed.

[12] Only those announcements with the explicit wording "one-time charge" are selected.

[13] In our original one-time charge sample, 54 mutual and closed-stock insurers had no records in the CRSP database and were therefore excluded from this study.

[14] Malatesta (1986) also reports that the ordinary least square regression used in this study appears to be sufficiently robust to handle industry clustering problems without any adjustment.

[15] Since our sample period includes September 11, 2001 (with six announcements of one-time charges), we checked for possible analysis bias resulting from the nontrading or nonsynchronous trading (see Scholes and Williams, 1977) by employing the Scholes-Williams model. The results on abnormal returns and CARs are almost identical with the standard market model and thus are unreported here. We thank an anonymous referee for pointing it out.

[16] The authors have all individual trading days' ARs and associated CARs, which are available upon request.

[17] This could also be the effect of new information (e.g., regarding insurers' purchase of reinsurance coverage on the reported loss) reaching the market.

[18] A few miscellaneous charges related to early retirement of corporate bonds or construction of new headquarters are included in the good-signal sample. Early retirement of long-term and/or high-coupon debt represents corporate exploitation of low-cost financing opportunities. This move could help to lower the weighted average cost of capital and enhance financing flexibility (Clayman, 1995). One miscellaneous event of investigating accounting fraud is included in the bad-signal sample because of previous fraudulent numbers. For brevity, the analysis of neutral events is omitted.

[19] In unreported sensitivity tests, one-time charges were scaled by the book value of a firm, and we obtained results similar to those reported here.

[20] Because of small number of events in each category is small, we are not able to conduct cross-sectional regression by category. Therefore, one-time charge type dummies are included.

[21] We gratefully acknowledge the suggestion of an anonymous referee on including the insurer's type dummy and frequency variable.

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