# Losses, Dividend Reductions, and Market Reaction Associated with Past Earnings and Dividends Patterns

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*This paper examines investors' reactions to dividend reductions or omissions conditional on past earnings and dividend patterns for a sample of eighty-two U.S. firms that incurred an annual loss. We document that the market reaction for firms with long patterns of past earnings and dividend payouts is significantly more negative than for firms with less-established past earnings and dividends records. Our results can be explained by the following line of reasoning. First, consistent with DeAngelo, DeAngelo, and Skinner (1992), a loss following a long stream of earnings and dividend payments represents an unreliable indicator of future earnings. Thus, established firms have higher loss reliability than less-established firms. Second, because current earnings and dividend policy are a substitute source of means of forecasting future earnings, lower loss reliability increases the information content of dividend reductions. Therefore, given the presence of a loss, the longer the stream of prior earnings and dividend payments, (1) the lower the loss reliability and (2) the more reliably dividend cuts are perceived as an indication that earnings difficulties will persist in the future.*

***Keywords:*** Dividend Omissions, Dividend Reductions, Dividend Announcements, Losses, Earnings, Patterns, Event Study

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## 1. Introduction

This study examines investor reactions to dividend reductions or omissions for loss firms, conditional on the firms' previous patterns of earnings and dividend payouts.[1] Although there is much evidence that the market treats dividend changes as newsworthy, prior evidence of dividend consistency pricing is somewhat mixed (see DeAngelo, DeAngelo, & Skinner [2009] for a review). In particular, Dielman and Oppenheimer (1984) find that announcements of dividend omissions for firms with a reputation for dividend consistency trigger a significantly more negative market reaction than for other firms. However, Dobson, Tawarangkoon, and Dufrene (1996) find that dividend consistency is not priced for most significant dividend change announcements. We extend prior research by introducing the notion of "loss reliability." In particular, following DeAngelo, DeAngelo, and Skinner (1992), we argue that the longer the stream of past earnings and dividends preceding the loss, the "less reliable" the loss. Moreover, because managers are reluctant to cut dividends, the longer a firm's past earnings and dividends patterns, the more reliably investors interpret a dividend reduction as a signal that managers expect the firm's problems to persist. Thus, established earnings and dividends patterns deteriorate loss reliability, resulting in a transfer of information content from reported earnings to dividend change announcements. Therefore, we hypothesize that, conditional on a reported loss, dividend reduction announcements by established firms are accompanied by larger negative market reactions than for similar announcements by less-established firms.

Consistent with our expectations, we find that the longer and more established prior earnings and dividends are, the more negatively the market reacts when losses are accompanied by unfavorable changes in dividend policy. Using an event study methodology (e.g., Brown & Warner [1985]; Lasfer [1995]), we compare the immediate (three-day) market reactions to dividend omission or reduction announcements for firms that had at least seven years of positive earnings and stable (or increasing) dividend payments before their first annual loss (our sample of established firms) with reactions to similar announcements for those firms that exhibited positive earnings and stable (or increasing dividends) for at most three years before their first annual loss (our sample of less-established firms). Moreover, regression analysis reveals that our results hold even after controlling for the size of the dividend reduction, the firm's information environment and growth prospects, the depth of the firm's loss, and the effect of the negative earnings surprise.

Because our explanation for the asymmetry in the price reaction to dividend cuts for established versus less-established firms is based on the notion that longer patterns of past earnings and dividends result in lowering loss reliability, we also provide evidence consistent with this assertion. According to Skinner and Soltes (2010),

1. Consistent with DeAngelo, DeAngelo, and Skinner (1992), we define *established firms* as those firms with a relatively long stream of positive earnings and dividend payments before their first annual loss. Specifically, we define established firms as those with at least seven years of positive earnings and dividend payments before their first annual loss. For robustness purposes, we also use alternative subsamples of established firms.

dividend payers are less likely to report losses, and those losses that they do report tend to be transitory losses driven by special items. Moreover, DeAngelo, DeAngelo, and Skinner (1992) show that a loss following a long stream of earnings and dividend payments is not reliable, in the sense that it is nonindicative of future earnings, because loss firms typically experience an earnings rebound following the initial loss. Similar to DeAngelo, DeAngelo, and Skinner (1992), we document that established firms that incur a first-time loss but do not reduce dividends manage to recover to positive profits. On the contrary, established dividend-reducing firms continue to report losses. Thus, a loss following a long stream of positive earnings and dividends constitutes an unreliable indicator of future earnings. As a result, dividend news offers a more reliable signal that earnings difficulties will persist.

Complementing the previous findings, we also document that in the case of less-established firms, both reducers and nonreducers continue to report negative earnings following the initial loss. Therefore, the initial loss is rather reliable in the sense that it constitutes a reliable indicator that negative earnings are bound to persist. Thus, the role of dividend policy in revealing a firm's future prospects is limited for firms with less-established past earnings and dividend patterns, because the decision of whether to reduce or sustain dividends does not help differentiate between less and more persistent losses. Consequently, investors react more negatively to dividend cut announcements by established firms than to those by less-established firms.

Finally, if market participants recognize the relationship between loss reliability and prior earnings and dividends patterns, then this also should be reflected in the market reaction surrounding loss announcements in relation to the market reaction surrounding dividend announcements. Indeed, further to DeAngelo, DeAngelo, and Skinner (1992), we show that established firms experience significantly less negative abnormal returns around the loss announcements than around the dividends cut announcements. Thus, less reliable losses lead to more "reliable dividends" in the sense that investors add more emphasis on dividend announcements. On the contrary, less-established firms exhibit almost identical price reactions around the two events under focus. Overall, the evidence presented in this paper supports the notion that, conditional on a first-time loss, longer patterns of prior earnings and dividend payments induce lower loss reliability, which in turn strengthens the information content of dividend policy decisions.

This study proceeds as follows: Section 2 reviews the related literature and provides the motivation and development of our main hypothesis. Section 3 discusses the research design. Section 4 provides an evaluation of the empirical results, and Section 5 presents our conclusions.

## 2. Background, Motivation, and Hypothesis Development

Previous studies have well documented that dividend decreases are associated with negative share price reactions.[2] Dividend-decreasing firms earn negative

2. See, for example, Charest (1978), Aharony and Swary (1980), Ofer and Siegel (1987), Healy and Palepu (1988), Michaely, Thaler, and Womack (1995), Benartzi, Michaely, and Thaler (1997), Grullon, Michaely, and Swaminathan (2002), Lie (2005), and Chen, Shevlin, and Tong (2007).

abnormal returns, and this finding is rather strong and robust. However, despite the large volume of research produced over the years, it is not yet clear whether changes in dividend policy signal future earnings prospects or not. Recent studies have been contradictory on this issue. For example, Nissim and Ziv (2001) provide evidence that dividend decreases (increases) signal future earnings, but in a more recent study Grullon, Michaely, Benartzi, and Thaler (2005) document that the dividend signaling hypothesis does not hold.[3] Lie (2005) also finds no evidence that dividend changes are an informative signal of future earnings.[4] Conversely, Hand and Landsman (2005) and, more recently, Hanlon, Myers, and Shevlin (2007) provide opposing results.[5]

Beyond the aforementioned studies that consider the association of dividends with earnings, other studies shed light on the dividend signaling issue by examining the information content of dividend policy changes in the event of a loss (DeAngelo, DeAngelo, & Skinner [1992]; Charitou [2000]; Joos & Plesko [2004]) or, more generally, they associate dividend policy with earnings quality (Mikhail, Walther, & Willis [2003]; Caskey & Hanlon [2011]; Skinner & Soltes [2009]). We contribute to the existing literature by focusing on market participants' reactions when dividends are reduced or suspended in the face of a loss, examining whether this reaction is associated with patterns of past earnings and dividend payouts. We believe that historic consistency in generating earnings and distributing them in the form of regular cash dividends is an important determinant of the market response to dividend reductions or omissions. Firms that exhibit consistency in paying dividends for a long period build a long-term commitment, which is especially strong if dividends have been stable or increasing and have been accompanied by positive earnings (Brucato & Smith [1997]; Barth, Elliot, & Finn [1999]). The stronger a firm's commitment to pay dividends, the more credible the information it reveals regarding its prospects, and the higher managers' reluctance will be to break this ongoing commitment (Lintner [1956]; Brav, Graham, Harvey, & Michaely [2005]; Skinner & Soltes [2009]).[6] Thus, in the face of a loss, an adverse shift in dividend policy can more reliably be considered an indication that earnings difficulties will persist in the future, the longer the stream of prior earnings and dividend payments. Koch and Sun (2004) also find evidence to support the notion that dividend changes significantly affect investor assessments of the persistence of earnings difficulties. The authors define the *persistence of past earnings* as the extent to which an unexpected change in earnings revises expectations of future earnings in the same direction as

3. Unlike Nissim and Ziv (2001), Grullon et al. (2005) use an earnings expectation model that controls for the nonlinear patterns in earnings and this results in the disappearance of the relationship between dividend changes and future earnings.

4. Crawford, Franz, and Lobo (2005) also find that stock dividends do not provide superior signaling than noncash stock distributions.

5. Also, Charitou, Lambertides, and Theodoulou (2011) document that dividend increases and initiations are associated with reductions in default risk.

6. Brav et al. (2005) report that 84.1 percent of the 166 financial executives surveyed agree or strongly agree that the most important factor for dividend policy is maintaining consistency with a historic payout policy.

the unexpected change. The unexpected change in earnings is proxied by the earnings in the quarter just past (before the dividend change). Therefore, the authors do not address the issue of whether investors assess long patterns of past earnings and dividends. In contrast, our paper examines investor reactions to dividend reductions or omissions conditional on longer patterns of past earnings as well as dividends.

Moreover, earlier studies by Dielman and Oppenheimer (1984) and Dobson, Tawarangkoon, and Dufrene (1996) shed light on the role of dividend consistency by examining whether market reactions to dividend change announcements are affected by a firm's dividend payment history. Although Dielman and Oppenheimer (1984) find evidence to support the view that in the event of a dividend omission, investor reaction is more negative the longer the firm's prior payment history, this result is not confirmed by Dobson, Tawarangkoon, and Dufrene (1996). Nevertheless, although both studies address the interaction of the information content of dividends and dividends consistency, they do not take into account that the information content of dividends varies, depending on the characteristics of current earnings. Specifically, DeAngelo, DeAngelo, and Skinner (1992) argue that dividends have little information content in random samples because current earnings and dividend policy are likely substitute means of forecasting future earnings. Thus, in most circumstances, current earnings constitute sufficient means of forecasting earnings. Dividends, therefore, should have significant information content when current earnings represent a less reliable indicator of future earnings.[7] According to DeAngelo, DeAngelo, and Skinner (1992), earnings are characterized as less reliable when they are extreme or otherwise unusual and thus do not convey any information regarding a firm's future performance. The authors contend that their sample meets this earnings criterion, because it consists of firms that incurred an annual loss after establishing a record of positive earnings and dividends for a ten-year period. A loss represents an extraordinary earnings realization for such firms because established loss firms typically experience an earnings rebound following the initial loss. By comparing the average net income of eighty-five subsample loss firms that reduced dividends (what DeAngelo, DeAngelo, & Skinner [1992] call the "reducer subsample") with that of the "nonreducer subsample" (i.e., eighty-two firms that incurred a loss but did not reduce dividend payments), DeAngelo, DeAngelo, and Skinner (1992) show that following an initial loss, nonreducers manage to recover to positive profits. On the contrary, their sample dividend-reducing firms continue to report losses. Hence, the authors conjecture that a loss following a long stream of positive earnings and dividends make current earnings an unreliable indicator of future earnings. They conclude that investors assign more importance to dividend reduction announcements, which, given the extraordinary nature of the loss, are considered a more reliable indicator regarding future earnings.

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7. Evidence in favor of this line of reasoning can be found in Kane, Lee, and Marcus (1984), Healy and Palepu (1988), Leftwich and Zmijevski (1994), Kormendi and Zarowin (1996), Benartzi, Michaely, and Thaler (1997), DeAngelo, DeAngelo, and Skinner (1996, 2004), Koch and Sun (2004), Hand and Landsman (2005), Lie (2005), Grullon et al. (2005), and Skinner and Soltes (2009), among others.

We concentrate on two issues based on DeAngelo, DeAngelo, and Skinner's (1992) line of reasoning that are central to this study. First, an annual loss is less reliable the more established the preceding earnings and dividends patterns. Loss reliability is thus associated with patterns of past earnings and dividends: Longer patterns of past earnings and dividends mean lower loss reliability. Second, as a result, lower loss reliability strengthens the usefulness of dividend policy as a predictor of future earnings. The less reliable a loss, the more dividend decisions dominate earnings in predicting future earnings.

In their study, DeAngelo, DeAngelo, and Skinner (1992) examine the dividend policy decisions for a sample of firms that incurred a loss after having had positive earnings and dividend payouts for a period of ten years. Their main finding is that dividend reductions are more likely given greater current losses, less negative unusual items, and more persistent earnings difficulties. Our study differs from theirs in two major aspects: (1) we examine the associated market reaction to dividend reductions or omissions (and not the management decision of whether to sustain dividend payments or not); and (2) we examine the association of the market reaction to dividend policy changes relative to varying degrees of past earnings and dividend patterns.

Moreover, our study extends earlier studies on dividend consistency by introducing the notion of loss reliability and the transfer of information content from reported earnings to dividend change announcements. We argue that, in the event of a loss, market participants should react more negatively when dividends are cut or omitted for established profit-making, dividend-paying firms than for less-established firms because (1) longer patterns of past earnings and dividends induce lower loss reliability, and (2) lower loss reliability strengthens the information content of dividend policy regarding a firm's future performance (as in DeAngelo, DeAngelo, & Skinner [1992]; Charitou [2000]; Joos & Plesko [2004]; Hand & Landsman [2005]; Skinner & Soltes [2009]). Subsequently, given a loss, a dividend reduction constitutes a stronger indication regarding the loss persistence for established firms in regard to less-established firms.

The aforementioned arguments lead us to the following hypothesis:

$H_1$: In a sample of loss firms, the longer the patterns of earnings and dividend payments preceding the loss, the more negative the market reaction to dividend reductions or omissions.

## 3. Research Design

### 3.1 Data Set

We used the *Compustat* database to identify industrial companies listed on the New York Stock Exchange (NYSE), NASDAQ, and the American Stock Exchange (AMEX) that met the following criteria for the sample period 1986–2003:

(1) they were industrial firms,[8] (2) the data to calculate the level of earnings per share were available,[9] (3) the quarterly dividends per share were available, and (4) the firms had suffered at least one annual loss preceded by positive annual earnings and an annual dividend payment (see Table 1 for a detailed description). Consistent with prior studies, we initially used annual data.[10] A total of 708 industrial firms meeting the above criteria were included in the initial sample, the "primary sample," and subsequently filtered and categorized into either the sample of established firms or that of less-established firms.

From the aforementioned sample of 708 firms, 157 firms were classified as less established, because they had exhibited positive annual earnings for three consecutive years at most and had been paying stable or increasing annual dividends from year to year, incurred a loss, and in the loss year reduced or suspended their dividends. On the other hand, 59 of those 708 firms were classified as established firms, because they had exhibited positive annual earnings for at least seven consecutive years and had been paying stable or increasing annual dividends from year to year, in the eighth year incurred a loss, and in the loss year reduced or cut their dividends.[11]

Dividend reduction or suspension announcement dates were identified using the Center for Research in Security Prices (CRSP) and LexisNexis databases.[12]

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8. The initial sample included industrial firms distributed by industry as follows: manufacturing firms (Standard Industrial Classification [SIC} 1000–4299, 4400–4799), retailing firms (SIC 5000–5999), and firms in the services industry (SIC 7000–7999). Consistent with previous studies, financial institutions and utilities were excluded from the sample (DeAngelo, DeAngelo, & Skinner [1992]; Charitou [2000]; DeAngelo et al. [2004]; Grullon et al. [2005]).

9. Consistent with DeAngelo, DeAngelo, and Skinner (1992), we used basic annual earnings before extraordinary items and discontinued operations (*Compustat* annual data item #58).

10. See, for example, Fama and Babiak (1968), Watts (1973), DeAngelo, DeAngelo, and Skinner (1992), Charitou (2000), Lee and Yan, (2003), Joos and Plesko (2004), and Skinner and Soltes (2009), among others. In line with prior studies, we use annual data to (1) avoid possible seasonality effects contained in earnings and (2) account for the fact that dividends are not uniformly distributed across the four quarters (Lee & Yan [2003]). As DeAngelo, DeAngelo, and Skinner (1992) argue, annual data are in line with Lintner's (1956) finding that dividends are uniformly considered in terms of annual periods. Consistent with DeAngelo, DeAngelo, and Skinner (1992), annual dividends are used with the "overlap" definition: A dividend is allocated to a particular year if it occurs in the second, third, or fourth quarter of that fiscal year or in the first quarter of the following fiscal year.

11. Our sampling criteria exclude firms that had four, five, or six years of earnings and stable or increasing dividends before their first annual loss, because we want to have a clear and distinct separation of those firms that exhibit an established pattern of dividend payments and positive earnings from those with a less-established pattern. Moreover, we consider different combinations of prior annual earnings and dividends patterns; that is, we construct established firm subsamples considering companies with at least eight or nine years of positive earnings and stable or increasing dividends before the first annual loss. Similarly, we create less-established firm subsamples by selecting firms with a maximum of one or two years of positive earnings and stable or increasing dividends prior to the first annual loss. Untabulated results are qualitatively similar and thus are not discussed for brevity.

12. Unlike reductions, omissions of dividend payments are not recorded in CRSP tapes. Thus, the dividend omission dates were retrieved by finding the relevant announcements in the LexisNexis database. For some Canadian and European firms listed in the United States, announcements came from sources such as the Canadian Corporate Newswire, Canada Newswire, and PR Newswire Europe. Other sources were the *New York Times* and *Financial Times*.

## TABLE 1

## Sample Selection

This table reports the sample selection procedure for the forty-seven less-established and the thirty-five established firms. The final primary sample shown in Panel A includes all industrial firms that have available annual earnings and dividend figures for the sample period 1986–2003, and reported at least one annual loss prior to which they had at least one year of positive earnings and dividend payments. Panels B and C present the selection criteria applied to the less established and to the established subsamples of firms, respectively. Sample *Time 1* consists of those firms that incurred their first annual loss during the period 1986–2003 after having one year of positive earnings and dividends. Dividend payments at the year before the event of the loss are the same or higher than those paid the year before. Sample *Time 2* consists of those firms that incurred their first annual loss during the period 1986–2003 after having two years of positive earnings and dividends. Dividend payments at the year before the event of the loss are the same or higher than those paid two years before, which are the same or higher than those paid three years before the loss (and so forth for the rest subsamples until *Time 10*). The initial loss year is the year of the first annual loss. The less-established subsample consists of those firms that incurred an annual loss after having positive annual earnings and stable or increasing annual dividend payments for one, and/or two, and/or three years before the loss occurrence (i.e., *Time 1* firms, and/or *Time 2* firms, and/or *Time* 3 firms), and on the year of the loss reduced or suspended dividend payments. The established subsample consists of those firms that incurred an annual loss after having positive annual earnings and stable or increasing annual dividend payments for at least seven consecutive years (i.e., *Time 7* firms or above) before the first loss occurrence, and on the year of the loss reduced or suspended dividend payments.

*Panel A:* Primary sample selection

| | |
|---|---|
| Total number of *Compustat* firms | 9,318 |
| Less: | |
| Financial and utility firms (i.e., SIC codes between 4300–4399, 4800–4999, 6000–6999) | 3,208 |
| Firms with unavailable dividends for years 1985–2003 | 4,277 |
| Firms with unavailable earnings for years 1985–2003 | 161 |
| Firms without at least one annual loss preceded by positive earnings and dividends | 964 |
| Final primary sample | 708 |

*Panel B:* Selection of less-established firms

| | |
|---|---|
| Final primary sample | 708 |
| Less: | |
| Firms that are not *Time 1*, *Time 2*, or *Time 3* (i.e., *Time 4* and above) | 426 |
| Firms that did not reduce or suspend dividends on the loss year | 125 |
| Firms with unavailable dividend suspension or reduction announcement date | 72 |
| Firms with dividend reduction/omission announcement after the first quarterly loss announcement | 36 |
| Firms with unavailable stock price return on the dividend reduction or suspension announcement date | 2 |
| Less-established firms | 47 |
| Dividend Reductions | 30 |
| Dividend Omissions | 17 |

*(Continued)*

**TABLE 1** *(Continued)*

| *Panel C:* Selection of established firms | |
|---|---|
| Final primary sample | 708 |
| Less: | |
| Firms that are not *Time 7* and above | 477 |
| Firms that did not reduce or suspend dividends on the loss year | 172 |
| Firms with dividend reduction/omission announcement after the first quarterly loss announcement | 15 |
| Firms with unavailable dividend suspension or reduction announcement date | 9 |
| Established firms | 35 |
| Dividend Reductions | 20 |
| Dividend Omissions | 15 |

Using the CRSP database, we identified the daily stock returns that corresponded to the quarter in which the relative dividend announcements were made. We identified dividend reduction and omission announcements and the corresponding stock returns for (1) forty-seven less-established firms and (2) thirty-five established firms.[13]

Table 1 also reports the number of dividend reduction announcements relative to dividend omission announcements for the two subsamples. Of the subsample of forty-seven less-established firms, thirty (63.83%) announced reductions during the loss year, whereas the remaining seventeen firms (36.17%) announced dividend omissions. For the subsample of established firms, twenty (57.14%) of the thirty-five dividend reductions were cuts to a positive level, while the remaining fifteen (42.86%) were complete omissions of dividend payments.

Table 2 shows the distribution of the event years for our two subsamples. A firm belongs in sample *Time i* (where $i = 1, 2, 3$ for the sample of less-established firms and $i = 7, 8, 9, 10$ for the sample of established firms) if it reported (1) a loss and (2) a dividend reduction or an omission in year $t$ (where $t$ is the event year) after having had (1) positive earnings for $i$ years before the loss and (2) stable or increasing dividends for $i + 1$ years prior to the loss. For example, in year $t$, *Time 2* firms (1) incurred a loss and (2) reduced or suspended dividend payouts. Also, (1) they had positive earnings for years $t-1$ and $t-2$ and

13. The size of our sample is unfavorably affected by the nonavailability of dividend omission announcements, since unlike the case of earnings releases, firms are not obliged by law to publicly release any announcements related to their dividend policy decisions. Furthermore, the sample size is restricted by the fact that we consider firms (and not firm-years); that is, a particular firm is allowed to be included in our sample only once. This allows us to gather independent observations and thus avoid the potential clustering of regression errors (i.e., heteroscedasticity) that would affect the statistical validity of our $t$-tests. Finally, we additionally lost fifty-one firms that announced divided reductions before the loss announcement. Yet, our sample size of eighty-two firms is comparable with those of similar studies. For instance, DeAngelo, DeAngelo, and Skinner (1992) and Dielman and Oppenheimer (1984) employ samples of 85 and 112 dividend-reducing firms, respectively.

## TABLE 2

### Distribution of Loss Years According to Patterns of Past Annual Earnings and Dividend Payments

This table reports the distribution of loss years according to patterns of past annual earnings and dividend payments. For example, for the *Time 1* firms, one firm incurred its first annual loss in 1987, one firm in 1988, one firm in 1989, two firms in 1990, and so on. *Time 1* firms are those that incurred their first annual loss during the period 1986–2003, after having one year of positive earnings and dividends, and dividend payments at the year before the event of the loss are the same or higher than those paid the year before. Sample *Time 2* consists of firms that incurred their first annual loss during the period 1986–2003 after having two years of positive earnings and dividends. Dividend payments, at the year before the event of the loss, are the same or higher than those paid two years before, which are the same or higher than those paid three years before the loss (and so forth for all subsamples until *Time 10*). The initial loss year, that is, the event year, is the year of the first annual loss. Less-established firms are those firms that incurred an annual loss after having positive annual earnings and stable or increasing annual dividend payments for one, and/or two, and /or three years before the loss occurrence (i.e. *Time 1* firms, and/or *Time 2* firms, and/or *Time 3* firms), and on the year of the loss reduced or suspended dividend payments. Established firms are those firms that incurred an annual loss after having positive annual earnings and stable or increasing annual dividend payments for at least seven consecutive years before the first loss occurrence, and on the year of the loss reduced or suspended dividend payments (i.e., *Time 7*, *Time 8*, *Time 9*, and *Time 10* firms).

| | Less-Established Subsample | | | | Established Subsample | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year | *Time 1* | *Time 2* | *Time 3* | *Total* | *Time 7* | *Time 8* | *Time 9* | *Time 10* | *Total* |
| 1986 | — | — | — | 0 | — | — | — | — | 0 |
| 1987 | 1 | — | — | 1 | — | — | — | — | 0 |
| 1988 | 1 | 1 | — | 2 | — | 1 | — | — | 1 |
| 1989 | 1 | — | 1 | 2 | — | — | — | — | 0 |
| 1990 | 2 | 1 | — | 3 | — | — | — | — | 0 |
| 1991 | 2 | 3 | — | 5 | — | — | — | — | 0 |
| 1992 | — | 2 | 1 | 3 | — | — | — | — | 0 |
| 1993 | — | — | — | 0 | 2 | — | — | — | 2 |
| 1994 | — | 1 | — | 1 | — | — | — | — | 0 |
| 1995 | 1 | 1 | — | 2 | — | 1 | 3 | — | 4 |
| 1996 | — | 1 | — | 1 | — | — | 1 | 2 | 3 |
| 1997 | 1 | 2 | 1 | 4 | 1 | — | — | 2 | 3 |
| 1998 | 1 | — | 1 | 2 | — | — | — | — | 0 |
| 1999 | 2 | 2 | — | 4 | — | — | 1 | 3 | 4 |
| 2000 | 1 | 1 | 1 | 3 | — | 1 | — | 5 | 6 |
| 2001 | 6 | 4 | 1 | 11 | 3 | — | 2 | 4 | 9 |
| 2002 | 1 | 2 | — | 3 | 1 | — | 1 | 1 | 3 |
| 2003 | — | — | — | 0 | — | — | — | — | 0 |
| *Total* | 20 | 21 | 6 | 47 | 7 | 3 | 8 | 17 | 35 |

(2) dividends paid on year $t-2$ were greater than or equal to those of year $t-3$, and dividends paid on year $t-2$ were greater than or equal to those of year $t-1$. Thus, for instance, in 1992, two firms reported a loss and a dividend reduction or an omission after having experienced two years of positive earnings and stable

or increasing dividends prior to that loss (i.e., we have two *Time 2* firms), and one firm reported a loss and a dividend reduction or an omission after three years of positive earnings and stable or increasing dividends prior to that loss (i.e., we have one *Time 3* firm). Similarly, in the next year, two firms reported a loss and a dividend decrease or suspension after seven years of positive earnings and stable or increasing dividends (i.e., in 1993 there are two *Time 7* firms).[14,15]

We selected firms that exhibited stable or increasing dividend payments (and not only positive dividends) before the loss to construct subsamples with dividend payment patterns that are distinctively more established than for those firms with only positive prior dividends. In this way, we consider the strongest form of dividend payouts patterns. This restriction was not imposed in prior earnings; that is, the past earnings criterion a firm had to fulfill was only that they be positive (i.e., neither stable nor increasing) before the loss year. We believe that these selection criteria are more appropriate (i.e., as opposed to imposing the same selection criteria with respect to past earnings and dividends), since, unlike the case of earnings, the level of dividend payments is more of a policy decision than the outcome of a firm's operations. Because dividend policy constitutes a vehicle for long-term managerial commitment to shareholders (Faccio, Lang, & Young [2001]), managers choose to smooth dividends over earnings. This view is supported in the extant literature, because dividend smoothing is a stylized empirical observation (Lintner [1956]; Garrett & Priestley [2000]; Allen & Michaely [2003]; Brav et al. [2005]; Aivazian, Booth, & Cleary [2006]).

### 3.2 Event Study

An event study procedure (Brown & Warner [1985]) is used to measure changes in share value around the dividend reduction or omission announcements. To measure abnormal returns, we estimate a market model for each firm using CRSP's daily returns. As a proxy of the market return, we use the CRSP's NYSE/NASDAQ/AMEX value-weighted market index. The announcement day is denoted as day zero, and the preannouncement period is taken to be days $-150$ to $-25$.[16] The market model coefficients are estimated in the preannouncement period using ordinary least squares (OLS). We estimate daily abnormal returns as the difference between the actual returns and the expected returns (estimated

14. Although, in both samples, the highest number of loss years is concentrated in year 2001 (eleven of our sample of forty-seven less-established firms and nine of our sample of thirty-five established firms reported a loss in 2001), this does not affect the essence of our analysis because (1) the adverse shock of September 11 affected the U.S. economy as a whole, and thus all our sample firms were subject to the same negative effect, (2) we compare the market reactions of one sample versus the other, and (3) for the year 2001, both samples consist of almost the same number of loss firms.

15. Untabulated two-digit industry classification analysis showed that our sample firms are not clustered across industries.

16. Our methodology is strongly influenced by the event study methodologies applied by previous studies when examining issues related to dividend policy (e.g., Lasfer [1995]) or other economic events (e.g., international dual listings, as in Miller [1999], or the adoption of International Accounting Standards, as in Karamanou & Nishiotis [2009]).

by the market model). Abnormal returns are averaged to form the mean abnormal return (MAR). We also estimate the median abnormal return. The null hypothesis of no abnormal returns is tested using the *t*-test and the Wilcoxon test for the mean and median returns, respectively. Cumulative abnormal returns (CARs) are estimated for the three-day period, day $-1$ to $+1$, where day zero is the dividend announcement day. A three-day CAR is used to capture the entire impact of the dividend announcement, because in some cases the dividend is announced after the market closes and thus the market response takes place the day after (i.e., day $+1$). Moreover, the relevant information can be unofficially disclosed the day before (i.e., day $-1$). We use a short event window, since this alleviates the possibility that a firm characteristic or an event unrelated to the dividend reduction or suspension announcement affects the stock price reaction.

### 3.3 Cross-Sectional Variation Analysis

A price reaction to dividend changes in the event of a loss can vary cross-sectionally with other firm-specific factors. To ensure that our univariate results are not due to model misspecification (which would occur if relevant variables that affect the market reaction to the dividend change announcement were omitted), we control for the magnitude of the quarterly dividend change. We also include explanatory variables that proxy for the firm's information environment and investment opportunity set. Lastly, we control for the depth of reported losses and the level of unexpected earnings.

The first control variable we consider is the percentage dividend change (*DIV_CHG*), calculated as follows:

$$DIV\_CHG = \frac{DIV_{i,t} - DIV_{i,t-1}}{DIV_{i,t-1}} \tag{1}$$

where $DIV_{i,t}$ and $DIV_{i,t-1}$ are the current and last quarterly dividends for firm $i$, respectively (the current quarter is defined as the quarter during which the dividend reduction or omission announcement took place).[17] Consistent with prior studies, we expect to find a positive relation between dividend changes and CARs. Furthermore, we include the natural logarithm of a firm's total assets ($ln(TA)$), which is used as a measure of firm size. As an alternative measure, we also use the natural logarithm of a firm's market value ($ln(MKTVL)$). Firm size is a commonly used proxy for the firm's information environment, because larger firms institute better mechanisms for periodic information releases (Zeghal [1983]; Atiase [1985]; Donnelly & Walker [1995]). Eddy and Seifert (1988) report a negative relation between abnormal returns and firm size for a sample of dividend-increasing firms.[18] Firm size also is expected to be inversely related to

17. Obviously, in the case of dividend omissions, this variable is equal to $-1$.

18. See also Bajaj and Vijh (1990), Haw and Kim (1991), Mitra and Owers (1995), Jin (2000), and Mikhail, Walther, and Willis (2003).

the CAR for our sample of dividend-omitting or dividend-reducing firms, because the greater the availability of information, the smoother the stock price reaction should be on the announcement day.

The next control variable is the ratio of the market price to the book value (*PRICE/BOOK*), a commonly used proxy for a firm's investment opportunity set.[19] The association between abnormal returns, dividends, and a firm's investment opportunity set is established by the free cash flow hypothesis (Jensen [1986]), according to which, managers, serving the best interests of their shareholders, should distribute any excess cash in the form of dividends to reduce any agency costs. Hence, firms with fewer investment opportunities and thus higher excess cash should pay higher dividends instead of misusing funds by submitting extraordinary managerial compensation or investing in unprofitable projects. Consequently, the market reaction to a dividend cut should be lower for firms with more investment opportunities than for firms with fewer growth prospects. Thus, the coefficient on *PRICE/BOOK* is expected to be negative.

Because twenty-nine out of the eighty-two sample firms announced dividend reductions and losses on the same day, we also control for the level of earnings (losses) per share (*E*) and unexpected earnings (or "earnings surprise") per share (*E_SUPR*).[20] However, given that the remaining fifty-three firms reported losses before the dividend reduction announcements, *E* and *E_SUPR* are not expected to significantly explain the market reaction upon (the subsequently announced) dividend reductions. Thus, to isolate the negative stock price reaction effect that is solely due to the dividend reduction announcements for the twenty-nine firms that declared losses and dividend cuts simultaneously, we use a dummy variable, *ANN_DUMMY*, that takes on the value of one if the dividend announcement took place on the same day as the loss announcement, and zero otherwise. Accordingly, by multiplying *E* and *E_SUPR* with *ANN_DUMMY*, we construct two interaction variables: *E*ANN_DUMMY* and *E_SUPR*ANN_DUMMY*.

For robustness purposes, we use two different measures that proxy for unexpected earnings. As a first proxy, for each of our sample firms, we take the difference between the event quarter's earnings (losses) per share and the mean of all analysts' earnings forecasts sixty days before the event quarter's earnings are announced. Using the Institutional Brokers' Estimate System (I/B/E/S) database, we collect all available analysts' earnings forecasts during this sixty-day window. For analysts with multiple forecasts, the most recent forecast issued is kept. Our second proxy for unexpected earnings is the difference between the event quarter's earnings (losses) per share and the corresponding quarterly earnings (losses)

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19. *PRICE/BOOK* is defined as the price at the beginning of the fiscal quarter in which the dividend announcement took place, divided by the same quarter's shareholders' equity per share.

20. The quarterly dividend cut or reduction announcement took place simultaneously with the quarterly loss announcement (and thus the annual loss) for thirteen firms out of the subsample of forty-seven less-established firms and for sixteen firms of the subsample of thirty-five established firms. The remaining fifty-three sample firms first released losses and subsequently announced dividend reductions.

per share of the previous year.[21] The sign for both *E* and *E_SUPR* is expected to be positive: The larger the loss magnitude (i.e., the more negative *E*) or the greater the earnings surprise (i.e., the more negative *E_SUPR*), the more negative the market reaction.

Hence, using OLS, we estimate the cross-sectional models:[22]

$$CAR = \alpha + \beta_1 SAMPLE + \beta_2 DIV\_CHG + \beta_3 E * ANN\_DUMMY + \beta_4\, ln\,(TA) + \beta_5 PRICE/BOOK \quad (2)$$

$$CAR = \alpha + \beta_1 SAMPLE + \beta_2 DIV\_CHG + \beta_3 E\_SUPR * ANN\_DUMMY + \beta_4\, ln\,(TA) + \beta_5 PRICE/BOOK \quad (3)$$

where the following applies:

*SAMPLE* is one if the firm belongs to the sample of established firms, and zero otherwise;

*DIV_CHG* is the event quarter's dividends minus the prior quarter's dividends, divided by the event quarter's dividends;

*E* is the level of earnings (losses) per share in the event quarter, deflated by the stock price at the beginning of the event quarter;

*E_SUPR* is the event quarter's earnings (losses) per share minus the mean of all available analysts' earnings forecasts sixty days before the event quarter's earnings are announced, deflated by the stock price at the beginning of the event quarter[23];

*ANN_DUMMY* is one if the dividend reduction was announced on the same day as the first quarterly loss announcement, and zero otherwise;

*ln*(*TA*) is the natural logarithm of the firm's total assets in the event quarter; and

*PRICE/BOOK* is the ratio of the stock's price at the beginning of the quarter in which the dividend announcement took place, divided by the same quarter's shareholders' equity per share.

In line with Hypothesis 1, we expect the coefficient of *SAMPLE* to be negative and statistically significant, indicating a more severe negative market

21. We consider the event quarter's earnings per share minus the earnings per share of the corresponding previous year's quarter (and not the event quarter's earnings per share minus the previous quarter's earnings per share of the same year), since we want to eliminate any possible seasonality effects.

22. We avoid incorporating both *E* and *E_SUPR* in the same regression model, because these two variables are highly correlated, that is, they have a correlation coefficient of 0.943, which is statistically significant at all levels (see Table 4).

23. As noted, we used a second proxy for unexpected earnings. The regression results were qualitatively similar, regardless of which of the two variables was used. Thus, for the sake of brevity, we present our results in the empirical section of this study using the first measure of *E_SUPR* (i.e., actual earnings minus mean analysts' earnings forecasts).

reaction when unfavorable dividend policy changes take place following an established pattern of earnings and dividend payments.

### 3.4 Descriptive Statistics and Correlations

Panels A and B in Table 3 present descriptive statistics of the variables used in eq. (2) for the subsamples of less-established and established firms, respectively. The mean and median *ln*(*MKTVL*) and *ln*(*TA*) are greater for the sample of established firms than for that of the less-established firms (e.g., the mean *ln*(*TA*) is 6.728 for the sample of established firms versus 5.774 for the sample of less-established firms). The mean difference between the size variables for the two subsamples is also statistically significant (e.g., Panel C of Table 3 shows that the mean *t*-test difference with respect to *ln*(*TA*) results in a *t*-statistic of −2.350). These results are in line with the conventional finding that established dividend payers tend to be larger firms, because size is one of the most important determinants of dividend policy decisions (Fama & French [2001]; DeAngelo, DeAngelo, & Skinner [2004]; DeAngelo, DeAngelo, & Stulz [2006]).

The mean and median *E* (loss) values are negative. Losses are greater and exhibit higher variability for the subsample of established firms than for the subsample of less-established firms. The same holds for *E_SUPR*. Yet, the parametric *t*-tests and the nonparametric Mann–Whitney tests shown in Panel C of Table 3 indicate that the mean and median differences of *E* and *E_SUPR* with respect to the two samples are not statistically significant. The same holds for *DIV_CHG*, where the percentage dividend decreases appear to be approximately the same for the two samples and the mean and median differences do not appear to be statistically significant.

Table 4 presents correlations among the variables used in eqs. (1) and (2). Since abnormal returns are measured around the dividend reduction or omission announcement day, *CAR*(−1,+1) and *CAR*(−2,+2) exhibit a positive correlation with the percentage dividend change (the correlation coefficient is 0.210 and the *p*-value is 0.058 for *CAR*(−1,+1), and the correlation coefficient is 0.229 and the *p*-value is 0.038 for *CAR*(−2,+2)). Beyond that, abnormal returns are not significantly related to the rest of the control variables.

## 4. Empirical Results

### 4.1 Event Study

This study hypothesizes that investors' reactions to dividend reductions or omissions for loss firms is more negative the longer the pattern of past earnings and dividend payouts. To examine whether prior patterns of earnings and dividend payments are assessed by the market, we analyze the stock price reaction around dividend decrease and omission announcements. We calculated the MARs and cumulative MARs (CMARs) for the fifty-one-day period surrounding

## TABLE 3

## Descriptive Statistics

This table reports descriptive statistics (mean, median, standard deviation, minimum, and maximum) for all the variables used in the cross-sectional analysis. Panels A and B present descriptive statistics for the subsamples of less-established and established firms, respectively. Panel C presents a parametric *t*-test and a nonparametric Mann–Whitney test carried out to determine whether the variables used in the subsample of less-established firms are statistically different from those of the established firm subsample. The subsample of less-established firms consists of forty-seven firms that incurred an annual loss after having experienced positive annual earnings and stable or increasing annual dividend payments for one, two, and/or three years before their first loss occurrence, and reduced or suspended dividend payments in the year of the loss. The established firm subsample consists of thirty-five firms that incurred an annual loss after having had positive annual earnings and stable or increasing annual dividend payments for at least seven consecutive years before their first loss occurrence, and reduced or suspended dividend payments in the year of the loss.

*Panel A:* Subsample of less-established firms

| | *N* | Mean | Median | Std. Dev. | Min. | Max. |
|---|---|---|---|---|---|---|
| *ln(TA)* | *47* | 5.774 | 5.746 | 1.923 | 1.881 | 11.411 |
| *ln(MKTVL)* | *47* | 4.750 | 4.763 | 1.887 | −0.602 | 10.015 |
| *E* | *47* | −0.055 | −0.034 | 0.080 | −0.481 | 0.027 |
| *E_SUPR* | *47* | −0.089 | −0.065 | 0.113 | −0.574 | 0.013 |
| *PRICE/BOOK* | *47* | 2.617 | 1.267 | 6.921 | −2.638 | 47.357 |
| *DIV_CHG* | *47* | −0.799 | −1.000 | 0.285 | −1.000 | −0.100 |
| *CAR*(−1,+1) | *47* | −0.032 | −0.011 | 0.094 | −0.377 | 0.163 |
| *CAR*(−2,+2) | *47* | −0.035 | −0.021 | 0.115 | −0.431 | 0.173 |

*Panel B:* Subsample of established firms

| | *N* | Mean | Median | Std. Dev. | Min. | Max. |
|---|---|---|---|---|---|---|
| *ln(TA)* | *35* | 6.728 | 6.764 | 1.665 | 3.603 | 9.636 |
| *ln(MKTVL)* | *35* | 5.793 | 5.659 | 1.723 | 2.672 | 9.272 |
| *E* | *35* | −0.077 | −0.024 | 0.191 | −1.137 | −0.002 |
| *E_SUPR* | *35* | −0.100 | −0.048 | 0.199 | −1.195 | 0.002 |
| *PRICE/BOOK* | *35* | 2.455 | 1.452 | 9.888 | −24.728 | 52.301 |
| *DIV_CHG* | *35* | −0.814 | −1.000 | 0.235 | −1.000 | −0.280 |
| *CAR*(−1,+1) | *35* | −0.104 | −0.061 | 0.211 | −0.999 | 0.217 |
| *CAR*(−2,+2) | *35* | −0.110 | −0.046 | 0.222 | −1.008 | 0.268 |

*Panel C:* Independent sample test of equal means and medians

| | *N* | *t*-Test | *p*-Value | *z*-Value | *p*-Value |
|---|---|---|---|---|---|
| *ln(TA)* | *82* | −2.350** | 0.021 | −2.320** | 0.020 |
| *ln(MKTVL)* | *82* | −2.544** | 0.013 | −2.367** | 0.018 |
| *E* | *82* | 0.739 | 0.462 | −0.197 | 0.844 |
| *E_SUPR* | *82* | 0.298 | 0.767 | −0.257 | 0.797 |
| *PRICE/BOOK* | *82* | 0.087 | 0.931 | −0.361 | 0.718 |
| *DIV_CHG* | *82* | 0.248 | 0.805 | −0.053 | 0.958 |
| *CAR*(−1,+1) | *82* | 2.078** | 0.041 | −2.329** | 0.019 |
| *CAR*(−2,+2) | *82* | 1.987** | 0.049 | −1.955* | 0.051 |

*(Continued)*

**TABLE 3** *(Continued)*

*Note:* For Panel C, *, **, and *** indicate significance at the 10, 5, and 1 percent levels, respectively.
*Variable Definitions:*

The variable *ln*(*TA*) is the natural logarithm of the total value of assets in the event quarter; *ln*(*MKTVL*) is the natural logarithm of the market value of the common shares outstanding in the event quarter; *E* is the level of earnings (losses) per share in the event quarter, deflated by the stock price at the beginning of the quarter; *E_SUPR* is the mean of all analysts' earnings per share forecasts for a two-month period prior to the loss/earnings announcement that immediately preceded the first dividend reduction/omission announcement, minus the event quarter's earnings or loss per share and deflated by the stock price at the beginning of the event quarter; *PRICE/BOOK* is the price-to-book ratio at the beginning of the event quarter; *DIV_CHG* is the event quarter's dividend payment minus the prior quarter's dividend payment, divided by the event quarter's dividend payment; *CAR*(−1,+1) is the mean CAR for days −1 to +1 and *CAR*(−2,+2) is the mean CAR for days −2 to +2; *N* is the number of observations; and the event quarter is the quarter during which the dividend reduction/omission announcement took place.

dividend reduction or omission announcements. Figures 1 and 2 summarize the evidence by plotting the MARs and CMARs, respectively.

Consistent with our hypothesis, abnormal returns are more negative for our sample of established firms around the announcement period. The pattern of change in MARs is shown in Figure 1. Clearly, on day zero the MAR of the established firms is distinctively lower than the prior day's MAR. This is not the case for the subsample of less-established firms, since the difference between day zero's MAR and the preceding negative MAR is much less acute.[24] Also, Figure 2 depicts a discernible difference between the cumulative MARs of the two subsamples, where established firms' CMARs appear to be distinctively more negative.

Table 5 presents further statistical evidence on the market reaction to dividend reduction or suspension declarations. In line with earlier results, tests of the market reaction using average abnormal returns and CARs for various event windows reveal more negative and statistically significant returns for the subsample of established firms than for the subsample of less-established firms. Consistent with our graphical evidence, windows of two and five days capture the most significant negative returns for both subsamples. With respect to the established subsample, *CAR*(−1,+1) and *CAR*(−2,+2) are −10.3 percent and −11 percent, respectively, while both are significant at the 1 percent level. Less-established firms exhibit less negative CARs: *CAR*(−1,+1) and *CAR*(−2, +2) are −3.1 percent and −3.5 percent, respectively. The statistical significance is weaker and confined to the 10 percent level for both *CAR*(−1,+1) and *CAR*(−2,+2).

24. Untabulated analysis revealed that on days one and plus one the established firms' MAR is negative (−4.2 and −2.8 percent, respectively) and statistically significant at the 5 percent level (with *p*-values of 0.018 and 0.015, respectively). On the other hand, on day zero the MAR for the less-established firms is −1 percent and statistically significant at the 10 percent level ($p = 0.08$), while on day plus one the MAR reduces to −0.5 percent but is statistically insignificant.

## TABLE 4

## Correlations

This table reports correlation coefficients for all variables used in the cross sectional analysis. Corresponding *p*-values appear below the correlation coefficients in italics.

| | *ln(TA)* | *ln(MKTVL)* | *E* | *E_SUPR* | *PRICE/BOOK* | *DIV_CHG* | *CAR*(−1,+1) | *CAR*(−2,+2) |
|---|---|---|---|---|---|---|---|---|
| *ln(TA)* | 1 | 0.791*** | 0.006 | −0.063 | 0.212* | 0.058 | −0.091 | −0.067 |
| | | *0.000* | *0.961* | *0.573* | *0.056* | *0.604* | *0.414* | *0.548* |
| *ln(MKTVL)* | | 1 | 0.129 | 0.111 | 0.252** | 0.129 | −0.057 | −0.061 |
| | | | *0.252* | *0.326* | *0.023* | *0.252* | *0.609* | *0.588* |
| *E* | | | 1 | 0.943*** | 0.054 | 0.126 | −0.040 | −0.042 |
| | | | | *0.000* | *0.630* | *0.261* | *0.716* | *0.707* |
| *E_SUPR* | | | | 1 | 0.058 | 0.201* | −0.063 | −0.071 |
| | | | | | *0.605* | *0.072* | *0.576* | *0.525* |
| *PRICE/BOOK* | | | | | 1 | 0.021 | −0.023 | −0.029 |
| | | | | | | *0.852* | *0.834* | *0.792* |
| *DIV_CHG* | | | | | | 1 | 0.210* | 0.229** |
| | | | | | | | *0.058* | *0.038* |
| *CAR*(−1,+1) | | | | | | | 1 | 0.958*** |
| | | | | | | | | *0.000* |
| *CAR*(−2,+2) | | | | | | | | 1 |

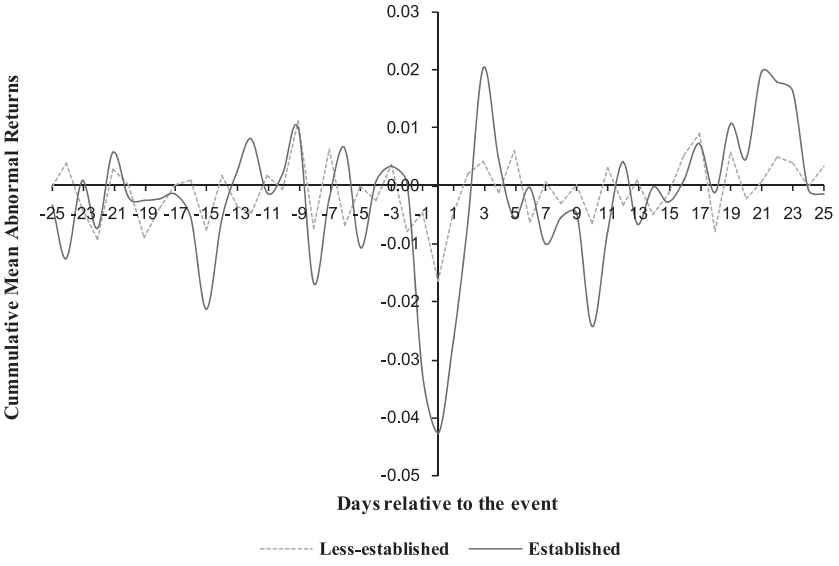
*Note:* *, **, ***, correlation is significant at the 10 percent, 5 percent, 1 percent levels of significance, respectively.

*Variable Definitions:*

*ln*(*MKTVL*) is the natural logarithm of the market value of the common shares outstanding on the event quarter. *ln*(*TA*) is the natural logarithm of the total value of assets on the event quarter. *E* is the level of earnings (losses) per share on the event-quarter, deflated by the stock price at the beginning of the quarter. *E_SUPR* is the mean of all analysts' earnings per share forecasts for a two-month period before the loss/earnings announcement that immediately proceeds the first dividend reduction/omission announcement, minus the event quarter's earnings or loss per share, and deflated by the stock price at the beginning of the event quarter. *PRICE/BOOK* is the price-to-book ratio on the beginning of the event quarter. *DIV_CHG* is the event-quarter's dividend payment minus the prior quarter's dividend payment, divided by the event-quarter's dividend payment. *CAR*(−1,+1) is the mean cumulative abnormal returns for day −1 to day +1, and *CAR*(−2,+2) is the mean cumulative abnormal returns for day −2 to day +2. The event quarter is the quarter during which the dividend reduction/omission announcement took place.

**FIGURE 1**

**Mean Abnormal Returns**

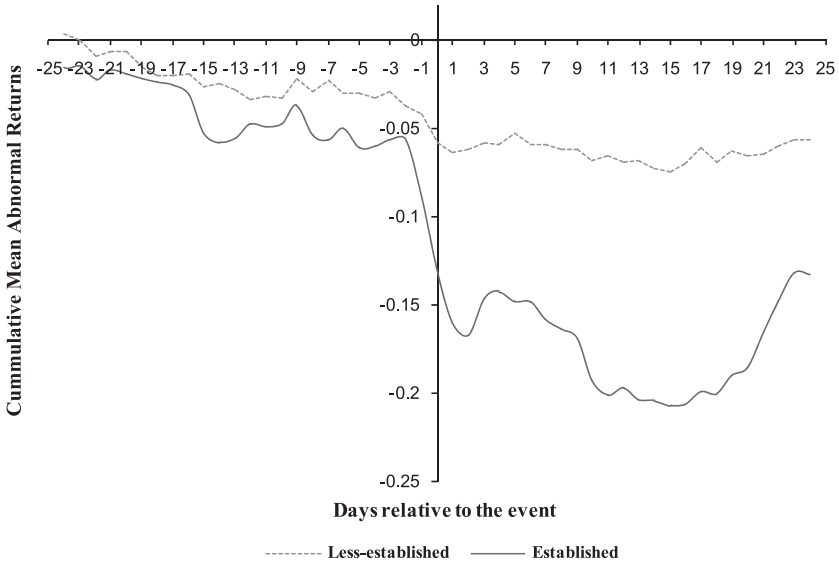



Mean abnormal returns (MAR) from day −25 to day +25 after the announcement of a dividend reduction or omission. The daily abnormal returns are market model adjusted for each security using parameters estimated over a 125 pre-event period, from day −150 to −26 relative to the event date. The daily abnormal returns are averaged across firms. The event date is the date on which dividend reductions or omissions were announced, following the first loss after a series of positive annual earnings and stable or increasing annual dividends. Center for Research in Security Prices' (CRSP's) New York Stock Exchange (NYSE)/American Stock Exchange (AMEX)/NASDAQ value-weighted market index is used as a proxy for the market portfolio. The sample period is 1986–2003. The dashed line represents the MAR for the less-established subsample, and the continuous line represents the MAR for the established subsample. The less-established subsample consists of forty-seven firms that incurred an annual loss after having positive annual earnings and stable or increasing annual dividend payments for one, and/or two, and/or three years before their first loss occurrence, and on the year of the loss reduced or suspended dividend payments. The established subsample consists of thirty-five firms that incurred an annual loss after having positive annual earnings, and stable or increasing annual dividend payments for at least seven consecutive years before their first loss occurrence, and on the year of the loss reduced or suspended dividend payments.

Furthermore, the results in Panel C of Table 5 show that the differences across the two subsamples are significant under both parametric and nonparametric statistical tests (with the exception of $CAR(-5,+5)$). The hypothesis of equality of means is rejected at the 5 percent level for $CAR(-1,+1)$ and $CAR(-2,+2)$, and at the 10 percent level for $CAR(-3,+3)$.

**FIGURE 2**

**Cumulative Mean Abnormal Returns**




Cumulative mean abnormal returns (CMAR) from day −25 to day +25 after the announcement of a dividend reduction or omission. The daily abnormal returns are market model adjusted for each security using parameters estimated over a 125 pre-event period, from day −150 to −26 relative to the event date. The daily abnormal returns are averaged across firms. The event date is the date on which dividend reductions or omissions were announced, following the first loss after a series of positive annual earnings and stable or increasing annual dividends. The dashed line represents the CMAR for the less-established subsample, and the continuous line represents the CMAR for the established subsample. The less-established subsample consists of forty-seven firms that incurred an annual loss after having positive annual earnings and stable or increasing annual dividend payments for one, and/or two, and/or three years before their first loss occurrence, and on the year of the loss reduced or suspended dividend payments. The established subsample consists of thirty-five firms that incurred an annual loss after having positive annual earnings, and stable or increasing annual dividend payments for at least seven consecutive years before their first loss occurrence, and on the year of the loss reduced or suspended dividend payments.

Overall, these results support our hypothesis. With respect to the two subsamples under investigation, the market reaction to dividend reductions or omissions is negatively related with past earnings and dividend patterns. Yet, to substantiate the univariate evidence provided here, we further test the validity of our hypothesis using multivariate regression analysis in the following section.

## TABLE 5

## CARs around the Announcement of Dividend Reductions or Omissions

This table reports the average CARs, *AVG*{*CAR* (*t*1, *t*2)}, for the period days *t*1 to *t*2. The daily abnormal returns are (1) market model adjusted for each security and (2) averaged across firms and then cumulated. The sample period is 1986–2003. Panel A reports the average CARs for the subsample of less-established firms and Panel B reports those for the subsample of established firms. The former subsample consists of forty-seven less-established firms that incurred an annual loss after having had positive annual earnings and stable or increasing annual dividend payments for one, two, and/or three years before their first loss, and in the year of the loss reduced or suspended dividend payments. The latter subsample consists of thirty-five established firms that incurred an annual loss after having had positive annual earnings and stable or increasing annual dividend payments for at least seven consecutive years before their first loss, and in the year of the loss reduced or suspended dividend payments. In Panels A and B, *p*-values appear below the average CAR estimates, and the last column shows the number of events used in each case. In Panel C, the third and fourth columns show a parametric independent sample *t*-test and a nonparametric independent sample Mann–Whitney test carried out to determine whether the average CARs of the subsample of less-established firms are statistically different from those of the subsample of established firms. The *p*-values appear below the test statistics.

*Panel A: CAR* for the sample of less-established firms

| Period | *AVG*{*CAR* (*t*1, *t*2)} | *N* |
|---|---|---|
| *CAR* (−1,+1) | −0.031* | *47* |
| | *0.097* | *47* |
| *CAR* (−2,+2) | −0.035* | *47* |
| | *0.085* | *47* |
| *CAR* (−3,+3) | −0.023 | *47* |
| | *0.175* | *47* |
| *CAR* (−5,+5) | −0.029 | *47* |
| | *0.125* | *47* |

*Panel B: CAR* for the sample of established firms

| Period | *AVG*{*CAR* (*t*1, *t*2)} | *N* |
|---|---|---|
| *CAR* (−1,+1) | −0.103*** | *35* |
| | *0.006* | *35* |
| *CAR* (−2,+2) | −0.110*** | *35* |
| | *0.006* | *35* |
| *CAR* (−3,+3) | −0.086** | *35* |
| | *0.023* | *35* |
| *CAR* (−5,+5) | −0.098** | *35* |
| | *0.022* | *35* |

*Panel C:* Independent sample test for equal means and medians

| | *t*-Stat. | *z*-Value | *N* |
|---|---|---|---|
| *CAR* (−1,+1) | 2.078** | −2.329** | *82* |
| | *0.041* | *0.019* | |
| *CAR* (−2,+2) | 1.987** | −1.955* | *82* |
| | *0.049* | *0.051* | |

**TABLE 5** *(Continued)*

| *Panel C:* Independent sample test for equal means and medians | *t*-Stat. | *z*-Value | *N* |
|---|---|---|---|
| *CAR* (−3,+3) | 1.696* | −1.702* | *82* |
| | *0.094* | *0.089* | |
| *CAR* (−5,+5) | 1.644 | −0.933 | *82* |
| | *0.104* | *0.351* | |

*Note:* *, **, and *** indicate the significance of the *t*-statistics (for the means) and *z*-statistics (for the medians) at the 10 percent, 5 percent, and 1 percent levels, respectively.

### 4.2 Cross-Sectional Analysis

Table 6 presents the OLS regression results. The dependent variable is $CAR(-1,+1)$.[25] Our models, as described in eqs. (2) and (3), are presented in columns 5 and 6, respectively, of Table 6. We also ran alternative versions of our basic models in eqs. (2) and (3), employing different control variable combinations. The results are presented in columns 1 to 4 of Table 6. Table 6 reports coefficient estimates with the corresponding *p*-values along with the *F*-statistics and adjusted $R^2$ values. All models exhibit significant explanatory power, as indicated by the *F*-test, and have adjusted $R^2$ values up to 7.5 percent. All tests of statistical significance are based on White's (1980) standard errors.

Overall, the OLS regression results support the view that the market reacts more negatively when firms experience a first-time loss and reduce dividends after an established pattern of earnings and dividend payments. Consistent with our hypothesis, the coefficient of the dummy *SAMPLE* is always negative, ranging from −0.062 to −0.069, and statistically significant at the 5 percent level (with *p*-values ranging from 0.024 to 0.047).

As expected, the estimated coefficient of *DIV_CHG* is positive and statistically significant in all models tested, indicating that the market reaction to the dividend change is significantly related to the magnitude of the change. The coefficient ranges from 0.111 to 0.116. In columns 2 and 5 of Table 6, the percentage dividend change variable is significant at the 5 percent level ($p = 0.047$), while elsewhere the statistical significance is at the 10 percent level.

The rest of the explanatory variables do not appear to explain the price movements following the dividend change declaration. Neither *ln*(*TA*) nor *PRICE/BOOK* exhibit statistical significance at conventional levels.[26] Likewise,

25. For robustness purposes, we also ran OLS regressions using $CAR(-2,+2)$ as the dependent variable. Untabulated results are qualitatively similar.

26. The results are qualitatively unchanged when we consider *ln*(*MKTVL*) instead of *ln*(*TA*). We also reran our regression eqs. (2) and (3), incorporating dummies for the one-digit Standard Industrial Classification (SIC) codes (i.e., code numbers one through five and seven), intended to capture potential industry effects. However, untabulated regression results did not provide evidence in favor of significant industry clustering.

## TABLE 6

## Cross-Sectional Tests

This table presents ordinary least squares (OLS) regression coefficient estimates of the association between *CAR*(−1, +1) and *SAMPLE*, *ANN_DUMMY*, *DIV_CHG*, E, *ln*(*TA*), and *PRICE*/*BOOK*. The dependent variable is the average cumulative abnormal return for the event window day −1 to day +1 (i.e., *CAR* (−1,+1)). *SAMPLE* is a qualitative variable that takes the value of one if the firm belongs in the established subsample and zero if it belongs in the less-established subsample. *ANN_DUMMY* is a qualitative variable that takes the value of one if the dividend reduction/omission announcement and the first quarterly loss announcement take place in the same day, and zero otherwise. *DIV_CHG* is the event-quarter's dividend payment minus the prior quarter's dividend payment, divided by the event-quarter's dividend payment. *ln*(*TA*) is the natural logarithm of the value of total assets on the event quarter. *E* is the level of earnings (losses) per share on the event-quarter, deflated by the stock price at the beginning of the quarter. *PRICE*/*BOOK* is the price to book ratio at the beginning of the event quarter. The event quarter is the quarter during which the dividend reduction/omission announcement took place. *p*-values are presented below the coefficient estimates in italics.

| | Dependent Variable *CAR*(−1,+1) | | | | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| *SAMPLE* | −0.066** | −0.069** | −0.069** | −0.062** | −0.066** | −0.066** |
| | *0.029* | *0.024* | *0.026* | *0.047* | *0.040* | *0.041* |
| *DIV_CHANGE* | 0.111* | 0.114** | 0.114* | 0.112* | 0.116** | 0.116* |
| | *0.053* | *0.047* | *0.054* | *0.052* | *0.047* | *0.053* |
| *E*ANN_DUMMY* | | −0.092 | | | −0.087 | |
| | | *0.460* | | | *0.491* | |
| *E_SUPR*ANN_DUMMY* | | | −0.090 | | | −0.086 |
| | | | *0.448* | | | *0.475* |
| *ln(TA)* | | | | −0.004 | −0.003 | −0.003 |
| | | | | *0.599* | *0.694* | *0.726* |
| *PRICE/BOOK* | | | | | 0.001 | 0.001 |
| | | | | | *0.800* | *0.803* |
| Intercept | 0.051 | 0.053 | 0.052 | 0.077 | 0.075 | 0.073 |
| | *0.290* | *0.275* | *0.304* | *0.265* | *0.285* | *0.327* |
| *F*-Stat. | 4.658** | 3.218** | 3.058** | 3.173** | 3.058** | 3.158** |
| Prob(*F*-Stat.) | *0.012* | *0.027* | *0.033* | *0.028* | *0.035* | *0.040* |
| Adj. $R^2$ | 7.5% | 7.0% | 6.5% | 6.8% | 5.2% | 5.0% |
| *N* | *82* | *82* | *81* | *82* | *82* | *82* |

*Note:* *, **, ***, statistically significant at the 10 percent, 5 percent, 1 percent levels of significance, respectively. The regression standard errors are computed using White's heteroscedasticity-consistent covariance matrix.

*E*ANN_DUMMY* and *E_SUPR*ANN_DUMMY* lack statistical significance for all variations of our model. We interpret this as evidence that the adverse market reaction for the twenty-nine firms that reported dividend reductions and earnings simultaneously is not due to the magnitude of the reported losses or the level of unexpected earnings. Thus, our regression results indicate that the reported losses

do not account for the negative stock price reaction when dividend reductions are declared concurrently with losses. These findings, however, are in line with those of Hayn (1995), in which the magnitude of reported losses is shown to be uncorrelated with contemporaneous price movements.[27] Thus, the lack of statistical significance with respect to *E* and *E_SUPR* can be explained by the weak return–losses relation documented in prior literature (Hayn [1995]; Joos & Plesko [2005]). The important implication for the current study is that, controlling for the magnitude of the dividend change, the firm's size and investment opportunity set, the depth of reported losses, and the level of unexpected earnings, the coefficient of *SAMPLE* remains negative and statistically significant.[28]

Overall, the findings presented in Table 6 corroborate the univariate results reported in Figures 1–2 and Table 5; that is, the negative market reaction around dividend reduction or omission announcements is significantly associated with past earnings and dividends patterns.

### 4.3 Loss Reliability and Future Earnings Changes

The empirical evidence provided thus far supports our hypothesis. Both the event study and regression results indicate that the market reaction is significantly more negative for loss firms that declare dividend reductions after an established record of earnings and dividend payments than for less-established firms. Because our explanation attributes this finding to the role of loss reliability and the transfer of information from reported losses to dividend reduction announcements, this subsection provides evidence to support our theoretical rationale.

To probe into the conjecture that longer patterns of past earnings and dividends induce lower loss reliability, we construct two additional samples consisting of all 297 NYSE, NASDAQ, and AMEX established and less-established firms that incurred a loss during the yearly period 1986–2003 but sustained their dividend payments. We thus identify (1) 125 less-established nonreducers and (2) 172 established nonreducers. Table 7 reports the mean earnings per share in the event quarter ($E_{Q0}$) and in the subsequent quarter ($E_{Q1}$) for our main samples (i.e., established and less-established reducers) and for the two additional comparison samples of nonreducers.

Table 7 documents that established reducers continue to report losses following the initial loss. In fact, the established reducers' mean loss of $-0.077$ becomes even more negative in $Q_1$ ($E_{Q1} = -0.089$). Even though the difference between $E_{Q1}$ and $E_{Q0}$ is not statistically significant, the important implication is

27. As Hayn (1995) argues, this finding stems from the fact that because shareholders have a liquidation option, losses are not expected to perpetuate. Losses are thus less informative about a firm's future prospects than profits.

28. As a further robustness check, both the univariate and the cross-sectional analyses were repeated, employing the sample of fifty-three firms for which losses preceded the dividend reduction announcements, that is, excluding the subsample of twenty-nine firms that announced losses and dividend reductions simultaneously. The results are qualitatively identical to those reported in Figures 1–2 and Tables 5–6 and thus were not tabulated for brevity.

## TABLE 7

### Actual Changes in Future Earnings: Dividend Reducers versus Nonreducers

This table shows mean earnings per share on the event quarter $E_{Q0}$ and on the following quarter $E_{Q1}$. Earnings per share are standardized by the stock price at the beginning of the event quarter. Four subsamples of loss firms are employed: (1) a subsample of established nonreducers, (2) a subsample of less-established nonreducers, (3) a subsample of established reducers, and (4) a subsample of less-established reducers. The nonreducer subsamples consist of firms that incurred a loss but did not reduce dividend payments. The reducers subsamples consist of firms that reduced dividend payments following an initial loss. Panel A and Panel B report mean earnings per share for the less-established and the established subsamples, respectively. The less-established subsample consists of 47 reducing and 125 nonreducing firms that (1) incurred an annual loss after having positive annual earnings and stable or increasing annual dividend payments for one, and/or two, and/or three years before their first annual loss, and (2) the quarterly dividend reduction or suspension announcements were made after (or on the same day with) the loss announcements. The established subsample consists of 35 reducing and 172 nonreducing firms that (1) incurred an annual loss after having positive annual earnings and stable or increasing annual dividend payments for at least seven consecutive years before their first annual loss, and (2) the quarterly dividend reduction or suspension announcements were made after (or on the same day with) the loss announcements. The sample period is 1986–2003. *p*-values appear below the test statistics in italics.

*Panel A:* Earnings for the less-established subsample

| | $E_{Q0}$ | $E_{Q1}$ | Difference ($E_{Q1}-E_{Q0}$) | Significance (*p*-value) | *N* |
|---|---|---|---|---|---|
| Reducers | −0.055 | −0.025 | 0.030 | *0.327* | *47* |
| Nonreducers | −0.099 | −0.046 | 0.053 | *0.197* | *125* |
| Difference (nonreducers – reducers) | −0.044 | −0.021 | | | *172* |
| *p*-Value | *0.222* | *0.915* | | | |

*Panel B:* Earnings for the established subsample

| | $E_{Q0}$ | $E_{Q1}$ | Difference ($E_{Q1}-E_{Q0}$) | Significance (*p*-value) | *N* |
|---|---|---|---|---|---|
| Reducers | −0.077 | −0.089 | −0.012 | *0.755* | *35* |
| Nonreducers | −0.056 | 0.010 | 0.066*** | *0.000* | *172* |
| Difference (nonreducers – reducers) | 0.021 | 0.099*** | | | *207* |
| p-Value | *0.560* | *0.001* | | | |

*Note:* *, **, and ***, indicate significance of the *t*-statistics at the 10 percent, 5 percent, and 1 percent levels, respectively.

that established reducers do not exhibit a recovery in their profitability following the initial loss. On the other hand, established nonreducers return to positive mean earnings during the quarter following their initial loss ($Q_1$). The mean loss in the event quarter ($E_{Q0}$) is −0.056, which rebounds to a positive 0.010 in $Q_1$.

Moreover, the positive $E_{Q1}$ is significantly different from the negative $E_{Q0}$ (i.e., $E_{Q1} - E_{Q0} = 0.066$, significant at the 1% level). Also, while the mean loss in the event quarter is not statistically different across the two groups (*non_Red.* − *Red.* = 0.021 with $p = 0.560$), in $Q_1$ the difference in earnings performance is highly significant (*non_Red.* − *Red.* = 0.099 with $p = 0.001$). Given that (1) both reducers and nonreducers exhibit the same characteristics, in that both groups exhibit established track records before the first annual loss, (2) no difference is statistically discernible between the initial losses of the two groups in $Q_0$, and (3) only the nonreducers manage to recover to positive earnings, then, clearly, first-time losses are extreme or otherwise unusual and thus constitute an unreliable indicator of future earnings. Consequently, because managers are reluctant to cut dividends, dividend reductions are more likely to offer a reliable indication of whether earnings difficulties will persist.

On the contrary, Table 7 shows that in the quarter following the initial loss, both less-established reducers and nonreducers continue to report negative mean earnings (−0.025 and −0.046, respectively). Moreover, all the differences across the two subsamples lack statistical significance. Therefore, in the case of less-established firms, the initial loss cannot be deemed to be extreme or unusual but, rather, poses as reliable in the sense that it constitutes a reliable indicator that negative earnings will persist in the next quarter. It could be counterargued, however, that both groups manage to improve their earnings performance, since the reported losses in $Q_1$ are less negative than those reported in $Q_0$. Yet again, because profitability improves for both reducers and nonreducers, the role of dividend policy in revealing a firm's future prospects is limited, and the decision of whether to reduce or sustain dividends does not help differentiate between less and more persistent losses.

On the whole, the results up to now are similar in spirit with earlier evidence from DeAngelo, DeAngelo, and Skinner (1992), that, conditional on a loss, investors are expected to assign more value to dividend cut announcements by established firms than to those by less-established firms because established firms' losses are considered more extraordinary (i.e., a loss following a long stream of positive earnings that ex post rebounds to earnings for nonreducers). At the time losses are released (ex ante), however, investors do not know whether losses will rebound ex post. If losses are considered less reliable than dividends, then investor reactions upon loss announcements should be less adverse than upon dividend announcements. This is not shown by DeAngelo, DeAngelo, and Skinner (1992), because they do not examine the market reactions associated with dividend reductions. We posit that a comparison of investors' reactions around a loss release with the corresponding reaction around a dividend cut announcement would provide more explicit evidence on whether investors consider dividends to be less or more reliable than losses. We thus shed light on this issue by examining abnormal returns for the subsample of fifty-three firms that first released losses and subsequently declared dividend reductions.

## TABLE 8

## CARs around the Dividend Reduction or Omission Announcements and around the Loss Announcements

This table shows the average cumulative abnormal returns, *AVG*{*CAR* (*t*1, *t*2)}, for the period day *t*1 to day *t*2 around the quarterly loss announcements (Panel A) and the dividend reductions or omissions announcements (Panel B). The daily abnormal returns are (1) market model adjusted for each security; and (2) averaged across firms and then cumulated. The sample employed excludes twenty-nine firms that announced dividend reductions and losses simultaneously. Accordingly, the less-established subsample consists of thirty-four firms that (1) incurred an annual loss after having positive annual earnings and stable or increasing annual dividend payments for one, and/or two, and/or three years before their first annual loss, (2) on the year of the loss reduced or suspended dividend payments, and (3) made the quarterly dividend reduction or suspension announcements after the loss announcements. The established subsample consists of nineteen firms that (1) incurred an annual loss after having positive annual earnings and stable or increasing annual dividend payments for at least seven consecutive years before their first annual loss, (2) on the year of the loss reduced or suspended dividend payments, and (3) made the quarterly dividend reduction or suspension announcements after the loss announcements. The fourth column in both panels reports the results of the independent samples *t*-tests, of the established subsample versus the less-established subsample. The sample period is 1986–2003. *p*-values appear below the test statistics in italics.

*Panel A: CAR* around the loss announcements

| *AVG*{*CAR* (*t*1, *t*2)} | Less-Established Sample | Established Sample | Test for the Equality of Means: *t*-Stat. | *N* |
|---|---|---|---|---|
| *CAR* (−1,+1) | −0.027* | −0.092* | 1.661 | *53* |
| | *0.073* | *0.055* | *0.103* | |
| *CAR* (−2,+2) | −0.015 | −0.105* | 1.611 | *53* |
| | *0.336* | *0.064* | *0.122* | |
| *CAR* (−3,+3) | −0.012 | −0.088 | 1.627 | *53* |
| | *0.532* | *0.111* | *1.110* | |

*Panel B: CAR* around the dividend reduction or omission announcements

| *AVG*{*CAR* (*t*1, *t*2)} | Less-Established Sample | Established Sample | Test for the Equality of Means: *t*-Stat. | *N* |
|---|---|---|---|---|
| *CAR* (−1,+1) | −0.028* | −0.133** | 2.097** | *53* |
| | *0.097* | *0.041* | *0.041* | |
| *CAR* (−2,+2) | −0.028 | −0.143** | 2.096** | *53* |
| | *0.179* | *0.038* | *0.041* | |
| *CAR* (−3,+3) | −0.016 | −0.125* | 2.046** | *53* |
| | *0.458* | *0.051* | *0.046* | |

*Note:* *, **, and ***, indicate significance of the *t*-statistics at the 10 percent, 5 percent, and 1 percent levels, respectively.

Panels A and B of Table 8 report CARs surrounding loss releases and dividend reduction or omission declarations, respectively. The subsample of less-established firms comprises thirty-four firms and the subsample of established firms comprises nineteen. The results indicate that between days −1 and +1, the less-established firms experience almost identical CARs around the two events under focus. Specifically, the $CAR(-1,+1)$ values around the loss and dividend reduction announcements are −2.7 percent and −2.8 percent, respectively, while both are statistically significant at the 10 percent level. The CARs for the $CAR(-2,+2)$ and $CAR(-3,+3)$ windows lack statistical significance in both panels. On the contrary, established firms experience more negative stock returns around dividend reduction declarations than around loss announcements. The $CAR(-1,+1)$ and $CAR(-2,+2)$ values around the loss releases are −9.2 percent and −10.5 percent, respectively, and significant at the 10 percent level. Around the subsequent dividend reduction announcements, however, the corresponding three-day and five-day CARs are −13.3 percent and −14.3 percent, respectively, and significant at the 5 percent level. Evidently, investors attribute more importance to unfavorable changes in regular dividend payouts the longer the historical patterns of earnings and dividends preceding the first dividend cut. Viewed collectively, the evidence in Tables 7 and 8 corroborates our assertion that longer patterns of past earnings and dividends result in lower loss reliability, which in turn strengthens the information content of dividend policy decisions.

## 5. Conclusion

This study provides empirical evidence that patterns of past earnings and dividend payments matter when firms that experience a first-time loss reduce or cut their dividends. Consistent with prior literature, we find negative average stock returns around dividend reductions or omissions. By extending prior literature, we show that the market appears to value the pattern of a firm's past earnings and dividend records. Specifically, we find that market reaction is more negative for our sample of firms that incur a loss and then reduce or omit their dividends following an established pattern of positive earnings and dividend payments than for our sample of firms with a less-established track record. We argue that the mechanism driving this asymmetry in market returns stems from the following interconnected effects: The first is the enhanced information content of dividends in the occurrence of earnings difficulties; that is, in the presence of losses (or low-quality earnings in general), investors form their expectations regarding future earnings relying more on a firm's dividends than on its losses (DeAngelo, DeAngelo, & Skinner [1992]; Charitou [2000]; Joos & Plesko [2004]; Skinner & Soltes [2009]). The second effect is the association between dividends and earnings patterns with loss reliability as perceived by the market. Established patterns deteriorate loss reliability, in the sense that investors form their expectations regarding future earnings relying less on a firm's current loss

and more on its dividend payments (DeAngelo, DeAngelo, & Skinner [1992]). Thus, given a loss, more established patterns of past earnings and dividends strengthen the importance of dividends in revealing management's perceptions regarding the firm's future prospects. In turn, dividend reductions or omissions result in more negative stock returns, the more established a firm's past earnings and dividend payouts are.

In support of the above line of reasoning, we find significantly more negative abnormal returns around the announcements of dividend cuts for established firms than for less-established firms. Moreover, a cross-sectional analysis finds that the historical patterns of earnings and dividends remain an important determinant of the market response to an adverse dividend change declaration, even after controlling for the magnitude of the dividend decrease, the firm's information environment and growth prospects, and the magnitude of the unexpected loss.

Put in a broader context, the central prediction documented in this paper, that dividends and earnings patterns are valued by investors when losses are coupled with dividend reductions, adds to the literature on pricing dividend consistency. This issue gains more interest given, on the one hand, the increasing tilt of publicly traded firms toward lower earnings and the substantial increase in the frequency of reported losses (e.g., Givoly & Hayn [2000]; Fama & French [2001]; DeAngelo, DeAngelo, & Skinner [2004]; Skinner & Soltes [2009]) and, on the other hand, the increasing evidence that corporate earnings have become more concentrated and more variable in the past three decades (DeAngelo, DeAngelo, & Skinner [2004]; Fama & French [2004]).

Lastly, we acknowledge that our findings refer to a small sample spanning eighteen years of U.S. data and thus cannot be generalized to the total population of U.S. firms. Yet, we must note that the lack of additional data is, to a considerable extent, due to the fact that firms are not obliged by law to publicly release any announcements related to their dividend policy decisions (as opposed to earnings releases). For this reason, and given our efforts to gather the maximum amount of available data, the results presented in this paper constitute, to the best of our knowledge, a fair representation of U.S. firms that incurred first-time losses following patterns of past earnings and dividends and chose to announce unfavorable changes in their dividend policy during the eighteen-year period under examination. To this end, our results encourage further international research in this area to reinforce our confidence in the evidence provided herein.

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