Dividend Initiations and Earnings Surprises

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This paper examines the performance of newly public firms and compares those firms that initiated dividends with those that did not. Earnings increases following the dividend initiation and earnings surprises for initiating firms are more favorable than those for noninitiating firms. Furthermore, had noninitiating firms declared dividends that matched the dividend yield, dividend-to-sales ratio, or dividend-to-assets ratio of initiating firms, the promised dividend would have equaled about 8.5% of earnings, significantly above the 0.05 level for initiating firms. In contrast to DeAngelo, DeAngelo, and Skinner (1996), these results suggest that dividends signal differences in performance between otherwise comparable firms.

■ In an economy that levies taxes on investment income, dividends are clearly a disadvantageous means of transferring wealth to shareholders. To justify dividend costs, two explanations are usually given: dividends are used to solve agency problems within the firm, or dividends are used to communicate information to the market.[1] These explanations are particularly appealing because they are consistent with the well-documented fact that announcements of dividend increases are accompanied, on average, by positive abnormal stock price movements.[2]

Recently, DeAngelo, DeAngelo, and Skinner (1996) raised two objections to these explanations. First, they find little evidence linking dividend changes to subsequent earnings surprises. Second, they suggest that actual cash commitments associated with dividend payments are small relative to the operations of a firm, and therefore have little value as either incentive or signaling mechanisms.

The results in DeAngelo et al. (1996) are somewhat surprising since Healy and Palepu (1988) document earnings increases, both in raw and industry-adjusted levels, subsequent to dividend announcements. Clearly, the methodology employed by DeAngelo et al., which examines earnings surprises (realized earnings in excess of growth-adjusted expectations) should better capture any signal embedded in dividend decisions. However, DeAngelo et al. examine firms that *reduce* dividends, and Healy and Palepu (1988) examine dividend *initiations*, and it is possible that dividends function as a signal in one context and not the other.

This paper uses the methodology of DeAngelo,

[1]Agency explanations have been developed by Rozeff (1982), Easterbrook (1984), Jensen (1986), and Jensen, Solberg, and Zorn (1992), among others. Signaling explanations have been developed by Bhattacharya (1979), Miller and Rock (1985), John and Williams (1985), Ambarish, John, and Williams (1987), Williams (1988), and Chowdry and Nanda (1994), among others.

[2]See Aharony and Swary (1980), Handjinicolaou and Kalay (1984), Ofer and Siegel (1987), Healy and Palepu (1988), and DeAngelo, DeAngelo, and Skinner (1996) for dividend announcement effects.

DeAngelo, and Skinner (1996) on a sample of newly public firms that initiate dividends (henceforth "initiating" or "dividend-initiating" firms). Restricting our attention to firms that have recently gone public allows us to identify a matched sample of firms, which are comparable in terms of life cycle and future growth opportunities, but have not initiated dividends. Specifically, we identify firms that went public at the same time and in the same industry as our dividend-initiating firms, but ones that did not initiate dividends (henceforth "noninitiating" firms).

This matched sample is interesting because a firm should engage in signaling activities specifically to differentiate itself from firms that investors might perceive as having similar future prospects. Our matched sample comprises a set of firms likely to have similar future prospects. We also examine a matched sample of firms in the same industry that are approximately the same size as the initiating firm, but are already paying dividends (henceforth "size-matched" firms).

Consistent with Healy and Palepu (1988), we find that both raw and industry-adjusted earnings increase for our initiating firms in the first year after a dividend initiation, but not in the second year. However, in contrast to DeAngelo, DeAngelo, and Skinner (1996), we find that earnings surprises for our dividend-initiating firms are more favorable than for the matched sample of noninitiating firms in each of the two years following the dividend initiation. Tempering these results is the fact that the earnings surprises of our initiating firms are indistinguishable from either the size-matched sample or industry averages.

These results suggest that if dividend initiations signal future earnings prospects, it must distinguish one newly public firm from other newly public firms, not from established firms in the industry. We explore this possibility further by considering the magnitude of the dividend commitment associated with dividend initiations. DeAngelo et al. (1996) correctly point out that changes in dividend levels cannot be a valid signal of future prospects unless they represent a significant commitment of cash.[3] The essential argument is that firms with weaker future prospects will duplicate any actions by firms with better prospects unless the costs to the lower quality firm are significant. In this paper, we focus on the potential cost of dividends to firms that do *not* signal. Specifically, we examine the resource commitment required of noninitiating firms if they initiate similar dividends.

We find that dividend commitments represent 5% of earnings for our initiating firms. More importantly, had noninitiating firms matched the dividend yield, dividend-to-sales ratio, or dividend-to-assets ratio of the initiating firms, dividend commitments would have been about 8.5% of earnings. This 8.5% marginal commitment by noninitiating firms is substantially larger than the 3.5% documented by DeAngelo et al. (1996) for the dividend-reducing firms in their sample.[4] Furthermore, the *difference* in dividend commitments between initiating and noninitiating firms is significant. The large marginal dividend commitment required of noninitiating firms suggests that dividend commitments may be sufficiently large to support signaling equilibria in the context of dividend initiations.

Our results are related to a number of dividend studies. Consistent with DeAngelo, DeAngelo, and Skinner (1996), Lang and Litzenberger (1989) find no significant changes in analyst estimates of future earnings accompanying dividend announcements, and Benartzi, Michaely, and Thaler (1997) find no association between dividend changes and subsequent earnings changes. On the other hand, Venkatesh (1989) shows that greater dividend initiation announcement effects are associated with decreased announcement effects for subsequent earnings announcements. Asquith and Mullins (1983, 1986), Healy and Palepu (1988), and Venkatesh (1989) all document average positive price reactions to the announcement of dividend initiations, a result confirmed in our sample. Barber and Castanias (1992) find that dividend-initiating firms have significantly higher levels of cash flow from operations and less volatile common stock returns than firms that do not initiate dividends. Similarly, we find that dividend-initiating firms are generally larger and more profitable than the noninitiating firms that went public about the same time.

This paper is organized as follows. Section I describes the sample, presents summary statistics, and describes the stock price reaction to dividend initiation announcements. Section II presents our analysis of earnings surprises and the level of dividend commitments. Section III concludes.

I. Samples and Descriptive Statistics

We draw our dividend-initiating and noninitiating samples from the population of 2,741 companies that made underwritten, firm-commitment initial public stock offerings (IPOs) in the period 1980-1986. The 1986

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[3]Signaling models essentially rely on cross-sectional differences in the marginal cost of signaling activities, which decrease with the quality of the firm. The necessary conditions for signaling costs are discussed in detail in Riley (1979). Dividend signaling costs may arise from foregone investments (see Miller and Rock, 1985, and John and Williams, 1985, among others) or the tax consequences of dividends received by investors (see Watts, 1973, Aharony and Swary, 1980, among others).

[4]Total dividend commitments as a percentage of earnings will, of course, be larger than 3.5%, since DeAngelo, DeAngelo, and Skinner (1996) document the dividend *change* relative to earnings, and their sample includes reductions as well as omissions.

cutoff provides a sufficient length of time for firms to initiate dividends and for us to track subsequent earnings. From this population, we obtain a sample of 1,628 firms that meet the following criteria: 1) the firm is listed in the Registered Offering Statistics (ROS) file, 2) the firm is listed in the Compustat data files, and 3) the firm offers only common shares in its IPO (unit offerings are excluded).

Previous studies of initiations chose samples from populations of firms for which the Center for Research in Security Prices (CRSP) data tapes indicated no dividend payments over ten years. By starting our analysis at the IPO date and looking forward, we obtain a subsample of firms used in prior studies. This subsample has a number of methodological advantages. First, we are able to control for the stage of development of the firms and can therefore obtain a better match based on future prospects. Without this control, a growing firm that has recently gone public could be matched with a financially distressed or marginalized firm in the same industry. Second, firms that go public about the same time are more likely to be firms that are competing for identical market resources and could, therefore, have an incentive to differentiate themselves through signaling activities.

We define a dividend initiation as the company's first regular cash dividend payment after it has gone public, where the dividend is paid for at least two consecutive years. We exclude firms that pay either special dividends or nominal dividends (dividends less than $0.01 per share). We obtain dividend payment dates from either *Moody's Dividend Report,* the *Wall Street Journal,* Compustat files, or the firm's IPO prospectus and annual reports. All payment dates are verified against *Moody's.* Of our IPO sample, 114 firms make their first dividend payment in the period 1980 to 1990. Only 20 companies in this sample paid special or nominal dividends before they went public; the rest paid no dividends prior to going public. On average, the dividend-initiating firms begin paying dividends two and a half years after going public.

From the remaining sample of recent IPOs that do not initiate dividend payments, we construct matched pairs of comparable firms. Each dividend-initiating firm is matched with a noninitiating firm in our IPO sample that has the same four-digit Standard Industry Classification (SIC) code and, if there is more than one firm in the industry, with the firm that went public closest in time to the IPO of the initiating firm (usually the same year, always within three years). After eliminating firms for which Compustat did not provide earnings, sales, or total asset figures in the dividend-initiation year, our procedure yields a matched sample of 99 firms. Consistent with other studies, about 44% of our firms are in manufacturing industries.

In addition to matching our initiating firms with noninitiating firms based on industry and IPO date, we also match our initiating firms to a sample of firms that are the same size and are in the same industry as the initiating firms, but are already paying dividends. This sample is constructed as follows: for each dividend-initiating firm identified above, we identify every Compustat firm in the same SIC code that has valid earnings and total assets figures for the year of the dividend initiation and paid a per-share dividend no less than $0.01. We then select the firm whose assets are closest in size to the assets of the initiating firm. We refer to these firms as the size-matched firms. We also obtain industry summary data for each industry covered in our sample.

A. Summary Statistics

Table 1 presents summary statistics on the initiating, noninitiating, and size-matched samples. The large differences between medians and means in the summary statistics suggest non-normality, so we use non-parametric tests (Wilcoxon rank tests) throughout our analysis. The summary statistics describe our firms for three years: the fiscal year-end in which the dividend initiation is announced (initiation year), the fiscal year following the dividend initiation year (following year), and the fiscal year two years after the dividend initiation year (two years following).

While all firms are listed in the Compustat files and we require valid observations for some data items, many other data items are not available. To ensure that our samples are comparable for each test of significance, we restrict our analysis to only those pairs of firms that both have valid observations. Thus, the number of observations varies for each test. This is particularly noticeable in years subsequent to the dividend initiation, when our sample sizes decline. Since the possibility of survivorship bias in the later years makes interpreting those results more difficult, we generally concentrate on the year of the dividend initiation and the year following the initiation.

As expected, the initiating firms are generally larger, more profitable, and older than noninitiating firms that go public at about the same time. For example, in the dividend initiation year, median sales for initiating firms are $105 million versus $33 million and median total assets are $86 million versus $37 million. Furthermore, the median age of initiating firms is 16 years versus 10 years for noninitiating firms, and the median return on assets for an initiating firm is 19% versus 9% for noninitiating firms. All these differences are highly significant and persistent over time.

Despite the difference in current size and profitability between the two samples of firms, only weak evidence

Table 1. Descriptive Statistics for Initiating, Noninitiating, and Size-Matched Sample Companies

This table presents mean and median size and profitability measures for our dividend-initiating, noninitiating, and size-matched samples. All variables are in millions of dollars except age (years) and returns (raw values). The number of observations (N) is the number of valid pairs of observations used in a Wilcoxon test statistic of the difference in median values between the indicated sample and the initiating sample. The means and medians are calculated from the valid pairs of observations. (The initiating firm values are from valid pairs of initiating and noninitiating companies. The values from valid pairs of initiating and size-matched companies would be slightly different.)

	Initiating		Noninitiating			Size-Matched		
	Mean	Median	Mean	Median	N	Mean	Median	N
Panel A. Size and Growth								
Net Sales								
Initiation Year	274.6	104.9	93.3	33.1***	99	372.5	166.8	99
Following Year	344.1	132.2	113.5	50.0***	90	424.9	201.7	89
Two Years Following	382.6	148.8	135.2	41.0***	72	298.2	119.6	87
Total Assets								
Initiation Year	598.6	85.6	89.1	37.1***	99	589.8	128.6	99
Following Year	695.9	106.6	112.7	47.4***	90	743.0	144.3	90
Two Years Following	942.2	134.9	134.6	47.9***	72	433.2	85.3	87
Operating Income								
Initiation Year	52.9	16.8	10.8	2.5***	97	53.3	13.1	99
Following Year	61.5	18.5	12.3	2.5***	90	61.6	16.6	89
Two Years Following	61.8	14.6	16.0	2.3***	71	34.1	11.1	86
Change in Sales								
To Following Year	0.23	0.19	0.30	0.12	88	0.30	0.12	89
To Two Years Following	0.14	0.13	0.23	0.16	71	-0.24	-0.26***	79
Change in Assets								
To Following Year	0.26	0.20	0.24	0.10*	90	0.18	0.09***	90
To Two Years Following	0.19	0.14	0.16	0.04*	71	-0.28	-0.35***	80
Firm Age (yr.)								
Initiation Year	23.9	15.7	12.8	9.7***	82	Not Available		
Panel B. Profitability								
Return on Assets								
Initiation Year	0.202	0.193	0.029	0.092***	96	0.141	0.138***	99
Following Year	0.190	0.171	-0.036	0.084***	89	0.138	0.121*	89
Two Years Following	0.165	0.173	-0.025	0.082**	71	0.165	0.158	86
Return on Sales								
Initiation Year	0.196	0.162	-0.107	0.071***	95	0.123	0.109***	99
Following Year	0.189	0.170	-0.128	0.069***	89	0.130	0.100***	89
Two Years Following	0.176	0.165	-0.069	0.058***	71	0.136	0.114*	86
Market to Book								
Initiation Year	1.41	1.04	1.32	0.90*	75	1.04	0.91***	93
Following Year	1.38	1.00	1.16	0.72	74	1.02	0.64**	87
Two Years Following	1.26	1.04	1.17	0.68	69	1.07	0.77	80

***Significant at the 0.01 level.
**Significant at the 0.05 level.
*Significant at the 0.10 level.

exists that the initiating firms are growing faster than the noninitiating firms. No differences are found in the growth rate in sales for the two years following initiation and only marginally significant differences in the growth rate of assets. The lack of significant differences in market-to-book ratios between these samples confirms the small difference in future growth.

Comparing our initiating sample with the size-matched sample, we find no significant differences in measures of size or magnitude of income. As expected, when we compare established firms that are already paying dividends with firms that have recently gone public (and are likely to be expanding operations), the growth rate of the newly public firms is greater. Interestingly, the dividend-initiating firms are generally more profitable than the size-matched firms. In the initiation year, return on assets is 19% relative to 14% and return on sales is 16% relative to 11%. Once again confirming the difference in growth rates, the market-to-book ratio is higher for the dividend-initiating firms. Finally, it appears that the difference in profitability between these two samples declines over time.

B. Announcement Returns and Changes in Earnings

As mentioned in the introduction, we initially considered the possibility that dividends are used to signal future prospects because announcements of dividend increases (decreases) are generally accompanied by stock price increases (decreases). Furthermore, an important piece of evidence supporting this interpretation is the subsequent favorable changes in earnings surprises documented by Healy and Palepu (1988) and Jensen and Johnson (1995). In this section, we confirm that our sample of dividend initiations by newly public firms displays similar attributes to the sample of dividend initiations by firms examined in Healy and Palepu that had not paid a dividend for at least 10 years.

Table 2 examines abnormal returns around the initiation announcement. We measure abnormal returns with CRSP daily data, using the prediction error from an extended market model (using leads and lags of market returns to account for infrequent trading problems as in Scholes and Williams, 1977). We estimate the market-model parameters over the 150 trading days following ten trading days after the dividend initiation announcement in the *Wall Street Journal*. The market-model prediction method and the market index used for comparisons are the same as those used in Campbell and Wasley (1993). From our full sample of 99 firms, we remove 39 companies: 20 announced dividends in the IPO prospectus, 19 had other major announcements within ten trading days of the initiation announcement, and eight other companies

changed exchange listings during the estimation period.

Since day zero is the day the announcement appears in the *Wall Street Journal*, day -1 is likely to be the public announcement date. Consistent with the extant literature, we find statistically significant positive average abnormal returns on day −1. Though significant, the announcement effect in our sample, about 1.24%, is smaller than the 3.9% documented in Healy and Palepu (1988). This difference could be due to the fact that market participants are more likely to expect a dividend initiation from our sample of firms, since they have recently gone public, than the sample in Healy and Palepu, which includes firms that have simply not paid a dividend in ten years. The smaller price reaction suggests that subsequent favorable earnings "surprises" will not be substantial, which would bias our test against significant results.[5]

Table 3 presents earnings changes, both raw and industry-adjusted, around the dividend initiation date. All changes are given as a fraction of the book value of assets in the year prior to the dividend initiation. Following Healy and Palepu (1988), we adjust for industry earnings by subtracting the normalized industry average growth from the normalized growth of the dividend-initiating firms. We find significant positive changes in earnings immediately prior to the dividend initiation (year -1) and for each year through the year following the initiation (year +1). We find little evidence of earnings growth two years following the dividend initiation.

While these results suggest dividend signaling, the critical question is not whether earnings are growing, but whether subsequent changes in earnings are greater than expected. Specifically, the question is whether subsequent earnings surprises (earnings in excess of expectations) are greater than the earnings surprises of comparable firms. If this is the case, we can conclude that the dividend initiation conveys information about the relative quality of firms in the market. We use the methodology of DeAngelo, DeAngelo, and Skinner (1996) to examine this issue.

II. Analysis of Earnings Surprises and Dividend Magnitudes

We begin by calculating three measures of expected earnings. Then, after deducting expectations from realized earnings (and normalizing once again by the book value of assets in the year prior to the earnings announcement), we test whether the earnings surprise is positive. More importantly, we also test whether the

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[5]The market reactions we document are similar to the announcement-period returns found for specially designated dividends in Brickley (1983) and Chhachhi and Davidson (1997).

Table 2. Abnormal Returns Around Dividend Initiation Announcement

This table shows abnormal returns[a] for 60 dividend-initiating companies for various holding periods surrounding the *Wall Street Journal* announcement day (day 0) of the dividend initiation. The *t*-statistic is given in parentheses. Returns are in percentages. Corrado (1989) rank tests are shown for day -1 for each sub-group and the total sample.

Holding Period	NYSE/AMEX (18 Firms)	Nasdaq (42 Firms)	All Firms (60 Firms)
Day -1	0.76	1.44***	1.24***
Days -1 to 0	1.67*	1.48***	1.53***
Days -10 to -2	2.54	1.78	2.01**
Days +1 to +10	1.97	0.91	0.08
Corrado Rank Test for Day -1	27.16***	6.88***	6.15***

***Significant at the 0.01 level.
**Significant at the 0.05 level.
*Significant at the 0.10 level.

[a]Abnormal returns are market-adjusted returns using the NYSE/AMEX equal-weighted market returns for NYSE/AMEX-listed firms and the Nasdaq equal-weighted market returns for Nasdaq-listed firms.

Table 3. Changes in Earnings for Dividend-Initiating Firms

This table presents our analysis of changes in earnings around dividend initiation. Changes are equal to the difference between earnings in the given year and earnings in the prior year, normalized by the book value of assets in year -1. Tests of significance are two-sided tests of whether the change is different from zero. We use *t*-statistics to test the significance of mean values and Wilcoxon test statistics to test the significance of median values.

Year	Number	Mean	Median
Panel A. Raw Earnings			
-1	80	0.104***	0.063***
0	99	0.053***	0.054***
1	99	0.033***	0.032***
2	93	0.019	0.023**
Panel B. Industry-Adjusted Earnings			
-1	77	0.093***	0.053***
0	96	0.032***	0.042***
1	98	0.019*	0.019**
2	90	0.008	0.003

***Significant at the 0.01 level.
**Significant at the 0.05 level.
*Significant at the 0.10 level.

earnings surprise exceeds the surprise for similar firms.

The latter test is more informative for two reasons. First, while our measures of earnings expectations use information about the individual firms that we compare, we do not have the full set of available information, so any industry-wide changes in expectations cannot be captured. By *comparing* firms we implicitly adjust for industry-wide changes in expectations. Second, signaling is essentially about distinguishing one firm from another. In other words, a firm gains by pointing out that its prospects are better than those of a comparable firm with which it might otherwise be classified.

A. Expected Earnings and Analysis of Earnings Surprises

Following DeAngelo, DeAngelo, and Skinner (1996), our first two measures of earnings expectations are the earnings in the year prior to the dividend initiation, which implicitly assumes earnings follow a random walk, and earnings expectations based on an extrapolation of current growth in earnings. While a random walk might not be a realistic growth assumption, comparing random walk surprises across our samples is similar to comparing surprises in which both matched firms experience similar (industry-wide) levels of growth. Our

third measure is based on growth in sales, since earnings for our sample of newly public firms could be more volatile than sales and recent earnings changes could be noisier than changes in sales.

Table 4 presents our results, both for the year following, and two years following, initiation. The first section of the table describes the absolute earnings surprise for the dividend-initiating firms, the noninitiating firms, the size-matched firms, and for the industry as a whole. In the year following the initiation, only the initiating firms show favorable earnings surprises relative to the prior year's earnings. Interestingly, when we adjust for recent growth, all firms show evidence of *negative* earnings surprises, suggesting that growth rates decline for the firms and industries in our sample. In each case, the decline is more pronounced than the industry average, which is consistent with a decline in growth as smaller firms mature.

Similar results are evident two years following the dividend initiation, though there are no earnings surprises for the noninitiating firms, and the industry average shows evidence of a positive earnings surprise relative to a random walk. We expect positive random walk surprises over time, of course, when there are long-term increases in earnings.

The second part of Table 4 presents the results of our principal tests. Comparing the initiating firms to the noninitiating firms, we find consistent evidence that earnings surprises are more favorable for the initiating firms. However, there does not appear to be consistent evidence that earnings surprises for the initiating firms are more favorable than for size-matched firms or industry averages. Taken together, these results provide some support for dividend signaling, particularly if we assume that the initiating firms are trying to distinguish their future prospects relative to other newly public firms.

B. Relative Dividend Magnitudes

While the results in the previous section suggest that firms initiate dividends to signal future prospects relative to noninitiating firms, there is still the troubling observation by DeAngelo, DeAngelo, and Skinner (1996) that marginal dividend commitments are too small to make a meaningful impact on operations. In particular, dividend commitments need to be sufficiently large to impose costs on any firm that might choose to mimic the dividend decision. In this section, we compare the dividend-related resource commitments of initiating firms with the associated resource commitment of noninitiating firms if they were to initiate similar dividends.

We define a similar dividend as one that generates a dividend yield, dividend-to-sales, or dividend-to-assets ratio equal to the matched initiating firm. These

three measures construct dividends based on market values, operating activity, or size of the firm, respectively. We measure the potential impact of dividend commitments by calculating the ratio of earnings to dividends.[6] The lower this ratio, the greater the amount of earnings devoted to dividend payments and the more likely it is that a firm will be subsequently forced to cut its dividend payment.[7] We examine dividend commitments relative to earnings in the initiation year and to the average of earnings over the two years subsequent to the initiation.

Our results appear in Table 5. We present the resulting earnings-to-dividend ratios for our samples in the first part of the table. Consider the initiation year. The median earnings-to-dividend ratio of the initiating firms is 20, implying a dividend payout of about 5%. More importantly, the median ratios for our constructed dividends range from 9.33 to 15.70, with an average across the three measures of 11.7, implying a payout of approximately 8.5%.

The same pattern is also evident for the average of subsequent earnings. Results are generally significant using parametric tests and are always significant based on nonparametric tests. Note that the sample size for the dividend-yield-adjusted analysis is dramatically reduced. The availability of market data might bias this analysis toward noninitiating firms that are larger and more successful, possibly biasing upward our estimate of earnings-to-dividend ratios. This suggests that the 8.5% average marginal payout is a conservative estimate of the required commitment by noninitiating firms (the average payout implied by the other two methods is 10.3%).

Tests of the *differences* in earnings-to-dividend ratios show that the ratios for the initiating firms are higher than those of the noninitiating firms. These differences are always significant based on nonparametric tests, but significant only in one case based on parametric tests. Thus, while dividend-initiating firms make a modest marginal commitment of future earnings to pay dividends, the marginal level of commitment required, if a noninitiating firm is to match that dividend, would be significantly greater. However, our analysis does not establish whether a dividend commitment equal to 8.5% of earnings would be difficult for the noninitiating firm.[8]

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[6]We calculate earnings-to-dividend ratios rather than payout ratios, since some observations of earnings are close to zero and some are slightly negative. This is similar to the frequent use of earnings-to-price ratios rather than price-to-earnings ratios.

[7]Forced dividend reductions are discussed in Kalay (1980), DeAngelo and DeAngelo (1990), and Ofek (1993), among others.

[8]The 8.5% commitment level is close to that of the size-matched firms already paying dividends and to the average for all firms in the industry. Of course, these firms are not likely to face the investment demands and idiosyncratic risks of newly public companies.

Table 4. Analysis of Earnings Surprises

This table presents our analysis of the magnitude of earnings surprises subsequent to a dividend initiation. Earnings surprises are calculated relative to a simple random walk or relative to values based on an extrapolation of current growth rates. The random walk surprise is the difference between the earnings for the given year and the earnings in the year prior to the dividend initiation. The growth-adjusted surprise is the difference between the earnings in the given year and the earnings of the previous year adjusted for the growth between the previous year and the year preceding that year. Growth rates are obtained from both income and sales. This table presents the mean and, in parentheses, median values for each variable. We use t-statistics to test the significance of mean values and Wilcoxon test statistics to test the significance of median values. Since the number of firms with valid paired observations differed for each variable, the number of firms included in the Wilcoxon test is given as well.

	Year Following Initiation			Two Years Following Initiation		
	Random Walk	Income-Growth-Adjusted	Sales-Growth-Adjusted	Random Walk	Income-Growth-Adjusted	Sales-Growth-Adjusted
Panel A. Absolute Surprise						
A. Initiating	0.038**	-0.058***	-0.038**	0.067**	-0.261***	-0.160***
	(0.048***)	(-0.023***)	(-0.020**)	(0.055**)	(-0.104***)	(-0.086***)
B. Noninitiating	0.017	-0.294	-0.146**	0.089	10.82[a]	-0.187*
	(0.018)	(-0.044**)	(-0.043**)	(0.043)	(-0.013)	(-0.029)
C. Size-Matched	-0.005	-0.066**	-0.041***	-0.039*	-0.224	-0.163**
	(0.011)	(-0.019***)	(-0.023***)	(-0.027*)	(-0.022**)	(-0.075***)
D. Industry Average	0.009	-0.021**	-0.012	0.039*	-0.050*	-0.015
	(0.004)	(-0.017**)	(-0.011*)	(0.019**)	(-0.028***)	(-0.021**)
Number	63	63	59	50	50	48
Panel B. Relative Surprise						
A versus B	0.101*	0.397*	0.145**	0.141***	0.028	0.063**
	(0.043)	(0.055*)	(0.030)	(0.076***)	(-0.019)	(0.042**)
Number	80	80	79	73	65	89
A versus C	0.034	0.004	0.008	0.082	-2.09	-0.177***
	(0.022**)	(-0.002)	(-0.015)	(-0.042)	(-0.046)	(-0.062**)
Number	79	79	76	73	65	89
A versus D	0.036**	-0.043**	-0.023	0.074	0.278	-0.072
	(0.030***)	(-0.009)	(-0.012*)	(0.003)	(-0.043)	(-0.058***)
Number	97	97	97	71	64	89

***Significant at the 0.01 level.
**Significant at the 0.05 level.
*Significant at the 0.10 level.
[a]The mean values are affected by two outliers, and this impact is present throughout the table. However, the results are unchanged if these outliers are omitted.

The 8.5% marginal payout is larger than the 3.5% level of dividend changes as a percentage of earnings documented in DeAngelo, DeAngelo, and Skinner (1996). Thus, our constructed initiation commitments appear larger in magnitude (relative to earnings) than the *change* in dividends during reductions and omissions. This difference may explain why we find limited evidence of signaling and DeAngelo et al. do not.

III. Conclusion

Using the methodology employed by DeAngelo, DeAngelo, and Skinner (1996) in their study of dividend reductions, we examine whether dividend initiations are associated with favorable subsequent earnings surprises. We find clear evidence that dividend surprises are more favorable for dividend-initiating firms than they are for a sample of firms that went public at the same time and did not choose to initiate dividends. On the other hand, the earnings surprises do not appear to be different from a sample of size-matched firms from the same industries, nor do they differ significantly from industry-average earnings surprises. In contrast to

Table 5. Dividend Commitments

This table examines the magnitude and significance of potential dividend commitments by noninitiating firms if they matched the dividend level of initiating firms. Ratios are equal to operating income divided by the total dividend payment. For the noninitiating firm, a dividend is constructed in one of three ways—to provide a dividend yield equal to that of the matched dividend-initiating firm, or to equate the dividend payment as a percentage of either sales or assets to that of the matched initiating firm. Dividends are constructed from initiation year data. We examine the ratio of two different operating income figures to the dividend level - operating income in the dividend initiation year and the average operating income for the two years subsequent to the initiation year. Ratio differences are calculated for each matched pair of firms. We use t-statistics to test the significance of mean values and Wilcoxon test statistics to test the significance of median values. Following each mean and median is the number of valid pairs of observations used in the calculation.

	Initiation Year			Average of Two Subsequent Years		
	Mean	Median	N	Mean	Median	N
Panel A. Ratios						
A. Initiating	29.65***	20.00***	99	23.77**	15.21***	93
B. Noninitiating Yield-Adjusted	27.92***	15.70***	75	18.09***	9.38***	67
C. Nonitiating Sales-Adjusted	9.98	10.06***	95	7.57	6.14***	75
D. Noninitiating Assets-Adjusted	23.80***	9.33***	96	15.07*	6.01***	77
Panel B. Difference in Ratios						
A versus B	5.15	4.34*	75	5.62	2.69*	63
A versus C	20.04***	7.44***	95	13.83	5.38***	68
A versus D	6.40	7.96***	96	7.47	5.67***	70

***Significant at the 0.01 level.
**Significant at the 0.05 level.
*Significant at the 0.10 level.

DeAngelo et al., who find no differences between firms that reduce dividends and those that do not, our analysis provides some evidence that dividends signal favorable relative future prospects.

In general, we observe that among firms that are in the same industry and go public at about the same time, dividend-initiating firms are older, larger, and more profitable than noninitiating firms. We also observe that if noninitiating firms commit to similar dividend levels as initiating firms, their dividend commitments would be 8.5% of earnings. These results suggest that managers do not initiate dividends until they believe those dividends can be sustained by future earnings. In general, our results are consistent with dividend-initiating firms using dividends to distinguish themselves from other newly public firms in the same industry, and provide limited support for dividends as a signaling device. ∎

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