PRICE EFFECTS OF RELATIVE REPORTING DELAY OF SAME-DAY EARNINGS AND DIVIDEND ANNOUNCEMENTS

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Abstract

This study focuses on the intraday relative timing of same day announcements of earnings and dividends. The price effects of three timing patterns are examined: (a) both earnings and dividends announced after the close of trading, (b) dividends announced before and earnings announced after the close of trading, and (c) earnings announced before and dividends announced after the close of trading. Based on both univariate tests of abnormal returns and on comparing portfolio abnormal returns, the evidence weakly supports the overall hypothesis that investors pay attention to the relative timing of the same day announcements.

INTRODUCTION

Prior research shows that management generally takes longer time to release bad news than good news (Lurie and Pastena [1975], Pastena and Ronen [1979], Whittred and Zimmer [1984], and Whittred [1980]). Consistent with this finding and the belief that investors interpret reporting delay as a forecast of bad news, several studies (Chambers and Penman [1984], Kross and Schroeder [1984], and Penman [1984]) have documented a relationship between the timeliness of earnings reports and abnormal security returns surrounding the release of such reports. It is found that reports published earlier than expected are associated with positive returns, and conversely for reports published late. For example, based on the interim and annual earnings announcements by a sample of 100 New York Stock Exchange (NYSE) firms over the period 1970-76, Chambers and Penman [1984] find that average abnormal returns at the expected date of the announcements that are unexpectedly late are negative. This suggests that investors interpret the failure to report on time as a forecast of bad news. The study also documents a further negative effect on price when the belated report finally arrives, which suggests that the bad news content of predictably late reports is not fully reflected in prices as of the expected announcement date. Similarly, Kross and Schroeder [1984] find that, relative to late announcements, early announcements of quarterly earnings contain better news and are associated with larger abnormal returns. Their sample consists of 297 NYSE and American Stock Exchange (AMEX) firms from 1977-80. In keeping with these results, Penman [1984] documents the existence of profit opportunities by selling a firm short when it misses its expected reporting date and closes the position after the report is released.

Together, these prior studies indicate that (1) investors are able to predict fairly well the expected reporting date for earnings, (2) on average, belated earnings reports are perceived as signals of bad news, and (3) upon arrival, belated earnings reports would further depress stock prices. In this study, we first reexamine the evidence using a different sample and then extend this line of inquiry by focusing on the relative timing of same-day announcements of earnings and dividends and examining the price impact of reporting delay which is defined as the failure to make anticipated announcements prior to the closing time of the stock markets.

We use a sample of Friday announcements of earnings and dividends in this study. We restrict our sample to Friday announcements because there is a widely held belief that it is a useful trick to announce bad news after market closing on Friday so that it might get lost by Monday. The sample has 894 announcements, made up of 456 firms traded on NYSE,

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AMEX, and over the counter (NASDAQ firms) over the period from June 1979 through March 1986. Even over this sampling period that spans almost seven years, not a large number of announcements fit the particular timing patterns we were looking for. Of the 894 announcements, there are 29 cases where earnings are announced before market closing while dividends are announced after market closing, and 11 cases with the opposite timing pattern. These 40 special cases are our focus. Based on both univariate and two-sample tests of portfolio returns, we show that the relative timing of earnings and dividends have different price effects depending on whether earnings or dividends are delayed. The results from this study provide financial analysts and investors with evidence as to the intraday behavior of corporate disclosure that has not been investigated previously.

HYPOTHESES

Existing literature suggests that earnings and dividends announced on Fridays are inherently bad news. For example, Penman [1987] finds that more bad earnings news arrives in the market on Mondays and Fridays than on other days of the week. Consistent with this result, Damodaran [1989] finds that earnings announced on Fridays generally contain more bad news than those on any other weekday. He also reports that a larger proportion of the Friday dividend announcements represent cuts in dividends than announcements made on other weekdays. Thus, existing evidence also suggests that dividend announcements on Fridays are inherently signals of bad news. All of the aforementioned evidence is consistent with the conventional wisdom that management tends to put off the announcement of bad earnings/dividend news until after the close of trading of the stock markets. In addition, Patell and Wolfson [1982] find that positive earnings/dividend news is more likely to be released when the stock markets are open, while negative earnings/dividend news is released more frequently after the close of trading. Moreover, they also document a stronger tendency for firms to announce bad news after market closing on Fridays, which is consistent with the 'old corporate trick' of putting out bad news on Friday night, with the hope that it gets lost by Monday morning.[1] In support of this finding, Damodaran [1989] shows that, based on quarterly earnings and dividend announcements from 1981-85, a noticeable number of the earnings/dividend reports released on Friday are associated with significant, negative Monday returns (measured from Friday close to Monday close), suggesting the possibility that some of the bad news come out after the close of trading on Friday. In these studies, however, there is no distinction between announcements made before or after the close of trading. Thus, a competing explanation for the observation that returns associated with Friday announcements of earnings and dividends are negative is that such announcements are typically released after the close of trading. Therefore, our first hypothesis is:

>   H1:   Negative returns associated with Friday announcements of earnings and dividends are primarily associated with announcements made after the close of trading.

H1 as well as previous empirical studies, however, analyze the timing of earnings and dividend announcements independently. For instance, the results in Patell and Wolfson pertain to single announcements of either earnings or dividends. In Damodaran's study, dividend announcements made within 10 days of an earnings announcement were excluded from the analysis. Clearly, therefore, neither study evaluates the price effect due to the relative timing of the two announcements. By contrast, how this relative timing affects security returns is our focus here. Specifically, we are interested in those cases where one of the two signals is delayed until the close of the stock market.

Our interest in the relative timing of earnings and dividends is motivated by existing evidence showing that investors appear to evaluate earnings and dividends in relation to one another. Lintner [1956] observes that managers act as if they consider past, current, and future earnings when they make substantial changes in dividends. The evidence in Healy and Palepu [1988] is consistent with this observation. In addition, Hoskin et al. [1986] show that, when announced contemporaneously, both earnings and dividends surprises have a positive correlation with abnormal returns. More important, Easton [1991], Kane et al. [1984] and Leftwich and Zmijewski [1991] find that earnings and dividend signals are found to have an interactive effect on stock prices, in the sense that investors appear to evaluate each signal with respect to the information contained in the other. In light of this body of evidence, it would be reasonable to suggest that, when earnings and dividends are expected to be released contemporaneously, the delay of one announcement with respect to the other is of interest to investors. In particular, when the releases of the two signals are separated by the close of trading, there is an appearance that management attempts to put off the announcement of certain bad news until the market is closed. Given the existing evidence that contemporaneously announced earnings and dividends have different

marginal information content, this study evaluates hypotheses about the price effects of the intradaily, relative timing of the two signals.

In sum, our premise is that when investors expect both earnings and dividend to be announced on the same day, the reporting delay of one relative to the other has information content, reporting delay being defined as the failure to release the information until after the close of trading. In such situations, investors expect the second announcement to be made no later the close of trading unless it is a signal of bad news. However, we do not expect delayed earnings to have the same price impact as delayed dividends. Although Easton [1991] and Kane et al. [1984] show that earnings and dividends have an interactive, as opposed to additive, effect on security returns, Leftwich and Zmijewski [1991] show that the information content of dividends is marginal given contemporaneous earnings. Moreover, they show that dividends are more easily predictable, and Patell and Wolfson [1982] show that dividend increases are seldom released after trading. Based on existing finding that dividends contain less incremental information beyond that conveyed by contemporaneous earnings, we expect the price effects associated with reporting delays to be different depending on whether the dividend announcement is delayed relative to the earnings announcement, or vice versa. These results suggest, therefore, that when earnings are announced prior to, and dividends after, the close of trading, the negative price impact of the delayed dividends will be reflected primarily in the Friday closing price, thus the Friday return. Thus, our second hypothesis is:

H2:   Friday announcements of earnings prior to and dividends after the close of trading affect Friday returns
        more negatively than Monday returns.

Since management has more freedom in timing the release of earnings (Patell and Wolfson [1982]), a delay in earnings releases until the close of trading is likely to be perceived an effort to put off the release of bad news. Given the evidence in Penman and Chambers [1984], it is likely that the market will be able to factor the delay into prices prior to the release of the earnings. Thus, we expect an associated negative Friday return. However, Penman and Chambers [1984] and Penman [1984] indicate that the negative information of a belated earnings announcement is not fully factored into prices by the expected announcement time, resulting in a further negative price response upon the release of the earnings. Moreover, Leftwich and Zmijewski [1991] show that, regardless of the type of information in dividends, their contemporaneous earnings provide information. Based on these previous findings, therefore, we also expect a significantly negative Monday return associated with this announcement pattern, which is our third hypothesis:

H3:   Friday announcements of dividends prior to and earnings after the close of trading are more likely to be
        associated with negative returns for Fridays and Mondays.

SAMPLE DESCRIPTION

The sample consists of 894 Friday announcements of both earnings and dividends made up by 456 firms, of which 252 were listed on either NYSE or AMEX and 204 were traded over the counter, from June 1979 through March 1986. This sample resulted from the following steps.

First, we identified a sample of firms that were reported to have made both an earnings and a dividend announcements on Friday during the sample period. From the "Dividend News" section of all the applicable Monday issues of the *Wall Street Journal* during the sample period, we identified a sample of firms that were reported to have made a dividend announcement the previous Friday. We then searched for the same firms from the "Digest of Earnings Reports" section of the *Journal*. These procedures led to a preliminary sample of firms that had possibly made both an earnings and a dividend announcement the previous Friday.

We then searched for the original news releases by these firms from the Dow Jones News Retrieval Service (also known as the Broad tape), a financial news wire service. Each successful search resulted in both an earnings release and a dividend declaration by the same firm. Earnings releases usually are accompanied by other announcements such as sales and may or may not include dividend declarations. When not included as part of an earnings announcement, dividend declarations are usually released with a brief description. Frequently, dividend releases of several firms are blocked together. Each Dow Jones news release so extracted ends with a notation of the hour and minute of the corporate release, anywhere from 8:00 a.m. until 6:30 p.m. (New York time), operating hours of the Service. By this procedure, we were able to identify 1,040 contemporaneous Friday releases of earnings and dividends, with the exact hour and minute of each release.

Finally, we extracted daily security returns for these preliminary sample of firms from either the daily CRSP tapes or the daily NASDAQ tapes of the University of Chicago. For this, we required a minimum of 50 consecutive observations prior to the event date. We lost 146 sets of announcements in this step, resulting in the final sample of 894 sets of contemporaneous announcements.

Sample Statistics

Table 1 gives the distributions of the announcements over the sample period. The last row summarizes the proportion of announcements made before and after the close of trading in each case. For instance, 793 of the earnings announcements (89%) were made before the close of trading, and 101 (11%) were made after the close of trading. The distributions show that the observations are not clustered in any particular years.[2] Our primary interest is the last column of the table, which shows that there were 40 cases (5% of the sample) where the earnings and dividend announcements were separated from each other by the close of trading. What is not shown in the table is that, of the 40 cases, there are 11 cases where dividends were announced before while earnings were announced after 4 p.m. and 29 cases of the reverse pattern.

TABLE 1
Distribution Of Announcements By Year

	Earnings n = 894		Dividends n = 894		Earnings And Dividends n = 894		
	Before 4 p.m.	After 4 p.m.	Before 4 p.m.	After 4 p.m.	Both Before 4 p.m.	Both After 4 p.m.	Seperated By 4 p.m.
1979*	45	7	43	9	40	5	7
1980	121	11	117	15	114	8	10
1981	97	16	93	20	93	15	5
1982	135	13	134	14	132	11	5
1983	136	11	137	10	135	9	3
1984	126	23	119	30	119	23	7
1985	101	16	100	17	99	15	3
1986	32	4	32	4	32	4	0
Total	793	101	775	119	764	90	40
Percentage Of Sample	89%	11%	87%	13%	85%	10%	5%

*There are only 7 months of data in 1979 and 3 months of data in 1986.

Table 2 provides more information about the pre-closing announcements by presenting their distributions by the hour. For instance, while Table 1 shows that 89% of the earnings announcements and 87% of the dividend announcements were made before the close of trading, this table gives the exact hours of these announcements. A comparison of the two distributions indicates that dividend announcements generally trail behind earnings announcements. This overall timing pattern between earnings and dividends and the fact that management has more flexibility in timing the announcement of earnings suggest that late earnings announcements should be given special attention.

TABLE 2
Intraday Distributions Of Announcements

	Earnings Announcements		Dividends Announcements	
	n	Cumulative Percentage	n	Cumulative Percentage
Before 10 a.m.	88	10%	52	6%
10—11 a.m.	124	24%	100	17%
11—12 noon	176	43%	115	30%
12—1 p.m.	140	59%	129	44%
1—2 p.m.	100	70%	142	60%
2—3 p.m.	90	80%	148	77%
3—4 p.m.	75	89%	89	87%
After 4 p.m.	101	100%	119	100%
Total	894		894	

Table 3 gives the distribution of time lags between the two announcements. It shows that 43% of announcements in the sample were made simultaneously and nearly one half of the announcements had less than a 5-minute lag between one another. However, 27% of the sample had a lag of at least an hour between the two announcements, and 4% of the earnings and dividends announcements were separated by four hours or longer. What is not shown in the table is the breakdown of the time lag for the 40 special cases. For the 11 cases of which the dividend announcements were made before earnings, the average time lag is just over three hours (3.065 hours). For the 29 cases when the dividends are announced after earnings, the average time elapsed is 3.38 hours between the two announcements, the longest lag is 7.28 hours, and the shortest is 44 minutes.

TABLE 3
Distribution Of Time Lags Between Earnings And
Dividend Announcements

Lag Time	n	Percentage
Zero	382	43%
< 5 minutes	436	49%
< 30 minutes	585	65%
< 1 hour	652	73%
< 2 hours	750	84%
< 3 hours	822	92%
< 4 hours	854	96%
< 5 hours	879	98%
> 5 hours	15	2%

METHODOLOGY

Estimation Of Abnormal Returns

Abnormal returns are measured as prediction errors using the standard market-model methodology by Brown and Warner [1985]. First, we estimate each reporting firm's equity beta using the market model and 120 daily return observations.[3] That is, we run the regression:

Equation 1

$$R_{i,t} = \alpha + \beta R_{m,t} + e_t$$

where t = -61 to -180, 0 being the announcement date, and $R_{m,t}$ is the CRSP equally-weighted index in the case of NYSE/AMEX firms or the NASDAQ equally-weighted index in the case of over-the-counter firms. Using the parameters estimated in (1), we compute abnormal return (AR) for Friday, the announcement date, and the following Monday as:

Equation 2

$$AR_{i,t} = R_{i,t} - (\alpha + \beta R_{m,t})$$

where t = 0 (Friday) and 1 (Monday). Friday and Monday returns are computed as, respectively, Thursday close to Friday close and Friday close to Monday close.

Test Procedures

Univariate Test. For each hypothesis, we select a portfolio of firms whose announcement patterns were as described in the respective hypotheses and evaluate the Friday and Monday abnormal returns of the portfolio. For instance, for H1, we select those firms that announced earnings before 4 p.m. and dividends after 4 p.m. and evaluate the abnormal return of this portfolio for the two days. In all cases, statistical significance is based on the univariate *t*-test.

Control Portfolio Test. We further evaluate the hypotheses by comparing the portfolio in each case with a control portfolio. In the case of H1, the control portfolio consists of firms that announced both earnings and dividends before 4 p.m. In the case of H2 and H3, the control portfolio consists of firms that announced both earnings and dividends after 4 p.m.

Control For Size Effect

Prior research shows that there are differences in return behavior over weekdays depending on the size of the firm. This regularity is first reported by Harris [1986]. More specifically, Damodaran [1989] shows that there is a strong size effect in market responses to Friday announcements of earnings and dividends. For such announcements, namely, the average abnormal returns on the announcement day is 0.09 percent for the smallest firms while it is -0.16 percent for the largest firms. In contrast, he further shows, the average abnormal returns on the following Monday (or trading day) are -0.34 percent for the smallest firms and 0.01 percent for the largest firms. Consistent with this, Penman [1984] shows that profit opportunities for late earnings announcements are greater for smaller firms. Damodaran [1989] notes several possible explanations for this size effect. Among them is the conjecture that, because small firms are less closely followed by investors, market adjustments to earnings surprises take longer for such firms and thus spill over into the next trading day. In view of this empirical regularity, all the tests here are repeated by dividing the data into two subsamples on the basis of exchange listing, NYSE/AMEX versus over-the-counter, which serves as a proxy for firm size.

RESULTS

Univariate Test

Univariate test statistics for evaluating hypotheses H1 to H3 are presented in Table 4. The top panel in the table gives results based on the full sample. In the middle and bottom panels, comparable results are presented for, respectively, the large-firm and small-firm subsamples.

TABLE 4
Results For Univariate Based On Portfolio Abnormal Returns

						H1		H2	H3
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Earn < 4 p.m.	Earn > 4 p.m.	Divd < 4 p.m.	Divd > 4 p.m.	Earn & Divd < 4 p.m.	Earn & Divd > 4 p.m.	Earn < & Divd > 4 p.m.	Divd < & Earn > 4 p.m.
Full Sample	Friday	0.0165 (4.5642)	-0.1149 (2.1951)	0.0452 (4.5928)	-0.2819 (2.3367)	0.0540 (4.6138)	-0.0598 (2.1171)	-0.9711* (2.8485)	-0.5652 (2.8363)
	Monday	0.1120 (2.6230)	-0.3786 (3.0785)	0.0818 (2.6301)	-0.1074 (2.9958)	0.0983 (2.6435)	-0.2948 (3.2374)	0.4742 (2.0112)	-1.0639*** (0.8652)
	n	793	101	775	119	764	90	29	11
NYSE/AMEX Subsample	Friday	0.0287 (4.5750)	-0.2886 (2.0892)	0.0549 (4.6353)	-0.3986 (2.0466)	0.0776 (4.6554)	-0.1093 (1.8963)	-0.9654** (2.2457)	-1.3869 (2.9423)
	Monday	0.0688 (2.4919)	-0.5026 (2.5717)	0.0309 (2.4929)	-0.1069 (2.5866)	0.0487 (2.5073)	-0.4051 (2.7540)	0.4776 (2.1548)	-1.0990** (0.6539)
	n	533	57	516	74	508	49	25	8
OTC Subsample	Friday	-0.0085 (4.5507)	0.1101 (2.3330)	0.0257 (4.5157)	-0.0901 (2.7629)	0.0070 (4.5389)	-0.0007 (2.3771)	-1.0060 (5.9484)	1.6257*** (0.1486)
	Monday	0.2006 (2.8765)	-0.2179 (3.6526)	0.1831 (2.8864)	-0.1082 (3.6012)	0.1967 (2.8976)	-0.1630 (3.7663)	0.4531 (0.7786)	-0.9692 (1.4925)
	n	260	44	259	45	256	41	4	3

Note: NYSE, AMEX, and OTC stand for New York Stock Exchange, American Stock Exchange, and over-the-counter, respectively. Friday returns are computed from Thursday closing to Friday closing prices; Monday returns, from Friday closing to Monday closing prices. The null hypothesis tested is that the portfolio abnormal return is equal to zero. Standard errors are given in parentheses.

* Significant at the 10% level   ** Significant at the 5% level   *** Significant at the 1% level

Results for evaluating the first hypothesis (H1) are given in columns 5-6. The hypothesis attempts to evaluate whether earnings and dividends announced on Fridays are inherently bad news, or the bad news characterization is more appropriate for announcements made after the close of trading. The top panel shows that, in the full sample, there are 764 announcements made before 4 p.m., and 90 announcements after. In the middle and bottom panels, the 764 firms are subdivided into 508 large firms and 256 small firms, respectively. Similarly, the 90 late announcers are subdivided into 49 and 41 firms based on size. Based on the standard errors presented in parentheses, none of the portfolio returns is statistically different from zero. Specifically, negative returns, and thus bad news, do not characterize announcements made during the trading hours of the security market. Thus, the results do not support the commonly held view that Friday announcements of earnings and dividends signal bad news necessarily. Rather, given the negative returns associated with announcements made after 4 p.m., there is some indication that the bad news released on Fridays is

largely attributable to announcements made after the close of trading. However, this interpretation of the results should be qualified by the fact, none of the negative returns for the "late" announcers is statistically significant.

The table also presents similar results based on the timing of either earnings or dividends. These are given in columns 1-2 for earnings, and columns 3-4 for dividends. By and large, the same conclusions are reached based on the timing of either announcement: Friday announcements are not inherently bad news, and negative returns associated with Friday announcements are more likely to pertain to announcements made after the close of trading.

The second hypothesis (H2) predicts that the announcements of earnings prior to and dividends after the close of trading will affect Friday returns more negatively than Monday returns. In the table, test results are presented in column 7. In the entire sample, there are 29 cases that exhibit such an announcement timing pattern, 25 of them large firms and four small firms. Results in the top panel show that the hypothesis is weakly supported. Namely, the 29 firms have an average Friday return of -0.9711% that is significant at the 0.10 level. By contrast, the average Monday return is 0.4742%, although it is not statistically different from zero. Returns for the large-firm and the small-firm subsamples have comparable signs and magnitudes as indicated by the entries in the middle and bottom panels. However, similar statistical significance is found only in the large-firm subsample. On the whole, the evidence is weakly supportive of hypothesis H2.

The third hypothesis (H3) predicts that the announcement of dividends before and earnings after the close of trading will adversely affect both Friday and Monday returns. The test results are given in column 8. Unfortunately, in the entire sample of 894 announcements, only 11 have this announcement timing pattern, made up by eight large and three small firms. Without paying attention to firm size, this announcement pattern results in a -0.5652% return on Friday and a -1.0639% return on Monday. Although the Friday return is statistically insignificant, the Monday return is significant at the 0.01 level. This result is at least as strong for the large firms, as indicated by the middle panel. However, the hypothesis fails to be predictive in the case of small firms, as shown in the bottom panel. On the whole, the evidence is weakly supportive of the hypothesis. Needless to say, this conclusion should be qualified by the size of the sample in this case.

TABLE 5
Abnormal Returns Associated With Timing Of Earnings
And Dividend Announcements On Friday

		Abnormal Returns Of Firms Announcing Both				
		(a) Earnings And Dividends Before 4 p.m.	(b) Earnings And Dividends After 4 p.m.	Difference (a) - (b)	t-Value	Z-Value
Full Sample	Friday	0.0540	-0.0598	0.1138	0.41	0.09
	Monday	0.0983	-0.2948	0.3931	1.11	-1.38
	n	764	90			
NYSE/AMEX Subsample	Friday	0.0776	-0.1093	0.1869	0.55	-0.05
	Monday	0.0487	-0.4051	0.4538	1.20	-1.51
	n	508	49			
OTC Subsample	Friday	0.0070	-0.0007	0.0077	0.02	0.20
	Monday	0.1967	-0.1630	0.3597	0.58	-0.51
	n	256	41			

Note: NYSE, AMEX, and OTC stand for New York Stock Exchange, American Stock Exchange, and over-the-counter, respectively. Friday returns are computed from Thursday closing to Friday closing prices; Monday returns, from Friday closing to Monday closing prices. t-values are for the t-tests and Z-values are for the Wilcoxon rank sum tests. The null hypothesis is that there is no difference between the portfolio abnormal returns of firms which made the announcements before 4 p.m. and after 4 p.m.

Control Portfolio Test

Hypothesis H1 is further evaluated by comparing portfolio returns for the "early" announcers with the "late" announcers. The univariate test shows that the average returns for the "early" announcers are positive, while those for the "late" announcers are negative, thus invalidating the view that Friday announcements on average signal bad news. If the return differences between the "early" announcers and the "late" announcers are significantly different, then there is further support for the premise that the bad news conveyed by Friday announcements are primarily due to releases made after the close of trading. The results are presented in Table 5. However, neither the parametric test (*t*-value) nor the nonparametric Wilcoxon rank-sum test (*Z*-value) suggests that the portfolio abnormal returns are significantly different from one another.

The univariate test weakly supports hypothesis H2 in that, for those firms that announced earnings before and dividends after the close of trading, Friday returns are more likely to be negative than Monday returns. This hypothesis is further evaluated by comparing the portfolio's returns with those of firms that delay the release of both earnings and dividends until after the close of trading. If the intraday, relative timing of earnings and dividend announcements has no special information content, then one would expect investors to view the delay of both earnings and dividends more negatively than the delay of just one of them. Consistent with this null form of the hypothesis, therefore, one would expect the delay of both announcements will lead to a more negative Friday return than the delay of one announcement.

Table 6 shows that precisely the opposite holds. The first entry indicates that firms that delayed the announcement of dividends experienced a -0.9711% abnormal return, while those that delayed both announcements experienced a Friday abnormal return that is 13 times less negative. The difference is -0.9113%, which is significant at the 0.10 level based on the Wilcoxon rank-sum test. This finding is also applicable to the large-firm subsample, as shown in the middle panel.

TABLE 6
Abnormal Returns Associated With Delayed Dividend Announcements
Relative To Earnings Announcements On Friday

		Abnormal Returns Of Firms Announcing				
		(a) Earnings Before 4 p.m. And Dividends After 4 p.m.	(b) Both Earnings And Dividends After 4 p.m.	Difference (a) - (b)	t-Value	Z-Value
Full Sample	**Friday**	-0.9711	-0.0598	-0.9113	-1.59	-1.65*
	Monday	0.4742	-0.2948	0.7690	1.52	1.46
	n	29	90			
NYSE/AMEX Subsample	**Friday**	-0.9654	-0.1093	-0.8561	-1.73*	-1.46
	Monday	0.4776	-0.4051	0.8827	1.40	1.53
	n	25	49			
OTC Subsample	**Friday**	-1.0060	-0.0007	-1.0053	-0.34	-0.54
	Monday	0.4531	-0.1630	0.6161	0.87	0.66
	n	4	41			

Note: NYSE, AMEX, and OTC stand for New York Stock Exchange, American Stock Exchange, and over-the-counter, respectively. Friday returns are computed from Thursday closing to Friday closing prices; Monday returns, from Friday closing to Monday closing prices. t-values are for the t-tests and Z-values are for the Wilcoxon rank sum tests. The null hypothesis is that there is no difference between the portfolio abnormal returns of firms which made the announcements before 4 p.m. and after 4 p.m.

*Significant at the 10% level

However, the return difference fails to be significant in the small-firm subsample, as shown in the bottom panel. The hypothesis also suggests that, because dividends are easily predictable, the information content of delayed dividends is more fully reflected in the Friday return without spilling over onto the Monday return. The results are consistent with this premise as the Monday return difference between these two portfolios is 0.7690% although such difference is statistically insignificant. Similar results are found in the large-firm and small-firm subsamples. In sum, results from both the univariate test and the control portfolio test weakly support hypothesis H2.

Hypothesis H3 predicts that the announcement of dividends before 4 p.m. and earnings after 4 p.m. is a strong indication that management attempts to time the release of bad news. In the case where both earnings and dividends are delayed, one is left with an additional possibility that the board meeting has not yet been concluded. Thus, a further evaluation of the hypothesis is to compare portfolio returns for those firms that delayed the release of earnings with those that delayed both earnings and dividends.

Table 7 presents these test results. The top panel shows that, without paying attention to firm size, the portfolio returns are consistent with the prediction of the hypothesis. For both Friday and Monday, the firms that delayed just earnings experienced a more negative return than those firms that delayed both earnings and dividends. These differences are -0.5054% and -0.7691%, respectively, for the two days, with the latter significant at the 0.10 level based on the *t*-value and 0.05 level based on the *Z*-value. For the large-firm subsample, the results are similar although the statistical significance has dropped somewhat. However, for the small-firm subsample, the delay of just earnings is associated with a significantly positive return difference for Friday. But this result has to be interpreted with care because of the size of this subsample. On the whole, the evidence based on the control portfolio test also weakly supports hypothesis H3.

TABLE 7
Abnormal Returns Associated With Delayed Earnings Announcements
Relative To Dividend Announcements On Friday

| | | Abnormal Returns Of Firms Announcing | | | | |
		(a) Dividends Before 4 p.m. And Earnings After 4 p.m.	(b) Both Earnings And Dividends After 4 p.m.	Difference (a) - (b)	t-Value	Z-Value
Full Sample	**Friday**	-0.5652	-0.0598	-0.5054	-0.72	0.17
	Monday	-1.0639	-0.2948	-0.7691	-1.79*	-1.91**
	n	11	90			
NYSE/AMEX Subsample	**Friday**	-1.3869	-0.1093	-1.2776	-1.19	-1.00
	Monday	-1.0990	-0.4051	-0.6939	-1.52	-1.62*
	n	8	49			
OTC Subsample	**Friday**	1.6257	-0.0007	1.6264	4.27***	1.82*
	Monday	-0.9692	-0.1630	-0.8062	-0.37	-0.79
	n	3	41			

Note: NYSE, AMEX, and OTC stand for New York Stock Exchange, American Stock Exchange, and over-the-counter, respectively. Friday returns are computed from Thursday closing to Friday closing prices; Monday returns, from Friday closing to Monday closing prices. t-values are for the t-tests and Z-values are for the Wilcoxon rank sum tests. The null hypothesis is that there is no difference between the portfolio abnormal returns of firms which made the announcements before 4 p.m. and after 4 p.m.

*Significant at the 10% level   **Significant at the 5% level   *** Significant at the 1% level

CONCLUSION

This study focuses on the intraday relative timing of same day announcements of earnings and dividends. The price effects of three timing patterns are examined: (a) both earnings and dividends announced after the close of trading, (b) dividends announced before and earnings announced after the close of trading, and (c) earnings announced before and dividends announced after the close of trading. Based on both univariate tests of abnormal returns and on comparing portfolio abnormal returns, the evidence weakly supports the overall hypothesis that investors pay attention to the relative timing of the same day announcements.

Based on evidence from prior research, it is hypothesized that when only the release of dividends is delayed, the negative information content of the announcement timing is reflected in the return of the announcement day, which is a Friday in the study. This premise is based on the previous findings that dividends are more easily predictable, that dividend increases are seldom announced after the close of trading, and that dividends have little marginal information content given contemporaneous earnings. The evidence from this study is consistent with this prediction. The portfolio of firms that exhibit this announcement timing pattern had a negative return on Friday and a positive return on Monday. The univariate test essentially corroborates the control portfolio test in this regard.

Conversely, it is also hypothesized that when earnings announcement only is delayed on Friday, there is more of a spillover effect in the Monday return. This prediction is derived from existing evidence showing that, although a belated earnings announcement is interpreted as bad news, there is a further negative price impact when the announcement is actually made.[4] The evidence here supports the hypothesis. In sum, therefore, the results are consistent with the premise that investors evaluate contemporaneous earnings and dividends in relation to one another, thus interpreting the relative timing of their announcements as information.

Additionally, the study also attempts to shed light on the issue whether Friday earnings/dividends announcements are inherently signals of bad news. Because the time of each announcement in the sample is known, it is possible to examine whether negative Friday and Monday returns are largely associated with Friday announcements made after 4 p.m. The evidence indicates that such is indeed the case although the negative returns are not statistically significant. In any event, by including as Friday announcements only those announcements made before the close of trading, the associated returns are non-negative. Thus the result does not lend support to the commonly held belief that Friday earnings/dividends announcements are on average negative.[5]

This study here serves three useful purposes. First, it extends prior research studying the price impact of announcement timing to the case of contemporaneous announcements in the intraday context. Thus, it furthers our understanding of how investors interpret the news content of announcement delays. Second, it shows that when studying the information content of either earnings or dividends, a research design that ignores the accompanying announcement is flawed. Third, it establishes the importance of differentiating between announcements made before the close of trading and those made after the close of trading in event studies. Research designs that ignore this cut-off point is bound to be a less powerful test.

ENDNOTES

1. See also Abelson [1980, p.1] and Dyl and Maberley [1988]. Dyl and Maberley document that a preponderance of bad news were released after Friday's market closing.

2. When compared with the data in Patell and Wolfson [1984], our sample seems to have small proportions of announcements made after the close of trading. Since Patell and Wolfson include primarily NYSE firms in their sample while our sample has NYSE, AMEX, and over-the-counter firms, the data suggest that there are fewer small firms that announce earnings after the close of trading than large firms.

3. In some cases, we use as few as 50 observations when a longer history of daily returns is not available.

4. One of the explanations for this prior evidence is that the market is not able to accurately predict earnings prior to its announcement. One explanation that has not been given previously is that, as carried by the Broad tape, earnings announcements are typically accompanied by other corporate releases, such as news concerning sales, production, personnel, and so on.

5. Given the findings in Patell and Wolfson [1984] that it takes the market 10 to 15 minutes to react to an earnings or a dividend announcement, all the tests are repeated with delay defined as announcing after 3:45 p.m. The results are virtually the same and are not reported here.

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