

The Firm Price Effects of Regional Information Releases

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Prior research has analyzed the stock price impact of earnings announcements that are reported in the national media, in contrast, we focus on the information content of earnings announcements reported in a regional metropolitan newspaper. In major cities there is a local investor base for companies that are located in the metropolitan region, and often, earnings announcements that are ignored by the national media are reported by the local newspaper. In this research we analyze earnings announcements, that were reported in a local newspaper, by firms located in a metropolitan region. First, in consonance with prior research we find significant positive (negative) abnormal returns for positive (negative) earnings announcements. Second, in the sample of positive earnings announcements we find a significant negative post-announcement drift in stock returns. Finally, for earnings announcements published on Saturdays, we observe that on the following trading day, a positive (negative) impact for positive (negative) earnings announcements. This suggests the potential for a profitable post-announcement trading opportunity.

INTRODUCTION

There is a substantial body of research on the effect of earnings announcements on stock prices (Kothari (2001)). There are two main themes in the finance and accounting literature on empirical research on corporate earnings. The first stream investigates the ‘information content’ of earnings announcements. The second stream of research analyzes the anomalous post-announcement behavior of standardized unexpected earnings (Brown (1997)). This research focuses on the first stream. Recent research (Landsman & Maydew (2002)) on the information content of earnings announcements shows that over a thirty year period, the trading volume and abnormal return volatility around quarterly earnings announcements has increased. They posit that this is evidence of the information content of quarterly earnings having *increased* over time. Ahmed et. al. (2003) investigate the role of online trading on stock price and trading volume reactions to quarterly earnings announcements. One of their conclusions is that with the

proliferation of online trading, there is a higher trading volume reaction to earnings announcements, and that this is unrelated to price change.

In this paper we analyze the stock price impact of earnings announcements in a ‘regional’ context. That is, unlike prior research, we focus on the information impact of earnings announcements published in a major metropolitan newspaper. The utility of this approach can be seen from the fact that publicly traded firms (especially small firms) that are based in a particular city, are likely to have investor interest and possibly an ownership base that is concentrated regionally. If that indeed is true, we posit that the earnings announcements of local firms in the local newspaper would have substantial information content and hence an impact on stock price. We focus our research on earnings announcements by firms based in San Diego county.

DATA COLLECTION

For the four year period 2000-03, we identified publicly traded firms based in San Diego county by searching archives of the *San Diego Business Journal* -- a business weekly¹. The *San Diego Business Journal* publishes a weekly list of San Diego firms that have shares that are publicly traded. We examined the first weekly issue in the month of January for the years 2000-03. All firms appearing in the list for a particular year were included in the sample for that year. The number of firms in the sample for each year is – 78 (‘00), 98 (‘01), 86 (‘02), 76 (‘03) for an average of approximately 85 firms per year. It is interesting to observe, post-2000, the decreasing trend in the number of listed firms. This shows that, as observed elsewhere in the US, the San Diego business environment was not immune from the contraction in the technology sector. These listed firms have shares traded on the NYSE, or the AMEX or Nasdaq.

For all sample firms identified we then researched the archives of the *San Diego Union-Tribune* (SDU-T), a daily newspaper with the largest local circulation. For each year 2000-03, we identify all quarterly earnings announcements reported in the SDU-T. These quarterly earnings announcements form the primary sample of this research on the price effects of ‘regional’ announcements. In the four years we identified a total of 655 quarterly earnings announcements in the local newspaper. Of this total there were 313 positive earnings and 342 negative earnings. Given the time period covered it is not surprising that negative earnings outweigh positive earnings. We also identified those earnings announcements by San Diego based firms that were reported ‘nationally’ by the *Wall St. Journal* (WSJ). Of the 655 announcements in the primary sample, we found that there were only 31 earnings announcements that were also reported in the WSJ. It appears that when it comes to coverage of earnings announcements, local newspapers are more likely to report news related to local firms, in comparison to national media such as the WSJ. Interestingly, in the four year window, we found a total 15 quarterly earnings announcements by San Diego firms in the WSJ, which were not reported in the local newspaper SDU-T.

EMPIRICAL RESULTS

We research the information effect of ‘regional’ earnings announcements by an event-study analysis of the announcements. The results for all announcements, as well as several sub-samples, are reported in Tables 1, 2, 3 (see the Appendix). For the event-study we estimate market model parameters using 255 daily returns starting 46 days before the earnings announcement. After the estimation of the market model parameters we generate “abnormal

daily returns” in the (-30, +30) event window, where ‘Day 0’ is the date on which the earnings announcement is reported in a newspaper (the SDU-T, or the WSJ). The Tables show the cumulative abnormal returns (CAR %) for positive and negative earnings announcements.

In Table 1, Panels A and B we show the effect of positive and negative earnings announcements for firms in San Diego county. Of the 655 earnings announcements reported in the SDU-T, there were 313 positive earnings and 342 negative earnings announcements. However, the requirement of pre-announcement returns for estimating the market model parameters for each announcement resulted in the reduction of the two samples to 239 (Table 1, Panel A), and 257 (Table 1, Panel B) respectively. As expected (and supportive of prior research), in Panel A the impact of a positive earnings announcement is positive and statistically significant. The two-day (-1, 0) announcement impact is 1.62% which is significant at the 0.1% level. It is interesting to note the negative drift of daily returns in the post-announcement period (+1, +30). In Panel B, the results of negative earnings announcements indicate, as expected, a statistically significant negative impact. The two-day (-1, 0) impact is -2.85%. In contrast to the positive earnings sample, there is no post-announcement drift in either direction. Thus the initial analysis of the earnings announcement (two-day) impact of news in the *San Diego Union-Tribune* newspaper, results in exactly the same conclusion as prior research.

In Table 1, Panels A and B we considered earnings news when reported in the SDU-T. In order to include the possibility that an earnings announcement may have been reported both in the regional SDU-T and the national WSJ, we partition the sample further in the following three ways. We first list those earnings announcements that were reported *only* in the SDU-T (Table 1, Panels C and D). Next we analyze earnings announcements by San Diego based firms that were reported in the WSJ (Table 2, Panel A and B). Finally, we show results of earnings announcements that were reported in *both* the SDU-T and the WSJ (Table 2, Panels C and D).

For the sample of positive and negative earnings announcements reported *only* in the SDU-T (Table 1, Panels C and D), we find that as before there is (Panel C) a significant positive two-day impact of 1.83% for positive earnings announcements³. We also find a similar post-announcement negative drift in daily returns over the (+1, +30) event window, that was observed earlier. For negative earnings announcements (Panel D) reported only in the SDU-T there is, as before, a significant two-day negative impact of -3.24%. We do not observe any post-announcement drift in daily returns. The conclusion here is that regionally reported earnings news of local firms has a significant impact on stock prices, in the direction of the reported earnings.

In Table 2, Panels A and B we show the effect of earnings announcements by San Diego firms that were reported by the *Wall St. Journal* (WSJ), regardless of whether or not the SDU-T newspaper also reported the earnings announcement. The sample sizes are substantially reduced, and are 24 for positive earnings and 21 for negative earnings. Interestingly, for positive earnings announcements, the two-day impact is -0.62%, however, it is not statistically significant. In comparison, the effect of negative earnings is statistically significant and is -4.84%. On analyzing the samples further, of the 24 positive earnings announcements, 21 are from just four firms – Qualcomm, Gateway, Jack-in-the-Box and Sempra Energy. For the negative earnings announcements, of the 21 announcements, 17 are from the same four firms. It appears that the concentration of earnings announcements from just four firms in these samples makes it difficult to provide a rational explanation for the asymmetric impacts of positive and negative earnings. Further, it is interesting to observe (and perhaps logical) that large firms such as these four, get

national coverage in the *Wall St. Journal*. Or put differently, the smaller the firm the less likely its earnings announcement is going to be reported by the WSJ.

In Table 2, Panels C and D we show the announcement impact of positive and negative earnings where the news is reported in both the SDU-T and the WSJ. As observed earlier (in Table 2, Panels A), we notice in Panel C a negative but insignificant impact for positive earnings. For negative earnings there is a negative impact that is weakly significant. Again the samples are small and are concentrated across the four San Diego firms mentioned earlier.

In Table 3, Panels A through D we show the analysis of earnings announcements that are reported in the SDU-T on Saturdays. Unlike in prior research that looked at earnings announced on Mondays through Fridays, with the sample in this research we have the opportunity to analyze Saturday announcements. In Panel A for positive earnings announcements on a Saturday, we specify Day 0 as the prior Friday (and for one firm the prior Thursday, since the markets were closed on Friday April 21, 2000). In Panel B for the same sample, we specify Day 0 as the following Monday (or Tuesday if the markets are closed on Monday). The results indicate that the two-day announcement (-1, 0) impact is positive but insignificant in Panel A, and positive and significant in Panel B. On further analysis (not shown in the Table) we find that the *one-day* abnormal return generated on the following trading day (a Monday or a Tuesday) by positive earnings announced on the previous Saturday to be +2.47% which is statistically significant at the 1% (t-stat) and 5% (z-stat). These results indicate that regional Saturday news reports about positive earnings can be transacted on profitably the following trading day. Also, the post-announcement returns drift in the (+1, +30) window, as observed earlier, is -11.94% (Panel A) and -15.32% (Panel B), both are significant at the 1% level (z-stat). This indicates that for the sample in this research, over the years 2000-03, shorting stock over the (+1, +30) window following positive earnings is a profitable trading rule. A possible explanation for this behavior (for the portfolio of San Diego firms) is that investors wait for the earnings announcement, if it is positive the investors sell off their shares to cash in their investments. On the other hand, if the earnings are negative they continue to hold on to their stock and hope for a future positive earnings announcement. This type of investor behavior induced price swing is likely in a technology intensive business environment where, typically, a lot of the stock is held by executives, employees and venture capitalists. We posit that for technology firms, a positive earnings announcement is essentially a liquidity event for investors.

In Table 3, Panels C and D we look at negative earnings announcements on Saturdays. Here we find that there is a statistically significant price impact (Day (-1, 0)) as shown in both Panels C and D. Although not shown separately in the Table, the *one-day* impact on the prior Friday is -3.98%, the impact on the following Monday (or Tuesday) is -6.57%, both are significant at the 0.1% level. (Note, in Panel D the event window (-1, 0) shows the sum of these two impacts as -10.55%). Also, interesting to note is that after the following Monday there is no statistically significant returns drift in the (+1, +30) event window.

CONCLUSION

In a departure from prior research we investigate the price effects of earnings announcements reported regionally in a local newspaper, for firms in San Diego county. From the analysis of a sample of regional earnings announcements we have three principal findings. First, in consonance with prior research, we observe significant positive (negative) abnormal returns for positive (negative) earnings announcements. Second, in the sample of positive earnings

announcements we observe a consistent, significant negative post-announcement returns drift. There was no significant post-announcement drift for the negative earnings sample. Finally, for earnings announcements published on Saturdays, we find that on the following trading day (a Monday or a Tuesday) there is a positive (negative) impact for positive (negative) earnings announcements. This suggests the potential for a profitable post-announcement trading rule for earnings announcements published on Saturdays.

TABLE 1
PANEL A: POSITIVE EARNINGS ANNOUNCEMENTS IN THE SAN DIEGO UNION-TRIBUNE (SDU-T)

Event window	Sample	CAR %	Z -stat	t –stat
(-30, -2)	239	0.04 %	-0.091	0.029
(-1, 0)	239	1.62 %	5.351***	4.037***
(-1, +1)	239	1.42 %	3.877***	2.902***
(+1, +30)	239	-3.14 %	-2.266*	-2.025*

NOTE : The symbols ***, **, * and \$ denote statistical significance at the 0.1%, 1%, 5%, 10% levels, respectively, using a one-tailed test.

PANEL B: NEGATIVE EARNINGS ANNOUNCEMENTS IN THE SAN DIEGO UNION-TRIBUNE (SDU-T)

Event window	Sample	CAR %	Z – stat	t – stat
(-30, -2)	257	-1.32 %	-1.139	-0.673
(-1, 0)	257	-2.85 %	-7.537***	-5.514***
(-1, +1)	257	-2.81 %	-5.995***	-4.445***
(+1, +30)	257	1.25 %	1.113	0.624

PANEL C: POSITIVE EARNINGS ANNOUNCEMENTS IN THE SDU-T, WITHOUT WSJ ANNOUNCEMENTS²

Event window	Sample	CAR %	Z - stat	T – stat
(-30, -2)	239	0.53 %	0.535	0.347
(-1, 0)	239	1.83 %	6.158***	4.529***
(-1, +1)	239	1.81 %	4.918***	3.646***
(+1, +30)	239	-2.42 %	-1.601\$	-1.544\$

PANEL D: NEGATIVE EARNINGS ANNOUNCEMENTS IN THE SDU-T, WITHOUT WSJ ANNOUNCEMENTS

Event window	Sample	CAR %	Z - stat	t – stat
(-30, -2)	254	-0.83 %	-0.802	-0.417
(-1, 0)	254	-3.24 %	-9.204***	-6.182***
(-1, +1)	254	-3.30 %	-7.697***	-5.154***
(+1, +30)	254	0.73 %	0.755	0.361

TABLE 2**PANEL A: POSITIVE EARNINGS ANNOUNCEMENTS IN THE WALL ST. JOURNAL (WSJ)**

Event window	Sample	CAR %	Z – stat	t – stat
(-30, -2)	24	-2.86 %	-0.721	-0.663
(-1, 0)	24	-0.62 %	0.513	-0.543
(-1, +1)	24	-1.54 %	0.118	-1.108
(+1, +30)	24	-0.61 %	0.429	-0.140

PANEL B: NEGATIVE EARNINGS ANNOUNCEMENTS IN THE WALL ST. JOURNAL (WSJ)

Event window	Sample	CAR %	Z – stat	t – stat
(-30, -2)	21	-4.70 %	-0.990	-0.722
(-1, 0)	21	-4.84 %	-3.623***	-2.831**
(-1, +1)	21	-4.84 %	2.910**	-2.313*
(+1, +30)	21	1.19 %	-0.011	0.180

PANEL C: POSITIVE EARNINGS ANNOUNCED IN BOTH THE SDU-T AND WSJ

Event window	Sample	CAR %	Z – stat	t-stat
(-30, -2)	16	-1.34 %	-0.125	-0.236
(-1, 0)	16	-0.26 %	0.060	-0.175
(-1, +1)	16	-2.18 %	-0.896	-1.193
(+1, +30)	16	-5.12 %	-0.709	-0.886

PANEL D: NEGATIVE EARNINGS ANNOUNCED IN BOTH THE SDU-T AND WSJ

Event window	Sample	CAR %	Z – stat	t – stat
(-30, -2)	15	-8.20 %	-1.494\$	-1.038
(-1, 0)	15	-2.24 %	-1.480\$	-1.078
(-1, +1)	15	-2.42 %	-1.301\$	-0.952
(+1, +30)	15	2.00 %	0.117	0.249

TABLE 3**PANEL A: POSITIVE EARNINGS ANNOUNCEMENTS ON SATURDAY ('DAY 0' IS PRIOR FRIDAY)**

Event window	Sample	CAR %	Z – stat	t – stat
(-30, -2)	18	0.19 %	0.336	0.043
(-1, 0)	18	0.79 %	0.950	0.671
(-1, +1)	18	3.26 %	1.912*	2.264*
(+1, +30)	18	-11.94 %	-2.350**	-2.624**

**PANEL B: POSITIVE EARNINGS ANNOUNCEMENTS ON SATURDAY
(‘DAY 0’ IS FOLLOWING TRADING DAY)**

Event window	Sample	CAR %	Z – stat	t – stat
(-30, -2)	18	2.06 %	0.626	0.461
(-1, 0)	18	2.52 %	1.873*	2.146*
(-1, +1)	18	0.08 %	0.348	0.058
(+1, +30)	18	-15.32 %	-2.820**	-3.368***

**PANEL C: NEGATIVE EARNINGS ANNOUNCEMENTS ON SATURDAY
(‘DAY 0’ IS PRIOR FRIDAY)**

Event window	Sample	CAR %	Z – stat	t – stat
(-30, -2)	23	1.93 %	-0.211	0.251
(-1, 0)	23	-4.09 %	-2.143*	-2.029*
(-1, +1)	23	-10.65 %	-4.355***	-4.313***
(+1, +30)	23	-15.08 %	-1.796*	-1.931*

**PANEL D: NEGATIVE EARNINGS ANNOUNCEMENTS ON SATURDAY (‘DAY 0’ IS
FOLLOWING TRADING DAY)**

Event window	Sample	CAR %	Z – stat	t – stat
(-30, -2)	23	1.71 %	-0.262	0.223
(-1, 0)	23	-10.55 %	-5.421***	-5.228***
(-1, +1)	23	-11.91 %	-5.073***	-4.819***
(+1, +30)	23	-6.08 %	-0.730	-0.778

END NOTES

1. We thank Russ Havens for providing access to the archives of the *San Diego Business Journal*.
2. For the analysis in Table 1, Panel C, we began with a sample of 276 positive earnings announcements in the SD-UT , but without any announcement in the WSJ. However, with the requirement of pre-announcement returns for estimating the market model parameters for the event-study, the sample size is reduced to 239.

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