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The Role of Media in Share Repurchases

Cristián Pinto

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# The Role of Media in Share Repurchases\*

**Cristian Pinto-Gutierrez†**

Centro de Investigación de la Empresa

Universidad del Desarrollo

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## Abstract

I examine the impact that media coverage has on open market share repurchase outcomes. I find that media coverage around repurchase announcements are negatively related to firms' actual repurchases following the announcements. This result suggests that only firms that do not attract sufficient investor attention to the announcements follow through on their repurchase programs. Furthermore, I find that the highest cumulative abnormal returns three, six, and 12 months following the announcements correspond to firms with the lowest media coverage. These results provide new evidence that media coverage helps improve market efficiency by increasing investor attention.

**Keywords:** Investor attention; share repurchases; news analytics; media coverage.

**JEL Classification:** G14, G35

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† 680 Plaza Av., San Carlos de Apoquindo, Santiago, Chile. Email: [cristianpinto@udd.cl](mailto:cristianpinto@udd.cl). Phone: +56 9 51242168.

# The Role of Media in Share Repurchases

## 1. Introduction

The open-market share repurchase<sup>1</sup> payout method is the most common way managers distribute cash to shareholders. With this method, a firm will usually announce in advance its intentions to repurchase a fraction of the companies' outstanding shares in the open market over a number of months. This announcement does not commit the firm to actually follow through with the program and repurchase shares; in fact, in many cases, firms do not complete repurchase programs, and many firms do not repurchase at all (e.g., Oded, 2005; Yook, 2010).

Recently, Bhattacharya and Jacobsen (2015) develop a model that predicts that firms with undervalued stocks will announce share repurchases to attract the attention of speculators who will trade away mispricings. Bhattacharya and Jacobsen (2015) confirm their hypothesis by examining the effects of several potential proxies for ex-ante mispricing, such as the number of analysts who are following the firm, institutional ownership, and advertising expenditures. In particular, the authors show that those firms with low numbers of financial analysts, low ratios of institutional ownership, and low levels of advertising expenditures, will attract sufficient investor attention to the announcements so that they will not need to actually materialize the buybacks. Prior studies, however, have used this same set of variables as proxies for levels of investor attention (e.g., King and Segal 2009; Lehavv and Sloan 2008; Madsen and Niessner, 2015). Consequently, Bhattacharya and Jacobsen's (2015) results suggest that ex-ante investor attention is positively related to the fraction of shares a firm actually repurchases after the announcement.

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<sup>1</sup> Practitioners generally use the term "share buybacks". In this chapter, I use "share buyback," "stock buyback," or "share repurchase" interchangeably.

In this paper, I explore a new measure of investor attention and find contrasting results. To measure investor attention, I calculate the amount of firm-specific news items in a recently developed news analytics product: *The Thomson Reuters News Analytics* (TRNA). TRNA is a machine readable service that contains all news that Reuters or the represented companies themselves publish (through newswire services) from January 2003 onwards. The advantage of this data set is that it contains news articles and press releases that have appeared on the screens of traders, and therefore, is a direct source of data to proxy for the attention of professional investors.

After controlling for other factors, I find that the fraction of shares a firm actually repurchases after the announcement is negatively associated with the volume of news articles around the announcement. This result indicates that firms that attract high levels of investor attention to their announcements do not repurchase a large fraction of their shares.

To mitigate endogeneity concerns in the previous finding, I use an instrumental variable (IV) approach with two instruments. The first instrument uses variations in firms' advertising expenditures. Empirical evidence documents that firms' advertising expenditures are strongly positively related to the media coverage firms receive (e.g., Reuter and Zitzewitz, 2006; Gurun and Butler, 2012). The second instrument uses a measure of the degree of distraction of media outlets because some exogenous events may have shifted overall attention away from the firm that is announcing share repurchases. To identify distracting events, I use a measure Eisensee and Strömberg (2007) developed that is based on the number of minutes that U.S. evening news broadcasts devote to the first three news segments in a day. Overall, my previous findings remain robust after I use the IV approach to control for endogeneity concerns.

I also examine the role of media in the firms' long-term post-announcements stock performances. I find that firms with the lowest media coverage around the announcements

correspond to the firms with the highest cumulative abnormal returns three, six, and 12 months following the events. These results suggest that high media coverage may imply both more efficient market reactions at the time of the announcements and lower undervaluations prior to the announcements, resulting in a negative association between media coverage and post-announcement price drifts. These results are also consistent with Yook (2010) who finds that only firms that actually repurchased shares experienced significant long-term abnormal returns.

I structure the remainder of the paper as follows. Section 2 presents the data sets I use in the empirical analysis. Section 5 establishes the key empirical results. The last section contains a summary and concluding remarks.

## **2. Data**

I start by collecting all company-specific news articles from *Thomson Reuters News Analytics* (TRNA). TRNA is a comprehensive archive that contains all news that Reuters News or the companies themselves (via newswire services such as PR Newswire and Business Wire, among others) publish. Sinha (2011), Kyle et al. (2012), and Cahan, Chen, and Nguyen (2013) describe the dataset in detail. For this study, the sample covers all news articles Reuters sent to its clients from January 2003 through December 2012.

I only consider news articles for U.S. common stocks listed in the New York Stock Exchange (NYSE), the American Stock Exchange (Amex), and the Nasdaq National Market (NASDAQ). In total, TRNA contains about 1.9 million news items for the stocks listed on these exchanges from January 2003 to December 2012. The average number of firms the database covered during this period was 3,820.

I follow Kyle et al. (2012) by applying several filters to include only the most “attention-grabbing” news stories. I then merge the news dataset with stock prices from the Center of

Research in Security Prices (CRSP) and firms' financial information from COMPUSTAT. I include only common stocks. After imposing these filters and merging the databases, I identify 764,680 news articles from January 2003 to December 2012 on 3,392 companies.

Next, I collect data on share repurchases from the Securities Data Corporation (SDC) database. SDC provides the initial board of directors' authorization dates of repurchase programs. I use this date as the announcement date. I exclude repurchase announcements that identify acquisitions and the offset of the dilution effects from both employee stock options and convertible debt as the motives for repurchases. To minimize the effects of small illiquid stocks, I exclude stocks with prices lower than \$5 the day before the repurchase announcements. Finally, to conform to the earliest literature and minimize the influence of regulatory issues, I exclude share repurchase announcements by financials (SIC code 6000-6999) and utilities (SIC code 4900-4999). After imposing these filters and merging the resulting repurchases with the CRSP, COMPUSTAT, and TRNA databases, I identify 2,280 buyback announcements from January 2003 to December 2012 by 1,041 companies.

Table 1 provides descriptive statistics for the final sample; these figures include news article data, repurchase details, and the firms' characteristics.

[Table 1 about here]

### **3. Empirical Results**

#### *3.1 Investor Attention and Actual Buyback Activities following the Announcements*

First, I examine whether firms' actual repurchase activities after the announcements are functions of the volume of news articles around the announcements using the following regression:

$$Buybacks_i = \alpha + \beta News\ Articles_i + \gamma' X_i + T_i + I_i + \epsilon_i, \quad (1)$$

where  $Buybacks_i$  takes two definitions. First, I consider repurchases that occur in the first two quarters following the announcements (repurchases from the announcement quarter,  $t$ , to quarter  $t + 1$ ). Second, I consider repurchases that occur in the first year following the announcements (repurchases from quarter  $t$  to quarter  $t + 3$ ). I divide the results from both definitions by the firm's market equity in the quarter immediately prior to the announcement,  $t - 1$ . To calculate the dollar amount a firm repurchased, I follow previous literature (e.g., Yook, 2010; Nguyen, 2013; Bhattacharya and Jacobsen, 2015) and use the COMPUSTAT item, *Purchase of Common and Preferred Stock* (PRSTKCY in the COMPUSTAT database) and subtract any decrease in the value of preferred stocks (at redemption or carrying values, PSTKRQ or PSTKQ items, respectively).

The buyback calculation results are summarized in Table 2. Panel A of Table 2 summarizes the results for the full sample of share repurchases from 2003 to 2012. Panel B of Table 2 summarizes the results for the sample with TRNA data that I use in this study.

[Table 2 about here]

The variable  $News\ Articles_i$  in equation (1) is the number of news articles for firm  $i$  90 days before the announcements and ten days after the announcements. I use 90 days prior to the announcements because I want to measure the degree of investor attention at the moment firms announce their repurchase programs. I also use the day of and ten days after the announcements to include the attention attracted by announcements themselves.

The vector  $X_i$  contains firms' characteristics that control for key factors that may also affect repurchase decisions. I include in all regressions both year ( $T_i$ ) and industry ( $I_i$ ) fixed-effects (throughout, I do not report the coefficients of these variables). Finally, because I want to ensure that extreme values on the key independent variable do not drive the results of my analysis, I Winsorize all dependent and independent variables at the upper and lower one percent levels.

Because share repurchases are non-binding commitments that offer managers the flexibility of choosing when to acquire the shares and how many shares to actually buy back, the decision of whether to repurchase may be different from the decision of how much to repurchase, once managers have decided to repurchase. In this situation, the appropriate empirical model to estimate equation (1) should be a Tobit model.

Table 3 reports regression results. The volumes of news articles around the announcements are negatively related to the market values that firms repurchased. The marginal effect of the variable *News Articles* for the repurchases during the first two quarters following the announcements is -0.0106 and statistically significant at the five percent level. Similarly, the marginal effect of *News Articles* for the market values firms repurchased during the first year following the announcements is -0.0198 and statistically significant at the one percent level. To put the economic significance of these coefficients in concrete terms: increasing the number of news articles around the announcements by one is associated with a 0.0198 percent decrease in the market value that a firm repurchased in the year following the announcement, or -\$1.84 million ( $=-\$9,287.2 \times 1.98 \times 10^{-4}$ ), with the other variables in the model held constant.

[Table 3 about here]

### *3.2 Robustness Checks: Instrumental Variable Approach*

Next, I use an instrumental variable (IV) approach to address endogeneity issues. I employ two instruments. The first instrument uses variations in firms' advertising expenditures. Empirical evidence documents that firms' advertising expenditures are strongly positively related to the media coverage firms receive (e.g., Reuter and Zitzewitz, 2006; Gurun and Butler, 2012). Therefore, I define *advertising* as an instrument equals to the total cost of advertising, media, and



promotional expenses as reported in the annual Compustat item XAD. I measure advertising expenditures at the end of the year prior to the repurchase announcements.

The second instrument explore episodes of sensational news events that may distract media outlets and affect the media coverage of firms. To identify distracting events, I use Eisensee and Strömberg's (2007) *news pressure* index. The authors define this index as the median number of minutes that evening news broadcasts of the major U.S. networks (ABC, CBS, NBC, and CNN) devote to the first three news segments in a day. I construct the instrument, *TV news pressure*, by summing the daily Eisensee and Strömberg's (2007) indices from ten days prior to and ten days following the repurchase announcements.

Table 4 reports the results for the instrumental variable approach. Column (1) of Table 4 reports the first-stage results. Columns (2) and (3) of Table 4 report the second-stage results. Overall, results suggest that the negative relationship I reported earlier between the volume of news articles around the announcements and companies' actual share repurchase actions retains the same sign after I control for potential endogeneity problems.

[Table 4 about here]

### *3.3 Investor Attention and Long-term Returns following Buyback Announcements*

A number of studies find that after announcing buybacks, firms over perform in the long run (e.g., Ikenberry, Lakonishok, and Vermaelen, 1995; Peyer and Vermaelen, 2008; Yoko, 2010). In this section, I investigate the relationship between media coverage around the announcements and the long-run stock price performances of the announcing firms.

I calculate long-term stock returns over different horizons for announcements classified into announcing firms with "high" and "low" media coverage according to the volumes of news stories around the announcement dates. To adjust for expected returns, I use multiple approaches.

First, I calculate portfolio-matched buy-and-hold abnormal returns (BHARs) and cumulative abnormal returns (CARs) for three, six, 12, and 24 months following the announcement dates.<sup>2</sup> Finally, I use the calendar-time regression approach (Fama, 1998; Mitchell and Stafford, 2000; Brav, Geczy, and Gompers, 2000). In all instances, I show the results for both equally-weighted (EW) and value-weighted (VW) portfolios.

Panel A of Table 5 summarizes the BHAR results. I find evidence that the “low” news articles portfolio over performs the “high” news articles portfolio at the three, six, and 12-month intervals for the VW basis. For the EW BHARs, differences are statistically insignificant. Panel B of Table 5 reports CAR results. As with the BHARs approach, I only observe significant differences for VW CARs at the three, six, and 12-month horizons with the “low” portfolio over performing the “high” media coverage portfolio.

[Table 5 about here]

Next, I calculate long-run abnormal returns using a calendar-time approach. Panel A of Table 6 shows that when I use the equally-weighted (EW) three-factor model and the four-factor model, respectively, announcing firms in the “low” portfolio have significantly positive average post-issue abnormal returns (*alphas*): 0.4 percent per month (4.8 percent after one year) and 0.42 percent per month (5.04 percent after one year). Panel B of Table 6 shows the results when I use the value-weighted (VW) portfolios. Both the three-factor model and the four-factor model yield significantly positive average post-issue abnormal returns for announcing firms in the “low” portfolio: 0.23 percent per month (2.76 percent after one year) and 0.25 percent per month (3.0 percent after one year). Firms in the “high” portfolio have abnormal returns that are not statistically different from zero in any of the models.

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<sup>2</sup> To compute CARs and BHARs, I modify the SAS code in the Internet Appendix of Bhojraj, Hribar, Picconi, and McInnis (2009), available at <http://www.afajof.org/details/page/3626901/Supplements.html>.

[Table 6 about here]

#### 4. Summary and Concluding Remarks

In this paper, I have demonstrated how media coverage and investor attention affect open-market share repurchase outcomes. I find that media coverage around the announcements of share repurchases is a significant determinant of firms' actual repurchase activities. I also find that limited investor attention may cause market underreactions to the announcements of low media firms, resulting in subsequent positive long-term stock performances for these firms. This paper illuminates the issue of the extent to which companies can effectively use costless signaling to manipulate stock prices in the presence of attentive investors.

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Table 1. Summary statistics for key variables

|   | <i>N</i> | <i>Mean</i> | <i>Min</i> | <i>Max</i> | <i>SD</i> | <i>Skewness</i> | <i>Kurtosis</i> |
|---|----------|-------------|------------|------------|-----------|-----------------|-----------------|
| <b>TRNA:</b>  |          |             |            |            |           |                 |                 |
| News Articles (-90,+10)                                       | 2280     | 11.5        | 0.0        | 110.0      | 15.8      | 3.7             | 20.6            |
| Positive News Articles (-90,+10)                              | 2280     | 6.5         | 0.0        | 57.0       | 8.9       | 3.1             | 15.5            |
| Negative News Articles (-90,+10)                              | 2280     | 2.4         | 0.0        | 29.0       | 4.6       | 3.7             | 18.8            |
| <b>Buybacks characteristics:</b>                              |          |             |            |            |           |                 |                 |
| CAR (-1,1)  | 2280     | 1.1         | -21.0      | 19.0       | 5.8       | -0.4            | 6.3             |
| CAR (-3,3)  | 2280     | 0.9         | -25.4      | 22.6       | 7.3       | -0.4            | 5.4             |
| Announced repurchase size (\$Million)                         | 2268     | 522.3       | 1.0        | 8500.0     | 1245.0    | 4.4             | 24.4            |
| Shares sought in repurchase /<br>share outstanding (%)        | 2245     | 7.3         | 0.9        | 27.5       | 5.0       | 1.6             | 6.1             |
| Value sought in repurchase /<br>market equity (%)             | 2168     | 7.1         | 0.8        | 26.4       | 4.8       | 1.5             | 5.9             |
| Value repurchased quarter 2 /<br>market equity (%)            | 2128     | 2.8         | 0.0        | 14.1       | 2.9       | 1.7             | 6.0             |
| Value repurchased quarter 4 /<br>market equity (%)            | 2099     | 5.2         | 0.0        | 23.7       | 4.6       | 1.5             | 5.6             |
| Total shares repurchased /<br>Shares sought in repurchase (%) | 1896     | 74.7        | 2.0        | 200.0      | 37.7      | 0.3             | 3.6             |
| <b>Firms characteristics:</b>                                 |          |             |            |            |           |                 |                 |
| Ln (Market Equity)  | 2180     | 7.6         | 2.3        | 12.7       | 1.8       | 0.1             | 2.9             |
| Ln (Assets)   | 2183     | 7.3         | 3.4        | 11.8       | 1.8       | 0.1             | 2.6             |
| Leverage  | 2101     | 0.2         | 0.0        | 0.7        | 0.2       | 0.9             | 3.1             |
| ROA   | 2174     | 0.1         | -0.1       | 0.3        | 0.1       | 0.7             | 6.0             |
| CAPEX to Assets   | 2181     | 0.0         | 0.0        | 0.2        | 0.0       | 2.4             | 9.8             |
| Cash to Assets  | 2183     | 0.2         | 0.0        | 0.7        | 0.2       | 1.2             | 3.5             |
| Market-to-Book Ratio  | 2166     | 3.4         | 0.6        | 30.3       | 4.0       | 4.5             | 27.1            |
| Returns Past 12 Months  | 2224     | 0.2         | -0.6       | 1.9        | 0.4       | 1.4             | 6.0             |
| Stock Volatility 24 Months                                    | 2162     | 0.1         | 0.0        | 0.3        | 0.0       | 1.4             | 5.3             |
| Institutional Ownership Ratio                                 | 2280     | 0.8         | 0.1        | 1.2        | 0.2       | -1.0            | 3.9             |
| Ln (1+Number of Analysts)                                     | 2280     | 2.2         | 0.0        | 3.7        | 0.9       | -0.9            | 3.2             |
| Dividends / income  | 2170     | 0.0         | 0.0        | 0.4        | 0.1       | 2.6             | 11.4            |
| Age (Since IPO)   | 2183     | 20.5        | 1.0        | 41.0       | 11.3      | 0.2             | 1.8             |

Table 2. Summary statistics for share repurchases by announcement year

| Year  | # Announcements | % Firms repurchasing shares in the quarter of the announcement, $t$ , or quarter $t + 1$ . | % Firms repurchasing shares from the announcement quarter, $t$ , to quarter $t + 3$ . | Value of shares sought in repurchase / market equity | Value of shares repurchased in the quarter of the announcement, $t$ , or quarter $t + 1$ / market equity | Value of shares repurchased shares from the announcement quarter, $t$ , to quarter $t + 3$ / market equity |
|---|-----------------|--|---|--|--|--|
| <b>Panel A: Full Sample of Share Repurchase Announcements</b>           |                 |  |   |  |  |  |
| 2003  | 301             | 76.7%  | 84.1%   | 6.6%   | 2.0%   | 4.0%   |
| 2004  | 367             | 65.4%  | 83.1%   | 5.7%   | 2.3%   | 4.4%   |
| 2005  | 452             | 72.6%  | 87.2%   | 6.4%   | 2.7%   | 5.2%   |
| 2006  | 469             | 73.1%  | 87.2%   | 6.7%   | 2.9%   | 5.5%   |
| 2007  | 556             | 77.5%  | 90.5%   | 7.5%   | 3.3%   | 5.7%   |
| 2008  | 497             | 72.8%  | 82.1%   | 6.8%   | 2.4%   | 3.6%   |
| 2009  | 158             | 63.9%  | 82.9%   | 7.1%   | 2.3%   | 5.1%   |
| 2010  | 312             | 68.3%  | 86.2%   | 8.0%   | 2.7%   | 5.6%   |
| 2011  | 417             | 75.8%  | 87.3%   | 7.5%   | 3.1%   | 5.5%   |
| 2012  | 290             | 69.7%  | 87.6%   | 7.4%   | 2.9%   | 5.3%   |
| Total/Mean  | 3819            | 71.6%  | 85.8%   | 7.0%   | 2.7%   | 5.0%   |
| <b>Panel B: Sample of Share Repurchase Announcements with TRNA data</b> |                 |  |   |  |  |  |
| 2003  | 132             | 69.7%  | 79.5%   | 6.4%   | 2.0%   | 4.0%   |
| 2004  | 180             | 66.7%  | 86.1%   | 5.7%   | 2.3%   | 4.7%   |
| 2005  | 232             | 70.7%  | 87.9%   | 6.7%   | 2.8%   | 5.4%   |
| 2006  | 258             | 71.3%  | 85.7%   | 6.9%   | 3.0%   | 5.8%   |
| 2007  | 314             | 77.7%  | 90.8%   | 7.9%   | 3.4%   | 6.1%   |
| 2008  | 247             | 62.8%  | 74.9%   | 6.5%   | 2.3%   | 3.5%   |
| 2009  | 109             | 62.4%  | 83.5%   | 6.9%   | 2.4%   | 5.5%   |
| 2010  | 243             | 67.5%  | 87.7%   | 8.0%   | 2.7%   | 5.7%   |
| 2011  | 323             | 78.0%  | 87.9%   | 7.3%   | 3.1%   | 5.3%   |
| 2012  | 242             | 71.5%  | 88.4%   | 7.4%   | 2.9%   | 5.2%   |
| Total/Mean  | 2280            | 69.8%  | 85.2%   | 7.0%   | 2.7%   | 5.1%   |

Table 3. Regressions for the decision to repurchase shares after the announcements

|                                 | <i>Tobit Model</i>           |                               |
|---------------------------------|------------------------------|-------------------------------|
|                                 | <i>Quarter t to t + 1</i>    | <i>Quarter t to t + 3</i>     |
|                                 | <i>(1)</i>                   | <i>(2)</i>                    |
| <b>News Articles (-90,+10)</b>  | <b>-0.0106**</b><br>(0.0047) | <b>-0.0198***</b><br>(0.0074) |
| <b>Controls:</b>                |                              |                               |
| Cash to Assets                  | 2.7366***<br>(0.5939)        | 5.9299***<br>(0.9105)         |
| Market-to-Book Ratio            | -0.0254<br>(0.0206)          | -0.0261<br>(0.0317)           |
| Returns Past 12 Months          | 0.5332**<br>(0.2148)         | 0.9303***<br>(0.3137)         |
| Stock Volatility Past 24 Months | -1.5395<br>(2.2002)          | -4.7906<br>(3.1238)           |
| Ln (Assets)                     | 0.8462***<br>(0.2050)        | 1.5851***<br>(0.3158)         |
| Ln (Market Equity)              | -0.5651***<br>(0.1912)       | -1.0083***<br>(0.2989)        |
| Leverage                        | -0.1184<br>(0.6020)          | -1.5612*<br>(0.9475)          |
| ROA                             | 5.2319***<br>(1.2531)        | 6.2931***<br>(1.8686)         |
| Altman Z-score                  | -0.0324<br>(0.0230)          | -0.0860***<br>(0.0324)        |
| CAPEX to Assets                 | 2.2789<br>(2.6417)           | 3.6622<br>(4.0487)            |
| Dividends / Income              | -0.2145<br>(1.6280)          | -5.3738***<br>(2.0086)        |
| Year Fixed-effects + Intercept  | Yes                          | Yes                           |
| Industry Fixed-effects          | Yes                          | Yes                           |
| N                               | 1932                         | 1906                          |
| Pseudo-R2                       | 0.0201                       | 0.0231                        |

**Table 4. Instrumental variable Tobit regressions for the decision to repurchase shares after the announcements**

|   | <i>First Stage:</i>          | <i>Second Stage (Tobit):</i> |                             |
|---|------------------------------|------------------------------|-----------------------------|
|   | <i>News Articles</i>         | <i>Buybacks</i>              |                             |
|   |                              | <i>Quarter t to</i>          | <i>Quarter t to</i>         |
|   |                              | <i>quarter t + 1</i>         | <i>quarter t + 3</i>        |
|   | (1)                          | (2)                          | (3)                         |
| <b>News Articles (-90,+10)</b><br><b>(Instrumented)</b> |                              | <b>-0.0413*</b><br>(0.0219)  | <b>-0.0627*</b><br>(0.0334) |
| <b>Instruments:</b>                                     |                              |                              |                             |
| <b>Advertising</b>                                      | <b>0.0085***</b><br>(0.0008) |                              |                             |
| <b>TV News Pressure</b>                                 | <b>-0.0339*</b><br>(0.0176)  |                              |                             |
| <b>Controls:</b>  |                              |                              |                             |
| Cash to Assets  | 0.4346<br>(2.3693)           | 2.7492***<br>(0.5631)        | 5.9360***<br>(0.8502)       |
| Market-to-Book Ratio                                    | 0.1733<br>(0.1084)           | -0.0171<br>(0.0259)          | -0.0175<br>(0.0392)         |
| Returns Past 12 Months                                  | 0.0147<br>(0.8212)           | 0.5143***<br>(0.1948)        | 0.9170***<br>(0.2961)       |
| Stock Volatility Past 24 Months                         | 31.2988***<br>(8.1904)       | -0.5126<br>(2.0743)          | -3.4203<br>(3.1222)         |
| Ln (Assets)   | 2.6102***<br>(0.8365)        | 0.9375***<br>(0.2098)        | 1.7049***<br>(0.3179)       |
| Ln (Market Equity)                                      | 2.4233***<br>(0.8147)        | -0.4829**<br>(0.2008)        | -0.8817***<br>(0.3042)      |
| Leverage  | -11.2972***<br>(2.6447)      | -0.4930<br>(0.6870)          | -2.0832**<br>(1.0452)       |
| ROA   | 0.6084<br>(5.4651)           | 5.0965***<br>(1.3007)        | 6.1358***<br>(1.9674)       |
| Altman Z-score  | 0.0037<br>(0.0917)           | -0.0328<br>(0.0219)          | -0.0868***<br>(0.0330)      |
| CAPEX to Assets   | -8.6697<br>(11.2616)         | 1.8918<br>(2.6718)           | 2.8692<br>(4.0902)          |
| Dividends / Income                                      | 17.0748***<br>(5.1178)       | 0.4893<br>(1.3049)           | -4.5490**<br>(1.9762)       |
| Year Fixed-effects + Intercept                          | Yes                          | Yes                          | Yes                         |
| Industry Fixed-effects                                  | Yes                          | Yes                          | Yes                         |
| N   | 1908                         | 1908                         | 1882                        |
| Adjusted-R2   | 0.4096                       | -                            | -                           |
| F (2,1813)  | 56.5929                      | -                            | -                           |



Table 5. Long-term performance for firms with share repurchase announcements

| <b>Panel A: Buy-and-Hold Abnormal Returns (BHARs)</b> |                |                 |         |                 |         |
|---|----------------|-----------------|---------|-----------------|---------|
| Month   | Media Coverage | Equal-Weighted  |         | Value-Weighted  |         |
|   |                | BHARs (%)       | p-value | BHARs (%)       | p-value |
| 3   | Low            | <b>1.936***</b> | 0.000   | <b>0.849**</b>  | 0.021   |
|   | High           | <b>0.855*</b>   | 0.058   | <b>-0.531*</b>  | 0.069   |
|   | Difference     | <b>1.081</b>    | 0.108   | <b>1.38**</b>   | 0.018   |
| 6   | Low            | <b>3.095***</b> | 0.000   | <b>2.06***</b>  | 0.000   |
|   | High           | <b>1.763***</b> | 0.006   | <b>0.439</b>    | 0.278   |
|   | Difference     | <b>1.333</b>    | 0.176   | <b>1.621**</b>  | 0.047   |
| 12  | Low            | <b>4.375***</b> | 0.000   | <b>3.871***</b> | 0.000   |
|   | High           | <b>2.348**</b>  | 0.012   | <b>0.969</b>    | 0.144   |
|   | Difference     | <b>2.027</b>    | 0.151   | <b>2.902**</b>  | 0.027   |
| 24  | Low            | <b>7.514***</b> | 0.000   | <b>6.353***</b> | 0.000   |
|   | High           | <b>6.006***</b> | 0.000   | <b>3.006***</b> | 0.005   |
|   | Difference     | <b>1.509</b>    | 0.519   | <b>3.347</b>    | 0.116   |

  

| <b>Panel B: Cumulative Abnormal Returns (CARs)</b> |                |                 |         |                 |         |
|--|----------------|-----------------|---------|-----------------|---------|
| Month  | Media Coverage | Equal-Weighted  |         | Value-Weighted  |         |
|  |                | CARs (%)        | p-value | CARs (%)        | p-value |
| 3  | Low            | <b>1.939***</b> | 0.000   | <b>1.118***</b> | 0.000   |
|  | High           | <b>0.937**</b>  | 0.039   | <b>-0.506*</b>  | 0.091   |
|  | Difference     | <b>1.002</b>    | 0.117   | <b>1.624***</b> | 0.002   |
| 6  | Low            | <b>3.181***</b> | 0.000   | <b>2.886***</b> | 0.000   |
|  | High           | <b>1.743***</b> | 0.006   | <b>0.49</b>     | 0.231   |
|  | Difference     | <b>1.438</b>    | 0.116   | <b>2.396***</b> | 0.001   |
| 12   | Low            | <b>4.659***</b> | 0.000   | <b>3.916***</b> | 0.000   |
|  | High           | <b>3.021***</b> | 0.001   | <b>1.288*</b>   | 0.053   |
|  | Difference     | <b>1.638</b>    | 0.198   | <b>2.628**</b>  | 0.019   |
| 24   | Low            | <b>7.788***</b> | 0.000   | <b>5.843***</b> | 0.000   |
|  | High           | <b>7.876***</b> | 0.000   | <b>3.694***</b> | 0.000   |
|  | Difference     | <b>-0.088</b>   | 0.960   | <b>2.149</b>    | 0.177   |

Table 6. Calendar-time factor regressions for firms with share repurchase announcements one year prior

| <b>Panel A: Equal-Weighted</b> |                   |       |       |        |         |                        |       |       |        |        |         |
|--------------------------------|-------------------|-------|-------|--------|---------|------------------------|-------|-------|--------|--------|---------|
| Media Coverage                 | FF 3 Factor Model |       |       |        |         | CARHART 4 Factor Model |       |       |        |        |         |
|                                | Alpha (%)         | MKT   | SMB   | HML    | Adj. R2 | Alpha (%)              | MKT   | SMB   | HML    | UMD    | Adj. R2 |
| Low                            | <b>0.4***</b>     | 0.844 | 0.258 | 0.044  | 0.911   | <b>0.42***</b>         | 0.816 | 0.291 | 0.026  | -0.054 | 0.912   |
| High                           | <b>0.14*</b>      | 0.920 | 0.102 | -0.143 | 0.875   | <b>0.15*</b>           | 0.906 | 0.119 | -0.152 | -0.027 | 0.875   |

  

| <b>Panel B: Value-Weighted</b> |                   |       |        |        |         |                        |       |        |        |        |         |
|--------------------------------|-------------------|-------|--------|--------|---------|------------------------|-------|--------|--------|--------|---------|
| Media Coverage                 | FF 3 Factor Model |       |        |        |         | CARHART 4 Factor Model |       |        |        |        |         |
|                                | Alpha (%)         | MKT   | SMB    | HML    | Adj. R2 | Alpha (%)              | MKT   | SMB    | HML    | UMD    | Adj. R2 |
| Low                            | <b>0.23*</b>      | 0.923 | 0.259  | -0.081 | 0.846   | <b>0.25*</b>           | 0.873 | 0.281  | -0.144 | -0.140 | 0.862   |
| High                           | <b>0.18</b>       | 0.861 | -0.011 | -0.187 | 0.783   | <b>0.19</b>            | 0.843 | -0.003 | -0.209 | -0.049 | 0.784   |