

Investor inattention, strategic timing of merger announcements, and stock-for-stock acquirers' post-merger announcement underperformance

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Abstract

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1. Introduction

Prior studies find that acquirers experience substantial market losses in the years subsequent to stock swap announcements.¹ The anomalous post-merger announcement returns remain quite intriguing. On average, the potential negative effects of a merger should be reflected in the stock price around the merger announcement. Accordingly, Fama (1998, p. 284) contends that the “long-term return anomalies can reasonably be attributed to chance” and bad model problems (see also Brav, Geczy, and Gompers 2000; Mitchell and Stafford 2000). However, long-term return anomalies can also be related to investor inattention.² Consistent with this notion, Hirshleifer, Lim, and Teoh (2009) find that the immediate market reaction to a firm’s earnings surprise is weaker and the post-earnings announcement drift (PEAD) larger, when a greater number of earnings announcements are made on the same day. DellaVigna and Pollet (2009) also find that the market responds less to Friday earnings announcements and that PEAD is larger for Friday announcements than for non-Friday announcements.³ It is thus plausible that the post-merger announcement market underperformance is also related to investor inattention.

The inattention hypothesis is consistent with the Wall Street phenomenon called “Merger Monday,” whereby firms announce mergers on Mondays to attract attention to their transactions.

¹See, e.g. Langetieg (1978), Asquith (1983), Magenheim and Mueller (1988), Agrawal et al. (1992), Louis (2004), and Gong, Louis, and Sun (2008a).

²There is an extensive literature suggesting that investors have limited attention (Penman 1987; DeLong et al. 1990a; Hong and Stein 1999; Shleifer 2000; Huberman and Regev 2001; Daniel, Hirshleifer, and Teoh 2002; Hirshleifer and Teoh 2003; Hirshleifer et al. 2004; Peng and Xiong 2006; Gabaix and Laibson 2006; Gabaix et al. 2006; Baker, Ruback, and Wurgler 2007; Bollerslev, Peng, and Xiong 2007; DellaVigna and Pollet 2007; Barber and Odean 2008; Cohen and Frazzini 2008; DellaVigna and Pollet 2009; and Hirshleifer, Lim, and Teoh (2009).

³There is other evidence in the literature suggesting that managers at least believe that investors are distracted on Fridays (Patell and Wolfson 1982; Penman 1987; Bagnoli, Clement, and Watts 2005). Extant evidence on stock return and trading volume by weekday is also consistent with the notion that investors are distracted on Fridays and managers strategically release bad news on Fridays, with Monday returns being negative and showing a high positive correlation with the preceding Friday returns (Cross 1973; French 1980; Keim and Stambaugh 1984; Schwert 1990; Lakonishok and Maberly 1990; Abraham and Ikenberry 1994). The positive correlation between Monday and Friday returns indicates some immediate rectification of the potential Friday underreaction. However, the evidence provided by DellaVigna and Pollet (2009) shows that any short-term correction is only partial.

According to Howard Rubenstein, president of Rubenstein Associates Inc., a New York-based public relations firm, “[c]lients generally want their transactions well-publicized and that’s often easier to achieve on a Monday” (Kramer 1995). Obviously, managers who announce mergers on Fridays will not state that they are avoiding investor attention. However, those who make announcements at the beginning of the week often claim to do so to benefit from heightened media coverage and investor attention, which implies that they believe that media coverage and investor attention are lower on Fridays. Commenting on the “Merger Monday” phenomenon, Will Clemens, CEO of Internet shopping service Respond.com, states: “I think it’s as simple as on Friday, people are wrapping up business for the week. On a Monday, people are all looking at the market.”⁴ It would appear that a merger is such a big corporate event that its announcement would always attract full investor attention. However, many managers and public relation professionals seem to think otherwise.

The notion that the market would not always pay full attention to an important corporate event such as a merger announcement remains puzzling nonetheless. Therefore, our objective is to contribute to our understanding of not only the causes of post-merger announcement market underperformance but also the extent to which the inattention hypothesis applies to major corporate events. The inattention hypothesis has been tested in the context of relatively small corporate events (e.g., earnings announcements); however, there is little evidence as to whether it can explain the apparent market inefficiency in processing the information content of major events like merger announcements. On one hand, one could argue that, a merger announcement is generally a much more important event than an earnings announcement and, as such, might always attract sufficient investor attention to render the timing of the announcement irrelevant. On the other hand, the information content of an earnings announcement is relatively standard

⁴<http://www.wired.com/techbiz/media/news/2000/01/33549>.

and generally much easier to process than the information content of a merger announcement. Earnings announcements are also regular events, which dates are generally known in advance. In contrast, merger announcements relate to more complex and unanticipated events that generally require much more effort and attention to process. At the announcement of a stock-for-stock merger, investors need to analyze not only the value of the target and the potential synergy from the merger, but also the valuation of the acquiring firm and the implications of a set of complex conditions and contingencies associated with the transaction. Therefore, a merger announcement requires much more attention than an earnings announcement and any inattention effect is likely to be much more severe for the merger announcements.

It is important to note that the inattention hypothesis does not imply that investors totally ignore announcements made on low-attention days. It only suggests that, on these days, investors do not analyze relevant information as closely as they should. Accordingly, inattention, coupled with the fact that managers generally portray their acquisitions positively, can cause investors to even react positively to an announcement when they should actually react negatively. A closer attention could help investors see through the managers' overoptimistic hypes and uncover potential overvaluation. This argument is consistent with Daniel, Hirshleifer, and Teoh (2002), who suggest that limited attention causes investor credulity in processing information about new stock issuances.

It appears that arbitrageurs should exploit and eliminate inattention-driven mispricing. However, because of limits to arbitrage, mispricing can persist for awhile even in the presence of arbitrageurs.⁵ Lewellen (2009) suggests that mispricing could actually persist even in the absence of arbitrage limits, which is consistent with Teoh and Wong's (2002) suggestion that analysts'

⁵DeLong et al. (1990a) and Shleifer and Vishny (1997) show that perfect arbitrage can break down. Arbitrageurs face holding costs (Dow and Gorton, 1994; Pontiff, 2006), horizon risk (DeLong et al. 1990b, Dow and Gorton 1994; Shleifer and Vishny 1997), and synchronization risk (Abreu and Brunnermeier 2002, 2003), which might even lead them to exacerbate mispricing instead of counteracting it (DeLong et al. 1990b; Brunnermeier and Nagel 2004).

credulity contributes to the long-term underperformance of stock issuers. Thus, it is quite plausible that the post-merger announcement underperformance is related to investor inattention.

Consistent with the inattention hypothesis, we find that the market reaction to stock swap announcements is weaker on Fridays than on the other days of the week. More important, we find strong evidence that the post-merger announcement market underperformance is more pronounced for Friday announcers, suggesting that the underperformance is related to investor inattention. Our inference is robust to using alternative inattention proxies: transaction volume, analyst coverage, and past trading volume.⁶ However, we focus more on the Friday effect because it is more in line with the “Merger Monday” phenomenon.

The differential post-merger announcement abnormal returns are quite large. The mean difference in the average monthly abnormal return between Friday announcers and non-Friday announcers over the year after the merger announcements is about -0.904% using Carhart’s (1997) four-factor model. However, these results seem reasonable in light of DellaVigna and Pollet’s (2009) finding that the differential post-earnings announcement drift for Friday announcers is about -4% per month. One explanation for the large post-Friday announcement effect relates to strategic timing of news announcements by managers. DellaVigna and Pollet (2009) associate strategic timing of earnings announcements to managers’ attempt at maximizing the short-term value of their stocks. However, even managers who focus on long-term value maximization could have incentives to strategically time announcements of overvaluation-driven

⁶A potential alternative measure of inattention is the sign of the market reaction to the merger announcement. Under the inattention hypothesis, it appears that a positive (negative) initial market reaction would be followed by a positive (negative) delayed reaction. However, inattention is likely to result in smaller merger announcement abnormal returns and small (insignificant) estimated abnormal returns can be of any sign. Also, as explained earlier, inattention can cause investors to even react positively to a merger announcement when they should actually react negatively. Therefore, sorting on the sign of the merger announcement abnormal returns would result in substantial misclassifications of the observations that are most likely affected by inattention.

stock swaps. Convenient timing of the announcements can reduce the acquisition cost by allowing the acquirers to use overvalued equity as currency.

The results for acquisitions of privately owned targets are particularly consistent with the strategic timing hypothesis. Prior studies find that, on average, the market reacts negatively to announcements of stock swaps involving non-privately owned targets and positively to those involving privately owned targets (Chang 1998; Moeller, Schlingemann, and Stulz 2005), although the average post-merger announcement abnormal return is negative for both groups of acquirers (Moeller, Schlingemann, and Stulz 2005). In our analysis, we find that the average initial market reaction is less *negative* for Friday announcers than for non-Friday announcers when the target is not privately owned and less *positive* for Friday announcers when the target is privately owned. Therefore, under the inattention hypothesis, the average abnormal returns after announcements of acquisitions of non-privately owned targets should be more negative for Friday announcers, whether managers strategically announce overvaluation-driven acquisitions on Fridays or not. In contrast, the average abnormal returns after announcements of acquisitions of privately owned targets will be more negative for Friday announcers only if managers strategically announce overvaluation-driven acquisitions on Fridays. There is no reason to expect the abnormal returns to be more negative after Friday announcements of stock swaps involving privately owned targets if managers do not strategically announce overvaluation-driven acquisitions on Fridays. The results are consistent with the strategic timing explanation.

Finally, we find that Friday announcers report substantially more abnormal accruals over the three quarters prior to the merger announcement. To the extent that investors overvalue firms with large cumulative abnormal accruals, the observed pattern of abnormal accruals is consistent with the notion that overvalued acquirers are more likely to announce stock swaps on Fridays. Overall, the results support the conjecture that inattention is one reason why the market fails to

fully adjust acquirers' stock prices at merger announcements and that managers take advantage of investor inattention by strategically timing announcements of overvaluation-driven mergers.

The balance of the paper is organized as follows. Section 2 formulates testable hypotheses. The sample is described in Section 3. Section 4 analyzes whether investors' reaction to Friday merger announcements differs from the reaction to announcements made on the other weekdays. Section 5 analyzes whether the post-merger underperformance is related to Friday announcements. We conclude in Section 6.

2. Inattention versus strategic timing

The timing of an acquisition announcement is not random. Managers are likely to strategically decide when to announce a merger. As Wayne Moore, a former Vice President of Goldman Sachs & Co., states, “[i]t is critical that the announcement of a transaction be well received and that the acquirer’s stock reacts favorably. As a result, the time, effort, and care that goes into announcing a deal has increased significantly” (Moore et al. 1998, p. 12). Lipin and Sirower (2003, p. 26) also argue, “If your deal has a good strategic and financial story, getting the word out to those who care can be critical to acquisition success.” Strategic announcements are particularly important in stock swaps, given the complexity of such transactions and the substantial impact that the initial market reception can have on the cost of the transactions.⁷

Shleifer and Vishny (2003), Dong et al. (2006), and Savor and Lu (2009) suggest that managers knowingly use overvalued stocks to finance acquisitions. Shleifer and Vishny (2003) argue that the managers of the acquiring firm can buy the target managers' agreement through

⁷Under fixed value stock swap arrangements, the value of the consideration that target shareholders will receive is certain, but the number of shares depends on the bidder's pre-closing stock price. In this case, investor reaction to the merger announcement has a direct impact on the number of shares that the bidder must issue, thereby determining the amount of dilution of existing shareholders' holdings. Under fixed exchange stock swap arrangements, the number of bidding firm shares that the target shareholders will receive is certain, but the value of those shares is not. In this case, the target shareholders face greater uncertainty about the value of the consideration that they are receiving and are less likely to agree to the merger if the bidder's share price drops after the merger is announced. Finally, many stock swaps have collars allowing the proposed swap to be cancelled if the bidders' stock price falls below a certain range.

the acceleration in the exercise of stock options or by granting them generous severance pay. Target managers can also agree to mergers for reasons of retirement or illiquid stock ownership, which is more likely to be the case in acquisitions of privately-owned companies. Shleifer and Vishny (2003) and Savor and Lu (2009) also maintain that managers of an overvalued firm can engage in a merger even if they know that the merger will send a negative signal to the market, as long as the correction on the merger announcement is less than the overvaluation.⁸

The strategic timing of overvaluation-driven stock swaps and investor inattention are likely to coexist. The inattention (or, more precisely, managerial belief in such inattention) is actually a condition for the strategic timing. If managers know that investors pay less attention on a certain day, all else equal, they would be more likely to announce an overvaluation-driven stock swap on that day. However, the two effects can be disentangled. First, inattention should lead to a less negative market reaction to stock swap announcements if managers do not strategically announce overvaluation-driven acquisitions on low-attention days or if the inattention effect dominates the strategic timing effect. Second, the post-merger announcement return should be more negative for low-attention-day than for high-attention-day announcers if and only if the initial reaction is affected by inattention. Third, the sum of the differential merger announcement return and the differential post-merger announcement return associated with low-attention-day announcements should be negative if managers strategically announce overvaluation-driven acquisitions on low-attention-days and zero otherwise.

⁸Note that, under the overvaluation hypothesis, the behavior of the stock-for-stock acquirers is consistent with shareholder value maximization. The managers know that their stocks are overvalued and that a correction will eventually occur. As Jensen (2004, 2005) argues, if a stock is overvalued, the market will ultimately find out and correct the overvaluation. Managers have incentives to use their stocks to finance acquisitions while the stocks are overvalued. Under the overvaluation hypothesis, acquirers' post-merger announcement market performance is negative not necessarily because the acquisitions are value-destroying but because the acquirers were overvalued in the first place.

Thus far, we assume that inattention leads to underreactions to the merger announcements. However, consistent with Daniel, Hirshleifer, and Teoh (2002), we define inattention more broadly. It is associated with a failure by investors to analyze relevant information as closely as they should, thereby preventing them from seeing through the managers' overoptimistic hypes about their acquisitions and from uncovering potential overvaluation. Under this definition, inattention can cause investors to not only underreact to an announcement, but also to react positively when they should actually react negatively, particularly in cases where managers strategically time the announcements of overvaluation-driven acquisitions. Acquisitions of privately owned targets fit that definition quite well, with the average acquirer's experiencing a positive merger announcement abnormal return (Chang 1998; Moeller, Schlingemann, and Stulz 2005) but a negative post-announcement long-term abnormal return (Moeller, Schlingemann, and Stulz 2005).

3. Sample description

3.1 Sample selection

The study covers announcements of stock swaps between U.S. companies made between January 1994 and December 2005, inclusively. We conduct the study over a period when it was relatively easy for investors to access financial and other corporate information. Starting in 1994, firms' proxy statements become electronically available through the historical Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system. Therefore, we control for limitations on investors access to publicly available information, which might be more severe over the weekend. Information on EDGAR can be accessed anytime with relative ease.

The sample is obtained from the Security Data Company (SDC)'s database of mergers and acquisitions. A transaction is deemed a stock swap if at least 50% of its value is financed with

stock.⁹ The average stock financing for our sample is about 94% of the total financing. We include an observation in the sample if the method of payment and the value of the transaction are reported on SDC, the form of the transaction (as defined on SDC) is a merger, and the transaction value is at least five million dollars.

In selecting our base sample, we require Compustat data on equity book value, price, and number of shares outstanding and data from the Center for Research in Security Prices (CRSP) to compute the merger announcement abnormal return. The base sample includes 4,752 stock swap announcements that satisfy these selection criteria, with 662 Friday announcements and 4,090 non-Friday announcements (those made on a Monday, Tuesday, Wednesday, or Thursday).¹⁰ However, to maximize our sample size, particularly the number of Friday announcements, we allow the sample size to vary with the different procedures used in the study.

3.2 Descriptive statistics

Panel A of Table 1 presents the daily distribution of the sample. As expected, managers show a preference for making announcements early in the week. The number of announcements declines steadily during the week, with 26.05% of the announcements being made on Mondays and 13.93% on Fridays. However, while the percentages of Monday and Friday announcements depart substantially from the 20% that we would expect if the announcements were randomly distributed across the weekdays, the percentages for the other days are quite close to the 20%. They are slightly higher (21.15%) on Tuesdays and slightly lower (18.88%) on Thursdays. The

⁹We use this definition of a stock swap to maximize the sample size; many stock-for-stock acquirers add some small amounts of cash to their offers to facilitate the transactions. However, our results are qualitatively similar if we limit the sample to pure (100%) stock transactions.

¹⁰There are five announcements that were made on a Thursday and one that was made on a Wednesday that are mistakenly assigned Friday dates on SDC. We reclassify these announcements as non-Friday announcements. However, the reclassification does not qualitatively change the results.

percentage for Wednesday is essentially 20%. The daily pattern of the announcements suggests that managers generally avoid making merger announcements on Fridays. This observation is consistent with the notion that most managers view their acquisitions as value-enhancing and that many managers believe that investors are distracted on Fridays. Under the inattention hypothesis, managers who believe that their acquisitions are value-enhancing are less likely to announce them on Fridays, unless the acquisitions are driven by overvaluation.

One might wonder why all poorly performing mergers are not announced on Fridays. One explanation relates to managers' overconfidence. Consistent with Roll's (1986) hubris hypothesis, Rau and Vermaelen (1998) suggest that overconfident managers are more likely to engage in value-destroying acquisitions. Malmendier and Tate (2008) also find that overconfident CEOs tend to overestimate their ability to generate returns. If managers are generally overconfident, and considering the importance of effective communication to the cost of a stock swap, it is not surprising that they are less likely to announce stock swaps on Fridays, even when some of these mergers ultimately perform poorly. Another reason for announcing mergers at the beginning of the week is that it is generally easier to negotiate deals and have them approved over the weekend. However, this reason does not explain why there are more merger announcements on Wednesdays and on Thursdays than on Fridays.

Panel B of Table 1 reports characteristics of the sample. The proportion of merger bids that are ultimately completed is almost the same across Friday and non-Friday announcers. About 46% of the acquisitions involve privately owned targets. There is no evidence that the public status of the target, the industry-relatedness of the merging partners, the decision to account for a transaction by the pooling accounting method, the number of bidders, the market value of the acquirers, or the relative size of the transactions are correlated with the day on which

a transaction is announced. The acquirers' book-to-market values are generally small, but they tend to be statistically larger for the Friday announcers. Although the Friday announcers are considered growth firms, the market apparently perceives them to have fewer growth options than the non-Friday announcers. The Friday announcers could have also engaged in aggressive financial reporting, thereby inflating their book values relative to their market values.

Panel C of Table 1 reports the acquirers' pre-merger announcement performance. The average acquirer experiences a substantial increase in its stock price in the year prior to the merger announcement, whether the merger is announced on a Friday or not. The Friday announcers report higher operating performance than their size/industry peers in the quarter prior to the merger announcement, as indicated by the average size/industry-adjusted return on assets (ROA). The average size/industry-adjusted ROA is not statistically significant for the non-Friday announcers. However, we find no evidence that the Friday announcers perform significantly better than the non-Friday announcers prior to the merger announcements, whether performance is measured by stock market returns or accounting earnings.

4. Merger announcement timing and the initial market reaction

4.1 Univariate analysis

Table 2 reports the initial market reaction to the stock swap announcements. Following DellaVigna and Pollet (2009) and Hirshleifer, Lim, and Teoh (2009), we proxy for the initial market reaction by the abnormal return over the day of, and the day after, the merger announcement. Consistent with (Chang 1998), we find that the average market reaction to stock swap announcements is negative for acquisitions involving non-privately owned targets and positive for acquisitions involving privately owned targets.

The abnormal returns are significant for the non-Friday as well as the Friday announcers. However, consistent with the inattention hypothesis, the average abnormal return is substantially smaller on Fridays than on any other day of the week. The average abnormal return is statistically less negative for Friday announcements of stock swaps involving non-privately owned target acquisitions and statistically less positive for Friday announcements of stock swaps involving privately owned target acquisitions (compared to non-Friday announcements as a group). For non-privately owned targets, the average abnormal return is -1.941% for non-Friday announcements whereas it is only -0.650% for Friday announcements. Similarly, for privately owned targets, the average abnormal return is 2.019% for non-Friday announcements and only 0.958% for Friday announcements.¹¹ There is not a clear pattern in the abnormal returns across the non-Friday weekdays, although the average negative returns tend to be larger on Mondays and Tuesdays. The average of the absolute value of the abnormal return is statistically smaller for the Friday announcers than for the non-Friday announcers (as a group).¹² These results are consistent with the notion that the market underreacts to Friday announcements.

4.2 Multivariate analysis

To control for other factors that could affect the market reaction to the stock swap announcements, we use a multivariate regression analysis. We model the abnormal return at the merger announcement as follows:

¹¹We also analyze the merger announcement abnormal return for a sample of cash acquisitions (i.e., transactions that use more than 50% cash financing). Prior studies find that the average market reaction to announcements of cash-financed acquisitions is positive. Accordingly, we find that the average abnormal return for the non-Friday cash-financed merger announcements is 0.763% (p -value = 0.000). However, consistent with the notion that the market under-reacts to Friday announcements, the average (p -value) abnormal return for the Friday cash-financed merger announcements is only 0.186% (one-tail p -value = 0.301). However, the mean difference across the two groups is only marginally significant, with a one-tail p -value of 0.066. Further analyses also show that the difference is associated with the failed acquisition bids (see also footnote 16).

¹²The Pearson (Spearman) correlation between the absolute value of the merger announcement abnormal return and the Friday announcement indicator is -0.042 (-0.057), with a two-tail p -value of 0.004 (0.000).

$$CAR_i = \alpha_0 + \alpha_1 FRIDAY_i + \alpha_2 PRIVATE_i + \alpha_3 FRIDAY_i * PRIVATE_i + \alpha_4 POOL_i + \alpha_5 SAME_IND_i + \alpha_6 LBIDDER_i + \alpha_7 RSIZE_i + \alpha_8 LSIZE_i + \alpha_9 BM_i + \varepsilon_i, \quad (1)$$

where *CAR* is the acquirer's cumulative market-adjusted return over the day of, and the day after, the merger announcement, using the CRSP value-weighted index; *FRIDAY* is a binary variable taking the value one if a merger is announced on a Friday and zero otherwise; *PRIVATE* is a binary variable taking the value one if the target is a privately owned firm and zero otherwise; *POOL* is a binary variable taking the value one if the merger is accounted for by the pooling-of-interest method and zero if it is accounted for by the purchase method; *SAME_IND* is a binary variable taking the value one if the two merging partners are in the same two-digit SIC code and zero otherwise; *LBIDDER* is the natural log of the number of bidders; *LSIZE* is the natural log of the acquirer's market value of equity at the end of the quarter prior to the merger announcement; *RSIZE* (relative size) is the ratio of the transaction total value to the acquirer's market value of equity at the end of the quarter prior to the merger announcement; and *BM* is the acquirer's book-to-market value of equity at the end of the quarter prior to the merger announcement.¹³

Untabulated results show that the simple correlations between the various variables are generally as expected. In particular, the market reaction to the merger announcement shows a remarkably

¹³We include the pooling variable (*POOL*) in the model because Lys and Vincent (1995) suggest that, on average, pooling transactions tend to be bad investments that were driven by accounting earnings instead of cash flows. The pooling-of-interest accounting method is not permitted for acquisitions initiated after June 30, 2001. We include *SAME_IND*, a measure of industry relatedness, because extant studies suggest that a firm's stock return is positively related to the level of concentration in its lines of business (see Lang and Stulz (1994), among others). We control for the number of bidders (*LBIDDER*) because acquirers are more likely to overpay when multiple firms are competing for the same target (the winner's curse hypothesis (Varaiya and Ferris 1987)). We control for the size of the acquirer (*LSIZE*) and the relative size of the transaction (*RSIZE*) because prior studies find a relation between size and bidders' abnormal returns around merger announcements (Scanlon, Trifts, and Pettway (1989), Louis (2004)). Finally, we control for book-to-market (*BM*) because Lang, Stulz, and Walking (1989) and Servaes (1991) report a significant correlation between Tobin's q and bidders' abnormal returns. Rau and Vermaelen (1998) also argue that high book-to-market acquirers tend to be more cautious before engaging in major transactions and their acquisitions are less likely to be motivated by hubris.

strong correlation with *PRIVATE*; the Pearson (Spearman) correlation coefficient is 0.210 (0.216), with a *p*-value of 0.000 (0.000).

The results of the regression analysis are presented in Table 3. We report results for the full sample of stock swap announcements, the sample of bids that were successfully completed, and the sample of bids that failed.¹⁴ For the full sample, the coefficient on *FRIDAY* is positive (1.257), with a *t*-value of 2.62, which is consistent with the notion that the market responds less (negatively) to Friday announcements of stock swaps involving non-privately owned targets. The coefficient on *PRIVATE* is positive, which is also consistent with expectations. The coefficient on the interaction between *FRIDAY* and *PRIVATE* is negative (-2.380), with a *t*-value of -3.39,¹⁵ which is consistent with the notion that the positive market reaction to acquisition announcements of privately owned targets is mitigated when the mergers are announced on Fridays. The results generally hold for bids that are subsequently completed as well as those that failed. However, although the coefficients tend to be larger for the failed bids, the *t*-values for these transactions are much smaller because of the severe reduction in sample size.

We also analyze the association between Friday announcements and the absolute value of the abnormal return at the merger announcement, using the following regression model:

$$\begin{aligned}
 ABSCAR_i = & \alpha_0 + \alpha_1 FRIDAY_i + \alpha_2 PRIVATE_i + \alpha_3 POOL_i + \alpha_4 SAME_IND_i \\
 & + \alpha_5 LBIDDER_i + \alpha_6 RSIZE_i + \alpha_7 LSIZE_i + \alpha_8 BM_i + \varepsilon_i,
 \end{aligned}
 \tag{2}$$

where *ABSCAR* is the absolute value of *CAR*. The results reported in Table 4 show that the association between the Friday indicator and the absolute value of the abnormal return is

¹⁴About 10.4% of the bids fail, with approximately equal proportion across Friday and non-Friday announcers (see Panel B of Table 1).

¹⁵These statistics are likely to be downward biased. At the merger announcement, investors are likely to perceive some stock-for-stock acquisitions of non-privately owned targets to be value-enhancing, biasing against finding a positive association between the market reaction and Friday announcements of non-privately owned target acquisitions. Similarly, investors are likely to perceive some stock-for-stock acquisitions of privately owned targets to be value-destroying, biasing against finding a negative association between the market reaction and Friday announcements of privately owned targets.

negative, with a t -value of -2.43 for the full sample. The association is similar across completed and failed bids; however, it is not significant for the failed bids. Overall, the results are consistent with the notion that investors underreact to Friday merger announcements.¹⁶

4.3 The potential effect of Friday after-hour announcement

Consistent with DellaVigna and Pollet (2009), we do not condition the analysis on the exact time (hour) of the announcements. One concern, however, is that the reaction to Friday announcements might be lower because a disproportionate number of Friday announcements might occur after the market closes. To rule out this potential explanation, we replicate the analysis after excluding all Friday announcements for which the first available news releases on Factiva were issued after 4:00 PM.

We do not know the precise time of the merger announcements. While we can obtain the time of most news releases, these releases rarely provide the time of the merger announcements. However, if the first news release about an announcement is issued before the 4:00 PM market close, it can be inferred that the announcement was made prior to the market close. Therefore, the 4:00 PM cut-off provides a reliable means for excluding after-hour announcements, although it is also likely to exclude announcements made during the regular market hours.

We identify a total of 21 Friday announcements for which the first available news releases on Factiva were issued after the market close.¹⁷ Removing these announcements does

¹⁶Because prior studies find that the average market reaction to announcements of cash-financed acquisitions is positive, we estimate model (2) for the sample of cash acquisitions using the signed abnormal return instead of the absolute value as the dependent variable. Because the pooling accounting method is not allowed for cash transactions, we remove *POOL* from the model. Instead, we add an indicator variable for tender offers. We find some evidence that the positive reaction to cash-financed acquisition announcements is dampened on Fridays. The coefficient (t -value) on the Friday indicator is -0.664 (-1.78) for the full sample. The Friday effect is associated with the failure of the acquisition bid. The coefficients (t -values) on the Friday indicator are -0.407 (-1.02) and -2.201 (-2.06) for the completed bids and the failed bids, respectively.

¹⁷As mentioned earlier, there are also six non-Friday stock swap announcements in our sample that are mistakenly assigned Friday dates on SDC. We have reclassified them as non-Friday announcements.

not qualitatively change our results. For model (1), the coefficient on *FRIDAY* is positive (1.255), with a *t*-value of 2.59, and the coefficient of the interaction between *FRIDAY* and *PRIVATE* is negative (-2.366), with a *t*-value of -3.30. For model (2), the association between *FRIDAY* and the absolute value of the abnormal return is negative, with a coefficient (*t*-value) of -0.649 (-2.49). Therefore, there is no evidence that our results are driven by Friday after-hour announcements. All the other results reported in the paper also hold after removing Friday announcements with the first available news release on Factiva issued after the market close.

5. Merger announcement timing and post-merger announcement underperformance

We now analyze the association between Friday stock swap announcements and the post-merger announcement long-term market performance. Following Savor and Lu (2009), we use the post-merger announcement long-term abnormal returns as an indication of misvaluation. As Jensen (2004, p. 562) explains, if your price is inflated, “the market *will* [eventually] find out that you are overvalued. That is predetermined. It is not a matter of whether: it is a matter of when.”

5.1 Estimating long-term abnormal returns

Fama (1998) maintains that buy-and-hold methodologies aggravate bad model problems through compounding and do not account for potential cross-sectional correlation of event-firm abnormal returns. Brav, Geczy, and Gompers (2000) also note that events may be correlated in calendar time and that existing methods of computing long-term abnormal returns may not fully account for the correlation. Mitchell and Stafford (2000) find that such correlation can bias test statistics based on buy-and-hold abnormal returns. Fama (1998), Brav, Geczy, and Gompers (2000), and Mitchell and Stafford (2000) argue for calendar-time portfolio approaches. Accordingly, we first estimate the post-merger abnormal returns using Carhart’s (1997) four-factor model. Each month, we group stock swaps that were announced on Fridays within the last

one, two, and three year(s), respectively, into one portfolio. To determine whether the difference in the abnormal returns across Friday and non-Friday announcers is significant, we estimate the four-factor models for the two groups of announcers jointly in one pooled regression. The significance level for the difference in the abnormal returns across Friday and non-Friday announcers is given by the p -value for the difference in the two intercepts in the pooled regression.

One disadvantage of the calendar-time portfolio approach is that it is not conducive to cross-sectional analyses involving multiple independent variables. There are also concerns that the calendar-time portfolio approach is not well suited for detecting abnormal performance when events are clustered across time or the sample size is small (Loughran and Ritter (2000)), which is relevant given the relatively small number of Friday announcements. Therefore, we also report results using buy-and-hold abnormal returns based on Daniel, Grinblatt, Titman, and Wermers' (1997) match-portfolio procedure,¹⁸ although we focus more on the results from the four-factor model. We also use the buy-and-hold abnormal returns in our subsequent analyses where we control for characteristics of the transactions and/or sort the sample into subgroups. The use of the alternative procedure also serves to confirm the robustness of our inferences.

5.2. Average abnormal returns after Friday and non-Friday stock swap announcements

5.2.1 Abnormal returns for the full sample

¹⁸To form the matched-portfolios, we first assign each stock that has book value of equity on Compustat and price and shares outstanding on CRSP to a size quintile (using NYSE size quintile breakpoints). Within each size quintile, we rank the stocks based on their industry-adjusted book-to-market ratios and assign them to book-to-market quintiles yielding a total of 25 size and book-to-market sorted fractiles. We then sort them into quintiles within each of the 25 size and book-to-market fractiles based on the prior 12-month stock return. This results in a total of 125 fractiles. Then, we compute a monthly value weighted buy-and-hold return for each of the 125 fractile portfolios. The benchmark portfolios are reconstructed annually at the end of June. The monthly return for each stock and the benchmark portfolio returns are then compounded over the 12, 24, and 36 months after the merger announcement month. The abnormal return for each stock is the difference between the stock's buy-and-hold return and its benchmark portfolio return. Delisting returns are included if available. If a stock disappears from CRSP, we assume the stock earns zero abnormal returns for the missing months.

The post-merger announcement average monthly abnormal returns are reported in Table 5. Although we focus on the abnormal returns over the year after the merger announcement, as a robustness check, we also report results for the two-year and three-year return horizons. We find no evidence of negative long-term abnormal returns after the merger announcement for the non-Friday announcers, whether we consider the non-Friday weekdays individually or as a group. Therefore, the evidence of long-term abnormal returns for non-Friday announcers is not robust to the calendar-time approach of computing abnormal returns. In contrast, we find significantly negative abnormal returns for the Friday announcers. For these announcers, the average monthly abnormal returns (p -values) from the four-factor model are -0.889% (0.000), -0.534% (0.007), and -0.595% (0.022) over the one-year, two-year, and three-year horizons, respectively. The mean differences in the average monthly abnormal returns (p -values) across Friday and non-Friday announcers are -0.904% (0.001), -0.474% (0.036), and -0.658% (0.030) over the one-year, two-year, and three-year horizons, respectively. We find consistent results using the buy-and-hold returns.

If managers strategically announce overvaluation-driven acquisitions on Fridays, the sum of the differential announcement return and the differential post-merger announcement return associated with Friday announcements should be negative. The magnitudes of the differential long-term abnormal returns are consistent with this conjecture; they are quite large (relative to the difference in the merger announcement abnormal returns). However, the merger announcement abnormal returns and the long-term returns are based on different procedures. Therefore, to formally test the strategic timing hypothesis, we estimate the long-term returns starting on the month of the merger announcement. The announcement-month return includes the market reactions to the formal merger announcement and to potential leakage prior to the announcement. The untabulated results are consistent with the strategic timing hypothesis. The

total long-term abnormal returns are significantly more negative for Friday announcers, whether we use buy-and-hold or the calendar-time approach.

5.2.2 Privately versus non-privately owned targets

Table 6 reports the abnormal returns over the year after the merger announcement separately for acquisitions involving privately owned and non-privately owned targets. The abnormal return is more negative for Friday announcers than for non-Friday announcers, whether the acquisitions involve privately owned or non-privately owned targets. The incremental negative return after the Friday announcements of non-privately owned targets is consistent with the notion that investors are less attentive to Friday news. However, the magnitude of the differential post-merger announcement abnormal returns is quite large (about -1.12% per month).¹⁹ The differential post-merger announcement abnormal return is much larger than the differential merger announcement abnormal returns. Untabulated results show that the long-term abnormal returns are also significantly more negative for Friday announcers even if we include the merger announcement month in the return measurement window. Therefore, these results are also consistent with the notion that managers strategically announce overvaluation-driven acquisitions on Fridays.

The results for the privately owned targets are particularly consistent with the strategic timing hypothesis. Consistent with Chang (1998), we find that, on average, the market reacts positively to announcements of stock swaps involving privately owned targets. We also find that the average initial market reaction is less positive for Friday announcers. There is no reason why

¹⁹Note that, when using the four-factor model, the mean abnormal return for the full sample does not have to be the average of the mean abnormal returns for the sub-samples. In fact, the mean abnormal return for the full sample can be lower than the mean abnormal returns of both sub-samples, as it is here. This result occurs when one sub-sample has more monthly observations and the average abnormal return for these monthly observations is lower than the average abnormal return for the rest of the sample.

the post-merger announcement abnormal returns should be more negative after Friday announcements of stock swaps involving privately owned targets if managers do not strategically announce overvaluation-driven acquisitions on Fridays.

At first glance, it might appear that overvaluation-driven stock swaps would be concentrated mainly among acquisitions of publicly traded targets. Because of their concentrated ownership, shareholders of privately owned targets would be less likely to engage in stock swaps with overvalued acquirers. However, the empirical evidence provides no clear indication that acquirers of publicly traded targets are more overvalued. One plausible explanation is that overvalued firms could have stronger incentives to acquire privately owned targets. First, while ownership is more concentrated in privately owned targets, there are more investors and institutions (including analysts covering the targets) with vested interests in publicly traded targets to scrutinize the acquirers' offer. Second, Shleifer and Vishny (2003) argue that target managers can agree to a stock swap, even if they know that the acquirer's stock is overvalued. One reason why they would accept the overvalued stock is illiquid stock ownership, which is more likely for privately-owned targets. Third, Baik, Kang, and Morton (2009) argue that stock-for-stock acquirers have stronger incentives to inflate stock prices prior to acquisitions of privately owned targets to compensate for the higher valuation estimation risk. Fourth, Gong, Louis, and Sun (2008a) find that financing acquisitions with inflated stocks expose acquirers to high risk of class-action lawsuits. Approximately 21% of the stock-for-stock acquirers in their sample face merger-related lawsuits within three years of the merger announcement. These lawsuits are generally instigated by lawyers²⁰ and often claim that the targets' boards of directors

²⁰According to Trigaux (2000), when a firm's stock price declines, some law firms systematically search for economic motives for the managers to deceive investors. One of the main questions the lawyers ask is: Did the "company need a high stock price to pay for an acquisition spree?"

breach their fiduciary duties in approving the mergers. Because of the extensive involvement of the targets' shareholders in acquisitions of privately owned targets, claims of breaches of fiduciary duties by the boards are less likely in such mergers. Finally, because there is no market-price available for privately own targets, investors have to exert more effort to value the acquisition of a privately target than the acquisition of a non-privately owned target. All else equal, the more attention investors have to pay to the target, the less attention they will pay reassessing the acquirer's market valuation.

5.3. Controlling for other potential correlated omitted variables

5.3.1 Modeling the post-merger announcement abnormal return

Prior studies identify two factors that are associated with market performance after stock swap announcements: pre-merger abnormal accruals (Louis 2004)²¹ and book-to-market ratio (Rau and Vermaelen 1998). In addition to these factors, we control for some of the transaction characteristics to ensure that our inferences are not due to the omission of potentially relevant correlated variables. Hence, we estimate the following model:

$$ARI_i = \alpha_0 + \alpha_1 FRIDAY_i + \alpha_2 CABAC_i + \alpha_3 BM_i + \alpha_4 PRIVATE_i + \alpha_5 POOL_i + \alpha_6 SAME_IND_i + \alpha_7 LBIDDER_i + \alpha_8 LSIZE_i + \alpha_9 RSIZE_i + \varepsilon_i, \quad (3)$$

where ARI is the abnormal return over the year starting one month after the stock swap announcement month and $CABAC$ is the acquirer's cumulative abnormal accruals prior the merger announcement. The other variables are defined as before.

5.3.2 Abnormal accrual estimates

Following the extant literature (e.g., Teoh, Welch, and Wong 1998a, b), we proxy for earnings management using abnormal accruals. We measure abnormal accruals by the residual

²¹Erickson and Wang (1999) and Gong, Louis, and Sun (2008a) also provide evidence that acquirers inflate their reported earnings through accruals prior to stock swap announcements. Teoh, Welch, and Wong (1998a, 1998b) and Teoh, Wong, and Rao (1998) also provide evidence of accrual management prior to stock issuance in general.

from the modified version of the Jones (1991) model in Louis and White (2007) and Gong, Louis, and Sun (2008b). Specifically, for each calendar quarter and two-digit SIC-code industry, we estimate the following model using all firms that have the necessary data on Compustat:

$$TA_i = \sum_{j=1}^4 \lambda_{j-1} Q_{j,i} + \lambda_4 \Delta SALE_i + \lambda_5 PPE_i + \lambda_6 LTA_i + \lambda_7 ASSET_i + \varepsilon_i, \quad (4)$$

where TA is total accruals; Q_j is a binary variable taking the value of one for *fiscal* quarter j and zero otherwise; $\Delta SALE$ is the quarterly change in sales; PPE is property, plant, and equipment at the beginning of the quarter; LTA is the fourth lag of total accruals; $ASSET$ is total assets at the beginning of the quarter; and ε is the regression residual.²² We estimate total accruals using cash flow statement data. More specifically, we measure total accruals as earnings before extraordinary items and discontinued operations (Compustat quarterly data item #76) minus operating cash flows (#108 - #78).

All the variables, including the indicator variables, are scaled by total assets at the beginning of the quarter. After deflating the model, $ASSET$ is transformed into a column of ones, which allows us to estimate the model with the standard intercept. To mitigate the effect of outliers and errors in the data, for each calendar quarter, we delete the top and bottom half-percentiles of the deflated TA , $\Delta SALE$, PPE , and LTA . We also require at least 20 observations for each estimation.

Following Kothari, Leone, and Wasley (2005), we adjust the estimated abnormal accruals for performance. Consistent with Louis (2004), among others, for each quarter and each industry (two-digit SIC code), we create five portfolios with at least four firms each by sorting the data into quintiles based on the return-on-assets from the same quarter in the previous year. The performance-matched abnormal accruals for a firm are the firm-specific abnormal accruals

²²The results are robust to using standard alternative abnormal accrual models.

minus the mean (excluding the sample firm) abnormal accruals for its respective industry-performance-matched portfolio.

The abnormal accrual estimates are reported in Panel A of Table 7. Consistent with expectations, we find that acquirers report positive abnormal accruals prior to stock swap announcements. The average abnormal accruals (p -value) for the quarter immediately prior to the merger announcement (Quarter-1) are 0.387 (0.000), 0.604 (0.044), and 0.356 (0.005) percent of total assets for the full sample, the Friday announcers, and the non-Friday announcers, respectively. It appears, however, that the Friday announcers start reporting large positive accruals three quarters prior to the merger announcements. The average cumulative abnormal accruals (p -value) for the three quarters immediately prior to the merger announcement (from Quarter-3 to Quarter-1) are 0.590 (0.006), 1.892 (0.001), and 0.406 (0.056) percent of total assets for the full sample, the Friday announcers, and the non-Friday announcers. The difference in the average cumulative abnormal accruals across Friday announcers and non-Friday announcers for the three quarters is statistically significant with a p -value of 0.019.

There is no evidence of positive abnormal accrual prior to the third quarter. For the Friday announcers, the total abnormal accruals increase only to 1.955 percent of total assets when we extend the accrual accumulation period to Quarter-8. For the non-Friday announcers, the total abnormal accruals even decrease to 0.069 percent of total assets when we extend the accrual accumulation period to Quarter-8. The cumulative abnormal accruals do not capture the accumulation of accruals that take place in prior period. Therefore, to further assess whether there is an accrual effect beyond the three quarters (from Quarter-3 to Quarter-1) immediately prior to the merger announcement, we compare the net operating assets (NOA) at the end of the fourth quarter (Quarter-4) across the two groups of acquirers. However, as reported in Panel B Table 7, we find no evidence that the average NOA or the average size-industry adjusted NOA is statistically different across the Friday and the non-Friday announcers.

Hirshleifer et al. (2004) find that firms with bloated balance sheets, proxied by NOA, tend to be overvalued. Therefore, the observation that NOA is not larger for the Friday announcers might be seen as evidence against the notion that managers time the announcements of overvaluation-driven acquisitions. However, Hirshleifer et al.'s (2004) analysis does not require that managers deliberately inflate earnings. It instead relies on the notion that “a pure focus on earnings leads to systematic errors, as it neglects the incremental information contained in cash flow value-added” (p. 303). Also, although Hirshleifer et al. (2004) emphasize valuation errors by investors, managers could be subject to the same errors and could also fail to understand the overvaluation associated with large NOA. If managers are aware of the overvaluation associated with NOA, under the overvaluation-driven acquisition hypothesis, we would expect stock-for-stock acquirers in general to have larger NOA than other firms. However, we find no such evidence. Over our sample period, the average NOA is 44.694% for the Compustat population (after winsorizing the top and bottom 1%) whereas, as reported in Panel B of Table 7, it is 42.334% for the whole sample of stock-for-stock acquirers. The average industry-adjusted NOA also is not statistically significant for either the Friday or the non-Friday announcers. Therefore, assuming that the overvaluation-driven acquisition hypothesis holds, it does not appear that managers of large-NOA firms are aware that their firms are overvalued. This observation is consistent with Gong, Li, and Xie (2009), who find that managers do not necessarily understand misvaluation associated with non-discretionary accruals and tend to be over-optimistic (over-pessimistic) about the prospects of firms with relatively high (low) non-discretionary accruals.²³

²³Note that, contrary to NOA, our cumulative abnormal accrual measure is intended to reflect *discretionary* accruals (i.e., the component of accruals that is presumably related to earnings management) over the most recent quarters prior to the merger announcement.

5.3.3 *Friday announcements and post-merger announcement abnormal returns*

Untabulated results show average buy-and-hold abnormal returns of -2.5% and 8.0% for non-Friday and Friday announcers, respectively, over the years starting the month after the merger announcement month. The average abnormal returns are statistically different across the two groups of announcers, which is consistent with the results based on the calendar-time approach. Table 8 reports the association between the abnormal returns over the year after the merger announcement and a Friday announcement, after controlling for factors that could affect the abnormal returns. Under Column (1), we control only for pre-merger abnormal accruals (cf. Louis (2004)) and book-to-market ratio (cf. Rau and Vermaelen 1998). Louis (2004) measures abnormal accruals in the quarter immediately prior to the merger. However, because of the evidence in Table 7 that Friday announcers apparently start reporting large positive accruals three quarters prior to the announcements, we use the cumulative abnormal accruals over that period. The results are robust to using only the abnormal accruals in the quarter immediately prior to the merger. Consistent with the results reported in Table 5, Friday announcers experience significantly more negative returns than non-Friday announcers. The coefficient (*t*-value) on the Friday indicator variable is -11.979 (-2.87). Consistent with Louis (2004), the post-merger announcement abnormal returns are negatively associated with the pre-merger abnormal accruals and, consistent with Rau and Vermaelen (1998), the abnormal returns tend to be positively correlated with the book-to-market ratio. We then include in the model some of the transaction characteristics. The results are reported under Column (2) of Table 8. In general, the additional variables do not load and their inclusion does not qualitatively change the results.

We also estimate the model separately for acquisitions involving non-privately owned targets and those involving privately owned targets. Consistent with the results in Table 7, we

find that the Friday effect holds for acquisitions of both privately owned and non-privately owned targets. For completeness, we also repeat the analysis for the sample of cash-financed acquisitions and fail to find a significant association between the Friday indicator and post-merger long-term market performance.

5.3.4 Is the Friday effect related to pre-merger abnormal accruals?

The Friday effect is robust to controlling for the pre-merger cumulative abnormal accruals. However, if managers strategically announce overvaluation-driven acquisitions on Fridays, it is plausible that the Friday effect is related to the cumulative abnormal accruals. We first test this conjecture by extending the model in Table 8 to include an interaction between Friday and the cumulative abnormal accruals. However, we fail to find a significant interaction effect. To further test the conjecture, we sort the cumulative abnormal accruals into terciles and estimate the association between the post-merger announcement long-term abnormal return and the Friday indicator within each of the terciles.

The results reported in Table 9 are consistent with the notion that the Friday effect is associated with the pre-merger announcement abnormal accruals. For the one-year return horizon, the coefficients (*t*-values) on the Friday indicator are -6.443 (-0.75), -11.364 (-1.76), and -17.481 (-2.65) for acquirers in the bottom, middle, and top terciles of cumulative abnormal accruals. Untabulated results show that the coefficients (*t*-values) on the Friday indicator variable are -9.636 (-0.74), -17.045 (-1.99), and -19.865 (-2.03) for the two-year return horizon, and -11.627 (-0.82), -19.585 (-1.78), and -32.281 (-2.93) for the three-year return horizon. However, we fail to find a statistical difference between the coefficients for the acquirers that fall in the top tercile of cumulative abnormal accruals and the coefficients for those that fall in the bottom

tercile. The results are qualitatively similar if we include the other characteristics of the transactions in the model.

5.3.6 Potential time-series and cross-industry effects

We also assess the extent to which the results are driven by a few years or industries by estimating the regression model by year and by industry. The regression results are presented in Table 10, which also reports statistics on the time-series and cross-industry distributions of the sample. We estimate the model with only pre-merger abnormal accruals and book-to-market as control variables. We do not include the other control variables to avoid over-fitting the model given that many of the subsamples are very small. However, the results are qualitatively similar if we add the additional variables.

The time-series results are presented in Panel A of Table 10. The statistics show that the number of stock-for-stock mergers declines substantially over time. However, the time-series variation in the number of Friday announcers matches very closely to the time-series variation in the number of non-Friday announcers, although there is a slight relative decline in the number of Friday announcers over time. The regression results provide no evidence that the Friday effect is driven by a few years. The effect is negative almost every year, although it is not statistically significant in many cases, particularly in the most recent years, because of the severe reduction in sample size. It is worth noting that the only years when we do observe non-negative Friday effects are 2001 and 2002, in the wake of the market crash and the economic recession. One plausible explanation is that it is less likely that firms would engage in overvaluation-driven acquisitions during these years as stock prices were generally very depressed.

Panel B of Table 10 reports the cross-industry results. To form the industry categorizations, we start with Fama and French 17 industry classification. However, many industries do not have enough observations to estimate the regression model. In particular, the

number of Friday announcers in Mining & minerals, Consumer durables, Chemicals, Fabricated products, Textiles, apparel & footwear, Automobiles, Steel works, Construction and construction materials, Transportation, and Utilities varies between zero and three. To have enough observations to estimate the regression model, we group (1) Mining & minerals with Oil and petroleum, (2) Textiles, Apparel & Footwear and Fabricated products with Consumer durables, (3) Chemicals with Drugs, perfumes, tobacco, (4) Automobiles and Steel works with Construction and construction materials, and (5) Financials, Utilities, and Transportation with regulated industries.²⁴ The statistics show that the industry representations are generally similar across Friday and non-Friday announcers. The regression results also provide no evidence that the Friday effect is driven by a few industries. The effect is negative for all the industry classifications, with the exception of the regulated industries, although the effect is not statistically significant in many cases because the sample size is still very small for some industries. Overall, the results in Table 10 suggest that the Friday effect is very pervasive.

5.4 Alternative inattention proxies

As mentioned earlier, we focus on the Friday effect because of the “Merger Monday” phenomenon, which presumes that investors pay more attention to merger announcements made at the beginning of the week than those made at the end of the week, particularly on Fridays. The Friday indicator is best suited to capture the effects of managerial strategic timing behaviors than alternative proxies used in the literature and, therefore, is more likely to capture the inattention effect in the context of merger announcements, particularly if the aim is to explain the post-merger announcement underperformance. Managers have almost full control over the day on which they announce their mergers and less control over the other proxies. Nonetheless, we

²⁴The number of financial firms is relatively small because the cash flow statement variables necessary to compute accruals are not available on Compustat for banks.

analyze the robustness of our results to some alternative proxies for investor inattention: transaction volume, analyst coverage, and past trading volume.

Hirshleifer, Lim, and Teoh (2009) proxy for inattention to an earnings announcement by the number of competing earnings announcements. Applying this approach to our setting presents a few difficulties. First, while earning reports are somewhat standard, mergers have vastly different economic importance and complexities. Our sample includes only publicly traded acquirers. Although the acquirers can be mispriced in the market, they nonetheless have available market prices that investors can use in evaluating the merger proposals. Therefore, at a merger announcement, investors are likely to focus much of their limited attention on assessing the value of the target (particularly if it is privately owned) and the potential synergy from the merger and on determining the implications of a set of complex conditions and contingencies associated with the transaction, as opposed to assessing the current valuation of the acquirer. Thus, while it is appropriate to proxy for inattention to an earnings announcement by the number of competing announcements, it does not seem appropriate to do so for merger announcements. One large merger can require much more effort and attention than many small ones. To mitigate this first problem, we use the total market value of the acquisitions, as opposed to the total number of announcements. Second, we have already documented that an acquirer's market performance is associated with the timing of the merger announcement and we already know that the number of transactions varies across the days of the week.²⁵ To mitigate this second problem, each year, we rank the total value of acquisitions within each of the five weekdays, using acquisition announcements with transaction values on SDC. Inattention is deemed high, moderate, and low if an observation falls in the top quintile, the middle three quintiles, and the bottom quintile of the transaction volume, respectively.

²⁵As reported in Table 2, the percentage of announcements is 26.05% for Monday, 21.15% for Tuesday, 19.99% for Wednesday, 18.88% for Thursday, and 13.93% for Friday. Therefore, any effect related to the volume of transactions is likely to be confounded by the day-of-the-week effect.

We also proxy for inattention by analyst coverage (the number of analysts in the Institutional Brokers Estimate database (IBES) who issue forecasts for a firm in the month prior to the merger announcement month). We deem inattention high, moderate, and low if the number of analysts is zero or one (about 15.21% of the observations), between two and 20 (about 69.97% of the observations), and over 20 (about 14.82% of the observations), respectively. If the post-merger announcement market underperformance is due to investor inattention, we expect the underperformance to be most severe when there are few analysts following a firm. Note that we control for various variables that could be correlated with our inattention proxies, including the acquirer's size, the acquirer's book-to-market, and the relative size of the transaction.

Hou, Peng, and Xiong (2009) also use the trading volume in a stock as a proxy for inattention. While a high trading volume can be associated with heightened attention to a stock, it could also proxy for investors' disagreement about the value of the stock. Disagreement offers opportunities to managers to exploit their private information by transacting in their firms' securities when it is in their interest to do so. Stocks that generate substantial disagreement among investors are presumably more difficult to value and managers are also more likely to use overvalued stocks to finance mergers. Therefore, overvaluation-driven acquisitions are more likely to be associated with post-merger announcement long-term abnormal returns when disagreement and, hence, transaction volumes is high. To mitigate this potential confounding effect, we use the median share turnover (number of shares traded in a month scaled by the average number of shares outstanding for the month) over the 30 months ending one year prior to the merger announcement month. Our measure captures investors' attention to a stock while avoiding the potential effect of investors' current disagreement about the value of the stock. We also use the median to avoid the undue influence of some unusual one-time transaction volume. Inattention is deemed high, moderate, and low if an observation falls in the bottom quintile, the middle there quintiles, and the top quintile of the share turnover, respectively.

We create three indicator variables, *HIGH_INA*, *MODERATE_INA*, and *LOW_INA*, for high, moderate, and low levels of inattention, respectively. We demean all the control variables such that the coefficients on *HIGH_INA*, *MODERATE_INA*, and *LOW_INA* represent the average abnormal returns for the high, moderate, and low inattention groups, respectively. The results are reported in Table 11. Consistent with the inattention hypothesis, in general, the coefficients on *HIGH_INA* are significantly more negative than the coefficient on *LOW_INA*. In fact, while the coefficients *HIGH_INA* are negative and very significant, none of the coefficients on *LOW_INA* is statistically significant.²⁶

6. Conclusion

We analyze the effect of investor inattention on stock-for-stock acquirers' market performance. Consistent with the inattention hypothesis, we find evidence suggesting that investors underreact to merger announcements made on low-attention days and that managers take advantage of investors' diminished attention by strategically timing announcements of overvaluation-driven acquisitions, contributing to the market underperformance after stock swaps announcements. Furthermore, we find that Friday announcers report substantially more abnormal accruals over the three quarters prior to the merger announcement. To the extent that investors overvalue firms with large cumulative accruals, the observed pattern of abnormal accruals is consistent with the notion that overvalued acquirers are more likely to announce stock swaps on Fridays.

Overall, the results support the inattention hypothesis. We do not rule out other potential explanations for the post-merger underperformance. We only suggest that factors other than risk, measurement errors, and chance could contribute to the observed negative post-merger long-term

²⁶In some cases, the *t*-values are larger for *MODERATE_INA* than for *HIGH_INA*, although the coefficients are smaller, because *MODERATE_INA* refers to many more observations than *HIGH_INA*.

abnormal returns. In particular, we suggest that investor inattention could be one reason why the market fails to fully adjust acquirers' stock prices for these factors at merger announcements.

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Table 1
Descriptive statistics for a sample of stock swap announcements

Friday announcers are acquirers that make stock swap announcements on Fridays and non-Friday announcers are acquirers that make stock swap announcements on other weekdays. *COMPLETED* is an indicator variable taking the value one if a merger bid is ultimately completed and zero otherwise. *PRIVATE* is a binary variable taking the value one if the target is a privately owned company and zero otherwise; *SAME_IND* is a binary variable taking the value one if the two merging partners are in the same two-digit SIC code and zero otherwise; *POOL* is a binary variable taking the value one if the merger is accounted for by the pooling-of-interest method and zero if it is accounted for by the purchase method; *NBIDDER* is the number of bidders competing to acquire the target; *AMVALUE* is the acquirer's market value of equity at the end of the quarter prior to the merger announcement (in millions of dollars); *RSIZE* (relative size) is the ratio of the transaction's total value to the acquirer's market value of equity at the end of the quarter prior to the merger announcement; *BM* is the acquirer's book-to-market value of equity at the end of the quarter prior to the merger announcement; *ROA* is the acquirer's net income for the quarter prior to the merger announcement scaled by the acquirer's average assets over the quarter; *ADJ_ROA* is the acquirer's *ROA* for the quarter prior to the merger announcement minus the average *ROA* for its market capitalization quintile and (two-digit SIC code) industry portfolio; *BUY_HOLD_AR* is the buy-and-hold abnormal return over the year prior to the merger announcement using Daniel et al.'s (1997) match-portfolio approach (the matching procedure is described in Section 5.1); and *MONTHLY_AR* is the monthly abnormal return over the year prior to the merger announcement using Carhart et al.'s (1997) four-factor model. One-tail *p*-values are presented in brackets and two-tail *p*-values in parentheses. We winsorize the top and bottom one-percentiles of all the continuous variables. ***, **, and * indicate that the difference between the two groups of firms is significant at the 1, 5, and 10 percent levels in a two-tail test, respectively. We use the *t*-test for the mean (assuming unequal variances) and the Wilcoxon two-sample test for the median.

Panel A: Daily distribution of the sample

Announcement day→	Monday	Tuesday	Wednesday	Thursday	Friday
Number of observations	1,238	1,005	950	897	662
Percentage of the sample	26.05	21.15	19.99	18.88	13.93

Panel B: Average non-performance characteristics of the sample

	Friday announcers (<i>N</i> = 662)	Non-Friday announcers (<i>N</i> = 4,090)
<i>COMPLETED</i>	0.908	0.894
<i>PRIVATE</i>	0.464	0.454
<i>SAME_IND</i>	0.659	0.667
<i>POOL</i>	0.431	0.423
<i>NBIDDER</i>	1.027	1.030
<i>AMVALUE</i>	8734	7076
<i>RSIZE</i>	0.299	0.335
<i>BM</i>	0.408**	0.379

Panel C: Average performance of the acquirers

	Friday announcers	Non-Friday announcers
<i>BUY_HOLD_AR</i> (%)	24.854 [0.000] { <i>N</i> = 496}	30.878 [0.000] { <i>N</i> = 3,024}
<i>MONTHLY_AR</i> (%)	1.525 [0.000]	2.030 [0.000]
<i>ADJ_ROA</i> (%)	0.366 (0.034) { <i>N</i> = 660}	0.090 [0.144] { <i>N</i> = 4,083}

Table 2
Average market reaction to Friday versus non-Friday merger announcements

CAR is the acquirer's market-adjusted return measured over the day of, and the day after, the merger announcement date; and *ABSCAR* is the absolute value of the acquirer's market-adjusted return measured over the day of, and the day after, the merger announcement date. We winsorize the top and bottom one-percentiles of *CAR*. One-tail *p*-values are presented in square brackets. ⁺⁺⁺ and ⁺⁺ indicate that the difference between Friday and non-Friday announcers is significant at the 1 and 5 percent levels in a one-tail test, respectively. We use the *t*-test for the mean and the Wilcoxon two-sample test for the median. The *t*-test assumes unequal variances.

Announcement day→	Monday	Tuesday	Wednesday	Thursday	All Non-Friday	Friday
<i>CAR</i> for mergers involving non-privately owned targets	-2.305 [0.000] (<i>N</i> = 738)	-2.438 [0.000] (<i>N</i> = 507)	-1.000 [0.004] (<i>N</i> = 516)	-1.865 [0.000] (<i>N</i> = 472)	-1.941 [0.000] (<i>N</i> = 2,233)	-0.650⁺⁺⁺ [0.046] (<i>N</i> = 355)
<i>CAR</i> for mergers involving privately owned targets	1.787 [0.000] (<i>N</i> = 500)	2.308 [0.000] (<i>N</i> = 498)	2.137 [0.000] (<i>N</i> = 434)	1.831 [0.000] (<i>N</i> = 425)	2.019 [0.000] (<i>N</i> = 1,857)	0.958⁺⁺ [0.027] (<i>N</i> = 307)
Absolute value of <i>CAR</i> for the full sample (<i>ABSCAR</i>)	5.890 (<i>N</i> = 1,238)	5.831 (<i>N</i> = 1,005)	5.721 (<i>N</i> = 950)	5.451 (<i>N</i> = 897)	5.740 (<i>N</i> = 4,090)	4.953⁺⁺⁺ (<i>N</i> = 662)

Table 3**Association between the market reaction to a stock swap announcement and the day of the announcement (Friday or not) conditional on the public status of the target**

$$CAR_i = \alpha_0 + \alpha_1 FRIDAY_i + \alpha_2 PRIVATE_i + \alpha_3 FRIDAY_i * PRIVATE_i + \alpha_4 POOL_i + \alpha_5 SAME_IND_i + \alpha_6 LBIDDER_i + \alpha_7 LSIZE_i + \alpha_8 RSIZE_i + \alpha_9 BM_i + \varepsilon_i$$

CAR is the acquirer's cumulative market-adjusted return over the day of, and the day after, the merger announcement; *FRIDAY* is a binary variable taking the value one if a merger is announced on a Friday and zero otherwise; *PRIVATE* is a binary variable taking the value one if the target is a privately held company and zero if it is a publicly traded company; *POOL* is a binary variable taking the value one if the merger is accounted for by the pooling-of-interest method and zero if it is accounted for by the purchase method; *SAME_IND* is a binary variable taking the value one if the two merging partners are in the same two-digit SIC code and zero otherwise; *LBIDDER* is the natural logarithm of the number of bidders; *LSIZE* is the natural logarithm of the acquirer's market value of equity at the end of the quarter prior to the merger announcement; *RSIZE* is the ratio of the transaction total value to the acquirer's market value of equity at the end of the quarter prior to the merger announcement; and *BM* is the acquirer's book-to-market value of equity at the end of the quarter prior to the merger announcement. We winsorize the top and bottom one-percentiles of all the continuous variables. *T*-values are reported in parentheses.

	Full sample	Completed bids	Failed bids
<i>Intercept</i>	0.471 (0.69)	0.305 (0.42)	1.733 (0.80)
<i>FRIDAY</i>	1.250 (2.62)	1.133 (2.31)	1.764 (0.98)
<i>PRIVATE</i>	3.840 (13.83)	3.742 (13.14)	4.786 (4.37)
<i>FRIDAY*PRIVATE</i>	-2.380 (-3.39)	-2.118 (-2.97)	-4.708 (-1.61)
<i>POOL</i>	0.060 (0.23)	0.184 (0.71)	-1.097 (-1.01)
<i>SAME_IND</i>	-0.528 (-2.04)	-0.696 (-2.62)	0.617 (0.63)
<i>LBIDDER</i>	0.777 (0.78)	2.313 (1.65)	0.781 (0.43)
<i>LSIZE</i>	-0.371 (-5.22)	-0.342 (-4.64)	-0.717 (-2.64)
<i>RSIZE</i>	0.487 (2.01)	0.669 (2.45)	0.169 (0.28)
<i>BM</i>	0.714 (1.62)	0.978 (2.06)	-0.387 (-0.30)
Adj. <i>R</i> ²	0.060	0.062	0.052
<i>N</i>	4,752	4,257	495

Table 4
Association between the absolute value of the market reaction to a stock swap announcement and the day of the announcement (Friday or not)

$$ABSCAR_i = \alpha_0 + \alpha_1 FRIDAY_i + \alpha_2 PRIVATE_i + \alpha_3 POOL_i + \alpha_4 SAME_IND_i + \alpha_5 LBIDDER_i + \alpha_6 LSIZE_i + \alpha_7 RSIZE_i + \alpha_8 BM_i + \varepsilon_i$$

ABSCAR is the absolute value of the acquirer's market-adjusted return measured over the day of, and the day after, the merger announcement date. The other variables are defined in Table 3. We winsorize the top and bottom one-percentiles of all the continuous variables. *T*-values are reported in parentheses.

	Full sample	Completed bids	Failed bids
<i>Intercept</i>	8.946 (18.01)	8.674 (16.26)	10.734 (7.48)
<i>FRIDAY</i>	-0.621 (-2.43)	-0.616 (-2.33)	-0.391 (-0.42)
<i>PRIVATE</i>	0.495 (2.62)	0.522 (2.65)	0.384 (0.56)
<i>POOL</i>	-0.798 (-4.28)	-0.820 (-4.24)	-0.491 (-0.68)
<i>SAME_IND</i>	-0.604 (-3.20)	-0.514 (-2.61)	-0.861 (-1.33)
<i>LBIDDER</i>	-3.013 (-4.16)	-3.434 (-3.30)	-2.862 (-2.38)
<i>LSIZE</i>	-0.376 (-7.25)	-0.337 (-6.16)	-0.648 (-3.60)
<i>RSIZE</i>	3.434 (19.50)	3.398 (16.81)	3.206 (8.00)
<i>BM</i>	-3.358 (-10.42)	-3.645 (-10.37)	-2.281 (-2.69)
Adj. <i>R</i> ²	0.127	0.107	0.205
<i>N</i>	4,752	4,257	495

Table 5
Average post-merger announcement abnormal return (in percentage) for a sample of completed stock swap bids, conditional on the day of the announcement

The abnormal returns are measured over the one-, two-, and three-year horizons, starting on the month after the merger announcement month. The return computation procedures are described in Section 5.1. We winsorize the top and bottom one-percentiles of the buy-and-hold abnormal returns. One-tail p -values are presented in square brackets. The t -tests for the mean differences assume unequal variances.

Panel A: Buy-and-hold abnormal returns using Daniel et al.'s (1997) portfolio-match approach

Return horizon→	One-year	Two-year	Three-year
Monday announcements	-0.826 [0.307] {N = 981}	-5.092 [0.016] {N = 979}	-6.000 [0.019] {N = 979}
Tuesday announcements	-4.259 [0.009] {N = 778}	-9.486 [0.000] {N = 777}	-8.303 [0.003] {N = 776}
Wednesday announcements	-4.155 [0.014] {N = 745}	-6.968 [0.004] {N = 743}	-9.131 [0.002] {N = 742}
Thursday announcements	-1.072 [0.291] {N = 698}	-8.661 [0.001] {N = 691}	-12.182 [0.000] {N = 691}
All non-Friday announcements	-2.488 [0.003] {N = 3,202}	-7.372 [0.000] {N = 3,190}	-8.629 [0.000] {N = 3,188}
Friday announcements	-7.992 [0.000] {N = 548}	-13.516 [0.000] {N = 547}	-17.133 [0.000] {N = 547}
Difference: Friday – Non-Friday	-5.504 [0.004]	-6.244 [0.018]	-8.504 [0.006]

Panel B: Average monthly abnormal returns using Carhart's (1997) four-factor model

Return horizon→	One-year	Two-year	Three-year
Monday announcements	-0.138 [0.268]	-0.100 [0.211]	-0.123 [0.297]
Tuesday announcements	-0.028 [0.458]	-0.019 [0.462]	0.096 [0.678]
Wednesday announcements	0.063 [0.503]	-0.095 [0.330]	0.481 [0.980]
Thursday announcements	0.245 [0.787]	-0.010 [0.479]	-0.086 [0.344]
All non-Friday announcements	0.015 [0.571]	-0.060 [0.355]	0.063 [0.641]
Friday announcements	-0.889 [0.000]	-0.534 [0.006]	-0.595 [0.022]
Difference: Friday – Non-Friday	-0.904 [0.001]	-0.474 [0.036]	-0.658 [0.030]

Table 6
Average post-merger announcement abnormal return (in percentages) over the year starting one month after the merger announcement for a sample of completed stock swap bids, conditional on the day of the announcement (Friday or not) and the public status of the targets

The return computation procedures are described in Section 5.1. We winsorize the top and bottom one-percentiles of the buy-and-hold abnormal returns. One-tail p -values are presented in square brackets. The t -tests for the mean differences for the buy-and-hold returns assume unequal variances.

Return horizon	Buy-and-hold abnormal returns using Daniel et al.'s (1997) portfolio-match approach			Average monthly abnormal returns using Carhart's (1997) four-factor model		
	(1) Friday announcers	(2) Non-Friday announcers	(1)-(2) Difference	(1) Friday announcers	(2) Non-Friday announcers	(1)-(2) Difference
Non-privately owned targets	-6.025 [0.004] { $N = 298$ }	-1.036 [0.154] { $N = 1,788$ }	-4.989 [0.022]	-1.132 [0.020]	-0.012 [0.477]	-1.120 [0.028]
Privately owned targets	-10.596 [0.000] { $N = 250$ }	-3.975 [0.008] { $N = 1,414$ }	-6.621 [0.023]	-1.793 [0.003]	0.194 [0.714]	-1.987 [0.003]

Table 7
Potential earnings and asset inflation prior to the stock swap announcement for a sample of completed bids, conditional on the day of the announcement (Friday or not)

The computation procedure for the abnormal accruals is described in Section 5.1. Net operating assets (NOA) is computed as debts included in current liabilities (quarterly Compustat data45) plus long term debts (data51) plus minority interests (data53) plus preferred stocks (data55) plus common equity (data59) plus cash and short term investment (data36) scaled by total assets (data44). The abnormal accruals are cumulated over various quarterly horizons prior to the merger announcement. Quarter-1 refers to the earnings report that is released within the 91 days prior to the merger announcement date. A firm's industry-adjusted NOA is its NOA minus the average NOA for its market capitalization quintile and (two-digit SIC code) industry portfolio. Abnormal accruals, NOA, and industry-adjusted NOA are winsorized at the top and bottom one-percentiles. The post-merger accruals are generally negative. We do not report them because, as Louis (2004) notes, post-merger abnormal accruals are not very meaningful. They also reflect the accruals of the target. In addition, a merger can affect a firm's accounts in such a complex way that it is difficult to explain and compare the changes in accruals. For example, the change in accruals depends on the existing relation between the merging partners, how the acquisition is accounted for (purchase versus pooling), what point during the reporting period the transaction is finalized, and the level of restructuring undertaken by the new entity. One-tail *p*-values are presented in square brackets. The *t*-tests for the mean differences assume unequal variances.

Panel A: Abnormal accruals included in the earnings released prior to the merger announcement

	(1)	(2)	(3)	(2)-(3)
	All acquirers	Friday announcers	Non-Friday announcers	Difference
Quarter-1	0.0044 [0.001] { <i>N</i> = 1,832}	0.0060 [0.044] { <i>N</i> = 228}	0.0036 [0.005] { <i>N</i> = 1,604}	0.0025 [0.264]
Quarter-2 to Quarter-1	0.0043 [0.009] { <i>N</i> = 2,052}	0.0121 [0.005] { <i>N</i> = 255}	0.0032 [0.052] { <i>N</i> = 1,797}	0.0089 [0.040]
Quarter-3 to Quarter-1	0.0059 [0.006] { <i>N</i> = 2,089}	0.0189 [0.001] { <i>N</i> = 259}	0.0041 [0.056] { <i>N</i> = 1,830}	0.0149 [0.019]
Quarter-4 to Quarter-1	0.0063 [0.804] { <i>N</i> = 2,103}	0.0169 [0.009] { <i>N</i> = 259}	0.0048 [0.049] { <i>N</i> = 1,844}	0.0121 [0.067]
Quarter-8 to Quarter-1	0.0030 [0.222] { <i>N</i> = 2,133}	0.0196 [0.030] { <i>N</i> = 261}	0.0007 [0.435] { <i>N</i> = 1,872}	0.0189 [0.047]

Panel B: Net operating assets (NOA) at the beginning of Quarter-3

Raw NOA	0.425	0.413	0.427	0.014 [0.776]
Industry-adjusted NOA	0.001 [0.434]	-0.002 [0.583]	0.001 [0.400]	0.003 [0.615]
<i>N</i>	2,641	361	<i>N</i> = 2,280	

Table 8
Association between post-merger announcement abnormal returns and the day of the announcements (Friday or not) for a sample of completed stock swap bids

ARI is the acquirer's buy-and-hold abnormal return (in percentage) over the year starting with the month after the merger announcement month. *CABAC* is the acquirer's cumulative total abnormal accruals (in percentage) over the three quarters immediately prior to the merger announcement. The other variables are defined as in Table 3. We winsorize the top and bottom one-percentiles of all the continuous variables. *T*-values are reported in parentheses.

$$ARI_i = \alpha_0 + \alpha_1 FRIDAY_i + \alpha_2 CABAC_i + \alpha_3 BM_i + \alpha_4 PRIVATE_i + \alpha_5 POOL_i + \alpha_6 SAME_IND_i + \alpha_7 LBIDDER_i + \alpha_8 LSIZE_i + \alpha_9 RSIZE_i + \varepsilon_i$$

	Column (1)	Column (2)
<i>Intercept</i>	-4.130 (-2.02)	-10.451 (-1.41)
<i>FRIDAY</i>	-11.979 (-2.87)	-11.913 (-2.84)
<i>CABAC</i>	-0.379 (-3.05)	-0.356 (-2.84)
<i>BM</i>	5.683 (1.35)	6.973 (1.44)
<i>PRIVATE</i>	–	-1.906 (-0.64)
<i>POOL</i>	–	-2.722 (-0.94)
<i>SAME_IND</i>	–	2.908 (1.02)
<i>LBIDDER</i>	–	-2.175 (-0.15)
<i>LSIZE</i>	–	0.929 (1.21)
<i>RSIZE</i>	–	0.035 (0.02)
Adj. R^2	0.008	0.008
<i>N</i>		2,045

Table 9

Association between post-merger announcement abnormal returns and the day of the announcements (Friday or not) for a sample of completed stock swap bids, conditional on the level of the pre-merger cumulative abnormal accruals

CABAC is deemed low, moderate, and high if it is in the bottom, middle, and third tercile, respectively. The other variables are defined as in Tables 3 and 8. We winsorize the top and bottom one-percentiles of the continuous variables. *T*-values are in parentheses.

<i>CABAC</i> →	Low	Moderate	High
<i>Intercept</i>	3.423 (0.89)	-7.701 (-2.27)	-10.203 (-3.05)
<i>FRIDAY</i>	-6.443 (-0.75)	-11.364 (-1.76)	-17.481 (-2.65)
<i>BM</i>	-2.850 (-0.37)	15.780 (2.18)	7.917 (1.14)
Adj. R^2	-0.002	0.008	0.009
<i>N</i>	681	682	682

Table 10**Time-series and cross-industry associations between post-merger announcement abnormal returns and the day of the announcements (Friday or not) for a sample of completed stock swap bids**

For the cross-industry analysis in Panel B, we start with Fama and French 17 industry classification. Many industries have few observations. In particular, the number of Friday announcers in Mining & minerals, Consumer durables, Fabricated products, Textiles, apparel & footwear, Automobiles, Steel works, Construction and construction materials, Transportation, and Utilities is between zero and three. We therefore group (1) Mining & minerals with Oil and petroleum, (2) Textiles, Apparel & Footwear and Fabricated products with Consumer durables, (3) Chemicals with Drugs, perfumes, tobacco, (4) Automobiles and Steel works with Construction and construction materials, (5) and Financials, Utilities, and Transportation into regulated industries. The industries are coded from (A) to (I): (A) Food, (B) Oil and petroleum / Mining & minerals, (C) Consumer durables / Fabricated products textiles / Apparel & footwear, (D) Chemicals / Drugs, perfumes, & tobacco, (E) Machinery and equipment, (F) Automobiles / Steel works / Construction and construction materials, (G) Retail stores, (H) Regulated industries, and (I) others. The other variables are defined as in Tables 3 and 8. We winsorize the top and bottom one-percentiles of the continuous variables. ⁺⁺⁺, ⁺⁺, and ⁺ indicate significance at the 1, 5, and 10 percent levels in a one-tail test, respectively.

Panel A: Time-series association

Year	Number of observations (%)					The coefficient on <i>Friday</i> (α_1)
	(1)		(2)		(1) - (2)	
	Friday	Non-Friday	% Friday	% Non-Friday	% Friday - % Non-Friday	
	#	%	#	%		
1994	24	9.49	123	6.86	2.63	-27.858 ⁺⁺⁺
1995	26	10.28	169	9.42	0.86	-2.186
1996	34	13.44	195	10.87	2.57	-5.293
1997	27	10.67	222	12.37	-1.7	-19.241 ⁺⁺
1998	37	14.62	252	14.05	0.57	-21.103 ⁺
1999	22	8.7	228	12.71	-4.01	-3.866
2000	30	11.86	225	12.54	-0.68	-11.298 ⁺
2001	22	8.7	127	7.08	1.62	3.202
2002	10	3.95	68	3.79	0.16	1.714
2003	9	3.56	68	3.79	-0.23	-12.902
2004	5	1.98	63	3.51	-1.53	-14.861
2005	7	2.77	54	3.01	-0.24	-23.219

Panel B: Cross-industry association

Industry	Number of observations (%)					The coefficient on <i>Friday</i> (α_1)
	(1)		(2)		(1) - (2)	
	Friday		Non-Friday		% Friday - % Non-Friday	
	#	%	#	%		
A	7	2.77	15	0.84	1.93	-27.817 ⁺⁺
B	8	3.16	71	3.96	-0.80	-28.160 ⁺
C	6	2.37	32	1.79	0.58	-25.855
D	18	7.11	81	4.52	2.59	-16.079
E	55	21.74	373	20.81	0.93	-5.237
F	5	1.98	43	2.4	-0.42	-27.922
G	14	5.53	69	3.85	1.68	-3.899
H	18	7.11	140	7.81	-0.70	12.565
I	122	48.22	968	54.02	-5.80	-15.369 ⁺⁺⁺

Table 11
Association between post-merger announcement abnormal returns and alternative investor inattention proxies

$$ARI_i = \alpha_{1L}LOW_INA_i + \alpha_{1M}MODERATE_INA_i + \alpha_{1H}HIGH_INA_i + \alpha_2CABAC_i + \alpha_3BM_i + \alpha_4PRIVATE_i + \alpha_5POOL_i + \alpha_6SAME_IND_i + \alpha_7LBIDDER_i + \alpha_8LSIZE_i + \alpha_9RSIZE_i + \varepsilon_i$$

HIGH_INA, *MODERATE_INA*, and *LOW_INA* are binary variables indicating high, moderate, and low inattention, respectively. The control variables are demeaned such that the coefficients on *HIGH_INA*, *MODERATE_INA*, and *LOW_INA* represent the average abnormal returns for the high, moderate, and low inattention groups, respectively. Under Column (1), inattention is based on volume of acquisition announcements. Each year, we rank the daily total value of acquisitions within each of the five weekdays, using acquisition announcements with transaction values on SDC. Inattention is deemed high, moderate, and low if an observation falls in the top quintile, the middle there quintiles, and the bottom quintile of the transaction volume, respectively. Under Column (2), inattention is based on analyst coverage (the number of analysts in IBES who issue forecasts for a firm in the month prior to the merger announcement month. Inattention is deemed high, moderate, and low if the number of analysts is zero or one (about 15.21% of the observations), between two and 20 (about 69.97% of the observations), and over 20 (about 14.82% of the observations), respectively. Under Column (3), inattention is based on the median share turnover (number of shares traded in a month scaled by the average number of shares outstanding for the month) over the 30 months ending one year prior to the merger announcement month. Inattention is deemed high, moderate, and low if an observation falls in the bottom quintile, the middle there quintiles, and the top quintile of the share turnover, respectively. The other variables are defined as in Tables 3 and 8. We winsorize the top and bottom one-percentiles of all the continuous variables. *T*-values are reported in parentheses. ⁺⁺⁺, ⁺⁺ and ⁺ indicate that the difference between the coefficient on *HIGH_INA* and the coefficient on *LOW_INA* is significant at the 1, 5, and 10 percent levels, respectively. The *t*-values tend to be larger for *MODERATE_INA* than for *HIGH_INA*, although the coefficients are generally smaller, because *MODERATE_INA* refers to many more observations than *HIGH_INA*.

The inattention proxy is based on→	(1) Volume of daily acquisitions	(2) Analyst coverage	(3) Past share turnover
<i>LOW_INA</i>	2.990 (0.91)	2.364 (0.52)	5.918 (1.90)
<i>MODERATE_INA</i>	-4.144 (-2.26)	-3.012 (-2.36)	-6.283 (-3.57)
<i>HIGH_INA</i>	-8.115⁺⁺ (-2.34)	-15.510⁺⁺⁺ (-3.45)	-7.581⁺⁺⁺ (-2.45)
<i>CABAC</i>	-0.385 (-2.92)	-0.327 (-2.65)	-0.342 (-2.70)
<i>BM</i>	6.115 (1.23)	5.241 (1.12)	7.984 (1.67)
<i>PRIVATE</i>	-2.134 (-0.69)	-1.453 (-0.50)	-3.090 (-1.06)

<i>POOL</i>	-2.444 (-0.81)	-3.705 (-1.28)	-1.875 (-0.66)
<i>SAME_IND</i>	2.305 (0.78)	2.408 (0.85)	2.755 (0.98)
<i>LBIDDER</i>	-3.464 (-0.22)	-4.220 (-0.29)	-1.933 (-0.13)
<i>LSIZE</i>	1.185 (1.44)	-0.490 (-0.47)	0.530 (0.68)
<i>RSIZE</i>	0.602 (0.29)	2.249 (1.38)	0.108 (0.06)
Adj. R^2	0.007	0.011	0.015
<i>N</i>		2,045	
