Voluntary Disclosure Timing and Market Attention around Mergers and Acquisitions

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The study investigates the disclosure timing strategy of acquiring firms around mergers and acquisitions (M&A). We find that management strategically chooses the timing in announcing different events during the M&A process. Firms are more likely to announce their M&A plans on Mondays than on other weekdays to attract investor attention. Management strategically chooses the timing for the M&A resolutions depending on the nature of M&A resolutions and the market favorability of the proposed transactions. Investor sentiment does not significantly affect the management strategic disclosure timing activities in the M&A process.

INTRODUCTION

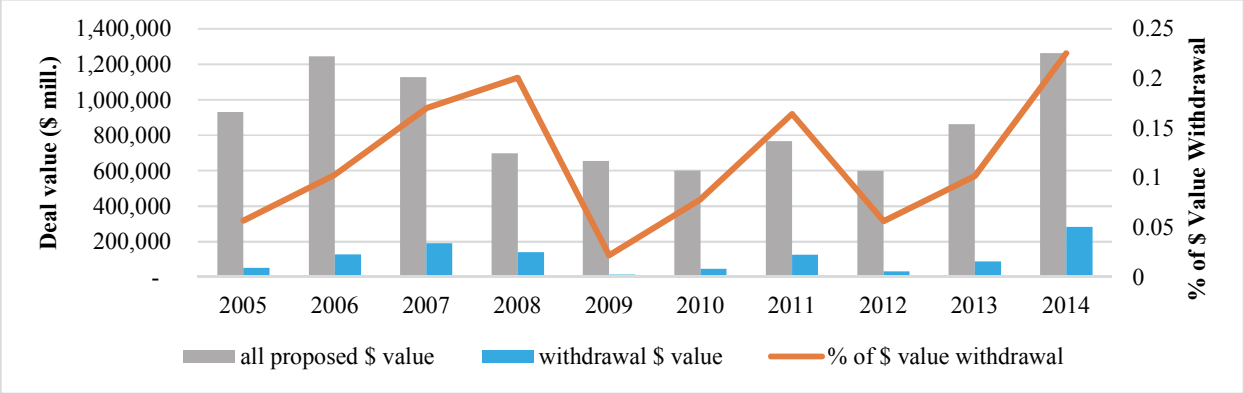
This study investigates the disclosure timing strategy of acquiring firms around mergers and acquisitions (M&A). It investigates the following major questions: whether and how firms strategically time the announcement of their M&A plans and completion/withdrawal resolutions to attract or distract market attention? Whether the management's timing strategy is effective in changing market attention to the M&A announcement as management expects? Whether and how firms adjust their disclosure timing in response to variations in market conditions, such as investor sentiment?

Mergers and acquisitions have been a major growth strategy in the corporate world. According to the 2015 survey by KPMG LLP, the mergers and acquisitions deals value in the U.S. in the first three quarters of 2014 is almost $1 trillion and has reached the pre-financial crisis levels. As Figure 1 shows, the dollar value for all the proposed mergers and acquisitions deals in 2014 reaches a historical high since 2008. The popularity and complexity of mergers and acquisitions have attracted numerous research interests.[1] In the recent comprehensive theoretical survey of M&A literature, Haleblian et al. (2009) categorize the research framework into three broad areas: antecedents, moderators, and postcedents[2]

Our study is focused on the management disclosure timing related to mergers and acquisitions. Managers have an information advantage over outside investors and can strategically decide whether and how to disclose the proprietary information. Existing literature finds that firms would change the earnings announcement date depending on the nature of the earnings news (Chen and Mohan (1994)). deHaan et al. (2015) argue that managers prefer to hide (highlight) bad (good) news by setting the news announcement timing such as on Fridays (on Mondays) to take advantage of variations in market

attention. This firm level disclosure strategy is associated with macroeconomic level effect, such as investors' sentiment. Existing studies show a negative relation between corporate disclosures and investor sentiment, suggesting that management increases disclosure levels to correct the low sentiment induced mispricing (Bergman and Roychowdhury (2008); Cooper et al. (2015)). A low (high) investor sentiment condition generally leads to a pessimistic (optimistic) outlook on market prospects, resulting in undervalued (overvalued) firms.

FIGURE 1
DEAL VALUE FOR ALL PROPOSED FIRMS AND WITHDRAWAL FIRMS OVER 2005-2014



Results of this study show that management strategically chooses the timing in announcing different events in the M&A process. We find that M&A plan announcement made on Mondays is twice as much of that made on Fridays and the frequency almost decreases monotonically over weekdays from Mondays to Fridays. In contrast, we find no monotonically increasing or decreasing patterns for management's disclosure timing for M&A resolutions. Instead, there are different patterns of completions versus withdrawals for favorable versus unfavorable M&A deals. Investor sentiment seems not to significantly influence the management strategic disclosure timing behaviors in the M&A process.

The remainder of this paper is organized as follows. Section 2 presents the literature review and hypothesis development. Section 3 discusses the data and methodology. Section 4 reports the empirical results. Section 5 concludes the paper.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

As the literature suggests, management voluntary disclosure is an important component of a firm's information environment (Hirst et al. (2008), Beyer et al. (2010)). Beyer et al. (2010) find that management forecasts and preannouncements (voluntary disclosures) account for two-thirds of the accounting based information for firms over 1994 to 2007. Managers have an information advantage over outsiders with respect to firm's value and may have discretions over how to disclose such information.

Existing studies suggest that firms have discretions over the timing of news release. Literature on earnings announcement has documented that investors form expectations not only based on the earnings news, but also on the timing of the earnings release (Duarte-Silva et al. (2013), So (2014)). It is also found that managers speed up and suspend earnings announcement timing strategically. For example, Yermack (2014) finds that there are connections between CEOs' absence from headquarters and corporate news releases, in the sense that companies announce less news when CEOs are away from headquarters. Chen and Mohan (1994) find that firms would change the earnings announcement date depending on the nature of the earnings news. deHaan et al. (2015) argue that managers prefer to hide (highlight) bad (good) news by setting the news announcement timing such as on Fridays (on Mondays) in the attempt to take advantage of any possible differences in market attention. Since mergers and acquisitions are major corporate financial events, management is likely to strategically disclose the

mergers and acquisitions related news. Ahern and Sosyura (2014) argue that managers may time the media coverage in the M&A process in an attempt to manipulate their stock prices.

The nature of the news releases of M&A is different from that of earnings announcement. It is crystal clear whether the earnings information is good (e.g., earnings is positive or earnings increases from prior periods) or bad (e.g., earnings is negative or earnings decreases from prior periods) once the information becomes available. That is, when managers announce the earnings news, they know that earnings news is good or bad (deHaan et al., 2015). In contrast, when the acquiring firm announces the M&A news, it likely takes time for investors to realize whether the planned M&A is good or bad news to the market. That is, once the plan is announced, the market might or might not favor the deal, which is reflected by either a positive or negative reaction to the acquiring firms' stock price (Luo 2005). A large literature has found zero or slightly negative average stock returns surrounding the M&A plan announcements for the acquiring firms (McNichols and Stubben (2015), Moeller et al. (2005), Andrade et al. (2001)).[3] Luo (2005) specifically reports that only 42% of M&A result in non-negative reactions for the acquiring firms when M&A are announced. Thus, how management strategically chooses the timing of the M&A news becomes more complicated. First, prior research (Wandle 2007) shows that when the M&A plan is announced, the management of acquiring firms expects the deal to go through. Therefore, we assume that the news of the M&A plan is favorable at least to the management, otherwise, acquiring firms will not propose merges and acquisitions. If the management is aware of investors' limited attention capacity when they disclose the proposed mergers and acquisitions transaction, we expect that the management would strategically highlight the news by announcing the proposed mergers and acquisitions deal on early weekdays (such as Monday) to take advantage of higher market attention since the M&A plan is good news to the management.

Second, when it comes to the resolution news disclosure, management has learned whether the market likes or dislikes the proposed mergers and acquisitions bid based on the investors' reaction to the plan announcement over the stock market. Luo (2005) establishes that learning occurs in M&As, such that merging companies likely extract information from the market reaction and consider it in closing the deal. Luo (2005) suggests that the stock market reaction to the initial M&A announcement predicts whether the deal goes through or not. Therefore, we predict that for the resolution news release, management might time the announcement based on the market signal. A completion of a deal is good news if the market favors the deal, while it can be bad news if the market does not favor the deal. Thus, management might strategically time the market attention by announcing the completion news depending on whether the market favors or does not favor the deal. In contrast, a deal withdrawal would be good news if the market does not favor the deal. Thus, management would strategically time the market attention by announcing the withdrawal news depending on whether the market favors or does not favor the deal. Overall, this study predicts that managers strategically choose the timing of mergers and acquisitions resolution disclosure based on the market's reaction to the deal. If management actively participates in timing the announcement, firms' disclosure behaviors are expected to be different based on different market reactions. We therefore test the following hypotheses:

Hypothesis1-1a: Management disclosure timing is the same for M&A plan announcement.

Hypothesis1-1b: Management disclosure timing is the same for M&A completion announcement if the market favors the M&A deal versus if the market does not favor the M&A deal.

Hypothesis1-1c: Management disclosure timing is the same for M&A withdrawal announcement if the market favors the M&A deal versus if the market does not favor the M&A deal.

Literature shows that market participants are distracted before the weekend and give less attention on Fridays than on Mondays through Thursdays (see DellaVigna and Pollet (2009) and deHaan et al. (2015) about the attention to earnings announcement). If investors have limited attention to M&A announcements as they do to regular earnings announcements as observed in deHaan et al. (2015), they are expected to pay various levels of attention to the news announced on different weekdays. This study therefore examines whether variations in market attention on different weekdays speak to the variations of announcement timing of firms' mergers and acquisitions events as predicted in Hypothesis1-1. That is,

our next Hypothesis1-2 examines whether management's timing strategies can be effective in changing market attention as management expects.

Prior studies show mixed evidence on the wealth effect for acquiring firms with the M&A plan announcement (Cartwright and Schoenberg (2006)). Luo (2005) finds that nearly half of the deals experience negative market reactions around the initial announcement. In addition, existing literature argues that investors simply prefer to choose the familiar investment opportunities (Huberman (2001), Liu et al. (2014)). In other words, people feel comfortable investing in a firm that is visible to them, while firms attract attention through media coverage. The analysis of Hypothesis1-2 can contribute to the existing literature by examining how market attention varies on different announcement dates. Specifically, if investors are subject to their limited attention and if management's timing strategy is effective, we expect that investors' attention to M&A announcement may vary when management announces the plan on different days of a week.

Following the logic, the announcement timing of firms' mergers and acquisitions resolution is also important with respect to the variations in market attention. If investors pay various levels of attention to the M&A news announced on different weekdays, firms have the incentives to actively manage their media coverage by originating and disseminating the news of mergers and acquisitions completion or withdrawal on different weekdays. This study argues that if investors have limited attention capacity, they will place various levels of attention across different timed disclosures of mergers and acquisitions resolution news. We therefore test the following hypotheses:

Hypothesis1-2a: Market attention to mergers and acquisitions plan announcement is the same on Fridays as on other weekdays.

Hypothesis1-2b: Market attention to mergers and acquisitions completion announcement is the same on Fridays as on other weekdays.

Hypothesis1-2c: Market attention to mergers and acquisitions withdrawal announcement is the same on Fridays as on other weekdays.

Extant studies document that firm-level information uncertainty only matters when it is correlated with the market uncertainty (Anderson et al. (2009), Mian and Sankaraguruswamy (2012)). Wann and Lamb (2016) argue that investors' reactions to the M&A announcement depend on the economic cycle and find that good news in bad times is worth more than good news in good times. Taking into consideration of the general market factors, this study investigates whether and how firms adjust their strategic disclosures in response to variations in market conditions measured as investor sentiment by examining the following hypotheses:

Hypothesis2-a: Market attention to mergers and acquisitions plan announcement is the same on Fridays as on other weekdays under high vs. low investor sentiment conditions.

Hypothesis2-b: Market attention to mergers and acquisitions resolution announcement is the same on Fridays as on other weekdays under high vs. low investor sentiment conditions.

DATA SOURCE, METHODOLOGY AND SAMPLE

Data Source

The research draws the sample of mergers and acquisitions from the Securities Data Company (SDC)'s Mergers and Acquisitions Database. The study selects the sample of domestic mergers and acquisitions with announcement dates from 2005 to 2014. Empirical studies of mergers and acquisitions normally set a minimum transaction threshold to eliminate immaterial deals. We delete the observations with deal values less than one million dollars to help ensure the transaction is material enough. For all the tests, this study restricts the acquirer firms to be public companies that allow the study to utilize their financial information.

The sample covers both completed and withdrawn deals of U.S. publicly traded companies. The study retrieves information about the terms of the transaction and the key dates in the mergers and acquisitions

process from the SDC database. We collect the key dates when a deal is made public with the official public announcement for the M&A plan and the M&A resolution (completion/withdrawal).

The financial data is drawn from Compustat and the daily stock return/trading volume is obtained from CRSP. To measure analysts' speed to revise the earnings forecast, which is the proxy for market attention, daily analyst forecasts are obtained from I/B/E/S detailed file. The investor sentiment data is obtained from the monthly Michigan consumer sentiment index. The Michigan consumer sentiment index is produced by the University of Michigan Survey Research Center based on surveys on consumers' financial conditions, expectations about the economy, and likelihood to buy major household goods. We conduct analysis under two various market conditions, i.e., high sentiment market condition (matched deal sentiment index value greater than the sample mean sentiment index value) and low market condition (matched deal sentiment index value less than the sample mean sentiment index value) to assess the prevailing market conditions.

Methodology

To learn about whether the market favors or disfavors the mergers and acquisitions transactions, we follow Luo (2005) by checking the 3-day average abnormal returns around the plan announcement of M&A deals. If the return is greater than zero, then it suggests that the market favors the bid at the time it is announced. In comparison, if the average abnormal return is less than zero, then the bid is deemed as bad news to the market at the time it is announced. To test the disclosure timing effect, we follow the methodology used in deHaan et al. (2015). Specifically, we conduct analysis on the frequency of different weekdays that M&A events are announced.

Following deHann et al. (2015), we construct the measure of market attention, which is the speed with which equity analysts impound mergers and acquisitions plan or resolution news into their future forecasts (ANALYST_SPD).[4] This proxy is constructed as

$1 / (\log(1 / j \sum_{j=1}^{j} 1 + \text{weekdays until forecast update}_j))$ for an analyst forecast j, that is updated within 30 days of the related M&A announcement.

The regression model follows deHaan et al. (2015), which is as follows

$$Attention = \beta_0 + \beta_1 Fridays + Controls + \varepsilon \quad (1)$$

The main interest variable is Fridays, which is 1 if a M&A is announced on Fridays, 0 otherwise. If $\beta_1<0$, it would be consistent with market attention being lower on Fridays. This negative coefficient would be simultaneously consistent with market attention being higher on Mondays through Thursdays (deHann et al. 2015).

This study controls the year effect, industry effect and other variables used in prior studies. Following deHaan et al. (2015), this study controls variables that are likely correlated with firm characteristics, such as the acquiring firm size, leverage, book-to-market. Acquirer's size is defined as the natural log of the acquirer's market value of equity. Leverage is acquirer's total liability/total asset. Book-to-market is acquirer's common equity/market value of equity. Following deHaan et al. (2015), it also controls the stock return around plan announcement (CAR) which is defined as acquirer's two-day cumulative abnormal return around plan announcement and resolution announcement respectively.

Following the literature on mergers and acquisitions, such as McNichols and Stubben (2015), Ahern and Sosyura (2014), Levi et al. (2010), and Bates and Lemmon (2003), this study also controls some mergers and acquisitions deal characteristics. These control variables include whether the deal is a tender offer (indicator variable, tender offer=1, otherwise=0), whether the acquirer needs to pay a termination fee upon deal withdrawal (indicator variable, termination fee=1, otherwise=0), and whether the consideration is stock only (indicator variable, stock consideration=1, otherwise=0). The model also controls relative size of acquirer firms and target firms (ratio of the target's market value of equity to the acquirer's market value of equity), and the same industry, an indicator variable that equals one if the acquirer and target firm have the same two-digit SIC code.

Sample

We start the sample of U.S. mergers and acquisitions transactions announced from 2005 to 2014 from SDC. With the restrictions of public acquirers with completion or withdrawal and transaction value being at least $1 million, the sample is then merged with CRSP, which results in a sample of 8,321 M&A transactions.

In testing hypotheses which require target firms' financial information, we continue merging the sample with target financial data. This results in 891 observations, out of which, 784 transactions are completed (88%), and 107 transactions are withdrawn (12%). This result suggests that the withdrawal rate is around 12% for public acquirers with public targets, which is consistent with prior study. For example, Levi et al. (2010) find that about 13% of the acquisition bids are withdrawn for bids made by U.S. public acquirers for U.S. public targets over the period 1997-2007.

EMPIRICAL RESULTS

Disclosure Timing of Mergers and Acquisitions

Table 1 summarizes the descriptive statistics of 8,321 observations for the timing effect of Hypothesis1-1. First, for H1-1a regarding management's disclosure timing for M&A plans, Panel A of Table 1 presents the announcement frequency of mergers and acquisitions plan on different weekdays. There are differences of the announcement frequency of mergers and acquisitions plan on different weekdays. The highest frequency is on Monday (26%) and the lowest on Friday (13%). The plan announcement made on Mondays is twice as much of that made on Fridays. The frequency of the M&A plan announcement from Monday to Friday is also presented in Figure 2. The findings indicate that the announcement frequency of M&A plan almost decreases monotonically over weekdays from Monday to Friday over the years 2005 - 2014. The result is consistent with the major result of DellaVigna and Pollet (2009) and deHaan et al. (2015) that the announcement timing of firms' news release is important in that managers likely disclose the good news in the early weekdays of a week. That is, Table 1 Panel A and Figure 2 are inconsistent with Hypothesis1-1a. Such results indicate that management perceives the M&A plan to be good news such that it is more likely to announce the M&A plan in early weekdays of a week.

TABLE 1
DESCRIPTIVE STATISTICS

Panel A. Weekday announcement frequency of mergers and acquisitions plan

	Plan Frequency	Percentage	Total
Monday	2185	26%	
Tuesday	1714	21%	
Wednesday	1654	20%	
Thursday	1684	20%	
Friday	1084	13%	
Total	8321		8321

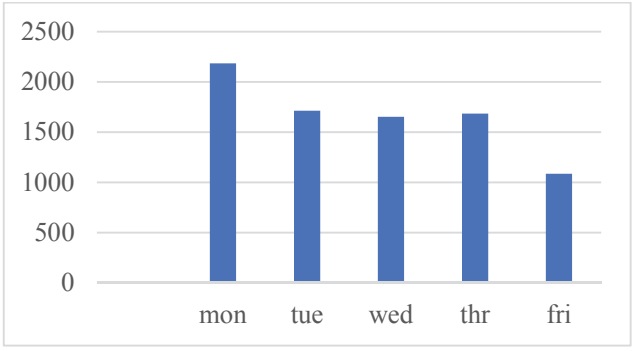
Panel B. Weekday announcement frequency of mergers and acquisitions completion and withdrawal when market favors M&A deal

	Completion Frequency	Percentage	Withdrawal Frequency	Percentage	Total
Monday	1098	24%	29	25%	
Tuesday	945	21%	24	21%	
Wednesday	824	18%	31	27%	
Thursday	806	18%	11	9%	
Friday	836	19%	21	18%	
Total	4509		116		4625

Panel C. Weekday announcement frequency of mergers and acquisitions completion and withdrawal when market does not favor M&A deal

	Completion Frequency	Percentage	Withdrawal Frequency	Percentage	Total
Monday	851	24%	32	23%	
Tuesday	698	20%	34	25%	
Wednesday	643	18%	20	14%	
Thursday	675	19%	25	18%	
Friday	691	19%	27	20%	
Total	3558		138		3696

FIGURE 2
THE M&A PLAN ANNOUNCEMENT FREQUENCY AROUND M&A OVER 2005-2014

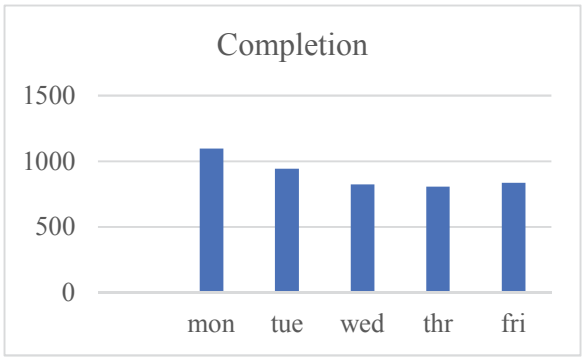


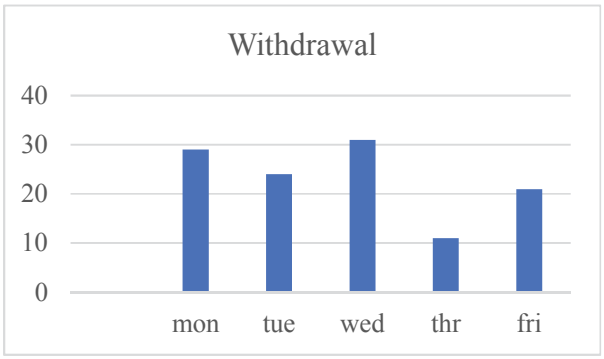
Second, for Hypothesis1-1b and Hypothesis1-1c regarding management's disclosure timing for M&A resolutions, Panels B and C of Table 1 report the announcement frequency of mergers and acquisitions completion and withdrawal on different weekdays when the market favors and disfavors the M&A deals respectively. Note that if the 3-day average abnormal return around the plan announcement is greater (smaller) than zero, it suggests that the market reacts positively (negatively) to the proposed deal and that the market favors (disfavors) the M&A plan. Among our sample of 8,321 M&A deals planned, 4,625, 56%, (3,696, 44%) deals received positive (negative) market reactions when their plans are announced and are thus classified as favorable (unfavorable) M&A deals. This is close to the frequency of favorable/unfavorable M&A plans reported in Luo (2005). The results in Panel B and C of Table 1 show that there are no monotonically increasing or decreasing patterns for management's disclosure timing for M&A resolution. It is in line with our assumption that the M&A resolution announcement likely reflects different nature of news for the management to disclose rather than the earnings announcements or M&A plan announcements.

The M&A resolution announcement frequency over a week can also be found in Panels A and B of Figure 3, which illustrate different patterns of completion vs. withdrawals for favorable versus unfavorable M&A deals. Specifically, Panel A of Figure 3 indicates that when market favors the deals, the frequency pattern of the completion resolution announcements and that of withdrawal resolution announcements are significantly different, that is, the frequency variation of the withdrawal announcement is much larger than that of the completion announcement over weekdays. Similarly, Panel B of Figure 3 indicates that when market does not favor the deals, the frequency pattern of the withdrawal announcements also differs significantly from that of the completion announcements. These results indicate that management likely adopts different timing strategies to announce the resolutions of M&As, depending on whether the resolutions are completion or withdrawal in general.

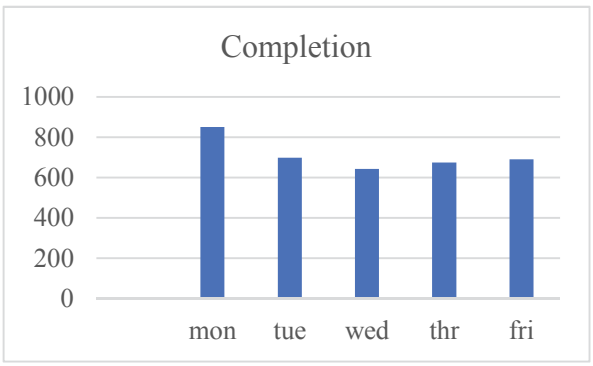
FIGURE 3
THE M&A RESOLUTION ANNOUNCEMENT FREQUENCY AROUND M&A OVER 2005-2014

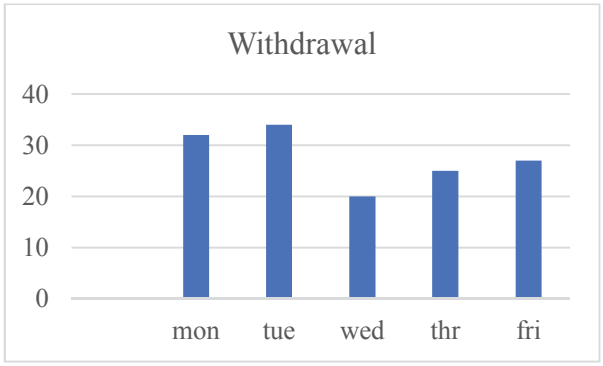
Panel A. M&A resolution announcement frequency when market favors the deal





Panel B. M&A resolution announcement frequency when market does not favor the deal





Moreover, comparing management's announcements for completed transactions under the favorable versus unfavorable conditions indicate the following differences: when the market favors the deal, for completed transactions (that is good news), the announcement volume made on early weekdays is higher than that made on later weekdays. When the market disfavors the deal however, for completed transactions (that is bad news), disclosure volume is in an increasing trend from Wednesday to Friday in particular. This result is inconsistent with our Hypothesis1-1b.

Comparison of management's announcements for withdrawal transactions between the favorable and unfavorable conditions shows that management's disclosure timing patterns are significantly different. When market favors the deal, for withdrawal transactions (that is bad news), there is no certain pattern found in the management disclosure timing. The disclosure volume is high in the middle of a week (Wednesday). When market disfavors the deal however, for withdrawal transactions (that is good news), disclosures made on early weekdays (that is on Monday and Tuesday) are higher than those made on later weekdays. Overall, the disclosures made on Mondays are no longer at the highest level in the withdrawal announcement frequency, in the sense that the management becomes cautious in announcing an M&A withdrawal. This result is inconsistent with our Hypothesis1-1c.

Table 2, which reports the probability of M&A completion/withdrawal announcement made on Fridays when the market favors or disfavors the deal, provides further insights into management's timing strategies. The Probit model shows that the coefficient estimates of both variables Completion (coefficient = -0.863, p-value <0.0001) and Withdrawal (coefficient = -0.857, p-value <0.0001) are significantly negative. The likelihood for management to announce the resolution news (either completion or

withdrawal) on Friday is lower than the likelihood to announce the resolution news on other weekdays. The Wald Chi-Square statistic of the coefficient estimate of the completion is 26 times larger than that of the withdrawal in the fact that the frequency variation of the withdrawal announcement is much larger than that of the completion announcement over weekdays. The coefficient estimates of the interaction terms of Completion/Withdrawal and FavorDeal are negative (that is -0.033 for Completion*FavorDeal and -0.054 for Withdrawal*FavorDeal) and are not statistically significant. The intuition is that no matter the market favors the original bid or not, the likelihood for management to announce the completion or withdrawal news on Friday still seems low.

TABLE 2
ESTIMATES OF M&A COMPLETION/WITHDRAWAL ANNOUNCED ON FRIDAYS WHEN MARKET FAVORS OR DISFAVORS THE DEAL

Dependent variable (DV): Probability of completion/withdrawal announcement made on Friday			
Variable	Estimate	Wald Chi-Square	Pr > ChiSq
Completion	-0.863	1279.288	<.0001 ***
Withdrawal	-0.857	49.185	<.0001 ***
Completion*FavorDeal	-0.033	1.003	0.317
Withdrawal*FavorDeal	-0.054	0.088	0.767
Observations	8321		

DV is the probability of completion/withdrawal announced on Fridays (=1 if M&A resolution is announced on Fridays, =0 if M&A resolution is announced on other weekdays). Completion (indicator, =1, if resolution is completion, else=0). Withdrawal (indicator, =1 if resolution is withdrawal, else=0). FavorDeal (indicator, =1 if 3-day cumulative abnormal returns around plan announcement is greater than zero, else=0). The ***, **, * refer the significant level at the 1%, 5% and 10% levels.

Overall, management's announcement timing of M&A events seems to be strategic. The disclosure timing frequencies are different between plan announcements and resolution announcements. Management's announcement timing differs between whether the market favors or does not favor the M&A deals, and whether the M&A deals are completed or withdrawn. The different patterns for the timing of withdrawal announcements indicate the complicated nature of withdrawals for managers to consider in their strategic announcements.

Market Attention to Management's Strategic Timing

The results of Hypothesis1-2a, which is about the market attention to the M&A plan announcements, are presented in Panel A and Panel B of Table 3. Correlation analysis in Panel A shows that the attention of market participants to mergers and acquisitions plan announcement is lower on Friday (a negative correlation = -0.097) but higher on other weekdays (a positive correlation = 0.097). An OLS estimate of the attention of market participants in Panel B carries a statistically significant negative sign on the M&A plan announcement on Fridays (coefficient = -0.123, t = -2.2). It provides evidence that market participants can be distracted before the weekend and pay significantly less amount of attention when the mergers and acquisitions plan is announced on Friday than on other weekdays. The results suggest that Hypothesis1-2a is not supported.

TABLE 3
THE TIMING EFFECT OF PLAN ANNOUNCEMENT ON MARKET ATTENTION

Panel A. Partial correlation between M&A plan announcement on Friday/other weekdays and attention of market participants (ANALYST_SPD)				
	Friday		Other weekdays	
ANALYST_SPD	-0.097		0.097	
p-value	0.010	***	0.010	***
Panel B. OLS estimates of M&A attention of market participants (ANALYST_SPD) to the plan announcement on Friday (=1) and other weekdays (=0)				
Variable	Coefficient		t value	
Intercept	0.493		2.05	**
Announcement on Friday	-0.123		-2.2	**
Size	-0.023		-2.3	**
Book-to-market	0.014		0.28	
Leverage	0.007		0.08	
CAR	0.173		0.62	
Relative size	0.258		2.48	**
Same industry	-0.009		-0.21	
Tender offer	0.007		0.14	
Acquirer termination fee	-0.069		-1.54	
Consideration_stock	-0.009		-0.19	
Observations	720			
Adj R-Sq	0.020			

ANALYST_SPD is speed with which equity analysts impound mergers and acquisitions plan or resolution news into their future forecasts. Announcement on Friday (indicator, =1 if announcement is on Friday, otherwise=0). Size is the natural log of the acquirer's market value of equity. Leverage is acquirer's total liability/total asset. Book-to-market is acquirer's common equity/market value of equity. CAR is the two-day cumulative abnormal returns around announcement date. Relative size is ratio of the target's market value of equity to the acquirer's market value of equity. Same Industry (indicator =1 if the acquirer and target firm have the same two-digit SIC code, otherwise =0). Tender offer (indicator, =1 if it is a tender offer, otherwise=0). Acquirer termination fee (indicator, =1 if acquirer needs to pay a termination fee upon withdrawal, otherwise=0). Stock consideration (indicator, =1 if consideration is stock only, otherwise=0). The ***, **, * refer the significant level at the 1%, 5% and 10% levels.

The results of Hypothesis1-2b, which is about the market attention to the M&A completion, are presented in Panel A and Panel B of Table 4. The correlation analysis in Panel A shows that the attention of market participants to mergers and acquisitions completion announcement made on Friday maintain a negative sign (correlation = -0.050), but a positive sign for announcement made on other weekdays (correlation = 0.050). The regression analysis in Panel B shows that the coefficient estimates of the M&A completion announced on Friday is not statistically significant, while maintains a negative sign (coefficient = -0.028, t = -0.7). In the analysis for attention to completion, we add a variable FavorDeal which proxies for whether the market favors the original proposed plan based on the abnormal return around plan announcement (FavorDeal = 1 if 3-day average abnormal returns around plan announcement is greater than zero, otherwise = 0). The interaction term of whether the market favors the deal or not and the completion news announced on Friday is negative, while not statistically significant, suggesting that whether the market favors the deal or not, the completion news announced on different weekdays would receive similar level of attention. If the market favors the original bid, the market attention is indifferent to the announcement of deal completion if it is made on Friday or on other weekdays. This result is consistent with our Hypothesis1-2b.

TABLE 4
THE TIMING EFFECT OF COMPLETION ANNOUNCEMENT ON MARKET ATTENTION

Panel A. Partial correlation between M&A completion announcement on Friday/other weekdays and attention of market participants (ANALYST_SPD)			
	Friday	Other weekdays	
ANALYST_SPD	-0.050	0.050	
p-value	0.220	0.220	
Panel B. OLS estimates of M&A attention of market participants (ANALYST_SPD) to completion announcement on Friday (=1) and other weekdays (=0)			
Variable	Coefficient	t value	
Intercept	0.288	1.25	
Friday	-0.028	-0.7	
FavorDeal	0.011	0.37	
FavorDeal*Friday	-0.002	-0.04	
Size	-0.011	-1.56	
Book-to-market	0.019	0.59	
Leverage	0.043	0.66	
CAR	-0.578	-1.62	
Relative size	0.195	2.53	**
Same industry	0.015	0.54	
Tender offer	-0.008	-0.22	
Acquirer termination fee	-0.024	-0.74	
Consideration_stock	-0.034	-0.95	
Observations	624		
Adj R-Sq	0.004		

ANALYST_SPD is speed with which equity analysts impound mergers and acquisitions plan or resolution news into their future forecasts. Announcement on Friday (indicator, =1 if announcement is on Friday, otherwise=0). Size is the natural log of the acquirer's market value of equity. Leverage is acquirer's total liability/total asset. Book-to-market is acquirer's common equity/market value of equity. CAR is the two-day cumulative abnormal returns around announcement date. Relative size is ratio of the target's market value of equity to the acquirer's market value of equity. Same Industry (indicator =1 if the acquirer and target firm have the same two-digit SIC code, otherwise =0). Tender offer (indicator, =1 if it is a tender offer, otherwise=0). Acquirer termination fee (indicator, =1 if acquirer needs to pay a termination fee upon withdrawal, otherwise=0). Stock consideration (indicator, =1 if consideration is stock only, otherwise=0). The ***, **, * refer the significant level at the 1%, 5% and 10% levels.

The results of Hypothesis1-2c, which is about the market attention to M&A withdrawal, are presented in Panel A and Panel B of Table 5. The correlation analysis in Panel A shows that the attention of market participants to mergers and acquisitions withdrawal announcement made on Friday carries a positive sign (correlation = 0.099), but a negative sign for announcement made on other weekdays (correlation = -0.099). The regression analysis in Panel B shows that the coefficient estimate of the M&A withdrawal announced on Friday maintains a positive sign, while not statistically significant (coefficient = 0.121, t = 1.19). Similar to the analysis for attention to completion, in the analysis for attention to withdrawal, we add a variable FavorDeal which proxies for whether the market favors the original proposed plan based on the abnormal return around plan announcement. The interaction term of whether the market favors the deal or not and the withdrawal news announced on Friday is negative, while not significant, suggesting that whether the market likes the deal or not, the withdrawal news announced on different weekdays would receive similar level of attention. If the market favors the original bid, market attention is indifferent to the withdrawal announcement whether it is announced on Friday or on other weekdays. This result is consistent with our Hypothesis1-2c.

TABLE 5
THE TIMING EFFECT OF WITHDRAWAL ANNOUNCEMENT ON MARKET ATTENTION

Panel A. Partial correlation between M&A withdrawal announcement on Friday/other weekdays and attention of market participants (ANALYST_SPD)

	Friday	Other weekdays
ANALYST_SPD	0.099	-0.099
p-value	0.395	0.395

Panel B. OLS estimates of M&A attention of market participants (ANALYST_SPD) to withdrawal announcement on Friday (=1) and other weekdays (=0)

Variable	Coefficient	t value
Intercept	0.251	0.82
Friday	0.121	1.19
FavorDeal	-0.049	-0.7
FavorDeal*Friday	-0.071	-0.41
Size	0.016	0.68
Book-to-market	0.108	0.92
Leverage	-0.058	-0.42
CAR	-0.152	-0.22
Relative size	0.237	1.06
Same industry	-0.007	-0.08
Tender offer	0.022	0.24
Acquirer termination fee	-0.093	-0.82
Consideration_stock	-0.027	-0.31
Observations	77	
Adj R-Sq	0.048	

ANALYST_SPD is speed with which equity analysts impound mergers and acquisitions plan or resolution news into their future forecasts. Announcement on Friday (indicator, =1 if announcement is on Friday, otherwise=0). Size is the natural log of the acquirer's market value of equity. Leverage is acquirer's total liability/total asset. Book-to-market is acquirer's common equity/market value of equity. CAR is the two-day cumulative abnormal returns around announcement date. Relative size is ratio of the target's market value of equity to the acquirer's market value of equity. Same Industry (indicator =1 if the acquirer and target firm have the same two-digit SIC code, otherwise =0). Tender offer (indicator, =1 if it is a tender offer, otherwise=0). Acquirer termination fee (indicator, =1 if acquirer needs to pay a termination fee upon withdrawal, otherwise=0). Stock consideration (indicator, =1 if consideration is stock only, otherwise=0). The ***, **, * refer the significant level at the 1%, 5% and 10% levels.

Overall, the findings on the hypothesis H1-2 indicate that market attention to the M&A plan announcement is significantly lower if the bid is announced on Friday than on other weekdays. However, the market participants seem indifferent to the different timing of M&A resolution announcement. That is, market pays similar level of attention to M&A completion and withdrawal announcements regardless whether they are made on Friday or other weekdays. The association between market attention and the resolution announcement made on Friday is not as strong as the association between market attention and the plan announcement made on Friday. From the management perspective, it is less likely for management to take advantages of the general rule of lower market attention toward the end of week when managers announce the resolution news, regardless whether it is a completion or withdrawal. Therefore, management's strategic announcement of M&A completion or withdrawal, through its choices of announcement on different days of a week, may not be very effective in attracting or distracting the market attention.

Effects of Investor Sentiment

Tables 6 and 7 report the findings for M&A plan announcement and resolution announcement under high/low investor sentiment conditions respectively. As shown in Table 6, the coefficient estimates of an M&A plan announcement on Friday (coefficient estimate = -0.115, t = -1.46), investors' sentiment around plan announcement (coefficient estimate = 0.025, t = 0.25), and the interaction term of these two variables (coefficient = -0.017, t = -0.15) are not statistically significant. These results are consistent with Hypothesis2-a, which suggest that the investor sentiment condition has no significant effect on the market attention to plan announcement made on Fridays. Similar nonsignificant results are observed in Table 7 for market attention to M&A resolution announcement. Announcement on Friday (coefficient estimate = -0.015, t = -0.36), the coefficient of Investor Sentiment at resolution (coefficient estimate = 0.053, t= 1.1) and the interaction term of these two variables (coefficient estimate = -0.028, t= -0.5) are not statistically significant. That is, market pays similar level of attention to the resolution news released on different weekdays during a high investor sentiment period as during a low investor sentiment period. The findings in Tables 7 are consistent with Hypothesis2-b.

TABLE 6
THE TIMING EFFECT OF PLAN ANNOUNCEMENT ON MARKET ATTENTION UNDER HIGH/LOW INVESTOR SENTIMENT CONDITIONS

Panel A. Partial correlation between M&A plan announcement on Friday/other weekdays and attention of market participants (ANALYST_SPD)

	Friday	Other weekdays
ANALYST_SPD	-0.097	0.097
p-value	0.010	0.010

Panel B. OLS estimates of M&A attention of market participants (ANALYST_SPD) on the plan announcement on Friday (=1) and other weekdays (=0)

Variable	Coefficient	t value	
Intercept	0.468	1.78	*
Announcement on Friday	-0.115	-1.46	
Investor sentiment at plan announcement	0.025	0.25	
Announcement on Friday*Investor sentiment at plan announcement	-0.017	-0.15	
Size	-0.022	-2.28	**
Book-to-market	0.014	0.28	
Leverage	0.007	0.07	
CAR	0.172	0.61	
Relative size	0.258	2.47	**
Same industry	-0.008	-0.2	
Tender offer	0.006	0.12	
Acquirer termination fee	-0.069	-1.53	
Consideration_stock	-0.010	-0.21	
Observations	720		
Adj R-Sq	0.017		

ANALYST_SPD is speed with which equity analysts impound mergers and acquisitions plan or resolution news into their future forecasts. Announcement on Friday (indicator, =1 if announcement made on Friday, otherwise=0). Investor sentiment at plan announcement (indicator, =1 if investor sentiment for acquirer's plan announcement greater than sample average sentiment, otherwise=0). Size is the natural log of the acquirer's market value of equity. Leverage is acquirer's total liability/total asset. Book-to-market is acquirer's common equity/market value of equity. CAR is the two-day cumulative abnormal returns around announcement date. Relative size is ratio of the target's market value of equity to the acquirer's market value of equity. Same Industry (indicator =1 if the acquirer and target firm have the same two-digit SIC code, otherwise =0). Tender offer (indicator, =1 if it is a

tender offer, otherwise=0). Acquirer termination fee (indicator, =1 if acquirer needs to pay a termination fee upon withdrawal, otherwise=0). Stock consideration (indicator, =1 if consideration is stock only, otherwise=0). The ***, **, * refer the significant level at the 1%, 5% and 10% levels.

TABLE 7
THE TIMING EFFECT OF RESOLUTION ANNOUNCEMENT ON MARKET ATTENTION UNDER HIGH/LOW INVESTOR SENTIMENT CONDITIONS

Panel A. Partial correlation between M&A resolution announcement on Friday/other weekdays and attention of market participants (ANALYST_SPD)			
	Friday	Other weekdays	
ANALYST_SPD	-0.039	0.039	
p-value	0.304	0.304	
Panel B. OLS estimates of M&A attention of market participants (ANALYST_SPD) on resolution announcement on Friday (=1) and other weekdays (=0)			
Variable	Coefficient	t value	
Intercept	0.289	1.28	
Announcement on Friday	-0.015	-0.36	
Investor sentiment at resolution	0.053	1.1	
Announcement on Friday*Investor sentiment at resolution announcement	-0.028	-0.5	
Size	-0.011	-1.71	*
Book-to-market	0.016	0.54	
Leverage	0.023	0.39	
CAR	-0.495	-1.57	
Relative size	0.195	2.8	***
Same industry	0.020	0.76	
Tender offer	-0.005	-0.16	
Acquirer termination fee	-0.032	-1.11	
Consideration_stock	-0.039	-1.2	
Observations	701		
Adj R-Sq	0.008		

ANALYST_SPD is speed with which equity analysts impound mergers and acquisitions plan or resolution news into their future forecasts. Announcement on Friday (indicator, =1 if announcement made on Friday, otherwise=0). Investor sentiment at completion (indicator, =1 if investor sentiment for acquirer's completion greater than sample average sentiment, otherwise=0). Size is the natural log of the acquirer's market value of equity. Leverage is acquirer's total liability/total asset. Book-to-market is acquirer's common equity/market value of equity. CAR is the two-day cumulative abnormal returns around announcement date. Relative size is ratio of the target's market value of equity to the acquirer's market value of equity. Same Industry (indicator =1 if the acquirer and target firm have the same two-digit SIC code, otherwise =0). Tender offer (indicator, =1 if it is a tender offer, otherwise=0). Acquirer termination fee (indicator, =1 if acquirer needs to pay a termination fee upon withdrawal, otherwise=0). Stock consideration (indicator, =1 if consideration is stock only, otherwise=0). The ***, **, * refer the significant level at the 1%, 5% and 10% levels.

CONCLUSION

The study examines the disclosure timing strategy of acquiring firms around the mergers and acquisitions activities. The findings reinforce the evidence of deHaan et al. (2015) and DellaVigna and Pollet (2009) that management strategically chooses the timing in announcing M&A news. In addition, it extends prior studies by exhibiting that for different events in the M&A process, the disclosure timing is different. This study also supports the view that managers learn from the market or listen to the market (see Luo (2005), Liu and McConnell (2013)). Management may strategically choose the timing for the M&A resolutions depending on the nature of resolutions (completions or withdrawals) and market's favorability of the proposed deals (favor or does not favor). When taking into consideration of the macroeconomic factors, such as investor sentiment, we find that investment sentiment does not significantly influence management's disclosure timing behaviors in the M&A process.

This research adds value to the literature by examining management's disclosure timing practices around the M&A process. In contrast to the disclosure timing strategy of management earnings forecast or cash flow forecast, management disclosure timing practices related to mergers and acquisitions may take a more dynamic form. Management may listen to the market, then adjust disclosure timing based on the feedback. Moreover, rather than purely investigating the disclosure timing practices of management, this study also takes the macroeconomic market conditions into consideration. The findings imply that management strategically times the M&A announcement activities.

ENDNOTES

1. Early research in mergers and acquisitions is mostly concentrated in the finance literature. Early research on takeover bids shows that there is an informational role of takeover bids; there are both theoretical and empirical support that firms are revalued upwards by the market even with a failed takeover bid (Grossman and Hart (1981).
2. Haleblian et al. (2009) suggest that factors leading firms to undertake acquisitions, factors moderating acquisition characteristics and performance, and factoring affecting acquisition outcomes are the primary three lines of research in mergers and acquisitions.
3. The recent study by Tang and Xu (2016) finds that the target stock prices increase prior to M&A announcement when media attention on insider trading is lower.
4. The model requires that the target is a public company with data available in Compustat to obtain the target company's financial information, while the analyst data is available in IBES to calculate the market attention.

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