Shareholder Wealth Effects of M&A Withdrawals

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Abstract

I investigate the wealth effect around the announcements of the withdrawal of a merger or acquisition and the factors that have impact on such wealth effect. I report that, on average, the market reacts positively to the withdrawal of a deal. My results show that the acquiring firm's withdrawal cumulative abnormal return is negatively related to the announcement cumulative abnormal return. I also find that acquiring firm termination fee provisions are positively associated with the acquiring firm's withdrawal cumulative abnormal return, suggesting that such provisions play an important role in protecting acquiring shareholders' interests in the event of a deal withdrawal. My results also show that target firm termination fee provisions are negatively associated with the acquiring firm's withdrawal cumulative abnormal return, which support the efficiency hypothesis and the theory of managerial discretion.

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In mergers and acquisition (M&A) market, we have observed more and more incomplete (i.e. withdrawn) deals in the last decade. By April 2015, deals worth approximately $192 billion have been withdrawn or rejected, which is the highest level in dollar terms at the same point in the year since 2008, according to Dealogic.[1] What do these deal withdrawals mean to shareholders? How do they affect shareholders' wealth?

The vast majority of the empirical M&A literature focuses on the deal announcement returns and the relations between certain deal or firm characteristics and those announcement returns; there is very limited research on the wealth effect around deal withdrawals and the factors that relate to such effect. To fill the research gap, in this paper, I investigate the market's reaction to deal withdrawals and examine the relation between acquiring firm withdrawal returns and announcement returns. I also examine the association between termination fee provisions and acquiring firm withdrawal returns. Based on the literature review, I develop three hypotheses based on my research questions and test them using a sample of 201 U.S. firms from 1992 to 2014.

I find that the three-day acquiring firm cumulative abnormal returns around the announcements of deal withdrawals are generally positive; more importantly, in my univariate analysis and multiple regression analysis I find a significant negative correlation between the withdrawal abnormal returns and the announcement abnormal returns, suggesting that the market reacts inversely to the reversal of the original deal announcement. My results also show that acquiring firm termination fee provisions are positively associated with acquiring firm withdrawal returns. This finding suggests that the acquiring firm termination fee provision acts an important role in assuring acquiring firm shareholders that managers make the decision of withdrawal carefully and their decision maximizes shareholders' value. In other words, given the contingent termination fee the acquiring firm has to pay in a withdrawal, acquiring firm

[1] Denning , 2015, "Failed Bids Flash Yellow, Not Red", Wall Street Journal (27 April 2015)

managers would not choose to withdraw a deal unless they are certain that the withdrawal is the best option for shareholders after the careful analysis. Therefore, the market favors the withdrawals of the deals with acquiring firm termination fee clause in the agreement. My results also show a significant negative association between target firm termination fee provisions and acquiring firm withdrawal returns, which may suggest that the high pre-merger integration cost could result in the negative market reaction to the withdrawal of the deal, based on the efficiency hypothesis (Berkovitch et al., 1989; Bates and Lemmon, 2003). This finding also supports the theory of managerial discretion (Bates and Lemmon, 2003).

My paper relates to and, potentially, contributes to two strands of literature. First, it contributes to the research on the tests of general wealth effect of mergers. Much of the literature focuses on the wealth effect around deal announcements. This study empirically tests the wealth effect around deal withdrawals and examines the factors that have impact on withdrawal abnormal returns. Second, this paper also contributes to the literate on contracting issues (e.g. termination fee provisions) in M&A. I provide direct evidence that both the acquiring firm termination fee clause and the target firm termination fee clause in a merger agreement have significant impacts on shareholders' wealth in the deal withdrawal, while much of the existing literature only focuses on the relations between termination fee provisions and deal premium and deal completion rate.

The remainder of this paper is organized as follows. Section I discusses the literature and develops my hypotheses. Section II introduces the data and my research method. Section III presents and discusses my empirical results. Section IV concludes.

I. Literature and Hypotheses Development

M&A activity is one of the best-studied phenomena in finance, and there is an extensive research literature examining the stock returns around the announcements of M&A bids and the motives of these transactions. Although more of the previous studies report significant positive cumulative abnormal returns around the deal announcement (e.g. Bradley et al. , 1982, 1988; Lang et al., 1989; Maquieira et al. , 1998; Kohers and Kohers, 2000, 2001; Rosen, 2003; Bouwman et al., 2003; Bhagat et al., 2005) than those that report negative returns (e.g. Asquith et al., 1987; Morck et al., 1990; Servaes, 1991; Walker, 2000; Delong , 2001, 2003; Kuipers et al., 2003), the empirical results are rather mixed. The explanations provided in the literature for these observed cumulative abnormal returns are generally related to various motives of mergers and certain deal characteristics. Numerous studies in both finance and strategic management literature show that mergers may be driven by a complex variety of motives such as synergies (Porter, 1985), managerial competition (Jensen, 1986), market valuation (Servaes, 1991), agency problems (Black, 1989), or managerial overconfidence (Malmendier and Tate, 2008). It is generally believed that positive market's reactions to deal announcements are related to good motives, while negative market's reactions to bad motives. In addition, some previous studies (Travlos, 1987; Sicherman and Pettway, 1987; Healy et al., 1997; Fan and Goyal, 2006) suggest that the deal announcement abnormal returns could be explained by some deal characteristics (e.g. payment methods and relatedness between the acquiring firm and the target firm).

During the process of M&As, there are a series of discrete events such as the decision to start a M&A program, the act of making a tender offer, the first public disclosure of a possible merger, the official announcement of a merger, the legal completion of a merger, and the withdrawal of a merger. The vast majority of previous studies focus on the wealth effect around

the deal announcement date. In this study, I argue that it is also important to examine the market's reaction to the announcement of the withdrawal of a deal. It is reasonable to expect that there is a significant wealth effect around the withdrawal date, as a deal withdrawal is an obvious reversal of the original merger decision. The studies on the deal announcement returns show that the abnormal return around the announcement date is high if the market favors a merger, while the abnormal return is low if the market dislikes the deal; consequently, the withdrawal of the deal favored by the market could provoke a negative market's reaction and, in parallel, the withdrawal of the deal unfavored by the market (or shareholders) could provoke a positive market's reaction. Therefore, built upon the literature on the wealth effect around deal announcements, I develop my first hypothesis regarding the wealth effect around a deal withdrawal as follows:

H1: The acquiring firm cumulative abnormal return around the deal withdrawal date is negatively associated with the cumulative abnormal return around the deal announcement date.

There is another strand of literature focusing on the impact of termination fee provisions on merger performance. Termination fee clause requires that one party pay a fixed cash fee to a counter party when the former dissolves the agreement. There is an increasing proportion of merger agreements having bidder and/or target termination fee clauses (Officer, 2003; Bates and Lemmon, 2003). Therefore, it is important to understand the role and the impact of termination fee provision in M&A activities. For the acquiring shareholders, the withdrawal of the deal with a bidder termination fee provision implies a contingent payment by the acquiring firm to the target firm when the acquiring firm dissolves the agreement. This is a direct cost that the acquiring shareholders need to bear; therefore, we could expect a negative market's

reaction to the withdrawal of such a deal. In addition, Bates and Lemmon (2003) propose an insurance hypothesis that acquiring firm termination fees are used to guarantee a proportion of the target firm's gain where the costs of negotiation are high. They find evidence that the deal premium is negatively correlated with acquiring firm termination fee. For this reason, we could also expect a negative association between the acquiring firm termination fee provision and the acquiring firm abnormal return on deal withdrawal as the withdrawal of the deal with acquiring firm termination provision (i.e. a relatively low premium deal) is likely to be viewed as bad news by the acquiring firm shareholders due to the forgone "good" price they could have received if the deal had gone through. I develop my second hypothesis regarding the relation between the acquiring firm withdrawal abnormal returns and acquiring firm termination fee provisions as follows:

H2: The acquiring firm cumulative abnormal return around the withdrawal date of the deal with an acquiring firm termination fee is lower than that of the deal without an acquiring firm termination fee in the merger contract.

I also consider the relation between the acquiring firm withdrawal abnormal return and the target firm termination fee provision. From the point of view of acquiring firm shareholders, the target termination fee clause is obviously beneficial as it provides compensation to the acquiring firm in the event of the target firm terminates the contract. Therefore, a positive relationship between the acquiring firm withdrawal return and the target firm termination fee provision might be expected based on such intuition. However, some theories on termination fees suggest a negative association between them. For example, the efficiency hypothesis suggests that target firm termination fees are used to encourage bidder participation (e.g. pre-merger integrations and revelation of valuable information) by compensating initial bidders for

the risk to which they are exposed in terms of the early revelation of private information (Berkovitch et al., 1989; Bates and Lemmon, 2003). That is, if an early bidder reveals valuable private information about its merger plan for the target firm, another bidder might be able to free ride on such information and offer a more attractive proposal. In this sense, target firm termination provisions are used to compensate for such risks (or associated costs). Based on the efficiency hypothesis, it could be expected that the acquiring firms are more likely to conduct pre-merger integrations if there is a target termination fee clause in the merger agreement; consequently, a high cost (e.g. cost of the pre-merger integration) could have been incurred by the time of the announcement of the withdrawal of a deal and, therefore, the acquiring firm could suffer a big loss in such a deal withdrawal. Consequently, the market could react negatively. Therefore, we could expect a negative relation between the acquiring firm withdrawal abnormal return and the target firm termination fee provision.

In addition, the theory of managerial discretion posits that target managers use the target termination provision as a means to deter competitive bidding in order to secure deals with friendly bidders (Bates and Lemmon, 2003). One prediction based on this theory is that the takeover premium is relatively low if there is a target termination fee clause due to the curtailment of a full auction for the target firm. The withdrawal of the deals with low premiums could be viewed by acquiring firm shareholders as bad news due to the forgone "good" price they could have received; therefore the market may react negatively to the withdrawal of such a deals. Again, a negative association between the acquiring firm withdrawal abnormal return and the target firm termination fee provision might be suggested based on this theory.

Based on the efficiency hypothesis and the theory of managerial discretion, I develop my hypothesis regarding the relation between the acquiring firm withdrawal abnormal returns and target firm termination fee provisions as follows:

H3: The acquiring firm cumulative abnormal return around the withdrawal date of the deal with a target termination fee provision is lower than that of the deal without a target termination in the merger contract.

To test my three hypotheses and explore the empirical evidence for relevant theories, I conduct a series of univariate analyses and multivariate regressions.

II. Data and Research Method

A. Data

I extract from SDC database all incomplete mergers and acquisitions announced by US firms between January 1, 1992 and December 31, 2014 and labelled as "Withdrawn" [2] in "Deal Status" by SDC. The announcement date of the deal follows the Thompson One Banker SDC "date announced" definition [3]. I require both acquirer and target to be public firms, for data requirement purposes, and the deal value is at least $1 million. I also require that the compensation data for the CEOs of acquiring firms and target firms is available in Execucomp database, because some compensation items are used in my analysis. Using these filtering criteria, the sample deals are identified and the deal announcement date, the deal withdrawal date[4], and the deal characteristics are obtained from SDC database.

[2] SDC defines the "Status of the Transaction" as "Withdrawn" if the target or the acquirer in the transaction has terminated its agreement, letter of intent, or plans for the acquisition or merger.
[3] SDC defines the "date announced" as "The date one or more parties involved in the transaction makes the first public disclosure of common or unilateral intent to pursue the transaction (no formal agreement is required). Among other things, Date Announced is determined by the disclosure of discussions between parties, disclosure of a unilateral approach made by a potential bidder, and the disclosure of a signed Memorandum of Understanding (MOU) or other agreement".
[4] SDC defines "Date Withdrawn" as the date when the transaction is terminated, withdrawn, expires or becomes otherwise unsuccessful. It should be noted that in some cases SDC does not provide a withdrawn date where the two firms abandoned the acquisition but do not make a public announcement of their decision. In this study, only

I also obtain the necessary stock return data from the CRSP database for event study purposes, various financial (accounting) items from COMPUSTAT database, and executive compensation items (e.g. stock ownership of CEOs) from Execucomp database. The filtering and data matching processes yield a total of 201 deals in my final sample.

B. Method

As the main aim of this study is to explore the relation between certain factors and the market's reaction to the M&A withdrawals, I first estimate the cumulative abnormal returns to the acquiring firms around the announcement date and the withdrawal date. A series of univariate analyses are then conducted, and a cross sectional regression is run to examine the associations between certain firm and deal characteristics and the withdrawal CARs. In this section, I introduce the event study approach and the regression model employed in this study.

B.1 Event Study

An event study method is employed to compute the cumulative abnormal returns (CARs) accrued to the acquiring firm's stock around the announcement of an M&A deal and around the announcement of the withdrawal of an M&A deal, respectively. The market model is used to estimate the normal or benchmark return: In particular, in the calculation of CARs around the deal announcement day, I use the daily stock returns on the value-weighted CRSP market returns (excluding dividends) over the (-30, -280) period to estimate the market model parameters. The market model parameters are then used to estimate the normal returns. I then

the deals withdrawn with a public announcement are included in the sample as my main focus is on the market's reaction to the public announcement of the deal withdrawal.

compute the abnormal returns by subtracting the normal returns from the realized returns. Finally, CARs are calculated by aggregating the abnormal returns over the event window (-1, +1). I also use (-2, +2) and (-5, +5) event windows to calculate CARs, though all the results reported are based on (-1, +1) event window as they are similar to those based on other event windows. In the calculation of CARs around the deal withdrawal day, I use (-115, -365) as the estimation window in order to avoid the potential overlapping effect between deal announcements and deal withdrawals. I choose -115 trading days as my period start date as the average days between the deal withdrawal date and the deal announcement date are 85 days. To avoid the potential confounding effect, I choose 85 trading days before the start date/ end date of the estimation window used in the calculation of the deal announcement CARs as the start date/end date of the estimation window in calculating the deal withdrawal CARs. The rationale of choosing this particular estimation window is further illustrated in Figure 1. The same approach is applied in calculating target firm withdrawal/announcement CARs and the combined withdrawal/announcement CARs.

[Insert Figure 1 here]

B.2 Regression Model

The following OLS regression model is employed to examine the association between the deal and firm characteristics and the acquiring firm withdrawal CARs.

$$\begin{aligned} \text{CAR\_withdraw} = {} & \beta_0 + \beta_1 \text{CAR\_ann} + \beta_2 \text{Termnation\_A} + \beta_3 \text{Termination\_T} + \beta_4 \text{Rsize} + \beta_5 \text{Attitude} + \beta_6 \text{Payment} \\ & + \beta_7 \text{Relatedness} + \beta_{86} \text{Premium} + \beta_9 \text{P/E} + \beta_{10} \text{Multi-bidders} + \varepsilon \end{aligned} \quad (1)$$

The dependent variable, CAR_withdraw, is the 3-day event window (-1, 1) CAR around the

deal withdrawal date for acquiring firms. The independent variable, CAR_ann, is the 3-day event window (-1, 1) CAR around the deal announcement date for acquiring firms. Some studies show that termination fees have a significant impact on the premiums paid and could help in explaining the wealth effect in M&A deals (Officer, 2003; Bates and Lemmon, 2003). In order to examine whether the provisions of termination fee clauses in merger agreements have any impact on the market's reaction to deal withdrawals, I include in the model two variables related to termination fees, Termination_A and Termination_T. Termination_A is a binary variable where 1 signifies there is a bidder termination fee provision in the agreement and the deal was terminated by the bidder, otherwise 0. Termination_T is a binary variable where 1 signifies there is a target termination fee provision in the agreement and the deal was terminated by the target, otherwise 0. I manually identify which party initiates the termination by reading the "Synopsis" provided on SDC database.

A set of deal characteristics are also used as independent variable in the regression. These variables are extracted from the literature that suggests that they may have an influence on M&A announcement performance. If the market's reaction to the deal announcement is associated with these characteristics, it would be reasonable to expect that these characteristics may also have impacts on the market's reaction to the deal withdrawal. Therefore, I include them in the regression model.

Variable Rsize represents the relative size of the target firm and is calculated as the ratio of the target's total assets to acquirer's total assets. The literature (e.g. Kohers and Kohers, 2000) shows that relative size of target to bidder has a significant impact on the bidder's announcement returns.

Variable Attitude is a binary variable, where 1 signifies that the deal attitude is classified as "hostile", and 0 signifies it to be "friendly" or "neutral". Some previous studies show that the performance of the acquiring firms that conduct "hostile" takeovers is significantly better than

that of those conduct “friendly” deals. However, some academic argue that this difference might actually be a reflection of the difference in the types of deals – non-tender offers or tender offers. In the literature, there is evidence that tender offers tend to perform better than non-tender offers, while most “hostile” deals are tender offers.

Variable Payment is a binary variable, where 1 signifies that the method of payment of the deal is cash, otherwise 0. There are a lot of studies on the relation between the financing methods of M&A deals and firm M&A performance. The results of most studies show that the abnormal returns for acquiring firms can vary significantly across the different payment methods. Franks et al. (1988) find that the performance of the acquiring firms that conduct cash payment deals is better than that of the acquiring firms conducting equity payment deals. Travlos (1987) also report a significant difference in the abnormal returns of acquiring firms between stock offers and cash offers. He finds that the returns of the bidding firms with equity offer are significantly negative during the announcement period, while the returns of the firms with cash offers gain normal (zero abnormal) returns. Therefore, they propose that this result reflects the signaling effect that the stock offer conveys the negative signal that the bidding firm’s stock is overvalued, and therefore the market reacts negatively.

Variable Relatedness is a binary variable where 1 signifies that the first two digits of the SIC code of the acquirer and those of the target are the same, 0 otherwise. Some previous studies suggest that the M&A performance is associated with the relatedness of the acquiring firm’s business and the target firm’s business. For example, Sicherman and Pettway (1987) report that the CAR for the mergers or acquisitions of related business are significantly higher than those of mergers or acquisitions of unrelated business, which suggests that the acquisition of related business units enhances the acquiring firm’s value while the acquisition of unrelated business may have a negative impact on the acquiring firm’s shareholder value. Healy et al. (1992) also find that the announcement period return of the takeover is higher when the acquiring firm’s

business and the target firm's business are highly overlapping compared with the return of the acquisition of unrelated business. Fan and Goyal (2006) also show evidence that vertical mergers perform better than diversifying mergers.

Variable Premium is the ratio of the offer price per target share divided by the target share price four weeks prior to the M&A announcement. Premium is an important statement by the acquiring firm's managers and reflects the synergies the managers expect to create; therefore, it could have an impact on the market's reaction to the M&A related announcements. Sirower (1994) reports a negative relationship between premium and acquiring firm's stock performance up to four year. Hayward and Hambrick (1997) also report a positive link between acquiring firm CEO hubris and acquisition premium.

Variable P/E is the target's P/E ratio four weeks prior to the deal announcement, which is used to proxy for the expected growth. Morck et al. (1990) report that acquiring firm M&A short run (announcement) performance is better if the acquisitions involve the purchase of a fast growing target firms. Kohers and Kohers (2000) also show that the short run performance of acquiring firms is significantly positive when the targets are high-tech firms (high-tech firms usually have high P/E ratios.)

I also include a binary variable, Multi-bidders, in the regression. It equals to 1 if the number of bidders recorded in SDC is greater than 1; otherwise 0. Some previous studies (e.g. Flanagan and O'Shaughnessy, 2003) show that the presence of multiple bidders has a significant impact on offer premiums and shareholder wealth in M&A transactions.

Besides the baseline regression model described above, I also run additional regressions by including two interaction terms, CAR_ann*Payment and CAR_ann*Relatedness, to examine the joint effects of these variables, as previous studies show that there is significant association between M&A announcement returns and payment methods and relatedness (Franks et al., 1988; Travlos, 1987; Goyal, 2006).

Furthermore, in additional analysis I examine the association between the deal and firm characteristics and the target firm withdrawal CARs and the combined CARs (i.e. acquiring firm and target firm combined) by regressing the target 3-day event window withdrawal CAR (TCAR_withdraw) on the target 3-day event window announcement CAR (TCAR_ann) and the combined 3-day event window withdrawal CAR (CCAR_withdraw) on the combined 3-day event window announcement CAR (CCAR_ann), respectively.

C. Sample Description

Table I provides summary statistics of the variables. The mean of the three day acquiring firm cumulative abnormal returns around the withdrawal date is 1%; it appears that the market favors the deal withdrawal announcement, on average. In contrast, on average, the three day cumulative abnormal return around the deal announcement date is -1.5%, which is consistent with the previous studies (e.g. Asquith et al., 1987; Morck et al., 1990; Delong, 2001, 2003; Kuipers et al., 2003) that suggest that M&A deals destroy acquiring firms' value. Interestingly, the mean of target firm cumulative abnormal returns around the withdrawal date is -7.2%, whereas the announcement return is 18.7%. The negative sign of the target withdrawal return is opposite to the sign of the acquiring frim withdrawal return, which suggests the different impact of deal withdrawals on acquiring firm and target firm stocks. The average relative size of target firm to acquiring firm is 0.587 with the minimum of 0.001 and a maximum of 4.542, which shows that my sample covers the deals with a wide relative size spectrum. The statistics also show that the premiums paid and the P/E ratio of target firms are quite high, on average, with the mean premium of 35.486 and the mean P/E ratio of 35.859.

[Insert Table I here]

III. Results

A. Correlations

In Table II, I report the correlations between variables. The highest correlation is 0.83 between CCAR_withdraw and TCAR_withdraw, which suggests the target withdrawal returns account for a very large proportion of the combined returns. The correlation between Termination_A and Termination_T is -0.508. This is not surprising as one party initiates the termination means the other party does not initiate the termination, which could result in the negative correlation between Termination_A and Termination_T. Considering their high correlation, I will include one of them in each regression in order to avoid the potential multicollinearity problem. It should be noted that the correlation between CAR_withdraw and CAR_ann is also very large (corr=-0.407). I compute the mean CAR_withdraw and the mean CAR_ann by years. The correlation between the means of them is shown in Figure 2(a). It can be seen that over the sample period (1992-2014), the mean acquiring firm withdrawal CAR is negatively correlated with the mean acquiring firm announcement CAR in most time. This highly negative correlation is consistent with my first hypothesis (H1) and reflects the inverse market's reaction to the reversal of the original M&A decision. In addition, Figure 2(b) shows a negative correlation between the mean target withdrawal CAR and the mean target announcement CAR. Interestingly, the figures show that the acquiring firm withdrawal CAR line is above the announcement CAR line most time, while the target withdrawal CAR line is below the announcement CAR line. Table II also reports that CAR_withdraw is positively correlated with Termination_A (corr=0.245) and negatively correlated with Termination_T (corr= -0.183). The positive correlation with Termination_A is inconsistent with my second

hypothesis (H2), while the negative correlation with Termination_T is consistent with my third hypothesis (H3).

[Insert Table II here]

[Insert Figure 2 here]

B. Univariate Analysis

I begin my analysis with computing the withdrawal/announcement CARs and conducting the univariate tests on five deal or firm characteristics: CAR_ann, Termination_A, Termination_T, CEO stock ownership, and Rsize (relative size). Table III Panel A presents the mean withdrawal and announcement CARs for acquiring firms, target firms and combined firms, respectively. The average withdrawal CAR is significantly positive for acquiring firm (0.96%), while significantly negative for target firm (-7.18%). The combined CAR is significantly negative (-4.37%). A reversed pattern is reported on the average announcement CAR. That is, acquiring firm announcement CAR is significantly negative (-1.51%), while target frim announcement CAR is significantly positive (18.65%). The combined announcement CAR is significantly positive (16.45%). This result is consistent with previous evidence (e.g. Moller et al., 2005) that target shareholders gain while acquiring shareholders lose around M&A announcements. Table III Panel B shows the result of the univariate tests on five deal or firm characteristics. The differences and their significances are reported. The average withdrawal CAR of the deals with low announcement CARs is 1.96%, while that of the deals with high announcement CARs is -0.08%. The difference is 2.4% and significant at 5% level. This is consistent with my first hypothesis (H1) that the market's reaction tends to reverse in the event of the withdrawal of an M&A deal. Panel B also reports the average withdrawal CAR of the deals with a bidder termination fee is significantly higher than that of

the deals without a bidder termination fee. The difference is 7.5% and significant at 5% level. This result is contrary to my second hypothesis (H2), showing that the market appears to view the withdrawal of the deals with a bidder termination fee as good news. I also find that the average withdrawal CAR of the deals with a target termination fee is 2.5% lower than that of the deals without a target termination fee and the difference is significant at 10% level, which is consistent with my third hypothesis (H3). This result may suggests that acquiring firm shareholders view the withdrawal of the deals with a target termination fee as bad news as the target firm termination fee provision is likely to be associated with a high cost of the pre-merger integration, according to the efficiency hypothesis (Bates and Lemmon, 2003); such a high cost could result in the negative market reaction.

Furthermore, the result in Table III shows that the average withdrawal CAR of the deals announced by the firms with low CEO stock ownership is significantly higher than that of the deals announced by the firms with high CEO ownership. The agency theory might be helpful in explaining this result. We might expect a more serious problem in the firm in which the CEO has lower stock ownership, comparing with the firm in which the CEO has higher stock ownership, considering that the stocks are usually used to align the CEO's interests with shareholders' interests. Therefore, the deals conducted by the CEOs with low stock ownership are more likely to be driven by CEOs' self-interests rather than by the maximization of shareholders' value, comparing with the deals conducted by the CEOs with high stock ownership. For this reason, the withdrawal of the deals conducted by the CEOs with low stock ownership is more likely to be viewed as good news by the market and, consequently, reacts more positively. Finally, Table III shows that the average withdrawal CAR of the deals with relatively large targets is 1.8% higher than that of the deals with relatively small targets and the difference is significant at 10%. This result is consistent with some previous studies (e.g. Kohers and Kohers, 2000) which show that the market reacts more positively to the

announcement of the deals with small targets than the deals with large targets. For this reason, the withdrawal of the deals featured with large targets is viewed as more positive news than the withdrawal of the deals featured with small targets; consequently, the market reacts more positively.

[Insert Table III here]

C. Main Regression Analysis (Acquiring Firm Returns)

To examine the relation (if any) between acquiring firm withdrawal CAR and certain deal characteristics, I conduct a series of regressions using Equations (1) as the baseline model. Model (1) and (2) regress on deal characteristics; Model (3) – (7) include announcement CAR as an independent variable in addition to deal characteristics. The results are presented in Table IV.

[Insert Table IV here]

I test hypotheses H2 and H3 in Model (1) and (2). The result of Model (1) shows that Termination_A is positively associated with CAR_withdraw; the coefficient is 0.079 and significant at 1%. This result is contrary to the prediction H2 that suggests a negative relation between the acquiring firm termination provision and the acquiring firm withdrawal abnormal return. This evidence does not support Bates and Lemmon (2003)'s insurance hypothesis that suggests acquiring firm termination fee provision is associated with low deal premium and the market views the withdrawal of such a deal as bad news and react negatively. A possible explanation for the reported positive relation between the two variables might be that acquiring shareholders are more likely to believe that the withdrawal decision made by managers is the right one, considering the cost of making a wrong decision is high when there is an acquiring

firm termination fee provision. In this sense, acquiring firm termination fee clause actually acts as a mechanism to force acquiring firm managers to analyze carefully in order to make the right decision about withdrawals, given the fact that a termination fee has to be paid to the target if they decide to withdrawal.

The result of Model (2) shows the coefficient on Termination_T is -0.045 and significant at 5%, providing strong evidence that supports H3. The market's reaction to the withdrawal announcement of the deals without target termination fee provisions is more positive than that of the deals with such provisions. The finding supports the efficiency hypothesis (Berkovitch et al., 1989; Bates and Lemmon, 2003) and may suggest that the high pre-merger integration cost which is more likely to incur when there is a target termination fee clause could result in the negative market reaction to the withdrawal of the deal. My finding also supports the theory of managerial discretion (Bates and Lemmon, 2003) that predicts a relatively low takeover premium in associated with the target termination fee clause. Acquiring firm shareholders tend to view such a deal as a bargain due to the low premium; consequently, the withdrawal of the deal could be viewed as a bad news due to the forgone "good" deal.

In Models (3) – (7), I consider the potential impact of the deal announcement return on the deal withdrawal return, by including CAR_ann in regressions. Model (3) shows that CAR_ann is negatively correlated with CAR_withdraw; the coefficient is -0.249 and significant at 1%. I then include all deal characteristic variables in Model (4) and Model (5). The results show that the magnitude of the negative association is even larger after controlling for other factors; and the coefficients on CAR_ann are still significant at 1%. This finding provides evidence consistent with H1, suggesting that the market reacts inversely to the reversal of the original M&A decision. The announcement CAR seems to be an important determinant of the withdraw CAR. The withdrawal of the deal favored by shareholders originally (during deal announcement) could lead to significantly negative market's reaction, while that of the deals

unfavored by shareholders could lead to significantly positive market's reaction. Notably, the R-squareds are 24.5% and 23.2% in Model (4) and (5), much higher than those in Model (1) and (2), which indicate that CAR_ann explains a significant proportion of variances in CAR_withdraw. In addition, the results show that the coefficients on Termination_A and Termination_T remain positive and highly significant, even after adding CAR_ann in the regressions. This evidence further confirms the explanatory power of termination fee provisions in explaining the variance in withdrawal CARs.

Finally, I add the interaction of CAR_ann and Payment and the interaction of CAR_ann and Relatedness in Model (6) and (7), considering some previous studies find a significant association between announcement CARs and these two deal characteristics. The results show that the association between CAR_ann and CAR_withdraw is more negative when the payment method of the deal is cash. The interaction of CAR_ann and Payment is significant in both models. This finding is consistent with the evidence reported in previous studies that market favors cash deals and react positively to the announcement of such deals; consequently, the withdrawal of such deals is viewed as bad news and we could expect a larger magnitude of the reversal in the market's reaction to the withdrawal.

Overall, in my univariate and multivariate analyses, I find strong evidence that the acquiring firm CARs around deal withdrawals are negatively correlated with the CARs around deal announcements. The association is highly significant (at 1%) in all specifications. I also report that the acquiring firm termination fee provision is positively associated with the acquiring firm withdrawal CAR, while the target termination fee provision is negatively associated with the acquiring firm withdrawal CAR. Finally, I find the association between announcement CARs and withdrawal CARs is more negative for cash deals.

D. Additional Analysis (Target Firm Returns and Combined returns)

Besides the main hypothesis testing on acquiring firm returns, I conduct additional analyses to examine the relation (if any) between target firm withdrawal CAR and certain deal characteristics, by running the parallel regressions to those applied on acquiring firm returns. The results are presented in Table V.

[Insert Table V here]

In contrast to the results on acquiring firm returns, the association between Termination_A and CAR_withdraw is significantly negative (-0.082, sig at 10% level), while the association between Termination_T and CAR_withdraw is insignificantly positive (0.026) in Model (1) and (2). The impact of the withdrawal of the deals on target stock is more negative in the deals with acquiring firm termination fees, which may suggest that, in the eyes of target shareholders, the forgone benefits of the merger overweight the compensation (i.e. termination fee) paid by the acquiring firm. In addition, Model (3) shows a significant negative coefficient on TCAR_ann, which suggests that the market reacts inversely to the reversal of the original deal announcement. It should be noted that the coefficients of Termination_A and TCAR_ann become insignificant in Model (4)-(7). Table V also shows that Attitude, Premium, P/E, and Multiple-bidders have significantly impact on target withdrawal CARs.

I also conduct parallel regressions to examine the relation (if any) between combined withdrawal CAR and certain deal characteristics. The results are presented in Table VI.

[Insert Table VI here]

Most results are similar to regression results of the acquiring firm CAR, although the sign

and the significance level differ for some variables. It seems the effect deal withdrawal of the acquiring frim accounts for a large proportion of the combined effect of deal withdrawal. In addition, the association between Multi-bidders and the combined withdrawal CAR is significantly positive across all specifications.

IV. Conclusion

In this paper, I analyze the impact of the announcement of the withdrawal of a merger or acquisition on acquiring firms shareholders' wealth and examine the relation between certain deal characteristics and the acquiring firm cumulative abnormal returns around the withdrawal date. I report that there is a significant negative correlation between the withdrawal abnormal return and the announcement abnormal return. This finding suggests that the market views the withdrawal as good (bad) news if it views the original deal announcement as bad (good) news. My results also show that the acquiring firm termination fee provision has a significant positive impact on the acquiring firm withdrawal abnormal return. Acquiring firm shareholders seem to view the acquiring termination fee as a mechanism that ensures managers make the right withdrawal decision. I also report that the target firm termination fee provision has a significant negative impact on the acquiring firm withdrawal abnormal return, which provides supporting evidence to the efficiency hypothesis (Berkovitch et al., 1989; Bates and Lemmon, 2003) and the theory of managerial discretion (Bates and Lemmon, 2003).

A key potential contribution of my study is that it complements the existing literature on M&A announcement abnormal returns by providing evidence on the wealth effect around the withdrawal of a deal and examining directly the factors associated with such wealth effect. My results also have implications for contracting practices in M&A. Acquiring firm termination

fee provisions in a merger agreement play important roles in protecting acquiring shareholders' wealth when a deal is withdrawn.

Despite these findings there is still room for further research in this area. Specifically, this study only considers whether or not there is a termination clause in the merger agreement but does not identify the reasons for the withdrawals, due to data availability. Obtaining a better understanding of the market's reaction to the deal withdrawals with different reasons remains an interesting topic for future research.

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Table I. Summary statistics

This table presents the summary statistics of the key variables we consider in this study. CAR_withdraw is the 3-day event window (-1, 1) CAR around the withdrawal date for the acquiring firm. CAR_ann is the 3-day event window (-1, 1) CAR around the deal announcement date for the acquiring firm. TCAR_withdraw, is the 3-day event window (-1, 1) CAR around the withdrawal date for the target firm. TCAR_ann is the 3-day event window (-1, 1) CAR around the deal announcement date for the target firm. CCAR_withdraw, is the 3-day event window (-1, 1) CAR around the withdrawal date for the combined firm (i.e. the acquiring firm and the target firm). CCAR_ann is the 3-day event window (-1, 1) CAR around the deal announcement date for the combined firm. Termination_A is a binary variable where 1 signifies there is a bidder termination fee provision in the agreement. Termination_T is a binary variable where 1 signifies there is a target termination fee provision in the agreement. Rsize is the relative size of the target firm and is calculated as the ratio of the target's total assets to acquirer's total assets. Attitude is a binary variable, where 1 signifies that the deal attitude is classified as "hostile", and 0 signifies "friendly" or "neutral". Payment is a binary variable, where 1 signifies that the method of deal payment is cash, otherwise 0. Relatedness is a binary variable, where 1 signifies that the first two digits of the SIC code of the acquirer and target are the same. Premium is the ratio of the offer price per target share divided by the target share price four weeks prior to the M&A announcement. P/E is the target's P/E ratio four weeks prior to the deal announcement, which is used to proxy for the expected growth by investors. Multi-bidders is a binary variable, where 1 signifies the number of bidders recorded in SDC is greater than 1; otherwise 0.

	Obs.	Mean	Median	Std. Dev.	Min	Max
CAR_withdraw	202	0.010	0.007	0.081	-0.443	0.456
CAR_ann	260	-0.015	-0.010	0.082	-0.732	0.292
TCAR_withdraw	237	-0.072	-0.032	0.166	-1.228	0.436
TCAR_ann	243	0.187	0.150	0.192	-0.198	0.938
CCAR_withdraw	179	-0.044	-0.020	0.146	-0.779	0.338
CCAR_ann	223	0.164	0.133	0.205	-0.760	0.829
Termination_A	281	0.078	0	0.269	0	1
Termination_T	281	0.790	1	0.408	0	1
Rsize	280	0.587	0.337	0.759	0.001	4.542
Attitude	291	0.165	0	0.372	0	1
Payment	291	0.340	0	0.475	0	1
Relatedness	291	0.667	1	0.472	0	1
Premium	246	35.486	30.065	29.793	-31.95	179.79
P/E	189	35.859	17.632	64.217	0.428	513.667
Multi-bidders	291	0.323	0	0.468	0	1

Table II. Correlations

This table presents the correlation matrix of the variables I consider in this study. CAR_withdraw is the 3-day event window (-1, 1) CAR around the withdrawal date for the acquiring firm. CAR_ann is the 3-day event window (-1, 1) CAR around the deal announcement date for the acquiring firm. TCAR_withdraw, is the 3-day event window (-1, 1) CAR around the withdrawal date for the target firm. TCAR_ann is the 3-day event window (-1, 1) CAR around the deal announcement date for the target firm. CCAR_withdraw, is the 3-day event window (-1, 1) CAR around the withdrawal date for the combined firm (i.e. the acquiring firm and the target firm). CCAR_ann is the 3-day event window (-1, 1) CAR around the deal announcement date for the combined firm. Termination_A is a binary variable where 1 signifies there is a bidder termination fee provision in the agreement. Termination_T is a binary variable where 1 signifies there is a target termination fee provision in the agreement. Rsize is the relative size of the target firm and is calculated as the ratio of the target's total assets to acquirer's total assets. Attitude is a binary variable, where 1 signifies that the deal attitude is classified as "hostile", and 0 signifies "friendly" or "neutral". Payment is a binary variable, where 1 signifies that the method of deal payment is cash, otherwise 0. Relatedness is a binary variable, where 1 signifies that the first two digits of the SIC code of the acquirer and target are the same. Premium is the ratio of the offer price per target share divided by the target share price four weeks prior to the M&A announcement. P/E is the target's P/E ratio four weeks prior to the deal announcement, which is used to proxy for the expected growth by investors. Multi-bidders is a binary variable, where 1 signifies the number of bidders recorded in SDC is greater than 1; otherwise 0.

	CAR_ withdraw	CAR_ ann	TCAR_ withdraw	TCAR _ann	CCAR_ withdraw	CCAR_ ann	Term_ A	Term_ T	Rsize	Attitude	Payment	Related	Premium	P/E	Multi-bidders
CAR_withdraw	1														
CAR_ann	-0.407	1													
TCAR_withdraw	-0.002	0.061	1												
TCAR_ann	0.0267	0.018	-0.243	1											
CCAR_withdraw	0.557	-0.176	0.830	-0.187	1										
CCAR_ann	-0.176	0.506	-0.180	0.872	-0.248	1									
Termination_A	0.245	-0.145	0.029	0.0087	0.161	-0.064	1								
Termination_T	-0.183	0.110	0.032	-0.009	-0.076	0.046	-0.508	1							
Rsize	0.029	-0.076	0.085	-0.140	0.087	-0.158	0.100	0.072	1						
Attitude	-0.023	0.032	0.164	0.127	0.124	0.125	-0.069	0.148	0.111	1					
Payment	0.016	0.179	-0.008	0.140	0.002	0.209	-0.080	0.229	-0.127	0.131	1				
Relatedness	0.057	0.088	0.091	-0.159	0.107	-0.094	0.055	0.002	0.020	0.112	-0.008	1			
Premium	0.139	-0.103	-0.205	0.560	-0.093	0.433	-0.055	0.070	-0.141	0.177	0.009	-0.073	1		
P/E	0.058	0.062	-0.062	-0.005	-0.019	0.026	-0.037	0.031	-0.040	-0.033	-0.019	-0.016	-0.095	1	
Multi-bidders	-0.003	0.003	0.325	-0.249	0.268	-0.213	-0.120	0.130	0.162	0.153	-0.003	0.166	0.020	-0.050	1

Table III. Withdrawal/Announcement CARs and Deal / Firm characteristics

Panel A presents the mean withdrawal and announcement CARs for acquiring firms, target firms and combined firms, respectively. Panel B presents the result of my univariate analysis on five deal or firm characteristics of acquiring firms as follows: CAR_ann, Termination_A, Termination_T, CEO stock ownership, and Rsize (relative size). The average CAR_withdraw for each sub-sample of deals, the differences between each pair of sub-samples, and the t statistics of the two sample t-Test are reported. Specifically, CAR_withdraw, is the 3-day event window (-1, 1) CAR around the withdrawal date for acquiring firms. CAR_ann is the 3-day event window (-1, 1) CAR around the deal announcement date for acquiring firms. The deals are classified as deals with/without Acq. Termination Fee if there is/is no acquiring firm termination fee provision in the merger agreement. The deals are classified as deals_low CEO stock ownership/deals_high CEO stock ownership if the percentage of the stock ownership of the acquiring firm's CEO is below/above the median of the percentage of the stock ownership in the sample. The deals are classified as deals with small/large targets if the relative size of the targets is below/above the median of the relative sizes in the sample.

Panel A. Withdrawal CARs and Announcement CARs

	Acquiring Firm	Target Firm	Combined Firm
Average [-1, +1] Withdrawal CAR (%)	0.96***	-7.18***	-4.37***
Average [-1, +1] Announcement CAR (%)	-1.51***	18.65***	16.45***

Panel B. Withdrawal CARs and Deal / Firm Characteristics

	Average [-1, +1] CAR_withdraw	Difference	t-statistics for difference
Deals with low CAR_ann	0.0196		
Deals with high CAR_ann	-0.0008	.0204**	1.8089
Deals without Acq. Termination Fee	0.0032		
Deals with Acq. Termination Fee	0.0782	-0.0750**	-2.3151
Deals without Tar. Termination Fee	0.0288		
Deals with Tar. Termination Fee	0.0038	0.0250*	1.3635
Deals_low CEO stock ownership	0.0213		
Deals_high CEO stock ownership	0.0060	0.0153*	1.3431
Deals with small targets	0.0002		
Deals with large targets	0.0184	-.01823*	-1.6011

The symbols ***, **, *indicate the significance at the 1%, 5%, and 10% levels, respectively.

Table IV. OLS Regression Analysis on Acquiring Firm Withdrawal CARs

To test my hypotheses and examine the relation (if any) between acquiring firm withdrawal CAR and certain deal characteristics, I conduct the following OLS regression analysis. All incomplete mergers and acquisitions that are labelled as "Withdrawn" and announced by US firms between January 1, 1992 and March 31, 2015 are extracted from the SDC database; I then extract stock return data from the CRSP database for event study purposes, various financial (accounting) items from COMPUSTAT database, and executive compensation items (e.g. stock ownership of CEOs) from Execucomp database. The filtering and data matching processes yield a total of 201 deals in my final sample. The dependent variable, CAR_withdraw, is the 3-day event window (-1, 1) CAR around the withdrawal date. CAR_ann is the 3-day event window (-1, 1) CAR around the deal announcement date. Termination_A is a binary variable where 1 signifies there is a bidder termination fee provision in the agreement and the deal was terminated by the bidder. Termination_T is a binary variable where 1 signifies there is a target termination fee provision in the agreement and the deal was terminated by the target. Rsize is the relative size of the target firm and is calculated as the ratio of the target's total assets to acquirer's total assets. Attitude is a binary variable, where 1 signifies that the deal attitude is classified as "hostile", and 0 signifies "friendly" or "neutral". Payment is a binary variable, where 1 signifies that the method of deal payment is cash, otherwise 0. Relatedness is a binary variable, where 1 signifies that the first two digits of the SIC code of the acquirer and target are the same. Premium is the ratio of the offer price per target share divided by the target share price four weeks prior to the M&A announcement. P/E is the target's P/E ratio four weeks prior to the deal announcement, which is used to proxy for the expected growth by investors. Multi-bidders is a binary variable, where 1 signifies the number of bidders recorded in SDC is greater than 1; otherwise 0.

Dependent Var. CAR_withdraw	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
CAR_ann			-0.249***	-0.340***	-0.352***	-0.222**	-0.231***
			(-3.925)	(-4.823)	(-4.969)	(-2.536)	(-2.623)
Termination_A	0.079***			0.061**		0.053**	
	(3.222)			(2.581)		(2.260)	
Termination_T		-0.045**			-0.035**		-0.030*
		(-2.491)			(-2.116)		(-1.835)
Rsize	-0.017*	-0.011		-0.016*	-0.012	-0.013	-0.009
	(-1.676)	(-1.078)		(-1.693)	(-1.217)	(-1.406)	(-0.977)
Attitude	-0.001	-0.001		0.000	0.001	0.000	0.001
	(-0.066)	(-0.029)		(0.008)	(0.055)	(0.002)	(0.049)
Payment	0.008	0.014		0.018	0.023	0.014	0.018
	(0.492)	(0.813)		(1.189)	(1.486)	(0.943)	(1.198)

(Continued)

Table IV. OLS Regression Analysis on Acquiring Firm Withdrawal CARs
(Continued)

Relatedness	0.004	0.007		0.008	0.010	-0.002	-0.000
	(0.282)	(0.487)		(0.572)	(0.724)	(-0.129)	(-0.018)
Premium	0.000	0.000		0.000	0.000	0.000	0.000
	(1.323)	(1.309)		(1.078)	(1.074)	(1.255)	(1.242)
P/E	0.000	0.000		0.000	0.000	0.000	0.000
	(0.958)	(0.903)		(1.280)	(1.258)	(1.299)	(1.268)
Multi-bidders	0.004	0.001		0.007	0.004	0.002	0.000
	(0.280)	(0.038)		(0.466)	(0.307)	(0.159)	(0.012)
CAR_ann*Payment						-0.413*	-0.445**
						(-1.846)	(-1.990)
CAR_ann*Relatedness						-0.200	-0.191
						(-1.345)	(-1.275)
Constant	-0.004	0.032	0.004	-0.015	0.012	-0.009	0.016
	(-0.213)	(1.499)	(0.728)	(-0.911)	(0.611)	(-0.505)	(0.787)
Observations	132	132	201	131	131	131	131
R-squared	0.107	0.078	0.072	0.245	0.232	0.283	0.273

The symbols ***, **, *indicate that the coefficient is statistically significance at the 1%, 5%, and 10% levels, respectively.

Table V. OLS Regression Analysis on Target Firm Withdrawal CARs

To examine the relation (if any) between the target firm withdrawal CAR and certain deal characteristics, I conduct the following OLS regression analysis. All incomplete mergers and acquisitions that are labelled as "Withdrawn" and announced by US firms between January 1, 1992 and March 31, 2015 are extracted from the SDC database; I then extract stock return data from the CRSP database for event study purposes, various financial (accounting) items from COMPUSTAT database, and executive compensation items (e.g. stock ownership of CEOs) from Execucomp database. The filtering and data matching processes yield a total of 201 deals in my final sample. The dependent variable, TCAR_withdraw, is the 3-day event window (-1, 1) CAR around the withdrawal date for the target firm. TCAR_ann is the 3-day event window (-1, 1) CAR around the deal announcement date for the target firm. Termination_A is a binary variable where 1 signifies there is a bidder termination fee provision in the agreement and the deal was terminated by the bidder. Termination_T is a binary variable where 1 signifies there is a target termination fee provision in the agreement and the deal was terminated by the target. Rsize is the relative size of the target firm and is calculated as the ratio of the target's total assets to acquirer's total assets. Attitude is a binary variable, where 1 signifies that the deal attitude is classified as "hostile", and 0 signifies "friendly" or "neutral". Payment is a binary variable, where 1 signifies that the method of deal payment is cash, otherwise 0. Relatedness is a binary variable, where 1 signifies that the first two digits of the SIC code of the acquirer and target are the same. Premium is the ratio of the offer price per target share divided by the target share price four weeks prior to the M&A announcement. P/E is the target's P/E ratio four weeks prior to the deal announcement, which is used to proxy for the expected growth by investors. Multi-bidders is a binary variable, where 1 signifies the number of bidders recorded in SDC is greater than 1; otherwise 0.

Dependent Var. TCAR_withdraw	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
TCAR_ann			-0.182***	-0.033	-0.028	-0.066	-0.066
			(-3.223)	(-0.338)	(-0.284)	(-0.789)	(-0.794)
Termination_A	-0.082*			-0.072		0.021	
	(-1.873)			(-1.568)		(0.531)	
Termination_T		0.026			0.023		-0.009
		(0.829)			(0.698)		(-0.309)
Rsize	-0.024	-0.032		-0.028	-0.034	0.008	0.009
	(-1.145)	(-1.521)		(-1.255)	(-1.558)	(0.403)	(0.492)
Attitude	0.069**	0.071**		0.067*	0.069*	0.069**	0.069**
	(2.072)	(2.098)		(1.885)	(1.913)	(2.354)	(2.338)
Payment	-0.0247	-0.027		-0.024	-0.027	-0.030	-0.029
	(-0.907)	(-0.956)		(-0.838)	(-0.918)	(-1.272)	(-1.183)

(Continued)

Table V. Table V. OLS Regression Analysis on Target Firm Withdrawal CARs
(Continued)

Relatedness	0.043	0.039		0.045	0.042	0.015	0.016
	(1.626)	(1.468)		(1.636)	(1.515)	(0.613)	(0.655)
Premium	-0.002***	-0.001***		-0.001**	-0.001**	-0.001**	-0.001**
	(-2.997)	(-2.934)		(-2.144)	(-2.138)	(-2.069)	(-2.055)
P/E	-0.001***	-0.001***		-0.002***	-0.001***	-0.000	-0.000
	(-2.837)	(-2.876)		(-2.751)	(-2.795)	(-0.466)	(-0.476)
Multi-bidders	0.097***	0.103***		0.096***	0.101***	0.083***	0.082***
	(3.497)	(3.692)		(3.195)	(3.350)	(3.342)	(3.312)
CAR_ann*Payment						-0.314	-0.326
						(-0.855)	(-0.890)
CAR_ann*Relatedness						0.382*	0.383*
						(1.681)	(1.682)
Constant	-0.051	-0.073*	-0.038**	-0.050	-0.070*	-0.059*	-0.051
	(-1.511)	(-1.848)	(-2.470)	(-1.385)	(-1.663)	(-1.898)	(-1.468)
Observations	158	158	230	151	151	138	138
R-squared	0.241	0.227	0.044	0.240	0.229	0.228	0.227

The symbols ***, **, *indicate that the coefficient is statistically significance at the 1%, 5%, and 10% levels, respectively.

Table VI. Table V. OLS Regression Analysis on Combined Withdrawal CARs

To examine the relation (if any) between the combined withdrawal CAR and certain deal characteristics, I conduct the following OLS regression analysis. All incomplete mergers and acquisitions that are labelled as "Withdrawn" and announced by US firms between January 1, 1992 and March 31, 2015 are extracted from the SDC database; I then extract stock return data from the CRSP database for event study purposes, various financial (accounting) items from COMPUSTAT database, and executive compensation items (e.g. stock ownership of CEOs) from Execucomp database. The filtering and data matching processes yield a total of 201 deals in my final sample. The dependent variable, CCAR_withdraw, is the 3-day event window (-1, 1) CAR around the withdrawal date for the combined firm (i.e. the acquiring firm and the target firm). CCAR_ann is the 3-day event window (-1, 1) CAR around the deal announcement date for the combined firm. Termination_A is a binary variable where 1 signifies there is a bidder termination fee provision in the agreement and the deal was terminated by the bidder. Termination_T is a binary variable where 1 signifies there is a target termination fee provision in the agreement and the deal was terminated by the target. Rsize is the relative size of the target firm and is calculated as the ratio of the target's total assets to acquirer's total assets. Attitude is a binary variable, where 1 signifies that the deal attitude is classified as "hostile", and 0 signifies "friendly" or "neutral". Payment is a binary variable, where 1 signifies that the method of deal payment is cash, otherwise 0. Relatedness is a binary variable, where 1 signifies that the first two digits of the SIC code of the acquirer and target are the same. Premium is the ratio of the offer price per target share divided by the target share price four weeks prior to the M&A announcement. P/E is the target's P/E ratio four weeks prior to the deal announcement, which is used to proxy for the expected growth by investors. Multi-bidders is a binary variable, where 1 signifies the number of bidders recorded in SDC is greater than 1; otherwise 0.

Dependent Var. CCAR_withdraw	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
CCAR_ann			-0.191***	-0.152*	-0.160**	-0.141*	-0.146*
			(-3.592)	(-1.970)	(-2.058)	(-1.748)	(-1.790)
Termination_A	0.085*			0.094**		0.083*	
	(1.934)			(2.086)		(1.808)	
Termination_T		-0.039			-0.044		-0.0388
		(-1.243)			(-1.377)		(-1.208)
Rsize	-0.002	0.005		-0.003	0.005	0.004	0.012
	(-0.106)	(0.235)		(-0.133)	(0.215)	(0.208)	(0.537)
Attitude	0.043	0.042		0.048	0.048	0.049	0.049
	(1.209)	(1.181)		(1.345)	(1.334)	(1.384)	(1.378)
Payment	0.003	0.008		0.014	0.020	0.012	0.018
	(0.092)	(0.255)		(0.474)	(0.673)	(0.431)	(0.602)

(Continued)

Table VI. Table V. OLS Regression Analysis on Combined Withdrawal CARs
(Continued)

Relatedness	0.008	0.012		0.008	0.011	0.002	0.004
	(0.279)	(0.425)		(0.286)	(0.418)	(0.073)	(0.156)
Premium	-0.001	-0.001		-0.000	-0.000	-0.000	-0.000
	(-1.165)	(-1.118)		(-0.201)	(-0.111)	(-0.314)	(-0.253)
P/E	-0.000	-0.000		0.000	0.000	-0.000	-0.000
	(-0.020)	(-0.046)		(0.0815)	(0.0721)	(-0.062)	(-0.079)
Multi-bidders	0.083***	0.079***		0.069**	0.064**	0.0669**	0.063**
	(3.012)	(2.844)		(2.412)	(2.235)	(2.364)	(2.211)
CAR_ann*Payment						-0.710	-0.784*
						(-1.659)	(-1.833)
CAR_ann*Relatedness						0.174	0.179
						(0.677)	(0.687)
Constant	-0.068*	-0.037	-0.014	-0.060*	-0.025	-0.055	-0.024
	(-1.963)	(-0.929)	(-1.037)	(-1.738)	(-0.643)	(-1.588)	(-0.606)
Observations	123	123	177	121	121	121	121
R-squared	0.125	0.108	0.069	0.160	0.142	0.181	0.167

The symbols ***, **, *indicate that the coefficient is statistically significance at the 1%, 5%, and 10% levels, respectively.

Figure 1. Estimation windows for deal announcement CARs and for deal withdrawal CARs

This figure illustrates the way I define the estimation window for announcement CARs and for withdrawal CARs. In the computation of deal announcement CARs, I use (-30, -280) as the estimation window, where day 0 is the deal announcement day. In the calculation of deal withdrawal CARs, I use (-115, -365) as the estimation window, where day 0 is the deal withdrawal day. I choose -115 trading days as my period start date as the average days between the deal withdrawal date and the deal announcement date are 85 days in my sample. To avoid the potential confounding effect, I choose 85 trading days before the start date/ end date of the estimation window used in the computation of deal announcement CARs as the start date/end date of the estimation window in computing deal withdrawal CARs.

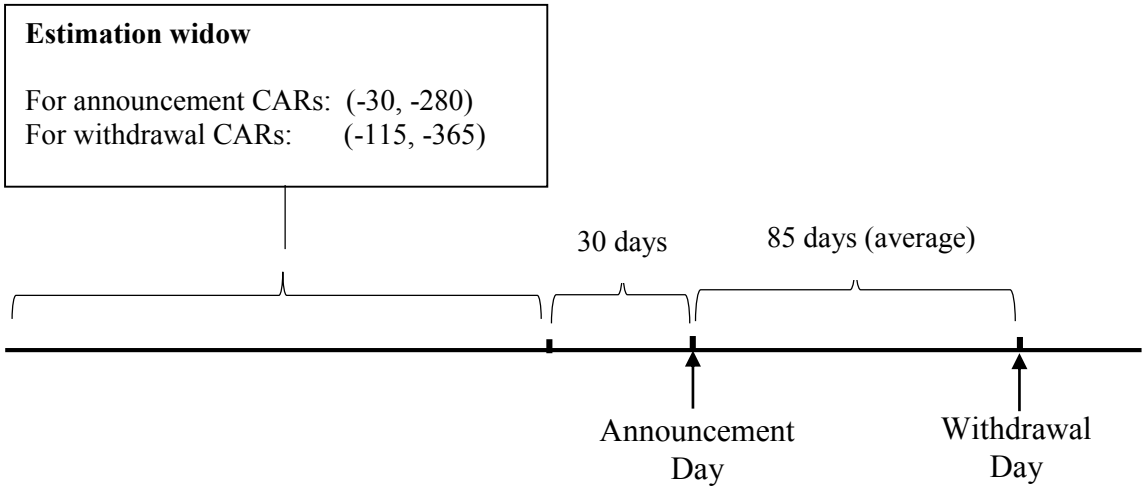
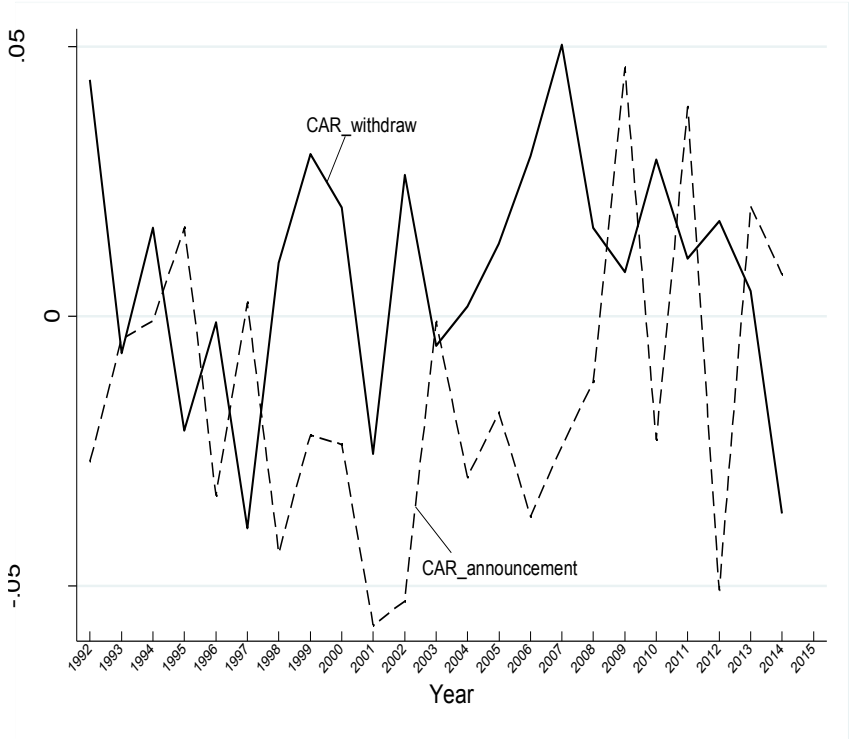


Figure 2. Correlation between deal withdrawal CARs and deal announcement CARs

Figure (a) presents the mean withdrawal CARs (the solid line) and the mean announcement CARs (the dotted line) for acquiring firms by years during the sample period (1992-2014). Figure (b) presents the mean withdrawal CARs (the solid line) and the mean announcement CARs (the dotted line) for target firms by years during the sample period (1992-2014). Both figures show a negative correlation between the mean withdrawal CARs and the mean announcement CARs in most time.

(a) Mean Withdrawal/Announcement CARs for Acquiring Firms



(b) Mean Withdrawal/Announcement CARs for Target Firms