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Merger Announcement Returns with Preparations

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Abstract

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This paper analyzes the relationship between the merger announcement returns and the bidding firms' preparations for mergers. In this study, merger preparations are defined as bidding firms' adaptive actions of changing their executives prior to mergers. An analysis of the relative effectiveness of merger preparations is conducted through event study for univariate tests. In addition, a regression for multivariate tests analyzes incentives for making merger preparations. The results of these studies indicate that (1) hiring of new executives from outside the target proves to be the most effective merger preparation, (2) firms who make merger preparations have higher returns, and (3) hiring of new executives from the targets proves to have negative effects on bidding firms' returns, though this can vary based on the relative size of the target.

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1. Introduction

Numerous recent studies show that bidders have slightly negative, but insignificant merger announcement returns (Fuller, Netter, and Stegemoller, 2002; Andrade, Mitchell, and Stafford, 2001) and this feature is explained by firm-specific characteristics[1] (Fuller, Netter, and Stegemoller, 2002), the choice of data base (Villalonga, 2004; Nanada, 2003; Lang and Stulz, 1994), and economic or managerial environments (Akbulut and Matsusaka, 2010; Andrade, Mitchell, and Stafford, 2001; Mitchell and Mulherin, 1996). All of the analyses have something in common. They focus on the factors that are exogenously given to bidding firms and implicitly view those firms as static and passive economic agent since any efforts or changes by the bidding firms are not reflected in their analyses. The preparations made by the firms which are planning to conduct a merger have been overlooked.

On the contrary, I explicitly treat these firms as dynamic and active market participants that continue to develop their source of value and actively prepare for new economic environments, especially when uncertainties are involved. Including such preparations in the process of merger distinguishes this research from the previous studies.[2] To attain positive merger announcement returns, bidding firms need to consider how to maximize the synergy from the merger and how to appeal to the market regarding the merger at the same time. Taking these aspects into account, it is reasonable to postulate

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[1] Fuller, Netter and Stegemoller (2002) analyze bidder's return depending on the types of target, the types of payment, and the relative size of target. Targets are grouped by public, private, and subsidiary and the types of payment are categorized by cash, stock, and cash-stock combo.

[2] Although Higgins and Rodriguez (2006) consider a firm's efforts in the process of acquisition, they limit such efforts to the pre-acquisition activities which are meant for the revelation of target's true value.

that bidding firms will make preparations to meet the purpose of the merger, to augment the source of their value, and to send signals to the market that they are ready to solve asymmetric information or uncertainty problems possibly occurring from the merger.

In this research, I call such preparations "merger preparations" and define them as bidding firms' adaptive actions of changing executives[3] prior to mergers. Regression analysis reports that the mergers with merger preparations result in higher returns than the mergers without merger preparation. This result suggests that firms have incentives to conduct merger preparation prior to a merger. In addition, hiring new executives from outside other than the target proves to be the most effective merger preparation by event study. The earlier literature has interpreted the concept of merger preparations as the adjustment of organizational capabilities (Chandler, 1990), as the acquisition of general or firm-specific managerial capitals (Murphy and Zabojnik, 2007), and as organizational changes inside of a firm (Friedman and Singh, 1989).

Change of Top Executives and Its Effects

Previous studies report that turnover of CEOs and CFOs has significant impacts on firms in many respects. Firstly, the turnover of executives can change corporate financial policies. Chava and Purnanandam (2010) find that the risk preferences of the CEOs and CFOs are significantly related to the corporate financial policies and their turnovers affect financial variables of leverage, cash holdings, debt maturity and accrual management. Secondly, the types of turnovers provide workers with different incentives to work. While filling executive positions with insiders provides workers with incentives to put more

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[3] I consider the mangers listed in the proxy statements of the Form-10K and Form DEF-14A as executives.

efforts into their work, allowing outsiders to fill the positions reduces such incentives for insiders (Agrawal, Knoeber, and Tsoulouhas, 2006; Chan, 1996). Thirdly, the origins of new executives have different implications for the firms' policies. The executives from outside are more likely to change the corporate strategy and mission, while new executives from inside are more likely to maintain stability and continuity of the firm (Friedman and Singh, 1989). Considering these impacts of executives' turnovers, it is reasonable to assume that bidding firms select appropriate merger preparations that will equip themselves with the necessary organizational capabilities or managerial capitals. In addition, it is also natural to presume that active bidding firms appeal to the market by disclosing their choice of merger preparations.

The main focus of this research is to examine the effect of changing executives before mergers on bidding firms' announcement returns. More precisely, this study is aimed at investigating how the bidding firms' merger announcement returns vary with the types of executives changes. The two case studies below serve as exemplifications of bidding firm's merger preparations and their effects.

Case 1

Dick's Sporting Goods Inc. announced a merger with Golf Galaxy Inc on November 13, 2006. The purpose of this merger was to enter into the golf wear market and to boost profit margins by coordinating merchandise buying. Dick's hired Gwendolyn K. Manto as a Chief Merchandising Officer from Sears Holdings Co in January 2006 prior to this merger. Although Ms. Manto did not have prior experience in the golf wear industry, she served as the General Merchandise Manager for Sears and as Chief Merchandising Officer

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for Stein Mart. The acquisition of an executive with the skill set necessary for a successful merger with Golf Galaxy Inc. sent a strong signal to the market that Dick's Sporting Goods Inc. was ready well poised for the merger. This merger produced significant positive merger announcement returns.

Case 2

As President and CEO of Designs Inc. which operates retail clothing stores of Levi's and Dockers, David A. Levin decided to implement a cost effectiveness initiative. To achieve this goal, Mr. Levin planned merger with Casual Male Corp. with the intention of creating an efficient cost structure by combining Casual's leading market position and Design's operating capabilities. As a requirement for successful merger and efficient cost structure, Designs Inc. had to reinforce management of internal operations. In October 2001, Designs Inc hired Ronald N. Batts as a Senior Vice President of Operations. Mr. Batts built up his management career in the clothing industry serving as Chief Operating Officers for various corporations. The market interpreted his acceptance of Senior Vice President position with Designs Inc. as appropriate merger preparation. When this merger was announced on May 2, 2002, Designs Inc produced significant positive merger announcement returns.

For the purpose of this paper, I group merger preparations into four types based on the origins of the executives: 1) movements or job title changes of existing executives inside of bidding firms (merger preparation with insiders or MPI), 2) hiring of new executives from outside other than the targets (merger preparation outsiders or MPO), 3)

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hiring of new executives directly from the targets (merger preparation with the executives of the target or MPT), and 4) no movements or changes of the executives in bidding firms (no merger preparation or NOMP). The type of merger preparations that bidding firms select will differ from firm to firm since each bidding firm has a different purpose of merger. Besides, some bidding firms possibly will merge with targets without merger preparation depending on the expected relative size of benefits and costs from the merger preparation.

Under the assumption that an appropriate merger preparation is more likely to augment the integrated firm's source of value as well as to appeal to the market regarding the benefits from the merger, I set up two main hypotheses.[4] First, the mergers which begin with an appropriate merger preparation result in positive bidders' returns during the merger announcement period. Second, the firms that make merger preparations have higher returns during the merger announcement period than the firms that do not make any preparations. I employ event study for the test of the first hypothesis and multivariate regression analysis for the test of the second.

Findings and Implications

From the event study analysis on the mergers between public firms, I find the relative effectiveness of different types of merger preparations. The mergers with MPI produce insignificant negative cumulative abnormal return (henceforth CAR). This finding indicates how the market interprets the succession of executives by insiders at the time of a merger. Previous studies report that the succession by insiders provides other

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[4] Hypotheses are presented in detail in the section 4.1 Event Study

insiders with better incentives to work hard. On the other hand, such succession makes it more likely that less able candidates will assume executives positions (Agrawal, Knoeber, and Tsoulouhas, 2006). In connection with mergers, however, the market appears to interpret the succession of executives by insiders as the evidence that less able candidates assume the positions, thus responds negatively to the merger announcement.

The mergers which begin with MPO result in insignificantly positive CAR of 0.17% for [-2, 1] and 0.45% for [-3, 1]. In contrast, the mergers with MPT bring about significant negative CAR of -2.91% for [-2, 1] and -3.06% for [-3, 1]; and these are the worst results. It is an interesting finding that mergers with MPO result in positive CAR since previous studies have reported the estimates for bidding firms' returns are, in general, negative and insignificant (Fuller, Netter, and Stegemoller, 2002; Andrade, Mitchell, and Stafford, 2001). Positive CAR found in the mergers with MPO seems to be in line with the recent trend in the CEO market that general managerial capital is becoming more important than firm-specific managerial capital (Murphy and Zabojnik, 2007).[5]

It is also an interesting and unanticipated finding that mergers with MP 3 result in the worst and significantly negative CAR. Hiring new executives from the targets prior to mergers is expected to be the most helpful merger preparation, since those executives not only have practical knowledge and information on the target, but also can enhance commonality between two separate organizations. However, markets take a completely opposite stand to the effects of MPT at the moment of merger announcement. On this seemingly counterintuitive feature of MPT, I suggest some possible explanations such as

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[5] Murphy and Zabojnik note that the shift in the relative importance of managerial capitals from general to specific brought about recent trend in the CEO market such as increase in outside hiring, increase in CEO pay levels, and increased prevalence of hiring outside CEOs with prior experience as CEO.

asymmetric response of the market to the targets and their executives, and sample bias generated by an unspecified industry.

In the regression analysis for multivariate tests, I find that the mergers with preparations attain higher announcement returns than those without preparations when controlling for influences of the method of payments, the relative size of the target along with merger preparations. The regression analysis clearly reports that the mergers with MPI and MPO bring about higher merger announcement returns for the bidding firms than the mergers with NOMP do. Especially, MPO proves to be the most effective merger preparation in terms of CAR, and its positive effects are robust and do not vary according to the interactions with other explanatory variables. On the contrary, the effects of MPT are variable according to the influences of method of payments and the relative size of the target. When controlled for merger preparation only, the mergers with MPT have negative and even lower announcement returns than the mergers with NOMP. However, such effects turn out to be positive when the method of payment is cash and the size of target becomes larger than the bidding firm in terms of market value.

Validity of Merger Preparations

In the analysis of the 160 acquisitions performed in the pharmaceutical industry, Higgins and Rodriguez (2006) clearly show that pre-acquisition activities by bidding firms such as alliances with their targets for R&D and for marketing help to avoid winner's

curse[6] and also reduce post-acquisition uncertainties by disclosing the true underlying value of the targets. Although incorporating bidding firms' pre-acquisition activities into their analysis, Higgins and Rodriguez still limit the roles of pre-acquisition activities to the revelation of hidden information about the targets. Value maximizing efforts by firms are expected to go beyond these alliances with their targets. Firms will make efforts not only to comply with the purpose of mergers but also to enhance their source of value.

Chandler (1990) describes organizational capabilities as the abilities of top and middle management which are transferable across businesses and argues that they are the source of value in a firm. If organizational capabilities are the determinants of a firm's value as Chandler argues, then it would be natural to expect that firms will adjust their top and middle managements prior to merger since merger is the integration of two separate and different organizational capabilities. Moreover, legal and institutional restrictions are not strict enough to prevent employees from revealing the information and knowledge they obtained before (Mansfield, 1986; Cohen, Nelson, and Walsh, 2000; Jinyoung Kim, 2005), and it is difficult to contract around misappropriation of such information and knowledge because courts do not want to restrict labor mobility (Dworkin and Callahan, 1998; Koh, 1998; Gilson, 1999). The sample of mergers in this research demonstrates that bidding firms acquired their targets with merger preparations of some type in 666 merger transactions of total 995 (66.9%) and this ratio continues to increase over time.

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[6] The Winner's curse states that acquirers are prone to overbid for a target firm and that the extent of this overbidding is positively correlated with the level of asymmetric information between acquirer and target firms.

This paper is organized as follows. In section 2, I review related literatures and discuss how to approach. Section 3 describes the data, while Section 4 reports the results and interpretations. Section 5 concludes this paper.

2. Literature Review

2.1. Trend of Merger

Andrade, Mitchell, and Stafford (2001) and Akbulut and Matsusaka (2010) characterize the trend of mergers in each decade. mergers gained steam in the 60s, reached its peak at the end of the decade and then went down. Then in the 80s, related mergers started to increase. This prevalence of related mergers continued in the 90s and its features are characterized as the occurrence of mergers in waves, and strongly clustered by industry (Mitchell and Mulherin, 1996). The trend of mergers is in line with the strictness of antitrust enactment (Andrade, Mitchell, and Stafford, 2001; Akbulut and Matsusaka, 2010) and also with the advantages of using internal capital markets (Akbulut and Matsusaka 2010). The increase of related mergers during the 80s and 90s is attributable to relaxed antitrust policy and well-developed external capital markets.

2.2. Market Reaction to Merger Announcement

There are debates over the value creation of mergers. Empirical results vary depending on data sources and performance measures. Stein (1997) argues that merger can increase the value of conglomerates since they can reduce sunk costs by forming portfolios and also enhancing information flows between divisions through internal capital markets.

Using *The Business Tracking Series*(BITS)[7], Villalonga (2004) shows that related merger is able to produce a premium rather than a discount. However, Burch and Nanada (2003), and Lang and Stulz(1994) using Compustat data show that corporate mergers destroy firm value.

In contrast, Lamont and Polk (2001) and Graham, Lemmon, and Wolf (2002) take a stance midway in between those two extremes. Lamont and Polk argue that discounted firms are compensated by higher future asset returns, even if their current values are lower than those of single-segment firms. Graham, Lemmon, and Wolf (2002) attribute the discount to the acquisition of already discounted firms, not to the corporate merger itself.

There are common agreements on this issue that 1) it is difficult to claim that bidding firm's shareholders are losers in merger transactions, but they clearly are not big winners like the target firm shareholders, and 2) there is no clear evidence that merger creates value to bidding firms and the estimates are negative even if they are not reliable (Andrade, Mitchell, and Stafford, 2001; Fuller, Netter, and Stegemoller, 2002).

2.3.   Why Firms Merge

Market reactions to merger announcements raise an important question. If positive returns are not guaranteed, why do firms merge? Weston, Siu, and Johnson (2001) explain that zero returns to bidding firms are consistent with a competitive corporate control market in which firms earn just normal returns in their operations. Bruner (2001) finds that 60 to 70 percent of all merger transactions are associated with financial performances

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[7] BITS covers the whole U.S. economy at the establishment level.

that at least compensate investors for their opportunity cost. Besides, there are tremendous variations in returns and many firms are trying to be one of the winning firms.

Regarding corporate mergers, Montgomery (1994) suggests three motives. Firstly, firms conduct merger to obtain market power and they want to use the power in an anti-competitive way such as cross-subsidization, mutual forbearance, and reciprocal buying. Secondly, firms conduct merger because managers can reap benefits at the expense of their shareholders. Thirdly, firms conduct merger in response to excess capacity in productive factors. As long as expansion provides more profitable ways of employing its underused resources, a firm has an incentive to expand.

In contrast, Matsusaka (2001), from the viewpoint of dynamic value-maximization, explains the confusing fact that firms decide to conduct mergers in spite of their discount. According to Matsusaka, merger is an intermediate and less productive stage in a search process for industries that best match the firm's organizational capabilities. When the perfect match is found, a firm eventually specializes. Maksimovic and Phillips (2002) develop a profit maximizing neoclassical model of optimal firm size and growth across different industries based on differences in industry fundamentals and firm productivity. As a firm's returns to growing within an industry diminish, the firm limits its growth within the industry and moves into other industries. In their model, the discount resulting from a merger is consistent with profit maximization. The optimal number and size of industry segments in a firm is determined by its comparative advantage across industries.

2.4. Mergers and Merger Preparations

Many studies explain the relation between firm value and the change of top managers at the CEO levels: 1) market response to CEO succession (Friedman and Singh, 1989), 2) CEO turnover after acquisition (Lehn and Zhao, 2006), 3) performance in diversified firms and CEO turnover (Berry, Bizjak, Lemmon, and Naveen, 2000). CEO successions and turnovers in these studies are the events occurring after mergers and are considered as the effects of mergers, instead of the cause or the preparation. On the contrary, Friedman and Singh (1989) argue that the change of top executives is an event interpreted as the reorganization inside of a firm and the market reactions to the change are determined by the person who fills the executive position.

Chava and Purnanandam(2010) support Friedman and Singh's argument by finding significant relationship between corporate financial policies and risk-taking incentives of CEOs and CFOs. They show that CEOs' risk-decreasing incentives are associated with lower leverage and higher cash balances. CFOs' risk-decreasing incentives are associated with safer debt maturity choices and higher earnings-smoothing through accounting accruals.

By paying attention to the origins of the executives, Rosen (1986), Chan (1996), and Argrawal, Knoebel, and Tsoulouhas (2006) show the trade-off in the successions of executives. Providing favor to insiders for successions increases insiders' incentives to work hard, but it lowers the chances that the best candidates will be selected as new executives. In contrast, providing the opportunity for the successions of executives to outsiders raises the quality of new executives at the expense of lower commonality between new executives and the insiders. Argrawal, Knoebel, and Tsoulouhas (2006) find

there has been insider bias over the period between 1974 and 1995. Executives tend to be promoted from within in normal times and outsiders are brought in to shake things up in bad times. It is also explained by Friedman and Singh (1989) that the origins of new executives convey different signals. The new executives from outside signal that there are changes in strategy and mission, while the new executives from inside signal stability and continuity.

3. Data

3.1. Sample[8]

From *Business Wire* and *PR Newswire* in Lexis-Nexis Academic and Thompson ONE Banker, I collect 995 mergers which were successfully completed between January 1, 1996 and March 31, 2007. I use variations and combinations of the words "mergers" and "acquisitions" as search terms and find 390 cases from *Business Wire* and *PR Newswire* in Lexis-Nexis Academic. In a further search of Thomson ONE Banker, I find an additional 615 mergers by checking Custom League Tables in the M&A tab in the Deals Analysis menu. By comparing the samples, I filter out the cases which are included in both data sources and count them once as a merger.

Although the number of mergers during the same period surpasses the sample size, I narrow these mergers down to the cases which meet the following conditions:

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[8] Table A. 2 in appendix shows how the merger sample is narrowed down to total available 995 merger cases. .

1) Both of the bidding and target firms are publicly traded on the AMEX, Nasdaq, or NYSE.

2) Bidding firms have at least 180 days of return data prior to the merger announcement date listed on the Center for Research in Security Prices (CRSP) file.

3) Only finished, completed, or finalized mergers are selected.

4) If a bidding firm merges with more than two targets at a time, I count them as one event.

5) The merger announced first is counted as an event in clustered mergers where a bidding firm merges with more than two targets within each event window.

If the firms are in the list of CRSP, I consider them as publicly traded firms. I exclude the mergers where the bidding firms have return data of less than 180 days prior to the merger announcement date. In order to exclude rumor effects on the returns of bidding firms, I select the mergers which are announced with the terms such as finished, completed, or finalized. By selecting the merger which is announced first as an event in clustered mergers, I prevent the effects of merger announcement on the returns from being overstated or understated.

3.2. Merger Preparations

I define merger preparations as bidding firms' adaptive actions of changing executives prior to mergers. Since previous research has not addressed merger preparations of this type, including them in the process of a merger is a distinctive

contribution of this research to the field. The idea that merger preparations may affect merger announcement returns arises from the assumptions that appropriate merger preparation is more likely to maximize the synergy between merging firms, send positive signals to the market regarding the effectiveness of merger, and also make it possible to avoid overpayment due to more accurate valuations of a target. Many studies suggest that the turnovers or changes of executives may bring about various effects on the firm by (i) meeting the purpose of the merger when the merger is involved (Agrawal, Knoeber, and Tsoulouhas, 2006; Chan, 1996; Friedman and Singh, 1989), (ii) augmenting bidding firms' source of value (Matsusaka, 2001; Chandler, 1990), and (iii) reducing uncertainties related with merger (Higgins and Rodriguez, 2006).

In order to identify merger preparations, I inquire into two proxy statements of Form-10K and Form DEF-14A[9] that are filed with the U.S. Securities and Exchange Commission (S.E.C). Firstly, I find the changes of executives in bidding firms by investigating the statements. Next, to select the changes which occurred less than a year prior to the mergers, I take special care to compare merger announcement day with the month and the year of the changes in each merger.[10] Further, I classify each merger preparation into subcategories based on the closeness of executives' management career to the targets, since these proxy statements also include information on the executives' management career which can be traced back up to 5 years from the filing date.

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[9] Form 10K is an annual report to S.E.C and includes information such as company history, organizational structure, executives' compensation, equity, subsidiaries, and audited financial statements. Form DEF-14A is a definitive proxy statements and includes information on the date, time and place of the meeting of security holders, revocability of proxy, dissenter's right of appraisal, persons making the solicitation, director or indirect interest of certain persons in matters to be acted upon, modification or exchange of securities, financial statements, voting procedures and other details.

[10] These statements provide the month and year of the changes of executives in bidding firms.

Firstly, based on the origins of the executives, I categorize merger preparations into two groups such as the movements or job title changes of existing executives inside of bidding firms and the hiring of new executives from outside of bidding firms. In the latter case, I take special care to divide this category into another two types: hiring new executives from outside other than the targets and hiring them directly from the targets. Secondly, I classify each merger preparation into subcategories based on the closeness of new executives' management career to the targets. By comparing the first two digit of Standard Industrial Classification (SIC), I measure the closeness of management career to the targets. The executives who have worked for the firms which operate in the same industry as the target are considered to have a closer management career than those who have not. Lastly, no merger preparation represents the case in which there are no changes or movements of the executives in the bidding firms.

The main problem arising in the categorization of merger preparations is the existence of the mergers in which bidding firms make more than two different merger preparations at the same time. To address this problem, I construct criteria on the relative importance of merger preparation and then take the most important one as a merger preparation for the merger. The extent of the importance is determined by the closeness of new executives' management career to the target. The followings are the details of the criteria.

1) Movement of executives from the targets to bidding firms is the most important merger preparation.

2)   Regardless of their origins, the executives who have closer relationships with the targets are more important.

3)   Hiring of new executives from outside is more important than the movements or job title changes of existing executives in the bidding firms, if the new executives have same level of closeness to the target.

Hiring of new executives from the target is the most important merger preparation since they have the closest management career to the target.   In the case that new executives have different level of closeness to the target in their management career, I consider the hiring of the executives who have closer management career as a merger preparation regardless of their origins. If the closeness of management career to the target is the same, then I consider the hiring of new executives from outside as more important merger preparation than the movement of existing executives inside of bidding firms reflecting the recent trend in CEO market. [11]

Merger Preparation with Insiders

Merger preparation with insiders (MPI) is defined as the movements or job title changes of existing executives in bidding firms.   MPI includes both of vertical and horizontal changes in the titles of executives. In addition to increasing insiders' incentives to work hard (Argrawal, Knoebel, and Tsoulouhas, 2006; Chan 1996; Rosen, 1986), the choice of MPI as a merger preparation is expected to reinforce bidding firm-specific

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[11] General managerial capital is more important than firm specific managerial capital (Murphy and Zabojnik, 2007).

managerial capitals and send signals of stability and continuity within the bidding firms' strategy and mission (Friedman and Singh, 1989). Depending on the closeness of executives' management career to the targets, I classify MPI into three subcategories.

1) MPI-A: Movements or job title changes of executives who have worked for the target.

2) MPI-B: Movements or job title changes of executives who have worked for the firms which operate in the same industry as the target.[12]

3) MPI-C: Movements or job title changes of executives who have not worked for the firms which operate in the same industry as the target.

MPI-A is expected to provide bidding firms with target-related information to some extent since the executives have worked for the target before. However, its effect as a merger preparation is expected to be restricted in comparison to MPT. Since the movements of the executives in MPI-A have occurred irrespective of the merger, the effect on the bidding firms' returns does not seem to be as strong as that of MPT.

Merger Preparation with Outsiders

Merger preparation with outsiders (MPO) is defined as the hiring of new executives by bidding firms from outside themselves and their targets. Strengthening of the bidding firms' general managerial capital is the expected benefit from MPO (Murphy and

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[12] In terms of 2 digit SIC

Zabojnik, 2007). Besides, it is expected to raise the quality of new executives (Argrawal, Knoebel, and Tsoulouhas, 2006) and send signals of changes in strategy and mission (Friedman and Sing, 1989). Even if it does not provide target firm-specific managerial capital, bidding firms are expected to be able to obtain target-related managerial capital to some extent depending on how closely the management career of new executives is connected to the target. I divide MPO into two subcategories based on the closeness of new executives' management career to the target and examine if the two subcategories make differences in their effects as a merger preparation.

1) MPO-A: Hiring of new executives who have worked for the firms which operate in the same industry as the target.

2) MPO-B: Hiring of new executives who have not worked for the firms which operate in the same industry as the target.

Merger Preparation with the Executives of the Target

Merger preparation with the executives of the target (MPT) is defined as the hiring of new executives by bidding firms directly from their targets. The selection of MPT is expected to provide the bidding firms with benefits in many respects. One of them is the target-related information and the bidding firms, with the help of it, will be able to overcome asymmetric information or uncertainty problems. Moreover, the bidding firms are expected to be able to shorten the adaptation period for successful management of the merged firms thanks to the executives joining with target firm-specific managerial capital.

However, the choice of MPT may create negative effects for the bidding firms since it is possible that the market attributes the mergers to bad management by the executives of targets. Since all of those new executives come from the target, it is impossible to subcategorize MPT based on the closeness of executives' management career to the target. Instead, I divide MPT into three subcategories based on the positions taken by the executives of targets in the bidding firms.

1) MPT-A: The hiring of new executives from the target as board members in the bidding firm.

2) MPT-B: The hiring of new executives from the target as executives in the bidding firm.

3) MPT-C: Overlapping board membership between bidding firms and targets.

No Merger Preparation

No merger preparation (NOMP) is the case that there are no movements or job title changes of executives in the bidding firms. Depending on the expected relative size of costs and benefits from merger preparations, firms may choose to perform mergers without preparations. However, the effects of NOMP are expected to be negative on the bidding firms' merger announcement returns. Even if the effects are positive, the mergers with NOMP are expected to attain lower CAR than any other mergers that begin with preparations. In the regression analysis for multivariate tests, I take the mergers with

NOMP as the base. By measuring the difference of cumulative abnormal returns from the base, I verify bidding firms' incentives for making merger preparations.

Table 1 summarizes how merger preparations are categorized and also how each merger preparation is subcategorized based on the closeness of new executives' management career to the targets. Table 2 displays the frequency of mergers that accompany any type of merger preparations and its change before and after the enactment of Sarbanes-Oxley Act (SOX)[13]. SOX is enacted to enhance the quality of information disclosed by the public firms. On the condition that SOX is effective, it is legitimate to examine and compare the effect of merger preparations before and after the enactment of SOX.

Out of total 995 mergers, firms make any types of merger preparations in 666 mergers (about 66.9%) during the whole sample period and the frequency of merger preparations has increased from 62.7% to 74.2% since the enactment of SOX on July 30, 2002.[14] Table 3 reports the frequency of each merger preparation in more detail. MPI is the most frequently adopted merger preparation and this indicates that insider bias in the successions of executives (Agrawal, Knoeber, and Tsoulouhas, 2006)[15] may still exist even if the successions are involved with mergers. The frequency of MPO is the lowest among the merger preparations including NOMP.

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[13] The Sarbanes-Oxley Act specifies the responsibility of corporate officers for the accurate financial reports. Therefore, it is possible to make more accurate inference on the effectiveness of merger preparations as well as the management performance of executives.

[14] See Table A.2 and Table A.3 in Appendix. These tables report the number of mergers available in each year in detail.

[15] Over the period of 1974 – 1995, about 80 % of all CEO successions were internal successions.

Firms may prefer either specific merger preparation or no merger preparation. This preference, however, does not guarantee the effectiveness of the merger preparation. Although it is MPO that bidding firms adopt less frequently as their merger preparation than MPI, MPT and NOMP, it is also MPO that proves to be the most effective merger preparation in both event study and regression analysis in terms of cumulative abnormal returns. The event study for univariate tests finds that only the mergers with MPO attain positive cumulative abnormal returns. In addition, regression analysis for multivariate tests confirms the effects of MPO verified by event study. Such effect of MPO does not vary according to the influence of other explanatory variables, and the mergers with MPO attain significantly higher cumulative abnormal returns than the mergers with NOMP.

4. Empirical Methodology

4.1. Event Study

4.1.1. Description of Event Study Set-up

I employ event study methodology to investigate the responses of bidding firms' merger announcement returns to the choice of merger preparation. In this analysis, I consider each merger as an event. In cases that one bidding firm merges with more than two targets on the same day or on adjacent days to cause overlapping event windows, I select only the first merger as an event. To circumvent the effects arising from sudden changes in the number of shares[16], I use holding period returns from CRSP to construct

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[16] Sudden changes in the number of shares result from stock split or stock repurchase.

daily returns for each firm.[17] Since the market begins responding to the announcement two

days in advance and the announcement typically appears in the *Wall Street Journal* the day

after it is released (Filson, 2004), I use an event window of [-2, 1] which includes two days

before and one day after the announcement, and also use another event window of [-3, 1]

which includes three days before and one day after the announcement to check robustness

of the result.[18] I refer to Thomson One Bankers for the exact dates of each merger

announcement.[19] For the computation of CARs for both event windows of [-2, 1] and

[-3, 1], I follow MacKinlay's (1997) standard event study methodology.

$$R_i = \alpha_i + \beta_i R_m + \varepsilon_i \qquad\qquad (1)$$

$$E(\varepsilon_i) = 0 \quad Var(\varepsilon_i) = \sigma_i^2$$

$$AR_i = R_i - \hat\alpha_i - \hat\beta_i R_m \qquad\qquad (2)$$

Equation (1) is the market model for a firm conducting merger i where R_i and R_m

are the holding period return for the firm conducting merger i and the value-weighted

market index return, respectively. I use a simple market model instead of a more

complicated asset pricing model, since, with the relatively short event window of analysis,

the way expected returns are estimated when calculating abnormal returns has little effect

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[17] Abnormal returns can be overstated or understated if they are derived from the returns calculated with daily closing prices.

[18] Table A.5 and A.6 in the appendix report additional results of event study and sign test, respectively conducted for the event window of [-1, 0], [0, 1], and [-1, 1].

[19] Thomson One Banker provides "SDC Deal No" which reports announcement date of each merger.

on inferences (Brown and Warner, 1985; Fama, 1991).[20] The abnormal return of a firm conducting merger i which is AR_i in equation (2) is the forecast error term of the market model.

The length of estimation window is 180 days prior to the merger announcement date. I delete the period covered by the event windows from the sample, estimate market model, and compute the cumulative abnormal returns of an event by summing the forecast errors during its event window. By aggregating cumulative abnormal returns from each merger which is categorized by the types of merger preparations, I compute aggregate cumulative abnormal returns for each merger preparation.

4.1.2. Hypothesis

The inclusion of merger preparations in the process of mergers suggests testable hypotheses concerning the effects of each merger preparation. For the tests of these hypotheses, I employ event study method and try to verify relative effectiveness of different types of merger preparations by comparing their cumulative abnormal returns.

1) Hypothesis 1: The movements or job title changes of existing executives in bidding firms change their merger announcement returns.

2) Hypothesis 2: Bidding firms' hiring of new executives from outside other than their targets changes their merger announcement returns.

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[20] Considering Fama-French three factors and momentum factor, I conducted multifactor model to derive abnormal returns. The results from multifactor model are similar to those of simple market model. The results for event study and sign test are reported in the table 7.A and 8.A, respectively.

3) Hypothesis 3: Bidding firms' hiring of new executives directly from their targets

                  changes their merger announcement returns.

4) Hypothesis 4: No changes or movements of executives in bidding firms change the

                  bidding firms' merger announcement returns.

      In addition, I use sign test to check the robustness of the effects of each merger preparation verified in the event study. Since the simple comparisons between CARs are open to distortion by a few extreme cases, sign test helps to generalize the relative effectiveness of different types of merger preparations proved by event study. Further, I also employ regression analysis to supplement the event study. Considering various influences of economic factors simultaneously in the regression analysis for multivariate tests, I find bidding firms' incentives for making merger preparations.

4.1.3. Event Study Results

      Table 4 reports the effects of each merger preparation on the bidding firms' announcement returns in terms of CARs. CARs are calculated for four days [-2, 1] and five days [-3, 1] around the announcement day (day 0) of the mergers. Among the merger preparations along with no merger preparation, only MPO produces positive CAR.

      Mergers with MPI result in statistically insignificant negative CARs of -0.40% for [-2, 1] and -0.48% for [-3, 1]. MPI does not seem to be effective as a merger preparation since it does not make any difference in CAR from the previous studies. The estimates for

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bidding firms' merger announcement returns in general are reported to be negative and insignificant in the previous studies.

Mergers with MPO produce a positive and insignificant CAR of 0.17% for [-2, 1] and 0.45% for [-3, 1]. This positive CAR may not appear to be a strong proof that MPO is an effective merger preparation because it is insignificant. The regression analysis for multivariate tests in the section 4.2., however, reports that MPO not only produces positive CAR but also generates higher CAR than any other merger preparations do. Therefore, MPO proves to be an effective merger preparation.

The last two types of merger preparations, MPT and NOMP have obvious and similar effects on the bidding firms' merger announcement returns: they prove to have negative and statistically significant effects in both of [-2, 1] and [-3, 1] periods. Mergers with MPT which is the hiring of new executives directly from the targets end up with negative and significant CAR of -2.91% and -3.06% for [-2, 1] and for [-3, 1], respectively. Compared to other merger preparations including NOMP, the CAR from MPT turns out to be negative and the lowest level. In fact, this is one of the interesting features that the event study reveals in the analysis of the relative effectiveness of different types of merger preparations. The worst result from MPT seems to be counterintuitive to the expected benefits from the hiring of the executives who have target-related information. In line with the closeness of executives' management career to the targets, I suggest possible explanations on this feature in the next section. Mergers with NOMP result in negative and significant CAR of -2.20% and -2.30% for [-2, 1] and [-3, 1], respectively. These results correspond to the expectation that mergers with appropriate merger preparation will result in higher CARs than the mergers without merger preparation.

The event study results reveal that the reactions of the market to the merger announcement vary with the types of merger preparations performed by bidding firms. The robustness of these market reactions are also confirmed by the sign test. Even if possible distortions by a few outliers are prevented by relying on the signs of CARs, there is no difference in the effects of each merger preparation from the results verified by event study.

4.1.4. Sign Test : Complement for Event Study

I employ a non-parametric sign test and check the robustness of the results from the parametric test which is the event study. A sign test requires that CARs are independent across mergers and that the expected proportion of positive CAR under the null hypothesis is 0.5.

$$H_0 : p = 0.5$$

$$H_A : p \neq 0.5 \qquad \text{where } p = pr[CAR \geq 0.0].$$

The sign test results in Table 5 display exactly the same pattern of the effects of merger preparations as the event study analysis. In mergers with MPI, the proportion of positive CAR is less than 0.5 and it is not robust. The mergers with MPO also attain a higher proportion of positive CAR than 0.5 even though the result is not significant. In contrast, the mergers with MPT and with NOMP produce a significantly lower proportion of positive CAR than 0.5. This coincidence of sign test results with the event study

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analysis implies that the effects of each merger preparation are robust since they are not distorted by a few extreme cases.

4.1.5. Further Analyses on Merger Preparations

Before making a decision on merger preparations, bidding firms will take into account many factors such as costs and benefits from each type of merger preparations, the impacts on their values, and the market reactions to their selection of merger preparations. The reality of these conjectures on the bidding firm's actions is confirmed by Higgins and Rodriguez (2006). In their research on pharmaceutical industry, Higgins and Rodriguez incorporate the alliances with the target for research and marketing into bidding firm's pre-acquisition activities for obtaining of target-related information. Their explicit incorporation of pre-acquisition activities into the acquisition process proves to bring about significant positive returns to the bidding firms. One interesting feature, however, is that the effects of target-related information may vary depending on how bidding firms obtain such information.

The event study that I employ for the analysis of merger preparation shows that hiring of executives who seem to have target-related managerial capitals or skills does not help bidding firms to obtain positive merger announcement returns. It appears to be even counterintuitive that hiring of new executives directly from the target causes significantly negative merger announcement returns. What is worse, the executives coming from the target ends up with disastrous result. Therefore, it is necessary to investigate the relationships between the effect of each merger preparation and the target-related

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managerial capitals or skills in more detail. For the purpose of more detailed analysis, I subcategorize each merger preparation based on how close the new executives' management career is related to the targets. I conduct event study for the subcategorized merger preparations and also supplement this analysis with sign test. These analyses confirm that target-related managerial capitals do not have a positive impact on bidding firm's merger announcement returns. The results of event study and sign test for subcategorized merger preparations are reported in the table 6 and table 7, respectively.

Subcategories of Merger Preparation with Insiders

I group MPI into three subcategories. If the executives have prior experience of working for the target, then it is in MPI-A.[21] If they have worked for the firms which run in the same industry as the target, then it is in MPI-B. Lastly, if they have not worked for the firms which run in the same industry as the target, then it is in MPI-C. All mergers in each subcategory of MPI end up with negative merger announcement returns. MPI-B produces negative and significant merger announcement returns of -1.68% for [-2, 1] and -2.11% for [-3, 1]. MPI-C also turns out negative merger announcement returns but it is relatively more favorable to the bidding firms than the other two types. On the contrary, MPI-A shows the strongest negative impact of -2.16% for [-2, 1] and -3.21 % for [-3, 1]. However, these effects of MPI-A are open to dispute since they are not significant and also the sample size of MPI-A is only six. The event study results of the three subcategories of MPI still hold in the sign tests reported in Table 7.

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[21] Their movements to bidding firm are nothing to do with the merger in sample.

Even though their analysis has nothing to do with mergers, Agrawal, Knoeber, and Tsoulouhas (2006), suggest a way to interpret the negative effects of MPI. Over the period between 1974 and 1995, there has been insider bias in CEO successions. In normal times, the insiders succeed to the CEO positions and in bad times, outsiders are brought in to shake things up. According to Agrawal, Knoeber, and Tsoulouhas, CEO successions by insiders provide better incentives for insiders to work hard but make it more likely that less able candidates will succeed to the CEO positions. When successions by insiders occur along with a merger, the market seems to interpret this as the successions by less able candidates and to respond negatively to the merger announcement accordingly. Moreover, successions by insiders could be the signal that the bidding firms do not evaluate the merger as an important one, since successions by insiders usually occur in normal times and do not involve big changes inside of bidding firms.

Subcategories of Merger Preparation with Outsiders

MPO is simply divided into two subcategories. If newly hired executives have prior experience of working for the firms which run in the same industry as the targets, then it is in MPO-A. If they have no prior experience of working for the firms which run in the same industry as the targets, then it is in MPO-B. These two subcategories prove to have conflicting effects on bidding firms' merger announcement returns. The positive impact of MPO-B is big enough to offset the negative impact of MPO-A and lead the net effect of MPO to be positive. These features of MPO are consistent with sign test, which shows exactly the same pattern as MPO-A and MPO-B. These results of MPO can be attributable to the signal that successions by outsiders send to the market. Since the

successions by outsiders usually occur in a bid to shake things up in bad times, the market interprets bidding firm's selection of MPO as the signal of making active preparation for the merger.

Subcategories of Merger Preparation with the Executives of the Target

Instead of depending on how close the new executives' management career to the targets is, I classify MPT into three subcategories based on the positions that the executives from the targets takes in the bidding firms. [22] If bidding firm hires new executives from the target as their board members, then it is in MPT-A. If bidding firms hire new executives as their executives, then it is in MPT-B. Lastly, MPT-C is the case of overlapping board membership that the executives work as a board member in the bidding firm and the target simultaneously. All of these subcategories of MPT have negative and significant effects on bidding firms' merger announcement returns. In terms of CARs, overlapping board membership (MPT-C) reports the worst result of -6.74% for [-2, 1] and -7.06% for [-3, 1] in the event study. However, the MPT-C is observed in the seven merger cases only and the sign test results reveal that the worst result from MPT-C could arise from distortion by a few extreme cases. Considering the analysis of event study and sign test together, hiring of new executives from the targets results in the lowest and significant CAR of -3.98% for [-2, 1] and -3.44% for [-3, 1].

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[22] It is impossible to tell who has closer relationship with the targets among the executives who came together from the targets.

The Effect of Merger Preparation in the Six Months prior to Merger Announcement

I restrict attention to the executives' movements occurring in the six months prior to merger announcement. This restriction decreases the number of mergers with preparation from 666 to 334 cases.[23] While about 40% of MPI and MPO (42% and 38%, respectively) occur during this period, about 71% of MPT are conducted in the six months prior to merger announcement.

Table 8 reports the effects of each merger preparation conducted in this period. Mergers with MPI result in statistically significant negative CAR of -1.05% for [-2, 1] and -1.30% for [-3, 1]. While the negative effects of MPI on the bidding firm's value still hold during this period, they become significant and cause lower CARs. Mergers with MPO produce positive insignificant CAR of 0.24% for [-2, 1] and 0.17% for [-3, 1]. This result suggests that the effect of MPO does not vary even if it is conducted close to merger announcement. MPO proves to be an effective merger preparation in this period as well. The effect of MPT results in -3.04% for [-2, 1] and -3.27% for [-3, 1] and still turns out to be the worst.

The event study reveals that the merger preparations conducted in the six months prior to merger announcement do not make big differences from the previous event study results. Only differences are found in the level of CARs and in the significance of the MPI. These results are confirmed by sign tests reported in table 9.[24]

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[23] The number of mergers with MPI, MPO and MPT is 111, 70, and 153, respectively.

[24] The results for various event windows of [-1, 0], [0, 1] and [-1, 1] are reported in table A.7 and A.8. Table 10, 11 and table 11 and 12 report the results of multifactor model analysis. All these analyses reveal that merger preparations conducted in the six months prior to merger announcement do not make differences in their effects on the bidding firm's value.

4.1.6 Implications

: Relative Effectiveness of Different Types of Merger Preparations

Summing up, hiring of new executives who seem to have target-related managerial capitals or skills does not have a positive effect on the bidding firms' merger announcement returns. Moreover, hiring of new executives directly from the targets has a negative and statistically significant effect which is the worst result among the merger preparations. Only hiring of executives who do not have a target-related management career has a positive effect on the bidding firms' merger announcement return. I suggest several possible explanations to address these features, which appear to conflict with the expected effects of merger preparations.

Firstly, the evaluation of the market on the effectiveness of different types of merger preparations could be closely linked to trends in the CEO market. The increasing prevalence of appointing CEOs through external hiring rather than internal promotion reveals the importance of general managerial capital rather than firm-specific managerial capital (Murphy and Zabojnik, 2007). From this CEO market point of view, MPO corresponds with obtaining of general managerial capital and the market evaluates bidding firms' efforts of conducing MPO as an effective merger preparation for a merger. In addition, this trend in the CEO market can account for why the frequency of MPO is lower than the other two merger preparations: it is more costly to hire executives from outside because there is a severe competition for executives who are equipped with general managerial capital.

Secondly, the market may respond asymmetrically to target firms and to the executives of the targets. Andrade, Mitchell, and Stafford (2001) report that merger

premium is fairly similar across different types of merger transactions in the case of targets.[25] However, these merger announcements can hurt the reputations of the executives in targets. Although it needs additional research, becoming a target might be a signal of the failure in their management. Therefore, bidding firms' hiring of those executives could be negatively interpreted in the market in the merger announcement period when the uncertainty related with the merger is not yet resolved.

Lastly, this result could be affected by sample bias. The merger sample in this research was collected without specifying industry segment. Therefore, the positive effects from certain industries could be offset by the negative impacts from other industries. If I choose a specific industry to collect a merger sample, MPT may have positive and significant impacts as Higgins and Rodriguez (2006) find in their research on the acquisitions in pharmaceutical industry. Firms in pharmaceutical industry are research and development oriented and need target-specific knowledge and skills for continuous research and development even after a merger. Therefore, the market seems to evaluate positively the hiring of executives from the targets by bidding firms in the pharmaceutical industry.

Another question that I want to verify in this research is why firms want to make merger preparations. If the mergers with merger preparations result in higher announcement returns than the mergers without them, then this not only proves the benefits of merger preparations but also verifies the incentives for bidding firms to make merger preparations. I use multivariate regressions to address this question.

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[25] According to Andrade, Mitchell, and Stafford (2001), target firms consistently have abnormal returns of 16 % in the announcement period which is stable over the period between 1972 and 1989.

4.2. Multivariate Regression Analysis

4.2.1. Controls

In this section, I perform multivariate tests on the determinants of bidding firms' announcement returns. Table 12 reports the relationship between CARs for both event windows of [-2, 1] and [-3, 1] and the factors that are expected to affect bidding firms' announcement returns. In addition to each merger preparation, I include method of payments and relative size of target in the regressions as explanatory variables.[26] The method of payments is classified into five types of cash, combination of cash and stock, stock, other,[27] and unknown. I compute relative size of target in each merger by comparing the market value of the bidding firm and the target. The market value is the product of the price 30 days before the announcement date and common shares outstanding on CRSP. I divide relative size of target into four categories: 1) less than 9.99%, 2) 10% to 49.99%, 3) 50% to 99.99%, and 4) greater than 100%. Controlling for the relative size of target is expected to capture market reactions which may vary with the size of targets. By including method of payments and relative size of target into the regressions, I give insights into the interactions between bidding firms' choice of merger preparation and the other information conveyed by merger announcements.

Regression (1) and (5) in table 12 are controlled only for merger preparations and the base is no merger preparation. In these two regressions, mergers with MPI have higher CARs than the base case of merger without merge preparation by 1.2 % point for [-2, 1]

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[26] I also run regressions on the deal attitude such as friendly, hostile, or neutral. However they do not report any economically meaningful results.

[27] Other includes options, warrants, rights, or combination of them.

and 1.1% point for [-3, 1] and both CARs are significantly higher at the 10% level. The difference in the CAR becomes more distinguished and robust between the mergers with MPO and the mergers with NOMP. The mergers with MPO end up with higher CAR than the base by 1.9 % point for [-2, 1] and by 2.2 % point for [-3, 1], and these CARs in the mergers with MPO are significantly higher at the 1% level. Moreover, the mergers with MPO bring about much higher CARs than the mergers with MPI do by 0.7 % point for [-2, 1] and by 1.1 % point for [-3, 1]. These patterns that the mergers with MPI and MPO produce higher CARs than the mergers with NOMP are observed in the rest of all regressions regardless of controls. Therefore, bidding firms have enough incentives to change their executives with existing members or to hire new executives from outside prior to merger rather than to merge with targets without any preparations.

On the contrary, there seems to be a negative relationship between MPT and bidding firms' announcement returns. As regression (1) and (5) display, the mergers with MPT end up with lower CARs than the base by 1.3% point for [-2, 1] and 1.4 % point for [-3, 1], and these differences are significant at the 5% level. These results coincide with what event study for univariate tests shows. However, it seems to be too hasty to make a conclusion that hiring new executives from the target is a merger preparation that is of no effect, since the negative effects of MPT vary with controls.

When I control for all influences of merger preparations, method of payments, and relative size of target at the same time, the effect of MPT may turn into expectedly positive relationship with CARs as regression (4) and (8) in table 12 display. The selection of certain method of payment and the target size that is smaller than the bidding firm still result in negative relationship between MPT and CARs. However, the effect of MPT turns

the negative relationship into a positive one when the target which is larger than the bidding firm is acquired with cash. In such mergers, MPT produces higher CAR than NOMP by 0.4% point for [-2, 1] and by 0.3% point for [-3, 1] as regression (4) and (8) show. The market seems to put higher valuation on hiring new executives from the target which is larger than the bidding firm.[28] In contrast, the lowest valuation seems to be put on hiring new executives from the target which is similar size with bidding firm, that is, 50% to 99.99%.

Interactions of Merger Preparations with Other Factors

By examining the interactions of each merger preparation with other factors such as method of payment and relative size of target, I analyze how the effects differ by the types of merger preparation. While high-valued bidding firms use cash or higher proportion of cash to signal their value to the market, bidding firms may not want to use cash if the target's value is uncertain since they may end up with overpayment (Fishman, 1989; Berkovitch and Narayanan, 1990; Eckbo, Giammarino, and Heinkel, 1990). Hansen (1987) and Eckbo and Thorbun (2000) address this issue and suggest that bidding firms use stock offers when there is high uncertainty on the target's value. Examining the method of payment may reveal the merging firms' value and financial risk related with uncertainty in a merger indirectly.

As table 13 reports, cash payment in a merger results in positive CARs regardless of merger preparation types. Except the mergers with MPO, these positive CARs are found significant. I interpret this to suggest that a cash offer implies that bidding firms are

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[28] In 13 cases, bidding firm merged with a larger target along with MPT.

high valued and the market responds to this. While the mergers with MPT produce insignificant positive CARs, MPI and MPO result in negative CARs. As previous studies show, the implication of stock offer may have negative effect on the value of merger which is evaluated by the market. However, hiring of new executives from the target seems to offset this negative signal of stock offer and produce positive insignificant CARs. In the mergers with MPO, the positive effect of cash offer is found insignificant and the negative effect of stock offer is found significant. These results can be attributed to the cost of MPO. Considering the trend in the CEO market, MPO is identified as the most expensive merger preparation and this may weaken positive effect and strengthen negative effect from the aspect of costs related with merger preparation.

In the merger with a similar sized target, MPI does not seem to be suitable merger preparation. MPI results in significant and negative CARs. MPO and MPT are found as effective merger preparations for the merger with larger-sized targets.[29]

4.2.2. Implications
: The Incentives for Merger Preparations

Summing up, bidding firms have incentives to make merger preparations prior to their mergers since the mergers with preparations produce higher merger announcement returns than the mergers without preparations do. Especially, MPO proves to be the most effective merger preparation in both event study for univariate tests and regression analysis for multivariate tests. The effect of MPO is so robust and consistent that it does not vary

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[29] Results for multifactor model are reported in the table14. In addition, I analyzed interactions of merger preparations with other factors for various event windows of [-1, 0], [0, 1] and [-1, 1] and reported the results in the table A.13 and A.14

with the influences of other factors which are expected to affect CARs. Although MPT shows significant negative effects on the bidding firms' merger announcement returns in the event study for univariate tests, its effects vary when the interactions with other factors are considered. When bidding firms merge with targets which are greater than their size in terms of market value, MPT produces positive returns in the merger announcement period. When the bidding firm merges with a relatively big target, the market seems to interpret the hiring of target's executives as obtaining of important managerial capital for the merged firm and its future success.

5. Conclusion

I examined the relationships between bidding firms' merger announcement returns and their merger preparations. From the event study for univariate tests, I find the relative effectiveness of different merger preparations. Hiring of new executives from outside other than the target proves to be the most effective merger preparation and produces positive bidding firms' announcement returns. This result seems to be in line with the recent trend in the CEO market that general managerial capitals are becoming more important than firm-specific managerial capitals. In contrast, hiring of new executives directly from the target ends up with negative merger announcement return which is robust and the worst result. To address this seemingly counterintuitive feature, I suggest possible explanations in connection with the market evaluation to the trend in the CEO market, asymmetric response of the market to the target and the executives of the target, and sample bias.

In the regression analysis for multivariate tests, I examine the effects of merger preparations on the bidding firms' returns by considering the influence of method of payments and relative size of target. This analysis validates the incentives of bidding firms for making merger preparations prior to their mergers. The mergers with merger preparations give rise to higher announcement returns than the mergers with no merger preparation do. This result also suggests that hiring of new executives directly from the target can have a positive effect depending on the influences of other factors, although its effects prove to be negative in the event study for simple univariate test. Especially, hiring new executives from the target produce positive announcement returns in the mergers where the relative size of the target is greater the bidding firm.

In this study, I incorporate bidding firms' actions of changing their executives into the process of merger without focusing on specific industry and executives. It would be of interest to see if the effects of merger preparations vary with industry segments or with the specific type of executives.

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Table 1
Categories of Merger Preparations

Merger Preparation with Insiders (MPI)	The movements or job title changes of existing executives in bidding firms
MPI – A	The movements or job title changes of existing executives who have worked for the target
MPI – B	The movements or job title changes of existing executives who have worked for the firms which operate in the same industry as the target
MPI – C	The movements or job title changes of existing executives who have not worked for the firms which operate in the same industry as the target
Merger Preparation with Outsiders (MPO)	The hiring of new executives by bidding firms from outside other than the target
MPO – A	The hiring of new executives who have worked for the firms which operate in the same industry as the target
MPO – B	The hiring of new executives who have not worked for the firms which operate in the same industry as the target
Merger Preparation with the Executives of the Target (MPT)	The hiring of new executives by bidding firms directly from the target
MPT – A	The hiring of new executives as board members in the bidding firms
MPT – B	The hiring of new executives as executives in the bidding firms
MPT – C	Overlapping board membership in the bidding firm and the target

Table 2
How often Firms Prepare for Merger

I define merger preparations as bidding firms' adaptive actions of changing executives prior to merger. To identify merger preparations, I look up two proxy statements such as Form-10K and Form-14A which are filed for U.S. Securities and Exchange Commissions (S.E.C). In case that bidding firms make multi-merger preparations, I select out the most critical merger preparation by following consistent criteria.

	Before SOX (1996 – 2002.7)	After SOX (2002.8 – 2007. 3)	Whole Period (1996 – 2007. 3)
Total Mergers	627	368	995
Mergers with Preparations	393	273	666
Mergers without Preparations	234	95	329
% of Mergers with Preparations	62.7 %	74.2 %	66.9 %

SOX: "Sarbanes-Oxley Act" which was enacted July 30, 2002

Table 3
Mergers with Merger Preparation vs. Mergers with No Merger Preparation

I define merger preparations as bidding firms' adaptive actions of changing executives prior to merger. To identify merger preparations, I look up two proxy statements such as Form-10K and Form-14A which are filed for U.S. Securities and Exchange Commissions (S.E.C). In case that bidding firms make multi-merger preparations, I select out the most critical merger preparation by following consistent criteria.

	MP 1	MP 2	MP 3	NOMP	Total
Whole Period	264	186	216	329	995
Before SOX	166	115	112	234	627
After SOX	98	71	104	95	368

Table 4
Cumulative Abnormal Returns to Bidding Firms in Each Merger Preparation

Cumulative abnormal returns for bidding firms that conducted merger preparations and no merger preparation during 12-year period between Jan, 1996 and Mar, 2007. Cumulative abnormal returns are calculated for the four days [-2, 1] and five days [-3, 1] around the announcement (day 0) of a merger. Abnormal returns are estimated using a simple market model:

$$AR_i = R_i - \hat{\alpha}_\iota - \hat{\beta}_\iota R_m$$

where R_i is the return on firm i and R_m is the value-weighted market index return. The abnormal return is the disturbance term of the market model. All bidding and target firms are publicly traded firms listed on the NYSE, Nasdaq, or AMEX.

	MPI	MPO	MPT	NOMP
Four-Day of Event Window [-2, 1]	-0.0040 (264, -1.45)	0.0017 (186, 0.40)	-0.0291 (217, -7.27***)	-0.0220 (329, -5.41***)
Five-Day of Event Window [-3, 1]	-0.0048 (264, -1.55)	0.0045 (186, 0.96)	-0.0306 (217, -6.84***)	-0.0230 (329, -5.07***)

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table Entry is:
Aggregate Cumulative Abnormal Returns
(Number of Events, Test Statistic for Significance of Aggregate Cumulative Abnormal Returns)

MPI denotes the movement or job title changes among existing executives in bidding firms.
MPO denotes the hiring of new executives by bidding firms from outside except target.
MPT denotes the hiring of new executives by bidding firms directly from target.
NOMP denotes no changes on the executives' roster and their titles in bidding firms.

Table 5
Sign Test on the Cumulative Abnormal Returns

Sign test is based on the sign of cumulative abnormal returns. This sign test requires that cumulative abnormal returns are independent across bidding firms and that the expected proportion of positive abnormal returns under the null hypothesis is 0.5. Test statistic is

$$\theta = \left[\frac{N^+}{N} - 0.5 \right] \frac{\sqrt{N}}{0.5} \sim N(0,1)$$

where N^+ is the number of merger which has positive CARs and N is the total number of mergers.

	MPI	MPO	MPT	NOMP
Four-Day of Event Window [-2, 1]	-1.354 (121, 143)	0.733 (98, 88)	-5.171*** (70, 146)	-4.796*** (121, 208)
Five-Day of Event Window [-3, 1]	-1.723* (118, 146)	0 (93,93)	-5.443*** (68,148)	-2.701*** (140,189)

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table Entry is:
Test Statistics
(Number of Positive CARs, Number of Negative CARs)

Table 6
Cumulative Abnormal Returns and the Closeness of Executives with Targets (Event Study)

I subcategorize merger preparation 1 and 2 based on the closeness of new executives with target. I divide merger preparation into three cases depending on the position that new executives from target take in the bidding firm. To trace working career of executives, I look into Form 10-K and Form DEF-14A filed to SEC. They include working career of executives for 5 years.

Panel A: Merger Preparation with Insiders

Four-Days [-2, 1]			Five-Days [-3, 1]		
MPI - A	MPI - B	MPI - C	MPI - A	MPI - B	MPI - C
-0.0216	-0.0168	-0.0006	-0.0321	-0.0211	-0.0007
(6, -1.10)	(68, -2.53**)	(190, -0.17)	(6, -1.46)	(68, -2.84***)	(190, -0.18)

MPI– A: the movements or job title changes of existing executives who used to work for the target.
MPI– B: the movements or job title changes of existing executives who used to work for a firm which operates in the same industry as the target.
MPI –C: the movements or job title changes of existing executives who have not worked for a firm which operates in the same industry as the target.

Panel B : Merger Preparation with Outsiders

Four-Days [-2, 1]		Five-Days [-3, 1]	
MPO - A	MPO - B	MPO - A	MPO - B
-0.0008	0.0035	-0.0022	0.0094
(79, -0.13)	(107, 0.60)	(79, -0.33)	(107, 1.46)

MPO – A: the employment of new executives who have worked for a firm which operates in the same industry as the target.
MPO – B: the employment of new executives who have not worked for a firm which operates in the same industry as the target.

Panel C: Merger Preparation with the Executives of the Target

Four-Days [-2, 1]			Five-Days [-3, 1]		
MPT - A	MPT - B	MPT - C	MPT - A	MPT - B	MPT - C
-0.0234	-0.0398	-0.0674	-0.0283	-0.0344	-0.0706
(136, -4.69***)	(73, -5.70***)	(7, -2.76***)	(136, -5.07***)	(73, -4.40***)	(7, -2.59***)

MPT – A: the employment of executives from target as board members.
MPT – B: the employment of executives from target as executives in bidding firms.
MPT – C: overlapping board membership.

Table Entry is:
Aggregate Cumulative Abnormal Returns
(Number of Events, Test Statistic for Significance of Aggregate Cumulative Abnormal Returns)

Table 7
Cumulative Abnormal Returns and the Closeness of Executives with Targets (Sign Test)

I subcategorize merger preparation 1 and 2 based on the closeness of new executives with target. I divide merger preparation into three cases depending on the position that new executives from target take in the bidding firm. To trace working career of executives, I look into Form 10-K and Form DEF-14A filed to SEC. They include working career of executives for 5 years.

Panel A: Merger Preparation with Insiders

Four-Days [-2, 1]			Five-Days [-3, 1]		
MPI - A	**MPI - B**	**MPI - C**	**MPI - A**	**MPI - B**	**MPI - C**
-0.817	-0.0398	-0.0674	-0.0283	-0.0344	-0.0706
(2, 4)	(73, -5.70***)	(7, -2.76***)	(136, -5.07***)	(73, -4.40***)	(7, -2.59***)

MPI– A: the movements or job title changes of existing executives who used to work for the target.
MPI– B: the movements or job title changes of existing executives who used to work for a firm which operates in the same industry as the target.
MPI –C: the movements or job title changes of existing executives who have not worked for a firm which operates in the same industry as the target.

Panel B : Merger Preparation with Outsiders

Four-Days [-2, 1]		Five-Days [-3, 1]	
MPO - A	**MPO - B**	**MPO - A**	**MPO - B**
-1.238	2.030**	-1.463	1.257
(34, 29)	(64, 43)	(33, 46)	(60, 47)

MPO – A: the employment of new executives who have worked for a firm which operates in the same industry as the target.
MPO – B: the employment of new executives who have not worked for a firm which operates in the same industry as the target.

Panel C: Merger Preparation with the Executives of the Target

Four-Days [-2, 1]			Five-Days [-3, 1]		
MPT - A	**MPT - B**	**MPT - C**	**MPT - A**	**MPT - B**	**MPT - C**
-2.915***	-4.799***	-0.378	-3.773***	-4.096***	-0.378
(51, 85)	(16, 57)	(3, 4)	(46, 90)	(19, 54)	(3, 4)

MPT – A: the employment of executives from target as board members.
MPT – B: the employment of executives from target as executives in bidding firms.
MPT – C: overlapping board membership.

Table Entry is:
Test Statistics
(Number of Positive CARs, Number of Negative CARs)

Table 8
The Effect of Merger Preparations in the Six Months Prior to Merger Announcement

Cumulative abnormal returns for bidding firms that conducted merger preparations and no merger preparation during 12-year period between Jan, 1996 and Mar, 2007. Cumulative abnormal returns are calculated for the four days [-2, 1] and five days [-3, 1] around the announcement (day 0) of a merger. Abnormal returns are estimated using a simple market model:

$$AR_i = R_i - \hat{\alpha}_\iota - \hat{\beta}_\iota R_m$$

where R_i is the return on firm i and R_m is the value-weighted market index return. These analyses on merger preparations are focused on the cases that occurred in the six months prior to merger announcement.

	MPI	MPO	MPT
Four-Day of Event Window [-2, 1]	-0.0105 (111, -2.15**)	0.0024 (70, 0.35)	-0.0304 (153, -5.98***)
Five-Day of Event Window [-3, 1]	-0.0130 (111, -2.39**)	0.0017 (70, 0.22)	-0.0327 (153, -5.74***)

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table Entry is:
Aggregate Cumulative Abnormal Returns
(Number of Events, Test Statistic for Significance of Aggregate Cumulative Abnormal Returns)

MPI denotes the movement or job title changes among existing executives in bidding firms.
MPO denotes the hiring of new executives by bidding firms from outside except target.
MPT denotes the hiring of new executives by bidding firms directly from target.

Table 9
Sign Test on the Cumulative Abnormal Returns
(The Effect of Merger Preparations in the Six Months prior to Merger Announcement)

Sign test is based on the sign of cumulative abnormal returns. This sign test requires that cumulative abnormal returns are independent across bidding firms and that the expected proportion of positive abnormal returns under the null hypothesis is 0.5. Test statistic is

$$\theta = \left[\frac{N^+}{N} - 0.5 \right] \frac{\sqrt{N}}{0.5} \sim N(0,1)$$

where N^+ is the number of merger which has positive CARs and N is the total number of mergers. These analyses on merger preparations are focused on the cases that occurred in the six months prior to merger announcement.

	MPI	MPO	MPT
Four-Day of Event Window [-2, 1]	-0.664 (50, 103)	0.478 (37, 33)	-4.285*** (50, 103)
Five-Day of Event Window [-3, 1]	-1.044 (48, 105)	0 (35, 35)	-4.608*** (48,105)

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table Entry is:
Test Statistics
(Number of Positive CARs, Number of Negative CARs)

Table 10
Cumulative Abnormal Returns to Bidding Firms in Each Merger Preparation
(Multifactor Models for Merger Preparation in the Six Months prior to Merger Announcement)

Cumulative abnormal returns for bidding firms that conducted merger preparations and no merger preparation during 12-year period between Jan, 1996 and Mar, 2007. Cumulative abnormal returns are calculated for the four days [-2, 1] and five days [-3, 1] around the announcement (day 0) of a merger. Abnormal returns are estimated using a multi-factor market model by Fama-French (1993) or Carhart (1997):

$$R_i - R_f = \beta_0 + \beta_1(R_m - R_f) + \beta_2 \cdot SMB + \beta_3 \cdot HML + \beta_4 \cdot UMD + \varepsilon_i$$

where R_i is the return on firm i, R_m is the value-weighted market index return, R_f is the risk free rate, *SMB* is the difference between the return on the portfolio of "small" and "big" stocks, *HML* is the difference between the return on the portfolio of "high" and "low" book-to-market stocks, and *UMD* is the difference between the return on the portfolio of past one-year "winners" and "losers". These analyses on merger preparations are focused on the cases that occurred in the six months prior to merger announcement.

	MPI	MPO	MPT
Four-Day of Event Window [-2, 1]	-0.0093 (111, -1.96**)	0.0047 (70, 0.70)	-0.0301 (153, -6.04***)
Five-Day of Event Window [-3, 1]	-0.0130 (111, -2.45**)	0.0037 (70, 0.50)	-0.0322 (153, -5.77***)

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table Entry is:
Aggregate Cumulative Abnormal Returns
(Number of Events, Test Statistic for Significance of Aggregate Cumulative Abnormal Returns)

MPI denotes the movement or job title changes among existing executives in bidding firms.
MPO denotes the hiring of new executives by bidding firms from outside except target.
MPT denotes the hiring of new executives by bidding firms directly from target.

Table 11
Sign Test on the Cumulative Abnormal Returns for Multifactor Models
(The Effect of Merger Preparations in the Six Months prior to Merger Announcement)

Sign test is based on the sign of cumulative abnormal returns. This sign test requires that cumulative abnormal returns are independent across bidding firms and that the expected proportion of positive abnormal returns under the null hypothesis is 0.5. Test statistic is

$$\theta = \left[\frac{N^+}{N} - 0.5 \right] \frac{\sqrt{N}}{0.5} \sim N(0,1)$$

where N^+ is the number of merger which has positive CARs and N is the total number of mergers. These analyses on merger preparations are focused on the cases that occurred in the six months prior to merger announcement.

	MPI	MPO	MPT
Four-Day of Event Window [-2, 1]	0.285 (57, 54)	0.956 (39, 31)	-4.285*** (50, 103)
Five-Day of Event Window [-3, 1]	-0.854 (51, 60)	0.717 (38, 32)	-4.447*** (49,104)

*   significant at the 10% level
**   significant at the 5% level
***   significant at the 1% level

Table Entry is:
Test Statistics
(Number of Positive CARs, Number of Negative CARs)

Ordinary least squares regression of the bidding firms' four-day and five-day cumulative abnormal returns on the following variables. First three dummy variables are defined as whether the bidding firm conducted merger preparations. The next four dummy variables are defined whether the target is acquired with stock, combination of cash and stock, other than cash and stock, and unknown type of payment. Other includes options, warrants, rights, or combination of them. The remainders of the dummy variables are the relative size of target which is the ratio of market values of merging firms.

	[-2 , 1]				[-3 , 1]			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Merger Preparation								
Dummy = 1 if MPI	0.012 (1.88*)	0.008 (1.29)	0.010 (1.43)	0.006 (0.96)	0.011 (1.67*)	0.007 (1.08)	0.009 (1.25)	0.005 (0.76)
Dummy = 1 if MPO	0.019 (2.69***)	0.015 (2.14**)	0.016 (2.14**)	0.012 (1.68*)	0.022 (3.01***)	0.018 (2.47**)	0.019 (2.45**)	0.016 (2.00**)
Dummy = 1 if MPT	-0.013 (-2.03**)	-0.007 (-1.13)	-0.012 (-1.75*)	-0.008 (-1.20)	-0.014 (-1.99**)	-0.008 (-1.15)	-0.011 (-1.48)	-0.007 (-0.97)
Method of Payment								
Dummy = 1 If Stock		-0.034 (-5.56***)		-0.035 (-5.01***)		-0.036 (-5.53***)		-0.032 (-4.30***)
Dummy = 1 if Cash & Stock		-0.033 (-5.05***)		-0.026 (-2.00**)		-0.032 (-4.48***)		-0.029 (-2.10**)
Dummy = 1 if Other		-0.023 (-2.00**)		-0.033 (-5.23***)		-0.024 (-1.96**)		-0.036 (-5.27***)
Dummy = 1 if Unknown		-0.022 (-2.58***)		-0.022 (-2.30**)		-0.020 (-2.17**)		-0.021 (-1.98**)
Relative Size of Target								
Dummy = 1 if 10 ~ 9.99%			-0.011 (-1.83*)	-0.005 (-0.87)			-0.012 (-2.01**)	-0.007 (-1.16)
Dummy = 1 if 50 ~ 99.99 %			-0.023 (-2.30**)	-0.016 (-1.67*)			-0.030 (-2.85***)	-0.024 (-2.27**)
Dummy = 1 if ≥100%			0.008 (0.56)	0.012 (0.89)			0.006 (0.44)	0.010 (0.68)
Intercept	-0.017 (-4.08***)	0.004 (0.74)	-0.011 (-2.25**)	0.008 (1.29)	-0.018 (-4.00***)	0.003 (0.59)	-0.011 (-2.09**)	0.008 (1.29)
Adjusted R^2	0.0220	0.0594	0.0326	0.0697	0.0230	0.0572	0.0357	0.0692

Table 13
Interactions of Merger Preparations with Other Dummies

Ordinary least squares regression of the bidding firms' four-day and five-day cumulative abnormal returns on the following variables. First five dummy variables are defined as whether the target is acquired with cash, stock, combination of cash and stock, other than cash and stock, and unknown type of payment. Other includes options, warrants, rights, or combination of them. The remainders of the dummy variables are the relative size of target which is the ratio of market values of merging firms. This table reports the interaction of each merger preparation with other dummies.

	[-2 , 1]				[-3 , 1]			
	MPI	MPO	MPT	NOMP	MPI	MPO	MPT	NOMP
Method of Payment								
Dummy=1 If Cash	0.0186 (2.49**)	0.0152 (1.60)	0.0434 (2.93***)	0.0207 (2.38**)	0.0198 (2.44**)	0.0118 (1.13)	0.0400 (2.67***)	0.0251 (2.65***)
Dummy = 1 If Stock	-0.0108 (-1.22)	-0.0349 (-3.12***)	0.0040 (0.34)	-0.0108 (-1.29)	-0.0210 (-1.25)	-0.0324 (-2.65***)	-0.0012 (-0.10)	-0.0145 (-1.58)
Dummy = 1 if Cash & Stock	-0.0306 (-3.21***)	-0.0139 (-1.11)	-0.0028 (-0.23)	0.0000 (0.00)	-0.0282 (-2.73***)	0.0025 (0.18)	-0.0018 (-0.15)	-0.0001 (-0.01)
Dummy = 1 if Other	0.0082 (0.50)	0.0277 (1.29)	-0.0294 (-1.35)	-0.0038 (-0.19)	0.0065 (0.36)	0.0056 (0.24)	-0.0217 (-0.98)	-0.0074 (-0.34)
Dummy = 1 if Unknown	0.0145 (1.09)	0.0059 (0.37)	-0.0151 (-0.62)	-0.0060 (-0.50)	0.0139 (0.96)	0.0125 (0.72)	-0.0153 (-0.62)	-0.0030 (-0.23)
Relative Size of Target								
Dummy = 1 If ≤ 10%	0.0051 (0.59)	-0.0313 (-2.07**)	-0.0024 (-0.19)	0.0134 (1.58)	0.0071 (0.76)	-0.0370 (-2.23**) (0.72)	0.0013 (0.10)	0.0186 (2.01**)
Dummy = 1 if 10 ~ 9.99%	0.0068 (0.69)	-0.0275 (-1.73*)	-0.0008 (-0.08)	-0.0017 (-0.19)	0.0089 (0.83)	-0.0346 (-1.99**)	0.0026 (0.24)	-0.0020 (-0.20)
Dummy = 1 if 50 ~ 99.99 %	-0.0355 (-2.44**)	-0.0708 (-2.22**)	-0.0027 (-0.19)	-0.0012 (-0.09)	-0.0363 (-2.30**)	-0.1006 (-2.88***)	-0.0098 (-0.68)	-0.0011 (-0.08)
Dummy = 1 if ≥100%	0.0236 (1.33)	0.1296 (4.08***)	0.0060 (0.30)	-0.0105 (-0.59)	0.0202 (1.05)	0.1723 (4.95***)	0.0059 (0.29)	-0.0156 (-0.80)
Intercept	0.0101 (-1.13)	0.0316 (2.05**)	-0.0372 (-3.48***)	-0.0248 (-2.98***)	-0.0138 (-1.42)	0.0387 (2.29***)	-0.0380 (-3.53***)	-0.0288 (-3.17***)
Root MSE	0.0633	0.0683	0.0878	0.0757	0.0687	0.0748	0.0887	0.0827

Table 14
Interactions of Merger Preparations with Other Dummies (Multifactor Models)

Ordinary least squares regression of the bidding firms' four-day and five-day cumulative abnormal returns on the following variables. First three dummy variables are defined as whether the bidding firm conducted merger preparations. The next four dummy variables are defined whether the target is acquired with stock, combination of cash and stock, other than cash and stock, and unknown type of payment. Other includes options, warrants, rights, or combination of them. The remainders of the dummy variables are the relative size of target which is the ratio of market values of merging firms.

	[-2 , 1]				[3 , 1]			
	MPI	MPO	MPT	NOMP	MPI	MPO	MPT	NOMP
Method of Payment								
Dummy=1 If Cash	0.0128 (1.80*)	0.0109 (1.11)	0.0409 (2.75***)	0.0154 (1.78*)	0.0159 (2.05**)	0.00674 (0.63)	0.0370 (2.46**)	0.0191 (2.02**)
Dummy = 1 If Stock	-0.0093 (-1.11)	-0.0372 (-3.24***)	0.0035 (0.30)	-0.0153 (-1.83*)	-0.0099 (-1.08)	-0.0351 (-2.83***)	-0.0018 (-0.15)	-0.0196 (-2.14**)
Dummy = 1 if Cash & Stock	-0.0279 (-3.08***)	-0.0093 (-0.73)	-0.0036 (-0.30)	-0.0023 (-0.23)	-0.0298 (-3.03***)	0.0065 (0.47)	-0.0029 (-0.23)	-0.0027 (-0.25)
Dummy = 1 if Other	0.0163 (1.03)	0.0308 (1.40)	-0.0299 (-1.36)	0.0090 (0.46)	0.0153 (0.90)	0.0107 (0.45)	-0.0222 (-1.00)	0.0091 (0.42)
Dummy = 1 if Unknown	0.0081 (0.64)	0.0048 (0.30)	-0.0109 (-0.44)	-0.0068 (-0.57)	0.0085 (0.62)	0.0113 (0.64)	-0.0101 (-0.41)	-0.0059 (-0.46)
Relative Size of Target								
Dummy = 1 If ≤ 10%	0.0055 (0.67)	-0.0289 (-1.86*)	-0.0014 (-0.11)	0.0144 (1.70*)	0.0077 (0.86)	-0.0346 (-2.06**)	0.0027 (0.21)	0.0193 (2.09**)
Dummy = 1 if 10 ~ 9.99%	0.0031 (0.33)	-0.0264 (-1.61)	-0.0012 (-0.11)	-0.0044 (-0.50)	0.0067 (0.65)	-0.0329 (-1.87*)	0.0021 (0.20)	-0.0053 (-0.54)
Dummy = 1 if 50 ~ 99.99 %	-0.0320 (-2.31**)	-0.0729 (-2.22**)	-0.0030 (-0.21)	0.0050 (0.39)	-0.0282 (-1.87*)	-0.1024 (-2.89***)	-0.0101 (-0.70)	0.0040 (0.28)
Dummy = 1 if ≥100%	0.0233 (1.38)	0.1282 (3.93***)	0.0055 (0.27)	-0.0150 (-0.85)	0.0139 (0.75)	0.1700 (4.82***)	0.0053 (0.26)	-0.0180 (-0.93)
Intercept	-0.0083 (-0.97)	0.0330 (2.09**)	-0.0364 (-3.39***)	-0.0190 (-2.31**)	-0.0126 (-1.36)	0.0406 (2.38**)	-0.0370 (-3.42***)	-0.0213 (-2.35**)
Root MSE	0.0601	0.0701	0.0883	0.0754	0.0654	0.0758	0.0890	0.0825

I collect 995 mergers at random which were successfully completed between January 1, 1996 and March 31, 2007 from *Business Wire* and *PR Newswire* in Lexis-Nexis Academic and Thomson ONE Banker. By comparing merger samples, I filter out the cases which are included in both data sources. To exclude rumor effects on the returns of bidding firms, I select the mergers which were announced with the terms such as finished, completed, or finalized. Both of bidding and target firms are publicly traded on the AMEX, Nasdaq, or NYSE.

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
Business Wire & PR Newswire	39	40	31	31	33	43	29	29	36	37	30	12	390
Thomson One Bankers	44	79	75	75	40	48	32	69	75	24	41	3	605
Total Available Mergers	83	119	106	106	73	91	61	98	111	61	71	15	995

I collect total 26063 mergers from *Business Wire* and *PR Newswire* in Lexis-Nexis Academic and Thomson ONE Banker. Firstly, I narrow down the sample size, by subtracting the mergers where the bidding firm is not publicly traded. Secondly, I exclude the mergers additionally if appropriate proxy statements are not searchable in the S.E.C. website.

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
Total Mergers	1438	1915	2367	2869	2993	2367	1988	1982	2319	2476	2642	707	26063
Not Publicly Traded Merging Firms	1278	1742	2195	2729	2882	2251	1891	1847	2169	2365	2554	687	24590
No Proxy Statements	77	54	66	34	38	25	36	37	39	50	17	5	478
Total Available Mergers	83	119	106	106	73	91	61	98	111	61	71	15	995

Table A.3
The Types of Merger Preparations and the Number of Mergers Available in Each Year

I define merger preparations as bidding firms' adaptive actions of changing executives prior to merger. To identify merger preparations, I look up two proxy statements such as Form-10K and Form-14A which are filed for U.S. Securities and Exchange Commissions (S.E.C). In case that bidding firms make multi-merger preparations, I select out the most critical merger preparation by following consistent criteria.

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
MPI	23	31	28	35	21	18	14	19	28	20	21	6	264
MPO	11	19	16	26	14	20	10	24	22	8	12	4	186
MPT	10	20	25	16	13	17	10	25	35	21	22	2	216
NOMP	39	49	37	29	25	36	27	30	26	12	16	3	329

MPI: the movements or job title changes of existing executives in the bidding firms.
MPO: the hiring of new executives by bidding firms from outside other than the targets.
MPT: the hiring of new executives by bidding firms from the targets.
NOMP: no movements or changes of the executives in bidding firms.

Table A.4
Merger with Merger Preparations vs. Mergers without Merger Preparation

I define merger preparations as bidding firms' adaptive actions of changing executives prior to merger. To identify merger preparations, I look up two proxy statements such as Form-10K and Form-14A which are filed for U.S. Securities and Exchange Commissions (S.E.C). In case that bidding firms make multi-merger preparations, I select out the most critical merger preparation by following consistent criteria.

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
Mergers with Merger Preparation	44	70	69	77	48	55	34	68	85	49	55	12	666
No Merger Preparation	39	49	37	29	25	36	27	30	26	12	16	3	329

Table A.5
Cumulative Abnormal Returns to Bidding Firms in Each Merger Preparation

Cumulative abnormal returns for bidding firms that conducted merger preparations and no merger preparation during 12-year period between Jan, 1996 and Mar, 2007. Cumulative abnormal returns are calculated for the two days [-1, 0] and [0, 1], and three days [-1, 1] around the announcement (day 0) of a merger. Abnormal returns are estimated using a simple market model:

$$AR_i = R_i - \hat{\alpha}_i - \hat{\beta}_i R_m$$

where R_i is the return on firm i and R_m is the value-weighted market index return. The abnormal return is the disturbance term of the market model.   All bidding and target firms are publicly traded firms listed on the NYSE, Nasdaq, or AMEX.

	MPI	MPO	MPT	NOMP
Two-Day of Event Window [-1, 0]	-0.0046 (264, -2.20**)	0.0051 (186, 1.73*)	-0.0227 (217, -8.02***)	-0.0001 (329, -0.20)
Two-Day of Event Window [0, 1]	-0.0034 (264, -1.64)	-0.0023 (186, -0.78)	-0.0291 (217, -10.30***)	-0.0169 (329, -5.88***)
Three-Day of Event Window [-1, 1]	-0.0056 (264, -2.17**)	0.0030 (186, 0.82)	-0.0310 (217, -8.94***)	-0.0203 (329, -5.78***)

*   significant at the 10% level
**   significant at the 5% level
***   significant at the 1% level

Table Entry is:
Aggregate Cumulative Abnormal Returns
(Number of Events, Test Statistic for Significance of Aggregate Cumulative Abnormal Returns)

MPI denotes the movement or job title changes among existing executives in bidding firms.
MPO denotes the hiring of new executives by bidding firms from outside except target.
MPT denotes the hiring of new executives by bidding firms directly from target.
NOMP denotes no changes on the executives' roster and their titles in bidding firms.

Table A.6
Sign Test on the Cumulative Abnormal Returns

Sign test is based on the sign of cumulative abnormal returns. This sign test requires that cumulative abnormal returns are independent across bidding firms and that the expected proportion of positive abnormal returns under the null hypothesis is 0.5. Test statistic is

$$\theta = \left[\frac{N^+}{N} - 0.5\right]\frac{\sqrt{N}}{0.5} \sim N(0, 1)$$

where N^+ is the number of merger which has positive CARs and N is the total number of mergers.

	MPI	MPO	MPT	NOMP
Two-Day of Event Window [-1, 0]	-1.969** (116, 148)	1.320 (102, 84)	-2.994*** (86, 130)	-2.040** (146, 183)
Two-Day of Event Window [0, 1]	-0.246 (130, 134)	-1.027 (86, 100)	-6.532*** (60, 156)	-1.378 (152, 177)
Three-Day of Event Window [-1, 1]	-1.723* (118, 146)	1.320 (102,84)	-5.035*** (71,145)	-1.709* (149,180)

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table Entry is:
Test Statistics
(Number of Positive CARs, Number of Negative CARs)

Table A.7
The Effect of Merger Preparations in the Six Months Prior to Merger Announcement

Cumulative abnormal returns for bidding firms that conducted merger preparations and no merger preparation during 12-year period between Jan, 1996 and Mar, 2007. Cumulative abnormal returns are calculated for the two days [-1, 0] and [0, 1] and three days [-1, 1] around the announcement (day 0) of a merger. Abnormal returns are estimated using a simple market model:

$$AR_i = R_i - \hat{\alpha}_i - \hat{\beta}_i R_m$$

where R_i is the return on firm i and R_m is the value-weighted market index return. These analyses on merger preparations are focused on the cases that occurred in the six months prior to merger announcement.

	MPI	MPO	MPT
Two-Day of Event Window [-1, 0]	-0.0056 (111, -1.61)	0.0054 (70, 1.11)	-0.0236 (153, -6.58***)
Two-Day of Event Window [0, 1]	-0.0072 (111, -2.18**)	-0.0043 (70, -0.87)	-0.0314 (153, -8.75***)
Three-Day of Event Window [-1, 1]	-0.0097 (111, -2.41**)	0.0028 (70, 0.47)	-0.0332 (153, -7.55***)

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table Entry is:
Aggregate Cumulative Abnormal Returns
(Number of Events, Test Statistic for Significance of Aggregate Cumulative Abnormal Returns)

MPI denotes the movement or job title changes among existing executives in bidding firms.
MPO denotes the hiring of new executives by bidding firms from outside except target.
MPT denotes the hiring of new executives by bidding firms directly from target.

Table A.8
Sign Test on the Cumulative Abnormal Returns
(The Effect of Merger Preparations in the Six Months Prior to Merger Announcement)

Sign test is based on the sign of cumulative abnormal returns. This sign test requires that cumulative abnormal returns are independent across bidding firms and that the expected proportion of positive abnormal returns under the null hypothesis is 0.5. Test statistic is

$$\theta = \left[\frac{N^+}{N} - 0.5\right]\frac{\sqrt{N}}{0.5} \sim N(0,1)$$

where N^+ is the number of merger which has positive CARs and N is the total number of mergers. These analyses on merger preparations are focused on the cases that occurred in the six months prior to merger announcement.

	MPI	MPO	MPT
Two-Day of Event Window [-1, 0]	-0.095 (55, 56)	0.239 (36, 34)	-3.153*** (57, 96)
Two-Day of Event Window [0, 1]	0.095 (56, 55)	-1.195 (30, 40)	-4.932*** (46, 107)
Three-Day of Event Window [-1, 1]	0.285 (57, 54)	0.717 (38, 32)	-4.447*** (49, 104)

* significant at the 10% level
** significant at the 5% level
*** significant at the 1% level

Table Entry is:
Test Statistics
(Number of Positive CARs, Number of Negative CARs)

Table A.9
Cumulative Abnormal Returns to Bidding Firms in Each Merger Preparation
(Multifactor Models)

Cumulative abnormal returns for bidding firms that conducted merger preparations and no merger preparation during 12-year period between Jan, 1996 and Mar, 2007. Cumulative abnormal returns are calculated for the four days [-2, 1] and five days [-3, 1] around the announcement (day 0) of a merger. Abnormal returns are estimated using a multi-factor market model by Fama-French (1993) or Carhart (1997):

$$R_i - R_f = \beta_0 + \beta_1(R_m - R_f) + \beta_2 \cdot SMB + \beta_3 \cdot HML + \beta_4 \cdot UMD + \varepsilon_i$$

where R_i is the return on firm i, R_m is the value-weighted market index return, R_f is the risk free rate, *SMB* is the difference between the return on the portfolio of "small" and "big" stocks, *HML* is the difference between the return on the portfolio of "high" and "low" book-to-market stocks, and *UMD* is the difference between the return on the portfolio of past one-year "winners" and "losers".

	MPI	MPO	MPT	NOMP
Two-Day of Event Window [-1, 0]	-0.0009 (264, -0.44)	0.0029 (186, 1.16)	-0.0228 (217, -8.31***)	-0.0083 (329, -3.85***)
Two-Day of Event Window [0, 1]	-0.0040 (264, -2.00**)	-0.0023 (186, -0.92)	-0.0292 (217, -10.66***)	-0.0115 (329, -5.36***)
Three-Day of Event Window [-1, 1]	-0.0053 (264, -2.15**)	0.0002 (186, 0.05)	-0.0312 (217, -9.26***)	-0.0137 (329, -5.21***)
Four-Day of Event Window [-2, 1]	-0.0053 (264, -1.86*)	0.0007 (186, 0.20)	-0.0306 (217, -7.85***)	-0.0142 (329, -4.66***)
Five-Day of Event Window [-3, 1]	-0.0065 (264, -2.04**)	0.0030 (186, 0.77)	-0.0320 (217, -7.33***)	-0.0142 (329, -4.15***)

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table Entry is:
Aggregate Cumulative Abnormal Returns
(Number of Events, Test Statistic for Significance of Aggregate Cumulative Abnormal Returns)

MPI denotes the movement or job title changes among existing executives in bidding firms.
MPO denotes the hiring of new executives by bidding firms from outside except target.
MPT denotes the hiring of new executives by bidding firms directly from target.
NOMP denotes no changes on the executives' roster and their titles in bidding firms.

Table A.10
Sign Test on the Cumulative Abnormal Returns
(Multifactor Models)

Sign test is based on the sign of cumulative abnormal returns. This sign test requires that cumulative abnormal returns are independent across bidding firms and that the expected proportion of positive abnormal returns under the null hypothesis is 0.5. Test statistic is

$$\theta = \left[\frac{N^+}{N} - 0.5\right]\frac{\sqrt{N}}{0.5} \sim N(0,1)$$

where N^+ is the number of merger which has positive CARs and N is the total number of mergers.

	MPI	MPO	MPT	NOMP
Two-Day of Event Window [-1, 0]	-1.231 (122, 142)	1.320 (102, 84)	-3.402*** (83, 133)	-3.032*** (137, 192)
Two-Day of Event Window [0, 1]	-0.615 (127, 137)	-0.440 (90, 96)	-6.260*** (62, 154)	-3.694*** (131, 198)
Three-Day of Event Window [-1, 1]	-1.108 (123, 141)	1.613 (104,82)	-5.443*** (68, 148)	-3.473*** (133,196)
Four-Day of Event Window [-2, 1]	-0.739 (126, 138)	1.320 (102,84)	-5.171*** (70, 146)	-2.701*** (140,189)
Five-Day of Event Window [-3, 1]	0 (124, 140)	1.027 (100,86)	-5.443*** (68, 148)	-2.260** (144,185)

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table Entry is:
Test Statistics
(Number of Positive CARs, Number of Negative CARs)

Table A.11
Cumulative Abnormal Returns to Bidding Firms in Each Merger Preparation
(Multifactor Models for Merger Preparations in the Six months prior to Merger Announcement)

Cumulative abnormal returns for bidding firms that conducted merger preparations and no merger preparation during 12-year period between Jan, 1996 and Mar, 2007. Cumulative abnormal returns are calculated for the two days [-1, 0] and [0, 1] and three days [-1, 1] around the announcement (day 0) of a merger. Abnormal returns are estimated using a multi-factor market model by Fama-French (1993) or Carhart (1997):

$$R_i - R_f = \beta_0 + \beta_1(R_m - R_f) + \beta_2 \cdot SMB + \beta_3 \cdot HML + \beta_4 \cdot UMD + \varepsilon_i$$

where R_i is the return on firm i, R_m is the value-weighted market index return, R_f is the risk free rate, *SMB* is the difference between the return on the portfolio of "small" and "big" stocks, *HML* is the difference between the return on the portfolio of "high" and "low" book-to-market stocks, and *UMD* is the difference between the return on the portfolio of past one-year "winners" and "losers". These analyses on merger preparations are focused on the cases that occurred in the six months prior to merger announcement.

	MPI	MPO	MPT
Two-Day of Event Window [-1, 0]	-0.0035 (111, -1.04)	0.0068 (70, 1.43)	-0.0235 (153, -6.68***)
Two-Day of Event Window [0, 1]	-0.0069 (111, -2.07**)	-0.0022 (70, -0.46)	-0.0313 (153, -8.91***)
Three-Day of Event Window [-1, 1]	-0.0082 (111, -1.98**)	0.0051 (70, 0.87)	-0.0330 (153, -7.66***)

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table Entry is:
Aggregate Cumulative Abnormal Returns
(Number of Events, Test Statistic for Significance of Aggregate Cumulative Abnormal Returns)

MPI denotes the movement or job title changes among existing executives in bidding firms.
MPO denotes the hiring of new executives by bidding firms from outside except target.
MPT denotes the hiring of new executives by bidding firms directly from target.

Table A.12
Sign Test on the Cumulative Abnormal Returns for Multifactor Models
(The Effect of Merger Preparations in the Six Months prior to Merger Announcement)

Sign test is based on the sign of cumulative abnormal returns. This sign test requires that cumulative abnormal returns are independent across bidding firms and that the expected proportion of positive abnormal returns under the null hypothesis is 0.5. Test statistic is

$$\theta = \left[\frac{N^+}{N} - 0.5 \right] \frac{\sqrt{N}}{0.5} \sim N(0,1)$$

where N^+ is the number of merger which has positive CARs and N is the total number of mergers. These analyses on merger preparations are focused on the cases that occurred in the six months prior to merger announcement.

	MPI	MPO	MPT
Two-Day of Event Window [-1, 0]	-0.095 (55, 56)	0.239 (36, 34)	-3.153*** (57, 96)
Two-Day of Event Window [0, 1]	0.095 (56, 55)	-1.195 (30, 46)	-4.932*** (46, 107)
Three-Day of Event Window [-1, 1]	0.285 (57, 54)	0.717 (38, 32)	-4.447*** (49, 104)

*   significant at the 10% level
**   significant at the 5% level
***   significant at the 1% level

Table Entry is:
Test Statistics
(Number of Positive CARs, Number of Negative CARs)

Table A.13
Interactions of Merger Preparations with Other Dummies

Ordinary least squares regression of the bidding firms' two-day cumulative abnormal returns on the following variables. First five dummy variables are defined as whether the target is acquired with cash, stock, combination of cash and stock, other than cash and stock, and unknown type of payment. Other includes options, warrants, rights, or combination of them. The remainders of the dummy variables are the relative size of target which is the ratio of market values of merging firms. This table reports the interaction of each merger preparation with other dummies.

	[-1 , 0]				[0 , 1]			
	MPI	MPO	MPT	NOMP	MPI	MPO	MPT	NOMP
Method of Payment								
Dummy=1 If Cash	0.0029 (0.50)	0.0143 (1.91*)	0.0201 (1.68*)	0.0005 (0.38)	0.0150 (2.15**)	0.0193 (2.22**)	0.0369 (2.77***)	0.0024 (1.26)
Dummy = 1 If Stock	-0.0158 (-2.34**)	-0.0190 (-2.17**)	-0.0038 (-0.40)	-0.0003 (-0.27)	-0.0106 (-1.29)	-0.0291 (-2.86***)	-0.0081 (-0.77)	0.0032 (1.75*)
Dummy = 1 if Cash & Stock	-0.0193 (-2.66***)	-0.0260 (-2.65***)	-0.0057 (-0.59)	-0.0028 (-2.02**)	-0.0305 (-3.43***)	-0.0167 (-1.46)	-0.0048 (-0.44)	-0.0033 (-1.52)
Dummy = 1 if Other	0.0191 (1.51)	0.0177 (1.05)	-0.0179 (-1.01)	0.0001 (0.03)	0.0109 (0.71)	0.0136 (0.70)	-0.0222 (-1.13)	-0.0033 (-0.76)
Dummy = 1 if Unknown	0.0132 (1.30)	0.0130 (1.04)	0.0073 (0.37)	0.0025 (1.53)	0.0151 (1.22)	0.0129 (0.89)	-0.0018 (-0.08)	0.0010 (0.36)
Relative Size of Target								
Dummy = 1 If ≤ 10%	0.0140 (2.12**)	-0.0209 (-1.76*)	-0.0003 (-0.03)	0.0012 (1.05)	0.0052 (0.65)	-0.0252 (-1.83*)	0.0030 (0.26)	-0.0030 (-1.58)
Dummy = 1 if 10 ~ 9.99%	0.0077 (1.02)	-0.0159 (-1.28)	-0.0000 (-0.00)	-0.0011 (-0.85)	-0.0001 (-0.01)	-0.0324 (-2.23**)	0.0012 (0.13)	-0.0040 (-2.02**)
Dummy = 1 if 50 ~ 99.99 %	-0.0226 (-2.03**)	-0.0280 (-1.12)	-0.0111 (-0.97)	-0.000 (-0.02)	-0.0292 (-2.15**)	-0.0545 (-1.87*)	-0.0132 (-1.03)	0.0101 (3.55***)
Dummy = 1 if ≥100%	0.0009 (0.006)	0.0648 (2.60***)	0.0114 (0.71)	-0.0001 (-0.06)	0.0241 (1.45)	0.1121 (3.87***)	0.0090 (0.50)	-0.0032 (-0.81)
Intercept	-0.0109 (-1.60)	0.0225 (1.87*)	-0.0218 (-2.53**)	-0.0002 (-0.20)	-0.0073 (-0.87)	0.0215 (1.54)	-0.0307 (-3.20***)	0.0019 (1.06)
Root MSE	0.0482	0.0535	0.0709	0.0105	0.0591	0.0622	0.0789	0.0167

* significant at the 10% level
** significant at the 5% level
*** significant at the 1% level

Table A.13 (Continued)
Interactions of Merger Preparations with Other Dummies

Ordinary least squares regression of the bidding firms' three-day cumulative abnormal returns on the following variables. First five dummy variables are defined as whether the target is acquired with cash, stock, combination of cash and stock, other than cash and stock, and unknown type of payment. Other includes options, warrants, rights, or combination of them. The remainders of the dummy variables are the relative size of target which is the ratio of market values of merging firms. This table reports the interaction of each merger preparation with other dummies.

	[-1 , 1]			
	MPI	MPO	MPT	NOMP
Method of Payment				
Dummy=1 If Cash	0.0168 (2.17**)	0.0203 (2.15**)	0.0378 (2.67***)	0.0027 (1.31)
Dummy = 1 If Stock	-0.0138 (-1.51)	-0.0352 (-3.18***)	-0.0036 (-0.32)	0.0034 (1.74*)
Dummy = 1 if Cash & Stock	-0.0347 (-3.52***)	-0.0239 (-1.93*)	-0.0074 (-0.64)	-0.0047 (-2.01**)
Dummy = 1 if Other	0.0154 (0.90)	0.0297 (1.40)	-0.0232 (-1.11)	-0.0045 (-0.97)
Dummy = 1 if Unknown	0.0162 (1.18)	0.0090 (0.57)	-0.0037 (-0.16)	0.0031 (1.09)
Relative Size of Target				
Dummy = 1 If ≤ 10%	0.0043 (0.48)	-0.0337 (-2.25**)	0.0009 (0.08)	-0.0027 (-1.37)
Dummy = 1 if 10 ~ 9.99%	0.0021 (0.21)	-0.0357 (-2.26**)	0.0036 (0.36)	-0.0045 (-2.14**)
Dummy = 1 if 50 ~ 99.99 %	-0.0352 (-2.34)	-0.0634 (-2.00**)	-0.0125 (-0.92)	0.0101 (3.32***)
Dummy = 1 if ≥100%	0.0287 (1.56)	0.1328 (4.22***)	0.0080 (0.42)	-0.0028 (-0.68)
Intercept	-0.0083 (-0.90)	0.0350 (2.30**)	-0.0348 (-3.41***)	0.0017 (0.86)
Root MSE	0.0654	0.0677	0.0839	0.0178

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table A.14
Interactions of Merger Preparations with Other Dummies (Multifactor Models)

Ordinary least squares regression of the bidding firms' two-day cumulative abnormal returns on the following variables. First three dummy variables are defined as whether the bidding firm conducted merger preparations. The next four dummy variables are defined whether the target is acquired with stock, combination of cash and stock, other than cash and stock, and unknown type of payment. Other includes options, warrants, rights, or combination of them. The remainders of the dummy variables are the relative size of target which is the ratio of market values of merging firms.

	[-1 , 0]				[0 , 1]			
	MPI	MPO	MPT	NOMP	MPI	MPO	MPT	NOMP
Method of Payment								
Dummy=1 If Cash	0.0016 (0.31)	0.0119 (1.56)	0.0189 (1.57)	0.0143 (2.26**)	0.0071 (1.12)	0.0166 (1.87*)	0.0356 (2.68***)	0.0104 (1.44)
Dummy = 1 If Stock	-0.0102 (-1.68*)	-0.0203 (-2.29**)	-0.0041 (-0.43)	-0.0091 (-1.48)	-0.0113 (-1.50)	-0.0306 (-2.95***)	-0.0083 (-0.78)	-0.0055 (-0.78)
Dummy = 1 if Cash & Stock	-0.0168 (-2.56**)	-0.0233 (-2.34**)	-0.0062 (-0.63)	0.0047 (0.65)	-0.0271 (-3.35***)	-0.0127 (-1.09)	-0.0051 (-0.47)	-0.0034 (-0.41)
Dummy = 1 if Other	0.0193 (1.69*)	0.0196 (1.15)	-0.0181 (-1.02)	-0.0067 (-0.47)	0.0222 (1.58)	0.0146 (0.73)	-0.0227 (-1.15)	-0.0093 (-0.56)
Dummy = 1 if Unknown	0.0062 (0.67)	0.0122 (0.96)	0.0095 (0.48)	-0.0033 (-0.37)	0.0090 (0.80)	0.0121 (0.82)	0.0004 (0.02)	0.0077 (0.77)
Relative Size of Target								
Dummy = 1 If ≤ 10%	0.0086 (1.44)	-0.0196 (-1.63)	0.0001 (0.01)	0.0011 (0.18)	0.0031 (0.43)	-0.0233 (-1.66*)	0.0036 (0.31)	0.0050 (0.70)
Dummy = 1 if 10 ~ 9.99%	0.0018 (0.27)	-0.0153 (-1.21)	-0.0002 (-0.02)	0.0001 (0.01)	-0.0059 (-0.70)	-0.0320 (-2.16**)	0.0011 (0.11)	-0.0095 (-1.28)
Dummy = 1 if 50 ~ 99.99 %	-0.0058 (-0.57)	-0.0293 (-1.15)	-0.0112 (-0.97)	0.0163 (1.72*)	-0.0341 (-2.76***)	-0.0565 (-1.90*)	-0.0135 (-1.05)	0.0027 (0.25)
Dummy = 1 if ≥100%	-0.0047 (-0.38)	0.0642 (2.54**)	0.0112 (0.69)	-0.0174 (-1.34)	0.0368 (2.44**)	0.1117 (3.78***)	0.0088 (0.49)	0.0019 (0.13)
Intercept	-0.0051 (-0.82)	0.0234 (1.91*)	-0.0214 (-2.48**)	-0.0109 (-1.80*)	-0.0028 (-0.36)	0.0222 (1.55)	-0.0304 (-3.17***)	-0.0122 (-1.76*)
Root MSE	0.0439	0.0544	0.0711	0.0554	0.0537	0.0635	0.0789	0.0631

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Interactions of Merger Preparations with Other Dummies (Multifactor Models)

Ordinary least squares regression of the bidding firms' three-day cumulative abnormal returns on the following variables. First three dummy variables are defined as whether the bidding firm conducted merger preparations. The next four dummy variables are defined whether the target is acquired with stock, combination of cash and stock, other than cash and stock, and unknown type of payment. Other includes options, warrants, rights, or combination of them. The remainders of the dummy variables are the relative size of target which is the ratio of market values of merging firms.

	[-1 , 1]			
	MPI	MPO	MPT	NOMP
Method of Payment				
Dummy=1 If Cash	0.0099 (1.39)	0.0167 (1.73*)	0.0360 (2.54**)	0.0162 (1.96**)
Dummy = 1 If Stock	-0.0126 (-1.49)	-0.0371 (-3.28***)	-0.0040 (-0.36)	-0.0117 (-1.46)
Dummy = 1 if Cash & Stock	-0.0298 (-3.26***)	-0.0194 (-1.53)	-0.0080 (-0.69)	-0.0012 (-0.12)
Dummy = 1 if Other	0.0246 (1.55)	0.0318 (1.47)	-0.0236 (-1.13)	0.0009 (-0.05)
Dummy = 1 if Unknown	0.0078 (0.61)	0.0080 (0.50)	-0.0004 (-0.02)	-0.0025 (-0.22)
Relative Size of Target				
Dummy = 1 If ≤ 10%	0.0063 (0.76)	-0.0314 (-2.05**)	0.0017 (0.14)	0.0070 (0.86)
Dummy = 1 if 10 ~ 9.99%	0.0015 (0.16)	-0.0349 (-2.17**)	0.0034 (0.34)	-0.0056 (-0.66)
Dummy = 1 if 50 ~ 99.99 %	-0.0354 (-2.54**)	-0.0656 (-2.03**)	-0.0127 (-0.94)	0.0084 (0.68)
Dummy = 1 if ≥100%	0.0276 (1.62)	0.1319 (4.10***)	0.0076 (0.40)	-0.0097 (-0.57)
Intercept	-0.0075 (-0.88)	0.0361 (4.10***)	-0.0342 (-3.36***)	-0.0161 (-2.04**)
Root MSE	0.0606	0.0692	0.0839	0.0721

*   significant at the 10% level
**   significant at the 5% level
***   significant at the 1% level

Corporate Financial Policies and Turnover of CEOs and CFOs

Around the Time of a Merger

By

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Claremont Graduate University

2012

APPROVAL OF THE REVIEW COMMITTEE

This dissertation has been duly read, reviewed, and critiqued by the Committee listed below, which hereby approves the manuscript of Sang-Hyun Lee as fulfilling the scope and quality requirements for meriting the degree of doctor.

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Abstract

Corporate Financial Policies and Turnover of CEOs and CFOs
Around the Time of a Merger

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Merger and the turnover of CEOs and CFOs are interpreted as organizational changes. The former is the integration of two separate organizations and the latter is the reorganization inside of a firm. By focusing on three financial policy variables such as financial leverage, cash holdings, and debt maturity structure, I conduct a comprehensive analysis on the organizational changes of a firm and examine the effects of CEO and CFO turnover on the corporate financial policy. The results of this analysis show that (1) new CEOs who come from outside take riskier financial leverage policy immediately after a merger, (2) new CFOs who come from outside increase long-term debt to total debt ratio and offset the financial risk incurred by new CEOs, (3) in the follow-up adjustment period, the new CEOs who come from outside increase cash holdings, (4) a firm determines its financial policies by considering how the merger is evaluated in the market.

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1. Introduction

A large literature analyzes the causal relationship between managerial performance of top executives and their turnover rates. The literature also examines the effects of firm-specific factors on corporate financial policies. However, we know little about how a firm's organizational changes are connected to the choice of its financial policies. I extend the literature and provide empirical evidences for systematical connections of a firm's financial policies to its organizational changes. As primary organizational changes, I introduce two corporate events into the study: corporate mergers and the turnovers of CEOs and CFOs. From the corporate organizational point of view, a merger is interpreted as an integration of two separate organizations, and the turnovers of CEOs and CFOs are understood as reorganizations inside of a firm. As a step towards learning more about a firm's organizational changes and their effects on the choice of its financial policies, I focus on primarily those cases when a firm conducts a merger with new CEOs or CFOs.

While managerial decisions are made in teams, CEOs and CFOs are involved in different aspects of the corporate financial decision-making process. CEOs are concerned with the broader aspects of financial decisions such as financial leverage and cash holdings. In contrast, CFOs are involved in the finer aspects of the firm such as the debt maturity structure and the management of accruals. The choices of a firm's financial policies also are found to reflect the risk preference of CEOs and CFOs of the firm (Chava and Purnanandam, 2010). Furthermore, the origin of new CEOs and CFOs has different implications for the firm's policies (Agrawal, Knoeber, and Tsoulouhas, 2006; Chan, 1996; Friedman and Singh, 1989; Rosen 1986). Those who come from outside are more likely to change the corporate strategy and mission, whereas those who come from inside are more likely to maintain stability and continuity of the firm. To

capture more precisely the effects of CEO and CFO turnover, I categorize them based on their origin[1] as well as their title.

Since turnovers of CEOs and CFOs are about reorganizations which take place within a firm, I use cumulative abnormal return (CAR) to reflect the effect of a merger which is the integration of two separate organizations. It is natural that a firm determines its financial policies considering the market's response to the merger, since CAR shows how the market evaluates a merger. The firm is expected to take riskier financial policies when the merger is considered favorably in the market and the reverse is expected when the merger is considered negatively.

The basic hypotheses of this study are: 1) a firm changes its financial policies depending on how the market evaluates the merger; 2) choice of financial policies varies with turnovers of CEOs and CFOs occurring before a merger; 3) the turnover effects differ depending on the origin of the new CEOs and CFOs. To test these predictions, I compute three financial variables such as financial leverage, cash holdings, and debt maturity structure using quarterly data and employ them as the firm's main financial policy variables. These variables make it possible to link a firm's attitude toward financial risk with the change in corporate financial policies. Higher leverage, lower cash holdings, and lower long-term debt to total debt ratio are regarded as riskier policy choices. Additionally, I examine the influence of firm-specific factors by including the method of payment and the relative size of target in the analysis.

By comparing the values of three financial variables for two consecutive quarters, I examine a firm's immediate responses to its organizational changes and inspect the firm's follow-up adjustments in the following quarter. First, I find significant relationship of turnover

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[1] The new CEOs or CFOs who come from inside are those who fill the positions through vertical or horizontal movement in the bidding firm. The new CEOs or CFOs who come from outside are those who fill the positions through external hire.

of CEOs with two financial variables, financial leverage and cash holdings. New CEOs immediately increase the firm's financial leverage in the quarter that a merger is completed. This immediate increase of financial leverage is driven by new CEOs who come from outside in particular. The turnover effect of CEOs, however, is found not to be significant in the follow-up adjustment period. Just like a financial leverage, the new CEOs who come from outside increase cash holdings as well. However, this increase of cash holdings occurs in the follow-up adjustment stage. These findings imply that the CEOs make an immediate choice of financial policies with an understanding of what future choices they plan to make next. While new CEOs choose financially riskier policy by raising financial leverage, they take safety measures in the following quarter by increasing cash holdings.

Secondly, I find a significant relationship between the turnover of CFOs and a firm's debt maturity structure. New CFOs make immediate choices of increasing long-term debt to total debt ratio in the quarter that a merger is completed. This immediate increase is driven especially by the CFOs who come from outside. While new CEOs who come from inside are found to decrease the debt ratio, turnover effect of CFOs is found more influential in the choice of debt maturity policy. Turnover effect of CFOs is found significant regardless of controls. In the follow-up adjustment period, no significant effect on debt maturity is found in any type of turnovers. Considering the changes in financial leverage resulting from the CEO turnovers together, I interpret this finding as the collaboration between CEOs and CFOs for the management of a firm's financial risk. Responding to the immediate increase of financial leverage conducted by new CEOs, new CFOs simultaneously increase long-term debt to total debt ratio as a way of offsetting financial risk incurred by the choice of new CEOs.

Thirdly, I find that the choice of financial policies is also related with how the market evaluates the merger. When the merger is evaluated favorably in the market, the firm takes riskier policy of higher financial leverage. Responding to this increased financial risk, the firm increases cash holdings simultaneously and then adjusts the debt maturity structure in the next quarter to offset the financial risk. This finding implies that a firm has room to increase its borrowing for investment when the merger is considered beneficial. However, the firm takes safety measures for the management of financial risk by adjusting other policy variables.

Lastly, I find that CEOs are involved in the broader aspects of financial decision-making, whereas CFOs are concerned with finer aspects even when they face comprehensive organizational changes in a firm. This finding is consistent with previous literature on corporate financial policy.

This paper makes some contributions to the empirical literature concerned with financial economics. Firstly, it is a comprehensive analysis on the organizational changes of a firm to examine how turnovers of CEOs and CFOs influence corporate financial policies around the time of a merger. The second contribution of this study is to include turnover of CFOs explicitly in the analysis. Even if there has been acknowledgement regarding the involvement of CFOs, little research has been conducted to investigate turnover effects of CFOs on the choice of corporate financial policy. Since corporate decisions are often made in teams (Aggarwal and Samwick, 2003), I incorporate both turnovers of CEOs and CFOs into the reorganization inside of a firm and analyze their effects on the choice of corporate financial policy.

The rest of this paper is organized as follows. Section 2 explains the merger data and control variables used in this study. Section 3 describes the empirical analysis and reports its findings. Section 4 concludes this paper.

2. Sample and Control Variables

2.1. Sample

Using Lexis-Nexis Academic and Thomson ONE Banker, I collected 995 mergers at random. All these mergers were successfully completed between January 1, 1996 and March 31, 2007. I use variations and combinations of the words "mergers" and "acquisitions" as search terms and find 390 merger cases from *Business Wire* and *PR Newswire* in Lexis-Nexis Academic. I find 615 additional mergers in a further search of Thomson ONE Banker by checking Custom League Tables in the M&A tab in the Deals Analysis menu. First, I filter out the cases which are included in both data sources by comparing the samples. Second, I select the cases in which both the bidding and target firms are publicly traded on the AMEX, Nasdaq, or NYSE.[2] Lastly, I select 435 merger cases which involve turnover of CEOs and CFOs by inquiring into two proxy statements of Form-10K and Form DEF-14A[3] that are filed with the U.S. Securities and Exchange Committee (S.E.C).

Table 1 reports how many turnovers of CEOs and CFOs are followed by mergers. Turnover of CFOs occurs more frequently than that of CEOs before a merger. Turnovers of executives other than CEOs and CFOs are included in No Changes. Table 2 shows the types of each turnover which is categorized by the origin of new CEOs and CFOs. Although Hiring from Outside and Hiring from Target are separated in the table 2, I treat both as Hiring from Outside and examine its effect in the following regression analyses. While the CEO positions are filled evenly by insiders and outsiders, the CFO positions are filled mainly by outsiders. The one issue

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[2] Table A.1 in the Appendix reports the number of mergers selected in each year.
[3] Form 10K is an annual report to S.E.C and includes information such as company history, organizational structure, executives' compensation, equity, subsidiaries, and audited financial statements. Form DEF-14A is a definitive proxy statements and includes information on the date, time and place of the meeting of security holders, revocability of proxy, dissenter's right of appraisal, persons making the solicitation, director or indirect interest of certain persons in matters to be acted upon, modification or exchange of securities, financial statements, voting procedures and other details.

that occurs in the categorization is in the case that both CEO and CFO turnovers occur before a merger. In particular, it is difficult to categorize turnovers based on the origin of new CEOs and CFOs if they have different origins. This issue is found in 32 cases and I categorize them following the origin of the executive who receives higher compensation.

I take special care not to miss these turnovers. Since CEO makes broad decisions, the changes of CEO and President are included in the CEO turnover. I consider the CFO as any executive who holds the title of treasurer, finance, vice president-finance, and controller, since CFO is often titled with different name (Chava and Purnanandam, 2010).

2.2. Control Variables

I use four control variables such as CAR in the merger announcement period, turnover of CEOs and CFOs, method of payment, and relative size of a target. By dividing each variable into subcategories, I analyze in detail the causal relationships of corporate financial policies with these control variables. Control variables in this study are described as follows.

2.2.1. Financial Variables

I conduct analysis on the financial policies by focusing on three important financial variables such as financial leverage, cash holdings, and debt maturity. I incorporate these variables into the analysis because they are the ones extensively used in the field of corporate finance and accounting. Furthermore, the analysis on these variables makes it possible to link a firm's attitude toward financial risk with the change in corporate financial policy. A firm's financial decisions of higher leverage, lower cash holdings, and higher short-term debt to long-term debt ratio are regarded as riskier policy choices, since they lead to an increase in the total

volatility of the firm's earnings and consequently, its stock returns (Chava and Purnanandam, 2010). Comparing the choice of financial policies over time also makes it possible to capture a firm's immediate response and follow-up adjustment from the management of financial risk perspectives. In addition, this analysis also enables us to find differences, if any, in the choice of financial policy between new CEOs and new CFOs as well as between the new executives who come from either inside or outside. I construct three corporate financial variables from quarterly Compustat data as follows.

Financial Leverage[4]

I use book-leverage as a key variable. It is constructed as the ratio of the sum of short-term (DLC: item 34) and long-term debt (DLTT: item 9) to the book value of total assets (AT: item 6). A firm's choice of higher financial leverage increases the firm's financial risk.

Cash Holdings

I construct cash holdings as the ratio of cash and short-term investment (CHE: item 1) to the book value of total assets (AT: item 6) following Bates, Kahle, and Stulz (2006) and Opler, Pinkowitz, Stulz, and Williamson (1999). A firm's decision to increase cash holdings will allow the firm to smooth its investment decision better by weakening their dependence on external funding (Froot, Scharfstein, and Stein, 1993). In addition, higher cash holdings reduce the financial risks of the firm.

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[4] In the parenthesis next to Compustat data, I provide both of item name and item number.

Debt Maturity Structure

Following Barclay and Smith (1995), I broadly classify debt into short-term and long-term debt depending on whether its maturity is less than three years. Debt maturity structure is constructed as the ratio of long-term debt to total debt. Long-term debt is the sum of debt due in the 4th year (DD4, item 93) and debt due in the 5th year (DD5, item 94) and total debt is the sum of long-term debt total (DLTT, item 9) and debt in current liability (DLC, item 34). The decrease in the ratio of long-term debt will expose firms to considerable refinancing and interest rate risks as well as excess liquidation by the lenders (Diamond, 1991). Therefore, a firm's decision to decrease debt maturity increases the financial risks of the firm.

2.2.2. Turnover of CEOs and CFOs

Motivated by previous studies such as Chava and Purnanandam (2010), Murphy and Zabojnik (2007), Geiger and North (2006), Friedman and Singh (1989), Agrawal, Knoeber, and Tsoulouhas (2000), Berry, Bizjak, Lemmon and Naveen (2000), Mian (2001), Lehn and Zhao (2006), Rosen (1986), and Chan (1996), I try to relate turnovers of CEOs and CFOs with a firm's financial policies. By considering the origin of the executives, I extend their analyses.

The origin of new executives influences the firm's management policy as well as the workers' incentives to work. The new executives from outside are more likely to change the corporate strategy and mission, while the new executives from inside are more likely to maintain stability and continuity of the firm (Friedman and Singh, 1989). Filling executive positions with insiders provides workers with incentives to put more efforts into their work. In contrast, allowing outsiders to fill the positions reduces such incentives for insiders (Agrawal, Knoeber,

and Tsoulouhas, 2006; Chan, 1996). In addition, the risk preference of CEOs and CFOs are connected to the corporate financial policies (Chava and Purnanandam, 2010).

By considering the turnover of CEOs and CFOs and a corporate merger together, I analyze the comprehensive effects of a firm's organizational changes on the financial policies. I also examine the different financial decisions made by new CEOs and CFOs and trace how they adjust their decisions over time. In addition, I examine the variances between the new executives who came from inside and outside.

2.2.3. Method of Payment and Relative Size of a Target

The method of payment in a merger reveals the merging firms' value indirectly. Fishman (1989), Berkovitch and Narayanan (1990), and Eckbo, Giammarino, and Heinkel (1990) show that high-valued bidding firms use cash or higher proportion of cash to signal their value to the market. However, if there is uncertainty about the target's value, the bidding firms may not want to use cash, since the target will accept only a cash offer greater than its true value, which risks overpayment. Hansen (1987) and Eckbo and Thorburn (2000) address this issue and suggest that bidding firms use cash offers when there is high uncertainty about their own value, and stock offers when there is high uncertainty on the target's value. Therefore, controlling the method of payment may capture the financial risk related with uncertainty in a merger and reveal the firm's response to it. In addition, I divide the relative size of a target into four categories to find the possible size effect on the choice of financial policies.

3. Empirical Analysis

I use quarterly data to construct three financial variables. By comparing the values of those variables for two consecutive quarters, I examine how a firm immediately responds to its organizational changes and how it adjusts its financial policy in the following quarter. Equation (1) represents a firm's immediate response to its organizational changes in the quarter that a merger is completed. Equation (2) describes how a firm adjusts its choice of financial policies in the following quarter. $\Delta Variable$ denotes the change of financial variable for two consecutive quarters.

$$\Delta Variable_{t,t-1} = Variable_t - Variable_{t-1} \qquad (1)$$

$$\Delta Variable_{t+1,t} = Variable_{t+1} - Variable_t \qquad (2)$$

where t is the quarter that a merger completes

In the analysis of cash holdings policy, I consider changes in the logs of the variable to prevent the effect generated by a firm's size.[5] By examining $\Delta Variable_{t,t-1}$ and $\Delta Variable_{t+1,t}$ for three financial variables, I find answers to the following questions.

Q1: Does a firm make the choice of financial policies depending on how the merger is evaluated in the market?

Q2: Is a firm's choice of financial policies affected by CEO and CFO turnover? If so, is there any difference in the effects on the financial policies between the turnover of CEOs and CFOs?

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[5] I use $\Delta Cashholding_{t,t-1} = logCashholding_t - logCashholding_{t-1}$ for equation (1) and $\Delta Cashholding_{t+1,t} = logCashholding_{t+1} - logCashholding_t$ for equation (2).

Q3: Does the turnover effect of CEOs and CFOs on the firm's choice of financial policies vary depending on their origins?

Q4: Does a firm's choice of financial policies vary depending on the method of payment and relative size of target?

Q5: Is there any difference between a firm's immediate response and its follow-up adjustment to organizational changes?

To answer the above questions, I set up a regression model for each financial variable. Equation (3) in the following is the general form of that regression model.

$$\Delta Variable^6 = \beta_0 + \beta_1 \cdot CAR + \beta_2 \cdot executive + \beta_3 \cdot mop + \beta_4 \cdot size + \varepsilon \qquad (3)$$

CAR represents the cumulative abnormal return in the merger announcement period. This variable is an informative indicator of the significance of a firm's organizational change and reflects how the market evaluates the merger (Friedman and Singh, 1989). Therefore, including *CAR* in the analysis is expected to capture how sensitively a firm changes and adjusts its financial policies tied with market valuation on the merger. In order to check the robustness of the effect, I employ *CAR* which is computed for [-2, 1] (four days of event window) and for [-3, 1] (five days of event window).[7]

The *executive* stands for the turnover of CEOs and CFOs which occurred less than a year before a merger. This turnover variable is expected to represent the differences in the attitude toward corporate financial risk between new CEOs and new CFOs. First, I categorize *executive*

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[6] For the simplicity, I omitted subscripts of *t-1*, *t*, and *t+1*.
[7] Market begins responding to the announcement two days in advance and the announcement typically appears in the Wall Street Journal the after it is released (Filson, 2004).

into three cases without considering the origin of new CEOs and CFOs. Each of the following terms: *CEO*, *CFO*, and *CEO&CFO* denotes the turnover of CEO, CFO, and both CEO and CFO, respectively. Secondly, I conduct further investigations into the turnover effect by taking the origin of new CEOs and CFOs into account. This approach examines the variations in attitude toward financial risk which vary depending on the origin of new CEOs and CFOs as well as the title of new executives. In this analysis, I subdivide *executive* into six categories: *CEO_I, CEO_O, CFO_I, CFO_O, CEO&CFO_I,* and *CEO&CFO_O*. By adding capital letter "I" and "O" next to each of *CEO, CFO* and *CEO&CFO*, I have each variable reveal where the executive came from. "_I" and "_O" stand for the new executive who came from inside and outside, respectively.

The *mop* represents the method of payment offered by a bidding firm in a merger. I classify *mop* into five types: cash, combination of cash and stock, stock, other, and unknown[8]. The *size* denotes the relative size of target which is computed as the ratio of market value of the bidding firm and the target. The market value is the product of the price 30 days before the announcement date and common shares outstanding on CRSP.[9] I divide *size* into four categories: Xsmall (less than 9.99%), Small (10% to 49.99%), Large (50% to 99.99%), and Xlarge (greater than 100%). By including the relative size of target, I expect to capture market reactions, which I predict may vary depending on the size of the target.

At first, I run a regression of each financial variable on the control variables described above using equation (4). This analysis depicts how a firm determines its financial policies immediately after the organizational changes. By considering the origin of new CEOs and

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[8] Other includes options, warrants, rights, or combination of them.
[9] The relative size of target has been measured in many different ways in the previous studies, making generalizations about its effects difficult. I compute relative size of target following Fuller, Netter, and Stegemoller (2002).

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CFOs, I try to find the probable variations in a firm's financial policies resulted from the origin of new CEOs and CFOs.

$$\Delta Variable_{t,t-1} = \beta_0 + \beta_1 \cdot CAR + \beta_2 \cdot executive + \beta_3 \cdot mop + \beta_4 \cdot size + \varepsilon \quad (4)$$

Secondly, I examine how each financial variable is affected by the control variables in the following quarter using regression (5). This analysis shows how a firm adjusts its choice of financial policies which were determined immediately after a merger. By considering the origin of new CEOs and CFOs, I investigate the differences in financial policy which may result from the different origin of new CEOs and CFOs.

$$\Delta Variable_{t+1,t} = \beta_0 + \beta_1 \cdot CAR + \beta_2 \cdot executive + \beta_3 \cdot mop + \beta_4 \cdot size + \varepsilon \quad (5)$$

Lastly, I investigate whether or not a firm's choice of financial policies changes over time by comparing the firm's immediate response to its follow-up adjustment. This analysis is expected to capture the dynamics in a firm's choice of financial policies.

3.1. Financial Leverage[10]

I start the analysis by running regressions of financial leverage which is the ratio of the sum of short-term and long-term debt to book value of total asset. A firm's choice of higher leverage is regarded as taking a riskier financial policy. This analysis examines the factors affecting a firm's choice of financial leverage policy and inspects how a firm adjusts its leverage

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[10] In the following sections, I put independent variables name used in the regression into the parenthesis for the clarity of explanations.

level in response to organizational changes over time. Table 3.1 and 3.2 report a firm's immediate change of financial leverage in the quarter that a merger completes. Table 3.3 and 3.4 show the follow-up adjustment of leverage level conducted by the firm in the following quarter. In particular, Table 3.2 and 3.4 display in a more detailed way how a firm's financial leverage is affected by the origin of new CEOs and CFOs.

3.1.1 Immediate Changes in Financial Leverage

I compare the financial leverage level reported in the quarter that a merger completes with that reported in the previous quarter. Therefore, the changes found during this period ($\Delta Leverage_{t,t-1}$ in the equation (6)) explain a firm's immediate responses to organizational changes through financial leverage policy. The variable representing immediate changes of a firm's financial leverage is defined as following.

$$\Delta Leverage_{t,t-1} = Leverage_t - Leverage_{t-1} \qquad (6)$$

where *t* is the quarter that a merger completes.

As table 3.1 reports, turnovers of CEOs (*CEO*) and CFOs (*CFO*) immediately increase financial leverage.[11] While the influence of CFOs is not significant, the turnover of CEOs has significant influence on the increase of financial leverage immediately after a merger. When both CEO and CFO positions are filled by new executives (*CEO&CFO*), they decrease financial leverage level and reduce financial risks of the firm. Table 3.2 provides a more detailed description when the origin of new CEOs and CFOs is considered. Regardless of their origin, new CFOs (both *CFO_I* and *CFO_O*) increase financial leverage immediately after a merger.

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[11] For clarity of explanations, I use independent variable names which are used in the regression to describe the effects of turnovers. They are put in the parenthesis in italic type.

However, new CEOs make conflicting decisions based on their origin. While new CEOs who originated internally (*CEO_I*) lower leverage level, new CEOs who came from outside (*CEO_O*) raise it and take riskier leverage policies; they raise the level high enough to offset the decrease incurred by the new CEOs who came from inside (*CEO_I*). This variation resulting from the different origin of CEOs is consistent with earlier literature. While CEOs are promoted from within in normal time, outsiders are brought in to shake things up (Agrawal, Knoeber, and Tsoulouhas, 2000; Friedman and Singh, 1989). In addition, the significant impact of the turnover of CEOs is also in line with Chava and Purnanandam (2010); financial leverage of a firm is significantly related with the risk preference of CEO.

As CAR in the merger announcement period increases, the firm increases financial leverage level. Based on my interpretation, I suggest that when the merger is evaluated positively in the market, the firm implements a more aggressive management and takes riskier financial policies by increasing its leverage level. Instead, as a protection device for this increased financial risk, the firm is found to raise long-term debt to total debt ratio simultaneously.[12]

Other findings on the effect of method of payment and relative size of target are broadly consistent with previous literature. When the target value is uncertain, bidding firms tend to use stock as a method of payment to reduce risk (Fuller, Netter, and Stegemoller, 2002), and this trend seems to link to the firm's choice of decreasing financial leverage; when stock is used as a method of payment, the firm significantly decreases its financial leverage level. In contrast, the firm is found to increase the leverage level when it uses cash as a method of payment. Since firms have incentives to use cash as a method of payment for a merger when they are highly

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[12] This simultaneous increase of long-term debt to total debt ratio is explained again in the next section, Debt Maturity Structure.

valued (Fishman, 1989; Berkovitch and Narayanan, 1990; and Eckbo, Giammarino, and Heinkel, 1990), those highly valued firms have room to choose riskier financial policies by increasing their leverage level.

The relative size of target does not have any significant impact on the financial leverage policy during this period. However, the patterns of the changes incurred by the relative size of target imply that a firm takes the size effect into account. In a merger, the firm implements more aggressive management and takes riskier financial policy of higher leverage level.

3.1.2. Follow-Up Adjustment of Financial Leverage

The change of financial leverage found during this period ($\Delta Leverage_{t+1,t}$ in the equation (7)) describes a firm's follow-up adjustment of financial leverage in the following quarter. The variable describing a firm's follow-up adjustment is defined by the following equation.

$$\Delta Leverage_{t+1,t} = Leverage_{t+1} - Leverage_t \qquad (7)$$

where *t* is the quarter that a merger completes.

Table 3.3 reports that any type of turnovers does not have a significant effect on a firm's financial leverage policy in the following quarter. The only difference from the immediate change is found in the insignificant and negative relationship with the turnover of CEOs (*CEO*). This effect is found significant and positive in the quarter that a merger completes. As table 3.4 reports, new CEOs adjust financial leverage in the opposite direction depending on their origin in the follow-up adjustment period. New CEOs who come from outside (*CEO_O*) decrease the

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leverage level and those who came from inside (*CEO_I*) increase the level. While both effects are found not to be significant, the follow-up adjustment of decreasing the financial leverage level is driven by the CEOs who come from outside (*CEO_O*) just as it was in the immediate response.

In the follow-up adjustment period, a firm determines its financial leverage policy responding to how the market sees the merger. A firm still continues to take an aggressive financial policy of higher leverage level when the market evaluates the merger favorably. While the influences of method of payment and the relative size of target are not found significant, a firm's response to the relative size of target is found contrary to what the firm did in the previous quarter. As the target size becomes greater, the firm lowers the leverage level to reduce financial risk in the following quarter. This implies that while a firm makes an immediate choice of riskier financial leverage policy, it puts more weight on the financial stability in the follow-up adjustment stage.

3.2. Cash Holdings

I next analyze how a firm changes and adjusts its cash holdings in response to organizational changes. A firm's choice of lower cash holdings is regarded as taking a riskier financial policy. If cash holdings are considered as negative debt, then the arguments for financial leverage policy can be applied to the interpretation of a cash holdings policy. Table 4.1 and 4.2 report a firm's immediate changes of cash holdings in a quarter that a merger completes. Table 4.3 and 4.4, on the other hand, show the firm's follow-up adjustment of its cash holdings in the following quarter. Table 4.2 and 4.4 show in a more detailed way how a firm's cash holdings are affected by the origin of new CEOs and CFOs.

3.2.1. Immediate Changes of Cash Holdings

I compare cash holdings level reported in the quarter that a merger completes with that reported in the previous quarter. The changes found during this period ($\Delta Cashholding_{t,t-1}$ in the equation (8)) describe a firm's immediate responses to organizational changes through cash holdings policy. The variable representing this immediate change in cash holdings is defined as following.

$$\Delta Cashholding_{t,t-1} = logCashholding_t - logCashholding_{t-1} \qquad (8)$$

where *t* is the quarter that a merger completes.

Table 4.1 shows that while turnovers of CEOs (*CEO*) and CFOs (*CFO*) do not have a significant impact, they take different cash holdings policy. While new CEOs (*CEO*) reduce cash holdings, new CFOs(*CFO*) increase the level and implement risk reducing financial policy. In contrast, when both CEO and CFO positions are filled by new executives (*CEO&CFO*), their decision on cash holdings level is not clear. Table 4.2 provides more detailed descriptions on the firm's choice when the origin of new CEOs and CFOs is taken into account. Only when both of CEO and CFO positions are filled by new executives (*CEO&CFO_I* and *CEO&CFO_O*), cash holdings level changes in a significant way immediately after a merger. New executives who come from inside (*CEO&CFO_I*) decreases but those who come from outside (*CEO&CFO_*O) increase cash holdings. This implies that a firm's cash holdings change in a significant way immediately after a merger only when both of financial decision-makers are replaced, since they can share their responsibility for taking a policy by making the decision together. The new executives who come from inside (*CEO&CFO_I*) take riskier policy since they are better

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informed of the firm's financial conditions, but those who come from outside (*CEO&CFO*_O) take risk reducing policy.

The cash holdings level increases when the market evaluates the merger favorably. Considering the positive relationship of financial leverage with CAR, the patterns found in the immediate change of cash holdings suggest that a firm manages its financial risk by coordinating the choice of financial leverage and cash holdings. On the one hand, a firm takes a riskier financial policy by increasing financial leverage, but on the other hand, the firm takes safety measures by raising cash holdings to offset the financial risk.

The use of cash as a method of payment decreases cash holdings immediately after a merger regardless of controls while the changes are not significant. The results reported in table 4.1 and 4.2 suggest that a firm makes use of its cash holdings policy in order to reduce financial risk generated possibly from the target size. When merging with a target that is larger than its own, the firm increases cash holdings and lowers financial risk. On the contrary, when merging with a target that is smaller than its own, the firm reduces cash holdings and has some room to face higher financial risk.

3.2.2. Follow-Up Adjustment of Cash Holdings

I compare cash holdings levels reported in the quarter that a merger completes with that reported in the following quarter. The variations found during this period ($\Delta Cashholding_{t+1,t}$ in the equation (9)) explain a firm's follow-up adjustments of its cash holdings policy in the following quarter. The variable representing the adjustment in the following quarter is defined as following.

$$\Delta Cashholding_{t+1,t} = logCashholding_{t+1} - logCashholding_t \qquad (9)$$

where *t* is the quarter that a merger completes.

As table 4.3 reports, the cash holdings level significantly increase in the follow-up adjustment period when the CEO positions are filled with new executives (*CEO*). On the contrary, new CFOs (*CFO*) decrease cash holdings. Comparing to their decisions made immediately after a merger, new CEOs (*CEO*) and CFOs (*CFO*) changes cash holding level in an opposite direction to what they did. The new CEOs become more cautious in running cash holdings during the follow-up adjustment period and this decision is driven by the new CEOs who come from outside (*CEO_O*) as table 4.4 reports.

Table 4.4 provides more detailed descriptions on the effects of turnovers by considering the origin of new CEOs and CFOs. The first difference from the immediate choice of the policy lies in the increased influence of new CEOs who come from outside (*CEO_O*). While turnover of CEOs has positive relationship with cash holdings, its effect becomes significant during the follow-up adjustment period. Further, this increased influence of new CEOs is driven by those who come from outside (*CEO_O*). The second difference is found in the turnover of both CEOs and CFOs (*CEO&CFO*). The effect of turnover of both CEOs and CFOs is found opposite from the previous period. Those who come from inside (*CEO&CFO_I*) increase cash holdings but those who come from outside decrease (*CEO&CFO_O*) the level significantly. While new CEOs from outside (*CEO_O*) seem to take risk reducing cash holdings policy during the follow-up adjustment period, they become more aggressive and take riskier policy if they can share the responsibility by making decision together with new CFOs (*CEO&CFO_O*).

The influence of CAR is found negative but the firm pays less attention to how the market sees the merger at the follow-up adjustment stage.

3.3. Debt Maturity Structure

Lastly, I examine the change of the debt maturity structure when a firm completes a merger along with new CEOs and CFOs. Compared to financial leverage and cash holdings policy, which are the broad aspects of corporate financial policy, the debt maturity structure is regarded as a finer aspect of corporate financial policy. The CFO is expected to exert a stronger influence on the debt maturity structure policy (Chava and Purnanandam, 2010). Following Barclay and Smith (1995), I broadly classify debt into short term and long term depending on whether its maturity is less than three years or not. Short-term debt affects a firm's financial status in many ways: it exposes a firm to excessive liquidation by the lenders (Diamond, 1991); high short-term debt may result in higher earnings volatility by exposing the firm to refinancing and interest rate risk (Chava and Purnanandam, 2010).

Table 5.1 and 5.2 report a firm's immediate changes of its debt maturity structure in the quarter that a merger completes. Table 5.3 and 5.4, on the other hand, show the firm's follow-up adjustment of debt maturity policy in the following quarter.

3.3.1. Immediate Changes of Debt Maturity Structure

I compare debt maturity structure reported in the quarter that a merger completes to that reported in the previous quarter. The changes found during this period ($\Delta Debtmaturity_{t,t-1}$ in the equation (10)) describe a firm's immediate reaction to a merger, especially when the turnover

of CEOs and CFOs is involved. The variable representing this immediate change of debt maturity structure is defined by the following equation.

$$\Delta Debtmaturity_{t,t-1} = Debtmaturity_t - Debtmaturity_{t-1} \qquad (10)$$

where t is the quarter that a merger completes.

As reported in table 5.1, turnovers of CEOs (CEO) and CFOs (CFO) do not have significant effects on the debt maturity structure. While turnover of CFOs (CFO) is found to have positive effects for all controls, the effects of turnover of CEOs (CEO) are found to vary over controls. When the relative size of target is taken into account, turnover of CEOs (CEO) has a negative effect on the debt maturity structure and decreases long-term debt to total debt ratio. However, table 5.2 reports that the positive effect of turnover of CFOs (CFO) is determined by new CFOs who come from outside. These new CFOs (CFO_O) significantly increase long-term debt to total debt ratio and immediately lower financial risk such as refinancing and interest rate risks. This finding is consistent with the expectation that the CFO is involved in the finer aspects of corporate financial policy or in the choice of debt maturity structure. In making this choice, new CEOs and CFOs who come from outside increase long-term debt to total debt ratio, while those who come from inside decrease it

Long-term debt to total debt ratio is negatively related with CAR during this period, while the relationship is not significant. Since the market considers the merger favorably, the firm may have a room to decrease the ratio and use more short-term debt in spite of some probable financial risks. The method of payment does not seem to be an important factor in the debt maturity policy. A firm takes a different debt maturity policy depending on the relative size

of target. When merging with a smaller target, a firm decreases long-term debt to total debt ratio

and takes a riskier debt maturity structure. While the change of the debt ratio is not significant,

the firm becomes more cautious and takes a safer debt maturity structure by increasing the ratio

when the target is a similar or larger sized firm.

3.3.2. Follow-Up Adjustment of Debt Maturity Structure

Changes in debt maturity structure ($\Delta Debtmaturity_{t+1,t}$ in the equation (11)) found in

this analysis capture a firm's follow-up adjustment of debt maturity structure in the following

quarter. The variable representing this adjustment of debt maturity structure is defined by the

following equation.

$$\Delta Debtmaturity_{t+1,t} = Debtmaturity_{t+1} - Debtmaturity_t \qquad (11)$$

where *t* is the quarter that a merger completes.

Table 5.3 and 5.4 report that there are no significant changes incurred by turnovers of

CEOs and CFOs in the following quarter. However, I find some patterns in the relationship that

the origin of new CEOs and CFOs has with debt maturity structure. Both new CEOs and CFOs

(*CEO_I* and *CFO_I*) who came from inside increase long-term debt to total debt ratio. On the

contrary, new CEOs and CFOs who came from outside (*CEO_O* and *CFO_O*) decrease the ratio.

Comparing to the patterns found in a firm's immediate response to organizational changes, the

debt maturity structure in the following quarter changes in the opposite direction responding to

the origin of CEOs and CFOs.

It is only CAR that incurs significant change of long-term debt to total debt ratio in the

follow-up adjustments period. While the debt maturity structure has insignificant and negative

relationship with CAR immediately after a merger, a firm adjusts and increases the ratio significantly in the following quarter as the market evaluates the merger favorably. The relative size of target is found not to cause any difference in the debt ratio between immediate change and follow-up adjustment. When merging with a smaller target, a firm decreases the ratio, but the firm increases the ratio if the target is a similar or larger sized firm. However, this size effect on the debt maturity structure is weakened and found insignificant in the follow-up adjustment period.

3.4. Organizational Changes, Financial Policies, and Financial Risk

Since a firm's financial policy is not explained by a simple combination of financial variables, I take a more comprehensive approach to understand the choice of financial policies. A firm's financial policies are systemically and dynamically connected, working together in order to control financial risk at the time of corporate organizational changes. In addition, CEOs and CFOs are found to implement complementary financial policies.

A firm's financial leverage and debt maturity structure help determine the immediate response in the face of its organizational changes, whereas cash holdings are adopted for the firm's follow-up adjustment in the following quarter. In the quarter that a merger completes, new CEOs who come from outside (CEO_O) raise financial risk by making immediate choice of increasing financial leverage. Responding to this, new CFOs who come from outside (CFO_O) simultaneously raise long-term debt to total debt ratio to offset the financial risk increased by higher financial leverage. Although cash holdings are not significantly affected by turnovers of CEOs and CFOs at this period, new CEOs who come from outside (CEO_O) take safety measures in the follow-up period by significantly increasing cash holdings. I interpret these

findings to suggest that new CEOs who come from outside aggressively increase financial leverage for investment immediately after a merger. In response to this, both of new CEOs and new CFOs who come from outside take financial policies to offset the financial risk resulted from higher leverage. New CFOs who come from outside change debt maturity structure simultaneously. In the follow-up adjustment period, the CEOs who have increased leverage level in the previous period raise cash holdings level.

From a firm's response to CAR, I find that a firm has room to make more aggressive financial decision when the merger is considered beneficial in the market. Although continuously increases its financial leverage level, the firm tries to control its financial risks through simultaneous increase of cash holdings as well as follow-up adjustment of its debt maturity structure.

4. Conclusion

I provide empirical evidence for the systematic connection within a firm's financial policies in the time of organizational change. For this study, I employ two corporate events as organizational changes: a corporate merger and turnovers of CEOs and CFOs. Corporate merger is considered as the integration of two separate organizations and turnovers are interpreted as reorganizations inside of a firm. Using financial variables of financial leverage, cash holdings, and debt maturity structure, I analyze how a firm implements its financial policies responding to the organizational changes. By comparing the values of each financial variable over time, I find a close connection between financial variables and financial risk management of a firm. Moreover, I trace the dynamics of financial variables around the time of organizational changes.

The first response of a firm to its organizational changes is to change financial leverage and debt maturity structure immediately after a merger. The change of financial leverage is implemented by new CEOs and affected by how the market evaluates the merger. In the quarter that a merger completes, new CEOs who come from outside (CEO_O) immediately increase financial leverage level. Moreover, this financial leverage also increases as the market evaluates the merger positively. In contrast, the change of debt maturity structure is driven by new CFOs who come from outside (CFO_O). The CFOs increase long-term debt to total debt ratio simultaneously with the increase of financial leverage.

In the follow-up adjustment period, cash holdings and debt maturity structure are adjusted. During this period, the CEOs (CEO_O) who increased financial leverage immediately after a merger increase cash holdings. In addition, debt maturity starts responding to the market. As the market evaluates the merger positively, the firm increases long-term debt to total debt ratio significantly.

These findings imply that a firm's financial risk is carefully handled through the combination of financial policies. Furthermore, CEOs and CFOs collaborate to manage financial risk of a firm, while they are in charge of different financial variables. This study on corporate financial policies suggests that a comprehensive analysis on the organizational changes should be conducted in order to better understand of a firm's financial policies. While firm-specific and non-managerial factors are without doubt important, corporate organizational aspects seem very important as well especially when the firm conducts a merger. In addition, incorporating both CEOs and CFOs into the analysis seems to enhance the understanding of a firm's choice of financial policies since corporate decisions are often made in teams.

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Table 1 Corporate Merger and Turnover of CEOs and CFOs

All mergers are successfully completed between January 1, 1996 and March 31, 2007. The changes of CEO and President are included in the CEO turnover. Since CFO is often titled with different name, I capture as CFO all executives with the title of treasurer, finance, vice president-finance, and controller.

	CEO	CFO	CEO & CFO	NO Changes	Total
Number of Turnovers	146	211	78	560	995
% of Turnovers	14.7 %	21.2 %	7.8 %	56.3 %	

Table 2 New CEOs and CFOs and Their Origins

While the CEO positions are filled evenly by insiders and outsiders, the CFO positions are filled mainly by outsiders. The one issue that occurs in the categorization is the case that both of CEO and CFO turnovers occur before a merger. This issue is found in 32 cases and I categorize them following the origin of the executive who receives higher compensation.

	CEO	CFO	CEO & CFO	Total
Internal Promotion	73	52	40	165
Coming from Outside	63	157	29	249
Coming from Target	10	2	9	21
Total	146	211	78	435

Table 3.1 Immediate Change of Financial Leverage

This table presents estimates from a regression of financial leverage on the turnover of CEOs and CFOs which occurs before the merger. Dependent variable is $\Delta Leverage_{t,t-1} = Leverage_t - Leverage_{t-1}$ where t is the quarter that the merger occurs. Therefore, $\Delta Leverage_{t,t-1}$ reflects how immediately new CEOs and CFOs change corporate leverage after the completion of a merger. CAR is computed in the merger announcement period and reflects how new executives change their financial policy to meet the expectation of market on the merger. In this analysis, the origin of new CEOs and CFOs is not considered. Method of Payment shows how a bidding firm pays for the target. Relative Size of Target is computed as a market value between target and bidding firm. The market value here is the product of 30 days before the announcement date and common shares outstanding on CRSP.

	Event Window [-2, 1]				Event Window [-3, 1]			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CAR	0.2430	0.1801	0.2717	0.2073	0.2213	0.1694	0.2362	0.1862
	(3.63***)	(2.71***)	(3.74***)	(2.89***)	(3.40***)	(2.65***)	(3.36***)	(2.72***)
Turnover of Executives								
CEO	0.0158	0.0114	0.0149	0.0109	0.0158	0.0114	0.0151	0.0110
	(2.31)	(1.71*)	(2.06**)	(1.53)	(2.30**)	(1.70*)	(2.07**)	(1.55)
CEO & CFO	-0.0176	-0.0135	-0.0151	-0.0117	-0.0170	-0.0129	-0.0149	-0.0115
	(-1.99**)	(-1.57)	(-1.59)	(-1.27)	(-1.91**)	(-1.50)	(-1.57)	(-1.24)
CFO	0.0018	0.0021	0.0001	0.0008	0.0012	0.0015	-0.0002	0.0005
	(0.25)	(0.30)	(0.02)	(0.10)	(0.17)	(0.21)	(-0.03)	(0.07)
Method of Payment								
Cash		0.0414		0.0408		0.0422		0.0416
		(4.53***)		(3.90***)		(4.63***)		(3.98***)
Cash and Stock		0.0066		0.0013		0.0052		-0.0007
		(0.67)		(0.11)		(0.54)		(-0.06)
Other		-0.0118		-0.0104		-0.0111		-0.0086
		(-0.69)		(-0.48)		(-0.65)		(-0.40)
Stock		-0.0170		-0.0228		-0.0178		-0.0242
		(-1.80*)		(-2.08**)		(-1.89*)		(-2.23**)
Unknown		-0.0192		-0.0089		-0.0186		-0.0081
		(-1.28)		(-0.45)		(-1.24)		(-0.41)
Relative Size of Target								
Xsmall			-0.0076	-0.0155			-0.0073	-0.0161
			(-0.69)	(-1.41)			(-0.66)	(-1.46)
Small			-0.0003	0.0023			-0.0011	0.0019
			(-0.03)	(0.20)			(-0.09)	(0.17)
Large			0.0087	0.0103			0.0072	0.0096
			(0.49)	(0.60)			(0.40)	(0.56)
Xlarge			-0.0008	0.0030			0.0012	0.0046
			(-0.03)	(0.13)			(0.05)	(0.20)
Intercept	0.0166	0.0088	0.0223	0.0198	0.0168	0.0093	0.0223	0.0209
	(2.99***)	(1.35)	(2.28**)	(1.75*)	(3.00***)	(1.42)	(2.27**)	(1.84*)
R^2								

* significant at the 10% level
** significant at the 5% level
*** significant at the 1% level

Table 3.2 Immediate Change of Financial Leverage (Considering the Origin of new CEOs and CFOs)

This table presents estimates from a regression of financial leverage on the turnover of CEOs and CFOs which occurs before the merger. Dependent variable is $\Delta Leverage_{t,t-1} = Leverage_t - Leverage_{t-1}$ where t is the quarter that the merger occurs. Therefore, $\Delta Leverage_{t,t-1}$ reflects how immediately new CEOs and CFOs change corporate leverage after the completion of a merger. CAR is computed in the merger announcement period and reflects how new executives change their financial policy to meet the expectation of market on the merger. In this analysis, the origin of new CEOs and CFOs is considered. Method of Payment shows how a bidding firm pays for the target. Relative Size of Target is computed as a market value between target and bidding firm. The market value here is the product of 30 days before the announcement date and common shares outstanding on CRSP. Capital "I" and "O" added after CEO and CFO denote the new executive come from inside and outside, respectively.

Variable	Event Window [-2, 1]				Event Window [-3, 1]			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CAR	0.2375	0.1775	0.2682	0.2050	0.2140	0.1657	0.2310	0.1830
	(3.51***)	(2.65***)	(3.66***)	(2.84***)	(3.26***)	(2.58***)	(3.26***)	(2.65***)
Turnover of Executives								
CEO_I	0.0004	-0.0063	-0.0015	-0.0066	0.0007	-0.0063	-0.0006	-0.0062
	(0.03)	(-0.48)	(-0.10)	(-0.47)	(0.05)	(-0.48)	(-0.04)	(-0.44)
CEO_O	0.0234	0.0198	0.0224	0.0188	0.0231	0.0196	0.0222	0.0187
	(2.64***)	(2.29**)	(2.35**)	(2.04**)	(2.60***)	(2.27**)	(2.32**)	(2.02**)
CEO & CFO_I	-0.0028	-0.0018	-0.0022	-0.0003	-0.0022	-0.0014	-0.0016	0.0002
	(-0.20)	(-0.13)	(-0.14)	(-0.02)	(-0.16)	(-0.10)	(-0.11)	(0.01)
CEO & CFO_O	-0.0318	-0.0230	-0.0276	-0.0217	-0.0314	-0.0222	-0.0283	-0.0220
	(-1.95*)	(-1.45)	(-1.54)	(-1.25)	(-1.91*)	(-1.39)	(-1.57)	(-1.26)
CFO_I	0.0069	0.0069	0.0056	0.0074	0.0062	0.0063	0.0053	0.0074
	(0.66)	(0.68)	(0.49)	(0.66)	(0.59)	(0.62)	(0.46)	(0.65)
CFO_O	0.0040	0.0044	0.0033	0.0024	0.0037	0.0040	0.0030	0.0019
	(0.34)	(0.38)	(0.26)	(0.19)	(0.31)	(0.35)	(0.24)	(0.16)
Method of Payment								
Cash		0.0416		0.0406		0.0424		0.0414
		(4.55***)		(3.88***)		(4.65***)		(3.95***)
Cash and Stock		0.0060		0.0003		0.0047		-0.0017
		(0.61)		(0.02)		(0.48)		(-0.15)
Other		-0.0124		-0.0093		-0.0117		-0.0075
		(-0.73)		(-0.43)		(-0.69)		(-0.34)
Stock		-0.0171		-0.0235		-0.0178		-0.0249
		(-1.78*)		(-2.10**)		(-1.86*)		(-2.24**)
Unknown		-0.0181		-0.0081		-0.0176		-0.0073
		(-1.20)		(-0.41)		(-1.17)		(-0.37)
Relative Size of Target								
Xsmall			-0.0093	-0.0172			-0.0093	-0.0179
			(-0.82)	(-1.50)			(-0.81)	(-1.56)
Small			-0.0015	0.0012			-0.0024	0.0008
			(-0.13)	(0.11)			(-0.21)	(0.07)
Large			0.0060	0.0077			0.0045	0.0071
			(0.34)	(0.45)			(0.25)	(0.41)
Xlarge			0.0049	0.0082			0.0071	0.0100
			(0.20)	(0.36)			(0.30)	(0.43)
Intercept	0.0139	0.0061	0.0212	0.0189	0.0142	0.0066	0.0214	0.0200
	(2.41**)	(0.91)	(2.11**)	(1.64)	(2.43**)	(0.98)	(2.11**)	(1.73*)
R^2								

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table 3.3 Follow-Up Adjustment of Financial Leverage

This table presents estimates from a regression of financial leverage on the turnover of CEOs and CFOs which occurs before the merger. Dependent variable is $\Delta Leverage_{t+1,t} = Leverage_{t+1} - Leverage_t$ where t is the quarter that the merger occurs. Therefore, $\Delta Leverage_{t+1,t}$ reflects how immediately new CEOs and CFOs change corporate leverage after the completion of a merger. CAR is computed in the merger announcement period and reflects how new executives change their financial policy to meet the expectation of market on the merger. In this analysis, the origin of new CEOs and CFOs is not considered. Method of Payment shows how a bidding firm pays for the target. Relative Size of Target is computed as a market value between target and bidding firm. The market value here is the product of 30 days before the announcement date and common shares outstanding on CRSP.

	Event Window [-2, 1]				Event Window [-3, 1]			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CAR	0.0999 (2.28**)	0.1012 (2.25**)	0.1081 (2.29**)	0.1068 (2.20**)	0.0780 (1.83)	0.0797 (1.84)	0.0826 (1.81)	0.0830 (1.79)
Turnover of Executives								
CEO	-0.0017 (-0.38)	-0.0018 (-0.41)	-0.0007 (-0.15)	-0.0012 (-0.24)	-0.0017 (-0.39)	-0.0019 (-0.42)	-0.0006 (-0.13)	-0.0011 (-0.23)
CEO & CFO	-0.0020 (-0.35)	-0.0021 (-0.36)	-0.0024 (-0.38)	-0.0025 (-0.40)	-0.0019 (-0.32)	-0.0019 (-0.32)	-0.0024 (-0.39)	-0.0025 (-0.40)
CFO	0.0037 (0.78)	0.0040 (0.82)	0.0030 (0.58)	0.0037 (0.69)	0.0036 (0.75)	0.0038 (0.77)	0.0030 (0.57)	0.0036 (0.68)
Method of Payment								
Cash		0.0026 (0.42)		0.0029 (0.41)		0.0033 (0.53)		0.0035 (0.49)
Cash and Stock		-0.0060 (-0.91)		-0.0061 (-0.81)		-0.0068 (-1.04)		-0.0072 (-0.94)
Other		0.0119 (1.03)		0.0158 (1.08)		0.0123 (1.07)		0.0168 (1.15)
Stock		0.0048 (0.74)		0.0019 (0.26)		0.0040 (0.62)		0.0009 (0.12)
Unknown		-0.0133 (-1.30)		-0.0145 (-1.09)		-0.0128 (-1.25)		-0.0139 (-1.05)
Relative Size of Target								
Xsmall			0.0054 (0.76)	0.0048 (0.64)			0.0057 (0.80)	0.0046 (0.62)
Small			0.0053 (0.71)	0.0057 (0.77)			0.0050 (0.67)	0.0056 (0.75)
Large			-0.0096 (-0.83)	-0.0097 (-0.84)			-0.0107 (-0.92)	-0.0106 (-0.91)
Xlarge			-0.0011 (-0.07)	-0.0008 (-0.05)			0.0000 (0.00)	0.0005 (0.03)
Intercept	0.0011 (0.31)	0.0008 (0.18)	-0.0021 (-0.33)	-0.0017 (-0.22)	0.0010 (0.28)	0.0008 (0.18)	-0.0023 (-0.37)	-0.0014 (-0.18)
R^2								

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table 3.4 Follow-Up Adjustment of Financial Leverage (Considering the Origin of new CEOs and CFOs)

This table presents estimates from a regression of financial leverage on the turnover of CEOs and CFOs which occurs before the merger. Dependent variable is $\Delta Leverage_{t+1,t} = Leverage_{t+1} - Leverage_t$ where t is the quarter that the merger occurs. Therefore, $\Delta Leverage_{t+1,t}$ reflects how immediately new CEOs and CFOs change corporate leverage after the completion of a merger. CAR is computed in the merger announcement period and reflects how new executives change their financial policy to meet the expectation of market on the merger. In this analysis, the origin of new CEOs and CFOs is considered. Method of Payment shows how a bidding firm pays for the target. Relative Size of Target is computed as a market value between target and bidding firm. The market value here is the product of 30 days before the announcement date and common shares outstanding on CRSP. Capital "I" and "O" added after CEO and CFO denote the new executive come from inside and outside, respectively.

Variable	Event Window [-2, 1]				Event Window [-3, 1]			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CAR	0.1000	0.1016	0.1088	0.1073	0.0781	0.0800	0.0831	0.0835
	(2.25**)	(2.23**)	(2.28**)	(2.19**)	(1.81)	(1.82)	(1.80)	(1.78)
Turnover of Executives								
CEO_I	0.0062	0.0068	0.0029	0.0030	0.0064	0.0069	0.0033	0.0033
	(0.69)	(0.75)	(0.30)	(0.31)	(0.72)	(0.76)	(0.35)	(0.34)
CEO_O	-0.0056	-0.0057	-0.0033	-0.0036	-0.0058	-0.0058	-0.0034	-0.0037
	(-0.96)	(-0.97)	(-0.53)	(-0.57)	(-0.99)	(-0.99)	(-0.54)	(-0.58)
CEO & CFO_I	-0.0051	-0.0051	-0.0058	-0.0056	-0.0046	-0.0047	-0.0055	-0.0053
	(-0.54)	(-0.55)	(-0.60)	(-0.56)	(-0.50)	(-0.50)	(-0.56)	(-0.53)
CEO & CFO_O	-0.0002	-0.0006	0.0009	0.0003	-0.0005	-0.0006	0.0003	-0.0002
	(-0.02)	(-0.06)	(0.08)	(0.02)	(-0.05)	(-0.06)	(0.02)	(-0.02)
CFO_I	0.0043	0.0032	0.0021	0.0018	0.0039	0.0029	0.0020	0.0019
	(0.62)	(0.46)	(0.27)	(0.24)	(0.57)	(0.41)	(0.26)	(0.24)
CFO_O	0.0005	0.0015	0.0033	0.0041	0.0005	0.0014	0.0033	0.0040
	(0.06)	(0.19)	(0.40)	(0.49)	(0.06)	(0.18)	(0.40)	(0.48)
Method of Payment								
Cash		0.0024		0.0030		0.0031		0.0035
		(0.39)		(0.42)		(0.50)		(0.49)
Cash and Stock		-0.0058		-0.0058		-0.0066		-0.0068
		(-0.87)		(-0.76)		(-0.99)		(-0.89)
Other		0.0120		0.0156		0.0123		0.0165
		(1.03)		(1.06)		(1.06)		(1.12)
Stock		0.0048		0.0020		0.0041		0.0010
		(0.73)		(0.26)		(0.62)		(0.14)
Unknown		-0.0134		-0.0147		-0.0129		-0.0142
		(-1.30)		(-1.10)		(-1.25)		(-1.06)
Relative Size of Target								
Xsmall			0.0058	0.0052			0.0059	0.0049
			(0.78)	(0.67)			(0.79)	(0.63)
Small			0.0057	0.0060			0.0053	0.0058
			(0.75)	(0.79)			(0.70)	(0.76)
Large			-0.0090	-0.0091			-0.0100	-0.0099
			(-0.77)	(-0.77)			(-0.85)	(-0.84)
Xlarge			-0.0025	-0.0021			-0.0012	-0.0008
			(-0.16)	(-0.14)			(-0.08)	(-0.05)
Intercept	0.0021	0.0018	-0.0017	-0.0014	0.0020	0.0019	-0.0019	-0.0010
	(0.56)	(0.40)	(-0.26)	(-0.18)	(0.53)	(0.41)	(-0.28)	(-0.13)
R^2								

* significant at the 10% level
** significant at the 5% level
*** significant at the 1% level

Table 4.1 Immediate Change of Cash Holdings

This table presents estimates from a regression of cash holdings on the turnover of CEOs and CFOs which occurs before the merger. Dependent variable is $\Delta Cashholding_{t,t-1} = logCashholding_t - logCashholding_{t-1}$ where t is the quarter that the merger occurs. Therefore, $\Delta Cashholding_{t,t-1}$ reflects how immediately new CEOs and CFOs change cash holdings level after the completion of a merger. CAR is computed in the merger announcement period and reflects how new executives change their financial policy to meet the expectation of market on the merger. In this analysis, the origin of new CEOs and CFOs is not considered. Method of Payment shows how a bidding firm pays for the target. Relative Size of Target is computed as a market value between target and bidding firm. The market value here is the product of 30 days before the announcement date and common shares outstanding on CRSP.

	Event Window of [-2, 1]				Event Window of [-3, 1]			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CAR	0.3055	0.3733	0.2418	0.3460	0.1567	0.2094	0.0726	0.1489
	(1.49)	(1.77*)	(1.07)	(1.51)	(0.79)	(1.04)	(0.33)	(0.68)
Turnover of Executives								
CEO	-0.0199	-0.0159	-0.0211	-0.0178	-0.0200	-0.0163	-0.0209	-0.0180
	(-0.96)	(-0.76)	(-0.94)	(-0.79)	(-0.96)	(-0.77)	(-0.93)	(-0.79)
CEO & CFO	-0.0019	-0.0047	0.0067	0.0049	-0.0016	-0.0037	0.0066	0.0052
	(-0.07)	(-0.18)	(0.24)	(0.17)	(-0.06)	(-0.14)	(0.23)	(0.18)
CFO	0.0218	0.0206	0.0144	0.0129	0.0216	0.0200	0.0143	0.0127
	(0.97)	(0.91)	(0.58)	(0.52)	(0.96)	(0.89)	(0.58)	(0.51)
Method of Payment								
Cash		-0.0305		-0.0311		-0.0260		-0.0270
		(-1.04)		(-0.92)		(-0.89)		(-0.80)
Cash and Stock		-0.0456		-0.0172		-0.0487		-0.0205
		(-1.47)		(-0.47)		(-1.57)		(-0.56)
Other		0.0402		0.0015		0.0413		0.0028
		(0.73)		(0.02)		(0.75)		(0.04)
Stock		0.0437		0.0699		0.0395		0.0649
		(1.47)		(2.02**)		(1.33)		(1.87)
Unknown		-0.0079		-0.0231		-0.0062		-0.0201
		(-0.17)		(-0.72)		(-0.13)		(-0.32)
Relative Size of Target								
Xsmall			0.0257	0.0374			0.0282	0.0383
			(0.73)	(1.03)			(0.80)	(1.05)
Small			-0.0529	-0.0565			-0.0540	-0.0572
			(-1.45)	(-1.55)			(-1.48)	(-1.56)
Large			-0.0711	-0.0703			-0.0780	-0.0775
			(-1.23)	(-1.22)			(-1.35)	(-1.34)
Xlarge			0.0984	0.0893			0.1038	0.0964
			(1.30)	(1.19)			(1.38)	(1.28)
Intercept	-0.0890	-0.0824	-0.0857	-0.0963	-0.0911	-0.0840	-0.0892	-0.0983
	(-5.32***)	(-4.00***)	(-2.72***)	(-2.58***)	(-5.41***)	(-4.06***)	(-2.81***)	(-2.62***)
Root MSE	0.2798	0.2789	0.2886	0.2874	0.2804	0.2798	0.2892	0.2883

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table 4.2 Immediate Change of Cash Holdings (Considering the Origin of New CEOs and CFOs)

This table presents estimates from a regression of cash holdings on the turnover of CEOs and CFOs which occurs before the merger. Dependent variable is $\Delta Cashholding_{t,t-1} = logCashholding_t - logCashholding_{t-1}$ where t is the quarter that the merger occurs. Therefore, $\Delta Cashholding_{t,t-1}$ reflects how immediately new CEOs and CFOs change cash holdings after the completion of a merger. CAR is computed in the merger announcement period and reflects how new executives change their financial policy to meet the expectation of market on the merger. In this analysis, the origin of new CEOs and CFOs is considered. Method of Payment shows how a bidding firm pays for the target. Relative Size of Target is computed as a market value between target and bidding firm. The market value here is the product of 30 days before the announcement date and common shares outstanding on CRSP. Capital "I" and "O" added after CEO and CFO denote the new executive come from inside and outside, respectively.

	Event Window [-2, 1]				Event Window [-3, 1]			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CAR	0.3715	0.4290	0.2944	0.4003	0.2303	0.2747	0.1253	0.2012
	(1.81*)	(2.04**)	(1.32)	(1.76*)	(1.16)	(1.36)	(0.58)	(0.92)
Turnover of Executives								
CEO_I	-0.0520	-0.0434	-0.0562	-0.0454	-0.0501	-0.0424	-0.0540	-0.0436
	(-1.22)	(-1.02)	(-1.22)	(-0.99)	(-1.17)	(-0.99)	(-1.17)	(-0.94)
CEO_O	0.0177	0.0218	0.0202	0.0226	0.0167	0.0206	0.0194	0.0214
	(0.66)	(0.81)	(0.69)	(0.78)	(0.62)	(0.76)	(0.67)	(0.73)
CEO & CFO_I	-0.0806	-0.0841	-0.0881	-0.0915	-0.0793	-0.0824	-0.0870	-0.0895
	(-1.89*)	(-1.97**)	(-1.92*)	(-1.99**)	(-1.86*)	(-1.92*)	(-1.89*)	(-1.94*)
CEO & CFO_O	0.1052	0.1011	0.1368	0.1330	0.1043	0.1014	0.1350	0.1313
	(2.30**)	(2.21**)	(2.74***)	(2.67***)	(2.27**)	(2.20**)	(2.69***)	(2.63***)
CFO_I	0.0126	0.0069	-0.0064	-0.0160	0.0114	0.0055	-0.0072	-0.0163
	(0.38)	(0.21)	(-0.18)	(-0.44)	(0.35)	(0.17)	(-0.20)	(-0.44)
CFO_O	-0.0029	-0.0022	-0.0063	-0.0027	-0.0030	-0.0027	-0.0063	-0.0034
	(-0.08)	(-0.06)	(-0.16)	(-0.07)	(-0.08)	(-0.08)	(-0.16)	(-0.09)
Method of Payment								
Cash		-0.0370		-0.0403		-0.0324		-0.0359
		(-1.27)		(-1.21)		(-1.11)		(-1.07)
Cash and Stock		-0.0507		-0.0161		-0.0540		-0.0198
		(-1.64)		(-0.45)		(-1.75*)		(-0.55)
Other		0.0548		0.0089		0.0560		0.0103
		(1.00)		(0.13)		(1.02)		(0.15)
Stock		0.0329		0.0652		0.0290		0.0601
		(1.10)		(1.86*)		(0.97)		(1.72*)
Unknown		-0.0000		-0.0177		0.0014		-0.0147
		(-0.00)		(-0.29)		(0.03)		(-0.24)
Relative Size of Target								
Xsmall			0.0563	0.0689			0.0584	0.0691
			(1.57)	(1.85*)			(1.62)	(1.85*)
Small			-0.0417	-0.0450			-0.0430	-0.0461
			(-1.15)	(-1.24)			(-1.18)	(-1.26)
Large			-0.0732	-0.0728			-0.0799	-0.0798
			(-1.27)	(-1.27)			(-1.39)	(-1.39)
Xlarge			0.0586	0.0490			0.0645	0.0569
			(0.77)	(0.65)			(0.85)	(0.75)
Intercept	-0.0947	-0.0826	-0.1116	-0.1182	-0.0962	-0.0838	-0.1145	-0.1194
	(-5.46***)	(-3.94***)	(-3.47***)	(-3.14***)	(-5.51***)	(-3.98***)	(-3.54***)	(-3.15***)
Root MSE^2	0.2780	0.2772	0.2857	0.2844	0.2788	0.2781	0.2863	0.2854

*   significant at the 10% level
**   significant at the 5% level
***   significant at the 1% level

Table 4.3 Follow-Up Adjustment of Cash Holdings

This table presents estimates from a regression of cash holdings on the turnover of CEOs and CFOs which occurs before the merger. Dependent variable is $\Delta Cashholding_{t+1,t} = logCashholding_{t+1} - logCashholding_t$ where t is the quarter that the merger occurs. Therefore, $\Delta Cashholding_{t+1,t}$ reflects how immediately new CEOs and CFOs change cash holdings after the completion of a merger. CAR is computed in the merger announcement period and reflects how new executives change their financial policy to meet the expectation of market on the merger. In this analysis, the origin of new CEOs and CFOs is not considered. Method of Payment shows how a bidding firm pays for the target. Relative Size of Target is computed as a market value between target and bidding firm. The market value here is the product of 30 days before the announcement date and common shares outstanding on CRSP.

	Event Window of [-2, 1]				Event Window of [-3, 1]			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CAR	-0.1659	-0.1693	-0.1737	-0.1588	-0.2387	-0.2367	-0.2563	-0.2418
	(-1.05)	(-1.03)	(-1.00)	(-0.89)	(-1.56)	(-1.51)	(-1.54)	(-1.43)
Turnover of Executives								
CEO	0.0351	0.0340	0.0358	0.0343	0.0352	0.0341	0.0360	0.0345
	(2.18**)	(2.08**)	(2.07**)	(1.96**)	(2.19**)	(2.09**)	(2.09**)	(1.97**)
CEO & CFO	-0.0288	-0.0276	-0.0257	-0.0242	-0.0230	-0.0285	-0.0267	-0.0251
	(-1.42)	(-1.35)	(-1.17)	(-1.10)	(-1.47)	(-1.40)	(-1.22)	(-1.14)
CFO	-0.0063	-0.0064	-0.0101	-0.0101	-0.0054	-0.0056	-0.0093	-0.0093
	(-0.36)	(-0.37)	(-0.53)	(-0.52)	(-0.31)	(-0.32)	(-0.49)	(-0.48)
Method of Payment								
Cash		0.0158		0.0190		0.0161		0.0197
		(0.69)		(0.73)		(0.71)		(0.76)
Cash and Stock		-0.0224		-0.0095		-0.0220		-0.0085
		(-0.92)		(-0.34)		(-0.91)		(-0.30)
Other		0.0010		-0.0119		0.0004		-0.0134
		(0.02)		(-0.22)		(1.02)		(-0.25)
Stock		0.0227		0.0347		0.0216		0.0340
		(0.98)		(1.29)		(0.94)		(1.27)
Unknown		-0.0171		-0.0323		-0.0162		-0.0318
		(-0.47)		(-0.67)		(-0.44)		(-0.66)
Relative Size of Target								
Xsmall			0.0088	0.0110			0.0104	0.0126
			(0.32)	(0.39)			(0.38)	(0.45)
Small			-0.0278	-0.0284			-0.0276	-0.0282
			(-0.99)	(-1.00)			(-0.98)	(-1.00)
Large			0.0939	0.0959			0.0904	0.0925
			(2.10**)	(2.14**)			(2.03**)	(2.07**)
Xlarge			-0.0748	-0.0785			-0.0732	-0.0768
			(-1.29)	(-1.34)			(-1.26)	(-1.32)
Intercept	-0.0337	-0.0383	-0.0333	-0.0462	-0.0352	-0.0397	-0.0360	-0.0491
	(-2.59***)	(-2.39**)	(-1.37)	(-1.60)	(-2.71***)	(-2.48**)	(-1.48)	(-1.69*)
Root MSE	0.2168	0.2173	0.2226	0.2231	0.2163	0.2169	0.2221	0.2226

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table 4.4 Follow-Up Adjustment of Cash Holdings (Considering the Origin of new CEOs and CFOs)

This table presents estimates from a regression of cash holdings on the turnover of CEOs and CFOs which occurs before the merger. Dependent variable is $\Delta Cashholding_{t+1,t} = logCashholding_{t+1} - logCashholding_t$ where t is the quarter that the merger occurs. Therefore, $\Delta Cashholding_{t+1,t}$ reflects how immediately new CEOs and CFOs change cash holdings after the completion of a merger. CAR is computed in the merger announcement period and reflects how new executives change their financial policy to meet the expectation of market on the merger. In this analysis, the origin of new CEOs and CFOs is considered. Method of Payment shows how a bidding firm pays for the target. Relative Size of Target is computed as a market value between target and bidding firm. The market value here is the product of 30 days before the announcement date and common shares outstanding on CRSP. Capital "I" and "O" added after CEO and CFO denote the new executive come from inside and outside, respectively.

	Event Window [-2, 1]				Event Window [-3, 1]			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CAR	-0.1853	-0.1916	-0.1831	-0.1747	-0.2701	-0.2704	-0.2726	-0.2630
	(-1.17)	(-1.17)	(-1.06)	(-0.98)	(-1.77*)	(-1.73*)	(-1.64)	(-1.56)
Turnover of Executives								
CEO_I	-0.0055	-0.0028	-0.0031	0.0023	-0.0046	-0.0022	-0.0024	0.0027
	(-0.17)	(-0.08)	(-0.09)	(0.06)	(-0.14)	(-0.07)	(-0.07)	(0.08)
CEO_O	0.0576	0.0562	0.0562	0.0538	0.0577	0.0564	0.0565	0.0541
	(2.76***)	(2.68***)	(2.49**)	(2.37**)	(2.78***)	(2.69***)	(2.51**)	(2.39**)
CEO & CFO_I	0.0378	0.0412	0.0367	0.0407	0.0389	0.0422	0.0367	0.0408
	(1.15)	(1.24)	(1.03)	(1.13)	(1.18)	(1.28)	(1.03)	(1.14)
CEO & CFO_O	-0.0920	-0.0934	-0.0861	-0.0881	-0.0957	-0.0968	-0.0886	-0.0904
	(-2.61***)	(-2.63***)	(-2.22**)	(-2.27**)	(-2.71***)	(-2.73***)	(-2.29**)	(-2.33**)
CFO_I	0.0009	-0.0048	0.0012	-0.0068	0.0013	-0.0043	0.0014	-0.0066
	(0.04)	(-0.19)	(0.04)	(-0.24)	(0.05)	(-0.17)	(0.05)	(-0.23)
CFO_O	0.0012	0.0037	-0.0049	-0.0019	0.0024	0.0047	-0.0035	-0.0007
	(0.04)	(0.13)	(-0.16)	(-0.06)	(0.09)	(0.17)	(-0.12)	(-0.02)
Method of Payment								
Cash		0.0188		0.0230		0.0193		0.0237
		(0.83)		(0.88)		(0.86)		(0.92)
Cash and Stock		-0.0227		-0.0117		-0.0223		-0.0106
		(-0.95)		(-0.42)		(-0.93)		(-0.38)
Other		-0.0056		-0.0153		-0.0067		-0.0172
		(-0.13)		(-0.29)		(-0.16)		(-0.32)
Stock		0.0265		0.0368		0.0255		0.0362
		(1.14)		(1.35)		(1.10)		(1.33)
Unknown		-0.0170		-0.0328		-0.0159		-0.0322
		(-0.47)		(-0.69)		(-0.44)		(-0.68)
Relative Size of Target								
Xsmall			-0.0015	-1.44e-06			0.0001	0.0015
			(-0.05)	(-0.00)			(0.00)	(0.054)
Small			-0.0327	-0.0332			-0.0326	-0.0331
			(-1.16)	(-1.17)			(-1.16)	(-1.17)
Large			0.0864	0.0890			0.0826	0.0854
			(1.94*)	(1.99**)			(1.86*)	(1.92*)
Xlarge			-0.0521	-0.0558			-0.0501	-0.0537
			(-0.89)	(-0.94)			(-0.85)	(-0.91)
Intercept	-0.0408	-0.0469	-0.0321	-0.0453	-0.0426	-0.0485	-0.0349	-0.0483
	(-3.04***)	(-2.88***)	(-1.28)	(-1.54)	(-3.17***)	(-2.98***)	(-1.40)	(-1.65*)
Root MSE	0.2151	0.2154	0.2214	0.2218	0.2145	0.2149	0.2208	0.2212

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table 5.1 Immediate Change of Debt Maturity Structure

This table presents estimates from a regression of Debt Maturity on the turnover of CEOs and CFOs which occurs before the merger. Dependent variable is $\Delta Debtmaturity_{t,t-1} = Debtmaturity_t - Debtmaturity_{t-1}$ where t is the quarter that the merger occurs. Therefore, $\Delta Debtmaturity_{t,t-1}$ reflects how immediately new CEOs and CFOs change debt maturity structure after the completion of a merger. CAR is computed in the merger announcement period and reflects how new executives change their financial policy to meet the expectation of market on the merger. In this analysis, the origin of new CEOs and CFOs is not considered. Method of Payment shows how a bidding firm pays for the target. Relative Size of Target is computed as a market value between target and bidding firm. The market value here is the product of 30 days before the announcement date and common shares outstanding on CRSP.

	Event Window [-2, 1]				Event Window [-3, 1]			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CAR	-0.2726	-0.3686	-0.2613	-0.3496	-0.1626	-0.2331	-0.1656	-0.2285
	(-1.08)	(-1.41)	(-0.95)	(-1.24)	(-0.66)	(-0.92)	(-0.62)	(-0.84)
Turnover of Executives								
CEO	0.0057	0.0050	-0.0030	-0.0042	0.0054	0.0047	-0.0038	-0.0051
	(0.21)	(0.18)	(-0.10)	(-0.14)	(0.20)	(0.17)	(-0.13)	(-0.17)
CEO & CFO	-0.0316	-0.0294	-0.0409	-0.0409	-0.0310	-0.0291	-0.0400	-0.0400
	(-0.86)	(-0.78)	(-1.04)	(-1.02)	(-0.84)	(-0.77)	(-1.02)	(-0.99)
CFO	0.0260	0.0244	0.0439	0.0451	0.0256	0.0244	0.0438	0.0451
	(0.90)	(0.83)	(1.38)	(1.40)	(0.89)	(0.83)	(1.37)	(1.39)
Method of Payment								
Cash		0.0329		0.0303		0.0293		0.0277
		(0.96)		(0.78)		(0.85)		(0.71)
Cash and Stock		-0.0108		-0.0239		-0.0085		-0.0220
		(-0.27)		(-0.52)		(-0.21)		(-0.48)
Other		0.0076		0.0050		0.0071		0.0051
		(0.12)		(0.06)		(0.11)		(0.06)
Stock		-0.0452		-0.0488		-0.0416		-0.0454
		(-1.11)		(-1.07)		(-1.02)		(-1.00)
Unknown		0.0155		0.0374		0.0137		0.0345
		(0.27)		(0.54)		(0.24)		(0.50)
Relative Size of Target								
Xsmall			-0.0996	-0.1145			-0.1022	-0.1165
			(-2.34**)	(-2.57**)			(-2.40**)	(-2.61***)
Small			-0.1047	-0.0943			-0.1041	-0.0945
			(-2.31**)	(-2.04**)			(-2.30**)	(-2.04**)
Large			0.0418	0.0426			0.0473	0.0491
			(0.61)	(0.61)			(0.69)	(0.70)
Xlarge			0.1625	0.1662			0.1590	0.1619
			(1.76*)	(1.78*)			(1.71*)	(1.73*)
Intercept	0.0314	0.0274	0.1107	0.1172	0.0327	0.0293	0.1129	0.1195
	(1.41)	(1.06)	(2.83***)	(2.62***)	(1.46)	(1.13)	(2.89***)	(2.67***)
R^2								

*   significant at the 10% level
**   significant at the 5% level
***   significant at the 1% level

Table 5.2 Immediate Change of Debt Maturity Structure (Considering the Origin of New CEOs and CFOs)

This table presents estimates from a regression of debt maturity structure on the turnover of CEOs and CFOs which occurs before the merger. Dependent variable is $\Delta Debtmaturity_{t,t-1} = Debtmaturity_t - Debtmaturity_{t-1}$ where t is the quarter that the merger occurs. Therefore, $\Delta Cashholding_{t,t-1}$ reflects how immediately new CEOs and CFOs change debt maturity structure after the completion of a merger. CAR is computed in the merger announcement period and reflects how new executives change their financial policy to meet the expectation of market on the merger. In this analysis, the origin of new CEOs and CFOs is considered. Method of Payment shows how a bidding firm pays for the target. Relative Size of Target is computed as a market value between target and bidding firm. The market value here is the product of 30 days before the announcement date and common shares outstanding on CRSP. Capital "I" and "O" added after CEO and CFO denote the new executive come from inside and outside, respectively.

	Event Window [-2, 1]				Event Window [-3, 1]			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CAR	-0.2812	-0.3995	-0.2766	-0.3695	-0.1559	-0.2436	-0.1632	-0.2288
	(-1.14)	(-1.56)	(-1.02)	(-1.33)	(-0.64)	(-0.98)	(-0.62)	(-0.85)
Turnover of Executives								
CEO_I	-0.1089	-0.1194	-0.0984	-0.1037	-0.1086	-0.1180	-0.0976	-0.1023
	(-2.04**)	(-2.21**)	(-1.72*)	(-1.80*)	(-2.03**)	(-2.18**)	(-1.70*)	(-1.77*)
CEO_O	0.0491	0.0529	0.0356	0.0354	0.0489	0.5230	0.0343	0.0338
	(1.45)	(1.52)	(0.97)	(0.94)	(1.44)	(1.50)	(0.93)	(0.90)
CEO & CFO_I	-0.0715	-0.0778	-0.0628	-0.0682	-0.0708	-0.0768	-0.0612	-0.0659
	(-1.24)	(-1.33)	(-1.02)	(-1.08)	(-1.22)	(-1.30)	(-0.99)	(-1.04)
CEO & CFO_O	0.0500	0.0664	0.0168	0.0274	0.0507	0.0657	0.0169	0.0265
	(0.73)	(0.95)	(0.23)	(0.37)	(0.74)	(0.94)	(0.23)	(0.35)
CFO_I	-0.0173	-0.0162	-0.0098	-0.0066	-0.0174	-0.0162	-0.0104	-0.0076
	(-0.44)	(-0.41)	(-0.22)	(-0.15)	(-0.44)	(-0.41)	(-0.24)	(-0.17)
CFO_O	0.0986	0.0942	0.1186	0.1157	0.0971	0.0930	0.1181	0.1155
	(2.24**)	(2.11**)	(2.48**)	(2.39**)	(2.21**)	(2.07**)	(2.47**)	(2.38**)
Method of Payment								
Cash		0.0387		0.0352		0.0344		0.0322
		(1.16)		(0.91)		(1.03)		(0.84)
Cash and Stock		-0.0193		-0.0212		-0.0168		-0.0191
		(-0.49)		(-0.47)		(-0.43)		(-0.42)
Other		0.0198		-0.0002		0.0192		-0.0004
		(0.32)		(-0.00)		(0.31)		(-0.00)
Stock		-0.0550		-0.0467		-0.0508		-0.0425
		(-1.36)		(-1.02)		(-1.25)		(-0.93)
Unknown		0.0158		0.0329		0.0140		0.0298
		(0.28)		(0.48)		(0.25)		(0.43)
Relative Size of Target								
Xsmall			-0.0764	-0.0885			-0.0795	-0.0912
			(-1.71*)	(-1.92*)			(-1.79*)	(-1.97**)
Small			-0.0957	-0.0847			-0.0952	-0.0851
			(-2.12**)	(-1.84*)			(-2.10**)	(-1.84*)
Large			0.0304	0.0315			0.0371	0.0392
			(0.44)	(0.46)			(0.54)	(0.57)
Xlarge			0.1417	0.1417			0.1376	0.1371
			(1.52)	(1.51)			(1.47)	(1.45)
Intercept	0.0225	0.0182	0.0857	0.0877	0.0241	0.0205	0.0886	0.0909
	(0.98)	(0.69)	(2.10**)	(1.91*)	(1.04)	(0.77)	(2.17**)	(1.98**)
R^2								

*   significant at the 10% level
**   significant at the 5% level
*** significant at the 1% level

Table 5.3 Follow-Up Adjustment of Debt Maturity Structure

This table presents estimates from a regression of debt maturity structure on the turnover of CEOs and CFOs which occurs before the merger. Dependent variable is $\Delta Debtmaturity_{t+1,t} = Debtmaturity_{t+1} - Debtmaturity_t$ where t is the quarter that the merger occurs. Therefore, $\Delta Debtmaturity_{t+1,t}$ reflects how immediately new CEOs and CFOs change debt maturity structure after the completion of a merger. CAR is computed in the merger announcement period and reflects how new executives change their financial policy to meet the expectation of market on the merger. In this analysis, the origin of new CEOs and CFOs is not considered. Method of Payment shows how a bidding firm pays for the target. Relative Size of Target is computed as a market value between target and bidding firm. The market value here is the product of 30 days before the announcement date and common shares outstanding on CRSP.

	Event Window [-2, 1]				Event Window [-3, 1]			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CAR	0.2279	0.2133	0.256	0.2433	0.2282	0.2166	0.2567	0.2472
	(2.32**)	(2.10**)	(2.39**)	(2.21**)	(2.39**)	(2.22**)	(2.46**)	(2.33**)
Turnover of Executives								
CEO	0.0019	0.0012	-0.0008	-0.0019	0.0015	0.0007	-0.0013	-0.0024
	(0.19)	(0.12)	(-0.08)	(-0.17)	(0.14)	(0.07)	(-0.12)	(-0.22)
CEO & CFO	-0.0015	0.0006	-0.0011	0.003	-0.0001	0.0019	0.0003	0.0017
	(-0.12)	(0.04)	(-0.08)	(0.02)	(-0.01)	(0.15)	(0.02)	(0.13)
CFO	-0.0005	-0.0018	0.0020	0.0016	-0.0013	-0.0026	0.0011	0.0007
	(-0.04)	(-0.16)	(0.16)	(0.13)	(-0.12)	(-0.24)	(0.09)	(0.06)
Method of Payment								
Cash		0.0112		0.0160		0.0119		0.0167
		(0.79)		(0.99)		(0.84)		(1.04)
Cash and Stock		-0.0020		-0.0012		-0.0029		-0.0026
		(-0.13)		(-0.07)		(-0.19)		(-0.15)
Other		-0.0371		-0.0233		-0.0372		-0.0235
		(-1.39)		(-0.71)		(-1.39)		(-0.71)
Stock		0.0100		0.0113		0.0105		0.0116
		(0.69)		(0.69)		(0.72)		(0.70)
Unknown		0.0179		-0.0028		0.0177		-0.0021
		(0.78)		(-0.10)		(0.77)		(-0.07)
Relative Size of Target								
Xsmall			-0.0046	-0.0054			-0.0057	-0.0069
			(-0.28)	(-0.32)			(-0.35)	(-0.40)
Small			0.0040	0.0038			0.0025	0.0025
			(0.24)	(0.22)			(0.15)	(0.14)
Large			-0.0034	-0.0009			-0.0014	0.0013
			(-0.13)	(-0.03)			(-0.05)	(0.05)
Xlarge			0.0040	0.0026			0.0046	0.0031
			(0.12)	(0.07)			(0.14)	(0.09)
Intercept	-0.0053	-0.0108	-0.0038	-0.0108	-0.0048	-0.0104	-0.0022	-0.0090
	(-0.66)	(-1.08)	(-0.26)	(-0.64)	(-0.59)	(-1.04)	(-0.15)	(-0.53)
R^2								

* significant at the 10% level
** significant at the 5% level
*** significant at the 1% level

Table 5.4 Follow-Up Adjustment of Debt Maturity Structure(Considering the Origin of new CEOs and CFOs)

This table presents estimates from a regression of debt maturity structure on the turnover of CEOs and CFOs which occurs before the merger. Dependent variable is $\Delta Debtmaturity_{t+1,t} = Debtmaturity_{t+1} - Debtmaturity_{t}$ where t is the quarter that the merger occurs. Therefore, $\Delta Debtmaturity_{t+1,t}$ reflects how immediately new CEOs and CFOs change debt maturity structure after the completion of a merger. CAR is computed in the merger announcement period and reflects how new executives change their financial policy to meet the expectation of market on the merger. In this analysis, the origin of new CEOs and CFOs is considered. Method of Payment shows how a bidding firm pays for the target. Relative Size of Target is computed as a market value between target and bidding firm. The market value here is the product of 30 days before the announcement date and common shares outstanding on CRSP. Capital "I" and "O" added after CEO and CFO denote the new executive come from inside and outside, respectively.

	Event Window [-2, 1]				Event Window [-3, 1]			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CAR	0.5034	0.4988	0.5603	0.5459	0.5019	0.5009	0.5501	0.5376
	(2.38**)	(2.28**)	(2.44**)	(2.30**)	(2.43**)	(2.37**)	(2.47**)	(2.36**)
Turnover of Executives								
CEO_I	0.0594	0.0565	0.0637	0.0621	0.0588	0.0555	0.0625	0.0608
	(1.30)	(1.22)	(1.31)	(1.26)	(1.29)	(1.20)	(1.29)	(1.24)
CEO_O	-0.0177	-0.0239	-0.0292	-0.0355	-0.0166	-0.0227	-0.0275	-0.0339
	(-0.61)	(-0.80)	(-0.94)	(-1.11)	(-0.57)	(-0.76)	(-0.88)	(-1.06)
CEO & CFO_I	0.0086	0.0171	0.0215	0.0284	0.0100	0.0189	0.0227	0.0294
	(0.17)	(0.34)	(0.41)	(0.53)	(0.20)	(0.37)	(0.43)	(0.55)
CEO & CFO_O	-0.0358	-0.0298	-0.0473	-0.0416	-0.0359	-0.0291	-0.0461	-0.0398
	(-0.61)	(-0.50)	(-0.75)	(-0.65)	(-0.61)	(-0.49)	(-0.73)	(-0.62)
CFO_I	0.0203	0.0168	0.0428	0.0358	0.0185	0.0148	0.0410	0.0341
	(0.61)	(0.50)	(1.15)	(0.94)	(0.55)	(0.44)	(1.10)	(0.89)
CFO_O	-0.0348	-0.0367	-0.0516	-0.0492	-0.0349	-0.0370	-0.0527	-0.0505
	(-0.92)	(-0.94)	(-1.26)	(-1.18)	(-0.92)	(-0.96)	(-1.28)	(-1.21)
Method of Payment								
Cash		0.0187		0.0314		0.0205		0.0329
		(0.65)		(0.95)		(0.71)		(1.00)
Cash and Stock		-0.0036		-0.0031		-0.0051		-0.0052
		(-0.11)		(-0.08)		(-0.15)		(-0.14)
Other		-0.0752		-0.0569		-0.0764		-0.0577
		(-1.42)		(-0.80)		(-1.44)		(-0.81)
Stock		0.0208		0.0240		0.0199		0.0221
		(0.60)		(0.62)		(0.58)		(0.57)
Unknown		0.0393		0.0047		0.0411		0.0079
		(0.81)		(0.08)		(0.85)		(0.14)
Relative Size of Target								
Xsmall			-0.0275	-0.0307			-0.0237	-0.0280
			(-0.73)	(-0.78)			(-0.63)	(-0.72)
Small			-0.0024	-0.0026			-0.0015	-0.0011
			(-0.06)	(-0.07)			(-0.04)	(-0.03)
Large			0.0158	0.0220			0.0147	0.0214
			(0.27)	(0.37)			(0.25)	(0.37)
Xlarge			0.0140	0.0113			0.0105	0.0077
			(0.18)	(0.14)			(0.13)	(0.10)
Intercept	-0.0087	-0.0158	0.0088	-0.0027	-0.0079	-0.0151	0.0076	-0.0034
	(-0.44)	(-0.70)	(0.26)	(-0.07)	(-0.40)	(-0.67)	(0.22)	(-0.09)
R^2								

* significant at the 10% level
** significant at the 5% level
*** significant at the 1% level

Table A.1
The Number of Mergers Available in Each Year

I collect 995 mergers at random which were successfully completed between January 1, 1996 and March 31, 2007 from *Business Wire* and *PR Newswire* in Lexis-Nexis Academic and Thomson ONE Banker. By comparing merger samples, I filter out the cases which are included in both data sources. To exclude rumor effects on the returns of bidding firms, I select the mergers which are announced with the terms such as finished, completed, or finalized. Both of bidding and target firms are publicly traded on the AMEX, Nasdaq, or NYSE.

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
Business Wire & PR Newswire	39	40	31	31	33	43	29	29	36	37	30	12	390
Thomson One Bankers	44	79	75	75	40	48	32	69	75	24	41	3	605
Total Available Mergers	83	119	106	106	73	91	61	98	111	61	71	15	995