Managerial Entrenchment and the Valuation Effects of Toehold Acquisitions

Jeongsun Yun*, Ki Beom Binh**

Abstract

This paper examines the market reactions to toehold acquisitions to determine whether and under what circumstances the formation of a new large outside shareholder contributes to the shareholder value of the firm. We argue that although toehold acquisitions signal imminent challenges to the control of the management of the target firms, the challenges do not necessarily contribute to the shareholder value if the management is likely to resist ferociously. We find that while voting premium increases in response to toehold acquisitions for the entire sample, it depends on firm characteristics such as dual class stocks and the asset size whether shareholder value increases. Dual class targets exhibit a positive market reaction only if the controlling shareholders do not have sufficient corporate resources under their control, whereas single class targets show a significantly positive cumulative abnormal return regardless of the asset size. The results are consistent with the hypothesis that dual-class stocks are an outcome of the managerial incentives for entrenchment.

JEL classification: G32, G34

Keywords: event study; toehold acquisitions; agency theory; entrenchment; voting premium; control transfer; managerial resistance; dual-class stocks; preferred stocks

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* Corresponding author. Research Fellow, Korea Securities Research Institute, 45-2 Yoido-dong, Youngdeungpo-gu, Seoul, 150-974, Korea; Tel: +82-2-3771-0693; Fax: +82-2-786-7572; E-mail: jyun@ksri.org

** Research Fellow, Korea Securities Research Institute, 45-2 Yoido-dong, Youngdeungpo-gu, Seoul, 150-974, Korea; Tel: +82-2-3771-0624; Fax: +82-2-786-7572; E-mail: bink1@ksri.org

I. Introduction

A dual class firm is featured by i) a lower stock price relative to a single class firm given earnings and sales (Smart and Zutter, 2003) and ii) the voting premium of its high voting shares relative to the low voting shares. (Zingales, 1995) Agency theory considers both the discount of the stock price of the dual class firm and the voting premium as evidence that the management attempts to secure its private benefits by maintaining sufficient control rights without corresponding capital investment. (DeAngelo and DeAngelo, 1985; Jarrell and Poulsen, 1988)

This paper provides empirical analyses on the market reactions to the formation of a new large outside block to determine the effects of the changes in the ownership structure on the voting premium and the shareholder value. The baseline assumption is that the management enjoys private benefits as a consequence of imperfect investor protection. Toeholders are expected to enhance the shareholder protection by challenging the managerial control rights. It is more likely that the inefficient management is ousted and that the managerial private benefits are purchased. (Bulow, Huang, and Klemperer, 1999; Burkart, 1995; Choi, 1991; Rydqvist, 1996; Singh 1998)

We examine whether the likelihood of the control contests is affected by ownership structure and under what circumstances the anticipation of subsequent control contests increases the shareholder value. We expect that toehold events will increase the voting premium if they are a precursor of imminent challenges to the managerial control rights, whereas comparative analyses are required to determine their effects on the stock price. We argue that dual class targets may not exhibit the same market reactions as single class targets if issuing low voting shares represent the managerial incentives for

entrenchment. Since dual-class stocks are an outcome of the managerial incentives for entrenchment, the management issuing dual-class stocks are expected to resist in the control contest more ferociously. We investigate whether and under what circumstances the market reactions to toehold acquisitions depend on the managerial incentives for entrenchment.

Our tests are based on the analyses of responses of the stock price and the voting premium to the formation of a large outside shareholder with activism purpose. The analyses proceed in three steps. First, we compute cumulative abnormal returns of the target stocks during the period around disclosure of the acquisition of 5% or more of the ownership of a firm to determine whether toehold acquisitions by activist acquirers have any effects on the sock price. For the second step, we investigate whether there is any change in the voting premium during the same period to determine the effect of changes in the ownership structure on the anticipation of the control contests. Finally, we provide comparative analyses to examine whether and how the stock market reactions to toehold acquisitions depend on the target characteristics.

The principal observation of our paper is that toehold acquisitions increase the likelihood of control contests, whereas it depends on firm characteristics regarding managerial resistance whether the voting premium changes are associated with an increase in the shareholder value. The positive response of the voting premium to toehold acquisitions provides a dynamic extension to Rydqvist (1996), who finds that the voting premium increases as the ownership is concentrated among a few competing large investors. It is also consistent with Choi (1991) who suggests that positive market reactions to toehold acquisitions are a consequence of the anticipation of the subsequent

control-related events.

First of all, we find a substantial increase in the voting premium during the period around toehold acquisitions. The positive response of the voting premium to toehold acquisitions is consistent with the hypothesis that takeovers are more likely to take place in the presence of toeholders. We find, however, that dual class targets fail to exhibit a positive cumulative abnormal return if the controlling shareholders have large assets under its control while single class targets do exhibit a significantly positive cumulative abnormal return regardless of the asset size. The interaction effect between the asset size and the dual-class stocks on the market reaction to toehold acquisitions remains robust after controlling for other factors such as the ownership of the controlling shareholder and the capital structure of the targets. The interaction effect is consistent with hypothesis that the dual-class stocks are a means for the managerial entrenchment. Since the management with many corporate resources under its control can resist more effectively, the management with incentives for entrenchment is more likely succeed in fending off takeover attempts as it has more corporate resources under its control.[1]

Our paper is most closely related with research on market reactions to toehold acquisitions. Choi (1991) and Park, Selvili, and Song (2006) document that toehold acquisitions are followed by positive abnormal increases of the target stock price. The former emphasizes that the positive market reactions are the consequence of the anticipation of the subsequent control-related events, while the latter focus on the comparative analyses on how the target characteristics such as the managerial

[1] An example of the use of the corporate resources for a value-destroying defense is the payment of greenmails.

ownership are related with market reactions to determine the effects of the monitoring of a large shareholder on the shareholder value.

An innovation of our research is to take into consideration agency costs approaches to the dual-class stocks in analyzing the market reactions to toehold acquisitions. In section IV, we argue that the positive response of the voting premium to toehold acquisitions is the consequence of an increase in the probability of the control contests. The interaction effect between the asset size and the dual-class stocks suggests that the managerial incentives for entrenchment deter value-enhancing control transfers if the management has sufficient resources under its control.

We depend on models of how the ownership distribution of target firms affects the outcome of the control contests to argue that the voting premium and the shareholder value are the consequence of the anticipation of the subsequent control-related events. Grossman and Hart (1980) show that toeholds enable the bidders to profitably acquire the target company even if the free-riding by atomic shareholders prevent them from profitably acquiring the rest of shares needed to get the control rights.[2] It is because the costs of takeovers are compensated by the gains from the shares that they have already acquired. Bulow, Huang, and Klemperer (1999), Burkart (1995) and Singh (1998) show that toeholders tend to bid more aggressively than non-toeholders since a part or all of the loss from having to acquire the firm at a higher price is compensated by the higher selling price when they lose the contest. Rydqvist (1996) documents that the presence of a large outside shareholder tends to increase voting premium since the contests for

[2] The property of the free-rider problem in takeover contests is that the costs of corporate takeovers cannot be compensated by the synergy of acquisition, since atomic shareholders will not tender their shares until they are paid the same amount as their shares will be worth once acquisition is completed.

control are more likely. Our analyses of the voting premium provide a dynamic extension to the hypothesis that the voting rights will be more expensive as the concentration of corporate ownership among a few large shareholders will enhance the anticipation of control contests.

Finally, our specification of the voting premium is based on Zingales (1995), who suggests that the voting premium is a function of the managerial private benefits and the probability that the private benefits are traded in the control market. On the basis of this specification of the voting premium, we argue that toehold acquisitions tend to increase the voting premium since the control transfers are more likely to take place in the presence of a large outside block.

The rest of the paper is organized as follows. Section II discusses the principal hypotheses that we test and section III provides the description of the sample data. Section IV reports the results of the empirical analyses. Section V concludes the paper.

II. Hypotheses

We consider a management of a firm issuing preferred stocks without voting rights to consolidate control rights in its hand without corresponding capital investment. The baseline assumption is that it is not in the best interest of the incumbent management or the controlling shareholder to maximize the shareholder value of the firm. We focus on analyzing the influences of toehold acquisitions on the shareholder value and the voting premium to determine whether and under what circumstances the challenges to the

managerial control rights imposed by toehold acquisitions contribute to the shareholder value.

We follow earlier works to define voting premium in terms of the managerial private benefits and the likelihood of control contests. Rydqvist (1996) assumes that the cash flow of a firm is composed of the fundamental value that the management cannot steal and the private benefits obtainable only by the controlling management. While the price of a non-voting share is determined only by the fundamental value, that of a voting share reflects the value of the managerial private benefits as well as the fundamental value. Zingales (1995) considers the size of the voting premium as a function of the probability that a vote is pivotal in a control contest and the magnitude of the managerial private benefits. More specifically, the voting premium increases as the probability of the control contests increases for given private benefits.

We expect that the voting premium will increase in response to toehold acquisitions since control contests are expected more likely to occur. Models of takeover contests emphasize that toehold strategies facilitate value-enhancing takeovers. Grossman and Hart (1980) show that toeholders are compensated for a part of or all takeover costs by the increase in the stock price for the shares that they have already acquired. As a consequence, takeovers may take place even if free-riding by atomic shareholders prevents the bidder from acquiring the rest of shares to take over the control of the target firms in a profitable manner. Furthermore, Burkart (1995), Singh (1998) and Bulow, Huang, and Klemperer (1999) show that toeholders are prone to bidding aggressively in the control contest relative to non-toeholders since the loss from an increase in the takeover price is at least partially compensated by an increase in the

selling price in the event that the firm is acquired by a competing bidder. The aggressive bidding by toeholders increases the likelihood that the managerial private benefits are purchased or that an inefficient management is ousted. As a consequence, the presence of a large shareholder tends to increase the voting premium for given managerial private benefits as well as the stock price at which the firm is traded.

We furthermore examine whether and under what circumstances the managerial incentives for entrenchment affect the market reactions to toehold acquisitions. We expect that dual class firms will exhibit different market reactions to toehold acquisitions from single class firms as long as the managerial incentives for entrenchment can deter control transfers. Since agency costs approaches to the dual class stocks suggests that the management uses the dual class stocks to protect its private benefits, the management of a dual class firm is expected to resist takeover attempts more ferociously. We first compare CARs for targets with vs. without dual class stocks. Then, we proceed to take into consideration other factors that may affect the managerial resistance. In particular, we focus on the analysis an interaction effect between the dual-class stocks and the asset size on the market reaction to toehold acquisitions, since the managerial resistance may be more effective as the corporate resources under the control of the management increase. Models of control contests emphasize that the managerial resistance may incur a trade-off for the share price at which the firm is traded in the market for control. While the managerial resistance makes takeovers less likely to take place, the takeover premium that the target shareholders can capture as the managerial bargaining power increases. [3] We expect an interference interaction effect between the asset size and the dual class stocks if the

[3] See Jarrell and Poulsen (1988) for a detailed description of the trade-off.

managerial resistance reduces the stock price.[4]

III. Data and Methodology

A. The Sample of Toehold Acquisitions

Our analyses are based on the sample of toehold acquisitions reported to the Korea Financial Supervisory Service (hereafter KFSS) according to the requirement of the disclosure of the acquisition of a block ownership of 5% or more for a listed firm.[5] The data we use was collected by the KFSS. It covers all toehold acquisitions of the firms listed in the Korea Exchange (hereafter KRX) since January 2001. Although KRX is composed of Korea Stock Market Division and Korea Kosdaq Market Division, we only use data on the firms listed in the Korea Stock Market Division since firms listed in the Korea Kosdaq Market Division do not have dual-class stocks outstanding. Furthermore, we confine our analyses to the events for the years from 2003 to 2006.[6]

The following sample selection criteria are applied: (i) targets of common stock acquisitions with initial 5% disclosure filings, not the additional disclosure due to the change over 1% following initial disclosure; (ii) targets whose common stock prices and old style preferred stock prices, if dual-class stocks issued, are available for the

[4] The interference interaction effect between two variables means that the effect of one variable decreases for higher level of the other variable.
[5] A purchaser of a block ownership of 5% or more for a listed firm is required to report to KFSS within 5 days following the acquisitions.
[6] The rationale for our choice of this period for the analyses is based on the fact that the use of the toehold strategy by Sovereign fund to impose a credible threat on the control rights of the incumbent management of SK group and SK corp. in 2003 brought home the importance of the toehold strategy to the Korean market for the control.

event window [-100, 100]; (iii) targets whose stock prices and old style preferred stock prices, if dual-class stocks issued, are available for at least 30 days prior to the event window.[7] Common stock prices and preferred stock prices used in our study are from KRX database whose frequency is daily base.

The data is composed of 1,523 observations of toehold acquisitions that satisfy the criteria described above. We classify the sample according to the purpose of toehold acquisitions and the characteristics of the target companies such as the dual-class stocks and the asset size. Table I shows that among 1,523 observations of toehold acquisitions, 238 targets have dual-class stocks outstanding and 1,285 targets do not. Only the observations with dual-class stocks can be used in the analyses of voting premium. Table I also shows that 720 of total observations are for investment purpose and 166 for activism purpose. The purpose of acquisitions of the remaining 637 observations is unknown. Another characteristic of the target firms that we consider is the size of the assets under the control of the incumbent management or the controlling shareholder.

The targets affiliated with a conglomerate with assets worth 2 trillion Korean won or more and controlled by family owner are classified to the Large Group and the rest to the Small Group.[8] Table I shows that of the 166 observations of activism purpose, 13 belong to Large Group and 135 to Small Group in target without dual-class stock sample. It also shows that of 18 targets with dual-class stocks outstanding, 7 belong to Large Group and 11 to Small Group.

[7] We use the common stock price and the old style stock price data in the voting premium analyses. By an old style preferred stock, we mean a preferred stock which provides only dividend rights.

[8] Two trillion Korean won is the threshold level of the asset size employed by the Korean Fair Trade Commission (hereafter KFTC) to determine various regulations for so-called chaebols.

Table I

Classification of 1,523 toehold acquisition observations

The table classifies the observations of toehold acquisitions on the basis of the purpose of toehold acquisitions, the size of the assets under the control of the management or the controlling shareholder, and whether target has the dual-class stocks outstanding.

	Targets with dual-class stocks		Targets without dual-class stocks		Total
	Large Group	Small Group	Large Group	Small Group	
Investment purpose	65	71	115	469	720
Activism purpose	7	11	13	135	166
Unknown purpose	47	37	110	443	637
Total	119	119	238	1,047	1,523

B. Stock price response analysis

We use an event study methodology for the analyses. The event day is the date on which the acquisition of a block ownership of 5% or more is reported to KFSS. We compute the abnormal return of a target stock in terms of the residual defined by the actual rate of return less than the rate of return predicted by the market model:

$$AR_{i\tau} = R_{i\tau} - \hat{\alpha}_i - \hat{\beta}_i R_{M\tau}, \quad (1)$$

where $AR_{i\tau}$ denotes the daily abnormal return of stock i at date τ relative to the event date, $R_{i\tau}$ and $R_{M\tau}$ the logarithmic daily return of stock i and KOSPI index, respectively. $\hat{\alpha}_i$ and $\hat{\beta}_i$ denote OLS estimates of the market model of stock i over the period of 250 trading days prior to the event window.[9] The cumulative abnormal

[9] For the observations whose lengths of the stock price data for the pre-event period are less

return for stock i over the subinterval $[\tau_1, \tau_2]$ in the event window is the sum of the abnormal returns over that interval:

$$CAR_i[\tau_1, \tau_2] = \sum_{\tau=\tau_1}^{\tau_2} AR_{i\tau} \ . \tag{2}$$

The standard errors of the above abnormal return and cumulative abnormal return can be computed based on Campbell, Lo, and MacKinlay (1997).

C. Voting premium response analysis

We compute abnormal changes in the voting premium to analyze the responses of the voting premium to the formation of a new outside large block. We define the voting premium to be the logarithmic difference between the common stock price and the preferred stock price without voting rights:

$$VP_{i\tau} = 100 \times \left[\ln(P_{i\tau}^{\text{common}}) - \ln(P_{i\tau}^{\text{preferred}}) \right], \tag{3}$$

where $VP_{i\tau}$ denotes the voting premium of stock i at date τ and $P_{i\tau}^{\text{common}}$ and $P_{i\tau}^{\text{preferred}}$ the common stock price and the old style preferred stock price, respectively.

Let $\Delta VP_{i\tau}$ denote the daily change of the voting premium for stock i at date τ given by

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than 250 days, the market models are estimated with only available data. Those observations with the length of less than 30 days are removed by sample selection criteria.

$$\Delta VP_{i\tau} = VP_{i\tau} - VP_{i,\tau-1}. \quad (4)$$

We define the abnormal daily change of the voting premium to be the daily change of the voting premium less than average daily change of the voting premium over the estimation period:[10]

$$\Delta VP^{*}_{i\tau} = \Delta VP_{i\tau} - \overline{\Delta VP_i}, \quad (5)$$

where $\Delta VP^{*}_{i\tau}$ denotes the abnormal daily change of the voting premium of firm i at date τ, and $\overline{\Delta VP_i}$ the average voting premium change over the period of 250 trading days prior to the event window.[11] Furthermore, we define the cumulative abnormal change of voting premium for stock i over the interval $[\tau_1, \tau_2]$ within the event window to be the sum of the daily abnormal change of the voting premium over the interval:

$$C\Delta VP^{*}_{i}[\tau_1, \tau_2] = \sum_{\tau=\tau_1}^{\tau_2} \Delta VP^{*}_{i\tau}. \quad (6)$$

The standard error of $C\Delta VP^{*}_{i}[\tau_1, \tau_2]$ is computed with the modification of Campbell, Lo, and MacKinlay (1997).

[10] Note that the unit of the abnormal change of the voting premium is % point, not %.
[11] The average is taken over available data if the changes in voting premium are available only for the period with less than 250 days but more than 30 days.

IV. Empirical Results

A. Market reactions to toehold acquisitions

Figure 1 exhibits average cumulative abnormal return (ACAR, hereafter) for the window [-100, t] for the samples of investment purpose and activism purpose, respectively. Targets of investment purpose toehold acquisitions fail to exhibit a significant cumulative abnormal return for the entire period, although there are some periods within which ACAR looks significant. To the contrary, targets of activism purpose toehold acquisitions exhibit significantly positive cumulative abnormal returns for the most of the period. The ACAR steadily increases until 10 days after the disclosure and reaches a plateau thereafter. The ACAR for the entire period in event window amounts to about 28%.

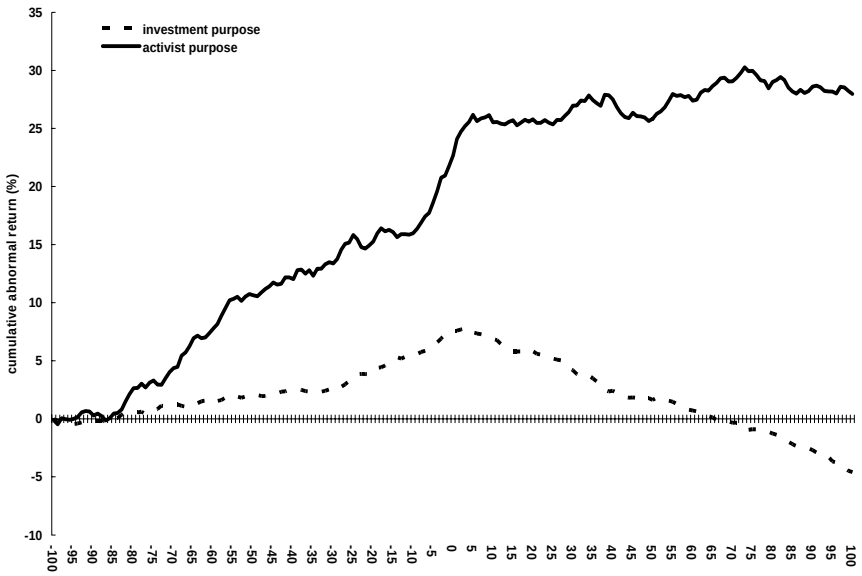

Figure 1. ACARs of targets of toehold acquisitions for activism purpose and investment purpose. The figure presents the average cumulative abnormal returns (ACAR) of targets for activism purpose and investment purpose, respectively.

Table II investigates the ACARs for the pre-event, around the event, and post-event periods as well as the entire period of the event window. ACARs of the targets of the activism purpose acquisitions are found significantly positive for the pre-event and the around event periods. The results reinforce the findings by Choi (1991) and Park, Selvili, and Song (2006), who report positive market reactions to toehold acquisitions with an activism purpose.[12]

[12] Unlike Choi (1991), who reports a negative pre-toehold abnormal return, we find positive abnormal returns for the pre-event periods.

Table II

ACARs of targets of toehold acquisitions for activism purpose and investment purpose for various periods

The table presents the ACARs for targets of toehold acquisition for the pre-event period, around event period, and post-event period as well as for the entire period. t-values are in parentheses. ***, **, and * denote the statistical significance at the two-sided 1%, 5%, and 10% levels, respectively.

Time period	ACAR for Activism Purpose Sample (%) [Sample Size=166]	ACAR for Investment Purpose Sample (%) [Sample Size=720]
Panel A. Pre-event period		
[-100, -10]	***15.98	***5.45
	(4.56)	(4.05)
[-10, -1]	***5.92	***2.24
	(5.85)	(5.77)
[-100, -1]	***21.77	***7.55
	(5.84)	(5.28)
Panel B. Around event period		
[-1, 0]	***1.74	*0.33
	(3.91)	(1.91)
[0, 0]	***0.91	0.04
	(2.89)	(0.31)
[0, 1]	***2.32	0.04
	(5.22)	(0.21)
[-1, 1]	***3.16	0.33
	(5.78)	(1.55)
Panel C. Post-event period		
[1, 10]	***2.85	*-0.74
	(2.82)	(-1.91)
[10, 100]	1.84	***-11.66
	(0.52)	(-8.65)
[1, 100]	5.30	***-12.18
	(1.42)	(-8.51)
Panel D. Entire period		
[-100, 100]	***27.98	**-4.60
	(4.65)	(-1.99)
[-50, 50]	***15.10	-0.27
	(4.02)	(-0.19)

Figure 2 and Table III examine whether the voting premium exhibit abnormal changes in response to toehold acquisitions. The average cumulative abnormal changes in the voting premium (ACAΔVP, hereafter) of the targets in the activism sample increases steadily during the entire period of the event window, while that of the targets

in the investment sample remains unchanged. For the activism sample, the ACAΔVP for the window [-100, 100] reaches about 30 % p and is significant at 5% level.

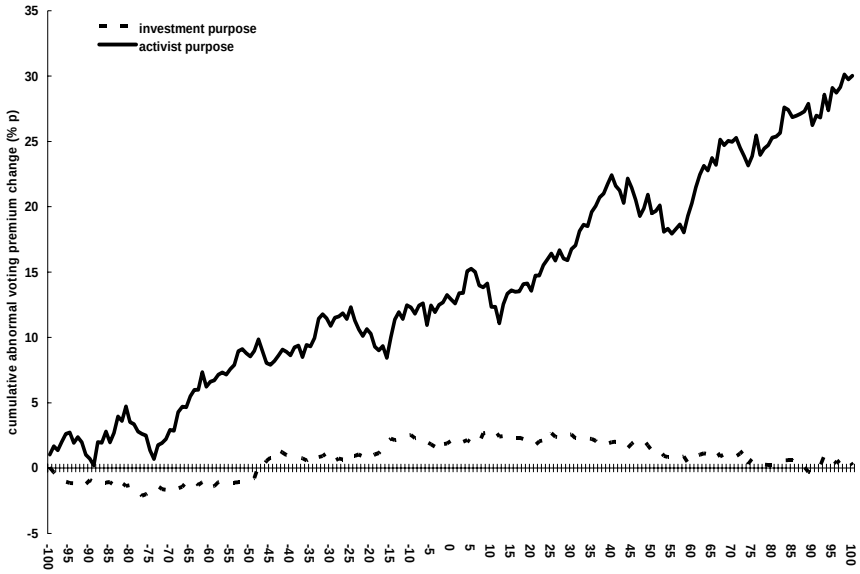

Figure 2. ACAΔVP of targets of toehold acquisitions for activism purpose and investment purpose. The figure presents the average cumulative abnormal voting premium change (ACAΔVP) of targets for activism purpose and investment purpose, respectively. The ACAΔVP can be computed only for the firms with dual-class stocks outstanding.

Table III

ACAΔVPs of targets of toehold acquisitions for activism purpose and investment purpose for various periods

The table presents the ACAΔVPs for targets of toehold acquisition for the pre-event period, around the event period, the post-event period as well as for the entire period. t-values are in parentheses. ***, **, and * denote the statistical significance at the two-sided 1%, 5%, and 10% levels, respectively.

Time Period	ACAΔVP of Activist Purpose Sample (% p) [sample size=18]	ACAΔVP of Investment Purpose Sample (% p) [sample size=136]
Panel A. Pre-event period		
[-100, -10]	12.29	2.53
	(1.47)	(0.87)
[-10, -1]	0.77	-0.61
	(0.32)	(-0.72)
[-100, -1]	13.24	1.87
	(1.49)	(0.60)
Panel B. Around event period		
[-1, 0]	0.22	0.27
	(0.21)	(0.71)
[0, 0]	-0.33	0.23
	(-0.44)	(0.86)
[0, 1]	-0.63	0.30
	(-0.59)	(0.82)
[-1, 1]	-0.08	0.34
	(-0.06)	(0.75)
Panel C. Post-event period		
[1, 10]	-0.57	0.89
	(-0.23)	(1.05)
[10, 100]	*15.89	-2.49
	(1.90)	(-0.85)
[1, 100]	*17.11	-1.87
	(1.92)	(-0.60)
Panel D. Entire period		
[-100, 100]	**30.02	0.23
	(2.10)	(0.05)
[-50, 50]	10.71	2.24
	(1.20)	(0.72)

The positive response of the voting premium to toehold acquisitions suggests that the formation of a new large outside investor increases the likelihood that the firm will undergo control-related events such as proxy fights. The results provide a dynamic extension to Rydqvist (1996), who shows that the voting premium increases as the ownership is concentrated among a few large shareholders. The results are also

consistent with Choi (1991), who argues that positive market reactions to toehold acquisitions reflect the anticipation of the subsequent control-related events.

B. Firm characteristics and the valuation effects of toehold acquisitions

This subsection analyzes whether target characteristics related with the managerial entrenchment affect the market reactions to toehold acquisitions. We first examine whether the valuation effects of toehold acquisitions depend on the asset size, the dual class stocks and their interaction effects. In the following subsection, we proceed to provide a regression analysis to examine whether the results remain unchanged after controlling for other factors that might affect the valuation effects of toehold acquisitions.

Figure 3 presents ACARs for targets of activism purpose acquisitions according to the size of assets, i.e., Large vs. Small Group. They show that ACARs are significantly positive for most sub-periods in the event window for both groups. Although the targets in the Small Group appear to have a slightly greater ACAR than those in the Large Group, the difference between two ACARs over the period [-100, 100] is not statistically significant at 10% level.

Figure 4 exhibits the ACARs of the targets with vs. without preferred stocks outstanding, respectively. Again, we do not find a statistically meaningful difference between the two groups.

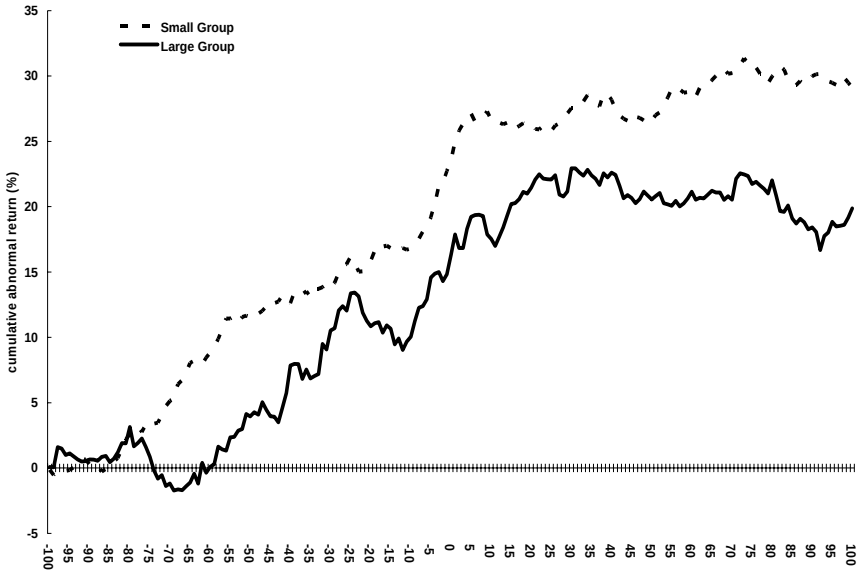

Figure 3. ACARs of targets of toehold acquisitions for activism purpose in Large Group vs. Small Group. The figure presents the ACARs of targets for activism purpose in Large Group vs. Small Group, respectively.

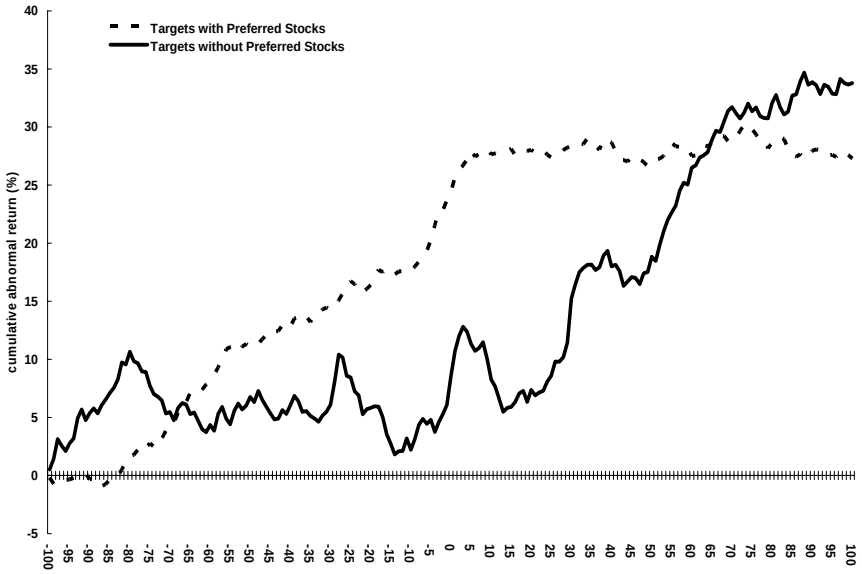

Figure 4. ACARs of targets of toehold acquisitions for activism purpose with vs. without preferred stocks. The figure presents the ACARs of targets for activism purpose with vs. without preferred stocks, respectively.

Figures 5 and 6 investigate the interaction effects between the size of the asset under the control of management or controlling shareholder and the dual-class stocks. They present a drastic difference in the market reactions depending on the size of the corporate assets between targets with vs. without preferred stocks outstanding. Figure 5 shows that the stock price response does not depend on the size of the assets if target companies do not have preferred stocks outstanding. On the other hand, Figure 6 shows the asset size makes a drastic difference in the market reactions to toehold acquisitions of targets with preferred stocks outstanding. That is, while the stock prices of the targets in Large Group do not respond to toehold acquisitions, those of the targets in Small Group exhibit an immediate surge in response to the toehold acquisition announcement.

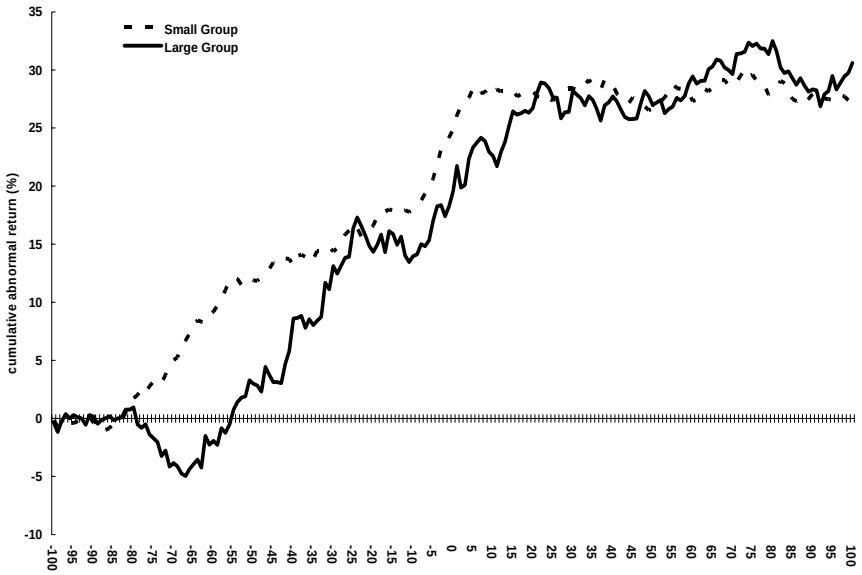

Figure 5. ACARs of targets of toehold acquisitions for activism purpose in Large Group vs. Small Group: targets without preferred stocks. The figure presents the ACARs of targets for activism purpose in Large Group vs. Small Group, respectively, that do not have preferred stocks outstanding.

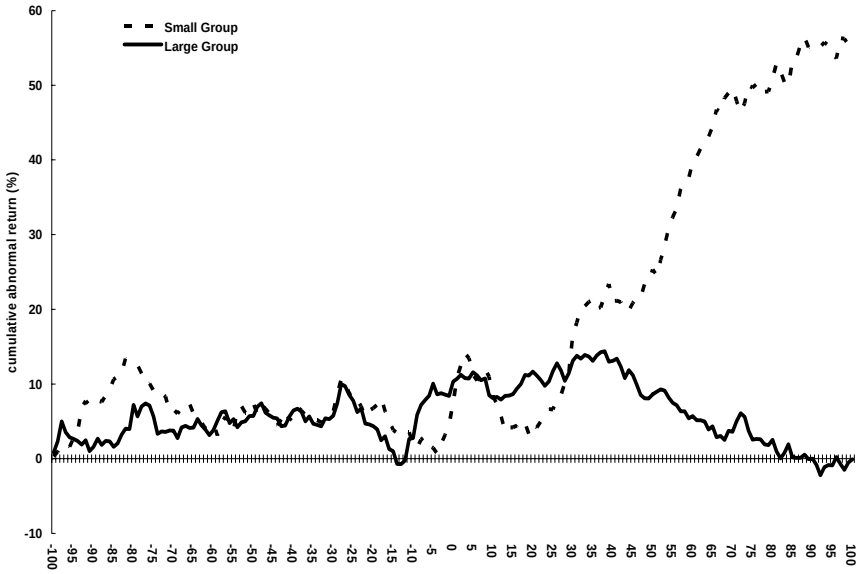

Figure 6. ACARs of targets of toehold acquisitions for activism purpose in Large Group vs. Small Group: targets with preferred stocks. The figure presents the ACARs of targets for activism purpose in Large Group vs. Small Group, respectively, that have preferred stocks outstanding.

Table IV provides more detailed analyses on the interaction effects between the dual class stocks and the asset size. Panel A in the table shows that while dual class targets in Small Group exhibit an immediate surge in ACARs following the disclosure of toehold acquisitions, those in Large Group fail to exhibit a significant abnormal return for any period. Panel B in the table, on the other hand, shows that targets in both exhibit significantly positive cumulative abnormal returns and their difference do not appear meaningful.

Table IV

ACARs of targets of toehold acquisitions for activism purpose in Large vs. Small Group and with vs. without preferred stocks

The table summarizes the ACARs for subintervals within the event window for the targets in Large vs. Small Group and with vs. without preferred stocks outstanding. t-values are in the parentheses. ***, **, and * denote the statistical significance at the two-sided 1%, 5%, and 10% levels, respectively.

	Large Group	Small Group
Panel A. Targets with Preferred Stocks		
ACAR[-100, -10]	2.76 (0.25)	1.87 (0.19)
ACAR[-10, 10]	5.46 (1.15)	4.82 (1.13)
ACAR[10, 100]	-8.55 (-0.77)	***44.34 (4.44)
ACAR[-100, 100]	-0.07 (-0.00)	***55.32 (3.25)
Sample Size	7	11
Panel B. Targets without Preferred Stocks		
ACAR [-100, -10]	13.97 (1.43)	***18.01 (4.40)
ACAR [-10, 10]	**9.15 (2.19)	***10.34 (5.93)
ACAR [10, 100]	7.69 (0.78)	-1.65 (-0.40)
ACAR [-100, 100]	*30.61 (1.83)	***26.95 (3.84)
Sample Size	13	135

C. Regression Analyses

This subsection provides regression analyses on the market reactions to control for other target characteristics such as the managerial ownership and the capital structure that may affect the valuation consequences of toehold acquisitions. We show that the interaction effects between the asset size and the dual class stocks remain valid after controlling for those factors. The analyses are based on the following regression models:

Model I: $\mathrm{CAR}[\tau_1, \tau_2] = \alpha + \beta D_{\text{large}} + \gamma D_{\text{preferred stock}} + \delta(D_{\text{large}} \times D_{\text{preferred stock}}) + \xi$ (7)

Model II: $\mathrm{CAR}[\tau_1, \tau_2] = \alpha + \beta D_{\text{large}} + \gamma D_{\text{preferred stock}} + \delta(D_{\text{large}} \times D_{\text{preferred stock}}) + \phi' z + \eta$ (8)

where D_{large} and $D_{\text{preferred stock}}$ are dummy variables that take 1 if the target is in Large Group and if the target has the preferred stock, respectively, and 0 otherwise. z denotes control variables. It includes the cross product of the dummy variable for the preferred stock and the proportion of preferred stock, the ownership under the control of the controlling shareholder, the logarithm of the target asset, and the leverage ratio(=(total debt)/(total asset)).[13] ξ and η are the disturbance terms.

The main focus of the regression analysis is whether the coefficient δ is significant. It reflects the interaction effect between the asset size and the dual-class stocks on the market reactions to toehold acquisitions. We use the weighted least squares (WLS) to estimate the models (7) and (8) considering the difference of the precision of CAR of each firm. Model I specifies the interaction effects without controlling for other factors that are potentially relevant while Model II takes into consideration them.

[13] The data for these control variables are available at the DART(Data Analysis, Retrieval and Transfer) System in KFSS.

Table V

Regression results using weighted least squares

This table provides the estimation results of the regression (7) and (8). We use the weighted least squares (WLS) technique since the standard errors of the CARs of individual targets may be different. t-values are in the parentheses. *, **, and *** denote the statistical significance at the two-sided 10%, 5%, and 1% levels, respectively.

Dependent variable	CAR[10, 100]		CAR[-100, 100]	
	Model I	Model II	Model I	Model II
D_{large}	9.62 (1.19)	***22.89 (2.69)	-8.41 (-0.61)	18.62 (1.28)
$D_{preferred\ stock}$	***133.62 (15.37)	***160.20 (11.12)	***130.62 (8.80)	***167.83 (6.82)
$D_{large} \times D_{preferred\ stock}$	***-149.28 (-9.70)	***-165.74 (-10.24)	***-152.37 (-5.79)	***-177.20 (-6.40)
$D_{preferred\ stock}$× (preferred share proportion)	—	-1.86 (-1.46)	—	-2.30 (-1.06)
ownership under the control of the controlling shareholder	—	***-0.60 (-3.34)	—	***-1.00 (-3.22)
Ln(asset)	—	***-3.83 (-4.82)	—	***-8.63 (-6.35)
Leverage	—	-22.64 (-1.63)	—	*-43.60 (-1.84)
Sample size	166	166	166	166

Table V provides the regression results. The coefficient δ, which represents the interaction effect between the asset size and the dual-class stocks, is found negative and statistically highly significant in both Model I and Model II for both CAR from 10 to 100 and CAR in the entire period. These results suggest that the managerial incentives for entrenchment tend to reduce the likelihood for the takeover to take place if the management has sufficient assets under its control. The results are consistent with the agency costs approach to the dual class stocks. Since dual class stocks are an outcome of the managerial incentives for entrenchment, the management issuing dual class stocks is expected to resist more ferociously against control transfers. The managerial resistance is more successful as the corporate resources under the control of the

management or the controlling shareholder increase only for the targets with preferred stocks outstanding.

The results also have an implication for controversies regarding the effects of the managerial resistance against takeover attempts on the shareholder value. Models of takeover contests argue that the managerial resistance causes a trade-off for the expected value of the takeover premium that target shareholders can capture. The property of the trade-off is that the managerial resistance reduces the likelihood for the takeover to take place on the one hand and increases the takeover premium that the target shareholders can capture on the other hand. As a consequence, the effect of the managerial resistance on the expected value of the takeover premium remains indeterminate ex ante and, as a result, it is a matter of empirical investigation whether the managerial resistance contributes to the shareholder value. Our empirical results, however, are not consistent with the trade-off hypothesis. Rather, the surge of the stock price of the dual class targets in Small Group in contrast to a meager response of that of the dual class targets in Large Group may be considered as evidence that the managerial resistance proves harmful to the shareholder value.

It is also worth noting that the stock price does not exhibit a significant increase for targets in Large Group if they have preferred stocks outstanding while their voting premium does increase.[14] This implies that the management is expected to use the corporate resources to defend its control rights through the value-destroying defensive tactics such as, for example, the payment of greenmails.

[14] We find that the voting premium increases regardless of the size of assets although we do not report the results.

V. Summary and Conclusion

Previous studies on toehold acquisitions emphasize that a large outside block provides challenges to the managerial control rights and more efficient monitoring. As a consequence, toehold acquisitions are followed by substantial increases in the shareholder value. This paper extends previous studies by examining whether the likelihood of the control contests is affected by ownership structure and under what circumstances the anticipation of subsequent control contests increases the shareholder value of the target company.

We first find that the voting premium increases in response to toehold acquisitions, which is consistent with the hypothesis that toehold acquisitions signal imminent challenges to the control of the management of the target firms. To the contrary, the stock price exhibits an interaction effect between the asset size and the dual class stocks. The property of the interaction effect is that the valuation effects of toehold acquisitions of dual class targets negatively depend on the size of assets under the control of the controlling shareholders, whereas those of single class targets remain independent of the asset size. In particular, it turns out that dual class targets fail to exhibit a positive cumulative abnormal returns if the controlling shareholders have sufficient corporate resources for resistance. The interaction effect remains valid after controlling for other factors that may affect the valuation consequences of toehold acquisitions.

We claim that the interference interaction effects suggest that it depends on the managerial resistance whether the challenges to the managerial control rights contribute to the shareholder value. Although the anticipation of takeover increases the voting premium, it does not necessarily lead to an increase in the shareholder value for fear of

the value-destroying takeover defensive tactics such as the payment of greenmails. The negative effect of the managerial resistance on the probability of control transfer is consistent with the hypothesis that takeover defensive mechanisms such as poison pills and the payment of greenmails result in significant wealth losses to target shareholders.

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