Anti-Takeover Charter Amendments and Managerial Entrenchment: Evidence from Korea[†]

Sunwoo Hwang[1] and Woochan Kim[2]

This Draft: January 2011

Abstract

With the removal of statute-based anti-takeover provisions during the aftermath of Asian crisis, a significant number of Korean firms started to introduce charter-based measures. In this paper, we make use of this unique situation where firm-level anti-takeover provisions (ATP) vary over time (making firm fixed effects regression feasible) and its amendment requires a shareholder approval (making event study feasible), when investigating the link between ATP and firm performance. Using a sample during 1999-2009, we find that firms with charter-based anti-takeover provisions are smaller in size, have lower inside and foreign ownerships, and upon adoption, experience lower share prices, the extent of which drops with inside ownership. Consistent with the overinvestment hypothesis in Jensen (1986), we also find that these firms increase capital expenditure. Our finding also shows that ATP adoptions are followed by lower profitability and lower dividend payouts. Firms with ATPs also experience greater de-listings during the global financial crisis.

JEL Classifications: G34
Keywords: Anti-Takeover Charter Amendment, Korea, Entrenchment

[1] KDI School of Public Policy and Management, Chungrangri-Dong Dongdaemun-Ku, Seoul, Korea 130-868. E-mail: cortiger@gmail.com
[2] Corresponding author; Professor of Finance, KDI School of Public Policy and Management, Chungrangri-Dong Dongdaemun-Ku, Seoul, Korea 130-868. Tel: +822-3299-1030 | E-mail: wc_kim@kdischool.ac.kr

Anti-Takeover Charter Amendments and Managerial Entrenchment: Evidence from Korea[†]

This Draft: January 2011

Abstract

With the removal of statute-based anti-takeover provisions during the aftermath of Asian crisis, a significant number of Korean firms started to introduce charter-based measures. In this paper, we make use of this unique situation where firm-level anti-takeover provisions (ATP) vary over time (making firm fixed effects regression feasible) and its amendment requires a shareholder approval (making event study feasible), when investigating the link between ATP and firm performance. Using a sample during 1999-2009, we find that firms with charter-based anti-takeover provisions are smaller in size, have lower inside and foreign ownerships, and upon adoption, experience lower share prices, the extent of which drops with inside ownership. Consistent with the overinvestment hypothesis in Jensen (1986), we also find that these firms increase capital expenditure. Our finding also shows that ATP adoptions are followed by lower profitability and lower dividend payouts. Firms with ATPs also experience greater de-listings during the global financial crisis.

JEL Classifications: G34
Keywords: Anti-Takeover Charter Amendment, Korea, Entrenchment

1. Introduction

When investigating the relationship between anti-takeover provisions (ATP) and firm performance, most of the empirical work in the existing literature studies U.S. firms (Gompers, Ishii, and Metrick 2003, Bebchuk, Cohen, and Ferrell 2009).[3] Also, given the time-invariant nature of U.S. anti-takeover measures, firm fixed effects regressions, which control for unobserved time-invariant firm characteristics, are usually not feasible. For this reason, Gompers, Ishii, and Metrick (2003) reject the use of firm fixed effects regressions. Bebchuk, Cohen, and Ferrell (2009) do run firm fixed effects regressions, but finds evidence of entrenchment effect only for a subset of anti-takeover provisions. Moreover, most of the anti-takeover provisions are not charter-based, which means that boards can adopt them without shareholders' approval. This makes most of the anti-takeover provisions subject to the shadow pill problem à la Coates (2000) and makes event studies meaningless. That is, given the ease to adopt anti-takeover provisions via board decision, market participants view as if such provisions are already in place and share prices reflect the entrenchment effect even before their adoptions.

In this paper, we attempt to overcome these three shortcomings by making use of a unique situation in Korea. With the removal of statute-based anti-takeover provisions during the aftermath of the Asian crisis, a significant number of Korean firms started to introduce charter-based anti-takeover measures, such as supermajority requirement on director dismissals, golden parachutes, supermajority requirement on mergers, and so on. This provides a setting where anti-takeover provisions vary over time, allowing one to investigate the relationship in a firm fixed effects framework. Also, given that all the provisions newly introduced are charter-based, requiring shareholders' approval, their adoptions constitute valid events, and allow one to conduct meaningful event studies.

Besides providing evidence outside of U.S. and using firm fixed effects regressions and event studies, this paper makes another contribution to the literature by investigating anti-takeover measures in a country setting where firms typically have concentrated ownership structure. Specifically, we investigate how the level of inside ownership is associated with the choice of anti-takeover provisions. Also, we study how the link between anti-takeover provisions and firm performance is influenced by the level of inside ownership.

Using public firms in Korea, over 1999-2009, we first investigate the factors behind the adoption of anti-takeover provisions. We find that firms with charter-based anti-takeover provisions have lower inside ownership, lower foreign ownership, and smaller firm size. We then ask our main question whether anti-

---

[3] There are a limited number of exceptions, which include Lange, Ramsay, and Woo (2000) that studies Australian anti-takeover devices and Arikawa and Mitsusada (2008) and Kato, Fabre, and Westerholm (2009) that studies poison pills in Japan.

takeover charter amendments are associated with lower firm value, and if so, why? Using the same sample of firms, we find that firms with anti-takeover provisions experience lower share prices. This is so in our event studies and also in our firm fixed effects regressions. We also find that the extent of such share price drop is greater for firms with low inside ownership, suggesting that the level of inside ownership and charter-based anti-takeover measures are substitutes.

We next test three hypotheses that identify the channels through which the adoption of anti-takeover measures lead to lower firm value. The channels we investigate include investment (capital expenditure), profitability, and dividend payouts. Consistent with the overinvestment hypothesis in Jensen (1986), we find that firms with anti-takeover measures experience higher capital expenditures, lower profitability, and lower dividend payouts. Lastly, we test how firms with anti-takeover provisions fared during the global financial crisis by investigating the firms that were delisted in 2009. We find that firms with anti-takeover provisions resulted in a greater number of de-listings than the ones without such provisions.

Testing the entrenchment effect of anti-takeover charter amendments can also shed light on the current policy debate in Korea over poison pill. The present Commercial Code in Korea does not allow firms to issue poison pills. Ministry of Justice (MOJ), however, proposed a Commercial Code revision bill in 2010 that allows it. Even though we do not directly study poison pills in this paper, we can make inference about their consequences. This is because the anti-takeover measures we study are weaker defense tools, and if we find evidence of managerial entrenchment from them, we can safely infer the existence of entrenchment effect from a stronger defense tool, such as poison pill.

The paper is organized as follows. Section 2 discusses the anti-takeover devices in Korea, with a focus on charter-based anti-takeover provisions, which is the main subject of this paper. We also briefly discuss the recent debate in Korea whether to introduce poison pill. Section 3 outlines our hypotheses and section 4 explains the data and the sample. Section 5 provides the empirical results and Section 6 concludes.

2. Anti-Takeover Measures in Korea

A. Statute-Based Anti-Takeover Provisions before the Crisis

Before the financial crisis in 1997, Korean corporate managers were fully entrenched. Until Dec. 1996, they were protected by the 10 percent rule in the Securities and Exchange Act. Under this rule, no shareholder, besides the controlling shareholder at the time of IPO, can own more than 10 percent of

voting shares in public companies. This rule, which existed since 1976, was necessary in earlier years to induce Korean firms to publicly float their shares on the stock exchange and thereby enlarge the size the Korean capital market.

In January 1997, this rule was replaced by three others.[4] One was a mandatory bid rule in the Securities and Exchange Act, where any shareholder acquiring more than 25 percent of voting shares, must acquire additional shares to own more than 50 percent of the total voting rights. Given the chronic scarcity of capital in those years and the difficulty to externally finance acquisition deals, this rule was also regarded as a statute-based anti-takeover device. The other two rules were against foreign acquisitions. Foreign Investment and Foreign Capital Inducement Act introduced a rule where any foreigner wishing to acquire more than 10 percent of pre-existing shares must obtain board approval. It also introduced a rule where any foreigner wishing to acquire shares of a large firm (book asset value above 2 trillion won) must obtain approval from the Minister of Finance and Economy. By Law, the Minister was obliged to approve the acquisition if aggregate foreign ownership was less than 15 percent of total outstanding shares and no foreigner can become the largest shareholder.

These three rules, however, lasted only a year. As part of an effort to induce foreign capital inflow during the aftermath of the financial crisis, Korean government repealed all three rules in February 1998. The limit on foreign aggregate ownership, which increased gradually from 10 percent in Jan. 1992 to 26 percent in Nov. 1997, also jumped to 50 percent in Dec. 1997 and then finally lifted to 100 percent in May 1998.

B. Charter-Based Anti-Takeover Provisions after the Crisis

Dominated by firms with concentrated family ownership, hostile takeover threats are limited in Korea.[5] But, a number of factors lead a significant number of Korean firms to adopt charter-based anti-takeover provisions in recent years. First, foreign investment in Korea Exchange (KRX) increased significantly since the limit on foreign aggregate ownership was lifted in 1998. According to Financial Supervisory Service (FSS), foreigners' 18.6 percent share of total market capitalization increased to 42.0 percent in 2004 (excluding KOSDAQ market). As of December 2009, they take up 32.6 percent. According to FSS,

---

[4] The 10 percent rule was removed from the Securities and Exchange Act in 1994, but with the grace period of 3 years, it lasted until the end of 1996. It was also in January 1994, when the Securities and Exchange Act allowed Korean firms to engage in stock repurchases and strengthened the 5 percent block holding disclosure requirement (adding shares owned by related-party into the calculation of 5 percent).
[5] According to Kim (2010), during the recent past 10 years (2000-2009), there were only a total of 15 cases reported as hostile tender offers in Korea. Among the 15 cases, 4 failed, including the one launched by a foreigner. According to the same source, there were only a total of 55 cases reported as hostile proxy flights over board seats, during the recent past five years (2005-2009). Among the 55 cases, only 6 succeeded to take over the board.

the number of foreign block holdings (ownership above 5%) also increased to 406 block holders in 614 companies as of Dec. 2007.

Second, a number of prominent shareholder activism cases led by foreign investors served as a wake-up call for Korean managers. Such examples include the proxy fight between Sovereign Asset Management and SK (2004 and 2005) and that of Icahn Partners Master Fund and KT&G (2006). Though these activists did not have the intension to acquire control, Korean managers in general took the matter seriously and started to entrench themselves by adopting charter-based anti-takeover measures. It was also around this time when stock repurchase suddenly became a popular anti-takeover device. By selling treasury stocks to friendly shareholders, incumbent managers were able to strengthen their *de facto* voting rights.

Third, the absence of statute-based anti-takeover measures obviously must have influenced firms to adopt charter-based measures. Since the proxy fight between Sovereign Asset Management and SK, there were calls from the business community to allow poison pill, dual class shares, and many others. But no action was taken by the government until 2010 when MOJ submitted to the National Assembly the Commercial Code revision bill that allows poison pill. During this period, anxious managers devised their own anti-takeover measures and secured charter amendments.

According to the Solidarity for Economic Reform (SER), a civil organization, the newly emerging charter-based anti-takeover measures can be categorized into six types: (i) supermajority requirement when dismissing directors, (ii) prohibiting dismissal of directors above a certain percentage, (iii) golden parachutes, (iv) supermajority requirement for mergers, (v) supermajority requirement for control-related charter amendments, and (vi) delaying the effective date of control-related charter amendments.[6] SER (2009) also documents detailed examples of each measure. For example, the corporate charter of Curocom (a banking solution provider) requires 90 percent or higher approval by participating shares and 80 percent or higher approval by outstanding shares to dismiss a director. This requirement is substantially higher than the one prescribed in the Commercial Code.[7] Maniker (a meat processing company), on the other hand, has a corporate charter that limits the fraction of dismissed directors to be below one fourth of directors that were serving at the end of last fiscal year. Another example is Pointi (a mobile solution provider), which has a golden parachute provision in its corporate charter. According to this provision, the representative director of Pointi can claim 10 billion won (approximately 10 million US dollars) upon his dismissal in the event of hostile takeover.

---

[6] See SER (2009).
[7] To dismiss a director, the Commercial Code requires approval by at least two thirds of participating shares and one third of outstanding shares.

Biosmart (a magnetic stripe card manufacturer) has a supermajority requirement for mergers. If a merger is determined by board decision as hostile, a merger requires 90 percent or higher approval by participating shares and 70 percent of higher approval by outstanding shares. Again, this requirement is substantially higher than the one prescribed in the Commercial Code.[8] Another example is Curoholdings (a semiconductor testing device manufacturer), which is subject to a supermajority requirement on control-related charter amendments. In its charter, it first has a provision regarding supermajority requirement on director dismissals. It then has another provision that requires a supermajority approval to amend the first provision. Synopexgreentech (a machinery equipment manufacturer), on the other hand, has a golden parachute (5 billion won) provision in its charter and also a provision that delays the effective date if one amends the golden parachute provision.

C. Debate over Poison Pill

As mentioned earlier, in 2010, MOJ submitted to the National Assembly a Commercial Code revision bill that allows poison pill. The proposed pill, however, has a number of unique features that differentiates it from the ones popularly adopted in the U.S. First, it is a charter-based anti-takeover measure. That is, the board's decision to issue poison pill must be based on a provision in the corporate charter. Second, when issuing poison pill, board must obtain approval from at least two thirds of board members.

Despite such features, critics argue that the pill is more likely to be misused and eventually harm corporate performance, especially in a country setting like the one in Korea, where independent board members are rare, outside monitoring by institutional investors is weak, and level of control-related private benefits are high.[9] They also criticize MOJ's justification for allowing the pill. One of MOJ's arguments is that, in the absence of statute-based anti-takeover measures, firms excessively engage in stock repurchases, which divert corporate resources away from productive activities. For MOJ's argument to be justified, firms should experience higher firm value and increased capital expenditure during the post-pill period. The critics, however, predict otherwise. That is, managers will effectively entrench themselves and engage in value-decreasing investments, which will lower firm value.

We believe the empirical results of our study can shed light on this debate. Even though we do not directly study poison pill, we can make inference about its consequences by examining the anti-takeover measures of our study. This is justified because, compared to poison pill, the measures we study in this

---

[8] According to the Commercial Code, a merger requires approval by at least two thirds of participating shares and one third of outstanding shares.
[9] For detailed criticism against the proposal, see Kim (2010).

paper are weaker anti-takeover tools. If we find evidence of managerial entrenchment from a weaker ATP, we can safely infer that there would be an entrenchment effect from a stronger ATP.

3. Hypotheses

A. Which Firms Chose to Adopt Anti-Takeover Measures?

We first investigate the factors that motivate corporate insiders to adopt anti-takeover charter provisions. Here, we consider two factors: inside ownership and firm size. First, we hypothesize that firms with lower inside control are more likely to adopt charter-based anti-takeover measures. This is self-explanatory. Firms with concentrated ownership are insulated from hostile takeover threats, and therefore should not have much incentive to adopt anti-takeover measures. Second, we investigate if firm size matters. Given that charter-based anti-takeover provisions were relatively new and therefore firms did not want to draw attention, we hypothesize that smaller firms that are seldom covered by the media or by equity analysts, are more likely to go for anti-takeover charter amendments. Besides these two, we also consider foreign ownership. A priori, the relationship is ambiguous. If corporate managers are threatened by greater foreign share ownership, and therefore motivated to adopt anti-takeover measures, we would see firms with higher foreign ownership more frequently adopting adopt anti-takeover measures. But, the opposite relationship may also hold. In the presence of high foreign ownership, corporate managers may not be able to secure shareholders' approval to adopt anti-takeover measures, thereby lowering the incidents of anti-takeover charter amendments in firms with high foreign ownership. This latter conjecture is consistent with recent papers that document the activist roles played by foreign investors (Kim, Kim, and Kwon 2009 and Kim, Sung, and Wei 2010).

B. Are ATCA Associated with Lower Firm Value? If So, Why?

The free cash flow hypothesis of Jensen (1986) predicts, in the absence of hostile takeover threats, managers with free cash flow tend to invest in value-destroying projects and therefore make less cash dividend payouts. The key purpose of this paper is to test these predictions using Korean firms. Our detailed hypotheses are broken down into five parts.

First, we test if firms with anti-takeover charter amendments exhibit lower firm value during the post-amendment period. If outside shareholder expects that corporate insiders will engage in negative NPV projects after adopting charter-based anti-takeover measures, share price will drop immediately after

their adoption announcements and also remain low for an extended period of time. We test this hypothesis using two approaches: event studies and panel regressions. In either case, we also test if the level of inside ownership matters. If market participants view the level of inside ownership as a substitute to charter-based anti-takeover measures, share price reactions will be lower for firms with high inside ownership. As for event studies, we also test if firm size matters. As for small cap firms, anti-takeover charter amendments may not have drawn much attention from the business media or from equity analysts. This leads to a prediction that firms with larger market cap are more likely to experience negative market reactions upon the adoption of anti-takeover measures.

We next test three hypotheses that identify the channels through which the adoption of anti-takeover measures may lead to lower firm value. The channels we investigate include investment (capital expenditure), profitability, and dividend payouts. Specifically, we test if the adoption of anti-takeover measure leads to increased capital expenditure, lower profitability, and lower dividend payouts. Notice that these channels are directly related to Jensen's free cash flow hypothesis. Capital expenditure increases because managers will engage in more negative NPV projects. Profitability falls because the new projects are not profitable. Dividend payouts drop because retained earnings are used to finance new projects.

Lastly, we test how firms with anti-takeover provisions fared during the global financial crisis by investigating the firms that were delisted in 2009. If entrenched managers engaged in negative NPV projects and thereby lowered profitability, we predict that firms with ATP fared worse during the global financial crisis and thus resulted in a greater number of de-listings.

4. Data

The data on anti-takeover provisions is from the Economic Reform Research Institute (ERRI), a private think tank specialized in economic reform issues in Korea. ERRI collected the data by going through the corporate charter of each and every listed firm on the Korea Exchange over a nine year period (2001-2009).[10] The first bar chart in Figure 1 shows the cumulative number of nonfinancial firms with at least one charter-based ATP over a period of 1999-2009. ATP first emerged in 2001 and then increased exponentially up until 2008. As of 2008, there are 250 nonfinancial firms with at least one charter-based ATP. This is approximately 15 percent of all nonfinancial listed firms (=250/17,000). The figure,

---

[10] In case of 2009, ERRI collected the data only during Jan-March. Since firms with fiscal year ending in December take up approximately 93 percent of all listed firms and they must hold their shareholders' meeting by March in the following year, ERRI's 2009 data approximately covers 93 percent of list firms. As for the remaining 7 percent of firms, we simply extrapolated the data in 2008.

however, drops down to 212 firms in 2009. This is largely due to massive delisting that took place during the aftermath of global financial crisis. The second bar chart effectively shows this. Each bar represents the number of delisted nonfinancial firms from Korea Exchange (KRX) in each year. Among the 80 nonfinancial firms delisted in 2009, a disproportionately large number of firms (31 firms) were those with anti-takeover provisions.

Table 1 shows the types of ATPs and the number of firms for each type of provision during the entire sample period (2001-2009). The total number of firms with at least one ATP during the entire sample period is 250, matching the figure in Figure 1. This indicates that no firm removed such provision from their corporate charter during our sample period. Table 1 also shows that the most popular ATP is supermajority requirement on director dismissals (197 firms), followed by golden parachute (130 firms), and supermajority requirement on control-related charter amendments (119 firms).

Following the tradition in the existing literature, we could have constructed an index out of these six provisions (Gompers, Ishii, and Metrick 2003 and Bebchuk, Cohen, and Ferrell 2009). But, in this paper, we take a much simpler approach. We use a dummy variable named ATP, which takes a value of 1 if anti-takeover provision (ATP) exists, and 0 otherwise. The merit of taking this approach is that we do not have to worry about how to assign weights on each provision when constructing an index. Also, we do not have to make an arbitrary assumption that each provision has equal value. There is a problem though. We are assuming that firms do not get more entrenched by adding more anti-takeover provisions. Firms with one ATP are assumed to be equally entrenched as firms with all six ATPs. This problem can be fixed by constructing an index that increases with the number of ATPs adopted. An example is simply counting the number of ATPs adopted. But, such an index creates another problem. It ignores that ATPs are to some extent substitutes and that simply adding ATPs do not increase the level of entrenchment proportionately. It is also worth noting that our key variable, ATP, varies over time. If a firm adopted an anti-takeover provision for the first time in 2004, ATP takes a value of 0 from 1999 to 2003, but 1 from 2004 and thereafter.

Table 2 gives definitions (Panel A) and summary statistics (Panel B) of principal variables used in our empirical analyses. We compute summary statistics over 1999-2009, the sample period which we use to run panel regressions. To allow at least two years of pre-adoption period, we add two years of data (1999 and 2000) before the first year of APT adoption (2001). Since capital expenditure is one of our key dependent variables, we drop financial firms from all of our panel regressions. Stock returns and market capitalizations data are respectively from Korea Capital Market Institute (KCMI) and Korea Exchange (KRX). Financial statements and ownership data are from TS2000, a DB compiled by the Korea Listed Companies Association (KLCA).

5. Results

A. Which Firms Chose to Adopt Anti-Takeover Measures?

To investigate the factors behind the charter-based anti-takeover amendments, we run Probit regression for ATP (1 if anti-takeover provision exists, 0 otherwise). Table 3 shows the results. Column (1) includes 2-digit industry dummies, while column (2) includes 4-digit industry dummies.[11] Both regressions include year dummies. Point estimates denote marginal effects on probability. As expected, the coefficient on inside ownership is negative and highly significant, indicating that firms with concentrated inside ownership are less likely to adopt charter-based anti-takeover measures. Alternatively, one can interpret that they are substitutes when it comes to anti-takeover defense measures. The coefficient of -0.001 (in column (2)) suggests that a 10%p increase in inside ownership drops the probability of ATP adoption by 1%p. Given that pooled sample mean of ATP is only 5%, this can be considered as a substantially drop in probability. Table 3 also shows that foreign ownership lowers the likelihood of ATP adoption. The coefficient is negative and statistically significant. But, the economic magnitude is relatively small. The coefficient of -0.004 (in column (2)) suggests that a 10%p increase in foreign ownership drops the probability of ATP adoption by 0.4%p. One can interpret that the monitoring role of foreign investors discourages corporate managers from introducing anti-takeover provisions.

The result in Table 3 also shows that smaller firms are more likely to introduce anti-takeover charter amendments. The coefficient on firm size is negative and highly significant. This is consistent with our earlier conjecture that large firms refrain from adopting anti-takeover charter amendments for fear of media and analyst attentions. The coefficient of -0.007 (in column (2)) suggests that one standard deviation increase in firm size (1.51) drops the probability of ATP adoption by 1%p (=-0.007 x 1.51). On the other hand, operating profit shows up as a marginally significant factor. The economic magnitude is negligible. One standard deviation increase in operating profit (0.13) drops the probability of ATP adoption by 0.1%p (=-0.0094 x 0.13).

B. Are ATCAs Associated with Lower Firm Value? If So, Why?

---

[11] We do not include firm fixed effects since it would worsen the incidental parameters problem (unconditional fixed effects Probit estimates are biased). Random-effects and population-average Probit models did not converge.

We next investigate if firms with anti-takeover charter amendments exhibit lower firm value during the post-amendment period. In doing so, we take two approaches: event studies and firm fixed effects regressions.

Event Study Results

Figure 2 shows our event study results, where the day of shareholders' meeting is used as event day. We estimate abnormal returns from market model (KOSDAQ Composite Index for KOSDAQ firms and KOSPI for all other listed firms) using past 250 trading days from day -260 to -11 as the estimation period. The figures plot cumulative average abnormal returns (CAARs) from day 10 through day +20.[12] The first figure (A), which uses the full sample of firms, shows the existence of negative announcement effect. Firms with anti-takeover provisions experience a share price fall of 3% over a 20-day period. Table 1 shows whether this announcement effect is statistically significant. When average abnormal returns (AAR) are cumulated from day -10 (columns (1) and (2)), t-stats are low and CAARs are marginally significant only in day +18. This is partly because the CAAR value at day 0 is above zero (0.6%). When we cumulate average abnormal returns (AAR) from day 0 (columns (3) and (4)), the statistical significance improves substantially. CAAR is significantly different from zero from day +2 and in most of the days during the event period.

We also test if the negative announcement effect strengthens in firms with low inside ownership. If market views the level of inside ownership as a substitute to charter-based anti-takeover measures, the magnitude of announcement effect would be greater in firms with low inside ownership. The second figure (B) shows the test results. We conduct the same event study using a sample restricted to those with inside ownership less than 10 percent. The magnitude of share price fall is around 9%, which is substantially greater than the one we saw using the full sample. This is so even if we take into account the share price fall that took place before the event day (3.5%). Statistical significance, however, is rather weak. When average abnormal returns (AAR) are cumulated from day -10 (Table 1, columns (5) and (6)), CAARs are marginally significant in nine days out of a 20-day event period. If we cumulate average abnormal returns (AAR) from day 0 (columns (7) and (8)), CAARs are marginally significant in five days out of a 20-day event period.

Next, we test if the negative announcement effect strengthens with firm size. If media and analyst coverage facilitates new information being incorporated in share prices, the magnitude of announcement effect would be greater in firms with large capitalization stocks. To test this, we restrict to firms with

---

[12] To compute CAAR, we first average abnormal returns across sample firms, and then cumulated them over the event window.

market capitalization greater than 50 billion won (approximately 50 million won). The third figure (C) shows the result. The magnitude of share price fall is around 5%, which is again substantially greater than the one we saw with the full sample. Table 1 shows the statistical significance of CAAR. When average abnormal returns (AAR) are cumulated from day -10 (columns (9) and (10)), CAARs are insignificant throughout the event period. This is probably because the CAAR value at day 0 is above zero (1.3%). When we cumulate average abnormal returns (AAR) from day 0 (columns (11) and (12)), the statistical significance improves substantially. CAAR is significantly different from zero from day +2 and in most of the days during the event period.

Firm Value

We next turn to firm fixed effects regressions, and test if within-firm adoption of anti-takeover provision leads to a within-firm drop in firm value. Table 5 shows the results. When using the full sample (column (1)), we do not find any association between ATP and firm value. The coefficient on ATP is insignificant. So, in columns (2) – (5), we run sub-sample regressions, where the sub-samples are grouped by the level of inside ownership. If market views the level of inside ownership as a substitute to charter-based anti-takeover measures, the drop in firm value would be greater in firms with low inside ownership. The estimated coefficients on ATP confirm this conjecture. The coefficient is negative and statistically significant when inside ownership is less than 30 percent, and the coefficient magnitude drops monotonically with the level of inside ownership, reaching -0.2348 when inside ownership is less than 10 percent (column (5)). As for these firms, an adoption of ATP drops *ln*(Tobin's *q*) by 0.235, or a 23.5 percent drop in Tobin's *q*. Given the median Tobin's *q* value of 0.89 and the median debt/assets ratio of 0.46, this is equivalent to a drop in share price by 49 percent.[13]

Column (6) adds inside ownership and its interaction terms with ATP on the right-hand side of the regression. The coefficient on the interaction term is negative and statistically significant, meaning that firms with lower inside ownership experience greater fall in share price upon ATP adoption. The coefficient of -0.1048 on ATP and 0.0031 on the interaction term indicate that 33.8 percent (=0.1048/0.0031) is the inside ownership threshold, below which ATP charter amendment lowers firm value.

---

[13] Given the median Tobin's *q* value of 0.89 and the median debt/asset ratio of 0.46, the median (market value of equity/asset) ratio is 0.43. Also, after a 23.5 percent drop in Tobin's *q*, the new Tobin's *q* is 0.68 and the new (market value of equity/asset) ratio is 0.22. Given that the size of asset remains constant, a drop of (market value of equity/assets) from 0.43 to 0.22 is a 49 percent drop in market value of equity.

Capital Expenditures

Next, we test the overinvestment hypothesis of Jensen (1986). Table 6 shows the results. When using the full sample, however, we do not find any association between ATP and capital expenditure (column (1)). As in the case of firm value regressions in Table 4, we run sub-sample regressions, where the sub-samples are grouped by the level of inside ownership (columns (2)-(5)). Consistent with the overinvestment hypothesis of Jensen (1986), we find that within-firm adoption of anti-takeover provision leads to a within-firm increase in capital expenditure in firms with lower inside ownership. When restricting the sample to those with inside ownership less than 10 percent, the coefficient on ATP is 0.9209. As for these firms, an adoption of ATP increases *ln*(CAPEX/Assets) by 0.92 or CAPEX/Assets by 92 percent. This is a substantial jump in investment.

Column (6) adds inside ownership and its interaction terms with ATP on the right-hand side of the regression. The coefficient on the interaction term is negative and statistically significant, meaning that firms with lower inside ownership experience greater increase in capital expenditure upon ATP adoption. The coefficient of 0.269 on ATP and -0.0117 on the interaction term indicate that 23 percent (=0.269/0.0117) is the inside ownership threshold, below which ATP charter amendment increases capital expenditure.

Taking together the results on firm value and investment, one can put together a story that is consistent with the free cash flow hypothesis of Jensen (1986). In the absence of hostile takeover threats (adoption of anti-takeover measures in firms with inside ownership less than 10 percent), managers tend to invest in value-destroying projects (increase in capital expenditure) and this lowers firm value.

Profitability

If entrenched managers invest in value-destroying projects, firm profitability should drop during the post-adoption period. This is what we find in Table 7, Panel A, where we use three different measures of firm profitability (NI/Assets, NI/Equity, and EBIT/Sales). Regardless of our measure of profitability, we find that within-firm adoption of anti-takeover provision leads to a within-firm drop in firm profitability. The coefficients on ATP are all negative and statistically significant (columns (1), (3), and (5)). The economic magnitudes are also large. Firms with ATP have respectively 8 percent, 12 percent, and 10 percent lower NI/Assets, NI/Equity, and EBIT/Sales than those without it.

We also investigate how managers transform growth opportunities into profits. We hypothesize that entrenched managers are more likely to waste growth opportunities and thus exhibit lower firm

profitability. Using Australian firms, Hutchinson and Gul (2004) find a result similar in line with this hypothesis. They report that the negative association between growth opportunities and profitability ameliorates with better governance. To test this, we add interaction terms between ATP and growth opportunity (*ln*(Tobin's *q*)) on the right-hand side of our regressions (columns (2), (4), and (6)). We find evidence in support of our hypothesis when using NI/Asset and NI/Equity as our measure of firm profitability (column (2) and (4)). The negative coefficients on the interaction terms indicate that firms with anti-takeover provisions are worse in transforming growth opportunities into profits than those without it.

Cash Dividend Payouts

If entrenched managers use up corporate resources in value-destroying projects, the firm would run out of earnings that can be distributed out to shareholders as cash dividends. We test this in Table 7, Panel B. When using firm fixed effects model, we do not find any evidence on this. Regardless of our measure of dividend, the coefficients on ATP are all insignificant (columns (1), (2), and (3)). When we switch to pooled OLS regressions, however, we find some evidence that cash dividend payouts drop with the introduction of anti-takeover measures. But, this is so only in one specification where *ln*[(Dividend/Sales) + 1] is used as our dependent variable (column (4)). The coefficient of -0.0014 indicates that with the adoption of ATP, [(Dividend/Sales) +1] drops by 0.14 percent. If the original [Dividend/Sales] is 0.02, a drop in [(Dividend/Sales) +1] by 0.14 percent means a drop in [Dividend/Sales] by 97 percent, which is a huge drop in dividend payout.[14]

In column 7, we investigate whether anti-takeover measures drop the fraction of dividend paying firms. It shows the result of random effects Probit regression, where Positive Dividend (1 if a firm pays dividend, and 0 otherwise) is the binary dependent variable. As expected, the coefficient on ATP is negative and highly significant. The economic magnitude is also large. The coefficient of -0.797 indicates that a firm's chance of paying dividend drops by 80 percent upon the adoption of anti-takeover measures. Overall, we conclude that firms that adopt anti-takeover provisions experience lower dividend payout during the post-adoption period.

Delisting during the Global Financial Crisis

---

[14] 1.02 x (1 - 0.014) – 1 = 0.02 x (1 – 0.97) = 0.0006

Lastly, we test how firms with ATP fared during the global financial crisis by investigating the delisted firms in 2009. If entrenched managers engaged in negative NPV projects and thereby lowered profitability, we can predict that they would fare worse than those without ATPs. Table 8 shows the Probit regression results where Delist (1 if firms delisted in 2009, and 0 otherwise) is the binary dependent variable. Column (1) includes 2-digit industry dummies, while column (2) includes 4-digit industry dummies.[15] Both regressions include year dummies. Point estimates denote marginal effects on probability. As expected, the coefficient on ATP is positive and highly significant, indicating that firms with charter-based anti-takeover provisions fared worse than those without it during the global financial crisis. The coefficient of 0.0347 (in column (2)) suggests that an adoption of ATP increases the probability of delisting by 3.47%p. Given that the sample mean of delisting was 9% in 2009, this can be considered as a substantial increase in delisting probability. In Table 8, we also find that operating profit, firm size, and leverage matter. As expected, firms with lower profitability, smaller size, and higher leveraged have higher chances of delisting.

6. Conclusion

Managerial entrenchment is a topic widely studied in corporate finance. But, empirically quantifying the entrenchment effect has not been easy task. First, such studies are often plagued by the shadow pill problem à la Coates (2000). Given the ease to adopt anti-takeover provisions via board decision, market participants view as if such provisions are already in place and share prices reflect the entrenchment effect even before their adoptions. Under this situation, our estimates of entrenchment effect are downward biased. Second, anti-takeover provisions hardly change over time, making firm fixed effects regressions that can control for unobserved time-invariant firm characteristics infeasible. In this setup, adding firms fixed effects will wash away all the between-firm effects and give a downward biased estimate of entrenchment. Last, but not least, the adoption of anti-takeover measures are endogenous choice variables. A manager foreseeing the fall in share price, and therefore concerned with the heightened possibility hostile takeover, may choose to introduce anti-takeover measures. In this case, the causality is running from firm value to the adoption of anti-takeover measures, and our estimate of entrenchment effect is upward biased.

In this paper, we try to address two of the three challenges mentioned above by making use of a unique situation in Korea. With the removal of statute-based anti-takeover provisions during the aftermath

---

[15] We do not include firm fixed effects since it would worsen the incidental parameters problem (unconditional fixed effects Probit estimates are biased). Random-effects and population-average Probit models did not converge.

of the Asian crisis, a significant number of Korean firms started to introduce charter-based anti-takeover measures, such as supermajority requirement on director dismissals, golden parachutes, supermajority requirement on mergers, and so on. This provides a setting where anti-takeover provisions vary over time, allowing one to investigate the relationship in a firm fixed effects framework. Also, given that all the provisions newly introduced are charter-based, requiring shareholders' approval, their adoptions constitute valid events, and allow one to conduct meaningful event studies.

Using public firms in Korea over 1999-2009, we find a number of interesting results. First, we find that firms with lower inside ownership, lower foreign ownership, and small firm size are more likely to adopt charter-based anti-takeover measures. Second, our event studies and firm fixed effects regressions show that firms with anti-takeover provisions experience lower firm value during the post-adoption period. We also find that the extent of such share price drop is greater for firms with low inside ownership, suggesting that the level of inside ownership and charter-based anti-takeover measures are substitutes. Third, consistent with the overinvestment hypothesis of Jensen (1986), we find that firms with anti-takeover measures experience higher capital expenditures, lower profitability, and lower dividend payouts. Lastly, by investigating the number of delisted firms in 2009, we find that firms with anti-takeover provisions fared poorly during the global financial crisis, compared to those without such provisions.

Our result also sheds light on the current policy debate in Korea over poison pill. Given the entrenchment effect we find in our paper, we conjecture that the introduction of poison pill, which is a stronger defense tool than the ones we study in this paper, will have a non-trivial entrenchment effect, and do more harm than good.

References

Arikawa, Yasuhiro and Yosuke Mitsusada (2008), "The Adoption of Poison Pills and Managerial Entrenchment: Evidence from Japan," *RIETI Discussion Paper Series* 08-E-006.

Bebchuk, Lucian, Alma Cohen, and Allen Ferrell (2009), "What Matters in Corporate Governance?" *Review of Financial Studies* Vol.22, pp.783-827

Coates IV, John (2000), "Takeover Defenses in the Shadow of the Pill: A Critique of the Scientific Evidence," *Texas Law Review* Vol.79, pp.271-382

Gompers, Paul, Joy Ishii, and Andrew Metrick (2003), "Corporate Governance and Equity Prices," *Quarterly Journal of Economics* Vol.118, pp.107-155

Hutchinson, Marion, and Ferdinand Gul (2004), "Investment Opportunity Set, Corporate Governance Practices, and Firm Performance," *Journal of Corporate Finance*, Vol.10, pp.595-614

Jensen, Michael C. (1986), "Agency Costs of Free Cash Flow, Corporate Finance, and Takeover," *American Economic Review* Vol.76, pp.323-329

Kato, Kazuo, Joel Fabre, and Joakim Westerholm (2009), "Are Poison Pills Poison for Shareholders? Evidence from Japan," mimeo

Kim, Woochan (2010), "Arguments for Anti-Takeover Measures in Korea and Their Fallacies (in Korean)" *Quarterly Journal of Good Corporate Governance*, Spring (Economic Reform Research Institute)

Kim, Woochan, Woojin Kim, and Kap-Sok Kwon (2009), "Value of Outside Blockholder Activism: Evidence from the Switchers," *Journal of Corporate Finance*, Vol.5, pp.505-522.

Kim, Woochan, Taeyoon Sung, and Shang-Jin Wei (2010), "When Does Foreign Portfolio Investment Increase Corporate Value in an Emerging Market Economy?" mimeo

Lange, Helen, Ian Ramsay, and Li-Anne Woo (2000), "Corporate Governance and Anti-Takeover Devices: Evidence from Australia," *Corporate Governance: An International Review*, Vol.8, pp.227-243

Solidarity for Economic Reform (2009), "Charter-Based Anti-Takeover Measures (in Korean)" *Report on Economic Reform* No.2009-03.

Figure 1: Number of Firms with Anti-Takeover Charter Provisions

The first bar chart represents cumulative number of nonfinancial listed companies that have at least one anti-takeover charter provisions over a period of 1999-2009. The second bar chart counts the number of delisted nonfinancial companies by year during the sample period. We split the sample of delisted firms into those with at least one anti-takeover charter provisions (in black) and those with none (in grey).
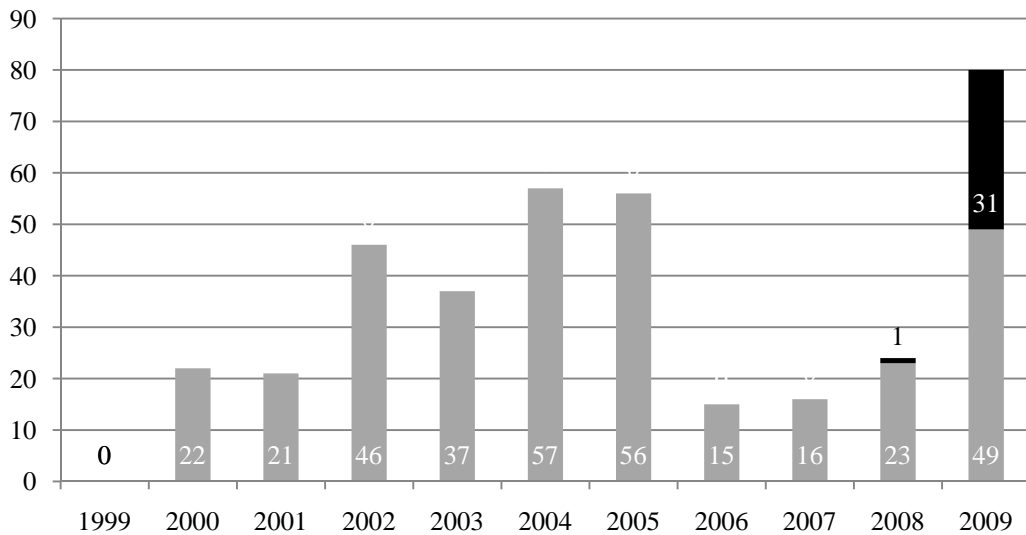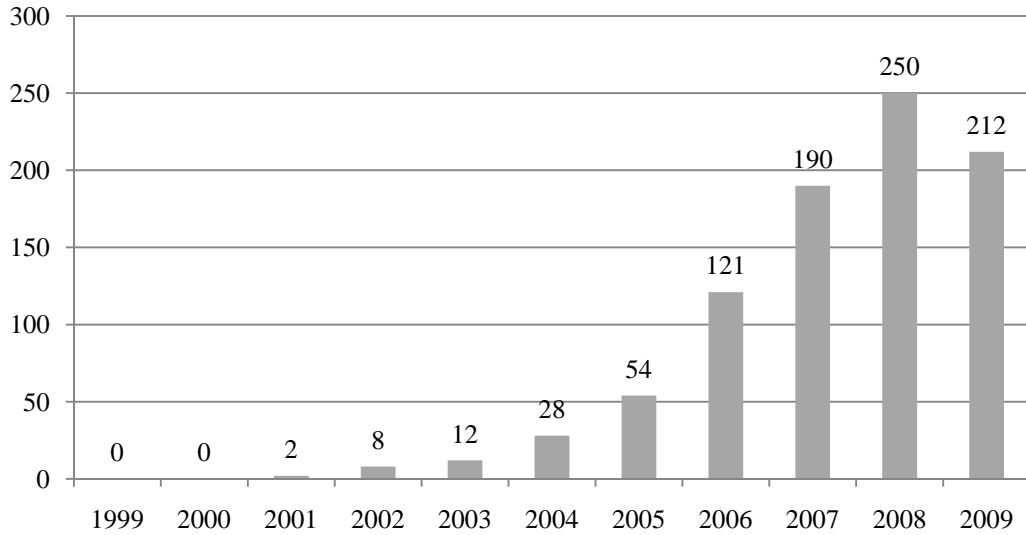
Figure 2: Announcement Effect of Anti-Takeover Charter Amendments

The figures show cumulative average abnormal returns (CAARs) before and after the adoption of anti-takeover charter provisions. The first figure uses the full sample of firms. The second figure limits to firms with inside ownership less than 10 percent. The third figure limits to firms with market capitalization above 50 billion won (approximately 50 million US dollars). We report the CAARs from day -10 through day +20. The event day is the day of shareholders' meeting. Abnormal returns are estimated from market model using past 250 trading days from day -260 to -11. The sample period is from 2001 to 2009.

A. Full Sample
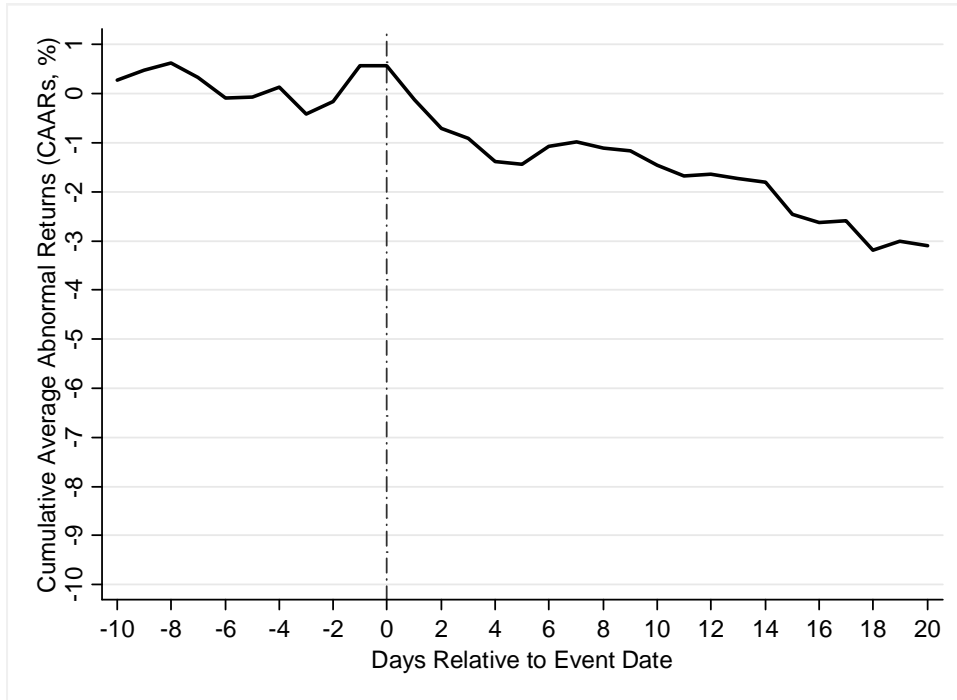
B. Firms with Inside Ownership Less Than 10%
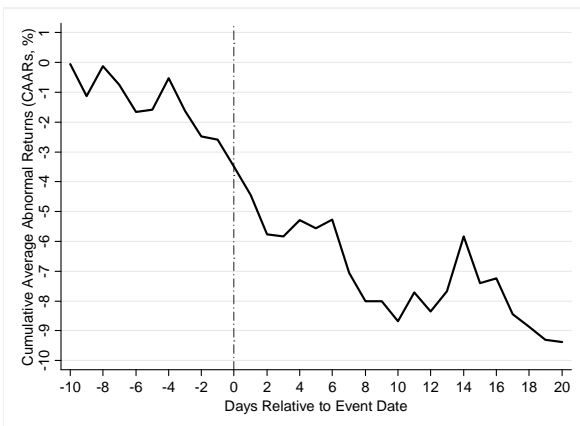
C. Firms with Market Capitalization Above 50 Billion Won
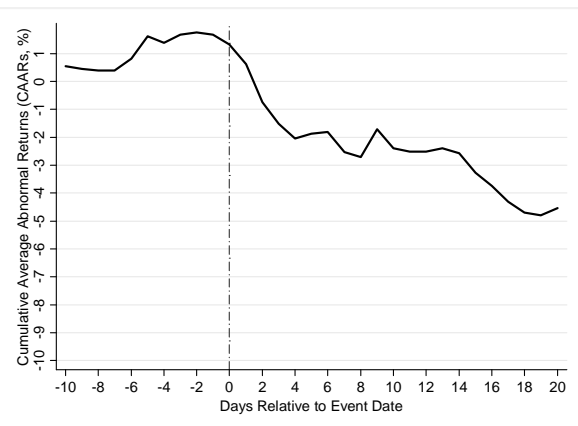
Table 1: Types of Anti-Takeover Charter Provisions

Types of anti-takeover charter provisions and the number of firms with such provisions over the sample period (2001-2009).

Types of Anti-Takeover Charter Provisions	No. of firms
Supermajority requirement on director dismissals	197
Prohibiting the dismissal of directors above a certain percentage	33
Golden parachutes	130
Supermajority requirement on mergers	12
Supermajority requirement on control-related charter amendments	119
Delaying the effective date of control-related charter amendments	23
At least one above	250

Table 2: Principal Variables

Definition and summary statistics of principal dependent and independent variables used in this paper. Panel A defines each variable. Panel B provides summary statistics. We use nonfinancial firms listed on the Korea Exchange (formally, split between KSE and KOSDAQ) during 1999-2009. Firms with negative book equity values are dropped. When scaling profits and dividends with total assets, we use the average between beginning-of-the-year and end-of-the-year asset values.

Panel A. Variable Definitions

Variables	Definition
Dependent variables	
Firm Value	ln(Tobins' q) measured at year-end. Tobin's q is defined as [(market value of common equity + book value of debt)/book value of assets]
Capital Expenditure	ln(CAPEX/previous fiscal year's total assets); firms with missing data are assumed to have zero CAPEX
EBIT/Sale	Earnings before interest and tax /sales; winsorized at the 1st and the 99th percentile values
NI/Asset	Net income/total assets; winsorized at the 1st and the 99th percentile values
NI/Equity	Net income/book value of common equity; firms with negative values of book equity are dropped; winsorized at the 1st and the 99th percentile values
Dividend/Sale	ln[(Dividend/sales) + 1]; missing values are treated as zero dividends; winsorized at the 1st and the 99th percentile values
Dividend /Asset	ln[(Dividend/assets + 1]; missing values are treated as zero ; winsorized at the 1st and the 99th percentile values
Dividend /Equity	ln[(Dividend/book value of equity) + 1]; missing values are treated as zero; firms with negative values of book equity are dropped; winsorized at the 1st and the 99th percentile values
Positive Dividend	1 if a firm pays out dividend, 0 otherwise
Delist	1 if delisted in 2009, 0 otherwise
RHS variables	
ATP	1 if anti-takeover provision exists, 0 otherwise
Inside Ownership	[Common shares held by the controlling shareholder and its related parties / common shares outstanding] x 100
Foreign Ownership	[Common shares held by foreign investors / common shares outstanding] x 100
Operating Profit	ln[(EBIT/Asset) + 1]
Growth Opportunity	ln(Tobins' q) measured at year-end. Tobin's q is defined as [(market value of common equity + book value of debt)/book value of assets]
Firm Size	ln(Total assets); total assets are measured in million won (approximately thousand US dollars)
Firm Age	Number of years since a firm's establishment, measured by ln(year – year of establishment);
Leverage	ln[(Book value of debt/market value of common stock) + 1]
Sales Growth	Geometric average growth rate of sales during the past two fiscal years.

Panel B. Summary Statistics

	N	No of "1" Values	Pooled Mean	Pooled Median	S.D.	Min	Max	Inside Ownership			
								>30% Mean	<30% Mean	<20% Mean	<10% Mean
Tobin's q	18,144		1.14	0.89	1.45	0.00	102.86	1.08	1.46	1.58	1.74
ln(Tobin's q)	18,144		-0.08	-0.12	0.60	-7.20	4.63	-0.08	0.17	0.24	0.31
Capital Expenditure	15,999		-3.54	-3.42	1.55	-13.81	2.86	-3.52	-3.57	-3.55	-3.20
EBIT/Sale	18,139		-0.01	0.05	0.3	-1.88	0.38	0.04	-0.14	-0.24	-0.42
NI/Asset	16,066		-0.02	0.03	0.23	-1.26	0.37	0.03	-0.14	-0.23	-0.38
NI/Equity	15,711		-0.05	0.07	0.49	-2.77	0.74	0.02	-0.27	-0.45	-0.70
Dividend/Sale	18,142		0.01	0.00	0.02	0.00	0.09	0.01	0.01	0.00	0.00
Dividend /Asset	16,067		0.01	0.00	0.01	0.00	0.06	0.01	0.00	0.00	0.00
Dividend /Equity	15,712		0.01	0.00	0.02	0.00	0.10	0.02	0.01	0.01	0.00
ln(Dividend)	18,155		3.55	0.00	3.77	0.00	14.26	4.52	2.46	1.68	1.09
Positive Dividend	18,155	8,934	0.49	0.00	0.50	0.00	1.00	0.63	0.32	0.21	0.11
Delist	1,689	150	0.09	0.00	0.28	0.00	1.00	0.03	0.20	0.29	0.41
ATP	18,152	868	0.05	0.00	0.21	0.00	1.00	0.02	0.12	0.17	0.21
Inside Ownership	16,166		39.17	38.2	18.28	0.00	100.00	48.88	19.2	12.87	6.50
Foreign Ownership	18,151		4.65	0.07	10.9	0.00	107.21	5.15	5.32	4.78	4.39
Operating Profit	16,066		0.03	0.05	0.13	-0.55	0.33	0.05	-0.03	-0.08	-0.14
Firm Size	18,144		11.25	11.02	1.51	4.85	18.27	11.47	11.3	11.19	11.04
Firm Age	18,151		2.89	3.04	0.80	0.00	4.72	3.02	2.93	2.95	2.99
Leverage	15,695		0.86	0.64	0.81	0.00	7.77	0.82	0.94	1.01	1.18
Sales Growth	16,213		0.16	0.08	1.35	-1.00	135.35	0.12	0.12	0.10	-0.01

Table 3: Which Firms Chose to Adopt Anti-Takeover Measures?

Industry fixed effect Probit regression of ATP (1 if anti-takeover provision exits, 0 otherwise) on ownership variables, operating profit, firm size, and other control variables. Point estimates denote marginal effects on probability. Regressions are estimated over the 1999-2009 period using a sample of nonfinancial firms. Regressions (1) and (2) respectively include 2-digit and 4-digit industry fixed effects. All regressions use year dummies and report *t*-values, based on robust standard errors, in parentheses. *, **, and *** respectively indicate significance at 10%, 5%, and 1% levels. Significant results (at 5% level or better) are shown in **boldface**.

Dependent Variable = ATP	(1)	(2)
Inside Ownership	**-0.0012*****	**-0.0010*****
	(-17.39)	**(-17.50)**
Foreign Ownership	**-0.0003****	**-0.0004*****
	(-2.04)	**(-2.80)**
Operating Profit	-0.0117*	-0.0094*
	(-1.87)	(-1.69)
Firm Size	**-0.0071*****	**-0.0070*****
	(-8.38)	**(-8.99)**
Firm Age	0.0000	0.0012
	(0.02)	(0.93)
Leverage	-0.0019	0.0002
	(-1.23)	(0.15)
Intercept term	Yes	Yes
Year dummies	Yes	Yes
Industry Fixed Effects	2-digit	4-digit
Observations	13,269	12,521
Pseudo R-squared	0.292	0.321

Table 4: Announcement Effect of Anti-Takeover Charter Amendments

This table shows cumulative average abnormal returns (CAARs) before and after the adoption of anti-takeover charter provisions. In the first four columns ((1)-(4)), we report CAARs and their corresponding t-stats when using the full sample of firms. In the next four columns ((5)-(8)), we report the results when limiting to firms with inside ownership less than 10 percent. In the last four colunns ((9)-(12)), we report the results when limiting to firms with market capitalization above 50 billion won (approximately 50 million won). In columns (1), (2), (5), (6), (9), and (10), we cumulate AARs from day -10. In all other columns, we cumulate AARs from day 0. The event day is the day of shareholders' meeting. Abnormal returns are estimated from market model using past 250 trading days from day -260 to -11. The sample period is from 2001 to 2009. *, **, and *** respectively indicate significance at 10%, 5%, and 1% levels.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Full Sample				Inside Ownership < 10%				Market Capitalization > 50 billion won			
Day	[-10, t]		[0, t]		[-10, t]		[0, t]		[-10, t]		[0, t]	
	CAAR (%)	t-stat	CAAR (%)	t-stat	CAAR (%)	t-stat	CAAR (%)	t-stat	CAAR (%)	t-stat	CAAR (%)	t-stat
-10	0.3	(0.77)			-0.1	(0.05)			0.5	(0.91)		
-9	0.5	(0.95)			-1.1	(0.80)			0.4	(0.52)		
-8	0.6	(1.01)			-0.1	(0.08)			0.4	(0.37)		
-7	0.3	(0.46)			-0.7	(0.37)			0.4	(0.33)		
-6	-0.1	(0.11)			-1.7	(0.75)			0.8	(0.61)		
-5	-0.1	(0.07)			-1.6	(0.66)			1.6	(1.11)		
-4	0.1	(0.15)			-0.5	(0.20)			1.4	(0.88)		
-3	-0.4	(0.42)			-1.6	(0.58)			1.7	(0.99)		
-2	-0.2	(0.15)			-2.5	(0.84)			1.8	(0.98)		
-1	0.6	(0.51)			-2.6	(0.83)			1.7	(0.89)		
0	0.6	(0.47)	0.04	(0.12)	-3.5	(1.06)	-0.88	(0.89)	1.3	(0.67)	-0.37	(0.64)
1	-0.1	(0.09)	-0.78	(1.57)	-4.5	(1.30)	-1.87	(1.34)	0.6	(0.30)	-1.32	(1.60)
2	-0.7	(0.54)	-1.44 ***	(2.38)	-5.8	(1.62)	-3.17 *	(1.85)	-0.7	(0.35)	-2.66 ***	(2.63)
3	-0.9	(0.67)	-1.58 **	(2.26)	-5.8	(1.58)	-3.24 *	(1.64)	-1.5	(0.68)	-3.56 ***	(3.05)
4	-1.4	(1.00)	-1.96 ***	(2.50)	-5.3	(1.38)	-2.70	(1.22)	-2.1	(0.89)	-4.03 ***	(3.09)
5	-1.4	(1.00)	-1.95 **	(2.27)	-5.6	(1.41)	-2.97	(1.23)	-1.9	(0.79)	-3.59 ***	(2.52)
6	-1.1	(0.73)	-1.62 *	(1.74)	-5.3	(1.29)	-2.67	(1.02)	-1.8	(0.74)	-3.50 **	(2.27)
7	-1.0	(0.65)	-1.56	(1.58)	-7.1 *	(1.68)	-4.47	(1.60)	-2.5	(1.00)	-4.15 ***	(2.52)
8	-1.1	(0.71)	-1.75 *	(1.66)	-8.0 *	(1.86)	-5.42 *	(1.83)	-2.7	(1.04)	-4.34 ***	(2.48)
9	-1.2	(0.73)	-1.82 *	(1.65)	-8.0 *	(1.81)	-5.41 *	(1.73)	-1.7	(0.64)	-3.51 *	(1.90)
10	-1.5	(0.88)	-2.05 *	(1.76)	-8.7 *	(1.92)	-6.10 *	(1.86)	-2.4	(0.88)	-4.20 **	(2.17)
11	-1.7	(0.99)	-2.07 *	(1.71)	-7.7 *	(1.67)	-5.12	(1.50)	-2.5	(0.90)	-4.19 **	(2.07)
12	-1.6	(0.95)	-1.91	(1.51)	-8.4 *	(1.76)	-5.76	(1.62)	-2.5	(0.88)	-4.06 *	(1.93)
13	-1.7	(0.98)	-2.02	(1.55)	-7.7	(1.59)	-5.09	(1.38)	-2.4	(0.82)	-3.94 *	(1.81)
14	-1.8	(1.01)	-2.18	(1.61)	-5.8	(1.18)	-3.24	(0.85)	-2.6	(0.86)	-4.12 *	(1.82)
15	-2.5	(1.34)	-2.84 **	(2.03)	-7.4	(1.47)	-4.82	(1.22)	-3.3	(1.07)	-4.69 **	(2.01)
16	-2.6	(1.41)	-2.83 **	(1.96)	-7.2	(1.41)	-4.66	(1.14)	-3.7	(1.21)	-4.86 **	(2.02)
17	-2.6	(1.37)	-2.85 *	(1.92)	-8.5	(1.62)	-5.86	(1.40)	-4.3	(1.37)	-5.39 **	(2.18)
18	-3.2 *	(1.65)	-3.44 **	(2.26)	-8.9 *	(1.67)	-6.28	(1.46)	-4.7	(1.46)	-5.95 ***	(2.34)
19	-3.0	(1.54)	-3.43 **	(2.19)	-9.3 *	(1.72)	-6.72	(1.52)	-4.8	(1.47)	-6.30 ***	(2.42)
20	-3.1	(1.56)	-3.52 **	(2.19)	-9.4 *	(1.71)	-6.79	(1.50)	-4.5	(1.37)	-6.01 **	(2.25)

Table 5: Anti-Takeover Charter Amendments and Firms' Market Value

Firm fixed effect regressions of *ln*(Tobin's *q*) on ATP, interaction terms, and other control variables. Regressions are estimated over the 1999-2009 period using nonfinancial firms listed on the Korea Exchange. Regressions (2) to (5) report sub-sample results, grouped by the level of inside ownership. Regression (6) adds inside ownership and its interaction with ATP. All regressions use year dummies and report *t*-values, based on robust standard errors, in parentheses. *, **, and *** respectively indicate significance at 10%, 5%, and 1% levels. Significant results (at 5% level or better) are shown in **boldface**.

Dependent Variable = *ln*(Tobin's *q*)	(1) Full Sample	(2) >30%	(3) <30%	(4) <20%	(5) <10%	(6) Full Sample
		Sub-Sample by Inside Ownership				
ATP	-0.0138	0.0719*	**-0.1004***	**-0.1728***	**-0.2348**	**-0.1048**
	(-0.47)	(1.65)	**(-2.71)**	**(-3.53)**	**(-1.98)**	**(-2.25)**
x Inside Ownership						**0.0031**
						(2.16)
x Operating Profit						
Inside Ownership						**-0.0040***
						(-8.34)
Operating Profit						
Foreign Ownership	**0.0044***	**0.0035***	**0.0055***	**0.0040**	0.0008	**0.0043***
	(6.38)	**(4.58)**	**(4.25)**	**(2.28)**	(0.26)	**(6.45)**
Operating Profit	-0.0729	**0.4968***	**-0.2111***	**-0.2555***	**-0.5012***	0.0029
	(-1.28)	**(5.59)**	**(-2.81)**	**(-2.82)**	**(-2.60)**	(0.05)
Firm Size	**-0.1464***	0.0070	**-0.2775***	**-0.3330***	**-0.3536***	**-0.1490***
	(-8.58)	(0.31)	**(-10.19)**	**(-8.54)**	**(-3.98)**	**(-8.79)**
Firm Age	**-0.1210***	**-0.1427**	**-0.1872**	-0.2506*	**-0.8684**	**-0.1453***
	(-2.78)	**(-2.46)**	**(-2.19)**	(-1.79)	**(-1.97)**	**(-3.31)**
Leverage	**-0.0888***	**-0.1754***	**-0.0560**	-0.0551	-0.0176	**-0.1004***
	(-5.95)	**(-8.14)**	**(-2.47)**	(-1.55)	(-0.21)	**(-6.71)**
Intercept term	Yes	Yes	Yes	Yes	Yes	Yes
Observations	14,532	9,654	4,812	2,354	655	14,532
Number of firms	1937	1,648	1,062	700	319	1,937
within R-sq	0.235	0.297	0.278	0.309	0.334	0.246

Table 6: Anti-Takeover Charter Amendments and Capital Expenditure

Firm fixed effects regression of *ln*(CAPEX/Assets) on ATP, interaction terms, and other control variables. Regressions (2) to (5) reports sub-sample results, grouped by inside ownership at 30%, 20%, and 10% levels, respectively. Regression (6) adds inside ownership and its interactions with ANTI. Regressions are estimated over the 1999-2009 period using nonfinancial firms listed on the Korea Exchange. All regressions use year dummies and report *t*-values, based on robust standard errors, in parentheses. *, **, and *** respectively indicate significance at 10%, 5%, and 1% levels. Significant results (at 5% level or better) are shown in **boldface**.

Dependent Variable = *ln*[(CAPEX/Assets) + 1]	(1) Full Sample	(2) >=30%	(3) <30%	(4) <20%	(5) <10%	(6) Full Sample
		Sub-Sample by Inside Ownership				
ATP	-0.0226	-0.2112	0.0296	**0.3349****	**0.9209*****	0.2690*
	(-0.26)	(-1.62)	(0.24)	**(2.17)**	**(3.27)**	(1.75)
x Inside Ownership						**-0.0117****
						(-2.52)
x Operating Profit						
Inside Ownership						**0.0050*****
						(3.15)
Operating Profit						
Firm Value	**0.2366*****	**0.3510*****	0.0265	-0.0198	-0.2699*	**0.2546*****
	(5.18)	**(5.50)**	(0.34)	(-0.18)	(-1.86)	**(5.61)**
Foreign Ownership	0.0015	0.0001	0.0040	0.0060	0.0026	0.0016
	(0.85)	(0.03)	(1.45)	(1.47)	(0.39)	(0.91)
Operating Profit	**0.8606*****	**1.3157*****	0.1296	0.1980	0.3459	**0.7731*****
	(5.26)	**(5.34)**	(0.55)	(0.66)	(0.58)	**(4.67)**
Firm Size	**0.4972*****	**0.4781*****	**0.5360*****	**0.6186*****	**0.6095*****	**0.5083*****
	(10.61)	**(7.03)**	**(6.84)**	**(5.46)**	**(4.82)**	**(10.81)**
Firm Age	**-0.8788*****	**-0.5648*****	**-1.4244*****	**-1.8161*****	**-4.3014*****	**-0.8621*****
	(-7.79)	**(-4.29)**	**(-6.84)**	**(-5.41)**	**(-6.02)**	**(-7.66)**
Leverage	**-0.3268*****	**-0.1890*****	**-0.3620*****	**-0.3412*****	**-0.2622****	**-0.3111*****
	(-9.99)	**(-3.75)**	**(-7.62)**	**(-5.65)**	**(-2.43)**	**(-9.48)**
Intercept term	Yes	Yes	Yes	Yes	Yes	Yes
Observations	14,477	9,630	4,847	2,393	708	14,477
Number of firms	1,937	1,647	1,073	715	351	1,937
within R-sq	0.116	0.0930	0.146	0.184	0.279	0.118

Table 7: Anti-Takeover Charter Amendments, Profitability, and Dividends

Sample consists of nonfinancial firms listed on the Korea Exchange during the sample period over 1999-2009. All regressions use year dummies and report *t*-values, based on robust standard errors, in parentheses. *, **, and *** respectively indicate significance at 10%, 5%, and 1% levels. Significant results (at 5% level or better) are shown in **boldface**.

Panel A. Fixed Effects Regressions of Profitability

Firm fixed effects regressions of indicated profitability variables on ATP, interactions, and other control variables. Regressions (2), (4), and (6) add interactions between ATP and growth opportunity. In Regressions (3) and (4), we exclude firms with negative book equity values. All regressions use firm clusters. Profitability variables are all winsorized at 1%/99%.

Dependent Variables	(1)	(2)	(3)	(4)	(5)	(6)
	NI/Asset		NI/Equity		EBIT/Sale	
ATP	**-0.0804***	**-0.0570***	**-0.1181***	**-0.0885***	**-0.1012***	**-0.0944***
	(-5.12)	**(-3.90)**	**(-3.23)**	**(-2.61)**	**(-4.34)**	**(-4.03)**
x Growth Opportunity		**-0.1169***		**-0.1770**		-0.0340
		(-5.03)		**(-2.55)**		(-0.87)
Growth Opportunity	**-0.1111***	**-0.0982***	**-0.2674***	**-0.2499***	**-0.0405***	**-0.0374***
	(-14.70)	**(-12.70)**	**(-14.16)**	**(-13.61)**	**(-3.83)**	**(-3.43)**
Foreign Ownership	0.0002	0.0002	0.0006	0.0006	0.0003	0.0003
	(1.09)	(0.92)	(1.07)	(0.96)	(1.28)	(1.25)
Firm Size	**0.1488***	**0.1473***	**0.2567***	**0.2563***	**0.1395***	**0.1391***
	(19.56)	**(19.34)**	**(14.02)**	**(14.05)**	**(12.46)**	**(12.37)**
Firm Age	**-0.1749***	**-0.1705***	**-0.3025***	**-0.2957***	**-0.1560***	**-0.1551***
	(-7.77)	**(-7.62)**	**(-6.41)**	**(-6.29)**	**(-6.08)**	**(-6.05)**
Leverage	**-0.1286***	**-0.1283***	**-0.3472***	**-0.3472***	**-0.0661***	**-0.0660***
	(-21.58)	**(-21.77)**	**(-19.57)**	**(-19.56)**	**(-10.25)**	**(-10.18)**
Observations	14,532	14,532	14,189	14,189	15,694	15,694
Number of code	1,937	1,937	1,910	1,910	2,003	2,003
within R-sq	0.276	0.281	0.178	0.180	0.117	0.117

Panel B. Fixed Effects, Pooled OLS, and Probit Regressions of Dividends

Firm fixed effects ((1) through (3)), pooled OLS ((4) through (7)), and random effects Probit (7) regressions of indicated dividend variables. *ln*[(Dividend/Sales) + 1], *ln*[(Dividend/Asset) + 1], and *ln*[(Dividend/Equity) + 1] are winsorized at 1%/99%. Regressions (3) and (6) exclude firms with negative book equity values. When dividends are scaled by sales, we drop sales growth as a regressor.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Models	Firm Fixed Effects			Pooled OLS			Probit
Dep. Variables	*ln*[(Dividend /Sale) + 1]	*ln*[(Dividend /Asset + 1]	*ln*[(Dividend /Equity + 1]	*ln*[(Dividend /Sale) + 1]	*ln*[(Dividend /Asset + 1]	*ln*[(Dividend /Equity + 1]	Positive Dividend
ATP	-0.0007	0.0001	0.0007	**-0.0014*****	-0.0006*	-0.0003	**-0.7970*****
	(-1.32)	(0.34)	(1.02)	**(-3.99)**	(-1.92)	(-0.64)	**(-6.29)**
Sales Growth		0.0003*	0.0006*		0.0002*	0.0003*	**-0.1388****
		(1.83)	(1.88)		(1.85)	(1.72)	**(-2.46)**
Foreign Ownership	**0.0000****	**0.0001*****	**0.0001*****	**0.0001*****	**0.0001*****	**0.0001*****	**0.0060****
	(2.15)	**(5.31)**	**(5.26)**	**(4.74)**	**(8.64)**	**(7.79)**	**(2.11)**
Operating Profit	**0.0194*****	**0.0258*****	**0.0457*****	**0.0219*****	**0.0285*****	**0.0502*****	**12.8901*****
	(13.99)	**(18.94)**	**(19.96)**	**(22.49)**	**(32.10)**	**(33.21)**	**(33.10)**
Firm Size	**-0.0007****	**-0.0018*****	**-0.0020*****	**0.0004****	**-0.0006*****	0.0003	**0.5041*****
	(-2.17)	**(-7.45)**	**(-4.20)**	**(2.25)**	**(-4.68)**	(1.17)	**(14.26)**
Firm Age	**-0.0051*****	**-0.0038*****	**-0.0040****	**-0.0012*****	**-0.0006****	-0.0006	**0.4462*****
	(-4.85)	**(-3.69)**	**(-2.36)**	**(-3.59)**	**(-2.26)**	(-1.54)	**(7.34)**
Leverage	**-0.0024*****	**-0.0021*****	**-0.0044*****	**-0.0032*****	**-0.0026*****	**-0.0049*****	**-1.0099*****
	(-10.78)	**(-11.07)**	**(-11.59)**	**(-19.39)**	**(-20.29)**	**(-19.97)**	**(-20.13)**
Intercept term	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	14,531	14,084	13,753	14,531	14,084	13,753	14,084
Number of firms	1,937	1,918	1,892	1,937	1,918	1,892	1,918
within R-sq	0.0821	0.180	0.187	-	-	-	-
R-sq	-	-	-	0.197	0.301	0.285	-

Table 8: Firms Delisting during the Global Financial Crisis

Probit regression of Delist (takes a value of 1 for firms delisted in 2009 and 0 otherwise) on ATP, year dummies, industry fixed effects, and control variables. Point estimates denote marginal effects on probability. Sample consists of nonfinancial firms listed on the Korea Exchange as of year-end 2008. Regressions (1) and (2) respectively use 2-digit and 4-digit industry fixed effects. All regressions use year dummies and report *t*-values, based on robust standard errors, in parentheses. *, **, and *** respectively indicate significance at 10%, 5%, and 1% levels. Significant results (at 5% level or better) are shown in **boldface**.

	(1)	(2)
ATP	**0.0396***	**0.0347**
	(2.67)	**(2.34)**
Foreign Ownership	0.0006	0.0009
	(1.00)	(1.43)
Operating Profit	**-0.3414***	**-0.3643***
	(-7.83)	**(-7.61)**
Firm Size	**-0.0154**	**-0.0190***
	(-2.11)	**(-2.65)**
Firm Age	-0.0129	-0.0070
	(-1.55)	(-0.70)
Leverage	**0.0351***	**0.0398***
	(4.74)	**(4.93)**
Intercept term	Yes	Yes
Industry Dummies	2-digit	4-digit
Observations	1,609	1,428
Pseudo R-squared	0.294	0.308