РАЗДЕЛ 1
НАУЧНЫЕ ИССЛЕДОВАНИЯ И КОНЦЕПЦИИ

SECTION 1
ACADEMIC INVESTIGATIONS & CONCEPTS

OWNERSHIP STRUCTURE AND OPERATING PERFORMANCE CHANGES SURROUNDING STOCK OPTION ADOPTIONS: EVIDENCE FROM JAPAN

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Abstract

Stock option adoptions by IPO firms account for about one-third of Japanese stock option adoptions during 1997-2000. Non-IPO firms that adopt stock options tend to decrease financial institutions' ownership levels less than the average whereas reduce other corporations' ownership levels more than the average. The result suggests firms that care more about shareholder wealth decrease cross-shareholdings as well as issue stock options. However, such firms need to keep shareholdings by financial institutions to prevent increases in agency costs of debt. Finally, we do not find a significant change in firms' operating performance surrounding stock option adoptions.

Keywords: stock option, ownership structure, operating performance, agency costs of debt, IPO

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1. Introduction

Japanese corporate governance structures have been somewhat different from U.S. ones. Keiretsu affiliations and main banks have a major role in the Japanese corporate governance (Aoki et al., 1994; Prowse, 1992). Cross-shareholdings among listed firms have released managers from threats of hostile takeovers. Managerial compensations have given a weak incentive to maximize shareholder value to managers (Kaplan, 1994). As a result, the traditional governance structure has made managers care less about shareholder wealth.

However, the Japanese corporate governance shows a remarkable change in the late 1990s; Japanese companies adopt new governance devices that give managers an incentive to maximize shareholder value. Since stock options are permitted in 1997, many companies have adopted options in the managerial compensation. Companies began to have outside directors to make the boards more effectively monitor managements. These changes imply that Japanese corporate governance began to care more about shareholder value.

Using Japanese data, we investigate firms' ownership structure and operating performance changes surrounding stock option adoptions. If a firm's corporate governance structure is optimally designed, adding a new governance device may deviate the firm's governance structure from the optimal one; thus, the firm must adjust existing governance instruments associated with a new

governance device adoption. We explore whether Japanese companies adjust their existing governance structures when adopting stock options.

There is another perspective that motivates us to analyze ownership structure changes when Japanese firms adopt stock options. Recent Japanese companies decrease cross-shareholdings that have made the managers care less about shareholder wealth; firms adopt stock options and abolish cross-shareholdings for a same reason. This fact gives rise to the prediction that firms that adopt stock options decrease cross-shareholdings more.

Finally, we investigate operating performance changes pre- and post-stock option adoptions to explore whether the Japanese corporate governance reform has a positive impact on firm performance. Kato et al. (2005) investigate firms' operating performance changes during three years surrounding stock option adoptions; they report stock option adoptions improve firm performance. Considering that managers may have an incentive to manipulate the firms' accounting performance upward when receiving stock options(Bartov and Mohanram, 2004), this paper extends the analytical period to seven years surrounding stock option adoptions,

Investigating changes in ownership structure and operating firm performance, we should take into account that firms tend to adopt stock options pre- or post-IPOs; IPO firms can take a significant portion of firms that adopt stock options. Previous studies detect that IPO firms tend to reduce leverage levels, change ownership structures, and experience poor long run operating performance as well as issue stock options (Hamao et al., 2000; Jain and Kini, 1994; Kutsuna et al., 2002; Mikkelson et al., 1997; Roell, 1996). The IPO firms' characteristics may produce a spurious relation between stock option adoptions and changes in ownership structures and operating performance. Dividing firms that adopt stock options into IPO firms and non-IPO firms, we try to disentangle changes in corporate governance structures and firm performance induced by stock option adoptions from those associated with IPOs.

Our empirical results are summarized as follows. Stock option adoptions associated with IPOs account for about one-third of all stock option adoptions during 1997-2000. IPO firms that adopt stock options tend to decrease directors' ownership levels and leverage whereas increase financial institutions' ownership levels surrounding the first option grant years. However, these changes may not be induced directly by stock option adoptions; the results may reflect IPO firms tendencies to substantially change their leverage and ownership structures as well as issue stock options.

Non-IPO firms that adopt stock options tend to decrease financial institutions' ownership levels less than the average whereas reduce other corporations' ownership levels more than the average. Firms that care more about shareholder wealth decrease cross-shareholdings as well as issue stock options. However, such firms need to keep shareholdings by financial institutions to prevent increases in agency costs of debt. These results suggest firms need to adjust existing governance instruments when adding a new governance device.

Finally, firms' operating performance does not significantly change surrounding stock option adoptions. Our data support neither the idea that incentive effects provided by stock options improve firm performance nor the hypothesis that managers time stock option grants so that unexpectedly good performance is announced immediately after the grants.

The reminder of this paper is organized as follows. Section 2 presents a brief sketch of the traditional corporate governance and characteristics of Japanese stock options. Section 3 explains hypotheses. Section 4 describes sample selection procedures and data. Section 5 presents empirical results. Finally, section 6 summarizes this study.

2. Japanese corporate governance and stock options

Keiretsu affiliations and main banks have played an important role in the traditional Japanese corporate governance (Aoki et al., 1994; Prowse, 1992). Kaplan and Minton (1994) and Kang and Shivdasani (1997) find that main banks dispatch personnel to a firm's board before it gets into financial crisis.[1] Another feature of the traditional governance is that firms have cared less about shareholder wealth. In the Japanese stock market, cross-shareholdings among listed companies have been developed; the cross-shareholdings weaken managers' incentive to maximize shareholder value by releasing them from treats of hostile takeovers.

Managerial compensation structures also have given managers a weaker incentive to increase shareholder wealth. In Japan, stock options have been banned for a long time. Kaplan (1994) argues that Japanese managers' cash compensations are more sensitive to negative earnings than it is in the U.S., even though it is linked to firm performance. Kaplan also finds that the level of managerial ownership is roughly one-half than that of U.S. top executives, and one-quarter if stock options are included.

However, the Japanese governance characteristics substantially changed during the 1990s. The serious reductions of share prices and Return on Equity (ROE) raised awareness that firms should adopt shareholder wealth-oriented corporate

[1] Some previous studies emphasize negative aspects of keiretsu and main bank-centered corporate governance. Weinstein and Yafeh (1998) argue that close bank ties increase availability of financing, but not profitability. Kang and Stultz (1997) report a strongly significant negative relation between the ratio of loans to total debt in 1989 and the firm's stock return from 1990 to 1993.

governance. This idea make Japanese firms abolish cross-shareholdings. According to NLI Research Institute, the percentage of cross-held shares in the Japanese all stocks decreased from 18.0% in 1990 to 7.4% in 2002. In accordance, the percentage of shares held by corporations in Tokyo Stock Exchange (TSE) decreases from 73.4% in 1990 to 60.5% in 2002.[2]

Japanese companies also introduce some new governance devices. Firms began to adopt outside directors in their boards. Stock options were permitted by the 1997 Commercial Code amendment; then many companies adopted options in managers' compensations. According to Daiwa Securities SMBC Co. Ltd., 1391 firms (approximately 38% all listed companies) adopted stock options as of March 2005.

To grant stock options, Japanese firms must gain approval at their shareholder meetings. Within one year from that approval, the firm can actually award options. Uchida (2005) reports that the most common exercise period is five years in his sample; no firm adopts stock options whose exercise period is over 10 years to satisfy a condition for the tax-qualified stock option. In most cases, the strike price is determined by multiplying the closing stock price at the end of the month before the grant month by 1.05.

3. Hypotheses

3.1. Stock option adoptions and existing governance devices

If a firm's corporate governance structure is optimally designed, adding a new governance device may divert the governance structure from an optimal one. This problem should be marked for the Japanese case in which many companies simultaneously adopt stock options after the Commercial Law amendment.

Stock options give managers a stronger incentive to maximize shareholder wealth. However, such an incentive may increase agency costs of debt; shareholders tend to undertake high-risk projects and forgo positive-NPV projects to transfer wealth from bondholders to shareholders (Jensen and Meckling, 1976; Myers, 1977). John and John (1993) show that optimal sensitivities of managerial compensation to performance measures decrease as firm's leverage increases. Previous studies indicate that leverage is negatively related to the likelihood that Japanese firms grant stock options (Kato et al., 2005; Uchida, 2006). DeFusco et al. (1990) find that shareholder wealth increases and bondholder wealth decreases at the announcement of stock option adoptions. Therefore, firms may need to adjust their governance structures to reduce agency costs of debt in accordance with stock option adoptions; firms must reduce leverage when adopting stock options.

There is another perspective that derives the same hypothesis. Jensen (1986) stresses the disciplinary role of debt; debt prevents managers from undertaking negative-NPV projects by forcing managers to pay out cash flows. If incentive effects provided by stock options act as substitutes for the disciplinary role of debt, firms that adopt stock options can reduce leverage levels..

Hypothesis 1-A: Firms decrease their leverage levels surrounding stock option adoptions.

If shareholders also hold firms' debt, the shareholders-creditors conflict may become less severe; firms can reduce agency costs of debt by increasing financial institutions' ownership levels instead of reducing leverage. In Japan, main banks have played a role of reducing agency costs by holding both shares and debt of firms (Prowse, 1990; Fukuda and Hirota, 1996). This idea leads to another hypothesis.

Hypothesis 1-B: Firms increase financial institutions' ownership levels surrounding their option adoptions.

3.2. Cross-shareholdings reduction and stock option adoptions

Recent Japanese companies tend to decrease cross-shareholdings that weaken managers' incentive to maximize shareholders value. Many firms simultaneously adopt stock options to make managers care more about shareholder wealth; the abolition of cross-shareholdings and stock option adoptions are motivated by a same idea that firms should care more about shareholder wealth. This fact gives rise to the following hypothesis.

Hypothesis 2: Firms that adopt stock options decrease cross-shareholdings.

4. Sample Selection and Data

Our sample consists of firms listed on the TSE, first section. Using Nikkei NEEDS FinancialQuest Database, we collected firms that adopt stock option plans as of March 2000. We identified the year when these firms got the first approval to grant options from their annual reports. These procedures offer us 201 firms that adopt stock options during 1997 to 2000.

For the 201 firms, we obtained ownership structure and financial data from Nikkei NEEDS FinancialQuest. Table 1 presents descriptive statistics. Over half of our sample firms got first the approval to grant options in 2000 (Panel A). Electric appliance firms adopt stock options most frequently; it is followed by wholesale service and machinery. Panel B indicates that firms that went public after 1995 account for approximately one-third of our

[2] Financial institutions' ownership level decreases from 43% to 39.1% and other corporations' ownership level declines from 30.1% to 21.5% from 1990 to 2002.

sample firms. Likewise, about one-third of the firms adopt stock options within three years after or before IPOs (Panel C); stock option grants by IPO firms take a significant portion of Japanese stock option adoptions during 1997-2000. We should take this fact into account when analyzing changes in corporate governance structures and operating performance.

We use two leverage measures: (a) Leverage 1 = total liabilities / total assets ratio and (b) Leverage 2 = financial liabilities / (financial liabilities and book value of equity). For testing Hypothesis 2, we adopt financial institutions' ownership level and other corporations' ownership level as proxies for the degree of cross-shareholdings. We adopted three measures for firms' operating performance: (a) operating income-to-total assets ratio, (b) operating income-to-sales ratio, and (c) EBIT-to-total assets ratio.

We analyze corporate governance structure and operating performance changes during seven years surrounding the grant year (See Figure 1). In most cases, firms' fiscal year ends on March and shareholders meetings are held on June. If a firm got the first approval to grant stock options on June 2000, the firm can grant stock options from June 2000 to May 2001. In this case, we define the grant year as the fiscal year that ends on March 2001 (year 0); as shown in Figure 1, we investigate the firm's corporate governance structures and operating performance from the fiscal year that ends on March 1998 (year -3) to the year that ends on March 2004 (year +3).

5. Empirical Results

5.1. Changes in directors' ownership surrounding first stock option adoptions

First, we investigate changes in directors' ownership levels surrounding stock option adoptions. Panel A of Table 2 finds the average directors' ownership level decreases from 10.1% at year -3 to 6.4% at year 3 (median decreases from 1.9% to 1.3%). The average change from year -3 to year 1 is -3.4% (median is -0.1%) and significantly different from zero. This evidence is consistent with Kato et al. (2005) and Ofek and Yermack (1997); directors tend to sell their firms' shares surrounding stock option grants.

Considering that managers tend to sell a significant portion of their companies' shares when the firm goes public, the result may represent an IPO firm' tendency to substantially change ownership structures and issue stock options; it would be important to investigate changes in directors' ownership levels for IPO and non-IPO firms respectively to disentangle the direct effect of stock option adoptions on directors' ownership levels from the spurious relation produced by IPO firms' characteristics.

We define IPO firms as companies that adopt stock options within three years after or before IPOs. There are 67 IPO firms in our sample; it accounts for one-third of the entire sample. Also, we define Non-IPO firms as companies that adopt stock options over 10 years after IPOs. This procedure offers us 113 Non-IPO firms.

Results are shown in Panels B and C of Table 2. From year -1 to year 3, IPO firms decrease directors' ownership levels by 8.8% on average (median change is 4.4%) whereas Non-IPO firms do so by 0.4% (median change is 0.01%). This evidence suggests the finding by Kato et al. (2005) and Ofek and Yermack (1997) might represent IPO firms' pattern; managers tend to sell a significant portion of their companies' shares and simultaneously issue stock options when the company goes public.

The result also suggests additional incentive effects provided by stock options may be stronger for non-IPO managers than for IPO managers; stock option adoptions may increase agency costs of debt more for non-IPO firms than for IPO firms.

5.2. Leverage changes surrounding first stock option adoptions

Hypothesis 1-A predicts firms' capital structure changes surrounding stock option adoptions. Table 3 summarizes firms' leverage changes from year -3 to year 3.

For the entire sample, the average Leverage 1 decreases from 52.1% at year -3 to 43.3% at year 3 (median decreases from 52.3% to 42.7%). The average change from year -1 to year 3 is -4.8% (median change is -3.2%); it is significantly different from zero. Likewise, Leverage 2 decreases by 6.0% on average from year -1 to year 3 (the median reduction is 3.1%). Panels B and C of Table 3 indicate that both IPO and Non-IPO firms tend to decrease their leverage levels.

It would be important to analyze industry adjusted leverage levels because the average Japanese company tends to decrease leverage during the late 1990s.

Table 4 reports changes in the industry adjusted leverage (subtract the industry median leverage from the raw variable).[3] The average sample firm increases the industry adjusted Leverage 1 by 1.4% from year -1 to year 3 (median increase is 2.4%). Likewise, the adjusted Leverage 2 increases by 3.7% from year -1 to year 3; it is significantly different from zero.

[3] The industry adjusted leverage is negative and significantly different from zero through the analytical period; it is consistent with the finding by Kato et al. (2005) and Uchida (2005) that leverage levels are negatively associated with the likelihood that firms adopt stock options.

The evidence suggests firms that adopt stock options decrease their leverage levels less than the average; it contradicts Hypothesis 1-A. This finding is more pronounced for Non-IPO firms (Panel C of Table 4). The average Non-IPO firms' Leverage 1 (industry adjusted) increases from -6.2% at year -3 to -1.1% at year 3. The average sample firm increases the adjusted Leverage 1 by 3.7% from year -1 to year 3 (median increase is 3.5%); it is statistically significant at the 1% level. Hypothesis 1-A is not supported for Non-IPO firms.

A possible interpretation of this finding would be that firms that adopt stock options tend to have more growth opportunities; thus, it is difficult for such firms to substantially decrease leverage levels. Many previous studies argue that market-to-book ratio is positively associated with the likelihood that firms adopt stock options (Baber et al., 1996; Gaver and Gaver, 1993; Kato et al., 2005; Mehran, 1995; Ryan and Wiggins, 2001; Smith and Watts, 1992). Thus, we predict firms that adopt stock options can not reduce leverage because they need to spend cash flows in business projects rather than in repaying their debt. For testing this prediction, we compute percentage changes in fixed assets from year -1 to year 3 and relate it to the leverage change. Specifically, we equally divide Non-IPO firms into two groups according to the change in leverage and compare fixed assets changes between the two groups. Industry adjusted variables are used both for the changes in leverage and fixed assets.

Results are summarized in Table 5. Panel A reports Non-IPO firms that increase Leverage 1 more than the median increase fixed assets by 10.6% on average whereas Non-IPO firms that increase Leverage 1 less than the median decrease fixed assets by 1.5%; the difference in the fixed assets change is statistically significant at the 5% level. Panel B shows a similar result though the statistical significance levels are marginal.

Panel C reports correlation coefficients between the changes in leverage and fixed assets; the correlations are positive and statistically significant. This evidence suggests non-IPO firms that adopt stock options tend less to decrease leverage because they have more growth opportunities; thus, Hypothesis 1-A is not supported. Non-IPO firms need to adjust other governance instruments to prevent increases in agency costs of debt when adopting stock options.

On marked contrast, Panel B shows the average IPO firm decreases the industry adjusted Leverage 1 from -7.0% at year -3 to -17.9% at year 3 (median decreases from -5.6% to -19.1%). The average Leverage 1 reduction from year -1 to year 3 is -2.9%; it is significantly different from zero (median change is -1.8%).

The result may be produced by an IPO firms' tendency to substantially decrease leverage as well as issue stock options (Roell, 1996); it may not induced directly by stock option adoptions.

5.3. Changes in financial institutions' and other corporations' ownership

5.3.1. Financial institutions' ownership levels

Non-IPO firms tend less to decrease directors' ownership levels and leverage when adopting stock options. Thus, Non-IPO firms need to increase shareholdings by financial institutions to prevent increases in agency costs of debt (Hypothesis 1-B).
Table 6 describes percentage changes in financial institutions' and other corporations' ownership levels (raw variables). Panel A (results for the entire sample) indicates the sample firms seems not to substantially change raw financial institutions' ownership levels; the average change from year -1 to year 3 is 0.8% (median is 0.4% increase).

Panels B and C of Table 6 reports ownership structure changes for IPO firms and Non-IPO firms, respectively. The average IPO firm significantly increases the financial institutions' ownership level. It may reflect the Japanese IPO firms' pattern; firms tend to increase banks' ownership levels following IPOs (Hamao et al., 2000; Kutsuna et al., 2002). On the other hand, the average Non-IPO firm significantly decreases raw financial institutions' ownership levels. Considering that the average Japanese firm decreases the financial institutions' and other corporations' ownership level during the late 1990s, it would be necessary to analyze whether sample firms increase (decrease) the ownership levels than the TSE average. We make variables above the TSE mean (subtract the TSE mean from the raw ownership variable) and trace the adjusted variables' change (Table 7).

Panel A of Table 7 shows the average financial institutions' ownership level increases from -9.1% (median is -8.1%) at year -3 to -2.3% (median is -2.8%).[4] The average change from year -1 to year 3 is positive (5.6%) and significantly different from zero at the 1% level; it is consistent with Hypothesis 1-B.

The result might be earned by a Japanese IPO firms' tendency to substantially increase banks' ownership levels after IPOs (Hamao et al., 2000; Kutsuna et al., 2002). For disentangling ownership structure changes induced by stock option adoptions from those associated with IPOs, we conduct a same test for IPO and Non-IPO firms, respectively (Panels B and C of Table 7). Both IPO and Non-IPO firms significantly increase financial institutions' ownership levels (above the TSE mean). The Non-

[4] Financial institutions' ownership level at year -1 is -7.8% on average (median is -7.4%); it is significantly different from zero. This figure suggests that firms with lower financial institutions' ownership level tend to adopt stock options; it is consistent with Kato et al. (2005).

IPO's firms' finding supports Hypothesis 1-B though the IPO firms' result may be produced by the Japanese IPO firms' tendency. Non-IPO firms need to decrease shareholdings by financial institutions less than the average to prevent increases in agency costs of debt.

5.3.2. Other corporations' ownership levels

Hypothesis 2 predict firms that care more about shareholder wealth may decrease cross shareholdings as well as adopt stock options. Panel A of Table 6 reports the sample firms substantially decrease shareholdings by other corporations (raw variable); the other corporations' ownership level decreases from 25.2% at year -3 to 20.7 % at year 3. The change from year -1 to year 3 is -2.8% (median is -3.0%). Panels B and C of Table 6 find both IPO and Non-IPO firms significantly decrease other corporations' ownership levels (raw variable) surrounding stock option adoptions. The result keeps unchanged when using the variable above the TSE mean (Panel A of Table 7). Considering that Non-IPO firms may be encumbered by cross-shareholdings, the Non-IPO firms' result is consistent with Hypothesis 2; firms that care more about shareholder wealth tend to decrease cross-shareholdings more than the average as well as adopt stock options. We conduct a same test for keiretsu firms to check the robustness of this interpretation. Other corporations' ownership levels of keiretsu firms may represent the degree of cross-shareholdings may more accurately; the variable of Non-IPO firms sometimes includes corporate block shareholders. Each sample firm's keiretsu affiliation is obtained from *Keiretsu no Kenkyu*. We define keiretsu firms as companies that belong to a six major keiretsu group (Mitsui, Mitsubishi, Sumitomo, Fuyo, Sanwa, and Dai-ichi Kangyo) in the *Keiretsu no Kenkyu*. Results for keiretsu firms are shown in Table 8. Panels A and B of Table 8 show keiretsu firms significantly decrease other corporations' ownership levels. Keiretsu firms that adopt stock options decrease cross-shareholdings with other corporations more than the average; the evidence is consistent with Hypothesis 2.

Table 8 also finds keiretsu firms significantly increase the adjusted financial institutions' ownership levels whereas decrease the raw variable. Keiretsu firms decrease shareholdings by financial institutions less than the average; it is consistent with Hypothesis 1-B. Overall, non-IPO firms or keiretsu firms that care more about shareholder wealth tend to decrease cross-shareholdings with other corporations more than the average as well as adopt stock options. However, such firms decrease shareholdings by financial institutions less than the average to prevent increases in agency costs of debt. These firms seem to adjust ownership structures along with adopting stock options.

5.4. Stock option adoptions and operating performance

Finally, we analyze operating performance changes surrounding stock option adoptions. We report only industry adjusted performance measures (subtract the industry median from the raw performance variable). Results for the entire sample are described in Panel A of Table 9. The average firm achieves almost same operating income-to-total assets ratio at years -3 and 3. The average change from year -1 to year 3 is -0.3% (median change is -0.1%); it is not statistically significant. The other performance measures do not show a significant increase surrounding the grant years. The results might be caused by IPO firms' characteristics; Previous studies report that firms experience poor long-run performance following IPOs (Jain and Kini, 1994; Kutsuna et al., 2002; Mikkelson et al., 1997). Disentangling the effect of stock option adoptions on firm performance from the impact of IPO firms, we conduct a same test for IPO and Non-IPO firms, respectively (Panels B and C of Table 9). Panels B and C show no significant change in the three performance measures both for IPO and Non-IPO firms. Our data do not find a positive effect of stock option adoptions on firms' operating performance. Table 9 also shows no substantial change in operating performance from year -1 to year 1; it is inconsistent with Kato et al. (2005).[5] Our data do not support the idea that managers time stock option grants so that unexpectedly good performance is announced immediately after the option grants.

6.1. Concluding Remarks

The Japanese corporate governance shows a remarkable change in the late 1990s; Japanese companies adopt stock options in their managerial compensations and decrease cross-shareholdings. These changes mean that Japanese corporate governance began to care more about shareholder wealth. Using Japanese data, we investigate changes in firms' leverage, ownership structures, and operating performance surrounding stock option adoptions. Our empirical results are summarized as follows. Stock option adoptions associated with IPOs account for about one-third of all stock option adoptions during 1997-2000. IPO firms that adopt stock options tend to decrease directors' ownership levels and leverage whereas increase financial institutions' ownership levels surrounding the first option grant year. These changes may not be induced

[5] It can be attributed to the difference in the sample coverage. Kato et al. collect stock option adoptions during 1997 to 2001. Also, Kato et al. adopt additional stock option adoptions by a same company whereas we focus on firms' first stock option adoptions.

directly by stock option adoptions; the results reflect IPO firms tendencies to substantially change their leverage and ownership structures as well as issue stock options. Non-IPO firms that adopt stock options tend to decrease financial institutions' ownership levels less than the average whereas reduce other corporations' ownership levels more than the average. Firms that care more about shareholder wealth tend to decrease cross-shareholdings as well as issue stock options. However, such firms need to keep shareholdings by financial institutions to prevent increases in agency costs of debt. These results suggest that firms need to adjust existing governance instruments when adding a new governance device.

Finally, firms' operating performance shows no significant change surrounding stock option adoptions. Our data support neither the idea that incentive effects provided by stock options improve firm performance nor the hypothesis that managers time stock option grants so that unexpectedly good performance is announced immediately after the grants.

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Appendices

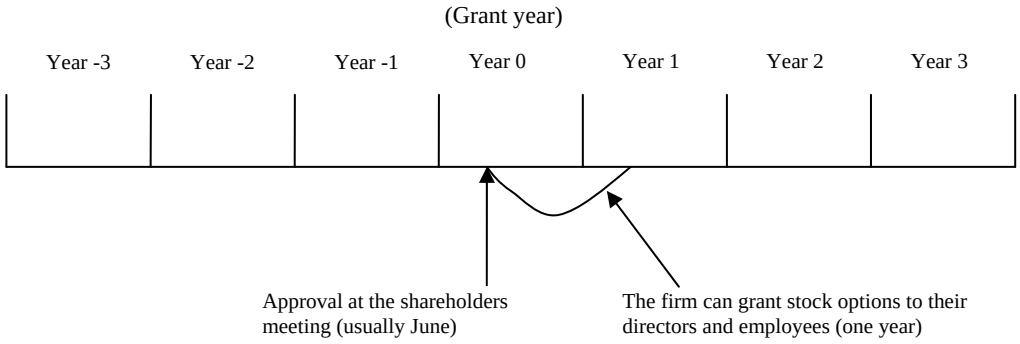

Fig. 1 Events and analytical period

Table 1
Sample distributions

Panel A: First approval year

Approval year	Number of observations	
1997	14	6.97%
1998	36	17.91%
1999	33	16.42%
2000	118	58.71%
Total	201	

Panel B: Firms' IPO year

IPO year	Number of observations	
Prior to 1990	116	57.71%
1990- 1995	17	8.46%
1996- 2000	34	16.92%
After 2000	34	16.92%
Total	201	

Panel C: First option approval year relative to IPO year

First approval year	Number of observations	
Before IPO year	28	13.93%
Same year with IPO	16	7.96%
0 years - 3 years after IPO	23	11.44%
4 years - 5 years after IPO	5	2.49%
6 years - 10 years after IPO	16	7.96%
Over ten years after IPO	113	56.22%
Total	201	

Table 2
Percentage change in directors' ownership

Panel A: Entire sample

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Directors' ownership level								
Mean	10.10%	8.92%	9.51%	8.12%	7.54%	6.77%	6.35%	-3.44%
Median	1.92%	1.97%	1.66%	1.32%	1.41%	1.34%	1.30%	-0.08%
Number of observations	191	195	198	200	201	200	201	198
t-statistics								-5.05 ***
Wilcoxon Test								-6.76 ***

Panel B: IPO firms

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Directors' ownership level								
Mean	26.18%	21.78%	23.18%	19.33%	17.87%	15.93%	14.87%	-8.78%
Median	21.52%	18.04%	16.39%	16.03%	12.28%	11.53%	10.80%	-4.44%
Number of observations	57	61	64	66	67	67	67	64
t-statistics								-4.79 ***
Wilcoxon Test								-5.85 ***

Panel C: Non-IPO firms

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Directors' ownership level								
Mean	1.86%	1.67%	1.56%	1.39%	1.29%	1.21%	1.13%	-0.43%

Table 2 *(Continued)*

Median	0.46%	0.43%	0.45%	0.39%	0.39%	0.40%	0.41%	-0.01%
Number of observations	113	113	113	113	113	112	113	113
t-statistics								-2.79 ***
Wilcoxon Test								-2.14 **

This table shows sample firms' percentage changes in directors' ownership levels surrounding the first stock option grant year. IPO firms are companies that adopt stock options within three years after IPOs or before IPOs. Non-IPO firms are companies that adopt stock options over 10 years after IPOs. T-statistics test the null hypothesis that the variable's average change from year -1 to year 3 is zero. Wilcoxon test is for the null hypothesis that the variable's median change from year -1 to year 3 is zero.

*: Significant at the 10%level.
**: Significant at the 5%level.
***: Significant at the 1%level.

Table 3
Leverage changes surrounding first stock option adoptions

Panel A: Entire sample

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Leverage 1 = total liabilities / total assets								
Mean	52.10%	50.48%	48.11%	46.95%	46.01%	45.29%	43.30%	-4.81%
Median	52.26%	51.19%	49.01%	47.99%	45.79%	44.50%	42.72%	-3.18%
Number of observations	201	201	201	201	201	201	201	201
t-statistics								-6.72 ***
Wilcoxon Test								-6.23 ***
Leverage 2 = financial liabilities / (equity + financial liabilities)								
Mean	33.98%	32.99%	30.23%	28.19%	27.61%	26.69%	24.19%	-6.04%
Median	30.86%	31.25%	30.73%	27.18%	23.77%	24.21%	19.78%	-3.12%
Number of observations	201	201	201	201	201	201	201	201
t-statistics								-7.68 ***
Wilcoxon Test								-7.33 ***

Panel B: IPO firms

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Leverage 1 = total liabilities / total assets								
Mean	56.70%	52.36%	46.07%	42.58%	40.97%	39.61%	36.97%	-9.10%
Median	59.47%	52.75%	48.49%	43.14%	40.32%	38.54%	35.32%	-7.90%
Number of observations	67	67	67	67	67	67	67	67
t-statistics								-6.11 ***
Wilcoxon Test								-5.38 ***

Table 3 *(Continued)*

Leverage 2 = financial liabilities / (equity + financial liabilities)								
Mean	38.88%	34.27%	28.20%	23.79%	22.67%	20.72%	17.64%	-10.57%
Median	36.53%	30.40%	27.38%	19.41%	17.97%	12.97%	8.52%	-8.13%
Number of observations	67	67	67	67	67	67	67	67
t-statistics								-6.22 ***
Wilcoxon Test								-5.38

Panel C: Non-IPO firms

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Change from year -1 to year 3
Leverage 1 = total liabilities / total assets								
Mean	52.63%	52.15%	51.44%	51.47%	51.02%	50.62%	48.99%	-2.45%
Median	52.26%	52.04%	51.01%	50.84%	49.39%	48.58%	46.73%	-1.13%
Number of observations	113	113	113	113	113	113	113	113
t-statistics								-3.13 ***
Wilcoxon Test								-2.60
Leverage 2 = financial liabilities / (equity + financial liabilities)								
Mean	34.17%	34.92%	33.49%	32.53%	32.32%	32.20%	29.91%	-3.58%
Median	30.95%	32.61%	32.53%	30.37%	30.48%	30.89%	28.38%	-2.29%
Number of observations	113	113	113	113	113	113	113	113
t-statistics								-4.27
Wilcoxon Test								-4.05

This table shows sample firms' leverage changes surrounding the first stock option grant year. IPO firms are companies that adopt stock options within three years after IPOs or before IPOs. Non-IPO firms are companies that adopt stock options over 10 years after IPOs. T-statistics test the null hypothesis that the variable's average change from year -1 to year 3 is zero. Wilcoxon test is for the null hypothesis that the variable's median change from year -1 to year 3 is zero.

*: Significant at the 10%level.
**: Significant at the 5%level.
***: Significant at the 1%level.

Table 4
Industry adjusted leverage changes surrounding first stock option adoptions

Panel A: Entire sample

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Leverage 1 = total liabilities / total assets								
Mean	-8.70%	-9.91%	-10.06%	-9.20%	-8.10%	-7.90%	-8.71%	1.35%
Median	-6.02%	-8.66%	-10.96%	-8.89%	-8.47%	-7.75%	-9.76%	2.40%
Number of observations	201	201	201	201	201	201	201	201
t-statistics								1.75 *
Wilcoxon Test								-2.92 ***
Leverage 2 = financial liabilities / (equity + financial liabilities)								
Mean	-6.47%	-6.97%	-6.05%	-4.79%	-2.72%	-1.56%	-2.36%	3.69%
Median	-6.26%	-6.25%	-5.81%	-5.91%	-4.48%	-3.22%	-5.16%	4.35%
Number of observations	201	201	201	201	201	201	201	201
t-statistics								4.12 ***
Wilcoxon Test								-4.90 ***

Panel B: IPO firms

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Leverage 1 = total liabilities / total assets								
Mean	-6.96%	-11.09%	-14.95%	-16.06%	-15.52%	-16.09%	-17.85%	-2.90%
Median	-5.58%	-11.91%	-16.23%	-17.17%	-14.97%	-16.20%	-19.06%	-1.95%
Number of observations	67	67	67	67	67	67	67	67
t-statistics								-2.02 **
Wilcoxon Test								-1.80 *

Table 4 *(Continued)*

Leverage 2 = financial liabilities / (equity + financial liabilities)								
Mean	-5.09%	-9.02%	-11.24%	-12.18%	-10.46%	-10.26%	-11.95%	-0.71%
Median	-9.17%	-11.53%	-10.14%	-13.21%	-11.01%	-9.46%	-11.32%	1.25%
Number of observations	67	67	67	67	67	67	67	67
t-statistics								-0.42
Wilcoxon Test								-0.19

Panel C: Non-IPO firms

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Leverage 1 = total liabilities / total assets								
Mean	-6.20%	-6.16%	-4.79%	-2.97%	-1.40%	-0.88%	-1.11%	3.67%
Median	-3.42%	-4.05%	-3.06%	-1.74%	-2.23%	-0.53%	0.34%	3.54%
Number of observations	113	113	113	113	113	113	113	113
t-statistics								3.89 ***
Wilcoxon Test								-4.99 ***
Leverage 2 = financial liabilities / (equity + financial liabilities)								
Mean	-3.92%	-2.79%	-0.63%	1.64%	3.88%	5.82%	5.47%	6.11%
Median	-4.58%	-2.44%	-0.92%	0.00%	0.09%	3.21%	5.30%	5.74%
Number of observations	113	113	113	113	113	113	113	113
t-statistics								5.46 ***
Wilcoxon Test								-5.53 ***

This table shows sample firms' leverage changes surrounding the stock option grant year. All variables are adjusted by the industry median (subtract the industry median from the raw variable). IPO firms are companies that adopt stock options within three years after IPOs or before IPOs. Non-IPO firms are companies that adopt stock options over 10 years after IPOs. T-statistics test the null hypothesis that the variable's average change from year -1 to year 3 is zero. Wilcoxon test is for the null hypothesis that the variable's median change from year -1 to year 3 is zero.

*: Significant at the 10%level.
**: Significant at the 5%level.
***: Significant at the 1%level.

Table 5
Leverage changes and fixed assets changes for Non-IPO firms

Panel A: Leverage 1 changes and fixed assets changes

	Fixed assets increase from year -1 to year 3 (industry adjusted)
Non-IPO firms that increase leverage more than the median	
Mean	-1.48%
Median	-1.51%
Number of observations	56
Non-IPO firms that increase leverage less than the median	
Mean	10.62%
Median	5.77%
Number of observations	57
Mean difference	12.10%
t-statistics	2.05 **
Median difference	7.28%
Wilcoxon test	-1.63

Panel B: Leverage 2 changes and fixed assets changes

	Fixed assets increase from year -1 to year 3 (industry adjusted)
Non-IPO firms that increase leverage more than the median	
Mean	-0.24%
Median	-1.51%
Number of observations	56
Non-IPO firms that increase leverage less than the median	
Mean	9.41%
Median	5.77%
Number of observations	57
Mean difference	9.66%
t-statistics	1.61
Median difference	7.28%
Wilcoxon test	-1.49

Panel C: Correlation between leverage changes and fixed assets changes

Leverage Leverage 1 change - fixed assets change	0.23 **
Leverage Leverage 2 change - fixed assets change	0.16 *

This table shows the relationship between changes in leverage and fixed assets. Non-IPO firms are equally divided into two groups according to the leverage change. The changes in fixed assets are compared between the two groups (Panels A and B). Panel C reports correlation coefficients between the changes in leverage and fixed assets. All variables are industry adjused ones (subtract the industry median from the raw variable). T-statistics test the null hypothesis that the average fixed assets changes are not different between the two groups. Wilcoxon test is for the null hypothesis that the median fixed assets changes are not different between the two groups.

Table 5 *(Continued)*

*: Significant at the 10%level.
**: Significant at the 5%level.
***: Significant at the 1%level.

Table 6
Percentage changes in financial institutions' ownership and other corporations' ownership

Panel A: Entire sample

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Financial institutions' ownership level								
Mean	31.71%	31.51%	29.95%	30.75%	31.39%	31.86%	30.65%	0.81%
Median	32.93%	32.16%	30.46%	30.42%	31.00%	32.37%	29.81%	0.44%
Number of observations	188	192	198	200	201	201	201	198
t-statistics								1.36
Wilcoxon Test								-0.95
Other corporations' ownership level								
Mean	25.20%	24.73%	23.55%	22.64%	21.92%	21.10%	20.69%	-2.82%
Median	19.86%	20.37%	20.13%	19.32%	18.40%	17.30%	15.77%	-1.61%
Number of observations	191	195	198	200	201	201	201	198
t-statistics								-5.41 ***
Wilcoxon Test								-6.77 ***

Panel B: IPO firms

Financial institutions' ownership level								
Mean	14.57%	14.74%	15.36%	17.46%	19.26%	20.91%	20.36%	4.85%
Median	12.75%	13.40%	13.89%	16.77%	16.92%	18.43%	18.53%	4.57%
Number of observations	54	58	64	66	67	67	67	64
t-statistics								4.75 ***
Wilcoxon Test								-4.15 ***

Table 6 *(Continued)*

Other corporations' ownership level								
Mean	29.72%	29.59%	26.50%	25.61%	24.22%	22.76%	22.83%	-3.44%
Median	24.53%	24.50%	23.09%	22.63%	20.94%	19.43%	19.57%	-1.97%
Number of observations	57	61	64	66	67	67	67	64
t-statistics								-3.01 ***
Wilcoxon Test								-3.06 ***

Panel C: Non-IPO firms

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Financial institutions' ownership level								
Mean	41.19%	41.28%	39.21%	39.31%	39.37%	39.09%	37.19%	-2.02%
Median	42.09%	41.34%	40.35%	39.62%	40.84%	39.98%	38.29%	-1.83%
Number of observations	113	113	113	113	113	113	113	113
t-statistics								-2.94 ***
Wilcoxon Test								-3.18 ***
Other corporations' ownership level								
Mean	23.04%	22.27%	21.97%	20.95%	20.56%	20.00%	19.41%	-2.56%
Median	18.72%	18.02%	17.70%	16.28%	15.84%	14.48%	14.41%	-1.79%
Number of observations	113	113	113	113	113	113	113	113
t-statistics								-4.29 ***
Wilcoxon Test								-5.86 ***

This table shows sample firms' changes in financial institutions' ownership and other corporations' ownership levels surrounding the first stock option grant year. IPO firms are companies that adopt stock options within three years after IPOs or before IPOs. Non-IPO firms are companies that adopt stock options over 10 years after IPOs. T-statistics test the null hypothesis that the variable's average change from year -1 to year 3 is zero. Wilcoxon test is for the null hypothesis that the variable's median change from year -1 to year 3 is zero.

*: Significant at the 10%level.
**: Significant at the 5%level.
***: Significant at the 1%level.

Table 7
Percentage changes in financial institutions' ownership and other corporations' ownership: Variables above the TSE mean

Panel A: Entire sample

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Financial institutions' ownership level								
Mean	-9.06%	-8.39%	-7.75%	-6.70%	-5.10%	-3.26%	-2.26%	5.61%
Median	-8.11%	-7.42%	-7.37%	-7.26%	-5.46%	-4.15%	-2.79%	4.97%
Number of observations	188	192	198	200	201	201	201	198
t-statistics								9.42 ***
Wilcoxon Test								-8.37 ***
Other corporations' ownership level								
Mean	1.27%	0.70%	-0.33%	-0.35%	-1.28%	-2.89%	-3.82%	-3.45%
Median	-3.92%	-3.77%	-3.74%	-3.68%	-4.82%	-6.82%	-7.66%	-2.60%
Number of observations	191	195	198	200	201	201	201	198
t-statistics								-6.55 ***
Wilcoxon Test								-7.67 ***

Panel B: IPO firms

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Financial institutions' ownership level								
Mean	-26.28%	-25.19%	-22.64%	-19.85%	-17.34%	-14.39%	-12.82%	9.67%
Median	-27.77%	-26.28%	-23.84%	-20.20%	-19.20%	-15.87%	-13.05%	9.13%
Number of observations	54	58	64	66	67	67	67	64
t-statistics								9.56 ***
Wilcoxon Test								-6.39 ***
Other corporations' ownership level								
Mean	5.80%	5.56%	2.59%	2.50%	1.12%	-1.09%	-1.66%	-4.02%

Panel C: Non-IPO firms

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Financial institutions' ownership level								
Mean	0.48%	1.44%	1.75%	1.83%	2.95%	4.12%	4.52%	2.77%
Median	0.87%	1.27%	2.15%	2.64%	4.54%	5.37%	6.48%	2.93%
Number of observations	113	113	113	113	113	113	113	113
t-statistics								4.02 ***
Wilcoxon Test								-4.30 ***
Other corporations' ownership level								
Mean	-0.91%	-1.77%	-1.88%	-1.93%	-2.68%	-4.10%	-5.14%	-3.26%
Median	-5.37%	-6.12%	-6.05%	-7.01%	-7.91%	-8.32%	-10.21%	-2.60%
Number of observations	113	113	113	113	113	113	113	113
t-statistics								-5.36 ***
Wilcoxon Test								-6.61 ***

This table shows sample firms' changes in financial institutions' ownership and other corporations' ownership levels surrounding the first stock option grant year. All variables are adjusted by the TSE mean (subtract the TSE mean from the raw variable). IPO firms are companies that adopt stock options within three years after IPOs or before IPOs. Non-IPO firms are companies that adopt stock options over 10 years after IPOs. T-statistics test the null hypothesis that the variable's average change from year -1 to year 3 is zero. Wilcoxon test is for the null hypothesis that the variable's median change from year -1 to year 3 is zero.

*: Significant at the 10%level.
**: Significant at the 5%level.
***: Significant at the 1%level.

Table 8
Percentage changes in financial institutions' ownership and other corporations' ownership for keiretsu firms

Panel A: Raw variables

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Financial institutions' ownership level								
Mean	42.28%	42.26%	40.14%	40.20%	40.43%	40.15%	38.59%	-1.55%
Median	43.75%	42.60%	40.59%	41.59%	42.29%	43.11%	39.66%	-1.49%
Number of observations	66	66	66	66	66	66	66	66
t-statistics								-1.68 *
Wilcoxon Test								-2.12 **
Other corporations' ownership level								
Mean	22.85%	22.20%	21.55%	20.42%	20.08%	19.16%	18.31%	-3.24%
Median	19.34%	18.02%	17.33%	15.30%	14.72%	12.91%	11.88%	-2.72%
Number of observations	66	66	66	66	66	66	66	66
t-statistics								-3.48 ***
Wilcoxon Test								-5.19 ***

Panel B: Variables above the TSE mean

Year relative to the first option grant year	-3	-2	-1	0	1	2	3	Year 3 - Year -1
Financial institutions' ownership level								
Mean	1.62%	2.50%	2.81%	2.87%	3.98%	5.27%	6.11%	3.30%
Median	2.65%	3.26%	3.80%	4.61%	6.13%	8.97%	7.40%	2.97%
Number of observations	66	66	66	66	66	66	66	66
t-statistics								3.55 ***
Wilcoxon Test								-3.64 ***

Table 8 *(Continued)*

Other corporations' ownership level								
Mean	-1.11%	-1.86%	-2.29%	-2.41%	-3.10%	-5.03%	-6.34%	-4.04%
Median	-4.75%	-6.12%	-6.42%	-7.00%	-8.45%	-11.87%	-13.22%	-3.28%
Number of observations	66	66	66	66	66	66	66	66
t-statistics								-4.24 ***
Wilcoxon Test								-5.52 ***

This table shows keiretsu firms' changes in financial institutions' ownership and other corporations' ownership levels surrounding the first stock option grant year. Panel A reports raw variables whereas Panel B describes variables above TSE mean (subtract the TSE mean from the raw variable). T-statistics test the null hypothesis that the variable's average change from year -1 to year 3 is zero. Wilcoxon test is for the null hypothesis that the variable's median change from year -1 to year 3 is zero.

*: Significant at the 10%level.
**: Significant at the 5%level.
***: Significant at the 1%level.

Table 9
Industry adjusted operating performance changes surrouding first stock option adoptions

Panel A: Entire sample

Year relative to the first option grant year	- 3	- 2	- 1	0	1	2	3	Year 3 - Year - 1
Operating income- to- total assets ratio								
Mean	1.64%	1.80%	1.93%	1.62%	1.63%	1.99%	1.63%	- 0.30%
Median	0.78%	0.91%	0.73%	0.65%	0.97%	1.19%	0.13%	- 0.13%
Number of observations	201	201	201	201	201	201	201	201
t- statistics								- 0.80
Wlcoxon Test								- 0.80
Operating income- to- sales ratio								
Mean	2.53%	2.91%	3.13%	3.10%	3.02%	3.28%	3.39%	0.26%
Median	0.71%	1.43%	2.02%	1.49%	1.57%	1.63%	1.26%	0.03%
Number of observations	201	201	201	201	201	201	201	201
t- statistics								0.35
Wlcoxon Test								- 0.37
EBIT- to- total assets ratio								
Mean	1.83%	1.94%	2.03%	1.82%	1.79%	2.12%	1.84%	- 0.19%
Median	0.85%	0.69%	0.74%	0.92%	1.08%	1.21%	0.45%	- 0.02%
Number of observations	201	201	201	201	201	201	201	201
t- statistics								- 0.50
Wlcoxon Test								- 0.19

Panel B: IPO firms

Year relative to the first option grant year	- 3	- 2	- 1	0	1	2	3	Year 3 - Year - 1
Operating income- to- total assets ratio								
Mean	4.77%	5.27%	5.08%	4.32%	4.38%	5.26%	5.00%	- 0.08%

Table 9 *(Continued)*

Median	3.13%	3.68%	3.80%	3.82%	2.96%	3.89%	3.63%	- 0.41%
Number of observations	67	67	67	67	67	67	67	67
t- statistics								- 0.10
Wlcoxon Test								- 0.46
Operating income- to- sales ratio								
Mean	4.52%	5.67%	5.83%	5.71%	5.90%	6.44%	6.29%	0.45%
Median	2.79%	4.02%	4.17%	3.90%	4.69%	4.34%	3.26%	0.31%
Number of observations	67	67	67	67	67	67	67	67
t- statistics								0.61
Wlcoxon Test								- 0.69
EBIT- to- total assets ratio								
Mean	4.74%	5.23%	4.96%	4.46%	4.58%	5.41%	5.08%	0.13%
Median	2.91%	3.56%	3.91%	3.61%	3.43%	3.66%	3.74%	- 0.19%
Number of observations	67	67	67	67	67	67	67	67
t- statistics								0.15
Wlcoxon Test								- 0.22

Panel C: Non- IPO firms

Year relative to the first option grant year	- 3	- 2	- 1	0	1	2	3	Change from year - 1 to year 3
Operatig income- to- total assets ratio								
Mean	- 0.05%	- 0.23%	- 0.01%	- 0.07%	- 0.13%	- 0.13%	- 0.54%	- 0.53%
Median	- 0.69%	- 1.17%	- 0.66%	- 0.29%	- 0.55%	- 0.70%	- 0.84%	- 0.09%
Number of observations	113	113	113	113	113	113	113	113
t- statistics								- 1.28
Wlcoxon Test								- 0.77
Operaing income- to- sales ratio								
Mean	1.10%	0.77%	1.01%	1.09%	0.86%	0.92%	1.33%	0.33%
Median	- 0.11%	- 0.26%	- 0.27%	0.10%	- 0.20%	0.06%	- 0.17%	- 0.15%
Number of observations	113	113	113	113	113	113	113	113

Table 9 *(Continued)*

t- statistics								0.27
Wlcoxon Test								- 0.88
EBIT- to- total assets ratio								
Mean	0.24%	0.01%	0.23%	0.21%	0.03%	0.00%	- 0.24%	- 0.47%
Median	- 0.59%	- 1.03%	- 0.46%	- 0.31%	- 0.52%	- 0.49%	- 0.77%	0.00%
Number of observations	113	113	113	113	113	113	113	113
t- statistics								- 1.11
Wlcoxon Test								- 0.23

This table shows operating performance changes surrounding the first stock option grant year. All variables are industry adjused ones (subtract the industry median from the raw variable). IPO firms are companies that adopt stock options within three years after IPOs or before IPOs. Non- IPO firms are companies that adopt stock options over 10 years after IPOs. T- statistics test the null hypothesis the average variable change from year - 1 to year 3 is zero. Wlcoxon test is for the null hypothesis that the median variable change from year - 1 to year 3 is zero.

*: Significant at the 10%level.

**: Significant at the 5%level.

***: Significant at the 1%level.