Signing Bonus, Managerial Ability, and Corporate Performance

RUI ZHU[1] and XIAOXIAO HE* [1]

[1]Department of Economics and Finance, City University of Hong Kong

8 August, 2015

Abstract

This paper uses hand-collected data to study CEO's cash signing bonus among listed U.S. firms. Empirical findings suggest that issuing cash signing bonus is not driven by free cash flow problem or by firm's idiosyncratic risk. Instead, CEOs who receive cash signing bonus are less likely to be over-compensated, supporting the Ex Post Settlement mechanism. Moreover, our results suggests that company uses cash signing bonus to attract talent CEO who enhances subsequent corporate performance.

Key Words: Perquisites, Perks, Cash Signing Bonus, Managerial Ability, Executive Compensation

*Contact Author, contact information: P7537, AC 1, City University of Hong Kong, Tat Chee Avenue, Kowloon, Hong Kong SAR. Email: xiaoxiahe2-c@my.cityu.edu.hk

1 Introduction

What is the function of managerial compensation? Arising from agency-principal relationship, *Agency Problem* requests a proper design of managerial compensation to motivate managers. Previous literature argue that performance-based compensations could align managers' interest with shareholders' wealth since the magnitude of managers' human capitals varies with firm performances (Jensen, 1990) [1].

Nevertheless, the function of managerial perks and perquisites, which are the compensation that are not linked to firm performance, is ambiguous. Opponents of managerial perks argue that managerial consumption may reduce firm value since it transforms shareholders' wealth to the manager, resulting in a *Free Cash Flow Problem* (Jensen, 1986 and Liang et al., 1991). Furthermore, entrenched managers may overuse the perquisites without enhancing productivity (Yermack, 2006a). In contrast, proponents suggest that managers are not overpaid because managers may smooth consumption within their human capital as the market can dynamic evaluate managerial performance through an *Ex Post Settlement* (Fama, 1980). In addition, managerial perquisites and perks could enhance managerial productivity (Rajan and Wulf, 2006; Chen, Li, Liang, 2010) and mitigate executives' concern about termination risk (Xu and Yang, 2014; Yermack, 2006b).

[1] Empirical evidences suggest that equity-based performance is positive related to firm performance (Mehran, 1995). Moreover, CEOs with higher proportion of equity-based compensation may less likely to conduct unsuccessful merge and acquisition (Bliss and Rosen, 2001) and pay lower acquisition premiums to acquire prospective target with higher growth opportunities (Datta, Iskandar-Datta, Raman, 2001). In terms of other types of compensation, inside debt may reduce CEO's risk-taking activities (Cassel, Huang, Manuel Sanchez, Stuart, 2012) while option portfolios with higher vega increase CEO's preference of risky projects (Coles, Daniel, Naveen, 2006).

The lack of proper proxy for managerial perquisites hinders previous literature to provide consolidate empirical evidence to distinguish the two assertions above. Conventional researches prefer to use consumption items such as corporate jet, chauffeur, local club member, etc. as proxy. However, firms may not necessary disclosure such consumption and it is hard to link a specific consumption with a certain managerial position.

In this paper, we use a new proxy to extend the research in this field. This paper studies CEOs' cash signing bonus–*"Golden Hello"*, which is an one-time compensation for the executive when signing the employment contract for the new position. The cash signing bonus is non-equity linked, independent on future performance, and specific to certain mangers. Therefore, it is a good proxy to distinguish different theories regarding firms' motivation to issue perquisites to managers. Firms issue signing bonus to top managers with various motivations. For instance, it may be used to reimburse the relocation cost, contracting fee, or other costs accrued during the negotiation period thereby attracting talent candidates or reducing potential termination risks. Furthermore, issuing signing bonus to manager with lower managerial ability may reflect a free cash flow problem since it transfer shareholders' wealth to the manager without directly adding firm value.

There are three categories of signing bonus namely equity signing bonus, cash signing bonus, and a mixed package involving both of them. Compared with that of equity signing bonus, whose functions are similar as the performance-pay compensation, the motivation of granting cash signing bonus is ambiguous. For one hand, the substantial amount of cash signing bonus draws a massive medium media coverage and public attention. One typical example is the signing bonus issued by Hewlett-Packard to its former CEO Leo Apotheker. *CNN Money* comments the firm's CEO replacemen-

t procedure as a cost of the firm's fortune. "*On the job as chief executive for not even 11 months, Leo Apotheker will leave HP (HPQ, Fortune 500) a wealthy man: He has already taken home most of his $1.2 million annual salary, a $4 million signing bonus, and an additional $4.6 million awarded for relocation assistance and to offset payments that he forfeited from his previous employer, SAP.*[2] In my sample, the average signing bonus is 93% compared with the first year base salary. Moreover, the vest period of the cash payment is short, limiting its incentive power. Without a clarified benchmark, such managerial may exposure to Free Cash Flow critics. For another hand, top managers receive cash signing bonus at the beginning of the career and such perquisites purely reflect shareholders' expectation of candidates' managerial talent or human capital. If the expectation is unbiased, then such ex ante compensation serves a plausible proxy to study the Ex Post Settlement mechanism since the board could continuously adjust managers' compensation condition on the information provided by efficient labor market and managers could only smooth their compensations within the boundary of their human capitals. For two identical manager with similar compensation structure, receiving cash signing bonus may signals a higher level of managerial ability as such bonus increase market's evaluation of the managers' human capital.

By using hand-collected data of the new proxy, we try to answer the following questions.

Q1. What is the motivations of firms to issue cash signing bonus to CEO?

Q2. What is the market reaction against the announcement of issuing cash signing bonus?

[2]Cited from CNNMoney "HP's ousted CEO will take home $25 million",22 Sep 2011

Q3. Does cash signing bonus signals higher managerial ability?

Empirical results provide interesting findings. In terms of the motivation of rewarding signing bonus, CEOs with cash signing bonus are less overpaid of the following three fiscal years after the first year of CEO succession, supporting the *Ex post settlement* theory . On the contrary, issuing signing bonus may not subject to *Free Cash Flow Problem*. Firms with lower free cash flow, lower growth opportunity, and higher institutional holding tend to issue cash signing bonus to the CEO. Xu and Jing(2014) find that risky firms use both cash and equity signing bonus to mitigate top managers' concern of termination risk. However, I do not find a similar relationship in terms of cash signing bonus. In our sample, firms with lower idiosyncratic risks but higher information asymmetry tend to issue signing bonus to external CEO.

On the perspective of the signaling effect, equity market reacts positively to the announcement of granting of signing bonus to CEO successor. The three-day and five-day cumulative abnormal returns (CARs) are 1% and 1.3% higher for firms issuing cash signing bonus to their CEOs compared with those who do not.

One of our research interests is whether the signaling effect of cash singing bonus can proxy a higher managerial ability. Previous studies suggest that manager fixed effect contributes to firm's performance (Bertrand, Schoar, 2003) and capital market incorporate executive's human capital into the valuation of firm (Chang, Dasgupta, Hilary, 2010). However,, managerial talent is hard to directly measure as it may driven by a multiple dimensions of executives' characteristics. A factor-loading analysis may summarize the specific dimensions that contribute to firm performance . Executive with higher level of execution skill, general ability (Kaplan, Klebanov, Sorensen, 2012), and wider industrial background (Custódio, Ferreira, Matos, 2013) may enhance

firm performance but this methodology require an extensive data collection.

To verify the link between signaling effect on signing bonus and managerial ability managerial ability and to solve endogeneity problem, we implement a difference-in-difference analysis approach to examine the long term firm performance. In a three-year window, CEOs with signing bonus three years ago, compared to matched sample, generate higher in treatment group exhibits preponderate managerial abilities. Both buy-and-hold abnormal returns (BHARs) and cumulative abnormal returns (CARs) are significantly higher than those of the control group. One step further, firms in treatment group exhibit an enhanced long term performance as measured by the growth rate of and higher firm value, measured by Tobins Q. The results suggest that signing bonus are more likely issued on the labor market equilibrium and signals better managerial ability.

The paper contributes to the limited researches on signing bonus. Xu and Jing (2014) study the cash and equity signing bonus package rewarded to top executives and find that risky firms are likely to grant signing bonus to top managers to mitigate the termination risk. This paper, to our knowledge, is the first paper to use cash signing bonus to distinguish free cash flow theory and labor market signaling theory on non-equity compensation before the term starts.

The study also contributes to the empirical studies on the perspective of managerial perks and perquisites. Previous researches focus on the managerial consumption such as corporate jet(Rajan, et al 2006) and service package (Yermack, 2006b). One of the challenges confronted by those studies are the quality of data. First, firms may hide or defer the disclosure of the use of managerial perks and perquisites (Yermack, 2006a). Second, it is hard to expand the coverage of firms in the sample since big firms generally issue

more perks to managers. Third, perks and perquisites may be reported at a firm level, not linked to specific position. Therefore, it may be difficult to link a specific manager with a certain kind of consumption. Signing bonus provides a new research perspective. It is directly linked to the target managerial position and the relative data of signing bonus can be obtained from public sources with a wider coverage. For example, the information of signing bonus is documented in executive's employment arrangements reported in the SEC file.

Furthermore, this paper provides empirical evidences to theories on non-performance-based managerial compensation. Our empirical evidence is more favor for Fama's *Ex Post Settlement* mechanism. CEOs who received cash signing bonus is less likely to be over-compensated. However firms issuing cash signing bonus to the CEO do not exhibit *Free Cash Flow* problem as well as a higher idiosyncratic risk.

The paper is organized as follows. Part 2 reviews theories regarding the motivations of issuing signing bonus to top manager. Part 3 illustrates the data and the sampling procedure. Part 4 verifies firm's motivation of awarding signing bonus. Part 5 evaluates the market reaction and long-term performances of firms who award signing bonus to the CEO based on a *different-in-different* approach. Part 6 summarizes the paper and draws a conclusion.

2 Theories of Managerial Compensation

Theoretical models hold different attitudes towards the use of signing bonus. In a classical agency model, a one-time cash signing bonus may not enhance productivity, resulting in *Free Cash Flow Problem* . However, through *Ex*

Post Settlement mechanism, labor market could adjust managerial compensation efficiently. In terms of CEO's risk aversion, signing bonus could serve as a insurance of manager's human capital thereby encouraging the manager to take risk without being interrupted by the threat of termination risk.

2.1 Free Cash Flow Problem

A diligent manager should maximize firm value. However, rational mangers would tilt on nonpecuniary benefits and maximize their own utility (Jensen and Meckling, 1976; Liang et al., 1991) on the cost of shareholders' wealth when they hold proportional equity. In addition, managers in the firm with high free cash flow may invest in sub-optimal project or increase managerial consumption thereby increasing their non-pecuniary benefits (Jensen, 1986).

To reduce agency problem, firms can use performance-based compensation to align managerial performance with shareholders' interests. However, one-time perks such as cash signing bonus with a short vest period are not linked with firm performance and may not enhance productivity compared with other managerial perquisites such as corporate jet, which may enhance efficiency (Rajan, et al 2006; Chen, et al, 2009). Then the excessive use of cash signing bonus may steam from *Free Cash Flow Problem* which transfers shareholders' wealth to top managers.

Free Cash Flow Problem predicts that firms with higher free cash flow, lower growth opportunity (Jensen 1986), and weak corporate governance (Bertrand and Mullainathan, 2001) have higher likelihood to grant signing bonus to the top manager.

2.2 Ex Post Settlement

On the contrary, under Fama's (1980) theory, CEO are less likely to be over-compensated. The board or the labor market evaluates CEO's performance continuously based on the new information through the *Ex Post Settlement* mechanism. The board would continuously adjust CEO's compensation condition on new information based on firm's recent performance.

Ex post settlement mechanism predicts that CEO awarded by signing bonus will not be overpaid in the following years according to the CEO's human capital. In other words, with a efficient and rational board, CEOs can only smooth compensation within their expected human capital since the board can quickly offset the excessive compensation by reducing subsequent compensation.

2.3 Mitigating Termination Risk

CEO may also evaluates the corporate before accepting the new position. When dealing with a risky company with asymmetric information, CEO may hesitate to accept the job considering higher termination risk (Xu and Yang, 2014; Almazan and Suarez, 2003) or to shirk with subsequent underinvestment (Berkovitch, Israel, and Spiegel, 2000). Signing bonus can be utilized to offset the potential loss of CEO's human capital thereby providing a insurance for CEO's human capital and encouraging the candidate to take risk.

This argument predicts that risky firm with higher idiosyncratic risk may have higher probability to award signing bonus to CEO. And external CEOs may have higher probability to receive the signing bonus as the level of information asymmetry is higher.

3 Data and Sample Description

3.1 Sample Construction

The main data set is a hand-collected data set of all public and non-financial firms[3] listed in NYSE, AMEX, and NASDAQ from 2004 to June 2014. In specific, we collected information of CEO's signing bonus through executive employment arrangement reported in SEC file *8-K*.

The advantage of using file *8-K* instead of the proxy statement is that (1) the file provides the event date that the information released to public for conducting a event study of market reaction and that (2) it provides detailed components involved in the signing bonus package so that we can distinct equity portion and cash portion and we can further separate relocation cost and other contracting fees from the cash portion to conduct robustness tests. We emphasis the use of cash signing bonus because that the equity signing bonus functions as similar as the long-term equity incentive plan but the function of cash portion is controversial.

We start by going though file *8-K* to pick out all the CEO turnover events reported from 2004 to June 2014. The event date is defined as the report date (*Period of Report*) when the file is available on the SEC website. All the firms in our sample are non-financial listed firms with common share listed in *NYSE, AMEX,* and *NASDAQ*. To solve the endogeneity problem, we conduct a *dif-in-dif* analysis. Firms issuing cash signing bonus to CEO are involved in the treatment group. We also treat firms who do not issue cash signing bonus to CEO as the control group via a propensity score matching approaching.

The information of firms' financial characteristics, stock returns, insti-

[3]Based on Two-digit SIC code

tutional holdings are collected from *COMPUSTAT*, *CRSP*, and *Thomson Reuters*. All the firms involved in the sample must have financial characteristics of the fiscal year before the CEO turnover, at least 12-month of stock monthly return of the previous 60 months before the event date, and at least 30-day of stock daily return of the previous 252 days before the event date. For CEOs' compensation information and personal characteristics, we merge our sample with *Execucomp*. Missing value are hand collected through a variety public source such as SEC file *8-k* and *DEF 14a*, *Businessweek*, *Linkedin*, *Forbes*, etc.. Definitions of variables are attached in Appendix A.

Table 1 reports the descriptive statistics of both the control group and the treatment group. The sample consists 554 CEO-succession events, with 197 events coupled with the grant of cash signing bonus. Table 2 reports firm heterogeneity between the two groups. Compared with those in the control group, the representative firm in treatment group tends to have a lower free cash flow, and idiosyncratic risk in average. This may not be consistent with the predication of *Free Cash Flow Problem* and termination risk aversion.

3.2 Signing Bonus

Signing bonus is defined as a one-time compensation for executives when signing the employment contract. Companies could pay cash, equity, or a mixed package to the candidate. The function of the equity portion is similar to that of the performance-based compensation, which aims to align managers' interests with the corporate performance. In this paper we only focus on the cash part of signing bonus with three reasons. First, a one-time cash compensation does not exhibits a directly incentive for managers to act for shareholders' wealth, subjecting to the *Free Cash Flow* criticism. Second, the cash compensation is awarded without any verification for the ex

post contribution of the manager so it purely represents the ex ant expectation of executive's managerial ability to test *Ex Post Settlement* theory. Third, the large magnitude of the cash compensation draws market's attention. The average signing bonus-base salary ratio in our sample is around 93%. Therefore we can measure the market reaction against such corporate compensation policy. Fourth, cash signing bonus is directly linked to CEO position therefore we can use this to test CEO's managerial ability.

Most of the employment contracts in our sample will specified the usage of the cash signing bonus. In detail, such compensation can be used to reimburse the relocation cost, contracting cost, and other relative costs. It can also be used as a reward for the current CEO who renew the contract, as a tool to attract talent CEO successor, or even a waste of money due to the loss of negotiation power for the company in the labor market.

The main variable is a dummy variable indicating whether the firm issues cash signing bonus to the CEO. In our baseline analysis, we treat all parts of cash signing bonus as an entity (defined as *Broad Cash Signing Bonus*). In the robustness test, we will subtract the reimbursement costs and other contracting fees specified in the contract and treat the rest portion as cash signing bonus (defined as *Narrowed Cash Signing Bonus*). If there is no specification of the usage, we will treat the cash singing bonus as the narrowed cash signing bonus. The reason that we do not directly deduct the average state-level housing price (Xu and YAng, 2014) from the cash bonus is that both the relocation cost and the other contracting cost are flexible. Firm can set a maximum threshold or require the candidate to return the remaining. So the controlling power for those portions of cash is low and this approach emphasizes the use of cash bonus within the control of the CEO.

Table 3 reports personal characteristics of CEOs in the sample. CEOs

who are rewarded cash signing bonus are relative young with a average age of 51.63 in contrast to 52.44 of those in the control group and well educated since 45.5% of CEOs in the treatment group hold degree in MBA, JD, or PhD compared with 40.36% in the control group. Moreover, firms in treatment group prefer to employ *generalist*(Custódio, 2013) with working experience from other industry and they also valued CEO experience, tilting to potential candidates with higher managerial ability (Smith, Amoako-Adu 1999). The higher ratio of external CEO employed by the treatment group indicates a higher level of asymmetric information, which is consistent with the finding of Xu and Yang (2014).

4 Motivation for Issuing Signing Bonus

To test firms' motivation for issuing signing bonus based on theoretical models discussed in section 2 , we conduct two kinds of regression analyses based on the predictions discussed above. We first conduct a likelihood test to study the fundamental determinants which affect firm's decision of issuing cash signign bonus. In addition, we followed the methodology of Yermack (2006b) to construct a proxy of the degree of overcompensation to evaluate whether CEOs received cash signing bonus are overpaid or not during their tenure. Our empirical results do not provide evidence for *Free Cash Flow problem* or assertion of termination risk. Nevertheless, our results support *Ex Post Settlement mechanism* as CEOs with cash signing bonus are not overpaid in the subsequent fiscal years.

4.1 Determinants for Granting Cash Signing Bonus

We conduct a likelihood regression to study determinants of rewarding cash signing bonus to CEOs. We construct a dummy variable (*Broad Signign Bonus*) with one indicating that the firm issue cash signing bonus. The robustness test uses *Narrow Signing Bonus* as the dependent variable which deducts the relocation fee and other contracting cost from the cash portion. The free cash flow of the firms are constructed following the methodology of Rajan and Wulf (2006)[4]. Tobin's Q is used to proxy firm's growth opportunity. To study the combination effect between the free cash flow and growth opportunity, we follow Rajan and Wulf's approach. In specific, we generate two dummy variables with *JENSEN* indicating whether firm's free cash flow is greater than the 75th quartile of the industry and its Tobin's Q lies below the 25th industrial quartile and *HiGrLoFcf* indicating whether firm's free cash flow is lower than the 25th industrial quartile and its Tobin's Q lies above the 75th industrial quartile. Industry is classified by two-digit SIC code. For robustness check, we also report the estimations using firm's free cash flow and Tobin's Q as independent variables. The fraction of institutional holding proxies the corporate governance.

Inspired by the finding of Xu and Jin (2014), risky firms tend to issue signing bonus as an insurance to mitigate termination risk and firms tend to grant signing bonus to external CEO to mitigate information asymmetry. We use the average monthly idiosyncratic risk to proxy firm's unsystematic risk. In detail, we regress the past 3-year monthly return based on Carhart four-factor model. Idiosyncratic risk is the 12-month moving average residual

[4]lagged Operating income before deperation-interest-(taxes-changes in deferred tax)-capital expenditure and scaled by beginning-period total asset of the fiscal year with CEO succession

before the month of CEO succession. A dummy variable indicating the CEO is appointed internally is used as a proxy of information asymmetry.

Table 4 reports the marginal effects of probit estimations and logistics estimations. Panel A and Panel B report the estimation of determinants of issuing broadly defined cash signing bonus while Panel C and Panel D report that of issuing narrowly defined cash signing bonus.

Our findings do not fully support the *Free Cash Flow* argument. Firm's free cash flow, growth opportunity, and corporate governance quality do not significantly and persistently domain firm's attitude of granting cash signing bonus. For instance, firms in *JENSEN* group have a lower probability to issue cash signing bonus while firms in *HiGrLoFcf* group are more likely to issue cash signing bonus. Furthermore, firms appointing external CEOs have a higher probability (13.49%) to issue cash signing bonus. However, a increase of 1% of idiosyncratic risk reduce the probability by 0.61%. To this extent, our empirical results are only partially consist with the finding of Xu and Jing(2014).

To summarize, issuing cash signing bonus to CEO is not a inefficient by-product due to the *Free Cash Flow problem*and the usage of mitigating termination risk remains controversial.

4.2 Signing Bonus and Excessive Compensation

The magnitude of over-compensation cannot be directly observed in the labor market. Excessive compensation, or the *Abnormal Compensation*, could proxy such magnitude. Following the approach of Yermack (2006b), excessive compensation is the residual from the regression model

$$\sum_{t+1}^{t+3} C_{i,j,t} = \alpha + \beta_1 \sum_{t+1}^{t+3} R_{i,j,t} + \beta_2 \log SALES_{i,j} + \varepsilon_{i,j} \tag{1}$$

where t is the fiscal year of CEO-succession, $C_{i,j,t}$ is the ith CEO's total compensation on fiscal year t of the jth company as reported in the SEC proxy statement file *DEF 14A*. Due to the change of report regime, we only include the compensation information after fiscal year 2006 and the data are collected from Execucomp supplemented with hand-collected data from *DEF 14A*. $R_{i,j,t}$ is the annual continuous stock return compounded monthly at the beginning of fiscal year t of the jth firm, and $\log SALES_{i,j,t}$ is the logarithmic sales of the jth firm on fiscal year t to control size effect. The residual term $\varepsilon_{i,j}$ is the excessive compensation for the ith CEO of the jth firm. We exclude the total compensation on the first fiscal year t since most of CEO's cash signing bonus are vested within the first fiscal year. For CEOs with tenure less than 2 years, the residuals are replaced as zero.

Table 5 reports the estimations on CEO's subsequent excessive compensation. Controlling for firm characteristics, CEO characteristics, and CEO's compensation structure proxied by the base salary, CEO who received broad-defined cash signing bonus experience a decrease of their overall excessive compensation by \$6134. The negative effect (\$7069) is persistent and amplified if we use the narrow-defined cash signing bonus.

Overall, CEO received cash signing bonus is less over-paid, a finding which is consist with the prediction of the *Ex Post Settlement*.

5 Signaling Effect and Managerial Abilities

Our baseline findings illustrates that firm issuing signing bonus with rational motivations conditional on expected managerial human capital. The next question is, what is the function of such compensation. One plausible explanation may be that signing bonus may serve as a tool to attract talent CEO

with preponderate managerial abilities.

To test such argument, we conduct an standard event-study to test the signaling effect of this compensation. To further verify the intangible managerial ability and to solve the potential endogeneity problem, i.e. only firm with good performance issue signing bonus, we implement a *difference-in-difference* analysis to evaluate firm's long-term performance on the aspects of stock performance and the fundamental channel after CEO succession. In specific, we match firm in the treatment group with one firm in the control group according on their sales ratio via a *Propensity Score Matching* approach at 1% level. The initial matched sample for the baseline test contains 516 CEO successions with 258 events received cash signing bonus.

We find that market reacts positively against announcement of issuing signing bonus and CEOs in treatment group exhibit higher managerial ability according to firms' long-term performances.

5.1 Market Reaction Against Information Disclosure

Table 6 illustrates the market reaction against information disclosure. The dependent variable, Cumulative Abnormal Return (CAR), is constructed by Carhart four-factor model. The event window is either three days (-1,1) or five days (-2,2) with event date as $t = 0$ which is defined as the reported date of the SEC file.

Cash signing bonus provides a positive signal to the market. For the treatment group, the 3-day CAR is 1.71% higher and the 5-day CAR is 1.81% higher than those of the control group. And this signaling effect still hold if we deduct relocation fee and other contracting cost. Moreover, after deducting contracting cost, a 100% increase of the logarithmic dollar value of the narrow defined signing bonus will increase 1.38% and 1.09 % for the 3-day

CAR and 5-day CAR respectively but the within-sample effect is statistically insignificant once using the broad defined cash signing bonus.

To summarize, capital market treat issuing signing bonus as a favorable information during CEO succession. In addition, a increase of the dollar value of such bonus within the treatment group will further enhance market reaction.

5.2 Long-term Stock Performance

To further link such signal with managerial talent and to solve the endogeneity problem, we conduct a dif-in-dif analysis of firm's long term performance.

Table 7 reports the estimations of firm's long term performance measured by BHAR. We construct a dummy variable T indicating the fiscal year after the CEO succession. Our main variables, interaction of the dummy variables *BROAD SIGNING* and T as well as *NARROWED SIGNING* and T, are positive and significant among all the period. Controlling the firm characteristics and CEO's personal characteristics, firms rewarding cash signing bonus exhibit a higher follow-up stock permanence. Specifically, the 12-month BHAR is 24.71% greater than that of the matched firm . And the trend is persistent and enhanced after 24 months and 36 months with a difference of 46.20% and 28.51%. The trend is still hold after we deduct the relocation fee and other contracting cost. Table 8 reports a similar trend in long term performance measure by CAR. The 12-month CAR for the treatment group is 23.61% higher than that for the control group, coupled with a difference of 35.73% in 24-month CAR and 26.89% in 36-month CAR.

5.3 Long-term Operational Performance

We argue that market valued the signaling effect of cash signing bonus since it proxys a higher managerial ability, which is supported by the long-term stock return. To study the fundamental driven factor, we study the consequent operational performance via the same dif-in-dif analysis.

Table 9 demonstrates the regression results on firms three-fiscal-year industrial adjusted average growth rate of firm's Tobin's Q. The estimations in table 9 further support our argument. CEOs in the treatment group enhance firms' operational performance as measured by the growth rate of Tobin's Q.

In sum, CEO with cash signing bonus exhibit a higher managerial ability verified by firm's long-term performance. Cash signing bonus may serves as a proxy of higher managerial ability which is rationally evaluated by the market.

6 Conclusion

Using the hand-collected data of CEOs' cash signing bonus, we conduct a series of empirical tests to study firms' motivation to issue cash signing bonus to CEO candidates, the signal effect of such perk in the capital market, and link between such bonus and managerial talent.

In contrast to the *Free Cash Flow* problem, the board correctly evaluates CEO's managerial ability and the corresponding compensation. The value of signing bonus are already included in CEO's human capital which is consistent with the argument under Fama's framework. Furthermore, the empirical results only partially support the findings of Xu and Jing (2014).

In addition, we find that firms may issue cash signing bonus to attract talent CEOs and this perk proxies a higher managerial ability for the CEO

candidates. The market reacts positively against the disclosure of information and the long-term stock performances also verify CEOs' managerial ability. On of the plausible channel reflecting the difference in stock return is that CEO with cash signing bonus tend to accelerate the growth rate of firm's Tobin's Q.

To conclude, issuing cash signing bonus is not a waste of money. Instead, it may serves as a tool for firms to attract talent CEO to add firm value. Talent CEO who received cash signing bonus enhances firms' operational performance and reduces leverage burden. And such managerial ability is valued by the market coupled with a favorable long-term stock return.

References

[1] Andres Almazan and Javier Suarez. Entrenchment and severance pay in optimal governance structures. *The Journal of Finance*, 58(2):519–548, 2003.

[2] Marianne Bertrand and Sendhil Mullainathan. Are ceos rewarded for luck? the ones without principals are. *The Quarterly Journal of Economics*, 116(3):901–932, 2001.

[3] Marianne Bertrand and Antoinette Schoar. Managing with style: The effect of managers on firm policies. 2002.

[4] Richard T Bliss and Richard J Rosen. Ceo compensation and bank mergers. *Journal of Financial Economics*, 61(1):107–138, 2001.

[5] Cory A Cassell, Shawn X Huang, Juan Manuel Sanchez, and Michael D Stuart. Seeking safety: The relation between ceo inside debt holdings and the riskiness of firm investment and financial policies. *Journal of Financial Economics*, 103(3):588–610, 2012.

[6] Yuk Ying Chang, Sudipto Dasgupta, and Gilles Hilary. Ceo ability, pay, and firm performance. *Management Science*, 56(10):1633–1652, 2010.

[7] Donghua Chen, Oliver Zhen Li, and Shangkun Liang. Do managers perform for perks. *Nanjing University and University of Arizona, Working paper*, 2010.

[8] Jeffrey L Coles, Naveen D Daniel, and Lalitha Naveen. Managerial incentives and risk-taking. *Journal of Financial Economics*, 79(2):431–468, 2006.

[9] Cláudia Custódio, Miguel A Ferreira, and Pedro Matos. Generalists versus specialists: Lifetime work experience and chief executive officer pay. *Journal of Financial Economics*, 108(2):471–492, 2013.

[10] Sudip Datta, Mai Iskandar-Datta, and Kartik Raman. Executive compensation and corporate acquisition decisions. *Journal of Finance*, pages 2299–2336, 2001.

[11] Eugene F Fama. Agency problems and the theory of the firm. *The Journal of Political Economy*, pages 288–307, 1980.

[12] Marc Goergen and Luc Renneboog. Managerial compensation. *Journal of Corporate Finance*, 17(4):1068–1077, 2011.

[13] Jay C Hartzell, Eli Ofek, and David Yermack. What's in it for me? ceos whose firms are acquired. *Review of Financial Studies*, 17(1):37–61, 2004.

[14] Michael C Jensen. Agency costs of free cash flow, corporate finance, and takeovers. *The American economic review*, pages 323–329, 1986.

[15] Michael C Jensen and William H Meckling. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4):305–360, 1976.

[16] Michael C Jensen and Kevin J Murphy. Performance pay and top-management incentives. *Journal of political economy*, pages 225–264, 1990.

[17] Steven N Kaplan, Mark M Klebanov, and Morten Sorensen. Which ceo characteristics and abilities matter? *The Journal of Finance*, 67(3):973–1007, 2012.

[18] Richard A Lambert and David F Larcker. Golden parachutes, executive decision-making, and shareholder wealth. *Journal of Accounting and Economics*, 7(1):179–203, 1985.

[19] Larry HP Lang, RenéM Stulz, and Ralph A Walkling. A test of the free cash flow hypothesis: The case of bidder returns. *Journal of Financial Economics*, 29(2):315–335, 1991.

[20] Hamid Mehran. Executive compensation structure, ownership, and firm performance. *Journal of financial economics*, 38(2):163–184, 1995.

[21] Raghuram G Rajan and Julie Wulf. Are perks purely managerial excess? *Journal of Financial Economics*, 79(1):1–33, 2006.

[22] Brian F Smith and Ben Amoako-Adu. Management succession and financial performance of family controlled firms. *Journal of Corporate Finance*, 5(4):341–368, 1999.

[23] David Yermack. Flights of fancy: Corporate jets, ceo perquisites, and inferior shareholder returns. *Journal of Financial Economics*, 80(1):211–242, 2006.

[24] David Yermack. Golden handshakes: Separation pay for retired and dismissed ceos. *Journal of Accounting and Economics*, 41(3):237–256, 2006.

Appendix A

Variable Definition

Variable	Definition
AT	Total Asset in thousand USD
LEV	Leverage Ratio measured as long-term debt over total asset
FCF	Free cash flow followed the approach of Ranjan, Wulf(2006): lagged Operating income before deperation-interest-(taxes-changes in deferred tax)-capital expenditure and scaled by beginning-period total asset of the fiscal year with CEO succession
CAPX	Capital expenditure over total asset
SALES	Sales over end-of-period total asset
ROE	Net income over end-of-period total asset
MARGIN	Net income over revenue
Tobin's Q	(Closed-Fiscal-Year Market Value+end-of-period Total Asset-Shareholder's Equity)/ end-of-period Total Asset
JENSEN	Dummy varible with 1 indicates whether the firm's free cash flow lies in the top 25th industrial quartile classified by 2-digit SIC code and its Tobin's Q lies in the bottom 25th quartile.
HiGrLoFCF	Dummy varible with 1 indicates whether the firm's free cash flow lies in the bottom 25th industrial quartile and its Tobin's Q lies in the top 25th quartile.
IDIOSYNCRATIC RISK	36-month moving average of monthly idiosyncratic risk generated by four-factor model (Carhart,1997) before event date
INSITITUTIONAL HOLDING	Fraction of common shares hold by institutional investors

CAR (-1,1)	3-day Cumulative Abnormal Return generated by four-factor model (Carhart,1997) around event Day
CAR (-2,2)	5-day Cumulative Abnormal Return generated by four-factor model (Carhart,1997) around event Day
BHAR	Buy and Hold Abnormal Return generated by four-factor model (Carhart,1997)
AGE	CEO's age
SEX	Dummy variable with 1 indicates male and 0 indicating female
EDU	Dummy variable with 1 indicates that CEO candidate holds one of the degrees in MBA, JD, PhD
EXP	Dummy variable with 1 indicates that CEO has industrial experience according to his/her previous position where industry is classfied as 2-digit SIC code
CEO	Dummy variable with 1 indicates that CEO servers as CEO on his/her previous position
BOARD SIGNING BONUS	Dummy variable with 1 indicates firm issue cash signing bonus to CEO
NARROW SIGNING BONUS	Dummy variable with 1 indicates firm issue cash signing bonus to CEO exclude the reloaction fee, lawyer fee, or other relative contracting fee
BASE	First year base salary

Appendix B

Table 1: Descriptive Statistics

This table reports the descriptive statistics of the sample. Panel A reports the statistics of the control group while Panel B reports those of the treatment group. Variables are defined at Appendix A. All of the continuous variable are winsorized at 1% and 99% level.

Panel A Group Without Signing Bouns						
Variable	**N**	**Mean**	**Median**	**Std Dev**	**25th Pctl**	**75th Pctl**
AT	357	6263.14	1425.66	13278.52	430.719	4554.76
LEV	357	0.1722	0.1528	0.1579	0.0068	0.2808
FCF	357	0.0340	0.0501	0.1042	-0.0010	0.0874
CAPX	357	0.0518	0.0354	0.0512	0.0199	0.0651
Tobin's Q	357	-0.0853	-0.4145	1.2810	-0.7864	0.1205
SALES	357	1.1662	0.9366	0.8524	0.6454	1.4469
Resid_mean	357	-0.0041	-0.0029	0.0219	-0.0149	0.0067
BASE	357	531924	480000	331086	290642	750000
Signing Bonus	357	0	0	0	0	0
Signing Bonus Ratio	354	0	0	0	0	0
AGE	357	52.64	52.00	6.96	49.00	56.00
Panel B Group With Signing Bouns						
Variable	**N**	**Mean**	**Median**	**Std Dev**	**25th Pctl**	**75th Pctl**
AT	197	4278.46	656.031	12436.36	200.252	2478.66
LEV	197	0.1529	0.1073	0.1603	0.0010	0.2584
FCF	197	-0.0079	0.0311	0.1831	-0.0340	0.0774
CAPX	197	0.0469	0.0298	0.0509	0.0165	0.0536
Tobin's Q	197	-0.0985	-0.4753	1.4864	-0.9039	-0.0033
SALES	197	1.1278	1.0034	0.6935	0.5894	1.5769
Resid_mean	197	-0.0108	-0.0076	0.0290	-0.0279	0.0069
BASE	197	674736	600000	326548	425000	850000
Signing Bonus	197	665453.11	250000	1149566.9	100000	600000
Signing Bonus Ratio	197	0.92	0.42	1.54	0.22	0.88
AGE	197	51.63	51.00	6.79	47.00	55.00

Table 2: Heterogeneity of Firm Characteristics

This table reports the fundamental heterogeneities between the two groups. Variables are defined at Appendix A. Differences in sample mean are tested by T-test with unequal sample variance and Difference in sample median is tested by Median Score. All of the continuous variable are winsorized at 1% and 99% level.

*:10% significant level, **:5% significant level, ***:1% significant level

	Award		Not Award		Difference	
Variable	**Mean**	**Median**	**Mean**	**Median**	**Mean**	**Median**
AT	4278.46	656.03	6263.14	1425.66	-1984.60*	-769.62***
LEV	0.1529	0.1073	0.17	0.15	-0.0192	-0.0455**
FCF	-0.0079	0.0311	0.03	0.05	-0.0418***	-0.0189**
CAPX	0.0469	0.0298	0.05	0.04	-0.0049	-0.0055*
TOBIN'S Q	-0.0985	-0.4753	-0.09	-0.41	-0.0132	-0.0607
SALES	1.1278	1.0034	1.17	0.94	-0.0384	0.0667
IDIOSYNCRATIC RISK	-0.0108	-0.0076	0.00	0.00	-0.0066***	-0.0046**

Table 3: Characteristics of CEOs

This table reports the basic characteristics of CEOs in the sample. Column 2 to column 3 report the characteristics of CEO in the control group while column 4 to column 5 report those for treatment group. Variables are defined at Appendix A.

	Not Award		Award	
Variable	**N**	**Statistics**	**N**	**Statistics**
MALE	357	95.80%	197	92.39%
MBA	357	31.09%	197	39.09%
JD	357	5.04%	197	0.51%
PhD	357	3.92%	197	5.58%
EXPERIENCE	357	92.16%	197	46.70%
CEO	357	9.80%	197	26.90%
INTERNANAL PROMOTION	357	87.39%	197	24.87%

Table 4: Determinants of Issuing Cash Signing Bonus

This table reports the marginal effects from likelihood regression against the probability of issuing cash signing bonus. Panel A and Panel B report probit and logistics estimations using broad-defined cash signing bonus as dependent variable. Panel C and Panel D reports the results using narrowed-defined cash signing bonus as dependent variable. Variables are defined at Appendix A. T-statistics are reported on the parentheses. All continuous variables are winsorized at 1% and 99% level. ***:10% significant level, ****:5% significant level, *****:1% significant level

Panel A Probit Regression for Prob(Issuing Broad Cash Signing Bonus)

	I	II	III	IV	V	VI	VII	VIII
JENSEN	-0.0007		-0.0007		-0.0236		-0.0236	
	(0.00)		(0.00)		(0.32)		(0.32)	
HiGrLoFCF	0.0192		0.0192		0.0027		0.0027	
	(0.54)		(0.55)		(0.01)		(0.01)	
FCF		-0.0992 **		-0.0992 ***		-0.0956 *		-0.0956 *
		(6.56)		(6.71)		(3.78)		(3.74)
Q		-0.009		-0.009		-0.0071		-0.0071
		(2.40)		(2.36)		(1.32)		(1.33)
INITITUTIONAL HOLDING	-0.0191	-0.006	-0.0191	-0.006	-0.0266	-0.0084	-0.0266	-0.0084
	(0.58)	(0.06)	(0.59)	(0.06)	(0.60)	(0.06)	(0.59)	(0.06)
IDIOSYNCRATIC RISK	-0.5652 **	-0.5442 **	-0.5652 **	-0.5442 **	-0.6471 *	-0.6158 *	-0.6471 *	-0.6158 *
	(4.49)	(4.65)	(4.15)	(4.32)	(3.55)	(3.51)	(3.39)	(3.42)
LOGAT	-0.0174 ***	-0.0164 ***	-0.0174 ***	-0.0164 ***	-0.0203 ***	-0.0179 ***	-0.0203 ***	-0.0179 ***
	(11.55)	(9.26)	(11.56)	(9.21)	(12.62)	(9.83)	(12.56)	(9.76)
LOGLEV	0.0081	0.0035	0.0081	0.0035	-0.004	-0.0098	-0.004	-0.0098
	(0.03)	(0.01)	(0.03)	(0.01)	(0.01)	(0.03)	(0.01)	(0.03)
HHI	0.2443 ***	0.2438 ***	0.2443 ***	0.2438 ***	0.2524 ***	0.2537 ***	0.2524 ***	0.2537 ***
	(111.98)	(109.24)	(110.90)	(108.06)	(47.60)	(47.43)	(47.48)	(47.87)
INTERNAL	-0.1354 ***	-0.1356 ***	-0.1354 ***	-0.1356 ***	-0.1369 ***	-0.1349 ***	-0.1369 ***	-0.1349 ***
	(34.75)	(36.24)	(35.81)	(37.36)	(30.63)	(29.34)	(32.10)	(30.50)
LOGBASE	0.0560 ***	0.0552 ***	0.0560 ***	0.0552 ***	0.0598 ***	0.0571 ***	0.0598 ***	0.0571 ***
	(12.21)	(10.37)	(12.01)	(10.13)	(9.56)	(8.41)	(9.49)	(8.25)
AGE	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003
	(0.09)	(0.10)	(0.09)	(0.10)	(0.09)	(0.10)	(0.09)	(0.10)
SEX	-0.0161	-0.0166	-0.0161	-0.0166	-0.0243	-0.0269	-0.0243	-0.0269
	(0.41)	(0.48)	(0.54)	(0.56)	(0.72)	(0.96)	(0.79)	(1.04)
MBA	0.0107	0.0126	0.0107	0.0126	0.0061	0.0068	0.0061	0.0068
	(0.47)	(0.66)	(0.48)	(0.67)	(0.12)	(0.15)	(0.12)	(0.15)
JD	-0.0768 ***	-0.0681 **	-0.0768 **	-0.0681 **	-0.1040 **	-0.0910 **	-0.1040 **	-0.0910 **
	(6.72)	(5.78)	(6.55)	(5.47)	(5.30)	(5.18)	(5.27)	(5.12)
PHD	-0.0351	-0.038	-0.0351	-0.038	-0.0182	-0.0198	-0.0182	-0.0198
	(0.72)	(0.65)	(0.74)	(0.67)	(0.14)	(0.14)	(0.14)	(0.15)
CEO	-0.0208	-0.0205	-0.0208	-0.0205	-0.0235	-0.0242	-0.0235	-0.0242
	(0.77)	(0.81)	(0.81)	(0.83)	(0.76)	(0.81)	(0.79)	(0.84)
EXP	-0.0022	-0.0014	-0.0022	-0.0014	-0.006	-0.0054	-0.006	-0.0054
	(0.01)	(0.01)	(0.01)	(0.01)	(0.09)	(0.08)	(0.09)	(0.08)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	551	551	551	551	551	551	551	551
Max-rescaled R-Square	0.7364	0.7423	0.7364	0.7423	0.7708	0.7747	0.7708	0.7747

Panel B Logistics Regression for Prob(Issuing Broad Cash Signing Bonus)

	I	II	III	IV	V	VI	VII	VIII
JENSEN	-0.0274		-0.0274		-0.047		-0.047	
	(0.09)		(0.09)		(0.44)		(0.43)	
HiGrLoFCF	0.0294		0.0294		0.0025		0.0025	
	(0.34)		(0.35)		(0.00)		(0.00)	
FCF		-0.1817 **		-0.1817 **		-0.1896 **		-0.1896 **
		(6.30)		(6.40)		(4.41)		(4.32)
Q		-0.0179 *		-0.0179 *		-0.0145		-0.0145
		(3.23)		(3.17)		(1.96)		(1.98)
INITITUTIONAL HOLDING	-0.033	-0.0078	-0.033	-0.0078	-0.0472	-0.0098	-0.0472	-0.0098
	(0.48)	(0.03)	(0.50)	(0.03)	(0.54)	(0.02)	(0.53)	(0.02)
IDIOSYNCRATIC RISK	-1.0641 **	-0.9863 **	-1.0641 **	-0.9863 **	-1.1977 *	-1.1144 *	-1.1977 *	-1.1144 *
	(4.38)	(4.20)	(4.00)	(3.92)	(3.54)	(3.35)	(3.35)	(3.29)
LOGAT	-0.0295 ***	-0.0275 ***	-0.0295 ***	-0.0275 ***	-0.0359 ***	-0.0314 ***	-0.0359 ***	-0.0314 ***
	(10.14)	(8.30)	(10.23)	(8.23)	(11.81)	(9.17)	(11.84)	(9.13)
LOGLEV	0.0152	0.0037	0.0152	0.0037	0.0055	-0.0038	0.0055	-0.0038
	(0.03)	(0.00)	(0.03)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
HHI	0.4343 ***	0.4330 ***	0.4343 ***	0.4330 ***	0.4559 ***	0.4569 ***	0.4559 ***	0.4569 ***
	(91.45)	(91.42)	(90.55)	(90.61)	(43.78)	(44.11)	(43.70)	(44.56)
INTERNAL	-0.2448 ***	-0.2447 ***	-0.2448 ***	-0.2447 ***	-0.2462 ***	-0.2424 ***	-0.2462 ***	-0.2424 ***
	(37.55)	(39.25)	(38.85)	(40.57)	(32.35)	(30.35)	(34.45)	(31.94)
LOGBASE	0.1022 ***	0.1007 ***	0.1022 ***	0.1007 ***	0.1120 ***	0.1076 ***	0.1120 ***	0.1076 ***
	(12.47)	(11.10)	(12.28)	(10.85)	(10.18)	(9.03)	(10.08)	(8.75)
AGE	-0.0007	-0.0008	-0.0007	-0.0008	-0.0007	-0.0007	-0.0007	-0.0007
	(0.15)	(0.21)	(0.15)	(0.21)	(0.11)	(0.12)	(0.12)	(0.12)
SEX	-0.0293	-0.0288	-0.0293	-0.0288	-0.046	-0.0493	-0.046	-0.0493
	(0.37)	(0.41)	(0.49)	(0.47)	(0.72)	(0.96)	(0.78)	(1.03)
MBA	0.0183	0.0211	0.0183	0.0211	0.0136	0.0147	0.0136	0.0147
	(0.41)	(0.55)	(0.42)	(0.56)	(0.18)	(0.23)	(0.18)	(0.23)
JD	-0.1434 **	-0.1234 **	-0.1434 **	-0.1234 **	-0.1983 **	-0.1739 **	-0.1983 **	-0.1739 **
	(6.14)	(4.89)	(5.97)	(4.65)	(6.25)	(5.88)	(6.19)	(5.78)
PHD	-0.0544	-0.0603	-0.0544	-0.0603	-0.0192	-0.0217	-0.0192	-0.0217
	(0.70)	(0.65)	(0.72)	(0.67)	(0.06)	(0.06)	(0.06)	(0.07)
CEO	-0.0299	-0.0306	-0.0299	-0.0306	-0.0353	-0.038	-0.0353	-0.038
	(0.58)	(0.66)	(0.62)	(0.68)	(0.62)	(0.72)	(0.64)	(0.74)
EXP	-0.0031	-0.0015	-0.0031	-0.0015	-0.0091	-0.0065	-0.0091	-0.0065
	(0.01)	(0.00)	(0.01)	(0.00)	(0.07)	(0.04)	(0.07)	(0.04)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	551	551	551	551	551	551	551	551
Max-rescaled R-Square	0.7345	0.7413	0.7345	0.7413	0.7703	0.7754	0.7703	0.7754

Panel C Probit Regression for Prob(Issuing Narrowed Cash Signing Bonus)

	I	II	III	IV	V	VI	VII	VIII
JENSEN	0.0052		0.0052		-0.0117		-0.0117	
	(0.01)		(0.01)		(0.06)		(0.06)	
HiGrLoFCF	0.0233		0.0233		0.013		0.013	
	(0.75)		(0.73)		(0.17)		(0.17)	
FCF		-0.1375 ***		-0.1375 ***		-0.1339 **		-0.1339 **
		(8.32)		(8.43)		(5.76)		(5.67)
Q		-0.0056		-0.0056		-0.0044		-0.0044
		(0.89)		(0.88)		(0.50)		(0.51)
INITITUTIONAL HOLDING	-0.0157	-0.0027	-0.0157	-0.0027	-0.033	-0.0125	-0.033	-0.0125
	(0.40)	(0.01)	(0.40)	(0.01)	(0.99)	(0.13)	(0.98)	(0.13)
IDIOSYNCRATIC RISK	-0.4001	-0.3554	-0.4001	-0.3554	-0.4237	-0.3675	-0.4237	-0.3675
	(2.18)	(1.93)	(2.05)	(1.84)	(1.72)	(1.30)	(1.69)	(1.30)
LOGAT	-0.0160 ***	-0.0139 **	-0.0160 ***	-0.0139 **	-0.0177 ***	-0.0146 **	-0.0177 ***	-0.0146 **
	(8.10)	(5.63)	(7.69)	(5.36)	(8.33)	(5.38)	(7.83)	(5.11)
LOGLEV	0.0325	0.0288	0.0325	0.0288	0.033	0.0289	0.033	0.0289
	(0.43)	(0.35)	(0.41)	(0.34)	(0.33)	(0.25)	(0.32)	(0.25)
HHI	0.2697 ***	0.2677 ***	0.2697 ***	0.2677 ***	0.2564 ***	0.2605 ***	0.2564 ***	0.2605 ***
	(110.57)	(108.36)	(108.95)	(106.41)	(50.95)	(47.72)	(51.00)	(48.09)
INTERNAL	-0.1132 ***	-0.1130 ***	-0.1132 ***	-0.1130 ***	-0.1136 ***	-0.1120 ***	-0.1136 ***	-0.1120 ***
	(23.56)	(23.87)	(23.91)	(24.30)	(21.17)	(20.01)	(21.55)	(20.35)
LOGBASE	0.0603 ***	0.0593 ***	0.0603 ***	0.0593 ***	0.0641 ***	0.0618 ***	0.0641 ***	0.0618 ***
	(11.76)	(10.31)	(11.55)	(10.05)	(8.77)	(7.49)	(8.72)	(7.38)
AGE	0	0.0001	0	0.0001	0	0	0	0
	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
SEX	-0.0028	-0.0064	-0.0028	-0.0064	-0.0016	-0.0066	-0.0016	-0.0066
	(0.01)	(0.07)	(0.01)	(0.07)	(0.00)	(0.05)	(0.00)	(0.05)
MBA	0.0145	0.0178	0.0145	0.0178	0.0055	0.0091	0.0055	0.0091
	(0.83)	(1.27)	(0.85)	(1.30)	(0.09)	(0.24)	(0.09)	(0.25)
JD	-0.5320 ***	-0.5121 ***	-0.5320 ***	-0.5121 ***	-0.4652 ***	-0.4532 ***	-0.4652 ***	-0.4532 ***
	(354.90)	(345.38)	(356.69)	(347.17)	(112.83)	(101.88)	(108.50)	(97.96)
PHD	-0.0508	-0.0562	-0.0508	-0.0562	-0.0515	-0.0565	-0.0515	-0.0565
	(1.45)	(1.54)	(1.49)	(1.59)	(1.01)	(1.05)	(1.06)	(1.11)
CEO	-0.0251	-0.0256	-0.0251	-0.0256	-0.0282	-0.03	-0.0282	-0.03
	(1.10)	(1.20)	(1.15)	(1.26)	(1.18)	(1.33)	(1.23)	(1.38)
EXP	0.0139	0.014	0.0139	0.014	0.0125	0.0132	0.0125	0.0132
	(0.44)	(0.50)	(0.44)	(0.49)	(0.37)	(0.44)	(0.37)	(0.43)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	551	551	551	551	551	551	551	551
Max-rescaled R-Square	0.6825	0.6906	0.6825	0.6906	0.7228	0.7294	0.7228	0.7294

Panel D Logistics Regression for Prob(Issuing Narrowed Cash Signing Bonus)								
	I	II	III	IV	V	VI	VII	VIII
JENSEN	-0.0082		-0.0082		-0.0199		-0.0199	
	(0.01)		(0.01)		(0.06)		(0.06)	
HiGrLoFCF	0.0422		0.0422		0.0248		0.0248	
	(0.73)		(0.71)		(0.18)		(0.18)	
FCF		-0.2608 ***		-0.2608 ***		-0.2573 **		-0.2573 **
		(9.08)		(9.14)		(6.37)		(6.18)
Q		-0.0117		-0.0117		-0.0091		-0.0091
		(1.22)		(1.21)		(0.69)		(0.69)
INITITUTIONAL HOLDING	-0.0253	0.0033	-0.0253	0.0033	-0.0561	-0.0126	-0.0561	-0.0126
	(0.30)	(0.01)	(0.30)	(0.01)	(0.87)	(0.04)	(0.86)	(0.04)
IDIOSYNCRATIC RISK	-0.6869	-0.5899	-0.6869	-0.5899	-0.6954	-0.6016	-0.6954	-0.6016
	(1.80)	(1.54)	(1.68)	(1.48)	(1.35)	(1.00)	(1.33)	(1.01)
LOGAT	-0.0273 ***	-0.0228 **	-0.0273 ***	-0.0228 **	-0.0313 ***	-0.0253 **	-0.0313 ***	-0.0253 **
	(7.27)	(4.75)	(6.86)	(4.48)	(7.64)	(4.73)	(7.19)	(4.51)
LOGLEV	0.0634	0.0568	0.0634	0.0568	0.0719	0.0674	0.0719	0.0674
	(0.48)	(0.41)	(0.46)	(0.39)	(0.47)	(0.44)	(0.46)	(0.43)
HHI	0.4761 ***	0.4706 ***	0.4761 ***	0.4706 ***	0.4570 ***	0.4654 ***	0.4570 ***	0.4654 ***
	(88.71)	(87.16)	(87.59)	(85.85)	(40.85)	(39.09)	(40.79)	(39.29)
INTERNAL	-0.2023 ***	-0.2024 ***	-0.2023 ***	-0.2024 ***	-0.2024 ***	-0.1984 ***	-0.2024 ***	-0.1984 ***
	(24.91)	(24.85)	(25.19)	(25.28)	(22.08)	(20.45)	(22.41)	(20.82)
LOGBASE	0.1099 ***	0.1083 ***	0.1099 ***	0.1083 ***	0.1175 ***	0.1152 ***	0.1175 ***	0.1152 ***
	(12.11)	(10.61)	(11.88)	(10.35)	(8.93)	(7.98)	(8.87)	(7.79)
AGE	-0.0003	-0.0003	-0.0003	-0.0003	-0.0001	0	-0.0001	0
	(0.02)	(0.03)	(0.02)	(0.03)	(0.00)	(0.00)	(0.00)	(0.00)
SEX	-0.004	-0.0108	-0.004	-0.0108	-0.0066	-0.0182	-0.0066	-0.0182
	(0.01)	(0.06)	(0.01)	(0.06)	(0.01)	(0.11)	(0.01)	(0.11)
MBA	0.0231	0.028	0.0231	0.028	0.0094	0.0164	0.0094	0.0164
	(0.63)	(0.96)	(0.65)	(0.98)	(0.07)	(0.24)	(0.08)	(0.25)
JD	-1.2779 ***	-1.2299 ***	-1.2779 ***	-1.2299 ***	-0.9518 ***	-0.9224 ***	-0.9518 ***	-0.9224 ***
	(225.80)	(227.61)	(225.51)	(226.94)	(110.35)	(94.96)	(108.37)	(92.99)
PHD	-0.0861	-0.0996	-0.0861	-0.0996	-0.0829	-0.0937	-0.0829	-0.0937
	(1.42)	(1.59)	(1.46)	(1.65)	(0.86)	(0.95)	(0.91)	(1.00)
CEO	-0.0414	-0.0438	-0.0414	-0.0438	-0.046	-0.0515	-0.046	-0.0515
	(1.06)	(1.24)	(1.11)	(1.30)	(1.06)	(1.31)	(1.10)	(1.35)
EXP	0.0249	0.0233	0.0249	0.0233	0.0241	0.0253	0.0241	0.0253
	(0.47)	(0.46)	(0.46)	(0.46)	(0.43)	(0.49)	(0.42)	(0.48)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	551	551	551	551	551	551	551	551
Max-rescaled R-Square	0.6789	0.6885	0.6789	0.6885	0.7206	0.7287	0.7206	0.7287

Table 5: Cash Signing bonus and CEO's Excessive Compensation

This table reports the regression estimations of CEO's excessive compensation. The excessive compensation are the residual term of $\sum_{t+1}^{t+3} C_{i,j,t} = \alpha + \beta_1 \sum_{t+1}^{t+3} R_{i,j,t} + \beta_2 \log AT_{i,j} + \varepsilon_{i,j}$. Variables are defined at Appendix A. T-statistics are reported on the parentheses. All continuous variables are winsorized at 1% and 99% level. *:10% significant level, **:5% significant level, ***:1% significant level

	I	II	III	IV	V	VI	VII	VIII
BROAD CASH SIGNING BONUS	-3830.5 *		-3830.5		-6134.0 **		-6134.0 *	
	(-1.74)		(-1.62)		(-2.18)		(-1.91)	
NARROWED CASH SIGNING BONUS		-5032.3 **		-5032.3 **		-7069.7 **		-7069.7 **
		(-2.21)		(-1.98)		(-2.38)		(-2.07)
BASE	10.565 *	10.981 *	10.565	10.981	12.507 **	12.852 **	12.507 **	12.852 **
	(1.91)	(1.95)	(1.51)	(1.54)	(2.30)	(2.36)	(2.01)	(2.07)
LOGAT	-832.76	-796.14	-832.76	-796.14	-1581.7	-1559.4	-1581.7	-1559.4
	(-1.13)	(-1.11)	(-1.01)	(-1.00)	(-1.49)	(-1.47)	(-1.36)	(-1.35)
LEV	4733.5	5161.8	4733.5	5161.8	12073	13143	12073	13143
	(0.79)	(0.85)	(0.74)	(0.79)	(1.31)	(1.39)	(1.17)	(1.24)
FCF	-10249	-9953.9	-10249	-9953.9	-5515.9	-4925.1	-5515.9	-4925.1
	(-1.58)	(-1.48)	(-1.57)	(-1.47)	(-0.57)	(-0.49)	(-0.53)	(-0.46)
CAPX	-31875. *	-29025. *	-31875. *	-29025. *	-28035	-25650	-28035	-25650
	(-1.93)	(-1.76)	(-1.78)	(-1.66)	(-0.98)	(-0.88)	(-0.93)	(-0.84)
IDIOSYNCRATIC RISK	-35870	-35348	-35870	-35348	-41134	-37588	-41134	-37588
	(-1.40)	(-1.39)	(-1.40)	(-1.40)	(-1.22)	(-1.12)	(-1.23)	(-1.12)
INTERNAL	586.33	339.37	586.33	339.37	-1178	-1170.1	-1178	-1170.1
	(0.22)	(0.13)	(0.22)	(0.13)	(-0.33)	(-0.34)	(-0.33)	(-0.34)
INSITITUTIONAL HOLDING	1354	1169.2	1354	1169.2	769.77	344.53	769.77	344.53
	(0.51)	(0.45)	(0.51)	(0.45)	(0.13)	(0.06)	(0.13)	(0.06)
AGE	-190.95 *	-194.09 *	-190.95 *	-194.09 *	-118.99	-95.366	-118.99	-95.366
	(-1.79)	(-1.84)	(-1.66)	(-1.70)	(-0.74)	(-0.59)	(-0.71)	(-0.58)
SEX	718.37	550.14	718.37	550.14	1041.4	1737.7	1041.4	1737.7
	(0.19)	(0.15)	(0.19)	(0.15)	(0.27)	(0.49)	(0.27)	(0.48)
MBA	-1344.3	-1424.9	-1344.3	-1424.9	-502.57	-1086.8	-502.57	-1086.8
	(-0.89)	(-0.94)	(-0.88)	(-0.94)	(-0.20)	(-0.43)	(-0.19)	(-0.42)
JD	3239.5	3587	3239.5	3587	3614.8	3592.8	3614.8	3592.8
	(1.30)	(1.48)	(1.38)	(1.56)	(0.93)	(0.95)	(0.96)	(0.98)
PHD	13077	12972	13077	12972	16739. *	16061. *	16739	16061
	(1.61)	(1.61)	(1.25)	(1.26)	(1.84)	(1.76)	(1.58)	(1.53)
CEO	899.39	1561.1	899.39	1561.1	1782.6	2734.7	1782.6	2734.7
	(0.37)	(0.66)	(0.37)	(0.65)	(0.44)	(0.69)	(0.43)	(0.69)
EXP	-112.66	437.59	-112.66	437.59	969.07	1756.6	969.07	1756.6
	(-0.03)	(0.14)	(-0.03)	(0.14)	(0.22)	(0.42)	(0.23)	(0.42)
PRIVATE	2050.3	958.86	2050.3	958.86	1687.5	-266.24	1687.5	-266.24
	(0.56)	(0.27)	(0.55)	(0.27)	(0.35)	(-0.06)	(0.35)	(-0.06)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	186	186	186	186	186	186	186	186
R-square	0.22	0.23	0.22	0.23	0.34	0.34	0.34	0.34

Table 6: Market Reaction Against the Disclosure of Issuing Signing Bonus

This table reports the estimation of the regression on 3-day and 5-day Cumulative Abnormal Returns (CARs) around the event date. The CARs are generated from Carhart four-factor model. Panel A and Panel B reports the estimation with treatment group classified by broad-defined cash signing bonus. Panel C and Panel D reports the robustness result with treatment group classified by narrow-defined cash signing bonus. Variables are defined at Appendix A. T-statistics are reported on the parentheses. All continuous variables are winsorized at 1% and 99% level. *:10% significant level, **:5% significant level, ***:1% significant level

Panel A Dependend Variable: CAR(-1,1)								
Model	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VII**
BROAD SIGNING BONUS	0.0126 *		0.0126 *		0.0171 *		0.0171 *	
	(1.76)		(1.79)		(1.94)		(1.90)	
LOGSIG		0.0052		0.0052		0.0063		0.0063
		0.01		(0.76)		(0.84)		(0.81)
LOGBASE		-0.0065		-0.0065		-0.0038		-0.0038
		(-0.47)		(-0.46)		(-0.26)		(-0.26)
LOGAT	0.0018	0.0001	0.0018	0.0001	0.0016	-0.0014	0.0016	-0.0014
	(0.98)	0.00	(0.99)	(0.04)	(0.78)	(-0.25)	(0.78)	(-0.25)
LOGLEV	-0.0012	0.0001	-0.0012	0.0001	-0.0013	-0.0012	-0.0013	-0.0012
	(-0.91)	0.00	(-0.87)	(0.04)	(-0.86)	(-0.35)	(-0.83)	(-0.34)
FCF	-0.0176	-0.0182	-0.0176	-0.0182	-0.0114	-0.0208	-0.0114	-0.0208
	(-0.77)	(0.02)	(-0.72)	(-0.59)	(-0.48)	(-0.55)	(-0.45)	(-0.52)
IDIOSYNCRATIC RISK	0.1873	0.1929	0.1873	0.1929	0.177	0.4977 **	0.177	0.4977 **
	(1.11)	0.19	(1.05)	(0.73)	(1.02)	(2.00)	(0.94)	(1.99)
INSITITUTIONAL HOLDING	-0.0107	-0.0015	-0.0107	-0.0015	-0.0195	-0.0464 *	-0.0195	-0.0464 *
	(-1.04)	(0.00)	(-1.02)	(-0.10)	(-1.27)	(-1.69)	(-1.27)	(-1.68)
AGE	0.0001	0	0.0001	0	0.0002	0.0013	0.0002	0.0013
	(0.25)	0.00	(0.26)	(-0.03)	(0.55)	(1.26)	(0.58)	(1.30)
SEX	-0.0236 **	-0.0493 **	-0.0236 **	-0.0493 **	-0.0311 ***	-0.0552 **	-0.0311 **	-0.0552 **
	(-2.01)	-0.0493 **	(-1.98)	(-2.40)	(-2.70)	(-2.07)	(-2.57)	(-2.06)
MBA	0.0014	-0.0053	0.0014	-0.0053	0.0045	-0.0127	0.0045	-0.0127
	(0.26)	(0.01)	(0.26)	(-0.56)	(0.77)	(-1.11)	(0.78)	(-1.12)
JD	-0.0035	0.0144	-0.0035	0.0144	0.0023	0.0387	0.0023	0.0387
	(-0.45)	0.01	(-0.43)	(0.62)	(0.25)	(0.86)	(0.24)	(0.84)
PHD	0.0022	-0.0297	0.0022	-0.0297	-0.0017	-0.024	-0.0017	-0.024
	(0.10)	(0.03)	(0.10)	(-1.32)	(-0.06)	(-0.93)	(-0.06)	(-0.93)
CEO	0.0099	0.0106	0.0099	0.0106	0.012	0.0132	0.012	0.0132
	(1.26)	0.01	(1.31)	(1.13)	(1.31)	(1.13)	(1.32)	(1.12)
EXP	-0.0033	-0.0142	-0.0033	-0.0142	-0.002	-0.0141	-0.002	-0.0141
	(-0.42)	(0.01)	(-0.42)	(-1.40)	(-0.23)	(-0.95)	(-0.23)	(-0.97)
PRIVATE	-0.0004	-0.0165	-0.0004	-0.0165	-0.0028	-0.0277	-0.0028	-0.0277 *
	(-0.03)	(0.02)	(-0.03)	(-1.32)	(-0.18	(-1.59)	(-0.18)	(-1.67)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	451	154	451	154	451	154	451	154
R-square	0.03	0.11	0.03	0.11	0.16	0.40	0.16	0.40

Panel B Dependend Variable CAR(-2,2)								
Model	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VII**
BROAD SIGNING BONUS	0.0141 *		0.0141 *		0.0181 *		0.0181 *	
	(1.75)		(1.74)		(1.86)		(1.83)	
LOGSIG		0.0102		0.0102		0.0138		0.0138
		(1.35)		(1.34)		(1.63)		(1.58)
LOGBASE		-0.0129		-0.0129		-0.0108		-0.0108
		(0.01)		(-0.82)		(-0.65)		(-0.65)
LOGAT	0.002	0.0001	0.002	0.0001	0.0023	-0.0017	0.0023	-0.0017
	(0.97)	0.00	(0.97)	(0.04)	(0.99)	(-0.27)	(0.98)	(-0.26)
LOGLEV	-0.0013	-0.0018	-0.0013	-0.0018	-0.0018	-0.0036	-0.0018	-0.0036
	(-0.90)	(0.00)	(-0.87)	(-0.58)	(-1.07)	(-0.91)	(-1.02)	(-0.88)
FCF	-0.0225	-0.0053	-0.0225	-0.0053	-0.0167	-0.0041	-0.0167	-0.0041
	(-0.78)	(0.01)	(-0.75)	(-0.15)	(-0.52)	(-0.10)	(-0.50)	(-0.10)
IDIOSYNCRATIC RISK	0.2198	0.0911	0.2198	0.0911	0.1287	0.3048	0.1287	0.3048
	(1.16)	0.09	(1.07)	(0.29)	(0.66)	(0.96)	(0.60)	(0.96)
INSITITUTIONAL HOLDING	0.0008	0.0074	0.0008	0.0074	-0.0124	-0.0271	-0.0124	-0.0271
	(0.08)	0.01	(0.07)	(0.47)	(-0.75)	(-0.90)	(-0.75)	(-0.90)
AGE	0.0001	-0.0002	0.0001	-0.0002	0.0003	0.0009	0.0003	0.0009
	(0.23)	(0.00)	(0.23)	(-0.37)	(0.68)	(0.88)	(0.69)	(0.89)
SEX	-0.0195	-0.0272	-0.0195	-0.0272	-0.0208	-0.0325	-0.0208	-0.0325
	(-1.30)	(0.03)	(-1.31)	(-0.93)	(-1.37)	(-0.95)	(-1.40)	(-0.95)
MBA	-0.002	-0.0197 *	-0.002	-0.0197 *	0	-0.0221 *	0	-0.0221 *
	(-0.32)	-0.0197 *	(-0.33)	(-1.77)	(0.01)	(-1.70)	(0.01)	(-1.68)
JD	-0.0129	-0.0137	-0.0129	-0.0137	-0.0065	0.0131	-0.0065	0.0131
	(-1.17)	(0.01)	(-1.09)	(-0.55)	(-0.52)	(0.28)	(-0.51)	(0.28)
PHD	0.0078	-0.0432 *	0.0078	-0.0432 *	0.0042	-0.0369	0.0042	-0.0369
	(0.31)	-0.0432 *	(0.31)	(-1.73)	(0.15)	(-1.26)	(0.15)	(-1.26)
CEO	0.0107	0.0098	0.0107	0.0098	0.0153	0.0136	0.0153	0.0136
	(1.17)	0.01	(1.21)	(0.90)	(1.49)	(1.15)	(1.50)	(1.14)
EXP	-0.0072	-0.0176	-0.0072	-0.0176	-0.0079	-0.0179	-0.0079	-0.0179
	(-0.79)	(0.02)	(-0.79)	(-1.48)	(-0.75)	(-1.10)	(-0.75)	(-1.11)
PRIVATE	0.0028	-0.0094	0.0028	-0.0094	-0.0013	-0.0194	-0.0013	-0.0194
	(0.22)	(0.01)	(0.22)	(-0.77)	(-0.09)	(-1.00)	(-0.09)	(-1.02)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	451	154	451	154	451	154	451	154
R-square	0.03	0.10	0.03	0.10	0.14	0.40	0.14	0.40

Panel C Dependend Variable CAR(-1,1)								
Model	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VII**
NARROWED SIGNING BONUS	0.0135 **		0.0135 **		0.0164 **		0.0164 **	
	(2.11)		(2.09)		(2.05)		(2.06)	
LOGSIG		0.0105 **		0.0105 **		0.0109 *		0.0109 *
		(2.12)		(2.01)		(1.72)		(1.70)
LOGBASE		-0.0127		-0.0127		-0.0079		-0.0079
		(0.01)		(-0.99)		(-0.50)		(-0.50)
LOGAT	0.0017	-0.0009	0.0017	-0.0009	0.0014	-0.0015	0.0014	-0.0015
	(0.91)	(0.00)	(0.91)	(-0.25)	(0.68)	(-0.30)	(0.68)	(-0.31)
LOGLEV	-0.0013	-0.0005	-0.0013	-0.0005	-0.0014	-0.0014	-0.0014	-0.0014
	(-0.93)	(0.00)	(-0.89)	(-0.22)	(-0.88)	(-0.47)	(-0.84)	(-0.48)
FCF	-0.0167	0	-0.0167	0	-0.0109	-0.0078	-0.0109	-0.0078
	(-0.72)	0.00	(-0.67)	0.00	(-0.46)	(-0.24)	(-0.43)	(-0.24)
IDIOSYNCRATIC RISK	0.1881	0.0222	0.1881	0.0222	0.1724	0.2842	0.1724	0.2842
	(1.14)	0.02	(1.06)	(0.09)	(0.99)	(1.22)	(0.92)	(1.21)
INSITITUTIONAL HOLDING	-0.0108	-0.0019	-0.0108	-0.0019	-0.0192	-0.0508	-0.0192	-0.0508
	(-1.04)	(0.00)	(-1.02)	(-0.12)	(-1.25)	(-1.62)	(-1.25)	(-1.62)
AGE	0.0001	0.0002	0.0001	0.0002	0.0002	0.0016	0.0002	0.0016
	(0.25)	0.00	(0.25)	(0.30)	(0.47)	(1.58)	(0.49)	(1.59)
SEX	-0.0230 **	-0.0454 **	-0.0230 *	-0.0454 **	-0.0304 ***	-0.0405	-0.0304 **	-0.0405
	(-1.98)	-0.0454 **	(-1.95)	(-2.40)	(-2.67)	(-1.59)	(-2.53)	(-1.59)
MBA	0.0015	-0.011	0.0015	-0.011	0.0049	-0.0175	0.0049	-0.0175
	(0.27)	(0.01)	(0.28)	(-1.21)	(0.82)	(-1.41)	(0.85)	(-1.45)
JD	-0.0028	0.00000 ***	-0.0028	0.00000 ***	0.0031	0.00000 ***	0.0031	0.00000 ***
	(-0.36)	0.00000 ***	(-0.34)	(.)	(0.33)	(.)	(0.32)	(.)
PHD	0.0018	-0.0306	0.0018	-0.0306	-0.0009	-0.0323	-0.0009	-0.0323
	(0.08)	(0.03)	(0.08)	(-1.39)	(-0.04)	(-1.13)	(-0.04)	(-1.14)
CEO	0.0096	0.0057	0.0096	0.0057	0.0111	0.0098	0.0111	0.0098
	(1.31)	0.01	(1.34)	(0.61)	(1.27)	(0.79)	(1.30)	(0.79)
EXP	-0.0039	-0.0171	-0.0039	-0.0171 *	-0.0028	-0.0142	-0.0028	-0.0142
	(-0.49)	(0.02)	(-0.49)	(-1.66)	(-0.32)	(-0.97)	(-0.33)	(-0.98)
PRIVATE	0.0005	-0.0164	0.0005	-0.0164	-0.0011	-0.0277	-0.0011	-0.0277
	(0.04)	(0.02)	(0.04)	(-1.23)	(-0.08)	(-1.61)	(-0.08)	(-1.63)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	451.00	137	451	137	451	137	451	137
R-square	0.03	0.15	0.03	0.15	0.16	0.45	0.16	0.45

Panel D Dependend Variable CAR(-2,2)								
Model	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VII**
NARROWED SIGNING BONUS	0.0148 **		0.0148 **		0.0176 *		0.0176 *	
	(1.97)		(1.97)		(1.92)		(1.93)	
LOGSIG		0.0149 **		0.0149 **		0.0160 *		0.0160 *
		(2.23)		(2.20)		(1.92)		(1.92)
LOGBASE		-0.0218		-0.0218		-0.0162		-0.0162
		(0.02)		(-1.47)		(-0.92)		(-0.92)
LOGAT	0.0018	0	0.0018	0	0.0021	-0.0002	0.0021	-0.0002
	(0.90)	0.00	(0.90)	(-0.02)	(0.90)	(-0.03)	(0.89)	(-0.03)
LOGLEV	-0.0014	-0.0023	-0.0014	-0.0023	-0.0018	-0.0039	-0.0018	-0.0039
	(-0.92)	(0.00)	(-0.92)	(-0.74)	(-1.09)	(-1.08)	(-1.04)	(-1.07)
FCF	-0.0216	0.0122	-0.0216	0.0122	-0.016	0.0063	-0.0160	0.0063
	(-0.74)	0.01	(-0.74)	(0.40)	(-0.50)	(0.17)	(-0.48)	(0.17)
IDIOSYNCRATIC RISK	0.2198	-0.0637	0.2198	-0.0637	0.1242	0.1238	0.1242	0.1238
	(1.18)	(0.06)	(1.18)	(-0.21)	(0.64)	(0.37)	(0.59)	(0.37)
INSITITUTIONAL HOLDING	0.0008	0.0061	0.0008	0.0061	-0.0121	-0.0377	-0.0121	-0.0377
	(0.07)	0.01	(0.07)	(0.37)	(-0.73)	(-1.06)	(-0.73)	(-1.06)
AGE	0	0	0	0	0.0002	0.0014	0.0002	0.0014
	(0.22)	0.00	(0.22)	(0.06)	(0.59)	(1.26)	(0.61)	(1.26)
SEX	-0.0189	-0.0241	-0.0189	-0.0241	-0.02	-0.0185	-0.02	-0.0185
	(-1.26)	(0.02)	(-1.26)	(-0.85)	(-1.33)	(-0.57)	(-1.36)	(-0.57)
MBA	-0.0019	-0.0277 **	-0.0019	-0.0277 **	0.0004	-0.0326 **	0.0004	-0.0326 **
	(-0.31)	-0.0277 **	(-0.31)	(-2.38)	(0.06)	(-2.15)	(0.07)	(-2.12)
JD	-0.0121	0.00000 ***	-0.0121	0.00000 ***	-0.0057	0.00000 ***	-0.0057	0.00000 ***
	(-1.11)	0.00000 ***	(-1.11)	(.)	(-0.46)	(.)	(-0.44)	(.)
PHD	0.0074	-0.0454 *	0.0074	-0.0454 *	0.005	-0.0482	0.005	-0.0482
	(0.30)	-0.0454 *	(0.30)	(-1.84)	(0.18)	(-1.51)	(0.18)	(-1.52)
CEO	0.0103	0.0045	0.0103	0.0045	0.0145	0.0104	0.0145	0.0104
	(1.18)	0.00	(1.18)	(0.39)	(1.45)	(0.77)	(1.48)	(0.77)
EXP	-0.0078	-0.0214 *	-0.0078	-0.0214 *	-0.0088	-0.0172	-0.0088	-0.0172
	(-0.86)	-0.0214 *	(-0.86)	(-1.73)	(-0.84)	(-0.98)	(-0.84)	(-0.97)
PRIVATE	0.0039	-0.0087	0.0039	-0.0087	0.0003	-0.0171	0.0003	-0.0171
	(0.31)	(0.01)	(0.31)	(-0.65)	(0.03)	(-0.81)	(0.03)	(-0.80)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	451	137	451	137	451	137	451	137
R-square	0.03	0.14	0.03	0.14	0.14	0.44	0.14	0.44

Table 7: Dif-in-Dif Analysis on Long Term BHAR

This table reports the estimation of *Dif-in-Dif* analysis on firm's long term buy and hold abnormal return (B-HAR). Treatment group is one-to-one matched sales of pre-event fiscal year. Variables are defined at Appendix A. T-statistics are reported on the parentheses. All continuous variables are winsorized at 1% and 99% level. *****:10% significant level, ******:5% significant level, *******:1% significant level

	Panel A Depended Variable: 12-Month BHAR							
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
SIGNING	-0.1001 *		-0.1001 *		-0.1064		-0.1064	
	(-1.73)		(-1.75)		(-1.56)		(-1.60)	
T		0.0689		0.0689		0.0689		0.0689
		(1.07)		(0.99)		(1.08)		(0.93)
BROAD SIGNING*T	0.2471 ***		0.2471 ***		0.2471 ***		0.2471 **	
	(2.87)		(2.72)		(2.93)		(2.56)	
NARROWED SIGNING*T		0.1927 *		0.1927 *		0.1927 *		0.1927*
		(1.91)		(1.75)		(1.93)		(1.65)
LOGBASE	0.0362 ***	0.0352 **	0.0362 ***	0.0352 ***	0.0303 *	0.0408 **	0.0303 **	0.0408 **
	(2.69)	(2.47)	(3.03)	(2.62)	(1.93)	(2.27)	(2.28)	(2.55)
LOGAT	-0.0102	-0.0213	-0.0102	-0.0213	-0.0079	-0.0205	-0.0079	-0.0205
	(-0.69)	(-1.21)	(-0.71)	(-1.27)	(-0.48)	(-1.05)	(-0.55)	(-1.25)
LOGLEV	0.0102	0.0079	0.0102	0.0079	0.0106	0.0173	0.0106	0.0173
	(0.77)	(0.54)	(0.90)	(0.61)	(0.70)	(1.06)	(0.93)	(1.34)
FCF	-0.2206	-0.1064	-0.2206	-0.1064	-0.3233	-0.2067	-0.3233	-0.2067
	(-0.79)	(-0.34)	(-0.88)	(-0.38)	(-1.05)	(-0.59)	(-1.47)	(-0.77)
IDIOSYNCRATIC RISK	5.9514 ***	5.7884 ***	5.9514 ***	5.7884 ***	6.1473 ***	5.9664 ***	6.1473 ***	5.9664 ***
	(4.21)	(3.57)	(3.98)	(4.49)	(4.48)	(3.68)	(4.68)	(5.36)
INSITITUTIONAL HOLDING	-0.1137	-0.1513	-0.1137	-0.1513	-0.1493	-0.2774 *	-0.1493	-0.2774 **
	(-1.18)	(-1.31)	(-1.25)	(-1.44)	(-1.07)	(-1.69)	(-1.40)	(-2.04)
AGE	-0.0005	0.0018	-0.0005	0.0018	0.0028	0.0038	0.0028	0.0038
	(-0.15)	(0.53)	(-0.15)	(0.56)	(0.79)	(1.04)	(0.89)	(1.16)
SEX	-0.107	-0.0927	-0.107	-0.0927	-0.0693	-0.1079	-0.0693	-0.1079
	(-1.04)	(-0.88)	(-1.49)	(-1.29)	(-0.56)	(-0.86)	(-0.87)	(-1.16)
MBA	0.0426	0.0151	0.0426	0.0151	0.0499	0.0575	0.0499	0.0575
	(0.92)	(0.27)	(0.93)	(0.28)	(1.09)	(0.96)	(1.14)	(1.07)
JD	0.0109	0.2299	0.0109	0.2299	0.0696	0.315	0.0696	0.315
	(0.09)	(0.70)	(0.11)	(0.77)	(0.37)	(0.82)	(0.42)	(0.97)
PHD	-0.0251	-0.0882	-0.0251	-0.0882	-0.0276	-0.0618	-0.0276	-0.0618
	(-0.30)	(-1.06)	(-0.32)	(-1.12)	(-0.29)	(-0.54)	(-0.31)	(-0.57)
EXP	0.0318	0.0549	0.0318	0.0549	-0.0433	0.0245	-0.0433	0.0245
	(0.39)	(0.68)	(0.41)	(0.72)	(-0.56)	(0.31)	(-0.67)	(0.36)
PRIVATE	0.0454	0.0351	0.0454	0.0351	0.0349	0.0203	0.0349	0.0203
	(0.75)	(0.48)	(0.75)	(0.48)	(0.55)	(0.25)	(0.57)	(0.26)
CEO	-0.0256	-0.0692	-0.0256	-0.0692	-0.0179	-0.0798	-0.0179	-0.0798
	(-0.30)	(-0.83)	(-0.34)	(-0.96)	(-0.20)	(-0.82)	(-0.24)	(-1.01)
INTERNAL	0.026	0.0624	0.026	0.0624	0.0688	0.0702	0.0688	0.0702
	(0.33)	(0.80)	(0.35)	(0.87)	(0.85)	(0.76)	(1.01)	(0.92)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	516	486	516	486	516	486	516	486
R-square	0.11	0.10	0.11	0.10	0.25	0.22	0.25	0.22

Panel B Depended Variable: 24-Month BHAR								
	I	II	III	IV	V	VI	VII	VIII
	I	II	III	IV	V	VI	VII	VIII
SIGNING	-0.2351 **		-0.2351 *		-0.1373		-0.1373	
	(-2.12)		(-1.90)		(-0.98)		(-0.97)	
T		0.0975		0.0975		0.0975		0.0975
		(0.90)		(0.92)		(0.93)		(0.85)
BROAD SIGNING*T	0.4620 ***		0.4620 ***		0.4620 ***		0.4620 ***	
	(3.10)		(3.21)		(3.24)		(2.98)	
NARROW SIGNING*T		0.3646 **		0.3646 **		0.3646 **		0.3646 **
		(2.21)		(2.24)		(2.29)		(2.07)
LOGBASE	0.0211	0.0024	0.0211	0.0024	0.0145	-0.0144	0.0145	-0.0144
	(1.00)	(0.12)	(0.91)	(0.11)	(0.55)	(-0.54)	(0.55)	(-0.50)
LOGAT	-0.0586 **	-0.0795 **	-0.0586 *	-0.0795 **	-0.0537 *	-0.0787 **	-0.0537 *	-0.0787 **
	(-2.06)	(-2.47)	(-1.87)	(-2.33)	(-1.78)	(-2.20)	(-1.73)	(-2.31)
LOGLEV	0.0289	0.0391 *	0.0289	0.0391	0.0271	0.0478 *	0.0271	0.0478 *
	(1.40)	(1.66)	(1.26)	(1.57)	(1.23)	(1.71)	(1.31)	(1.85)
FCF	-0.0924	-0.2087	-0.0924	-0.2087	-0.25	-0.2265	-0.25	-0.2265
	(-0.18)	(-0.37)	(-0.18)	(-0.37)	(-0.42)	(-0.36)	(-0.54)	(-0.46)
IDIOSYNCRATIC RISK	5.2464 **	5.9978 **	5.2464 **	5.9978 ***	4.8015 **	5.7001 **	4.8015 **	5.7001 ***
	(2.35)	(2.45)	(2.19)	(2.78)	(1.99)	(2.05)	(2.24)	(2.73)
INSITITUTIONAL HOLDING	-0.3024 *	-0.3905 **	-0.3024 *	-0.3905 **	-0.2574	-0.6006 **	-0.2574	-0.6006 **
	(-1.81)	(-2.16)	(-1.79)	(-2.33)	(-1.01)	(-2.03)	(-1.20)	(-2.42)
AGE	0.0035	0.0065	0.0035	0.0065	0.0114	0.0148 **	0.0114 *	0.0148 **
	(0.56)	(1.04)	(0.53)	(0.95)	(1.52)	(2.01)	(1.71)	(2.08)
SEX	0.0908	0.0729	0.0908	0.0729	0.2354	0.249	0.2354	0.249
	(0.63)	(0.50)	(0.68)	(0.53)	(1.36)	(1.37)	(1.36)	(1.36)
MBA	0.1134	0.0327	0.1134	0.0327	0.0931	0.0896	0.0931	0.0896
	(1.37)	(0.35)	(1.30)	(0.32)	(1.06)	(0.78)	(0.99)	(0.72)
JD	0.095	0.2208	0.095	0.2208	0.049	0.287	0.049	0.287
	(0.55)	(0.51)	(0.59)	(0.56)	(0.19)	(0.55)	(0.20)	(0.71)
PHD	0.0419	-0.1441	0.0419	-0.1441	0.0971	-0.0608	0.0971	-0.0608
	(0.27)	(-1.24)	(0.29)	(-1.14)	(0.53)	(-0.35)	(0.66)	(-0.35)
EXP	0.0147	0.0754	0.0147	0.0754	-0.0764	0.0233	-0.0764	0.0233
	(0.10)	(0.53)	(0.09)	(0.51)	(-0.56)	(0.17)	(-0.59)	(0.19)
PRIVATE	0.0325	-0.0412	0.0325	-0.0412	0.0379	0.0073	0.0379	0.0073
	(0.28)	(-0.29)	(0.26)	(-0.27)	(0.28)	(0.05)	(0.29)	(0.05)
CEO	0.037	-0.0319	0.037	-0.0319	0.1551	0.0481	0.1551	0.0481
	(0.25)	(-0.21)	(0.22)	(-0.18)	(0.86)	(0.24)	(0.84)	(0.22)
INTERNAL	0.0488	0.1499	0.0488	0.1499	0.168	0.1937	0.168	0.1937
	(0.30)	(0.98)	(0.28)	(0.92)	(0.91)	(1.12)	(0.98)	(1.25)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	396	366	396	366	396	366	396	366
R-square	0.10	0.11	0.10	0.11	0.28	0.29	0.28	0.29

Panel C Depended Variable: 36-Month BHAR								
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
SIGNING	-0.1666		-0.1666		-0.1378		-0.1378	
	(-1.00)		(-1.01)		(-0.51)		(-0.65)	
T		0.0398		0.0398		0.0398		0.0398
		(0.25)		(0.24)		(0.26)		(0.21)
BROAD SIGNING*T	0.2851		0.2851		0.2851		0.2851	
	(1.26)		(1.18)		(1.29)		(1.06)	
NARROW SIGNING*T		0.4744 *		0.4744 *		0.4744 **		0.4744*
		(1.97)		(1.83)		(2.00)		(1.64)
LOGBASE	0.0202	-0.0068	0.0202	-0.0068	0.0404	0.0374	0.0404	0.0374
	(0.85)	(-0.27)	(0.91)	(-0.25)	(0.93)	(0.91)	(1.63)	(1.35)
LOGAT	-0.1145 ***	-0.1169 **	-0.1145 ***	-0.1169 ***	-0.1011 *	-0.1193 **	-0.1011 ***	-0.1193 ***
	(-2.61)	(-2.37)	(-2.86)	(-2.76)	(-1.88)	(-2.14)	(-2.66)	(-3.20)
LOGLEV	0.0145	0.0122	0.0145	0.0122	0.0102	0.0471	0.0102	0.0471
	(0.41)	(0.27)	(0.39)	(0.30)	(0.17)	(0.70)	(0.23)	(0.99)
FCF	0.5343	0.7156	0.5343	0.7156	0.6697	1.3355	0.6697	1.3355 *
	(0.67)	(0.81)	(0.73)	(0.89)	(0.61)	(1.24)	(0.86)	(1.83)
IDIOSYNCRATIC RISK	-0.3344	2.2104	-0.3344	2.2104	3.6419	3.6913	3.6419	3.6913
	(-0.10)	(0.63)	(-0.11)	(0.79)	(0.72)	(0.84)	(1.10)	(1.43)
INSITITUTIONAL HOLDING	-0.1862	-0.4633 *	-0.1862	-0.4633 *	-0.0683	-0.7904 *	-0.0683	-0.7904 **
	(-0.76)	(-1.73)	(-0.76)	(-1.80)	(-0.16)	(-1.78)	(-0.19)	(-2.24)
AGE	0.0076	0.0176 *	0.0076	0.0176 *	0.0196	0.0101	0.0196 *	0.0101
	(0.73)	(1.80)	(0.83)	(1.85)	(1.25)	(0.69)	(1.94)	(0.98)
SEX	-0.3607 *	-0.3203	-0.3607 ***	-0.3203 **	-0.1181	-0.1921	-0.1181	-0.1921
	(-1.68)	(-1.53)	(-2.76)	(-2.25)	(-0.36)	(-0.74)	(-0.58)	(-1.13)
MBA	0.1383	0.125	0.1383	0.125	0.1474	0.1136	0.1474	0.1136
	(1.07)	(0.82)	(1.17)	(0.90)	(0.94)	(0.52)	(1.25)	(0.67)
JD	0.5125 ***	0.1144	0.5125 ***	0.1144	0.0906	0.1113	0.0906	0.1113
	(3.06)	(0.62)	(3.42)	(0.81)	(0.19)	(0.38)	(0.25)	(0.44)
PHD	0.2084	-0.1556	0.2084	-0.1556	0.4441	-0.0985	0.4441	-0.0985
	(0.60)	(-0.71)	(0.62)	(-0.72)	(1.09)	(-0.26)	(1.65)	(-0.37)
EXP	0.0686	0.0131	0.0686	0.0131	0.1838	0.0867	0.1838	0.0867
	(0.29)	(0.06)	(0.30)	(0.06)	(0.87)	(0.35)	(1.07)	(0.52)
PRIVATE	0.1433	0.0606	0.1433	0.0606	0.2605	0.222	0.2605	0.222
	(0.82)	(0.30)	(0.88)	(0.34)	(0.97)	(0.80)	(1.13)	(1.01)
CEO	-0.2499	0.0577	-0.2499	0.0577	-0.2807	0.253	-0.2807	0.253
	(-1.35)	(0.31)	(-1.10)	(0.42)	(-0.68)	(0.40)	(-0.63)	(0.78)
INTERNAL	-0.049	0.1934	-0.049	0.1934	-0.0215	0.3124	-0.0215	0.3124 *
	(-0.21)	(0.95)	(-0.22)	(0.99)	(-0.07)	(1.27)	(-0.10)	(1.81)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	254	234	254	234	254	234	254	234
R-square	0.10	0.12	0.10	0.12	0.30	0.33	0.30	0.33

Table 8: Dif-in-Dif Analysis on Long Term CAR

This table reports the estimation of *Dif-in-Dif* analysis on firm's cumulative abnormal return (CAR). Treatment group is one-to-one matched by sales of pre-event fiscal year. Variables are defined at Appendix A. T-statistics are reported on the parentheses. All continuous variables are winsorized at 1% and 99% level. *****:10% significant level, ******:5% significant level, *******:1% significant level

	Panel A Depended Variable: 12-Month CAR							
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
SIGNING	-0.1082 **		-0.1082 **		-0.1040 *		-0.1040 *	
	(-2.26)		(-2.37)		(-1.75)		(-1.91)	
T		0.0788		0.0788		0.0788		0.0788
		(1.62)		(1.51)		(1.64)		(1.42)
BROAD SIGNING*T	0.2361 ***		0.2361 ***		0.2361 ***		0.2361 ***	
	(3.43)		(3.16)		(3.42)		(2.97)	
NARROWED SIGNING*T		0.2249 ***		0.2249 **		0.2249 ***		0.2249 **
		(2.84)		(2.56)		(2.82)		(2.40)
LOGBASE	0.0287 ***	0.0308 ***	0.0287 ***	0.0308 ***	0.0327 **	0.0401 ***	0.0327 ***	0.0401 ***
	(2.66)	(2.64)	(3.23)	(2.76)	(2.50)	(2.71)	(3.24)	(3.20)
LOGAT	-0.018	-0.0245 *	-0.0180 *	-0.0245 *	-0.0159	-0.0251	-0.0159	-0.0251 *
	(-1.56)	(-1.81)	(-1.65)	(-1.92)	(-1.15)	(-1.56)	(-1.37)	(-1.86)
LOGLEV	0.0106	0.0051	0.0106	0.0051	0.016	0.013	0.016	0.013
	(0.88)	(0.39)	(1.02)	(0.46)	(1.16)	(0.92)	(1.40)	(1.17)
FCF	-0.3806	-0.317	-0.3806 **	-0.317	-0.5002	-0.41	-0.5002 ***	-0.4100 *
	(-1.39)	(-1.02)	(-1.99)	(-1.35)	(-1.46)	(-1.07)	(-2.93)	(-1.78)
IDIOSYNCRATIC RISK	5.4408 ***	5.4297 ***	5.4408 ***	5.4297 ***	5.3168 ***	5.3622 ***	5.3168 ***	5.3622 ***
	(5.15)	(4.66)	(5.45)	(5.89)	(4.76)	(4.36)	(5.38)	(6.21)
INSITITUTIONAL HOLDING	-0.0755	-0.111	-0.0755	-0.111	-0.0933	-0.1621	-0.0933	-0.1621
	(-0.91)	(-1.16)	(-0.92)	(-1.25)	(-0.81)	(-1.23)	(-0.95)	(-1.38)
AGE	0.0012	0.0024	0.0012	0.0024	0.0025	0.0032	0.0025	0.0032
	(0.46)	(0.92)	(0.49)	(1.00)	(0.82)	(0.99)	(0.90)	(1.10)
SEX	-0.0477	-0.034	-0.0477	-0.034	-0.0449	-0.076	-0.0449	-0.076
	(-0.59)	(-0.42)	(-0.88)	(-0.62)	(-0.46)	(-0.77)	(-0.68)	(-1.02)
MBA	0.0327	0.0031	0.0327	0.0031	0.0253	0.0212	0.0253	0.0212
	(0.92)	(0.07)	(0.98)	(0.08)	(0.66)	(0.42)	(0.71)	(0.50)
JD	0.0601	0.0869	0.0601	0.0869	0.0955	0.1228	0.0955	0.1228
	(0.73)	(0.43)	(0.96)	(0.75)	(0.73)	(0.51)	(0.81)	(0.90)
PHD	-0.0032	-0.074	-0.0032	-0.074	-0.0319	-0.0629	-0.0319	-0.0629
	(-0.03)	(-0.73)	(-0.04)	(-0.99)	(-0.29)	(-0.48)	(-0.38)	(-0.64)
EXP	0.0007	0.0146	0.0007	0.0146	-0.062	-0.0127	-0.062	-0.0127
	(0.01)	(0.20)	(0.01)	(0.24)	(-0.86)	(-0.17)	(-1.15)	(-0.22)
PRIVATE	0.0269	0.0137	0.0269	0.0137	0.0338	0.0098	0.0338	0.0098
	(0.54)	(0.23)	(0.59)	(0.25)	(0.62)	(0.15)	(0.65)	(0.16)
CEO	-0.0493	-0.0606	-0.0493	-0.0606	-0.0511	-0.0687	-0.0511	-0.0687
	(-0.57)	(-0.67)	(-0.75)	(-0.88)	(-0.58)	(-0.74)	(-0.80)	(-1.03)
INTERNAL	0.0109	0.0495	0.0109	0.0495	0.0667	0.088	0.0667	0.088
	(0.16)	(0.67)	(0.19)	(0.80)	(0.83)	(1.00)	(1.12)	(1.27)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	516	486	516	486	516	486	516	486
R-square	0.16	0.14	0.16	0.14	0.25	0.24	0.25	0.24

	Panel B Depended Variable: 24-Month CAR							
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
SIGNING	-0.1918 **		-0.1918 **		-0.1047		-0.1047	
	(-2.56)		(-2.44)		(-1.14)		(-1.21)	
T		0.1352 *		0.1352 *		0.1352 *		0.1352
		(1.79)		(1.76)		(1.82)		(1.62)
BROAD SIGNING*T	0.3573 ***		0.3573 ***		0.3573 ***		0.3573 ***	
	(3.34)		(3.50)		(3.52)		(3.25)	
NARROW SIGNING*T		0.2571 **		0.2571 **		0.2571 **		0.2571 *
		(2.18)		(2.13)		(2.23)		(1.97)
LOGBASE	0.0255	0.0014	0.0255	0.0014	0.0212	0.0025	0.0212	0.0025
	(1.50)	(0.10)	(1.35)	(0.09)	(1.04)	(0.13)	(1.08)	(0.12)
LOGAT	-0.0532 ***	-0.0786 ***	-0.0532 **	-0.0786 ***	-0.0535 ***	-0.0749 ***	-0.0535 ***	-0.0749 ***
	(-2.76)	(-3.66)	(-2.44)	(-3.41)	(-2.68)	(-3.05)	(-2.67)	(-3.07)
LOGLEV	0.0058	0.0203	0.0058	0.0203	0.0084	0.0273	0.0084	0.0273
	(0.36)	(1.09)	(0.34)	(1.09)	(0.47)	(1.20)	(0.55)	(1.38)
FCF	-0.3935	-0.4637	-0.3935	-0.4637	-0.4881	-0.6383	-0.4881	-0.6383
	(-0.95)	(-1.00)	(-0.83)	(-0.89)	(-1.01)	(-1.21)	(-1.06)	(-1.29)
IDIOSYNCRATIC RISK	3.5176 **	4.8661 ***	3.5176 *	4.8661 ***	2.6483	4.8523 **	2.6483 *	4.8523 ***
	(2.20)	(2.83)	(1.97)	(2.83)	(1.57)	(2.41)	(1.68)	(2.78)
INSITITUTIONAL HOLDING	-0.2197 *	-0.3056 **	-0.2197 *	-0.3056 **	-0.0639	-0.3684 *	-0.0639	-0.3684 **
	(-1.75)	(-2.23)	(-1.66)	(-2.30)	(-0.37)	(-1.78)	(-0.38)	(-2.03)
AGE	0.0007	0.0029	0.0007	0.0029	0.0038	0.0083	0.0038	0.0083
	(0.14)	(0.59)	(0.12)	(0.49)	(0.69)	(1.43)	(0.65)	(1.36)
SEX	0.0351	0.0459	0.0351	0.0459	0.19	0.1483	0.19	0.1483
	(0.36)	(0.46)	(0.38)	(0.50)	(1.43)	(1.08)	(1.38)	(1.06)
MBA	0.0375	-0.0348	0.0375	-0.0348	0.0061	-0.0249	0.0061	-0.0249
	(0.66)	(-0.54)	(0.62)	(-0.51)	(0.10)	(-0.31)	(0.10)	(-0.30)
JD	0.0992	0.03	0.0992	0.03	0.041	0.0942	0.041	0.0942
	(0.99)	(0.12)	(1.00)	(0.18)	(0.29)	(0.28)	(0.33)	(0.47)
PHD	0.0024	-0.1524	0.0024	-0.1524	0.0174	-0.0967	0.0174	-0.0967
	(0.02)	(-1.42)	(0.02)	(-1.24)	(0.11)	(-0.59)	(0.12)	(-0.55)
EXP	0.0387	0.0574	0.0387	0.0574	-0.0202	0.0423	-0.0202	0.0423
	(0.36)	(0.52)	(0.33)	(0.51)	(-0.19)	(0.38)	(-0.20)	(0.43)
PRIVATE	-0.009	-0.068	-0.009	-0.068	-0.0033	-0.0426	-0.0033	-0.0426
	(-0.11)	(-0.66)	(-0.10)	(-0.62)	(-0.04)	(-0.37)	(-0.04)	(-0.37)
CEO	0.0587	0.045	0.0587	0.045	0.0763	0.0975	0.0763	0.0975
	(0.46)	(0.33)	(0.46)	(0.33)	(0.51)	(0.57)	(0.50)	(0.59)
INTERNAL	-0.0234	0.0519	-0.0234	0.0519	0.0682	0.0713	0.0682	0.0713
	(-0.22)	(0.48)	(-0.21)	(0.49)	(0.54)	(0.55)	(0.62)	(0.66)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	396	366	396	366	396	366	396	366
R-square	0.12	0.16	0.12	0.16	0.25	0.31	0.25	0.31

	Panel C Depended Variable: 36-Month CAR							
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
SIGNING	-0.1344		-0.1344		-0.0757		-0.0757	
	(-1.31)		(-1.23)		(-0.49)		(-0.54)	
T		0.1567		0.1567		0.1567		0.1567
		(1.41)		(1.41)		(1.47)		(1.26)
BROAD SIGNING*T	0.2689 *		0.2689 *		0.2689 *		0.2689	
	(1.83)		(1.82)		(1.91)		(1.64)	
NARROW SIGNING*T		0.2221		0.2221		0.2221		0.2221
		(1.36)		(1.33)		(1.41)		(1.19)
LOGBASE	0.0112	-0.0128	0.0112	-0.0128	0.0103	0.0287	0.0103	0.0287
	(0.62)	(-0.68)	(0.74)	(-0.64)	(0.40)	(1.02)	(0.51)	(1.23)
LOGAT	-0.0868 ***	-0.1046 ***	-0.0868 ***	-0.1046 ***	-0.0668 **	-0.0939 ***	-0.0668 ***	-0.0939 ***
	(-3.34)	(-3.56)	(-3.15)	(-3.73)	(-2.21)	(-2.99)	(-2.68)	(-3.71)
LOGLEV	0.0068	0.0173	0.0068	0.0173	0.0126	0.0672	0.0126	0.0672 **
	(0.29)	(0.56)	(0.27)	(0.68)	(0.34)	(1.31)	(0.41)	(2.07)
FCF	-0.1472	-0.0306	-0.1472	-0.0306	-0.439	-0.0102	-0.439	-0.0102
	(-0.30)	(-0.05)	(-0.28)	(-0.05)	(-0.70)	(-0.02)	(-0.73)	(-0.02)
IDIOSYNCRATIC RISK	-0.2791	1.1226	-0.2791	1.1226	0.6072	1.8077	0.6072	1.8077
	(-0.12)	(0.48)	(-0.13)	(0.55)	(0.22)	(0.64)	(0.28)	(0.95)
INSITITUTIONAL HOLDING	-0.2797	-0.3808 *	-0.2797	-0.3808 *	0.0173	-0.5045	0.0173	-0.5045 *
	(-1.63)	(-1.91)	(-1.57)	(-1.94)	(0.06)	(-1.51)	(0.07)	(-1.72)
AGE	0.0019	0.0088	0.0019	0.0088	0.0065	-0.0047	0.0065	-0.0047
	(0.33)	(1.54)	(0.32)	(1.41)	(0.81)	(-0.52)	(0.96)	(-0.72)
SEX	-0.2585 *	-0.1989	-0.2585 ***	-0.1989 **	-0.0988	-0.204	-0.0988	-0.204
	(-1.94)	(-1.60)	(-2.85)	(-2.19)	(-0.56)	(-1.18)	(-0.74)	(-1.62)
MBA	0.0522	0.0304	0.0522	0.0304	0.0434	0.0279	0.0434	0.0279
	(0.64)	(0.33)	(0.65)	(0.34)	(0.44)	(0.20)	(0.47)	(0.22)
JD	0.4524 ***	-0.0229	0.4524 ***	-0.0229	-0.0557	0.1039	-0.0557	0.1039
	(3.97)	(-0.15)	(4.33)	(-0.21)	(-0.18)	(0.43)	(-0.23)	(0.51)
PHD	0.198	-0.1271	0.198	-0.1271	0.3214	0.0552	0.3214 *	0.0552
	(0.95)	(-0.67)	(0.92)	(-0.67)	(1.31)	(0.22)	(1.80)	(0.28)
EXP	0.1467	0.094	0.1467	0.094	0.2313	0.2168	0.2313 *	0.2168 *
	(0.97)	(0.62)	(0.96)	(0.64)	(1.54)	(1.22)	(1.89)	(1.68)
PRIVATE	0.0327	0.0302	0.0327	0.0302	0.192	0.1828	0.192	0.1828
	(0.25)	(0.20)	(0.27)	(0.23)	(1.10)	(0.98)	(1.36)	(1.30)
CEO	-0.1295	0.071	-0.1295	0.071	-0.2343	0.1751	-0.2343	0.1751
	(-1.06)	(0.29)	(-1.09)	(0.39)	(-0.83)	(0.33)	(-0.76)	(0.68)
INTERNAL	-0.1213	-0.0306	-0.1213	-0.0306	-0.1207	0.1016	-0.1207	0.1016
	(-0.83)	(-0.21)	(-0.85)	(-0.22)	(-0.61)	(0.55)	(-0.78)	(0.65)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	254	234	254	234	254	234	254	234
R-square	0.15	0.16	0.15	0.16	0.37	0.37	0.37	0.37

Table 9: Dif-in-Dif Analysis on Average Growth Rate of Tobin's Q

This table reports the estimation of *Dif-in-Dif* analysis on three-fiscal-year industrial-adjusted average Growth Rate of firm's Tobin's Q. Treatment group is one-to-one matched by sales of pre-event fiscal year. Variables are defined at Appendix A. T-statistics are reported on the parentheses. All continuous variables are winsorized at 1% and 99% level. *****:10% significant level, ******:5% significant level, *******:1% significant level

	I	II	III	IV	V	VI	VII	VIII
SIGNING	-0.9718 *	-0.8039	-0.9718	-0.8039	-1.2706	-1.1601	-1.2706	-1.1601 *
	(-1.68)	(-1.29)	(-1.63)	(-1.28)	(-1.53)	(-1.56)	(-1.54)	(-1.73)
T	-0.4311	0.1064	-0.4311	0.1064	-0.4311	0.1065	-0.4311	0.1065
	(-0.77)	(0.18)	(-0.82)	(0.17)	(-0.80)	(0.19)	(-0.76)	(0.16)
BROAD SIGNING*T	2.2506 **		2.2506 **		2.2562 **		2.2562 **	
	(2.52)		(2.54)		(2.53)		(2.36)	
NARROW SIGNING*T		1.1022		1.1022		1.0906		1.0906
		(1.44)		(1.41)		(1.45)		(1.30)
LOGBASE	-0.1488	-0.2438	-0.1488	-0.2438	0.1127	-0.3748	0.1127	-0.3748
	(-0.37)	(-0.60)	(-0.32)	(-0.65)	(0.22)	(-0.75)	(0.21)	(-0.82)
LOGAT	0.0204	0.1937	0.0204	0.1937	-0.021	0.1045	-0.021	0.1045
	(0.15)	(1.62)	(0.14)	(1.53)	(-0.17)	(0.74)	(-0.17)	(0.76)
LOGLEV	-0.0813	-0.0328	-0.0813	-0.0328	-0.1143	-0.0578	-0.1143	-0.0578
	(-0.44)	(-0.35)	(-0.43)	(-0.33)	(-0.66)	(-0.65)	(-0.69)	(-0.71)
FCF	2.6941	2.0026	2.6941	2.0026	4.8246 *	2.2738	4.8246 *	2.2738
	(1.42)	(1.45)	(1.41)	(1.63)	(1.75)	(0.98)	(1.85)	(1.24)
IDIOSYNCRATIC RISK	8.7045	4.5082	8.7045	4.5082	9.356	6.9712	9.356	6.9712
	(1.02)	(0.62)	(1.02)	(0.67)	(0.86)	(0.78)	(0.95)	(0.87)
INSITITUTIONAL HOLDING	0.0536	0.0451	0.0536	0.0451	-1.2607	-0.371	-1.2607	-0.371
	(0.06)	(0.05)	(0.06)	(0.06)	(-0.84)	(-0.23)	(-0.86)	(-0.37)
AGE	0.0163	0.019	0.0163	0.019	-0.0322	0.0048	-0.0322	0.0048
	(0.46)	(0.57)	(0.44)	(0.55)	(-0.67)	(0.12)	(-0.68)	(0.13)
SEX	0.6468	0.0351	0.6468	0.0351	0.5201	-0.1368	0.5201	-0.1368
	(1.22)	(0.09)	(1.20)	(0.08)	(0.75)	(-0.22)	(0.76)	(-0.21)
MBA	0.1852	0.2459	0.1852	0.2459	0.5573	0.5851	0.5573	0.5851
	(0.38)	(0.53)	(0.38)	(0.54)	(0.89)	(1.08)	(0.99)	(1.12)
JD	-0.2504	0.8241	-0.2504	0.8241	-1.2761	1.9357 *	-1.2761	1.9357 **
	(-0.61)	(0.92)	(-0.57)	(0.97)	(-1.13)	(1.95)	(-0.99)	(2.17)
PHD	-0.399	-0.388	-0.399	-0.388	-0.186	0.5184	-0.186	0.5184
	(-0.55)	(-0.65)	(-0.60)	(-0.64)	(-0.21)	(0.66)	(-0.23)	(0.68)
EXP	-0.4222	-0.0607	-0.4222	-0.0607	-0.4252	-0.0308	-0.4252	-0.0308
	(-0.67)	(-0.11)	(-0.70)	(-0.11)	(-0.51)	(-0.04)	(-0.53)	(-0.05)
CEO	-0.4893	-0.6584	-0.4893	-0.6584	-0.2371	-1.0816	-0.2371	-1.0816 *
	(-0.89)	(-1.43)	(-0.91)	(-1.45)	(-0.37)	(-1.55)	(-0.39)	(-1.87)
INTERNAL	0.0423	-0.0738	0.0423	-0.0738	-0.13	-0.2387	-0.13	-0.2387
	(0.08)	(-0.13)	(0.08)	(-0.13)	(-0.12)	(-0.28)	(-0.13)	(-0.35)
YEAR Fixed Effect	N	N	N	N	Y	Y	Y	Y
INDUSTRY Fixed Effect	N	N	N	N	Y	Y	Y	Y
Cluster S.E.	N	N	Y	Y	N	N	Y	Y
Number of Observations	436	416	436	416	436	416	436	416
R-square	0.03	0.03	0.03	0.03	0.17	0.20	0.17	0.20