Does Corporate Governance Influence the Utilization of Proceeds from External Financing? Evidence from Equity and Debt Issuance Activities.

Shumi Akhtar [*], Farida Akhtar [†], Kose John [‡], and Ye Ye [§]

This draft: December 5, 2017

Abstract

This paper investigates the effect of corporate governance quality on firms' security issuance decisions between equity and debt and the subsequent use of proceeds from the issuance. We use a new governance proxy from *Datastream ESG - Asset 4* to directly measure firms' corporate governance quality. We find that good governance firms are more likely to issue debt rather than equity. In addition, weakly-governed firms tend to engage in acquisitions after the new issuance. Furthermore, corporate governance does not influence dividend payouts after seasoned equity issuance. Strong governance, however, has a positive effect on dividend payouts after debt issuance, indicating good interest alignment between managers and shareholders. Finally, cash holdings for discretionary motives are not affected by the joint effect of security issuance and corporate governance.

Keywords: Corporate governance, Equity issuance, Debt issuance, Finance decisions.
JEL Classification: G30, G34, G35

[*]Corresponding author: Associate Professor, University of Sydney, Finance Discipline, Business School, Building H69, Sydney, NSW, 2006, Australia, phone: +61-2-90369309, fax: +61-2-93516461, email: shumi.akhtar@sydney.edu.au

[†]Senior Lecturer, Macquarie University, Department of Applied Finance and Actuarial Studies, Faculty of Business and Economics, Balaclava Road, North Ryde NSW, 2109, Australia.

[‡]Charles William Gerstenberg Professor of Banking and Finance, New York University, Suite 9-190, 44 West Fourth Street, New York, NY 10012-1126, phone: (212) 998-0337, fax: (212) 995-4233 , email: kjohn@stern.nyu.edu

[§]University of Sydney, Finance Discipline, Business School, Building H69, Sydney, NSW, 2006, Australia, phone: +61-2-90365379, fax: +61-2-93516461, email: yeye3702@uni.sydney.edu.au

1 Introduction

The decision to issue equity or debt affects corporate capital structure. Previous studies on capital structure suggest that due to agency conflicts, entrenched managers pursue low debt levels (Berger et al. (1997), Morellec (2004) and Wen et al. (2002)). Debt, therefore, is regarded as an external governance mechanism to restrict managerial entrenchment. Consequently, the decision to raise external capital via either equity or debt can be attributed to the strength of corporate governance. No study to date on the security issuance decision has been done in relation to corporate governance. It is important to study how corporate governance is related to firm security issuance decisions since issuance decisions address agency conflicts between managers and shareholders and between shareholders and debtholders. As a result, the focus of this paper is the examination of security issuance including equity and debt as one of the fund sources[1] in relation to corporate governance.

Corporate governance as a disciplinary mechanism towards managers has drawn increasing attention from both the public and scholarly studies. Strong governance therefore mitigates the conflict of interest between managers and shareholders. For example, well-governed companies tend to make more value-added investments and more appropriate corporate finance decisions such as payout policy and capital structure choices (Crutchley and Hansen (1989), Gompers et al. (2003), Cremers and Nair (2005), among others). On the other hand, the value-reducing decisions made by poorly-governed managers impair shareholders' wealth. As a result, whether corporate decisions are value-enhancing/-reducing can be inferred from how entrenched managers utilize the proceeds from fund sources. With the available funds on hand, managers are able to make value-enhancing or

[1]This paper refers to "security issuance" particularly as new seasoned equity and debt offerings since the sample consists of U.S. public companies that have already gone through initial public offerings (IPOs).

value-destroying decisions. Internally generated cash, direct borrowings from banks, and externally raised capital from equity and debt issues are the three main sources of funds. This paper focuses on external capital raised from equity and debt issues and therefore fills the gap in the previous literature by relating types of issues (either equity or debt) to corporate governance. In addition, it addresses how corporate governance influences the use of issuance proceeds (e.g. investments, paying dividends, or holding as cash reserves), in terms of whether or not it is beneficial to shareholders.

We first hypothesize that corporate governance influences financing decisions, i.e. whether to issue equity or debt. Two reasonings are embedded within this hypothesis. First, strong governance may force managers to increase the debt level and therefore alleviate agency conflicts between managers and shareholders. For example, a low debt level is typically chosen by entrenched managers reluctant to be disciplined by external creditors. Since a high debt level increases the firm's financial distress risk, managers' risk of job loss is amplified (Berger et al. (1997), Morellec (2004) and Wen et al. (2002)). Second, the cost of debt is much lower in firms with good governance (Anderson et al. (2004))[2]. In other words, weakly-governed firms face a higher cost of debt. The presence of high cost of debt may also reduce entrenched managers' willingness to use debt as a way of financing investment projects, which reduces the frequency of debt issues. Therefore, the decision for a firm to issue debt can depend on its governance strength. In addition, corporate governance determines how managers plan to use the proceeds from either equity or debt issues, which has an effect on shareholders' wealth. As a result, good corporate governance also restricts managers' ability to appropriate shareholders' wealth. In other words, weak governance enables managers to take advantage of shareholders. For example, if the issuing firm makes value-destroying acquisitions, its market value declines dramatically (Masulis et al. (2007)), suggesting that weak corporate governance impairs shareholder

[2]Anderson et al. (2004) document a negative relationship between board size/board independence and cost of debt. Large board size and high board independence, as governance measures, lead to effective monitoring of managers.

value (Bhagat and Bolton (2013)).

We then investigate how corporate governance impacts the use of proceeds from security issuance, which affects shareholders' wealth. The motivations for external capital raising via equity and debt issues can be summarized as: precautionary cash savings, investment purposes, maintaining target debt ratios, refinancing existing debt, and timing security overvaluation by the market[3]. These motivations are closely related to corporate finance decisions, such as the capital structure decision, investment decision, and dividend payout decision. For example, with respect to investment decisions, firms with a strong governance mechanism may use the proceeds to engage in more positive-NPV investment projects, which increases firm value. When considering dividend payout decisions, high dividend payouts reduce the agency problem between managers and shareholders (Gugler (2003)). Poorly-governed companies tend to have entrenched managers and thus distribute cash through dividends to shareholders in order to alleviate the agency conflict. Due to the influence of corporate governance on corporate finance decisions, how companies use the proceeds from security issuance should therefore also depend on the strength of corporate governance. This study shows how corporations utilize the proceeds of external capital in relation to corporate governance. Consequently, it is particularly important to shareholders as investment and dividend payout decisions, for example, directly affect shareholders' wealth. Although the influences of corporate governance on corporate finance decisions have been somewhat documented, whether motivations for external capital raising are related to corporate governance has not been explored in the literature. Therefore, our research complements the existing literature on corporate governance, focusing on firm issuance activities and the corresponding use of issuance proceeds. In addition, our paper is also complementary to the recent study of Harris and Raviv (2017) on cash holdings.

[3]See, for example, the studies of Akhigbe et al. (1997), Kim and Weisbach (2008), and Chay et al. (2015) on the motivation for corporate security issuance.

We use a sample of U.S. public companies from 2002 to 2015[4]. Our final sample consists of 6,153 firm-year observations for 733 firms after merging across *COMPUSTAT*, *Datastream ESG - Asset 4*, *Thomson One*, and *Thomson Reuters 13F*. The results suggest that firms under good governance are more likely to issue debt and less likely to issue equity, consistent with studies on the relation between static firm debt ratio and corporate governance (Berger et al. (1997), Morellec (2004), Liao et al. (2015), among others). This study further investigates to what extent corporate governance influences the utilization of proceeds from new issuance in the primary market. We find that weakly-governed firms have more M&A transactions after issuance, in line with the argument that entrenched managers seek personal benefit from acquisitions that are at the expense of shareholders (Denis and McConnell (2003), Masulis et al. (2007), Bhagat and Bolton (2013), among others). In addition, we complement previous studies on firm dividend payouts associated with corporate governance by considering conflict of interest between shareholders and debtholders in the presence of debt issuance. Our findings show that corporate governance has no effect on dividend payouts after seasoned equity issuance but displays a significant positive relation with dividend payouts after debt issuance. The results imply that when managers' and shareholders' interests are highly aligned, i.e. good corporate governance, firms tend to transfer debtholders' wealth to shareholders via dividend payouts, consistent with Kalay (1982). Finally, our findings on corporate cash positions suggest that although excess cash holdings imply managerial discretionary motives, corporate governance does not affect excess cash positions after new security issuance. This is consistent with the security issuance motivation for precautionary cash savings (McLean (2011) and Huang and Ritter (2015)). Our results are robust even after taking into account endogeneity[5].

[4]We focus on U.S. companies since U.S. companies are the active issuers throughout the world. Appendix A provides a summary of equity and debt issuance activities for the global top ten countries world from 2002 to 2015.

[5]Section 5 provides robustness tests on endogeneity issue

2 Literature and Hypothesis Development

Agency problem between managers and shareholders has a great impact on the capital structure decisions within the existing theories of capital structure (Jensen and Meckling (1976))[6]. On the other hand, good corporate governance can mitigate the agency problem[7]. Therefore, how well a company is governed can determine whether the company issues equity or debt when it needs external capital.

2.1 Corporate Governance and Corporate Finance Decisions

2.1.1 Corporate Governance and Capital Structure

The agency theory suggests that debt reduces managerial entrenchment (Jensen and Meckling (1976). According to Jensen (1986)'s free cash flow hypothesis, debt forces managers to distribute free cash flows to outside investors and reduces managers' incentives for personal benefit. Managers are more entrenched in firms with high agency conflicts. For example, managers may invest too much under managerial discretion, implying an overinvestment problem. The presence of debt mitigates the overinvestment cost (Stulz (1990)). The inverse relation between agency conflict and debt level suggests that firms use debt as an external governance mechanism to alleviate agency problems when internal governance is weak (Wen et al. (2002), Harvey et al. (2004), Cremers and Nair (2005), and Jiraporn and Gleason (2007), Fulghieri and Suominen (2012)). In this sense, debt is regarded as a substitute for strong governance. However, debt can be an indication

[6]The main prevalent capital structure theories are: 1. The trade-off theory suggests that firms set their optimal debt ratios, at which firm value is maximized to balance the costs and benefits of debt; 2. The pecking order theory (Myers and Majluf (1984)) posits a financing hierarchy due to information asymmetry between corporate insiders and outside investors; 3. The market timing theory (Baker and Wurgler (2002)) suggests that firms are more likely to issue equity when the market values are high and repurchase equity when the market values are low.

[7]See, for example, Jiraporn and Gleason (2007), Harford et al. (2008), and Dutordoir et al. (2014).

of good internal governance, i.e. a complement of strong governance (Liao et al. (2015)). Well-governed companies keep their debt ratios closely at the shareholders' desired debt level (Liao et al. (2015)), which is usually higher than managers' preferred levels (Berger et al. (1997) and Morellec (2004)). In other words, managers in firms with poor governance are reluctant to use debt that places constraint on managerial discretion. Therefore, a low debt ratio is found in weakly-governed firms (Datta et al. (2005)). In addition, debt not only constrains self-interested managers but also creates underinvestment problems when high managerial discretion exists in firms (Stulz (1990)). When there are not sufficient internal funds, managers are more likely to pass over positive-NPV investment opportunities. The risk of having high debt ratios is particularly aggravated in the case that sudden liquidity shock renders firms financially distressed. Since companies are unable to fulfil debt obligations to creditors and go bankrupt, managers are at risk of losing their jobs. For the sake of job security, in weakly-governed firms, self-interested managers are more likely to use less debt.

Our first hypothesis on the relation between corporate governance and issuance decisions is based on the following two explanations. The first explanation is termed the "substitute governance explanation", suggesting that debt is a substitute for strong governance, i.e. a negative relation is expected between governance and debt issuance. Leary and Roberts (2010) find that firms experiencing high agency costs use debt issues more frequently than equity issues as the main source of financing[8], supporting this explanation. The second explanation, termed the "complement governance explanation" posits that debt is an accessory to strong governance. In other words, firms with poor governance tend to issue less debt in accordance with managers' discretionary motives (Berger et al. (1997), Morellec (2004), Datta et al. (2005), and Liao et al. (2015)).

[8]Leary and Roberts (2010) use the market-to-book ratio, cash flow-to-growth ratio, and Gompers et al. (2003) G-index as the proxies for agency costs. This paper employs a novel corporate governance score as a direct measure of corporate governance, obtained from *Datastream ESG - Asset4*.

Hypothesis 1a: Substitute governance explanation. *Firms with weak governance are more likely to issue debt rather than equity.*

Hypothesis 1b: Complement governance explanation. *Firms with strong governance are more likely to issue debt rather than equity.*

2.1.2 Corporate Governance and Investment

A firm's decision to raise external capital, through either equity or debt, is closely related to how the firm intends to allocate the issues proceeds. Companies can use the proceeds from issues for precautionary cash savings, investment purposes, maintaining the target debt level, and refinancing existing debt, or for purely timing the security overvaluation by the market (Akhigbe et al. (1997), Kim and Weisbach (2008), and Chay et al. (2015)). Therefore, a firm's motivation to issue either equity or debt depends on its investment policy, capital structure decision, and dividend payout policy. Each corporate finance decision is also influenced by agency conflict between managers and shareholders.

Good governance leads corporations to undertake value-enhancing investments (Albuquerue and Wang (2008) and John et al. (2008)). In other words, managers in poor governance companies are more likely to engage in investments that impair firm value. Risky financial assets, for example, are volatile in the market and the actual rates of returns are highly unpredictable. A large proportion of investments in risky financial assets may not be a value-creating investment decision. Duchin et al. (2016) find that weak governance results in more risky financial assets investments, implying that discretionary executives have risk-taking incentives to undertake excessive investment risk at the expense of shareholders. Similarly, empire-building acquisitions are found to reduce shareholders' wealth (Masulis et al. (2007)). In addition, Denis and McConnell (2003) argue that empire-building takeovers are undertaken by entrenched managers to maximize their own benefits rather than shareholder value. This is consistent with the view of Bhagat and Bolton (2013) that good governance leads to fewer acquisitions. Overall,

shareholders do not benefit from firm acquisition investments (Harford (1999) and Masulis et al. (2007), and Harford et al. (2008)). As a result, acquisitions in most cases are not value-enhancing and are more likely to occur in weakly-governed firms, in line with Dittmar and Mahrt-Smith (2007)'s findings that acquisitions negatively impact firm value in poorly-governed firms. Acquisitions as one type of corporate investment, therefore, directly reveal the extent of managerial entrenchment.

Our second hypothesis examines whether firms dispose the proceeds from equity and debt issues in investments in a beneficial way to grow the business. Poor governance leads to inefficient utilization of the proceeds. We propose that firms with poor governance are more likely to be involved in inefficient investments such as acquisitions.

Hypothesis 2: Acquisitions. *Firms with weak governance have more acquisition activities from issuance proceeds.*

2.1.3 Corporate Governance and Dividend

Dividend payout decisions are regarded as shareholders' wealth reallocation. In a frictionless capital market, dividend payout decisions do not alter shareholders' returns according to Miller and Modigliani (1961). However, in the real world, frictions such as taxes, transaction costs, and agency conflicts play roles in dividend payout policies. Jensen (1986) proposes the free cash flow hypothesis such that large free cash flows indicate great managerial entrenchment and high agency costs. Paying out cash dividends reduces a company's cash position and therefore mitigates agency conflicts between managers and shareholders (Easterbrook (1984), La Porta et al. (2000), and DeAngelo et al. (2004)). Previous studies on the relation between corporate governance and dividend policies focus on the level of dividend and the strength of corporate governance but have not investigated the impact of equity and debt issues on dividend payouts in relation to corporate governance. This paper contributes the issuance effect on dividend policies associated with agency theory to the literature.

There are two competing arguments on the relationship between corporate governance and dividend payouts. The first argument suggests a positive relation between corporate governance and dividend payouts. La Porta et al. (2000) find that strong shareholder rights give rise to pressure on inside executives to disgorge cash to outside shareholders, resulting in high dividend payouts. Acharya et al. (2011) show that strong governance prevent CEOs from excessive investments and results in eventual payment of cash dividends to shareholders. The other argument, which is more common, indicates that high dividend payouts are associated with weak governance (Hu and Kumar (2004), Kalcheva and Lins (2007), Jo and Pan (2009), among others). Paying out dividends is regarded as a disciplinary mechanism to monitor insiders, implying that dividends alleviate manager-shareholder agency conflicts aggravated by weak corporate governance (Crutchley and Hansen (1989), Gugler (2003), and John et al. (2015)). In addition, entrenched managers in weakly-governed firms adopt high-dividend payout policies to establish a good reputation with outside investors. Therefore, high dividends imply a strong discipline of managers (Dewenter and Warther (1998), Hu and Kumar (2004) and Jo and Pan (2009)). Consequently, it is much easier to raise external capital in the future and lower financing costs (Easterbrook (1984) and Jo and Pan (2009)).

To complement the existing literature, we investigate how dividends vary with corporate governance in response to the equity and debt issuance. Since dividends are wealth redistributions to shareholders, it is unlikely for firms to use the proceeds from equity issuance for dividend payouts as the net cash flows from shareholders are zero. Debt issuance, on the other hand, induces the conflict of interest between shareholders and debtholders. If managers are the best agent of shareholders, they will act in the best interest of shareholders to maximize shareholder wealth at the expense of debtholders (Mello and Parsons (1992)). Klock et al. (2005) show that anti-takeover provisions, despite weakening shareholder rights, are preferred to the debt market. In other words, debtholders' wealth is appropriated to favor shareholders by managers under strong corporate governance. Kalay (1982) reports that debtholders' wealth is transferred to shareholders through dividend payments which are financed by issuing new debt or reducing value-creating investments.

The primary focus in his study is conflict of interest between shareholders and debtholders. Kalay (1982) does not consider the role of corporate governance regarding managers in the use of proceeds from debt issues. His results may imply that the interests of managers and shareholders are highly aligned, suggesting a strong internal governance with shareholders and managers, but not with debtholders. For example, Harford et al. (2008) show that firms with stronger governance have more dividends as a long-term commitment of high payouts. Moreover, Denis and McKeon (2012) find that given the chance, firms use the proceeds from debt issues for equity payouts in the forms of share repurchases and dividends rather than retiring the existing debt. However, the role of corporate governance is overlooked in their study. Prior studies on dividend payout focus either on its relation with corporate governance or in relation with security issuance. The possible effect of corporate governance on dividend payouts after security issuance has not been investigated in the literature. Therefore, our third hypothesis fills this gap by linking corporate governance in response to a new security issue to dividend payouts.

Hypothesis 3a: Equity issuance effect on dividends. *Firms do not use the proceeds from equity issues as a channel to pay dividends no matter how strong the corporate governance is.*

Hypothesis 3b: Debt issuance effect on dividends. *Firms do use the proceeds from debt issues as a channel to pay dividends if they have strong corporate governance.*

2.2 Other Motivations for Security Issuance

Besides investment purposes and the dividend payout decision, precautionary cash savings are the most common incentive for firms to launch new offerings (McLean (2011), Huang and Ritter (2015), Pinkowitz et al. (2016), among others). Furthermore, corporate cash position occupies the closest relation to the agency problem (Chen et al. (2012)) since the over-investment problem is much more severe in cash-rich firms (Jensen (1986), Harford (1999), and Nikolov and Whited (2014)). Jensen (1986)'s free cash flow hypothesis argues

that entrenched managers in poorly-governed firms dissipate free cash flow in an inefficient way. Following Jensen (1986)'s argument, Dittmar and Mahrt-Smith (2007) extend free cash flow to excess cash, defined as the amount of cash holdings exceeding the necessary threshold of cash. They find that excess cash worsens operating performance only if a firm is under poor governance. Opler et al. (1999) suggest that holding excess cash enables entrenched managers to make investments that external investors are reluctant to finance such as acquisitions or value-destroying investments. Excess cash implies the existence of discretionary purposes that benefit managers' own interests at the expense of shareholders. As a result, corporate cash holdings are regarded as the sum of excess components, revealing agency problems and a non-excess component. The motivation for non-excess cash holdings can be referred to as precautionary savings (or operational needs) (Bates et al. (2009), Chen et al. (2012), Graham and Leary (2016), Pinkowitz et al. (2016), among others).

However, no study has clearly identified the effect of corporate governance on each component of cash holding, jointly with the security issuance effect in particular. For example, McLean (2011) shows that companies use the proceeds from equity issues for precautionary cash savings but fails to make justifications on the possible impact of agency conflicts on the precautionary cash position.

On the other hand, Chen et al. (2012) document the interaction between precautionary motives and agency motives of holding cash. They show that firms with excess cash reduce cash holdings greatly after an improvement in governance levels. This implies an intention to reduce discretionary cash in response to an enhancement of corporate governance. In other words, managers in weakly governed companies may cut excess cash holdings when their governance level improve. However, Chen et al. (2012) do not classify whether the reduction in cash holdings results from a decrease in operational cash needs for precautionary motives or a decrease in excess cash for discretionary motives. In addition, weakly-governed managers may either use retained earnings or raise capital via security issuance to stockpile excess cash holdings. If managers issue security for more

excess cash holdings, it can be costly to outside investors. As a result, high issuance costs put pressure on entrenched managers to reduce the motivation of security issuance for hoarding discretionary cash, consistent with the findings that operational cash needs are the motive for issuing new offerings (McLean (2011), Huang and Ritter (2015) and Pinkowitz et al. (2016)). Therefore, corporate governance is not related to security issuance for precautionary motives. For example, Dittmar and Mahrt-Smith (2007) find that corporate governance has little impact on stockpiling cash holdings. Bates et al. (2009) particularly document that hoarding more cash for precautionary motives does not imply agency conflicts between managers and shareholders.

Existing studies either examine precautionary motives by ignoring the agency impact on cash holdings or regard excess cash as the leading component of corporate cash holdings. Our fourth hypothesis fills the gap in the literature by considering the composition of cash position, i.e. precautionary cash savings and managerial discretionary cash position, especially after new security issues. We follow Opler et al. (1999) by estimating "optimal cash holdings" as the non-excess component for precautionary motives and the difference between actual and "optimal" cash levels as excess cash for discretionary motives[9].

Hypothesis 4a: Precautionary motive for cash savings. *Security issuance has* no *influence on cash holdings for precautionary motives regardless of the strength of corporate governance.*

Hypothesis 4b: Discretionary motive for cash savings. *Security issuance has* no *influence on cash holdings for managerial discretionary motives regardless of the strength of corporate governance.*

The key differentiation factor in our development of the null hypothesis from the existing

[9] "Optimal cash holdings", measured as the necessary amount for operational and investment purposes, was first estimated by Opler et al. (1999) and has been widely adopted by recent studies, for example, Dittmar and Mahrt-Smith (2007), Harford et al. (2008), Bates et al. (2009), Fresard and Salva (2010), etc.

literature is that we classify cash holdings into precautionary and discretionary components. Most existing literature relating to Hypotheses 4a and 4b focuses either on the relationship between the issuance decision and cash holdings on an aggregate level (McLean (2011), Huang and Ritter (2015), Pinkowitz et al. (2016), among others) or on the relationship between corporate governance and cash holdings (or excess cash) (Jensen (1986), Opler et al. (1999), Chen et al. (2012), among others). On the other hand, our study (through Hypotheses 4a and 4b) investigates the possibility that in the presence of a security issuance, corporate governance does not have an influence on either precautionary cash savings or discretionary cash holdings (rather than on an aggregate level). Therefore, we argue that there are no possibilities of an alternative hypothesis within our study.

Furthermore, this chapter is the first study in corporate governance that takes issuance decisions into account while classifying cash holdings into two components (excess and non-excess holdings). No study has clearly identified the effect of corporate governance on each component of cash holding jointly with the security issuance effect. For example, McLean (2011) does not distinguish between excess and non-excess cash, and therefore his findings on precautionary cash savings from issuance proceeds do not take agency conflict into account. The contribution of this chapter is that issuance decisions in relation to corporate governance are considered to be associated with different types of cash holdings (excess and non-excess components).

3 Methodology

This section describes the main specification models for each hypothesis developed in Section 2.

3.1 Testing Hypothesis 1

To investigate how corporate governance has an impact on the issue type decision, we first employ a logit model to test the impact of corporate governance on the likelihood of equity issue and debt issue, respectively.

$$Likelihood\{E(Y_{it}|x_{1,it-1}, x_{2,it-1}, ..., x_{k,it-1})\} = logit(p_{it}) = ln(\frac{p_{it}(Y_{it}=1)}{1-p_{it}(Y_{it}=1)})$$
$$= \beta_0 + \beta_1 \text{Governance}_{it-1} + \sum_{k=2}^{C} \beta_k \text{Controls}_{it-1} + \sum_{s=C+1}^{S} \beta_s \text{Industry}_i + \sum_{z=S+1}^{Z} \beta_z \text{Year} + \epsilon_{it-1}, \quad (1)$$

where $p_{it}(Y_{it}=1)$ is the probability of $Y_{it}=1$.

Firstly, we conduct two sets of simple logistic regressions, where Y_{it} is a binary variable, representing firm i's issuance decision: 1. Y_{it} equal to one if a firm issues equity and zero otherwise; 2. Y_{it} equal to one if a firm issues debt and zero otherwise[10]. β_1 is the coefficient estimate of interest. We also control for industry and year effects[11].

Secondly, we use a multinomial logit model for the decision to issue neither equity nor debt, equity only, debt only, or both equity and debt following Huang and Ritter (2015), where Y_{it} is a categorical variable, representing firm i's issuance decision and taking a value of 0 if there is no issuance as the base model, 1 if only issuing equity, 2 if only issuing debt and 3 if issuing both equity and debt.

[10] All the variables mentioned in the regression models within this section are detailed in Section 4.
[11] We adopt 2-digit SIC as the industry classification throughout this study.

3.2 Testing Hypothesis 2

Following Kim and Weisbach (2008) and Chang et al. (2014), we extend their specifications augmented by our governance measures. The dependent variable is a binary variable, indicating whether any type of acquisition occurs (i.e. either partial or full) for firm i in year t.

$$\begin{aligned} &Likelihood\{E(Y_{it}|x_{1,it-1}, x_{2,it-1}, ..., x_{k,it-1})\} = logit(p_{it}) = ln(\frac{p_{it}(Y_{it}=1)}{1-p_{it}(Y_{it}=1)}) \\ &= \beta_0 + \beta_1 \text{Governance}_{it-1} + \beta_2 \text{Governance}_{it-1} * \text{Issue}_{it-1} + \beta_3 \text{Issue}_{it-1} \\ &+ \sum_{k=4}^{C} \beta_k \text{Controls}_{it-1} + \sum_{s=C+1}^{S} \beta_s \text{Industry}_i + \sum_{z=S+1}^{Z} \beta_z \text{Year} + \epsilon_{it-1}, \end{aligned} \tag{2}$$

where $p_{it}(Y_{it}=1)$ is the probability of $Y_{it}=1$.

Y_{it} represents a firm's acquisition investment decision, taking a value of 1 if firm i has any acquisition in year t and 0 otherwise. *Issue* is a dummy variable that indicates equity or debt issue by a firm for a certain year, 1 if a firm makes new issues, either equity or debt, and 0 otherwise. The interaction term of governance and issuance, $Governance * Issue$, shows the effect of issuance on the relation between corporate governance and M&A investments. Therefore, β_2 is the coefficient estimate of interest.

3.3 Testing Hypothesis 3

To test Hypothesis 3, we follow a similar estimation procedure as in Equation 2, except that the dependent variable for Hypothesis 3 is a continuous variable, and therefore we employ OLS regression instead.

$$\begin{aligned} &\text{Dividend}_{it} = \alpha_0 + \alpha_1 \text{Governance}_{it-1} + \alpha_2 \text{Governance}_{it-1} * \text{EquityIssue}_{it-1} + \alpha_3 \text{EquityIssue}_{it-1} \\ &+ \sum_{k=4}^{C} \alpha_k \text{Controls}_{it-1} + \sum_{s=C+1}^{S} \alpha_s \text{Industry}_i + \sum_{z=S+1}^{Z} \alpha_z \text{Year} + \epsilon_{it-1} \end{aligned} \tag{3}$$

$$\text{Dividend}_{it} = \beta_0 + \beta_1 \text{Governance}_{it-1} + \beta_2 \text{Governance}_{it-1} * \text{DebtIssue}_{it-1} + \beta_3 \text{DebtIssue}_{it-1} + \sum_{k=4}^{C} \beta_k \text{Controls}_{it-1} + \sum_{s=C+1}^{S} \beta_s \text{Industry}_i + \sum_{z=S+1}^{Z} \beta_z \text{Year} + \epsilon_{it-1} \tag{4}$$

Dividend is the dependent variable, representing firm dividend payouts. $EquityIssue$ is a dummy variable, taking a value of 1 if there is a seasoned equity issuance and 0 otherwise. Similarly, $DebtIssue$ is a dummy variable, taking a value of 1 if there is a debt issuance and 0 otherwise. The interaction term of governance and equity (debt) issuance, $Governance * EquityIssue$ ($Governance * DebtIssue$), shows the effect of issuance on the relation between corporate governance and dividend payouts. Therefore, α_2 and β_2 are the coefficient estimates of interest. Equation 3 tests Hypothesis 3a and Equation 4 tests Hypothesis 3b.

3.4 Testing Hypothesis 4

Regardless of whether cash savings are for precautionary motives or discretionary motives, we consider cash holdings as the sum of operational cash holdings and excess cash holdings. To separate the components of cash holdings, we employ Dittmar and Mahrt-Smith (2007)'s method[12]. Dittmar and Mahrt-Smith (2007) use a regression model and take the residual from the regression as excess cash, i.e. the difference between actual cash level and predicted, operational necessary cash level. The prediction model of cash level is shown as follows.

$$ln(\frac{Cash_{it}}{NetAssets_{it}}) = \beta_0 + \beta_1 ln(NetAssets_{it}) + \beta_2 \frac{OP_{it}}{NetAssets_{it}} + \beta_3 \frac{NWC_{it}}{NetAssets_{it}}$$

[12]Dittmar and Mahrt-Smith (2007) estimate excess cash holdings based on Opler et al. (1999) that study the determinants of corporate cash holdings. This estimate procedure is widely adopted by studies such as Harford et al. (2008), Bates et al. (2009), Fresard and Salva (2010), etc.

$$+ \beta_4(IndustrySigma_{it}) + \beta_5 Market\text{-}to\text{-}Book_{it}$$
$$+ \beta_6 \frac{R\&D_{it}}{NetAssets_{it}} + Firm\ Fixed\ Effects + Year\ Effects + e_{it} \quad (5)$$

where $Cash$ is cash and cash equivalents; $NetAssets$ is total assets net of cash and cash equivalents; OP is Operating income minus interest and tax expenses; NWC is working capital (i.e. current assets minus current liabilities) net of cash component; $IndustrySigma$ is the industry average of the volatility of 10-year $\frac{OP}{NetAssets}$. Therefore, e in Equation 5 represents excess cash.

Hypothesis 4 is then examined using a similar specification as in Equations 3-4. We use precautionary (i.e. operational) cash savings and excess cash estimated from Equation 5 as the dependent variables, where precautionary cash savings and excess cash are the predicted values and the residuals in Equation 5, respectively.

$$\begin{aligned}\text{OpCash}_{it} &= \alpha_0 + \alpha_1 \text{Governance}_{it-1} + \alpha_2 \text{Governance}_{it-1} * \text{Issue}_{it-1} + \alpha_3 \text{Issue}_{it-1} \\ &+ \sum_{k=4}^{C} \alpha_k \text{Controls}_{it-1} + \sum_{s=C+1}^{S} \alpha_s \text{Industry}_i + \sum_{z=S+1}^{Z} \alpha_z \text{Year} + \epsilon_{it-1}\end{aligned} \quad (6)$$

$$\begin{aligned}\text{ExCash}_{it} &= \beta_0 + \beta_1 \text{Governance}_{it-1} + \beta_2 \text{Governance}_{it-1} * \text{Issue}_{it-1} + \beta_3 \text{Issue}_{it-1} \\ &+ \sum_{k=4}^{C} \beta_k \text{Controls}_{it-1} + \sum_{s=C+1}^{S} \beta_s \text{Industry}_i + \sum_{z=S+1}^{Z} \beta_z \text{Year} + \epsilon_{it-1}\end{aligned} \quad (7)$$

$OpCash$, shown in Equation 6, represents precautionary cash savings that test Hypothesis 4a. $ExCash$, shown in Equation 7, stands for excess cash holdings that test Hypothesis 4b. $Issue$ is a dummy variable that indicates equity or debt issue by a firm for a certain year, 1 if a firm makes new issues, either equity or debt, and 0 otherwise. The interaction term of governance and issuance, $Governance * Issue$, shows the effect of issuance on the relation between corporate governance and cash holdings. Therefore, α_2 and β_2 are the coefficient estimates of interest.

3.5 Endogeneity Robustness Testing

Past studies on corporate governance have posited that an endogenous relationship could exist between corporate governance and other observed firm-level heterogeneity (Schultz et al. (2010), Roberts and Whited (2012), Wintoki et al. (2012), Gippel et al. (2015), among others). For example, Jiraporn et al. (2011) suggest a possible endogenous relation between governance quality and dividend payout. Chen et al. (2012) also raise concerns over the endogenous relationship between corporate governance and cash holdings. However, the empirical findings remain consistent in Jiraporn et al. (2011) and Chen et al. (2012). Similar to the two studies mentioned, we employ two-stage least square regression to deal with potential endogeneity in this paper with regard to corporate governance in addition to the use of one-year lagged explanatory variables that has already mitigated the risk of endogeneity (Chen et al. (2017)).

The instrumental variables chosen to account for endogeneity are the endogenous governance variables lagged by two years as suggested by Gippel et al. (2015) since the explanatory variables in the original regressions are one-year lagged values, which already serves as a first level robustness measure in alleviating endogeneity concerns (Chen et al. (2017)).

However, the approach we apply in the tests – using instrumental variables – has its limitations despite its wide application among research studies (Steijvers and Niskanen (2013), Khan et al. (2014), Xu et al. (2014), among others): identification of a suitable instrument; if the instruments cannot be closely correlated with the endogenous variables and uncorrelated with the error term, the bias of the estimators will be more severe (Cameron and Trivedi (2005)). Gippel et al. (2015) suggest that identifying economically meaningful instruments is the best tool to apply but this is not always implementable to every study. We adopted the approach (e.g. lagged values of endogenous variables as addressed by Gippel et al. (2015)) that is implementable within our study based on the data existence to date. It is clear that using lagged endogenous variables is not ideal but

we do not find any economically meaningful instrument (especially at a firm level) that is related to the endogenous variables (Cameron and Trivedi (2005)). Therefore, when interpreting our findings, the readers should keep in mind that the instrument variables that we use in this study are not the ideal instruments. In addition, the data that is required to do such an ideal endogeneity test (e.g. Difference-in-differences (DID) by using an exogenous shock) simply does not exist at this point of time. Hence, we are unable to do this at this stage. However, if such data becomes available in the future (e.g. any exogenous regulation change occurs), we will provide a platform for a possible extension.

4 Data

We use a sample of U.S. public companies that issued follow-on equity and debt between 2002 and 2015, obtained from the Thomson One database. Our final sample is required to have both accounting records in *COMPUSTAT* and corporate governance measures in *Datastream ESG - Asset 4* during the sample period. In addition, we match our final sample with M&A transactions from Thomson One database to obtain the actual M&A activity for the sampled companies. We focus on M&A transactions that were "completed". We exclude financial companies with SIC between 6000-6999[13]. Firm-year observations with missing values of total asset, total debt and total market value and negative book equity are dropped. R&D expense is replaced with zero if missing[14]. Debt ratios are required to be bounded between 0 and 1. All the variables are winsorized at 1^{st} and 99^{th} of their pooled distributions across all firm-year observations[15]. One exception is

[13]We include regulated utilities firms with SIC between 4900-4999 in our main analysis. We also conduct the same regressions for the sample excluding utilities firms and our results and conclusions do not change.

[14]Many firms do not report their R&D expenses. To control for this effect, a dummy variable is used equal to one if firms have no R&D expense and zero otherwise. See, for example, Kayhan and Titman (2007) and Uysal (2011)

[15]We follow the winsorizing procedure as prescribed in the literature. See for example, Dittmar and Mahrt-Smith (2007).

our primary proxy for corporate governance from *Datastream ESG - Asset 4*, which is a direct score measure. Institutional share ownership is obtained from Thomson Reuters 13F. A detailed description of the variables used in this paper is presented in Table 1. The variables selection criteria is also presented in Table 2. The final sample consists of 6,153 firm-year observations and 733 firms, among which there are 575 equity issues, 2,365 debt issues and 286 dual issues under the circumstances that a firm issues both equity and debt in the same year. In addition, 2,582 acquisitions occurred during the sample period.

[*Table 1 is about here.*]

[*Table 2 is about here.*]

[*Table 3 is about here.*]

Panel A of Table 3 shows summary statistics on all variables for this study. Negative mean, median, and minimum of estimated excess cash (*ExCash*) and operational cash (*OpCash*), and cash holdings for estimating excess and operational cash (*CashEst_Cash*)[16] are presented because they are in the forms of natural logarithm following the literature (see, for example, Opler et al. (1999), Dittmar and Mahrt-Smith (2007), Harford et al. (2008), among others). Panel B of Table 3 reports pairwise differences in means of corporate governance characteristics and hypothesis-related dependent variables, namely cash dividends, excess cash, and operational cash holdings among the debt sample, equity sample and dual sample. The issuance effect is lagged one year to account for the real impact of issuance on corporate finance decisions such as dividend payouts and cash holdings (for both excess and operational levels). Table B1 in the appendix shows the correlations between the variables of interest in this paper and their corresponding significance.

[16] *CashEst_Cash* takes the natural logarithm of the ratio of cash over net assets.

5 Empirical Results

Section 5.1 presents the univariate analyses of the hypotheses developed in Section 2, mainly of Hypotheses 2-4. The multivariate analyses of Hypotheses 1-4 are presented in Section 5.2.

5.1 Univariate Analysis

We firstly examine our hypotheses by a series of t-tests of group means, quartile-sorted by various corporate governance proxies. We have six measures for corporate governance. They are corporate governance score, board independence, shareholder rights, CEO compensation linked with total share returns, female board members, and institutional share ownership. Due to the nature of one of the corporate governance proxies, CEO compensation linked with total share return (which is equal to one or zero), we cannot sort the sample into quartiles based on this governance measure. The following results are based on the other five continuous governance variables.

[*Table 4 is about here.*]

Panels A to C of Table 4 present the t-tests results between the 1^{st} and 4^{th} governance quartiles on M&A events, payouts, and cash holdings respectively. Columns (1) and (2) report results of the whole sample. The rest of the columns provide the t-tests of mean difference that take the issuance effect into account, lagged by one year.

Panel A of Table 4 shows the issuance effect on M&A activities for weakly- and strongly-governed firms. The results in Columns (3) and (4) suggest that corporate acquisition transactions are significantly different between the 1^{st} and 4^{th} governance quartiles in response to security issues, most consistently among corporate governance score, board independence, and institutional share ownership (with t-statistics of 2.983, 5.223, and

7.206)[17]. The significant positive differences between low and high corporate governance quartiles indicate that weakly-governed firms engage in more M&A activities after issuance. On the other hand, the mean differences between the 1^{st} and 4^{th} governance quartiles on the whole sample, shown in Columns (1) and (2) Panel A, are mixed, the significance of which is much weaker. For example, board independence shows a weak significance for the whole sample and a strong significance for the issuance only (t-stat. = 1.921 and 5.223, respectively). In addition, corporate governance becomes insignificant over the whole sample with a t-statistic of -1.028, compared with the issuance-only t-statistic of 2.983. Based on the univariate comparisons between the whole sample and the issuance-only sample, it appears that weak governance induces more acquisitions when firms raise capital from new issuance.

The t-test results for the mean differences of cash dividends between weak and strong governance groups are reported in Panels B of Table 4. Columns (1) and (2) and Columns (3) and (4) in Panel B of Table 4 present the mean differences and t-statistics of cash dividends for the whole sample and the issuance-only sample, respectively. The group mean difference of cash dividends is consistently significant across the whole sample and the issuance-only sample. As a result, the issuance effect, shown in Columns (3) and (4), does not change the significance of the group mean difference between weak and strong governance firms, compared with the whole sample, shown in Columns (1) and (2). For example, the cash dividend mean differences of the 1^{st} governance quartile, measured by corporate governance score, for the whole sample and the issuance-only sample are -0.006 and -0.008, which are significantly lower than the mean differences of the 4^{th} quartile with t-statistics of -7.713 and -6.966, respectively. This suggests that well governed companies offer higher cash dividends to shareholders than poorly governed companies regardless of whether there is a new security offering. We then split the security issuance decision into

[17]The significance mentioned here means a 5% significance level. Unless otherwise mentioned, the following univariate analysis employs a 5% significant level as the significant cutoff.

equity and debt decisions and conduct two additional sets of t-tests on the equity-issuance and debt-issuance samples as shown in Columns (5) and (6) and Columns (7) and (8), respectively. The difference in cash dividends between the 1^{st} and 4^{th} quartiles sorted by corporate governance score is not significant for the equity-issuance sample, with mean and t-statistic values of -0.004 and -1.623, respectively. This implies that corporate governance does not affect cash dividend payouts after equity issuance. On the other hand, the mean difference in cash dividends still remains significant for the debt-issuance sample, with mean and t-statistic values of -0.008 and -6.469, respectively. The significant difference suggests that firms with strong governance have more cash dividends after debt issuance than weakly-governed firms. This is consistent with Hypothesis 3 that good governance means that managers' and shareholders' interests are more aligned and therefore managers try to transfer debtholders' wealth to shareholders via dividend payouts (Kalay (1982)). The t-test statistics on institutional share ownership as a governance measure consistently show a significantly negative relationship between corporate governance and cash dividends across the whole sample (mean difference = 0.013, t-stat. = 18.642), the issuance-only sample (mean difference = 0.013, t-stat. = 10.823), the equity-issuance sample (mean difference = 0.014, t-stat. = 6.289), and the debt-issuance sample (mean difference = 0.013, t-stat. = 10.662), which is not in accordance with the argument that high institutional shareholdings represent strong corporate governance (Bhojraj and Sengupta (2003), Chung and Zhang (2011), and Nikolov and Whited (2014)). However, Gill and Obradovich (2012) find a negative relationship between institutional ownership and dividend payouts, suggesting that controlling shareholders such as institutional shareholders may pursue private benefits that are not preferred by minority shareholders. Therefore, these univariate results suggest that although institutional ownership can measure the strength of corporate governance to some extent, the latter argument may dominate in our sample, leading to a negative relationship between institutional ownership and cash dividends.

The univariate relations between corporate governance and operational and excess cash holdings are presented in Panel C of Table 4. Columns (1) to (4) and Columns (5) to (8) present the mean difference tests of operational and excess cash holdings, respectively.

The results on the relationship between corporate governance and both types of cash holdings are mixed across all governance measures. However, only corporate governance and shareholder rights as governance measures are consistent with Hypothesis 4. The results show that governance levels do not affect the cash levels for both operational needs and discretionary motives after security issuance, as shown in Columns (3) and (4) (with mean and t-statistic values of 0.072 and 1.884, respectively, for corporate governance score and with mean and t-statistic values of 0.018 and 0.454, respectively, for shareholder rights) and Columns (7) and (8) (with mean and t-statistic values of 0.108 and 1.478, respectively, for corporate governance score and with mean and t-statistic values of -0.129 and -1.691, respectively, for shareholder rights) in Panel C of Table 4. Weakly-governed firms do not have significantly more operational cash holdings than well-governed firms after issuance, which is in accordance with Hypothesis 4a that managerial entrenchment does not play an important role in cash holdings for operational needs, resulting in the significant mean difference between weak and strong governance firms. In addition, the insignificant mean difference between the 1^{st} and 4^{th} governance quartiles in excess cash holdings for the issuance-only sample implies that weakly-governed firms do not exhibit much difference in excess cash holdings compared with well-governed firms. In other words, although excess cash represents discretionary motives for hoarding cash, the discretionary motives for holding more excess cash are not the primary purpose in issuing equity or debt, leading to an insignificant mean difference of excess cash holdings between weak and good governance firms. This is consistent with Hypothesis 4b that firms that raise external capital via security issuance do not intend to use these funds for hoarding excess cash.

The other three governance measures (board independence, female board members and institutional ownership) give mixed results compared with the governance score and shareholder rights, shown in Panel C of Table 4. For example, firms in the 1^{st} quartile sorted by board independence have significantly lower operational cash holdings than firms in the 4^{th} quartile with a t-statistic of -3.402 after issuance. On the other hand, the finding on the pairwise comparison for excess cash holdings after issuance is opposite to that

for operational cash holdings. It suggests that weakly-governed firms have higher excess cash holdings than well-governed firms after issuance, with a t-statistic of 9.065 based on board independence measured as the strength of corporate governance. Test based on the percentage of female board members and institutional ownership yield similar results to board independence. Overall, these inconclusive results could be due to the fact that each governance proxy only contributes one aspect of governance quality, which does not capture the whole picture of what constitutes good corporate governance. This may lead to the observed variations in results, which is analogous to the mixed relationship between institutional ownership and dividend payouts as discussed above. Some other factors related to board independence i.e. female board members and institutional ownership may affect both operational and excess cash holdings, which cannot be revealed in the univariate tests.

5.2 Multivariate Analysis

5.2.1 Hypothesis 1: Corporate Governance and Issuance Decision

We examine whether corporate governance affects security issuance using a logistic regression model[18]. The binary dependent variables are equity issuance decision and debt issuance decision in order to test their relations with corporate governance.

Table 5 presents a number of logistic regression test results on various governance measures, controlling for firm characteristics. The dependent variable in Panel A is equity issuance, equal to one if there is an equity issuance and zero otherwise. The dependent variable in Panel B is debt issuance, equal to one if there is a debt issuance and zero otherwise. Our Hypothesis 1 proposes two opposite relationships between governance and the issuance

[18]We also employ a multinomial logistic regression model to examine the relationship between corporate governance and the security issuance decision. The results are similar to this normal logistic regression model, which is reported in the Appendix Table B2.

decision based on the substitute and complementary governance explanations. The substitute governance explanation predicts that weakly governed firms are more likely to issue debt rather than equity. On the other hand, the complementary governance explanation expects that well governed firms prefer to issue debt rather than equity.

[*Table 5 is about here.*]

Our results across all six governance measures consistently support the complement governance explanation, which is consistent with the findings of Datta et al. (2005), Liao et al. (2015), among others, and with the univariate results. We find a significant negative impact of the corporate governance score on the likelihood of issuing seasoned equity as shown in Column (1) of Panel A of Table 5 (coef. = -0.011 and z-stat. = -4.522) and a significant positive impact on the likelihood of issuing corporate debt as shown in Columns (1) of Panel B (coef. = 0.006 and z-stat. = 3.481). This suggests that well-governed firms are less likely to issue equity and are more in favor of issuing debt when raising external capital. Since the coefficients on the governance score are significantly negative in the equity-issuance logistic regression and significantly positive in the debt-issuance logistic regression, the two sets of logistic regressions in Panels A and B of Table 5 show the robustness of the complementary governance explanation for Hypothesis 1. For example, one could argue that well governed firms tend to issue more seasoned equity if the coefficient on the governance score in the equity-issuance regression is also positive and is the same as the coefficient sign in the debt-issuance regression, which is in accordance with the substitute governance explanation. If this were the case, the negative sign of the governance score in the debt-issuance logistic regression Column (1) of Panel B would not be strong enough to support the complement governance explanation.

A high corporate governance score represents good governance. Therefore, the negative coefficient on governance score in the equity issuance model Column (1) of Panel A suggests that well-governed firms are less likely to issue equity, holding other factors constant. The positive coefficient on governance score in the debt issuance regression Column (1) of Panel B indicates that good governance firms are more likely to issue debt, holding

other factors constant. Combining the results from the two sets of logistic regressions, the complement governance explanation in Hypothesis 1 strongly holds. In other words, our results show that using debt is an indication of good corporate governance, consistent with Chay et al. (2015). Weakly-governed firms could be unwilling to issue debt that puts additional constraints on managers' self interests (for example, managers are less concerned about their job security if using less debt).

Overall, the complement governance explanation of Hypothesis 1 consistently holds across all other five governance measures in terms of the signs of the coefficients, despite some governance insignificance in shareholder rights (coef. = 0.002 and z-stat. = 1.216 in Column (4) of Panel B) and female board members (coef. = 0.002 and z-stat. = 0.518 in Column (5) of Panel B) for the debt issuance regressions. As a further test, we include all the governance measures except governance score[19] in one logistic regression as shown in Column (7) of Panels A and B. The complement governance explanation still holds with all the expected signs of governance measure, although some of the governance measures do not show significance. This may be due to the fact that: 1) the governance measures are positively correlated (for example, as shown in Table B1, the correlation coefficients of board independence with shareholder rights and female board members are 0.197 and 0.178, respectively); and 2) some governance measures such as board independence and institutional ownership dominate the other measures to reflect the level of corporate governance in the security issuance decision. For example, Dutordoir et al. (2014) employ a similar method as a further robustness test to investigate whether corporate governance influences convertible bond issuance in a European sample by including all the governance measures in one logistic regression model. Not all the governance measures show the expected significance, possibly due to some correlations between governance proxies. In addition to the five governance measures in Columns (7) of Panels A and B, Column (8)

[19]The specification in Column (7) separates the influence of traditional governance measures and our *Corporate Governance Score* on the security issuance decision. However, the aggregate influence of all six governance measures on the security issuance decision is presented in Column (8).

of Panels A and B include the residual of governance score from an auxiliary regression, in which governance score is the dependent variable and the independent variables are board independence, CEO compensation linked with total share returns, shareholder rights, female board independence and institutional ownership[20]. The auxiliary regression helps remove the correlations of governance score with the other five governance measures. Column (8) of Panels A and B, in other words, includes all the governance measures required to investigate Hypothesis 1. The result does not vary, which means that the complement governance explanation in Hypothesis 1 is consistently supported.

5.2.2 Hypothesis 2: Corporate Governance and M&A Activities

Hypothesis 2 tests the effect of governance on the corporate M&A decision in the presence of new security issuance i.e. whether corporate governance influences the use of issuance proceeds for paying M&A transactions. In order to investigate the issuance effect on M&A with respect to corporate governance, the governance measure is interacted with the issuance dummy (1 if there is a new security issuance, either equity or debt; 0 otherwise), which is the variable of primary interest in our analysis.

[*Table 6 is about here.*]

Columns (1) to (9) of Table 6 report the results on different specifications according to the governance measures. The results indicate that the interaction term of governance measure and issuance decision is highly significant in the governance score (coef. = -0.011 and z-stat. = -3.652), board independence (coef. = -0.009 and z-stat. = -3.084), CEO compensation linked with total share returns (coef. = -0.412 and z-stat. = -3.328), and institutional ownership (coef. = -0.797 and z-stat. = -3.759), in line with Hypothesis 2. In addition, the overall pseudo R-squared is approximately 0.12 and is also consistent

[20]The auxiliary regression results are presented in Appendix Table B3.

across all specifications. The significant negative signs of governance measures suggest that firms with weak governance have more acquisition activities after issuance. As a further robustness test, we use the residual of governance score from the auxiliary regression, similar to Columns (15) and (16) of Table 5, to examine the issuance effect on M&A in terms of corporate governance. The interaction term of the governance score, residual and issuance decision shown in Columns (8) and (9) are significantly negative (z-stat = -1.930 and -3.439, respectively.). Furthermore, Column (7) includes all the governance measures as well as the corresponding interaction term with issuance decision. As shown in Column (7), for example, the interaction terms of issuance decision with CEO compensation linked to total share returns (coef. = -0.257 and z-stat. = -1.846) and with institutional ownership (coef. = -0.481 and z-stat. = -1.801) are significantly negative. A high value for our governance measures indicate good corporate governance. The negative significant governance interaction terms with issuance decision indicates that after issuance, well-governed firms are less likely to engage in acquisitions. Managers are more entrenched in weakly-governed firms. Therefore, the negative relationship between corporate governance and M&A transactions in the presence of new security issuance suggests that more discretionary managers (in weakly-governed firms) are in favor of acquisitions as a means of empire building. In most cases, such investments are value-destroying (Berger and Ofek (1995), Lins and Servaes (1999), Moeller et al. (2004), among others).

In addition to the results of the interaction variables as hypothesized, the issuance dummy consistently shows positive significance across all the specifications in Table 6, suggesting that acquisitions are more likely to take place after new security issuance (coef. = 0.999 and z-stat. = 4.334 in Column (1), for example). The findings imply that firms that have acquisition plans rely on external capital such as equity and debt to fund such transactions, consistent with Fama and French (2005) and Harford et al. (2009).

We also use the number of M&As occurring in the same year as the dependent variable. Our conclusion for Hypothesis 2 does not change and the results are similar to the logistic

regression model with M&A transaction as the binary dependent variable.

5.2.3 Hypothesis 3: Corporate Governance and Dividend Payouts

Table 7 reports the regression results on the relation between corporate governance and dividend payouts, with the equity issuance effect in Panel A and debt issuance effect in Panel B. As developed in Hypothesis 3, corporate governance is supposed to have no influence on dividend payouts after equity issuance whereas a positive relation between corporate governance and dividend payouts is expected after debt issuance as a result of managers' intention of appropriating debtholders' wealth, which is in the interest of shareholders. Hypothesis 3 is supported by our results.

[*Table 7 is about here.*]

To examine how security issuance and corporate governance are jointly related to firm dividend payouts, we generate two governance interaction variables: one with the equity issuance decision and the other with the debt issuance decision. Panel A of Table 7 reports the joint effect of equity issuance and governance on dividend payouts and Panel B shows the regression results for debt issuance. For most governance measures except institutional ownership, we do not find significance of the governance interaction term with the equity issuance decision (Panel A), in line with Hypothesis 3a. Institutional ownership, as the governance measure, may contain other informational aspects in dividend payouts other than the governance aspect and therefore significantly influence dividend payouts in the event of equity issuance; however, this is a topic for future research. The coefficient of the interaction term of governance score and equity issuance decision is 0.004 with t-statistic of 0.977, shown in Column (1) of Panel A. The insignificance of the interaction variables with equity issuance decision persists across board independence, CEO compensation linked with total share returns, shareholder rights and female board with t-statistic values of 0.985, -0.190, 0.103, and 0.245, respectively. The insignificance of the governance interaction term with equity issuance decision suggests that corporate governance does not

play a role in dividend payout decisions, particularly after equity issuance. Acharya et al. (2011) treat equity issuance as negative dividends. Since using equity issuance proceeds to pay dividends is a way of wealth redistribution to shareholders, after paying dividends from the proceeds of equity issuance, the net cash flows to shareholders are zero. Our results are consistent with this argument.

On the other hand, the governance-only measure (without interacting with equity issuance decision), shown in Panel A of Table 7, exhibits significance in shareholder rights (coef. = -0.002 and t-stat. = -2.249), female board members (coef. = 0.018 and t-stat. = 6.059), and institutional ownership (coef. = -1.092 and t-stat. = -10.551) though not all governance measures have significant coefficients. The coefficient signs of the significant governance measures are mixed; negative for shareholder rights and institutional ownership and positive for female board members, suggesting either a positive or a negative relation between corporate governance and dividend payouts, also consistent with the literature. For example, La Porta et al. (2000) document that strong governance pressures managers to distribute cash to shareholders in the form of dividends. On the contrary, Crutchley and Hansen (1989) show that weak governance firms pay dividends as a disciplinary mechanism to monitor insiders. Due to the different proxies for corporate governance, the relationship between corporate governance and dividend payout is ambiguous, consistent with the existing literature.

The regression results of Hypothesis 3b is presented in Panel B of Table 7. The interaction variable, governance score interacted with debt issuance dummy, in Column (1) shows strong positive significance as expected (coef. = 0.009 and t-stat. = 3.315), consistent with Kalay (1982) and with Hypothesis 3b that firms with strong governance have more cash dividends after debt issuance. The results indicate that conflict of interest between shareholders and debtholders is severe if a company is well governed. Our findings also suggest that a well-governed firm's decision to issue debt may imply the potential to transfer debtholders' wealth to shareholders. This is also in line with the results from Hypothesis 1 that good governance firms are more likely to issue debt. It is possible

that the high likelihood of a well-governed firm to issue debt is due to agency conflict between shareholders and debtholders. The interaction variables (our other governance measures interacted with debt issuance effect) also show positive significance, such as board independence (coef. = 0.004 and t-stat. = 1.651), female board members (coef. = 0.019 and t-stat. = 3.879), and institutional ownership (coef. = 0.905 and t-stat. = 5.318). The coefficients on the governance-only measures, without interacting the debt issuance dummy, also have mixed results in terms of the relation between corporate governance and dividend payouts, similar to the evidence for equity issuance. As a result, the findings on debt issuance strongly support Hypothesis 3b and are consistent with the literature on corporate governance and dividend payouts - for example, La Porta et al. (2000), Hu and Kumar (2004), and Denis and McKeon (2012).

Columns (7) to (9) in Panels A and B of Table 7 apply all the governance measures including the residual for the auxiliary regression of governance score, following the same procedure in Table 6. The results are similar to the previous regressions on the pooled governance measures as for Hypotheses 1 and 2. The interaction variable of governance score residual (from the auxiliary regression) with equity issuance dummy in Column (9) of Panel A is insignificant for equity issuance, with coefficient and t-statistic values of 0.006 and 1.253. The governance score residual interaction term with debt issuance dummy in Column (9) of Panel B is positive and significant, with coefficient and t-statistic values of 0.013 and 4.026. The results further suggest that Hypothesis 3 holds. In particular, there is a relationship between Hypothesis 1 and Hypothesis 3 based on our findings: Since we find that well-governed firms are more likely to issue debt and pay more dividends after debt issuance, it is likely that managers in firms with good governance levels act in the best interest of shareholders and by issuing debt, they can extract debtholders' value to shareholders via paying dividends. However, this is not the focus of this paper and we do not empirically test the possible relation between Hypothesis 1 and Hypothesis 3, which is an avenue for further study.

5.2.4 Hypothesis 4: Corporate Governance and Cash Holdings

Table 8 shows how firms' cash positions, particularly for both operational needs and discretionary motives, are affected by corporate governance with the issuance effect. Panel A examines Hypothesis 4a of whether corporate governance has an impact on operational cash holdings after security issuance. Operational cash holdings are the predicted values estimated based on Equation 5. Panel B tests Hypothesis 4b regarding cash holdings for discretionary motives. Excess cash holdings, measuring the discretionary cash amount, are the residuals e from Equation 5. The interaction terms on governance measures with the security issuance dummy are the variables of interest. As discussed in the previous literature section, corporate governance is not expected to play a role in both operational cash position for precautionary motives and excess cash holdings for discretionary motives with the issuance effect. Therefore, we expect that no significance will be shown on the coefficients of the interaction variables. Our results are highly consistent with this expectation.

[*Table 8 is about here.*]

Governance score, our primary governance measure in this study, does not have a significant impact on operational cash holdings after new security issuance (coef. = 0.0004 and t-stat. = 1.177) as shown in Column (1) of Panel A of Table 8. Our results are consistent across most governance measures except institutional ownership with weak significance at a 10% level and t-statistic of -1.747. The insignificance in the governance interaction variables with issuance dummy suggests that corporate governance does not have a great impact on firms' cash holdings for precautionary motives after new security issuance. In addition, we do not any find significance for governance-only measures (without interacting with the issuance dummy) in the precautionary cash savings regressions (governance score with coefficient and t-statistic values of -0.0002 and -0.615, and board independence with coefficient and t-statistic values of -0.0003 and -0.900, for example). Furthermore, we conduct similar regressions, for instance, in Columns (7) to (9) of Panel A of Table 7, which

employs all the governance measures except governance score, but includes the residual from the auxiliary governance score regression. The all-governance-measure regression results are reported in Columns (7) to (9) in Panels A and B of Table 8. Most coefficients on governance-related variables, both with and without interacting issuance dummy, in Columns (7) to (9) of Panel A, are insignificant, which is consistent with Hypothesis 3a and with the argument that precautionary cash savings does not imply agency conflicts between managers and shareholders (Bates et al. (2009)).

We examine Hypothesis 4b with the estimated residuals from Equation 5 as the proxy for excess cash and the results are presented in Panel B of Table 8. Consistent with Hypothesis 4b, the interaction terms of governance and issuance effect are not significant in most cases, e.g. the interaction of governance score and issuance dummy with coefficient and t-statistic values of 0.001 and 0.763, suggesting that corporate governance does not play a role in determining excess cash holdings after new security issuance. However, according to the results for the governance-only measures, corporate governance is significantly negatively related to excess cash holdings, consistent across all governance measures (except insignificant shareholder rights, but with an expected negative coefficient). Our results indicate that firms with good governance have lower excess holdings regardless whether there is a new security issuance, in line with the agency problem of holding cash (Jensen (1986) and Chen et al. (2012)). For example, one unit improvement in governance score results in a significant 0.3% decrease in excess cash holdings[21] with a t-statistic value of -4.703. Furthermore, the findings in the all-governance-measure regressions are similar in terms of both significance and sign of the governance-related coefficients, shown in Columns (7) to (9) of Panel B of Table 8.

In summary, our regression results in Table 8 strongly support Hypothesis 4 in several aspects. Firstly, corporate governance does not influence cash holdings for precautionary

[21] We use the 0.3 % change in excess cash due to the fact that the cash holdings regression in Equation 5 takes the natural logarithm of cash holdings as the dependent variable.

motives regardless of whether there is a new security issuance or not, consistent with Dittmar and Mahrt-Smith (2007) and Bates et al. (2009). Secondly, the joint effect of new security issuance and corporate governance on excess cash is minor because firms use the issuance proceeds to stockpile cash for precautionary motives (McLean (2011)). Thirdly, firms with good governance have lower excess cash holdings, particularly for discretionary motives, consistent with Jensen (1986)'s free cash flow hypothesis. Hypothesis 4 highlights the importance of distinguishing cash holdings for different motives (precautionary or discretionary), which is likely to form a useful basis for future research in relation to corporate governance.

5.2.5 Justification of Corporate Governance Score

The main governance measure in this study, the corporate governance score has not been widely applied in the literature. Does the governance score represent well how strongly a firm is governed? Our results suggest that overall, governance score is a good representative of corporate governance. For example, the adjusted R-squared does not vary much across Columns (1) to (9) in both panels of Table 8, at roughly 0.91 for the precautionary cash regressions and approximately 0.45 for the discretionary cash regressions, respectively. The results of the adjusted R-squared for Hypotheses 1 to 3 as in Tables 5 to 7 are similar to Hypothesis 4 as in Table 8. The results show that each governance measure captures roughly the same information regarding the strength of corporate governance. Therefore, placing each measure into one regression does not improve the explanatory power of the model. In addition, the R-squared in the governance score auxiliary regression as shown in Appendix Table B3 is 0.359. The independent variables (e.g. board independence, CEO compensation, shareholder rights, female board members and institutional ownership) are common governance proxies employed in the literature. Since these are indirect governance measures, they may contain some governance-unrelated information that may have governance-unrelated impact on investments, dividend payouts, and cash holdings.

5.3 Robustness Tests: Controlling for Endogeneity Bias

Table 9 presents the main results in this study for the variables of interest after taking endogeneity into account. Overall, the main results in this study are robust to endogeneity. An ambiguous conclusion is only found for the relationship between precautionary cash holdings and corporate governance as shown in the third row in Table 9. Although the mixed results make Hypothesis 4a inconsistent across the six governance measures, most proxies are consistent as per the original regressions which are conducted before taking endogeneity into account. As such, we suggest that our conclusions are robust to endogeneity.

[*Table 9 is about here.*]

6 Concluding Remarks

This study provides a comprehensive insight of how corporate governance influences investments, dividend payouts, and cash holdings from the proceeds of security issuance. We employ a new governance measure, *Corporate Governance Score*, that has not been used in prior studies as our primary governance measure.

Using a sample of U.S. equity and debt public issuers from 2002 to 2015, we find that well-governed firms are more likely to issue debt and prefer less seasoned equity issuance, consistent with the complement governance explanation of Hypothesis 1 as well as the argument that well-governed firms keep debt ratios at a higher level than managers' preferred levels (Berger et al. (1997)). As a complement to the existing literature on corporate governance in relation to investment decisions, dividend payouts and cash holdings, this study incorporates the new security issuance effect of corporate finance decisions in relation to corporate governance. Our findings show that managers in weakly-governed firms are more likely to engage in acquisitions after new security issuance,

consistent with the view that weakly-governed firms have more acquisitions and poorer market performance after acquisition transactions than well-governed firms (Masulis et al. (2007)), as they have more available funds to finance acquisition transactions. In terms of dividend payouts, the results indicate that corporate governance has a very different effect on dividend payouts after debt issuance compared to equity issuance due to conflict of interest between shareholders and debtholders. While corporate governance does not influence dividend payouts after equity issuance, we find that there is a positive relationship between corporate governance and dividend payouts after debt issuance, suggesting that firms pay more dividends after debt issuance when managers' and shareholders' interest are highly aligned (i.e. when firms have good governance levels). The results are consistent with the argument put forward by Kalay (1982) that debtholders' wealth is transferred to shareholders through paying dividends out of debt issuance proceeds. Moreover, we find that corporate governance does not affect either precautionary cash savings levels or excess cash holdings levels for discretionary motives in the presence of new security issuance. There are two implications with regard to this finding. Firstly, precautionary cash savings do not imply agency conflict between managers and shareholders (Bates et al. (2009)). Secondly, firms utilize proceeds from new security issuance for precautionary cash savings (McLean (2011)) as opposed to stockpiling excess cash holdings for discretionary motives (Dittmar and Mahrt-Smith (2007)).

This study extends the existing literature on corporate governance in three significant ways. Firstly, it incorporates the corporate new security issuance effect from the primary capital market and examines the joint impact of issuance decisions and corporate governance on investments, dividend payouts, and cash holdings. The evidence of firms' issuance-level activities, which comes directly from the primary capital market suggests a positive relationship between corporate governance and firm debt level. This is different from prior studies focusing on capital structure observed solely from corporate financial statements. Secondly, corporate governance influences dividend payouts after debt issuance to a different extent than equity issuance. This reveals that a good alignment of interests between managers and shareholders suggests a wealth transfer from debtholders to

shareholders. Thirdly, we classify cash holdings into non-excess and excess components for precautionary and discretionary motives, respectively. Since precautionary cash savings do not have the agency conflict implication (Bates et al. (2009)), no joint effect of issuance decision and corporate governance on precautionary cash savings is found. In addition, discretionary cash holdings are not affected by corporate governance levels with the issuance effect due to the fact that firms usually use the proceeds from security issuance for precautionary savings (McLean (2011)) instead of the discretionary intention to hoard excess cash, which could be very costly.

References

Acharya, V.V., S.C. Myers, and R.G. Rajan, 2011, The internal governance of firms, *Journal of Finance* 66, 689–720.

Akhigbe, A., J.C. Easterwood, and R.R. Pettit, 1997, Wealth effects of corporate debt issues: The impact of issuer motivations, *Financial Management* 26, 32–47.

Albuquerue, R., and N. Wang, 2008, Agency conflicts, investment, and asset pricing, *Journal of Finance* 63, 1–40.

Anderson, R.C., S.A. Mansi, and D.M. Reeb, 2004, Board characteristics, accounting report integrity, and the cost of debt, *Journal of Accounting and Economics* 37, 315–342.

Baker, M., and J. Wurgler, 2002, Market timing and capital structure, *Journal of Finance* 57, 1–32.

Bates, T.W., K.M. Kahle, and R.M. Stulz, 2009, Why do U.S. firms hold so much more cash than they used to?, *Journal of Finance* 64, 1985–2021.

Berger, P., and E. Ofek, 1995, Diversification's effect on firm value, *Journal of Financial Economics* 37, 39–65.

Berger, P.G., E. Ofek, and D.L. Yermack, 1997, Managerial entrenchment and capital structure decisions, *Journal of Finance* 52, 1411–1438.

Bhagat, S., and B. Bolton, 2013, Director ownership, governance, and performance, *Journal of Financial and Quantitative Analysis* 48, 105–135.

Bhojraj, S., and P. Sengupta, 2003, Effect of corporate governance on bond rating and yields: The role of institutional investors and outside directors, *Journal of Business* 76, 455–475.

Black, F., 1976, The dividend puzzle, *Journal of Portfolio Management* 2, 5–8.

Cameron, C., and P.K. Trivedi, 2005, *Microeconometrics Methods and Applications* (Cambridge University Press).

Carter, D.A., B.J. Simkins, and W.G. Simpson, 2003, Corporate governance, board diversity, and firm value, *The Financial Review* 38, 33–53.

Chang, X., Y. Chen, C.M. Shih, and R. Wang, 2014, The allocation of equity issuance proceeds, Working paper.

Chay, J.B., S.H. Park, S. Kim, and J. Suh, 2015, Financing hierarchy: Evidence from quantile regression, *Journal of Corporate Finance* 33, 147–163.

Chen, J., W.S. Leung, and M. Goergen, 2017, The impact of board gender composition on dividend payouts, *Journal of Corporate Finance* 43, 86–105.

Chen, Q., X. Chen, K. Schipper, Y. Xu, and J. Xue, 2012, The sensitivity of corporate cash holdings to corporate governance, *Review of Financial Studies* 25, 3610–3644.

Chung, K.H., and H. Zhang, 2011, Corporate governance and institutional ownership, *Journal of Financial and Quantitative Analysis* 46, 247–273.

Cremers, K.J., and V.B. Nair, 2005, Governance mechanisms and equity prices, *Journal of Finance* 60, 2859–2894.

Crutchley, C.E., and R.S. Hansen, 1989, A test of the agency theory of managerial ownership, corporate leverage, and corporate dividends, *Financial Management* 18, 36–46.

Datta, S., M. Iskandar-Datta, and K. Raman, 2005, Managerial stock ownership and the maturity structure of corporate debt, *Journal of Finance* 60, 2333–2350.

DeAngelo, H., L. DeAngelo, and R.M. Stulz, 2004, Dividend policy, agency costs, and earned equity, Working paper, NBER.

Denis, D.J., and S.B. McKeon, 2012, Debt financing and financial flexibility evidence from proactive leverage increases, *Review of Financial Studies* 25, 1897–1929.

Denis, D.K., and J.J. McConnell, 2003, International corporate governance, *Journal of Financial and Quantative Analysis* 38, 1–36.

Dewenter, K.L., and V.A. Warther, 1998, Dividends, asymmetric information, and agency conflicts: Evidence from a comparison of the dividend policies of Japanese and U.S. firms, *Journal of Finance* 53, 879–904.

Dittmar, A., and J. Mahrt-Smith, 2007, Corporate governance and the value of cash holdings, *Journal of Financial Economics* 83, 599–634.

Duchin, R., T. Gilbert, J. Harford, and C. Hrdlicka, 2016, Precautionary savings with risky assets: When cash is not cash, Working paper, Michael G. Foster School of Business, the University of Washington.

Dutordoir, M., N. Strong, and M.C. Ziegan, 2014, Does corporate governance influence convertible bond issuance?, *Journal of Corporate Finance* 24, 80–100.

Easterbrook, F., 1984, Two agency cost explanations of dividends, *American Economic Review* 74, 879–904.

Edmans, A., and G. Manso, 2011, Governance through trading and intervention: A theory of multiple blockholders, *Review of Financial Studies* 24, 2395–2428.

Fama, E.F., and K.R. French, 2005, Financing decisions: who issue stock?, *Journal of Financial Economics* 76, 549–582.

Francoeur, C., R. Labelle, and B.Sinclair-Desgagne, 2008, Gender diversity in corporate governance and top management, *Journal of Business Ethics* 81, 83–95.

Fresard, L., and C. Salva, 2010, The value of excess cash and corporate governance: Evidence from US cross-listings, *Journal of Financial Economics* 98, 359–384.

Fulghieri, P., and M. Suominen, 2012, Corporate governance, finance, and the real sector, *Journal of Financial Quantitative Analysis* 47, 1187–1214.

Ghosh, C., and J.R. Woolridge, 1988, An analysis of shareholder reaction to dividend cuts and omissions, *Journal of Financial Research* 11, 281–294.

Gill, A.S., and J.D. Obradovich, 2012, Corporate governance, institutional ownership, and the decision to pay the amount of dividends: Evidence from USA, *International Research Journal of Finance and Economics* 97, 60–71.

Gippel, J., T. Smith, and Y. Zhu, 2015, Endogeneity in accounting and finance research: Natural experiments as a state-of-the-art solution, *Abacus* 51, 143–168.

Gompers, P., J. Ishii, and A. Metrick, 2003, Corporate governance and equity prices, *Quarterly Journal of Economics* 118, 107–55.

Graham, J.R., and M.T. Leary, 2016, The evolution of corporate cash, Working paper, NBER.

Gugler, K., 2003, Corporate governance, dividend payout policy, and the interrelation between dividends, R&D, and capital investment, *Journal of Banking and Finance* 27, 1297–1321.

Harford, J., 1999, Corporate cash reserves and acquisitions, *Journal of Finance* 54, 1969–1997.

Harford, J., S. Klasa, and N. Walcott, 2009, Do firms have leverage targets? Evidence from acquisitions, *Journal of Financial Economics* 93, 1–14.

Harford, J., S.A. Mansi, and W.F. Maxwell, 2008, Corporate governance and firm cash holdings in the U.S., *Journal of Financial Economics* 87, 535–555.

Harris, M., and A. Raviv, 2017, Why do firms sit on cash? An asymmetric information approach, *Review of Corporate Finance Studies* 6, 141–173.

Harvey, C.R., K.V. Lins, and A.H. Roper, 2004, The effect of capital structure when expected agency costs are extreme, *Journal of Financial Economics* 74, 3–30.

Hu, A., and P. Kumar, 2004, Managerial entrenchment and payout policy, *Journal of Financial and Quantitative Analysis* 39, 759–790.

Huang, R., and J.R. Ritter, 2015, Corporate cash shortfalls and financing decisions, Working paper.

Jensen, M.C., 1986, Agency costs of free cash flow, corporate finance, and takeovers, *The American Economic Review* 76, 323–329.

Jensen, M.C., and W.H. Meckling, 1976, Theory of the firm: Managerial behavior agency costs and ownership structure, *Journal of Financial Economics* 3, 305–360.

Jiraporn, P., and K.C. Gleason, 2007, Capital structure, shareholder rights, and corporate governance, *Journal of Financial Research* 30, 21–33.

Jiraporn, P., J. Kim, and Y.S. Kim, 2011, Dividend payouts and corporate governance quality: An empirical investigation, *The Financial Review* 46, 251–279.

Jo, H., and C. Pan, 2009, Why are firms with entrenched managers more likely to pay dividends?, *Review of Accounting and Finance* 8, 87–116.

John, K., A. Knyazeva, and D. Knyazeva, 2015, Governance and payout precommitment, *Journal of Corporate Finance* 33, 101–117.

John, K., L. Litov, and B. Yeung, 2008, Corporate governance and risk-taking, *Journal of Finance* 63, 1679–1728.

John, K., and L.W. Senbet, 1998, Corporate governance and board effectiveness, *Journal of Banking and Finance* 22, 371–403.

Jung, K., Y. Kim, and R.M. Stulz, 1996, Timing, investment opportunities, managerial discretion, and the security issue decision, *Journal of Financial Economics* 42, 159–185.

Kalay, A., 1982, Stockholder-bondholder conflict and dividend constraints, *Journal of Financial Economics* 10, 211–233.

Kalcheva, I., and K.V. Lins, 2007, International evidence on cash holdings and expected managerial agency problems, *Review of Financial Studies* 20, 1087–1112.

Kayhan, A., and S. Titman, 2007, Firm's histories and their capital structures, *Journal of Financial Economics* 83, 1–32.

Khan, A., P. Mather, and B. Balachandran, 2014, Managerial share ownership and operating performance: Do independent and executive directors have different incentives?, *Australian Journal of Management* 39, 47–71.

Kim, W., and S. Weisbach, 2008, Motivations for public equity offers: An international perspective, *Journal of Financial Economics* 87, 281–307.

Klock, M.S., S.A. Mansi, and W.F. Maxwell, 2005, Does corporate governance matter to bondholers?, *Journal of Financial and Quantitative Analysis* 40, 693–719.

La Porta, R., F. Lopes-De-Silanes, A. Shleifer, and R.W. Vishny, 2000, Agency problem and dividend policies around the world, *Journal of Finance* 55, 1–33.

Leary, M.T., and M.R. Roberts, 2010, The pecking order, debt capacity, and information asymmetry, *Journal of Financial Economics* 95, 332–355.

Liao, L., T. Mukherjee, and W. Wang, 2015, Corporate governance and capital structure dynamics: An empirical study, *Journal of Financial Research* 38, 169–191.

Lins, K., and H. Servaes, 1999, International evidence on the value of corporate diversification, *Journal of Finance* 54, 2215–2239.

Lintner, J., 1956, Distribution of incomes of corporations among dividends, retained earnings, and taxes, *American Economic Review* 46, 97–113.

Masulis, R.W., C. Wang, and F. Xie, 2007, Corporate governance and acquirer returns, *Journal of Finance* 62, 1851–1889.

McKnight, P.J., and C. Weir, 2009, Agency costs, corporate governance mechanisms and ownership structure in large UK publicly quoted companies: A panel data analysis, *Quarterly Review of Economics and Finance* 49, 139–158.

McLean, R.D., 2011, Share issuance and cash savings, *Journal of Financial Economics* 99, 693–715.

Mello, A.S., and J.E. Parsons, 1992, Measuring the agency cost of debt, *Journal of Finance* 47, 1887–1904.

Miller, M., and F. Modigliani, 1961, Dividend policy, growth, and the valuation of shares, *Journal of Business* 34, 411–433.

Moeller, S.B., F.P. Schlingemann, and R.M. Stulz, 2004, Firm size and the gains from acquisitions, *Journal of Financial Economics* 73, 201–228.

Morellec, E., 2004, Can managerial discretion explain observed leverage ratios?, *Journal of Finance* 17, 257–294.

Myers, S., and N. Majluf, 1984, Corporate financing and investment decisions when firms have information that investors do not have, *Journal of Financial Economics* 13, 187–221.

Nikolov, B., and T.M. Whited, 2014, Agency conflicts and cash: Estimates from a dynamic model, *Journal of Finance* 69, 1883–1921.

Opler, T., L. Pinkowitz, R. Stulz, and R. Williamson, 1999, The determinants and implications of corporate cash holdings, *Journal of Financial Economics* 52, 3–46.

Pinkowitz, L., R.M. Stulz, and R. Williamson, 2016, Do U.S. firms hold more cash than foreign firms do?, *Review of Financial Studies* 29, 309–348.

Roberts, M.R., and T.M. Whited, 2012, Endogeneity in empirical corporate finance, Simon school working paper.

Schultz, E.L., D.T. Tan, and K.D. Walsh, 2010, Endogeneity and the corporate governance - performance relation, *Australian Journal of Management* 35, 145–163.

Steijvers, T., and M. Niskanen, 2013, The determinants of cash holdings in private family firms, *Accounting & Finance* 53, 537–560.

Stephens, C., and M. Weisbach, 1998, Actual share reacquisitions in open market repurchase programs, *Journal of Finance* 53, 313–333.

Stulz, R.M., 1990, Managerial discretion and optimal financing policies, *Journal of Finance* 26, 3–27.

Uysal, V.B., 2011, Deviation from the target capital structure and acquisition choices, *Journal of Financial Economics* 102, 602–620.

Wen, Y., K. Rwegasira, and J. Bilderbeek, 2002, Corporate governance and capital structure decisions of the Chinese listed firms, *Corporate Governance: An International Review* 10, 75–83.

White, H., 1980, A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity, *Econometrica* 48, 817–838.

Wintoki, M.B., J.S. Linck, and J.M. Netter, 2012, Endogeneity and the dynamics of internal corporate governance, *Journal of Financial Economics* 105, 581–606.

Xu, S., D. Liu, and J. Huang, 2014, Corporate social responsibility, the cost of equity capital and ownership structure: An analysis of Chinese listed firms, *Australian Journal of Management* 40, 245–276.

Yermack, D., 1996, Higher market valuation of companies with a small board of directors, *Journal of Financial Economics* 40, 185–211.

Yun, H., 2009, The choice of corporate liquidity and corporate governance, *Review of Financial Studies* 22, 1447–1475.

Table 1. Variables Description

This table describes the construction of each variable that is used in the analysis.

Variable Name	Application	Description	Data Source
GovScore	Governance measure	Corporate governance score measures a company's systems and processes, which ensure that its board members and executives act in the best interests of its long term shareholders.	Datastream ESG - 4 Asset
BoardInd	Governance measure	Percentage of independent board members.	Datastream ESG - 4 Asset
CEOCompTSR	Governance measure	Indication of whether CEO's compensation is linked to total share return, 1 if yes and 0 otherwise.	Datastream ESG - 4 Asset
ShhldrRights	Governance measure	The shareholders/shareholder rights category measures a company's management commitment and effectiveness towards following best practice corporate governance principles related to a shareholder policy and equal treatment of shareholders. It reflects a company's capacity to be attractive to minority shareholders by ensuring them equal rights and privileges and by limiting the use of anti-takeover devices.	Datastream ESG - 4 Asset
BoardFemale	Governance measure	Percentage of female board members.	Datastream ESG - 4 Asset
InstShrown	Governance measure	Percentage of institutional shareholding.	Thomson Reuters 13F
EquityIssue	Issuance measure	Dummy variable, 1 if there is a new follow-on equity issuance and 0 otherwise.	Thomson One
DebtIssue	Issuance measure	Dummy variable, 1 if there is a new follow-on debt issuance and 0 otherwise.	Thomson One
DualIssue	Issuance measure	Dummy variable, 1 if there is a both new follow-on equity and debt issuance in the same fiscal year.	Thomson One
M&A	Investment measure	Dummy variable, 1 if a firm engages in an acquisition as the acquirer and 0 otherwise.	Thomson One
CashDiv	Dividend measure	COMPUSTAT items DV/AT.	COMPUSTAT

(*Table 1 Continued*)

Variable Name	Application	Description	Data Source
ExCash	Cash measure	Excess cash holdings: Residual estimated from Equation 5[22].	COMPUSTAT
OpCash	Cash measure	Cash holdings for operational needs: $ln(\frac{Cash}{NetAssets})$ - ExCash.	COMPUSTAT
Size	Controls	COMPUSTAT item $ln(AT)$.	COMPUSTAT
Tangibility	Controls	COMPUSTAT items $PPENT/AT$.	COMPUSTAT
Cash	Controls	COMPUSTAT items CHE/AT.	COMPUSTAT
Profitability	Controls	COMPUSTAT items NI/AT.	COMPUSTAT
Market-to-book	Controls	COMPUSTAT items $(PRCC\_F * CSHO + AT - CEQ)/AT$.	COMPUSTAT
Leverage	Controls	COMPUSTAT item $(DLC + DLTT)/AT$.	COMPUSTAT
DivPayer	Controls	Dummy variable, 1 if a firm pays dividends, i.e. COMPUSTAT item $DVT > 0$; 0 otherwise.	COMPUSTAT
SaleGr	Controls	Sales growth: COMPUSTAT item $Sale_t - Sale_{t-1}/Sale_{t-1}$.	COMPUSTAT
NetOCF	Controls	COMPUSTAT items $OANCF/AT$.	COMPUSTAT
R&D	Controls	COMPUSTAT items XRD/AT.	COMPUSTAT

[22]Equation 5 $ln(\frac{Cash_{it}}{NetAssets_{it}}) = \beta_0 + \beta_1 ln(NetAssets_{it}) + \beta_2 \frac{OP_{it}}{NetAssets_{it}} + \beta_3 \frac{NWC_{it}}{NetAssets_{it}} + \beta_4 (IndustrySigma_{it}) + \beta_5 Market\text{-}to\text{-}Book_{it} + \beta_6 \frac{R\&D_{it}}{NetAssets_{it}} + Firm\ Fixed\ Effects + Year\ Effects + e_{it}$, where Cash = Cash and cash equivalents (COMPUSTAT item *CHE*); NetAssets = Total assets (COMPUSTAT item *AT*) - Cash and cash equivalents (COMPUSTAT item *CHE*); OP = Operating income before depreciation (COMPUSTAT item *OIBDP*) - Interest (COMPUSTAT item *XINT*) - Taxes (COMPUSTAT item *TXT*); NWC = Current assets (COMPUSTAT item *ACT*) - Current liabilities (COMPUSTAT item *LCT*) - Cash and cash equivalents (COMPUSTAT item *CHE*); IndustrySigma = Industry average of standard deviations for 10-year historical $\frac{OP}{NetAssets}$; Market-to-book = (Price (COMPUSTAT item *PRCC_F*) * Number of shares outstanding (COMPUSTAT item *CSHO*) + Total assets (COMPUSTAT item *AT*) - Common equity (COMPUSTAT item *CEQ*))/Total assets (COMPUSTAT item *AT*); *R&D* = *R&D* expenses (COMPUSTAT item *XRD*).

Table 2. Variables Selection Criteria

This table presents the selection criteria of the variables used in this paper.

Use	Selection Criteria
Governance Measures	Previous literature on corporate governance use Gompers et al. (2003) G-index as the leading index to measure the strength of governance. We are the first to employ the corporate governance score from *Datastream ESG - Asset 4* to evaluate a firm's governance level[23]. Furthermore, institutional share ownership, obtained from Thomson Reuters 13F, is also regarded as a governance measure[24]. Besides the governance score, *Datastream ESG - Asset 4* provides other governance-related variables such as board independence, CEO compensation linked with total share returns, shareholder rights and female board members. The percentage of women on the board, for example, is found to improve corporate governance and increase firm value (Carter et al. (2003) and Francoeur et al. (2008)). We use these additional governance variables as alternative measures in this study[25].
Issuance Measures	The present study purely relies on Thomson One to obtain firm-level issuance activities. We aggregate issue offerings within the same year to indicate whether a company involves a security issuance, either equity or debt, in a certain year. In a logistic regression model, equity issuance and debt issuance are the dependent binary variables, respectively, and they are regarded as independent of each other. In a multinomial logistic regression model, we classify the issuance decision into pure equity, pure debt, dual issues and no issue.
The Use of Proceeds	*Investment.* Hypothesis 2 is related to investment decisions. A firm's acquisition investments are measured by the M&A transactions from Thomson One. Whether a firm is involved in acquisitions in a certain year is indicated by a dummy variable, equal to 1 if the firm has acquisitions and zero otherwise.

[23] *Corporate governance score* measures a company's systems and processes, which ensure that its board members and executives act in the best interests of its long term shareholders. It reflects a company's capacity, through its use of best management practices, to direct and control its rights and responsibilities through the creation of incentives, as well as checks and balances in order to generate long-term shareholder value.

[24] For example, Edmans and Manso (2011) suggest that large blockholdings represents strong corporate governance. Institutional shareholdings are usually held in blocks. Moreover, Yun (2009) employs the ownership of institutional investors to measure the quality of corporate governance in an empirical study.

[25] Board-related variables are used to evaluate the strength of corporate governance in previous studies. See, for example, Yermack (1996), John and Senbet (1998), Carter et al. (2003), Francoeur et al. (2008), Harford et al. (2008), McKnight and Weir (2009), Bhagat and Bolton (2013) and Nikolov and Whited (2014).

(*Table 2 Continued*)

	Dividend. Dividend is measured by cash dividends (COMPUSTAT item DV), scaled by total assets (COMPUSTAT item AT), since cash dividends are more related to a firm's fund flows than book measure[26]. In line with the sticky dividend policy (Lintner (1956)), cutting dividends is costly to firms as it signals to the market that the firms are associated with negative information content such as low growth perspectives and low cash flows (Black (1976) and Ghosh and Woolridge (1988)). On the other hand, firms receive less punishment when they reduce share repurchases compared with dividend cuts (Stephens and Weisbach (1998)). Therefore, dividend payouts are more likely to represent a firm's long-term commitment to shareholders. As a results, we consider dividend payouts as a form of cash distribution to shareholders, not including share repurchases. *Cash holdings.* Following Dittmar and Mahrt-Smith (2007)'s specification, we estimate excess cash holdings by taking the residual, e, from the regression model as shown in Equation 5. Operational cash holdings for precautionary motives are the difference between the actual cash level and the residual from Equation 5, i.e. the predicted value of the regression model based on Equation 5. The variables that are used to estimate excess cash and operational cash holdings are scaled by total assets net of cash and cash equivalents, which has been described in Section 3.4.
Control Variables	*Hypothesis 1.* As shown in Equations 1, in addition to corporate governance, we control for firm-specific characteristics that are related to the issuance decisions by including firm size, tangibility, cash holdings, profitability, market-to-book, leverage, R&D expenses, industry and dividend payers[27]. *Hypotheses 2 to 4.* Several determinants related to issuance motivation decisions are included as controls in Equations 2, 3, 4, 6, and 7. Following Chang et al. (2014), our model specifications include equity issues, debt issues, operating cash flows, firm size, market-to-book, sales growth, leverage and tangibility.

[26]See, for example, La Porta et al. (2000), Hu and Kumar (2004), and John et al. (2015). They use cash dividend as a firm's payout decision rather than book dividends, which is more related to an immediate cash payout commitment.

[27]See, for example, Jung et al. (1996), Dutordoir et al. (2014), and Huang and Ritter (2015) use firm-level variables to control for firm-specific variations.

Table 3. Summary Statistics

This table reports summary statistics of 6,153 firm-year observations for 733 firms covering the period from 2002 to 2015 (Panel A). The construction of variables is detailed in the Table 1. Size is the natural logarithm of total assets, which is in million units. BoardInd and BoardFemale are expressed in the percentage form and InstShrown is in its original value. The last six variables (whose names start with CashEst_), are the variables used to estimate OpCash and ExCash according to Equation 5, the definitions of which are also provided in the Table 1. Panel B reports simple univariate t-test results of the issuance effects for some firm characteristics, governance measures and hypothesis-related variables. Columns (1) and (2) shows the mean differences and t-statistics of debt issuance effect, i.e. whether a large difference in means of the variables before and after debt issuance occurs. Columns (3) and (4) and Columns (5) and (6) report the mean differences and the corresponding t-statistics in the event of equity issuance and dual security issuance (issue both equity and debt in the same year), respectively.

Panel A

Variable	**Mean**	**Median**	**Min**	**Max**	**Std.Dev.**	**N**
Cash	0.126	0.083	0.001	0.705	0.131	6,153
Profitability	0.056	0.057	-0.328	0.267	0.075	6,153
R&D	0.037	0.001	0.000	0.714	0.082	6,153
Size	9.064	8.974	4.998	12.303	1.369	6,153
Market-to-book	1.934	1.592	0.677	7.323	1.082	6,153
SaleGr	0.092	0.067	-0.431	1.273	0.216	6,153
NetOCF	0.112	0.106	-0.133	0.321	0.067	6,153
Leverage	0.242	0.233	0.000	0.662	0.154	6,153
Tangibility	0.323	0.251	0.013	0.891	0.243	6,153
CashDiv	0.018	0.012	0.000	0.108	0.021	6,153
ExCash	0.095	0.299	-4.746	3.126	1.241	6,153
OpCash	-2.609	-2.658	-4.737	0.673	0.802	6,153
GovScore	72.094	77.670	1.660	98.780	20.540	6,153
BoardInd (%)	65.137	76.050	0.000	94.760	27.849	6,153
ShhldrRights	64.636	69.620	0.000	98.990	26.197	6,153
BoardFemale (%)	12.875	12.500	0.000	60.000	9.752	6,153
InstShrown	0.611	0.704	0.000	1.000	0.293	6,153
CashEst_Cash	-2.513	-2.397	-6.626	0.871	1.403	6,153
CashEst_Size	8.913	8.854	4.302	12.243	1.439	6,153
CashEst_OP	0.122	0.114	-0.423	0.481	0.096	6,153
CashEst_NWC	0.012	0.005	-0.603	0.395	0.140	6,153
CashEst_IndSigma	0.087	0.083	0.024	0.170	0.038	6,153
CashEst_R&D	0.034	0.001	0.000	0.598	0.076	6,153

Panel B

	Debt Issuance		Equity Issuance		Dual Issuance	
	(1)	(2)	(3)	(4)	(5)	(6)
	Dif.	t-stat.	Dif.	t-stat.	Dif.	t-stat.
Cash	0.074	21.563	0.017	2.797	0.063	7.836
Profitability	0.009	4.386	0.031	9.223	0.026	5.523
CashDiv	-0.004	-6.499	0.004	4.616	0.002	1.254
OpCash	0.731	37.447	0.254	6.972	0.726	14.993
ExCash	0.044	1.260	0.074	-0.001	0.067	0.851
GovScore	-2.969	-5.339	4.305	4.637	3.688	2.934
BoardInd	-0.944	-1.229	8.346	6.537	7.612	4.400
ShhldrRights	0.592	0.813	4.210	3.471	6.197	3.778
BoardFemale	-1.975	-7.217	2.217	4.843	0.122	0.197
InstShrown	0.067	8.201	0.162	12.019	0.180	9.871

Table 4. Univariate Results Sorted by Governance Measures

This table reports the univariate t-test results of M&A decisions, dividend payouts and cash holdings between the 1^{st} and 4^{th} quartiles sorted by various governance measures; namely, governance score, board independence, shareholder rights, fraction of female members on the board and institutional ownership. Each panel tests Hypotheses 2 to 4, respectively. Panel A shows the univariate test results of M&A transactions on both the whole sample and the issuance-only sample, lagged by one year, between poor and good governance firms. Panel B reports the univariate test results according to Hypothesis 3, regarding dividend payouts. In addition to the issuance-only sample, Columns (5) and (6) and Columns (7) and (8) report the equity issuance effect and the debt issuance effect, respectively, between weak and good governance firms according to Hypotheses 3a and 3b. The results of operational cash holdings and excess cash holdings in terms of Hypotheses 4a and 4b are presented in Columns (1)-(4) and Columns (5)-(8), respectively Panel C. All sample consists of the entire 6,153 firm-year observations; issuance-only sample consists of firm-year observations with both equity and debt issuance; equity-issuance and debt-issuance samples are the firm-year observations that issue equity and issue debt, respectively.

Panel A: M&A

	All sample		Issuance effect	
	(1)	(2)	(3)	(4)
Governance	Dif.	t-stat.	Dif.	t-stat.
measure				
GovScore	-0.018	-1.028	0.086	2.983
BoardInd	0.034	1.921	0.151	5.223
ShhldrRights	-0.006	-0.347	0.037	1.283
BoardFemale	-0.006	-0.339	0.0004	0.015
InstShrown	0.144	8.175	0.225	7.206

Panel B: Cash Dividends

	All sample		Issuance effect		Equity-issuance effect		Debt-issuance effect	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Governance	Dif.	t-stat.	Dif.	t-stat.	Dif.	t-stat.	Dif.	t-stat.
measure								
GovScore	-0.006	-7.713	-0.008	-6.966	-0.004	-1.623	-0.008	-6.469
BoardInd	-0.001	-1.838	-0.002	-1.842	-0.001	-0.373	-0.002	-1.234
ShhldrRights	-0.00001	-0.011	-0.001	-0.665	0.001	0.652	-0.001	-0.640

(*Table 4 Continued*)

BoardFemale	-0.010	-13.718	-0.013	-11.056	-0.006	-2.627	-0.014	-10.742
InstShrown	0.013	18.642	0.013	10.823	0.014	6.289	0.013	10.662

Panel C: Cash Holdings

	All sample - OpCash		Issuance effect - OpCash		All sample - ExCash		Issuance effect - ExCash	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Governance	Dif.	t-stat.	Dif.	t-stat.	Dif.	t-stat.	Dif.	t-stat.
measure								
GovScore	0.323	11.298	0.072	1.884	-0.066	-1.497	0.108	1.478
BoardInd	0.068	2.414	-0.131	-3.402	0.287	6.409	0.666	9.065
ShhldrRights	-0.014	-0.493	0.018	0.454	-0.101	-2.230	-0.129	-1.691
BoardFemale	0.269	9.072	0.127	3.028	-0.155	-3.454	-0.170	-2.131
InstShrown	-0.578	-19.826	-0.613	-14.287	0.452	10.202	0.782	9.609

Table 5. Corporate Governance and Security Issuance Decisions

This table presents logistic regression results on the issuance decision in relation to corporate governance across various governance measures. The dependent variable in Panel A is the equity issuance decision, taking a value of 1 if a firm issues seasoned equity in year t and 0 otherwise. Panel B reports the results on the same specifications with the dependent variable indicating the debt issuance decision, equal to 1 if a firm issues debt in year t and 0 otherwise. *Resid_GovScore* is the residual estimated governance auxiliary regression, as shown in the Appendix Table B3. Standard errors are White robust standard errors adjusted for heteroskedasticity (White (1980)). z-stats are reported in brackets. ***, **, and * signify results significant at the 1%, 5%, and 10% levels, respectively. Though not reported, all models include 2-digit SIC industry and year indicators to control for industry and year effects.

Panel A: Equity Issuance								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GovScore	-0.011***							
	[-4.522]							
Size	0.199***	0.152***	0.207***	0.199***	0.216***	0.117**	0.125**	0.121**
	[3.789]	[2.906]	[3.931]	[3.759]	[4.065]	[2.246]	[2.319]	[2.226]
Tangibility	0.550	0.479	0.653*	0.679*	0.662*	0.417	0.313	0.352
	[1.461]	[1.249]	[1.705]	[1.776]	[1.743]	[1.053]	[0.805]	[0.901]
Cash	0.736	0.510	0.860	0.883	0.855	0.529	0.304	0.338
	[1.239]	[0.858]	[1.452]	[1.495]	[1.449]	[0.880]	[0.505]	[0.560]
Profitability	-4.400***	-4.413***	-4.368***	-4.355***	-4.414***	-4.174***	-4.213***	-4.192***
	[-5.794]	[-5.908]	[-5.714]	[-5.716]	[-5.761]	[-5.369]	[-5.494]	[-5.469]
Market-to-book	0.248***	0.258***	0.246***	0.243***	0.252***	0.254***	0.267***	0.267***
	[3.743]	[3.932]	[3.627]	[3.669]	[3.822]	[3.857]	[4.120]	[4.106]
Leverage	2.648***	2.588***	2.729***	2.712***	2.667***	2.772***	2.651***	2.660***
	[6.252]	[6.065]	[6.447]	[6.390]	[6.258]	[6.406]	[6.069]	[6.086]
R&D	0.054	0.215	-0.123	0.050	0.012	0.378	0.394	0.391
	[0.064]	[0.260]	[-0.142]	[0.059]	[0.014]	[0.448]	[0.474]	[0.469]
d_R&D	-0.045	0.0002	-0.056	-0.045	-0.108	0.142	0.059	0.056
	[-0.264]	[0.001]	[-0.329]	[-0.267]	[-0.637]	[0.832]	[0.338]	[0.324]
DivPayer	-0.165	-0.155	-0.166	-0.205	-0.139	-0.271*	-0.205	-0.211
	[-1.208]	[-1.147]	[-1.209]	[-1.480]	[-1.018]	[-1.955]	[-1.491]	[-1.526]
BoardInd		-0.014***					-0.007***	-0.008***

(*Table 5 Continued*)

		[-7.210]					[-3.001]	[-3.261]
CEOCompTSR			-0.430***				-0.054	-0.088
			[-3.778]				[-0.430]	[-0.698]
ShhldrRights				-0.007***			-0.002	-0.003
				[-3.272]			[-0.984]	[-1.232]
BoardFemale					-0.025***		-0.009	-0.011
					[-3.613]		[-1.270]	[-1.540]
InstShrown						-1.502***	-1.008***	-1.055***
						[-8.021]	[-4.422]	[-4.605]
Resid_GovScore								0.006
								[1.552]
Constant	-3.857***	-3.637***	-4.525***	-4.105***	-4.543***	-3.261***	-2.970***	-2.822***
	[-4.954]	[-4.557]	[-5.782]	[-5.174]	[-5.846]	[-4.176]	[-3.700]	[-3.438]
Observations	4,863	4,863	4,863	4,863	4,863	4,863	4,863	4,863
Pseudo R-squared	0.123	0.133	0.121	0.120	0.121	0.137	0.142	0.143

(*Table 5 Continued*)

Panel B: Debt Issuance								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GovScore	0.006***							
	[3.481]							
Size	0.834***	0.855***	0.839***	0.843***	0.843***	0.881***	0.878***	0.872***
	[23.207]	[23.595]	[23.318]	[23.453]	[23.323]	[23.652]	[23.173]	[22.933]
Tangibility	0.107	0.130	0.084	0.044	0.048	0.176	0.199	0.208
	[0.429]	[0.517]	[0.334]	[0.176]	[0.192]	[0.699]	[0.792]	[0.825]
Cash	-2.952***	-2.919***	-2.931***	-3.005***	-2.996***	-2.904***	-2.867***	-2.877***
	[-6.114]	[-6.041]	[-6.060]	[-6.226]	[-6.216]	[-6.011]	[-5.913]	[-5.949]
Profitability	2.533***	2.569***	2.509***	2.565***	2.595***	2.546***	2.492***	2.488***
	[3.520]	[3.562]	[3.462]	[3.541]	[3.578]	[3.519]	[3.451]	[3.450]
Market-to-book	0.104**	0.107**	0.110**	0.111**	0.110**	0.115**	0.115**	0.114**
	[2.026]	[2.097]	[2.143]	[2.171]	[2.147]	[2.222]	[2.209]	[2.191]
Leverage	3.048***	3.047***	3.023***	3.027***	3.020***	3.043***	3.053***	3.059***
	[9.959]	[9.956]	[9.863]	[9.881]	[9.862]	[9.971]	[9.993]	[10.011]
R&D	-2.314**	-2.265**	-2.249**	-2.245**	-2.250**	-2.304**	-2.280**	-2.289**
	[-2.522]	[-2.468]	[-2.464]	[-2.471]	[-2.464]	[-2.529]	[-2.498]	[-2.502]
d_R&D	-0.121	-0.115	-0.121	-0.113	-0.113	-0.171	-0.166	-0.175
	[-1.155]	[-1.099]	[-1.153]	[-1.078]	[-1.081]	[-1.624]	[-1.560]	[-1.640]
DivPayer	0.004	0.008	0.011	0.020	0.011	0.062	0.055	0.048
	[0.040]	[0.080]	[0.113]	[0.205]	[0.112]	[0.633]	[0.549]	[0.480]
BoardInd		0.005***					0.002	0.001
		[3.363]					[1.252]	[0.715]
CEOCompTSR			0.181**				0.093	0.081
			[2.447]				[1.198]	[1.031]
ShhldrRights				0.002			0.0002	-0.00001
				[1.216]			[0.163]	[-0.008]
BoardFemale					0.002		-0.003	-0.004
					[0.518]		[-0.726]	[-1.036]

(*Table 5 Continued*)

InstShrown						0.602***	0.481***	0.442***
						[4.344]	[3.036]	[2.778]
Resid_GovScore								0.005*
								[1.756]
Constant	-7.997***	-8.044***	-7.717***	-7.743***	-7.649***	-8.517***	-8.564***	-8.403***
	[-10.446]	[-10.473]	[-10.315]	[-10.206]	[-10.125]	[-10.841]	[-10.890]	[-10.564]
Observations	5,278	5,278	5,278	5,278	5,278	5,278	5,278	5,278
Pseudo R-squared	0.251	0.251	0.250	0.249	0.249	0.252	0.252	0.253

Table 6. The Joint Effect of Security Issuance and Corporate Governance on M&A investments

This table shows the logistic regression results on firms' acquisition decision in relation to corporate governance with the issuance effect. The dependent variable is the acquisition decision, equal to 1 if any acquisition occurs for the firm in year t and 0 otherwise. *Issue* is a dummy variable, taking a value of 1 if the firm has a new security issuance (either equity or debt) in year $t-1$ and 0 otherwise - i.e. *Issue* $= 1$ as long as the firm has the new security issuance, either equity or debt, in year $t-1$. Variables with the suffix *_Iss* in the variable name are the interaction terms of *Issue* and governance measures. *Resid_GovScore* is the residual estimated governance auxiliary regression, as shown in the Appendix Table B3. Standard errors are White robust standard errors adjusted for heteroskedasticity (White (1980)). z-stats are reported in brackets. ***, **, and * signify results significant at the 1%, 5%, and 10% levels, respectively. Though not reported, all models include 2-digit SIC industry and year indicators to control for industry and year effects.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
GovScore	0.005**								
	[2.350]								
GovScore_Iss	-0.011***								
	[-3.652]								
Issue	0.999***	0.850***	0.432***	0.427**	0.218**	0.684***	0.927***	0.701**	0.217***
	[4.334]	[3.756]	[4.310]	[2.568]	[1.975]	[4.646]	[3.543]	[2.427]	[3.007]
Size	0.424***	0.412***	0.427***	0.425***	0.436***	0.411***	0.409***	0.406***	0.417***
	[14.070]	[13.358]	[14.184]	[14.170]	[14.324]	[13.229]	[12.248]	[12.058]	[12.864]
Market-to-book	-0.021	-0.017	-0.017	-0.022	-0.016	-0.024	-0.012	-0.013	-0.019
	[-0.538]	[-0.425]	[-0.448]	[-0.563]	[-0.405]	[-0.619]	[-0.316]	[-0.338]	[-0.485]
SaleGr	0.590***	0.535***	0.596***	0.596***	0.566***	0.588***	0.521***	0.525***	0.580***
	[3.701]	[3.257]	[3.770]	[3.765]	[3.572]	[3.724]	[3.167]	[3.182]	[3.633]
NetOCF	2.248***	2.589***	2.296***	2.285***	2.393***	2.242***	2.562***	2.534***	2.294***
	[3.662]	[4.130]	[3.752]	[3.711]	[3.903]	[3.680]	[4.068]	[4.018]	[3.732]
Leverage	-1.308***	-1.211***	-1.257***	-1.242***	-1.245***	-1.239***	-1.225***	-1.251***	-1.292***
	[-4.702]	[-4.214]	[-4.542]	[-4.487]	[-4.487]	[-4.459]	[-4.254]	[-4.330]	[-4.648]
Tangibility	-1.076***	-1.083***	-1.075***	-1.081***	-1.112***	-1.074***	-1.092***	-1.093***	-1.129***
	[-4.347]	[-4.240]	[-4.352]	[-4.374]	[-4.467]	[-4.299]	[-4.243]	[-4.249]	[-4.516]
BoardInd		0.003					0.003	0.002	0.0001
		[1.584]					[1.164]	[0.741]	[0.054]

(*Table 6 Continued*)

BoardInd_Iss		-0.009***					-0.005	-0.003	
		[-3.084]					[-1.270]	[-0.734]	
CEOCompTSR			0.188**				0.143	0.135	0.049
			[2.235]				[1.593]	[1.494]	[0.699]
CEOCompTSR_Iss			-0.412***				-0.257*	-0.232*	
			[-3.328]				[-1.846]	[-1.659]	
ShhldrRights				0.002			0.001	0.0004	0.001
				[1.195]			[0.430]	[0.252]	[0.449]
ShhldrRights_Iss				-0.003			-0.001	-0.0001	
				[-1.503]			[-0.295]	[-0.044]	
BoardFemale					-0.007		-0.009**	-0.010**	-0.008**
					[-1.616]		[-1.997]	[-2.156]	[-2.064]
BoardFemale_Iss					-0.001		0.008	0.010	
					[-0.161]		[1.094]	[1.394]	
InstShrown						0.192	0.057	0.029	-0.188
						[1.278]	[0.309]	[0.155]	[-1.320]
InstShrown_Iss						-0.797***	-0.481*	-0.439	
						[-3.759]	[-1.801]	[-1.639]	
Resid_GovScore								0.005	0.007**
								[1.366]	[2.549]
Resid_GovScore_Iss								-0.009*	-0.013***
								[-1.930]	[-3.439]
Constant	-2.654***	-2.553***	-2.442***	-2.471***	-2.449***	-2.275***	-2.585***	-2.414***	-2.060***
	[-3.647]	[-3.479]	[-3.387]	[-3.429]	[-3.381]	[-3.077]	[-3.379]	[-3.102]	[-2.742]
Observations	5,321	5,046	5,321	5,317	5,311	5,321	5,038	5,038	5,321
Pseudo R-squared	0.116	0.114	0.116	0.115	0.115	0.117	0.116	0.116	0.117

Table 7. The Joint Effect of Security Issuance and Corporate Governance on Dividend Payouts

This table shows the OLS regression results on firms' dividend payout decision in relation to corporate governance with the issuance effect. The dependent variable is firm cash dividend. Panel A presents the results of Hypothesis3a, the joint effect of equity issuance corporate governance on dividend payouts. *EquityIssue* is a dummy variable, taking a value of 1 if the firm has a new seasoned equity issuance in year $t-1$ and 0 otherwise. Variables with the suffix *_EquityIss* in the variable name are the interaction terms of *EquityIssue* and governance measures. Panel B presents the results of Hypothesis 3b, the joint effect of debt issuance corporate governance on dividend payouts. *DebtIssue* is a dummy variable, taking a value of 1 if the firm has a new debt issuance in year $t-1$ and 0 otherwise. The variables with the suffix *_DebtIss* in the variable names are the interaction terms of *DebtIssue* and governance measures. *Resid_GovScore* is the residual estimated the governance auxiliary regression, as shown in the Appendix Table B3. Standard errors are White robust standard errors adjusted for heteroskedasticity (White (1980)). t-stats are reported in brackets. ***, **, and * signify results significant at the 1%, 5%, and 10% levels, respectively. Though not reported, all models include 2-digit SIC industry and year indicators to control for industry and year effects.

Panel A: Equity Issuance and Cash Dividends

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
GovScore	-0.001								
	[-0.776]								
GovScore_EquityIss	0.004								
	[0.977]								
EquityIssue	-0.366	-0.274	-0.077	-0.130	-0.103	-0.446***	-0.386	-0.269	-0.168**
	[-1.222]	[-1.149]	[-0.631]	[-0.592]	[-0.858]	[-3.214]	[-1.344]	[-0.889]	[-2.200]
Size	0.304***	0.329***	0.298***	0.306***	0.276***	0.245***	0.213***	0.212***	0.192***
	[13.563]	[14.125]	[13.235]	[13.542]	[12.020]	[10.616]	[8.671]	[8.602]	[8.021]
Market-to-book	0.383***	0.373***	0.382***	0.386***	0.366***	0.373***	0.336***	0.337***	0.351***
	[9.204]	[8.735]	[9.213]	[9.196]	[8.794]	[9.083]	[7.988]	[7.992]	[8.576]
SaleGr	-1.280***	-1.260***	-1.266***	-1.277***	-1.194***	-1.244***	-1.081***	-1.077***	-1.085***
	[-9.778]	[-9.288]	[-9.697]	[-9.836]	[-9.133]	[-9.566]	[-7.897]	[-7.839]	[-8.248]
NetOCF	7.910***	7.704***	7.882***	7.915***	7.798***	8.094***	7.816***	7.815***	8.008***
	[15.065]	[14.313]	[15.079]	[14.991]	[14.981]	[15.759]	[14.934]	[14.938]	[15.764]
Leverage	0.034	0.096	0.023	0.028	0.041	0.064	0.125	0.126	0.078
	[0.153]	[0.421]	[0.103]	[0.128]	[0.184]	[0.292]	[0.554]	[0.559]	[0.357]
Tangibility	0.188	0.119	0.204	0.184	0.268	-0.039	0.004	0.010	0.087
	[0.983]	[0.608]	[1.066]	[0.965]	[1.420]	[-0.207]	[0.023]	[0.051]	[0.470]

(*Table 7 Continued*)

BoardInd		0.001					0.007***	0.007***	0.005***
		[0.394]					[3.971]	[3.770]	[3.743]
BoardInd_EquityIss		0.003					0.001	0.0002	
		[0.985]					[0.239]	[0.051]	
CEOCompTSR			0.087				0.168***	0.167***	0.157***
			[1.639]				[3.093]	[3.058]	[3.061]
CEOCompTSR_EquityIss			-0.028				-0.149	-0.162	
			[-0.190]				[-0.867]	[-0.963]	
ShhldrRights				-0.002**			-0.001	-0.001	-0.002*
				[-2.249]			[-1.235]	[-1.267]	[-1.829]
ShhldrRights_EquityIss				0.0003			0.0004	-0.0001	
				[0.103]			[0.141]	[-0.039]	
BoardFemale					0.018***		0.021***	0.021***	0.022***
					[6.059]		[6.971]	[6.862]	[7.542]
BoardFemale_EquityIss					0.002		0.004	0.003	
					[0.245]		[0.420]	[0.278]	
InstShrown						-1.092***	-1.513***	-1.520***	-1.443***
						[-10.551]	[-12.367]	[-12.278]	[-13.030]
InstShrown_EquityIss						0.517**	0.355	0.329	
						[2.304]	[1.276]	[1.173]	
Resid_GovScore								0.001	-0.0001
								[0.415]	[-0.053]
Resid_GovScore_EquityIss								0.004	0.006
								[0.643]	[1.253]
Constant	-2.471***	-2.712***	-2.555***	-2.404***	-2.597***	-1.127***	-1.222***	-1.206***	-1.018***
	[-7.460]	[-7.936]	[-7.998]	[-7.469]	[-7.775]	[-3.284]	[-3.407]	[-3.323]	[-2.946]
Observations	5,333	5,057	5,333	5,329	5,323	5,333	5,049	5,049	5,333
Adjusted R-squared	0.320	0.327	0.320	0.320	0.324	0.336	0.356	0.356	0.349

(*Table 7 Continued*)

Panel B: Debt Issuance and Cash Dividends									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
GovScore	-0.004**								
	[-2.365]								
GovScore_DebtIss	0.009***								
	[3.315]								
DebtIssue	-0.441**	-0.083	0.179**	0.190	-0.053	-0.302**	-0.128	0.011	0.211***
	[-2.043]	[-0.400]	[2.181]	[1.323]	[-0.602]	[-2.420]	[-0.538]	[0.044]	[3.876]
Size	0.273***	0.297***	0.267***	0.272***	0.250***	0.217***	0.187***	0.187***	0.163***
	[11.306]	[11.756]	[10.980]	[11.193]	[10.144]	[8.702]	[7.119]	[7.118]	[6.380]
Market-to-book	0.377***	0.372***	0.377***	0.382***	0.362***	0.371***	0.334***	0.333***	0.344***
	[9.092]	[8.771]	[9.153]	[9.144]	[8.752]	[9.126]	[8.021]	[8.004]	[8.461]
SaleGr	-1.294***	-1.277***	-1.282***	-1.295***	-1.208***	-1.264***	-1.106***	-1.104***	-1.114***
	[-9.934]	[-9.464]	[-9.885]	[-10.004]	[-9.291]	[-9.762]	[-8.105]	[-8.054]	[-8.486]
NetOCF	8.053***	7.786***	7.972***	8.015***	7.861***	8.313***	7.940***	7.955***	8.210***
	[15.478]	[14.615]	[15.414]	[15.332]	[15.279]	[16.353]	[15.317]	[15.341]	[16.283]
Leverage	-0.117	-0.087	-0.169	-0.177	-0.118	-0.141	-0.069	-0.056	-0.088
	[-0.523]	[-0.380]	[-0.756]	[-0.788]	[-0.527]	[-0.640]	[-0.305]	[-0.249]	[-0.404]
Tangibility	0.167	0.095	0.196	0.179	0.261	-0.109	-0.034	-0.035	0.053
	[0.873]	[0.484]	[1.028]	[0.937]	[1.388]	[-0.577]	[-0.177]	[-0.182]	[0.289]
BoardInd		-0.001					0.007***	0.007***	0.005***
		[-0.507]					[3.405]	[3.395]	[3.756]
BoardInd_DebtIss		0.004*					-0.001	-0.002	
		[1.651]					[-0.214]	[-0.583]	
CEOCompTSR			0.054				0.170***	0.173***	0.146***
			[0.826]				[2.580]	[2.617]	[2.842]
CEOCompTSR_DebtIss			0.064				-0.067	-0.087	
			[0.666]				[-0.680]	[-0.885]	

(*Table 7 Continued*)

ShhldrRights				-0.003**			-0.001	-0.001	-0.002*
				[-1.961]			[-0.688]	[-0.601]	[-1.787]
ShhldrRights_DebtIss				0.001			-0.001	-0.002	
				[0.272]			[-0.667]	[-0.865]	
BoardFemale					0.010***		0.016***	0.016***	0.021***
					[2.865]		[4.382]	[4.394]	[7.381]
BoardFemale_DebtIss					0.019***		0.014***	0.012**	
					[3.879]		[2.686]	[2.298]	
InstShrown						-1.375***	-1.658***	-1.655***	-1.422***
						[-11.258]	[-11.801]	[-11.584]	[-12.937]
InstShrown_DebtIss						0.905***	0.554***	0.533***	
						[5.318]	[2.787]	[2.671]	
Resid_GovScore								-0.001	-0.004*
								[-0.380]	[-1.839]
Resid_GovScore_DebtIss								0.006*	0.013***
								[1.687]	[4.026]
Constant	-2.088***	-2.431***	-2.358***	-2.195***	-2.410***	-0.888**	-1.045***	-1.093***	-0.901**
	[-6.012]	[-6.992]	[-7.266]	[-6.559]	[-7.100]	[-2.562]	[-2.802]	[-2.882]	[-2.549]
Observations	5,333	5,057	5,333	5,329	5,323	5,333	5,049	5,049	5,333
Adjusted R-squared	0.323	0.330	0.321	0.322	0.328	0.341	0.360	0.360	0.353

Table 8. The Joint Effect of Security Issuance and Corporate Governance on Cash Holdings

This table shows the OLS regression results on firm cash holdings, consisting of the portion of precautionary needs and the portion of managerial discretionary intentions, in the presence of new security issuance. The dependent variable in Panel A is firm cash holdings for precautionary motives, which is the predicted value from the regression based on Equation 5. Panel A presents the results of Hypothesis 4a, the joint effect of equity issuance corporate governance on precautionary cash savings. The dependent variable in Panel B is excess cash holdings for discretionary motives, which is the residual of the regression based on Equation 5. *Issue* is a dummy variable, taking a value of 1 if the firm has a new security issuance (either equity or debt) in year $t-1$ and 0 otherwise - i.e. *Issue* $= 1$ as long as the firm has new security issuance, either equity or debt, in year $t-1$. Variables with the suffix *_Iss* in the variable name are the interaction terms of *Issue* and governance measures. *Resid_GovScore* is the residual estimated governance auxiliary regression, as shown in Appendix Table B3. Standard errors are White robust standard errors adjusted for heteroskedasticity (White (1980)). t-stats are reported in brackets. ***, **, and * signify results significant at the 1%, 5%, and 10% levels, respectively. Though not reported, all models include 2-digit SIC industry and year indicators to control for industry and year effects.

Panel A: Precautionary Cash Holdings									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
GovScore	-0.0002								
	[-0.615]								
GovScore_Iss	0.0004								
	[1.177]								
Issue	-0.049**	-0.039	-0.033***	-0.047***	-0.029**	0.001	-0.053*	-0.062*	-0.023***
	[-2.031]	[-1.599]	[-3.054]	[-2.792]	[-2.515]	[0.049]	[-1.890]	[-1.914]	[-3.116]
Size	-0.432***	-0.434***	-0.432***	-0.433***	-0.433***	-0.434***	-0.435***	-0.435***	-0.434***
	[-119.665]	[-115.795]	[-120.240]	[-120.503]	[-117.362]	[-116.863]	[-107.564]	[-106.771]	[-111.119]
Market-to-book	0.125***	0.124***	0.125***	0.126***	0.125***	0.125***	0.124***	0.124***	0.124***
	[16.409]	[16.290]	[16.423]	[16.564]	[16.379]	[16.355]	[16.110]	[16.079]	[16.259]
SaleGr	-0.056***	-0.046**	-0.058***	-0.055***	-0.054***	-0.056***	-0.045**	-0.045**	-0.055***
	[-2.785]	[-2.269]	[-2.924]	[-2.766]	[-2.693]	[-2.820]	[-2.220]	[-2.207]	[-2.725]
NetOCF	0.739***	0.708***	0.742***	0.727***	0.731***	0.738***	0.701***	0.700***	0.739***
	[7.049]	[6.567]	[7.095]	[6.934]	[6.952]	[7.014]	[6.487]	[6.472]	[7.019]
Leverage	-0.115***	-0.114***	-0.115***	-0.116***	-0.118***	-0.117***	-0.113***	-0.113***	-0.115***
	[-3.717]	[-3.589]	[-3.753]	[-3.785]	[-3.827]	[-3.826]	[-3.529]	[-3.543]	[-3.748]
Tangibility	-0.135***	-0.132***	-0.139***	-0.134***	-0.132***	-0.138***	-0.130***	-0.130***	-0.141***
	[-5.744]	[-5.382]	[-5.915]	[-5.719]	[-5.619]	[-5.827]	[-5.282]	[-5.289]	[-5.940]
BoardInd		-0.0003					-0.0002	-0.0003	0.0001
		[-0.900]					[-0.675]	[-0.762]	[0.732]

(*Table 8 Continued*)

BoardInd_Iss		0.0002					0.0005	0.001	
		[0.697]					[1.269]	[1.357]	
CEOCompTSR			-0.026**				-0.021*	-0.021*	-0.019**
			[-2.463]				[-1.827]	[-1.880]	[-2.387]
CEOCompTSR_Iss			0.018				0.012	0.012	
			[1.454]				[0.798]	[0.867]	
ShhldrRights				-0.0001			-0.00005	-0.00006	0.0001
				[-0.460]			[-0.224]	[-0.293]	[1.081]
ShhldrRights_Iss				0.0004			0.0004*	0.0004*	
				[1.586]			[1.695]	[1.785]	
BoardFemale					0.0001		0.0001	0.00006	0.0004
					[0.270]		[0.183]	[0.107]	[1.051]
BoardFemale_Iss					0.0005		0.0004	0.0005	
					[0.773]		[0.598]	[0.695]	
InstShrown						-0.006	0.017	0.016	-0.028*
						[-0.326]	[0.795]	[0.721]	[-1.793]
InstShrown_Iss						-0.038*	-0.071***	-0.069***	
						[-1.747]	[-2.754]	[-2.666]	
Resid_GovScore								0.0002	0.00006
								[0.479]	[0.162]
Resid_Govscore_Iss								-0.0004	-0.00003
								[-0.670]	[-0.073]
Constant	0.573***	0.589***	0.573***	0.571***	0.561***	0.589***	0.600***	0.608***	0.588***
	[10.502]	[10.083]	[10.837]	[10.556]	[10.253]	[10.348]	[9.558]	[9.206]	[9.973]
Observations	5,333	5,057	5,333	5,329	5,323	5,333	5,049	5,049	5,333
Adjusted R-squared	0.909	0.907	0.909	0.909	0.909	0.909	0.907	0.907	0.909

(*Table 8 Continued*)

Panel B: Discretionary Cash Holdings									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
GovScore	-0.003***								
	[-4.703]								
GovScore_Iss	0.001								
	[0.763]								
Issue	-0.129	0.011	-0.066	-0.260***	-0.079	0.081	-0.153		-0.060**
	[-1.403]	[0.122]	[-1.567]	[-3.525]	[-1.637]	[1.498]	[-1.527]		[-1.987]
Size	0.411***	0.396***	0.408***	0.405***	0.412***	0.382***	0.383***	0.381***	0.391***
	[33.730]	[31.698]	[33.584]	[33.322]	[33.665]	[30.863]	[29.214]	[28.708]	[30.548]
Market-to-book	0.114***	0.117***	0.111***	0.109***	0.116***	0.108***	0.114***	0.113***	0.113***
	[7.053]	[7.064]	[6.879]	[6.748]	[7.188]	[6.680]	[6.863]	[6.825]	[7.043]
SaleGr	-0.236***	-0.248***	-0.223***	-0.210***	-0.237***	-0.207***	-0.236***	-0.237***	-0.238***
	[-3.151]	[-3.125]	[-2.996]	[-2.805]	[-3.180]	[-2.814]	[-2.986]	[-2.999]	[-3.186]
NetOCF	-0.637**	-0.687***	-0.676***	-0.664**	-0.678***	-0.640**	-0.729***	-0.725***	-0.641**
	[-2.456]	[-2.583]	[-2.616]	[-2.547]	[-2.619]	[-2.483]	[-2.738]	[-2.721]	[-2.479]
Leverage	-1.098***	-1.102***	-1.097***	-1.083***	-1.119***	-1.095***	-1.097***	-1.114***	-1.102***
	[-9.320]	[-9.093]	[-9.264]	[-9.117]	[-9.437]	[-9.299]	[-9.013]	[-9.165]	[-9.388]
Tangibility	-1.395***	-1.460***	-1.380***	-1.358***	-1.375***	-1.431***	-1.459***	-1.457***	-1.473***
	[-11.831]	[-11.992]	[-11.795]	[-11.623]	[-11.648]	[-12.190]	[-11.855]	[-11.852]	[-12.413]
BoardInd		-0.004***					-0.004***	-0.003***	-0.003***
		[-5.279]					[-3.783]	[-3.274]	[-4.151]
BoardInd_Iss		-0.001					-0.0002	-0.001	
		[-0.736]					[-0.113]	[-1.030]	
CEOCompTSR			-0.077**				0.003	0.003	-0.003
			[-2.319]				[0.079]	[0.077]	[-0.097]
CEOCompTSR_Iss			0.0004				0.034	0.036	
			[0.008]				[0.591]	[0.622]	

(*Table 8 Continued*)

ShhldrRights				-0.001			0.00003	0.001	0.002***
				[-1.526]			[0.413]	[0.821]	[3.137]
ShhldrRights_Iss				0.003***			0.003***	0.003***	
				[2.901]			[3.077]	[2.823]	
BoardFemale					-0.006***		-0.002	-0.002	-0.002*
					[-3.485]		[-1.243]	[-1.097]	[-1.748]
BoardFemale_Iss					0.001		0.002	0.002	
					[0.477]		[0.821]	[0.650]	
InstShrown						-0.265***	-0.063	-0.054	-0.230***
						[-4.589]	[-0.889]	[-0.759]	[-3.943]
InstShrown_Iss						-0.241***	-0.252**	-0.270***	
						[-2.963]	[-2.429]	[-2.592]	
Resid_GovScore								0.00007	-0.001
								[0.057]	[-0.828]
Resid_GovScore_Iss								-0.000003	-0.001
								[-0.002]	[-0.663]
Constant	-2.216***	-2.060***	-2.393***	-2.363***	-2.432***	-1.961***	-1.948***	-1.994***	-1.983***
	[-11.835]	[-10.765]	[-13.038]	[-12.553]	[-13.258]	[-10.010]	[-9.477]	[-9.582]	[-9.912]
Observations	5,333	5,057	5,333	5,329	5,323	5,333	5,049	5,049	5,333
Adjusted R-squared	0.449	0.450	0.448	0.448	0.449	0.454	0.454	0.453	0.456

Table 9. Two-stage Least Square Regressions Accounting for Endogeneity

This table reports the regression results between corporate governance and dividends and between corporate governance and cash holdings after taking endogeneity into account. The results presented in this table are the variables of interest (i.e. the interaction term of security issuance decision and corporate governance), which corresponds to the regressions in Tables 7 and 8. The first row corresponds to Table 7 Panel A. The second row corresponds to Table 7 Panel B. The third row corresponds to Table 8 Panel A. The last row correspond to Table 8 Panel B. t-stats are reported in brackets. ***, **, and * signify results significant at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Interacted Variable	(1)	(2)	(3)	(4)	(5)	(6)
		GovScore	BoardInd	CEOCompTST	ShhldrRights	BoardFemale	InstShrown
Cash dividend	EquityIss*	-0.020	0.013	-0.875	-0.052	0.011	-0.043
		[-0.405]	[0.256]	[-0.984]	[-1.210]	[0.176]	[-0.014]
Cash dividend	DebtIss*	0.123***	0.207***	2.050***	0.071***	0.130***	9.702***
		[3.799]	[2.819]	[3.355]	[3.200]	[4.482]	[5.201]
Precautionary cash holdings	Iss*	-0.009**	-0.014*	-0.114	-0.006**	-0.005	-0.799***
		[-2.290]	[-1.881]	[-1.383]	[-2.022]	[-1.459]	[-2.868]
Discretionary cash holdings	Iss*	-0.023	-0.042	-0.576	-0.006	-0.013	-2.968***
		[-1.408]	[-1.351]	[-1.557]	[-0.546]	[-0.823]	[-2.609]

Appendix

A Global Equity and Debt Issuance

We use a sample of U.S. public companies from 2002 to 2015. We focus on U.S. companies as U.S. companies are the most active issuers worldwide[28]. Table A1 shows the U.S.'s standing of issuance relative to other countries and summarizes the percentage of issuing amount for the top 10 issuer countries. The United States contributed 17.176% and 39.025% of the global equity and debt issues, respectively, from 2002 to 2015. Equity issues of Chinese companies are globally larger than debt issues over the last 14 years, which is 12.480% of the global seasoned equity issuance compared with 3.429% of the world debt issues. The United States, with a debt issuance amount of US$ 39211.171 billion, has three times the amount of debt issuance proceeds as the second largest debt issuer country, the United Kingdom (with the amount of US$ 13883.472 billion). Overall, the United States dominates the security issuance market and is the biggest participant in the global capital market. In addition to its leading active role in the global primary market, there are several perspectives that address the importance of studying the United States capital market with respect to the relations between governance and issuance decisions, and governance and utilizations of issues proceeds. Firstly, U.S. companies are extremely active, even moreso given the long history of the American stock exchanges[29]. For example, there were 5,091 IPOs in the equity market over the period of 2002-2015. In contrast, countries like Japan and the United Kingdom have a relatively small number of IPOs (1,444 and 1,548, respectively) despite a similar length of stock exchange history[30]. Secondly, the United States had an average GDP of US$ 14768.83 billion between 2002

[28]Company security issuance and M&A transactions are extracted from Thomson One database.

[29]New York Stock Exchange was founded in 1972 and American Stock Exchange was founded in 1850.

[30]Tokyo Stock Exchange (Japan) was founded in 1878. London Stock Exchange (the United Kingdom) was founded in 1801.

and 2015[31] which is greater than any other country in the world. As a comparison, the average GDP in the United Kingdom was US$ 2273.17 billion. Thirdly, while the average nominal interest rate over the 2002-2015 period (3.78%) in the United States is neither the highest nor the lowest in the world, the US still contributed the highest amount of equity and debt in the global issuance market (17.176% and 39.025%). There could be some other benefits to U.S. companies such that they issue new corporate securities most frequently, which leads to our study on how corporate governance is related to firm security issuance decisions, via either equity or debt. U.S. companies raise more capital through debt than equity, which could be due to relatively lower costs of debt compared to equity. Since U.S. companies are protected under the common law system which provides strong shareholder rights, such strong external governance[32] may significantly reduce the cost of debt[33]. Figure A1 shows that debt issues of U.S. companies are consistently higher than equity issues across time. On the other hand, for countries with weak investor protection legislation, debt issues are likely to be costly relative to equity issues. For example, Chinese companies make up 12.480% of global equity issues while Chinese debt issues only contribute 3.429% to world debt issuance activities. This could be attributed to weak country-level investor protection which acts as an external governance factor that influences the issuance decisions for both equity and debt. At the firm level, the motivations of issuing securities to outside investors are closely related to the managerial consideration of whether to pursue self wealth maximization or shareholder wealth maximization. We also show how this phenomenon consequently addresses the relationship between corporate governance and the utilization of the proceeds from security issuance.

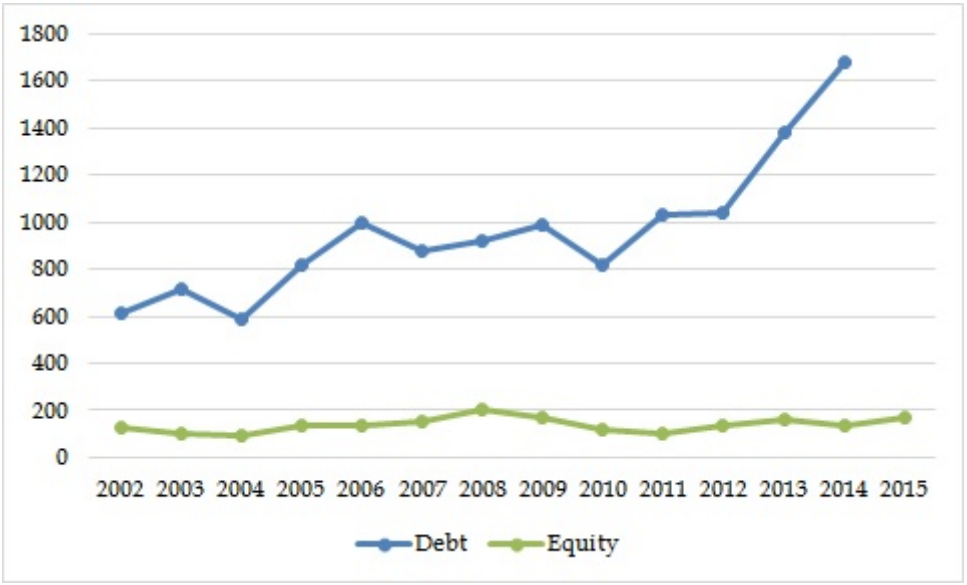
[31] The macroeconomic statistics mentioned here are obtained from OECD database.
[32] In this sense, the country-level investor protection is regarded as external governance.
[33] Anderson et al. (2004) show that the cost of debt is much lower in firms with good governance.

Table A1. Top 10 Issuer Countries, 2002-2015

This table reports the highest 10 issuer countries in terms of issuance value for both equity and debt over the period between 2002 and 2015. The global issuance data comes from Thomson One database.

Equity			Debt		
Country	**Proceed Amount (US$ billion)**	**Value(%)**	**Country**	**Proceed Amount (US$ billion)**	**Value(%)**
United States	2309.689	17.176	United States	39211.171	39.025
China	1678.200	12.480	United Kingdom	13883.472	13.818
United Kingdom	1274.317	9.476	Germany	4370.593	4.350
Australia	838.731	6.237	Spain	4158.999	4.139
Brazil	732.781	5.449	France	3718.524	3.701
Japan	639.001	4.752	China	3445.204	3.429
Germany	538.804	4.007	Australia	3442.225	3.426
France	532.758	3.962	Netherlands	3068.124	3.053
Canada	491.406	3.654	Japan	2810.953	2.798
Italy	418.905	3.115	Switzerland	2630.955	2.618

Figure A1. U.S. Companies Equity and Debt Issuance, 2002-2015



This figure exhibits the number of equity and debt issues by U.S. companies from 2002 to 2015. Data source: *Thomson One*.

B Tables

Table B1. Variables Correlation Coefficient Matrices

This table presents the correlation coefficients between variables in the analysis. * signifies the results significant at the 5% level.

	Cash	Profitability	R&D	Size	Market-to-book	SaleGr	NetOCF	Leverage	Tangibility	CashDiv	ExCash	OpCash
Cash	1											
Profitability	0.085*	1										
R&D	0.536*	-0.182*	1									
Size	-0.308*	0.006	-0.135*	1								
Market-to-book	0.440*	0.399*	0.307*	-0.307*	1							
SaleGr	0.093*	0.140*	0.080*	-0.091*	0.235*	1						
NetOCF	0.168*	0.580*	-0.046*	-0.078*	0.444*	0.074*	1					
Leverage	-0.410*	-0.240*	-0.235*	0.253*	-0.288*	-0.092*	-0.269*	1				
Tangibility	-0.389*	-0.130*	-0.314*	0.138*	-0.221*	0.020	0.080*	0.203*	1			
CashDiv	-0.017	0.325*	-0.059*	0.144*	0.230*	-0.127*	0.305*	0.02	-0.024	1		
ExCash	0.566*	0.051*	0.247*	0.299*	0.067*	-0.035*	-0.003	-0.230*	-0.376*	0.075*	1	
OpCash	0.603*	0.110*	0.368*	-0.868*	0.516*	0.120*	0.244*	-0.344*	-0.240*	-0.063*	-0.108*	1

(*Table B1 Continued*)

GovScore	-0.084*	0.079*	-0.023	0.073*	0.011	-0.066*	0.039*	-0.023	0.034*	0.055*	-0.045*	-0.059*
BoardInd	-0.024	0.056*	0.029*	-0.087*	0.039*	-0.007	0.023	-0.052*	-0.010	-0.023	-0.112*	0.092*
ShhdlrRights	-0.011	0.069*	0.016	0.011	0.034*	-0.008	0.090*	-0.074*	-0.006	-0.004	0.028*	-0.024
BoardFemale	-0.059*	0.095*	-0.010	0.166*	0.072*	-0.134*	0.048*	0.037*	-0.123*	0.192*	0.047*	-0.110*
InstShrown	0.059*	0.062*	0.044*	-0.316*	0.117*	0.039*	0.065*	-0.086*	-0.103*	-0.193*	-0.166*	0.266*

	GovScore	Board Ind	Shhldr Rights	Board Female	InstShrown
GovScore	1				
BoardInd	0.501*	1			
ShhdlrRights	0.567*	0.197*	1		
BoardFemale	0.327*	0.178*	0.088*	1	
InstShrown	0.324*	0.490*	0.173*	0.118*	1

Table B2. Multinomial Logistic Regression on Security Issuance Decisions

This table presents multinomial logistic regression results on the issuance decision in relation to corporate governance across various governance measures. The dependent variable is a categorical variable that represents firm issuance decision, taking a value of 0 if there is no issuance in year t as the base model, 1 if only issuing equity, 2 if only issuing debt and 3 if issuing both equity and debt in the same year. *Resid_GovScore* is the residual estimated governance auxiliary regression, as shown in Appendix Table B3. Standard errors are White robust standard errors adjusted for heteroskedasticity (White (1980)). z-stats are reported in brackets. ***, **, and * signify results significant at the 1%, 5%, and 10% levels, respectively. Though not reported, all models include 2-digit SIC industry and year indicators to control for industry and year effects.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dependent	1	2	3	1	2	3	1	2	3
Variable =									
GovScore	-0.009***	0.007***	-0.002						
	[-2.815]	[4.222]	[-0.751]						
Size	0.072	0.755***	1.075***	0.041	0.781***	1.042***	0.084	0.753***	1.085***
	[0.934]	[23.599]	[15.284]	[0.534]	[24.061]	[14.446]	[1.080]	[23.472]	[15.361]
Tangibility	2.564***	0.063	0.603*	2.533***	0.057	0.661*	2.580***	0.049	0.637*
	[7.111]	[0.385]	[1.732]	[7.045]	[0.347]	[1.899]	[7.193]	[0.299]	[1.824]
Cash	1.463**	-3.037***	-2.034	1.264**	-2.978***	-2.185*	1.603**	-2.998***	-1.929
	[2.331]	[-6.829]	[-1.620]	[2.032]	[-6.707]	[-1.730]	[2.569]	[-6.735]	[-1.564]
Profitability	-5.397***	2.086***	-0.647	-5.329***	2.134***	-0.625	-5.371***	1.990***	-0.596
	[-6.384]	[2.833]	[-0.467]	[-6.369]	[2.897]	[-0.458]	[-6.335]	[2.687]	[-0.431]
Market-to-book	0.252***	0.115**	-0.064	0.256***	0.122**	-0.057	0.248***	0.124**	-0.087
	[3.695]	[2.338]	[-0.392]	[3.769]	[2.500]	[-0.364]	[3.564]	[2.529]	[-0.529]
Leverage	1.464***	3.197***	6.237***	1.541***	3.214***	6.078***	1.568***	3.142***	6.311***
	[2.658]	[11.806]	[11.110]	[2.918]	[11.830]	[10.857]	[2.870]	[11.579]	[11.291]
R&D	-0.568	-1.369*	-0.079	-0.256	-1.459*	0.115	-0.617	-1.406*	-0.034
	[-0.660]	[-1.782]	[-0.041]	[-0.300]	[-1.885]	[0.064]	[-0.710]	[-1.835]	[-0.018]
d_R&D	0.111	0.084	0.425**	0.106	0.086	0.445***	0.084	0.079	0.413**
	[0.633]	[1.046]	[2.457]	[0.609]	[1.077]	[2.582]	[0.475]	[0.992]	[2.401]
DivPayer	-0.324**	0.130	0.131	-0.336**	0.130	0.131	-0.301*	0.127	0.124
	[-2.066]	[1.432]	[0.627]	[-2.123]	[1.426]	[0.635]	[-1.926]	[1.390]	[0.593]
BoardInd				-0.015***	0.007***	-0.005*			

(*Table B2 Continued*)

				[-5.485]	[4.562]	[-1.849]			
CEOCompTSR							-0.334**	0.286***	-0.061
							[-2.210]	[4.019]	[-0.397]
ShhldrRights									
BoardFemale									
InstShrown									
Resid_GovScore									
Constant	-3.902***	-8.589***	-14.073***	-3.647***	-8.686***	-13.719***	-4.516***	-8.196***	-14.308***
	[-4.638]	[-22.093]	[-15.898]	[-4.344]	[-22.310]	[-15.028]	[-5.460]	[-21.940]	[-16.003]
Observations	5,333	5,333	5,333	5,333	5,333	5,333	5,333	5,333	5,333
Pseudo R-squared	0.198	0.198	0.198	0.202	0.202	0.202	0.197	0.197	0.197
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Dependent	1	2	3	1	2	3	1	2	3
Variable =									
GovScore									
Size	0.070	0.760***	1.093***	0.124	0.761***	1.092***	0.003	0.826***	0.995***
	[0.901]	[23.766]	[15.320]	[1.594]	[23.708]	[15.507]	[0.035]	[24.158]	[13.443]
Tangibility	2.572***	0.069	0.589*	2.302***	0.072	0.594*	2.395***	0.101	0.600*
	[7.077]	[0.423]	[1.693]	[6.277]	[0.441]	[1.712]	[6.351]	[0.619]	[1.689]
Cash	1.603**	-3.163***	-1.957	1.450**	-3.142***	-2.027	1.210*	-2.995***	-2.276*
	[2.558]	[-7.135]	[-1.558]	[2.298]	[-7.093]	[-1.613]	[1.921]	[-6.737]	[-1.733]

(*Table B2 Continued*)

Profitability	-5.314***	2.099***	-0.693	-5.340***	2.120***	-0.739	-4.808***	2.203***	-0.775
	[-6.340]	[2.845]	[-0.498]	[-6.216]	[2.852]	[-0.538]	[-5.337]	[2.979]	[-0.566]
Market-to-book	0.249***	0.127***	-0.067	0.279***	0.127***	-0.062	0.268***	0.124**	-0.042
	[3.645]	[2.609]	[-0.415]	[4.016]	[2.586]	[-0.381]	[3.889]	[2.494]	[-0.266]
Leverage	1.524***	3.142***	6.275***	1.756***	3.122***	6.273***	1.776***	3.265***	6.030***
	[2.732]	[11.587]	[11.120]	[3.202]	[11.512]	[11.293]	[3.280]	[12.008]	[10.616]
R&D	-0.571	-1.199	-0.117	-0.599	-1.190	-0.112	-0.020	-1.273*	0.190
	[-0.666]	[-1.588]	[-0.059]	[-0.698]	[-1.573]	[-0.058]	[-0.023]	[-1.671]	[0.105]
d_R&D	0.091	0.094	0.410**	0.011	0.096	0.382**	0.146	0.046	0.478***
	[0.511]	[1.179]	[2.370]	[0.061]	[1.202]	[2.199]	[0.814]	[0.574]	[2.753]
DivPayer	-0.336**	0.157*	0.111	-0.228	0.143	0.149	-0.474***	0.211**	0.054
	[-2.107]	[1.714]	[0.532]	[-1.451]	[1.550]	[0.716]	[-2.867]	[2.273]	[0.257]
BoardInd									
CEOCompTSR									
ShhldrRights	-0.005*	0.002*	-0.006**						
	[-1.652]	[1.755]	[-2.392]						
BoardFemale				-0.044***	0.002	-0.013			
				[-4.920]	[0.528]	[-1.422]			
InstShrown							-1.791***	0.744***	-0.750***
							[-7.377]	[5.608]	[-3.161]
Resid_GovScore									
Constant	-4.178***	-8.334***	-14.004***	-4.591***	-8.195***	-14.280***	-2.879***	-9.289***	-13.001***
	[-4.836]	[-21.706]	[-15.547]	[-5.520]	[-22.030]	[-15.991]	[-3.375]	[-21.910]	[-13.573]
Observations	5,333	5,333	5,333	5,333	5,333	5,333	5,333	5,333	5,333
Pseudo R-squared	0.196	0.196	0.196	0.197	0.197	0.197	0.207	0.207	0.207

(*Table B2 Continued*)

	(19)	(20)	(21)	(22)	(23)	(24)
Dependent	1	2	3	1	2	3
Variable =						
GovScore						
Size	0.030	0.819***	0.996***	0.027	0.815***	0.989***
	[0.398]	[23.610]	[13.157]	[0.359]	[23.451]	[12.984]
Tangibility	2.250***	0.053	0.556	2.226***	0.042	0.574
	[5.939]	[0.318]	[1.567]	[5.887]	[0.254]	[1.621]
Cash	0.980	-2.898***	-2.240*	1.051*	-2.892***	-2.191*
	[1.532]	[-6.497]	[-1.705]	[1.645]	[-6.488]	[-1.678]
Profitability	-4.938***	2.088***	-0.882	-4.867***	2.078***	-0.828
	[-5.549]	[2.836]	[-0.632]	[-5.506]	[2.822]	[-0.594]
Market-to-book	0.290***	0.127**	-0.022	0.290***	0.127**	-0.034
	[4.222]	[2.538]	[-0.142]	[4.226]	[2.527]	[-0.209]
Leverage	1.800***	3.301***	6.033***	1.875***	3.311***	6.068***
	[3.340]	[12.092]	[10.546]	[3.485]	[12.121]	[10.642]
R&D	-0.047	-1.473*	0.121	-0.022	-1.497*	0.112
	[-0.054]	[-1.906]	[0.066]	[-0.026]	[-1.931]	[0.062]
d_R&D	0.097	0.043	0.474***	0.068	0.037	0.453**
	[0.540]	[0.533]	[2.685]	[0.375]	[0.458]	[2.562]
DivPayer	-0.383**	0.188**	0.053	-0.375**	0.184*	0.043
	[-2.305]	[1.980]	[0.252]	[-2.260]	[1.945]	[0.203]
BoardInd	-0.005	0.003*	-0.001	-0.008**	0.002	-0.003
	[-1.526]	[1.666]	[-0.272]	[-2.061]	[1.154]	[-0.812]
CEOCompTSR	0.034	0.167**	0.186	-0.019	0.156**	0.122
	[0.206]	[2.203]	[1.096]	[-0.113]	[2.045]	[0.704]
ShhldrRights	0.001	0.0003	-0.005*	0.00003	0.0001	-0.005**

(*Table B2 Continued*)

	[0.390]	[0.253]	[-1.769]	[0.011]	[0.102]	[-2.005]
BoardFemale	-0.028***	-0.004	-0.002	-0.032***	-0.006	-0.005
	[-3.278]	[-1.167]	[-0.186]	[-3.639]	[-1.401]	[-0.512]
InstShrown	-1.395***	0.564***	-0.657**	-1.458***	0.538***	-0.711**
	[-4.729]	[3.756]	[-2.147]	[-5.023]	[3.564]	[-2.344]
Resid_GovScore				0.011**	0.004	0.010*
				[2.040]	[1.382]	[1.851]
Constant	-2.939***	-9.274***	-12.781***	-2.695***	-9.160***	-12.523***
	[-3.340]	[-21.398]	[-13.118]	[-3.012]	[-20.848]	[-12.516]
Observations	5,333	5,333	5,333	5,333	5,333	5,333
Pseudo R-squared	0.210	0.210	0.210	0.210	0.210	0.210

Table B3. Auxiliary Regression on Corporate Governance Score

This table reports the results for the auxiliary governance regression. The regression estimation model is as follows: $\text{GovScore}_{it} = \beta_0 + \beta_1 \text{BoardInd}_{it} + \beta_2 \text{CEOCompTSR}_{it} + \beta_3 \text{ShhdlrRights}_{it} + \beta_4 \text{BoardFemale}_{it} + \beta_5 \text{InstShrown}_{it} + \epsilon_{it}$.The dependent variable is the corporate governance score, *GovScore*. Standard errors are White robust standard errors adjusted for heteroskedasticity (White (1980)). t-stats are reported in brackets. ***, **, and * signify results significant at the 1%, 5%, and 10% levels, respectively. This regression controls for year, whose coefficient estimates are suppressed and firm fixed effect.

	GovScore
BoardInd	0.077***
	[6.099]
CEOCompTSR	2.339***
	[3.877]
ShhldrRights	0.286***
	[25.662]
BoardFemale	0.091**
	[2.516]
InstShrown	-3.857
	[-1.309]
Constant	39.826***
	[18.200]
Observations	6,153
Adjusted R-squared	0.359