Economic Consequences of Corporate Governance Disclosure: Evidence from the 2006 SEC Regulation on Related-Party Transactions

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August 7, 2019

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Abstract

This paper examines economic consequences of a 2006 Securities and Exchange Commission regulation that mandated public firms to disclose their governance policies on related-party transactions (hereafter RPTs). Employing hand-collected RPT data for S&P 1500 firms, we find that the initiation of RPT governance disclosure significantly reduces the occurrence of RPTs and that the reduction in RPTs is negatively associated with the implied cost of capital (ICC) and positively related to Tobin's Q. These effects are more pronounced for low-monitored firms and for firms with RPTs that are more likely to be opportunistic. We further find that firms with a formal written policy, a designated committee to review and approve RPTs, or more extensive disclosure on RPT governance benefit in terms of lower ICC.

I. INTRODUCTION

This paper examines economic consequences of a 2006 Securities and Exchange Commission regulation that mandated public firms to disclose their governance policies on related-party transactions (hereafter RPTs). RPTs represent a transfer of resources, services, or obligations between a reporting entity and a related party that usually refers to any executives, board of directors, nominees for director, primary shareholders, or the immediate family members of such party. RPTs can be beneficial to firms' daily operations because appropriate RPTs can reduce transaction costs, improve operating efficiency, and share financial and intangible resources. However, if misused, they can result in significant losses for investors, as in the case of Enron and Adelphia.[1] Even though the transaction amounts can be small, misused RPTs potentially signal serious governance problems.

Given that RPTs represent potential means for insiders to expropriate wealth from other investors via self-dealing, both the Financial Accounting Standards Board (FASB) and the Securities and Exchange Commission (SEC) require detailed disclosure of material RPTs in annual reports and proxy statements.[2] However, none of these regulators provided specific guidance on firms' corporate governance related to ensuring that RPTs work in the best interest of the firm and its stakeholders. Investors were often kept in the dark whether the firm had an RPT governance policy, and how RPTs were reviewed and approved in the firm. This created information asymmetry between investors and firms. To facilitate investors' assessment of the potential conflict of interest arising from RPTs, the SEC amended its regulations for RPT disclosures in 2006 by

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[1] Adelphia provided guaranteed related-party debts and extensive loans to its top executives. Enron used special purposes entities (SPEs) to manipulate profits and capital structure. Based on the SEC's S-K 404 definition, any transaction between SPEs and their primary shareholders are RPTs. Since Enron was a primary shareholder of its SPEs, Enron's transactions with SPEs were RPTs.

[2] See FASB ASC 850 and SEC S-K 404(a)

issuing a document titled *Executive Compensation and Related Person Disclosure*.[3] This document

includes a new requirement to disclose RPT governance, including material features of RPT

governance policies and procedures (RPT governance policies hereafter). Specifically, the

disclosures should include (1) a statement of whether such policies are in writing and, if not, how

they are evidenced; and (2) the persons or groups of persons on the board of directors or otherwise

who are responsible for administering the policies. Additionally, the new regulation requires firms

to disclose the types of transactions that are covered by the RPT governance policies, the standards

to be applied pursuant to such policies, and any transactions that do not follow these policies.

While guidance existed on the disclosure of RPTs prior to the new regulation, there was no

specific guidance related to the disclosure of corporate governance associated with RPTs. The SEC

argues that the new disclosure requirement could "enhance investor's understanding of how

corporate resources are used in related-party transactions, and provide improved information to

shareholders for purposes of better evaluating the actions of the board of directors and executive

officers in fulfilling their responsibilities to the company and shareholders" (SEC 2006, 239), which

could result in "an increase in investor confidence in existing policies or practices" (SEC 2006,

238). Before 2006, only a few firms voluntarily disclosed how they govern their RPTs.[4] In contrast,

the 2006 SEC regulation requires that *all* firms disclose their RPT governance, representing an

exogenous increase in RPT governance disclosure. For the convenience of presentation, we define

firms that voluntarily disclosed their RPT governance before the 2006 regulation as *already-*

disclosed firms (Control Groups) and firms that initiated RPT governance disclosure after the 2006

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[3] Securities and Exchange Commission, *"Executive Compensation and Related Person Disclosure,"* retrieved on July 25, 2017 from *https://www.sec.gov/rules/final/2006/33-8732a.pdf,* referred to as SEC (2006) hereafter.

[4] Approximately 26% of the S&P 1500 firms in our sample voluntarily disclosed RPT governance in the fiscal year 2004.

regulation as *newly-disclosed* firms (Treatment Group).[5] Because the *already-disclosed* firms have voluntarily disclosed their RPT governance prior to 2006, the impact of the 2006 regulation on the *already-disclosed* firms, on average, is expected to be significantly less than that on the *newly-disclosed* firms.

Despite the SEC's desire to enhance transparency regarding RPT governance, the new regulation results in an extra workload for firms and the potential for an information overload for investors. For these reasons, it is possible that the SEC's initial goal to help investors better understand firms' RPT governance and make more informative decisions may not be achieved. In this paper, we investigate the economic consequences of the SEC regulation from two perspectives: (1) Does the mandatory disclosure of RPT governance change firms' RPT behaviors? (2) Does the mandatory disclosure of RPT governance help reduce investors' perceived risks on RPTs?

The *conflict-of-interest* view (Kohlbeck and Mayhew 2010, 2017) considers RPTs as a potentially harmful form of expropriating wealth from shareholders. The 2006 regulation improves internal monitoring because these mandatory disclosures help enhance the implicit contracting between the board and the firm as well as the contracting between firms and investors, thereby mitigating potential opportunistic behaviors of insiders. Consequently, we predict that the mandatory disclosure of RPT governance leads to a lower level of RPTs and lower cost of capital associated with RPTs. We further hypothesize that such effects are more pronounced for firms with weaker corporate governance *ex ante* (hereafter "low-monitored firms").

To test these hypotheses, we hand collect information regarding RPTs and RPT governance for all S&P 1500 non-financial firms from annual proxy statements for fiscal years 2004, 2007, and

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[5] There are 18 firms that never provided RPT disclosure in our sample period. We remove these firms from our sample in the empirical analyses. In untabulated analyses, we alternatively include these firms in the control group. No inferences are affected.

2010.[6] We then manually review each RPT to collect RPT governance information such as whether the reported amount is over or below the reporting threshold of $120,000. In addition, following Kohlbeck and Mayhew (2017) and Hope, Lu, and Saiy (2019), we determine whether the RPT is likely to be opportunistic (Non-Business RPT) or not (Business RPT). Specifically, we consider transactions involving selling, buying, leasing, and M&A activities as business RPTs and other types of RPTs as non-business RPTs.[7] We further manually review each firm-year observation to check if the firm discloses its RPT governance policy. Finally, we verify whether the firm adopts a written RPT policy and whether it has a specific committee that reviews and approves RPTs.

We employ both the number of RPTs and the existence of RPTs for the empirical analyses. Prior research typically only employs the latter (Kohlbeck and Mayhew 2017; Balsam, Gifford, and Puthenpurackal 2017; Ryngaert and Thomas 2012). The number of RPTs has the potential to reveal additional information regarding firm's RPT behaviors because RPT existence is sticky over time.[8]

We find that after the 2006 regulation, *newly-disclosed* firms significantly reduce RPT activities relative to *already-disclosed firms*. This finding provides some evidence on the effectiveness of the 2006 SEC regulation. Next, we find that there is a significant reduction in the implied cost of capital (ICC) for *newly-disclosed* firms.[9]

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[6] Following Kohlbeck and Mayhew (2017), we do not collect RPT data in consecutive years because many RPTs are sticky transactions that involve multiple years terms or appear every year with similar contract terms. Collecting data every three years allows for changes in RPTs and is more efficient. As a practical matter, the hand collection of data is highly time consuming. We start from year 2004 because post-SOX period data can mitigate the SOX impact on corporate governance and RPT disclosures. We choose 2010 as the last year of data collection, believing that the three-year data are sufficient to study the effects of RPT policy disclosures and almost all firms initiate RPT governance disclosure in 2010. We focus on S&P 1500 firms because these firms cover approximately 90% of the U.S. market capitalization.

[7] In untabulated analyses, we consider loans to associated firms as business RPTs and no inferences are affected.

[8] Firms could reduce unnecessary RPTs and maintain beneficial RPTs at same time, leading to a change in the number of RPTs, but not necessarily an elimination of RPTs. Hence, the number of RPTs is especially suitable in scenarios where the mandatory RPT governance disclosures result in a reduction yet not an elimination of opportunistic RPTs.

[9] We also find a positive relation with Tobin's Q. However, please note that the difference of ICC reduction between *Newly-Disclosed* firms and *Already-Disclosed* firms is not statistically significant.

We employ five proxies for board independence and monitoring incentives to detect if the impact of the SEC regulation is associated with the strength of board governance. We find supporting evidence that changes in RPTs and ICC are more pronounced for low-monitored firms. Next, recognizing that not all RPTs are prone to opportunistic behaviors (Kohlbeck and Mayhew 2010, 2017), we group RPTs into Business RPTs and Non-Business RPTs and find that the SEC regulation leads to more reduction in Non-Business RPTs, which is consistent with the *conflict of interest* theory.

Firms' RPT governance varies with respect to whether it is in written form, who is the responsible party to review and approve RPTs, and the extent of (long or short) RPT governance disclosures. Such choices made by the firm could have different consequences on investors' perception of RPT risks. Hence, in additional analyses, we examine firms' choices of RPT governance policy in the post-regulation period, and assess if such choices are associated with investors' adjustment in ICC. To do so, we split the sample into two sub-samples based on three different RPT governance choices: (1) with or without a written policy, (2) with or without a formal committee to review and approve RPT, and (3) with long or short RPT governance disclosures. We find that RPT governance choices are associated with ICC. The negative association between RPT governance and ICC indicates that investors put a significantly lower RPT risk premium to firms with stronger RPT governance, suggesting that RPT firms benefit from creating or maintaining strong RPT governance policies.

This research contributes to the existing literature in several aspects. This is the first study to focus on RPT governance. Our study shows that the regulation effectively increases firms' disclosures of RPT governance, reduces opportunistic RPT activities, and reduces investors' perceived risks associated with RPTs, which are likely a result of reduced information asymmetry. Given that all of these changes involve real impacts on firms' operating activities and investors'

investment decisions, such outcomes add to the literature studying real disclosure effects (e.g., Leuz and Wysocki 2016), showing that mandatory disclosure requirements have economic consequences on firms' operating activities and investors' decisions besides financial reporting.

We further show that the effects of RPT governance disclosure on RPTs are significant only for low-monitored firms. This finding has practical implications for regulators. For firms that already have good corporate governance, regulation on RPT governance disclosure may not have as much impact. However, for firms with poor corporate governance *ex ante*, this regulation is shown to be both necessary and effective.

Other than the regulation effect that we assess through an analysis of changes in the pre- and post-regulation periods, we also examine if the choice of RPT governance policy is associated with investors' ICC by focusing on analyzing firms' post-period RPT policy disclosures. We find that firms with a written RPT governance policy or a formal committee to review and approve RPTs, and firms that made more disclosures on RPT governance are associated with significantly lower ICC. These findings suggest that investors incorporate firms' RPT governance into their calculation of risk premiums on RPTs. This empirical evidence could have implications for firms, market participants, and regulators.

This is one of the few papers investigating the economic consequences of the SEC's 2006 regulation related to amendments of RPT governance disclosures. The SEC's 2006 document includes amendments to both compensation disclosures and governance disclosures. Although some studies have examined the consequence of the changes in compensation disclosures (Gong, Li, and Shin 2011; Robinson, Xue, and Yu 2011), the consequences of the changes in RPT governance disclosures have received little attention.

The SEC's mandatory requirement on RPT governance reflects the continuous efforts of the SEC to encourage firms to provide more transparent disclosure about the monitoring of RPTs.

Studying how firms react to this new regulation and whether investors benefit from such mandatory requirements can provide evidence on the effectiveness of the disclosure regulation and should be relevant to future regulations. The findings from this study generally support the *conflict of interest* theory, suggesting that the SEC's regulation has merits in reducing information asymmetry and that firms with stronger RPT governance and better RPT governance disclosures would be awarded by the market through reduced ICC.

Finally, our research contributes to the limited empirical literature on RPTs in the U.S. setting. Existing RPT research mainly focuses on developing countries because firms are more likely to have self-dealing problems when legal protection for investors is weak. In contrast, there are few studies in developed countries such as the U.S. This study, adding to the findings of Kohlbeck and Mayhew (2010, 2017) and Ryngaert and Thomas (2012), shows that even in the U.S., where strong minority shareholder protections are in place, RPTs, in some settings, can still imply risks to investors.

II. BACKGROUND AND HYPOTHESES DEVELOPMENT

RPT Regulations in the U.S.

RPTs represent potential self-dealing between the company and its executives, directors, major shareholders, and other related parties. In many countries, such transactions require additional monitoring from shareholders.[10] In the U.S., regulators do not require shareholders' approval of RPTs and instead rely on disclosure regulation and *ex-post* litigation to protect minority shareholders. The FASB and the SEC set the main RPT disclosure requirements. The FASB

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[10] For example, in Australia, France, Hong Kong, Indonesia, and the U.K., major RPTs need approval from the majority of the minority shareholders (OECD 2012, Related Party Transactions and Minority Shareholder Rights, OECD Publishing).

Accounting Standards Codification Topic 850 (FASB 850), *Related Party Disclosures*, previously referred to as SFAS 57, carves out the accounting guidance for RPTs. The standard requires disclosure of material RPTs other than compensation arrangements, expense allowance, or other similar items that occur in the ordinary course of business. The disclosures shall include the nature of the relationship, the description of the transaction, the transaction dollar amount, and the amounts due from or to related parties.

For SEC registrants, SEC regulation S-K 404 requires disclosure of RPTs in the non-financial statement portions of registration statements filed under the 1933 Securities Act including annual reports, proxy statements, and any other required documents. In July 2002, Section 402 of the Sarbanes-Oxley Act amended the Securities Exchange Act of 1934 to prohibit U.S. and foreign companies with securities traded in the United States from making, or arranging for third parties to make nearly any type of personal loan to their directors and executive officers. In August 2006, the SEC amended Item 404 of Regulation S-K to streamline and modernize its requirements for RPT disclosures. The amendment eliminates all of the instructions that served to delineate what transactions are reportable or excludable from disclosure based on bright lines that can depart from a more appropriate materiality analysis. The amendment also increases the reporting threshold from $60,000 to $120,000. In addition, the amendment includes some redefined terms and technical modifications to make it clearer and easier to follow.[11] Importantly, the revised SEC regulation includes an entirely new set of requirements for RPT governance disclosure, mandating firms to describe a company's policies and procedures for the review, approval, and ratification of RPTs.

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[11] For example, the amendment includes stepchild, stepparent, and any person other than a tenant or employee sharing the household of a director, nominee for director, executive officer, or significant shareholder of the company as related parties. It also eliminates the distinction between indebtedness and other types of RPTs, as the SEC believe that loans by companies other than financial institutions should be treated like any other RPTs.

Disclosure of RPT Governance and RPTs (Hypothesis 1)

Research has established two prevailing theories regarding RPTs: the *conflict of interest* theory and the *efficient transaction* theory. The former views RPTs as a potentially harmful form of expropriating wealth from shareholders while the latter describes RPTs as an efficient economic exchange. Studies are more consistent with the *conflict of interest* theory. For example, research finds that RPTs are associated with poorer financial reporting quality and lower operating performance (Berkman, Cole, and Fu 2009; Ryngaert and Thomas 2012). Research also shows that RPTs relate to weak corporate governance. Denis and Sarin (1999) and Klein (2002a) document that RPTs can undermine non-executive directors' functions, turning them into affiliated or gray directors who are no longer independent and are associated with weaker corporate governance. Similarly, Kohlbeck and Mayhew (2010) and Gordon, Henry, and Palia (2004) provide evidence that weaker corporate governance makes RPTs more likely to occur.[12] If RPTs represent a conflict of interest between investors and insiders, then effective corporate governance should mitigate this conflict.

Before the 2006 SEC RPT regulation, approximately one fourth of firms voluntarily disclosed their RPT governance. Following the 2006 RPT regulation, all public firms in the U.S. are required by the SEC to disclose their RPT governance policies. We posit that this mandatory disclosure has real effects on firms' behavior and reduces the occurrence of RPTs. First, under this new regulation, firms are likely to establish formal RPT governance policies if they did not previously have one. The regulation could lead to scrutiny from investors and regulators if there is an absence of a formal RPT governance policy. Another benefit for such firms to establish a new RPT governance policy is the signaling effect. Firms with newly-created RPT governance policies

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[12] Nekhili and Cherif (2011) and Lo, Wong, and Firth (2010) report similar findings in France and China, respectively.

could signal their RPT governance to the market compared to those firms that do not have *ex-ante* RPT policies and choose to not establish policies *ex post*. Under the mandatory disclosure requirement, these latter firms will have to disclose the fact that they do not have a formal RPT governance policy, potentially making them less desirable in the eyes of investors.

Theoretically, when firms do not have formal RPT governance policies, they could engage in RPTs with limited oversight. If the related parties are able to self-approve their own transactions, they could benefit themselves at the cost of other stakeholders. In contrast, if a firm has an effective RPT governance policy, the policy has the potential to align management interests with shareholders' interests by minimizing harmful RPTs. Hence, more transparent disclosure of governance policy potentially constrains the occurrence of harmful RPTs and mitigates investor concerns regarding self-dealing effects.

If firms had RPT governance policies but chose not to disclose them before the adoption of the 2006 SEC regulation, this public disclosure requirement can also enhance their RPT control and lead to a change in RPT behaviors as the regulation decreases the monitoring cost of investors, increases the monitoring incentives of responsible authorities, and encourages the firm to improve the effectiveness of their RPT control.

In sum, disclosure of RPT governance, no matter whether the governance is newly established or already in place, could help *ex-ante* no-disclosure firms (i.e., *newly-disclosed* firms) to reduce opportunistic RPTs, as the regulation enhances transparency and better aligns insiders' interest with (other) investors' interest.

On the other hand, it is also possible that RPT governance policies are just window dressing and do not have any practical impact on the occurrence of RPTs. For example, Enron had a formal procedure to examine the fairness of transactions that did not prevent Enron from its RPT wrongdoings. In such cases, the disclosure of RPT governance policy would not help firms reduce

opportunistic RPT activities. Taken together, we expect that, on average, the disclosure of RPT governance policy reduces the occurrence of RPTs given the potential conflict of interest associated with RPTs:[13]

H1: The disclosure of RPT governance policy reduces the occurrence of RPTs.

Given that the degree of agency problems depends largely on corporate governance and board effectiveness, we expect the above effect (if any) to be more pronounced for low-monitored firms. First, directors of low-monitored firms are more likely to slack *ex-ante* because they were not required to disclose their governance activities to the public. For these directors, the new regulation would provide greater incentives knowing that their work would be publicly known. Second, directors of low-monitored firms are more likely to approve unnecessary RPTs before the regulation. The new regulation would help them to be more resistant to management. Finally, low-monitored firms could be less likely to have a formal RPT governance policy before the regulation. If so, the new regulation would help these firms create new policies so that RPTs are reviewed by the board in a more rigorous way. In contrast, high-monitored firms already have proper governance, and hence the new regulation would have a limited impact for these firms. We formalize this prediction as

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[13] To the extent that we observe any benefits associated with RPT governance disclosure, one might ask why not all firms voluntarily provided such disclosure prior to the regulation. This is a reasonable question to ask and one that applies to all studies on mandated disclosure. The reasons include the following. First, as we know from a long line of disclosure literature, there are also costs associated with being transparent. We include a number of control variables and some of these proxy for such costs (e.g., proprietary costs often vary by industry). Second, the potential benefits of transparency may accrue to other stakeholders (such as dispersed equity investors) and not to the insiders making the disclosure decision. Third, firms differ in terms of their internal and external governance. We explicitly consider the role of internal governance in the paper. In untabulated analyses we also consider external monitoring (institutional ownership, industry competition, and analyst coverage) and find consistent results. Finally, it is worth repeating that we do not expect all RPTs to be "bad." Therefore, we examine RPTs that are likely to involve opportunism separately from those that are more likely to represent efficient contracting (and we contrast the outcomes for these two groups).

H1a: The effect of disclosure of RPT governance on RPTs is especially salient for low-monitored firms.

Further, prior literature documents that not all RPTs are the same. Following Kohlbeck and Mayhew (2017) and Hope et al. (2019), we classify RPT transactions into two subsamples based on RPT types: Business RPT and Non-Business RPT. Business RPTs are closer to the firm's core business operations and involve selling, buying, leasing, and M&A activities. Non-Business RPTs are further from the core operations and comprise transactions involving loans, donations to related charities, and consulting and legal services. Kohlbeck and Mayhew (2017) conclude that Non-Business RPTs (that they label "tone RPTs") are more likely to reflect *self-dealing and opportunistic behavior*. Consequently, we expect Non-Business RPTs to be more affected because improved RPT governance is more likely to disapprove of Non-Business RPTs (as they are more likely to reflect conflicts of interest), than Business RPTs, which are more likely to be transactions for real business purposes. As the new regulation is primarily meant to affect "bad" RPTs, we consequently examine whether the effect (if any) is only discernible for Non-Business RPTs:

H1b: The effect of disclosure of RPT governance on RPTs is especially salient for RPTs that are more likely to represent opportunism.

Effects on the Cost of Equity Capital (Hypothesis 2)

Our focus is on examining a new regulation on the *disclosure* of important corporate governance issues related to RPTs. The firm's cost of equity capital is a measure of the required rate of return given the market's perception of a firm's risk. Th*e conflict of interest* theory suggests

that RPTs could be associated with a higher cost of capital. First, RPTs are often associated with poor accounting quality, which increases information risks. Jian and Wong (2010) find that Chinese listed firms use abnormal related sales to their controlling owners to prop up earnings. Chen, Cheng, and Xiao (2010) find that controlling shareholders in China structure RPTs in the pre-IPO period to affect IPO performance. Using a sample of 360 U.S. companies, Gordon and Henry (2005) find that some types of RPTs are associated with higher abnormal accruals. Kohlbeck and Mayhew (2017) show that RPT firms are more likely to restate their financial reports. Similarly, Cullinan, Du, and Wright (2006) document a significant association between executive loans and financial misstatements. More generally, the literature shows that information risks are associated with a higher cost of equity, both theoretically (Easley and O'Hara 2004; Lambert et al. 2007) and empirically (e.g., Francis et al. 2004).

Second, many RPTs are associated with poor corporate governance (Denis and Sarin 1999; Klein 2002a; Gordon, Henry and Palia 2004). There is also evidence that insiders can use RPTs to directly expropriate wealth from other investors. For example, Cheung, Qi, Rau, and Stouraitis (2009) examine 254 related-party acquisitions and sales of assets in Hong Kong and find that firms pay higher prices when purchasing from related parties and receive lower prices when selling to related parties. Kahle and Shastri (2004) show that the loans made to executives are usually issued at below-market interest rates. Consistent with these studies, the stock market reacts negatively to RPTs (Cheung, Rau, and Stouraitis 2006; Ryngaert and Thomas 2012; Kohlbeck and Mayhew

2010). This concern of expropriation could also increase the investigation risk from the SEC and litigation risk through conflict of interest lawsuits.[14,15]

Disclosure of RPT governance policy has the potential to mitigate the relation between RPTs and the cost of capital. When firms withhold information, rational investors tend to assume the worst scenario and increase the risk premium (Grossman 1981). Cheynel (2013)'s model predicts that firms that voluntarily disclose their information have lower costs of equity capital than firms that do not disclose. Lambert, Leuz, and Verrecchia (2007)'s model demonstrates that firm-level transparency can affect the cost of capital because higher quality disclosures affect firms' assessed covariance with other firms' cash flows, which is non-diversifiable. In addition, they show that disclosures can affect a firm's real decisions, which likely changes the firm's ratio of the expected future cash flows to the covariance of these cash flows with the sum of all the cash flows in the market. A number of empirical studies provide findings supporting the relation between RPT governance and the implied cost of capital (e.g., Botosan 1997; Lang, Lins, and Maffett 2012). Our second hypothesis is:

H2: The disclosure of RPT governance policy is negatively associated with investors' implied costs of equity capital.

Similar to H1, we also assess if the observed effects in H2 (if any) are more pronounced for lower monitored firms and for Non-Business RPTs. We expect that the cost of equity capital for

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[14] For example, in October of 2015, the SEC charged Home Loan Servicing Solutions Ltd. (HLSS) with making material misstatements about its handling of RPTs and for having inadequate internal accounting controls. HLSS agreed to pay a $1.5 million penalty to settle the SEC's charges.

[15] For example, in June 2016, Tesla Motors Inc. proposed a $2.6 billion merger with a related party, SolarCity Corp. Two individuals and two institutional shareholders of Tesla filled four lawsuits alleging board members breached their fiduciary duty.

lower monitored firms will be further reduced following the mandatory disclosure because low-monitored firms are more likely to be affected by the new regulation. These firms are expected to work more prudently in reviewing and approving RPTs, resulting in a decrease of the overall risk associated with RPTs. We also expect that the cost of capital associated with Non-Business RPTs would be further reduced because improved RPT governance could disapprove more Non-Business RPTs that have a high risk of self-dealing and that are more likely to reflect a conflict of interest. In additional analyses we further employ Tobin's Q to examine potential valuation consequences of the new regulation. Our final set of hypotheses are as follows:

H2a: The effect disclosure of RPT governance policy on the implied costs of equity capital (if any) is especially salient for low-monitored firms.

H2b: The effect disclosure of RPT governance policy on the implied costs of equity capital (if any) is especially salient for RPTs that are more likely to represent opportunism.

III. DATA AND RESEARCH DESIGN

Sample Selection and Data Sources

We hand collect RPT data and RPT governance data from S&P 1500 firms' proxy statements on the SEC's website for 2004, 2007, and 2010. For each company, we identify the total number of RPTs, the transaction amount, and transaction types. We also categorize RPTs into Business RPTs and Non-Business RPTs. Business RPTs include RPTs involving selling, buying, leasing, and mergers and acquisitions. Non-Business RPTs include all other RPTs, such as donation, consulting, legal services, etc. Of the 1500 S&P composite firms, we exclude 430 financial firms and 178 firms with missing data. The final sample includes 892 firms in three years, resulting in

2,676 initial firm-year observations. The sample-selection process is reported in Panel A of Table 1. The missing data refer to situations in which firms do not disclose any RPT information in their proxy statements, do not file proxy statements, or have missing financial or corporate governance information in any of the three years. A total of 178 firms fall into these scenarios and are hence excluded from the sample.

We obtain financial information from Compustat and analyst following and earnings forecast data are from IBES. Compensation data are from ExecuComp, institutional holdings data are from Thomson Reuters, director data are from Capital IQ and ISS, stock prices are from CRSP, internal control weakness are from Audit Analytics, and the general governance data CGQ are from Bloomberg.

Regression Model

The objective of this paper is to examine whether firms change their RPT behaviors in response to the mandated RPT governance disclosure and whether investors update their assessments of the cost of capital associated with these RPT behaviors. To test the relation between RPT governance disclosure and RPT occurrence, we use a difference-in-differences research design as follows.

$$
\begin{aligned}
RPT = \quad & \beta_1 \textit{Newly-Disclosed} \times \textit{Post} + \beta_2 \textit{Newly-Disclosed} + \beta_3 \textit{Post} + \beta_4 \textit{Size} + \beta_5 \textit{LEV} \quad (1) \\
& + \beta_6 \textit{ROA} + \beta_7 \textit{MB} + \beta_8 \textit{Age} + \beta_9 \textit{R\&D} + \beta_{10} \textit{R\&D Missing} + \beta_{11} \textit{CGQ} + \beta_{12} \textit{Ext.} \\
& \textit{Director} + \beta_{13} \textit{Inst. Holdings} + \beta_{14} \textit{CEO Pay} + \beta_{15} \textit{ICW} + \beta_{16} \textit{Analyst} + \beta_{17} \\
& \textit{Insider Ownership} + \textit{Fixed Effects} + \varepsilon
\end{aligned}
$$

We use two variables to proxy for RPT: #RPT and DRPT. #RPT is the total number of RPTs with a transaction amount over the reporting threshold of $120,000; DRPT equals one if the firm discloses any RPTs over $120,000, zero otherwise.[16] *Newly-Disclosed* equals one when firms did not disclose their RPT governance in the pre-regulation period but initiate such disclosure in the post period, and zero otherwise. *Post* equals one when the sample year is after 2006. We expect β_1 <0, meaning that these *newly-disclosed* firms reduce the number of RPTs following the regulation than *already-disclosed* firms do.[17]

To test the relation between RPTs occurrence and the implied cost of capital, we estimate the following model for *newly-disclosed* firms and for *already-disclosed* firms, respectively.

$$
\begin{aligned}
ICC = \quad & \beta_1\,RPT \times Post + \beta_2\,RPT + \beta_3\,Post + \beta_4\,Beta + \beta_5\,Size + \beta_6\,LEV + \beta_7\,ROA + \quad (2) \\
& \beta_8\,MB + \beta_9\,Age + \beta_{10}\,R\&D + \beta_{11}\,R\&D\ Missing + \beta_{12}\,CGQ + \beta_{13}\,Ext.\ Director \\
& + \beta_{14}\,Inst.\ Holdings + \beta_{15}\,CEO\ Pay + \beta_{16}\,ICW + \beta_{17}\,Analyst + \beta_{18}\,Insider \\
& Ownership + Fixed\ Effects + \varepsilon + \varepsilon
\end{aligned}
$$

ICC stands for implied cost of capital. We follow Hail and Leuz (2006) and estimate the

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[16] Beside the mandatory disclosure of RPT governance, the SEC 2006 regulation increases the reporting threshold of RPT from $60,000 to $120,000 to reflect inflation. Many firms, however, still report RPTs below the threshold. In the post period, for example, approximately 7% of reported RPTs were below $120,000. To mitigate the concern that a higher threshold leads to a drop of reported RPT, we exclude these RPTs below $120,000 for the whole testing period (i.e. from 2004 to 2010). For example, in 2004, firm A disclosed ten RPTs with six of them are greater than $120,000; in 2007, firm A disclosed eight RPTs, among which five are greater than $120,000. In the primary analyses, we consider that firm A has six RPTs in 2004 and five RPTs in 2007. In untabulated analyses, we conduct analyses with *all* RPTs regardless of the transaction amount. Inferences are unaffected.

[17] Approximately 5% of sample firms initiate their RPT disclosure in 2010. To mitigate potential concerns related to this timing issue, we have conducted two additional untabulated analyses. First, we remove these firms from the test sample. Second, we code *Post* as 1 in 2010 for these firms that initiated RPT governance disclosure in 2010, zero otherwise, and use staggered DID models to rerun all the tests. Both approaches yield similar results as our main analyses and no inferences are affected.

cost of equity using four different models: the Claus and Thomas (2001) model, the Gebhardt et al. (2001) model, the Ohlson and Juettner-Nauroth (2005) model, and the Easton (2004) model. Given the lack of consensus regarding which model works best, following prior literature (e.g., Hail and Leuz 2006; Dhaliwal et al. 2006; EI Ghoul et al. 2011; Hou 2015), we use the average of the ICC estimates of the four models as our dependent variable.[18] We run the regression separately for *newly-disclosed* firms and *already-disclosed firms* and expect β_1 to be significantly more negative for *newly-disclosed* firms than for *already-disclosed firms*.

Control Variables

There is little research on the determinants of RPTs. Most explanatory variables in these papers revolve around governance and other firm characteristics. Following prior literature (Gordon et al. 2004, Balsam et a. 2017, Ryngaert and Thomas 2012), we control for variables including firm size (*Size*), measured as the natural logarithm of firms' total assets; market-to-book ratio (*MB*), measured as the ratio of market value of equity to the book value of equity; return on assets (*ROA*), measured as net income before extraordinary items divided by total assets; *Leverage* measured as the ratio of total debt to total assets; *R&D* is R&D expense divided by total assets*; R&D Missing* is an indicator equal to 1 if the R&D expense is missing; zero otherwise; *Age* is the number of years since firm's IPO. Prior research shows that overall corporate governance affects the occurrence of RPTs (Gordon et al. 2004; Balsam et al. 2017). Therefore, we also control for general governance, including the percentage of independent directors on the board (*Ext. Director),* presence of internal control weaknesses (*ICW*), and the Corporate Governance Quotient (*CGQ*) index, which is a rating

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[18] Ghoul et al (2011) and Hou (2015), among others, argue that averaging reduces the idiosyncratic measurement error across various models. In robustness tests, we also use an alternative measure, Tobin's Q, to capture investors' reaction to firm risk.

developed by Institutional Shareholder Services (ISS) that rates publicly traded companies in terms of the quality of their corporate governance.[19] A higher *CGQ* implies stronger corporate governance. To control for external monitoring factors affecting opportunistic behaviors, we include institutional ownership (*Inst. Holdings),* measured as the percentage of shares owned by institutional investors, and analyst following (*Analyst*), measured as the number of analysts following the firm. We also control for CEO compensation (*CEO Pay*), measured as the natural logarithm of total CEO annual compensation and the percentage of insider's ownership (*Insider Ownership),* measured as the total shares owned by executives and directors divided by total outstanding shares (Balsam et al. 2017). In addition, we include *Beta* in the ICC analyses. Finally, all regressions include Fama-French 48 industry fixed effects to control for heterogeneity at the industry level.[20] Standard errors are clustered at the firm level. Variable definitions are provided in the Appendix.

Proxies for Board Monitoring Incentives

Following Ahmed et al. (2007), we use five board of director characteristics to represent the directors' monitoring incentives: (1) CEO duality, (2) percentage of independent directors, (3) director ownership, (4) director busyness, and (5) board size. The first measure is CEO duality, which equals one when CEO is also the chairman of the board, and zero otherwise. Jensen (1993) argue that the CEO duality results in weak board independence as the CEOs who are also the chair could have more influence on the nomination and election of directors than CEOs who are not the

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[19] This CGQ index measures the overall corporate governance relative to a firm's industry group. Ratings are calculated on the basis of 61 data points from eight core categories: (1) board of directors, (2) audit, (3) charter and bylaw provision, (4) laws of the state of incorporation, (5) executive and director compensation, (6) qualitative factors, (7) ownership, and (8) director education.
[20] No inferences are affected by the exclusion of any of the above control variables.

chair. Research shows that CEO duality is associated with lower debt rating (Ashbaugh et al., 2006) and high likelihood of an SEC enforcement action (Dechow et al, 1996).

The second measure is *Ext. Director*. It is the percentage of independent directors on the board, calculated as the number of independent directors divided by the total number of directors on the board. A higher percentage of independent directors usually represents stronger board independence (Beasley 1996). Third, we employ director ownership, calculated as the percentage of shares held by outside directors. Prior literature documents that higher director ownership is positively associated with credit rating (Ashbaugh et al. 2006) and negatively associated with financial statement fraud (Beasley1996), suggesting that director ownership increases director monitoring incentives.

Our fourth measure is director busyness, measured as the average number of outside directorship position held by a firm's directors. There are two competing views regarding the relation between additional directorships and monitoring effectiveness. One view is that additional directorship could enhance director's monitoring as directors could learn from other boards (Fama and Jensen 1983, Ashbaugh et al. 2006); the other is that additional directorship could increase the workload and distract directors from monitoring the firm effectively (Beasley 1996). Finally, we use board size, which is measured as the number of directors serving on a board. On one hand, large boards represent stronger monitoring because large boards may result in fewer committee assignments per director, enabling directors to specialize and leading to more effective monitoring (Klein 2002a; Coles, Daniel, and Naveen 2008); On the other hand, large boards are hard to coordinate and could suffer from the "free-rider" problem when directors could rely on other directors to monitor (Jensen 1993; Yermack 1996). In our main analyses, we use the principal

component of the five board monitoring measures to represent an overall measurement of board monitoring. We also test each measure separately.

IV. EMPIRICAL RESULTS

Descriptive statistics

Panel A of Table 2 provides descriptive statistics. The statistics show that, for the whole sample period, 40% of observations report at least one RPT over $120,000 and each firm-year observation reports 0.83 RPTs over $120,000.[21] 39% of observations have written RPT policies, 59% designate a committee to review and approve RPTs, and 26.5% of firms disclosed their RPT governance before the 2006 regulation.

Panel B provides descriptive statistics summarizing the distribution of RPTs before and after the SEC's 2006 regulation. As can be seen, DRPT changed from 0.380 before the regulation to 0.419 after the regulation. With regards to #RPT, in the pre-period, approximately 70% RPTs had a reported value over $120,000, 12% had a reported value below $120,000, and the remaining 18% RPTs did not specify any amount. In contrast, in the post period, approximately 80% of RPTs report a value over $120,000, 7% are below $120,000, and the remaining 13% did not specify any amount. Of the RPTs with reported amounts over $120,000, #RPT changed from 0.815 to 0.833; Business RPT increased from 0.312 to 0.397; while Non-Business RPTs decreased from 0.503 to

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[21] We define DRPT to be equal to one if the firm discloses any RPTs greater than $120,000. Please note that prior research has used a variety of definitions. For example, Kohlbeck and Mayhew (2017) define their DRPT as equal to one if a firm discloses any RPTs. Using their definition, there approximately half of the observations report at least one RPT of any amount during the sample period. No conclusions are altered if we instead use their definition.

0.436.[22] Table 3 reports the Pearson correlations and shows that larger and poor-governance quality firms tend to report more RPTs.[23]

Primary Analyses

Test of H1: RPT governance disclosures and occurrence of RPTs

We begin by examining whether disclosures of RPT governance affect the occurrence of RPTs. Panel A of Table 4 presents difference-in-differences analyses around the 2006 SEC regulation. In Column 1, the dependent variable is #RPT(>120); in Column 2, the dependent variable is DRPT(>120). In both models, *Newly-Disclosed × Post* is negative and significant (-0.436, t=-2.98 for #RPTs; 0.441 t=-2.35 for DRPT), supporting the argument that compared to *already-disclosed* firms, *newly-disclosed* firms significantly reduce their RPT activities in the post-regulation period. Hence H1 is supported.

The signs of control variables are consistent with expectations. Larger firms tend to have more RPTs than smaller firms, primarily because larger firms have more related parties and their business is more complicated. Consistent with Gordon et al. (2004), *CGQ*, *Ext. Directors*, and *Inst. Holdings* are negatively associated with RPTs, suggesting that stronger firm governance is associated with fewer RPTs (and that weaker firm monitoring are associated with more RPTs).

Panel B of Table 4 reports results of whether low-monitored firms have a more pronounced effect relative to the observed effects in Panel A.[24] We first construct an aggregate board monitoring

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[22] Of the RPTs with reported amounts below $120,000 and RPTs that includes all types of reported amounts, there is a significant reduction during the post period for all three types of RPTs (i.e., #RPT, Business RPTs, and Non-Business RPTs).

[23] We do not observe high correlations between the explanatory variables. Further, the maximum VIFs in our main analysis are 4.73 for the RPT analyses and 4.36 for the ICC analyses. These statistics suggest that multicollinearity is not a serious concern in our multivariate analyses.

[24] We provide results using partitions rather than pooled models here and below for the following reasons. Most importantly, by showing each partition separately, we avoid interpretation of three-way interaction terms. In addition

measure by using the principal component of the five board characteristics. We then partition sample firms based on the median of this principal component. Panel B shows that when the board monitoring is weak, *newly-disclosed* firms significantly reduce the number of RPTs (-0.796, t=-3.48) than strong monitored firms (-0.127, t=-0.66), and the difference is significant at the 0.05 level. Analyses using DRPT yield similar results.

In Panel C, we repeat the analyses using each of the five measures. The table shows that *newly-disclosed* firms significantly reduce the number of RPTs when there is a CEO duality (-0.560, t=-2.26), lower percentage of independent directors (-0.488, t=-2.22), lower director ownership (-0.720, t=-3.17), higher director busyness (-0.659, t=-3.25), and smaller board size (-0.530, t=-2.61). These results suggest that board incentives are associated with RPT reductions. When board monitoring is weak, the mandatory disclosure effects are more pronounced. Analyses using DRPT yield similar results.[25]

Prior literature documents that not all RPTs are the same. Following Kohlbeck and Mayhew (2017), we categorize RPTs into Business RPTs and Non-Business RPTs. In Panel D, we observe that the RPT reduction is concentrated on Non-Business RPTs (-0.285, t=-3.17 for #RPT and -0.4554, t=-2.84 for DRPT). This is consistent with Kohlbeck and Mayhew (2017)'s findings that Non-Business RPTs are more likely to be opportunistic. In other words, we find that the effect of the new regulation is especially salient when the RPTs in question are more likely to "bad" in terms of reflecting self-dealing and opportunism.

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the approach allows for interactions between all variables. Significance tests across partitions are provided in each table.

[25] The differences are significant for percentage of director ownership and director busyness

Together, the results show that the mandatory disclosures required by the 2006 SEC regulation lead to a reduction of opportunistic RPTs and that this is likely due to firms' enhanced RPT governance and increased monitoring incentives by directors.

Test of H2: RPT governance disclosures and the implied cost of capital

Our second hypothesis concerns the potential impact of the mandatory RPT governance disclosure on the implied cost of capital. In Table 5, we regress the average ICC on the occurrence of RPTs for *newly-disclosed* firms and for *already-disclosed* firms separately. Columns 1 and 2 use #RPT and Columns 3 and 4 use DRPT. We find that for *newly-disclosed* firms, *RPTs × Post* is negative and significant (albeit not strongly for DRPT) in both the #RPT model (-0.099, t=-2.51) and DRPT model (-0.292, t=-1.70). In contrast, there is no significant change for the group of *already-disclosed* firms (and these firms in essence serve as a placebo group). These findings suggest that after newly-disclosed firms initiate their RPT governance disclosure, investors' perceived risks on RPTs are significantly reduced due to the enhanced transparency as a result of the required RPT governance disclosure and a reduction of opportunistic RPTs. As shown in the table, the difference of ICC reduction between *Newly-Disclosed* firms and *Already-Disclosed* firms is not statistically significant though.[26]

As explained, we follow prior literature and employ an average measure of four individual ICC measures as our proxy for the implied cost of equity capital. In untabulated analyses, we also run the test for each of the four individual ICC measures. We find significant effects when using the GLS and OJ approaches but not with the two other measures. This is consistent with the idea that averaging the measures reduces some of the measurement error in the individual ICC

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[26] Similarly, not all differences between subsamples are significant in the ensuing tables as indicated.

components and in particular mitigates the effect that particular assumptions of each model might have on results.

Similar to the H1 analyses, we also consider board monitoring and RPT types. We find some evidence that the ICC effect concentrates on *newly-disclosed* firms with low board monitoring characteristics, but not for *already-disclosed* firms (Table 5, Panels B and C). Panel D of Table 5 shows that Non-Business RPTs are associated with high ICC in the pre-period (0.092, t=1.98) and this association is significantly reduced in the post period (-0.148, t=-1.94). These findings support the argument that investors perceive high risk on Non-Business RPTs and that the 2006 regulation reduces risks for opportunistic RPT behaviors for *newly-disclosed* firms as a result of improved RPT governance.

Overall, the analyses in Table 5 support the argument that the mandatory disclosure regulation improves firms' RPT governance and significantly reduces opportunistic RPT behaviors for *newly-disclosed* firms. As a result, investors put a lower risk premium on approved RPTs. For firms that voluntarily disclosed their RPT before the regulation, their ICCs associated with RPTs do not experience significant change.

Additional Analyses

Post Period Test – RPT Governance Policy Choices and ICC

The main analyses focus on the 2006 SEC regulation change and provide evidence that the mandatory RPT governance disclosure as a result of the regulation help reduce opportunistic RPTs and result in a reduction of investors' perception of RPT risks. In this section, we examine the association of ICC with the individual components of the RPT governance policy.[27] To be precise,

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[27] Firms are only required by the SEC to disclose if they have a written policy on RPT governance or not, but they do

these analyses are performed in the post-regulation period. Consequently, we have a smaller sample and thus the tests likely suffer from low power.

RPT governance differs among companies along several dimensions. First, not all firms adopt formal written RPT governance policies. In the post period, 58% of firms explicitly state that they have adopted written policies (about 52% in 2007 and 61% in 2010).[28] Second, there are differences as to who is responsible for the review and approval of RPTs. In the post period, 83% of firms designate a specific board committee to review and approve RPTs.[29] Third, there are meaningful variations in the details of the RPT governance disclosures. In the post period, on average, firms use 273 words to describe their RPT governance.[30] When companies disclose their RPT governance in the proxy statements, the disclosure quality on RPT governance often differ. Prior literature considers the length of disclosure as a proxy for disclosure quality (Loughran and McDonald 2014).

To investigate if ICC is associated with firms' RPT governance policy selection, in Table 6, we regress ICC on #RPT or DRPT, respectively, by partitioning samples based on whether the firms adopt written RPT policies (Panel A), whether the firms delegate a certain committee to review and approve RPTs (Panel B), and the median length of RPT governance disclosure (Panel C). This analysis can potentially reveal which of the three RPT governance policies represents a

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not need to publicly disclose the content of RPT governance policy in full version. The only information source we can obtain is from the proxy statements, which provides an abbreviated version of RPT governance policy disclosure. Although a full content analysis is not possible, we measure the choice of RPT governance policies from three dimensions as discussed in the following paragraph.

[28] Firms could have RPT governance in place but do not have a formal written policy. For example, AES Corp. discloses in their proxy statement that "Our policies and procedures for review, approval or ratification of transactions with 'related persons' are not contained in a single policy or procedures; relevant aspects of our program are drawn from various corporate documents." Given that only 1.5% firms that have a formal written RPT governance policy before the 2006 regulation, the statistics after regulation shows a significant increase of firms which have a formal written policy. Such increase appears to be mainly driven by the SEC's 2006 regulation.

[29] The percentage were 12% in the pre-period. The significant increase from 12% to 83% of firms to designate a formal committee to approve RPTs seems to be driven by the 2006 regulation as well, similar to what is observed in the change of written policy disclosure.

[30] The median of disclosure length is 238 words.

better practice. Panel A shows that when firms adopt written policies, the occurrence of RPTs is negatively associated with ICC (-0.056, t=-1.69). Panel B reveals that when firms designate a particular committee to review RPTs, investors put lower ICC on these RPTs involved (-0.065, t=-1.86). Panel C reports that the ICC is lower when firms disclose their RPT governance in more detail (-0.068, t=-1.85). Taken together, these findings provide some evidence that firms benefit from adopting written RPT governance policies, designating a committee for RPT ratification, and disclosing more details about RPT governance disclosures.

Tobin's Q Analyses

In this section, we use Tobin's Q as an alternative proxy for market perception of firm risk. Prior literature documents a negative association between RPT firms and Tobin's Q (Kohlbeck and Mayhew 2010). We expect that the regulation may also affect Tobin's Q because following the disclosure of RPT governance, investors revise their estimation of firm risk that should result in a change in firm valuation. Following prior literature, we run the following model to investigate the valuation consequence of different types of RPTs following a mandatory disclosure (Kohlbeck and Mayhew 2010, Zolotoy, et al. 2019, Fang et al. 2009, Servaes and Tamayo 2013):

$Tobin's\ Q\ =\quad \beta_1 RPT \times Post + \beta_2\ RPT + \beta_3 Post + \beta_4\ Size + \beta_5\ Capex\ + \beta_6\ R\&D$

$+\ \beta_7\ Advertising\ +\ \beta_8\ Age\ +\ \beta_9\ Leverage\ +\ \beta_{10}\ Stock\ Turnover$

$+\ \beta_{11}\ ROA\ +\ \beta_{12}\ KZ\ Index\ +\ \beta_{13}\ Segment\ +\ \beta_{14} Delaware$

$+\ \beta_{15}\ S\&P\ 500\ +\ \beta_{16}\ Analyst\ following\ +\ \beta_{17}\ G\text{-}Index$

$+\ Industry\ Fixed\ Effects\ +\ \varepsilon\qquad (3)$

Tobin's Q is obtained from WRDS and provided by Peters and Taylor (2017).[31] Following

prior literature (Kohlbeck and Mayhew 2010, Zolotoy et al. 2019, Fang et al. 2009, Servaes and

Tamayo 2013), we control for several firm characteristics. *Size* is the natural logarithm of the book

value of firm's total assets; *Capex* is capital expenditure divided by the book value of total assets;

R&D is R&D expense divided by total assets; *Advertising* is advertising expenses divided by the

total assets. *Age* is the number of years from IPO; *Leverage* is total debt divided by total assets;

Stock turnover is the total trade volumes in a year divided by total outstanding shares to reflect the

stock liquidity; *ROA* is net income before extraordinary items divided by total assets; *KZ index* is a

financial constraints index developed by Kaplan and Zingales (1997) and controls for a firm's

access to external financing; *Segment* is the number of segments; *Delaware* is an indicator equal to

one if the firm incorporated in Delaware, and zero otherwise; *S&P 500* is an indicator equal to one

if the firm is a member of the S&P 500 index, and zero otherwise; *Analyst following* is the number

of analyst following the firm; *G-index* is used to control the level of shareholder rights obtained

from Bloomberg. Detailed variable definitions are provided in the Appendix.

Table 7 reports the results. In Panel A, we regress Tobin's Q on the two measures of RPT

disclosures (i.e., #RPT and DRPT). Columns 1 and 2 show that the association between Tobin's Q

and RPTs is significantly increased in the post period for newly-disclosed firms (0.034, t=1.66 for

#RPT; 0.219, t=1.87 for DRPT), but not for already-disclosed firms (-0.019, t=-0.57; -0.176, t=-

0.93). These findings are consistent with the ICC test results.

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[31] Peters and Taylor (2017) measure Tobin's by scaling firm value by the sum of physical and intangible capital. They measure firm value as the market value of outstanding equity plus book value of outstanding debt, minus the current assets of the firm. They measure the physical capital as the book value of the PP&E and replacement costs of the firm's intangible capital. The firm's intangible capital is the sum of knowledge capital and organizational capital. They estimate a firm's knowledge capital by accumulating past R&D spending using the perpetual inventory method. They measure the organizational capital by accumulating past SG&A expenses using the perpetual inventory method.

In Panel B, we decompose RPTs into Business RPTs and Non-Business RPTs. The coefficient on *Non-Business RPT × Post* is significant in Column 1 (0.069, t=1.78) and Column 3 (0.230, t=1.86) and insignificant in Column 2 (-0.130, t=-1.39) and Column 4 (-0.230, t=-1.04). As shown in column 5 and 6, the differences are significant and provide some evidence that in the post-regulation period, investors increase their valuation on Non-Business RPTs for *newly-disclosed* firms as compared to *already-disclosed* firms. This finding is consistent with the finding that *newly-disclosed* firms reduce more Non-Business RPTs (Table 4, Panel D) and investors decrease ICC on Non-Business RPTs for newly-disclosed firms (Table 5, Panel D).

V. CONCLUSION

Using the 2006 SEC's related-party transaction governance disclosure regulation as a quasi-experimental setting, we find that the disclosure of RPT governance policies significantly reduces the occurrence of RPTs, especially non-business RPTs, and the implied cost of equity capital associated with RPTs. This suggests that the initiation of RPT governance disclosure required by the regulation significantly enhances firms' RPT governance. We also show that low-monitored firms and RPTs that are more likely to reflect self-dealing are affected to a greater extent by the regulation. In addition, we provide evidence that firms adopting a written RPT governance policy, a formal committee for RPT approval, or a longer disclosure of RPT governance policy are perceived by the market to have lower risks associated with RPTs. These findings further support the view that the quality of firms' RPT governance matters to investors.

Our study provides empirical support for regulators' guidance by documenting the economic consequences of the 2006 SEC RPT governance disclosure regulation and contributes to the literature by showing that disclosure on governance can enhance real governance. The paper

also extends the RPT literature by examining the relation between RPT governance policy choices and the implied cost of capital associated with RPTs.

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Appendix: Variable Definitions

Variable of Interest	
# RPTs	Number of RPTs disclosed in firm's annual filing
DRPTs (>120))	An RPT indicator which equals to 1 if the firm disclose any RPTs greater than $120,000, zero otherwise.
# RPTs (0)	Number of RPTs for which the dollar amount is not disclosed
# RPTs (<120)	Number of RPTs for which the dollar amount is smaller than $120,000
# RPTs (>120))	Number of RPTs for which the dollar amount is greater than $120,000
Bus RPTs	Existence or number of business RPTs involving selling, buying, leasing, and M&A activities
NonBus RPTs	Existence or number of RPTs that are not business RPTs
Written RPTCP	An indicator equals to 1 if the firm has a written RPT policy, 0 otherwise.
COM RPTCP	An indicator equals to 1 if the firm delegates a committee to review and approve RPTs, 0 otherwise.
Implied Cost of Capital (ICC)	Measured as the average value of four implied cost of capital models, including the CT 2001 model, the GLS 2001 model, the OJ 2005 model and the PEG 2004 model.
Newly-Disclosed	An indicator equals to 1 if the firm didn't disclose its RPT governance in the pre-regulation period but initiated RPT governance disclosure in the post period, 0 otherwise.
Post	An indicator equals to 1 if the fiscal year is after 2006.

Control Variables	
Advertising	Advertising costs divided by total assets
Age	The number of years since firm's IPO
Analyst Following	Number of analysts who follow the company
Beta	A measure of a stock's volatility in relation to the market, calculated using prior 60 months daily stock price.
Board Size	The numbers of directors on the board
CapEx	Capital Expenditure expenses divided by total assets
CEO Duality	An indicator equals to 1 if the CEO is also the Chair of the Board; zero otherwise
CEO Pay	CEO compensation, measured as the logarithm of total dollar amount of CEO compensation.
Delaware	An indicator equals to 1 if the firm is incorporated in Delaware; zero otherwise
Director Busyness	Average outside director positions held by firm's independent directors
Director Ownership	The percentage of total shares owned by all independent directors

Exchange	An indicator equals to 1 if the firm is listed on NYSE; zero otherwise
Ext. Director	Percentage of independent directors on the board.
G Index	A measurement of shareholder's right developed by Gompers, Ishii and Metrick (2003)
Governance (CGQ)	Corporate Governance Quotient. A metric ranging from 0 to 100 developed by the Institutional Shareholder Services (ISS) that rates public firms in terms of the quality of their corporate governance. A score of 0 represents the lowest quality of corporate governance. A score of 100 represents the highest quality of corporate governance.
Insider Ownership	Measured as the shares owned by Executives and Directors divided by total shares.
Inst. Holdings	Percentage of total shares owned by institutional shareholders
Internal Control Weakness	An indicator equals to 1 if the firm discloses internal control weakness in the current year
KZ Index	A relative measurement of reliance on external financing, calculated following Lamont, Polk and Saaá-Requejo (2001).
Leverage	Leverage, measured as the ratio of total debt to total assets.
MB	Market to Book ratio, measured as the ratio of market value of total equity over book value of total equity.
R&D	Research and Development Costs divided by total assets
R&D Missing	An indicator equals to 1 if the R&D expense is missing; zero otherwise
ROA	Return on Asset, measured as the ratio of net income before extraordinary items over total assets.
S&P 500	An indicator equals to 1 if the firm in included in S&P 500 index; zero otherwise
Share Turnover	A measure of a stock's share liquidity, calculated as total shares trading volume divided by total outstanding shares
Size	The natural logarithm of the firm's total assets.

Table 1: Sample Selection

Initial Sample S&P 1500		1,500
Financial firms	(430)	
Firms with no three consecutive years' data	(178)	
Total number of sample firms		892
Number of years		3
Final sample observations		2,676

Table 1 describes the sample-selection procedure. Panel B compares the control variables available for all sample firms and dropped firms. A firm is dropped if it has RPT disclosure in 2004, but not in 2007 or 2010, or if it has missing values for control variables.

Table 2: Descriptive Statistics

Panel A: Sample Statistics

	(1) Mean	(2) SD	(3) P10	(4) P50	(5) P90
Variable of Interest					
# RPT	1.084	2.290	0	0	4
DRPT(>120)	0.406	0.491	0	0	1
RPT (0)	0.159	0.701	0	0	1
RPT (<120)	0.097	0.474	0	0	1
RPT (>120)	0.827	1.928	0	0	3
Written RPTCP	0.393	0.489	0	0	1
Com RPTCP	0.592	0.491	0	1	1
Implied Cost of Capital	9.664	2.117	7.583	9.340	11.96
Newly-Disclosed	0.733	0.442	0	1	1
Post	0.667	0.471	0	1	1

Control Variables	Mean	SD	P10	P50	P90
Age	12.88	4.244	8	13	17
Advertising	0.032	0.061	0.002	0.013	0.075
Analyst Following	10.62	8.249	1	9	22
Beta	1.175	0.436	0.676	1.120	1.713
Board Size	9.039	1.985	7	9	12
Capex	0.051	0.055	0.010	0.034	0.108
CEO Duality	0.581	0.494	0	1	1
CEO Pay	8.170	1.127	6.880	8.311	9.400
Delaware	0.617	0.486	0	1	1
Director Busyness	0.897	0.469	0.286	0.900	1.545
Director Ownership	0.006	0.014	0	0.002	0.016
Ext. Director	80.98	10.33	64.29	85.17	90.91
G Index	8.269	2.667	5	8	12
Governance (CGQ)	70.98	22.68	36.40	74.20	96.10
Insider Ownership	0.008	0.016	0.000	0.002	0.021
Inst. Holdings	0.789	0.177	0.568	0.801	0.981
Internal Control Weakness	0.066	0.250	0	0	0
KZ index	-7.676	40.80	-17.38	-2.485	1.049
Leverage	0.166	0.159	0	0.148	0.361
MB	3.580	6.353	1.258	2.460	6.052
Exchange	0.585	0.493	0	1	1
R&D	0.029	0.0507	0	0.001	0.097
R&D Missing	0.374	0.484	0	0	1
ROA	0.063	0.077	0.006	0.061	0.140
S&P 500	0.376	0.484	0	0	1
Share Turnover	26.28	18.53	9.811	21.17	49.00
Size	7.571	1.689	5.501	7.402	10.01

Panel B: Details of RPTs

RPT Type	DRPT Amount >$120K		#RPT Amount >$120K		#RPT Amount <$120K		#RPT Amount Missing		#RPT All Included	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
All RPTs	0.380	0.419	0.815	0.833	0.1411	0.0751	0.2115	0.1334	1.1676	1.0415
			70%	80%	12%	7%	18%	13%	100%	100%
Bus RPTs	0.186	0.206	0.312	0.397	0.038	0.028	0.061	0.058	0.411	0.483
			76%	82%	9%	6%	15%	12%	100%	100%
NonBus RPTs	0.263	0.252	0.503	0.436	0.103	0.047	0.151	0.075	0.757	0.558
			66%	78%	14%	8%	20%	13%	100%	100%

Table 1, Panel A presents descriptive summary for the samples. Panel B provides more detail of RPT information across three sample years; the statistics are presented based RPTs of all values, RPTs with values over $120,000 and RPTs with values below $120,000. The percentage in parentheses is the proportion of RPTs in each category out of total RPTs (i.e., "#RPT All Included")

Table 3: Correlation Matrix

		1	2	3	4	5	6	7	8	9	10	11	12
1	# RPT												
2	DRPT(>120)	0.55***											
3	RPT (0)	0.28***	0.05										
4	RPT (<120)	0.47***	0.20***	0.02									
5	RPT (>120)	0.96***	0.56***	0.03	0.34***								
6	Written RPTCP	0.03	0.04	-0.01	-0.10**	0.06							
7	Com RPTCP	0.04	0.10**	-0.06	-0.10**	0.08*	0.53***						
8	Implied Cost of Capital	-0.06	-0.02	0.02	-0.09*	-0.06	0.13***	0.15***					
9	Newly-Disclosed	0.01	0.05	0.02	0.01	0.00	-0.02	-0.15***	0.00				
10	Post	-0.03	0.01	-0.06	-0.17***	0.02	0.56***	0.69***	0.17***	-0.02			
11	Age	-0.07*	-0.04	-0.01	-0.09*	-0.06	0.15***	0.21***	0.12***	-0.03	0.30***		
12	Advertising	0.17***	0.06	0.00	0.10**	0.17***	0.03	-0.03	-0.05	0.04	-0.03	-0.08*	
13	Analyst Following	0.09*	0.01	0.14***	-0.00	0.06	0.12***	0.08*	-0.08*	0.12**	0.11**	0.06	0.03
14	Beta	-0.10**	-0.07*	0.06	-0.02	-0.12***	-0.24***	-0.16***	0.13***	0.04	-0.28***	-0.17***	-0.12**
15	Board Size	0.16***	0.08*	0.05	0.03	0.16***	0.06	0.01	0.05	0.08*	-0.01	-0.00	0.05
16	Capex	-0.02	-0.00	-0.02	0.01	-0.01	-0.10**	-0.07*	-0.08*	0.02	-0.10**	-0.11**	0.24***
17	CEO Duality	0.07	0.08*	0.04	-0.05	0.07*	-0.01	-0.01	0.04	0.00	-0.01	0.07*	0.05
18	CEO Pay	0.16***	-0.01	0.07*	0.03	0.16***	0.10**	0.05	0.03	0.09*	0.05	-0.10**	0.01
19	Delaware	0.03	0.02	-0.05	0.05	0.04	-0.05	0.01	-0.02	-0.03	0.01	-0.13***	0.09*
20	Director Busyness	0.11**	-0.02	0.07	0.01	0.10**	0.05	-0.03	-0.06	0.09*	-0.01	0.02	0.06
21	Director Ownership	0.11**	0.15***	-0.02	0.12***	0.11**	-0.06	0.00	-0.02	-0.06	-0.05	-0.02	0.28***
22	Ext. Director	-0.25***	-0.25***	0.01	-0.09*	-0.27***	0.04	-0.05	0.01	0.10**	-0.01	-0.08*	-0.13***
23	G Index	-0.03	0.05	-0.04	-0.06	-0.01	0.02	0.01	0.01	0.11**	-0.02	-0.03	-0.02
24	Governance (CGO)	-0.12**	-0.14***	0.02	-0.03	-0.13***	0.10**	-0.04	-0.03	0.06	-0.00	0.02	-0.06
25	Insider Ownership	0.10**	0.14***	-0.02	0.10**	0.10**	-0.08*	0.00	-0.03	-0.05	-0.06	-0.02	0.22***
26	Inst. Holdings	-0.26***	-0.20***	-0.06	-0.15***	-0.25***	0.02	0.10**	0.12***	-0.03	0.20***	0.06	-0.03
27	Internal Control Weakness	0.02	-0.01	-0.00	0.01	0.02	-0.06	-0.07*	-0.02	-0.06	-0.06	-0.11**	0.02
28	KZ index	-0.01	0.06	-0.02	-0.09*	0.01	-0.05	-0.07	0.04	-0.02	-0.06	0.01	0.00
29	Leverage	0.06	0.03	-0.02	0.01	0.07*	0.08*	0.07	0.12**	-0.02	0.05	0.04	-0.04
30	MB	-0.03	-0.06	-0.02	0.01	-0.02	0.03	0.05	-0.03	-0.00	0.03	0.04	0.06
31	Exchange	0.16***	0.09*	0.03	-0.00	0.17***	0.05	-0.07*	0.15***	0.21***	0.03	0.04	0.04
32	R&D	-0.16***	-0.17***	-0.03	-0.03	-0.17***	-0.01	0.01	-0.14***	-0.02	-0.02	-0.16***	-0.11**
33	R&D Missing	0.09*	0.08*	-0.03	0.06	0.10**	-0.02	0.00	0.07*	-0.04	-0.03	0.12***	0.00
34	ROA	-0.00	-0.02	0.02	0.01	-0.01	-0.01	0.02	-0.13***	-0.01	-0.01	-0.02	0.13***
35	S&P 500	0.19***	0.04	0.08*	0.03	0.18***	0.12***	0.01	-0.12***	0.15***	0.01	-0.05	0.14***
36	Share Turnover	-0.07*	-0.12***	-0.00	-0.03	-0.08*	0.03	0.10**	0.08*	0.06	0.14***	-0.09*	0.11**
37	Size	0.24***	0.08*	0.10**	0.00	0.25***	0.19***	0.07*	0.04	0.09*	0.11**	0.10**	-0.02

		13	14	15	16	17	18	19	20	21	22	23	24
14	*Beta*	-0.19***											
15	*Board Size*	0.22***	-0.28***										
16	*Capex*	0.11**	0.01	0.02									
17	*CEO Duality*	0.03	-0.02	0.09*	0.07*								
18	*CEO Pay*	0.29***	-0.23***	0.34***	-0.03	0.05							
19	*Delaware*	0.07*	0.07*	-0.04	-0.02	0.00	0.07*						
20	*Director Busyness*	0.26***	-0.19***	0.30***	-0.10**	0.09*	0.37***	0.13***					
21	*Director Ownership*	-0.20***	0.07	-0.11**	0.06	0.01	-0.16***	0.01	-0.13***				
22	*Ext. Director*	0.14***	-0.07*	0.18***	-0.03	-0.07	0.17***	0.00	0.32***	-0.38***			
23	*G Index*	-0.08*	-0.10**	0.24***	0.03	0.03	0.12**	-0.11**	0.17***	-	0.18***		
24	*Governance (CGQ)*	0.25***	-0.18***	0.25***	-0.10**	-0.07	0.24***	0.11**	0.34***	-	0.57***	0.09*	
25	*Insider Ownership*	-0.20***	0.09*	-	0.05	0.07	-0.21***	0.02	-0.13***	0.91***	-0.41***	-0.19***	-0.44***
26	*Inst. Holdings*	-0.12***	0.11**	-	-0.01	-0.10**	-0.12***	0.12***	-0.18***	-	0.06	-0.00	0.02
27	*Internal Control Weakness*	-0.14***	0.07	-0.04	0.13***	0.01	-0.11**	0.04	-0.09*	0.07	0.00	-0.02	-0.09*
28	*KZ index*	-0.02	0.00	0.04	0.27***	0.08*	-0.04	-0.00	-0.03	-0.02	0.01	0.10**	-0.00
29	*Leverage*	-0.07*	-0.01	0.13***	0.05	0.05	0.08*	-0.01	0.10**	-0.08*	-0.00	0.11**	0.08*
30	*MB Ratio*	0.11**	-0.04	-0.06	-0.02	-0.06	0.04	0.01	0.05	-0.02	0.04	-0.02	0.02
31	*Exchange*	-0.03	-0.21***	0.36***	-0.10**	0.15***	0.33***	-0.04	0.29***	0.00	0.12***	0.23***	0.16***
32	*R&D*	0.17***	0.16***	-	-0.10**	-0.12***	-0.02	0.07*	-0.01	-0.04	0.09*	-0.11**	-0.00
33	*R&D Missing*	-0.14***	0.03	0.06	0.02	0.04	-0.09*	0.03	-0.08*	0.11**	-0.17***	-0.06	-0.02
34	*ROA*	0.18***	-0.19***	0.00	0.07	0.02	0.02	-0.03	0.04	0.03	0.02	-0.02	0.01
35	*S&P 500*	0.59***	-0.25***	0.37***	0.05	0.05	0.37***	0.00	0.35***	-	0.11**	0.15***	0.28***
36	*Share Turnover*	0.21***	0.32***	-	0.16***	-0.02	-0.09*	0.17***	-0.10**	-0.01	-0.03	-0.10**	-0.10**
37	*Size*	0.62***	-0.38***	0.53***	-0.03	0.14***	0.50***	0.04	0.50***	-	0.20***	0.14***	0.33***

		25	26	27	28	29	30	31	32	33	34	35	36
26	*Inst. Holdings*	-0.21***											
27	*Internal Control Weakness*	0.07	0.02										
28	*KZ index*	-0.03	0.05	-0.01									
29	*Leverage*	-0.10**	0.09*	0.04	0.08*								
30	*MB Ratio*	-0.01	0.08*	-0.05	-0.06	0.12***							
31	*Exchange*	-0.03	-0.15***	-0.04	0.05	0.21***	-0.02						
32	*R&D*	-0.01	0.01	-0.05	-0.09*	-0.23***	0.10**	-0.43***					
33	*R&D Missing*	0.12***	0.03	-0.01	-0.03	0.23***	-0.03	0.18***	-0.39***				
34	*ROA*	0.06	-0.16***	-0.11**	-0.08*	-0.24***	0.14***	-0.12***	0.08*	-0.14***			
35	*S&P 500*	-0.17***	-0.27***	-	-0.05	0.03	0.14***	0.21***	0.02	-0.08*	0.20***		
36	*Share Turnover*	-0.02	0.34***	0.00	-0.04	-0.00	0.06	-0.26***	0.23***	-0.07	-0.06	-0.00	
37	*Size*	-0.25***	-0.28***	-0.10**	0.01	0.17***	0.01	0.41***	-0.15***	0.01	-0.01	0.69***	-0.12***

Table 3 presents the Pearson correlation matrix. ***,**,* indicate the two-tailed statistical significance of coefficient estimates at the 1%, 5%, and 10% level, respectively. All variables are defined in the Appendix.

Table 4: Test of H1 – Impact of RPT Governance *Disclosure* on RPT

Panel A: Base Model

Dependent =	(1) #RPT(>120)	(2) DRPT(>120)
Newly-Disclosed × Post	-0.436***	-0.441**
	(-2.98)	(-2.35)
Newly-Disclosed	0.378***	0.515***
	(2.76)	(2.93)
Post	0.447***	0.551***
	(3.18)	(3.18)
Size	0.330***	0.147***
	(5.05)	(2.82)
Leverage	-0.109	0.384
	(-0.33)	(1.06)
ROA	-0.440	-0.249
	(-0.87)	(-0.37)
MB	-0.006	-0.029**
	(-1.62)	(-2.39)
Age	-0.031**	-0.029**
	(-2.51)	(-2.43)
R&D	-0.691	-1.873
	(-0.64)	(-1.39)
R&D Missing	0.012	0.002
	(0.08)	(0.01)
Governance (CGQ)	-0.008**	-0.007**
	(-2.29)	(-2.45)
Ext. Directors	-4.135***	-2.885***
	(-6.13)	(-4.78)
Inst. Holdings	-1.392***	-1.757***
	(-4.38)	(-5.37)
CEO Pay	0.122**	0.038
	(2.44)	(0.69)
ICW	0.058	-0.158
	(0.36)	(-0.87)
Analyst	-0.004	0.013
	(-0.50)	(1.54)
Insider Ownership	4.256	5.977
	(1.33)	(1.59)
Observations	2676	2676
Adj. or Pseudo R^2	0.179	0.086

Table 4, Panel A reports difference-in-differences regression results where #RPT is the dependent variable in column 1 and DRPT is the dependent variable in column 2, with t-statistics reported in parentheses below each coefficient. Fama-French 48 fixed effects are included in each model and standard errors are clustered at the firm level. ***,**,* indicate the two-tailed statistical significance of coefficient estimates at the 1%, 5%, and 10% level, respectively. All variables are defined in the Appendix.

Panel B: Low-Monitored Firms vs. High-Monitored Firms (Aggregate Measures)

Board Monitoring=	(1) Low	(2) High	(3) Low	(4) High
Dependent=	#RPT(>120)	#RPT(>120)	DRPT(>120)	DRPT(>120)
Newly-Disclosed × Post	-0.796***	-0.127	-0.914***	-0.090
	(-3.48)	(-0.66)	(-3.08)	(-0.34)
Newly-Disclosed	0.863***	0.036	1.163***	-0.027
	(4.48)	(0.17)	(3.97)	(-0.11)
Post	0.922***	0.000	1.048***	0.154
	(4.25)	(0.00)	(3.82)	(0.63)
All Controls	Yes	Yes	Yes	Yes
Observations	1338	1338	1338	1338
Adj./ Pseudo. R^2	0.250	0.166	0.120	0.099
Significance level of differences for Newly-Disclosed × Post		5%		5%

Table 4, Panel B reports difference-in-differences regression results where #RPT is the dependent variable in column 1 and 2 and DRPT is the dependent variable in column 3 and 4, with t-statistics reported in parentheses below each coefficient. Firms are grouped by the principal factor of four board-monitoring characteristics: CEO duality, percentage of independent director, director ownership, director busyness and board size. Fama-French 48 fixed effects are included in each model and standard errors are clustered at the firm level. ***,**,* indicate the two-tailed statistical significance of coefficient estimates at the 1%, 5%, and 10% level, respectively.

Panel C: Low-Monitored Firms vs. High-Monitored Firms (Individual Measures)

Dependent=#RPT(>120)	(1) CEO Duality	(2) No CEO Duality	(3) Low Independence	(4) High Independence	(5) Low Director Ownership	(6) High Director Ownership	(7) High Busyness	(8) Low Busyness	(9) Small Board	(10) Large Board
Newly-Disclosed × Post	-0.560**	-0.403*	-0.488**	-0.278	-0.720***	-0.194	-0.659***	-0.112	-0.530***	-0.300
	(-2.26)	(-1.82)	(-2.22)	(-1.41)	(-3.17)	(-0.97)	(-3.25)	(-0.53)	(-2.61)	(-1.60)
Newly-Disclosed	0.306*	0.444**	0.403*	0.193	0.665***	0.149	0.618***	-0.053	0.604***	0.131
	(1.66)	(2.16)	(1.88)	(1.12)	(3.12)	(0.72)	(3.58)	(-0.21)	(3.20)	(0.61)
Post	0.568**	0.365*	0.623***	0.179	0.848***	0.073	0.745***	0.018	0.601***	0.208
	(2.31)	(1.94)	(2.91)	(1.01)	(3.99)	(0.38)	(3.83)	(0.09)	(3.09)	(1.27)
All Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1554	1122	1338	1338	1338	1338	1338	1338	1338	1338
Adj./ Pseudo. R^2	0.190	0.218	0.238	0.077	0.258	0.162	0.221	0.148	0.205	0.135
Significance level of differences		No		No		10%		1%		No

Dependent=DRPT(>120)	(11) CEO Duality	(12) No CEO Duality	(13) Low Independence	1(4) High Independence	(15) Low Director Ownership	(16) High Director Ownership	(17) High Busyness	(18) Low Busyness	(19) Small Board	(20) Large Board
Newly-Disclosed × Post	-0.737**	-0.430	-0.427*	-0.362	-0.817***	-0.172	-0.724***	-0.064	-0.526**	-0.380
	(-2.46)	(-1.50)	(-1.71)	(-1.18)	(-2.84)	(-0.62)	(-2.81)	(-0.21)	(-2.14)	(-1.20)
Newly-Disclosed	0.531**	0.665**	0.454*	0.455	0.967***	0.155	0.843***	-0.041	0.717***	0.178
	(2.12)	(2.56)	(1.87)	(1.61)	(3.45)	(0.63)	(3.40)	(-0.16)	(3.13)	(0.60)
Post	0.552**	0.754***	0.755***	0.298	0.952***	0.246	0.828***	0.176	0.701***	0.359
	(1.97)	(2.93)	(3.31)	(1.05)	(3.62)	(0.96)	(3.50)	(0.64)	(3.09)	(1.23)
	1112	1547	1326	1317	1243	1416	1518	1143	1749	903
All Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1554	1122	1338	1338	1338	1338	1338	1338	1338	1338
Adj./ Pseudo. R^2	0.218	0.190	0.238	0.077	0.258	0.162	0.221	0.148	0.205	0.135
Significance level of differences	No		No		10%		10%		No	

Table 4, Panel C reports the effects of the SEC's 2006 regulation of mandatory disclosures of RPT governance on #RPT, conditional on the board monitoring incentives. The t-statistics are reported in parentheses below each coefficient. Dependent is #RPT for column 1 to 10 and DRPT for column 11 to 20. For brevity all controls in the base model are included in the regression analysis but not presented. The sample size slightly changes due to the availability of some board characteristics. Fama-French 48 fixed effects are included in each model and standard errors are clustered at the firm level. ***, **, * indicate the two-tailed statistical significance of coefficient estimates at the 1%, 5%, and 10% level, respectively.

Panel D: Business RPTs vs. Non-Business RPTs

Dependent = #RPT or DRPT	(1) #RPT(>120)	(2)	(3) DRPT(>120)	(4)
	BusRPT	NonBusRPT	BusRPT	NonBusRPT
Newly-Disclosed × *Post*	-0.125	-0.285***	-0.180	-0.554***
	(-1.49)	(-3.17)	(-0.85)	(-2.84)
Newly-Disclosed	0.035	0.225**	0.217	0.639***
	(0.49)	(2.56)	(1.09)	(3.45)
Post	0.212**	0.107	0.320*	0.276
	(2.42)	(1.33)	(1.66)	(1.49)
All Controls	Yes	Yes	Yes	Yes
N	2676	2676	2676	2676
Adj. R^2	0.072	0.095	0.047	0.073
Significance level of differences		10%		10%

Table 4, Panel D represents difference-in-differences regressions of RPT governance disclosure effects on RPTs conditional on different types of related party transactions. Dependent variables for column (1) and (2) are the number of business RPTs (BusRPT) and the number of NonBus RPTs (NonBusRPT), respectively. Dependent variables for column (3) and (4) are the indicator of business RPTs (BusRPT) and the indicator of NonBus RPTs (NonBusRPT), respectively. Fama-French 48 fixed effects are included in each model and standard errors are clustered at the firm level. ***, **, * indicate the two-tailed statistical significance of coefficient estimates at the 1%, 5%, and 10% level. All variables are defined in the Appendix.

Table 5: Test of H2 - Impact of RPT Governance *Disclosure* on ICC

Panel A: Base Model

Dependent=ICC	(1)	(2)	(3)	(4)
	#RPT(>120)		DRPT(>120)	
	Newly-Disclosed	Already-Disclosed	Newly-Disclosed	Already-Disclosed
$RPT \times Post$	-0.099**	-0.056	-0.292*	-0.245
	(-2.51)	(-0.64)	(-1.70)	(-0.80)
RPT	0.040	0.067	0.130	0.015
	(1.28)	(0.79)	(0.90)	(0.06)
Post	0.836***	0.793***	0.856***	0.866***
	(8.16)	(4.69)	(7.20)	(4.23)
Beta	0.863***	0.567**	0.859***	0.566**
	(5.96)	(2.58)	(5.95)	(2.50)
Size	0.018	-0.036	0.013	-0.028
	(0.31)	(-0.44)	(0.22)	(-0.34)
Leverage	1.087***	1.618***	1.085***	1.617***
	(2.80)	(2.67)	(2.79)	(2.68)
ROA	-1.595**	-0.203	-1.572**	-0.236
	(-2.26)	(-0.19)	(-2.22)	(-0.22)
MB Ratio	0.007	-0.027	0.008	-0.027
	(0.67)	(-1.59)	(0.69)	(-1.62)
Age	0.004	0.029	0.004	0.025
	(0.34)	(1.31)	(0.31)	(1.15)
R&D	-0.673	1.469	-0.701	1.148
	(-0.47)	(0.60)	(-0.49)	(0.46)
R&D Missing	0.422**	0.030	0.419**	0.011
	(2.58)	(0.10)	(2.56)	(0.04)
Governance (CGQ)	-0.002	0.000	-0.001	-0.000
	(-0.50)	(0.07)	(-0.47)	(-0.04)
Ext. Directors	-0.151	-0.753	-0.077	-1.019
	(-0.23)	(-0.78)	(-0.12)	(-0.98)
Inst. Holdings	-0.616	-1.012**	-0.606	-1.068**
	(-1.61)	(-2.15)	(-1.56)	(-2.24)
CEO Pay	0.119**	0.048	0.114**	0.049
	(2.23)	(0.55)	(2.11)	(0.57)
ICW	0.267	-0.051	0.266	-0.040
	(1.56)	(-0.21)	(1.55)	(-0.16)
Analyst	-0.028***	-0.028**	-0.028***	-0.028**
	(-3.37)	(-2.05)	(-3.34)	(-2.00)
Insider Ownership	-8.183**	1.753	-8.051**	2.508
	(-2.52)	(0.40)	(-2.48)	(0.57)
Observations	1962	714	1962	714
Adj. R^2	0.171	0.121	0.170	0.122
Significance level of differences for $RPT \times Post$		No		No

Table 5, Panel A reports difference-in-difference regression where ICC is the dependent variable with t-statistics reported in parentheses below each coefficient. Column 1 and 3 includes all *Newly-Disclosed* firms, Column 2 and 4 includes all *Already-Disclosed* firms. Fama-French 48 fixed effects are included in each model and standard errors are clustered at the firm level. ***, **, * indicate the two-tailed statistical significance of coefficient estimates at the 1%, 5%, and 10% level, respectively. All variables are defined in the Appendix.

Panel B: Low-Monitored vs. High-Monitored Firms (Aggregate Measures)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
RPT=	#RPT(>120)		#RPT(>120)		DRPT(>120)		DRPT(>120)	
Group	Newly-Disclosed		Already-Disclosed		Newly-Disclosed		Already-Disclosed	
Board Monitoring	Low	High	Low	High	Low	High	Low	High
Dependent=ICC								
RPTs × Post	-0.107**	-0.072	0.008	-0.085	-0.436**	-0.120	-0.470	0.039
	(-1.97)	(-1.20)	(0.13)	(-0.62)	(-2.02)	(-0.46)	(-1.14)	(0.09)
RPTs	0.079**	0.015	-0.055	0.157	0.397**	-0.106	-0.299	0.213
	(2.03)	(0.32)	(-1.07)	(1.18)	(2.55)	(-0.47)	(-0.94)	(0.64)
Post	1.017***	0.554***	0.745***	0.978***	1.085***	0.525***	0.966***	0.881**
	(7.41)	(3.39)	(3.15)	(3.25)	(6.76)	(2.90)	(3.31)	(2.36)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1000	962	338	376	1000	962	338	376
Adj.R2	0.229	0.162	0.150	0.108	0.229	0.162	0.170	0.102
Significance level of differences for RPT × Post		No		No		No		No

Table 5, Panel B reports the effects of the SEC's 2006 regulation of mandatory disclosures of RPT governance on ICC, conditional on the aggregate board monitoring incentives. The t-statistics are reported in parentheses below each coefficient. Column 1 to 6 present results employing #RPT; Column 7 to 12 present results employing DRPT. For brevity all controls in the base model are included but not presented. Fama-French 48 fixed effects are included in each model and standard errors are clustered at the firm level. ***, **, * indicate the two-tailed statistical significance of coefficient estimates at the 1%, 5%, and 10% level, respectively**.** All variables are defined in the Appendix.

Panel C: Low-Monitored vs. High-Monitored Firms (Individual Measures)

(a) Newly-Disclosed Group

Dependent = ICC	(1) CEO Duality	(2) No CEO Duality	(3) Low Independ-ence	(4) High Independ-ence	(5) Low Director Ownership	(6) High Director Ownership	(7) High Busyness	(8) Low Busyness	(9) Small Board	(10) Large Board
#RPT (>120) × Post	-0.121**	-0.036	-0.117*	-0.066	-0.089**	-0.090	-0.124**	-0.096*	-0.103*	-0.098*
	(-2.42)	(-0.52)	(-1.94)	(-1.28)	(-2.00)	(-1.27)	(-2.13)	(-1.71)	(-1.96)	(-1.73)
#RPT(>120)	0.110***	-0.059	0.057	0.051	0.034	0.052	0.032	0.067	0.054	0.042
	(3.26)	(-1.02)	(1.36)	(1.31)	(0.81)	(0.93)	(0.66)	(1.39)	(0.83)	(0.98)
Post	0.852***	0.808***	1.040***	0.519***	0.910***	0.768***	0.802***	0.877***	0.869***	0.820***
	(6.53)	(4.22)	(7.65)	(3.20)	(6.15)	(4.96)	(5.01)	(6.29)	(4.46)	(6.45)
All Controls										
Observations	1169	793	933	1029	970	992	921	1041	1086	876
Adj. R^2	0.193	0.153	0.211	0.168	0.189	0.162	0.196	0.147	0.167	0.203
Significance level of differences		No		No		No		No		No

	(11)	(12)	(13)	1(4)	(15)	(16)	(17)	(18)	(19)	(20)
Dependent = ICC	CEO Duality	No CEO Duality	Low Independ-ence	High Independ-ence	Low Director Ownership	High Director Ownership	High Busyness	Low Busyness	Small Board	Large Board
DRPT (>120)										
× Post	-0.459**	0.038	-0.415*	-0.020	-0.384*	-0.080	-0.374	-0.193	-0.183	-0.329
	(-2.21)	(0.12)	(-1.90)	(-0.08)	(-1.66)	(-0.29)	(-1.47)	(-0.81)	(-0.62)	(-1.49)
DRPT(>120)	0.385**	-0.101	0.225	0.188	0.188	0.077	-0.055	0.324	-0.083	0.264
	(2.39)	(-0.40)	(1.47)	(0.80)	(1.03)	(0.33)	(-0.26)	(1.59)	(-0.34)	(1.39)
Post	0.908***	0.752***	1.109***	0.415**	0.992***	0.698***	0.850***	0.848***	0.859***	0.846***
	(5.91)	(3.50)	(7.61)	(2.10)	(6.32)	(3.48)	(4.87)	(5.04)	(4.37)	(5.34)
All Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1169	793	933	1029	970	992	921	1041	1086	876
Adj. R^2	0.193	0.147	0.213	0.168	0.189	0.161	0.198	0.148	0.204	0.165
Significance level of differences		No		No		No		No		No

(b) Already-Disclosed Group

Dependent = ICC	(1) CEO Duality	(2) No CEO Duality	(3) Low Independence	(4) High Independence	(5) Low Director Ownership	(6) High Director Ownership	(7) High Busyness	(8) Low Busyness	(9) Small Board	(10) Large Board
#RPT (>120) × Post	-0.089	-0.012	-0.100	-0.070	-0.208	-0.028	-0.008	-0.137	-0.034	-0.070
	(-0.78)	(-0.09)	(-0.97)	(-0.66)	(-1.11)	(-0.43)	(-0.10)	(-0.98)	(-0.40)	(-0.63)
#RPT(>120)	0.103	0.062	0.144	0.001	0.319	-0.068	0.048	0.084	0.008	0.094
	(0.85)	(0.71)	(1.09)	(0.02)	(1.48)	(-1.12)	(0.61)	(0.69)	(0.07)	(0.85)
Post	0.629***	1.190***	0.991***	0.732***	0.755***	0.977***	0.741***	0.829***	1.054***	0.723***
	(2.87)	(3.81)	(3.66)	(2.99)	(3.26)	(3.34)	(3.40)	(2.96)	(2.85)	(3.72)
All Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	385	329	405	309	368	346	417	297	252	462
Adj. R^2	0.203	0.094	0.112	0.173	0.144	0.112	0.150	0.106	0.118	0.139
Significance level of differences		No		No		No		No		No

Dependent = ICC	(11) CEO Duality	(12) No CEO Duality	(13) Low Independence	1(4) High Independence	(15) Low Director Ownership	(16) High Director Ownership	(17) High Busyness	(18) Low Busyness	(19) Small Board	(20) Large Board
DRPT (>120) × Post	0.239	-0.778	0.008	-0.485	-1.192	0.575	-0.344	-0.089	0.424	-0.644
	(0.58)	(-0.69)	(0.02)	(-1.31)	(-1.33)	(1.44)	(-0.95)	(-0.16)	(0.92)	(-1.58)
DRPT(>120)	-0.134	-0.003	-0.119	-0.052	0.590	-0.526*	-0.079	-0.047	-0.364	0.134
	(-0.36)	(-0.01)	(-0.33)	(-0.17)	(1.45)	(-1.83)	(-0.26)	(-0.12)	(-0.92)	(0.44)
Post	0.446*	1.583***	0.935***	0.856***	1.196***	0.700**	0.962***	0.710**	0.891**	0.980***
	(1.71)	(4.15)	(2.96)	(3.05)	(4.33)	(2.12)	(3.74)	(2.23)	(2.23)	(4.04)
All Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	385	329	405	309	368	346	417	297	252	462
Adj. R^2	0.200	0.108	0.107	0.183	0.143	0.111	0.155	0.102	0.120	0.145
Significance level of differences	No		No		No		No		No	

Table 5, Panel C reports the effects of the SEC's 2006 regulation of mandatory disclosures of RPT governance on ICC, conditional on the board monitoring incentives. The t-statistics are reported in parentheses below each coefficient. Observations are all *Newly-Disclosed* firms for part (a) and all *Already-Disclosed* firms for part (b). Firms are classified into two subsamples by the median of each board monitoring measure. Column 1 to 10 present results employing #RPT; Column 11 to 20 present results employing DRPT. For brevity all controls in the base model are included but not presented. The sample size slightly changes due to the availability of some board characteristics. Fama-French 48 fixed effects are included in each model and standard errors are clustered at the firm level. ***, **, * indicate the two-tailed statistical significance of coefficient estimates at the 1%, 5%, and 10% level, respectively. All variables are defined in the Appendix.

Panel D: Business RPTs (BusRPT) vs. NonBusiness RPTs (NonBus RPT)

Dependent = ICC	(1) #RPT Newly-Disclosed	(2) Already-Disclosed	(3) DRPT Newly-Disclosed	(4) Already-Disclosed
NonBusRPT × Post	-0.148*	-0.083	-0.338*	-0.158
	(-1.94)	(-0.76)	(-1.77)	(-0.46)
NonBusRPT	0.092**	0.001	0.171	0.009
	(1.98)	(0.01)	(1.20)	(0.03)
BusRPT × Post	-0.021	0.076	0.179	0.082
	(-0.25)	(0.52)	(0.85)	(0.20)
BusRPT	0.032	0.046	0.013	-0.197
	(0.53)	(0.36)	(0.09)	(-0.69)
Post	0.818***	0.892***	0.788***	0.944***
	(8.09)	(5.22)	(7.28)	(5.07)
Controls	Yes	Yes	Yes	Yes
N	1962	714	1962	714
Adj. R^2	0.170	0.134	0.170	0.131
Significance level of differences for *NonBusRPT × Post*		No		No
Significance level of differences for *BusRPT × Post*		No		No

Table 5 Panel D represents linear regression of RPT governance disclosure effects on RPTs, conditional on different types of related party transactions. The variable #RPT in column (1) and (2) represents the number of business RPTs (BusRPT) and the number of NonBus RPTs (NonBusRPT), respectively. The variable DRPT in column (3) and (4) represent the indicator of business RPTs (BusRPT) and the indicator of NonBus RPTs (NonBusRPT), respectively. Fama-French 48 fixed effects are included in each model and standard errors are clustered at the firm level. ***, **, * indicate the two-tailed statistical significance of coefficient estimates at the 1%, 5%, and 10% level.
All variables are defined in the Appendix.

Table 6: Post-Period Test - RPT Governance *Choice* on ICC

Panel A: Written Policy vs. No-Written policy

Dependent = ICC	(1) Written Policy	(2) No Written Policy	(3) Written Policy	(4) No Written Policy
#RPT(>120)	-0.056*	-0.017		
	(-1.69)	(-0.34)		
DRPT(>120)			-0.288*	-0.061
			(-1.95)	(-0.43)
All controls	Yes	Yes	Yes	Yes
Observations	1039	745	1039	745
Adj. R^2	0.138	0.200	0.136	0.204
Significance level of differences	No		No	

Table 6, Panel A represents regression of implied cost of capital (ICC) on RPTs, conditional on whether the firm has a writing RPT governance policy. Column 1 includes all firms adopting written RPT governance policies. Column 2 includes all firms without written RPT governance policies. Column 3 and 4 repeat the analyses using DRPTs in the regression. Coefficients of controls are not reported for brevity. Year fixed effects and Fama-French 48 fixed effects are included in each model and standard errors are clustered at the firm level. ***, **, * indicate the two-tailed statistical significance of coefficient estimates at the 1%, 5%, and 10% level, respectively. All variables are defined in the Appendix.

Panel B: Committee vs. No Committee to Audit and Approve RPTs

Dependent = ICC	(1) RPT Committee	(2) No Committee	(3) RPT Committee	(4) No Committee
#RPT(>120)	-0.065*	0.121*		
	(-1.86)	(1.97)		
DRPT(>120)			-0.200*	-0.005
			(-1.68)	(-0.02)
All controls	Yes	Yes	Yes	Yes
Observations	1476	308	1476	308
Adj. R^2	0.166	0.222	0.165	0.210
Significance level of differences	1%		No	

Table 6, Panel B represents regression of implied cost of capital (ICC) on RPTs, conditional on whether the firm has a designated committee to review and approve RPT. Column 1 includes firms designating a RPT committee. Column 2 includes firms not designating a RPT committee. Column 3 and 4 repeat the analyses using DRPT in the regression. Coefficients of controls are not reported for brevity. Year fixed effects and Fama-French 48 fixed effects are included in each model and standard errors are clustered at the firm level. ***, **, * indicate the two-tailed statistical significance of coefficient estimates at the 1%, 5%, and 10% level, respectively. All variables are defined in the Appendix.

Panel C: Long vs. Short Policy Disclosures

Dependent = ICC	(1) Long RPT Governance Disclosure	(2) Short RPT Governance Disclosure	(3) Long RPT Governance Disclosure	(4) Short RPT Governance Disclosure
#RPT(>120)	-0.068*	-0.014		
	(-1.85)	(-0.28)		
DRPT(>120)			-0.246*	-0.127
			(-1.88)	(-0.80)
All Controls	Yes	Yes	Yes	Yes
Observations	896	888	896	888
Adj. R^2	0.140	0.175	0.137	0.179
Significance level of differences	No		No	

Table 6 Panel C represents regression of implied cost of capital (ICC) on RPTs, conditional on whether the firm discloses extensive RPT governance policy. Column 1 includes firms disclosed RPT governance policy longer than the median. Column 2 includes firms disclosed RPT governance policy shorter than the median. Coefficients of controls are not reported for brevity. Year fixed effects and Fama-French 48 fixed effects are included in each model and standard errors are clustered at the firm level. ***, **, * indicate the two-tailed statistical significance of coefficient estimates at the 1%, 5%, and 10% level, respectively. All variables are defined in the Appendix.

Table 7: Tobin's Q Analyses

Panel A: Tobin's Q Analysis on RPTs

Dependent=Tobin's' Q	(1) Newly-Disclosed	(2) Already-Disclosed	(3) Newly-Disclosed	(4) Already-Disclosed
RPT =	#RPT(>120)	#RPT(>120)	DRPT(>120)	DRPT(>120)
RPTs × Post	0.034*	-0.019	0.219*	-0.176
	(1.66)	(-0.57)	(1.87)	(-0.93)
RPTs	0.014	0.045	-0.012	0.125
	(0.62)	(1.11)	(-0.12)	(0.71)
Post	-0.221***	-0.295**	-0.292***	-0.233
	(-3.39)	(-2.24)	(-3.48)	(-1.53)
Size	-0.371***	-0.474***	-0.363***	-0.468***
	(-6.00)	(-3.86)	(-6.01)	(-3.82)
Capex	-1.313	-0.857	-1.198	-1.036
	(-1.41)	(-0.43)	(-1.30)	(-0.52)
R&D	-1.041	-2.175	-1.010	-2.323
	(-0.82)	(-0.69)	(-0.80)	(-0.72)
Advertising	-2.051	-2.706	-1.862	-2.091
	(-1.57)	(-1.00)	(-1.42)	(-0.76)
Age	-0.011	-0.023	-0.011	-0.026
	(-0.75)	(-1.07)	(-0.73)	(-1.22)
Leverage	-0.292	-0.079	-0.285	-0.095
	(-1.20)	(-0.16)	(-1.19)	(-0.20)
Stock Turnover	0.006**	0.009	0.006**	0.009
	(2.07)	(1.45)	(2.15)	(1.46)
ROA	6.804***	7.127***	6.784***	7.127***
	(6.91)	(4.24)	(6.87)	(4.24)
KZ Index	-0.014***	-0.022***	-0.014***	-0.023***
	(-3.04)	(-4.61)	(-3.03)	(-4.83)
Segment	0.066	-0.050	0.074	-0.036
	(0.79)	(-0.34)	(0.87)	(-0.24)
Delaware	-0.064	0.264	-0.065	0.275
	(-0.75)	(1.34)	(-0.77)	(1.41)
SP500 Firms	0.724***	1.382***	0.735***	1.370***
	(4.78)	(3.69)	(4.82)	(3.67)
Analyst Following	0.045***	0.047***	0.044***	0.047***
	(5.47)	(2.80)	(5.45)	(2.77)
G Index	0.018	-0.020	0.016	-0.018
	(1.29)	(-0.58)	(1.16)	(-0.52)
N	1475	468	1475	468
Adj. R²	0.485	0.453	0.488	0.458
Significance level of differences for RPTs × Post		10%		10%

Panel B: Tobin's Q Analysis on Business RPT vs Non-Business RPTs

Dependent= Tobin's Q	(1) Newly-Disclosed	(2) Already-Disclosed	(3) Newly-Disclosed	(4) Already-Disclosed
RPT =	#RPT(>120)	#RPT(>120)	DRPT(>120)	DRPT(>120)
NonBusRPTs × *Post*	0.069*	-0.130	0.230*	-0.230
	(1.78)	(-1.39)	(1.86)	(-1.04)
NonBusRPTs	-0.007	0.072	-0.015	0.242
	(-0.12)	(0.86)	(-0.10)	(1.00)
Bus RPT× *Post*	-0.011	0.067	0.049	-0.092
	(-0.37)	(0.77)	(0.37)	(-0.42)
BusRPT	0.004	-0.001	-0.092	-0.001
	(0.07)	(-0.01)	(-0.93)	(-0.00)
Post	-0.216***	-0.266**	-0.255***	-0.278*
	(-3.20)	(-1.99)	(-3.23)	(-1.92)
All Controls	Yes	Yes	Yes	Yes
N	1475	468	1475	468
Adj. R^2	0.406	0.461	0.407	0.461
Significance level of differences for *NonBus RPT*× *Post*		5%		5%
Significance level of differences for *Bus RPT* × *Post*		No		No

Table 7 reports the disclosure effect on Tobin's Q associated with RPTs. The dependent variable is Tobin's Q. Panel A regress Tobin's Q on total RPTs; Panel B regress Tobin's' Q on Business RPTs and Non-Business RPTs. Column 1 presents results of #RPT while Column 2 presents results of DRPT. Fama-French 48 fixed effects are included in each model and standard errors are clustered at the firm level. ***, **, * indicate the two-tailed statistical significance of coefficient estimates at the 1%, 5%, and 10% level. Please note that the sample size is different from other analyses because of missing value for certain control variables.