Managing the Effect of Firm-Level Political Risk on Capital Structure Dynamics

Alexander P. Becker, Ivan F. Julio, and Jing Wen

Boston University

Jan 2024

Abstract

Higher firm-level political risk leads to a greater speed of adjustment. A firm that faces its highest ever political risk adjusts about 27% faster than a firm without political risk. When distinguishing between over- and underleveraged firms, the latter increases their adjustment speed due to higher political risk. Further, small firms are more impacted by political risk than big firms. This distinction is supported by our finding that lobbying efforts mitigate the impact of political risk on capital structure adjustments, an endeavor mostly undertaken by big firms. We further show that lenders are able to transfer a part of their political risk onto borrowing firms, causing them to adjust more quickly. While it takes big borrowing firms to adjust about 2% faster, it takes small borrowing firms to adjust at a far greater speed about 8% faster.

Keywords: Firm-level Political Risk; Capital Structure; Adjustment Cost; Financial Flexibility

1. Introduction

In a 2022 March speech given by the Fed Chair Jorome Powell, the Federal Reserve has announced that they will be increasing interest rates by a quarter-percentage-point for the first time since 2018. This comes with soaring prices, inflation, and the geopolitical uncertainties straining the worldwide economy on a macro-level. Following this, CEO Greg Becker and CFO Daniel Beck of Silicon Valley Bank (SVB) decided not to adjust firm policies by ignoring the rising interest rate and betting it will eventually fall. Therefore, the firm managers decided not to appoint a chief risk officer who would potentially track interest rate risks and allowed all interest-rate hedges on its bond portfolio to expire for the rest of the year. In March 2023, Moody's began to consider downgrading the bank's ratings. Worried and frustrated, SVB executives decided to adjust their policies by selling shares to improve the bank's finances and to raise capital. Within a few days, SVB filed for bankruptcy protection. This is just one of the many cases where managers are making capital restructure decisions and changing their firm policies to improve their capital structures and performances during high political and economic uncertainties. In the case of SVB, the decision-makers decided not to take any action to restructure their capital and their investment policies when faced with historic interest rate hikes. Hence, this story emphasizes that external uncertainties become important factors that firm managers take into consideration when adjusting their capital structures.

Firms determine their capital structure through debt financing or equity financing. When making debt decisions, Graham and Harvey (2001) shows that firms consider a target debt ratio and Hovakimian et al. (1988) has verified that target capital structure exists. Following, Flannery and Ragan (2006) have identified firm-specific characteristics that predict a target debt ratio and have shown that firms each year close part of the gap between their current debt ratio and the target. This gap reflects the costs that firms incur when they change their capital structure. They also find that market frictions hinder the adjustment towards the target leverage. Byoun (2008) expands upon these findings and identifies differences in the adjustment speed: firms that ought to deleverage and have a financial surplus and firms that ought to lever up and have financial deficit (requiring them to take on debt) move towards their target faster than their counterparts. This suggests that firms facing higher adjustment costs adjust slower.

Recent studies have examined the effect of economic policy uncertainty (EPU) on capital structures. Baker et al. (2016) finds that investment activities and external financing decrease when there is high EPU. Li and Qiu (2018) finds that firms maintain a low leverage when there is high EPU. Recent literature has also covered the effect of political risk on capital structures. Çolak, Gungoraydinoglu, and Oztekin (2018) uses country-level political uncertainty measures to measure how political risk affects

capital structure. They find that political risk has an adverse effect such that it increases financial intermediation costs, so it hampers the adjustment speed towards target. These uncertainties also affect firm behavior and governance such that firms are less likely to participate in IPOs. Their results suggest that it is in the firm's best interest to preserve and improve financial flexibility under high political risk. Given that higher uncertainty will increase the cost of external financing and access to capital (Xu, 2020), it is reasonable that firms want higher financial flexibility under high uncertainties. However, Çolak, Gungoraydinoglu, and Oztekin (2018) have failed to consider that firms' political risk varies with political connections and corporate governance assumes that political risk across firms. Firms also vary with how they manage political risk through lobbying and campaign donations (Hassan et al., 2019).

Based on previous studies, external uncertainties have effects on capital structure decisions but to what extent firm-level political risk forms capital structure is still unknown. Moreover, a challenge firms face is the cause of financial distress by firm-level political risk. Firms and governments interact with each other in various complex ways including crafting, revision, and litigation of laws and policies and budgeting and procuring decisions that have massive macro effects (Hassan et al, 2019). Coming back to the increasing interest rates, the duration of the Fed increasing interest rates is uncertain and the timing of the best time to take a loan is also an issue for borrowers. This is generating political uncertainties and therefore will affect the future financial flexibility as uncertainties continue to grow. Under this circumstance, firms will choose to retain cash in order to build more debt capacity which will help increase financial flexibility to avoid potential financial distress. On top of that, CFO surveys conducted in 2019 and 2020 indicate that CFOs' primary goal in capital structure decisions is to preserve financial flexibility mainly to avoid financial distress, which is also consistent with mitigating the cost of downside surprises (Graham, 2022). In his presidential address to the American Finance Association, Graham (2022) recommends that future research on capital structure should investigate what drives the increasing importance of financial flexibility. To emphasize and quantify financial flexibility empirically, we want to show that a higher adjustment speed indicates that the firm is converging on the target leverage ratio faster, therefore more financially flexible (Gu, Hasan, and Zhu, 2019).

Therefore, we examine how firm-level political risk affects firms' capital structure, the management of political risk, and the preservation of financial flexibility under high political uncertainties. Our main contribution though, is introducing a new outlook and a comprehensive consideration on a firm-level on capital adjustment, corporate governance, and risk management when there is high political risk. We also examine the effect of firm-level political risk and firm-level political risk by issue on the capital structures of big firms and on small firms as well as how the transmission of political risk as a means to manage uncertainties from the lender-level. We believe that firms react to and

manage outside forces to avoid high borrowing costs and potential financial distress by building on more debt capacity which increases firm future financial flexibility.

In this paper, we first examine how firm-level political risk affects the speed of adjustment towards the target leveraged. We find that firms exposed to higher firm-level political risk adjust faster towards their target leverage ratio. Such effects are more pronounced for underleveraged firms and small firms. Our results suggest that underleveraged firms with high political risk speed up because the real value of options decreases, so financial flexibility is not needed. Small firms also speed up when there is high political risk. This suggests that because smaller firms have less political connection and power, they are constrained from political activism activities which keeps them away from valuable political access. More specifically, smaller firms lobby and donate less so the political risk they incur will directly increase their potential financial distress and decrease its future financial flexibility. This makes political risk a primary issue for small firms.

Second, we zoom in on the eight political risk issues provided by Hassan et al. (2019) to see how each issue affects the adjustment speed. Our finding shows that when there is high firm-level political risk related to tax, economic policy & budget, environment, political institution, and security, the speed of adjustment increases. Interestingly, big firms adjustment speed increases with higher political risk tax and technology while small firms adjustment speed increases with higher economic policy & budget and political institutions.

Third, we examine political risk management: the role of the political activism of lobbying by borrowing firms and by financial institutions as well as campaign donations play in mitigating the impact of political risk on capital structure adjustments, an endeavor mostly undertaken by big firms. Firms can lobby by themselves but not all firms can benefit from the lobbying process. Due to lobbying constraints, only 20% of public firms actually lobby (Kerr et al, 2014; Neretina, 2020). These constraints limit corporate lobbying which will result in unfavorable outcomes etc. Therefore, firms will work out these constraints through institutional investors who lobby on behalf of their portfolio firms. In fact, these institutional investors have valuable political resources and experience to support corporate lobbying for firms that are politically constrained (Jiao, 2022). We find that institutional investor lobbying decreases the adjustment speed. Similarly for campaign donations. When we zoom in on the lobbying issues which correspond to the political risk issues, the results show strong lobbying effects that mitigate the political risk issues. Our results suggest that lobbying and donations offsets the high adjustment costs from the fast adjustment speed caused by high political risk. Therefore, it slows down the overall speed of adjustment. At the same time, this also offsets the cost of debt and will reduce the opportunity cost of future financing.

Therefore, borrowing firms that anticipate better financing conditions are less worried about their current leverage ratio.

Fourth, we look at the lender's political risk and how it is transmitted from the arranger-level to the borrower-level in capital structures. Gad et.al (2021) found that firm-level political risk is transferred to the borrowers' level from the bank arrangers when these lenders face high firm-level political risk. As the lender, banks have more market power, so they extract higher interest payments from their borrowers. When lenders have higher political risk, they will increase their cost of borrowing (eg: by increasing interest rates) as a means of transmitting and mitigating high political risk. Building on their findings, we find that firms that have arrangers adjust faster. Additionally, our results show that underleveraged firms with loans adjust slower while overleveraged firms adjust faster. This suggests that both under and over leveraged firms avoid taking on debt when the arranger is experiencing high political risk to preserve financial flexibility and to mitigate financial distress. As a means to mitigate the lender-level political risk, these firms engage in political activism, slowing down the adjustment speed to preserve financial flexibility.

2. Literature Review & Hypothesis

The main objective of this research is to empirically test whether firm-level political risk affects the firm optimal capital structure or not. In the following sections, we do not attempt to provide a detailed survey of the vast literature but review the most relevant work to our study and our motivation. We start with a brief overview on the main theories in capital structure, followed by a review of financial flexibility, firm-level political risk, and the speed of adjustment.

Capital Structure:

As Modigliani and Miller (1958) have demonstrated, under idealized conditions, the capital structure is irrelevant to the value of the firm. Since then, four preeminent theories have emerged in an attempt to identify the determinants of capital structure decisions in our imperfect world.

Pecking Order Theory: There is an asymmetry of information between insiders and outsiders of the firm about its value. Managers are revealing information through their choice of financing and therefore, capital structure. As a result, investment opportunities are financed with internal funds (i.e., retained earnings) first which is the cheapest and does not reveal any information. If funds are insufficient,the firm relies on debt issuance. Equity is issued as a last resort. Myers-Majluf model predicts a negative correlation between debt and profitability, a negative stock market response to an equity issue

announcement, but Masulis and Korwar (1986) finds that there are significant stock price reactions to equity issues. Krasker (1986) shows that the larger the stock issue, the worse the signal and the consequent drop in the share price.

Trade-Off Theory: Tax advantages of debt are weighed against the deadweight bankruptcy cost (Kraus & Litzenberger, 1973). Interest payments offer a tax shield and therefore increase the value of the firm. As debt increases, the probability of bankruptcy also increases and accordingly do the advantages of using equity. The significance of the theory is that leverage exhibits target adjustments. Myers (1984) states that firms set a target leverage ratio and gradually move toward the target. But Fama and French (2002) show that deviations from the target may be gradually removed over time.

Market Timing Theory: Proposed by Baker & Wurgler (2002), the theory states that the decisions to issue equity demands on equity performance. This means that a firm's observed capital structure reflects its cumulative ability to 'time the market'. Managers wait before issuing shares until market conditions get better as share prices fluctuate around the real value. This implies that firm managers exploit information asymmetries to benefit current shareholders. The model results in a positive relationship between equity issues and business cycles supported by Choe et al (1993) and Bayless & Chaplinksy (1996).

Financial Flexibility:

Byoun (2011) defines financial flexibility as a firm's ability to act, utilize, and take advantage of financial resources given future uncertainties. Recent studies have provided several reasons why these matters. First, the general assumption is that firms need no financial flexibility when capital markets are perfect. However, markets are not always perfect, so there will always be market frictions which will hinder managers from accessing capital. Second, corporate decisions are liable to and dependent on socialand political events and policies that could either be beneficial or detrimental. For example, when the government decides to delay the announcement of new economic policies, the productivity, investment, and employment growth of banks and firms will be disrupted because these decisions will hamper firm-level resource distribution (Hassan et.al, 2019). Third, managers want to preserve and maximize future financial options while minimizing the opportunity costs. Therefore, firms need financial flexibility to access capital, handle political uncertainties, and preserve future options.

Furthermore, Gamba & Triantis (2008) defines financial flexibility as the corporation's ability to restructure finances and to access debt at lower costs. They find that a firm's inability to borrow in the future is the firm's opportunity cost of borrowing today. Therefore, maintaining financial flexibility today will provide future borrowing opportunities. This will help managers evade financial distress when there

is high adverse political risk and negative shocks which will in turn, increase firm value and future options.

Political Risk:

Previous literature has found ample evidence that the adjustment speed is dependent on the scale of leverage adjustment costs (Oztekin and Flannery (2012), Colak Gungoraydinoglu and Oztekin (2018) such that the speed of adjustment will decrease when firms have high leverage adjustment costs (Dang et al., 2019). As a result, when firms are faced with high external uncertainties, the adjustment costs will rise (Altinkilic and Hansen (2002). Because political risk is one type of external uncertainty, therefore, the adjustment costs will also rise when facing high political risk.

A recent study by Gu, Hasan, and Zhu (2019) believes that an empirical approach to identifying financial flexibility is to quantify the speed of adjustment towards the target leverage. Specifically, a higher adjustment speed indicates that the firm is converging on the target leverage ratio faster, therefore more financially flexible. This method helps facilitate how managers make firm-level decisions to supportfirm value and performance. Connecting with aforementioned literature that external uncertainties affect capital structure, it is unclear how high political risk will impact firms' adjustment speed and subsequently, firms' financial flexibility.

Speed of Adjustment:

Flannery & Ragan (2006) make the general assumption that firms will always maintain theirtarget leverage in a perfect frictionless world. Yet, in an imperfect world, they show that adjustment costs prevent the immediate adjustment towards the target because managers would have a hard time rebalancing capital structure, thereby slowing down the adjustment speed. However, if corporations have high future financial flexibility, this will help and offset the adjustment costs because there will be more financial options and accessibility to capital.

During times of uncertainty, corporations might be exposed to high firm-level political risk which will increase adjustment costs (Altinkilic and Hansen (2002) and borrowing costs (Gad et. al., 2020). In other words, political risk increases the cost of external financing and equity sensitivity which will affect the availability of the firm's future funding and opportunities. This will increase financial distress so in response, firms want higher financial flexibility, so they will adjust faster towards the target. We hypothesize that:

H1: Firms adjust faster towards the target in response to high firm-level political risk.

Byoun (2011) finds that in general, underleveraged firms have higher adjustment costs, but also higher debt capacities. This means that they experience less financial distress, suggesting the future benefit of having a higher future financial flexibility is higher than the adjustment cost. Therefore, underleveraged firms adjust slower towards the target. On the contrary, he also finds that overleveraged firms have more financial distress costs that outweigh the adjustment costs giving them less debt capacity. At the same time, investors know that these firms are not running at their optimal debt target capacity which makes managers harder to take on debt. The cost of the loss in financial flexibility also increases, therefore it is optimal for overleveraged firms to deleverage as soon as they can. When there is high political risk given that the duration of uncertainty is unknown, overleveraged firms prefer to build up more debt capacity as a preventive measure by deleveraging to signal that the firm is not in financial distress. Therefore, they would increase their adjustment speed.

Çolak, Gungoraydinoglu, and Oztekin (2018) previously found that when there is higher political uncertainty, it will impede firms from adjusting towards the target given high adjustment costs. Furthermore, Cao, Duan, and Uysal (2013) suggest that overleveraged firms adjust faster towards the target to preserve financial flexibility and reduce financial distress when there are high political uncertainties. This finding is important because it shows that firms govern their capital by requiring additional financial flexibility at times of unanticipated events. Thus, capital structure decisions play a key role in enhancing financial flexibility and alleviating financial distress when there are high uncertainties.

However, we want to highlight the significance of real option value for underleveraged firms because they are frequently used when making decisions under uncertainty. For example, managers will choose to delay financial investments when there are high external uncertainties to mitigate current financial stress and retain the option of benefiting from better future financial opportunities. This reduces the downside risk (McGrath, 1997; Janney and Dess, 2004).

For an underleveraged firm with high political risk, the value of option decreases so it would be optimal for firm managers to hold less cash to increase debt capacity therefore, financial flexibility will not be a primary need. In other words, the opportunity cost for not being able to pursue projects increases under high uncertainties so firms will maintain less financial flexibility. Thus, underleveraged firms will choose to maintain less cash to increase debt capacity so they will increase their adjustment speed towards the target leverage. Under this circumstance, political risk directly affects real options suggesting that political risk is a driving factor in managerial decisions. We hypothesize that:

H2: Underleveraged firms will adjust faster towards the target in response to high firm-level political risk.

Next, we discuss how political risk affects big and small firms. Based on the latest literature and our previous hypotheses, we conjecture that big firms are less concerned with political risk while small firms are more concerned. This is because bigger firms have large market power and political resources and connections which help offset potential external risks. Hence, they can mitigate external uncertainties through political activism such as lobbying and campaign donations whereas smaller firms do not have the power and resources to do so. Therefore, if big firms have the lobbying power and capacity, lobbying will slow down the adjustment speed to mitigate adjustment costs and the political risk. However for smaller firms, lobbying will not have the mitigating effect so the adjustment speed will increase under high political risk. Thus, they will have higher financial distress increasing the cost of their future financial flexibility. We therefore hypothesize that:

H3: Small firms will adjust faster towards the target in response to high firm-level political risk.

H4: Lobbying by big firms will decrease the adjustment speed when there is high political risk.

Gad et al. (2020) focuses on the effect of firm-level political risk on debt markets. We want to examine the effect of that in the speed of adjustment. We first look at independent firms, how redistricting affects firm-level political risk. Starting from the 1960s, the U.S Supreme Court wants to ensure that districts contain almost equal populations by readjusting electoral district boundaries every ten years. This matters for firms because the fate of the firm may change if the politician of the district changes from a moderate representative to a partisan representative, thereby increasing uncertainty and political risk. Because there is little evidence to support that firms can influence redistricting outcomes, therefore, by using redistricting as an event, it enables us to show the plausibly exogenous variation in political risk.

Furthermore, Gad et al. (2020) shows the transmission of political risk from the arranger-level to the borrower-level in the form of increased borrowing costs given that there is imperfect competition. When bank arrangers experience high political risk, credit supply would decrease so arrangers would take advantage of their market power by transmitting the risk to the borrower level making debt more expensive. Therefore, political risk increases the total cost of borrowing. Similarly, we believe that the transmission of political risk from the arranger-level to the borrower level may also affect the speed of adjustment. A decrease in credit supply when bank arrangers experience high political risk suggest that arrangers lack financial flexibility. Therefore, by increasing interest rates and the cost of borrowing for firms, bank arrangers could very likely increase their financial flexibility. However, these firms that incur the arranger-level political risk may choose to engage in political activism as a means to mitigate the

political risk. Our intuition is that firms want to avoid high adjustment costs, so slowing down the adjustment speed will provide better financial flexibility. Therefore, we hypothesize that:

H5: Lender-level political risk increases the adjustment speed

H6: Borrower-level lobbying will decrease the adjustment speed when there is high arranger-level political risk.

How do firms manage and mitigate firm-level political risk? Firms actively engage in political activism to influence governmental decisions and policies. Gad et al. (2020) shows that firms participate in political activism through lobbying and political campaign donations (PACs) to manage their political risk. When there is high political risk, there is an increase in cost of debt so firm managers lobby to offset the cost thereby suggesting an increase in future financial flexibility. However, lobbying and donation expenditure also increases adjustment cost. Hence, we believe that political lobbying and donation will affect the firm's adjustment speed towards target leverage. However, we consider that not all firms can benefit from political activism or have the opportunity and capital to do so. Jiao (2022) finds that only about 20% of the firms actually lobby because of the lobbying constraints (Kerr et al, 2014). These constraints would discourage corporate lobbying, affect corporate governance, and restrict valuable political access. Therefore, we also examine whether institutional investors would lobby in substitution to help these firms work around the lobbying constraints and encourage more political access.

3. Empirical Methodology & Model

The objective of this study is to find empirical evidence of how firm-level political risk affects the speed of adjustment. Based on the trade-off theory, each firm has a target debt ratio which is a determinant force on firm value and capital structure. As a result, managers strive to close the gap between the target and current debt ratio to optimize firm value. In accordance with the literature on capital structure, we define a firm's leverage ratio as its market debt ratio (MDR),

$$Lev_{i,t} = \frac{BD_{i,t}}{BD_{i,t} + ME_{i,t}}, \quad (1)$$

where $BD_{i,t}$ is the book value of the sum short-term and long-term debt (dlc + dltt) and $ME_{i,t}$ is the market value of equity, computed as the product of shares outstanding times price per share (csho * prcc_f). We also use the book debt ratio (BDR),

$$Lev_{i,t} = \frac{LTD_{i,t} + STD_{i,t}}{AT_{i,t}}, \quad (2)$$

where $LTD_{i,t}$ is the long term debt and LTD is the short term debt divided by the total assets. However, we've encountered time series issues when we use BDR as our leverage measurement. Therefore, our primary leverage measure is a firm's MDR. Next, we consider that the target leverage may differ across firms or over time by defining a target capital ratio:

$$TLev^{*}_{i,t+1} = \beta X_{i,t}, \quad (3)$$

where $TLev^{*}_{i,t+1}$ is the desired target leverage ratio at (t-1), $X_{i,t}$ describes the firm characteristics vector, β is the coefficient vector. We follow Flannery and Rangan (2006) and Faulkender et al. (2012) in their selection of firm characteristics:

- *EBIT_TA*: income before extraordinary items plus interest expenses plus taxes paid divided by total assets, (ib + xint + txt) / at.
- *MB*: book value of debt plus preferred stock plus market value of equity divided by total assets, (dlc + dltt + pstk + csho*prcc_f) / at.
- *DEP_TA*: depreciation and amortization divided by total assets, dp / at.
- *FA_TA*: property, plant and equipment divided by total assets, ppent / at.
- *Ln_TA*: natural log of the book value of total assets, deflated by CPI.
- *R&D_TA*: R&D expense divided by total expense or 0 if R&D expense is missing, xrd / at.
- *R&D_DUM*: dummy indicating missing R&D expense.
- *Ind_Median*: median market debt ratio by Fama-French industry classification and fiscal year.

In a perfect market world, the target leverage is always at its target position. However, in an imperfect world, adjustment costs that hamper the immediate adjustment towards the target. Interestingly, Flannery and Ragan (2006) find that the speed of adjustment for each firm is dependent on the cost of adjustment, so high adjustment cost means slower adjustment speed. According to Myers (1984), the presence of adjustment costs, which may force firms to deviate from the target, could be used to explain the observed variations in debt ratios. Thus, he advocates for the Partial Adjustment Model that incorporates dynamics into a traditional static model which captures imperfect adjustments over time. Themodel became an essential tool in estimating the speed of adjustment because it allows each firm target to be time-varying. Thus, we use the conventional Partial Adjustment Model of capital structure:

$$Lev_{i,t+1} - Lev_{i,t} = \lambda\left(TLev^{*}_{i,t+1} - Lev_{i,t}\right) + \varepsilon \quad , \quad (4)$$

where $Lev_{i,t+1}$ is the leverage deviation from target leverage, $TLev^{*}_{i,t+1}$ is the desired target, $Lev_{i,t}$ is the current leverage. In our model, λ is the adjustment speed coefficient that captures the proportion of deviation. As the firm closes its gap between its current and target leverage, the proportion of the gap (λ) also shrinks. By substitution Equation (2) into (3) and rearranging, we obtain:

$$Lev_{i,t+1} = (\lambda\beta)X_{i,t} + (1 - \lambda)Lev_{i,t} + \varepsilon_{i,t}, \quad (5)$$

Our model implies that the firm's observed leverage ratio gradually converges to the target leverage in Equation (2) and that the adjustment speed (λ) is assumed to be consistent throughout firms. Flannery & Rangan (2007) estimated an annual speed of adjustment of around 30%. Moreover, a prevalent measurement used to express the speed of adjustment is the half-life of the leverage shock equation (Elsas & Florysiak, 2015). With one unit of event shock corresponding to the error term, the half-life measurement captures the time needed for the deviation from target leverage by 50%. The equation is as follows:

$$t_{50\%} = \frac{ln(0.5)}{ln(1-\lambda)} \quad , \quad (6)$$

where (1- λ) is the estimated coefficient to the lagged dependent variable on the right-hand side of Equation (4) and λ is the adjustment speed towards target leverage. Equations (3) and (4) set the foundations for our study. In sum, first, we define the leverage ratio ($Lev_{i,t+1}$) for firms. Second, we recognize firm characteristics vectors ($X_{i,t}$) that might affect capital structure decisions. Third, we substitute equation (2) in (3) to show that firms have a target leverage ratio as well as its respective adjustment speed towards the target. Instead of using just homogenous λ, we observe the impact and joint impact of political risk, political risk by issue, risk of borrowers, risk of arrangers, lobbying by firms and by investors. For example, our baseline model interacts *DEV* with our cumulative political risk measurement regressed with a set of firm characteristics as controls. A detailed full model of our research models in Appendix I.

$$\lambda_{i,t} = \lambda_0 + \lambda_1 \cdot DEV * zPRisk3_{i,t} + \lambda_2 \cdot x_{i,t} + \varepsilon_{it}, \quad (7)$$

4. Data

We used and amalgamated a variety of political and financial databases to build our own comprehensive database. We begin by introducing the financial data sources followed by the political data sources used in our research. We construct our sample from all firms included in the annual CRSP/Compustat merged industrial database between the years 1965 and 2021. In line with previous research in capital structure literature, we exclude financial firms (SIC 6000-6999) and regulated utilities (SIC 4900-4999), whose capital decisions may be the result of special regulations imposed by the regulatory environment. For example, while a relatively high leverage ratio is normal for financial firms, the same high leverage ratio for nonfinancial firms may be a sign of financial distress. We also omit firms with less than two consecutive years of data given that our regression specifications use dynamic panel data models, which include lagged variables. Annual observations are defined on the basis of fiscal as opposed to calendar years due to the fact that sample firms use different fiscal year-ends. We present summary statistics for the variables used in our estimation of the target leverage (Table 2).

Following Flannery and Ragan (2006), we use firm-specific characteristics to estimate the target *MDR*, see previous section. To avoid extreme outliers in our regression, all characteristic variables are winsorized at the 1st and 99th percentiles. For target values greater than 1, we put 1 and for values less than 0, we put 0 to ensure maximum and minimum ranges are consistent.

We consider a set of control variables that are used in the speed of adjustment studies based on Flannery and Ragan (2006). We use earnings before interest and tax as proportion of total assets (*EBIT_TA*) to control for the impacts of profitability on the decision of debt usage. Fixed assets as a proportion to total assets (*FA_TA*) measures the share of tangible assets the firm has and that could potentially be used as collateral. It may be easier for a firm to access the debt market if *FA_TA* is large. Firms with relatively higher D&A to total assets (*DEP_TA*) may therefore benefit less from the tax benefits of debt. Research and development expenses are included as a proportion of total assets (*RD_TA*). This is used to calculate *RD_TA* which identifies firms in the high-tech industry who prefer to issue equity. We also include a dummy variable for research and development expenses. Missing values of *RD_TA* are then replaced by 0. Finally, we use the industry median (*Ind_Median*) to control for common characteristics among the same industry not captured by the variables above.

We consider two sets of clusters. First, we divide our sample into over and under leveraged firms based on Byoun (2008). We make a dummy variable (*D_over*) for overleveraged firms if the DEV is less than zero and a dummy variable (*D_under*) for underleveraged firms if the DEV is greater than zero. We define Surplus and Deficit as our intercept based on Byoun (2008). Second, we divide our sample into big

and small firms based on firm revenue Graham (2022). A firm with revenue above $1 Billion dollars is a big firm while a firm with revenue below $1 Billion dollars is a small firm. Revenue measurement is ME from Compuster/CRSP.

Firm-Level Political Risk Data:

Hassan et al. (2019) estimates the firm-level political risk based on the transcripts of quarterly earnings calls for US-listed firms from 2002 to 2021. Using textual analysis, the authors compute a numerical value that reflects the frequency of discussions of political risk. HHLT's methodology is as follows: He utilizes quarterly conference transcript calls which reflect and discuss the current affairs the publicly listed firms are undergoing. He then determines the percentage of the political content out of the entire conference transcript by applying a textual analysis algorithm. His algorithm compares training libraries that contain political content with those that do not contain political content allowing him to identify distinct bigrams or political word combinations. For example, words synonymous to 'risk' or in its proximity identified in the call transcripts would be counted as political bigrams by the algorithm. HHLT shows that this synonymy insulates *political risk* from *political exposure*. We take the mean firm-level political risk over the four quarters for each fiscal year and eliminate all non-available *zPRisk* values We limit our sample observations to publicly U.S listed firms from 2002 to 2021.

The firm-level political risk dataset provides a rich set of index from political risk to political risk by issue topic including: Political Risk Economic Policy & Budget (*PREcon*), Environment (*PREnv*), Trade (*PRTrade*), Institutions & Political Process (*PRIns*), Health (*PRHealth*), Security & Defense (*PRSecurity*), Tax Policy (*PRTax*), and Technology & Infrastructure (*PRTech*). See Appendix I. They manually mapped the political topics to the Center of Responsive Politics (CRP) lobbying issues. This allows us to see how a specific political risk issue affects the capital structure.

In their original paper, Hassan et al. (2019) uses the firm-level z-score of political risk as their measure for further analysis which we denote $zPRisk1_{H}$. In a similar work, Gad et al. (2022) use firm-level min-max normalization which we denote $zPRisk2_{MM}$. We consider a third measure, cumulative min-max normalization which we denote $zPRisk3_{CMM}$:

$$zPRisk3_{CMM} = \frac{PRisk_{i,t} - min\left[PRisk_{i,t}\right]}{max\left[PRisk_{i,t}\right] - min\left[PRisk_{i,t}\right]}, \quad (7)$$

Unlike for the computation of z-scores or regular min-max normalization, cumulative min-max normalization incorporates only the firm's observation of political risk until a given point in time. We posit that when a firm's management needs to make capital structure decisions with respect to their firm-level political risk, they consider the current political risk in the context of their history of past observations only. Using one of the former measures would imply, for example, that a firm in 2006 is ableto put into context its current political risk with the political risk in the years 2007 through 2021. Similarly, the issue-level political risks are measured in the same fashion. See Appendix I.

Lender Data:

We obtain lead arrangers and borrowers information from DealScan Database (Gopalan et al. 2011). The database provides facility data with borrowing firms ID and facility ID and also lender share data with company ID and facility ID. For all lenders, we keep only the lead arrangers. We merge the facilities and lender shares dataset together based on a shared 'facilityid'. DealScan also provides a lender linking file and a borrower linking file that provide gvkey identifiers. Therefore, we first match our dataset with the borrower linking file to identify borrowergvkey identifier. Then, we match our dataset again with the lender linking file to identify the bankgvkey identifier. Finally, we drop all non-available values for bank and borrower gvkey. In addition, Dealscan also provides a company file including company ids and country. We merge this file with our dataset by company id and eliminate all foreign firms. Next, we want the political risk for both the borrower and bank. Once again, we merge with firm-level political risk dataset (HHLT) by gvkey identifier once with borrowergkvey and once with bank gvkey. This comprehensive dataset reflects the relationship between the arranger and the borrower as well as their political risk. We use *PRisk_Arranger* to describe the borrowing firms' firm-level political risk when arrangers are exposed to high firm-level political risk and *PRisk_Borrower* to describe the borrower firm-level political risk. Standard errors are clustered at the arranger level.

Political Activism Data:

Gad et al. (2022) incorporates a discussion of bank-level political risk and demonstrate that lenders with high political risk transfer this risk to firms with higher spreads on loans and credit agreements. We compute bank-level political risk in the same way as we did for firms with the three normalized measures discussed above.

To mitigate political risks, firms frequently choose to lobby Congress. We obtain firm-level lobbying activity from LobbyView (Kim, 2018). Lobbying organizations and individuals must disclose their lobbying activities on behalf of their clients according to The Lobbying Disclosure Act of 1995

(LDA) and the Open Government Act of 2007 (HLOGA). This data set contains information regarding clients (firms), lobbyists, and the lobbying expenses. LobbyView also provides a linking file to match the clients to Compustat, using gvkey. For each firm-year, we take the mean and compute the natural log of the total lobbying expenses of the firm for the next year which we denote $lnLobbyF$. The dataset also provides issue-level lobbying expenses.

Jiao (2021) investigates the role of institutional investors who lobby on behalf of portfolio firms. Following the literature, for each calendar year we identify the largest 1000 institutional investors by total dollar holdings in the fourth quarter in the Thomson-Reuters S34 database. In this database, the institutional investors are identified by mgrno and their portfolio holdings are identified by cusip. In the next step, we manually match mgrno to the client IDs in the lobbying data published by the Center for Responsive Politics (CRP) and match the cusip to gvkey using a WRDS linking file. We aggregate the lobbying expenses of institutional investors in each calendar year and a portion of it to the portfolio companies according to their weight in the investors' portfolio. To examine political lobbying activism, we define a proxy: *lnLobbyF* and *lnLobbyI* which are the natural logarithm of the firm and institutional investor lobbying expenses of the next year. We use dummy variables to indicate firm and investor firms. *D_LobbyingF* is 1 if there is a lobbying expense from the firm, and 0 otherwise Similarly, *D_LobbyingI* is1 if there is a lobbying expense from the institutional investor, and 0 otherwise.

We obtain the campaign donation data from Center for Responsive Politics (CRP) as well. The donation file contains data regarding the donation committee and the donation amount. We manually matched the donation committee information with Compustat GVKEY. To examine political donation activism, we define a proxy: *lnDonation* which is the natural logarithm of the firm donation expenses of the next year. We use dummy variables to indicate firm and investor firms. *D_Donation* is 1 if there is a donation expense from the firm, and 0 otherwise.

Redistricting Data:

We base our redistricting set of tests on the methodology and measurements used by Gad et al. (2021). First, we obtain congressional district data from the U.S Census Bureau website and the U.S geographic shapefiles from Lewis et al.'s (2013) to identify changes in congressional electoral districts. Specifically, we take the 2010 and 2013 shapefiles because redistricting takes place every 10 years, so by using the 2010 and 2013 shapefiles, we were able to identify congressional district changes. Second, we obtain the zip codes of U.S publicly listed firms by extracting it from the 10-Q filings from the official SEC filing website. Then, we transform each zip codes into coordinates, in longitude and latitude format, by using the geocode function in google sheets. We match the shapefiles to the coordinates to identify

congressional districts that redrew their district boundaries for year 2010 and 2013. We eliminate sample firms that were unaffected by the congressional redistricting, meaning these firms remain in the same district before and after the 2010 census. Third, we obtain U.S House of Representative election information for each congressional district of each state from the MIT Election Data and Science Lab. Weidentify the vote shares to determine the winning representative for each candidate of each district of eachstate for year 2010 and 2012. Then, we merge and compare the winners of 2010 and 2012 and identify whether there was a change in the candidacy manually.

Our final step is to consider the effect of redistricting. We define our main variable *treated* as (1) when a firm has a new House of Representative as a result of redistricting before 2010 and after 2012; and (2) when there is a change in the firm-level political risk before 2010 and after 2012 (either higher or lower). In the latter condition, we split *PRisk* into four quartiles and rank them from low to high for each district and each state to capture the true change in *PRisk* due to redistricting. Because redistricting occursevery ten years, we compare the mean of the *PRisk* in the past 5 years prior to redistricting and the *PRisk* one year after redistricting. By comparing the two, we were able to recognize the changes in the quartile *PRisk* rankings. Quartile rankings can be either 1, -1, or 0 depending on if there was an increase/decrease/no change in *PRisk* before and after redistricting. Therefore, *Treated* is also in the form of 1, -1, 0. We restrict the sample fiscal year from 2006 to 2016 to capture the effect of the 'redistricting' event in 2010. Standard errors are clustered at the district level.

Denes et al. (2017) previously argued, and Gad et al. (2021) previously showed that firms don't influence the outcomes of redistricting, therefore, redistricting is an exogenous variation in firm *PRisk*. However, Gad et al. (2021) consider that economic and demographic trends do influence the outcomes of districting, therefore, they introduce three appropriate control groups based on a sample of redistricted firms. Control group (1): redistricted firms with a change in House of Representative but no change in political risk quartile; (2) redistricted firms with no change in House of Representatives with either no change or change in political risk quartile; (3) combined set of the latter two control groups. To measure the exogenous effect, we create an interaction term *DEV*Treated*Post* where *Post* is a dummy variable that equals to 1 for the two fiscal years following the redistricting event, 0 otherwise to consider time-wise differences.

5. Results

***NOTE: We recognize that BDR presents varying results and we are still investigating the problem. Our current theory is that there is a time series break.**

[Table 3: Baseline SOA]

Table 3 reports the Baseline SOA results: Firm-Level Political Risk and Firm-Level Political Risk Issue. Our dependent variable is deviation leverage (D_LEV) and our main variable is *DEV*zPRisk3*. In Panel A, we show the baseline political risk on the speed of adjustment. Using MDR as our primary leverage measurement in Column (1), we show that the deviation leverage *DEV* which has an estimated coefficient of 18.0, significant to the 1%. This means that when we treat firms homogenous across the years, the average speed of adjustment is 18.0% closing around a sixth of the gap. In Column (2), when there is high political risk, the firms with extreme political risk have a speed of adjustment of 20.0%. This also indicates that firms that had seen the highest political risk until then adjust 2.2% faster. Since political risk increases the cost of debt as shown in (Gad et al, 2020), it will also increase the potential financial distress so firms will adjust faster to preserve more financial flexibility. The effects remain when we add controls in Columns (3) and (4). When we use BDR as our leverage measurement in columns (4) to (8), the effects still hold.

In Panel B and C, we show the speed of adjustment for each political issue. In Panel B with MDR as the primary leverage measure, political risk tax, economics, institution, and health increase the adjustment speed when regressed independently with DEV. Among them, political risk tax speeds up the fastest at 2.5%. However, when we combine all variables in Panel C, we show tax, economics, environment, and institution have effects on the adjustment speed in Column (1).

[Table 4: Over & Under leveraged Firms]

Table 4 shows Over & Under leveraged firms results: Firm-level Political Risk & the SOA. In Panel A using MDR, we find that underleveraged firms adjust faster towards the target at 3.3% in Column(1). Confirming our hypothesis, our intuition is that the value of option decreases when an underleveragedfirm has high political risk. Therefore, it would be optimal for firm managers to hold less cash to increase debt capacity so financial flexibility will not be a primary need. The effects still hold when we add the controls in Column (2). When we attempted to use BDR, our results show the opposite effect so we believe there is a time series break.

[Table 5: Big Firms]

Table 5 shows Big firms results: Firm-Level Political Risk, Firm-Level Political Risk Issue, & the SOA. We define big firms as firms with revenue greater than $1 Billion USD. In Panel A, Column (2) using MDR, we find that the adjustment speed increases by 1.4%, significant to the 10%. When we use the BDR, Column (6), political risk has no effect on the speed of adjustment. We suspect that because big firms have more political resources and connections, political risk can be mitigated through political activism, hence it is not a primary issue. When we dissect the political risk by issue in Panel C, Column (1), we find that only tax and technology political risk affect the speed of adjustment.

[Table 6: Small Firms]

Table 6 shows Small firms results: Firm-Level Political Risk, Firm-Level Political Risk Issue, & the SOA. We define small firms as firms with revenue less than $1 Billion USD. In Panel A, Column (2) using MDR, we find that the adjustment speed increases by 2.3%, significant to the 5%. This is faster than the adjustment speed of big firms. When we use the BDR, Column (6), political risk has an even faster adjustment speed at 4.2%. In contrast to big firms, we suspect that because small firms have less political resources and connections, it would be difficult to mitigate political risk through political activism, hence it becomes a primary issue. In fact, 40.8% of big firms lobby compared to 6.2% of small firms (CPR) which corresponds with our interpretation that big firms have more influences on lobby thereby mitigatingtheir political uncertainties. When we dissect the political risk by issue in Panel C, Column (1), we find that only trade, economics, and the institution political risk affect the speed of adjustment. Therefore, we conclude that big and small firms have different priorities and care about different issues under different issue related uncertainties.

[Table 7: Managing Political Risk]

Table 6 shows how firms manage their political risks: Firm-Level Political Risk, Political Activism, & the SOA. We present two types of lobbying: firm direct lobbying and financial institutional investor lobbying. In Panel D, Column (3) using MDR, we find that institutional investor lobbying decreases the adjustment speed. Because faster adjustment speed increases the adjustment costs, lobbying has the effect of slowing down the adjustment speed thereby reducing adjustment costs. As a result, it willdecrease the cost of borrowing and will reduce financial distress and increase financial flexibility.

In Panel E to L, we show how issue-level lobbying affects the speed of adjustment. In Panel E, Column (1), political risk trade does not affect SOA. However in Column (2), we find that the trade risk indeed exists but is mitigated by lobbying on trade issues. Similarly for Environment (Panel H). In Panel F, Column (1), political risk tax increases the adjustment speed but in Column (3) we find the mitigating effect of lobbying. This reduces the adjustment cost and thus will decrease the cost of borrowing and preserve financial flexibility when political risk is high. Similarly for Economics (Panel G). We also find that for issues like Health (Panel J) and Technology (Panel L), lobbying has no effect on the SOA. We recognize that BDR presents varying results and we are still investigating the problem. Our current theory is that there is a time series break.

[Table 8: Lender's Political Risk Management]

Table 8 shows how lenders manage their political risks: Transmission of Firm-Level Political Risk & the SOA. Gad, et al. (2022) find that an increase in political risk for bank arrangers would adversely affect credit supply which affects loan pricing. Based on their research, we show that political risk is transmitted from bank arrangers to firm borrowers. The condition of our research is that markets are free from perfect competition i.e: arrangers can transmit political risk to borrowers. As the lender, banks have more market power and so they extract higher interest payments from firms (Guriev, Kvasov, 2009). On the contrary, the financial costs incurred by investors are reduced by optimizing capital structures. Under this assumption, bank arrangers could increase their cost of borrowing (eg: by increasing interest rates) as a means of transmitting and mitigating high political influences. However, this transmission is expected only if the firms are economically connected to each other.

In Panel A, Column (1), we show that firms with arrangers increase their adjustment speed by 4.6%. When the arranger is experiencing potential high political risk, they propagate their uncertainties to their borrowers by increasing their cost of borrowing such as increasing interest rates. From the borrower side, they intake the risk by incurring higher borrowing costs. This incentivizes firms to adjust faster towards the target to preserve higher debt capacity and financial flexibility. In Panel B, Column (1), our findings suggest that lobbying by the borrowers with an arranger can mitigate the political risk. The effect is more pronounced once we add the control variables in Column (2).

In Panel C, Column (1), we show that the adjustment speed for an overleveraged firm with arrangers under high political risk increases its adjustment speed by 3.4%. Already taking on a great amount of debt, overleveraged firms will incur even greater borrowing costs from their arrangers so they will choose to deleverage as fast as to maintain higher future financial flexibility.

In Panel D and E, we explore the transmission of political risk when our sample is divided into big and small firms. Both samples find the adjustment speed coefficient to be positive and significant. However, we find that big firms adjust at 1.9% (Panel D, Column (1)) while small firms adjust at a great speed of 8.2% (Panel E, Column (1)). Because smaller firms have less revenue, they will choose to adjust faster towards the target to avoid high borrowing costs. At the same time, because bigger firms have greater revenue, they will choose to adjust not as fast towards the target.

Redistricting Results:

We examine the redrawing of US congressional districts to uncover plausibly exogenous variation in firm-level political risk. We attempted to use a difference-in-differences method however, a difficulty we've encountered is that the approach violates a key assumption which is the Parallel Trend Assumption which requires that in the absence of treatment, the difference between the 'treatment' and 'control' group is constant over time. Therefore, we conjecture that a new methodology is needed to solve the problem.

6. Conclusion

We find strong evidence that firms speed up their adjustment towards their target leverage ratio when there is high firm-level political risk. The effect of political risk is particularly pronounced if firms are underleveraged and are small. This distinction is strengthened by our findings that lobbying mitigates the impact of political risk on capital structure. To examine the transmission of political risk from bank arrangers to borrowers, we find that borrowers with arrangers adjust faster and are more pronounced for overleveraged and small firms. Our research highlights the effect of firm-level political risk on the speed of adjustment, the propagation of political risk, and the management of political risk through political activism. We also explore the effect of such risk for big firms and small firms. Our main contribution is providing a new outlook of how firms manage their financial flexibility and adjust their capital structure under high political influence.

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Appendix I:

A Firm-Level Political Risk Issue

Hassan et al. (2019) maps the political risk topics to Center for Responsive Politics (CRP) lobbying issues. The lobbying issue codes can be found at Congress.gov. We manually match the lobbying issue code to Hassan's political topics.

Political Issue	Lobbying Issue
Economic Policy & Budget	Accounting; Advertising; Apparel, Clothing, & Textiles; Arts & Entertainment; Automotive Industry; Aviation, Airlines & Airports; Banking; Bankruptcy; Beverage Industry; Chemical Industry; Consumer Product Safety; Copyright, Patent & Trademark; District of Columbia; Economics & Economic Development; Federal Budget & Appropriations; Finance; Food Industry; Gaming, Gambling & Casinos; Manufacturing, Insurance; Labor, Antitrust & Workplace; Marine, Boats & Fisheries; Media Information & Publishing; Minting/Money/Gold Standard; Radio & TV Broadcasting; Railroads; Roads & Highways; Small Business; Telecommunications; Tobacco; Transportation; Travel & Tourism; Trucking & Shipping; Unemployment
Environment	Agriculture; Animals; Clean Air & Water; Environment & Superfund; Fuel, Gas & Oil; Hazardous & Solid Waste; Natural Resources; Real Estate & Land Use; Utilities
Trade	Commodities; Foreign Relations; Postal; Tariffs; Trade
Institution & Political Process	Government Issues; Torts
Health	Health Issues; Medicare & Medicaid; Medical Research & Clinical Labs; Pharmacy
Security & Defense	Defense; Disaster & Emergency Planning; Homeland Security; Intelligence; Veterans Affairs
Tax Policy	Taxes
Technology & Infrastructure	Aerospace; Computers & Information Technology; Science & Technology

B Models:

We measure and define each political issues based on the cumulative political risk issue. The cumulative min-max normalization incorporates only the firm's observation of political risk until a given point in time. For example, political risk trade is measured as follows:

$$zPRTrade = \frac{PRTrade_{i,t} - \min[PRTrade_{i,t}]}{\max[PRTrade_{i,t}] - \min[PRTrade_{i,t}]}.$$

Baseline Model:

To test our hypothesis that the firm-level political risk affects the speed of adjustment, we use a panel data model. We establish the interaction terms between deviation and *PRisk* with deviation:

$$\lambda_{i,t} = \lambda_0 + \lambda_1 \cdot DEV * zPRisk3_{i,t} + \lambda_2 \cdot x_{i,t} + \varepsilon_{it}$$

λ_0 is the average firm adjustment speed that has not been affected by political risk whereas λ_1 is the average firm adjustment speed which has been affected by political risk. $\lambda_2 \cdot x_{it}$ is the effect of firm characteristics on the speed of adjustment. See Table 1 for Variable Definitions.

Transmission Model:

$$\lambda_{i,t-1} = \lambda_0 + \lambda_1 \cdot DEV \cdot zPRisk\_Arranger_{i,t-1} + \lambda_2 \cdot DEV \cdot zPRisk\_Borrower_{i,t-1} + \lambda_3 \cdot x_{i,t-1} + \varepsilon_{i,t-1}$$

Lobbying Model:

$$\lambda_{i,t} = \lambda_0 + \lambda_1 \cdot DEV \cdot zPRisk3_{i,t} + \lambda_2 \cdot DEV \cdot lnLobby\_Firm_{i,t} + \lambda_3 \cdot x_{i,t} + \varepsilon_{i,t}$$

$$\lambda_{i,t} = \lambda_0 + \lambda_1 \cdot DEV \cdot zPRisk3_{i,t} + \lambda_2 \cdot DEV \cdot lnLobby\_Investor_{i,t} + \lambda_3 \cdot x_{i,t} + \varepsilon_{i,t}$$

Redistricting Model:

We employ a partial adjustment model to examine the effect of the redistricting treatment on the speed of adjustment. The main measurement is *treated* in the value of +1(-1), which is defined as redistricted firms that are exposed to political risk as a result of redistricting and *Post,* which is a dummy variable where it equals to 1 for all two fiscal years after redistricting, 0 otherwise to account for time-wise differences. Variable *Post* identifies the initial two years after the 2010 Census redistricting became

finalized since most redistricting took place in 2011. The speed of adjustment considers the deviation of *treated* variable and the deviation of *treated*Post* interaction term in combination with control variables:

$$\lambda_{i,t} = \lambda_0 + \lambda_1 \cdot DEV \cdot treated_{i,t} + \lambda_2 \cdot DEV \cdot treated_{i,t} \cdot Post + \lambda_3 \cdot x_{i,t} + \varepsilon_{i,t}$$

λ, is the average firm speed of adjustment that has not been affected by redistricting meaning that these firms remain in the same electoral district after the 2010 Census or belong to on the control groups.

Table 1. Variable Definitions

Variables	Description
DEV	Difference between target leverage ratio and the actual target defined by: Target – MDR.
Target	Target leverage ratio calculated by regressing the following firm characteristics: lagged *MDR, MDR, EBIT_TA, MB, DEP_TA, Ln_TA, FA_TA, RD_DUM, RD_TA, Ind_Median* with fixed effects (Flannery, Rangan, 2006).
D_LEV	Deviation of the leverage ratio: change in MDR from the previous period.
MDR	Market Debt Ratio: Our primary leverage measurement.
BDR	Book Debt Ratio
EBIT_TA	Earnings Before Interest and Taxes: Profitability Measurement.
MB	Market to book ratio of assets.
DEP_TA	Depreciation as a proportion of total assets.
Ln_TA	Log of asset size, measured in 1983 dollars, deflated by consumer price index.
FA_TA	Fixed Asset Proportion over total assets.
R&D_DUM	Dummy Variable: R&D expense measurement.
R&D_TA	R&D expense measurement over total assets.
Ind_Median	Annual Industry Median based on Industry Groupings in Fama and French (2002).
$zPRisk1_{i,tH}$	Firm-level political risk (HHLT) standardized with the mean = 0 and std = 1 (Gad et.al, 2021). $zPRisk1_{i,t} = \frac{PRisk_{i,t} - PRisk_{mean}}{PRisk_{std}}$
$zPRisk2_{i,tMM}$	Firm-level Political Risk (HHTL) defined by taking political risk minimum and maximum values. $zPRisk2_{i,t} = \frac{PRisk_{i,t} - PRisk_{min}}{PRisk_{max} - PRisk_{min}}$
$zPRisk3_{CMM}$	Firm-level Political Risk (HHTL) defined by taking the cumulative minimum and maximum values. $zPRisk3_{CMM} = \frac{PRisk_{i,t} - max[PRisk_{i,t}]}{max[PRisk_{i,t}] - min[PRisk_{i,t}]}$.
zPRTrade	Firm-level Political Risk Trade (HHTL) defined by taking the cumulative minimum and maximum values. Bigram & transcript related to trade political risk including Commodities; Foreign Relations; Postal; Tariffs; Trade.
zPRTax	Firm-level Political Risk Tax (HHTL) defined by taking the cumulative minimum and maximum values. Bigram & transcript related to tax political risk.
zPREcon	Firm-level Political Risk Economic Policy & Budget (HHTL) defined by taking the cumulative minimum and maximum values. Bigram & transcript related to

	economics political risk including Accounting; Advertising; Apparel; Arts & Entertainment; Automotive Industry; Aviation, Airlines & Airports; Banking etc.
zPREnv	Firm-level Political Risk Environment (HHTL) defined by taking the cumulative minimum and maximum values. Bigram & transcript related to environment political risk including Agriculture; Animals; Clean Air & Water; Environment & Superfund; Fuel, Gas & Oil etc.
zPRIns	Firm-level Political Risk Institution (HHTL) defined by taking the cumulative minimum and maximum values. Bigram & transcript related to institution political risk including Government Issues; Torts.
zPRHealth	Firm-level Political Risk Health (HHTL) defined by taking the cumulative minimum and maximum values. Bigram & transcript related to health political risk including Health Issues; Medicare & Medicaid etc.
zPRSecurity	Firm-level Political Risk Security (HHTL) defined by taking the cumulative minimum and maximum values. Bigram & transcript related to security political risk including Defense; Disaster & Emergency Planning etc.
zPRTech	Firm-level Political Risk Technology (HHTL) defined by taking the cumulative minimum and maximum values. Bigram & transcript related to technology political risk including Aerospace; Computers & Information Technology etc.
Big	Firms with revenue greater than $1 Billion USD (Graham, 2022).
Small	Firms with revenue less than $1 Billion USD (Graham, 2022).
Surplus	Overleveraged firm taking on too much debt (Byoun, 2013)
Deficit	Underleveraged firm taking on little debt (Byoun, 2013)
D_over	Overleveraged Firms dummy variable, DEV<0 (Byoun, 2013)
D_under	Underleveraged Firms dummy variable, DEV>0 (Byoun, 2013)
zPRisk_Arranger	Firm-level political risk for borrowing firms given their corresponding bank arrangers exposed to high firm-level political risk.
zPRisk_Borrower	Firm-level political risk for all borrowing firms.
lnLobby_Firm	Log of one plus firm lobbying expense of the next year (Gad et.al, 2021). Same definition for issue-level lobbying.
lnLobby_Investor	Log of one plus institutional lobbying expense of the next year.
lnDonation	Log of one plus campaign donation expense of the next year.
Treated	Firms with a new House of Representatives due to congressional redistricting and when there is a change in firm-level political risk before and after congressional redistricting (Gad et.al, 2021).
Post	Dummy variable where the value of one identifies the initial two years after 2010 Census redistricting becomes final

Table 2. Descriptive Statistics

	count	mean	std	min	25%	50%	75%	max
MDR	65924	0.221	0.235	0	0.019	0.148	0.340	0.952
BDR	65924	0.238	0.224	0	0.032	0.200	0.367	0.948
EBIT_TA	64824	0.007	0.255	-1.358	-0.004	0.067	0.1029	0.363
MB	65924	1.974	2.561	0.3017	0.858	1.274	2.112	23.777
DEP_TA	65924	0.044	0.036	0.0006	0.021	0.036	0.055	0.257
FA_TA	65924	0.263	0.248	0.0022	0.068	0.171	0.394	0.912
RD_DUM	65924	0.631	0.482	0	0	1	1	1
RD_TA	65924	0.062	0.126	0	0	0.003	0.066	0.648
Ind_Median	65924	0.151	0.126	0.0025	0.036	0.113	0.238	0.789
DEV	65924	0.029	0.254	-1.384	-0.096	0.059	0.185	0.936
D_LEV	65924	0.008	0.126	-0.952	-0.031	0	0.041	0.952
Surplus	65839	0.534	0.498	0	0	1	1	1
Deficit	65839	0.465	0.498	0	0	0	1	1
zPRisk3_b	29379	0.408	0.377	0	0.062	0.284	0.775	1
zPRTrade_b	29382	0.387	0.383	0	0.041	0.237	0.750	1
zPRTax_b	29385	0.391	0.379	0	0.049	0.249	0.745	1
zPREcon_b	29386	0.398	0.379	0	0.052	0.262	0.756	1
zPREnv_b	29387	0.391	0.379	0	0.049	0.249	0.746	1
zPRIns_b	29386	0.391	0.379	0	0.048	0.249	0.748	1
zPRHealth_b	29388	0.398	0.379	0	0.052	0.265	0.763	1
zPRSecurity_b	29388	0.391	0.376	0	0.053	0.255	0.737	1
zPRTech_b	29385	0.395	0.3794	0	0.051	0.257	0.748	1

This table provides the summary statistics. Variables are defined in Table 1.

Table 3. Baseline SOA
Firm-Level Political Risk & Firm-Level Political Risk Issue

We estimate the speed of adjustment for a sample of all US public firms from 2002 to 2022, defined as the amount of deviation from its target leverage (*DEV*) a firm closes in a given fiscal year (*D_LEV*). We measure firm-level political risk as *zPRisk3,* calculated using the cumulative minimum and maximum values. MDR is the market debt and BDR is the book debt. The coefficients are estimated using ordinary least squares regression, standard errors are bootstrapped to account for estimated regressors, using 1,500 samples. Panel A shows the baseline speed of adjustment for firm-level political risk with market and book leverage. Panel B shows the baseline speed of adjustment for firm-level political risk by issue topic. Panel C shows the combined effect of all political risk issues on the speed of adjustment. Control variables used include *EBIT_TA, DEP_TA, FA_TA, RD_DUM, Ind_Median.*

Panel A: Political Risk Baseline SOA

	MDR				BDR			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	D_LEV				D_LEV			
DEV	0.180***	0.178***	0.145***	0.165***	0.124***	0.099***	0.133***	0.139***
	(0.002)	(0.004)	(0.005)	(0.008)	(0.002)	(0.004)	(0.006)	(0.008)
*DEV*zPRisk3*		0.022***		0.022***		0.011*		0.011*
		(0.007)		(0.007)		(0.006)		(0.006)
Controls	N	N	Y	Y	N	N	Y	Y
Observations	65,924	29,379	64,824	29,044	65,924	29,379	64,824	28,971
R-squared	0.134	0.152	0.136	0.163	0.062	0.057	0.066	0.066

*** p<0.01, ** p<0.05, * p<0.1

Panel B: Political Risk Issue Baseline SOA

	MDR								BDR							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
VARIABLES	D_LEV								D_LEV							
DEV	0.185***	0.177***	0.177***	0.185***	0.173***	0.165***	0.166***	0.173***	0.103***	0.099***	0.099***	0.098***	0.116***	0.112***	0.113***	0.111***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.008)	(0.008)	(0.008)	(0.008)	(0.004)	(0.004)	(0.004)	(0.004)	(0.008)	(0.008)	(0.008)	(0.008)
*DEV*zPRTrade*	0.006				0.006				0.002				0.001			
	(0.006)				(0.007)				(0.006)				(0.006)			
*DEV*zPRTax*		0.025***				0.022***				0.013**				0.011*		
		(0.007)				(0.007)				(0.006)				(0.007)		
*DEV*zPREcon*			0.024***				0.021***				0.011*				0.009	
			(0.007)				(0.007)				(0.007)				(0.006)	
*DEV*zPREnv*				0.007				0.004				0.016**				0.013**
				(0.007)				(0.007)				(0.007)				(0.007)
Controls	N	N	N	N	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y
Observations	29,382	29,385	29,386	29,387	29,048	29,051	29,051	29,052	29,382	29,285	29,386	29,387	29,048	29,051	29,051	29,052
R-squared	0.152	0.153	0.153	0.152	0.162	0.163	0.163	0.162	0.057	0.057	0.057	0.057	0.061	0.062	0.061	0.062

*** p<0.01, ** p<0.05, * p<0.1

Panel B (Continued)

	MDR								BDR							
	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
VARIABLES	D_LEV								D_LEV							
DEV	0.178***	0.182***	0.184***	0.184***	0.167***	0.171***	0.172***	0.172***	0.010***	0.102***	0.102***	0.101***	0.113***	0.115***	0.116***	0.114***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.008)	(0.008)	(0.008)	(0.008)	(0.004)	(0.004)	(0.004)	(0.004)	(0.008)	(0.008)	(0.008)	(0.008)
*DEV*zPRIns*	0.022***				-0.020***				0.011*				0.011*			
	(0.007)				(0.007)				(0.006)				(0.006)			
*DEV*zPRHealth*		0.012*				0.010				0.005				0.004		
		(0.007)				(0.007)				(0.006)				(0.007)		
*DEV*zPRSecurity*			0.009				0.171				0.004				0.002	
			(0.007)				(0.008)				(0.006)				(0.007)	
*DEV*zPRTech*				0.009				0.007				0.007				0.006
				(0.007)				(0.007)				(0.006)				(0.006)
Controls	N	N	N	N	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y
Observations	29,386	29,388	29,388	29,385	29,052	29,053	29,053	29,050	29,386	29,388	29,388	29,385	29,052	29,053	29,053	29,059
R-squared	0.153	0.153	0.152	0.152	0.163	0.163	0.162	0.162	0.057	0.057	0.057	0.057	0.061	0.061	0.061	0.061

*** p<0.01, ** p<0.05, * p<0.1

Panel C: Political Risk Issue Combined SOA

	MDR		BDR	
	(1)	(2)	(3)	(4)
VARIABLES	D_LEV		D_LEV	
DEV	0.179***	0.168***	0.091***	0.136***
	(0.004)	(0.008)	(0.004)	(0.008)
*DEV*zPRTrade*	-0.011	-0.008	-0.014	-0.012
	(0.010)	(0.010)	(0.009)	(0.009)
*DEV*zPRTax*	0.026**	0.023**	0.032	0.026
	(0.011)	(0.011)	(0.010)	(0.010)
*DEV*zPREcon*	0.042***	0.036***	-0.005	-0.006
	(0.014)	(0.014)	(0.013)	(0.013)
*DEV*zPREnv*	-0.022*	-0.024**	0.032***	0.021**
	(0.012)	(0.012)	(0.012)	(0.012)
*DEV*zPRIns*	0.029**	0.029**	0.004	0.004
	(0.012)	(0.012)	(0.012)	(0.012)
*DEV*zPRHealth*	-0.010	-0.009	0.016	0.020
	(0.012)	(0.012)	(0.012)	(0.012)
*DEV*zPRSecurity*	-0.025*	-0.021	-0.016*	-0.004*
	(0.013)	(0.013)	(0.013)	(0.013)
*DEV*zPRTech*	-0.011	-0.011	-0.018	-0.012
	(0.011)	(0.011)	(0.011)	(0.011)
Controls	N	Y	N	Y
Observations	29,378	29,044	29,347	29,018
R-squared	0.154	0.163	0.058	0.066

*** p<0.01, ** p<0.05, * p<0.1

Table 4. Over & Under Leveraged Firms
Firm-Level Political Risk & the SOA

We estimate the speed of adjustment, distinguishing between over- and underleveraged firms using the dummy variables *D_over* and *D_under*, respectively. A firm is overleveraged (underleveraged) when its leverage is greater (smaller) than its estimated target leverage ratio as measured by the market-debt ratio (MDR). Its deviation is captured in the variable *DEV*. We measure firm-level political risk as *zPRisk3,* calculated using the cumulative minimum and maximum values. The coefficients are estimated using ordinary least squares regression, and standard errors are bootstrapped to account for estimated regressors, using 1,500 samples Control variables used include *EBIT_TA, DEP_TA, FA_TA, RD_DUM, Ind_Median.* We also test for book leverage (BDR) however, we've encountered time series issues when BDR is combined with political risk.

Panel A: Over & Under Leveraged Firms & Political Risk SOA

	MDR	
	(1)	(2)
VARIABLES	D_LEV	
Surplus	-0.011***	-0.010***
	(0.001)	(0.001)
Deficit	0.045***	0.045***
	(0.001)	(0.001)
*DEV*D_over*	0.223***	0.206***
	(0.006)	(0.009)
*DEV*D_under*	0.130***	0.103***
	(0.007)	(0.010)
*DEV*D_over*zPRisk3*	0.007	0.003
	(0.009)	(0.009)
*DEV*D_under*zPRisk3*	0.033***	0.037***
	(0.009)	(0.010)
Controls	N	Y
Observations	29,362	29,030
R-squared	0.203	0.213

Table 5. Big Firms
Firm-Level Political Risk, Firm-Level Political Risk Issue & the SOA

We estimate the speed of adjustment by distinguishing between big and small firms using firm revenue (Graham, 2022). A firm with revenue above $1 Billion dollars is a big firm. We measure firm-level political risk as *zPRisk3,* calculated using the cumulative minimum and maximum values. MDR is the market debt and BDR is the book debt. The coefficients are estimated using ordinary least squares regression, standard errors are bootstrapped to account for estimated regressors, using 1,500 samples. Panel A shows big firms' baseline speed of adjustment for firm-level political risk with market and book leverage. Panel B shows big firms' baseline speed of adjustment for firm-level political risk by issue topic. Panel C shows big firms' combined effect of all political risk issues on the speed of adjustment. Control variables used include *EBIT_TA, DEP_TA, FA_TA, RD_DUM, Ind_Median.*

Panel A: Big Firms Political Risk SOA

	MDR				BDR			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	D_LEV				D_LEV			
DEV	0.167***	0.165***	0.188***	0.212***	0.118***	0.099***	0.181***	0.204***
	(0.002)	(0.004)	(0.007)	(0.011)	(0.002)	(0.004)	(0.007)	(0.010)
*DEV*zPRisk3*		0.014*		0.017**		-0.003		-0.008
		(0.008)		(0.008)		(0.008)		(0.008)
Controls	N	N	Y	Y	N	N	Y	Y
Observations	26,825	16,253	26,571	16,119	26,798	16,240	26,546	16,107
R-squared	0.158	0.167	0.176	0.194	0.083	0.068	0.096	0.090

*** p<0.01, ** p<0.05, * p<0.1

Panel B: Big Firms Political Risk Issue SOA

	MDR								BDR							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
VARIABLES	D_LEV								D_LEV							
DEV	0.163***	0.159***	0.161***	0.167***	0.211***	0.209***	0.210***	0.215***	0.106***	0.102***	0.099***	0.010***	0.154***	0.150***	0.148***	0.148***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.010)	(0.010)	(0.010)	(0.010)	(0.004)	(0.004)	(0.004)	(0.004)	(0.011)	(0.011)	(0.011)	(0.011)
*DEV*zPRTrade*	0.019**				0.021***				0.008				0.009			
	(0.008)				(0.008)				(0.008)				(0.008)			
*DEV*zPRTax*		0.029***				0.027***				0.022***				-0.019**		
		(0.008)				(0.008)				(0.009)				(0.009)		
*DEV*zPREcon*			0.023***				0.022***				0.029***				0.025***	
			(0.008)				(0.008)				(0.009)				(0.009)	
*DEV*zPREnv*				0.009				0.012				0.029***				0.023***
				(0.008)				(0.008)				(0.008)				(0.009)
Controls	N	N	N	N	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y
Observations	16,252	16,253	16,253	16,253	16,118	16,119	16,119	16,119	16,239	16,240	16,240	16,240	16,106	16,107	16,107	16,107
R-squared	0.168	0.168	0.168	0.167	0.194	0.194	0.194	0.194	0.072	0.073	0.073	0.073	0.079	0.080	0.080	0.080

*** p<0.01, ** p<0.05, * p<0.1

Panel B (Continued)

	MDR								BDR							
	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
VARIABLES	D_LEV								D_LEV							
DEV	0.162***	0.163***	0.166***	0.169***	0.210**	0.213***	0.214***	0.217***	0.010***	0.103***	0.104***	0.104***	0.148***	0.152***	0.152***	0.153***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.010)	(0.011)	(0.008)	(0.010)	(0.004)	(0.004)	(0.004)	(0.004)	(0.011)	(0.011)	(0.011)	(0.011)
*DEV*zPRIns*	0.021***				0.022**				0.029***				0.024***			
	(0.008)				(0.008)				(0.009)				(0.008)			
*DEV*zPRHealth*		0.018**				0.015*				0.019**				0.0134		
		(0.007)				(0.008)				(0.009)				(0.009)		
*DEV*zPRSecurity*			0.010				0.014*				-0.000				-0.004	
			(0.008)				(0.008)				(0.009)				(0.009)	
*DEV*zPRTech*				0.005				0.006				0.015				0.009
				(0.008)				(0.008)				(0.009)				(0.008)
Controls	N	N	N	N	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y
Observations	16,253	16,253	16,253	16,253	16,119	16,119	16,119	16,119	16,240	16,240	16,240	16,240	16,107	16,107	16,107	16,107
R-squared	0.168	0.168	0.167	0.167	0.194	0.194	0.194	0.193	0.073	0.073	0.073	0.072	0.080	0.080	0.080	0.079

*** p<0.01, ** p<0.05, * p<0.1

Panel C: Big Firms Political Risk Issue Combined SOA

	MDR		BDR	
	(1)	(2)	(3)	(4)
VARIABLES	D_LEV		D_LEV	
DEV	0.161***	0.210***	0.094***	0.199***
	(0.005)	(0.011)	(0.004)	(0.010)
*DEV*zPRTrade*	0.017	0.019*	0.005	0.013
	(0.012)	(0.011)	(0.011)	(0.011)
*DEV*zPRTax*	0.034***	0.029**	0.012	0.012
	(0.013)	(0.013)	(0.012)	(0.013)
*DEV*zPREcon*	0.024	0.020	0.002	-0.000
	(0.017)	(0.017)	(0.018)	(0.016)
*DEV*zPREnv*	-0.019	-0.014	-0.012	-0.024
	(0.014)	(0.014)	(0.016)	(0.016)
*DEV*zPRIns*	0.021	0.022	0.010	0.002
	(0.015)	(0.015)	(0.015)	(0.016)
*DEV*zPRHealth*	0.005	-0.008	0.048***	0.051***
	(0.015)	(0.014)	(0.014)	(0.015)
*DEV*zPRSecurity*	-0.023	-0.011	-0.032**	-0.023
	(0.016)	(0.016)	(0.016)	(0.016)
*DEV*zPRTech*	-0.034**	-0.033**	-0.025*	-0.027**
	(0.014)	(0.014)	(0.013)	(0.013)
Controls	N	Y	N	Y
Observations	16,252	16,118	16,239	16,106
R-squared	0.169	0.195	0.069	0.091

*** p<0.01, ** p<0.05, * p<0.1

Table 6. Small Firms
Firm-Level Political Risk, Firm-Level Political Risk Issue & the SOA

We estimate the speed of adjustment by distinguishing between big and small firms using firm revenue. A firm with revenue below $1 Billion dollars is a small firm. We measure firm-level political risk as *zPRisk3,* calculated using the cumulative minimum and maximum values. MDR is the market debt and BDR is the book debt. The coefficients are estimated using ordinary least squares regression, standard errors are bootstrapped to account for estimated regressors, using 1,500 samples. Panel A shows small firms' baseline speed of adjustment for firm-level political risk withmarket and book leverage. Panel B shows small firms' baseline speed of adjustment for firm-level political risk by issue topic. Panel C shows small firms' combined effect of all political risk issues on the speed of adjustment. Control variables used include *EBIT_TA, DEP_TA, FA_TA, RD_DUM, Ind_Median.*

Panel A: Small Firms Firm-Level Political Risk SOA

	MDR				BDR			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	D_LEV				D_LEV			
DEV	0.167***	0.190***	0.146***	0.158***	0.152***	0.090***	0.186***	0.119***
	(0.002)	(0.006)	(0.007)	(0.013)	(0.003)	(0.006)	(0.008)	(0.014)
*DEV*zPRisk3*		0.023**		0.024**		0.042***		0.039***
		(0.011)		(0.011)		(0.010)		(0.011)
Controls	N	N	Y	Y	N	N	Y	Y
Observations	39,099	13,126	38,253	12,925	38,987	13,108	38,149	12,911
R-squared	0.126	0.147	0.129	0.156	0.077	0.052	0.085	0.058

*** p<0.01, ** p<0.05, * p<0.1

Panel B: Small Firms Firm-Level Political Risk Issue SOA

	MDR								BDR							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
VARIABLES	D_LEV								D_LEV							
DEV	0.203***	0.192***	0.191***	0.200***	0.172***	0.161***	0.161***	0.170***	0.101***	0.087***	0.092***	0.086***	0.131***	0.116***	0.121***	0.117***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.013)	(0.013)	(0.013)	(0.013)	(0.006)	(0.006)	(0.006)	(0.006)	(0.013)	(0.013)	(0.013)	(0.013)
*DEV*zPRTrade*	-0.005				-0.007				-0.018*				0.015			
	(0.011)				(0.011)				(0.010)				(0.010)			
*DEV*zPRTax*		0.019*				0.018*				0.051***				0.046***		
		(0.011)				(0.011)				(0.010)				(0.010)		
*DEV*zPREcon*			0.021**				0.018*				0.037***				0.035***	
			(0.011)				(0.011)				(0.010)				(0.011)	
*DEV*zPREnv*				0.001				-0.001				0.051***				0.047***
				(0.011)				(0.011)				(0.011)				(0.010)
Controls	N	N	N	N	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y
Observations	13,130	13,132	13,133	13,134	12,930	12,932	12,932	12,933	13,112	13,114	13,115	13,116	12,916	12,918	12,918	12,919
R-squared	0.147	0.147	0.147	0.147	0.156	0.156	0.156	0.156	0.051	0.0553	0.052	0.053	0.057	0.059	0.058	0.059

*** p<0.01, ** p<0.05, * p<0.1

Panel B (Continued)

	MDR								BDR							
	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
VARIABLES	D_LEV								D_LEV							
DEV	0.192***	0.198***	0.199***	0.197***	0.161**	0.166***	0.167***	0.166***	0.094***	0.094***	0.093***	0.096***	0.123***	0.124***	0.121***	0.126***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.013)	(0.013)	(0.013)	(0.013)	(0.006)	(0.006)	(0.006)	(0.006)	(0.013)	(0.013)	(0.013)	(0.013)
*DEV*zPRIns*	0.019*				0.018*				0.035***				0.034***			
	(0.008)				(0.011)				(0.010)				(0.010)			
*DEV*zPRHealth*		0.005				0.007				0.034***				0.034***		
		(0.011)				(0.011)				(0.010)				(0.010)		
*DEV*zPRSecurity*			0.004				0.003				0.037***				0.028***	
			(0.011)				(0.008)				(0.010)				(0.011)	
*DEV*zPRTech*				0.008				0.007				0.030***				0.028***
				(0.011)				(0.011)				(0.010)				(0.010)
Controls	N	N	N	N	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y
Observations	13,133	13,135	13,135	13,132	12,933	12,934	12,934	12,931	13,115	13,117	13,117	13,114	12,919	12,920	12,920	12,917
R-squared	0.147	0.147	0.147	0.147	0.156	0.156	0.156	0.156	0.052	0.052	0.052	0.051	0.058	0.058	0.058	0.082

*** p<0.01, ** p<0.05, * p<0.1

Panel C: Small Firms Political Risk Issue Combined SOA

	MDR		BDR	
	(1)	(2)	(3)	(4)
VARIABLES	D_LEV		D_LEV	
DEV	0.195***	0.164***	0.088***	0.118***
	(0.007)	(0.013)	(0.007)	(0.014)
*DEV*zPRTrade*	-0.029*	-0.029*	-0.028*	-0.030**
	(0.015)	(0.015)	(0.015)	(0.015)
*DEV*zPRTax*	0.021	0.021	0.047***	0.037**
	(0.017)	(0.017)	(0.017)	(0.017)
*DEV*zPREcon*	0.053**	0.044**	-0.010	-0.010
	(0.022)	(0.022)	(0.019)	(0.021)
*DEV*zPREnv*	-0.023	-0.027	0.063***	0.052***
	(0.019)	(0.019)	(0.019)	(0.019)
*DEV*zPRIns*	0.033*	0.035*	0.001	0.005
	(0.019)	(0.019)	(0.018)	(0.018)
*DEV*zPRHealth*	-0.020	-0.010	-0.009	-0.005
	(0.019)	(0.019)	(0.019)	(0.019)
*DEV*zPRSecurity*	-0.027	-0.028	-0.069	-0.009
	(0.021)	(0.021)	(0.021)	(0.021)
*DEV*zPRTech*	-0.003	0.003	-0.014	-0.014
	(0.017)	(0.018)	(0.018)	(0.018)
Controls	N	Y	N	Y
Observations	13,126	12,926	13,108	12,912
R-squared	0.148	0.157	0.054	0.060

*** p<0.01, ** p<0.05, * p<0.1

Table 7. Managing Political Risk
Firm-Level Political Risk, Political Activism, & the SOA

We show the lobbying efforts of firms directly, the lobbying by issue, and of institutional investors who hold the shares of these firms in their portfolios. Panel A, B, and C shows the lobbying activities distribution of firm lobbying, institutional investor lobbying, and lobbying by issue respectively. Firm lobbying (*lnLobbyF*), institutional investor (*lnLobbyI*), and all eight issue lobbying are calculated by the log of one plus the average lobbying expenses for all firms. We measure firm-level political risk as *zPRisk3,* calculated using the cumulative minimum and maximum values. MDR is the market debt and BDR is the book debt. The coefficients are estimated using ordinary least squares regression, standard errors are bootstrapped to account for estimated regressors, using 1,500 samples. Panel D shows the effect of firm lobbying and institutional lobbying on adjustment speed. Panel E to L shows the effect of each issue lobbying on the adjustment speed. Control variables used include *EBIT_TA, DEP_TA, FA_TA, RD_DUM, Ind_Median.*

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Panel A: Firm Lobbying Activities Distribution

Year	Total # of Companies	# of Lobbying Companies	% of Lobbying Companies	Lobbying Expenses		
				Mean	Median	Total
2001	4,999	748	15.0%	72,333	40,000	54,105,030
2002	9,261	2548	27.5%	88,596	50,000	188,708,822
2003	9,511	2757	29.0%	90,440	50,909	204,213,934
2004	9,800	2966	30.3%	93,631	55,939	223,870,855
2005	10,053	3212	32.0%	96,436	60,000	244,368,101
2006	10,200	3303	32.4%	108,912	65,000	281,427,489
2007	10,250	3028	29.5%	131,218	89,007	306,263,837
2008	10,161	3398	33.4%	63,109	37,500	163,579,528
2009	9,216	3250	35.3%	69,732	40,000	174,400,800
2010	9,223	3257	35.3%	72,051	41,846	179,478,898
2011	9,174	3232	35.2%	75,553	47,500	185,859,836
2012	9,113	3121	34.2%	78,208	50,000	185,353,579
2013	8,972	3000	33.4%	81,561	51,508	188,976,660
2014	9,201	3051	33.2%	78,104	50,000	184,872,523
2015	9,253	2980	32.2%	81,163	50,000	186,349,633
2016	8,866	2714	30.6%	79,730	53,750	166,716,134
2017	8,807	2811	31.9%	81,372	52,500	176,984,353
2018	8,642	2736	31.7%	81,031	58,181	172,029,870
2019	8,411	2695	32.0%	82,613	56,437	172,744,452
2020	7,927	2501	31.5%	89,150	58,819	175,447,692

Panel B: Institutional Investor Lobbying Activities Distribution

Year	Total # of Companies	# of Lobbying Companies	# of Lobbying Firms by Institutional Investors	Lobbying Expenses		
				Mean	Median	Total
2001	4,999	408	8.2%	123	28	462
2002	7,743	0	0.0%	-	-	-
2003	7,789	1,838	23.6%	421	37	773,931
2004	7,900	2,904	36.8%	487	80	1,414,980
2005	7,930	1,320	16.6%	303	99	399,548
2006	7,980	745	9.3%	354	112	263,504
2007	7,901	398	5.0%	968	167	385,424
2008	7,751	3,549	45.8%	69	7	244,932
2009	7,091	156	2.2%	514	290	80,118
2010	7,054	1,854	26.3%	134	43	248,986
2011	6,982	1,843	26.4%	84	35	154,415
2012	6,921	3,560	51.4%	135	21	479,299
2013	6,930	3,602	52.0%	226	9	815,360
2014	7,139	0	0.0%	-	-	-
2015	7,128	3,667	51.4%	120	17	440,475
2016	6,830	3,593	52.6%	315	27	1,133,536
2017	6,814	952	14.0%	46	4	43,663
2018	6,706	0	0.0%	-	-	-
2019	6,526	795	12.2%	177	28	140,883
2020	6,238	3,326	53.3%	1,528	154	5,081,316

Panel C: Lobbying Issue Activities Distribution (%)

Year	Total # of firms	% of firms lobbying for Trade	% of firms lobbying for Tax	% of firms lobbying for Economics	% of firms lobbying for Env	% of firms lobbying for Ins	% of firms lobbying for Health	% of firms lobbying for Security	% of firms lobbying for Tech
2000	5552	6.90%	6.75%	13.33%	7.49%	2.25%	6.23%	3.39%	3.26%
2001	4999	7.12%	7.88%	14.90%	7.28%	2.70%	6.12%	4.30%	3.12%
2002	4605	8.93%	9.62%	18.76%	9.49%	4.73%	8.38%	7.10%	4.58%
2003	4335	7.61%	10.13%	19.12%	8.07%	4.94%	7.54%	7.54%	3.53%
2004	4296	7.43%	10.27%	19.74%	8.19%	5.56%	7.57%	8.68%	3.61%
2005	4212	8.55%	10.16%	22.44%	8.59%	5.65%	8.67%	10.02%	3.87%
2006	4154	8.47%	10.33%	22.44%	9.24%	4.77%	8.91%	10.88%	3.97%
2007	4031	8.56%	11.39%	22.75%	9.87%	4.39%	8.73%	10.99%	3.62%
2008	3804	9.88%	14.09%	26.52%	12.25%	4.89%	10.25%	12.67%	4.18%
2009	3626	10.92%	15.89%	30.12%	12.38%	4.19%	13.24%	12.52%	4.74%
2010	3555	10.55%	16.09%	28.95%	12.63%	4.53%	12.88%	12.77%	4.47%
2011	3486	11.36%	16.29%	28.83%	12.36%	4.10%	11.10%	12.31%	4.53%
2012	3436	12.31%	16.73%	27.85%	12.72%	3.75%	10.59%	11.96%	5.03%
2013	3490	12.29%	16.70%	26.22%	12.46%	3.41%	10.26%	11.49%	4.47%
2014	3638	11.87%	16.25%	25.43%	11.46%	3.24%	9.98%	11.02%	4.04%
2015	3601	11.91%	15.52%	25.27%	10.86%	3.55%	10.41%	10.47%	4.44%
2016	3502	11.34%	15.48%	24.76%	10.68%	3.94%	10.25%	10.11%	4.17%
2017	3505	11.78%	18.40%	24.71%	10.33%	4.17%	10.81%	10.44%	4.08%
2018	3541	13.41%	16.21%	23.75%	10.31%	4.21%	10.84%	10.45%	3.98%
2019	3542	13.50%	13.92%	23.29%	9.85%	3.90%	10.22%	9.88%	4.46%
2020	3666	11.70%	12.60%	23.51%	9.03%	3.25%	10.34%	10.39%	4.36%

Panel D: Firm-Level Political Risk, Lobbying, SOA

	MDR								BDR							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
VARIABLES	D_LEV								D_LEV							
DEV	0.178***	0.168***	0.191***	0.186***	0.165***	0.131***	0.209***	0.212***	0.094***	0.092***	0.103***	0.164***	0.139***	0.116***	0.169***	0.272***
	(0.004)	(0.014)	(0.011)	(0.026)	(0.008)	(0.0018)	(0.0018)	(0.030)	(0.004)	(0.014)	(0.009)	(0.023)	(0.008)	(0.019)	(0.016)	(0.031)
*DEV*zPRisk3*	0.022***	0.018	0.038***	0.026	0.021***	0.020*	0.028**	0.024	0.024***	0.017	0.038***	0.013	0.020***	0.014	0.032***	0.012
	(0.007)	(0.011)	(0.013)	(0.018)	(0.007)	(0.011)	(0.013)	(0.017)	(0.006)	(0.011)	(0.011)	(0.016)	(0.006)	(0.011)	(0.011)	(0.016)
*DEV*lnLobbyF*		-0.001		0.000		-0.001		0.001		-0.001		-0.005**		-0.001		-0.003*
		(0.001)		(0.002)		(0.001)		(0.002)		(0.001)		(0.002)		(0.001)		(0.002)
*DEV*lnLobbyI*			-0.010***	-0.013***			-0.009***	-0.008***			-0.004**	-0.008***			-0.003	-0.004
			(0.002)	(0.003)			(0.002)	(0.003)			(0.002)	(0.003)			(0.002)	(0.003)
Controls	N	N	N	N	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y
Observations	29,379	9,204	8,360	3,876	29,044	9,132	8,281	3,846	29,348	9,196	8,355	3,873	29,018	9,125	8,277	3,843
R-squared	0.153	0.148	0.132	0.124	0.163	0.161	0.148	0.145	0.057	0.054	0.075	0.059	0.066	0.068	0.082	0.074

*** p<0.01, ** p<0.05, * p<0.1

Panel E: Trade Political Risk & Lobbying SOA

	MDR				BDR			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	D_LEV				D_LEV			
DEV	0.185***	0.182***	0.173***	0.199***	0.103***	0.115***	0.116***	0.230***
	(0.004)	(0.023)	(0.008)	(0.029)	(0.004)	(0.025)	(0.008)	(0.031)
*DEV*zPRTrade*	0.006	0.078***	0.006	0.067***	0.002	0.010***	0.001	0.090***
	(0.006)	(0.015)	(0.007)	-0.003*	(0.006)	(0.015)	(0.006)	(0.016)
*DEV*lnLobby_Trade*		-0.006**		(0.002)		-0.006***		-0.007***
		(0.002)				(0.002)		(0.002)
Controls	N	N	Y	Y	N	N	Y	Y
Observations	29,382	4,285	29,048	4,260	29,382	4,280	29,048	4,256
R-squared	0.152	0.148	0.162	0.181	0.057	0.053	0.061	0.075

Panel F: Tax Political Risk & Lobbying SOA

	MDR				BDR			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	D_LEV				D_LEV			
DEV	0.177***	0.177***	0.165***	0.175***	0.099***	0.009	0.112***	0.134***
	(0.004)	(0.025)	(0.008)	(0.029)	(0.004)	(0.029)	(0.008)	(0.037)
*DEV*zPRTax*	0.025***	0.052***	0.022***	0.042***	0.013**	0.001	0.011*	-0.008
	(0.007)	(0.015)	(0.007)	(0.015)	(0.006)	(0.016)	(0.007)	(0.016)
*DEV*lnLobby_Tax*		-0.004**		-0.003		0.004		0.002
		(0.002)		(0.002)		(0.002)		(0.003)
Controls	N	N	Y	Y	N	N	Y	Y
Observations	29,385	3,965	29,051	3,946	29,285	3,954	29,051	3,934
R-squared	0.153	0.159	0.163	0.179	0.057	0.026	0.062	0.039

Panel G: Economics Political Risk & Lobbying SOA

	MDR				BDR			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	D_LEV				D_LEV			
DEV	0.177***	0.193***	0.166***	0.212***	0.099***	0.087***	0.113***	0.141***
	(0.004)	(0.013)	(0.008)	(0.015)	(0.004)	(0.014)	(0.008)	(0.016)
*DEV*zPREcon*	0.024***	0.033***	0.021***	0.031***	0.011*	0.007	0.009	-0.004
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.006)	(0.007)
*DEV*lnLobby_Econ*		-0.006***		-0.006***		-0.002*		-0.003**
		(0.001)		(0.001)		(0.001)		(0.001)
Controls	N	N	Y	Y	N	N	Y	Y
Observations	29,386	16,259	29,051	16,154	29,386	16,120	29,051	16,021
R-squared	0.153	0.136	0.163	0.156	0.057	0.035	0.061	0.053

Panel H: Environment Political Risk & Lobbying SOA

	MDR				BDR			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	D_LEV				D_LEV			
DEV	0.185***	0.266***	0.173***	0.317***	0.098***	0.079***	0.111***	0.155***
	(0.004)	(0.024)	(0.008)	(0.029)	(0.004)	(0.023)	(0.008)	(0.029)
*DEV*zPREnv*	0.007	0.050***	0.004	0.039***	0.016**	0.034**	0.013**	0.019
	(0.007)	(0.014)	(0.007)	(0.014)	(0.007)	(0.014)	(0.007)	(0.014)
*DEV*lnLobby_Env*		-0.012***		-0.010***		-0.001		-0.002
		(0.002)		(0.002)		(0.002)		(0.002)
Controls	N	N	Y	Y	N	N	Y	Y
Observations	29,387	4,904	29,052	4,893	29,387	4,839	29,052	4,839
R-squared	0.152	0.152	0.162	0.191	0.057	0.067	0.062	0.067

Panel I: Institution Political Risk & Lobbying SOA

	MDR				BDR			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	D_LEV				D_LEV			
DEV	0.178***	0.417***	0.167***	0.285***	0.010***	0.178***	0.113***	0.247***
	(0.004)	(0.025)	(0.008)	(0.060)	(0.004)	(0.045)	(0.008)	(0.061)
*DEV*zPRIns*	0.022***	-0.023	-0.020***	0.008	0.011*	-0.026	0.011*	-0.015
	(0.007)	(0.030)	(0.007)	(0.007)	(0.006)	(0.027)	(0.006)	(0.027)
*DEV*lnLobby_Ins*		-0.021***		-0.015		-0.007		-0.006
		(0.004)		(0.004)		(0.004)		(0.004)
Controls	N	N	Y	Y	N	N	Y	Y
Observations	29,386	1,337	29,052	1,325	29,386	1,327	29,052	1,316
R-squared	0.153	0.165	0.163	0.248	0.057	0.068	0.061	0.108

Panel J: Health Political Risk & Lobbying SOA

	MDR				BDR			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	D_LEV				D_LEV			
DEV	0.182***	0.141***	0.171***	0.187***	0.102***	0.141***	0.115***	0.158***
	(0.004)	(0.023)	(0.008)	(0.029)	(0.004)	(0.025)	(0.008)	(0.033)
*DEV*zPRHealth*	0.012*	0.021	0.010	0.024	0.005	0.042**	0.004	0.044**
	(0.007)	(0.015)	(0.007)	(0.014)	(0.006)	(0.018)	(0.007)	(0.018)
*DEV*lnLobby_Health*		-0.003		-0.002		-0.005**		-0.005**
		(0.002)		(0.002)		(0.002)		(0.002)
Controls	N	N	Y	Y	N	N	Y	Y
Observations	29,388	4,239	29,053	4,215	29,388	4,228	29,053	4,208
R-squared	0.153	0.100	0.163	0.113	0.057	0.056	0.061	0.085

Panel K: Security Political Risk & Lobbying SOA

	MDR				BDR			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	D_LEV				D_LEV			
DEV	0.184***	0.315***	0.172***	0.256***	0.102***	0.178***	0.116***	0.152***
	(0.004)	(0.032)	(0.008)	(0.037)	(0.004)	(0.027)	(0.008)	(0.031)
*DEV*zPRSecurity*	0.009	0.009	0.171	0.011	0.004	0.019	0.002	0.007
	(0.007)	(0.018)	(0.008)	(0.018)	(0.006)	(0.017)	(0.007)	(0.017)
*DEV*lnLobby_Security*		-0.013***		-0.008***		-0.009***		-0.012***
		(0.003)		(0.003)		(0.002)		(0.002)
Controls	N	N	Y	Y	N	N	Y	Y
Observations	29,388	3,968	29,053	3,936	29,388	3,940	29,053	3,909
R-squared	0.152	0.159	0.162	0.184	0.057	0.052	0.061	0.086

Panel L: Technology Political Risk & Lobbying SOA

	MDR				BDR			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	D_LEV				D_LEV			
DEV	0.184***	0.213***	0.172***	0.207***	0.101***	0.342***	0.114***	0.393***
	(0.004)	(0.066)	(0.008)	(0.066)	(0.004)	(0.060)	(0.008)	(0.071)
*DEV*zPRTech*	0.009	-0.041	0.007	-0.026	0.007	0.019	0.006	-0.018
	(0.007)	(0.029)	(0.007)	(0.027)	(0.006)	(0.027)	(0.006)	(0.028)
*DEV*lnLobby_Tech*		-0.003		0.001		-0.022***		-0.018***
		(0.006)		(0.005)		(0.005)		(0.005)
Controls	N	N	Y	Y	N	N	Y	Y
Observations	29,385	1,679	29,050	1,656	29,385	1,669	29,059	1,649
R-squared	0.152	0.131	0.162	0.177	0.057	0.068	0.061	0.093

Table 8. Lender's Political Risk Management
Transmission of Firm-Level Political Risk & the SOA

We show how the speed of adjustment of firms varies with their own political risk and the political risk of bank loan arrangers. Firms with arrangers *(zPRisk_Arranger)* are measured as the average lender-level political risk. Similarly with borrowing firms *(zPRisk_Borrower).* We measure firm-level political risk as *zPRisk3,* calculated using the cumulative minimum and maximum values. The coefficients are estimated using ordinary least squares regression, standard errors are bootstrapped to account for estimated regressors, using 1,500 samples. Panel A shows the effect of the lenders' political risk on the speed of adjustment and Panel B shows the lobbying effects. Similarly, Panels C, D, and E show the effect of lenders' political risk on over- and under- leveraged firms, big firms, and small firms respectively. Control variables used include *EBIT_TA, DEP_TA, FA_TA, RD_DUM, Ind_Median.*

*We also test for book leverage (BDR) however, we've encountered time series issues when BDR is combined with political risk.

Panel A: Transmission of Political Risk SOA

	MDR	
	(1)	(2)
VARIABLES	D_LEV	
DEV	0.155***	0.169***
	(0.003)	(0.005)
*DEV*zPRisk_Arranger*	0.046***	0.045***
	(0.004)	(0.004)
*DEV*zPRisk_Borrower*	0.019***	0.019***
	(0.004)	(0.004)
Controls	N	Y
Observations	80,106	79,773
R-squared	0.149	0.153

*** p<0.01, ** p<0.05, * p<0.1

Panel B: Transmission of Political Risk and Political Activism SOA

	MDR	
	(1)	(2)
VARIABLES	D_LEV	
DEV	0.188***	0.219***
	(0.015)	(0.016)
*DEV*zPRisk_Arranger*	0.054***	0.052***
	(0.005)	(0.005)
*DEV*zPRisk_Borrower*	0.006	0.003
	(0.005)	(0.005)
*DEV*lnLobby_Arranger*	-0.002*	-0.002**
	(0.001)	(0.001)
*DEV*lnLobby_Borrower*	-0.004***	-0.004***
	(0.001)	(0.001)
Controls	N	Y
Observations	41,956	41,843
R-squared	0.140	0.146

*** p<0.01, ** p<0.05, * p<0.1

Panel C: Over & Under Leveraged Firms Transmission of Political Risk SOA

	MDR	
	(1)	(2)
VARIABLES	D_LEV	
Surplus	-0.009***	-0.008***
	(0.001)	(0.001)
Deficit	0.055***	0.057***
	(0.001)	(0.001)
*DEV*D_over*	0.197***	0.0220***
	(0.004)	(0.006)
*DEV*D_under*	0.110***	0.139***
	(0.004)	(0.007)
*DEV*D_over*zPRisk3_Arranger*	0.034***	0.034***
	(0.005)	(0.005)
*DEV*D_under*zPRisk3_Arranger*	0.058***	0.045***
	(0.005)	(0.005)
*DEV*D_over*zPRisk3_Borrower*	-0.006	-0.003
	(0.005)	(0.005)
*DEV*D_under*zPRisk3_Borrower*	0.042***	0.038***
	(0.006)	(0.006)
Controls	N	Y
Observations	99,044	93,415
R-squared	0.222	0.233

Panel D: Big Firms Transmission of Political Risk SOA

	MDR	
	(1)	(2)
VARIABLES	D_LEV	
DEV	0.168***	0.222***
	(0.003)	(0.006)
*DEV*zPRisk_Arranger*	0.019***	0.014***
	(0.006)	(0.004)
*DEV*zPRisk_Borrower*	0.009**	0.012***
	(0.004)	(0.004)
Controls	N	Y
Observations	58,359	58,135
R-squared	0.179	0.153

Panel E: Small Firms Transmission of Political Risk SOA

	MDR	
	(1)	(2)
VARIABLES	D_LEV	
DEV	0.136***	0.143***
	(0.006)	(0.011)
*DEV*zPRisk_Arranger*	0.082**	0.082***
	(0.009)	(0.009)
*DEV*zPRisk_Borrower*	0.030***	0.036***
	(0.008)	(0.009)
Controls	N	Y
Observations	21,745	21,636
R-squared	0.123	0.130