Does Political Uncertainty Affect Capital Structure Choices?

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Abstract

In this study, we examine the role of political uncertainty in capital structure decisions. We find that leverage ratios are negatively related to political uncertainty. We further find that firms remain underleveraged for extended periods and leave overleverage spells quickly in periods of high political uncertainty. However, firms that have access to public debt markets are less sensitive to changes in political uncertainty when determining capital structures. We also find that firms wait longer to issue debt and hold more cash in periods of high political uncertainty. These results are robust compared to alternative model specifications and testing strategies as well as subsample analyses based on size and the market to book ratio. Collectively, these findings are consistent with the view that political uncertainty increases financial frictions while having access to public debt markets partially mitigates these frictions.

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1. Introduction

Firms operate in a business environment set by the government economic policies, regulations, and laws. Political decision making usually requires a multi-step approval process; the implementation of new policies is time-consuming and generates political uncertainty in business environments. The degree of uncertainty may further be amplified during times of disagreements among policymakers on economic policies.[1] While previous studies have documented a negative effect of political uncertainty on corporate investment decisions (Julio and Yook (2012)), there remains limited understanding of the effect of political uncertainty on a firm's financing decisions. This paper helps fill the void in the extant literature by examining how political uncertainty influences intertemporal capital structure adjustments.

Political uncertainty influences capital structure decisions through the supply channel. Pastor and Veronesi (2011, 2012) show that political uncertainty induces investors to require higher risk premia to hold financial assets. Hence firms facing such decreased supplies of finance should have higher cost of financial capitals controlling for their demands of finance. On the other hand, Graham and Harvey (2001) document in their survey that practitioners are more concerned with unexpected shocks to the supply of finance when making capital structure decisions. Those CFOs being surveyed express that they highly value financial flexibility during economic downturns. Collectively, these suggest that managers who highly value financial flexibility in times of high political uncertainty, may resort to low leverage regimes and shy away from high leverage regimes.

1There is extensive media coverage on firms' responses to the recent debt ceiling debate. For example, on Reuters: "US corporations cut investment to recession level on fiscal fears," 11/20/2012.

To assess the effect of political uncertainty on capital structure decisions, we employ the political uncertainty index of Baker et al. (2012) in our study. This index incorporates media coverage of political uncertainty, tax expiration codes, and divergences in analyst economic forecasts. Because the policy uncertainty index reflects overall political uncertainty in the U.S., several recent studies (e.g., Pastor and Veronesi (2011), and Gulen and Ion (2012)) have also selected it to assess the effect of political uncertainty on financial markets and corporate investment.

In the spirit of Leary and Roberts (2005), we use duration analyses to test our hypothesis for two reasons. First, the economic foundation to use duration analyses follows recent advancements in dynamic capital structure theories (Fischer et al. (1989); Leland (1994); Goldstein et al. (2001); Strebulaev (2007)). These theoretical studies show that firms do not rebalance their capital structures in continuous manners due to adjustment costs; firms rebalance only when their profits reach "financing thresholds" and remain inactive in other periods. Second, there is also an econometric foundation in using duration analysis to test our hypothesis. Specifically, duration analysis enables us to model the time periods between capital structure adjustments which cannot be captured by ordinary regression analysis. Duration analysis also provides insights on how changes in independent variables affect the average time length between two adjustments. Overall, duration analysis better fits to test the hypothesis.

Our paper provides novel evidence documenting the influence of political uncertainty on intertemporal capital structure adjustments. We find that in times of increased political uncertainty underleveraged firms are more likely to maintain low debt ratios for extended periods while overleveraged firms would end their spells sooner. Political uncertainty also adds to the inactive time periods between debt issuances; firms delay debt issuances when there is

high uncertainty about the general political environment. Overall, these findings are consistent with the hypothesis that political uncertainty engenders financial frictions and increases duration between debt issuance.

We also show that the effect of political uncertainty on capital structure varies with the differential access to public debt markets. Building upon the findings of Faulkender and Peterson (2006) which show that having access to public debt markets generate differential financial frictions, we find that firms with public debt market access remain longer in higher leverage regimes and are less constrained in issuing debt in periods of high political uncertainty. These findings are consistent with the negative effect of political uncertainty on corporate financial flexibility and suggest that having access to public debt markets partially alleviates the financial frictions imposed by political uncertainty.

Our results are also robust to alternative model specifications, testing methods, and subsample analyses. In addition to implementing market leverage, we use book leverage and target adjusted leverage in classification of overleveraged and underleveraged firms in our duration analyses. We also estimate probit models to evaluate partial effects of political uncertainty on probabilities that firms being in overleverage states, underleverage states, and issuing debt. We further conduct subsample analyses based on size and the market to book ratio to ensure our results are not driven by small firms and high growth firms. Finally, we find supporting evidence in cash holding decisions: firms hold more cash in periods of high political uncertainty. These findings lend further support to the idea that political uncertainty generates financial frictions and managers highly value financial flexibility during these periods; thereby, firms shy away from financing decisions that may impede their financial flexibility when facing high political uncertainty.

This study contributes to the literature examining the effect of macroeconomic conditions on capital structure choices. Choe et al. (1993), Korajczyk and Levy (2003), Levy and Hennessy (2007), and Erel et al. (2012) investigate how business cycles influence financing decisions. There are major differences between these studies and our paper. First, the business cycle and political uncertainty affect leverage through two different channels. The business cycle features cash flow levels. Specifically, cash flows are low in recessions and high in expansions. However, political uncertainty affects leverage more directly from the supply effect. Although political uncertainty and business cycles might be correlated, each captures a different aspect of the general economy. In particular, the business cycle reflects the intensity of overall economic activity and output, while political uncertainty features the role of governments on economic outcomes (Baker et al. (2012)). In addition, Baker et al. (2012) show that political uncertainty can be high in both periods of boom and bust. Furthermore, our findings remain intact even after accounting for macroeconomic factors. Thus, the findings in this paper contribute to the studies examining the effect of macroeconomic conditions on capital structure decisions by identifying another determinant of capital structure that is not related to firm characteristics. Second, as opposed to the static relation between macroeconomic factors and capital structure decisions documented in previous studies, our duration analysis of intertemporal leverage adjustments further contributes to these studies by suggesting the dynamic impact of political uncertainty on financing decisions.

The dynamic nature of financing decisions is also related to recent studies (Lemmon et al. (2008), and DeAngelo and Roll (2011)) that draw attention to leverage regime stability. These studies show different groups of firms may rebalance capital structures in fundamentally different ways; firms are intrinsically labeled as seeking high leverage or low leverage. However,

these studies diverge on the relative time lengths of stable leverage ratio regimes.[2] Our findings contribute to these studies by showing that political uncertainty affects the time length of a stable leverage ratio regime in an asymmetric way: political uncertainty increases the length of the underleverage regime while decrease the length of the overleverage regime. Our empirical methods also allow us to make inference on how do traditional capital structure determinants (e.g, profitability, size, the market-to-book ratio, tangibility, and industry median market leverage) affect the duration of a leverage regime.

The findings in this study also relate to the literature concerning the supply-side factors affecting a firm's capital structure. Faulkender and Peterson (2006) find that firms with public debt market access have higher leverage ratios and are more likely to issue debt relative to those who do not have access. Our findings indicate that firms with public debt market access are less affected by borrowing constraints imposed by political uncertainty and may be reluctant to reduce leverage in periods of high political uncertainty.

This paper also contributes to studies examining the effect of political uncertainty on corporate decisions. Yonce (2009) and Julio and Yook (2012) show that corporate investment is reduced when political uncertainty is high. By showing the effect of political uncertainty on capital structure decisions, our study suggests that overarching effect of political uncertainty on financing choices.

[2] Lemmon et al. (2008) show that firms tend to remain in their initial leverage quartiles for a long time. DeAngelo and Roll (2011) find that most firms switch among different quartiles over time rather than staying in one quartile.

The rest of the paper is organized as follows: In section 2, we discuss our empirical methodology. In section 3, we discuss sample selection and summary statistics. In section 4, we present our main results. Section 5 provides robustness checks. Section 6 concludes the paper.

2. Empirical Methodology

2.1 Leverage and Political Uncertainty: Regression Analyses

We first estimate panel regressions to examine the relation between leverage and political uncertainty

$$L_{i,t} = \delta_t + \gamma PoliticalUncertainty_{t-1} + X_{i,t-1}\beta + \epsilon_{i,t} \qquad (1)$$

where $L_{i,t}$ is the market leverage (debt to market equity) ratio of firm i at time t, δ_t refers to time fixed effects, $X_{i,t-1}$ is a vector of lagged control variables.[3] The choice of market leverage follows recent studies (Welch (2004), Flannery and Rangan (2006)), in that market-based measure better reflects the economic concept of financial leverage. Regression (1) is the baseline regression of leverage determinants used in many studies (e.g., Lemmon et al (2008)). Given that we study repetitive firm observations spanning a relative long period, we are concerned that there exist serial correlations within a firm over time and cross-sectional correlation at a given year. To address those potential issues in standard errors, we utilize the two-way (firm and year) cluster robust standard error estimator proposed by Peterson (2009).

To control for overall economic conditions we use per capita GDP growth rate and Recession Dummies proposed by NBER. The overall economic conditions, especially the business cycle, can exert strong effect on a firm's capital structure decisions. However, they

[3] Variable definitions are in Appendix I.

cannot fully capture the uncertainty in the economy related to future policy and regulatory outcomes. Since we intend to show that political uncertainty affects firm's capital structure decisions from a different dimension than business cycle related factors, we include these controls to rule out the possibility that our measure of political uncertainty may simply pick up macro related effects.

Our analysis also includes traditional determinants of capital structure commonly used in previous studies (e.g., Hovakimian et al. (2001), Flannery and Rangan (2006), Lemmon et al. (2008), Frank and Goyal (2009)). For example, we control for firm size proxied by log of total value of book assets. Size is expected to be positively related to leverage, given that large firms are characterized by having more diversification and less volatile cash flow (Rajan and Zingales (1995)). Moreover, they also have better access to capital markets. Furthermore, we also control for growth opportunities proxied by the *Market-to-Book* ratio, since firms with more growth opportunities tend to have lower leverage ratios (Goyal et al. (2002)). Asset tangibility is another important determinant of capital structure. Firms with liquid assets are more likely to borrow against their assets and have lower bankruptcy costs, resulting in higher leverage choices (Titman and Wessels (1988)). We use the ratio of tangible assets to the book value of total assets as a proxy for asset tangibility. To control for firm profitability, we use earnings before taxes, preferred dividends, and interest payments over total assets variables. Following Lemmon et al. (2008) we further control for industry median market leverage to capture systematic industry differences in terms of leverage All industries are identified based on the three-digit SIC code. Finally, we include stock returns because previous studies have found that political uncertainty has a negative impact on stock returns (Pastor and Veronesi (2011, 2012)), and stock returns are also correlated with leverage ratios (Welch (2004)).

2.2 Capital Structure and Political Uncertainty: Duration Analyses

Regression analyses, although best fit the purpose of explaining the cross-sectional pattern of leverage ratios, cannot be used to model time between actions[4]. As a result, regressions are unable to reflect the time discrete nature of capital structure adjustments. This calls for the usage of duration analyses, which enables us to study how changes in independent variables affect the length of a certain event, e.g., leverage regime shifts, debt issuances. In this subsection, we summarize the basic statistical framework of the paper.

2.2.1 The Hazard Function

Consider a random time τ measuring the time between two capital structure adjustments. The hazard function is defined as

$$h(t) = \lim_{\Delta t \to 0} \frac{Prob(\tau < t + \Delta t | \tau > t)}{\Delta t}. \qquad (2)$$

The hazard function measures the instantaneous probability that a firm will make an adjustment right after time t conditional on not having done so for time t. For example, the hazard function for debt issuances at $t = 4$ ($h(4)$) shows the probability of a firm will issue debt right after four quarters (observed at the fifth quarter), conditional on not having done so during the last four quarters ($t = 4$) or last year. Another interpretation of the hazard function is that we can get the overall frequency of adjustments, i.e., the higher the hazard, the more frequent the adjustment. However, the hazard function cannot reveal any insight of the impact of political uncertainty. Hence, we introduce a parametric duration model in the next section.

[4] It violates the error term assumption of regressions. Regressions require the error term to have the normal distribution, while time is not distributed as normal.

2.2.2 The Cox Proportional Hazard Model

In this paper we use the proportional hazard model introduced by Cox (1972) of the following form

$$h\left(t\middle|X_{i,t}\right) = h_0(t)\exp\left(X_{i,t-1}\beta\right), \qquad (3)$$

where $h_0(t)$ is the baseline hazard, and $X_{i.t-1}$ is a vector of covariates including political uncertainty and other control variables. This form yields a simple interpretation: Changes in covariates proportionally shift the baseline hazard. For example, a one unit increase in X_i will shift the baseline hazard by $(\exp(\beta_i) - 1) \times 100$ percent. The Cox duration model is estimated by partial-likelihood maximization; one can refer to Cox (1972) for estimation details.

"Distribution free" is the main advantage of the Cox duration model which provides us with robust inferences. The Cox model is semi-parametric; it does not make any distributional assumptions regarding the baseline hazard function. By imposing strong assumptions on the distribution of the data, parametric models such as the exponential or the Weibull models can obtain additional efficiency gains. However, in most cases, we do not have the exact knowledge of the baseline hazard distribution; making the wrong assumptions will lead to invalid inferences. Hence, this model free feature makes the Cox model a natural candidate for our hypotheses testing purpose.

2.2.3 Leverage Stability and Political Uncertainty

We consider four leverage regimes in this study; stability is defined as the relative time during which a firm's leverage ratio stays in the same regime. We identify a firm being under-levered at time t if its time t leverage is in the lowest quartile, while it is over-levered if its time t leverage is in the highest quartile. One potential caveat of this identification strategy is that it

assumes a relative constant leverage target, and it is probable that the target may change over time. To capture this effect, we implement another strategy as a robustness check. Instead of ranking the absolute value of leverage, we rank the residuals from the target leverage regression, e.g., Hovakimian et al. (2001) and Fama and French (2002). Similarly, we identify under leverage range as the lowest quartile and over leverage range as the highest quartile.

We examine hazard impacts of political uncertainty on firms' leverage regime stability by estimating equation (4). We also examine debt issuance decisions. The identification strategy follows Hovakimian et al. (2001), and Leary and Roberts (2005). An issuance is defined as having occurred in a given quarter if the net change in debt, normalized by the book value of assets at the end of the previous period, is greater than 5 percent. After identification, we estimate equation (4) for debt issuances.

3. Sample Selection and Summary Statistics

We obtain quarterly U.S. publicly traded firms' data during the period of 1985-2011 from Compustat.[5] We use only quarterly data to explore more time series variations similar to Leary and Roberts (2005). Following previous studies on capital structure (e.g., Hovakimian et al. (2001), Flannery and Rangan (2006), Lemmon et al. (2008)), we exclude financial firms (SIC 6000-6999) and regulated utilities (SIC 4900-4999). All the ratios, such as profitability, market-to-book, tangibility, and stock returns are winsorized at the one percent level to mitigate the effect of outliers. We restrict market leverage to be in the unit interval. Based on Leary and Roberts (2005), firms are also required to have at least 16 continuous quarterly observations to

[5]We use this time period because the Economic Uncertainty Index data starts from 1985.

conduct the duration analysis. Our sample contains 9,283 unique firms and 354,722 firm-quarter observations.

Table 1 reports the descriptive statistics for all firm characteristics in the sample. The market leverage has an average of 0.23 with a large standard deviation (0.25) around the mean. Since all the firm-quarter observations are pooled together to obtain the summary statistics presented in the Table 1, this large variation of market leverage could come from both cross-section and cross-time. Table 1 also shows that most firms do not have access to public debt market. Only 14 percent firm-quarter reports S&P ratings, which is used as a proxy for public debt market access. This percentage of ratings is consistent with previous observations, e.g., Faulkender and Peterson (2006).

Table 1 Goes Here

The dependent variable of our analysis is the political uncertainty measure from Baker et al. (2012). This index uses three sources of information.[6] The first component is from the news coverage about political uncertainty. Specifically, they search terms related to economic uncertainty from 10 large newspapers and then summarize the counts. The second component is from reports by the Congressional Budget Office (CBO) that compile lists of temporary federal tax code provisions. The third component draws on the Federal Reserve Bank of Philadelphia's Survey of Professional Forecasters. The Economic Uncertainty Index captures the overall policy-related uncertainty, not a specific type (fiscal, monetary, social security). Previous studies (e.g., Julio and Yook (2012)) have used indicators of election years as proxy for political uncertainty; however, the indicator approach does not capture political uncertainty in non-election years.

[6] For detailed information regarding the index, the reader can refer to the website or Baker et al. (2012).

We use the US Monthly Index data and convert that into quarterly data to match our firm data.[7] This data series is normalized by 100 to be in the same scale as other firm characteristics, so as to get comparable coefficient estimates. In Figure 1, we report the time series plot of the index together with NBER dated recessions. Consistent with Baker et al. (2012), we observe that political uncertainty is not necessarily related to business cycles: political uncertainty can be high in both periods of boom and bust.[8]

[Insert Figure 1 about here]

Table 2 reports the univariate analysis of debt issuances and political uncertainty. Notably, aggregate debt issuances decrease sharply (from 14,646 to 8,800) when political uncertainty switches from the lowest quartile to the highest. In addition, the proportion of firms issuing debt decreases from 15% to 11% when political uncertainty increases from the lowest quartile to the highest. These findings provide preliminary evidence that firms reduce debt issuances significantly when political uncertainty is high.

[Insert Table 2 about here]

4. Results

4.1 The Static Relation between Leverage and Political Uncertainty

Table 3 provides estimates of regression (1). We present results from our baseline regression, estimated using the pooled-OLS estimator, in column (1). In column (2), we provide

[7] We take the arithmetic average over one quarter.

[8] One can also see Fig 1 of Baker et al. (2012) to see the major events associated with peaks of this index. For example, the index reached its peak in recent debt ceiling debates.

estimates controlling for unobserved time specific effects via time fixed effect estimator.[9] The regression specification presented in column (3) controls for unobserved industry characteristics, since Rajan and Zingales (1995) show that there is an industry specific determinant of capital structure choices. The regression in column (4) controls for both.

Table 3 provides evidences that political uncertainty has a negative impact on leverage controlling for other determinants. Results are both statistically and economically significant. [10] A one unit increase in political uncertainty associates with a decrease in leverage by approximately 5 percent. Our main control variables are proxies for macroeconomic conditions. We find that the coefficient of political uncertainty is significant when including recession indicators and GDP growth rates. Estimates of macroeconomic conditions proxies are broadly consistent with previous literature (Korajczyk and Levy (2003)), that is leverage ratio is countercyclical. These results indicate that that political uncertainty affects capital structure decisions from a different dimension than economic cycle effects.

Estimates of control variables are broadly consistent with previous studies. Profitability and growth opportunity have a negative effect on the debt ratio while leverage is positively associated with tangibility, industry median, and size (Lemmon et al. (2008)). While these findings from regression analyses generate valuable insights on the determinants of capital structure in the cross-section, they are silent on the dynamic nature of capital structure adjustments. To further examine the intertemporal capital structure adjustment, we resort to duration analyses in the next section.

[9] The variable of GDP growth is omitted due to high collinearity.

[10] Since we use Compustat quarterly sample, we run these regressions using annual sample and the result does not change.

[Insert Table 3 about here]

4.2 Impacts of Political Uncertainty on Leverage Stability

Table 4 shows the results from estimating equation (3) for four leverage regime spells (lowest quartile, mid-low quartile, mid-high quartile, and highest quartile). We use the same sets of control variables as in our regression analyses. For interpretation purposes, we define the following to capture the hazard impact

$$HI_j = \left(\exp\left(\beta_j\right) - 1\right) \times 100, \qquad (4)$$

where β_j is the coefficient estimate of the j_{th} covariate $x_{j,}$. HI measures the impact of changes in covariates on the probability of an event occurring.

Table 4 provides evidence that political uncertainty has negative hazard impacts on underleverage spells and positive hazard impacts on overleverage spells. For underleverage spells, a one unit increase in political uncertainty corresponds with an 11 percent decrease in probability of firms ending their underleverage spells. For overleverage spells, a one unit increase in political uncertainty corresponds with a 4 percent increase in probability of firms ending their overleverage spells. This suggests that firms would actively maintain lower leverage regimes and avoid higher regimes when facing increased political uncertainty.

[Insert Table 4 about here]

The effects of other control variables are consistent with regression analyses and are broadly in line with the estimates from Leary and Roberts (2005). Estimates of tangibility,

market to book ratio, size, and industry median leverage show that firms are more likely to make leverage increase decisions in the next quarter when they have more tangible assets, have less growth opportunities, are larger, and their industry peers have higher leverage ratios.

Next, we examine whether political uncertainty affects firms' capital structure decisions disproportionally based on their differential access to public debt markets. Faulkender and Peterson (2006) reveal that firms with access to public debt markets on average maintain higher leverage ratios compared to firms without access. Hence, we expect firms with access to public debt markets are affected less in borrowing by political uncertainty.

In Table 5, we examine the joint impact of political uncertainty and public debt market access on leverage spells. We proxy for public debt market accesses by firms' S&P corporate bond ratings following Faulkender and Petersen (2006). We find that firms with bond ratings are reluctant to leave higher leverage regimes in periods of high political uncertainty compared to firms without access. For example, the hazard impact of political uncertainty on a rated firm's overleverage spell is -3%, while that on a nonrated firm's overleverage spell is 5%. These results indicate that rated firms are less affected in the borrowing constraints caused by political uncertainty. Overall, these results provide further evidence that political uncertainty generates financial frictions and affect firms differently based on their access to finance.

[Insert Table 5 about here]

4.3 Impact of Political Uncertainty on Debt Issuances

In this subsection, we examine whether political uncertainty influence debt issuance decisions. Table 5 reports results from estimating equation (3) for debt issuances decisions. Specifically, we estimate the impact of political uncertainty on the probability of making a debt

issuance in the next period conditional on not having made a debt issuance until this moment. We find strong evidence that political uncertainty has negative impacts on debt issuances hazards. For example, a one unit increase in political uncertainty decreases the probability of issuing debt in the next quarter by 16 percent in Model 1, suggesting that firms are reluctant to make debt issuances decisions when political uncertainty is high. We find further evidence of political uncertainty when we examine the effect of differential access to public debt markets on debt issuance decisions. Specifically, rated firms are affected less in debt issuances compared to firms in Model 2. Overall, these findings suggest that political uncertainty increases the average length of periods between debt issuances while having access to public debt markets partly mitigates the uncertainty effect.

[Insert Table 6 about here]

In addition, estimates of the hazard impacts of other control variables are largely consistent with previous literatures (Leary and Robert (2005)). More profitable firms are more likely to issue debt in the near future. Firms with more tangible assets are more likely to issue debt. Firms with more growth opportunities are less likely to issue debt in the near future. These results are consistent with findings of hazard impacts on leverage spells; they provide parallel evidence of the effect of political uncertainty on capital structure decisions.

5. Robustness

In this section, we provide robustness checks. First, we employ alternative identification strategies of overleverage and underleverage. Instead of market leverage, we use book leverage

and target adjusted leverage. Second, we choose alternative testing strategies (discrete choice models) of our hypotheses; Leary and Roberts (2005) provide detailed discussions of the complementary relation of duration models and discrete choice models. Third, we show that our results are not sensitive to subsample analyses; we provide subsample analyses based on access to public debt market, size, and the market to book ratio. Fourth, we further substantiate our results by showing that political uncertainty has a positive impact on firms' cash holding behaviors.

Table 7 provides estimates of hazard impacts of political uncertainty on leverage quartile spells using book leverage. We estimate equation (3) for book leverage quartiles instead of market leverage quartiles. Results are consistent with those from Table 4: political uncertainty increases durations of underleverage spells and decreases durations of overleverage spells.

[Insert Table 7 about here]

Table 8 presents estimates of hazard impacts of political uncertainty on leverage quartile spells using target adjusted leverage. Target adjusted leverage is the residual from the leverage regression (1). Recent studies show that firms temporarily deviate from their target capital structure to make issuance decisions (Hovakimian et al. (2001)) and investment decisions (Deangelo et al. (2011), Uysal (2011)). That is to say, firms may manage their capital structure relative to their optimal targets. Results are consistent with those from Table 4 and Table 7. Firms are more likely to remain underleveraged facing increased political uncertainty.

[Insert Table 8 about here]

Next, we provide robustness checks by estimating several sets of probit analyses. The purpose is to further substantiate our results from duration analyses. We examine probabilities that firms are in overleverage state (Q_4) and underleverage state (Q_1) conditional on being in the same state for the previous two periods.[11] This setting mimics the duration analysis in that we are examining the probability of leaving in one state conditional on having stayed in that state for a certain period (two). We include the same set of control variables as in our previous tables.

Table 9 shows that increased political uncertainty increases the probability that a firm is underleveraged and decreases the probability that a firm is overleveraged. This result is consistent with our main findings from duration analyses that firms tend to stay in lower leverage regimes when the degree of political uncertainty is high.

[Insert Table 9 about here]

We further provide evidences to show that our results are robust to subsample analyses based on differential access to public debt market, size, and the market to book ratio. In doing so we ensure that our results are not driven by small and high growth firms, which take a large portion in Compustat data and are more vulnerable to political uncertainty. Table 10 provides analyses of the impact of political uncertainty on probabilities of being overleverage and underleverage based on differential access to public debt market access. We break samples into subsamples of rated firms and nonrated firms. These results indicate that nonrated firms are less likely to be overleverage compared to rated firms, and these results are consistent with those from Table 5.

[11] The choice of two periods is based on the survival function estimates. Most firms on average stay in one state for around one year, or four quarters. Our result here is unchanged if we choose previous one or three periods.

[Insert Table 10 about here]

Table 11 estimates probit models based on subsamples according to firms' size and market to book ratio quantiles. We first break our sample based on the cross-sectional distribution of size and the market to book ratio quartiles. We then estimate eight probit models for overleverage and underleverage in each subsample. The purpose is to show that political uncertainty affects firms to the same extent regardless of their characteristics. The results are consistent with Table 9: effects of political uncertainty are not sensitive to size and market to book ratios. These exercises reassure us that our findings are not driven by small firms and firms with high market to book ratios

[Insert Table 11 about here]

Table 12 provides probit model estimates for debt issuance decisions based on differential access to public debt market. Results are consistent with those from Table 6. In the subsample of firms without debt ratings, political uncertainty negatively affects debt issuance decisions, while the political uncertainty effect is insignificant in the subsample of rated firms.

[Insert Table 12 about here]

Given that our previous findings show that firms reduce external borrowing in facing high political uncertainty, one natural question is whether firms rely more on internal funds in periods of high political uncertainty. To approach this question, we examine whether political uncertainty affects a firm's cash holding decisions.

Table 13 provides regression estimates of impacts of political uncertainty on cash holding decisions. The dependent variable is the cash to total asset ratio, and we include the same sets of

control variables as in our capital structure regressions. We find that firms tend to hold more cash when political uncertainty is high; a one unit increase in political uncertainty associates with an increase in cash holding around 2 to 3 percent. This result implies that firms are likely to building up cash to improve financial flexibility in the wake of high political uncertainty, which is consistent with the transaction cost motive for cash holdings (Keynes (1936)).

[Insert Table 13 about here]

6. Conclusion

In this study, we examine the effect of political uncertainty on capital structure adjustment decisions of US publicly traded corporations. By employing a novel measure of political uncertainty developed by Baker et al. (2012), we find a strong negative relation between political uncertainty and capital structure choices. Specifically, inactive periods between two financing actions are extended and firms prefer to stay in low leverage regimes when firms are uncertain about the general political environment. Our results are robust to alternative identification strategies, testing methodologies, and are consistent across size and growth subsamples. These findings suggest that firms facing increased political uncertainty are more concerned with maintaining financial flexibility. Firms try to avoid overleverage as overlevered firms are more constrained in borrowing and have higher likelihood to incur distress costs.

We also find that firms with bond ratings are less affected in intertemporal capital structure decisions relative to non-rated firms during periods of high degree of political uncertainty. This finding is consistent with the notion that the public debt market access enables firms to be more flexible in borrowing: firms can borrow not only from the private loan market

but also from the corporate bond market. Hence, rated firms are less constrained in borrowing by the financial frictions generated from political uncertainty.

Findings on cash holdings lend further support to our hypothesis: Firms tend to increase their cash holdings when facing higher political uncertainty. This result suggests that managers appreciate financial flexibility in facing political uncertainty would also build up cash stocks consistent with the transaction cost motive of cash holdings.

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Figure 1: Index of Political Uncertainty. This figure shows the time series plot of political uncertainty index from 1985-2012. The data is obtained from Baker et al. (2012). Shaded area indicates recessions dated by NBER.

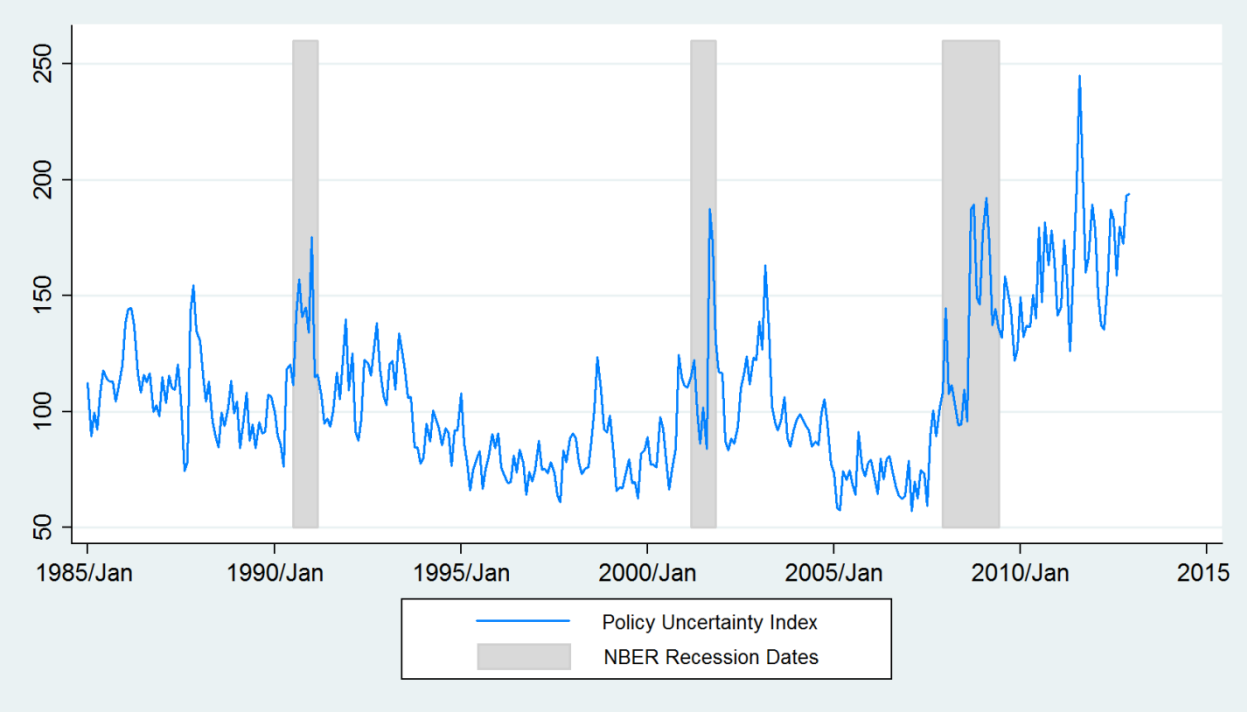

Table 1: Summary Statistics of Firm Characteristics

This table documents summary statistics for firm characteristics used in this study. The sample is from Compustat quarterly in the period of (1985-2011). Leverage is the market leverage. See Appendix A for variable definitions. Ratios are winsorized at the one percent level.

Variable	N	Mean	S.D.	Min	25%	Median	75%
Leverage	354,722	0.23	0.25	0.00	0.01	0.14	0.37
Profitability	354,722	0.00	0.08	-0.45	-0.01	0.02	0.04
Tangibility	354,722	0.30	0.25	0.00	0.10	0.23	0.46
MA/BA	354,722	1.78	1.94	0.22	0.77	1.14	1.96
Size	354,722	4.80	2.20	-0.12	3.18	4.65	6.25
Industry Median	354,722	0.18	0.17	0.00	0.03	0.14	0.27
Rated	354,722	0.14	0.35	0.00	0.00	0.00	0.00
Dividend	354,722	0.10	0.30	0.00	0.00	0.00	0.00
Stock Return	354,722	0.04	0.42	-0.72	-0.18	0.00	0.17

Table 2: Debt Issuances and Political Uncertainty: Univariate Analysis

This table compares debt issuances when the Economic Uncertainty Index is in its first, second, third, and fourth quartiles. The sample used here is Compustat quarterly data from 1985-2011. An issuance or retirement is defined as having occurred in a given quarter if the net change in debt, normalized by the book value of assets at the end of previous period, is greater than 5 percent. "Lowest", "low", "high", and "highest" refers to subsamples where political uncertainty is in its first, second, third, and fourth quartiles. "Number" refers to the total number of certain adjustment; "percent" is the percentage of firms making issuance decisions.

	Political Uncertainty							
	Lowest		Low		High		Highest	
Action	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No Adjustment	61,285	26.53%	58,292	26.18%	44,135	19.28%	58,940	26.47%
Debt Issue	14,646	15%	13,090	15%	11,677	18%	8,800	11%

Table 3: Leverage and Political Uncertainty: Regression Analysis

This table presents estimates of $L_{i,t} = \gamma politicalUncertainty_{t-1} + X_{i,t-1}\beta + \delta_t + \epsilon_{i,t}$. The dependent variable across all the columns is market leverage. Political uncertainty is proxied by the political uncertainty index (Baker et al. 2012). Other variable definitions are in Appendix A. In column (1) to (4), we present regression results using Compustat quarterly sample covering 1985-2011. P values calculated using cluster robust standard errors are in parenthesis. ***, **, and * indicate significantly different from zero at the one percent, five percent, and ten percent confidence level.

Variables	(1)	(2)	(3)	(4)
Political Uncertainty	-0.054***	-0.050***	-0.041***	-0.038***
	(0.000)	(0.000)	(0.000)	(0.000)
Recession	0.038***		0.038***	0.062***
	(0.001)		(0.001)	(0.000)
GDP Growth	-0.052		-0.060	
	(0.436)		(0.363)	
Profitability	-0.022	-0.035**	-0.060**	-0.070***
	(0.111)	(0.016)	(0.019)	(0.000)
Tangibility	0.068***	0.070***	0.116***	0.111***
	(0.000)	(0.000)	(0.000)	(0.000)
MA/BA	-0.021***	-0.020***	-0.020***	-0.020***
	(0.000)	(0.000)	(0.000)	(0.000)
Size	0.005***	0.006***	0.003**	0.004***
	(0.000)	(0.000)	(0.050)	(0.000)
Industry Median	0.511***	0.499***	0.321***	0.307***
	(0.000)	(0.000)	(0.000)	(0.000)
Dividend	0.068***	0.066***	0.068***	0.066***
	(0.000)	(0.000)	(0.000)	(0.000)
Stock Return	0.019***	0.019***	0.017***	0.017***
	(0.000)	(0.000)	(0.000)	(0.000)
Constant	0.174***	0.152***	0.207***	0.174***
	(0.000)	(0.000)	(0.000)	(0.000)
Industry Fixed	No	No	Yes	Yes
Time Fixed	No	Yes	No	Yes
Observations	354,722	354,722	354,722	354,722
R-squared	0.226	0.242	0.247	0.262

Table 4: Hazard Impacts of Political Uncertainty on Leverage Spells

This table presents estimates of the Cox proportional hazards model (accounting for right censoring) for four leverage-quartile spells. The estimated model is $h(t) = h_0(t)\exp(X_{i,t-1}\beta)$. The sample used here is Compustat quarterly data from 1985-2011. Political uncertainty is proxied by the political uncertainty index (Baker et al. 2012). Other variable definitions are in Appendix A. Q_i indicates the leverage spell in its i_{th} quartile and the duration spell accounts for right censoring. HI measures the hazard impact and is defined as $HI_i = \exp(\beta_i - 1) \times 100$. Standard errors are in parentheses. ***, **, and * indicate significantly different from zero at the one percent, five percent, and ten percent confidence level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	Q_1	HI	Q_2	HI	Q_3	HI	Q_4	HI
Political Uncertainty	-0.112***	-11%	-0.075***	-7%	-0.017***	-2%	0.0431***	4%
	(0.006)		(0.006)		(0.006)		(0.006)	
Recession	0.036***	4%	0.022***	2%	0.0259***	3%	0.0102***	1%
	(0.007)		(0.007)		(0.007)		(0.007)	
GDP growth	-4.583	-99%	-6.021	-100%	-5.915	-99%	-4.845	-99%
	(0.398)		(0.397)		(0.399)		(0.399)	
Profitability	0.657**	93%	0.390**	48%	0.366**	38%	0.689**	72%
	(0.032)		(0.030)		(0.0283)		(0.028)	
Tangibility	0.251***	29%	0.117***	13%	-0.0716***	-7%	-0.0461***	-5%
	(0.007)		(0.007)		(0.007)		(0.008)	
MA/BA	-0.055***	-5%	-0.0255***	-3%	0.0100***	1%	0.0262***	3%
	(0.001)		(0.001)		(0.001)		(0.001)	
Size	0.005***	1%	-0.0203***	-2%	-0.0491***	-5%	-0.0254***	-2%
	(0.000)		(0.000)		(0.001)		(0.001)	
Industry median	0.548**	73%	0.359**	37%	-0.0572**	-6%	-1.199**	-66%
	(0.011)		(0.011)		(0.012)		(0.014)	
Dividend	0.059***	6%	-0.0084***	0%	-0.0464***	-5%	-0.171***	-15%
	(0.006)		(0.006)		(0.006)		(0.007)	
Stock Return	0.007***	1%	-0.0039***	0%	-0.0377***	-4%	-0.0550***	-6%
	(0.004)		(0.004)		(0.004)		(0.004)	
N	354,722		354,722		354,722		354,722	

Table 5: Hazard Impacts of Political Uncertainty on Leverage Spells by Bond Market Access

This table presents estimates of the Cox proportional hazards model (accounting for right censoring) for four leverage-quartile spells. The estimated model is $h(t) = h_0(t)\exp(X_{i,t-1}\beta)$. The sample used here is Compustat quarterly data from 1985-2011. Political uncertainty is proxied by the political uncertainty index (Baker et al. 2012). Other variable definitions are in Appendix A. Q_i indicates the leverage spell in its i_{th} quartile and the duration spell accounts for right censoring. HI measures the hazard impact and is defined as $HI_i = \exp(\beta_i - 1) \times 100$. Standard errors are in parentheses. ***, **, and * indicate significantly different from zero at the one percent, five percent, and ten percent confidence level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	Q_1	HI	Q2	HI	Q_3	HI	Q_4	HI
Uncertainty×(1-Rated)	-0.105***	-10%	-0.068***	-7%	-0.005***	0%	0.0511***	5%
	(0.007)		(0.007)		(0.007)		(0.006)	
Uncertainty×Rated	-0.130**	-13%	-0.106**	-11%	-0.092**	-9%	-0.0308**	-3%
	(0.015)		(0.016)		(0.018)		(0.018)	
Rated	0.102**	10%	0.0734**	7%	-0.0292**	-3%	-0.108**	-10%
	(0.017)		(0.018)		(0.020)		(0.020)	
Recession	0.0364***	4%	0.0220***	2%	0.0258***	3%	0.0101***	1%
	(0.007)		(0.007)		(0.007)		(0.007)	
GDP growth	-4.633	-98%	-6.041	-100%	-5.813	-100%	-4.702	99%
	(0.398)		(0.397)		(0.399)		(0.399)	
Profitability	0.691**	72%	0.407**	50%	0.315**	37%	0.613**	85%
	(0.032)		(0.030)		(0.028)		(0.028)	
Tangibility	0.247***	28%	0.115***	12%	-0.068***	-6%	-0.0397***	-4%
	(0.007)		(0.007)		(0.007)		(0.008)	
MA/BA	-0.055***	-5%	-0.026***	-3%	0.0105***	1%	0.0268***	3%
	(0.001)		(0.001)		(0.001)		(0.001)	
Size	-0.002***	-0%	-0.024***	-2%	-0.038***	-4%	-0.010***	-1%
	(0.001)		(0.001)		(0.001)		(0.001)	
Industry median	0.543**	72%	0.357**	43%	-0.044**	-4%	-1.173**	-69%
	(0.011)		(0.011)		(0.012)		(0.014)	
Dividend	0.0532***	5%	-0.011***	-1%	-0.038***	-4%	-0.158***	-15%
	(0.006)		(0.006)		(0.006)		(0.007)	
Stock Return	0.0065***	1%	-0.004***	0%	-0.035***	-3%	-0.0535***	-5%
	(0.004)		(0.004)		(0.004)		(0.004)	

Table 6: Debt Issuance Hazards and Political Uncertainty

This table presents estimates of the Cox proportional hazards model (accounting for right censoring) for debt issuances and retirements. The estimated model is $h(t) = h_0(t)\exp(X_{i,t-1}\beta)$. The sample used here is Compustat quarterly data from 1985-2011. An issuance or retirement is defined as having occurred in a given quarter if the net change in debt, normalized by the book value of assets at the end of previous period is greater than 5 percent. Political uncertainty is proxied by the political uncertainty index (Baker et al. 2012). Other variable definitions are in Appendix A. *HI* measures the hazard impact and is defined as $HI_i = \exp(\beta_i - 1) \times 100$. Standard errors are in parentheses. ***, **, and * indicate significantly different from zero at the one percent, five percent, and ten percent confidence level.

	(1)	(2)	(3)	(4)
VARIABLES	Debt Issue	*HI*	Debt Issue	*HI*
Political Uncertainty	-0.164**	-16%		
	(0.017)			
Uncertainty×(1-Rated)			-0.170**	-17%
			(0.018)	
Uncertainty ×Rated			-0.134**	-13%
			(0.044)	
Rated			0.0002**	0%
			(0.048)	
Profitability	0.109*	11%	0.125*	13%
	(0.074)		(0.075)	
Tangibility	0.171**	18%	0.170**	18%
	(0.019)		(0.019)	
MA/BA	-0.016***	-2%	-0.017***	-2%
	(0.002)		(0.002)	
Size	-0.041***	-4%	-0.044***	-4%
	(0.002)		(0.002)	
Industry median	0.969**	164%	0.966**	164%
	(0.028)		(0.028)	
Dividend	0.127**	13%	0.124**	14%
	(0.015)		(0.015)	
Stock Return	0.0002**	0%	-0.00**	0%
	(0.011)		(0.011)	
N	354,722		354,722	

Table 7: Hazard Impacts of Political Uncertainty on Book Leverage Spells

This table presents estimates of the Cox proportional hazards model (accounting for right censoring) for four book leverage-quartile spells. The estimated model is $h(t) = h_0(t)\exp(X_{i,t-1}\beta)$. The sample used here is Compustat quarterly data from 1985-2011. Political uncertainty is proxied by the political uncertainty index (Baker et al. 2012). Other variable definitions are in Appendix A. Q_i indicates the leverage spell in its i_{th} quartile and the duration spell accounts for right censoring. HI measures the hazard impact and is defined as $HI_i = \exp(\beta_i - 1) \times 100$. Standard errors are in parentheses. ***, **, and * indicate significantly different from zero at the one percent, five percent, and ten percent confidence level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	Q_1	HI	Q_2	HI	Q_3	HI	Q_4	HI
Political Uncertainty	-0.137***	-11%	-0.066***	-7%	-0.028***	-2%	0.043***	4%
	(0.006)		(0.006)		(0.006)		(0.006)	
Recession	0.0364***	4%	0.0220***	2%	0.0259***	3%	0.0102***	1%
	(0.007)		(0.007)		(0.007)		(0.007)	
GDP growth	-4.583	-99%	-6.021	-100%	-5.915	-99%	-4.845	-99%
	(0.398)		(0.397)		(0.399)		(0.399)	
Profitability	0.453**	57%	0.552**	74%	0.682**	98%	1.001**	172%
	(0.032)		(0.030)		(0.0283)		(0.0282)	
Tangibility	0.251***	29%	0.117***	13%	-0.0716***	-7%	-0.0461***	-5%
	(0.007)		(0.007)		(0.007)		(0.008)	
MA/BA	-0.0549***	-5%	-0.0255***	-3%	0.0100***	1%	0.0262***	3%
	(0.001)		(0.001)		(0.001)		(0.001)	
Size	0.00503***	1%	-0.0203***	-2%	-0.0491***	-5%	-0.0254***	-2%
	(0.001)		(0.001)		(0.001)		(0.000)	
Industry median	0.548**	73%	0.359**	37%	-0.0572**	-6%	-1.199**	-66%
	(0.011)		(0.011)		(0.012)		(0.014)	
Dividend	0.0590***	6%	-0.0084***	0%	-0.0464***	-5%	-0.171***	-15%
	(0.006)		(0.006)		(0.006)		(0.007)	
Stock Return	0.00714***	1%	-0.0039***	0%	-0.0377***	-4%	-0.0550***	-6%
	(0.004)		(0.004)		(0.004)		(0.004)	
N	354,722		354,722		354,722		354,722	

Table 8: Hazard Impacts of Political Uncertainty on Target Adjusted Leverage Spells

This table presents estimates of the Cox proportional hazards model (accounting for right censoring) for four target adjusted leverage-quartile spells. The estimated model is $h(t) = h_0(t)\exp(X_{i,t-1}\beta)$. The sample used here is Compustat quarterly data from 1985-2011. Political uncertainty is proxied by the political uncertainty index (Baker et al. 2012). Other variable definitions are in Appendix A. Q_i indicates the leverage spell in its i_{th} quartile and the duration spell accounts for right censoring. *HI* measures the hazard impact and is defined as $HI_i = \exp(\beta_i - 1) \times 100$. Standard errors are in parentheses. ***, **, and * indicate significantly different from zero at the one percent, five percent, and ten percent confidence level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	Q_1	HI	Q_2	HI	Q_3	HI	Q_4	HI
Political Uncertainty	-0.049***	-5%	-0.115***	-11%	-0.0056***	-5%	0.041***	4%
	(0.006)		(0.006)		(0.006)		(0.006)	
Recession	0.0364***	4%	0.0220***	2%	0.0259***	3%	0.0102***	1%
	(0.007)		(0.007)		(0.007)		(0.007)	
GDP growth	-4.583	-99%	-6.021	-100%	-5.915	-99%	-4.845	-99%
	(0.398)		(0.397)		(0.399)		(0.399)	
Profitability	-0.103**	10%	0.496***	64%	1.061***	189%	1.185***	227%
	(0.033)		(0.000)		(0.000)		(0.000)	
Tangibility	-0.116***	-11%	0.117***	13%	-0.005**	-7%	-0.0461***	-5%
	(0.000)		(0.007)		(0.027)		(0.008)	
MA/BA	-0.017***	-5%	-0.0255***	-3%	0.0100***	1%	0.0262***	3%
	(0.001)		(0.001)		(0.001)		(0.001)	
Size	-0.016***	-1%	-0.0203***	-2%	-0.0491***	-5%	-0.0254***	-2%
	(0.001)		(0.002)		(0.002)		(0.001)	
Industry median	-0.099***	-9%	0.359**	37%	-0.0572**	-6%	-1.199**	-66%
	(0.001)		(0.011)		(0.012)		(0.014)	
Dividend	0.083***	-8%	-0.0084***	0%	-0.0464***	-5%	-0.171***	-15%
	(0.006)		(0.006)		(0.006)		(0.007)	
Stock Return	-0.032***	-3%	-0.0039***	0%	-0.0377***	-4%	-0.0550***	-6%
	(0.004)		(0.004)		(0.004)		(0.004)	
N	354,722		354,722		354,722		354,722	

Table 9: Political Uncertainty Impacts on Leverage Stability

This table presents estimates of the probit model for events of overleverage and underleverage in time t conditional on being in one regime in $t-1$ and $t-2$. Overleverage is identified as leverage Q_4, while underleverage is leverage Q_1. The sample used here is Compustat quarterly data from 1985-2011. Political uncertainty is proxied by the political uncertainty index (Baker et al. 2012). Other variable definitions are in Appendix A. Q_i indicates the leverage ratio in its i_{th} quartile. Standard errors are two-way clustered**.** ***, **, and * indicate significantly different from zero at the one percent, five percent, and ten percent confidence level.

Variables	(1) Leverage Q_1	(2) Leverage Q_4
Political Uncertainty	0.199***	-0.274***
	(0.000)	(0.000)
Recession	-0.039*	0.031
	(0.092)	(0.334)
GDP Growth	0.081	-0.302*
	(0.497)	(0.067)
Profitability	0.133	-0.195*
	(0.174)	(0.059)
Tangibility	-0.532***	0.310***
	(0.000)	(0.000)
MA/BA	0.076***	-0.200***
	(0.000)	(0.000)
Size	-0.110***	0.012**
	(0.000)	(0.031)
Industry Median	-2.273***	2.227***
	(0.000)	(0.000)
Dividend	-0.386***	0.285***
	(0.000)	(0.000)
Stock Return	-0.085***	0.116***
	(0.000)	(0.000)
Constant	-0.026	-0.695***
	(0.463)	(0.000)
N	354,722	354,722

Table 10: Political Uncertainty Impacts on Leverage Stability by Public Debt Market Access

This table presents estimates of the probit model for events of overleverage and underleverage in time t conditional on being in one regime in $t-1$ and $t-2$, splitting samples based on rating. Overleverage is identified as leverage Q_4, while underleverage is leverage Q_1. The sample used here is Compustat quarterly data from 1985-2011. Political uncertainty is proxied by the policy uncertainty index (Baker et al. 2012). Other variable definitions are in Appendix A. Q_i indicates the leverage ratio in its i_{th} quartile. Rated indicates the subsample of firms with debt ratings. P values calculated using two-way clustered standard errors are reported in parentheses. ***, **, and * indicate significantly different from zero at the one percent, five percent, and ten percent confidence level.

	Leverage Q_1		Leverage Q_4	
LABELS	Rated	Nonrated	Rated	Nonrated
Political Uncertainty	0.186***	0.197***	-0.215***	-0.287***
	(0.000)	(0.000)	(0.000)	(0.000)
Recession	-0.080	-0.040*	-0.053	0.049*
	(0.492)	(0.069)	(0.508)	(0.057)
GDP Growth	0.650	0.074	-0.814*	-0.231*
	(0.255)	(0.500)	(0.058)	(0.072)
Profitability	-2.667***	-0.050	-2.130***	-0.007
	(0.000)	(0.608)	(0.000)	(0.943)
Tangibility	-0.629***	-0.509***	0.220***	0.316***
	(0.000)	(0.000)	(0.009)	(0.000)
MA/BA	0.174***	0.076***	-0.527***	-0.181***
	(0.000)	(0.000)	(0.000)	(0.000)
Size	-0.123***	-0.066***	-0.150***	-0.002
	(0.000)	(0.000)	(0.000)	(0.776)
Industry Median	-1.301***	-2.274***	1.635***	2.239***
	(0.000)	(0.000)	(0.000)	(0.000)
Dividend	-0.128**	-0.376***	0.101**	0.317***
	(0.040)	(0.000)	(0.016)	(0.000)
Stock Return	-0.115***	-0.079***	0.202***	0.105***
	(0.002)	(0.000)	(0.000)	(0.000)
Constant	-0.621***	-0.173***	1.376***	-0.696***
	(0.000)	(0.000)	(0.000)	(0.000)
N	50,261	304,461	50,261	304,461

Table 11: Political Uncertainty Impacts on Leverage Stability: Subsample Analyses

This table presents subsample analyses of probit models for events of overleverage and underleverage. For both underleverage and overleverage events, we split the whole sample by size and market to book into quartiles. The sample used here is Compustat quarterly data from 1985-2011. Political uncertainty is proxied by the policy uncertainty index (Baker et al. 2012). Other variable definitions are in Appendix A. Q_i indicates the leverage ratio in its i_{th} quartile. P values calculated using two-way clustered standard errors are reported in parentheses. ***, **, and * indicate significantly different from zero at the one percent, five percent, and ten percent confidence level.

Panel A: Leverage quartile one				
Variables	Leverage Q_1			
Size	Q_1	Q_2	Q_3	Q_4
Political Uncertainty	0.218***	0.174***	0.250***	0.216***
	(0.000)	(0.000)	(0.000)	(0.000)
Control Variables	Yes	Yes	Yes	Yes
Variables	Leverage Q_1			
Market to Book	Q_1	Q_2	Q_3	Q_4
Political Uncertainty	0.196***	0.207***	0.252***	0.191***
	(0.000)	(0.000)	(0.000)	(0.000)
Control Variables	Yes	Yes	Yes	Yes
Panel B: Leverage quartile four				
Variables	Leverage Q_4			
Size	Q_1	Q_2	Q_3	Q_4
Political Uncertainty	-0.250***	-0.310***	-0.350***	-0.271***
	(0.000)	(0.000)	(0.000)	(0.000)
Control Variables	Yes	Yes	Yes	Yes
Variables	Leverage Q_4			
Market to Book	Q_1	Q_2	Q_3	Q_4
Political Uncertainty	-0.263***	-0.316***	-0.378***	-0.341***
	(0.000)	(0.000)	(0.000)	(0.000)
Control Variables	Yes	Yes	Yes	Yes

Table 12: Political Uncertainty Impacts on Debt Issuances

This table presents estimates of the probit model for events of debt issuances in time t, splitting samples based on debt rating. The estimated model is $Prob(Issue = 1) = G(X_{i,t-1}\beta)$, where $G(x)$ is the CDF of normal distribution. The sample used here is Compustat quarterly data from 1985-2011. Political uncertainty is proxied by the policy uncertainty index (Baker et al. 2012). Other variable definitions are in Appendix A. Q_i indicates the leverage ratio in its i_{th} quartile. Rated indicates the subsample of firms with debt ratings. P values calculated using two-way clustered standard errors are reported in parentheses. ***, **, and * indicate significantly different from zero at the one percent, five percent, and ten percent confidence level.

Variables	Debt Issuances	
	Rated Subsample	Nonrated Subsample
	(1)	(2)
Political Uncertainty	0.022	-0.060***
	(0.468)	(0.003)
Recession	0.007	-0.058
	(0.920)	(0.254)
GDP Growth	1.569**	1.237***
	(0.000)	(0.000)
Profitability	-0.224	-0.496***
	(0.505)	(0.000)
Tangibility	-0.012	0.081***
	(0.794)	(0.003)
MA/BA	0.022**	-0.009***
	(0.035)	(0.001)
Size	-0.037***	-0.017***
	(0.000)	(0.000)
Industry Median	0.159***	0.588***
	(0.003)	(0.000)
Dividend	-0.030	0.120***
	(0.262)	(0.000)
Stock Return	0.044*	0.015***
	(0.075)	(0.009)
Constant	-0.952***	-1.128***
	(0.000)	(0.000)
N	50,261	304,461

Table13: Cash Holding and Political Uncertainty: Regression Analysis

This table presents estimates of $Cash_{it} = \gamma politicalUncertainty_{t-1} + X_{i,t-1}\beta + \delta_t + \epsilon_{i,t}$. The dependent variable across all the columns is Cash/Total Asset. Political uncertainty is proxied by the political uncertainty index (Baker et al. 2012). Other variable definitions are in Appendix A. In column (1) to (4), we present regression results using Compustat quarterly sample covering 1985-2011. P values calculated using two-way clustered standard errors are reported in parentheses. ***, **, and * indicate significantly different from zero at the one percent, five percent, and ten percent confidence level.

Variables	(1)	(2)	(3)	(4)
Political Uncertainty	0.037***	0.031***	0.024***	0.019***
	(0.000)	(0.000)	(0.000)	(0.000)
Recession	-0.008		-0.010**	-0.036***
	(0.144)		(0.045)	(0.000)
GDP Growth	-0.051*		-0.040	
	(0.083)		(0.127)	
Profitability	-0.557***	-0.538***	-0.397***	-0.385***
	(0.000)	(0.000)	(0.000)	(0.000)
Tangibility	-0.169***	-0.170***	-0.229***	-0.224***
	(0.000)	(0.000)	(0.000)	(0.000)
MA/BA	0.017***	0.017***	0.014***	0.013***
	(0.000)	(0.000)	(0.000)	(0.000)
Size	-0.005***	-0.006***	-0.004**	-0.005***
	(0.000)	(0.000)	(0.013)	(0.000)
Dividend	-0.025***	-0.022***	-0.028***	-0.026***
	(0.000)	(0.000)	(0.000)	(0.000)
Stock Return	-0.009***	-0.009***	-0.007***	-0.007***
	(0.000)	(0.000)	(0.000)	(0.000)
Constant	0.244***	0.254***	0.224***	0.249***
	(0.000)	(0.000)	(0.000)	(0.000)
Industry Fixed	No	No	Yes	Yes
Time Fixed	No	Yes	No	Yes
Observations	354,722	354,722	354,722	354,722
R-squared	0.226	0.242	0.247	0.262

Appendix A: Variable Definitions

We use the Compustat quarterly sample. We exclude firms with SIC in range (4900-5000), and (6000-7000). All calculated ratios are winsorized at the one percent level. For the duration analysis part, following Leary and Roberts (2005), we require firms to have at least 16 continuous quarters of observations. The "Item code" refers to the data code in Compustat quarterly database.

- Cash Holding: the ratio of cash (Item "cheq") to total asset (Item "atq")
- Dividend Payer: equals one, if a firm pays dividend that time; otherwise zero
- GDP Deflator: the implicit price deflator using 2005 as base year.
- GDP growth: log per capital GDP at year t minus log per capital GDP at year $t-1$
- Industry Median: the median market leverage in industries defined by 3-digit SIC
- MA/BA: market value over total assets
- Market Equity: previous year's closing stock price (Item "prccq") times common shares outstanding (Item "cshoq").
- Market Leverage: the ratio of total debt to the sum of market equity and total debt.
- Political Uncertainty: US Monthly Index from http://www.policyuncertainty.com/, then use quarterly average to match our sample
- Profitability: the ratio of operating income before depreciation (Item "oibdpq") to total assets (Item "atq").
- Rated: if a firm has either S&P long term debt rating or short term debt rating (Compustat)
- Recession: a time dummy equals one if the time is in NBER dated recession periods

- Size: the natural log of total asset (Item “atq”) for firm i in quarter t deflated by GDP deflator
- Stock Return: the ratio of firm $i's$ stock price in quarter t to firm $i's$ stock price in quarter $t-1$.
- Total Debt: the sum of short term debt (Item “dlcq”) and long term debt (Item “dlttq”).
- Tangibility: net property, plant, and equipment (Item “ppentq”) over total assets