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Stock Liquidity and Firm-Level Political Risk

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Abstract: Exploiting a novel measure of firm-level political risk based on earnings conference calls, we examine the effect of firm-level political risk on stock liquidity. We show that liquidity decreases significantly more in firms that are exposed to political risk. An increase in firm-level political risk by one standard deviation lowers liquidity by around 3.64%. We further investigate whether the effect of firm-level political risk on stock liquidity can be mitigated or exacerbated by the political environment of the U.S. economy and find some evidence of the Democratic liquidity premium. Our results are robust to alternative measures of (il)liquidity, and an estimation method.

Keywords: Stock liquidity, political risk

JEL Classifications: G11, G14

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1 Introduction

Recent political developments around the globe have renewed interest in the economic impact of political risk on financial markets. Events such as the Russia-Ukraine war, Brexit referendum, the politically motivated trade war between the U.S. and China, and the conflicting views on policies of candidates in the 2020 U.S. presidential elections illustrate the increasing risk borne by firms due to this uncertainty.[2] As a result, a growing literature investigates the effect of elections and political uncertainty on firm outcomes like corporate investment (Gulen and Ion, 2016; Jens, 2017; Julio and Yook, 2012), asset prices (Chan and Marsh, 2021), stock returns (Kim and Park, 2022; Montone, 2022; Pástor and Veronesi, 2020), stock liquidity (Marshall, Nguyen, Nguyen and Visaltanachoti, 2018) and market anomalies (Chan, Gray, Gray and Zhong, 2020). Existing studies on this topic have primarily focused on policy uncertainty due to economic policies and political elections. However, there is sparse empirical evidence that quantify the effect of firm-level political risk on stock liquidity. Our study aims to fill this gap.

Country-level political uncertainty can influence real decisions through the incentives and uncertainties associated with possible changes in government policy or national leadership. We provide an alternative mechanism through which firm-level political uncertainty can influence stock liquidity.

Firms have different perceptions about political risk that influences their decision-making. From a firm's perspective, this can impede managerial activities, thus inducing informational asymmetry in the stock market. From an investor's point of view, firm-level political uncertainty may lead to negative sentiments, forcing them to seek private information. As investors collect private information about the firm value before trading, this asymmetric information decreases liquidity (e.g. widens bid-ask spreads) in the pricing process (Nagar, Schoenfeld and Wellman, 2019). We exploit this firm-level variation for our study. We expect firm-level political risk to decrease stock liquidity through the information channel.

[2]Boubaker, Goodell, Pandey and Kumari (2022) provide evidence that the war has negatively impacted world stock market returns, while Hill, Korczak and Korczak (2019) find varied impact on stock returns of political uncertainty associated with the Brexit Referendum on the UK firms. Similarly, Bissoondoyal-Bheenick, Do, Hu and Zhong (2022) report that the U.S.-China trade war has caused periods of high volatility in the stock markets in both the countries, and the fear and negative sentiment have spilled over from the two parties to their major trading partners.

Our idea rests on the theoretical link between asymmetric information and investor behavior.[3] The presence of information asymmetry between managers and investors creates an adverse selection problem that reduces market liquidity (Beyer, Cohen, Lys and Walther, 2010; Easley and O'hara, 2004). An increase in perceived political risk increases uncertainty that can exacerbate the costs borne by the firm and its investors. This uncertainty diminishes the ability of investors to extract accurate forward-looking information. To compensate, investors gather 'private signal' regarding firm prospects and investment opportunities. The relative precision of their own private signal leads to 'sentiment shocks' that can be either positive or negative. This can lead to investor overconfidence arising from biased self-attribution. Overconfident investors observe the trading decisions of others, and tend to underreact to the information contained in these decisions.[4] If the 'sentiment shocks' are sufficiently negative, this overconfidence can lead to illiquidity in the market.

Our focus on information asymmetry among investors and firm-level political risk complements research on how firm-specific uncertainty such as the unexpected departure of analysts or complexity of financial statements impacts the the information set of firms (e.g., Balakrishnan, Billings, Kelly and Ljungqvist (2014); Guay, Samuels and Taylor (2016)). Recent papers by (Banerjee and Dutta, 2022; Choi, Chung and Wang, 2022) provide evidence on how firm-level political risk affects investment decisions. We also complement Gao and Huang (2016) and Jagolinzer, Larcker, Ormazabal and Taylor (2020) who provide evidence on the transmission of political information in financial markets and on the value of such information to financial market participants. They find that certain sophisticated traders profit from government policy uncertainty suggesting that political connections can facilitate opportunistic behavior by corporate insiders. Similarly, Pástor and Veronesi (2012, 2013) find that economic policy uncertainty at the macroeconomic level affects

[3]Our paper is in line with the literature that examine market models in which investors are rational in all respects except how they value information. Many papers in cognitive psychology establishes that people are usually overconfident about the precision of their knowledge, and systematically underweight some types of information and overweight others. Odean (1998) finds that overconfidence affects volatility and price quality in the market, but the degree of this overreaction depends on the fraction of all traders who overweight the information. Similarly, Daniel, Hirshleifer and Subrahmanyam (1998) find that stock prices overreact to private information signals and underreact to public signals. They show that this phenomenon is consistent with long-run negative autocorrelation in stock returns with unconditional excess volatility. Baker and Stein (2004) finds that overconfidence lowers the price impact of trades and boosts liquidity in the presence of short-sales constraints.

[4]Overconfident investors are investors who tend to overweigh their private signals, and can (erroneously) consider other market participants' decisions to be less well-informed than theirs.

stock price volatility and risk premia. However, our evidence linking firm-level political risk and liquidity suggests a different channel via increased information asymmetry between the managers of the firm and investors.

Our results confirm that an increase in firm-level political risk decreases stock market liquidity. Our measure of firm-level political risk comes from the dataset of Hassan, Hollander, Van Lent and Tahoun (2019) who use textual analysis of quarterly earnings conference calls to develop a measure of political risk faced by individual U.S. firms. The (il)liquidity measures are based on bid-ask spreads (Corwin and Schultz, 2012), the price impact of trading (Amihud, 2002), and the percent zero trading days (Bekaert, Harvey and Lundblad, 2007).

We also document other factors that mitigate the adverse impact of political risk on stock liquidity. Using data from Addoum and Kumar (2016) for the five industries favored by Republican and Democratic presidencies, we find that the effect of political risk on liquidity differs based on the political affiliation of the firms. Our results indicate that there is a Democratic liquidity premium. The dampening effects of political risk on stock liquidity is greater for Republican favored firms. This result is supported by our finding that the adverse effect of political risk on liquidity decreases when the U.S. president is a Democrat.

While our results linking firm-level political risk to stock liquidity are novel, endogeneity remains a concern. It is possible that changes in liquidity, or more generally stock market variables, influence politics. For example, Blinder and Watson (2016) find that the performance of the U.S. economy is stronger under a Democratic U.S. president. The authors conclude that this effect is due to good policies, but did not rule out other explanations like the business cycle. We address this concern in two ways. First, we control for a number of macroeconomic factors in our regressions such as GDP growth and VIX index. Second, in our robustness regressions, we implement a 2SLS instrumental variable strategy. In the spirit of Banerjee and Dutta (2022), we use average political risk score of all the firms in the same state where a firm's headquarter is located as the instrumental variable. After controlling for simultaneity, the results corroborate our earlier findings.

To summarize, we find robust evidence across a variety of empirical specifications that firm-level political risk decreases stock market liquidity. While existing studies on this topic have primarily

focused on the impact of economic policy uncertainty on firm outcomes, our paper contributes to the literature by providing novel evidence of the systematic influence of political risk on stock liquidity.[5] We provide evidence that this illiquidity effect is separate from the general economic policy uncertainty effect of stock market activities. Political uncertainty appears to increase information asymmetry among investors in a way that managers cannot fully mitigate. Informational frictions hinder investors' evaluation of firm quality during uncertain political environments that decrease stock liquidity.

This paper proceeds as follows. Section 2 describes the research design used in the paper. Section 3 discusses the results, section 4 presents robustness of the results, and section 5 concludes the paper.

2 Research design

2.1 Sample

We obtain data from multiple sources. Firms' financial information data is from Compustat quarterly database. The data to construct stock liquidity measures is the daily data on stock prices and volume from Center for Research in Security Prices (CRSP), and the firm-level political risk data comes from the dataset of Hassan et al. (2019).[6] Our sample consists of all the US listed firms from Compustat database over the period of 2002q1–2019q4. To proceed, we exclude firms with missing book value of assets and with missing data for the variables used in our main regression models. Our final sample consists of 167,960 firm-quarter observations, with 5566 unique firms. To attenuate the effect of potential outliers, all the main regression variables are winsorized at the 1st and the 99th percentiles (Chang, Chen and Zolotoy, 2017).

[5]For example, Gulen and Ion (2016); Kaviani, Kryzanowski, Maleki and Savor (2020) investigate the effect of economic policy uncertainty on corporate investments, Duong, Nguyen, Nguyen and Rhee (2020) on cash holdings , Nguyen and Phan (2017) on M&As and Kaviani et al. (2020) on corporate credit spreads.

[6]We obtain firm-level political risk data from the website of Dr. Tareq Hassan (https://www.tarekhassan.net/).

2.2 Measures of (il)liquidity

Our main measure of (il)liquidity is *Spread*, which is the most widely used proxy for liquidity. We calculate the bid-ask spread of stock i on day t constructed by Chung, Elder and Kim (2010), and used by Marshall et al. (2018) and Białkowski and Yaghoubi (2021), as follows:

$$Spread_{i,t} = \frac{2 \times (Ask_{i,t} - Bid_{i,t})}{Ask_{i,t} + Bid_{i,t}} \times 10^2, \tag{1}$$

where $Ask_{i,t}$ and $Bid_{i,t}$ are the adjusted ask price and bid price of stock i on day t, respectively. We calculate a quarterly measure as the average of daily measures. $Spread_{i,t}$ measures the degree of illiquidity.

For robustness, we also validate of our results with two other measures of (il)liquidity. We follow Amihud (2002) and construct the *Amihud* measure of (il)liquidity that is used by several studies including Fong, Holden and Trzcinka (2017), Debata, Dash and Mahakud (2018), and Marshall et al. (2018). The Amihud (2002) measure is based on the price impact of trading and is constructed as follows:

$$Amihud_{i,t} = \frac{|r_{i,t}|}{P_{i,t} * Volume_{i,t}} \times 10^3, \tag{2}$$

where $|r_{i,t}|$ is the return, $P_{i,t}$ is the closing price, and $Volume_{i,t}$ is the number of traded shares of stock i on day t. Similar to *Spread*, the *Amihud* measure is also an illiquidity measure. The quarterly measure of *Amihud* is constructed using the average of daily measures.

Besides, we follow Bekaert et al. (2007) and Białkowski and Yaghoubi (2021) and use the proportion of daily zero returns in a quarter as a proxy for illiquidity. Similar to the other two liquidity measures, the quarterly zero return measures the degree of illiquidity of a stock.

$$ZR_{i,Q} = \frac{ZR_{i,t}}{T} \times 10^2, \tag{3}$$

where the $ZR_{i,Q}$ is the proportion of zero daily returns observed over a quarter, $ZR_{i,t}$ is the number of zero daily returns for firm i, and T is the number of trading days in a quarter.

2.3 Political risk measure

Our measure of firm-level political risk comes from the dataset of Hassan et al. (2019). The dataset contains information on the firm-level political risk of 7,357 firms in U.S., which was constructed using computational linguistic tools based on transcripts of earnings conference calls between 2002q1 and 2021q2. The management team of U.S. firms regularly hold earnings conference calls mainly with analysts and other stakeholders to share their views on firm's current performance and future outlook. The measure $PRisk$ is a proxy for perceived firm-level political risk based on the proportion of conversation that is attributed to risks associated with politics and political topics. In particular, the measured is the average count of political bigrams in the following eight categories for a given firm and quarter: "economic policy & budget", "environment", "trade", "institutions & political process", "health care", "security & defense", "tax policy", and "technology & infrastructure". In our baseline regression, we also test the effect of each of these categories on liquidity.

2.4 Methodology

To test the relationship between stock price liquidity and firm-level political risk, we employ the following baseline regression model:

$$(Il)liquidity_{i,t} = \alpha_i + \beta_1 PRisk_{i,t} + \beta_2 \times Control_{i,t-1} + Industry + YQ + \epsilon_{i,t} \tag{4}$$

where $(Il)liquidity_{i,t}$ is one of the three (Il)liquidity measures constructed in Section 2.2 and $PRisk_{i,t}$ is the measure of firm-level political risk explained in Section 2.3. Following the literature, we identify the set of control variables that influence liquidity (Lesmond, 2005; Stoll, 2000). $Volatility$ is the variance of daily stock returns over the quarter and controls for the risk of adverse price changes. $Volume$ is the logarithm of average trading volume over the quarter and explains the market depth, $Size$ is the logarithm of average trading volume times the closing price. $Price$ is measured as the logarithm of average closing price over a quarter. $GDPgrowth$ and VIX are added to control for the macroeconomic environment. We include year-quarter (YQ) and industry

fixed effects in the model and cluster robust standard errors at the firm and year level to control for time-varying firm heterogeneity, serial correlations and heteroskedasticity in the error term.

2.5 Descriptive statistics

The Pearson (pairwaise) correlation matrix of variables of interest for our sample is presented in Table 1. Consistent with previous studies, the firm-specific variables included in our study show significant association with political risk ($PRisk$). However, these correlations are not large enough to cause collinearity concerns. In Table 2, we present the summary statistics (mean, standard deviation, quartiles, minimum and maximum value) of the key variables of interest.

[Insert Tables 1 and 2 about here]

3 Empirical results

We first study the effect of firm-level political risk on its stock liquidity. The baseline results are presented in Table 3. Model (1) in Panel A shows that the coefficient of $PRisk$ is positive and statistically significant (Coeff 0.0657; p $<$ 0.01) for *Spread*. This result is also economically significant. Panel B of 1 calculates the marginal effect. For a one standard deviation increase in $PRisk$ from its mean, *Spread* increases by 3.64%.[7] Model (2) estimates the same model with economic policy uncertainty (EPU) added as an additional control. We find that the coefficient of EPU on stock liquidity is positive and significant, consistent with the earlier literature. But more importantly, the coefficient of $PRisk$ is still positive and statistically significant (Coeff 0.0594; p $<$ 0.01). This confirms our earlier hypothesis that political risk is a different source uncertainty for the firms than economic policy uncertainty, which is a macro level measure of economic uncertainty. Models (3) - (10) in Panel A regression results of the eight individual categories of $PRisk$ on *Spread*. Consistent with the results in Model (1), we find that all eight categories of $PRisk$ are positive and statistically significant. The marginal effects of a one standard deviation increase in each category

[7] We use the Stata margin command to calculate the marginal effect. Predicted *Spread* evaluated at the mean of $PRisk$ is equal to 3.240 and at the mean plus a one the standard deviation of $PRisk$ is equal to 3.358, implying a one standard deviation increase in firm-level political risk leads to an increase of 3.64% in *Spread*.

leads to an increase in *Spread* ranging from 1.05% for trade-related political uncertainty to 2.47% for technology related political uncertainty.

[Insert Table 3 about here]

Further, we investigate variables that can mitigate or enhance the effects of political risk on stock liquidity. In Table 4 we provide additional evidence of the strength of this relationship. We document that there are predictable patterns in the political uncertainty-stock liquidity relationship of firms belonging to certain politically favored industries. Following Addoum and Kumar (2016), we construct samples of firms that belong to the top five industries that are most favored by Republican and Democratic presidencies.[8] The results in columns (1) and (2) indicate that the positive effect of $PRisk$ on $(Il)liquidity$ is enhanced for Republican favored firms. While the statistical significance of the coefficient of $PRisk$ somewhat reduces when EPU is added as a control variable, it is still positive and statistically significant in at least 10% level in both the specifications. However, the results in columns (3) and (4) indicate that no such effect exist for the Democratic favored firms. Thus, the effect of firm-level political risk is more pronounced for Republican leaning firms. This provides some support for the Democratic liquidity premium hypothesis in the earlier literature (see Blinder and Watson (2016)). Overall, these results provide some additional evidence for a link between political risk and stock market liquidity.

We consider other channels that extend this line of argument. In Table 5, we investigate the interaction of political risk with two other variables – $DemocractPresident$ and $Election$ – in determining stock market liquidity. Several papers have found that political risk is lower when the elected U.S. president is from the Democratic party.[9] $DemocractPresident$ is a dummy variable that takes a value one if the U.S. president is a democrat in the quarter-year, and zero otherwise. Similarly, Marshall et al. (2018) find that political risk increases during election years. These

[8] Addoum and Kumar (2016) have shown that as the political party in power changes, there are systematic shifts in the industry-level composition of investor portfolios emerges that generate predictable patterns in industry returns. These are based on the Fama and French 48 industries that have the largest returns when there is a Republican or Democratic president.

[9] Santa-Clara and Valkanov (2003) provides evidence that the excess return in the stock market is higher under Democratic than Republican presidencies.

indicate that the effect of political risk on stock liquidity will be higher under a Democratic U.S. president and during election years, respectively.

Table 5 present these results. In column (1), we find that the interaction term $PRisk \times DemocratPresident$ is negative and statistically significant (Coeff -0.0279; $p < 0.05$). With the additional control of EPU in column, the interaction term still remains negative and significant, albeit at the 10% level. The $DemocratPresident$ dummy remains negative and significant in both the models. This shows that the effect of political risk on stock liquidity is reduced in the presence of a Democrat U.S. president. This result corroborates with our earlier findings in Table 4. However, we did not find that elections have an impact on the effect of political risk on stock liquidity. While the coefficient of $Election$ is positive and statistically significant in both specifications in columns (3) and (4), the coefficient of the $PRisk \times Election$ is statistically insignificant. One explanation of the results could be that though the overall economic uncertainty during elections is very high which decreases stock liquidity, the marginal effect of political uncertainty on liquidity is not significant during those periods.

[Insert Table 4 about here]

[Insert Table 5 about here]

4 Robustness tests

To examine the validity of our earlier results, we perform some additional robustness tests. First, we test whether our main result is robust to the alternative measures of (il)liquidity. In Table 6, we test the effect of $PRisk$ on $Amihud$ and ZR. The results confirm our previous findings. We find that the effect of firm-level political risk is robust to the different measures of stock liquidity. The coefficient of $PRisk$ on $Amihud$ (Coeff 0.0254; $p < 0.10$) and ZR (Coeff 0.0244; $p < 0.01$) are both positive and statistically significant, even after controlling for the EPU variable.

[Insert Table 6 about here]

Although political risk faced by a firm is likely to be caused by external factors, endogeneity (specially, reverse causality) could still be a concern. To address this issue, we follow a 2SLS

instrumental variable strategy. In the spirit of Demerjian et al. (2020) and Banerjee et al. (2021), we use average political risk score of the firms in the same state where a firm's headquarter is located as the instrumental variable. Table 7 presents these results for the three different measures of (il)liquidity. Panel A present the results of the first-stage regressions and Panel B report the results of the second-stage regressions. After controlling for simultaneity, we continue to find that firm-level political risk has a positive and statistically significant effect on stock liquidity. This result is robust to the three alternative measures of stock (il)liquidity. The diagnostic tests also provide validity of our regression results. The test of under-identification rejects the null hypothesis that our instrument is irrelevant. The Cragg–Donald Wald F-statistic (1887.41) is far greater than the Stock and Yogo (2005) critical value (i.e., 16.38) at the 10% maximal IV size, rejecting the null hypothesis that our instrument is weak.

[Insert Table 7 about here]

5 Concluding remarks

Our study is the first to document the effect of firm-level political risk on stock market liquidity. While our work is related to earlier studies that investigate the impact of policy uncertainty on firm outcome, there are some significant differences. Unlike prior literature that either use national election years as a source of political uncertainty, or economic policy uncertainty which is a macro level measure and affects the firm's decision making homogeneously, we exploit variations in firm-level political uncertainty to provide an alternative mechanism through which political uncertainty affects stock liquidity.

Our results indicate that an increase in political uncertainty decreases stock market liquidity. We also provide evidence of other factors that mitigate the adverse impact of political risk on stock liquidity. We find that the effect of political risk on liquidity depends on the political affiliation of the firms. The effect is exacerbated for firms in industries favored by Republicans, thus indicating a Democratic liquidity premium. This result is also supported by our finding that the adverse effect of political risk on liquidity decreases under U.S. Democratic presidency.

To mitigate endogeneity, we take several measures. First, we control for a number of macroeconomic factors in our regressions such as GDP growth and VIX index. Second, we implement a 2SLS instrumental variable strategy by using average political risk score of all the firms in the same state where a firm's headquarter is located as the instrumental variable. The IV results confirm our main results.

Overall, our findings have important implications for political uncertainty, information asymmetries and stock liquidity. Even though political risk plays an important role in firms' operation and performance, recent studies that have focused on the national-level policy risk provide limited variation in our understanding of stock market liquidity. We have addressed this gap in the research. This 'liquidity-as-sentiment' approach can also shed some light on other asset market outcomes, that have a strong link between prices, trading volume and liquidity.

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6 Tables

Table 1: Correlations
This table shows the pairwise correlations between the variables of this study. See Section 2.4 for the discussion on the variables. Reference numbers in columns and rows refer to the variables associated with the pairwise correlation. 1%, significance level denoted by *.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Spread	1								
(2) PRisk	0.0273*	1							
(3) EPU	0.0835*	0.0579*	1						
(4) Volatility	0.0197*	-0.0088*	-0.0083*	1					
(5) Volume	-0.5129*	-0.0081*	0.0148*	-0.0245*	1				
(6) Price	-0.4509*	-0.0065*	-0.0564*	-0.0125*	0.1416*	1			
(7) Size	-0.6148*	-0.0099*	-0.0469*	-0.0269*	0.7622*	0.6234*	1		
(8) GDPgrowth	-0.1278*	-0.0441*	-0.4796*	0.0209*	-0.0227*	0.1025*	0.0738*	1	
(9) VIX	0.1489*	0.0135*	0.1662*	-0.0126*	0.00270	-0.0967*	-0.0897*	-0.3526*	1

Table 2: Summary Statistics
This table shows summary statistics of variables of the study. All the variables are winsorized at 1% level in both tails of the distribution before the summary statistics are calculated. See Section 2.4 for the discussion on the variables.

Variable	Mean	p25	p50	p75	Max	Min	SD
Spread	3.592	0.557	1.225	3.079	41.150	0.124	6.681
PRisk	3.699	2.967	4.115	4.944	9.311	0.000	1.843
EPU	4.729	4.522	4.734	4.941	5.375	4.145	0.284
Volatility	0.034	0.000	0.001	0.001	2.960	0.000	0.312
Volume	12.82	11.76	12.87	13.96	16.67	8.31	1.70
Price	3.077	2.451	3.098	3.692	5.890	0.817	0.972
Size	6.962	5.730	6.930	8.141	11.580	2.707	1.832
GDPgrowth	3.960	3.600	4.200	4.800	6.700	-2.000	1.930
VIX	19.81	15.14	16.82	24.17	33.32	11.30	6.41

Table 3: Liquidity and political risk

Panel A of this table reports the estimation results of Equation (4) and test the effect of firm-level political risk on stock liquidity using the *Spread* measure of illiquidity and the Hassan et al. (2019) firm-level political risk measure. Columns (1) and (2) test using the overall political risk measure, and Columns (3) to (10) employ the eight individual categories of *Prisk*. Panel B of this table reports the economic importance of political signal variables. To obtain the economic importance, we estimate the percentage change in the *Spread* measure of illiquidity due to a one standard deviation increase in the variables of interest. The sample covers the U.S. public firms from 2002q1–2019q4. See Section 2.4 for the discussion on the variables. Clustered standard errors by firm and year are reported in parentheses with 1%, 5% and 10% significance level denoted by ***, ** and *, respectively.

Panel A

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
VARIABLES	*Spread*	*Spread*	*Spread*	*Spread*	*Spread*	*Spread*	*Spread*	*Spread*	*Spread*	*Spread*
PRisk	0.0657***	0.0594***								
	(0.0155)	(0.0142)								
Economic			0.0269**							
			(0.00956)							
Environment				0.0257**						
				(0.00972)						
Trade					0.0303***					
					(0.00869)					
Institutions						0.0185*				
						(0.00975)				
Health							0.0193*			
							(0.00918)			
Security								0.0274**		
								(0.00956)		
Tax									0.0127	
									(0.00874)	
Technology										0.0311***
										(0.0102)
EPU		3.093**	3.103**	3.103**	3.100**	3.110**	3.109**	3.104**	3.112**	3.102**
		(1.183)	(1.185)	(1.186)	(1.184)	(1.186)	(1.186)	(1.185)	(1.187)	(1.185)
Volatility	-0.0377	-0.0366	-0.0376	-0.0376	-0.0370	-0.0384	*-0.0383*	-0.0375	*-0.0385*	-0.0376
	(0.0642)	(0.0635)	(0.0634)	(0.0635)	(0.0635)	(0.0635)	(0.0635)	(0.0634)	(0.0635)	(0.0635)
Volume	-1.604***	-1.628***	-1.626***	-1.626***	-1.627***	-1.625***	-1.625***	-1.626***	-1.624***	-1.627***

Table 3 (*continued*)

VARIABLES	(1) *Spread*	(2) *Spread*	(3) *Spread*	(4) *Spread*	(5) *Spread*	(6) *Spread*	(7) *Spread*	(8) *Spread*	(9) *Spread*	(10) *Spread*
	(0.165)	(0.181)	(0.181)	(0.181)	(0.181)	(0.181)	(0.181)	(0.181)	(0.181)	(0.181)
Price	-2.050***	-2.082***	-2.080***	-2.080***	-2.082***	-2.079***	-2.079***	-2.080***	-2.078***	-2.081***
	(0.222)	(0.243)	(0.243)	(0.243)	(0.243)	(0.243)	(0.243)	(0.243)	(0.243)	(0.243)
Size	-0.265***	-0.231**	-0.233**	-0.233**	-0.233**	-0.233**	-0.233**	-0.233**	-0.234**	-0.232**
	(0.0897)	(0.0963)	(0.0963)	(0.0963)	(0.0963)	(0.0963)	(0.0963)	(0.0963)	(0.0963)	(0.0963)
GDPgrowth	-3.450***	-3.719***	-3.719***	-3.720***	-3.719***	-3.726***	-3.725***	-3.718***	-3.729***	-3.719***
	(0.152)	(0.110)	(0.110)	(0.110)	(0.110)	(0.111)	(0.111)	(0.110)	(0.111)	(0.110)
VIX	-0.344***	-0.390***	-0.390***	-0.390***	-0.390***	-0.391***	-0.391***	-0.390***	-0.391***	-0.390***
	(0.0156)	(0.0166)	(0.0166)	(0.0166)	(0.0166)	(0.0166)	(0.0167)	(0.0166)	(0.0167)	(0.0166)
Constant	56.54***	44.15***	44.12***	44.14***	44.15***	44.17***	44.17***	44.11***	44.20***	44.12***
	(2.046)	(3.533)	(3.539)	(3.540)	(3.540)	(3.546)	(3.543)	(3.543)	(3.544)	(3.537)
YQ dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2-way clustering	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	167,960	167,960	167,960	167,960	167,960	167,960	167,960	167,960	167,960	167,960
R-squared	0.464	0.467	0.467	0.467	0.467	0.467	0.467	0.467	0.467	0.467

Panel B: Economic importance

	PRisk	*PRisk*	*Economic*	*Environment*	*Trade*	*Institutions*	*Health*	*Security*	*Tax*	*Technology*
% Δ	3.64%	3.30%	2.07%	2.07%	2.53%	1.42%	1.51%	2.13%	1.05%	2.47%

Table 4: Liquidity and political risk - politically favored industries.
This table reports the estimation results of the effect of firm-level political risk on stock liquidity, where the sub-sample firms are chosen following the Addoum and Kumar (2016) five industries that are favored by Republican and Democratic presidencies. The sample covers the U.S. public firms from 2002 to 2019. See Section 2.4 for the discussion on the variables. Clustered standard errors are reported in parentheses with 1%, 5% and 10% significance level denoted by ***, ** and *, respectively.

	(1)	(2)	(3)	(4)
Favored industries	by Republican	by Republican	by Democrat	by Democrat
VARIABLES	*Spread*	*Spread*	*Spread*	*Spread*
PRisk	0.0357**	0.0260*	0.0127	0.00426
	(0.0138)	(0.0136)	(0.0182)	(0.0180)
EPU		3.857***		4.871***
		(0.222)		(0.285)
Volatility	0.0396	0.0429	-0.0142	0.0131
	(0.104)	(0.102)	(0.0837)	(0.0840)
Volume	-1.093***	-1.132***	-1.318***	-1.348***
	(0.151)	(0.151)	(0.131)	(0.131)
Price	-0.718***	-0.815***	-0.355*	-0.465**
	(0.216)	(0.215)	(0.198)	(0.197)
Size	-1.271***	-1.168***	-2.267***	-2.154***
	(0.156)	(0.154)	(0.187)	(0.184)
GDPgrowth	0.0614***	0.00569	0.0737***	-0.000729
	(0.0167)	(0.0158)	(0.0217)	(0.0209)
VIX	0.0777***	0.0582***	0.0952***	0.0651***
	(0.00594)	(0.00526)	(0.00704)	(0.00609)
Constant	29.62***	12.10***	38.86***	16.76***
	(1.928)	(1.646)	(2.069)	(1.845)
YQ dummy	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	28,622	28,622	23,743	23,743
R-squared	0.269	0.285	0.309	0.324
Number of gvkey	823	823	787	787

Table 5: Liquidity and political risk - presidential parties and election
This table reports the estimation results of the effect of firm-level political risk on stock liquidity considering the effect of Democrat vs. Republican presidents and the election year on this relationship. See Section 2.4 for the discussion on the variables. Clustered standard errors are reported in parentheses with 1%, 5% and 10% significance level denoted by ***, ** and *, respectively.

	(1)	(2)	(3)	(4)
VARIABLES	*Spread*	*Spread*	*Spread*	*Spread*
PRisk	0.0292***	0.0183*	0.0156**	0.00879
	(0.00960)	(0.00946)	(0.00742)	(0.00741)
*Prisk*DemocratPresident*	-0.0279**	-0.0246*		
	(0.0140)	(0.0140)		
DemocratPresident	-0.544***	-0.961***		
	(0.0695)	(0.0696)		
*Prisk*Election*			-0.0157	-0.0142
			(0.0140)	(0.0139)
Election			0.221***	0.110*
			(0.0622)	(0.0620)
EPU		1.654***		1.026***
		(0.0679)		(0.0673)
Volatility	-0.0389	-0.00258	-0.0597	-0.0436
	(0.0478)	(0.0480)	(0.0481)	(0.0483)
Volume	-1.268***	-1.319***	-1.290***	-1.331***
	(0.0589)	(0.0590)	(0.0586)	(0.0591)
Price	-0.150	-0.154*	-0.166*	-0.177*
	(0.0928)	(0.0915)	(0.0925)	(0.0918)
Size	-2.154***	-2.134***	-2.122***	-2.102***
	(0.0808)	(0.0801)	(0.0806)	(0.0801)
GDPgrowth	-0.220***	-0.192***	-0.121***	-0.0656***
	(0.00939)	(0.00903)	(0.0104)	(0.00911)
VIX	0.0593***	0.0367***	0.0813***	0.0757***
	(0.00266)	(0.00265)	(0.00257)	(0.00260)
Constant	35.03***	28.25***	34.02***	29.49***
	(0.863)	(0.794)	(0.862)	(0.799)
Year dummy	No	No	No	No
Quarter dummy	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	167,961	167,961	167,961	167,961
R-squared	0.260	0.270	0.256	0.260
Number of gvkey	5,566	5,566	5,566	5,566

Table 6: Robustness to alternative measures of illiquidity
This table reports the estimation results of Equation (4), using two alternative measures of illiquidity, *Amihud* and ZR. Clustered standard errors are reported in parentheses with 1%, 5% and 10% significance level denoted by ***, ** and *, respectively.

	(1)	(2)	(3)	(4)
VARIABLES	*Amihud*	*Amihud*	*ZR*	*ZR*
PRisk	0.0254*	0.0215*	0.0244***	0.0245***
	(0.0127)	(0.0123)	(0.00501)	(0.00491)
EPU		1.951**		-0.0608
		(0.817)		(0.232)
Volatility	-0.107*	-0.106*	-0.179***	-0.179***
	(0.0522)	(0.0538)	(0.0433)	(0.0432)
Volume	-1.351***	-1.367***	-0.468***	-0.468***
	(0.210)	(0.221)	(0.0387)	(0.0385)
Price	-1.651***	-1.671***	-1.154***	-1.153***
	(0.265)	(0.280)	(0.0695)	(0.0691)
Size	0.449***	0.470***	-0.140***	-0.141***
	(0.0961)	(0.110)	(0.0468)	(0.0469)
GDPgrowth	0.374**	0.205**	0.584***	0.589***
	(0.131)	(0.0785)	(0.0371)	(0.0334)
VIX	0.0382**	0.00874	0.00411	0.00503
	(0.0135)	(0.00890)	(0.00481)	(0.00398)
Constant	17.82***	10.01***	10.16***	10.41***
	(2.351)	(2.105)	(0.551)	(1.264)
YQ dummy	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	167,960	167,960	167,960	167,960
R-squared	0.235	0.235	0.450	0.450

Table 7: Robustness to alternative estimation method - 2SLS
This table reports the estimation results of the effect of firm-level political risk on stock liquidity using a Two-Stage least squares model (2SLS). Our instrumental variable is the average political risk score of the firms in the same state. Panel A reports the first stage result, and Panel B reports the second stage. Clustered standard errors by firm are reported in parentheses with 1%, 5% and 10% significance level denoted by ***, ** and *, respectively.

Panel A: first stage	
	PRisk
Prisk_average	0.835***
	0.026
YQ dummy	Yes
Firm FE	Yes
Controls	Yes
Cragg-Donald Wald F statistic	1887.41
Observations	167,772
Underidentification Test: χ^2-statistic	1004.44
p-value	0.000
Weak Instrument Test: F-statistic	1004

Panel B : second stage

	(1)	(1)	(3)	(3)	(5)	(5)
VARIABLES	*Spread*	*Spread*	*Amihud*	*Amihud*	*ZR*	*ZR*
PRisk	0.421***	0.192***	0.238***	0.0954*	0.0528*	0.0691**
	(0.0732)	(0.0661)	(0.0600)	(0.0577)	(0.0319)	(0.0336)
		2.412***		1.507***		-0.172***
		(0.0829)		(0.0858)		(0.0278)
Volatility	0.0768	0.0672	0.00685	0.000809	-0.147***	-0.146***
	(0.0481)	(0.0476)	(0.0429)	(0.0427)	(0.0184)	(0.0184)
Volume	-1.458***	-1.465***	-1.110***	-1.114***	-0.524***	-0.523***
	(0.0632)	(0.0629)	(0.0629)	(0.0628)	(0.0231)	(0.0231)
Price	-0.506***	-0.570***	-0.440***	-0.480***	-0.844***	-0.839***
	(0.0923)	(0.0917)	(0.0787)	(0.0785)	(0.0409)	(0.0410)
Size	-2.094***	-2.012***	-0.790***	-0.738***	-0.459***	-0.465***
	(0.0802)	(0.0792)	(0.0636)	(0.0627)	(0.0307)	(0.0309)
GDPgrowth	-1.833***	-2.122***	1.362***	1.181***	1.225***	1.245***
	(0.163)	(0.161)	(0.122)	(0.119)	(0.0526)	(0.0529)
VIX	-0.185***	-0.226***	0.141***	0.115***	0.0711***	0.0741***
	(0.0166)	(0.0164)	(0.0128)	(0.0125)	(0.00605)	(0.00605)
YQ dummy	Yes	Yes	Yes	Yes	Yes	Yes
Observations	167,772	167,772	167,772	167,772	167,772	167,772
R-squared	0.278	0.308	0.084	0.099	0.206	0.204
Number of gvkey	5,377	5,377	5,377	5,377	5,377	5,377