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## **Firm-Level Political Risk and Dividend Payout**

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## Firm-Level Political Risk and Dividend Payout\*

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#### Abstract

We use a novel measure of firm-level political risk based on a textual search technique on firms' quarterly earnings conference transcripts to explain dividend payouts in publicly listed U.S. firms. We find a positive and significant effect of firm-level political risk on dividend payouts, particularly in uncertainties related to economics, institutions, technology, trade, and security. The effect is more pronounced in firms with better corporate governance, less analyst follow-up, and higher growth opportunities. These results support the signaling role of dividends rather than the role of agency theory in explaining dividend payouts when firms are associated with higher levels of political risk. We also find the effect to be prominent after controlling for an aggregate measure of economic policy uncertainty and in poor and recessionary economic conditions. We address endogeneity concerns and selection bias by running placebo tests and performing propensity score matching technique.

Keywords: Dividends; Firm-Level Political Risk; Agency Theory; Signaling Theory; Economic Policy Uncertainty

JEL Code : G30, G35, G38

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#### 1. Introduction

Ongoing prevailing debates have been centered around exploring the impact of political uncertainty on firms' dividend payout policies. The importance of those debates stems from the significance of policy-related uncertainty effects on various managerial decisions and economic outcomes, such as firm-level investment and employment growth (Bernanke, 1983; Pindyck, 1988; Dixit and Pindyck, 1994; Bloom et al., 2007; An et al., 2016; Baker et al., 2016; among others), entrepreneurial financing (Cumming and Zahra, 2016; Wright et al., 2016; Kellard et al., 2022), firms' financing decisions (Dai and Ngo, 2021; Çolak et al., 2017), cash holdings (Gao and Zhang, 2015; Gulen and Ion, 2016; Xu et al., 2016), accounting quality (El Ghoul et al., 2021), corporate innovations (Bhattacharya et al., 2017; Xu, 2020), M&A activity (Nguyen and Phan, 2017; Bonaime et al., 2018; Cao et al., 2019), firms' cost of financing (Herrala and Turk-Ariss, 2016; Bradley et al., 2016; Drobetz et al., 2018) and market valuation (Pastor and Veronesi, 2013; Brogaard and Detzel, 2015).

In the handful of papers that investigate the relationship between political uncertainty and firms' dividend payout policy, the evidence is mixed; citing agency theory, a positive relationship has been found by some studies whereby dividends help mitigate agency problems during periods of high political uncertainty (Baker et al., 2016; Attig et al., 2021), while a negative relationship has been reported in others (Huang et al., 2015), suggesting precautionary managerial responses through more conservative dividend distributions during such periods. However, in all those studies, authors use conventional and/or aggregate measures of political uncertainty aiming to identify variation in aggregate and sector-level political risk with either country-level economic policy uncertainty (EPU) indices or event studies (such as global political crisis events or presidential election periods), which do not capture the cross-sectional and time-series variation in firms' exposure to aggregate political risk (Hassan et al., 2019; Pan et al., 2019). However, it is noted that most of the variation measured in political risk is derived from idiosyncratic firm political risk, and the prevalence of political risk across firms is much more volatile and heterogeneous than previously assessed (Hassan et al., 2019). Hence, this study aims to fill the gap in this literature by accounting for this political risk heterogeneity across firms and is the first study to use a novel and direct firm-level political risk measure to explore the effect of firm-level political risk on firm-level dividend distribution.

Studying a sample of U.S. publicly listed firms spanning 2002 to 2018, we define firm-level political risk using Hassan et al.'s (2019) measure based on transcripts of quarterly earnings conference calls. This direct firm-specific measure is based on a textual-search technique that quantifies the proportion of the earnings conference call that focuses on general political risk. Furthermore, this measure is decomposed to reflect the particular type of political risk faced by the company over time. We retrieve dividend payout and other firm financial data from the CRSP/Compustat Merged database. Following the literature, we exclude financial and utility firms from our analysis, as those firms face certain regulations restricting their dividend payouts. After applying those filters, we end up with a final sample of 4,322 unique firms with 133,919 firm-quarter observations in our main analysis.

To examine the impact of firm-level political risk on firm dividend payouts, we employ an OLS regression as our baseline model using the ratio of cash dividends to net income (La porta et al., 2000; Chay and Suh, 2009; among others) as the dependent variable and controlling for firms' financial variables documented in the extant literature to impact firms' dividend payouts. Our baseline results indicate a statistically significant and positive relationship between firm-level political risk and dividend payouts. Our results also illustrate a significant economic impact; in our baseline model with all controls, a one standard deviation increase in the firm-level measure of political risk above its mean, holding other variables at their sample mean, corresponds to an increase of 4.52 percentage points in the firm's dividend payout ratio, which translates into an increase of 29.73%. Furthermore, our statistically and economically significant positive relationship holds even when we utilize five alternative definitions for dividend payout as the dependent variable (dividend yield, log(1+dividend), dividend dummy, dividend to assets ratio, dividend to sales ratio).

Next, to identify the source of political uncertainty associated with those significant results, we rerun our baseline model using each of the eight subcomponents of political risk (economics, institutions, technology, trade, tax, environment, health, and security) as defined by Hassan et al. (2019). We find that most of the explanatory power of our measure of political risk is attributed to topics related to economics, institutions, technology, trade, and security, while political uncertainty topics related to taxes, environmental, and health issues do not have a significant impact on firms' dividend payouts.

Following our baseline results, we alleviate endogeneity concerns arising from the possibility of having time-varying omitted variables that simultaneously affect both firm-level political risk and firm dividend payouts. We address these concerns by running placebo tests where we randomly draw from the sample distribution of firm-level political risk to construct 133,919 fake firm-level political risk measures and re-estimate the baseline regression model. We find an insignificant coefficient on firm-level political risk with all measures of dividend distribution employed in our analysis, suggesting that our baseline results survive the placebo tests and providing more support that our results hold even after considering potential endogeneity.

Next, to ensure that our results do not pick up the aggregate economic effects of political uncertainty as measured and documented previously in the literature, we conduct horse race regressions controlling for economic policy uncertainty (EPU measure defined by Baker et al., 2016). The coefficient on firm-level political risk remains positive and statistically significant even after controlling for EPU, providing more support for the robustness of our measure. Furthermore, to check that our measure of firm-level political risk reflects variation across firms in different economic environments, we test the impact of firm-level political risk on dividend payouts in poor, good, and recessionary periods. The significant impact of firm-level political risk is prevalent in environments of poor economic conditions, with the largest effect witnessed in recessionary periods. In addition, to confirm that our results are not also driven by selection bias or by systematic differences between firms with respect to other firm financial factors possibly affecting dividend payouts, we use a propensity score matching (PSM) approach to match the sample firms based on all firms' financial variables, and we still find a significant positive impact of firm-political risk on dividend payouts after applying the baseline models to the matched sample.

Finally, to explore the channel by which firm-level political risk impacts firm dividend policy, we first test whether agency theory can be used to explain the observed significantly positive effect. Prior studies (see, for example, Attig et al., 2021) suggest that dividends can be used as instruments to mitigate agency problems; thus, firms with poorer governance should have a more pronounced effect of political risk on dividend payouts since more cash will be available for managers during politically uncertain periods (Hanlon et al., 217) due to fewer investment opportunities. To test this conjecture, we include additional controls for corporate governance in our baseline models and rerun the model on subsamples classifying firms into low vs. high governance based on their governance measures. We find that the coefficient of firm-level political risk remains positive and

significant after controlling for governance, and contrary to predictions of agency theory, it is dominant in the subsample of firms with higher corporate governance, indicating that agency theory cannot be used to explain our results. Hence, we test the second theory that can explain our results: signaling theory. From the lens of the famous cash flow signaling hypothesis advanced by Bhattachrya (1979), firms with high growth opportunities who wish to signal to the market their promising future outlook would still pay high dividends (Denis et al. 1994; Yoon and Starks, 1995) despite the high political risk, in contrast to firms with conservative managers who would cut off dividend payments due to worries about the future. To test for this conjecture, we run two analyses. In the first analysis, we use the number of analysts following the firms to proxy for the need to use dividend payouts as a signaling mechanism to the market. Firms with a low number of analysts following them would need such a signaling mechanism more than firms with high analyst followup to mitigate higher information asymmetry effects (Andres et al. 2013). Hence, we breakdown our sample into two subsamples based on the number of analysts that follow up (low and high) and, indeed, we find that the significant positive firm-level political risk effect is only present in the subsample of firms with a low analyst following, suggesting a greater need for using dividends as a signaling mechanism to reassure the market about future growth opportunities. Moreover, in our final analysis, to confirm the validity of using signaling theory to explain our results, we split our sample into two subsamples based on firms' growth opportunities using two proxies: marketto-book ratio and sales growth to classify firms as high- vs. low-growth companies. Consistent with our prior, we observe that a significantly positive effect of firm-level political risk is more pronounced in the case of high-growth firms.

This study contributes to the literature in three distinct ways. First, this paper extends the recent and growing literature on firm-level political risk (Hassan et al., 2019; Pan et al., 2019) and its impact on various firm financial policies and gives empirical support to the notion that a large share of the variation in political risk appears to occur at the firm level rather than the level of the sector or the economy as a whole. Second, this study contributes to the long-standing literature on factors affecting firms' dividend policies (Lie, 2005; DeAngelo et al., 2006; Brockman and Unlu, 2009; Leary and Michaely, 2011; Chen et al., 2017; Cooper and Lambertides, 2018; Herdhayinta et al. 2021; among others), adding to the literature an essential determinant of firms' dividend payout ratios: firm-level political risk. Finally, this paper contributes to the limited literature on the effect of economic policy uncertainty on wide range of corporate decisions and financial outcomes (Baker et al., 2016; Cumming and Zahra, 2016; Wright et al., 2016; Bhattacharya et al., 2017; Nguyen and Phan, 2017; Dai and Ngo, 2021; El Ghoul et al., 2021; Kellard et al., 2022), and in particular, on dividend payout policy (Huang et al., 2015; Attig et al., 2021) but uses a direct measure of firm-level political risk, which overcomes the drawbacks associated with other aggregate political risk measures that do not allow us to gauge uncertainty over time and across firms. In this way, it contributes to the existing mixed evidence on the effect of political risk on dividend payout, giving support to the dividend signaling theory in explaining this effect, which represents a novel addition to the literature as such a channel has not yet been explored in this type of context.

The paper proceeds as follows. Section 2 summarizes the literature on dividend payout policy and the effects of political uncertainty on firms and develops our hypotheses. Section 3 explains the firm-level measure of political risk and describes the data. Section 4 presents the empirical models and results. Section 5 concludes.

#### 2. Literature review and hypothesis development

#### 2.1 Dividend policy

A plethora of studies have been conducted to identify firm-specific characteristics that play an essential role in explaining firms' dividend policies, including profitability (Nissim and Ziv, 2001), leverage (Cooper and Lambertides, 2018), cash flow uncertainty (Chay and Suh, 2009), and firms' life cycle (DeAngelo et al., 2006; Brockman and Unlu, 2011). This strand of literature also documents significant effects of ownership structure (Short et al. 2002; Henry, 2011; Firth et al., 2016; He and Mi, 2022), and board gender diversity (Chen et al., 2017; Herdhayinta et al. 2021) on dividend payout. For instance, Firth et al. (2016) show that the institutional investors, in particular, mutual funds affect dividend payout in a sample of Chinese firms during the period 2003 to 2011. Then, Herdhayinta et al. (2021) study the effects of board gender diversity on firm value and dividend payout using a sample of Indonesian firms. The authors find that in weak institutional environment, non-family female directors foster positive effects on dividend payouts and firm value than the family female directors.

Moreover, a large body of literature shows that financially unconstrained firms tend to pay dividends rather than repurchase shares (Lie, 2005), present a high level of dividend smoothing (Leary and Michaely, 2011) and are less likely to reduce their payout during a shock to the supply of credit (Bliss et al., 2015).

Research also finds evidence that firms adjust their payout policies in response to developments in the business environment in which they operate, such as changes in the tax policy (Chetty and Saez, 2005; Buchanan et al., 2017), the labor market (DeAngelo & DeAngelo, 1990) and the degree of institutional investors' perception (Short et al., 2002; Amihud and Li, 2006; Firth et al. 2016; He and Mi, 2022).

Finally, a country's institutional environment, particularly the content and enforcement of the legal protections afforded to outside investors, can affect corporate dividend policy (La Porta et al., 2000; Brockman and Unlu, 2009; Cumming et al., 2011; Dang et al., 2021). Moortgat et al. (2017) document contradictory evidence, as they observe little impact of investor protections and tax legislation on the dividend policy of Belgian firms.

#### 2.2 Political risk

According to conventional models of investment under uncertainty, any increase in any form of risk, and hence an increase in the firm's political risk, leads to a decline in firm-level investment and employment growth (e.g., Bernanke 1983; Pindyck, 1988; Dixit and Pindyck, 1994; Bloom, et al., 2007; An et al., 2016). Studies conducted at the macroeconomic level confirm that these negative relationships also hold at an aggregate level (Baker et al., 2016).

More recent studies at the firm level find evidence that high policy risk alters firms' financing decisions (Chen et al., 2017; Çolak et al., 2017; Dai and Ngo, 2021), cash holdings (Gulen and Ion, 2016; Gao and Grinstein, 2014), corporate investments (Julio and Yook, 2012; Gulen and Ion, 2016; King et al., 2021), corporate innovations (Bhattacharya et al., 2017; Xu, 2020), M&A activity (Nguyen and Phan, 2017; Bonaime et al., 2018; Cao et al., 2019), accounting quality (El Ghoul et al., 2021), and IPOs (Colak et al., 2017).

Some recent studies such as Cumming and Zahra (2016), Wright et al. (2016) and Kellard et al. (2022) shed light on the effects of policy induced risk on entrepreneurial financing. While Cumming and Zahra (2016) provide a first comprehensive review in the backdrop of Brexit vote highlighting direct implications of Brexit on venture start-up firms, Kellard et al. (2022) documents a negative effect of Brexit-induced uncertainty over private equity firms' activity in the UK.

Several studies have also provided evidence of a strong relationship between political risk and firms' cost of financing (Herrala and Turk-Ariss, 2016; Bradley et al., 2016) and market valuation (Pastor and Veronesi, 2013; Brogaard and Detzel, 2015; Brogaard et al., 2020).

Much of the abovementioned studies use election year dummies as a proxy for political risk. This approach has certain drawbacks, as it does not allow us to gauge uncertainty over time or explore cross-sectional properties. Baker et al. (2016) overcomes some of these problems by introducing a time-varying index of economic policy uncertainty (EPU) based on text-search results obtained from electronic archives. However, EPU is calculated for specific policy categories (fiscal, monetary, regulatory and trade activities) at the country level and does not permit the capture of heterogeneity across firms.

#### 2.3 Political risk and dividend payout

Agency theory is one of the predominant theories in explaining firms' dividend payout policies. Several studies explain the significance of dividends' role in mitigating agency problems (Alli et al., 1993; Short et al., 2002; Allen and Michaely, 2003; Leary and Michaely, 2011; among others). In particular, studies show how dividends can act as a substitute for governance (La Porta et al., 2000; Grinstein and Michaely, 2005; Officer, 2011; among others), as paying higher dividends suggests less excess cash flow to be expropriated by self-serving managers.

Moreover, several other studies propose dividend signaling theory in explaining firms' dividend payouts, where managers use dividend payouts to signal their earnings expectations to the general public (Bhattacharya, 1979; Ghosh and Woolridge, 1989; Beer, 1993; Denis et al., 1994; Yoon and Starks, 1995; Lie, 2005; Leary and Michaely, 2011; Cao et al., 2017).

Drawing on the insights of those theories, recent studies have emerged attempting to explain the impact of political risk on firms' dividend payouts, where some studies provide empirical support to agency theory, citing that firms are more likely to face serious agency problems during periods of political uncertainty; hence, this will be translated into higher dividend payouts, and this effect will be more pronounced in firms with poorer governance (Attig et al., 2021). Other studies argue that firms in periods of high political uncertainty need to be more conservative in their dividend payouts due to the anticipated increase in the cost of financing (Huang et al., 2015); hence, this will be translated into lower dividend payouts. However, those studies ignored dividend signaling theory and the possibility of high-growth firms using dividends to signal their future positive earnings expectations despite the current high firm-level political risk. The inconclusive evidence drawn from those studies can potentially be due to the use of an aggregate measure of political uncertainty to explain firm-level decisions associated with dividend policy. Hence, in this study, we test our primary research question on the impact of firm-level political risk on dividend payouts

using a more refined measure of direct firm-level political risk, capturing the heterogeneous effect across firms and time periods, with no a priori. This formulates the basis for our main hypothesis as follows:

*H1: Firms with higher firm-level political risk are associated with higher (lower) dividend payouts.* 

Next, to further explore whether agency theory is the channel causing firm-level political risk to affect firms' dividend payouts, we test for the second hypothesis:

H2: The effect of firm-level political risk on firms' dividend payouts is more (less) pronounced in firms with weaker (stronger) governance.

Finally, to investigate whether dividend signaling theory is the channel through which firm-level political risk affects firms' dividend payouts, we test for the third hypothesis:

H3: The effect of firm-level political risk on firms' dividend payouts is more (less) pronounced in firms with higher (lower) growth opportunities.

#### 3. Data

#### 3.1 Firm-level measure of political risk

We adopt Hassan et al.'s (2019) firm-level political risk measure, representing the proportion of the firm's earnings conference call spent on discussions related to political risks. This measure enables us to identify political risk at the firm rather than at the aggregate level, and it allows the firm's political risk to vary across firms and time. Hassan et al. (2019) constructs this measure using a text searching methodology at the quarterly earnings conference call transcripts of U.S. publicly listed firms to identify and classify words related to politics and risks. They then use an algorithm to calculate the frequency of those terms with respect to the duration of the conference call.<sup>3</sup> The authors conducted several validation tests and compared their measure to other text-based measures such as the EPU index developed by Baker et al. (2016). Hassan et al.'s (2019) measure has been used recently to study the impact of firm-level political risk on capital investments (Choi et al., 2021), accounting quality (El Ghoul et al., 2021), and debt maturity and leverage (Pan et al., 2019).

In addition to the main firm-level political risk variable, we also decompose this measure into eight different subindices, as in Hassan et al. (2019). These eight subindices result from quantifying the

<sup>&</sup>lt;sup>3</sup> For full details related to this measure, please refer to Hassan et al. (2019)

duration of the quarterly earnings conference call spent on a specific political risk topic related to economics, institutions, technology, trade, taxes, environment, health, and security.

#### 3.2 Dividend payout and other variables

We follow the norm in the literature by defining dividend payout as the ratio of cash dividends declared on common shares to net income before extraordinary items (La Porta et al., 2000; Chay and Suh, 2009; among others). To ensure the robustness of our results, we use 5 other alternative measures of dividend payout: dividend yield, which is the ratio of cash dividend per share divided by stock market price per share; ln(1+dividend), which is the natural logarithm of 1 plus declared cash dividend amount; dividend dummy, which is an indicator that is set to 1 if the company declared a cash dividend by the end of the period, and 0 otherwise; dividend to assets ratio, which is the ratio of declared cash dividends to book value of total assets; and dividend to sales ratio, which is the ratio of declared cash dividends to total net sales.

We also control for all firm financial variables that have been previously shown to affect the dividend distribution of the firms, including firm size, leverage, market to book, ratio of cash to total assets, amount of cash flow, sales growth, return on assets, R&D intensity, capital expenditure, tangibility, Altman's Z-score, and ROA volatility. All these variables are defined in the Appendix of the paper.

Since Hassan et al.'s (2019) measure of political risk is quarterly, we retrieve all dividend payout and financial variables from the CRSP/Compustat Merged database at the end of each quarter.<sup>4</sup> We exclude firms with negative values on assets, sales, cash and dividends. Following the convention in the literature, we also exclude utility firms (SIC 4900–4949) and financial firms (SIC 6000–6999). This filtering process results in a U.S. sample of 4,322 unique firms spanning from the first quarter of 2002 until the end of the last quarter of 2018, with 133,919 observations.

#### [Table 1 about here]

#### [Table 2 about here]

In Table 1, we classify the sample by year, and in Table 2, we present descriptive statistics of all main variables used in the study. We winsorize all variables at 1% and 99% to minimize the effect of outliers. From Table 1, we can see that U.S. firms had an almost steady increase in their dividend payouts during the 2002–2013 period, reaching a peak of 19.7% in 2013, and then the dividend

<sup>&</sup>lt;sup>4</sup> This study only focuses on dividend payouts as the share repurchase data is not available on quarterly basis.

payout ratio started to decrease. From Table 2, we can see that the average dividend payout ratio for our sample firms is 15.2%, while the median is 0.00. On average, 35.6% of the firms never paid a dividend during the sample period, and the standardized firm-level measure of political risk is -0.072.

#### 4. Empirical results

#### 4.1 Impact of firm-level political risk on dividend payout

To examine the effect of firm-level political risk on dividend payouts, we run the following OLS specification. Standard errors are adjusted for heteroskedasticity and are clustered at the firm level. *Dividend Payout*<sub>*i*,*t*</sub> =  $\alpha_i + \beta_i Political Risk_{i,t} + \gamma Controls_{i,t} + \varepsilon_{i,t}$  (1)

#### [Table 3 about here]

We present in Table 3 the results of estimating Equation (1) while progressively including time, industry, time x industry, firm, and both time x industry and firm fixed effects in columns 1 to 5, respectively. The dependent variable dividend payout is the amount of cash dividends declared on common stock at the end of the quarter divided by net income before extraordinary items at the end of the quarter. In all five specifications, the coefficient on firm-level political risk is positive and highly statistically significant. Our results are also economically significant; a one standard deviation increase in the firm-level measure of political risk above its mean in Model 5, holding other variables at their sample mean, corresponds to an increase of 4.52 percentage points in the firm's dividend payout ratio, which translates into an increase of 29.73%. Moreover, the results of other determinants of firms' payout ratio are consistent both in terms of sign and significance with the literature.

Next, to analyze the nature of firm-level political risk associated with the higher dividend payout ratios, we rerun Equation (1) but use each subcomponent of political risk as an explanatory model in a separate regression. The results are displayed in Table 4.

#### [Table 4 about here]

We decompose firm-level political risk into its eight components, as in Hassan et al. (2019), based on the topic of political risk discussed in the quarterly earnings conference call. This includes economics, institutions, technology, trade, security, tax, environment, and health-related topics, as shown in Columns 1 to 8 of Table 4. After such decomposition, we find that political risk arising from economics, institutions, technology, trade, and security uncertainty corresponds to significantly higher dividend payout ratios, while uncertainty related to taxes, environment and health does not.

#### 4.2 Robustness tests

After finding empirical support for the significant positive impact of firm-level political risk on dividend payouts as in Hypothesis 1, we proceed to ensure the robustness of our baseline results. First, we re-estimate Equation (1) but with 5 alternative measures of dividend payout.

#### [Table 5 about here]

We measure dividend payout as dividend yield (amount of cash dividend per share declared at the end of the quarter divided by stock market price at the end of the quarter), logarithm of (1+ cash dividend), dividend dummy (a dummy set to 1 if the company declared a cash dividend on common stock at the end of the quarter, and 0 otherwise), the ratio of cash dividends declared to total assets, and the ratio of cash dividends declared to total net sales, in columns 1 to 5 of Table 5, respectively. With all five different ways of measuring dividend payout, the coefficient on dividend payout remains to be positive and statistically significant.

Next, to alleviate endogeneity concerns regarding the possibility of having time-varying omitted variables that simultaneously affect both firm-level political risk and firm dividend payouts, we run placebo tests whereby we randomly draw from the sample distribution of firm-level political risk to construct 133,919 fake firm-level political risk measures and we then re-estimate the baseline regression (Equation 1). We conduct the placebo tests using all 6 definitions of dividend payout (the main dependent variable as in Table 3 and the five alternative definitions of dividend payout as in Table 4) and present the results of those placebo tests in Table 6.

#### [Table 6 about here]

In all 6 models of Table 6, we find an insignificant coefficient on firm-level political risk, indicating that our baseline results survive the placebo tests and, hence, providing more support to the robustness of our results even after considering potential endogeneity.

#### 4.3 Firm-level or aggregate political risk?

To ensure that our reported results do not pick up the aggregate political risk effect documented previously in the literature, we conduct the following two analyses. We start off by conducting horse race regressions replicating our baseline model (Equation 1) while controlling for the aggregate EPU measure defined by Baker et al. (2016). This measure is also a result of a text

search but on electronic news archives to quantify fiscal, monetary, regulatory and trade policy categories at the country level.

#### [Table 7 about here]

Column 1 of Table 7 shows the results of applying the model using only the EPU index as the explanatory variable. The coefficient on the EPU index is positive and statistically significant at the 5% level, giving support to Attig et al.'s (2021) results. After including our measure of firmlevel political risk in Column 2, the coefficient on firm-level political risk remains positive and statistically significant at the 1% level even after controlling for the EPU measure, solidifying our results that firm-level political risk does not pick up the aggregate effect. Furthermore, we proceed with our analysis of how firm-level political risk is distinct from EPU by conducting the analysis on subsamples of periods of low and high economic policy uncertainty in Columns 3 and 4, respectively. We define periods of low and high economic policy uncertainty based on median values of the EPU index. The coefficient on firm-level political risk remains positive and statistically significant in the high period of economic uncertainty, suggesting that firms increase their dividend payouts specifically in periods of high economic uncertainty, reflecting a firmassociated factor that we explain in the upcoming sections. On the other hand, the coefficient on EPU is positive and statistically significant in the low economic uncertainty period but negative and statistically significant in the high economic uncertainty period, reflecting a more aggregate reaction to economic policy uncertainty where firms cut their dividend payouts overall in response to fears associated with high economic uncertainty (Huang et al., 2015) without being able to reflect the variation across the cross-section of firms.

To further investigate whether the effect of firm-level political risk is uniform or varies across different economic environments, we examine our baseline regression in different economic conditions: poor, good, and recession. The results of the analysis are presented in Table 8.

## [Table 8 about here]

We classify our sample into the different economic conditions poor, good, and recession using the Chicago Fed National Activity Index (CFNAI). We define a recession as the 2008 financial crisis period (as defined in the Appendix). In Columns 1 and 2 of Table 8, we report the results on the subsamples corresponding to poor and good economic conditions, respectively. Furthermore, in Columns 3 and 4, we divide the sample based on whether the economic period is considered a recession (Column 3) or not (Column 4). From this analysis, we note that the significant and

positive effect of firm-level political risk is prevalent in poor economic environments and exacerbated in recessionary periods, hence arguing against theories of firms' tendency to uniformly cut off dividends in times of high economic uncertainty, suggesting that cross-variation across the firms is what is driving those results.

#### 4.4 Selection bias

In this section, we continue to check whether the firm-level political risk effect is not a result of selection bias and that it does not pick up any other effects, such as variations in financial characteristics among sample firms driving the change in dividend payout policy. Hence, we run a propensity score matching technique to match the firms based on all financial variables, and then we rerun our baseline models on the new matched sample.

#### [Table 9 about here]

Panel A of Table 9 displays the comparisons among the two subgroups with respect to firms' financial variables before and after the propensity matching. Panel B displays results of estimation of baseline models as in Table 3 but after running them on the propensity matched sample. Results shows that even after conducting a propensity score matching approach, the coefficient on firm-level political risk is positive and statistically significant, ruling out any selection bias concerns,

#### 4.5 Role of dividends in mitigating agency conflicts

If the firm-level political risk effect on dividend payouts can be explained by agency theory, by which dividends act as a substitute for stakeholders' monitoring (La Porta et al., 2000), we expect to find our reported positive significant effect of firm-level political risk to be even more pronounced in firms with poorer governance. Such firms want to signal to stakeholders and the market that because fewer investment opportunities are available to them due to high political uncertainty, they distribute excess cash to shareholders to avoid expropriation by self-serving managers. To empirically test this second hypothesis of our study, we first collect corporate governance variables on our sample firms from Boardex. We collect data on board size, CEO duality, independent board members, and CEO gender. All corporate governance variables are defined in the Appendix. Because our analysis is on quarter-year observations, we use the value of the corporate governance measures at the beginning of the year for the 4 quarters in the year. We rerun our baseline model but after controlling for corporate governance measures.

[Table 10 about here]

The results of the baseline model after controlling for corporate governance measures in Column 1 of Table 10 show that the coefficient on firm-level political risk is still positive and highly statistically significant. Next, we classify the firms into low vs. high corporate governance subsamples in Columns 2 and 3, whereby if values of board independence and outside director variables are below the sample median for a firm in a given year, then the firm is classified as being in the low corporate governance subsample, and vice versa. The significance of the coefficient on firm-level political risk in both subsamples with a larger magnitude in the high governance subsample (the mean is statistically higher than that in the low governance subsample at the 1% level) indicates results contrary to what agency theory purports. Concerning corporate governance variables, only Board Independence, Gender Diversity and Female CEO demonstrate varying signs and significance levels across three specifications. Results on gender diversity corroborate the context-specific impact of diversity on dividend payouts to be more beneficial in countries with weaker institutions, which is not the case in the US (La Porta et al. 2000; Herdhayinta et al. 2021). Taken together, our results lend no credence to the agency theory explanation associated with firm-level political risk and supporting Hypothesis 2; thus, we move to the alternative explanation of signaling theory as explained in Hypothesis 3.

#### 4.6 Role of dividends in signaling future prospects

Another role that dividends can play, which can be an alternative channel that helps explain the observed positive firm-level political risk dividend payout relationship, is that managers can use dividends to signal expectations to the general public (Beer, 1993; Cao et al., 2017; among others). Hence, firms want to signal that, despite their high political uncertainty, they are expected to grow in the future, have better access to finance (Boubakri et al., 2021) and have promising future prospects, so they are still paying higher dividends. To explore this notion, we use the number of analysts following a firm as a proxy for the necessity of using dividends as a signaling mechanism. Firms with a low number of analyst followers might be exposed to a higher degree of information asymmetry (Andres et al., 2013) and need to signal the market through another channel, i.e., dividends, their future prospects, while firms with a high number of analyst followers might not need to do so. To empirically test this conjecture, we obtain data on the number of analysts following a company from IBES. Data on analyst follow-up are available for 122,397 firm quarter-year observations. Similar to what we did in previous analyses, we split the sample into two subsamples (low vs. high analyst follow-up) using the median value of the variable.

#### [Table 11 about here]

Results of this analysis are included in Table 11. In support of signaling theory, we find the significant positive coefficient on firm-level political risk to be dominant in the subsample of firms followed by fewer analysts (Column 1), while the coefficient fails to be significant when only analyzing the firms followed by a number of analysts higher than the sample median (Column 2). These findings are in line with previous studies, such as Andres et al. (2013). To complement our results supporting signaling theory, in our final analysis, we classify the firms into two subsamples of high vs. low growth using two measures: market-to-book ratio and sales growth rate. In line with signaling theory, firms with high market-to-book ratios and sales growth rates should pay more dividends to signal their future positive growth opportunities despite the current high firm-level political risk compared to firms with fewer growth opportunities.

#### [Table 12 about here]

The results of this analysis are included in Table 12. We classify firms into low- vs. high-growth subsamples using the median market-to-book ratio in Columns 1 and 2 and the sales growth rate in Columns 3 and 4, respectively. We find that, indeed, in support of dividend signaling theory, the significant positive relationship between firm-level risk and dividend payout is significantly larger in magnitude in the high growth subsamples (Columns 2 and 4), and the difference in mean between the two subsamples using the two measures is also significant at the 1% level. These findings are in line with the findings of Yoon and Stark (1995) and further substantiate the cash flow signaling hypothesis.

#### 5 Conclusion

The escalation in political uncertainties surrounding firms pressurizes researchers to study the impact of resulting political risk on various financial decisions, policies, and outcomes. However, the challenge in quantifying firm-level exposure to political risk has led many studies to focus on aggregate measures of political risk that ignore cross-sectional and time-series variation across firms.

In this study, we overcome this barrier and use a novel measure recently introduced by Hassan et al. (2019) to measure firm-level political risk using a textual search approach. With this measure, we quantify the firm-level political risk based on the share of the quarterly earnings conference calls spent discussing political uncertainties in general and, in particular, 8 different topics. Such a direct measure enables us to capture idiosyncratic variation across firms, highlighting the

differential effect of exposure to political uncertainty. We examine the impact of this direct measure of firm-level political risk on one of the crucial financial policies where mixed evidence remains to be found—the dividend payout policy.

We conduct our analysis on a sample of U.S. publicly listed firms spanning from the first quarter of 2002 until the end of the last quarter of 2018 for which quarterly data on firm-level political risk are available. We define dividend payout using six alternative measures, and we control for firm financial variables previously shown to determine dividend payout. Our baseline results show a significant positive effect of firm-level political risk on dividend payouts. After closely looking at which particular political risk topics are associated with such significant positive effects, we find the effect to be dominant in topics related to economics, institutions, technology, trade, and security. We then conduct placebo tests and propensity score matching approach to alleviate concerns for endogeneity and to address self-selection bias. We also control for an aggregate measure of economic policy uncertainty (Baker et al., 2016) to ensure that our measure does not pick up the aggregate effect, and we test our model in different economic conditions. In all those analyses, we continue to present empirical evidence supporting our baseline results of a significant positive effect of firm-level political risk on dividend payouts.

Finally, we conduct empirical tests to identify the channel associated with such a positive effect of firm-level political risk on dividend payouts and find that our results cannot be explained by agency theory. Contrary to the agency theory explanation, our results show that firms with better corporate governance are associated with larger dividend payouts while being exposed to greater firm-level political risk, while firms with poor corporate governance are not. However, our results can be explained by dividend signaling theory, where firms with high growth opportunities measured by a high market-to-book ratio or high sales growth and firms that are in more need of a signaling mechanism, such as firms with low analyst follow-up, are witnessing a dominant positive effect of firm-level political risk on dividend policy.

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## **Table 1: Sample distribution**

This table classifies our sample of U.S. publicly listed firms with available firm-level political risk and dividend payout data by sample year. The quarter-year observations reflect a total of 4 quarters of data per year for each firm in the sample.

Year	Quarter-year observations	Unique firms	Dividend payout
2002	3,511	1,530	0.099
2003	6,121	1,864	0.102
2004	7,133	1,970	0.114
2005	7,550	2,144	0.119
2006	7,851	2,229	0.129
2007	8,188	2,326	0.127
2008	8,641	2,392	0.127
2009	8,393	2,330	0.132
2010	8,206	2,275	0.142
2011	8,898	2,444	0.151
2012	8,685	2,440	0.191
2013	8,149	2,298	0.197
2014	8,685	2,484	0.190
2015	8,697	2,496	0.184
2016	8,077	2,333	0.192
2017	8,869	2,501	0.166
2018	8,265	2,215	0.157
Total	133,919	4,322	0.148

## Table 2: Descriptive statistics

This table presents the summary statistics of the main variables used in the study. We present the mean, standard deviation, 25th percentile, median, 75th percentile, and the number of observations. All variables are defined in the Appendix.

Variable	Mean	STD	25th %	Median	75th %	Ν
Dividend variables						
Dividend Payout	0.152	0.528	0.000	0.000	0.161	133,919
Dividend Yield	0.003	0.519	0.000	0.000	0.004	109,432
ln (1 + Dividend)	1.045	1.696	0.000	0.000	1.896	133,753
Dividend Dummy	0.356	0.479	0.000	0.000	1.000	133,919
Dividend/Assets	0.002	0.005	0.000	0.000	0.003	133,919
Dividend/Sales	0.016	0.041	0.000	0.000	0.014	133,919
Political risk variables (Standar	rdized)					
Political Risk	-0.072	0.904	-0.476	-0.312	-0.006	133,919
Political Risk - Economics	-0.092	0.842	-0.430	-0.304	-0.056	133,919
Political Risk - Environment	-0.031	1.039	-0.303	-0.225	-0.050	133,919
Political Risk - Trade	-0.043	0.878	-0.255	-0.197	-0.061	133,919
Political Risk - Institutions	-0.055	0.921	-0.361	-0.263	-0.059	133,919
Political Risk - Health	-0.033	0.963	-0.251	-0.189	-0.058	133,919
Political Risk - Security	-0.057	0.976	-0.383	-0.271	-0.048	133,919
Political Risk - Tax	-0.065	0.909	-0.348	-0.257	-0.066	133,919
Political Risk - Technology	-0.045	1.011	-0.385	-0.275	-0.042	133,919
Firm financial variables						
Firm Size	6.892	1.866	5.584	6.840	8.141	133,919
Leverage	0.429	0.228	0.263	0.409	0.555	133,919
MTB	2.047	1.377	1.200	1.589	2.356	133,919
Cash/Total Assets	0.195	0.218	0.033	0.107	0.285	133,919
Cash Flow	0.917	5.225	0.630	1.966	3.217	133,919
Sales Growth	0.047	0.259	-0.048	0.023	0.101	133,919
ROA	0.051	0.120	0.022	0.059	0.108	133,919
R&D Intensity	0.013	0.026	0.000	0.000	0.017	133,919
Capital Expenditure	0.032	0.041	0.008	0.018	0.039	133,919
Tangibility	0.274	0.253	0.074	0.177	0.419	133,919
Z-Score	0.408	0.491	0.000	0.000	1.000	133,919
ROA Volatility	1.935	3.269	0.378	0.820	1.933	133,919
Macroeconomic variables						
Economic Conditions	-0.269	0.987	-0.500	-0.030	0.350	133,919
Corporate governance variable	5					
Board Size	8.593	2.179	7.000	8.000	10.000	108,499
CEO Duality	0.028	0.166	0.000	0.000	0.000	108,499
Board Independence	0.673	0.136	0.600	0.700	0.778	108,499
Outside Directors	0.831	0.090	0.800	0.857	0.889	108,499
Board Foreignness	0.088	0.165	0.000	0.000	0.200	108,499
Board Gender Diversity	0.894	0.104	0.833	0.889	1.000	108,499
Board Tenure	5.724	3.113	3.513	5.414	7.563	108,499
Female CEO	0.021	0.143	0.000	0.000	0.000	108,499

#### Table 3: Firm-level political risk and dividend payout

This table displays the estimates from OLS models explaining the dividend payout. The dependent variable is the dividend payout ratio. The variable of interest is *Political Risk*, which is firm-level political risk as defined by Hassan et al. (2019) and as explained in Section 3.1. All variables are as defined in the Appendix. The inclusion of fixed effects is as indicated at the end of the table. Standard errors are adjusted for heteroskedasticity and are clustered at the firm level. T-statistics are included in parenthesis. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)
Variable of Interest					
Political Risk	0.009***	0.006**	0.006**	0.006***	0.005***
	(3.34)	(2.27)	(2.13)	(3.26)	(2.85)
Control Variables					
Firm Size	0.033***	0.029***	0.027***	0.031***	0.010
	(12.36)	(11.50)	(10.43)	(6.15)	(1.04)
Leverage	0.037*	0.061***	0.055***	0.00	(0.02)
	(1.71)	(2.90)	(2.63)	(0.13)	(1.24)
MTB	0.015***	0.013***	0.014***	0.006***	0.004*
	(5.52)	(4.94)	(5.14)	(2.74)	(1.96)
Cash/Total Assets	-0.088***	-0.057***	-0.056***	(0.03)	(0.02)
	(4.44)	(2.92)	(2.84)	(1.46)	(1.20)
Cash Flow	0.003***	0.003***	0.003***	0.004***	0.003***
	(7.67)	(7.59)	(9.65)	(11.65)	(10.77)
Sales Growth	-0.034***	-0.038***	-0.038***	-0.029***	-0.023**
	(3.83)	(4.22)	(4.16)	(2.87)	(2.28)
ROA	(0.02)	0.02	(0.00)	-0.072***	-0.041**
	(0.59)	(0.93)	(0.13)	(3.47)	(2.05)
R&D Intensity	(0.06)	0.286***	0.202*	0.361***	0.15
-	(0.49)	(2.59)	(1.80)	(3.92)	(1.51)
Capital Expenditure	-1.269***	-0.781***	-0.936***	0.08	0.224***
	(11.34)	(8.03)	(7.61)	(1.23)	(2.70)
Tangibility	0.310***	0.182***	0.196***	(0.07)	-0.083*
	(10.46)	(6.49)	(6.58)	(1.57)	(1.68)
Z-Score	-0.066***	-0.088***	-0.090***	(0.01)	(0.00)
	(5.67)	(7.83)	(7.96)	(0.94)	(0.41)
ROA Volatility	-0.006***	-0.005***	-0.005***	-0.002***	-0.002***
-	(10.31)	(8.96)	(8.53)	(5.09)	(4.89)
Time Effects	Yes			• •	
Industry Effects		Yes			
Time × Industry Effects			Yes		Yes
Firm Fixed Effects				Yes	Yes
Adjusted R <sup>2</sup>	0.052	0.072	0.076	0.228	0.232
Observations	133,919	133,919	133,919	133,919	133,919

#### Table 4: Components of firm-level political risk and dividend payout

This table displays the estimates from OLS models explaining the dividend payout as in Table 3 but when using the components of firm-level political risk as the variables of interest. The dependent variable is the dividend payout ratio in all models. Components of firm-level political risk are as defined by Hassan et al. (2019) and as explained in Section 3.1. All control variables are included in the models but coefficients are not reported for brevity. The inclusion of fixed effects is as indicated at the end of the table. Standard errors are adjusted for heteroskedasticity and are clustered at the firm level. T-statistics are included in parentheses. \*\* denote statistical significance at the 5% level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Political Risk – Economics	0.003**							
	(2.08)							
Political Risk – Institutions		0.003**						
		(2.08)						
Political Risk – Technology			0.003**					
			(2.15)					
Political Risk – Trade				0.003**				
				(2.49)				
Political Risk – Security					0.003**			
					(2.00)			
Political Risk – Tax						0.001		
						(0.37)		
Political Risk - Environment							0.001	
							(0.32)	
Political Risk – Health								0.001
								(1.07)
Control Variables	Yes							
Time × Industry Effects	Yes							
Firm Fixed Effects	Yes							
Adjusted R <sup>2</sup>	0.232	0.232	0.232	0.232	0.232	0.232	0.232	0.232
Observations	133,919	133,919	133,919	133,919	133,919	133,919	133,919	133,919

# Table 5: Firm-level political risk and dividend payout—Alternative definitions of dependent variable

This table displays the estimates from OLS models explaining the dividend payout. The dependent variable is the dividend yield in column (1), ln(1+dividend) in column (2), dividend dummy in column (3), dividend/assets in column (4) and dividend/sales in column (5). The variable of interest is *Political Risk*, which is firm-level political risk as defined by Hassan et al. (2019) and as explained in Section 3.1. All variables are as defined in the Appendix. The inclusion of fixed effects is as indicated at the end of the table. Standard errors are adjusted for heteroskedasticity and are clustered at the firm level. T-statistics are included in parenthesis. \*\*\* and \*\* denote statistical significance at the 1% and 5% levels, respectively.

	Dividend	ln (1 +	Dividend	Dividend/	Dividend/
	Yield	Dividend)	Dummy	Assets	Sales
_	(1)	(2)	(3)	(4)	(5)
Political Risk	0.004***	0.007***	0.002**	0.003**	0.023**
	(2.62)	(2.62)	(2.00)	(2.01)	(2.03)
Control Variables	Yes	Yes	Yes	Yes	Yes
Time × Industry Effects	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes
Adjusted R <sup>2</sup>	0.66	0.84	0.78	0.68	0.68
Observations	109,432	133,753	133,919	133,919	133,919

#### Table 6: Firm-level political risk and dividend payout—Placebo tests

This table displays the estimates from OLS models explaining the dividend payout but after randomly assigning firm-level political risk to sample firms through placebo tests, as explained in Section 4.2. The dependent variable is the dividend payout measured by dividend payout ratio, dividend yield, ln(1+dividend), dividend dummy, dividend/assets and dividend/sales in Models 1 to 6, respectively. The variable of interest is *Political Risk*, which is a firm-level political risk as defined by Hassan et al. (2019) and as explained in Section 3.1. All variables are as defined in the Appendix. We include all control variables in all models but do not report the coefficients for brevity. The inclusion of fixed effects is as indicated at the end of the table. Standard errors are adjusted for heteroskedasticity and are clustered at the firm level. T-statistics are included in parentheses.

	Dividend	Dividend	ln(1 +	Dividend	Dividend/	Dividend/
	Payout	Yield	Dividend)	Dummy	Assets	Sales
	(1)	(2)	(3)	(4)	(5)	(6)
Political Risk	0.001	-0.001	-0.003	-0.001	0.001	0.011
	(0.18)	(0.70)	(1.27)	(1.31)	(0.41)	(1.31)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Time x Industry Effects	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R <sup>2</sup>	0.232	0.660	0.838	0.775	0.684	0.684
Observations	133,919	109,432	133,753	133,919	133,919	133,919

#### Table 7: Firm-level political risk and dividend payout—controlling for EPU

This table displays the estimates from OLS models explaining the dividend payout using horse race regressions and after controlling for economic policy uncertainty (EPU). The dependent variable is the dividend payout, and the variables of interest are *Political Risk* and *Economic Policy Uncertainty*. *Political Risk* is a firm-level political risk as defined by Hassan et al. (2019) and as explained in Section 3.1. *Economic Policy Uncertainty* is as defined by Baker et al. (2016) and as explained in Section 4.3. All control variables are included in all models, but we do not report coefficients for brevity. The models are run on the full sample in Models 1 and 2 and on subsamples of Low EPU and High EPU in Models 3 and 4, respectively. Low EPU and high EPU are classified based on the EPU sample median. The inclusion of fixed effects is as indicated at the end of the table. Standard errors are adjusted for heteroskedasticity and are clustered at the firm level. T-statistics are included in parentheses. \*\*\* and \*\* denote statistical significance at the 1% and 5% levels, respectively.

	(1)	(2)	(3)	(4)
	Full	Full	Low EPU	High EPU
Political Risk		0.005***	0.003	0.008**
		(3.07)	(0.74)	(2.35)
Economic Policy Uncertainty	0.013**	0.012**	0.424***	-0.064***
	(2.35)	(2.21)	(10.39)	(3.56)
Difference (High) - (Low)			***0.	.005
Control Variables	Yes	Yes	Yes	Yes
Time × Industry Effects	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes
Adjusted R <sup>2</sup>	0.228	0.228	0.829	0.842
Observations	133,919	133,919	67,150	66,769

#### Table 8: Firm-level political risk and dividend payout—by economic conditions

This table presents the estimates from OLS baseline models explaining dividend payouts but applied to different subsamples representing different economic conditions. The sample is divided into poor vs. better economic conditions based on the Chicago Fed National Activity Index (CFNAI) from the Federal Reserve Bank of Chicago in Columns 1 and 2, respectively, and recessionary vs. non recessionary conditions based on the 2008 financial crisis period starting from 1<sup>st</sup> Q2008 and lasting until the end of 2<sup>nd</sup> Q2009 in Columns 3 and 4, respectively (details on the definition of the economic condition variable and recession dummy are in the Appendix). The dependent variable is the dividend payout measured by dividend payout ratio and the variable of interest is *Political Risk*, which is firm-level political risk as defined by Hassan et al. (2019) and as explained in Section 3.1. All variables are as defined in the Appendix. The inclusion of fixed effects is as indicated at the end of the table. Standard errors are adjusted for heteroskedasticity and are clustered at the firm level. T-statistics are included in parentheses. \*\*\*, and \* denote statistical significance at the 1% and 10% levels, respectively.

	Economic C	onditions	Reces	sion	
	(1)	(2)	(3)	(4)	
Subsample based on:	Poor	Better	Yes	No	
Political Risk	0.007***	0.002	0.016***	0.004*	
	(2.93)	(0.85)	(2.65)	(1.85)	
Difference (High) - (Low)	***-0.005				
Difference (No) - (Yes)			***-0	.012	
Control Variables	Yes	Yes	Yes	Yes	
Time × Industry Effects	Yes	Yes	Yes	Yes	
Firm Fixed Effects	Yes	Yes	Yes	Yes	
Adjusted R <sup>2</sup>	0.234	0.23	0.302	0.235	
Observations	67,218	66,701	12,924	120,995	

#### Table 9: Firm-level political risk and dividend payout—PSM technique

Panel A of this table shows the mean for firm financial variables for the treated and control subsamples before and after using the propensity score matching (PSM) technique, the difference between the means of the two subsamples, and the T-test statistic resulting from the significance of the difference-in-means test. Panel B of this table displays the estimates from OLS baseline models explaining the dividend payout as in Table 3 but after matching the sample firms using PSM. The dependent variable is the dividend payout ratio as in Table 3. The variable of interest is *Political Risk*, which is firm-level political risk as defined by Hassan et al. (2019) and as explained in Section 3.1. All variables are as defined in the Appendix. The inclusion of fixed effects is as indicated at the end of the table. Standard errors are adjusted for heteroskedasticity and are clustered at the firm level. T-statistics are included in parentheses. \*\*\* and \*\* denote statistical significance at the 1% and 5% levels, respectively.

Comparison of Means Across Matched Sample								
		Before matching			after matching			
	Treated	Control	diff	t-stat	Treated	Control	diff	t-stat
Firm Size	6.889	6.921	-0.032	2.61	6.889	6.881	0.008	0.46
Leverage	0.422	0.430	-0.009	6.09	0.421	0.421	0.001	0.29
MTB	2.094	2.019	0.075	8.53	2.094	2.094	0.000	0.00
Cash/Total Assets	0.219	0.185	0.034	24.26	0.219	0.219	0.000	0.17
Cash Flow	0.345	1.151	-0.806	24.01	0.346	0.325	0.021	0.41
Sales Growth	0.050	0.045	0.005	2.86	0.050	0.051	-0.001	0.44
ROA	0.037	0.057	-0.019	24.87	0.037	0.037	0.001	0.56
R&D Intensity	0.016	0.012	0.004	22.90	0.016	0.016	0.000	0.59
Capital Expenditure	0.031	0.033	-0.001	5.35	0.031	0.031	0.000	1.08
Tangibility	0.277	0.276	0.001	0.34	0.277	0.277	0.000	0.05
Z-Score	0.427	0.401	0.026	8.01	0.426	0.426	0.001	0.16
ROA Volatility	2.435	2.097	0.338	10.23	2.430	2.461	-0.031	0.62
Panel B:								
			(1)	(2)	(3	)	(4)	(5)
Political Risk		0.00	)9***	0.008***	0.007**	* 0.007	7***	0.006***
		(	(3.13)	(2.73)	(2.42)	) (3	.51)	(3.03)
Control Variables			Yes	Yes	Yes	s	Yes	Yes
Time Effects			Yes					

0.057

55,984

Yes

0.084

55,984

Yes

0.091

55,984

Yes

0.224

55,984

#### Panel A:

Industry Effects

Adjusted R<sup>2</sup>

Observations

Firm Fixed Effects

Time x Industry Effects

#### 31

Yes

Yes

0.229

55,984

#### Table 10: Firm-level political risk and dividend payout—controlling for governance

This table displays estimates of OLS baseline regression explaining dividend payout but after adding additional controls for corporate governance as in Model 1. We retrieve data on firms' governance from Boardex. All governance variables are as defined in the Appendix. We use the year beginning value of the corporate governance measure for all quarters in a year, and the resulting data available for this analysis on our full sample are 108,498 quarter-year firm observations. In Models 2 and 3, we split the sample into low vs. high corporate governance based on the median value of two corporate governance measures: board independence and outside directors. A firm that has both measures below the sample median in a given year will be classified as low in corporate governance and vice versa. We include all control variables in all 3 models, but coefficients are not reported for brevity. All variables are as defined in the Appendix. The inclusion of fixed effects is as indicated at the end of the table. Standard errors are adjusted for heteroskedasticity and are clustered at the firm level. T-statistics are included in parentheses. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)
		Corporate (	Governance
	Full	Low	High
Political Risk	0.005**	0.004*	0.007*
	(2.33)	(1.72)	(1.73)
Board Size	-0.001	-0.005	0.004
	(0.47)	(0.94)	(1.07)
CEO Duality	0.017	0.001	0.023
	(1.44)	(0.03)	(1.42)
Board Independence	0.072**	0.036	0.08
	(2.16)	(0.62)	(0.78)
Outside Directors	-0.033	-0.035	-0.075
	(0.71)	(0.42)	(0.42)
Board Foreignness	0.031	0.035	0.055
	(1.33)	(0.94)	(1.25)
Board Gender Diversity	-0.090**	-0.110*	-0.141*
	(2.25)	(1.66)	(1.87)
Board Tenure	0.003**	0.006***	0.002
	(2.15)	(2.97)	(0.57)
Female CEO	0.095**	0.083	0.131**
	(2.50)	(1.51)	(2.06)
Difference (High) - (Low)		***0.003	
Control Variables	Yes	Yes	Yes
Time × Industry Effects	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes
Adjusted R <sup>2</sup>	0.235	0.255	0.221
Observations	108,498	58,461	50,037

#### Table 11: Firm-level political risk and dividend payout-the role of analyst following

Table 11 presents estimates from OLS baseline regression models explaining dividend payouts but applying them to subsamples classified according to the number of analysts following the firms. We obtain data on analyst following from IBES. Data on firm analyst following are available for 122,397 firm quarter-year observations. We classify firms into two subsamples, low and high, in Models 1 and 2, respectively, based on the median value of the number of analysts following the firm. The dependent variable is the dividend payout measured by dividend payout ratio and the variable of interest is *Political Risk*, which is firm-level political risk as defined by Hassan et al. (2019) and as explained in Section 3.1. All variables are as defined in the Appendix. We include all control variables in all models but do not report the coefficients for brevity. The inclusion of fixed effects is as indicated at the end of the table. Standard errors are adjusted for heteroskedasticity and are clustered at the firm level. T-statistics are included in parentheses. \*\*\* denote statistical significance at the 1% level.

	(1)	(2)
Subsample based on:	Analyst f	following
	Low	High
Political Risk	0.009***	0.001
	(3.78)	(0.33)
Difference (High) - (Low)	***-(	0.008
Control Variables	Yes	Yes
Time × Industry Effects	Yes	Yes
Firm Fixed Effects	Yes	Yes
Adjusted R <sup>2</sup>	0.20	0.28
Observations	62,470	59,927

#### Table 12: Firm-level political risk and dividend payout—by firms' growth opportunities

Table 12 presents estimates from OLS baseline regression models explaining dividend payouts but applying them to subsamples classified according to firms' growth opportunities using the market-to-book ratio in Columns 1 and 2 and the sales growth rate in Columns 3 and 4. We classify firms into two subsamples, low and high, based on the median value of the measure used. The dependent variable is the dividend payout measured by dividend payout ratio and the variable of interest is *Political Risk*, which is firm-level political risk as defined by Hassan et al. (2019) and as explained in Section 3.1. All variables are as defined in the Appendix. We include all control variables in all models but do not report the coefficients for brevity. The inclusion of fixed effects is as indicated at the end of the table. Standard errors are adjusted for heteroskedasticity and are clustered at the firm level. T-statistics are included in parentheses. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	
Subsample based on:	Market	to Book	Sales Growth		
—	Low	High	Low	High	
Political Risk	0.004	0.005**	0.005*	0.006***	
	(1.39)	(2.00)	(1.86)	(2.71)	
Difference	0.001***		0.001***		
(High) - (Low)	0.00	1	0.001		
Control Variables	Yes	Yes	Yes	Yes	
Time × Industry Effects	Yes	Yes	Yes	Yes	
Firm Fixed Effects	Yes	Yes	Yes	Yes	
Adjusted R <sup>2</sup>	0.205	0.297	0.234	0.259	
Observations	66,940	66,979	66,989	66,930	

## Appendix: Variables definitions<sup>††</sup>

### **Dependent variables**

Dividend Payout: Total declared cash dividends divided by net income before extraordinary item.

Dividend Yield: Cash dividend per share divided by share price.

Ln (1 + Dividend): Natural logarithm value of 1+ total declared cash dividends.

*Dividend Dummy*: Binary variable that takes the value 1 if dividend is declared at the end of a given quarter, and 0 otherwise.

Dividend/Assets: Total declared cash dividends divided by book value of total assets.

Dividend/Sales: Total declared cash dividends divided by total net sales.

## Independent variables of interest

*Political Risk*: The proportion of quarterly earnings conference calls of individual firms devoted to political risks (Hassan et al., 2019).

*Political Risk - Economics*: The economic policy-specific component of political risk equals the proportion of quarterly earnings conference calls of individual firms devoted to economic policy-related political risk (Hassan et al., 2019).

*Political Risk - Environment*: The environment-specific component of political risk equals the proportion of quarterly earnings conference calls of individual firms devoted to environment-related political risk (Hassan et al., 2019).

*Political Risk - Trade*: The trade policy-specific component of political risk that equals the proportion of quarterly earnings conference calls of individual firms devoted to trade policy-related political risk (Hassan et al., 2019).

*Political Risk - Institutions*: The institutions and political process specific component of political risk that equals the proportion of quarterly earnings conference calls of individual firms devoted to the institutions and political process-related political risk (Hassan et al., 2019).

*Political Risk - Health*: The health policy-specific component of political risk equals the proportion of quarterly earnings conference calls of individual firms devoted to health care policy-related political risk (Hassan et al., 2019).

*Political Risk - Security*: The security and defense policy-specific component of political risk equals the proportion of quarterly earnings conference calls of individual firms devoted to security and defense policy-related political risk (Hassan et al., 2019).

*Political Risk - Tax*: The tax policy-specific component of political risk that equals the proportion of quarterly earnings conference calls of individual firms devoted to tax policy-related political risk (Hassan et al., 2019).

<sup>&</sup>lt;sup>++</sup> Unless explicitly mentioned otherwise, quarterly data is obtained from CRSP/Compustat Merged database for financial and accounting related variables and stock market related variables. Yearly data is retrieved from Boardex for corporate governance related variables.

*Political Risk - Technology*: The technology policy-specific component of political risk equals the proportion of quarterly earnings conference calls of individual firms devoted to technology and infrastructure policy-related political risk (Hassan et al., 2019).

*Economic Policy Uncertainty*: Natural logarithm of the average of the monthly policy uncertainty index over the quarter. Authors' calculation based on Baker et al., (2016).

## Firm financial variables

Firm Size: Natural logarithm of firm's total assets.

Leverage: Total debt divided by total assets.

*MTB*: Market value of a firm divided by its book value.

Cash/Total Assets: Total cash divided by its total assets.

*Cash Flow*: Sum of total income before extraordinary items and depreciation expense scaled by total assets.

Sales Growth: Quarterly sales growth rate.

ROA: Operating income before depreciation scaled by total assets.

*R&D Intensity*: Research and development expenditure scaled by total assets.

Capital Expenditure: Capital expenditures scaled by total assets.

Tangibility: Tangible assets (property, plant, and equipment) scaled by total assets.

*Z* score: Calculated as 1.2A + 1.4B + 3.3C + 0.6D + 1.0E, where:

A is the working capital divided by total assets

B is the retained earnings divided by total assets

C is the income before interest and tax divided by total assets

D is the market value of equity divided by total liabilities

ROA Volatility: The standard deviation of ROA over the previous four quarters.

## **Macroeconomic variables**

*Recession Dummy*: Binary variable that takes the value of 1 if the U.S. economy is undergoing a recession, and 0 otherwise, with the recession period considered the period of the 2008 financial crisis starting from Q1-2008 and ending at Q2-2009.

*Economic Conditions*: The Chicago Fed National Activity Index (CFNAI) equals the weighted average of 85 monthly indicators of national economic activity. A positive index value characterizes better economic conditions and corresponds to growth above the trend, while a negative index value characterizes poor economic conditions and corresponds to growth below the trend (Source: Federal Reserve Bank of Chicago).

## **Corporate governance variables**

Board Size: Total number of directors on the board.

CEO Duality: Binary variable that takes value 1 if CEO also chairs the board, and 0 otherwise.

Board Independence: The proportion of non-executive directors on the board.

Outside Directors: Total number of outside directors on the board.

Board Foreignness: The proportion of foreign directors on the board.

Board Gender Diversity: The proportion of female directors on the board.

Board Tenure: The average tenure length of the directors.

Female CEO: Binary variable that takes value 1 if firm's CEO is female, and 0 otherwise.