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Policy Uncertainty and the Dual Role of Corporate Political Strategies

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Abstract.

Firms use active political strategies not only to mitigate uncertainty emanating from legislative activity, but also to enhance their growth opportunities. We find that the impact of such policy uncertainty on systematic risk (beta) can be hedged away by employing various political strategies involving the presence of former politicians on corporate boards of directors, contributions to political campaigns, and corporate lobbying activities. In addition, we show that active political strategies can boost firms' growth opportunities; they are associated with greater firm heterogeneity and make real options more value-relevant as potential drivers of competitive advantages in uncertain environments.

JEL classification: G1, H1
Keywords: Policy risk; Political strategies; Political connections; Boards with ex-politicians; Campaign contributions; Lobbying activities.

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"This country has come to feel the same when Congress is in session as when the baby gets hold of a hammer."

-- *Will Rogers, New York Times,* July 5th, 1930.

1. Introduction

In spite of ample prior empirical findings that support the notion that corporate political strategies have value-relevance, there is very little direct evidence with regard to the underlying mechanism, which in the framework of a discounted cash flow valuation model could be a numerator- and/or a denominator effect. Essentially, corporate political strategies can reduce the impact of political uncertainty on systematic risk, thereby reducing the cost of capital and/or propel favorable changes in industry dynamics thus enhancing growth opportunities. The relative importance of these two effects has not been explicitly addressed at the firm level in prior studies.[1] We intent to fill this void in the literature by empirically investigating a) how corporate political strategies, political uncertainty, and their interactions affect firms' systematic risk, and b) whether corporate political strategies enhance the value-relevance of firms' real options, and if this effect is more pronounced when political uncertainty is high.

Political uncertainty can take many different forms. In this study we choose to focus on the type of uncertainty about future cash flows that emanates from legislative activity, i.e. policy

[1] Boutchkova *et al.* (2012) in a cross-country study examine how local and global political risks affect the systematic and unsystematic components of *industry* return volatility.

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uncertainty.[2] Policy uncertainty implies that there is a greater array of both threats and opportunities for affected firms (see, for example, Kim, Pantzalis and Park, 2012). We proxy policy uncertainty here by the number of bills that have the potential to affect a firm's future business landscape.

We account for three distinct types of corporate political strategies: Appointing ex-politicians on corporate boards, making political action committees (PACs) contributions, and lobbying. For each of these types of strategies we use several measures that have been previously used in the literature. In addition, we devise a composite measure of corporate political strategies, which we label Political Strategy Index (*PSI*). Our investigation spans 15 years, from 1994 to 2008, utilizing over 66,000 firm-year observations. Consistent with the notion that systematic risk is partly due to exposure to uncertainty emanating from legislative activity, we find that beta increases with the number of value-relevant bills introduced. This result is also in line with the findings of Boutchkova, Doshi, Durnev, and Molchanov (2012) who show that domestic political uncertainty is positively correlated with the systematic component of industries' return volatility. More importantly, we find that corporate political strategies are associated with lower betas, and that their presence weakens the impact of legislative activity on beta. Therefore, we argue that corporate political strategies appear to be effective tools in hedging the part of policy uncertainty that is embedded in systematic risk. Our beta regressions' results are also in line with the view that

[2] Malkiel (1979) first argued that Congressional activity as a proxy for regulatory uncertainty can hamper economic performance. He hypothesized that investors viewed greater Congressional activity as increasing regulatory uncertainty and that this greater uncertainty would be reflected in higher return volatility and lower returns. Ferguson and Witte (2006) provide support for this hypothesis by showing that stock returns are dramatically lower and volatility higher when Congress is in session. Moreover, they show that more than 90% of the capital gains over the life of the DJIA have come on days when Congress is out of session.

stocks by firms that have access to political intelligence have more market power and therefore covary less with the market.[3]

Contrary to the beta regressions findings, our political connection measures and their interactions with policy uncertainty are shown to be significantly and positively correlated with idiosyncratic risk. Given that idiosyncratic risk can arise from the way innovation affects the uncertainty of expected future profits (Shiller, 2000; Campbell *et al.*, 2001; Mazzucato and Tancioni, 2008), we interpret this result as suggesting that firms that have the means to mitigate political uncertainty are better at innovations (Ovtchinnikov, Reza and Wu, 2015). A potentially important aspect of innovation can be found in corporate political participation. The extraordinary growth of corporate lobbying and other forms of corporate political participation over the past few decades can be viewed as the result of a path-dependent learning process (Drutman, 2011). Companies may initially be reluctant to become politically active, but once they start doing so they can gain more confidence in their ability to not just protect themselves from government actions but also expand their growth opportunities in business environments increasingly affected by political uncertainty. Through their political activism firms can gather valuable political intelligence which allows them to gradually become more adept at dealing with political uncertainty and recognize how political participation can potentially influence outcomes and thereby generate value (Ovtchinnikov *et al.*, 2015).[4]

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[3] This inference relies on the assumption that monopolistic firms are also more likely to be users of capital intensive techniques and therefore can be associated with lower betas (see Subrahmanyam and Thomadakis (1980)). The widely-held view that connected firms possess "inside" political information while non-connected firms do not, is also supported by anecdotal evidence, such as the one from an article that appeared on Bloomberg Markets (http://www.bloomberg.com/news/articles/2011-11-29/how-henry-paulson-gave-hedge-funds-advance-word-of-2008-fannie-mae-rescue). The article describes that Hank Paulson, in a private meeting with big investors at Eton Park including several fellow Goldman Sachs alumni, revealed how he would nationalize Fannie and Freddie and wipe out shareholders, while at the same time telling the public—via the NY Times and Congress—that this was not going to happen.

[4] Ovtchinnikov *et al.* (2015) show that corporate political activism propels innovation because by acquiring relevant political intelligence it can lower political uncertainty.

Alternatively, our idiosyncratic risk findings could be viewed as in line with the argument made in Chun *et al*. (2008) that firm-specific performance heterogeneity (i.e., idiosyncratic risk) may be a "finer and more nuanced metric" of the intensity of creative destruction which economic growth theorists envision as the process wherein creative innovators dominate laggards. Thus, in a creative destruction framework (Chun *et al*., 2008; Chun, Kim and Morck, 2011)[5] it is possible that political connections are accentuating firm heterogeneity within industries, (consisting of a mix of early adopters of political strategies and laggards), making firms' portfolio of real options more value-relevant as potential drivers of competitive advantages in uncertain environments (Trigeorgis, 1996; Trigeorgis and Lambertides, 2014; McGrath, 1997; McGrath, Ferrier, and Mendelow, 2004).[6]

We show empirically that politically connected firms possess more value-relevant real options than non-connected firms. Specifically, we find that the stock returns of connected firms increase (decrease) more than those of non-connected firms when their stock return volatility increases (decreases). This effect is significantly more pronounced among firms operating in more uncertain policy environments, consistent with the notion that real options become more valuable in such environments because the connected firm is in a better position to exploit the extra managerial flexibility that comes with being connected.

To establish causality and account for endogeneity we examine whether the aforementioned effects change as predicted after exogenous shocks, proxied here by the cases of

[5] The results in Chun *et al.* (2008) support the notion that technological improvements can induce innovation across many industries, wherein some firms can end up as winners while others as losers, depending on how well they exploit opportunities. They view firm performance heterogeneity as a readily observable measure of ongoing creative destruction, the process which Schumpeter (1912) argues sustains economic growth.

[6] Of course, the competitive advantage requires that the value of the real options exceeds associated costs. Trigeorgis and Lambertides (2014) discuss how organizational implementation and realized option value systematically fall short of the theoretical value implied by real options theory.

politically connected board member's sudden death. Our results provide confirmation for the notion that causality runs from corporate strategies to risk and/or returns. We obtain similar results when we repeat our earlier tests using three different measures of corporate political strategies and alternative measures of policy uncertainty. Furthermore, our results are robust to the exclusion of low-priced (less than $5 per share) stocks and the use of weekly returns. Overall, our evidence supports the notion that corporate political strategies can both alleviate the impact of political uncertainty on systematic risk and serve as facilitators of competitive advantage in uncertain times.

The remainder of our paper proceeds as follows. The next section reviews related literature and constructs hypotheses. Section 3 describes the data selection process and key variables, and Section 4 discusses empirical results. Section 5 deals with a causality issue and Section 6 provides various robustness tests, followed by concluding remarks in Section 7.

2. Literature Review and Hypotheses Development

Prior studies have documented that political connections are value-relevant. However, there are conflicting views on how corporate political strategies affect future stock performance of connected firms. One stream of literature supports the *political capital view* that political connections enhance firm value through political rent-seeking behaviors by a connected firm (e.g., see Faccio (2006) and Goldman, Rocholl, and So (2009)). Additionally, political connections have been shown to help firms access cheaper financing through equity (Boubakri *et al.*, 2012), public debt (Bradley, Pantzalis, and Yuan, 2016), and bank loans (Claessens, Feijen, and Laeven, 2008; Houston *et al*., 2014), as well as through IPOs (Francis *et al*., 2009).[7]

[7] For other papers espousing the political capital view, see Robert (1990), Kroszner and Stratmann (1998), Fisman (2001), Sapienza (2004), Khwaja and Mian (2005), Faccio and Parsley (2009), Jayachandran (2006), Knight (2006), Goldman, Rocholl, and So (2013), Cooper, Gulen, and. Ovtchinnikov (2010), Hill *et al.* (2013), Yu and Yu (2011), Antia, Kim and Pantzalis (2013), and Chen, Parsley, and Yang (2014).

Although much of the literature supports the political capital view, there is also ample evidence (e.g., Aslan and Grinstein, 2011; Kusnadi and Wei, 2011; Chaney, Faccio, and Parsley, 2011; Kim and Zhang, 2016; Kim *et al.*, 2015; Chen, Ding, and Kim, 2010) that political connections can be associated with riskier corporate behavior and -in a sense- render firms distinct from their non-connected peers.[8] Furthermore, Aggarwal, Meschke, and Wang (2012) document that, in fact, contributing firms underperform non-contributing firms, because campaign donations are more likely a symptom of agency problems. Kang and Zhang (2015) uphold Aggarwal *et al.*'s (2012) findings by providing evidence in line with the view that politically connected directors are not as effective as other outside directors when monitoring and advising managers. In sum, this strand of the literature supports the view that complicated and opaque nature of political connection makes firms riskier with the higher levels of information asymmetry.[9]

Overall, the long list of papers documenting the value-relevance of political connections has still not provided exhaustive evidence on the specific channels through which connections can affect firm valuation. We intend to contribute to the literature by providing evidence the importance of the cost of capital and cash flow channels through which political connections can

[8] Aslan and Grinstein (2011) find that politically connected CEOs receive higher compensation packages than their non-connected peers. Kusnadi and Wei (2011) report in their cross-country study that politically connected firms hoard superfluous cash that subjects to more agency problems than non-connected firms. Chaney *et al*. (2011) in their cross-country study find that the quality of earnings reported by politically connected firms is significantly poorer than that of similar non-connected companies. Kim and Zhang (2016) find that politically connected firms are more tax aggressive than non-connected firms, suggesting more managerial rent diversion for connected firms (Desai and Dharmapala, 2006). Auditors charge higher audit fees to politically connected firms than to non-connected ones, especially when firms have weaker governance (Kim *et al*., 2015; Gul, 2006). These findings suggest that auditors exercise greater effort and charge higher fees to politically connected firms because they perceive connected firms as riskier. Chen *et al.* (2010) show that analyst forecasts are less accurate for politically connected firms than for non-connected firms, implying more exacerbated information asymmetry problems for politically connected firms. Political connections also affect corporate accruals management (see Ramanna and Roychowdhury, 2010; Jung, 2014).

[9] While Easley, Hvidkjaer, and O'Hara (2002) and Francis *et al*. (2005) argue that their evidence lends support to the notion that information risk is non-diversifiable, the literature has not adopted a consensus view on this topic with several papers arguing that information risk is not priced (e.g., see Core, Guay, and Verdi (2008), Duarte and Young (2009), and Mohanram and Rajgopal (2009)).

potentially affect valuation. Our first goal is to demonstrate that political connections can function as a hedging mechanism that can attenuate the effect of policy uncertainty on systematic risk.

Earlier studies (e.g., see Alesina and Rodrik (1994), Blomberg and Hess (2001), Fowler (2006), and Olters (2001), among many others) have provided theoretical arguments and confirming evidence that broad economic factors, like inflation and unemployment are affected by political developments. Several more recent studies explore whether policy uncertainty affects asset value. Sialm (2006, 2009) and Croce *et al*. (2012) investigate whether uncertainty about tax policy affects both bond and equity prices and report that it is indeed the case. Cohen, Coval, and Malloy (2011) examine the effect of uncertainty induced by "changes in congressional committee chairmanship" on economic activities including corporate investment, employment, and productivity. They show that following the appointment of a new chairman of a congressional committee, the politician's home state obtains additional federal outlays, government fund transfers, and government procurement contracts. This increase in available state funds discourages local corporate investment, employment, and productivity (i.e., government spending "crowds out" corporate economic activities). Belo, Gala, and Li (2013) argue that government policy is primarily shaped by the level of partisanship[10]. Cohen, Diether, and Malloy (2013) document that, after the passage of bills, firms headquartered in a legislator's home state experience positive abnormal returns. The phenomenon is more pronounced for an interested group, which comprises of firms belonging to a specific industry corresponding to each bill. Pastor and Veronesi (2012) theoretically analyze the impact of uncertainty about government policy on

[10] Belo *et al.* (2013) posit that, in general, a firm's exposure to government spending has no impact on stock returns. However, government policy implemented by different (Democratic or Republican) administrations does matter. Alesina (1987, 1988) provides the rational partisan model of a business cycle showing that fiscal policies differ by the government's type. Therefore, the impact of fiscal policies on the economy varies with the degree of uncertainty about upcoming election outcomes.

stock prices. A key feature of their model is dividing uncertainty arising from government policy into two parts: "political uncertainty" associated with changes in policy and "impact uncertainty" associated with the magnitude of the effect on stock price when a policy is implemented. They show that both types of uncertainty affect stock prices. Kim *et al.* (2012) develop a measure of uncertainty about future policies that varies across different areas of the U.S. political map. Their proxy for policy uncertainty is constructed after general elections held every two years in the U.S. using the degree of different state politicians' partisan alignment with the incumbent president (a measure they label as political alignment index, or *PAI*). Firms whose headquarters are located in high *PAI* areas experience higher positive abnormal returns than those located in low *PAI* areas in both time-series and cross-sectional tests, consistent with the notion that policy risk, as reflected in a dynamically changing political map, affects stock returns. Overall, regardless of which policy uncertainty proxy has been used, the notion that it has value implications has recently gained strong scholarly support.

This notion is also complemented by the evidence of studies examining how politics affects stock market volatility. Most of this evidence comes from studies examining country-wide effects of political uncertainty, either by focusing on a single country (Bailey and Chung, 1995; Füss and Bechtel, 2008; Leblang and Mukherjee, 2005; Herron, 2000) or in a cross-country setting (Bialkowski, Gottschalk, and Wisniewski, 2008; McGillivray, 2003). In a more recent study Boutchkova *et al*. (2012) focus on industries and demonstrate that some sectors are more susceptible to political uncertainty than others. Boutchkova *et al*. (2012) also show that industries that are sensitive to political factors are more volatile during periods of higher political uncertainty. Moreover, there is an asymmetric response of industries to political events. On one hand an increase in foreign political uncertainty affects idiosyncratic volatility but not systematic volatility.

On the other hand, increases in home-country political uncertainty have a greater effect on the systematic part of volatility rather than on its idiosyncratic part.

In contrast to the aforementioned studies, our empirical investigation is done at the firm level and entails testing whether corporate political strategies affect the impact of policy uncertainty on the systematic and unsystematic components of firm risk. Motivated by Cohen *et al.*'s (2011, 2013) work, we use the number of legislative bills that are linked to the industry where a firm belongs and that are introduced by state congressmen (either Senators or House Representatives) as a proxy for policy uncertainty. Given the legislature's ability to affect share prices through its policy actions (see Ferguson and Wittee (2006) or Pastor and Veronesi (2012)), we hypothesize that firms' exposure to policy uncertainty emanating from legislative activity will affect firms' systematic risk.[11] Moreover, if firms' political participation is motivated by gaining protection from government action (Drutman, 2011), corporate political strategies should alleviate the impact of exposure to policy uncertainty on systematic risk. Alternatively, since connected firms' access to political intelligence can reduce their political uncertainty (Ovtchinnikov *et al.*, 2015), it could also mitigate the effects of political uncertainty on systematic risk (Boutchkova *et al.*, 2012). To test the aforementioned hypotheses empirically, we set a regression as follows:

$$Beta_{i,t} = \beta_0 + \beta_1 Ln(Bills_{i,t}) + \beta_2 Political\ strategy_{i,t} + \beta_3 Ln(Bills_{i,t}) * Political\ strategy_{i,t} + \sum \beta X_{i,t} + \sum Year + \sum Industry + \varepsilon_{i,t}, \quad (1)$$

where *Beta* is systematic risk, computed from the market model using daily returns over the year. *Bills* equals the number of legislative bills linked to the industry where a firm belongs to and that are introduced/sponsored by either the home-state Senators or House Representatives. As mentioned before, we use *Bills* as a proxy for uncertainty about the impact of policy initiatives on

[11] Kim *et al.* (2012) show that changes in PAI are positively associated with changes in systematic risk (beta).

future cash flows, i.e. exposure to policy uncertainty. Boutchkova *et al*. (2012) show that domestic political uncertainty is positively related to systematic volatility; we therefore expect a positive β_1 coefficient. If corporate political strategies effectively increase firms market power, then they should be associated with lower betas (Subrahmanyam and Thomadakis (1980)) and β_2 should be negative. Further, a negative β_3 coefficient would lend support for the hypothesis that corporate political strategies can act as a hedging mechanism that can mitigate policy uncertainty's effects on systematic risk. In our robustness tests, we also use two alternative measures of policy uncertainty by decomposing *Bills* into the annual bills that are sponsored by the firm's home state politicians ($Bills^{loc}$) and the bills linked to the industry where a firm belongs to ($Bills^{ind}$). For corporate political strategies (*Political strategy*), we use several alternative measures pertaining to three such strategies: having former politicians on corporate boards, making PAC contributions, and lobbying. We include a set of control variables representing factors that past studies (e.g., see Hong and Sarkar (2007), Hamada (1972), Subramanyam and Thomadakis (1980) among others) have argued should be correlated with beta. Specifically the control variables are as follows. *Size* = market value of equity at the end of year *t*. *BM* = ratio of book-to-market value of equity. *Leverage* = total long-term debt divided by total assets. *ROA* = net income divided by total assets. *HHI* = Herfindahl index based on sales of the first three digits of SIC code. *Tangibility* = property, plant, and equipment divided by assets. *Firm age* = years since a firm is first listed in Compustat. Approximately, 22.9% of our sample firms are engaged in at least one of three political strategies (through directors, PACs, or lobbying).[12]

[12] These firms tend to be particularly large. In unreported robustness tests, and in order to ensure that our political strategy variables measure political connections independent of size, we use the size-orthogonal political strategy measures and repeat our empirical analyses. These orthogonal measures, i.e. the residuals obtained from regressing each political strategy variable on market capitalization, produce results that are in line with the ones based on the raw political strategies' measures we present in the paper. These results are available from the authors upon request.

We also argue that the interplay of policy uncertainty with political connections should be associated with greater levels of idiosyncratic volatility. This hypothesis is formed by combining two pieces of evidence: First, Mazzucato and Tancioni (2008) show that idiosyncratic volatility is higher in innovative industries and among firms characterized by greater uncertainty about their future earnings. In a similar vein, Shiller (2000) argues that idiosyncratic risk is much higher during periods of technological revolutions when investors are more likely to exhibit behavioral biases, and Campbell *et al.* (2001) argues that the steady increase in idiosyncratic risk since the 1960s can be partly attributed to the effect of the IT revolution. Second, Ovtchinnikov *et al.* (2015) show that politically active firms successfully time future legislation and set their innovation strategies in expectation of future legislative changes. Their findings support the notion that political activism can help reduce political uncertainty, which, in turn, fosters firm innovation. Thus, in the face of policy uncertainty, firms that adopt corporate political strategies should exhibit grater levels of idiosyncratic risk, ceteris paribus.

We proceed to test this by estimating the following model:

$$IV_{i,t} = \beta_0 + \beta_1 Ln(Bills_{i,t}) + \beta_2 Political\ strategy_{i,t} + \beta_3 Ln(Bills_{i,t}) * Political\ strategy_{i,t} + \sum \beta_t X_{i,t} + \sum Year + \sum Industry + \varepsilon_{i,t}, \quad (2)$$

where firm-specific performance heterogeneity is the dependent variable, *IV*, proxied by the relative idiosyncratic risk, computed as $Ln[(1-R^2)/R^2]$. R^2 is calculated from the market model of daily returns over the calendar year. The aforementioned hypothesis implies that the coefficient β_3 should be positive. Furthermore, if the adoption of corporate political strategies can cause

industries to experience creative destruction-like effects and greater levels of firm heterogeneity, then we expect a positive coefficient β_2.[13]

Our next goal is to demonstrate whether or not political connections can also function as a source of growth opportunities. Trigeorgis (1993) provides examples of real options and points to the managers' ability to defer, expand, contract, abandon, or otherwise alter a project at different stages during its useful operating life. We argue that the size of a firm's real options portfolio should expand as the firm becomes more politically active. In addition, political connections should allow managers more flexibility in reacting to changes in the environment the firm operates in. Essentially, we view corporate political strategies as an intangible-type asset, a source of political intelligence that should enhance management's ability to better time its responses to political developments. This effect should be particularly valuable when firms face high levels of uncertainty. Thus, we posit that corporate political strategies can boost growth opportunities by serving as a facilitator of valuable real options.[14]

In order to assess whether corporate political strategies are associated with valuable real options at the firm-specific level, we utilize a well-established fact from the option literature. Specifically, we exploit the fact that because of their asymmetric payoff profile options have

[13] Chun *et al.* (2011) show that firms in U.S. industries that experienced a propagation of a new "general purpose technology" (GPT) would be characterized by higher levels of firm-specific heterogeneity, reflected in higher firm-specific volatility. They test and find support for the argument that high idiosyncratic volatility reflects a wave of IT-driven creative destruction (Schumpeter, 1912) that exacerbates the range between those who adopted IT optimally (winners) and those that did not (losers). Although corporate political strategies cannot be regarded as GPTs per se, their rate of implementation and their importance for firms' ability to grow has increased tremendously over the past 30 years (Drutman, 2011). Thus, it is conceivable that industries may be experiencing creative destruction-like effects emanating from corporate political strategies. In this context, the emergence of corporate political strategies should be accompanied by a rise in firm-specific heterogeneity, with a wider gap between firms with investment in political capital and firms with no such investment in connectedness.

[14] For example, the political connections can allow firms to better assess whether the advantages outweigh the costs associated with being a "first mover" into a new market or with respect to a new opportunity that may arise from resolution of political uncertainty. Lieberman and Montgomery (1988) identify first-mover advantages (e.g. technological leadership, preemption of rivals, and the imposition of switching costs on buyers) and disadvantages (the ability of rivals to free ride on pioneers, the resolution in the market of technological or market uncertainty, and technological discontinuities that make early investments obsolete).

valuations that are strictly increasing in the volatility of the underlying asset. Thus, if a connected firm holds more real options than a comparable non-connected firm, it must be the case that the value of the connected firm increases (decreases) more than the value of non-connected firm when volatility increases (decreases).

Grullon *et al*. (2012) hypothesize and show that the positive relation between firm-level stock returns and firm-level stock return volatility documented in Duffee (1995) can be driven by firms' real options. Grullon *et al*. (2012) argue that when firms possess the managerial flexibility in terms of ability to change operating and investment decisions so as to assuage the effects of bad outcomes (i.e., reducing the downside) and magnify the effects of good outcomes (i.e., expanding investments and productions), their value increases (decreases) when the volatility of underlying business processes increases (decreases). They find strong empirical support for this notion; firms with abundant investment opportunities (small firms, young firms, R&D firms, and high growth firms) and high operational flexibility (firms in non-unionized industries, and firms with high earnings and sales convexity), have a stronger positive relationship between firm stock returns and changes in firm stock volatility[15] than firms with less investment opportunities and less operational flexibility.

We measure firm *i*'s volatility during month *t* as the standard deviation of the firm's daily returns during month *t*.

[15] Two notes in this regard: First, the use of stock return volatility as a proxy for the underlying business volatility is in line with Leahy and Whited (1996) who argue that stock price returns capture the effects of any aspect of a firm's environment that investors deem important. Measuring underlying business volatility directly would face problems in terms of identifying the most important sources of uncertainty and not least measuring such uncertainty. Second, stock return volatility measures equity risk and not overall firm risk. However, a stock is an option on the firm's assets and as such its value is sensitive to the volatility of the underlying asset. This justifies the use of stock return volatility as a proxy for the volatility of the value of the firm (e.g. Bulan (2005)).

$$Volatility_{i,t} = \sqrt{\frac{\sum_{\tau \in t}\left(R_{i,t,\tau} - \overline{R_{i,t}}\right)^2}{n_t - 1}}, \quad (3)$$

Where, $R_{i,t,\tau}$ is the firm i's excess return ($r_{i,t,\tau} - r_{f,t,\tau}$) on day τ in month t and n_t is the number of trading days in month t. $\overline{R_{i,t}}$ is the mean excess return of the firm i in month t.[16] Then, we estimate the following Fama-MacBeth cross-sectional regression, which is similar to the models found in Grullon et al. (2012):

$$R_{i,t} = \beta_0 + \beta_1 \Delta Volatility_{i,t} + \beta_2 \, Political\ strategy_{i,t}$$
$$+ \beta_3 \Delta Volatility_{i,t} * Political\ strategy_{i,t} + \sum \beta_t X_{i,t} + \varepsilon_{i,t}, \quad (4)$$

where, $R_{i,t}$ is the firm i's stock excess return in month t, $\Delta Volatility_{i,t}$ is the month-to-month change in the volatility of the stock's daily excess returns, and $X_{i,t}$ indicates controlling variables.

Our empirical specifications include controls for firm characteristics such as beta, log-transformed book-to-market ratio, log-transformed market value of equity, volume and past returns. If corporate political strategies provide the firm with growth opportunities that enhance firm's flexibility (real options), we expect to find a positive and significant coefficient on the interaction term, β_3.

We will perform the above tests using several alternative measures of corporate political strategies (*PS*) and for subsamples formed after sorting on alternative measures of policy uncertainty measured at the industry- and state-levels.[17]

[16] We use the capital *R* for the excess return to differentiate from the raw return, *r*.

[17] Specifically, we measure policy uncertainty based on i) the number of congressional bills related to the industry where a firm belongs to, ii) the number of bills drafted and introduced in Congress by local (i.e. from the state the firm headquarters is located) congressmen, or iii) the number of congressional bills that are related to the industry where a firm belongs to *and* that are drafted and introduced in Congress by local congressmen of a firm. Information on each congressional bill will be collected from the Congressional Bills Project (http://www.congressionalbills.org/index.html).

3. Data Selection and Variable Description

An important contribution of our paper is that it provides evidence from a large, comprehensive political connections' dataset. We construct a fairly large and diverse set of political variables at the firm- and state-levels and utilize them in our investigation of political connection and its effects on stock returns. We will introduce them with detailed information on data sources and constructions in the following sub-sections.

3.1. Directors' political experience

To identify political connections that are based on the composition of a firm's board of directors, we use the EDGAR database and search Form 10-K filings reported in the U.S. Securities and Exchange Commission[18] for board information including firm's name, filing dates, types of filing, central index key (CIK), and every director's name and his/her short biography. While we are able to tell a director's political experience by reading his/her individual biography, we also account for the many cases where the biographical information is either missing or incomplete. Thus, we collect lists of the U.S. politicians[19] from various sources[20], which provide information on a politician's former or incumbent political position, party affiliation, years taking on the position and resigning from the position. We then use the politicians' names from our lists of the

[18] The master file can be downloaded from the website (ftp://ftp.sec.gov/edgar/full-index/). This file contains the URL of filings reported in the SEC website.

[19] Lists cover historical information on the U.S. president, vice President, and candidates, secretaries of departments (e.g., Secretaries of State, Treasury, and Defense etc.), governors, Senators and House representatives, Attorney Generals, White House Executives, SEC commissioners, ambassadors, as well as assistant and deputy secretaries of all departments.

[20] Some of the references and sources that we used are as follows: for the U.S. President (http://en.wikipedia.org/wiki/President_of_the_United_States); for the U.S. House of Representatives (http://www.house.gov/); for the U.S. Senators (http://www.senate.gov/); for the secretaries of departments (e.g., secretary of Defense (http://en.wikipedia.org/wiki/United_States_Secretary_of_Defense) and secretary of the Treasury (http://en.wikipedia.org/wiki/United_States_Secretary_of_the_Treasury), etc.

U.S. politicians to link them with the board of directors' information extracted from EDGAR. This procedure enables us to construct a rich dataset that measures various ways a firm's board can provide the firm with political connectedness.[21]

As in Houston *et al.* (2014) and Kim and Zhang (2016), we use three main political connection measures that are continuous variables as opposed to discrete, using corporate board information: the number of politically connected directors, a board's political experience, i.e. the average tenure of past political activities of a board of directors, and political freshness measured by the elapse period from the year a connected director left politics to the year he/she serves as a corporate director. These variables are intended to capture the degree and nature of the board's connectedness.[22] Further detailed definitions of variables are reported in Appendix 2.

3.2. Corporate political contributions and lobbying expenditures

We also devise measures of alternative corporate political strategies based on two types of politics-related corporate expenditures that are publicly available: corporate contributions to U.S. political campaigns and lobbying expenditures. We extract the corporate contributions data from the Federal Election Commission (FEC) summary files on political contributions to U.S. House and Senate election campaigns. Following Cooper *et al.* (2010), we construct four different measures of political connectedness using corporate political contributions: 1) *N. of supported candidates* measured by the number of politicians running for office supported by the firm; 2)

[21] A popular data source for directors' background information is BoardEx. However, we have some concerns about BoardEx data coverage. BoardEx began to cover only the S&P1500 firms and their board members from 1999 to the early 2000s. Information on companies' senior level directors has been included in BoardEx data since 2006. In 2008, BoardEx has extended its coverage beyond the S&P1500, but it does not backfill data.

[22] Since, our measures of board connectedness require that connected directors' political party be the same as the incumbent President's party, they are somewhat more narrowly-defined than those used in other studies (e.g., Goldman et al. (2009), Kim and Zhang (2016), Faccio (2006), and others).

Strength of relationships measured by the total length of relationships between the firm and the candidates; 3) *Supported candidates' ability* measured by the home state of the firm and the candidate; and 4) *Supported candidates' power* measured by the candidate's committee ranking.

We collect corporate lobbying expenditures for the years from 1998 to 2008 from the OpenSecrets website (http://www.opensecrets.org), which keeps track of the influence of money on U.S. elections and public policy. After passage of the Lobbying Disclosure Act of 1995, the Secretary of the Senate and the Clerk of the House of Representatives are required to disclose lobbying-related information, verify its accuracy, and compile lobbying data. Data includes filing dates for lobbying activities, lobbying amounts, registrant name and address, client's name, as well as the address and industry classification related to a bill involving lobbying by a firm. For instance, 3M Co. filed its year-end report on March 07, 2002 that accounts for lobbying activities over the period from January 1st, 2001 through December 31st, 2001. The company's total lobbying expenditures were $877,100 spent on 27 different industry-specific bills. Since the data does not allow us to track how much money has been spent on a specific bill, we can only measure aggregate *corporate lobbying expenditures* by adding up all reported expenses by firm and year.

3.3. Policy uncertainty

Recent studies (e.g., Kim *et al*. (2012), Cohen, Diether, and Malloy (2013) and Cohen *et al.* (2011)) show that a major source of policy risk is uncertainty surrounding legislative activity. A widely shared popular view is that congressional activity interferes with markets and injects uncertainty about the future. Will Rogers, an American humorist and entertainer, first popularized this view in a July 5th, 1930, New York Times article where he wrote that "this country has come to feel the same when Congress is in session as when the baby gets hold of a hammer." This notion

has also found empirical support in studies that examined the relation of the congressional calendar with market returns (Lamb *et al.* (1997), Ferguson and Witte (2006)). We argue that legislators often draft, sponsor and/or amend bills with an eye on firms located in the geographic area that constitutes their political home, and especially those firms with whom they are connected (see, e.g., Roberts (1990) and Jayachandran (2006)). Such legislative activity creates uncertainty regarding the redistribution of future growth opportunities among firms within an industry and/or a state and can generate the perception of higher risk among investors (Kim *et al*., 2012).

In sum, we expect that policy uncertainty arises from high levels of legislative activity. However, unless they are intended to produce economy-wide effects, typically bills tend to have either a specific industry focus or to be targeting a specific geographic area and promote a specific policy. Thus, we do not expect that all legislative activities are equally important in terms of injecting uncertainty regarding future cash flows of a particular firm. We therefore utilize three measures: i) number of bills related to the industry where a firm belongs to (hereafter $Bills^{ind}$), ii) number of bills drafted by local congressmen (hereafter $Bills^{loc}$), and iii) number of bills related to the industry where a firm belongs to and that are introduced by local politicians (hereafter *Bills*). We trace the information on each congressional bill[23], and link bills to one of 49 industries based on the bill's subject categorization developed by the library of the congress and the Fama-French classification. The detailed mapping is available in Appendix 1. The higher the number of $Bills^{ind}$, $Bills^{loc}$, and *Bills*, the greater the level of legislative activity-induced uncertainty will surround firms.

3.4. Descriptive statistics

[23] Bills are obtained from the Congressional Bills Project (http://www.congressionalbills.org/index.html).

Table 1 presents the descriptive statistics of the sample that includes 66,059 firm-years over the period from 1994 to 2008. On average, about 68 bills sponsored by local politicians and 124 industry-related bills are drafted each year in the Congress, yet approximately only 5.68 of them are both industry-related and introduced by the local politicians. In our sample, 10.7% of firms have politically connected boards, 11.4% of firms make PAC contributions, and 15.9 % of firms engage in lobbying. Overall, as reported by *PSIdum*, 22.9% of our sample engages in at least one of the three political strategies in a given calendar year. In addition, the median market value of equity is 181 million dollars with a median book-to-market ratio of 0.506.

********** Insert Table 1 here **********

4. Results

4.1. Political strategy and firm's systematic risk

We start our empirical tests by examining the relationship between firm's political strategy and the systematic portion of its risk (*Beta*). In the cross-sectional tests presented in Table 2, we regress firm's beta on the policy uncertainty measure (*Ln(Bills)*), the political strategy index (*PSI*), and their interaction along with other control variables.

Model (1) provides direct evidence on how uncertainty about the impact of new policies manifests itself in firms' systematic risk. Specifically, we show that in the cross-section of firms greater policy uncertainty is associated with larger betas, a result consistent with the evidence in Boutchkova *et al.* (2012) that the systematic component of return volatility increases in domestic political uncertainty. In Model (2) we find that political connections are negatively correlated with

firm's beta.[24] The relationships of bills and political connections to beta are not altered when they are both included in Model (3), suggesting that these two effects are not subsuming each other. Our main focus is whether political connections play an important role in reducing the impact of policy uncertainty on systematic risk. To address this issue, we add the interaction term between *Ln(Bills)* and *PSI* to the regression model.

In Model (4), the coefficient of the interaction term is -0.0755 and significant, which implies that an increase by one standard deviation (0.226) in *PSI* washes away almost the whole impact of policy uncertainty on systematic risk (0.0041=0.0212-0.0755*0.226) and renders it insignificant.

********** Insert Table 2 here **********

In Table 2, we produced evidence based on *PSI*, an aggregated index of different political connections. Indeed, only 22.9% of firms employ at least one of the three previously mentioned individual corporate political strategies. In the following tests presented in Tables 3, however we separately explore the effectiveness of each political strategy as a hedging mechanism that can mitigate the impact of policy uncertainty on systematic risk.

First, we consider directors' political ties. As previously mentioned in Section 3.1, we construct four distinct measures to calibrate the degree and nature of corporate board political connectedness: *N. of connected directors*, *Board's political experience,* and *Board's political freshness*, and a composite measure, the *B-index*, which combines the yearly ranks of all three aforementioned variables. Next, we turn our focus on corporate contributions to PACs. The literature has provided evidence that firms benefit from maintaining ties to politicians through

[24] The coefficient of -0.2224 indicates that a change in *PSI* by 0.226 (equal to one standard deviation of *PSI*, as reported in Table 1) is associated with a decrease in beta by 0.05.

campaign contributions' programs (Cooper *et al.*, 2010; Jayachandran, 2006; Knight, 2006; Roberts, 1990; Shon, 2006). In a similar vein with the *B-index*, we create the *P-index* value using the ranks of the four measures of corporate political contributions developed by Cooper *et al.* (2010): 1) *N. of supported candidates*, 2) *strength of relationships*, 3) *supported candidates' ability*, and 4) *supported candidates' power*.[25] The earlier political economy literature's focus on political connections through corporate PAC contributions can be primarily attributed to the public availability of PAC donations data. In recent years there has been increasing attention on corporate lobbying activities. Some recent studies document that lobbying firms do better than non-lobbying firms in terms of both operating performance (Chen *et al.*, 2015) and stock performance (Hill *et al.*, 2013). To measure a firm's lobbying engagement, we create the *L-index*, using the rank of corporate lobbying expenditures. The detailed definitions of all aforementioned political connections' variables are included in Appendix 2.

We regress firm beta on the *B-index*, *P-index* and *L-index* respectively, and report the results in Table 3. Consistent with the *PSI*-based findings in the previous table we document significant negative relationships between all three measures and firm risk (see Models (1), (3), and (5)). The coefficients of the connectedness measures' interactions with the number of newly introduced relevant bills are negative and significant at conventional levels in all three regressions (see Models (2), (4), and (6)), indicating that each political strategy is an effective hedging mechanism that can alleviate the impact of policy uncertainty on systematic risk.

********** Insert Table 3 here **********

4.2. Political strategy and firm's idiosyncratic risk

[25] Refer to Cooper *et al.* (2010) for the detailed descriptions and computations of these four measures.

The previous sub-section shows that policy uncertainty's effects on firm's systematic risk can be alleviated by implementing various corporate political strategies. Next, we investigate whether these corporate political strategies and policy uncertainty also affect firm-specific risk. We define idiosyncratic volatility (*IV*) as $Ln[(1-R^2)/ R^2]$, where R^2 is calculated from the market model of daily returns over the calendar year. We regress IV_t on all individual political strategy variables introduced before, as well as policy uncertainty, their interactions, and the set of control variables introduced in the previous table.

Having confirmed that all tests with individual measures generally hold, Table 4 only presents the results with the indices in order to preserve space. Consistent with the findings of Boutchkova et al (2012), policy uncertainty does not significantly affect firm-specific risk. Politically active firms are associated with higher idiosyncratic volatility (*IV*), consistent with the notion that access to political intelligence is related with greater firm-specific performance heterogeneity.[26] Interestingly, the significant interaction terms imply that the aforementioned effect gets stronger with policy uncertainty. Model (2) shows that the magnitude of the effect on firm's idiosyncratic volatility generated by corporate political strategies (*PSI*) is about 48 times larger ((0.1448+58.558*0.1162)/0.1448) when the number of newly introduced bills increases by one standard deviation. We interpret the results presented in the last three tables (Tables 2, 3, and 4) as evidence that political connections can entail a shift of the firm's risk landscape from systematic to firm-specific risk.

********** Insert Table 4 here **********

[26] This in turn is consistent with political intelligence, emanating from the connections provided by corporate political strategies, playing a role in corporate innovation. Specifically, firms' ability to exploit opportunities hinges on how well it political intelligence is employed. Thus, in a creative destruction framework (Chun et al., 2008; Chun et al., 2011) the proliferation of political intelligence across each industry should be manifested in higher firm-specific heterogeneity (*IV*).

4.3. Political strategy and real options

In the previous test, we show that politically connected firms coping with policy uncertainty become more idiosyncratic. We now argue that corporate political strategies can serve as facilitators of valuable real options. In a sense, we posit that political connections accentuating firm heterogeneity can also increase the value relevance of firm's portfolio of real options. Such real options can become potential drivers of competitive advantages in uncertain environments (Trigeorgis, 1996; Trigeorgis and Lambertides, 2014; McGrath, 1997; McGrath *et al.*, 2004) because political connections can yield intelligence that enhances firm's operating flexibility.

We employ the method of Grullon *et al*. (2012) who hypothesize and show that a positive relation between firm stock returns and changes in firm stock volatility is due to firms' real options.[27] In Table 5 we estimate Fama-MacBeth cross-sectional regressions of firm's excess return on the change in volatility, political connection measures, the interacted terms between the change in volatility and political connection measures, and other controlling variables. In Model (1) we confirm that the evidence of Grullon *et al*. (2012) by showing that the change in volatility is positively and significantly related to excess return. In Model (2) we show a positive relation between political connections and excess returns, consistent with evidence in the prior literature (e.g., Cooper *et al*., 2010). Model (3) includes the political strategy's interaction with changes in volatility. Our focus is on this interaction term, which displays a positive and significant coefficient.

[27] They provide strong empirical support for the argument that, because firms can change their operating and investment decisions in a way that both mitigates the effects of bad news (reducing the downside) and amplifies the effects of good news (making the best case even better), the value of a firm should increase (decrease) when the volatility of underlying business processes increases (decreases). Specifically, they document that firms with abundant investment opportunities and high operational flexibility have a stronger positive relationship between firm stock returns and changes in firm stock volatility than firms with less investment opportunities and less operational flexibility.

A one standard deviation increase in *PSI* (0.226) is associated with a 19.2% ((1.008*0.226)/1.187) increase in the return's sensitivity to changes in volatility. This result implies that political strategies can boost the value-relevance of the firm's real options.

********** Insert Table 5 here **********

We also examine whether the aforementioned effects become more pronounced in uncertain policy environments. We use the number of recently introduced relevant bills (*Bills*) to gauge the level of uncertainty. To see if value-relevance of real options changes with the level of uncertainty emanating from legislative activity, we construct two sub-samples by classifying firms into low- and high policy uncertainty groups depending on whether they rank in the top or bottom tercile of *Bills*, respectively.

We then replicate the regression models that include political strategy, changes in stock return volatility and their interactions, as first shown in Table 5, for the two groups and report the results in Table 6. The real option effect remains always significant for both the High *Bills* group, i.e. when policy uncertainty is high, and the Low *Bills* subsample, i.e. when policy uncertainty is low. However, the effect is stronger in the high *Bills* subsample with difference between the interaction coefficients from the High and Low *Bills* groups' regressions significant in two out of four cases, i.e. in the *PSI* and the *P-Index* models. Thus it seems that the degree to which political connections boost the value-relevance of real options is marginally different between periods of high and low legislative activity.

********** Insert Table 6 here **********

5. Causality

The evidence produced from regressing risk measures on contemporaneous variables of policy risk and political strategies, cannot firmly establish a causal relationship.[28] Responding to this concern, this section demonstrates the mechanism of political hedging strategies in a dynamic test setting. To operationalize this, we consider political events that could significantly change the impact of firm's political strategies on stock returns and the value of real options. Such events should be random and not endogenously determined. We argue that ex-politicians' sudden deaths that effectively reduce a board's connectedness can meet this requirement. We define *Sudden death* as a variable that assign a value of 1 for the years after an ex-politician on the board suddenly dies, and 0 for years before the death.

We revisit our main tests by considering this exogenous shock. Since this event is directly related to a sudden change in the degree of political connectedness provided through the corporate board, we conduct the test with the *B-index* that, as described before, combines the yearly ranks of *N. of connected directors*, *Board's political experience*, and *Board's political freshness*.

In Panel A of Table 7, we estimate systematic risk and unsystematic risk in Model (1) and Model (2), respectively. Overall, the results from estimating Model (1) are consistent with those found in Table 3. The interaction between policy risk and *B-index* is negative, implying that political strategy via ex-politicians is an effective hedging mechanism that can reduce the impact of policy uncertainty on systematic risk. The positive and significant coefficient of the triple interaction ($Ln(Bills_t)$ × *Sudden death* × $B\text{-}index^{res}$) suggests that a firm's ability to hedge against the impact of policy uncertainty on systematic risk is substantially weakened after the sudden death of an ex-politician serving on the board. In Model (2), we also confirm that an exogenous

[28] We also run tests using lagged independent variables and got consistent results. These are available from the authors upon request.

blow to the board's connectedness reduces the IV impact of the interaction between political strategies and policy uncertainty. In effect, this implies that active corporate political strategies boost firm heterogeneity.

Panel B examines the value of real options. Consistent with the findings in Table 5, results show that the board-based political connection works as stimulator of real options. This positive effect is generally weaker after the sudden death of an ex-politician member of the board of directors. This reduction in the value-relevance of real options after the exogenous decrease in the political connectedness of the board, is however significant only for high levels of policy uncertainty. This evidence, once again, supports the notion that causality runs from corporate political strategies to risk and growth opportunities.

********** Insert Table 7 here **********

6. Robustness

6.1. Alternative measures of policy uncertainty

In this section, we construct two alternative policy uncertainty measures as a robustness check. The main variable used to proxy for policy risk is the number of bills linked to the industry where a firm belongs to and that are introduced by either home-state Senators or home-state House Representatives. We decompose it into two broader measures: the bills that are sponsored by the firm's home state politicians ($Bills^{loc}$), and the bills that are targeting the firm's industry ($Bills^{ind}$). More specifically, $Bills^{loc}$ is the annual number of bills introduced by either the home-state Senators or House Representatives, while $Bills^{ind}$ is the annual number of bills linked to the industry where a firm belongs to.

The results based on these aforementioned alternative, broader policy uncertainty measures are shown in Table 8. Although not all regressions produce the same patterns and significance levels, we find that the results are generally similar to the findings in the previous tables. As in our prior tests, the interaction terms between political strategy variables and policy risk have negative coefficients in Panel A where we repeat the test of corporate political strategies as hedging mechanisms. The real option tests in Panel B also yield results similar to those from our prior tests.

********** Insert Table 8 here **********

6.2. Other robustness checks

We also conduct various other robustness tests. First, we check if our findings are driven by micro-cap stocks. Following prior research (e.g., Cohen and Lou (2012)) we exclude from our sample those stocks that are priced below $5 a share. Second, we recognize that the use of daily returns to calculate beta in our main tests may be problematic because missing observations from non-trading occurrences could affect beta estimates (Conrad and Kaul, 1988). Accordingly, Conrad and Kaul (1998) choose weekly data as a compromise solution to the twin problems associated with the relatively low number of monthly observations, and non-trading occurrences in daily data. Therefore, we calculate beta using weekly returns over the calendar year. Third, we exclude any financial and utility firms, and retest the model.[29] Finally, we construct a narrower sample by requiring the matching of bills with industries, which results in loss of about 46% of observations in the tests.

As presented in Table 9, the results are qualitatively similar to those obtained in our previous tables. For the sake of brevity, we only report the results using the aggregated political

[29] It should be noted that our board connections dataset does not contain any financials and utilities either.

strategy index (*PSI*). However, we also find similar evidence using the different, individual corporate political strategies measures.

********** Insert Table 9 here **********

7. Conclusions

The fast-growing literature on the links between politics and financial markets contains a bulk of evidence that political connections add value to firms. Yet, to date there has been no study that examines the risk and growth opportunities implications of this relation. Essentially, if political strategies add value they may be either reducing cost of capital (*hedging* mechanism) or boosting future cash flow expectations (*growth opportunities* mechanism).

We fill this gap in the literature by first examining the systematic risk impact of the interaction of policy uncertainty induced by politicians' legislative activities and multi-dimensional corporate political strategies involving making contributions to political campaigns, adding ex-politicians to their boards of directors, and incurring expenditures on lobbying activities. We unveil that all of the three aforementioned political strategies, individually and collectively, can serve as effective hedging mechanisms that can mitigate the impact of policy uncertainty on systematic risk. We show that an increase by one standard deviation in our political strategies index measure (*PSI*) washes away all of the systematic risk impact emanating from uncertainty firms face when bills relevant to their business are introduced.

Interestingly, we find that firms with political connections actually experience a partial shift of the systematic portion of their risk to the firm-specific portion. The magnitude of effects on firm's idiosyncratic volatility generated by a firm's political connectedness is about 48 times larger when policy uncertainty strengthens by one standard deviation. We also demonstrate that in

addition to accentuating firm heterogeneity, political connectedness renders firms' portfolio of real options more value-relevant. These findings are consistent with the notion that political intelligence obtained via various corporate political activities can improve firms' operating flexibility and act as a potential driver of competitive advantages in uncertain environments.

Overall, the results from our various tests are consistent with the notion that corporate political activities have a dual role. On one hand, they can be employed as hedging tools that can potentially reduce cost of capital. On the other hand, corporate political activities can also boost firms' growth opportunities and future cash flow expectations.

References

Aggarwal, Rajesh K., Felix Meschke, and Tracy Yue Wang, 2012, Corporate political donations: Investment or agency? *Business and Politics* 14 (1), Article 3.

Alesina, Alberto, 1987, Macroeconomic policy in a two-party system as a repeated game, *Quarterly Journal of Economics* 102, 651-678.

Alesina, Alberto, 1988, Credibility and policy convergence in a two-party system with rational voters, *American Economic Review* 78, 796-805.

Alesina, Alberto and Dani Rodrik, 1994. Distributive politics and economic growth. *Quarterly Journal of Economics* 109, 465-490.

Antia, Murad, Incheol Kim, and Christos Pantzalis, 2013, Political geography and corporate political strategy, *Journal of Corporate Finance* 22, 361-374.

Aslan, Hadiye and Yaniv Grinstein, 2011, Political contributions and CEO Pay, *American Finance Association 2011 Denver Meetings Paper*, Available at SSRN: http://ssrn.com/abstract=1570175.

Bailey, Warren and Y. Peter Chung, 1995. Exchange rate fluctuations, political risk, and stock returns: Some evidence from an emerging market. *Journal of Financial and Quantitative Analysis* 30, 541-561.

Belo, Frederico, Vito D. Gala, and Jun Li, 2013, Government spending, political cycles and the cross section of stock returns, *Journal of Financial Economics* 107, 305-324.

Bialkowski, Jedrzej, Katrin Gottschalk, and Tomasz Piotr Wisniewski, 2008. Stock market volatility around national elections. *Journal of Banking and Finance* 32, 1941-1953.

Blomberg, Stephen and Gregory Hess, 2001. Is the political business cycle for real? Journal of Public Economics 87, 1091-1121.

Boubakri, Narjess, Omrane Guedhami, Dev Mishra, and Walid Saffar, 2012, Political connections and the cost of equity capital, *Journal of Corporate Finance* 18, 541-559.

Boutchkova, Maria, Hitesh Doshi, Art Durnev, and Alexander Molchanov, 2012, Precarious politics and return volatility, *Review of Financial Studies* 25, 1111-1154.

Bradley, Daniel J., Christos Pantzalis, and Xiaojing Yuan., 2016, Policy risk, corporate political strategies, and the cost of debt*Journal of Corporate Finance*, forthcoming.

Bulan, Laarni T., 2005, Real options, irreversible investment and firm uncertainty: New evidence from u.S. Firms, *Review of Financial Economics* 14, 255-279.

Campbell, John Y., Martin Lettau, Burton G. Malkiel, and Yexiao Xu, 2001, Have individual stocks become more volatile? An empirical exploration of idiosyncratic risk, *Journal of Finance* 56, 1-43.

Chaney, Paul K., Mara Faccio, and David Parsley, 2011, The quality of accounting information in politically connected firms, *Journal of Accounting and Economics* 51, 58-76.

Chen, Charles J. P., Yuan Ding, and Chansog (Francis) Kim, 2010, High-level politically connected firms, corruption, and analyst forecast accuracy around the world, *Journal of International Business Studies* 41, 1505-1524.

Chen, Hui, David C. Parsley, and Ya-wen Yang, 2015, Corporate lobbying and firm performance, *Journal of Business Finance and Accounting* 42, 444-481.

Chun, Hyunbae, Jung-Wook Kim, Randall Morck, and Bernard Yeung, 2008, Creative destruction and firm-specific performance heterogeneity, *Journal of Financial Economics* 89, 109-135.

Chun, Hyunbae, Jung-Wook Kim, and Randall Morck, 2011, Varying heterogeneity among U.S. Firms: Facts and implications, *Review of Economics and Statistics* 93, 1034-1052.

Claessens, Stijn, Erik Feijen, and Luc Laeven, 2008, Political connections and preferential access to finance: The role of campaign contributions, *Journal of Financial Economics* 88, 554-580.

Cohen, Lauren, Joshua Coval, and Christopher Malloy, 2011, Do powerful politicians cause corporate downsizing? *Journal of Political Economy* 119, 1015-1060.

Cohen, Lauren, Karl Diether, and Christopher Malloy, 2013, Legislating stock prices, *Journal of Financial Economics* 110, 574-595.

Cohen, Lauren, and Dong Lou, 2012, Complicated firms, *Journal of Financial Economics* 104, 383-400.

Conrad, J, and G Kaul, 1998, An anatomy of trading strategies, *Review of Financial Studies* 11, 489-519.

Cooper, Michael J., Huseyin Gulen, and Alexei V. Ovtchinnikov, 2010, Corporate political contributions and stock returns, *Journal of Finance* 65, 687-724.

Core, John, E., Wayne R. Guay, and Rodrigo Verdi, 2008, Is accruals quality a priced risk factor?, *Journal of Accounting and Economics* 46, 2-22.

Croce, Mariano M., Howard Kung, Thien T. Nguyen, and Lukas Schmid, 2012, Fiscal policies and asset prices, *Review of Financial Studies* 25, 2635-2672.

Desai, Mihir A., and Dhammika Dharmapala, 2006, Corporate tax avoidance and high-powered incentives, *Journal of Financial Economics* 79, 145-179.

Drutman, Lee, 2011, The business of America is lobbying, *Working Paper*, University of California at Berkeley.

Duarte, Jefferson, and Lance Young, 2009, Why is pin priced? *Journal of Financial Economics* 91, 119-138.

Duffee, Gregory R., 1995, Stock returns and volatility a firm-level analysis, *Journal of Financial Economics* 37, 399-420.

Easley, David, Soeren Hvidkjaer, and Maureen O'Hara, 2002, Is information risk a determinant of asset returns? *Journal of Finance* 57, 2185-2221.

Faccio, Mara, 2006, Politically connected firms, *The American Economic Review* 96, 369-386.

Faccio, Mara, and David C. Parsley, 2009, Sudden deaths: Taking stock of geographic ties, *Journal of Financial and Quantitative Analysis* 44, 683-718.

Fama, Eugene F. and James MacBeth, 1973, Risk, Return and Equilibrium: Empirical Tests, *Journal of Political Economy* 81 (3), 607-636.

Ferguson Michael F. and Witte, Hugh Douglas, 2006, Congress and the stock market, Available at SSRN: http://ssrn.com/abstract=687211.

Fisman, Raymond, 2001, Estimating the value of political connections, *American Economic Review* 91, 1095-1102.

Fowler, James H., 2006. Elections and markets: The effect of partisanship, policy risk, and electoral margins on the economy. *Journal of Politics* 68, 89-103.

Francis, Bill B., Iftekhar Hasan, and Xian Sun, 2009. Political connections and the process of going public: Evidence from China. *Journal of International Money and Finance* 28, 696-719.

Francis, Jennifer, Ryan LaFond, Per M. Olsson, and Katherine Schipper, 2005, The market pricing of accruals quality, *Journal of Accounting and Economics* 39, 295-327.

Füss, Roland and Michael M. Bechtel, 2008. Partisan politics and stock market performance: The effect of expected government partisanship on stock returns in the 2002 German federal election. *Public Choice* 135, 131-150.

Goldman, Eitan, Jörg Rocholl, and Jongil So, 2009, Do politically connected boards affect firm value? *Review of Financial Studies* 22, 2331-2360.

Goldman, Eitan, Jörg Rocholl, and Jongil So, 2013, Politically connected boards of directors and the allocation of procurement contracts, *Review of Finance* 17, 1617-1648.

Grullon, Gustavo, Evgeny Lyandres, and Alexei Zhdanov, 2012, Real options, volatility, and stock returns, *Journal of Finance* 67, 1499-1537.

Gul, Ferdinand A., 2006. Auditors' response to political connections and cronyism in Malaysia, *Journal of Accounting Research* 44, 931-963.

Hamada, Robert S., 1972, The effect of the firm's capital structure on the systematic risk of common stocks, *The Journal of Finance* 27, 435–452.

Herron, Michael C., 2000. Estimating the economic impact of political party competition in the 1992 British election. *American Journal of Political Science* 44, 326-337.

Hersch, Philip, Jeffry Netter, and Christopher Pope, 2008, Do campaign contributions and lobbying expenditures by firms create "political" capital? *Atlantic Economic Journal* 36, 395-405.

Hill, Matthew D., G. Wayne Kelly, G. Brandon Lockhart, and Robert A. Van Ness, 2013, Determinants and effects of corporate lobbying, *Financial Management* 42, 931-957.

Hong, Gwangheon, and Sudipto Sarkar, 2007, Equity Systematic Risk (Beta) and Its Determinants, *Contemporary Accounting Research* 24, 423–466.

Houston, Joel F., Liangliang Jiang, Chen Lin, and Yue Ma, 2014, Political connections and the cost of bank loans, *Journal of Accounting Research* 52 (1), 193-243.

Jayachandran, Seema, 2006, The Jeffords effect, *Journal of Law and Economics* 49, 397-425.

Jung, Sumi, 2014, Powerful politicians, political costs, and income smoothing: Evidence from a natural experiment, Working Paper, University of Minnesota.

Kang, Jun-Koo and Le Zhang, 2015, From backroom to boardroom: role of government directors in U.S. public firms and their impact on performance, Available at SSRN: http://ssrn.com/abstract=2115367.

Khwaja, Asim Ijaz, and Atif Mian, 2005, Do lenders favor politically connected firms? Rent provision in an emerging financial market, *Quarterly Journal of Economics* 120, 1371-1411.

Kim, Chansog (Francis), Christos Pantzalis, and Jung Chul Park, 2012, Political geography and stock returns: The value and risk implications of proximity to political power, *Journal of Financial Economics* 106 (1), 196-228.

Kim, Chansog (Francis), Zhifeng Yang, and Oliver Zhou, 2015, Politically connected boards and audit pricing, Working paper, Stony Brook University.

Kim, Chansog (Francis) and Liandong Zhang, 2016, Corporate political connections and tax aggressiveness, *Contemporary Accounting Research* 33, 78–114.

Knight, Brian, 2006, Are policy platforms capitalized into equity prices? Evidence from the Bush/Gore 2000 presidential election, *Journal of Public Economics* 90, 751-773.

Kroszner, Randall S., and Thomas Stratmann, 1998, Interest-group competition and the organization of congress: Theory and evidence from financial services' political action committees, *American Economic Review* 88, 1163-1187.

Kusnadi, Yuanto, and K.C. John Wei, 2011, The effect of political connections on the level and value of cash holdings: International evidence, *Working Paper*, Hong Kong University of Science and Technology.

Lamb, Reinhold P., K. C. Ma, R. Daniel Pace, and William F. Kennedy, 1997, The congressional calendar and stock market performance, *Financial Services Review* 6, 19-25.

Leblang, David and Bumba Mukherjee, 2005. Government partisanship, elections, and the stock market: Examining American and British stock returns, 1930-2000. *American Journal of Political Science* 49, 780-802.

Leahy, John, and Toni Whited, 1996, The effect of uncertainty on investment: Some stylized facts, *Journal of Money, Credit and Banking* 28, 64-83.

Lieberman, Marvin B., and David B. Montgomery, 1988, First-mover advantages, *Strategic Management Journal* 9, 41-58.

McGillivray, Fiona, 2003. Redistributive policies and stock price dispersion. *British Journal of Political Science* 33, 367-396.

Malkiel, Burton G., 1979, The capital formation problem in the United States, *Journal of Finance* 34, 291-306.

Mazzucato, Mariana, and Massimiliano Tancioni, 2008, Innovation and idiosyncratic risk: an industry- and firm-level analysis, *Industrial and Corporate Change* 17, 779-811.

McGrath, Rita Gunther, 1997, A real options logic for initiating technology positioning investments, *Academy of Management Review* 22, 974-996.

McGrath, Rita Gunther, Walter J. Ferrier, and Aubrey L. Mendelow, 2004. Real options as engines of choice and heterogeneity, *Academy of Management Review* 29, 86-101.

Mohanram, Partha, and Shiva Rajgopal, 2009, Is PIN priced risk? *Journal of Accounting and Economics* 47, 226-243.

Olters, Jan-Peter, 2001. Modeling politics with economics tools: A critical survey of the literature. International Monetary Fund.

Ovtchinnikov, Alexei V. and Syed Walid Reza, and Yanhui Wu, 2015, Political activism and firm innovation. HEC Paris Research Paper No. FIN-2014-1053. Available at SSRN: http://ssrn.com/abstract=2471058

Pastor, Lubos, and Pietro Veronesi, 2012, Uncertainty about government policy and stock prices, *Journal of Finance* 67, 1219-1264.

Ramanna, Karthik, and Sugata Roychowdhury, 2010, Elections and discretionary accruals: Evidence from 2004, *Journal of Accounting Research* 48, 445-475.

Roberts, Brian E., 1990, A dead Senator tells no lies: Seniority and the distribution of federal benefits, *American Journal of Political Science* 34, 31-58.

Sapienza, Paola, 2004, The effects of government ownership on bank lending, *Journal of Financial Economics* 72, 357-384.

Schumpeter, J.A., 1912. Theorie der wirtschaftlichen entwicklung, leipzig, dunker und umbolt. Translated by R. Opie, The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle, Harvard University Press, Cambridge, MA.

Shiller, Robert J., 2000, *Irrational Exuberance*. Princeton: Princeton University Press.

Shon, John J., 2006, Do stock returns vary with campaign contributions? The Bush versus Gore 2000 Presidential elections, Available at SSRN: http://ssrn.com/abstract=575322.

Sialm, Clemens, 2006, Stochastic taxation and asset pricing in dynamic general equilibrium, *Journal of Economic Dynamics and Control* 30, 511-540.

Sialm, Clemens, 2009, Tax changes and asset pricing, *American Economic Review* 99, 1356-1383.

Subrahmanyam, Marti G. and Stavros B. Thomadakis, 1980. Systematic risk and the theory of the firm. *Quarterly Journal of Economics* 94, 437-451.

Trigeorgis, Lenos, 1993, Real options and interactions with financial flexibility, *Financial management* 22, 202-224.

Trigeorgis, Lenos, 1996, Real options: Managerial flexibility and strategy in resource allocation, MIT press

Trigeorgis, Lenos, and Neophytos Lambertides, 2014, The role of growth options in explaining stock returns, *Journal of Financial and Quantitative Analysis* 49, 749-771.

Yu, Frank, and Xiaoyun Yu, 2012, Corporate lobbying and fraud detection, *Journal of Financial and Quantitative Analysis* 46, 1865-1891.

Table 1
Descriptive Statistics

This table provides descriptive statistics for the sample of 66,059 firm-year observations. $Bills^{loc}$ = the annual number of bills introduced by either the home-state Senators or House Representatives. $Bills^{ind}$ = the annual number of bills linked to the industry where a firm belongs to. *Bills* = the number of bills linked to the industry where a firm belongs to *and* that are introduced by either the home-state Senators or House Representatives. *N. of connected directors* = the number of board members who are politically connected. *PCDdum* is a dummy that equals 1 if a firm has at least one politically connected director on its board in a given calendar year and 0 otherwise. *Board's political experience* = average tenure of past political activities of boards of directors. *Board's political freshness* = board's political freshness based on directors' elapse period. *B-index* = the political strategy index that combines the yearly ranks of *N. of connected directors, Board's political experience, and Board's political freshness*. *N. of supported candidates* = the number of supported candidates. *PACdum* is a dummy that equals 1 if a firm makes PAC donations in a given calendar year and 0 otherwise. *Strength of relationships* = the strength of the relationships between candidates and the contributing firm. *Supported candidates' ability* = the ability of the candidates to help the firm. *Supported candidates' power* = the power of the candidates. *P-index* = the political strategy index that combines the yearly ranks of *N. of supported candidates, Strength of relationships, Supported candidates' ability,* and *Supported candidates' power*. *Lobbying expenditures (thousand $)* = corporate total lobbying expenditures. *LOBdum* is a dummy that equals 1 if a firm engages in lobbying in a given calendar year and 0 otherwise. *L-index* = the political strategy index that measures the yearly ranks of *Lobbying expenditures*. *PSI* = the political strategy index that combines *B-index, P-index,* and *L-index*. *PSIdum* is a dummy that equals 1 if *PSI* score is greater than 0 and 0 otherwise. *Beta* is systematic risk, computed from the market model using daily returns over the year. $Beta^{w}$ = systematic risk, computed using weekly returns over the year. *Size* = market value of equity at the end of year *t*. *BM* = a ratio of book to market value of equity. *Leverage* = a ratio of debts to assets. *ROA* = net income divided by assets. *HHI* = Herfindahl index based on sale of the first three digits of SIC code. *Tangibility* = a ratio as properties, plants, and equipment divided by assets. *Firm age* = years since a firm is listed in Compustat. Refer to Appendix 2 for detailed variable descriptions.

Variable Name	Obs.	Mean	Median	Std.	Min	Max
Policy Risk						
$Bills^{loc}$	66,059	67.722	48.000	58.558	1.000	316.000
$Bills^{ind}$	66,059	123.758	41.000	190.759	0.000	1023.000
Bills	66,059	5.679	0.000	11.994	0.000	117.000
Political Strategy						
N. of connected directors	66,059	0.138	0.000	0.457	0.000	7.000
PCDdum	66,059	0.107	0.000	0.309	0.000	1.000
Board's political experience	64,100	0.429	0.000	2.068	0.000	39.000
Board's political freshness	63,935	2.904	0.000	10.272	0.000	50.000
B-index	66,059	0.098	0.000	0.282	0.000	1.000
N. of supported candidates	66,059	9.628	0.000	43.323	0.000	766.000
PACdum	66,059	0.114	0.000	0.318	0.000	1.000
Strength of relationships	66,059	561.723	0.000	6448.420	0.000	725069.630
Supported candidates' ability	66,059	3.934	0.000	104.350	0.000	12617.310
Supported candidates' power	66,059	1.263	0.000	10.982	0.000	532.240
P-index	66,059	0.101	0.000	0.285	0.000	1.000
Lobbying expenditures (thousand $)	47,607	125.922	0.000	825.620	0.000	29368.497
LOBdum	47,607	0.159	0.000	0.366	0.000	1.000
L-index	47,607	0.146	0.000	0.336	0.000	1.000
PSI	66,059	0.108	0.000	0.226	0.000	0.987
PSIdum	66,059	0.229	0.000	0.420	0.000	1.000
Firm Characteristics						
Beta	66,059	0.763	0.685	0.628	-0.536	2.606
$Beta^{w}$	66,059	0.854	0.770	0.850	-1.462	3.554
Size (million $)	66,059	1775.488	181.026	5610.527	2.525	41682.335
BM	66,059	0.629	0.506	0.591	-0.833	3.317
Leverage	66,059	0.219	0.174	0.212	0.000	0.940
ROA	66,059	0.004	0.052	0.227	-1.167	0.349
Tangibility	66,059	0.239	0.161	0.235	0.000	0.890
HHI	66,059	0.134	0.096	0.124	0.021	0.721
Firm age	66,059	16.807	12.000	13.407	0.000	58.000

Table 2
Political Strategy Index and Firm Risk

This table reports the estimated coefficients of the cross-sectional regressions where dependent variable, *Beta*, is systematic risk, computed from the market model using daily returns over the year. *Bills* = the number of bills linked to the industry where a firm belongs to and that are introduced by either the home-state Senators or House Representatives. *PSI* = annual corporate political strategy index. Refer to Appendix 2 for detailed variable descriptions. Year and industry dummies are included, but coefficients are omitted for brevity. Numbers in parenthesis are t-statistics computed using standard errors that are clustered at both firm and year level. *** indicates significance at the 1% level.

	(1)	(2)	(3)	(4)
	Dependent variable : $Beta_t$			
$Ln(Bills_t)$	0.0128**		0.0132***	0.0212***
	(2.49)		(2.61)	(4.00)
PSI_t		-0.2224***	-0.2232***	-0.1382***
		(-5.12)	(-5.13)	(-3.51)
$Ln(Bills_t)* PSI_t$				-0.0755***
				(-4.32)
$Ln(Size_{t-1})$	0.1376***	0.1497***	0.1494***	0.1496***
	(22.50)	(20.51)	(20.46)	(20.38)
$Ln(BM_{t-1})$	-0.0183	-0.0110	-0.0116	-0.0110
	(-1.09)	(-0.67)	(-0.70)	(-0.66)
$Leverage_{t-1}$	0.0076	0.0261	0.0254	0.0262
	(0.17)	(0.61)	(0.60)	(0.62)
ROA_{t-1}	-0.2897***	-0.3137***	-0.3110***	-0.3067***
	(-5.08)	(-5.40)	(-5.34)	(-5.29)
$Tangibility_{t-1}$	-0.1591***	-0.1621***	-0.1588***	-0.1612***
	(-5.63)	(-5.76)	(-5.71)	(-5.86)
HHI_{t-1}	-0.0490	-0.0366	-0.0438	-0.0413
	(-0.98)	(-0.74)	(-0.89)	(-0.84)
$Ln(Firm\ Age_{t-1})$	-0.1203***	-0.1077***	-0.1086***	-0.1100***
	(-11.04)	(-10.30)	(-10.27)	(-10.33)
Constant	-0.6525***	-0.8062***	-0.8130***	-0.8179***
	(-6.68)	(-7.17)	(-7.30)	(-7.30)
Year fixed effects	YES	YES	YES	YES
Industry fixed effects	YES	YES	YES	YES
Obs.	66,059	66,059	66,059	66,059
Adj. R^2	0.301	0.304	0.305	0.306

Table 3
Individual Political Strategy and Firm Risk

This table reports the estimated coefficients of the cross-sectional regressions where dependent variable, *Beta*, is systematic risk, computed from the market model using daily returns over the year. *Bills* = the number of bills linked to the industry where a firm belongs to and that are introduced by either the home-state Senators or House Representatives. *B-index* = the political strategy index that combines the yearly ranks of *N. of connected directors*, *Board's political experience*, and *Board's political freshness*. *P-index* = the political strategy index that combines the yearly ranks of *N. of supported candidates, Strength of relationships, Supported candidates' ability*, and *Supported candidates' power*. *L-index*= the political strategy index that measures the yearly ranks of *Lobbying expenditures*. Refer to Appendix 2 for detailed variable descriptions. Firm characteristic-related control variables, year and industry dummies are included, but coefficients are omitted for brevity. Numbers in parenthesis are t-statistics computed using standard errors that are clustered at both firm and year level. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent variable : Beta$_t$					
Ln(Bills$_t$)	0.0131**	0.0161***	0.0124**	0.0195***	0.0113*	0.0162**
	(2.56)	(3.25)	(2.43)	(3.61)	(1.80)	(2.42)
B-index$_t$	-0.0760***	-0.0439**				
	(-3.59)	(-2.04)				
Ln(Bills$_t$) x *B-index$_t$*		-0.0293**				
		(-2.49)				
P-index$_t$			-0.1468***	-0.0687***		
			(-5.35)	(-2.95)		
Ln(Bills$_t$) x *P-index$_t$*				-0.0774***		
				(-4.96)		
L-index$_t$					-0.1391***	-0.0989***
					(-5.81)	(-4.08)
Ln(Bills$_t$) x *L-index$_t$*						-0.0338***
						(-2.81)
Controls	YES	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES	YES
Industry fixed effects	YES	YES	YES	YES	YES	YES
Obs.	66,059	66,059	66,059	66,059	47,607	47,607
Adj. R^2	0.302	0.302	0.304	0.305	0.339	0.340

Table 4
Corporate Political Strategies and Firm-specific Performance Heterogeneity

This table reports the estimated coefficients of the cross-sectional regressions where dependent variable, *IV*, is relative idiosyncratic risk, computed as $Ln[(1-R^2)/R^2]$. *Bills* = the number of bills linked to the industry where a firm belongs to and that are introduced by either the home-state Senators or House Representatives. *Political strategy* = *PSI*, *B-index*, *P-index*, or *L-index*. *PSI* = annual corporate political strategy index. *B-index* = the political strategy index that combines the yearly ranks of *N. of connected directors* (= the number of board members who are politically connected), *Board's political* experience (= average tenure of past political activities of boards of directors) and *Board's political freshness* (= board's political freshness based on directors' elapse period). *P-index* = the political strategy index that combines the yearly ranks of *N. of supported candidates* (= the number of supported candidates), *Strength of relationships* (= the strength of the relationships between candidates and the contributing firm), *Supported candidates' ability* (= the ability of the candidates to help the firm), and *Supported candidates' power* (= the power of the candidates). *L-index* = the political strategy index that measures the yearly rank of *Lobbying expenditures*. Refer to Appendix 2 for detailed variable descriptions. Firm characteristic-related control variables, year and industry dummies are included, but coefficients are omitted for brevity. Numbers in parenthesis are t-statistics computed using standard errors that are clustered at both firm and year level. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	PSI		*B-Index*		*P-Index*		*L-Index*	
				Dependent variable: IV_t				
$Ln(Bills_t)$	0.0045	-0.0078	0.0046	-0.0007	0.0054	-0.0051	0.0046	-0.0016
	(0.73)	(-1.17)	(0.73)	(-0.11)	(0.86)	(-0.79)	(0.67)	(-0.20)
Political Strategy$_t$	0.2755***	0.1448**	0.1037***	0.0467*	0.1471***	0.0312	0.2077***	0.1564***
	(4.18)	(2.20)	(3.53)	(1.66)	(3.54)	(0.78)	(6.86)	(4.16)
$Ln(Bills_t)$ x *Political Strategy*$_t$		0.1162***		0.0520***		0.1148***		0.0431**
		(4.57)		(3.97)		(5.30)		(2.14)
Controls	YES	YES	YES	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
Industry fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
Obs.	66,059	66,059	66,059	66,059	66,059	66,059	47,607	47,607
Adj. R^2	0.511	0.512	0.509	0.509	0.510	0.511	0.510	0.510

Table 5
Real Options and Political Strategies

This table reports the estimated coefficients of the Fama-MacBeth regressions where the dependent variable (excess return) is a firm's monthly stock return minus risk-free rate. Vol_t measures a firm's return volatility using daily returns at month *t*. ΔVol_t *is* a monthly change in a firm's return volatility (*Vol*) from *t-1* to *t*. *Political strategy* = *PSI*, *B-index*, *P-index*, or *L-index*. *PSI* = annual corporate political strategy index. *B-index* = the political strategy index that combines the yearly ranks of *N. of connected directors* (= the number of board members who are politically connected), *Board's political* experience (= average tenure of past political activities of boards of directors) and *Board's political freshness* (= board's political freshness based on directors' elapse period). *P-index* = the political strategy index that combines the yearly ranks of *N. of supported candidates* (= the number of supported candidates), *Strength of relationships* (= the strength of the relationships between candidates and the contributing firm), *Supported candidates' ability* (= the ability of the candidates to help the firm), and *Supported candidates' power* (= the power of the candidates). *L-index* = the political strategy index that measures the yearly rank of *Lobbying expenditures*. *Ln(Size)* is a firm's market value of equity. *Ln(BM)* is a ratio of book value to market value of equity. *PreRet* is a firm's cumulative returns for past 12 months. $Volume_{t-1}$ is a firm's monthly trading volume normalized by shares outstanding. $Beta_{t-1}$ is a firm's systematic risk measured as past 60 month its returns and the market returns. *R&D* is a R&D expenditure divided by assets. *FreeCash* is free cash flow divided by assets. *Foreign* is a dummy that equals 1 if a firm's foreign sale is greater than 0 in a given calendar year, and 0 otherwise. *Union* is a percentage of labor union coverage in a given 4 digits SIC industry code. Numbers in parenthesis are t-statistics computed using Newey-West autocorrelation standard errors up to 6 lags. *** and ** indicate significance at the 1% and 5% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			PSI		*B-Index*		*P-Index*		*L-Index*
				Dependent variable: *Excess Return*$_t$					
ΔVol_t	1.221***	1.221***	1.187***	1.221***	1.222***	1.221***	1.206***	1.320***	1.283***
	(15.25)	(15.26)	(14.56)	(15.25)	(15.09)	(15.26)	(14.74)	(13.53)	(13.11)
Political Strategy$_t$		0.012***	0.008***	0.004***	0.003**	0.009***	0.006***	0.006***	0.004**
		(5.30)	(3.31)	(4.02)	(2.51)	(5.42)	(3.30)	(3.59)	(2.18)
ΔVol_t *x Political Strategy*$_t$			1.008***		0.236*		1.114***		0.738***
			(4.75)		(1.88)		(5.29)		(5.32)
Ln(Size$_{t-1}$*)*	-0.004***	-0.004***	-0.004***	-0.004***	-0.004***	-0.004***	-0.004***	-0.005***	-0.004***
	(-3.97)	(-4.35)	(-4.07)	(-4.05)	(-3.99)	(-4.32)	(-4.08)	(-3.95)	(-3.75)
Ln(BM $_{t-1}$*)*	0.006***	0.006***	0.006***	0.006***	0.006***	0.006***	0.006***	0.005*	0.005*
	(2.95)	(2.76)	(2.84)	(2.90)	(2.93)	(2.76)	(2.78)	(1.77)	(1.87)
PreRet$_{t-1}$	-0.007***	-0.006***	-0.006***	-0.007***	-0.007***	-0.006***	-0.006***	-0.008***	-0.008***
	(-3.55)	(-3.46)	(-3.44)	(-3.53)	(-3.51)	(-3.49)	(-3.46)	(-3.43)	(-3.43)
Volume$_{t-1}$	0.018***	0.018***	0.018***	0.018***	0.018***	0.018***	0.018***	0.021***	0.021***
	(4.96)	(5.03)	(4.95)	(4.98)	(4.97)	(5.03)	(4.92)	(4.71)	(4.67)
Beta$_{t-1}$	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002
	(-1.38)	(-1.26)	(-1.25)	(-1.35)	(-1.35)	(-1.27)	(-1.22)	(-1.21)	(-1.20)
R&D$_{t-1}$	0.027***	0.027***	0.028***	0.027***	0.027***	0.028***	0.027***	0.025***	0.025***
	(4.26)	(4.30)	(4.35)	(4.26)	(4.24)	(4.34)	(4.31)	(3.15)	(3.17)
FreeCash$_{t-1}$	0.017***	0.017***	0.018***	0.017***	0.017***	0.017***	0.017***	0.014***	0.014***
	(5.94)	(6.19)	(6.28)	(6.02)	(6.11)	(6.12)	(6.14)	(4.34)	(4.34)
Foreign$_{t-1}$	0.003***	0.003***	0.003***	0.003***	0.003***	0.003***	0.003***	0.003***	0.003***
	(3.34)	(3.25)	(3.25)	(3.32)	(3.36)	(3.32)	(3.23)	(3.00)	(2.99)
Union$_{t-1}$	0.000***	0.000**	0.000**	0.000***	0.000***	0.000**	0.000**	0.000*	0.000*
	(3.32)	(2.37)	(2.25)	(3.09)	(3.11)	(2.55)	(2.41)	(1.89)	(1.88)
Constant	0.037***	0.044***	0.041***	0.039***	0.038***	0.042***	0.040***	0.048***	0.045***
	(3.16)	(3.54)	(3.31)	(3.25)	(3.20)	(3.50)	(3.30)	(3.21)	(3.03)
Number of months	180	180	180	180	180	180	180	132	132
Avg. R^2	0.003	0.024	0.025	0.024	0.024	0.024	0.025	0.026	0.027

Table 6
Real options test for High and Low Policy Uncertainty subsamples, Policy Risk, Political Strategy, and Stock Return

This table reports the estimated coefficients of the Fama-MacBeth regressions where the dependent variable (excess return) is a firm's monthly stock return minus risk-free rate. Vol_t measures a firm's return volatility using daily returns at month *t*. ΔVol_t *is* a monthly change in a firm's return volatility (*Vol*) from *t-1* to *t*. *Political strategy* = *PSI*, *B-index*, *P-index*, or *L-index*. *PSI* = annual corporate political strategy index. *B-index* = the political strategy index that combines the yearly ranks of *N. of connected directors* (= the number of board members who are politically connected), *Board's political* experience (= average tenure of past political activities of boards of directors) and *Board's political freshness* (= board's political freshness based on directors' elapse period). *P-index* = the political strategy index that combines the yearly ranks of *N. of supported candidates* (= the number of supported candidates), *Strength of relationships* (= the strength of the relationships between candidates and the contributing firm), *Supported candidates' ability* (= the ability of the candidates to help the firm), and *Supported candidates' power* (= the power of the candidates). *L-index* = the political strategy index that measures the yearly rank of *Lobbying expenditures*. *High (Low)* means a group in the top (bottom) tercile of policy risk. A tercile group of policy risk is based on *Bills* defined as the number of bills linked to the industry where a firm belongs to and that are introduced by either the home-state Senators or House Representatives. *PSI, B-index, P-index, and L-index* = annual corporate political strategy index. Numbers in parenthesis are t-statistics computed using Newey-West autocorrelation standard errors up to 6 lags. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	PSI		*B-Index*		*P-Index*		*L-Index*	
	Dependent variable: *Excess Return*$_t$							
	High	Low	High	Low	High	Low	High	Low
ΔVol_t	1.259***	1.042***	1.299***	1.074***	1.269***	1.068***	1.310***	1.131***
	(13.69)	(11.04)	(13.80)	(11.32)	(13.66)	(11.30)	(12.16)	(10.09)
Political Strategy$_t$	0.012***	0.004	0.004***	0.002*	0.007***	0.003*	0.007***	0.002
	(3.59)	(1.60)	(2.61)	(1.77)	(3.03)	(1.67)	(2.99)	(0.83)
ΔVol_t *x Political Strategy*$_t$	1.566***	0.460	0.367*	0.004	1.623***	0.604**	0.977***	0.593***
	(4.61)	(1.62)	(1.81)	(0.03)	(4.94)	(2.39)	(4.33)	(3.17)
	Ho: β(1) = β(2)		Ho: β(3) = β(4)		Ho: β(5) = β(6)		Ho: β(7) = β(8)	
	(p-value = 0.012)		(p-value = 0.152)		(p-value = 0.014)		(p-value = 0.191)	
Controls	YES	YES	YES	YES	YES	YES	YES	YES
Number of months	180	180	180	180	180	180	132	132
Avg. R^2	0.024	0.025	0.024	0.024	0.024	0.025	0.026	0.027

Table 7
Politician's Sudden Death and the Effect of Political Strategy: A Causality Test

Panel A reports the estimated coefficients of the cross-sectional regressions. *Beta* is systematic risk, computed from the market model using daily returns over the year. *IV* is relative idiosyncratic risk, computed as $Ln[(1-R^2)/R^2]$. *Bills* = the number of bills linked to the industry where a firm belongs to and that are introduced by either the home-state Senators or House Representatives. *B-index*= the political strategy index that combines the yearly ranks of *N. of connected directors*, *Board's political experience*, and *Board's political freshness*. *N. of connected directors* = the number of board members who are politically connected. *Board's political experience* = average tenure of past political activities of boards of directors. *Board's political freshness* = board's political freshness based on directors' elapse period. *Sudden death* = 1 for the years after an ex-politician on the board suddenly dies, and 0 for the years before the death. Firm characteristic-related control variables, year and industry dummies are included, but coefficients are omitted for brevity. Numbers in parenthesis are t-statistics computed using standard errors that are clustered at both firm and year level. Panel B reports the estimated coefficients of the Fama-MacBeth regressions where the dependent variable (excess return) is a firm's monthly stock return minus risk-free rate. Vol_t measures a firm's return volatility using daily returns at month *t*. ΔVol_t *is* a monthly change in a firm's return volatility (*Vol*) from *t-1* to *t*. *High (Low)* policy risk means a group in the top (bottom) tercile of policy risk. A tercile group of policy risk is based on *Bills* defined as the number of bills linked to the industry where a firm belongs to and that are introduced by either the home-state Senators or House Representatives. Numbers in parenthesis are t-statistics computed using Newey-West autocorrelation standard errors up to 6 lags. Refer to Appendix 2 for detailed variable descriptions. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Political Strategy Index and Firm Risk

	(1)	(2)
	Dependent variable : $Beta_t$	Dependent variable : IV_t
$Ln(Bills_t)$	0.0265	0.0081
	(1.14)	(0.33)
$B\text{-}Index_t$	0.1180***	-0.0708
	(2.97)	(-1.28)
$Sudden\ Death_t$	0.1175***	-0.2097**
	(4.16)	(-2.19)
$Ln(Bills_t)$ x $B\text{-}Index_t$	-0.0628***	0.0510*
	(-2.84)	(1.72)
$Sudden\ Death_t$ x $B\text{-}Index_t$	-0.1768***	0.2193***
	(-3.14)	(5.81)
$Ln(Bills_t)$ x $Sudden\ Death_t$	-0.0528***	0.1169***
	(-3.74)	(5.11)
$Ln(Bills_t)$ x $B\text{-}Index_t$ x $Sudden\ Death_t$	0.0795*	-0.0574**
	(1.83)	(-2.03)
Controls	YES	YES
Year fixed effects	YES	YES
Industry fixed effects	YES	YES
Obs.	3,400	3,400
Adj. R^2	0.359	0.417

Panel B: Policy Risk, Political Strategy, and Stock Return

	(1)	(2)	(3)	(4)
	Dependent variable: *Excess Return*$_t$			
			High Policy Risk	Low Policy Risk
ΔVol_t	1.118***	1.119***	1.321***	1.026***
	(10.99)	(10.99)	(10.74)	(8.91)
B-Index$_t$	0.003**	0.003*	0.005**	0.001
	(2.25)	(1.73)	(2.09)	(0.73)
Sudden Death$_t$		0.047	0.007**	0.031
		(1.21)	(2.14)	(0.64)
ΔVol_t x *B-Index*$_t$	1.834*	0.324*	0.248	0.121
	(1.79)	(1.79)	(0.83)	(0.55)
ΔVol_t x *Sudden Death*$_t$		3.366**	0.605*	18.583
		(2.35)	(1.79)	(1.46)
Sudden Death$_t$ x *B-Index*$_t$		-0.036	0.001	-0.025
		(-0.84)	(0.28)	(-0.48)
ΔVol_t x *B-Index*$_t$ x *Sudden Death*$_t$		-4.333	-1.319**	-15.243
		(-0.55)	(-2.30)	(-0.99)
			Ho: $\beta(3) = \beta(4)$ (p-value = 0.369)	
Controls	YES	YES	YES	YES
N. of months	108	108	108	108
Avg. R^2	0.021	0.021	0.021	0.020

Table 8
Alternative Policy Risk Measures

This table reports results with alternative policy risk. $Bills^{loc}$ = the annual number of bills introduced by either the home-state Senators or House Representatives. $Bills^{ind}$ = the annual number of bills linked to the industry where a firm belongs to. Panel A report results with the hedging test, where dependent variable, *Beta*, is systematic risk, computed from the market model using daily returns over the year. *Political strategy* = *PSI*, *B-index*, *P-index*, or *L-index*. *PSI* = annual corporate political strategy index. *B-index* = the political strategy index that combines the yearly ranks of *N. of connected directors* (= the number of board members who are politically connected), *Board's political* experience (= average tenure of past political activities of boards of directors) and *Board's political freshness* (= board's political freshness based on directors' elapse period). *P-index* = the political strategy index that combines the yearly ranks of *N. of supported candidates* (= the number of supported candidates), *Strength of relationships* (= the strength of the relationships between candidates and the contributing firm), *Supported candidates' ability* (= the ability of the candidates to help the firm), and *Supported candidates' power* (= the power of the candidates). *L-index* = the political strategy index that measures the yearly rank of *Lobbying expenditures*. Firm characteristic-related control variables, year and industry dummies are included, but coefficients are omitted for brevity. Numbers in parenthesis are *t*-statistics computed using standard errors that are clustered at both firm and year level. Panel B reports results with the real option test using the Fama-MacBeth regressions, where dependent variable (excess return) is a firm's monthly stock return minus risk-free rate. Firm characteristic-related control variables dummies are included, but coefficients are omitted for brevity. *High (Low)* means a group in the top (bottom) tercile of policy risk. A tercile group of policy risk is based on $Bills^{loc}$ *(B-1) and* $Bills^{ind}$ *(B-2).* Refer to Appendix 2 for detailed variable descriptions. Numbers in parenthesis are *t*-statistics computed using Newey-West autocorrelation standard errors up to 6 lags. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Hedging test

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Dependent variable : $Beta_t$							
	PSI		*B-index*		*P-index*		*L-index*	
	(A-1) Local Bills							
$Ln(Bills_t^{Loc})$	0.0350***	0.0411***	0.0375***	0.0409***	0.0352***	0.0401***	0.0400***	0.0428***
	(5.35)	(5.70)	(5.66)	(5.76)	(5.33)	(5.44)	(4.50)	(4.84)
$Political\ Strategy_t$	-0.2140***	0.0065	-0.0725***	0.0648	-0.1403***	0.0463	-0.1344***	-0.0555
	(-4.95)	(0.07)	(-3.45)	(1.12)	(-5.12)	(0.62)	(-5.66)	(-0.72)
$Ln(Bills_t^{Loc})* Political\ Strategy_t$		-0.0571**		-0.0354**		-0.0496**		-0.0199
		(-2.30)		(-2.33)		(-2.40)		(-0.98)
Obs.	66,057	66,057	66,057	66,057	66,057	66,057	47,607	47,607
Adj. R^2	0.511	0.511	0.509	0.509	0.510	0.510	0.510	0.510
	(A-2) Industry Bills							
$Ln(Bills_t^{Ind})$	0.0041*	0.0076***	0.0037*	0.0050**	0.0037*	0.0067***	0.0031	0.0057**
	(1.96)	(3.53)	(1.79)	(2.46)	(1.76)	(3.05)	(1.23)	(2.13)
$Political\ Strategy_t$	-0.2238***	-0.1164***	-0.0759***	-0.0381	-0.1477***	-0.0512**	-0.1392***	-0.0807***
	(-5.14)	(-2.74)	(-3.58)	(-1.58)	(-5.39)	(-2.04)	(-5.79)	(-2.71)
$Ln(Bills_t^{Ind})* Political\ Strategy_t$		-0.0349***		-0.0129**		-0.0332***		-0.0186***
		(-4.54)		(-2.27)		(-5.36)		(-2.98)
Obs.	66,059	66,059	66,059	66,059	66,059	66,059	47,607	47,607
Adj. R^2	0.304	0.305	0.301	0.302	0.303	0.305	0.339	0.340

Panel B. Real option test

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Dependent variable: *Excess Return*$_t$							
	PSI		*B-Index*		*P-Index*		*L-Index*	
	(B-1) Local Bills							
	High	Low	High	Low	High	Low	High	Low
ΔVol_t	1.236***	1.026***	1.276***	1.062***	1.271***	1.050***	1.310***	1.105***
	(12.86)	(13.19)	(13.07)	(13.57)	(13.12)	(13.24)	(11.09)	(12.57)
Political Strategy$_t$	0.011***	0.008***	0.004**	0.003**	0.007***	0.006***	0.005**	0.003
	(3.65)	(2.83)	(2.24)	(2.49)	(3.25)	(3.01)	(2.29)	(1.33)
ΔVol_t *x Political Strategy*$_t$	1.355***	1.136***	0.375**	0.346**	1.355***	1.083***	0.672***	0.831***
	(4.25)	(4.03)	(2.04)	(2.18)	(4.35)	(4.46)	(3.52)	(4.61)
	Ho: β(1) = β(2)		Ho: β(3) = β(4)		Ho: β(5) = β(6)		Ho: β(7) = β(8)	
	(p-value = 0.606)		(p-value = 0.906)		(p-value = 0.492)		(p-value = 0.543)	
Controls	YES	YES	YES	YES	YES	YES	YES	YES
Number of months	180	180	180	180	180	180	132	132
Avg. R^2	0.026	0.017	0.026	0.017	0.027	0.017	0.029	0.018
	(B-2) Industry Bills							
	High	Low	High	Low	High	Low	High	Low
ΔVol_t	1.015***	1.098***	1.062***	1.129***	1.039***	1.131***	1.095***	1.175***
	(13.02)	(11.48)	(13.45)	(11.72)	(13.15)	(11.95)	(12.34)	(9.96)
Political Strategy$_t$	0.008***	0.007***	0.004***	0.003*	0.005**	0.005**	0.002	0.003
	(2.70)	(2.95)	(2.63)	(1.90)	(2.60)	(2.39)	(0.84)	(1.37)
ΔVol_t *x Political Strategy*$_t$	1.505***	0.952***	0.482***	0.306	1.327***	0.748**	0.936***	0.619***
	(4.92)	(2.74)	(2.92)	(1.56)	(5.08)	(2.57)	(4.83)	(2.82)
	Ho: β(1) = β(2)		Ho: β(3) = β(4)		Ho: β(5) = β(6)		Ho: β(7) = β(8)	
	(p-value = 0.232)		(p-value = 0.491)		(p-value = 0.140)		(p-value = 0.279)	
Controls	YES	YES	YES	YES	YES	YES	YES	YES
Number of months	180	180	180	180	180	180	132	132
Avg. R^2	0.026	0.018	0.025	0.017	0.025	0.018	0.029	0.019

Table 9
Robustness Tests

This table reports the estimated coefficients of the cross-sectional regressions where dependent variable, *Beta*, is systematic risk, computed from the market model using daily returns over the year. Panel A retains a sample of firms if those stock prices are greater than $5. Panel B use $Beta^{w}_{t+1}$ that is systematic risk using weekly returns over the calendar years. Panel C excludes financial and utility firms. Panel D includes industries only matched with a bill classification. *Bills* = the number of bills linked to the industry where a firm belongs to and that are introduced by either the home-state Senators or House Representatives. *PSI* = annual corporate political strategy index. Vol_t measures a firm's return volatility using daily returns at month *t*. ΔVol_t *is* a monthly change in a firm's return volatility (*Vol*) from *t-1* to *t*. Refer to Appendix 2 for detailed variable descriptions. Firm characteristic-related control variables, year and industry dummies are included, but coefficients are omitted for brevity. Numbers in parenthesis are t-statistics computed using standard errors that are clustered at both firm and year level. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Hedging test

	(1)	(2)	(3)	(4)	(6)	(7)	(8)	(9)
	Stock Price>=$5		Weekly Returns		Excluding FIN/UTIL		Matched Industries Only	
	$Beta_t$		$Beta^{W}_t$		$Beta_t$		$Beta_t$	
$Ln(Bills)_t$	-0.2324***	-0.1426***	-0.1947***	-0.1034***	-0.2642***	-0.1568***	-0.2450***	-0.1715***
	(-5.36)	(-3.60)	(-4.50)	(-2.63)	(-6.57)	(-4.23)	(-5.19)	(-3.36)
PSI_t	0.0137**	0.0243***	0.0252***	0.0338***	0.0095	0.0199***	0.0116*	0.0161**
	(2.49)	(3.94)	(3.88)	(4.57)	(1.52)	(3.03)	(1.68)	(2.34)
$Ln(Bills)_t$* PSI_t		-0.0801***		-0.0811***		-0.1037***		-0.0397*
		(-4.51)		(-4.26)		(-5.24)		(-1.73)
Controls	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES	YES	YES
Obs.	50,449	50,449	66,059	66,059	53,116	53,116	35,914	35,914
Adj. R^2	0.355	0.357	0.203	0.204	0.292	0.294	0.288	0.289

Panel B. Real option test

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Stock Price>=$5			Weekly Returns			Excluding FIN/UTIL			Matched Industries Only		
	Dependent variable: *Excess Return*$_t$											
	All Sample	High	Low	All Sample	High	Low	All Sample	High	Low	All Sample	High	Low
ΔVol_t	0.755***	0.863***	0.669***	0.472***	0.511***	0.418***	1.187***	1.342***	1.104***	1.198***	1.287***	1.080***
	(9.21)	(8.96)	(6.72)	(26.49)	(24.27)	(20.84)	(14.56)	(14.15)	(11.17)	(13.40)	(12.64)	(10.16)
PSI_t	0.002	0.001	0.001	0.003***	0.004***	0.002***	0.008***	0.013***	0.005*	0.008***	0.012***	0.005**
	(1.03)	(0.56)	(0.45)	(4.92)	(4.61)	(4.06)	(3.31)	(3.53)	(1.79)	(3.29)	(3.23)	(2.02)
ΔVol_t x PSI_t	1.114***	1.518***	0.784***	0.260***	0.420***	0.139**	1.008***	1.680***	0.679**	0.611**	1.546***	-0.005
	(5.30)	(4.83)	(3.06)	(4.96)	(5.05)	(2.29)	(4.75)	(4.72)	(2.28)	(2.51)	(3.56)	(-0.02)
		Ho: β(2) = β(3)			Ho: β(5) = β(6)			Ho: β(8) = β(9)			Ho: β(11) = β(12)	
		(p-value = 0.071)			(p-value = 0.234)			(p-value = 0.031)			(p-value = 0.004)	
Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
N of months	180	180	180	180	180	180	180	180	180	180	180	180
Avg. R^2	0.004	0.010	0.002	0.042	0.050	0.031	0.025	0.031	0.022	0.024	0.027	0.020

Appendix 1
Mapping Bills to Fama-French 49 Industry Classification

Major	Major Description	Fama-French 49 Industry Classification						
1	Macroeconomics							
2	Civil rights, minority issues, and civil liberties							
3	Health	11	12	13	2	3	4	5
4	Agriculture	1						
5	Labor, employment, and immigration							
6	Education							
7	Environment							
8	Energy	29	30	31				
10	Transportation	41	23	24	25			
12	Law, crime, and family issues							
13	Social welfare							
14	Community development and housing issues	17	18					
15	Banking, finance, and domestic commerce	45	46	47	48			
16	Defense	26						
17	Space, science, technology and communications	32	35	36	37	22		
18	Foreign trade							
19	International affairs and foreign aid							
20	Government operations							
21	Public lands and water management							
24	State and local government administration							
26	Weather and natural disasters							
27	Fires							
28	Arts and entertainment	7						
29	Sports and recreation	6						
30	Death notices							
31	Churches and religion							
99	Other, miscellaneous, and human interest							

Appendix 2
Variable Definitions

Variables	Definitions
Policy risk variables	
Bills	The annual number of bills linked to the industry where a firm belongs to and that are introduced by either the home-state Senators or House Representatives. The data on bill information are collected from the Congressional Bills Project (http://www.congressionalbills.org/index.html).
$Bills^{loc}$	The annual number of bills introduced by either the home-state Senators or House Representatives.
$Bills^{ind}$	The annual number of bills linked to the industry where a firm belongs to.
Corporate political strategy variables	
N. of connected directors	The number of board members who are politically connected. To be considered as politically connected, the board member's party on the former political position must be same as the incumbent President's party. If a firm does not have any politically connected member, a value of 0 is assigned.
Board's political experience	The average tenure of past political activities of boards of directors in a calendar year t.
Board's political freshness	We compute political freshness for each board member by 50 – elapse period, where the elapse period is from the year a politically connected director left the political position to the year he/she serves as a corporate director. After collecting the freshness scores from all directors, we compute the average of directors' freshness for each firm. Again, we require that the board member's party on the former political position be same as the incumbent President's party to be considered as politically connected.
B-Index	*T*he political strategy index that combines the yearly ranks of *N. of connected directors* (= the number of board members who are politically connected), *Board's political* experience (= average tenure of past political activities of boards of directors) and *Board's political freshness* (= board's political freshness based on directors' elapse period).
N. of supported candidates	The number of candidates supported by the firm. The data comes from the Federal Election Commission (FEC) summary files on political contributions to House and Senate elections. In the regressions, it is transformed by adding one and taking the natural log.
Strength of relationships with supported candidates	The strength of the relationships between candidates and the contributing firm. It is measured by the total length of relationships between the firm and the candidates. The data come from the Federal Election Commission (FEC) summary files on political contributions to House and Senate elections. In the regressions, it is transformed by adding one and taking the natural log. Refer to Cooper *et al.* (2010) for the detailed description and computation of this variable.
Supported candidates' ability	The ability of the politicians to help the firm. It is measured by the home state of the firm and the candidate. The data come from the Federal Election Commission (FEC) summary files on political contributions to House and Senate elections. In the regressions, it is transformed by adding one and taking the natural log. Refer to Cooper *et al.* (2010) for the detailed description and computation of this variable.

Supported candidates' power	The power of the candidates. It is measured by the candidate's committee ranking. The data come from the Federal Election Commission (FEC) summary files on political contributions to House and Senate elections. In the regressions, it is transformed by adding one and taking the natural log. Refer to Cooper *et al.* (2010) for the detailed description and computation of this variable.
P-Index	The political strategy index that combines the yearly ranks of *N. of supported candidates* (= the number of supported candidates), *Strength of relationships* (= the strength of the relationships between candidates and the contributing firm), *Supported candidates' ability* (= the ability of the candidates to help the firm), and *Supported candidates' power* (= the power of the candidates)
Corporate lobbying expenditures	It is measured by aggregating all reported expenses. The lobbying information is collected from the OpenSecrets (http://www.opensecrets.org) of the Center for Responsive Politics (CRP).
L-Index	The political strategy index that measures the yearly rank of *Lobbying expenditures*.
PSI	The political strategy index that combines the yearly standardized ranks of N. of politically connected board members, N. of supported candidates, and Lobbying expenditures. $PSI_i = \frac{1}{K_i}\sum_{k=1}^{K_i}\frac{Rank_k(Political\ strategy_{ik})}{N_k}$, where $Rank_k$(Political $strategy_{ik}$) is the rank function which assigns rank for each observation, Political $strategy_{ik}$ is the kth measure of political strategy measures for firm *i* in our sample, and K is the dimensions of measures. For each information variable, the firm with the highest value in the measure is ranked as N_k while the firm with the lowest value is ranked as one. The denominator (K_i) averages the ranks regardless of the number of values of the firm in the sample. For example, the firm that has only two measures in records is divided by $K_i = 2$. Firm with all three measures is divided by $K_i = 3$. This construction scales the variable PSI to a value between 0 (weakest political strategy) and 1 (strongest political strategy possible).
Firm characteristics	
Ret	A firm *i*'s monthly return
Size	The natural log of one plus market value of common equity that is computed by the number of common shares times the share price at the end of calendar year.
BM	The ratio as the book value to market value of equities for the firm. The market equity value of the firm is the value of all common stocks outstanding.
Beta	Systematic risk, computed from the market model using daily returns over the year.
Leverage	A proxy for a firm's leverage, measured by total long-term debts divided by assets [(dltt+dlc)/at]
Tangibility	A proxy for a firm's tangibility, measured by net of properties, plants, and equipment divided by assets [ppe/at]
HHI	Herfindahl index using a firm's sales based on the first three digits of SIC code
Firm age	Years since listed in Compustat.
R&D	A firm's R&D expenditure normalized by assets [xrd/at].
FreeCash	Free cash flow normalized by assets [(oibdp−xint−txt+Δtxditc−dvp−dvc)/at].
Foreign	Foreign is a dummy that equals 1 if a firm's foreign sale is greater than 0 in a given calendar year, and 0 otherwise.
Union	A percentage of union coverage in a given 4-digit SIC industry code (http://www.unionstats.com)