Does Firm-Level Political Risk Affect Mergers and Acquisitions?

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Abstract

In this study I examine how a firm's exposure to political risk affects its merger & acquisition (M&A) activities. Consistent with the predictions from real options theory, I find that a firm is less likely to engage in M&A activities and less likely to take large M&A deals when its exposure to political risk is high. This effect is particularly evident when acquirers are taking diversified M&As or when acquirers are influential and dominant in their industry. I also find a positive relationship between the time to deal completion and the acquirer's exposure to political risk. Additionally, given that prudence and conservatism are motivated by a higher-level of political risk, I show that this leads to acquirers paying lower bid premiums and experiencing a larger increase in shareholder value from M&A deals.

Declaration

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

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1. Introduction

The business operating environment is significantly affected by the political decisions made by regulatory institutions and politicians. Recent events, such as the escalation in the United States-China trade war, have intensified the concerns about risks emanating from the political system and different political decisions. Since businesses face a significant amount of uncertainty regarding the timing, content, and potential influence from political decisions, it is essential to understand what consequences political risks may cause, and the magnitude of such effects (Hassan et al. (2019)). These topics have recently attracted growing attention from politicians, business leaders and researchers.

Many researchers in finance examine the impact of policy uncertainty on various corporate activities. Prior literature suggests that a higher level of aggregate policy uncertainty is associated with a lower level of corporate investment (Baker, Bloom, and Davis (2016), Gulen and Ion (2016)). According to real options theory, Gulen and Ion (2016) argue that uncertainty shocks increase the value of real options. Firms tend to delay investment, especially for irreversible investment, to preserve the value of real options (Bernanke (1983), Abel and Eberly (1994), Lang and Stulz (1994)). Thus, firms scale back spending when policy uncertainty is high.

Using the aggregate economic policy uncertainty index, Baker, Bloom, and Davis (2016) further confirm the real options channel through which policy uncertainty negatively affects corporate investment. Merger and acquisition (M&A) is one of the most important corporate investment decisions. With an estimated aggregate volume of over $4 trillion in 2018 (Monica (2018)), M&As are among the largest and most readily observable forms of corporate investment. Nguyen and Phan (2017) and Bonaime, Gulen, and Ion (2018) show that firms' M&A activities are negatively associated with the aggregate level of policy uncertainty. As M&As are considered as risky and irreversible investment, firms become cautious and tend to

delay such investment when facing policy uncertainty. Further, Nguyen and Phan (2017) find a positive association between policy uncertainty and M&A performance. Such a positive impact on M&As comes from a better selection process of the target firms and better acquisition terms due to a higher level of policy uncertainty.

While these studies highlight the relationship between policy uncertainty and M&A activity, they only focus on the aggregate level of political risk. However, individual firms could have different levels of exposure to political risk and aggregate policy uncertainty (Hassan et al. (2019)). To address this issue, Hassan et al. (2019) develop a firm-level political risk index. Hassan et al. (2019) find that over 90% of the variation in firm-level political risk is not caused by the aggregate policy uncertainty, which highlights the importance of considering firm-level political risk in future research. Moreover, they also find that firms with a high level of political risk are associated with significant decrease in investment and capital expenditures.

However, little is known about how firm-specific political risk affects M&A activities. In the context of M&As, policy uncertainty is an important source of risk as it can lead to uncertainty about the valuation of the target firm and deal synergies (Bonaime, Gulen, and Ion (2018)). Therefore, it is necessary to explore the relationship between firm-level political risk and M&A activity. My study fills this gap by examining the effect of political risk faced by individual firms on their M&A activities. This extension of literature is meaningful, given the limitation of the aggregate level policy uncertainty index and the importance of M&As in corporate investment.

In particular, my study examines the effects of firm-level political risk on acquisition likelihood, deal value, the time it takes to complete the deal, deal premiums, and deal performance for firms in the United States from 2003 to 2017. The measure of firm-level political risk is from Hassan et al. (2019), which utilize the transcripts of quarterly conference-

call and the computational linguistics to quantify the share of the earnings call devoted to discussing risks associated with politics. Furthermore, they also identify risks associated with different political topics, such as health care, economic policy and so on.

I begin my analysis by estimating the effect of firm-level political risk on the probability of conducting M&As. From the real options perspective, when the level of policy uncertainty is high, firms are more likely to delay investment, especially the irreversible investment (Abel (1983), Dixit, Dixit, and Pindyck (1994)). As M&A activity is typically considered as a large and difficult to-reverse investment (Nguyen and Phan (2017)), I predict that there is a negative relationship between a firm's exposure to political risk and its likelihood of making acquisitions.

Using a logit model, I regress a firm's probability to engage in an M&A deal in year *t+1* on the political risk that the firm is facing in year *t*, and firm-level control variables in year *t*. Based on 42,004 firm-year observations, I find that firm-level political risk is negatively associated with the probability of conducting M&As. This finding is consistent with the previous literature, which examines the effects of national wide political risk (Nguyen and Phan (2017), Bonaime, Gulen, and Ion (2018), Cao, Li, and Liu (2019)). In my study, I am able to show that the firm-level idiosyncratic political risk also yields a negative impact on M&A probability, further supporting the real options theory.

Next, I examine the effect of political risk on the deal size of M&As. As a higher level of policy uncertainty results in a lower level of corporate investment (Baker, Bloom, and Davis (2016), Hassan et al. (2019)), firms tend to reduce capital spending for M&As and conduct smaller deals when their exposure to political risk is high. Using the ordinary least squares (OLS) model, I regress the total deal value in year *t+1* on the firm-level political risk and control for other firm-specific characteristics in year *t*. The empirical result suggests a negative relationship between deal size and firm political risk.

The impact of policy uncertainty on corporate acquisitions may vary depending on the types of political risk. Thus, I use the topic-specific political risk measure developed by Hassan et al. (2019) to further explore the effects of different types of political risk on corporate M&A behaviour. Among the eight different topics, I find that political risk related to economic policy and budget, environment, trade, and tax has a significant negative effect on M&A likelihood and deal value. In contrast, the risk associated with institutions and political process, health care, security and defence, and technology and infrastructure does not have a meaningful impact on M&A activity.

Additionally, I examine whether the negative effect of firm-level political risk on M&A activities is dependent on the type of acquisition deals. Diversified M&As are risky investment, which are usually viewed negatively by the market (Lang and Stulz (1994), Berger and Ofek (1995), Scharfstein (1998)). Risk-averse managers tend to avoid such risky investment when policy uncertainty is high (Panousi and Papanikolaou (2012)). Thus, the negative relationship between political risk and M&A activities should be stronger for diversified M&As. Consistent with this prediction, the empirical results show that the negative impacts of political risk on firm acquisitiveness and M&A deal value are mainly driven by the decrease in the diversified M&As. I further perform the subsample analysis based on the market share of a firm. As large and influential firms have more political connections, they are more likely to be affected by the political risk (An et al. (2016)). Using the market share of a firm within its operating industry to proxy for its influence, I find that only industry-dominated firms reduce the corporate acquisition likelihoods and M&A deal value when their exposures to political risk is high.

Using the sample of 4,635 completed M&As, I further examine the relationship between firm-level political risk and the time it takes to complete the deal. Based on the real options theory, high uncertainty increases firms' incentives to delay investment until some of

the uncertainty resolves (Abel (1983), Dixit, Dixit, and Pindyck (1994)), which also implies that it will be better for firms to spend more time during the deal negotiation periods. Using the OLS regressions, I find that that a firm's exposure to political risk is positively correlated with the time it takes to complete M&A deals, which is consistent with this hypothesis.

Further, the existing literature argues that firms become more prudent when the political risk is high (Rodrik (1991), Bloom, Bond, and Van Reenen (2007), Gulen and Ion (2016)). Thus, if firms choose to conduct M&As when exposing to a high level of policy uncertainty, they would select the acquisition target carefully and be prudent about the terms of the acquisition (Nguyen and Phan (2017)). This proposition indicates that firms' exposure to political risk is negatively related to the bid premiums and positively associated with the deal performance.

To test this prediction, first, I regress the bid premiums on firm-level political risk while controlling the firm and deal characteristics. The empirical result suggests a negative relationship between firm-level political risk and bid premiums, which is consistent with our prediction that acquirers' exposure to political risk induces them to be more conservative in setting the bid prices. Next, I examine how acquirers' exposure to political risk influences the short-term performance of acquisitions. To measure the short-term performance of M&As, I calculate the three-day and the seven-day cumulative abnormal stock returns around M&A announcements (CARs). The regression results reveal that the stock market reacts positively to the M&A announcements if acquirers' political risk is high. This positive association between market response and acquirers' exposure to policy uncertainty indicates that the M&A deals conducted by acquirers with high political risk create value for shareholders.

Last, I examine the relationship between long-term performance and acquirers' exposure to political risk. Consistent with the previous results, acquirers' political risk is positively related to their long-term performance, measured as the 3-years' industry-adjusted

sales growth following the acquisition announcements. In addition, I also examine how acquirers' political risk affects their changes in industry-adjusted return on assets (ROA) after the M&As using a propensity-score matched sample. Both findings demonstrate that political risk motivates the acquirers to perform due diligence in screening the targets and select the right M&A deals that improves firm performance in the long term.

It is possible that both the firm-level political risk and M&As activities are correlated with some unobservable factors, such as the investment opportunities. To address the possibility that an omitted variable bias exists in my tests, I perform the instrumental variable analysis. Followed by Nguyen and Phan (2017) and Nguyen and Nguyen (2019), I use the partisan polarisation measure developed by McCarty, Poole, and Rosenthal (1997) as an instrument for a firm's exposure to political risk. The empirical results show that the negative effect of firm-level political risk on acquisition likelihoods and M&A deal value remains statistically significant, which mitigates the concern of an omitted variable bias.

In sum, my empirical findings show that acquirers become more prudent and tend to reduce or delay risky investment when exposing to high policy uncertainty. Thus, firm-level political risk is negatively related to the likelihood of conducting M&As and deal value while positively associated with the time to completion. Additionally, the acquirer's prudence due to high-level political risk creates value for acquirers. Acquirers are more cautious about setting the bid price and selecting the targets, which generates better outcomes.

My research makes three main contributions to the literature. First, my study adds to the literature examining the effects of policy uncertainty on economic outcomes. For example, prior literature shows that policy uncertainty affects capital structures (Desai, Foley, and Hines Jr (2004), Desai, Foley, and Forbes (2008)), capital expenditures (Julio and Yook (2012), Baker, Bloom, and Davis (2016), Gulen and Ion (2016)), bond issuance (Gao, Murphy, and Qi (2019)), and equity issuance (Çolak, Durnev, and Qian (2017)). My work adds to the literature by

showing that not only country-wide but also firm-specific political risk reduces the probability and deal value of M&As. Additionally, this negative effect varies across firms with different characteristics. Large and influential firms are more affected by political risk.

Second, my research contributes to the literature of M&As. Prior work devotes significant efforts to understand what factors can affect M&A activities. For instance, product-market consideration (Hoberg and Phillips (2010)), market valuation (Maksimovic and Phillips (2001), Jovanovic and Rousseau (2002), Rhodes‐Kropf and Viswanathan (2004)), risk management (Garfinkel and Hankins (2011)) and corporate governance issues (Holmstrom and Kaplan (2001), Schmidt (2015), Field and Mkrtchyan (2017)) influence M&As. I offer a fresh perspective on the determinants of M&As. My research suggests that firm-level political risk, especially the political risk related to economic policy and budget, environment, trade, and tax policy, negatively affects the probability and the deal value of M&As. The negative effect is also dependent on the type of acquisition deals. Diversified M&As are more affected by the political risk. Moreover, political risk has value implications. Acquirers with high political risk experiences better M&As outcomes.

Third, my study establishes an important link between the two aforementioned literature. The relationship between policy uncertainty and M&As has received growing attention. For example, Cao, Li, and Liu (2019) show a significant effect of national elections on cross-border mergers. Sha, Kang, and Wang (2020) explore the impact of policy uncertainty on M&A deals in China. Using the aggregate policy uncertainty index, Nguyen and Phan (2017) and Bonaime, Gulen, and Ion (2018) show that political risk is negatively related to the likelihood of conducting M&As and positively associated with the M&A performance (Nguyen and Phan (2017)). My research differs from the above papers by focusing on firm-level political risk. As the aggregate level index can mask much of the firm-level variation in political risk (Hassan et al. (2019)), it does not describe the economic impact of political risk

completely. Examining the risk at firm-level allows us to consider the firm's relative position in the cross-sectional distribution of political risk, which complements the previous literature.

The remainder of this thesis is structured as follows. Section 2 reviews the prior literature relevant to the thesis. Section 3 outlines my research questions and key hypotheses. Section 4 discusses data, methodology and variables, and reports the summary statistics. Section 5 presents the empirical results. Section 6 concludes this study.

2. Literature Review

This section offers a broad overview of the literature relevant to political risk and M&As, including the impact of policy uncertainty on corporate investment and the determinants of M&As. The objective is to provide a review of the key theories that are used to develop the hypotheses and to identify the research gaps.

2.1 Policy Uncertainty and Corporate Investment

There is no consensus on the relation between economic uncertainty and corporate investment. Assuming perfect competition, some papers document that the output price uncertainty could increase corporate investment of risk-neutral firms with constant returns-to-scale production functions (Hartman (1972), Abel (1983), Caballero (1991)). But, others suggest that firms are more likely to delay irreversible investment when uncertainty is high as uncertainty increases the value of real options (Bernanke (1983), McDonald and Siegel (1986), Abel and Eberly (1994), Dixit, Dixit, and Pindyck (1994), Gulen and Ion (2016)).

Prior literature devotes significant efforts to understand the impact of policy uncertainty on different forms of corporate investment. Using the national election as a proxy for policy uncertainty, Julio and Yook (2012) find that firms reduce 4.8% of investment expenditures around election years. They argue that firms will delay investment in anticipation of possible

changes in the macroeconomic, taxation policy, monetary policies, or the regulatory environment. Julio and Yook (2016) further extend this study by examining the election cycle and its impact on foreign direct investment. In addition to corporate investment, policy uncertainty also affects firms' financing decisions. For example, during gubernatorial election years, firms are less likely to conduct IPOs (Çolak, Durnev, and Qian (2017)) and SEOs (Jens (2017)). Based on the real options theory, the value of the option to delay the financing decision such as IPOs and SEOs increases due to the higher uncertainty related to gubernatorial elections (Çolak, Durnev, and Qian (2017), Jens (2017)).

With the intensified concerns about the policy uncertainty, Baker, Bloom, and Davis (2016) develop an index of economy policy uncertainty (BBD index) for the United States since 1985. The BBD index is constructed as a weighted average of three components related to newspaper articles, changes in the federal tax code, and the dispersion in forecasts of monetary and fiscal policies. The first component relies on ten leading newspapers in the United States from January 1985. They obtain a monthly count of articles that contain the following terms: "uncertainty" or "uncertain"; "economic" or "economy"; and one of the following policy terms: "Congress", "deficit", "Federal Reserve", "legislation", "regulation", or "White House". Then, they scale the raw counts by the number of articles in the same newspaper that month and standardize the monthly newspaper-level series to unit standard deviation. Finally, they average these standardized series across ten papers and normalize to a mean of 100 from 1985 to 2009. By applying the newspaper-based approach, they also decompose the policy uncertainty measurement into specific policy categories. The second component, uncertainty about future changes in the federal tax code, is estimated by the discounted dollar value of revenue effects on all tax provisions set to expire over the next ten years using the data from the Congressional Budget Office. The last component is measured by the dispersion in economic forecasts of government spending and the Consumer Price Index

(CPI). The fiscal and monetary policy data are obtained from the Federal Reserve Bank of Philadelphia's Survey of Professional Forecasters.

The BBD index quantifies the aggregate economic policy uncertainty in the United States and is widely used in many recent studies (Baker, Bloom, and Davis (2016), Gulen and Ion (2016), Nguyen and Phan (2017), Bonaime, Gulen, and Ion (2018)). Baker, Bloom, and Davis (2016) show that policy uncertainty is associated with greater stock price volatility. At the macro level, a higher level of policy uncertainty results in a lower level of investment, production, and employment in the United States. Consistent with their finding, Gulen and Ion (2016) argue that policy uncertainty is negatively associated with corporate investment in the United States. The mechanism is that policy shocks can increase firms' incentives to delay investment due to the higher option values until some of the uncertainty resolves.

However, all the associations between political risk and firm behaviours outlined above focus on the aggregate uncertainty index. Compared to the firm-level measure, the aggregate index can mask much of the variation in political risk across different firms. Due to the lack of firm-level measure of political risks, most studies ignore the firm-level variation in political risk and its economic impacts.

Recently, to fill the gap in the previous literature, Hassan et al. (2019) develop not only a firm-level measure of political risk, but also a flexible decomposition into topic-specific components. To achieve this, they use textual analysis of quarterly earnings conference-call transcripts of individual firms listed in the United States. They distinguish political topics from non-political topics using a pattern-based sequence-classification method developed in computational linguistics (Song (2008), Manning, Raghavan, and Schütze (2010)). Using this approach, they analyse the transcripts and identify text that is either political in nature or indicative of a specific political topic. Similarly, they use the synonyms of the words "risk" and "uncertainty" to identify the association with risks. Then, they construct two training

libraries, political topic and non-political topic. Each training library is the set of all adjacent two-word combinations ("bigrams") after removing all punctuation. Furthermore, they decompose the conference-call transcripts for individual firms in each quarter into a list of bigrams. Finally, they count the number of occurrences of bigrams that indicates the discussion of a political topic and divide by the total number of bigrams in the transcript to calculate the weight. Mirroring this approach, they further distil the training libraries for eight political topics: economic policy & budget, environment, trade, institutions & political process, health care, security & defence, tax policy, and technology & infrastructure, and calculate the corresponding weight.

Using the firm-level political risk measurement, Hassan et al. (2019) document that a large share of the variation in political risk appears to play out at the firm level. Specifically, variation in aggregate political risk over time accounts for only 0.81% of the variation in their measure, while the firm-level variation contributes to over 90%. Therefore, many of the economic outcomes of policy uncertainty are not well documented by conventional models in which individual firms are assumed to have similar exposures to aggregate political risk (Baker, Bloom, and Davis (2016)).

Additionally, Hassan et al. (2019) examine the economic effects of firm-level political risk. Consistent with Baker, Bloom, and Davis (2016), Hassan et al. (2019) find that firms more exposed to political risk experience significant increases in the firm-specific stock return volatility and decreases in firm's hiring, investment and planned capital expenditures. Firms choose to delay investment to preserve the value of real options.

Motivated by the limitation in the aggregate level of policy uncertainty documented by Hassan et al. (2019), I use the firm-level measurement to capture the firm-level variations in political risk. In my study, I explore the economic impact of firm-level political risk on corporate investment, in particular, M&As.

2.2 Determinants of M&As

In another strand of literature, M&As is one of the most important forms of corporate investment (DePamphilis (2010), Nguyen and Phan (2017)). With an estimated aggregate volume of over $4 trillion in 2018 (Monica (2018)), M&As represent the primary and essential tools for a company to reallocate capital, expand the existing network and diversify market risks. The central focus of M&As research is to understand which factors contribute to M&A activity. For example, the existing literature has documented that corporate governance issues (Holmstrom and Kaplan (2001), Schmidt (2015), Field and Mkrtchyan (2017)), technology considerations (Phillips and Zhdanov (2013), Bena and Li (2014)), and market valuation (Maksimovic and Phillips (2001), Jovanovic and Rousseau (2002), Rhodes‐Kropf and Viswanathan (2004)) are important determinants of M&As.

Uncertainty is one of the key drivers of corporate acquisitions. However, how uncertainty affects M&As attracts relatively less attention from researchers. From a risk management perspective, Garfinkel and Hankins (2011) find that the increased cash flow uncertainty carries significant explanatory power for firms' decisions to vertically integrate. They argue that vertical integration is an attempt to hedge cash flow uncertainty. From the agency issue perspective, Duchin and Schmidt (2013) show that the high firm-level uncertainty during the merger waves increases the agency problem. Therefore, the positive link between uncertainty and M&As is motivated by management empire-building. From an interim risk perspective, high uncertainty creates a material delay between the initiation of merger agreement and the deal completion (Bhagwat, Dam, and Harford (2016)). Given that merger renegotiations or terminations entail nontrivial costs to each party (Bates and Lemmon (2003), Officer (2004)), greater volatility makes the marginal deal less profitable. Therefore, Bhagwat, Dam, and Harford (2016) find that a firm’s stock price uncertainty has a significant dampening effect on merger activity.

Despite lacking of firm-level variation, the impacts of aggregate policy uncertainty on M&As have been examined by Nguyen and Phan (2017), Bonaime, Gulen, and Ion (2018) and Sha, Kang, and Wang (2020). Policy uncertainty arises when the future path of government policy is uncertain. It includes the uncertainty regarding taxes, government spending, monetary and fiscal policy, regulation, and the uncertainty over the electoral outcomes that will influence political leadership.

Utilizing the Baker, Bloom, and Davis (2016) index, Nguyen and Phan (2017) examine the relationship between economic policy uncertainty and M&As in the United States. They find that policy uncertainty is negatively associated with the probability of conducting M&As and positively related to the time to deal completion. In terms of the deal performance, policy uncertainty has a positive impact on the acquirer's abnormal return around the announcement date and acquirer's long-term performance, measured by buy-and-hold abnormal returns and post-merger return on assets. Bonaime, Gulen, and Ion (2018) provide further support for the negative relationship between policy uncertainty and firm acquisitiveness. Using four different measurements of investment irreversibility, they find that such negative relation is stronger for more irreversible deals. Furthermore, using the ten category-specific indices of policy uncertainty developed by Baker, Bloom, and Davis (2016), Bonaime, Gulen, and Ion (2018) find that uncertainty related to monetary policy, fiscal policy (taxes and government spending), and regulation (especially financial regulation) has a significant negative impact on M&A activity, while uncertainty regarding health care, national security, trade policy, entitlement programs, and sovereign debt does not have a meaningful effect.

Several studies further examine the impacts of policy uncertainty on international M&As or acquisitions outside the United States, such as cross-border acquisitions (Cao, Li, and Liu (2019)) and M&A deals in China (Sha, Kang, and Wang (2020)). Cao, Li, and Liu (2019) find that acquirers have a higher likelihood of conducting cross-border M&As before a

national election. Specifically, acquirers favour target countries that have lower political uncertainty or countries that can offset some of the home country's political uncertainty. Contradict to the behaviour of firms in the United States, Chinese firms are more likely to make acquisitions during the periods of high economic policy uncertainty (Sha, Kang, and Wang (2020)). Although firms tend to delay investment under a high-level of uncertainty, the cost of waiting in a competitive market is high (Yang and Meyer (2015)). Therefore, facing a high level of market competition, firms still choose to conduct M&As to gain a competitive advantage in China during the high policy uncertainty period.

The above two strands of literature show that policy uncertainty does have a real impact on corporate behaviours. As political risk is highly volatile and heterogeneous (Hassan et al. (2019)), it is important to understand how different exposures to political risk among different firms affects their investment decisions. However, no previous study investigates whether the variation of political risk at the firm level affects M&A activities. In this paper, I aim to fill this gap.

3. Hypothesis Development

There are two research questions concerning political risk and corporate acquisitions. The first one is how firms' exposure to political risk affects their M&A activities. The second one examines whether firms' exposure to political risk affects the outcomes of their M&As.

The relationship between uncertainty and corporate investment is unclear. Hartman (1972), Abel (1983) and Caballero (1991) argue that uncertainty can increase the corporate investment of risk-neutral firms assuming perfect market competition. However, in another strand of literature, uncertainty has a negative impact on the corporate investment (Abel and Eberly (1994), Dixit, Dixit, and Pindyck (1994), Gilchrist, Sim, and Zakrajšek (2014), Brogaard and Detzel (2015)). Gilchrist, Sim, and Zakrajšek (2014) argue that uncertainty

increases a firm's cost of capital and default risk, thus, negatively affects corporate investment. From a real options perspective, firms tend to delay irreversible investment during periods of high uncertainty (Dixit, Dixit, and Pindyck (1994)). By focusing on the policy uncertainty in particular, recent studies further confirm the real options channel (Baker, Bloom, and Davis (2016), Gulen and Ion (2016)). For example, Gulen and Ion (2016) argue that firms are more likely to delay corporate investment, especially for irreversible investment, since policy uncertainty increases the real option value.

M&As require a large amount of initial capital, thus being considered as irreversible investment (Bonaime, Gulen, and Ion (2018)). Based on the real options theory, Nguyen and Phan (2017) and Bonaime, Gulen, and Ion (2018) find that the aggregate policy uncertainty is negatively related to the likelihood of corporate acquisitions. As the firm-level political risk index developed by Hassan et al. (2019) is used as a proxy for a firm's exposure to economic policy uncertainty, the relationship between firm-level political risk and M&A activities should be negative. From the arguments above, I form the following hypothesis:

Hypothesis 1: *A higher exposure to political risk results in a lower likelihood of corporate acquisitions and a lower level of M&A deal value.*

Moreover, based on the real options theory, firms will delay irreversible investment before resolving some of the uncertainty (Dixit, Dixit, and Pindyck (1994)). This argument implies that even if firms engage in M&As, they still have the incentive to spend more time to complete the deals. Therefore, I hypothesize that:

Hypothesis 2*: A firm's exposure to political risk is positively correlated with the time it takes to complete M&A deals.*

During the periods of high policy uncertainty, the cost of capital tends to be high, which exacerbates firms' financial constraints (Pastor and Veronesi (2012), Gilchrist, Sim, and Zakrajšek (2014)). It is costly and difficult for acquirers to raise external funds to support

M&As during such periods (Nguyen and Phan (2017)). Thus, acquirers are expected to be prudent in setting the bid price. An abnormally high bid price may result in liquidity problems for acquirers, which increases firms' default risk. Based on the above argument, I form the following hypothesis:

Hypothesis 3*: A higher level of a firm's exposure to political risk results in a lower level of bid premiums.*

Policy uncertainty imposes additional risk on firm operations. Acquisitions can be risky for firm with a high exposure to political risk, which amplifies and complicates the risk of large investment such as M&As (Nguyen and Phan (2017)). However, political risk can motivate a firm's prudence and conservatism (Bloom, Bond, and Van Reenen (2007), Gulen and Ion (2016)). If acquirers choose to conduct M&As during the high-risk period, the high level of political risk can prompt the acquirers to perform thorough due diligence and carefully select the acquisition targets. Acquirers tend to select the right M&A deals under high policy uncertainty, which creates value for shareholders both in the short term and long term. Accordingly, I hypothesize that:

Hypothesis 4*: A firm's exposure to political risk is positively associated with the M&A deal performance.*

4. Data and Methodology

An overview of the data and methodology employed in this study is given in this section, which includes six sub-sections: the first describes the sample selection criteria; the second discusses the construction of the main variables; the third and fourth show the econometric models used in this study; the fifth illustrates the endogeneity problem; and the last presents summary statistics.

4.1 Sample Selection

The merger and acquisitions data are from Thomson Financial's SDC Database and consist of all completed M&A deals in the United States from 2003 to 2017. Following prior literature (Nguyen and Phan (2017)), I exclude small transactions with a deal value of less than one million US dollars. I require the target to be either a public or a private firm. I also require the acquirer to control less than 50% of the target's ownership before the transaction and 100% of the target's shares after the transaction. Finally, I obtain accounting information from the Compustat database and stock price and return information from the Center for Research in Security Prices (CRSP) database. The final sample consists of 4,635 transactions (1,935 unique acquirers) with an average transaction value of $555.23 million. The firm-level analysis is based on 42,004 firm-year observations, obtained from CRSP and Compustat databases.

4.2 Main Variable Measurement

The primary variable of interest in this study is a firm's exposure to political risk. I use the firm-level political risk index developed by Hassan et al. (2019) to measure a firm's exposure to policy risk. Hassan et al. (2019) employ textual analysis in the transcripts of quarterly earnings conference-call to measure the exposure to political risk. They use a pattern-based sequence-classification method developed in computational linguistics (Song (2008), Manning, Raghavan, and Schütze (2010)) to distinguish the political issues from non-political issues. Using this approach, they construct the political topic (P) and non-political topic (N) training libraries. Each training library is a collection of two-word bigrams (B).

Further, they count the number of bigrams associated with the discussion of the political topic in a set of ten words surrounding a synonym for risk or uncertainty, and divide by the total number of bigrams in the transcript using the following formula:

$$PRisk_{\mathrm{it}} = \frac{\sum_{\mathrm{b}}^{\mathrm{B_{it}}} \left(1[\mathrm{b} \in \mathrm{P} \backslash \mathrm{N}] \times 1[|\mathrm{b} - \mathrm{r}| < 10] \times \frac{\mathrm{f_{b,P}}}{\mathrm{B_P}} \right)}{\mathrm{B_{it}}} \qquad (1)$$

where $1[\bullet]$ is the indicator function, P\N denotes the bigrams included in P but not N, r represents for the synonym of risk or uncertainty. The first two terms in the equation ($1[\mathrm{b} \in \mathrm{P} \backslash \mathrm{N}] \times 1[|\mathrm{b} - \mathrm{r}| < 10]$) count the occurrences of bigrams indicating the discussion of political topics that occur in proximity to a synonym for risk or uncertainty (within ten words). $f_{b,P}$ is the frequency of bigram b in the political training library. $\mathrm{B_P}$ is the total bigrams contained in the political training library. The last term in the numerator ($\frac{\mathrm{f_{b,P}}}{\mathrm{B_P}}$) weights each bigram with a score reflecting how strongly the bigram is related to the discussion of political topics. This measurement of political risk is thus a weighted sum of bigrams devoted to risks relating to the political topics in the quarterly earnings conference calls.

Mirroring this approach, Hassan et al. (2019) decompose the firm-level political risk index into different topics. To construct the topic-specific training libraries, they rely on newspaper articles, speeches, press releases, and bill sponsorships provided by OnTheIssues.org. Based on the material provided on the website, they construct training libraries (Z) for eight political topics: economic policy & budget, environment, trade, institutions & political process, health care, security & defence, tax policy, and technology & infrastructure. Similarly, they calculate the share of quarterly earnings conference-call transcripts that features significant discussions associated with political issues for each topic T using the formula:

$$PRisk_{it}^{T} = \frac{\sum_{\mathrm{b}}^{\mathrm{B_{it}}} \left(1[\mathrm{b} \in P_T \backslash \mathrm{N}] \times 1[|\mathrm{b} - \mathrm{p}| < 10] \times \frac{\mathrm{f_{p,P}}}{\mathrm{B_P}} \times \frac{\mathrm{f_{b,}P_T}}{B_{P_T}} \log(Z/f_{b,Z}) \right)}{\mathrm{B_{it}}} \qquad (2)$$

where p is the position of the nearest bigram already counted in the measure of overall political risk (1), that is, a political bigram which is also close to a synonym for risk and uncertainty. Similarly, b and p are weighted with their term frequencies and inverse document frequencies.

$f_{b,Z}$ represents the number of libraries in Z that contain bigram b. $\log(Z/f_{b,Z})$ adjusts each bigram's weighting for the uniqueness of its use to the discussion of a specific topic. The purpose of this term is to distinguish between different political topics. For example, a bigram that is used exclusively in the discussion of a specific topic is assigned the highest weight of $\log(Z/1)$, while a bigram that occurs in all topic-based political libraries receives a weight of $\log(Z/Z) = 0$. The topic-based measurements identify transcripts that centre on risks associated with each of the eight political topics.

Furthermore, Hassan et al. (2019) confirm the validity of their measure. They compare it with the newspaper-based measure of economic policy uncertainty developed by Baker, Bloom, and Davis (2016). The two series are based on very different data sources and methodologies, however, they are highly correlated. The correlation between the two measurements is 0.82, which suggests that the two series capture many same events driving uncertainty about the economic policy. Additionally, Hassan et al. (2019) find a positive and significant correlation between firm-level political risk and the sectors' dependence on political decision-making. For example, firms in the finance, insurance, real estate, and construction sectors spend the highest proportion of their time discussing risks related to political topics, while firms in the retail and trade sectors have the lowest political risk. To further probe the firm-level political risk index, Hassan et al. (2019) show that this measure is highly correlated with the realized and implied volatility of stock returns. A one-standard-deviation increase in political risk is associated with a 0.06-standard-deviation increase in the firm's stock return volatility.

4.3 Baseline Model Specification

The first objective of this paper is to examine how firms' exposure to political risk affects their M&A activities in terms of the M&A likelihood, deal value, and time to

completion of M&As. A logistic econometric model is employed to examine the relationship between firm-level political risk and the likelihood of corporate acquisitions. In the regression model, I control for a set of firm-specific characteristics, which could affect firms' takeover activities. I also include year fixed effects and industry fixed effects to control for the unobservable time and industry factors that may affect the probability of corporate acquisitions. To define an industry, I use the first two-digit Standard Industrial Classification (SIC) code. The logistic regression model is designed as:

$$M\&A_{i,t+1} = \alpha + \beta_1 PRisk_{i,t} + Firm\ Control_{i,t} + Year\ FE + Industry\ FE + \varepsilon_{i,t} \quad (3)$$

where the dependent variable $M\&A_{i,t+1}$ is an indicator that takes the value of one if a firm announces an acquisition in year *t+1*. All the independent variables are measured at time *t*. $PRisk_{i,t}$ is the key interested variable that measures a firm's exposure to political risk. This variable is the average of the transcript-based scores of the overall political risk for a given firm and year. Following (Hassan et al. (2019)), I cap $PRisk_{i,t}$ at the 99th percentile and standardize it by its sample standard deviation. $Firm\ Control_{i,t}$ includes a set of control variables that measure firm-specific characteristics in the prior literature (e.g., Ma, Whidbee, and Zhang (2019)), such as firm size, Tobin's Q, leverage, return on assets (ROA), free cash flow (FCF), asset tangibility (PP&E) and research and development (R&D) expenditures. These firm-level control variables are measured as follows: firm size is the natural logarithm of a firm's total assets; Tobin's Q is a firm's market value of equity scaled by its book value of equity; leverage is the sum of a firm's debt divided by its total assets; ROA is a firm's net income scaled by its total assets; FCF is a firm's net change in cash generated from operating activities scaled by its total equity; PP&E is a firm's property, plant, and equipment divided by its total assets; R&D is firm's research and development expense scaled by its assets. A missing

R&D value is coded as 0. These variables are all winsorized at the 1% level. $Year\ FE$ and $Industry\ FE$ are year fixed effects and industry fixed effects, while $\varepsilon_{i,t}$ is the error term and α is the intercept.

The coefficient β_1 is the main interest of this study, which measures the effect of a firm's exposure to political risk on M&A likelihood. Hypothesis 1 predicts $\beta_1$to be negative, that is, a higher firm-level political risk results in a lower likelihood of corporate acquisitions. As policy uncertainty is largely idiosyncratic and exhibits substantial firm-level variations, it is critical to understand what role firm-level political risk plays in determining corporate acquisition activities.

In another analysis, I examine the effect of political risk on the deal size of M&As using an OLS model. Similarly, I control for firm-specific characteristics, year fixed effects and industry fixed effects in the analysis. The OLS model is estimated as follows:

$$Deal\ Value_{i,t+1} = \alpha + \beta_1 PRisk_{i,t} + Firm\ Control_{i,t} + Year\ FE + Industry\ FE + \varepsilon_{i,t} \quad (4)$$

The dependent variable $Deal\ Value_{i,t+1}$ is the natural logarithm of the aggregate deal value for a firm in year *t+1*. It takes the value of zero if a firm does not conduct any M&As in that year. $PRisk_{i,t}$ measures a firm's exposure to political risk. $Firm\ Control_{i,t}$ includes the same control variables of firm-specific characteristics as specified in the model (3). The coefficient β_1 shows the effect of firm-level political risk on the deal size of M&As, which is predicted to be negative under hypothesis 1. The higher a firm's exposure to political risk, the lower the M&A deal value.

4.4 Deal Level Model Specification

I further examine the relationship between firm-level political risk and the time to deal completion. Using a sample of 4,635 completed M&A deals, I regress the time it takes to complete the deal on firm-level political risk and control for firm-specific as well as deal-specific characteristics in year *t*. The OLS model is designed as follows:

$$Time\ to\ Completion_{i,j} = \alpha + \beta_1 PRisk_{i,t} + Firm\ Control_{i,t} + Deal\ Control_j + Year\ FE + Industry\ FE + \varepsilon_{i,t} \quad (5)$$

The independent variable $Time\ to\ Completion_{i,j}$ is the natural logarithm of one plus the number of years it takes from the deal announcement in year t+1 to its completion for deal j of firm i. All the independent variables are measured in year *t*. $PRisk_{i,t}$ represents a firm's exposure to political risk. I include the same firm-specific characteristics variables in the regression as specified in the model (3). Following the prior literature (e.g., Eckbo, Makaew, and Thorburn (2018)), I also control for the deal-specific characteristics in the regression, which includes deal value, cash payment indicator, stock payment indicator, public target indicator, hostile deal attitude indicator, and tender offer indicator. Those deal characteristics are computed as follows: deal value is the natural logarithm of the M&A transaction value as reported in the SDC Platinum database, winsorized at the 1% level; cash payment indicator takes the value of one if an M&A deal is 100% paid by cash, and zero otherwise; stock payment indicator equals one if an M&A deal is 100% paid by stock, and zero otherwise; public target indicator equals one if the target is a publicly listed firm, and zero otherwise; hostile deal attitude indicator equals one if the deal attitude is identified as hostile in SDC Platinum database, and zero otherwise; tender offer is a dummy variable, which takes the value of one if the deal is identified as a tender offer, and zero otherwise. $Year\ FE$ and $Industry\ FE$ are year and industry fixed effects, while $\varepsilon_{i,t}$ is the error term and α is the intercept.

The coefficient β_1 highlights the relationship between firm-level political risk and time to deal completion. Based on hypothesis 2, a firm's exposure to political risk is predicted to be positively correlated with the time it takes to complete M&A deals. Thus, I expect β_1 to be positive.

The second objective of this paper is to examine how firms' exposure to political risk affects the outcomes of corporate acquisitions in terms of bid premiums and acquirers' value creation. OLS models are employed to examine these relationships. I regress the bid premiums on acquirers' exposure to political risk while controlling for the firm and deal characteristics based on the following model:

$$Bid\ Premiums_{i,j} = \alpha + \beta_1 PRisk_{i,t} + Firm\ Control_{i,t} + Deal\ Control_j + Year\ FE + Industry\ FE + \varepsilon_{i,t} \quad (6)$$

To measure the dependent variable $Bid\ Premiums$, I use the percentage difference between the bid prices and the targets' stock prices both one week and four weeks before the deal announcements in year *t+1*. I include the same firm-level and deal-level control variables as in the model (5). Similarly, I control for the year fixed effects and industry fixed effects. β_1 measures how an acquirer's exposure to political risk affects its bid premiums. I expect β_1 to be negative based on hypothesis 3.

Next, I test the relation between firm-level political risk and the value impact of acquisitions. To measure the value creation of M&As in the short term, I use the three-day and seven-day cumulative abnormal stock returns around M&A announcements. I further use the industry adjusted sales growth rate after M&As to measure the value creation of M&As in the long term. To analyse the relationship, I construct the following OLS regression model:

$$CAR(-1,+1)_{i,j} \text{ or } CAR(-3,+3)_{i,j}$$
$$= \alpha + \beta_1 PRisk_{i,t} + Firm\ Control_{i,t} + Deal\ Control_j + Year\ FE$$
$$+ Industry\ FE + \varepsilon_{i,t} \quad (7)$$

I use the standard event study methodology to compute the dependent variables (CARs) of the sample acquirers over the event window $(-1,+1)$ and $(-3,+3)$ around the M&A announcement dates. The CARs are estimated using the market model, in which the CRSP value-weighted index is acting as the benchmark, and the beta coefficients are estimated over a period from 220 to 21 days prior to the announcement date. The CARs around the acquisition announcement dates are measured as the bidders' stock returns in excess of those predicted value from the market model. Similar to model (5), I include the control variables for firm-specific and deal-specific characteristics. The coefficient β_1 measures the relationship between the acquirers' short-term stock performance and their exposure to political risk. According to hypothesis 4, I predict β_1 to be positive.

When examining the post-acquisition accounting performance, the following regression model is used:

$$Sales\ Growth\ Rate_{i,t+1/t+2/t+3}$$
$$= \alpha + \beta_1 PRisk_{i,t} + Firm\ Control_{i,t} + Deal\ Control_j + Year\ FE$$
$$+ Industry\ FE + \varepsilon_{i,t} \quad (8)$$

The dependent variables, $Sales\ Growth\ Rate$, are acquirers' one-, two-, and three-year average industry-adjusted (acquirers' two-digit SIC codes) sales growth following the M&A announcements. Similar controls in the model (5) are considered in this regression model. Based on hypothesis 4, I expect a positive β_1.

4.5 Endogeneity Problem

A potential concern is the omitted variables problem. Is there something that is correlated with the firm-level political risk that is omitted but also correlated with M&A activities? This problem can be mitigated by using two-stage least squares (2SLS) approach with valid instrumental variables (Wooldridge (2016)). Followed by Nguyen and Nguyen (2019), I use the partisan polarisation measure developed by McCarty, Poole, and Rosenthal (1997) as an instrument for firm-level political risk. It is based on DW-NOMINATE scores to track legislators' ideological positions over time. This measure is calculated by taking the difference in the first dimension of the DW-NOMINATE scores between the democratic and republican parties. Partisan polarisation leads to a greater variation in policy and policy gridlock. Thus, it is likely to be a valid instrument as it is positively related to the firm-level political risk but unlikely to be directly linked to M&A activities. I measure the party polarisations for the members in the Senate (POLAR) and perform a two-stage regression analysis as follows:

First stage:

$$PRisk_{i,t} = \alpha + \beta_1 POLAR_t + Firm\ Control_{i,t} + Industry\ FE + \varepsilon_{i,t} \quad (9)$$

Second stage:

$$M\&A_{i,t+1}\ or\ Deal\ Value_{i,t+1} = \alpha + \beta_1 \widehat{PRisk}_{i,t} + Firm\ Control_{i,t} + Industry\ FE + \varepsilon_{i,t} \quad (10)$$

From the first-stage regression model (model (9)), the significance of the estimated coefficient on $POLAR_t$ can indicate whether the IV satisfies the relevance condition. In addition, the F-statistic from the model (9) can illustrate whether the relationship between the

IV and the endogenous variable is strong or weak (Staiger and Stock (1994), Stock and Yogo (2002)). In the second-stage regression (model (10)), the coefficient of $\widehat{PRisk}_{i,t}$ is expected to be negative, indicating a negative relationship between the firm-level political risk and M&A activities.

4.6 Summary Statistics

Table 1. Summary Statistics of Full Sample

This table reports the descriptive statistics of the full sample used in the study. The sample covers publicly traded firms in the Compustat and the CRSP databases from 2003 to 2017. After merging with the Hassan et al. (2019) firm-level political risk, the final sample consists of 42,004 firm-year observations. All variables are defined in the Appendix. *PRisk* is the proxy for the overall political risk of the firm. Each of the political risks is capped at the 99th percentile and standardized by its respective standard deviation. Firm size is in millions of dollars. Other key characteristics are winsorized at the 1% level.

Variable	Nobs	Mean	Median	Min	Max	Std. Dev
PRisk	42,004	0.912	0.598	0.000	5.731	1.000
Economics Political Risk	42,004	0.845	0.526	0.000	5.987	1.000
Environment Political Risk	42,004	0.746	0.413	0.000	6.278	1.000
Trade Political Risk	42,004	0.721	0.391	0.000	6.223	1.000
Institution Political Risk	42,004	0.772	0.449	0.000	6.125	1.000
Health Political Risk	42,004	0.696	0.373	0.000	6.573	1.000
Security Political Risk	42,004	0.818	0.493	0.000	6.009	1.000
Tax Political Risk	42,004	0.791	0.466	0.000	6.099	1.000
Technology Political Risk	42,004	0.780	0.455	0.000	6.110	1.000
Firm Size ($m)	42,004	6.892	6.786	2.638	12.743	2.024
Tobin's Q	42,004	1.993	1.526	0.642	8.454	1.380
Leverage	42,004	0.231	0.192	0.000	0.968	0.223
ROA	42,004	-0.021	0.032	-1.076	0.270	0.206
Free Cash Flow	42,004	-0.007	0.034	-1.266	0.617	0.223
PP&E	42,004	0.482	0.353	0.000	1.869	0.414
R&D	42,004	0.052	0.000	0.000	0.595	0.103

Table 1 presents the descriptive statistics of the full sample used in this study. The sample consists of 42,004 firm-year observations (5,905 unique firms). The average value of Hassan et al. (2019) index (i.e., the overall firm-level political risk) is 0.912. The topic-specific political risk exposure has a mean value between 0.6 and 0.8.

Table 2. Summary Statistics of M&A Deals

This table reports the descriptive statistics of the M&A deals used in the study. The sample includes 4,635 completed M&A transactions for US targets by US public acquirers from 2003 to2017. To be included in the sample, the acquirer must control less than 50% of the target's ownership before the transaction and owns 100% of the target's shares after the transaction. The deal value must be above 1 million US dollars. Panel A lists the distribution of M&As and the deal characteristics by year. All variables are defined in the Appendix. Panel B shows the summary statistics of the political risk for the acquirer. *PRisk* is the proxy for the overall political risk of the firm. Each of the political risks is capped at the 99th percentile and standardized by its respective standard deviation.

Panel A: Summary of Deal Characteristics by Year

Year	Nobs	Deal Value ($m)	Pure Cash	Pure Stock	Public Target	Hostile	Tender Offer	Diversified M&A-SIC2	Diversified M&A-SIC3
All	4,635	555.230	0.537	0.048	0.220	0.001	0.042	0.363	0.451
2003	266	300.194	0.425	0.117	0.274	0.004	0.045	0.323	0.429
2004	346	297.022	0.509	0.069	0.220	0.003	0.026	0.347	0.460
2005	405	563.134	0.511	0.059	0.220	0.002	0.017	0.363	0.457
2006	408	381.180	0.571	0.039	0.216	0.000	0.015	0.380	0.461
2007	421	397.808	0.501	0.038	0.209	0.000	0.040	0.349	0.437
2008	302	323.811	0.550	0.033	0.195	0.000	0.070	0.321	0.394
2009	227	625.572	0.449	0.079	0.256	0.000	0.066	0.352	0.410
2010	268	478.729	0.541	0.034	0.250	0.000	0.056	0.347	0.433
2011	282	437.246	0.507	0.028	0.121	0.000	0.025	0.365	0.461
2012	331	416.031	0.486	0.030	0.184	0.000	0.033	0.411	0.477
2013	266	510.728	0.534	0.038	0.207	0.000	0.034	0.365	0.451
2014	323	707.243	0.486	0.043	0.183	0.000	0.040	0.313	0.415
2015	299	1,109.321	0.602	0.043	0.254	0.000	0.060	0.368	0.441
2016	251	1,102.978	0.713	0.036	0.307	0.000	0.084	0.430	0.514
2017	240	991.126	0.717	0.046	0.242	0.000	0.063	0.429	0.546

Panel B: Summary of Political Risk

Variable	Nobs	Mean	Median	Min	Max	Std. Dev
PRisk	4,635	0.964	0.659	0.000	5.614	1.000
Economics Political Risk	4,635	0.880	0.567	0.009	5.937	1.000
Environment Political Risk	4,635	0.784	0.453	0.004	6.157	1.000
Trade Political Risk	4,635	0.806	0.473	0.000	6.061	1.000
Institution Political Risk	4,635	0.763	0.442	0.001	6.108	1.000
Health Political Risk	4,635	0.643	0.328	0.002	6.801	1.000
Security Political Risk	4,635	0.827	0.498	0.011	5.962	1.000
Tax Political Risk	4,635	0.817	0.495	0.000	5.981	1.000
Technology Political Risk	4,635	0.797	0.474	0.000	6.116	1.000

Table 2 shows the descriptive statistics of the M&A subsample used in the study. The sample includes 4,635 M&A deals from US public acquirers for US public or private targets from 2003 to 2017. The distribution of M&As and the deal characteristics by year are reported in Panel A. The annual number of M&A deals increases gradually from 2003 to 2007, while drops significantly over the period from 2008 to 2010 due to the global financial crisis. The average transaction value is 555.23 million US dollars. It increases dramatically after 2012, reaching the highest value of 1.1 billion US dollars in 2015. Among all the transactions, around

20% of the deals involve public targets. Half of the deals are paid purely in cash. Around 30% of the transactions are classified as diversified M&As, which are defined as mergers between firms that are operating in different industries.

Panel B presents the value of the political risk index developed by Hassan et al. (2019), the average index value for M&A subsample is 0.964, which is slightly higher than that in the full sample (0.912).

Table 3. Correlation Matrix

The table reports the correlation coefficient among the main variables in the study. *PRisk* is the proxy for the overall political risk of the firm. It is the average for a given firm and year of the transcript-based scores of political risks. Panel A reports the correlation coefficient among firm characteristics with political risk. Panel B shows the correlation among deal characteristics with political risk. All variables are defined in the Appendix. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

Panel A: Correlations with Firm Characteristics (N= 42,004)								
	PRisk	Firm Size	Tobin's Q	Leverage	ROA	FCF	PP&E	R&D
PRisk	1.000							
Firm Size	0.046***	1.000						
Tobin's Q	-0.010**	-0.245***	1.000					
Leverage	-0.008	0.289***	-0.154***	1.000				
ROA	-0.061***	0.379***	-0.091***	-0.057***	1.000			
FCF	-0.012**	0.201***	0.012**	-0.081***	0.442***	1.000		
PP&E	-0.076**	0.151***	-0.161***	0.254***	0.022***	-0.095***	1.000	
R&D	0.040***	-0.424***	0.373***	-0.189***	-0.610***	-0.270***	-0.196***	1.000

Panel B: Correlations with Deal Characteristics (N= 4,635)							
	PRisk	Deal Value	Pure Cash	Pure Stock	Public Target	Hostile	Tender Offer
PRisk	1.000						
Deal Value	0.037	1.000					
Pure Cash	-0.008**	-0.018	1.000				
Pure Stock	0.011	0.080***	-0.242***	1.000			
Public Target	0.016	0.536***	-0.010	0.219***	1.000		
Hostile	-0.004	0.051***	-0.010	-0.006	0.048***	1.000	
Tender Offer	-0.004	0.218***	0.137***	-0.042***	0.394***	0.079***	1.000

The correlation matrix of the key variables is reported in Table 3. Panel A indicates that political risk is negatively related to firm size, Tobin's Q, ROA, FCF, and PP&E, but it is positively related to R&D expenditures. Panel B shows the correlation matrix for the M&A subsample. Most of the deal characteristics are unrelated to the political risk except for the cash payment indicator, which is negatively related to an acquirer's exposure to political risk.

5. Empirical Results

5.1 Baseline Results

Table 4. Political Risk and Acquisition

The table reports the logistic regression results of acquisition likelihood and the OLS regression results of the deal value. The dependent variable in the first column is an M&A indicator, which takes the value of one if a firm makes at least one M&A announcement in year t+1, and zero otherwise. The dependent variable in the second column is the aggregate deal value for a firm in year t+1. It takes the value of zero if a firm does not conduct M&As. All independent variables are measured at time t. Detailed variable definitions are in the Appendix. The sample contains 42,004 firm-year observations from 2003 to 2017. P-value, presented in parentheses, is adjusted for heteroscedasticity and clustered at the firm level. Both models control for year fixed effects and industry fixed effects using two-digit SIC industry classifications. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

	(1)	(2)
Variable	M&As Indicator	Deal Value
PRisk	-0.060***	-0.018**
	(0.009)	(0.025)
Firm Size	0.113***	0.106***
	(0.000)	(0.000)
Tobin's Q	0.051***	0.038***
	(0.002)	(0.000)
Leverage	-0.104	-0.064
	(0.422)	(0.179)
ROA	1.208***	0.260***
	(0.000)	(0.000)
FCF	0.351***	0.051*
	(0.002)	(0.053)
PP&E	-0.605***	-0.190***
	(0.000)	(0.000)
R&D	-0.556	0.071
	(0.158)	(0.494)
Constant	-2.456***	-0.090
	(0.000)	(0.755)
Year F.E.	Yes	Yes
Industry F.E.	Yes	Yes

Pseudo R^2/R^2	0.057	0.036
No. of obs.	42,004	42,004

Table 4 presents the empirical results of the regression model (3) and (4). The variable of interest is $PRisk$. The dependent variable in the first column is an M&A indicator, which takes the value of one if a firm makes at least one M&A announcement in year t+1, and zero otherwise. The dependent variable in the second column is the aggregate deal value for a firm in year t+1. It equals zero if a firm does not conduct any M&As in the year. The estimated coefficients of political risk indicate how a firm's exposure to political risk affects corporate acquisitions. *P*-values are estimated using robust standard errors to adjust for heteroscedasticity (White (1980)), and standard errors are clustered at the firm level.

Consistent with the first hypothesis, the coefficient of $PRisk$ is negative and significant at the 1% level in column (1), which indicates that a firm's exposure to political risk is negatively related to the firm acquisitiveness. One-standard-deviation increase in $PRisk$ is associated with a 63 bps decrease in acquisition probability. This effect is economically significant, considering the unconditional M&A probability is only 9.11% in the sample. In column (2), the coefficient of $PRisk$ is still negative and statistically significant at the 5% level, indicating that the aggregate deal value is negatively correlated with the acquirer's policy uncertainty. Regarding the economic significance, I find that a one-standard-deviation increase in $PRisk$ is associated with a $US 7.6 million decrease in average M&A deal value. These findings support the real options theory. As higher levels of uncertainty will increase the value of the option to delay investment (Abel (1983), Dixit, Dixit, and Pindyck (1994)), firms tend to reduce or delay M&As when their exposures to policy uncertainty are high.

Different types of uncertainty can affect firms in different ways, and thus the impact of policy uncertainty on corporate acquisitions may vary depending on the type of policy uncertainty. To capture this effect, In Table 5 and Table 6, I perform the same analysis as the

baseline models in Table 4, but replace the overall political risk index with the topic-specific political risk index developed by Hassan et al. (2019).

Table 5. Political Risk by Topic and Acquisition Likelihood

The table reports the logistic regression results of acquisition likelihood on firm political risk by different topics. The dependent variable in all regressions is an M&A indicator, which takes the value of one if a firm makes at least one M&A announcement in year t+1, and zero otherwise. The key independent variables are political risks by eight separate topics, i.e., economic policy & budget, environment, trade, institutions & political process, health, security & defence, tax policy, and technology & infrastructure. All the key independent variables are capped at the 99th percentile and standardized by their respective standard deviation. All independent variables are measured at time t. Detailed variable definitions are in the Appendix. The sample covers publicly traded firms in Compustat and CRSP databases from 2003 to 2017. P-value, presented in parentheses, is adjusted for heteroscedasticity and clustered at the firm level. All regressions control for year fixed effects and industry fixed effects using two-digit SIC industry classifications. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Variable	Dependent Variable: M&As Indicator							
Economics Political Risk	-0.059**							
	(0.010)							
Environment Political Risk		-0.042*						
		(0.077)						
Trade Political Risk			-0.092***					
			(0.000)					
Tax Political Risk				-0.043*				
				(0.054)				
Institutions Political Risk					-0.027			
					(0.231)			
Health Political Risk						0.014		
						(0.546)		
Security Political Risk							-0.025	
							(0.239)	
Technology Political Risk								-0.021
								(0.337)
Firm Size	0.114***	0.113***	0.115***	0.114***	0.113***	0.112***	0.113***	0.112***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Tobin's Q	0.051***	0.051***	0.051***	0.051***	0.051***	0.051***	0.051***	0.051***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.002)	(0.002)
Leverage	-0.098	-0.106	-0.109	-0.100	-0.100	-0.100	-0.101	-0.102
	(0.445)	(0.413)	(0.399)	(0.437)	(0.437)	(0.438)	(0.432)	(0.431)

ROA	1.212***	1.212***	1.206***	1.218***	1.216***	1.224***	1.216***	1.218***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
FCF	0.354***	0.351***	0.352***	0.353***	0.352***	0.350***	0.352***	0.351***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
PPE	-0.604***	-0.597***	-0.603***	-0.601***	-0.600***	-0.595***	-0.601***	-0.599***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
R&D	-0.579	-0.569	-0.581	-0.570	-0.559	-0.552	-0.559	-0.555
	(0.141)	(0.149)	(0.140)	(0.148)	(0.155)	(0.161)	(0.156)	(0.159)
Constant	-2.459***	-2.469***	-2.442***	-2.473***	-2.476***	-2.496***	-2.477***	-2.476***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES	YES	YES
Pseudo R^2	0.057	0.057	0.058	0.057	0.057	0.057	0.057	0.057
No. of obs.	42,004	42,004	42,004	42,004	42,004	42,004	42,004	42,004

Table 6. Political Risk by Topic and Deal Value

The table reports the OLS regression results of deal value on firm political risk by different topics. The dependent variable in all regressions is the aggregate deal value for a firm in year t+1. It takes the value of zero if a firm does not conduct M&As. The key independent variables are political risks by eight separate topics, i.e., economic policy & budget, environment, trade, institutions & political process, health, security & defence, tax policy, and technology & infrastructure. All the key independent variables are capped at the 99th percentile and standardized by their respective standard deviation. All independent variables are measured at time t. Detailed variable definitions are in the Appendix. The sample covers publicly traded firms in Compustat and CRSP databases from 2003 to 2017. P-value, presented in parentheses, is adjusted for heteroscedasticity and clustered at the firm level. All regressions control for year fixed effects and industry fixed effects using two-digit SIC industry classifications. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Variable				Dependent Variable: Deal Value				
Economics Political Risk	-0.023***							
	(0.004)							
Environment Political Risk		-0.016**						
		(0.042)						
Trade Political Risk			-0.032***					
			(0.000)					

Tax Political Risk				-0.014*				
				(0.091)				
Institutions Political Risk					-0.009			
					(0.267)			
Health Political Risk						0.009		
						(0.380)		
Security Political Risk							-0.007	
							(0.401)	
Technology Political Risk								-0.007
								(0.385)
Firm Size	0.106***	0.106***	0.107***	0.106***	0.106***	0.105***	0.106***	0.106***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Tobin's Q	0.038***	0.038***	0.038***	0.038***	0.038***	0.038***	0.038***	0.038***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Leverage	-0.062	-0.064	-0.066	-0.063	-0.062	-0.061	-0.062	-0.062
	(0.188)	(0.175)	(0.164)	(0.185)	(0.188)	(0.194)	(0.187)	(0.186)
ROA	0.260***	0.260***	0.257***	0.262***	0.263***	0.267***	0.263***	0.263***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
FCF	0.052**	0.051*	0.052*	0.052**	0.052*	0.051*	0.052*	0.052*
	(0.050)	(0.054)	(0.052)	(0.050)	(0.052)	(0.053)	(0.052)	(0.052)
PPE	-0.190***	-0.188***	-0.189***	-0.189***	-0.189***	-0.187***	-0.189***	-0.189***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
R&D	0.064	0.065	0.061	0.067	0.068	0.067	0.069	0.069
	(0.543)	(0.535)	(0.559)	(0.524)	(0.512)	(0.521)	(0.509)	(0.509)
Constant	-0.088	-0.093	-0.084	-0.094	-0.095	-0.102	-0.096	-0.095
	(0.762)	(0.748)	(0.772)	(0.744)	(0.741)	(0.721)	(0.738)	(0.741)
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES	YES	YES
R^2	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036
No. of obs.	42,004	42,004	42,004	42,004	42,004	42,004	42,004	42,004

Table 5 and 6 report the logistics regressions of acquisition likelihood and OLS regressions of deal size on topic-specific political risk index, which covers eight areas of policies, namely, economic policy & budget, environment, trade, institutions & political process, health care, security & defence, tax policy, and technology & infrastructure. The regression results show that political risk related to economic policy and budget, environment, trade, and tax policy has a significant and negative effect on M&A likelihood and deal value. In contrast, the risk associated with institutions and political process, health care, security and defence, and technology and infrastructure does not have a meaningful impact on M&A activities. These results are intuitive since the key bigrams for economic policy, environment, trade, and tax are, in part, related to M&As (e.g., balanced budget, free trade, trade barriers, tax relief, bush tax). Thus, these policies play an important role in the execution of M&As. In addition, my findings for the topic-specific political risk index are similar to Bonaime, Gulen, and Ion (2018). They find that uncertainty related to the fiscal policy and monetary policy has a strong negative effect on merger activity, while uncertainty associated with health care and national security is not meaningfully correlated with subsequent M&A activity.

5.2 Subsample Analyses

Panousi and Papanikolaou (2012) find that managers are more risk-averse and tend to decrease risky investment when policy uncertainty is high. Thus, policy uncertainty is expected to have more pronounced effects on risky M&A activities. Due to the managerial agency problem and inefficiency in allocating resources, diversified M&As are risky and viewed negatively by the market (Lang and Stulz (1994), Berger and Ofek (1995), Scharfstein (1998)). Therefore, I predict that the negative effect of political risk on firm acquisitiveness and deal value is stronger for diversified M&As.

The diversified M&As are identified using the information from the Standard Industrial Classification (SIC) code and the input-output (I-O) accounts table published by the US Bureau of Economic Analysis (BEA). I first use the two-digit SIC codes to identify M&A transactions between firms that are operating in different industries. Following the literature (Fan and Goyal (2006), Garfinkel and Hankins (2011), Ahern and Harford (2014)), I use the I-O tables to further exclude vertical deals[1] from the M&A transactions across different industries. To check whether the results are sensitive to industry classifications, I also perform the same subsample tests based on three-digit SIC code industries.

Table 7. Political Risk and Diversified M&As Likelihood

The table reports the logistic regression results of diversified M&As likelihood and non-diversified M&As likelihood on firm political risk. The dependent variable in column (1) equals one if a bidder and its target have different two-digit SIC codes in year t+1, and it is not a vertical M&A identified using the benchmark I-O tables published by the BEA. The dependent variable in the second column is a non-diversified M&A indicator, which equals one if the transactions are not identified as diversified M&As in year t+1, and zero otherwise. The dependent variables in columns (3) and (4) are constructed in the same way as those in columns (1) and (2), except that industries are classified using three-digit SIC codes. All independent variables are measured at time t. Detailed variable definitions are in the Appendix. The sample covers publicly traded firms in the Compustat and the CRSP databases from 2003 to 2017. P-value, presented in parentheses, is adjusted for heteroscedasticity and clustered at the firm level. All regressions control for year fixed effects and industry fixed effects using two-digit SIC industry classifications. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

	2-digit-SIC		3-digit-SIC	
	(1)	(2)	(3)	(4)
Variable	Diversified M&As	Non-Diversified M&As	Diversified M&As	Non-Diversified M&As
PRisk	-0.127***	-0.026	-0.128***	-0.008
	(0.001)	(0.345)	(0.000)	(0.787)
Firm Size	0.120***	0.075***	0.103***	0.081***
	(0.000)	(0.000)	(0.000)	(0.000)
Tobin's Q	0.021	0.057***	0.011	0.067***
	(0.430)	(0.002)	(0.643)	(0.001)
Leverage	-0.329*	-0.081	-0.444**	0.036
	(0.098)	(0.586)	(0.016)	(0.818)
ROA	1.193***	1.319***	1.251***	1.323***
	(0.000)	(0.000)	(0.000)	(0.000)
FCF	0.346**	0.323**	0.418***	0.261
	(0.023)	(0.039)	(0.004)	(0.122)
PP&E	-0.790***	-0.278***	-0.659***	-0.294***
	(0.000)	(0.006)	(0.000)	(0.008)
R&D	-1.167	0.189	-2.271***	0.813*
	(0.106)	(0.666)	(0.001)	(0.066)

[1] Using the I-O account tables from the BEA, I estimate the dollar value of the output from the acquirer's industry i required to produce one dollar of output for the target's industry j, and vice versa. The transactions are classified as vertical M&As if either value exceeds 5%.

Constant	-3.900***	-2.803***	-3.827***	-2.798***
	(0.000)	(0.000)	(0.000)	(0.000)
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES
Pseudo R^2	0.0499	0.0504	0.0461	0.0526
No. of obs.	40,960	41,973	41,008	41,973

Table 7 shows the regression results of acquisition likelihood. The dependent variable in column (1), Diversified M&As, equals one if the acquirer and its target have different two-digit SIC codes and the deal is not a vertical M&A verified using the benchmark I-O tables published by the BEA, and zero otherwise. The dependent variable in column (2), Non-Diversified M&As, equals one if the transactions are not defined as diversified M&As, and zero otherwise. I construct the dependent variables in columns (3) and (4) in the same way as those in columns (1) and (2), except that industries are classified using three-digit SIC codes.

The coefficients of $PRisk$ are negative and statistically significant at the 1% level in columns (1) and (3), while losing their significance in columns (2) and (4). These findings suggest that the decrease in firm acquisitiveness under high policy uncertainty is mainly driven by the decrease in the diversified M&As, which is consistent with my prediction that firms tend to delay risky investment during periods of high uncertainty.

Table 8. Political Risk and Diversified M&As Deal Value

The table reports the OLS regression results of diversified M&As deal value and non-diversified M&As deal value on firm political risk. The dependent variable in column (1) is the deal value of diversified M&As for a firm in year t+1. It takes the value of zero if a firm does not conduct M&As or diversified M&As in that year. The dependent variable in the second column is the deal value of non-diversified M&A for a firm in year t+1. It equals zero if a firm does not conduct M&As or non-diversified M&As in that year. The diversified M&As are identified using SIC code and I-O accounts table published by the BEA. The dependent variables in columns (3) and (4) are constructed in the same way as those in columns (1) and (2), except that industries are classified using three-digit SIC codes. All independent variables are measured at time t. Detailed variable definitions are in the Appendix. The sample covers publicly traded firms in the Compustat and the CRSP databases from 2003 to 2017. P-value, presented in parentheses, is adjusted for heteroscedasticity and clustered at the firm level. All regressions control for year fixed effects and industry fixed effects using two-digit SIC industry classifications. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

	2-digit-SIC		3-digit-SIC	
	(1)	(2)	(3)	(4)
Variable	Diversified M&As Deal Value	Non-Diversified M&As Deal Value	Diversified M&As Deal Value	Non-Diversified M&As Deal Value
PRisk	-0.011***	-0.004	-0.014***	-0.002

	(0.000)	(0.453)	(0.000)	(0.694)
Firm Size	0.024***	0.039***	0.030***	0.033***
	(0.000)	(0.000)	(0.000)	(0.000)
Tobin's Q	0.006**	0.022***	0.006**	0.021***
	(0.030)	(0.000)	(0.048)	(0.000)
Leverage	-0.040**	-0.012	-0.059***	0.006
	(0.033)	(0.677)	(0.008)	(0.827)
ROA	0.046***	0.210***	0.056***	0.198***
	(0.005)	(0.000)	(0.005)	(0.000)
FCF	0.014*	0.032*	0.025**	0.021
	(0.098)	(0.092)	(0.025)	(0.237)
PP&E	-0.066***	-0.047***	-0.072***	-0.043***
	(0.000)	(0.009)	(0.000)	(0.009)
R&D	-0.012	0.105	-0.071	0.165**
	(0.774)	(0.147)	(0.133)	(0.018)
Constant	-0.001	0.079	-0.048	0.128
	(0.988)	(0.608)	(0.530)	(0.397)
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES
R^2	0.014	0.019	0.015	0.018
No. of obs.	42,004	42,004	42,004	42,004

Similarly, I examine the effect of firm-level political risk on M&A deal value for diversified M&As and non-diversified M&As, and present the results in Table 8. The dependent variable in column (1) is the deal value of diversified M&As for a firm. It takes the value of zero if a firm does not make any M&A or diversified M&A in that year. The dependent variable in column (2) equals the deal value of non-diversified M&As for a firm in that year, and zero otherwise. In columns (3) and (4), the dependent variables are constructed in the same way as those in columns (1) and (2), except that industries are classified using three-digit SIC codes.

Consistent with the hypothesis that firms tend to decrease the value of risky investment when there is a high level of the political risk , I find that the coefficients of $PRisk$ are negative and statistically significant at the 1% level in columns (1) and (3), while losing their significance in columns (2) and (4). Therefore, the negative effect of firm-level political risk on M&A activities is mainly driven by the decrease in risky investment, in particular, diversified M&As.

I further examine whether the negative effect of firm-level political risk on firm acquisitiveness and M&A deal value varies across firms with different characteristics.

According to An et al. (2016), the negative effect of political uncertainty on the firm's corporate investment is more pronounced for large and influential firms. Firms that contribute significantly to the economy are likely to have political connections. Thus, these firms are more affected by policy uncertainty. I use the market share of a firm within its operating industry to proxy for the influence, which is the total revenue of a firm divided by the industry total revenue (i.e. industry is defined using the first two-digit SIC code) in each year. A firm is classified as a dominated firm in an industry if the percentage sales of the firm are higher than the industry median percentage.

Table 9. Political Risk and Acquisition Likelihood for Dominate Firms

The table reports the results of subsample analysis based on the market share of a firm using logistic regressions. The dependent variable in the first and second columns is an M&A indicator, which takes the value of one if a firm makes at least one M&A announcement in year t+1, and zero otherwise. All independent variables are measured at time t. Detailed variable definitions are in the Appendix. The sample contains 41,765 firm-year observations from 2003 to 2017. P-value, presented in parentheses, is adjusted for heteroscedasticity and clustered at the firm level. All regressions control for year fixed effects and industry fixed effects using two-digit SIC industry classifications. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

	Dependent Variable: M&As Indicator		
	Dominate Firm		
	Yes	No	Test Difference
Variable	(1)	(2)	(1)-(2)
PRisk	-0.079***	-0.026	-0.053*
	(0.009)	(0.440)	(0.086)
Firm Size	0.106***	0.163***	
	(0.000)	(0.000)	
Tobin's Q	0.049*	0.057***	
	(0.074)	(0.004)	
Leverage	-0.338*	0.060	
	(0.057)	(0.734)	
ROA	1.361***	0.792***	
	(0.000)	(0.000)	
FCF	0.652***	0.198	
	(0.000)	(0.173)	
PP&E	-0.641***	-0.551***	
	(0.000)	(0.000)	
R&D	1.248*	-1.076**	
	(0.055)	(0.034)	
Constant	-2.380***	-3.066***	
	(0.001)	(0.000)	
Year F.E.	Yes	Yes	
Industry F.E.	Yes	Yes	
Pseudo R^2	0.060	0.062	
No. of obs.	20,650	21,115	

Table 9 presents the regression results of the subsample analysis based on firms' market shares and the M&A likelihood. In columns (1) and (2), I decompose my sample according to whether a firm's market share is above or below the industry median. Results show that the estimated coefficients for $PRisk$ are only significant for industry-dominated firms, indicating that only dominated firms reduce the likelihood of corporate acquisitions when their exposures to political risk are high. The coefficient difference between these two groups is significant at the 10% level.

Table 10. Political Risk and Deal Value for Dominate Firms

The table reports the results of subsample analysis based on the market share of a firm using OLS regressions. The dependent variable in the first and second columns is the aggregate deal value for a firm in year t+1. It takes the value of zero if a firm does not conduct M&As. All independent variables are measured at time t. Detailed variable definitions are in the Appendix. The sample contains 42,004 firm-year observations from 2003 to 2017. P-value, presented in parentheses, is adjusted for heteroscedasticity and clustered at the firm level. All regressions control for year fixed effects and industry fixed effects using two-digit SIC industry classifications. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

	Dependent Variable: Deal Value		
	Dominate Firm		
	Yes	No	Test Difference
Variable	(1)	(2)	(1)-(2)
PRisk	-0.033**	-0.003	-0.030*
	(0.018)	(0.700)	(0.063)
Firm Size	0.129***	0.080***	
	(0.000)	(0.000)	
Tobin's Q	0.055***	0.025***	
	(0.002)	(0.000)	
Leverage	-0.170**	0.016	
	(0.044)	(0.723)	
ROA	0.512***	0.134***	
	(0.000)	(0.001)	
FCF	0.162***	0.026	
	(0.002)	(0.346)	
PP&E	-0.267***	-0.123***	
	(0.000)	(0.000)	
R&D	0.903**	-0.027	
	(0.022)	(0.750)	
Constant	-0.121	-0.141	
	(0.794)	(0.373)	
Year F.E.	Yes	Yes	
Industry F.E.	Yes	Yes	
R^2	0.036	0.031	
No. of obs.	20,750	21,254	

Similarly, Table 10 provides empirical evidence on the market share of a firm and M&A deal value. The results show that only the industry-dominated firms reduce the aggregate deal value during the periods of high political risk. I also test the coefficient difference between dominated firms and non-dominated firms. The difference between these two groups is significant at the 10% level. Consistent with An et al. (2016), large and influential firms are more affected by policy uncertainty, and thus the negative effect of political risk on the firm's corporate investment is more pronounced.

5.3 Deal Level Analyses

Table 11. Political Risk and Time to Completion of M&As

The table reports the OLS regression results of the time to completion of M&A deals. The dependent variable in the first column is the number of years from an M&A deal announcement to its completions for a given deal in year t+1. The dependent variable in the second column is the natural logarithm of 1 plus the time to completion in column 1. All independent variables are measured at time t. Detailed variable definitions are in the Appendix. The sample covers 4,635 completed M&A bids for US targets by US public bidders from 2003 to 2017. P-value, presented in parentheses, is adjusted for heteroscedasticity and clustered at the firm level. All regressions control for year fixed effects and industry fixed effects using two-digit SIC industry classifications. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

	(1)	(2)
Variable	Time to Completion	Ln (1+Time to Completion)
PRisk	0.009**	0.006**
	(0.016)	(0.011)
Firm Size	-0.005*	-0.005***
	(0.072)	(0.003)
Tobin's Q	-0.002	-0.002
	(0.344)	(0.200)
Leverage	-0.030	-0.024*
	(0.176)	(0.082)
ROA	0.019	-0.002
	(0.574)	(0.913)
FCF	-0.119***	-0.072***
	(0.001)	(0.002)
PP&E	0.030**	0.023***
	(0.019)	(0.007)
R&D	0.076	0.046
	(0.271)	(0.289)
Deal Value	0.037***	0.030***
	(0.000)	(0.000)
Pure Cash	-0.028***	-0.021***
	(0.000)	(0.000)
Pure Stock	0.078***	0.058***
	(0.000)	(0.000)
Public Target	0.175***	0.140***

	(0.000)	(0.000)
Hostile	0.859***	0.495***
	(0.001)	(0.000)
Tender Offer	-0.156***	-0.111***
	(0.000)	(0.000)
Constant	0.194***	0.189***
	(0.000)	(0.000)
Year F.E.	Yes	Yes
Industry F.E.	Yes	Yes
R^2	0.330	0.449
No. of obs.	4,635	4,635

Next, I examine the relationship between firm-level political risk and the time to deal completion by estimating model (5) and report the results in Table 11. The dependent variable in column (1) is the number of years from an M&A deal announcement to its deal completion. The dependent variable in column (2) is the natural logarithm of 1 plus the time to completion in column (1). I run OLS regressions using a sample of 4,635 completed M&A deals, and find that the coefficients of $PRisk$ are positive and significant at the 5% level in both columns (1) and (2). Supporting hypothesis 2, these findings show that firms tend to delay irreversible investment before resolving some of the uncertainty, and thus, even if firms already engage in M&As during the periods of high political risk, they still have the incentive to spend more time to complete the deals.

Table 12. Political Risk and Bid Premiums

The table reports the OLS regression results of bid premiums on the level of firm political risk. The dependent variable in the first (second) column is the percentage difference between the bid prices and the targets' stock prices one week (four weeks) before the deal announcements in year t+1. All independent variables are measured at time t. Detailed variable definitions are in the Appendix. The sample covers 947 completed M&A bids for US public targets by US public bidders from 2003 to 2017. P-value, presented in parentheses, is adjusted for heteroscedasticity and clustered at the firm level. All regressions control for year fixed effects and industry fixed effects using two-digit SIC industry classifications. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

	(1)	(2)
Variable	Bid Premiums 1 Week	Bid Premiums 4 Week
PRisk	-0.022	-0.036**
	(0.134)	(0.042)
Firm Size	0.034***	0.052***
	(0.005)	(0.001)
Tobin's Q	0.014	0.019
	(0.347)	(0.203)
Leverage	-0.061	-0.037

	(0.506)	(0.752)
ROA	-0.082	-0.141
	(0.684)	(0.530)
FCF	0.296*	0.441*
	(0.087)	(0.061)
PP&E	0.034	0.028
	(0.485)	(0.582)
R&D	0.836**	0.717**
	(0.030)	(0.046)
Deal Value	-0.053***	-0.066***
	(0.000)	(0.000)
Pure Cash	0.058	0.017
	(0.100)	(0.690)
Pure Stock	-0.047	-0.022
	(0.234)	(0.713)
Hostile	0.620***	0.205**
	(0.001)	(0.012)
Tender Offer	0.038	0.076*
	(0.294)	(0.064)
Constant	0.390***	0.408**
	(0.002)	(0.018)
Year F.E.	Yes	Yes
Industry F.E.	Yes	Yes
R^2	0.182	0.200
No. of obs.	947	947

In another analysis, I examine whether firms' exposure to political risk affects the outcomes of M&As. Previous literature shows that policy uncertainty motivates prudence and conservatism (Nguyen and Phan (2017)) in firms' investment behaviours. Accordingly, acquirers are reluctant to pay bid premiums, and they are likely to choose to pursue M&A deals that have better-expected outcomes. Table 12 reports the OLS regression results of bid premiums that acquirers paid in M&As on their exposure to political risk. The dependent variable in column (1) (column (2)) is the percentage difference between the bid prices and the targets' stock prices one week (four weeks) before the deal announcements, as specified in the SDC database. The coefficient of $PRisk$ is negative but insignificant in column (1). In column (2), the coefficient of $PRisk$ is negative and statistically significant at the 5% level, suggesting that deal premiums are negatively correlated with the acquirer's policy uncertainty. The findings in Table 12 are consistent with hypothesis 3, that acquirers' exposure to political risk induces them to be more conservative in setting the bid prices.

Table 13. Political Risk and Acquirer CARs

The table reports the OLS regression results of acquirer announcement returns on the level of firm political risk. Acquirer announcement returns are measured using acquirers' 3-day cumulative returns (i.e., CAR (-1,+1)) in column (1) and 7-day cumulative returns (i.e., CAR(-3,+3)) in column (2), net the return on the value-weighted CRSP index over the same period. All independent variables are measured at time t. Detailed variable definitions are in the Appendix. The sample covers 4,492 completed M&A bids for US targets by US public bidders from 2003 to 2017. P-value, presented in parentheses, is adjusted for heteroscedasticity and clustered at the firm level. All regressions control for year fixed effects and industry fixed effects using two-digit SIC industry classifications. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

	(1)	(2)
Variable	CAR(-1,+1)	CAR(-3,+3)
PRisk	0.002*	0.003***
	(0.098)	(0.007)
Firm Size	-0.004***	-0.006***
	(0.000)	(0.000)
Tobin's Q	-0.000	-0.001
	(0.685)	(0.283)
Leverage	0.013**	0.015**
	(0.029)	(0.047)
ROA	-0.005	0.007
	(0.673)	(0.636)
FCF	0.004	0.002
	(0.588)	(0.787)
PP&E	0.005	0.001
	(0.174)	(0.909)
R&D	-0.079***	-0.086***
	(0.001)	(0.003)
Deal Value	0.002**	0.002**
	(0.015)	(0.012)
Pure Cash	0.002	0.001
	(0.228)	(0.812)
Pure Stock	-0.004	-0.005
	(0.478)	(0.464)
Public Target	-0.012***	-0.011***
	(0.000)	(0.003)
Hostile	0.028	0.009
	(0.488)	(0.615)
Tender Offer	0.004	0.005
	(0.442)	(0.306)
Constant	0.040***	0.089***
	(0.000)	(0.000)
Year F.E.	Yes	Yes
Industry F.E.	Yes	Yes
R^2	0.052	0.047
No. of obs.	4,492	4,492

Further, I examine how acquirers' exposure to political risk influences the short-term performance of acquisitions. Table 13 reports the OLS regression results of acquirer announcement returns on firm's political risk. Acquirer announcement returns are measured using 3-day cumulative abnormal returns (i.e., CAR (-1,+1)) in column (1) and 7-day cumulative abnormal returns (i.e., CAR(-3,+3)) in column (2). The coefficients of $PRisk$ are

positive and significant at the 10% and 1% level for the event window $(-1, +1)$ and $(-3, +3)$ respectively. This positive association is consistent with hypothesis 4, suggesting that when firms' exposures to political risk are high, their M&As create value for shareholders.

Table 14. Political Risk and Acquirer Sales Growth

The table reports the OLS regression results of post-acquisition sales growth on the level of firm political risk. The dependent variables are acquirers' one-, two-, and three-year average industry-adjusted sales growth following the M&A announcement. All independent variables are measured at time t. Detailed variable definitions are in the Appendix. The sample covers 4,385 completed M&A bids for US targets by US public bidders from 2003 to 2017. P-value, presented in parentheses, is adjusted for heteroscedasticity and clustered at the firm level. All regressions control for year fixed effects and industry fixed effects using two-digit SIC industry classifications. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

	Dependent Variable: Industry Adjusted Sales Growth		
	1-Year	2-Year	3-Year
Variable	(1)	(2)	(3)
PRisk	0.118***	0.082**	0.080**
	(0.008)	(0.032)	(0.024)
Firm Size	-0.095***	-0.068***	-0.051**
	(0.001)	(0.004)	(0.023)
Tobin's Q	-0.025	-0.041	-0.061*
	(0.534)	(0.247)	(0.100)
Leverage	0.140	0.098	0.021
	(0.574)	(0.616)	(0.913)
ROA	0.206	0.438	0.297
	(0.656)	(0.194)	(0.347)
FCF	0.089	-0.205*	-0.154
	(0.562)	(0.093)	(0.233)
PP&E	-0.140	0.079	0.066
	(0.435)	(0.583)	(0.641)
R&D	-0.544	0.947	1.445**
	(0.504)	(0.164)	(0.028)
Deal Value	0.053*	0.039	0.033
	(0.080)	(0.107)	(0.142)
Pure Cash	-0.069	0.003	0.055
	(0.385)	(0.966)	(0.350)
Pure Stock	0.335**	0.141	0.165
	(0.026)	(0.363)	(0.232)
Public Target	-0.091	-0.178*	-0.197**
	(0.484)	(0.087)	(0.040)
Hostile	0.309	0.455***	0.468**
	(0.170)	(0.004)	(0.020)
Tender Offer	-0.031	0.046	0.054
	(0.897)	(0.808)	(0.760)
Constant	0.222	-0.079	0.102
	(0.486)	(0.744)	(0.693)
Year F.E.	Yes	Yes	Yes
Industry F.E.	Yes	Yes	Yes
R^2	0.246	0.351	0.390
No. of obs.	4,385	4,385	4,385

To further explore the relationship between a firm's exposure to political risk and M&As outcomes, I examine the acquirers' long-term performance. Table 14 presents the OLS regression results of post-acquisition sales growth on acquirers' exposure to political risk. The dependent variables are acquirers' one-, two-, and three-year average industry-adjusted sales growth following the M&As announcements. I find that the coefficients of $PRisk$ are positive and significant at the 5% level or above across all the regressions, which provides strong support to hypothesis 4.

Table 15. Political Risk and Acquirer ROA (Propensity Score Matched Sample)

The table reports the OLS regression results of post-acquisition ROA on the level of firm political risk based on a propensity-score matched sample. I pair-match firms that make at least one M&A announcement in a given year (the treatment group) to those with similar characteristics that do not conduct any M&A (the control group). The dependent variables are firms' one-, two-, and three-year average industry-adjusted ROA. All independent variables are measured at time t. Detailed variable definitions are in the Appendix. P-value, presented in parentheses, is adjusted for heteroscedasticity and clustered at the firm level. All regressions control for year fixed effects and industry fixed effects using two-digit SIC industry classifications. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

	Dependent Variable: Industry Adjusted ROA		
	1-Year	2-Year	3-Year
Variable	(1)	(2)	(3)
PRisk	0.303***	0.159*	0.122*
	(0.005)	(0.061)	(0.080)
Firm Size	0.024	0.049	0.077
	(0.660)	(0.316)	(0.108)
Tobin's Q	0.019	0.053	0.037
	(0.783)	(0.410)	(0.594)
Leverage	-0.497	-0.353	-0.353
	(0.199)	(0.359)	(0.328)
ROA	0.738	-0.392	-0.941
	(0.258)	(0.545)	(0.184)
FCF	-0.543	-0.579	-0.356
	(0.248)	(0.100)	(0.303)
PP&E	-0.088	-0.281	-0.398*
	(0.708)	(0.213)	(0.076)
R&D	-1.558	0.194	0.747
	(0.426)	(0.910)	(0.651)
Deal Value	-0.079	-0.058	-0.091*
	(0.147)	(0.263)	(0.077)
Pure Cash	0.089	0.086	0.043
	(0.529)	(0.532)	(0.757)
Pure Stock	0.341	-0.074	0.278
	(0.390)	(0.819)	(0.355)
Public Target	0.222	0.028	0.106
	(0.319)	(0.892)	(0.611)
Hostile	6.503	3.649	2.460*
	(0.176)	(0.114)	(0.056)
Tender Offer	-0.412	-0.409	-0.565*

	(0.259)	(0.199)	(0.065)
Constant	0.145	0.397	0.321
	(0.800)	(0.485)	(0.619)
Year F.E.	Yes	Yes	Yes
Industry F.E.	Yes	Yes	Yes
R^2	0.220	0.289	0.340
No. of obs.	4,280	4,280	4,280

Additionally, I examine how acquirers' political risk affects their operating performance after the M&As, using a propensity-score matched sample. Firstly, I pair-match firms that make at least one M&A announcement in a given year (the treatment group) to those that do not conduct any M&A (the control group). Using a caliper of 0.01, the matching process ensures that the treatment group and the control group are similar in terms of firm size, Tobin's Q, leverage, ROA, FCF, PP&E, and R&D expenditures. The dependent variables are firms' one-, two-, and three-year average industry-adjusted ROA during the post-acquisition periods. Consistently, I find a positive relationship between firms' political risk and their industry-adjusted ROA across all the regressions in table 15. The regression results show that political risk motivates the acquirers to perform due diligence in screening the targets and select the right M&A deals that create value for acquirers in the long term.

5.4 Instrumental Variable Approach

Last, I perform a 2SLS regression analysis to address the endogeneity issue. Similar to Nguyen and Nguyen (2019), I use the party polarisations for the members in the Senate (POLAR) as an instrument variable. The results from the first-stage regression suggest that this instrument variable satisfies the relevance requirement. Further, there is no previous study documenting a direct link between the party polarisations and M&As activities, which suggests that this instrument also meet the exclusion restriction requirement.

Table 16. 2SLS Regressions and M&A Likelihood

The table reports the 2SLS regression results. Firm-level political risk is the endogenous variable. The party

polarisations for the members in the Senate (POLAR) is the instrument. Column (1) presents the first-stage regression, and column (2) presents the second-stage regression. The dependent variable in the second column is an M&A indicator, which takes the value of one if a firm makes at least one M&A announcement in year t+1, and zero otherwise. All independent variables are measured at time t. Detailed variable definitions are in the Appendix. The sample contains 42,004 firm-year observations from 2003 to 2017. P-value, presented in parentheses, is adjusted for heteroscedasticity and clustered at the firm level. All regressions control for the industry fixed effects using two-digit SIC industry classifications. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

Variable	(1) First Stage	(2) M&As Indicator
POLAR	0.171**	
	(0.029)	
PRisk (Instrumented)		-1.053***
		(0.000)
Firm Size	0.019***	0.028***
	(0.000)	(0.000)
Tobin's Q	-0.008**	-0.004
	(0.027)	(0.433)
Leverage	-0.103***	-0.129***
	(0.000)	(0.000)
ROA	-0.276***	-0.181***
	(0.000)	(0.007)
FCF	0.017	0.045
	(0.457)	(0.119)
PP&E	-0.098***	-0.151***
	(0.000)	(0.000)
R&D	0.106	0.050
	(0.121)	(0.547)
Constant	0.554***	0.482**
	(0.000)	(0.024)
Industry F.E.	Yes	Yes
F-statistic	55.42	
No. of obs.	42,004	42,004

Table 17. 2SLS Regressions and Deal Value

The table reports the 2SLS regression results. Firm-level political risk is the endogenous variable. The party polarisations for the members in the Senate (POLAR) is the instrument. Column (1) presents the first-stage regression, and column (2) presents the second-stage regression. The dependent variable in the second column is the aggregate deal value for a firm in year t+1. It takes the value of zero if a firm does not conduct M&As. All independent variables are measured at time t. Detailed variable definitions are in the Appendix. The sample contains 42,004 firm-year observations from 2003 to 2017. P-value, presented in parentheses, is adjusted for heteroscedasticity and clustered at the firm level. All regressions control for the industry fixed effects using two-digit SIC industry classifications. ***, **, and * indicate significant level at the 1%, 5% and 10%, respectively.

Variable	(1) First Stage	(2) Deal Value
POLAR	0.172**	
	(0.028)	
PRisk (Instrumented)		-3.084**
		(0.046)
Firm Size	0.019***	0.142***
	(0.000)	(0.000)
Tobin's Q	-0.008**	0.007
	(0.036)	(0.672)
Leverage	-0.103***	-0.405**
	(0.000)	(0.020)

ROA	-0.276***	-0.573
	(0.000)	(0.197)
FCF	0.017	0.101
	(0.519)	(0.248)
PP&E	-0.098***	-0.469***
	(0.000)	(0.003)
R&D	0.106	0.359
	(0.143)	(0.220)
Constant	0.554***	2.030*
	(0.000)	(0.064)
Industry F.E.	Yes	Yes
F-statistic	49.99	
No. of obs.	42,004	42,004

Table 16 and 17 present the 2SLS regression results. The column (1) in each table reports the first-stage regression results. In the first stage, I regress the firm-level political risk on the instrument variable, party polarisations for members in the Senate, and control for the firm-specific characteristics. Consistent with the expectation, the coefficients of the IV are significant at the 5% level. These results indicate a strong relevance between the IV and the endogenous variable. In addition, the IV is not a weak instrument regarding the F-statistic from the first-stage regressions. The F-statistic is 55.42 and 49.99, respectively, which is greater than 10 (Staiger and Stock (1994)).

The column (2) in table 16 shows the second-stage regression results using the M&As indicator as the dependent variable. The coefficient of the instrumented $PRisk$ is negative and statistically significant at the 1% level, suggesting a negative relationship between the firm-level political risk and the firm acquisitiveness. The dependent variable in table 17 column (2) is the aggregate deal value. Consistent with the findings for the baseline model, the coefficients of the instrumented $PRisk$ are still negative and statistically significant at the 5% level.

In summary, the results using a 2SLS regression analysis is consistent with those from the baseline model, which indicates that there is a negative causal relationship between a firm's exposure to political risk and the M&A activities.

6. Conclusion

In this study, I examine the effect of firm-level political risk on M&As. I use the firm-level political risk index developed by Hassan et al. (2019) to measure a firm's exposure to political risk. This index is based on a firm's quarterly earnings conference-call transcripts that centre on risk related to political matters. The baseline results show that a firm's exposure to political risk is negatively related to the likelihood of corporate acquisitions and M&A deal value, which is consistent with the real options theory. From the real options perspective, firms are more likely to delay or reduce corporate investment since policy uncertainty increases the real option value.

Moreover, the impact of political risk on corporate acquisitions is dependent on the type of political risk, the type of acquisition deals and the market share of a firm. Political risk related to economic policy and budget, environment, trade, and tax policy has a significant and negative effect on the probability and deal value of M&As. In addition, I find that the negative impact of political risk on firm acquisitiveness and deal value is mainly driven by the decrease in diversified M&A deals. Furthermore, large and influential firms are more affected by policy uncertainty, and thus the negative effect of political risk on the firm's M&A activities is more pronounced.

Using the sample of M&As transactions, I further examine the relationship between the firm-level political risk and the outcome of M&As. Acquirers pay lower bid premiums during the periods of high political risk. Additionally, I find that a firm's exposure to political risk is positively associated with the M&A deal performance, proxied by the cumulative abnormal stock returns around M&A announcements and acquirers' long-term performance. This positive relationship is attributable to acquirers' prudence and conservatism in setting the bid price and selecting the targets.

My thesis makes several main contributions to the literature. First, my study adds to the literature examining the effects of policy uncertainty on economic outcomes. It confirms that the political risk has value implications and can influence corporate investment. Second, my study identifies an additional firm-level attribute, political risk, which can yield significant impacts on firms' M&As. Compared to the political risk at the aggregate level, examining the political risk at the firm-level allows us to consider the firm's relative position in the cross-sectional distribution of political risk, which complements the previous literature.

7. Reference

Abel, Andrew B, 1983, Optimal investment under uncertainty, *American Economic Review* 73, 228-233.

Abel, Andrew B, and Janice C Eberly, 1994, A unified model of investment under uncertainty, *American Economic Review* 84, 1369.

Ahern, Kenneth R, and Jarrad Harford, 2014, The importance of industry links in merger waves, *The Journal of Finance* 69, 527-576.

An, Heng, Yanyan Chen, Danglun Luo, and Ting Zhang, 2016, Political uncertainty and corporate investment: Evidence from China, *Journal of Corporate Finance* 36, 174-189.

Baker, Scott R., Nicholas Bloom, and Steven J. Davis, 2016, Measuring economic policy uncertainty, *The Quarterly Journal of Economics* 131, 1593-1636.

Bates, Thomas W, and Michael L Lemmon, 2003, Breaking up is hard to do? An analysis of termination fee provisions and merger outcomes, *Journal of Financial Economics* 69, 469-504.

Bena, Jan, and Kai Li, 2014, Corporate innovations and mergers and acquisitions, *The Journal of Finance* 69, 1923-1960.

Berger, Philip G, and Eli Ofek, 1995, Diversification's effect on firm value, *Journal of Financial Economics* 37, 39-65.

Berger, Philip G, and Eli Ofek, 1995, Diversification's effect on firm value, *The Journal of Financial Economics* 37, 39-65.

Bernanke, Ben S, 1983, Irreversibility, uncertainty, and cyclical investment, *The Quarterly Journal of Economics* 98, 85-106.

Bhagwat, Vineet, Robert Dam, and Jarrad Harford, 2016, The real effects of uncertainty on merger activity, *The Review of Financial Studies* 29, 3000-3034.

Bloom, Nick, Stephen Bond, and John Van Reenen, 2007, Uncertainty and investment dynamics, *The Review of Economic Studies* 74, 391-415.

Bonaime, Alice, Huseyin Gulen, and Mihai Ion, 2018, Does policy uncertainty affect mergers and acquisitions?, *Journal of Financial Economics* 129, 531-558.

Brogaard, Jonathan, and Andrew Detzel, 2015, The asset-pricing implications of government economic policy uncertainty, *Management Science* 61, 3-18.

Caballero, Ricardo J, 1991, On the sign of the investment-uncertainty relationship, *American Economic Review* 81, 279-288.

Cao, Chunfang, Xiaoyang Li, and Guilin Liu, 2019, Political uncertainty and cross-border acquisitions, *Review of Finance* 23, 439-470.

Çolak, Gönül, Art Durnev, and Yiming Qian, 2017, Political uncertainty and IPO activity: Evidence from US gubernatorial elections, *Journal of Financial and Quantitative Analysis* 52, 2523-2564.

DePamphilis, Donald, 2010, *Mergers and Acquisitions Basics: All You Need To Know*, Academic Press.

Desai, Mihir A, C Fritz Foley, and Kristin J Forbes, 2008, Financial constraints and growth: Multinational and local firm responses to currency depreciations, *The Review of Financial Studies* 21, 2857-2888.

Desai, Mihir A, C Fritz Foley, and James R Hines Jr, 2004, A multinational perspective on capital structure choice and internal capital markets, *The Journal of Finance* 59, 2451-2487.

Dixit, Avinash K, Robert K Dixit, and Robert S Pindyck, 1994, *Investment Under Uncertainty*, Princeton University Press, Princeton, NJ.

Duchin, Ran, and Breno Schmidt, 2013, Riding the merger wave: Uncertainty, reduced monitoring, and bad acquisitions, *Journal of Financial Economics* 107, 69-88.

Eckbo, B Espen, Tanakorn Makaew, and Karin S Thorburn, 2018, Are stock-financed takeovers opportunistic?, *Journal of Financial Economics* 128, 443-465.

Fan, Joseph PH, and Vidhan K Goyal, 2006, On the patterns and wealth effects of vertical mergers, *The Journal of Business* 79, 877-902.

Field, Laura Casares, and Anahit Mkrtchyan, 2017, The effect of director experience on acquisition performance, *Journal of Financial Economics* 123, 488-511.

Gao, Pengjie, Dermot Murphy, and Yaxuan Qi, 2019, Political uncertainty and public financing costs: Evidence from US gubernatorial elections and municipal bond markets, *Available at SSRN 1992200*.

Garfinkel, Jon A, and Kristine Watson Hankins, 2011, The role of risk management in mergers and merger waves, *Journal of Financial Economics* 101, 515-532.

Gilchrist, Simon, Jae W Sim, and Egon Zakrajšek, 2014, Uncertainty, financial frictions, and investment dynamics, *National Bureau of Economic Research*.

Gulen, Huseyin, and Mihai Ion, 2016, Policy uncertainty and corporate investment, *The Review of Financial Studies* 29, 523-564.

Hartman, Richard, 1972, The effects of price and cost uncertainty on investment, *Journal of Economic Theory* 5, 258-266.

Hassan, Tarek A, Stephan Hollander, Laurence van Lent, and Ahmed Tahoun, 2019, Firm-level political risk: Measurement and effects, *The Quarterly Journal of Economics* 134, 2135-2202.

Hoberg, Gerard, and Gordon Phillips, 2010, Product market synergies and competition in mergers and acquisitions: A text-based analysis, *The Review of Financial Studies* 23, 3773-3811.

Holmstrom, Bengt, and Steven N Kaplan, 2001, Corporate governance and merger activity in the United States: Making sense of the 1980s and 1990s, *Journal of Economic Perspectives* 15, 121-144.

Jens, Candace E, 2017, Political uncertainty and investment: Causal evidence from US gubernatorial elections, *Journal of Financial Economics* 124, 563-579.

Jovanovic, Boyan, and Peter L Rousseau, 2002, The Q-theory of mergers, *American Economic Review* 92, 198-204.

Julio, Brandon, and Youngsuk Yook, 2012, Political uncertainty and corporate investment cycles, *The Journal of Finance* 67, 45-83.

Julio, Brandon, and Youngsuk Yook, 2016, Policy uncertainty, irreversibility, and cross-border flows of capital, *Journal of International Economics* 103, 13-26.

Lang, Larry HP, and Rene M Stulz, 1994, Tobin's q, corporate diversification, and firm performance, *Journal of Political Economy* 102, 1248-1280.

Ma, Qingzhong, David A Whidbee, and Wei Zhang, 2019, Acquirer reference prices and acquisition performance, *Journal of Financial Economics* 132, 175-199.

Maksimovic, Vojislav, and Gordon Phillips, 2001, The market for corporate assets: Who engages in mergers and asset sales and are there efficiency gains?, *The Journal of Finance* 56, 2019-2065.

Manning, Christopher, Prabhakar Raghavan, and Hinrich Schütze, 2010, Introduction to information retrieval, *Natural Language Engineering* 16, 100-103.

McCarty, Nolan M, Keith T Poole, and Howard Rosenthal, 1997, *Income redistribution and the realignment of American politics*, AEI press.

McDonald, Robert, and Daniel Siegel, 1986, The value of waiting to invest, *The Quarterly Journal of Economics* 101, 707-727.

Monica, Paul R. La, 2018, *Companies have spent a stunning $2 trillion on mergers so far this year*, CNN Business, viewed 5 May 2020, <https://money.cnn.com/2018/05/24/investing/merger-boom/index.html>.

Nguyen, My, and Justin Hung Nguyen, 2019, Economic policy uncertainty and firm tax avoidance, *Accounting and Finance*.

Nguyen, Nam H, and Hieu V Phan, 2017, Policy uncertainty and mergers and acquisitions, *Journal of Financial and Quantitative Analysis* 52, 613-644.

Officer, Micah S, 2004, Collars and renegotiation in mergers and acquisitions, *The Journal of Finance* 59, 2719-2743.

Panousi, Vasia, and Dimitris Papanikolaou, 2012, Investment, idiosyncratic risk, and ownership, *The Journal of Finance* 67, 1113-1148.

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

Phillips, Gordon M, and Alexei Zhdanov, 2013, R&D and the incentives from merger and acquisition activity, *The Review of Financial Studies* 26, 34-78.

Rhodes ‐ Kropf, Matthew, and Steven Viswanathan, 2004, Market valuation and merger waves, *The Journal of Finance* 59, 2685-2718.

Rodrik, Dani, 1991, Policy uncertainty and private investment in developing countries, *Journal of Development Economics* 36, 229-242.

Scharfstein, David S, 1998, The dark side of internal capital markets II: Evidence from diversified conglomerates, *National Bureau of Economic Research*.

Schmidt, Breno, 2015, Costs and benefits of friendly boards during mergers and acquisitions, *Journal of Financial Economics* 117, 424-447.

Sha, Yezhou, Chenlei Kang, and Zilong Wang, 2020, Economic policy uncertainty and mergers and acquisitions: Evidence from China, *Economic Modelling*.

Song, Min, 2008, *Handbook Of Research On Text And Web Mining Technologies*, IGI Global.

Staiger, Douglas, and James H Stock, 1994, Instrumental variables regression with weak instruments, *National Bureau of Economic Research*.

Stock, James H, and Motohiro Yogo, 2002, Testing for weak instruments in linear IV regression, *National Bureau of Economic Research*.

White, Halbert, 1980, A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity, *Econometrica* 48, 817-838.

Wooldridge, Jeffrey M, 2016, *Introductory econometrics: A modern approach*, Nelson Education.

Yang, Wei, and Klaus E Meyer, 2015, Competitive dynamics in an emerging economy: Competitive pressures, resources, and the speed of action, *Journal of Business Research* 68, 1176-1185.

Appendix

Appendix. Definitions of Variables

This table describes the variables in this paper. Panel A, B, C, and D present firm characteristics, deal characteristics, dependent variables, and the main independent variable, respectively.

Variable	Definition
Panel A: Firm Characteristics	
Firm Size	Natural logarithm of total assets (in Compustat codes: "at").
Tobin's Q	The firm's market-to-book, defined in Compustat codes as "(prcc_f*csho+ lt)/(ceq +lt)."
Leverage	The firm's financial leverage, defined as its debt divided by its assets (in Compustat codes: "(dltt+dlc)/at").
ROA	The firm's return on assets, defined as the net income scaled by total assets (in Compustat codes:"ni/at").
FCF	The firm's net change in cash from operating activities minus capital expenditures, scaled by the market value of equity (in Compustat codes: "(oancf- capx)/prcc_f*csho").
PP&E	The firm's property, plant, and equipment (Compustat: "ppegt") scaled by its assets (Compustat: "at").
R&D	The firm's research and development expense (Compustat: "xrd") scaled by its assets (Compustat: "at"). Zero if the figure is missing.
Panel B: Deal Characteristics	
Deal Value	Natural logarithm of deal value, as reported in SDC Platinum.
Pure Cash	Dummy variable equals one if the deal is 100% paid by cash, and zero otherwise.
Pure Stock	Dummy variable equals one if the deal is 100% paid by stock, and zero otherwise.
Public Target	Dummy variable equals one if the target is a publicly listed firm, and zero otherwise.
Hostile	Dummy variable equals one if the deal attitude is identified as hostile, as reported in SDC Platinum, and zero otherwise.
Tender Offer	Dummy variable equals one if the deal is identified as a tender offer, as reported in SDC Platinum, and zero otherwise.
Panel C: Dependent Variables	
M&A Indicator	Dummy variable equals one if a firm makes at least one M&A announcement, and zero otherwise.
Diversified M&A_SIC2	Dummy variable equals one if the acquirer and the target have different first two-digit SIC codes and it is not a vertical M&A identified using the benchmark I-O tables published by the BEA, and zero otherwise.
Non-Diversified M&As_SIC2	Dummy variable equals one if the transactions are not identified as diversified M&As using the first two-digit SIC codes and the benchmark I-O tables published by the BEA, and zero otherwise.
Diversified M&A_SIC3	Dummy variable equals one if the acquirer and the target have different first three-digit SIC codes and it is not a vertical M&A identified using the benchmark I-O tables published by the BEA, and zero otherwise.

Non-Diversified M&As_SIC3	Dummy variable equals one if the transactions are not identified as diversified M&As using the first three-digit SIC codes and the benchmark I-O tables published by the BEA, and zero otherwise.
Diversified M&A_SIC2 Deal Value	Deal value of diversified M&As (2-digit SIC code) for a firm. It equals zero if a firm does not conduct M&As or diversified M&As in that year.
Non-Diversified M&As_SIC2 Deal Value	Deal value of non-diversified M&As (2-digit SIC code) for a firm. It equals zero if a firm does not conduct M&As or non-diversified M&As in that year.
Diversified M&A_SIC3 Deal Value	Deal value of diversified M&As (3-digit SIC code) for a firm. It equals zero if a firm does not conduct M&As or diversified M&As in that year.
Non-Diversified M&As_SIC3 Deal Value	Deal value of non-diversified M&As (3-digit SIC code) for a firm. It equals zero if a firm does not conduct M&As or non-diversified M&As in that year.
Time to Completion	Number of years from an M&A deal announcement to its completions for a given deal.
CAR (-1,1)	Three-day cumulative abnormal return around M&A announcements calculated using the standard market-adjusted return model, where the abnormal return is calculated as the difference between a bidder's stock return and the value-weighted market index return from the CRSP database. The model parameters are estimated over the (-220,-21) period before the announcement.
CAR (-3,3)	Seven-day cumulative abnormal return around M&A announcements calculated using the standard market-adjusted return model, where the abnormal return is calculated as the difference between a bidder's stock return and the value-weighted market index return from the CRSP database. The model parameters are estimated over the (-220,-21) period before the announcement.
Bid Premiums 1 Week	Percentage difference between the offer prices and the targets' stock prices one week before the deal announcements, as reported in the SDC Platinum database.
Bid Premiums 4 Week	Percentage difference between the offer prices and the targets' stock prices four weeks before the deal announcements, as reported in the SDC Platinum database.
Industry Adjusted Sales Growth	Difference in percentage change in sales between a firm and its corresponding industry identified using two-digit SIC industry classifications.
Industry Adjusted ROA	Difference in ROA between a firm and its corresponding industry identified using two-digit SIC industry classifications.
Panel D: Main Independent Variable	
PRisk	Average of the transcript-based scores of the overall political risk (Hassan et al. (2019)) for a given firm and year. It is capped at the 99th percentile and standardized by its respective standard deviation.