Institutional Investor Protection and Political Uncertainty: Evidence from Cycles of Investment and Elections

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ABSTRACT

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Previous literature shows that political uncertainty surrounding elections affects corporate investment decisions. Considering the impact of legal institutions that protect investors, we conjecture that well-functioning institutional investor protection would help smooth the negative impact of political uncertainty on corporate investments. In doing so, we collected a sample in 40 countries from 1981 to 2009. We find that firms reduce investment expenditures in election years, but increase investment expenditures in the following years controlling for firm characteristics and economic conditions. This finding suggests that political uncertainty generates cycles in investment expenditures in election years, which is consistent with previous studies. Moreover, we find that there is a positive relationship between legal investor protection and investment expenditures. In addition, the interaction of legal investor protection and the election dummy is significantly positively related to firms' investments, suggesting that legal investor protection helps smooth the negative effect of political uncertainty on corporate investments during election years. Our results are robust to alternative measures. We also find that corporate investments positively related to cash flows, profitability, growth opportunities, and the overall economic development of a country.

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1. Introduction

The idea that law is essential to economic development is well-established in the academic literature and has long been recognized by policy-makers (Hayek, 1967; North, 1990). A large body of the law and finance has provided evidence suggesting that a country's legal institutions contribute to economic growth by shaping the national financial system. Specifically, strong legal and institutional investor protections (for example, shareholder rights in corporate laws, and creditor rights in bankruptcy laws) help the development of financial markets, and well-developed financial markets facilitate firms' external financing, and ultimately contribute to firms' (economic) growth (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1997, 1998; Demirguc-Kunt and Maksimovic, 1998, 1999).

Recently, there has been a growing literature that emphasizes the importance of political institutions affecting economic growth (see, e.g. Roe, 2006; Roe and Siegel, 2008; Keefer, 2008). One interesting finding in this line of research is that political elections (a proxy of political uncertainty) affect corporate investments (Julio and Yook, 2010; Durnev, 2010; Yonce, 2009). Specifically, firms reduce their capital investment in election years, and then increase their capital investments in post-election years (Julio and Yook, 2010). This pattern between elections and investments is called investment-election cycles. These researchers argue that elections stimulate political uncertainty,

and this potential political risk affects firms' investment decisions. Therefore, elections may distort the optimal investment rule and could be a damaging factor to the economy.

In this paper, we argue that a study of the elections alone does not provide a complete picture of how political institutions affect the economy. A well-designed institutional system aims to provide policy continuity as well as policy flexibility. To quote the Nobel Laureate North (1981), institutions are: "a set of rules, compliance procedures, and moral and ethical behavioral norms designed to constrain the behavior of individuals in the interest of maximizing the wealth or utility of principals (p.201-202)". Therefore, in this paper, we examine whether other components in political and legal institutions help smooth the negative impact of elections on corporate investment.

In doing so, we collected a sample of 11198 firms in 40 countries from 1981 to 2009. We begin by studying whether investment-election cycles exist. Our empirical studies confirm previous research that firms reduce investments in an election years or the year before an upcoming election while firms increase investment in the year after an election as the political uncertainty is resolved. We then study whether investor protections help smooth election-investment cycles.

We use the anti-director index as our main measure of legal investor protection. We find that a strong anti-director index increases firm investments. Moreover, we find that the positive effect of the anti-director index on investments is particularly pronounced in election years and in the years leading to an election. This is evidence

that strong legal protection helps smooth the negative impact of political uncertainty sourced from elections.

We conduct various robustness tests using different measures of legal protection. We find that a high requirement on information disclosure, strong enforcement of laws, and a general index of investor protections contribute to firm investment. We find that strong creditor rights are negatively related to investments. This may be partially be due to the fact that strong legal protection for creditors being aligned to management's interests more closely with bondholders and hence management are more likely to "enjoy the quiet life" as Bertrand and Mullainathan (2003) show.

In addition, we find that firms are more likely to conduct investment if they have a higher growth opportunities measured by Tobin's Q, higher sales growth, more cash flow and profitability, and higher gross domestic product (GDP) per capita. Firms are more likely to reduce investments if they have higher leverage, more property, plant and equipment (PPE). We also find that sovereign rating is negatively related to firm investment, which may be due to firms in emerging markets making more investments.

Our findings have broad implications for firms, governments, and policy-makers. The results suggest that well-functioning legal protection helps smooth potential political uncertainty. This finding contributes to our understanding of how legal and political institutions function together to affect economic growth. This finding is also important to policy-makers who focus on the design of institutions. In addition, this

research may be valuable to managers of multinational firms in evaluating potential political risks and finding optimal investment strategies.

The rest of the paper is organized as follows. Section 2 discusses the related literature and specifies the hypotheses we test in greater detail. Section 3 details the data. Section 4 presents the empirical results, and Section 5 concludes.

2. Related Literature and Hypotheses

In this section, we review prior works in two lines of research. The first line is studies on political uncertainty and corporate policy, and the second is research on institutional investor protection and corporate policy.

2.1 Political uncertainty and corporate policy

Political risk is one of most important risks faced by firms, especially multinationals. There is much literature on how political risk affects firm policy, and firm value. Here, we focus on the research which examines the impact of political uncertainty on corporate investments. Julio and Yook (2010) find that firms reduce investment expenditures during the year leading up to elections. They argue that this is because electoral uncertainty leads firms to temporarily reduce investment expenditures prior to the election outcomes.

Similarly, Durnev (2010) examines the impact of elections on investment sensitivity to stock prices and finds that investment is 40% less sensitive to stock prices

during election years compared to non-election years. He argues that managers pay less attention to stock prices during election years because the uncertainty about future government policies sourced from elections, lowers the information quality of stock prices and makes stock prices noisier signals for managers to follow. Durnev (2010) also argues that election uncertainty leads to inefficient capital allocation, which means that if a company's investment becomes less responsive to stock prices during an election year, the company observes 6% lower sales growth over two years following the election. In addition, Yonce (2009) builds a theoretical model to show that firms alter their investment policy depending on regulatory uncertainty and the changing of political environments, because regulatory and public policy affects the cash flows of their investments in election years. Yonce (2009) also empirically documents that US firms reduce investment expenditures by approximately 2% during presidential election years, 5.3% during periods of single-party government, and 8.7% during Republican presidential administrations.

There are a few relevant studies. Bertrand, Kramarz, Schoar, and Thesmar (2006) look at the behavior of politically connected chief executive officers (CEOs) around election years in France. He finds that firms managed by connected CEOs increased their investments during election years, especially when their political connection gets re-elected. Faccio (2006) finds a positive valuation effect when corporate directors have political connections. Leuz and Oberholzer (2006) find that firms with political connections rely less on publicly traded securities to raise capital. Overall, prior research

shows that political factors play an important role in affecting corporate investment decisions and firm value.

2.2 Institutional investor protection and corporate policy

Exhaustive literature has examined the impact of legal institutions on financial development and economic growth, suggesting that differences in legal origin and legal institutions help explain cross-country differences in terms of financial development and economic growth. La Porta et al. (1998) find that legal rules protecting investors and the quality of their enforcement affect agency problems differently between entrepreneurs and investors across countries. Furthermore these legal rules vary by legal origin, which is either English, French, German, or Scandinavian. English Law is common law, made by judges and subsequently incorporated into legislature. French, German, and Scandinavian laws are part of civil law tradition, which can be traced back to Roman law.

La Porta et al. (1997) test the ability of firms in different legal environments to raise external funds through either debt or equity. After comparing legal rules across 49 countries, they find that common law countries protect both shareholders and creditors the most, French civil law countries the least, and German law and Scandinavian civil countries somewhere in the middle. They also find that richer countries enforce laws better than poorer countries.

There is much subsequent research which focuses on legal institutions as well as legal origins. Levine (1999) shows that legal institutions and legal origins influence economic growth by shaping the national financial system.

La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000) address the impact of legal institutions on corporate governance. They propose two competing hypotheses for a causal relation between shareholder rights and dividend policy. The "outcome model" predicts that stronger minority shareholders' rights should be associated with a higher dividend payout, and the "substitute model" predicts the opposite. Their results support the outcome agency model of dividends that firms operating in countries with better protection of minority shareholders pay higher dividends. In contrast, poorly protected shareholders would like to take whatever they can get at the moment, regardless of investment opportunities.

In this paper, we try to unify the aforementioned two streams of research. Our paper is most closely related to the work of Julio and Yook (2010), and we extend the research of elections to investment by considering whether well-functioning legal protection helps smooth the negative impact of elections on firm investment. We test the election year effect, as well as the pre-election years and post-election years in our regression. We find that institutional investor protection helps smooth the negative impact of political uncertainty on corporate investments.

2.3 Hypothesis development

As we state above, our goal is first to validate whether political uncertainty would impact on corporate investment policy. According to previous literature (Julio and Yook, 2010), in the period leading up to an election, corporate expenditure would decrease. We use regression analysis to test this hypothesis. The dependent variable,

investment expenditure, is regressed on election dummy variable, firm-level measures and country-level variables. Our first hypothesis states:

H_{1a}: There is a negative relationship between political uncertainty and corporate investment expenditure in an election year.

$$I_{i,t} = \beta_0 + \beta_1 \text{Election}_t + \beta_2 \text{Firm Controls}_{i,t-1} + \beta_3 \text{Country Controls}_{i,t-1} + \beta_4 \text{Year Dummies} + \beta_5 \text{Industry Dummies} + \varepsilon_{i,t} \quad (1)$$

where $I_{i,t}$ is the capital expenditure of firm i in year t scaled by the total asset at the beginning of year t; $Election_t$ is the dummy variable which equals one if an election happened during the year t, and zero otherwise; firm controls includes a set of firm characteristics and country controls includes a set of country variables (see detailed description of control variables in section 3). To avoid the casualty, we use the lagged firm and country-level variables as the independent variables. We also control for year dummies and industrial dummies, which are based on one-digit standard industrial classifications (SIC) codes. We expect to see that β_1 is significant negative, suggesting that the political uncertainty sourced from a coming election cause firms to reduce their capital investment.

If the reduction of investment in an election year is caused by the political uncertainty stemming from the coming election, we expect that firms will increase their investments once the election is completed, as the political uncertainty is resolved. We therefore develop the following hypothesis:

H_{1b}: There is a positive relationship between political uncertainty and corporate investments in post-election year.

$$I_{i,t} = \beta_0 + \beta_1 \text{Election}_{t-1} + \beta_2 \text{Firm Controls}_{i,t-1} + \beta_3 \text{Country Controls}_{i,t-1} + \beta_4 \text{Year Dummies} + \beta_5 \text{Industry Dummies} + \varepsilon_{i,t} \quad (2)$$

where $Election_{t-1}$ is the dummy variable which equals one if an election took place in the last year (*t-1)*, and zero otherwise. We expect to see a positive sign of coefficient β_1 indicating that firms increase their investments once the uncertainty of the election is resolved. In addition, if there is an election next year, we expect that firms will start to reduce their investments in this year. We state this hypothesis as follows:

H_{1c}: There is a negative relationship between political uncertainty and corporate investments in pre-election years.

$$I_{i,t} = \beta_0 + \beta_1 \text{Election}_{t+1} + \beta_2 \text{Firm Controls}_{i,t-1} + \beta_3 \text{Country Controls}_{i,t-1} + \beta_4 \text{Year Dummies} + \beta_5 \text{Industry Dummies} + \varepsilon_{i,t} \quad (3)$$

where $Election_{t+1}$ is the dummy variable which equals one if there is an election happening in the next year (*t+1*), and zero otherwise. In this period, we assume that there is a negative sign of coefficient β_1 indicating that the corporation would like to decrease their investments even before the election occurred.

Next, we extend this research by considering the impact of legal investment protection on the aforementioned investment-election relation. We begin with studying the impact of legal investor protection on capital investment; then we examine the impact of the interaction of legal protection and elections on firms' investment. Following previous literature that investors can obtain a higher dividend in good legal protection countries (La Porta, Lopez-de-Silanes and Shleifer, 2002), and that legal institutions and legal origins influence economic growth by shaping the national financial system (Levine, 1999) we conjecture that stronger legal investor protection would encourage firms to conduct more investments after controlling for the effect of political uncertainty.

H_{2a}: Firms incorporated in a country with stronger legal investor protection would conduct more capital expenditure than firms from weaker legal investor protection countries controlling for political uncertainty due to election and firm and country characteristics.

$$\begin{aligned} I_{i,t} = \beta_0 + \beta_1 \text{Election}_t + \beta_2 \text{Legal Protections}_{i,t-1} + \beta_3 \text{Firm Controls}_{i,t-1} \\ + \beta_4 \text{Country Controls}_{i,t-1} + \beta_5 \text{Year Dummies} + \beta_6 \text{Industry Dummies} + \varepsilon_{i,t} \end{aligned} \quad (4)$$

where $\text{Legal Protections}_{i,t-1}$ is the institutional investor protection of country *i*, where the firm *i* is incorporated, we expect that the coefficient β_2 is positive. We employ various variables of legal protection such as the anti-director index, creditor rights,

disclosure, public enforcement and investor protection (see section 3 for a detailed discussion).

We further examine whether a strong institutional protection helps smooth the negative impact of political uncertainty on investments. Our hypothesis is as follows:

H_3: Stronger institutional investor protection would reduce the negative impact of political uncertainty on corporate investments.

$$\begin{aligned} I_{i,t} = {} & \beta_0 + \beta_1 \text{Election}_t + \beta_2 \text{Legal Protections}_{i,t-1} + \beta_3 Election_t \times \text{Legal Protections}_{i,t-1} \\ & + \beta_4 \text{Firm Controls}_{i,t-1} + \beta_5 \text{Country Controls}_{i,t-1} \\ & + \beta_6 \text{Year Dummies} + \beta_7 \text{Industry Dummies} + \varepsilon_{i,t} \end{aligned} \quad (5)$$

From previous discussions we expect to see β_1 is negative (political uncertainty reduces the investment) and β_2 is positive (legal protection increases the investment). Following the hypothesis H_3, we expect that β_3 is significant positive. In other words, the marginal effect of election on investment is $\beta_1 + \beta_3 \times \text{Legal Protections}$. Given that elections reduce investment, positive β_3 suggest that the impact of elections on investment is lower for a country with stronger legal protections.

3. Data

We compile country institutional variables, election variables, firm specific variables, and other country specific characteristics from a variety of sources. In this section, we detail our data collection process and the selection of variables.

3.1 Sample

We use the Osiris international database, which provides the most comprehensive coverage of publicly traded firm data in terms of the number of companies and countries. We access the Osiris database through Wharton Research Data Services. Our sample period is from 1981 to 2009. The initial sample includes 591,321 firms. We exclude financial firms (SIC codes from 6000 to 6999) and utility firms (SIC codes from 4900 to 4949). The dependent variable, investment expenditure, is defined as capital expenditures scaled by the beginning year of total assets. We also require firms incorporated in countries with legal institutions and election data.

Finally, we have 11,198 firm-year observations from 40 countries in the period 1981 through 2009. Firm variables include capital expenditures, total assets, cash flow, net sales, sales growth rate, PPE, Tobin's Q, return on assets, return on equity and Earnings before interest, taxes, depreciation and amortization (EBITDA). Country-level variables include sovereign rating and GDP growth rate. We collect a number of legal institutional variables including the anti-director index, investor protection, creditor rights, disclosure, legal origin and public enforcement. The election data is from the

World Bank Political Institution database. Table 1 provides the description of all variables and their source.

3.2 Legal investor protection and political election data

We use the anti-director index as our main measure of institutional investor protection. This index is compiled by Djankov, La Porta, Lopez-de-silanes, and Shleifer (2008). This index is formed by adding one when: (1) the country allows shareholders to mail their proxy vote; (2) shareholders are not required to deposit their shares prior to the general shareholders' meeting; (3) cumulative voting is allowed; (4) an oppressed minorities mechanism is in place; (5) when the minimum percentage of share capital that entitles a shareholder to call for an extraordinary shareholders' meeting is less than or equal to 10% (the sample median); or (6) shareholders have pre-emptive rights that can only be waived by a shareholders' vote. The range of the anti-director index is from a score of zero to six, and a higher score stands for stronger investors' protection.

In robustness tests, we use several alternative measures of investors' protection. First, we measure the effectiveness of the legal system of a country with an index of aggregate creditor rights following Djankov, McLiesh, and Shleifer (2007). This index is compiled for each year from 1978 to 2003.[1] The creditor rights index ranges from zero to four and a higher score corresponds to stronger creditor rights. Second, we study the disclosure index, which is based on average firm-level disclosures concerning research and development expenses, capital expenditures, product and geographic segment

[1] As creditor rights rarely change, we set index values for the years 2004 to 2009 to those observed in 2003.

data, subsidiary information, and accounting methods. This index help outside investors value firms' securities as well as monitor managerial decisions. Third, we adopt the investor protection index which includes the component of disclosure requirements, liability standards, and the anti-director index. The fourth alternative variable is the public enforcement index. This index involves five broad aspects which are supervisor characteristics index, rule-making power index, investigative powers index, order index and criminal index.

Election data was collected from the World Bank's Database of Political Institutions which provides electoral rules and classification of political platforms for the elected leaders and candidates. Presidential elections are considered in our analysis for countries with presidential systems, in this system, the president is the chief of state and head of government. In contrast, in a parliamentary system, executive power belongs to a prime minister. Some countries contain mixed types of election, combining elements of both parliamentary and presidential democracy.

To best capture the effect of political uncertainty on investment, we match the time of election with the firm's fiscal ending month, following the methodology in Julio and Yook (2010). In figure 1, if the date of election lies between five months prior to the end of the fiscal year t and seven months after the end of fiscal year t then the election year dummy variable takes a value of one. All fiscal years for which the election date does not fall within this range have the election dummy set to a value of zero. That said,

if more than six months of the fiscal year is potentially affected by the coming election, we expect that investment in this fiscal year is subjected to an election effect.

3.3 Control variables

We control for firm characteristics and country factors. Country-level control variables include GDP per capita and sovereign rating. We use the lagged value of GDP per capital to measure the change in a nation's real GDP in the year prior to the investment decision.

We collected the sovereign rating from Standard & Poor's. During defining sovereign rating, we follow Gande and Parsley (2007) and consider changes in the explicit credit rating (ECR) given to a country (represented by the letter grade D through AAA) as well as the information in secondary announcements that qualify a country's ECR. For example, Standard & Poor's frequently revises sovereigns on its 'credit outlook' a few months before an actual upgrade of a country's ECR. Accordingly, we obtain the combined rating (the explicit credit rating plus any credit outlook information) as the country's 'comprehensive' credit rating (CCR) (see Appendix A).

In addition, we obtain firm-level controls from the Osiris database, which include capital expenditures, total assets, cash flow, leverage, sales growth rate, PPE, EBITDA, Tobin's Q, return on assets, and return on equity. Most previous studies (Julio and Yook, 2010; Durnev, 2010) use Tobin's Q and cash flow as their firm control variables, showing that investment expenditure is positively related to Q, cash flow and economic growth. In our study, we include more firm control variables, measuring firm size, profitability,

sales growth, and value of property. We expect that investment expenditure is also sensitive to the above variables during election years. For example, firms with a larger value, size, profitability, liquidity, growth opportunity, and GDP per capita would like to invest more.

4. Empirical Results

This section presents our empirical results related to institutional investor protection and political uncertainty. We begin with the analysis of our summary statistics, followed by discussion of the impact of election and legal investor protection on investment expenditure. Finally, we provide results of the robustness test.

4.1 Summary statistics

Our sample consists of 11,198 firm observations with 40 countries from 1981 to 2009. Table 2 provides the summary of election type and legal origin. We can see that there are 17 countries with legislative elections, 15 countries with presidential elections, and 8 countries with mixed elections. Moreover, Table 2 shows the legal origin of each country's legal system (La Porta et al, 1998), including 9 countries with British origin, 21 with French origin, 4 with German origin, and 4 with Scandinavian origin.

Table 3 presents summary statistics of firm characteristics across countries. We report means for the selected variables and list the number of observations included in

our regression. We can see that we have more firm observations from the Japan, US and France.

4.2 The impact of elections on investment

Table 4 provides our estimates from regressing corporate investment expenditure on election dummy variables, firm controls, and country controls. Column (1) uses election current year as the election dummy variable, which takes a value of one if there is an election in this year. Column (2) uses election last year as the election dummy variable, which takes a value of one if there was an election in the last year. Column (3) uses election next year as the election dummy variable, which takes a value of one if there is an election in the next year.

Consistent with our hypothesis (H_{1a}), we find that β_1 is significant negative, suggesting that the political uncertainty reduces firms' investment by 1.51% in an election year, after controlling for industry and year effects. In addition, we find that the coefficients of Tobin's Q, cash flow, EBITDA, sales growth rate and GDP per capita are positive and significantly related to investment expenditure. Consistent with previous research (Durnev, 2010), our results confirm that firms tend to invest more in economically developed markets, and cash flow is strongly related to investment. Our results also confirm that corporations with high Tobin's Q, high profitability, and high growth opportunity would like to invest more. We find that levered and PPE is negatively related to investment, and sovereign rating is negatively related to investment.

In column (2), the estimated coefficient on election last year is positive but not significant, which means it is hard to confirm our hypothesis H_{1b} that firms increase their investment once the uncertainty of the election is resolved. Firms' control variables provide similar results as in column (1).

In column (3), the estimated coefficient of election next year is negative and significant, suggesting that firms would reduce investment by 2.22% if there was an election in the coming year. This magnitude is even larger than that in column (1). It is consistent with the argument that firms delay investment when they face uncertainty in the near future.

4.3 The impact of legal investor protection on investment

Table 5 presents estimates from regression of investment expenditure on our election dummy variable, anti-director index, interaction term of election and anti-director index, firm controls and country controls. In column (1), we uses election current year as the election dummy variable, which takes a value of one if there is an election in this year. Column (2) adds the interaction term between the anti-director index and the election current year. Column (3) presents the regression using election next year as the dummy variable, which takes a value of one if there is an election in the next year. Column (4) includes an interaction term between the anti-director index and election next year.

In the first column, we can see that the estimated coefficient of election current year is negative and significant, indicating similar results as the previous table that firms

decline their investment in the election year. Second, the coefficient β_2 of the anti-director index is positive and significant, indicating that stronger legal investor protection would help firms invest more in election years than firms with weaker legal investor protection. This result is consistent with our hypothesis H_{2a}.

In the third column, we conduct a similar test. The only difference is that we change election current year to election next year, and we find similar negative and significant coefficient of the election dummy variable, which confirms that firms decrease their investment before the election occurred. However, the coefficient on the anti-director index is positive but not significant.

In column (2) and column (4), we test the joint effect of the anti-director index and election dummy variable. After adding an interaction term between the anti-director index and the election current year in column (2), the coefficient of the anti-director index loses its significance. In addition, we find a strong positive and significant result of interaction term. This result is consistent with our prediction (H_{3a}) that stronger institutional investors' protection would reduce the negative impact of political uncertainty on corporate investment. In other words, if one unit of the anti-director index increases, firms will increase investment expenditure by 1.25% during the election year.

Furthermore, in column (4), the coefficient of interaction term ($Election \times Anti-director\ Index$) is still positive and significant, which also confirms our hypothesis H_{3b}. Overall, we conclude that the anti-director index does help to smooth

the negative effect of political uncertainty on corporate investment, in election year as well as in pre-election year. The coefficients on firm-level control variables are largely consistent with previous tables.

4.4 Robustness test

In this subsection, we briefly describe the results of the robustness checks of our findings. We use alternative measures of institutional investors' protection, such as creditor rights, disclosure requirement, investor protection and public enforcement, conducting the test in election current year. The results partly support our main hypothesis that stronger institutional investors' protection helps smooth the negative effect on investment.

In column (1) and column (2) of Table 6, we use creditor rights as alternative measures. In the first column, the coefficient of creditor rights (β_2) is -0.0029 with a significance level of 5%. In the second column, we add an interaction term between creditor rights and election current year, and the coefficient of the interaction term is strongly positive and significant.

In columns (3) and (4), we use disclosure requirement to measure the legal protection. We find that disclosure requirement is positive and significantly related to investment, suggesting that no matter whether in election year or not, high legal protection increases corporate investment. However, the interaction term between disclosure and election dummy variable is not significant.

We conduct the same ordinary least square (OLS) regression test in columns (5) to (8) by using investor protection index and public enforcement, respectively. The results suggest that stronger investor protections and public enforcement increase the investment. However, interaction the term in column (6) and column (8) are positive but not significant.

5. Conclusion

This paper uses a sample of firms from 40 countries around the world to examine the relationship between institutional investor protection and political uncertainly. Our results confirm that political uncertainty causes firms to reduce their capital investment in election years and pre-election years, but increase their capital investment in post-election years.

Our study also suggests that strong institutional investor protection, proxy by anti-director index, has a significant positive effect on corporate investment. Strong institutional investor protection also plays an important role in smoothing the negative effect of election cycles. In the robustness test, we use alternative measures of legal protection, and the results partly confirm our findings. In addition, we find that investment is positively related to Tobin's Q, cash flow, profitability, and sales growth rate.

We have to admit that there are many missing observations in our sample, which may influence our test results. In a future study, we plan to study which (legal or political) institutional protection serves the best benefit in terms of smoothing the negative impact of political uncertainty. Beside legal institutions studied in this paper, we plan to consider other institutional factors such as political rights, the freedom of the press, balance and checks in the political system, chief executive constraints, and socio-political instability.

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Figure 1

Matching Elections with Fiscal Years

This figure shows the construction of the election year dummy for each firm given the firm's fiscal year beginning and end. If the date of election lies between five months prior to the end of the fiscal year(FYE) t and seven months after the end of fiscal year t then the election year dummy variable takes a value of one. All fiscal years for which the election date does not fall within this range have the election dummy set to a value of zero.

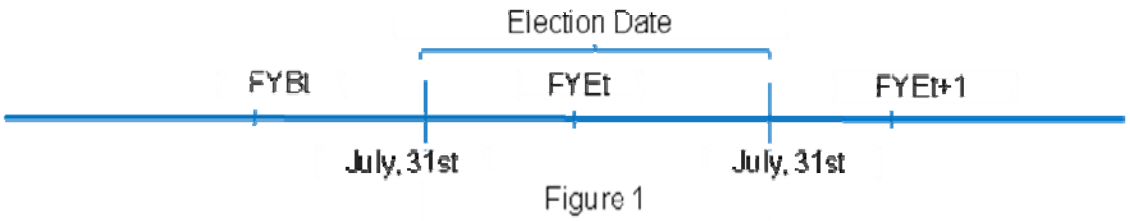

Figure 1

Table 1

Variable Definitions

Variable	Description
	A. Country institutional variables
Legal origin	Origin of a country's legal system. *Source: La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998).*
Public enforcement index	The index of public enforcement equals the arithmetic mean of: (1) supervisor characteristics index; (2) rule-making power index; (3) investigative powers index; (4) orders index; and (5) criminal index. *Source: La Porta, Lopez-de-silanes, and Shleifer (2006).*
Disclosure	A disclosure intensity index based on average firm-level disclosures concerning research and development expenses, capital expenditures, product and geographic segment data, subsidiary information, and accounting methods. *Sources: Bushman, Piotrowski, and Smith (2004) and Center for Financial Analysis and Research (CIFAR).*
Investor protection	Principal component of the indices of disclosure requirements, liability standards, and anti-director index. Scale from 0 to 10. *Source: La Porta, Lopez-de-silanes, and Shleifer (2006).*
Creditor rights	An index aggregating creditor rights. A score of one is assigned when each of the following rights of secured lenders are defined in laws and regulations: (1) there are restrictions, such as creditor consent or minimum dividends, for a debtor to file for reorganization; (2) secured creditors are able to seize their collateral after the reorganization petition is approved, i.e., there is no automatic stay or asset freeze; (3) secured creditors are paid first out of the proceeds of liquidating a bankrupt firm, as opposed to other creditors such as government or workers; and (4) management does not retain administration of its property pending the resolution of the reorganization. The index ranges from zero (weak creditor rights) to four (strong creditor rights) and is constructed for every year from 1978 to 2003. The index is time-varying and index values for the years 2004 to 2009 are set equal to the index values of the year 2003. *Sources: Djankov, McLiesh, and Shleifer (2007).*
Anti-director index	An index aggregating the shareholder rights. This index is formed by adding one when: (1) the country allows shareholders to mail their

	proxy vote to the firm; (2) shareholders are not required to deposit their shares prior to the general shareholders' meeting; (3) cumulative voting is allowed; (4) an oppressed minorities mechanism is in place; or (5) when the minimum percentage of share capital that entitles a shareholder to call for an extraordinary shareholders' meeting is less than or equal to 10% (the sample median); or (6) shareholders have pre-emptive rights that can only be waived by a shareholders' vote. The index ranges from zero to six. *Source: Djankov, La Porta, Lopez-de-silanes, and Shleifer (2008).*
Election year	The election year dummy variable takes a value of one if the election lies between five months prior to the end of the fiscal year t and seven months after the end of fiscal year t. If the election date does not fall within this range the election dummy is set to a value of zero. *Source: The database of political institutions, World Bank.*

B. Firm specific variables

Investment expenditure	Capital expenditure divided by the beginning year of total assets. *Source: Osiris.*
Total assets	Firm total assets. *Source: Osiris*.
Tobin's Q	Book value of total assets minus the book value of equity plus the market value of equity scaled by the beginning year of total assets. *Source: Osiris*.
Cash flow	Earnings before interest and taxes (EBIT) plus depreciation and amortization minus interest expense, taxes and dividends scaled by the beginning year of total assets. *Source: Osiris*.
ROA	Return on assets defined as net income divided by total assets. *Source: Osiris.*
Leverage	Financial leverage defined as the sum of long and short-term debt divided by total assets. *Source: Osiris*.
Net sales	Sales revenue. *Source: Osiris*.
Sales growth rate	The firm's annual growth rate in sales. *Source: Osiris*.

ROE	Net income divided by average total equity for the year. *Source: Osiris*.
EBITDA	Earnings before interest, tax, depreciation and amortization. *Source: Osiris.*
PPE	The net value of property, plant and equipment. *Source: Osiris*.

C. Other country specific characteristics

Real GDP per capita	Real GDP per capita in US dollars. *Source: World Bank.*
Sovereign rating	Assessment of the international rating agencies on the likelihood that a particular country will default on its loans. We code Standard & Poor's sovereign credit ratings into a comprehensive credit rating (CCR) as described in Appendix A following Grande and Parsley (2007). *Source: Standard & Poor's.*

Table 2

Summary of Election Type and Legal Origin

This table presents statistics of number of elections, type of election, and legal origin. The sample is from 1981 to 2009. 'Number of elections' is the number of elections of the chief executive from 1981 to 2009. 'Type of election' presents the different types of election, such as presidential, legislative and mixed, according to their political systems. A country is classified as presidential (parliamentary) if the president (prime minister) is the chief of state and head of government. A country is also considered parliamentary if a hereditary monarch is the chief of state while the prime minister is the head of government. If there was a change in a country's political system during the sample period, the type of election is classified as mixed. 'Legal origin' describes the origin of a country's legal system.

Country	Number of Elections	Type of Election	Legal origin
ARGENTINA	5	Presidential	French
BELGIUM	7	Legislative	French
BRAZIL	6	Presidential	French
CANADA	10	Legislative	British
CHILE	5	Presidential	French
CROATIA	2	Presidential	British
DENMARK	9	Legislative	Scandinavian
EGYPT	6	Presidential	French
FINLAND	6	Legislative	Scandinavian
FRANCE	6	Legislative	French
GERMANY	7	Legislative	German
GREECE	7	Mixed	French
HUNGARY	9	Mixed	Socialist
INDIA	6	Legislative	British
INDONESIA	6	Presidential	French
ISRAEL	7	Mixed	British
ITALY	10	Legislative	French
JAPAN	8	Legislative	German
JORDAN	4	Presidential	French
KUWAIT	5	Presidential	French
MEXICO	9	Presidential	French
MOROCCO	4	Presidential	French
NETHERLANDS	13	Legislative	French
NEW ZEALAND	9	Legislative	British
NORWAY	7	Legislative	Scandinavian
PAKISTAN	3	Mixed	British
PANAMA	5	Mixed	French
PERU	9	Presidential	French
PHILIPPINES	4	Presidential	French
POLAND	4	Mixed	Socialist
PORTUGAL	8	Mixed	French
SINGAPORE	5	Legislative	British
SPAIN	7	Legislative	French
SWEDEN	11	Legislative	Scandinavian
SWITZERLAND	6	Legislative	German
TAIWAN	3	Mixed	German
TUNISIA	3	Presidential	French
UK	6	Legislative	British
US	7	Presidential	British
VENEZUELA	5	Presidential	French

Table 3

Summary of Firm Characteristics Across Countries

The table reports means for the selected variables used in our regression. Cash flow is calculated as EBIT plus depreciation and amortization minus interest expense, taxes and dividends. The definition and source of other variables are described in Table I. The sample period is 1981 to 2009. To correct for outliers, Tobin's Q, leverage, PPE, cash flow, total assets, sales growth and EBITDA are winsorized at the 1% and 99% levels.

Country	Obs.	Q	Leverage	PPE($M)	Cash flow($M)	TA($M)	Sales growth(%)	EBITDA($M)
ARGENTINA	1	1.009	0.509	0.110	0.091	1.231	0.302	0.110
BELGIUM	120	1.266	0.352	0.119	0.064	1.359	0.112	0.110
BRAZIL	4	1.200	0.192	0.149	0.031	1.535	0.071	0.131
CANADA	265	1.270	0.248	0.124	-0.002	1.376	0.180	0.112
CHILE	197	1.335	0.247	0.168	0.038	1.792	0.189	0.164
CROATIA	5	1.332	0.230	0.155	0.025	1.629	0.038	0.141
DENMARK	247	1.294	0.401	0.128	0.034	1.434	0.102	0.119
EGYPT	34	1.419	0.402	0.134	0.059	1.479	0.289	0.125
FINLAND	267	1.368	0.349	0.117	0.072	1.316	0.115	0.107
FRANCE	869	1.386	0.428	0.116	0.014	1.351	0.130	0.108
GERMANY	174	1.315	0.403	0.119	0.002	1.352	0.101	0.110
GREECE	113	1.211	0.375	0.119	0.026	1.314	0.160	0.105
HUNGARY	2	1.073	0.219	0.178	0.001	1.855	0.027	0.163
INDIA	14	1.617	0.264	0.144	0.008	1.592	0.271	0.141
INDONESIA	153	1.243	0.398	0.175	0.004	1.869	0.210	0.180
ISRAEL	155	1.305	0.319	0.121	0.012	1.415	0.166	0.114
ITALY	265	1.273	0.387	0.121	0.015	1.367	0.084	0.112
JAPAN	4886	1.155	0.405	0.158	0.016	1.737	0.032	0.149
JORDAN	62	1.386	0.274	0.103	0.024	1.201	0.122	0.083
KUWAIT	32	1.431	0.336	0.103	0.069	1.207	0.198	0.089
MEXICO	19	1.301	0.235	0.164	0.042	1.742	0.051	0.155
MOROCCO	5	1.466	0.403	0.154	0.021	1.671	0.178	0.143
NETHERLANDS	145	1.391	0.408	0.124	0.012	1.415	0.119	0.117
NEW ZEALAND	45	1.304	0.343	0.120	0.019	1.318	0.164	0.106
NORWAY	90	1.419	0.293	0.136	0.019	1.489	0.213	0.126
PAKISTAN	23	1.382	0.500	0.156	0.067	1.666	0.242	0.146
PANAMA	1	1.961	0.613	0.137	0.116	1.530	0.167	0.136
PERU	2	1.398	0.250	0.106	0.007	1.194	0.189	0.102
PHILIPPINES	154	1.138	0.346	0.150	0.019	1.643	0.148	0.140
POLAND	7	1.489	0.348	0.126	0.027	1.412	0.370	0.118
PORTUGAL	1	1.144	0.571	0.114	-0.018	1.372	0.137	0.107
SINGAPORE	642	1.182	0.390	0.112	0.033	1.280	0.172	0.101
SPAIN	23	1.448	0.427	0.127	0.013	1.438	0.040	0.120
SWEDEN	234	1.391	0.390	0.130	0.053	1.500	0.142	0.126
SWITZERLAND	117	1.400	0.338	0.128	0.014	1.427	0.108	0.120
TAIWAN	51	1.872	0.271	0.137	0.055	1.469	0.213	0.124
TUNISIA	1	1.961	0.299	0.124	0.026	1.319	0.109	0.116
UK	531	1.495	0.376	0.122	0.039	1.399	0.135	0.116
US	1231	1.285	0.358	0.151	0.013	1.641	0.112	0.141
VENEZUELA	11	0.835	0.193	0.106	0.005	1.325	0.471	0.100
TOTAL	11198							
		1.250	0.384	0.142	0.021	1.579	0.092	0.134

Table 4

The Impact of Elections on Corporate Investment Expenditure

The table shows regression estimates of corporate investment expenditure on the election dummy variable, firm controls and country controls. Column (1) uses election current year as the election dummy variable, which takes a value of one if there is an election in this year. Column (2) uses election last year as the election dummy variable, which takes a value of one1 if there was an election in the last year. Column (3) uses election next year as the election dummy variable, which takes a value of one if there is an election in the next year. The variables are described in Table I and the sample period is 1981 to 2009. The models are estimated with OLS and include year and one-digit industry dummy variables (not reported). Standard errors are robust and corrected for clustering by firm; the associated t-statistics are reported in parentheses. *, **, *** denote significance at 10%, 5%, and 1% levels, respectively.

Independent variables	Dependent Variable: Investment, I		
	(1)	(2)	(3)
Election current year	-0.0151 ***		
	(-3.25)		
Election last year		0.0027	
		(0.64)	
Election next year			-0.0222 ***
			(-4.07)
Tobin's Q	0.0123 *	0.0086	0.0133 **
	(1.78)	(1.27)	(2.13)
Cash Flow	0.0001 **	0.0001 *	0.0001 **
	(2.39)	(1.90)	(2.15)
Log(PPE)	-0.0048 **	-0.0072 ***	-0.0062 **
	(-2.12)	(-3.25)	(-2.49)
Log(EBITDA)	0.0152 ***	0.0165 ***	0.0188 ***
	(4.92)	(5.43)	(6.71)
Log(Leverage)	-0.0724 ***	-0.0647 ***	-0.0798 ***
	(-5.73)	(-5.13)	(-5.46)
Sales growth rate	0.0414 ***	0.0411 ***	0.0433 ***
	(3.63)	(3.60)	(4.44)
Log(GDP)	0.1165 ***	0.0623 ***	0.1107 ***
	(16.35)	(15.76)	(18.12)
Sovereign rating	-0.033 ***	-0.0435 ***	-0.0325 ***
	(-14.45)	(-15.19)	(-15.57)
Intercept	-0.5381 ***	0.2436 ***	-0.5426 ***
	(-11.39)	(2.96)	(-12.36)
Industry effects	Include	Include	Include
Year fixed effect	Include	Include	Include
Observations	11198	11198	11198
R-squared	0.148	0.165	0.148

Table 5

Institutional Investor Protection and Corporate Investment Expenditure

The table shows regression estimates of corporate investment expenditure on election dummy variable, anti-director index, interaction term of election and anti-director index, firm controls and country controls. Column (1) uses election current year as the election dummy variable, which takes a value of one if there is an election in this year, and column (2) includes the interaction term between the anti-director index and election current year. Column (3) uses election next year as the election dummy variable, which takes a value of one if there is an election in the next year, and column (4) includes the interaction term between the anti-director index and election next year. The variables are described in Table I and the sample period is 1981 to 2009. The models are estimated with OLS and include year and one-digit industry dummy variables (not reported). Standard errors are robust and corrected for clustering by firm; the associated t-statistics are reported in parentheses. *, **, *** denote significance at 10%, 5%, and 1% levels, respectively.

Independent variables	Dependent Variable: Investment, I			
	(1)	(2)	(3)	(4)
Election current year	-0.0172 ***	-0.0429 **		
	(-3.69)	(-2.15)		
Election next year			-0.0224 ***	-0.0622 **
			(-4.08)	(-1.96)
Anti-director index	0.0053 ***	-0.0023	0.0019	-0.0041
	(2.97)	(-1.06)	(0.85)	(-1.56)
Anti-director index x Election		0.0125 **		0.0156 **
		(2.51)		(1.98)
Tobin's Q	0.0050	-0.0052	0.0106 *	0.0006
	(0.94)	(-0.94)	(1.67)	(0.10)
Cash Flow	0.00005 ***	0.0001 **	0.005 **	0.0001 *
	(2.58)	(2.23)	(2.11)	(1.81)
Log(PPE)	-0.0063 ***	-0.0014	-0.0069 ***	-0.0024
	(-3.01)	(-0.68)	(-2.78)	(-0.97)
Log(EBITDA)	0.0180 ***	0.0222 ***	0.0201 ***	0.0249 ***
	(7.80)	(9.27)	(7.24)	(8.81)
Log(Leverage)	-0.0677 ***	-0.0573 ***	-0.0753 ***	-0.0656 ***
	(-5.35)	(-4.39)	(-5.17)	(-4.41)
Sales growth rate	0.0347 ***	0.0369 ***	0.0446 ***	0.0473 ***
	(4.05)	(4.09)	(4.54)	(4.57)
Log(GDP)	0.1090 ***	0.0292 ***	0.1082 ***	0.0292 ***
	(21.03)	(9.15)	(17.97)	(7.90)
Sovereign rating	-0.0312 ***	-0.0311 ***	-0.0318 ***	-0.0314 ***
	(-17.93)	(-17.52)	(-15.14)	(-15.65)
Intercept	-0.5942 ***	-0.5013 ***	-0.5835 ***	-0.5141 ***
	(-16.35)	(-12.52)	(-13.73)	(-11.32)

Table 5 (continued)

Independent variables	Dependent Variable: Investment, I			
	(1)	(2)`	(3)	(4)
Industry effects	Include	Include	Include	Include
Year fixed effect	Include	Include	Include	Include
Observations	11094	11904	9335	9335
R-squared	0.184	0.134	0.168	0.127

Table 6

Robustness Test: Institutional Investor Protection and Corporate Investment Expenditure

The table reports regression estimates of corporate investment expenditure on election current year, different measures of institutional investor protection, interaction term between elections and legal protection variable, firm controls, and country controls. Column (1) uses creditor rights, and column (2) includes the interaction term between creditor rights and election current year; Column (3) uses the disclosure requirement as the measure of legal protection, and column (4) adds interaction term between disclosure requirement and election current year. Column (5) uses the investor protection index, and column (6) considers the interaction term between investor protection index and election current year. Column (7) studies public enforcement, and in column (8) we add interaction between public enforcement and election current year. All variables are described in Table I and the sample period is 1981 to 2009. The models are estimated with OLS and include year and one-digit industry dummy variables (not reported). Standard errors are robust and corrected for clustering by firm; the associated t-statistics are reported in parentheses. *, **, *** denote significance at 10%, 5%, and 1% levels, respectively.

	(1) Creditor Rights	(2) Creditor Rights	(3) Disclosure Requirement	(4) Disclosure Requirement	(5) Investor Protection	(6) Investor Protection	(7) Public Enforcement	(8) Public Enforcement
Election current year	-0.0110 **	-0.0348 ***	-0.0137 ***	0.0041	-0.0125 ***	-0.0199 *	-0.0087 *	-0.0108
	(-2.19)	(-3.97)	(-2.75)	(0.16)	(-2.49)	(-1.66)	(-1.81)	(-1.34)
Legal Protection	-0.0029 **	-0.0052 ***	0.1189 ***	0.1247 ***	0.0640 ***	0.0604 ***	0.0263 **	0.0243 *
	(-2.02)	(-3.10)	(8.45)	(8.06)	(6.38)	(5.32)	(2.15)	(1.89)
Legal Protection x Election		0.0107 ***		-0.0242		0.0149		0.0060
		(3.73)		(-0.71)		(0.82)		(0.46)
Tobin's Q	0.0005	0.0003	0.0018	0.0018	0.0008	0.0007	0.0005	0.0004
	(0.10)	(0.06)	(0.33)	(0.32)	(0.14)	(0.13)	(0.09)	(0.07)
Cash Flow	0.0001 **	0.0001 **	0.0001 **	0.0018 **	0.00004 **	0.00005 **	0.0001 **	0.0001 **
	(2.23)	(2.31)	(2.30)	(2.26)	(2.06)	(2.15)	(2.25)	(2.24)
Log(PPE)	-0.0061 ***	-0.0061 ***	-0.0065 ***	-0.0101 ***	-0.0065 ***	-0.0065 ***	-0.0060 ***	-0.0060 ***
	(-2.88)	(-2.91)	(-3.09)	(-3.08)	(-3.09)	(-3.09)	(-2.86)	(-2.85)
Log(EBITDA)	0.0190 ***	0.0192 ***	0.0189 ***	0.0189 ***	0.0188 ***	0.0188 ***	0.0189 ***	0.0189 ***
	(7.95)	(8.02)	(8.05)	(7.98)	(7.97)	(7.99)	(8.03)	(8.04)
Log(Leverage)	-0.0652 ***	-0.0643 ***	-0.0672 ***	-0.0674 ***	-0.0644 ***	-0.0643 ***	-0.0665 ***	-0.0664 ***
	(-5.11)	(-5.02)	(-5.35)	(-5.35)	(-5.09)	(-5.07)	(-5.26)	(-5.24)
Sales growth rate	0.0349 ***	0.0352 ***	0.0337 ***	0.0337 ***	0.0338 ***	0.0338 ***	0.0341 ***	0.0341 ***
	(3.88)	(3.92)	(3.89)	(3.89)	(3.90)	(3.90)	(3.91)	(3.91)
Log(GDP)	0.1089 ***	0.1110 ***	0.1103 ***	0.1102 ***	0.1204 ***	0.1210 ***	0.1227 ***	0.1232 ***
	(20.92)	(21.21)	(20.61)	(20.65)	(21.22)	(21.14)	(15.81)	(15.52)
Sovereign rating	-0.0301 ***	-0.0308 ***	-0.0322 ***	-0.0322 ***	-0.0337 ***	-0.0338 ***	-0.0340 ***	-0.0341 ***
	(-18.13)	(-18.23)	(-18.40)	(-18.40)	(-18.19)	(-18.32)	(-14.80)	(-14.65)

Table 6 (continued)

	(1) Creditor Rights	(2) Creditor Rights	(3) Disclosure Requirement	(4) Disclosure Requirement	(5) Investor Protection	(6) Investor Protection	(7) Public Enforcement	(8) Public Enforcement
Intercept	-0.5974 ***	-0.6039 ***	-0.6372 ***	-0.6408 ***	-0.6665 ***	-0.6674 ***	-0.6731 ***	-0.6748 ***
	(-11.28)	(-11.38)	(-11.92)	(-11.99)	(-12.13)	(-12.16)	(-10.47)	(-10.44)
Industry effects	Include	Include	Include	Include	Include	Include	Include	Include
Year fixed effect	Include	Include	Include	Include	Include	Include	Include	Include
Observations	11021	11021	11094	11094	11094	11094	11094	11094
R-squared	0.188	0.188	0.194	0.195	0.191	0.191	0.188	0.188

Appendix A

Comprehensive Credit Rating

Following Gande and Parsley (2007) we code Standard & Poor's sovereign credit ratings using the following chart. The reported credit rating is assigned a numerical code from 0 through 21 as indicated to obtain the explicit credit rating (ECR). Next, we add the reported information on the credit outlook (OL), coded from -1 to +1, to obtain the comprehensive credit rating (CCR), i.e., CCR = ECR + OL. For example, if a country is rated BB+ with stable credit outlook, its ECR and CCR are 11. If S&P revises the outlook to credit watch-negative (from stable), the ECR is still 11. However, its CCR is 10.50.

Explicit credit rating (ECR)		Credit Outlook (CO)	
Sovereign rating	Conversion number	Outlook	Conversion number
AAA	21	Positive	1
AA+	20	Credit Watch-Developing	0.5
AA	19	Stable	0
AA-	18	Credit Watch-Negative	-0.5
A+	17	Negative	-1
A	16		
A-	15		
BBB+	14		
BBB	13		
BBB-	12		
BB+	11		
BB	10		
BB-	9		
B+	8		
B	7		
B-	6		
CCC+	5		
CCC	4		
CCC-	3		
CC	2		
C	1		
SD, D	0		