FIRM-LEVEL PRESIDENTIAL PREMIUM

by

Rebecca Osamudiame

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ABSTRACT

This thesis investigates the relationship between the presidential administrations in the United States (U.S.) and equity performance at the firm level, using a large sample of about 8,700 U.S. firms for periods covering years 1926 to 2020. It makes two important contributions to the existing literature. First, it is the first to compute at the firm level the presidential premium and its expected and unexpected components. Second, this research is also the only study to examine which firm characteristics relate to the cross-section of the presidential premiums.

We confirm that firm size negatively affects the presidential premiums in that the smaller the firm size, the greater the performance differential of Democratic presidencies over their Republican counterparts. Surprisingly, many other fundamentals such as profitability, asset turnover, illiquidity, leverage, intangibles and financial constraint determine the presidential effects. Overall, the results suggest that Democratic presidents outperformed their Republican counterparts in U.S. firms' returns.

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CHAPTER 1. INTRODUCTION

The United States is one of the oldest democracies in the world. The political system of the U.S. consists of local, state, and federal governments. While state and local governments can levy taxes, most states are required by law or their constitution to balance their budgets and primarily deal with issues specific to their city, district, county, or state.[1] On the other hand, the federal government encompasses the country as a whole and is therefore far more powerful. It has three independent branches: 1) the executive, which includes the President, the Vice-President, and the Cabinet; 2) the legislature or Congress, which includes a lower house (the House of Representatives) and an upper house (the Senate); and 3) the judiciary, which consists of all the Federal Courts, including the Supreme Court.

While each of these three branches is, in theory, independent and has its prerogatives in the system of checks and balances enacted by the founding fathers, in practice, however, the presidency sets the political agenda and has a much greater influence on the economy and the lives of American citizens. This is probably why the presidential elections in the United States—which take place every four years—are fiercely contested by various actors in the political system and closely scrutinized by scholars from all corridors of the social sciences.

[1] The 2010 NCSL (National Conference of State Legislatures) report on the State Balanced Budget Provisions notes (p. 2): " What is meant by a balanced budget is not as clear as it may seem intuitively. Even the number of states whose laws require a balanced budget can be disputed, depending on the way the requirements are defined. The National Conference of State Legislatures (NCSL) has traditionally reported that 49 states must balance their budgets, with Vermont being the exception. Other authorities add Wyoming and North Dakota as exceptions, and some authorities in Alaska contend that it does not have an explicit requirement for a balanced budget."

Although not required by the constitution, two political parties dominate the political landscape of the United States: the Democrat party and the Republican party. Given the importance of presidential politics, the effects of presidential cycles on the economy and the real and financial markets—and conversely, the effects of the economy and markets on election outcomes—have always attracted a great deal of attention from political scientists, economists, and practitioners alike. For example, since Fair (1978), abundant and growing literature shows that a thriving economy boosts the incumbent party's chances to retain the presidency or keep the majority in Congress. In addition, many researchers believe that politics is essential for understanding some features of the economy, such as inflation, unemployment, and market behaviour and performance. For instance, in trying to explain why the U.S. economy appears to perform much better under Democratic presidents compared to their Republican counterparts on various measures of economic performance, Blinder and Watson (2016) find that this difference exists because Democratic presidents generate higher total factor productivity, in addition to benefiting from a more favourable local and international environment (particularly in terms of milder oil shocks and increased consumer confidence).

Researchers have not just considered the economics of presidential politics. Starting with Niederhoffer, Gibbs, and Bullock (1970)—who find that Democratic presidents performed better than the Republican presidents on stock markets in the third year of their presidencies—many authors have studied the interactions between presidential politics and stock market performance. As discussed in detail in the next chapter, this literature is now well established and growing. However, the study that attracted most of the attention of finance researchers is that of Santa-Clara and Valkanov (2003). They find that between 1927 and 1998, the excess stock market return (over the riskless rate) produced by Democratic presidents over their Republican counterparts (the presidential premium) averaged 9% for the value-weighted market portfolio and 16% for the equal-weighted market portfolio. Since they could not find any risk-based explanation for this presidential premium, Santa-Clara and Valkanov termed it the “presidential puzzle.”

Since the study of Santa-Clara and Valkanov, much has been done in this literature to shed more light on the presidential puzzle. In the abstract of their article, Powell, Shi, Smith, and Whaley (2007) reject the results of Santa-Clara and Valkanov in the following terms: “Despite widespread publicity about this in the financial press, the study’s results and conclusions are biased by faulty statistical tests.” The authors argue that the documented presidential premium is subject to three statistical biases: sample selection, spurious regression, and data mining. Regarding sample selection bias, they note (p. 134): “Like so many empirical studies in finance, the start of the sample period is dictated by the start date of the CRSP monthly database. Unfortunately, this means that nearly 70 years of valuable information is discarded, and distinct differences in the ideologies of the Republican and Democratic parties date back to 1856. And historians have argued that the distinctions between parties were even greater during the late 1800s than they are today. I use market data back to 1856, nearly doubling the Santa-Clara–Valkanov sample size. Under these conditions, stock market performance in different political regimes is even less distinguishable.” However, Santa-Clara and Valkanov (2003) and Sy and Zaman (2011) dispute the sample selection bias argument on the grounds that the periods before and after World War I are not directly comparable given the lack of clearly defined ideology of both parties in the pre-WWI era.

Powell et al. (2007) deliver the critiques related to spurious-regression bias and data-mining bias jointly, relying on the simulations results obtained by Ferson, Sarkissian, and Simin (2003, 2008). Recently renewed and updated by Cocquemas and Whaley (2016), this twin argument is as follows. Introduced to the econometric literature by the classic study of Yule (1926), a spurious relation will tend to be found when a non-stationary variable is regressed on a non-stationary regressor even if the variables are random or completely independent. However, the presidential premium is typically obtained when index returns are regressed on a dummy variable that takes a value of one when a Democratic president is in office and zero otherwise. The spurious regression issue comes primarily from the fact that the dummy variable used as regressor is extremely persistent given that it changes at most every four years (48 observations when monthly returns are used) because elections take place every four years. When the dummy is regressed on its lagged value, the resulting autocorrelation coefficient is generally of the order of 98% in magnitude. While this regression does not strictly correspond to the classical spurious regression framework considered by Yule (1926), given that the dependent variable (the index returns) is not highly autocorrelated, Ferson, Sarkissian, and Simin (2003, 2008) argue that a different form of spurious regression bias exists because the expected component of the index or portfolio returns used as regressand is often highly persistent. Based on simulation results, numerous studies argue that the spurious regression problem becomes even more acute when the tendency of researchers to mine the data for anomalies is considered.[2]

[2] The data mining problem in finance is perhaps best explained by Black (1993, p. 9), who states: "When a researcher tries many ways to do a study, including various combinations of explanatory factors, various periods, and various models, we often say he is 'data mining.' If he reports only the more successful runs, we have a hard time interpreting any statistical analysis he does. We worry that he selected, from the many models tried, only the ones that seem to support his conclusions. With enough data mining, all the results that seem significant could be just accidental. […] In particular, most of the so-called anomalies that have plagued the literature on investments seem likely to be the result of data mining. We have literally thousands of researchers looking for profit opportunities in securities. They are all looking at roughly the same data. Once in a while, just by chance, a strategy will seem to have worked consistently in the past. The researcher who finds it writes it up, and we have a new anomaly. But it generally vanishes as soon as it is discovered."

Sy and Zaman (2011) provide a compelling rebuttal against the twin arguments. They argue that the spurious regression bias at best affects only the statistical inference because the higher residual's autocorrelation triggered by the persistence of the dummy variable can only affect the standard error of the estimated presidential premium, not the premium itself. Hence, the economic significance of the presidential premium—which in itself is an anomaly—is not in any fashion affected by the spurious regression argument. More recently, Sy and Zaman (2020) decompose the presidential premium into expected and unexpected components to find that about two-thirds of the presidential premium in market index returns is unexpected. This is a problem to the spurious regression bias argument because all the premia should be expected if this bias was causing the puzzle. Sy and Zaman (2020) also reject the data mining argument based on the evidence that the presidential premium persists in the post-publication period of Santa-Clara and Valkanov's study in October 2003, that is, for the presidencies of the Republican George Walker Bush (September 2003 to December 2008) and the Democrat Barack Hussein Obama (January 2009 to December 2016). Sy and Zaman find that instead of vanishing, the presidential premium yet strengthened in the post-publication period, which is inconsistent with the data mining argument.

Several ideas have been advanced to rationalize the presidential puzzle besides arguments challenging the quality of the empirical tests used to generate the presidential premium. Beyer, Jensen, and Johnson (2004) are the first to examine the interactions between presidential cycles, monetary conditions, and market performance jointly. They find that controlling for the monetary policies enacted by the Federal Reserve of the United States (the Fed) significantly erodes the presidential premium to the point that it is not any more significant. While the findings of Beyer, Jensen, and Johnson advance the field by showing that financial markets perform better during Fed's expansive policy periods, they do not explain why such higher performances are consistent with market efficiency, given that expansive policy periods are usually associated with lower volatility.

Sy and Zaman (2011) propose a new way of assessing the presidential premium through a conditional asset-pricing model in which not only multiple sources of risk are simultaneously accounted for, but risk itself is allowed to vary according to presidential cycles. This is important because, as noted by the authors, the various policies initiated by the president of the United States affect not just the returns of U.S. firms (so the markets under which they operate) but also their volatility. Hence, the use of a formal conditional asset-pricing model contributes to the literature in that it permits to see whether the presidential premium is driven by risk or not. Sy and Zaman find that the presidential premium can be explained by the augmented risks of default inherent in weak and small businesses when Democrats are in power.

More recently, Pastor and Veronesi (2020) argue that the presidential puzzle can be explained by risk aversion. They develop a general equilibrium model of political cycles driven by changing risk aversion. In this model, voters are likely to vote for Democratic candidates when risk aversion is high because they desire more social insurance, the Democratic party being the one that vouches for more social redistribution of the resources. In contrast, they are more likely to vote for Republicans when risk aversion is low. With this specification, the model can explain why economic growth and market expansion have been better under Democratic presidencies relative to Republican presidencies. While this hypothesis can be assessed through an asset-pricing model in which the risk-aversion parameter is allowed to vary over time according to presidential cycles, there does not yet exist an empirical test of this theory.

A common feature of all studies on the effects of presidential cycles is that they focus on macro-level variables. In economics, the variables considered are often important macroeconomic aggregates such as GPD growth, total factor productivity, unemployment rate, and inflation rate. On the financial side, studies often focus on broad indexes or portfolios, such as the value-weighted and equal-weighted stock market indexes, the S&P500 index, size-sorted decile portfolios, industry portfolios, and bond indexes. Given this macro focus, little is known about the micro effects of presidential politics at the firm level. While the size effect in the presidential premium is well established since Hensel and Ziemba (1995), much remains to be discovered about the other determinants.

Given this macro focus, this thesis aims to address the following research questions: 1) Can the presidential premium be measured at the firm level? 2) How important is the firm-level presidential premium on average? Is this average presidential effect consistent with the premiums measured with market-wide indexes? 3) What is the prevalence of positive (statistically significant or not) and negative firm-level presidential premiums? 4) Are the premiums affected by the industrial makeup of the firms? 5) Which firm characteristics or fundamentals determine the cross-section of presidential premiums?

To answer these open research questions, we rely on the merged CRSP-Compustat database from January 1926 to December 2020, covering 15 presidents, from John Coolidge to Donald Trump. I compute each firm's raw, expected, and unexpected presidential premiums with available data by regressing the firm's raw, expected, or unexpected returns on a presidential dummy using the traditional approach. we find that the presidential premium estimated at the firm level is consistent with the one obtained from macro-level data and that several firm characteristics are economically and statistically significant in explaining the presidential premiums.

The average presidential premium is significant at standard levels of statistical significance, with a mean value of 0.97% per month and a t-statistic of 35.02. It is also observed that a positive firm-level presidential premium is more prevalent than a negative one, with more than two-third of the firms (67.87%) exhibiting a positive raw presidential premium.

The presidential premium is not the same across the industries, however. We document that the average presidential premium is significantly large in oil, energy, real estate, and telecommunications industries, to mention a few, and less pronounced in industries such as defence, consumer durables, food products, retail, and utilities.

Our results align with existing literature that the presidential premium is more pronounced in small firms (e.g., Hensel and Ziemba, 1995; Santa-Clara and Valkanov, 2003; Sy and Zaman, 2011). We also find that the presidential premium is larger for firms that are less efficiently run as measured by total assets turnover, inventory turnover, receivables turnover and payables turnover. When it comes to liquidity, we explored both the liquidity of the firms' assets by relying on three standard solvability ratios and the degree of market liquidity via the illiquidity metric proposed by Amihud (2002), which considers price changes per unit of dollar volume. The results suggest that the presidential premium is larger for firms with higher cash, quick, and current ratios, suggesting that Democratic presidents have been better for solvent firms over the short term. But the results obtained on illiquidity suggest that firms with high presidential premiums tend to be illiquid in the market when we consider Amihud's measure. Except for profit margin, whose effect is not significant, the results suggest that the presidential premium decreases with the profitability measures considered (gross profit-to-assets and return-on-assets). Further, the presidential premiums are higher for less leveraged but more financially constrained firms. Furthermore, a few intangibles appear to determine presidential premiums, which are larger for firms that do more R&D but invest less in labour and advertising.

Interestingly, the results suggest that firm valuation—as measured by book-to-market ratio and Tobin's Q—is not related to presidential premium. This finding is consistent with Sy and Zaman (2011, p. 332), who find that the value component of the decomposed presidential premiums is small: "The value effect does not appear to have considerable explanatory power for the presidential premium. Although the loadings on the value factor seem to decrease with firm size, there is no significant value premium differential between Democratic and Republican presidencies across all portfolios. Therefore, we conclude that exposure to the value factor does not explain the presidential puzzle."

Overall, this thesis makes two important contributions to the existing literature on the effect of politics on stock market performance. First, it is the first to study the presidential premium at the firm level. Indeed, all existing studies on the effects of presidential politics on performance focus either on market-wide or macro indexes such as the value-weighted and equal-weighted stock market indexes, size-sorted decile portfolios, industry portfolios, and bond indexes. Second, we are the first to investigate which firm characteristics affect the presidential premium of U.S. firms. Besides the effect of firm size, little is known about the channels through which presidential politics affect firm performance. By looking at the micro firm-level determinants of the presidential premium, we aim to shed more light on how politics appear to matter at the macro level.

The rest of the thesis is structured as follows. Chapter 2 discusses the literature review. Chapter 3 presents the data and descriptive statistics. Chapter 4 discusses the methodology used to measure the firm-level presidential premium and its components and the approach used to study its determinants. Chapter 5 presents the results on the distribution and significance of the firm-level presidential premiums, while Chapter 6 deals with the firm characteristics that determine the firm-level presidential premiums. Finally, Chapter 7 concludes the thesis.

CHAPTER 2. LITERATURE REVIEW

This chapter discusses the theoretical background and the relevant past literature regarding politics and the economy, particularly in the United States.

2.1 Theoretical Background

The following theories, Phillips Curve and Efficient Market Hypothesis, relate to our study and provide a base for understanding the rationale of the relevant literature.

2.1.1 Phillips Curve Theory

The Phillips curve was developed by William Phillips, which supports that when inflation increases, unemployment may decrease. Hence, inflation and unemployment are inversely related. Therefore, inflation should follow economic growth.

According to Hibbs (1977), it is almost impracticable to achieve both full employment and adequately control inflation at the same time. Since there are varying levels of employment and inflation under the presidential administrations in the U.S., several scholars rely on this theory to possibly provide a better explanation of the intersection between the "effect" of the policies favoured and implemented by each political party and the "Phillips Curve" phenomenon. Therefore, the Phillip's Curve theory serves as a base for the Partisan Theory.

2.1.2 Partisan Theory

The Partisan Theory implies that the political parties favour different macroeconomic policies. That is, where one party tolerate inflation for higher level of employment, the other favours unemployment to reduce inflation.

Hibbs (1977, 1987) investigates the level of employment in relation to the presidential administrations and supports the presence of the partisan theory in the U.S. The studies postulate a reduction in unemployment in the United States under the Democratic administration and an increase in the level of unemployment under the Republican administration. Hibbs (1977) provides a possible explanation for this view. The Republican and Democratic parties are favoured by different classes of people (constituencies). While the Republican party is mostly favoured by the upper-income class, the Democratic party is favoured by the low- and middle-income class. Therefore, each administration implements macroeconomic policies that favour their own "people." Specifically, Democratic administrations implement inflationary macroeconomic policies and prefer to create more jobs with some inflation, whereas Republican administrations prefer deflationary macroeconomic policies.

Ever since, researchers have extended the study of the partisan theory to several aspects of the economy. For example, Alesina (1988), Alesina and Rosenthal (1995), Alesina, Roubini and Cohen (1997), Faust and Irons (1999), Jones and Banning (2009), and Blinder and Watson (2016) document higher annual GDP growth under Democratic presidencies along with higher rates of inflation when compared to Republican presidencies. It is now well documented in the existing literature that the U.S. economy performs better under the Democratic presidencies than the Republican presidencies.

2.1.3 Efficient Market Theory

Fama (1970) defines an efficient market as the market in which prices reflect all available information. This theory supports that although most investors would not outperform the market, there are outliers who would benefit the most and outliers that would suffer major losses.

Fama (1970) further discusses the three forms of market efficiency: weak form – where all historical prices or information are reflected in the current share prices; semi-strong form – where all historical and fundamental information is reflected in the current stock prices, but there is additional (private) information beneficial to investors that are not publicly available; strong form: where all information is freely available and reflected in stock prices.

This theory leads to the speculation that the stock market performs better under Democratic presidencies than Republican presidencies. There is now expanding literature on presidential election cycles, [3] presidential approval ratings, and the stock market.

2.2 Review of Past Literatures

Researchers have been inspired by the Phillips curve theory and Partisan theory to consider the economic side of presidential politics, but beyond this, researchers have been inspired by the efficient market theory to consider the finance side of presidential politics. Niederhoffer, Gibbs, and Bullock (1970) document that the stock market performs better during the third year of the Democratic presidents than the Republicans. Riley and Luksetich (1980) document that after the election of a Republican president, the stock markets react positively (and negatively when a Democrat is elected), reflecting a widely held view that Republican presidents are better for running the affairs.

Many studies have considered the interaction of the presidential administrations and the stock markets around election cycles, the first half and second half of the presidential administrations, and business cycles. Herbst and Slinkman (1984), Huang (1985), Hensel

[3] Presidential election cycle happens when stock returns during the second half of the presidential tenure exceeds other years.

and Ziemba (1995), Siegel (1998), Johnson, Chittenden, and Jensen (1999), Santa-Clara and Valkanov (2003), Booth and Booth (2003), Campbell and Li (2004), Sy and Zaman (2011, 2020), Pastor and Veronesi (2020), among many others, examine in more details the interactions between political cycles and stock markets in the United States. Sy and Zaman (2020) provide quite a convincing explanation for the necessity of this branch of study, arguing that the financial markets reflect the economic reality of a given country. Therefore, it is only reasonable that a relationship between the presidential cycle and financial markets would exist if politics matters.

Still, the political study that attracted most of the attention of researchers in finance is that of Santa-Clara and Valkanov (2003). They report a significant difference in the performance of stock markets under the Democratic and Republican administrations in the United States and report that the stock market performed better under the Democratic administration. They note that although previous literature such as Hensel and Ziemba (1995) and Chittenden et al. (1999) supports that the stock market performs better under the Democratic administrations than Republican administrations, the difference is within the range of 5% and not as pronounced as their findings. They further expounded that the possible reason for this occurrence is that this prior literature concentrated on stock returns rather than excess returns and utilized S&P 500 index as a proxy for the stock market.

Further, they test for size effect and whether the presidential premium compensates for risk. Santa-Clara and Valkanov (2003) reveal that firm size negatively influences the presidential premium, documenting a significant difference of about 14% between the returns of the smallest and the biggest companies during the Republican and Democratic presidencies, with the smallest companies having the highest returns. Like Santa-Clara and Valkanov (2003), Booth and Booth (2003) reveal that the presidential effect is most pronounced in the small firms during the Democratic presidencies, documenting an average return of 8.17% in the first two years and 21.01% in the last two years, and it is not an outcome of the returns having a large positive or negative value. Also, Booth and Booth (2003) find that although the presidential effect[4] in stock returns prevails in both administrations, the stock market performs better under the Democratic presidents than Republican presidents. The size effect is now well documented in the literature. Campbell and Li (2004) and Sy and Zaman (2011) also confirm that the presidential premium is more pronounced in small firms.

Regarding whether the premium is explained by risk, Santa-Clara and Valkanov (2003, p. 1844) ponder: "How can such a large and persistent difference in returns exist in an efficient market if it is not a compensation for risk? We can speculate that the difference in returns is due to differences in economic policies between Democrats and Republicans." Their risk explanation question is only logical because a premium is compensation for risk in an efficient market. However, having relied on the unconditional capital asset pricing model (CAPM) in their analysis, they found no risk-based explanation for the presidential premium and therefore termed it the "presidential puzzle."

A lot has been done and learned in this literature. For example, Beyer, Jensen, and Johnson (2004) find that controlling for the monetary policies enacted by the Federal Reserve significantly erodes the presidential premium to the point that it is not any more significant. Sturm (2013) reveals that although the presidential election cycle (PEC) exists,

[4] Booth and Booth (2003) document that stock returns are higher during the third and fourth years of the presidencies. Therefore, it is implied that investors are better off holding more stocks in the last two years of the presidential tenures than in the first two years.

there is no relationship between monetary and fiscal policy proxies and the PEC. Sy and Zaman (2011) find that the presidential premium can be explained by the augmented risks of default inherent in weak and small businesses when Democrats pull the levers of power. More recently, Pastor and Veronesi (2020) argue through a general equilibrium model that the presidential puzzle is explained by risk aversion. They posit that voters are likely to vote for Democratic candidates when risk aversion is high because they desire more social insurance. In contrast, they are more likely to vote for Republicans when risk aversion is low.

Having established that presidential premium exists, and it is a compensation for risk and investors can leverage on the information to maximize returns, we ask this question: Is there any documentation of the presidential premium at the firm level? we find no empirical answers to this. Only a few studies, such as Booth and Booth (2003) and Sturm (2016) come close. Whereas Booth and Booth focused on business cycles, Sturm focused on firm-level financial variables. Moreover, these studies explore presidential cycle patterns, not the presidential premium.

Booth and Booth (2003) investigate the relationship between presidential cycle patterns and stock returns, focusing on whether dividend yield (D/P), default spread (DEF), and term spread (TERM) hold any explanation for the presidential cycle patterns for stock returns. They document that D/P, DEF and TERM are statistically significant for all regressions, and therefore, holds some explanatory power for returns on stock portfolios. However, Booth and Booth also highlight that some other factors may explain the presidential effects examined beyond the business cycle variables.

Sturm (2016) investigates whether firm-level data such as assets and liabilities, book-to-market ratios, and earnings yield explain presidential election cycle patterns. Their results reveal that neither assets nor liabilities hold any explanation for presidential cycle effects, but on the contrary, changes in firm revenue provide some level of explanation. The author reports that firm performance is highest during the fourth year of the presidential election cycle and decreases monotonically over the remaining years.

Beyond the firm-level analysis, we ponder whether the presidential premium is more concentrated in certain industries than others. Hou and Robinson (2006) and Belo et al. (2013) provoke our thoughts to relate presidential premium to the industries. For example, Hou and Robinson (2006) document a link between industrial structure and stock returns, controlling for return predictors such as size, book-to-market, and momentum. They find that industries with high concentration underperform. It should be noted that their conclusion remains the same after conducting industry-level and firm-level analyses. Further, they observed a significant difference of about 4% in the annual returns earned by firms in the quintiles of most competitive industries than firms in the quintile of most concentrated industries. Belo et al. (2013) report that Democratic presidencies have higher growth and more volatile government spending than under the Republican government, and industries with higher government exposure under the Democratic presidencies performed better than industries with low government exposure. Further, they report that firms with high government exposure underperform others under the Republican government.

Prior to this thesis, no literature explores the drivers of presidential premium at the firm level. We summarize in Table 1 the most important studies in the literature.

CHAPTER 3. DATA AND DESCRIPTIVE STATISTICS

This chapter discusses the data and variables used in the study and provides summary descriptive statistics. The sample covers the period from January 1926 to December 2020, corresponding to 1,140 monthly observations (95 years). To better understand the study, the data has been classified into firm returns, firm characteristics, instrumental variables, and political variables.

3.1 Firm Returns

The market data mainly consists of monthly stock returns from the Center for Research in Security Prices (CRSP) database. The initial sample consists of all U.S. listed firms' stocks on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX), and National Association of Securities Dealers Automated Quotations (NASDAQ) with share codes 10 or 11 as contained in the CRSP daily and monthly returns file.

Following Beaver, McNichols, and Price (2007), we adjust the returns for delisting by replacing them with delisting returns from CRSP, resulting in a sample of 34,401 firms and 4,924,971 observations.[5] Additionally, to minimize the potential for errors in the data, the following measures have been taken: 1) All missing returns—a total of 129 firms and 163,813 observations—were deleted. 2) Duplicate data entries—a total of 215,861 observations—were deleted, but the number of firms in the sample remained the same.

[5] We follow Beaver et al (2007) to include delisting returns into monthly data. When delisting occurs at the last day of the month, we replace missing delisting returns with the average daily delisting return of similar delisting; this happens if the replacement value (rv) is statistically significant at the 10% level and zero otherwise. Where delisting occurs before the last day of the month, then the delisting return is computed as $(1 + pmr)(1 + rv) - 1$, where pmr stands for the partial month return.

3) All non-stocks instruments—those with share codes other than 10 or 11—were deleted, representing about 8,882 firms and 962,664 observations. 4) Because their fundamentals are different, all firms in financial industries[6] were deleted, representing 4,047 firms and 573,099 observations. 6) Following Kim and Park (2015) and Hou, Xue and Zhang (2020), we winsorize variables at 1 and 99 percentiles to reduce the effect of outliers.

Panel A of Table 2 summarizes descriptive statistics for the returns. The total number of observations for returns is 3,009,534. The average firm return is 0.95% per month, corresponding to a yearly return of about 11.40%. The average return is much higher than the median (0% per month), confirming the well-known asymmetric distribution of returns.

3.2 Firm Characteristics

We primarily obtained the firm characteristics from the Compustat database. Panel B of Table 2 lists the various characteristics considered and the associated descriptive statistics. A detailed description of the firm characteristics is presented in Appendix 1. To be considered, a firm characteristic must either be highlighted in the existing literature as a relevant determinant of the cross-section of returns or recognized as representative of one of the categories of financial ratios in standard corporate finance textbooks such as solvency, valuation, and efficiency.

[6] We exclude firms with Standard Industrial Classification (SIC) codes between 6000-6999, this is consistent with the practice in asset pricing literatures. The financial industries and their SIC codes are documented in Appendixes 2 and 3.

Panel B of Table 2 contains the descriptive statistics, Column 2 reports the number of observations (N), Column 3 reports the mean (averages), Column 4 reports the standard (St.) deviation, Column 5 reports the minimum values, Column 6 reports the lower quartile, Column 7 reports the median, Column 8 reports the upper quartile, and Column 9 reports maximum values for all the firm characteristics.

Given its standing in the literature on asset-pricing and political cycles, firm size is probably the most important variable. The total number of yearly observations for Size is 304,697, very close to the total number of yearly observations (310,170), which is also the highest coverage compared to the number of observations for other firm characteristics. The average firm size in the U.S. is about 2 billion, which is larger than both median size (about 125 million) and the upper size quartile (649 million), confirming the prevalence of microcaps (firms that are smaller than the 20th percentile of the market equity for NYSE firms) (Fama and French, 2015, p. 3). This finding is also consistent with Hou, Xue, and Zhang (2020, p. 2020), who note: "Microcaps represent only 3.2% of the aggregate market capitalization but 60.7% of the number of stocks."

The descriptive statistics regarding the other characteristics are presented for reference. A number of them, such as book-to-market and asset growth, have observations that total between 80% and 100% of the maximum yearly observations, suggesting that the coverage is fairly good. Still, a few variables like accruals-to-total assets, research and development-to-market have coverage below 50% of the maximum number of observations.

3.3 Instrumental Variables

Boons (2016) reports that state variables such as TERM and DEF forecast stock returns. Therefore, we consider these variables relevant in decomposing stock returns into expected and unexpected components. We expand our selection of variables to decompose stock returns by following Sy and Zaman (2020) to use the following variables as instruments in decomposing excess returns into expected and unexpected returns: R_f - the risk-free return; R_m - the excess market return; HML, high minus low, also known as the value premium; DIV - the dividend yield of the S&P 500 index; DEF - the default premium; TERM - the term premium; INFL - the inflation rate; PE - the price/earnings ratio of the S&P 500 index. Further, we expand our instrumental variables to include INDPRO, the monthly change in the real industrial production for all facilities located in the United States.

Information on DEF, TERM, INDPRO, and INFL was obtained from the FRED (Federal Reserve Economic Data) at the Federal Reserve Bank of St. Louis.[7,8] Data on DIV and PE are obtained from Robert Shiller's website. We obtain market data from Ken French's website, including the market returns and HML.[9] The returns on the risk-free asset (one-month government bond) are obtained from the Ibbotson and Associates database.

We construct the instruments using relevant previous literature as seen below:

R_f one-month treasury bill (T-bill) returns (Fama and Schwert, 1977);

[7] https://fred.stlouisfed.org/series/THREEFYTP10, November 22, 2021.
[8] https://fred.stlouisfed.org/series/INDPRO, November 22, 2021.
[9] https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/f-f_factors.html.

R_m	the excess market returns (Sy and Zaman, 2020);
HML	the difference between the average portfolio returns of two value firms (high book-to-market firms) and the average portfolio returns of two growth firms (Fama and French, 1993);
DIV	the dividend yield of the S&P 500 index (Fama and French, 1988);
DEF	the difference between Moody's BAA and AAA corporate bond yields (Schwert, 1990; Santa-Clara and Valkanov 2003; Sturm 2016);
TERM	the difference between the yield of a 10-year government bond and a one-month T-bill return (Fama 1990);
INFL	the monthly change in inflation (Sy and Zaman 2020);
PE	the price/earnings ratio of the S&P 500 index (Campbell and Shiller, 1988);
INDPRO	the monthly change in industry production (Chittenden 2020).

Panel C of Table 2 presents the descriptive statistics for the instrumental variables. These descriptive statistics are presented for the sake of reference. These are close to the figures obtained in the existing literature. For example, the average and standard deviation of the monthly excess market return are 0.68% and 5.35%, respectively. These figures are comparable to the 0.65% and 5.37% values obtained in Sy and Zaman (2020) although our sample period exceeds theirs by four years. Similarly, the monthly average and standard deviation of HML are 0.32 and 3.50, respectively, compared to Fama and French's (1993) figures of 0.40 and 2.54 for the 1963-1991 period. These figures are comforting because they show that our data bear great similarities to those available in the existing literature.

3.4 Political variables

The data on the past U.S. presidential tenures and presidents was obtained from the website organized by the Office of the Historian and the Clerk of the House's Office of Art and Archives.

We create the key presidential dummy variable D_t, which takes a value of one if the president of the United States was a Democrat at time t and zero otherwise. This approach is consistent with the existing studies such as Hibbs (1977), Alesina (1987), and Santa-Clara and Valkanov (2003) as this school of thought underscores the differing political motivations and values of the Democrats and Republicans. This variable serves as an indication for the political party in power and can be used to identify the stock and firms' performance during the presidential administrations of each party. It is expected that there would be a significant difference in the performance of both political parties as they employ differing economic policies while in power.

Out of the 1,134 months that constitute our sample period (from July 1926 to December 2020), the average value taken by D_t is 0.506, suggesting that Democratic and Republican presidencies have been equally prevalent. Further, the autocorrelation coefficient associated with D_t is about 98.23%, also suggesting that the presidential dummy is persistent.

CHAPTER 4. METHODOLOGY

This chapter discusses the methodology used to measure the firm-level presidential premiums and to determine which characteristics affect these premiums. It is subdivided into two subsections. The first discusses how the firm-level presidential premiums are computed, while the second focuses on assessing which firm characteristics determine the firm-level presidential premiums.

4.1 Measuring the Firm-Level Presidential Premiums

The literature on the interactions between presidential politics and market performance aims mainly at measuring the return differential between Democratic and Republican presidencies. This is usually done by regressing raw or excess index return on a presidential dummy variable. However, since the interest here is about measuring the firm-level presidential premium, excess stock returns are used as a dependent variable instead of excess index returns.

In short, for each firm with at least 36 observations available during Democratic presidencies and 36 observations available during Republican presidencies, the following regression model is estimated:

$$r_{it} = \alpha_i + \delta_i D_{t-1} + \epsilon_{it}, \tag{1}$$

where r_{it} is the excess return (over the one-month Treasury bill rate) obtained by firm i at time t, D_{t-1} is a dummy variable that takes a value of one if the president of the United States is a Democrat at time $t-1$ and zero otherwise, α_i is the average excess return achieved by firm i under Republican presidencies, δ_i (the variable of interest) is the firm-level presidential premium (the difference of average excess firm returns between Democratic and Republican presidencies), and ϵ_{it} is the error term.

Under the hypothesis that presidential politics does not matter for stock returns, there should not exist discernable return difference between Democratic and Republican presidencies, meaning that we must have $\delta_i = 0$ in (1). The first part of the empirical investigation consists of running Regression (1) for each firm with enough data and then presenting various descriptive statistics on the distribution and significance of δ_i.

One of the main criticisms of this dummy variable approach is that it can trigger a spurious regression bias, given that D_{t-1} is highly persistent (Powell et al., 2007; Cocquemas and Whaley, 2016). Sy and Zaman (2020) argue that spurious regression bias can only be present on the expected component of the presidential premium, given that the unexpected component of returns—as a random variable—cannot be persistent by construction. Given this, it is important to break down the firm-level presidential premiums into expected and unexpected components.

To decompose the firm-level presidential premiums, this thesis relies on the method used by Sy and Zaman (2020). The approach consists of two steps. The first is to decompose the realized excess stock returns into expected and unexpected components using the following multivariate time-series regression:

$$r_{it} = \varphi_0 + \sum_{k=1}^{9} \varphi_k I_{kt-1} + u_{it}, \quad (2)$$

where φ_0 is the regression's intercept, I_{kt-1} denotes the value taken by instrument k ($k = 1, \dots, 9$) at time $t - 1$, φ_k is the slope coefficient associated with instrument k, and u_{it} is the zero-mean residual term.

Using (2), each excess stock return r_{it} can be decomposed into an expected excess stock return, captured by $E_{t-1}[r_{it}] = \varphi_0 + \sum_{k=1}^{9} \varphi_k I_{kt-1}$ where $E_{t-1}[.]$ denotes the conditional expectation operator, and an unexpected return given by residual u_{it}. The existing empirical literature motivates the nine instruments used to predict returns. They include the one-month T-bill return (Fama and Schwert, 1977); the excess market return (Conrad and Kaul, 1988); HML, the return differential between a portfolio of value (high book-to-market) firms and a portfolio of growth firms (Pontiff and Schall, 1998; Campbell and Vuolteenaho, 2004); the dividend yield of the S&P500 index (Fama and French, 1988); the default premium (Keim and Stambaugh, 1986), measured from the difference between Moody's Baa and Aaa corporate bond yields; the term premium (Fama and French, 1989), measured from the difference between the yield of a 10-year government bond and a one-month T-bill return; the inflation rate (Chen et al., 1986; Santa-Clara and Valkanov, 2003); the price/earnings ratio of the S&P500 index (Campbell and Shiller, 1988), and the industrial production total index (Chittenden, 2020).

In the second step, we use the expected and unexpected components of excess returns obtained from (2) to estimate, for each firm i, the following time-series dummy-variable regressions:

$$E_{t-1}[r_{it}] = \gamma_i + \theta_i D_{t-1} + \chi_{it}, \tag{3}$$

$$u_{it} = \eta_i + \lambda_i D_{t-1} + \psi_{it}. \tag{4}$$

It can be easily shown that in Regression (3), γ_i measures the average *expected* excess return achieved by firm i under Republican presidencies, while θ_i is the *expected* firm-level presidential premium. Similarly, the intercept η_i from Regression (4) captures the average *unexpected* excess return achieved by firm i under Republican presidencies, whereas the slope coefficient λ_i depicts the *unexpected* firm-level presidential premium. The last terms in both equations (χ_{it} and ψ_{it}) are the zero-mean error terms.

Zaman and Sy (2020) show in their Equation (6) that the slope coefficients in (3) and (4) provide an effective way to decompose the realized presidential premiums into expected and unexpected components:

$$\delta_i = \theta_i + \lambda_i. \tag{5}$$

If the presidential premium is driven by spurious regression bias, then necessarily (albeit not sufficiently), all the firm-level presidential premiums should be driven by their expected components θ_i. In contrast, the spurious regression bias concerns should be discarded when the unexpected components of the firm-level presidential premiums λ_i are nontrivial.

The analysis of micro-level effects of presidential politics that will be performed below will investigate the realized firm-level presidential premiums and their expected and unexpected components.

4.2 What Explains the Firm-Level Presidential Premiums?

Besides measuring the firm-level presidential premiums, this thesis contributes to the existing literature by exploring which firm characteristics—besides firm size—determine presidential cycles' impact on firm performance (i.e., the presidential premium). The specific influence of each characteristic is explored via cross-sectional regressions.

To see whether a firm characteristic determines the obtained firm-level presidential premiums, the method of choice is to regress the firm-level presidential premiums on the firm characteristics in question using a cross-sectional approach. However, two issues need to be considered to perform such a cross-sectional study. First, we have only one measured raw presidential premium for each firm, not a time series of presidential premiums. So, in the cross-sectional regression, the left-hand regressand is always constant. Second, many of the firm characteristics have a time trend. For example, from 1926 to 2020, the cross-sectional average firm size increases from \$56.2 million to \$10.9

billion. Given the particularities of the sample, we consider two approaches: one based on characteristic percentile ranks and another based on standardized characteristics.

4.2.1 Percentile Approach

In the first approach, for each t, we rank each firm characteristic c_{it} from its lowest to its highest values and assign each firm to its percentile rank $p(c_{it})$ from 1% to 100%. For example, the 1% of the firms with the lowest values of c_{it} are given the value of $p(c_{it}) = 1\%$, the next 1% of the firms with the lowest values of c_{it} are given the value of $p(c_{it}) = 2\%$, and the 1% of the firms with the highest values of c_{it} are assigned the value of $p(c_{it}) = 100\%$.

With this definition of $p(c_{it})$, we estimate the following cross-sectional regressions each time t:

$$\hat{\delta}_i = \tau_{0t}^{Raw} + \tau_{1t}^{Raw} p(c_{it}) + e_{it}^{Raw}, \tag{6}$$

$$\hat{\theta}_i = \tau_{0t}^{Ex} + \tau_{1t}^{Ex} p(c_{it}) + e_{it}^{Ex}, \tag{7}$$

$$\hat{\lambda}_i = \tau_{0t}^{Unex} + \tau_{1t}^{Unex} p(c_{it}) + e_{it}^{Unex}. \tag{8}$$

Equation (6) cross-sectionally regresses the raw firm-level presidential premiums on the characteristic percentiles. The variable of interest is the time-series average of the estimated slope coefficient ($\bar{\hat{\tau}}_{1t}^{Raw}$), which Fama–MacBeth estimate of the raw presidential premium sensitivity to a unit change in the characteristic percentile rank. That is, it measures how much the raw presidential premium of a firm changes when this firm's percentile rank regarding characteristic c_{it} increases by one unit. The intercept τ_{0t}^{Raw} measures the cross-sectional average presidential premium that is not associated with c_{it}, while e_{it}^{Raw} is the residual term.

Similarly, Equation (7) cross-sectionally regresses the expected firm-level presidential premiums on the characteristic percentiles. In this case, the key variable is the Fama–MacBeth estimate of the slope coefficient ($\bar{\tau}_{1t}^{Ex}$), which measures the univariate effect of the firm characteristic considered on the expected presidential premium, while τ_{0t}^{Ex} is the cross-sectional average expected presidential premium not related to c_{it}. Finally, Equation (8) measures the effect of the characteristic on the unexpected firm-level presidential premiums. The characteristic will be deemed important when the Fama–MacBeth estimate of the slope coefficient ($\bar{\tau}_{1t}^{Unex}$) is reliably different from zero at the standard levels of statistical significance.

4.2.2 Standardized Approach

For the sake of robustness, a second approach based on standardized characteristics is considered. For each characteristic c_{it}, the approach starts by computing its cross-sectional mean $m_t(c_{it})$ and standard deviation $s_t(c_{it})$ at time t. Then each observation is standardized by subtracting the associated mean and dividing by the associated standard deviation: $z(c_{it}) = \frac{c_{it}-m_t(c_{it})}{s_t(c_{it})}$.

With the standardized firm characteristics in hand, the next step is to estimate the following cross-sectional regressions for each t:

$$\hat{\delta}_i = \pi_{0t}^{Raw} + \pi_{1t}^{Raw} z(c_{it}) + \varrho_{it}^{Raw}, \tag{9}$$

$$\hat{\theta}_i = \pi_{0t}^{Ex} + \pi_{1t}^{Ex} z(c_{it}) + \varrho_{it}^{Ex}, \tag{10}$$

$$\hat{\lambda}_i = \pi_{0t}^{Unex} + \pi_{1t}^{Unex} z(c_{it}) + \varrho_{it}^{Unex}. \tag{11}$$

In Equations (9) to (11), the various ϱs are residual terms while the time-series averages of the estimated values of π_{0t}^{Raw}, π_{0t}^{Ex}, and π_{0t}^{Unex} measure the cross-sectional average presidential effects not explained by the characteristic in question. More importantly, the Fama–MacBeth estimates of π_{1t}^{Raw}, π_{1t}^{Ex}, and π_{1t}^{Unex} measure the sensitivities of the firm-level raw, expected, and unexpected presidential premiums, respectively, to changes in the given firm characteristic. For a firm characteristic to be considered relevant in this approach, the Fama–MacBeth estimate of the slope coefficients must be reliably different from zero at the standard levels.

CHAPTER 5. DISTRIBUTION AND SIGNIFICANCE OF THE FIRM-LEVEL PRESIDENTIAL PUZZLE

5.1 Distribution of the firm-level presidential premiums

Panel A of Table 3 presents the descriptive statistics on the raw, expected, and unexpected presidential premiums. The average presidential premium, which is the average excess return differential between Democratic and Republican presidencies, is about 0.97% per month or 11.64% per year. This estimate is well between the figures of 9% for the value-weighted market portfolio and 16% for the equal-weighted market portfolio obtained by Santa-Clara and Valkanov (1993). We also observe that the average raw presidential premium is significant at the 1% level with a robust t-statistic of 35.02. These results suggest that the presidential premiums obtained at the firm level are significant (both economically and statistically) and consistent with the figures obtained with aggregate data.

The raw average presidential premium of 0.97% per month comprises 76% expected presidential premium (0.74% per month) and 24% of unexpected presidential premium (0.23% per month). Even if the average firm-level unexpected presidential premium is lower than the figure obtained by Sy and Zaman (2020) with macro indexes,[10] the unexpected premium is still highly significant statistically with a t-statistic of 13.09. Therefore, our results support that the return differential between presidencies is real and not spurious.

[10] Sy and Zaman (2020) report a larger representation of the unexpected premium when compared to the raw, about 77.09% of the raw premium.

Panel B of Table 3 reports on the signs and significance of the raw, expected, and unexpected firm-level presidential premiums. We examine the prevalence of statistically positive and negative premiums at the 1%, 5% and 10% levels of statistical significance.[11] About 67.87% of the 8,732 estimated raw firm-level presidential premiums are of positive sign, compared to only 32.13% of them associated with a negative sign. However, not all measured presidential premiums are significantly positive or negative. Confirming the dominance of positive premiums relative to negative ones, 2.03% of the raw presidential premiums are significant at the 1% level, compared to only 0.29% of the firms that have a significantly negative raw presidential premium at the same 1% level. More presidential premiums become statistically reliable when the critical significance level is relaxed to 10%, but statistically positive raw presidential premiums remain more prevalent than the negative ones (compare 13.81% to 2.29%).

For the expected presidential premiums, 64.05% are positive, while 35.95% are negative. Yet albeit expected presidential premiums are more prone to be statistically significant (which is coherent given the higher persistence of the expected component of returns), statistically positive premiums are more prevalent than negative ones (compare 33.83% to 15.23% for the 1% level, 40.95% to 18.98% for the 5% level, and 44.73% to 21.44% for the 10% level).

For the unexpected presidential premiums, 59.78% are positive, while 40.22% are negative, which also confirms that the presidential premiums are mostly positive. The unexpected presidential premiums are more prone to be statistically significant (compare

[11] The critical values at 1%, 5% and 10% level of significance are 2.576, 1.96 and 1.645 respectively.

0.41% to 0.09% for the 1% level, 2.20% to 0.48% for the 5% level, and 4.81% to 1.05% for the 10% level).

Overall, the results obtained here suggest that Democratic presidents are better for U.S. firms than their Republican counterparts.

5.2 Firm-level presidential premiums by industry

Table 4 reports the average of the industry raw, expected, and unexpected premiums, along with their respective t-statistics and standard deviations. Our categorization of industries follows Fama and French's 48-industry and 12-industry classifications.[12] A detailed description of the industries is reported in Appendixes 2 and 3.

Panel A of Table 4 focuses on the 48 industries. First, we examine the slope coefficient of the unexpected presidential premium to establish whether the presidential premium is spurious or not. We observe that the coefficient slope for the unexpected premium is different from zero for all our observations. This implies that the presidential premium is not a result of spurious regression. Specifically, about 56% of the industries have statistically significant unexpected presidential premiums. We present the list of the significant industries and their t-statistics as follows: AERO (5.14), AUTOS (3.18), BANKS (2.66), BLDMT (2.78), BOOKS (1.96), BUSSV (-3.38), CHEM (1.98), CHIPS (7.51), CLTHS (4.88), ELCEQ (2.21), FOOD (3.21), HSHLD (2.39), INSUR (2.31), LABEQ (5.19), MACH (4.34), OIL (5.03), OTHER (3.49), PAPER (2.81), RLEST (2.18), SHIPS (1.93), SMOKE (3.50), SODA (1.98), STEEL (2.18), TELCM (2.71), TRANS (2.57), TXTLS (3.15), and UTIL (5.64).

[12] The industry classifications are obtained from Kenneth French Library: https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/det_48_ind_port.html, and https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/det_12_ind_port.html.

We then examine the estimates of the raw presidential premium to identify the industries with a highly statistically significant average presidential premium and those with insignificant premiums. We observe that the raw presidential premium is more pronounced and also statistically significant at 5% significance level in the following industries: OIL (2.35% per month), RLEST (1.85%), TELCM (1.79%), AERO (1.66%), CHIPS (1.66%), LABEQ (1.58%), SODA (1.57%), SHIPS (1.51%), FABPR (1.33%), MACH (1.27%), DRUGS (1.14%), ELCEQ (1.11%), BOOKS (1.10%), BLDMT (1.09%), MINES (1.03%), AUTOS (0.96%), FIN (0.96%), PAPER (0.94%), GOLD (0.90%), COMPS (0.90%), CHEM (0.85%), OTHER (0.84%), TRANS (0.80%), STEEL (0.80%), HSHLD (0.78%), FUN (0.75%), BOXES (0.74%), CNSTR (2.32%), WHLSL (0.71%), CLTHS (0.68%), PERSV (0.68%), BUSSV (0.59%), BANKS (0.57%), SMOKE (0.57%), INSUR (0.53%), FOOD (0.50%), RTAIL (0.45%), and UTILS (0.23%). The industry with the highest average raw presidential premium is OIL, which is somewhat consistent with Blinder and Watson (2016, p. 1015), who find "that the Democratic edge stems mainly from more benign oil shocks." On the other extreme, UTILS is the industry with the least average raw presidential premium.

Further, a few industries appear not to have a significant Democratic presidential premium. The list with their raw monthly presidential premiums is as follows: MEALS (0.42%), AGRIC (0.35%), RUBBR (0.31%), HLTH (0.29%), BEER (0.29%), TOYS (0.26%), MEDEQ (0.14%), COALS (0.12%) AND GUNS (-0.09%).

Belo et al. (2013) report that the presidential premium concentration in industries depends on the degree of Government exposure. For example, they list Guided Missile and Space Vehicle Manufacturing (DEFENSE), Oil and Gas Extraction (OIL), Television Broadcasting (MEDIA), to mention a few, as industries with high government exposures and document a higher presidential premium than other industries. They also list industries such as Carpet and Rug Mills, Frozen Food Manufacturing, Breweries, and Tobacco Product Manufacturing as those with low government exposures and therefore have low presidential premiums compared to firms with high government exposures.

Comparing our results with Belo et al., we conclude that government exposure is not the main driver of the presidential premium because GUNS has a high government exposure but the lowest presidential premium (-0.09% per month, t = -0.21). This finding makes sense because it is well known that Democrats invest least in Guns (the gun lobby and gun-rights activists being a core constituency of the Republican party).[13]

Panel B of Table 4 reports Fama and French's 12-industries classification results. We observe that the averages of the unexpected presidential premiums differ from zero at the 5% significance level for all industries excepted SHOPS and HLTH, with t-statistics of 1.00 and 0.79, respectively.

Looking at the raw presidential premiums, we see that they are all positive and significant at the 10% level, confirming that the Democratic presidencies are better than their Republican counterparts when examining the excess stock returns across industries.

[13] According to a 2018 Gallup poll [https://news.gallup.com/poll/236315/record-partisan-divide-views-nra.aspx] "Republicans and Democrats are more divided in their views of the National Rifle Association than at any other time in Gallup's 29-year trend. Eighty-eight percent of self-identified Republicans say they have very or mostly favorable views of the NRA, compared with 24% of Democrats, a 64-percentage-point gap in positive opinions of the organization."

CHAPTER 6. WHICH CHARACTERISTICS EXPLAIN THE FIRM-LEVEL PRESIDENTIAL PUZZLE?

This chapter examines which characteristics are related to the cross-section of the firm-level presidential premiums. We will first discuss the rank regression results and then discuss those based on standardized characteristics.

6.1 Percentile Regressions

Table 5 reports the results based on regressing firm-level presidential premiums on the percentile ranks of these characteristics using the Fama–MacBeth approach [see Regressions (6) to (8)]. The intercepts (τ_{0t}^{Raw}, τ_{0t}^{Ex}, and τ_{0t}^{Unex}) can be interpreted as the averages for the raw, expected and unexpected presidential premiums not captured by the firm characteristics $p(c_{it})$. The key variables of interest are the slope coefficients (τ_{1t}^{Raw}, τ_{1t}^{Ex}, and τ_{1t}^{Unex}), which measure the firm characteristic effects on the presidential premiums. For example, the slope coefficient τ_{1t}^{Raw} from the regression of the raw presidential premium on the percentile rank measures the change in the average presidential premium when the given characteristic increases by one percentile. The use of percentiles alleviates the effects of the time trend in the characteristics. It also permits a better assessment of the various characteristics' economic significance.

We observe that the averages of the raw presidential premium (τ_{0t}^{Raw}) not captured by the firm characteristic is significant for all firm characteristics in our regressions, which indicates that none of the characteristics is by itself able to explain the return differential between Democratic and Republican presidencies fully. This being said, our analysis of the results below will focus on the slope coefficients obtained by the various characteristics. We provide the discussion by characteristic groups. To be considered an important determinant of the presidential premiums, a characteristic must consistently and significantly explain the premiums in the percentile regressions discussed below and in the standardized regressions discussed further in the analysis.

Size and Maturity Characteristics

Consistent with Santa-Clara and Valkanov (2003), we find that size is a very important firm characteristic in explaining the presidential premium. The coefficient on size percentile is negative (-0.50) and significant at the 1% level (t = -4.28), suggesting that the presidential premium becomes more pronounced as we move from the percentiles of the bigger firms to the percentiles of the smaller firms.

We find that firm age is not significant for the firm-level presidential premium. Therefore, the size effect in the presidential premium does not capture maturity but rather the size of the firms.

Activity/Efficiency Ratios

All liquidity ratios appear to affect the raw presidential premiums significantly and negatively with absolute t-statistics beyond 3. The slope of the coefficient and t-statistics are reported as follows: INV-TURNOVER (-0.18, t = -4.19), TA-TURNOVER (-0.22, t = -3.73), REC-TURNOVER (-0.44, t = -10.18), and PAY-TURNOVER (-0.41, t = -7.25). Our results imply that firms with low inventory turnover, total asset turnover, receivables turnover, and payables turnover have higher presidential premiums. Also, receivables turnover appears to be the most economically significant characteristic in this category.

Overall, the evidence indicates that the policies of Democratic presidencies favour more inefficiently run firms.

Liquidity Ratios

We observe that all solvency ratios are significantly related to the raw presidential premiums. The slope coefficients and t-statistics are as follows: CASH RATIO (0.20, t = 3.31), QUICK RATIO (0.24, t = 4.25), and CURRENT RATIO (0.14, t = 2.80). The results for the cash ratio, quick ratio and current ratio indicate that firms that can readily cover their current liabilities with either cash and cash equivalents, current assets, or current assets that are readily convertible to cash have higher presidential premiums. Hence, counter-intuitively, the more expensive policies initiated by Democratic presidencies seem to favour firms that are more able to face their short-term obligations.

Amihud's market-based Illiquidity has a positive coefficient on illiquidity (0.39), which is highly significant statistically (t = 15.15). The result suggests that highly illiquid securities profit more from Democratic presidents' policies.

Valuation Ratios

We find that although book-to-market is a prominent market anomaly in the existing literature (e.g., Fama and French, 1992), it does not bear a significant influence on the raw presidential premium (t = 0.15). A similar result is obtained on the other measure of valuation (Tobin's Q), given that the coefficient on the Tobin's Q percentile ranks is of negative sign (-0.07) and statistically unreliable at the 10% level (t = -0.53).

Overall, the results of these two characteristics suggest that valuation is not a key determinant of the presidential premiums, which is consistent with Sy and Zaman's

(2011) finding that the value factor HML does not command a significant premium in their decomposition of the presidential premium.

Profitability Ratios

Of the three measures of performance considered, two appear to significantly affect the raw presidential premiums: gross profit-to-assets and return-on-assets. The slope coefficient associated with GP/A is -0.27 (t = -9.03), while that associated with ROA is -0.38 (t = -5.21); both are of negative sign and highly reliable statistically. They suggest that Democratic presidents mainly outperform their Republican counterparts on highly unprofitable firms, which are likely to be those firms that are small and distressed.

However, when it comes to profit margin, we find that the estimated slope coefficient is of the negative sign (-0.03), albeit it is not statistically significant at the standard levels (t = -0.55). The lack of significance of profit margin suggests that the negative effect of ROA on presidential premiums is mainly driven by the other two components of performance: efficiency and leverage.

Bankruptcy and Financial Constraint Ratios

We observe a positive and significant slope coefficient on O-score (0.39, t = 4.65), KZ-index (0.42, t = 5.04), and SA-index (0.52, t = 5.73). These results indicate that firms with financial distress potential show significant raw presidential premiums.

In contrast, the slope coefficients are negative and significant for operating leverage (-0.42, t = -8.43) and Z-score (-0.46, t = -3.53), indicating that financially distressed firms may generate less presidential premiums. These results are puzzling because we expected O-score and Z-score to provide similar results since they measure financial distress.

Also, we observe that companies with low operating leverage have tend to have more premium.

Financing Ratios

We considered the following financial ratios: net share issues (NSI), accruals-to-total assets ratio (ACCRUALS/TA), net payouts yield (NO/P) and percentile operating accruals (POA). We find that only net payouts yield has a significant relationship with the presidential premium with a slope coefficient of -0.47 (t = -4.85). This implies that firms with low net payouts yield earn more presidential premiums than firms with high net payouts yield.

Besides net payouts yield, none of the financing characteristics appear to affect the raw presidential premiums, prompting us to conclude that financing may not be a key determinant of how Democratic presidents outperform their Republican counterparts.

Investment Ratios

We consider the following investment ratios: asset growth (ASSETG), investment growth (IG), inventory growth (IVG), inventory changes (IVC) and changes in property, plant, and equipment-to-assets (PI/A). We observe that while ASSETG, IG, and IVG hold no explanatory power for the presidential premiums, IVC and PI/A revealed an economically small but significant presidential effect. Particularly, we document a negative slope coefficient and t-statistics for PI/A (-0.15, t = -1.97) and IVC (-0.10, t = -2.03).

We find the result for asset growth striking because Cooper, Gulen and Schill (2008) report that it is an important predictor of future returns. Given this, we expected asset growth to hold some explanation for the presidential premium. Given our results, we conclude that although asset growth may serve as a good predictor for abnormal returns, it does not hold any explanatory power for the presidential premium. Further, given the lack of consistency between the ratios, we conclude that investment is not a robust determinant of the presidential premiums.

Intangible Ratios

We observe a negative and significant slope coefficient of the raw presidential premium for advertisement expenses-to-market (ADVERT/M) (-0.12, t = -3.56) and labour expenses-to-market (LABOR/M) (-0.62, t = -7.56), and a positive and significant slope for R&D-to-market (R&D/M) (0.68, t = 8.69). This result indicates that presidential premiums are more pronounced in firms with low advertising and labour expenses. On the contrary, the raw presidential premiums tend to be more domiciled in firms with high research and development expenses.

6.2 Standardized Regressions

Table 6 reports the results based on regressing firm-level presidential premiums on the standardized characteristics using the Fama–MacBeth approach. The approach is similar to the one used by Hou, Xue, and Zhang (2020) to replicate anomalies and thus provides a viable alternative for examining the robustness of the results obtained with the percentile approach. As in the previous analysis, the intercepts (π_{0t}^{Raw}, π_{0t}^{Ex}, and π_{0t}^{Unex}) can be interpreted as the averages for the raw, expected, and unexpected presidential premiums left unexplained by the standardized characteristics. The slope coefficients (π_{1t}^{Raw}, π_{1t}^{Ex}, and π_{1t}^{Unex}) measure the change in the average presidential premiums associated with one cross-sectional standard deviation change in the given firm characteristic. As mentioned earlier, for the firm characteristic results reported in Table

5 to be considered relevant and significant, they have to be robust under both approaches.

Size and Maturity Characteristics

Table 6 confirms the existence of presidential premium in smaller firms, the slope coefficient on SIZE is still negative (-0.07) and highly significant ($t = 5.26$). Even if firm age is not significant, its lack of robustness in both specifications prompts us to conclude that it has no explanatory power for the presidential premiums.

Activity/Efficiency Ratios

We observe that although inventory turnover was statistically significant in Table 5, it fails the robustness check in the standardized regressions. However, except for this ratio, the other activity ratios remain negatively and significantly associated with the presidential premiums. We conclude that the presidential premiums are more significant for inefficiently managed assets based on this evidence.

Liquidity Ratios

We confirm that cash ratio, quick ratio, current ratio, and illiquidity remain significantly and positively associated with the raw presidential premiums. Consistent with the evidence reached above, we also find that presidential premiums continue to be positively associated with Amihud's illiquidity measure. Given this, we conclude that firms that hold much cash but are illiquid in the market generate much higher presidential premiums.

Valuation Ratios

We observe that both book-to-market ratio and Tobin's Q remain insignificant in determining presidential premiums, confirming that firm valuation does not explain how Democratic presidents outperform their Republican counterparts.

Profitability Ratios

While profit margin does not explain presidential premiums when characteristic percentiles are used as a regressor, it now generates a significant negative effect in the standardized regressions. Yet, the important result is that the significant negative relation between presidential premiums and GP/A and ROA remains robust and sound. Hence, we conclude that Democratic presidents shine relative to their Republican peers, especially for less profitable firms.

Bankruptcy and Financial Constraint Ratios

Can the results obtained with the standardized approach confirm that the presidential premiums are larger for less leveraged but more financially constrained firms? The answer is yes when we ignore the negative relation between presidential premium and Z-score. The results for O-score, KZ-index, and SA-index still confirm that presidential premium tends to be more pronounced in financially constrained firms.

Financing Ratios

Net payouts yield continues to be the only significant variable, thus strengthening our previous conclusion that financing is not a key determinant of the presidential premiums.

Investment Ratios

The results based on the standardized characteristics confirm that three of the main investment-based ratios (ASSETG, IG, and IVG) remain insignificant, thus confirming our previously reached conclusion that investment is not a robust determinant of the presidential premiums.

Intangible Ratios

None of the results materially change. Advertisement expenses-to-market and labour expenses-to-market continue to be negatively associated with the raw presidential premiums, while R&D continues to positively affect the premium even if standardized in the cross-sectional regressions. We, therefore, conclude that Democratic presidents outshine the Republican presidents for firms that do more research and development but invest less in labour and advertising.

CHAPTER 7. CONCLUSION

This thesis contributes to the literature by examining the micro-level performance of the U.S. stock returns under the Democratic and Republican presidencies from July 1926 to December 2020. We first test for the existence of the presidential premium at the firm level, finding that the U.S. stock market performs better under Democratic presidents than Republican presidents, with a premium of about 11.64% per annum. We also find that about 68% of the stocks perform better under the Democratic presidents while about 32% perform better under the Republican presidents.

We conduct a firm-level analysis using Fama and French 48 industries and find that the average presidential premium is most significant in these top five industries: Oil (28.20% per annum), Real Estate (22.2%), Telecommunications (21.48%), Aircraft (19.92%) and Electronic Equipment (19.92%). It is, however, least important in these five industries: Utilities (2.76% per annum), Textile (2.64%), Medical Equipment (1.68%), Coal (1.44%), and Guns (-1.08%). Based on our results, we conclude that the presidential premium is most prominent in oil industries and least prominent in defence because the policies implemented by the Democrats and Republicans favour certain industries relative to others.

Next, we run cross-sectional regressions to identify the firm characteristics that hold an explanation for the firm-level presidential premiums using different approaches. We confirm the findings of existing literature that firm size has a negative relationship with the presidential premium. Hence, smaller firms earn a differential presidential premium of 6% per annum under the Democratic Presidential administrations than under the Republican presidencies.

Remarkably, other firm characteristics are significant in explaining the presidential premium as well. Particularly, we find the efficiency ratios to be significant. Firms with lower inventory turnover, total assets turnover, receivables turnover, and payables turnover tend to have more presidential premiums than other firms in this category. Likewise, we document that all liquidity ratios are significant. Particularly, we note that Amihud's illiquidity measure is a significant firm characteristic. All the bankruptcy and financial constraint ratios explain the presidential premium significantly. The O-score, KZ-index, and SA-index results indicate that financially distressed firms generate more presidential premium than non-financially distressed firms.

We observe that less profitable firms earn more presidential premium, as evidenced by the results on two prominent profitability ratios: gross profit-to-assets and return-on-assets. We document that only firms with low net payout yield earn the presidential premium in the financing ratios category. Surprisingly, our results do not support that investment ratios hold explanatory power for the presidential premium. Likewise, we confirm the results of Sy and Zaman (2011) that firm valuation does not relate to the presidential premiums. Finally, the intangible ratios we considered are significant determinants of the presidential premiums. Firms with higher research and development but less investment in labour and advertising earn higher presidential premiums.

Limitations

First and foremost, the cross-sectional regressions did not control for the size. Indeed, these results are based on equally weighting all firms via Ordinary Least Squares (OLS). Zhang et al. (2020) reveal that microcaps represent about 60.7% of stocks and only 3.2% of the market capitalization. They also document a difference in their results after controlling for microcaps via Weighted Least Squares (WLS). Since we did not control for size in measuring the other characteristics' effects, it is unknown whether our results would be the same if we had controlled for size. Secondly, although we document the existence of a significant presidential premium at the firm level, we document a higher proportion of expected premium than unexpected premium as opposed to Sy and Zaman (2020). We did not investigate whether our results are robust to spurious regression bias by using alternative methods such as IVX filtering. Thirdly, we did not run multivariate cross-sectional regressions to examine the performance of a firm characteristic when combined with other firm characteristics.

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Table 1. Review of Related Literature

This table presents an overview of the literature on the presidential puzzle

Authors	Period	Methodology	Main findings
Herbst and Slinkman (1984)	1926 -1977	Time-series regression and Fourier analysis	Both two-year and four-year political-economic cycles exist, however, results only support a four-year stock market cycle.
Hensel and Ziemba (1995)	1928-1993	Univariate analysis	Democratic presidencies result in substantially better performance by small firms, while there is no discernible difference for large firms.
Johnson et al. (1999)	1929-1996	Univariate analysis	Compared to the first half of the presidential term, the return differential between Democratic and Republican presidents is greater for small stocks but less so for large stocks. The second half of the presidency is markedly more positive for stocks.
Booth and Booth (2003)	1803 - 1994	Regression Analysis	Economic activity is higher during the first half of the presidential administrations. Business condition variables are significant for all the periods.
Santa-Clara and Valkanov (2003)	1927-1998	Univariate and regression analysis	Democrat and Republican market performance differ even in the absence of market volatility, market beta, outliers, and business-cycle variables.
Beyer et al (2004)	1926-2000	Univariate and regression analysis	The link between political cycles and stock markets does not persist once monetary policy conditions are considered. Political gridlock negatively affects stock returns.
Campbell and Li (2004)	1927-1998	Regression analysis	Using more efficient methods such as WLS and GARCH, the variation in returns over presidential cycles is much smaller than previously estimated.
Beyer et al (2006)	1949-2004	Regression analysis	Equity returns are better during harmony than gridlock, while fixed-income returns are better during gridlock, and particularly, small firms outperform large firms.
Stangl and Jacobsen (2007)	1926-2006	Regression analysis and factor model	No industry has performed significantly better under either of the two administrations. No industry has benefited from the presidential or quadrennial cycles.
Powell et al, (2007)	1857-2004	Univariate and regression analysis	In the end, there is no statistically significant difference between Democrats and Republicans after accounting for the spurious regression bias.
Sy and Zaman (2011)	1926-2007	Regression Analysis	Using the conditional CAPM, it is concluded that the presidential premium is not a puzzle, as it can be explained after taking the varying market risk into consideration.

Table 1 – Continued

Authors	Period	Methodology	Main findings
Belo et al (2013)	1955 - 2009	Regression Analysis	During Democratic presidencies, firms with high exposure to government spending have higher returns, but these firms are negatively impacted during Republican presidencies.
Sturm (2016)	1950 - 2012	Regression Analysis	A presidential cycle exists and is persistent (especially in the fourth year), having used Revenue as a proxy for firm value, while Book-to-market and earning to yield and book-to-market provide no explanation.
Sy and Zaman (2020)	1926-2016	Regression Analysis, and IVX Filtering	The presidential premium is statistically significant and economically large. About 77% of the presidential premium emanates from unexpected returns.
Chittenden (2020)	1977-2016	Regression Analysis	There is no statistically significant difference in the economy under the Democratic or Republican administration. However, the U.S. economy appears to perform better under gridlock with a Democratic President and Republican Senate and House.

Table 2. Descriptive Statistics for the Returns, Characteristics, and Instruments

This table reports the mean, standard deviation, minimum, median, and maximum values of the returns and characteristics of U.S. firms. Panel A shows the statistics for the stock returns (reported in percent per month), Panel B shows the firm characteristics' statistics, and panel C shows the statistics for the instruments used to predict returns. The data for the returns come from the CRSP database, while data for the firm characteristics come from the Compustat database. Information on default spread, term spread, industrial production growth, and inflation is obtained from the FRED database, while data on dividend yield and price/earnings ratio are obtained from Robert Shiller's website. The market data, which includes market return and HML, comes from the Fama and French's website, while the data for returns on the risk-free asset (one-month government bond) are obtained from Ibbotson and Associates database. The firm characteristics considered, defined in detail in Appendix 1, are two variables measuring the scope and maturity of the firms, namely SIZE (market capitalization) and AGE (the number of years since first appearing in the Compustat database); three liquidity-based ratios (CASH RATIO, QUICK RATIO, CURRENT RATIO, and Amihud's ILLIQUIDITY measure); four activity-based ratios given by INV-TURNOVER (inventory turnover), TA-TURNOVER (total asset turnover), REC-TURNOVER (receivables turnover), and PAY-TURNOVER (payables turnover); two valuation ratios given by BTM (book to market) and Tobin's Q; tree profitability-based ratios given by GP/A (gross profits-to-assets), ROA (return on asset), and MARGIN (profit margin); five ratio intended to measure financial risk, namely OL (operating leverage), Altman's Z-score, Ohlson's O-score, KZ-index (the Kaplan–Zingales index of financial constrain), and SA-index (Hadlock and Pierce's index of financial constrain); four ratios tracking the firms' financing policies, namely NSI (net stock issues), ACCRUALS/TA (accrual-to-total assets), NO/P (net payouts yield), and POA (percent operating accruals), five ratios tracking the firm's investment policies, namely ASSETG (asset growth), IG (investment growth), IVG (inventory growth), IVC (inventory changes), and PI/A (property investment-to-total assets), and finally three ratios related to intangibles, namely R&D/M (research & development-to-market), LABOR/M (labour expenses-to-market), and ADVERT/M (advertisement expense-to-market). The instruments are the one month lagged values of the T-bill rate, the excess market return, the value factor (HML), the dividend yield of the S&P 500 index, the default premium, the term premium, the inflation rate, the price/earnings ratio of the S&P 500 index, and the industrial production growth. The second column of Panels A, B, and C shows the number of firm-month observations, the number of firm-year observations, and the length in months of the time series, respectively. The sample period runs from January 1926 to December 2020.

Variable	N	Mean	Std. Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum
A. Stock returns								
Return	3,009,534	0.95	16.04	-73.33	-6.93	0.00	7.32	300.00
B. Firm characteristics								
B1. Size and Maturity Characteristics								
SIZE	304,697	2,013.05	8,960.01	0.07	26.8	124.65	649.01	327,936
AGE	289,573	12.38	11.71	1.00	4.00	9.00	17.00	71.00

Table 2 – Continued

Variable	N	Mean	Std. Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum
B2. Activity/Efficiency Ratios								
INV-TURNOVER	224,329	19.27	75.39	-0.02	2.75	4.92	11.41	10170
TA-TURNOVER	286,706	1.01	0.92	-0.13	0.28	0.84	1.47	21.01
REC-TURNOVER	274,074	12.04	54.4	-18.82	3.56	6.01	9.17	13521.5
PAY-TURNOVER	260,299	11.08	13.62	-107.53	3.81	8.29	13.8	405.97
B3. Liquidity Ratios								
CASH RATIO	244,158	1.38	4.64	0.00	0.12	0.38	1.14	1580.3
QUICK RATIO	242,038	2.32	4.93	0.00	0.86	1.33	2.26	1584.1
CURRENT RATIO	243,312	2.98	4.99	0.00	1.31	2.03	3.19	1584.1
ILLIQUIDITY x 10^6	3,792,937	13.91	208.34	0.00	0.13	1.10	7.71	148.66
B4. Valuation Ratios								
BTM	283,504	0.80	3.48	-1642.7	0.32	0.62	1.06	492.45
Tobin's Q	283,492	1.83	2.12	0.18	0.99	1.22	1.90	325.94
B5. Profitability Ratios								
GP/A	286,971	0.30	0.30	-5.86	0.09	0.26	0.45	8.01
ROA	285,991	0.07	0.2	-12.06	0.02	0.1	0.17	5.82
MARGIN	282,095	0.07	7.2	-3218	0.21	0.34	0.51	1.04
B6. Bankruptcy and Financial Constraint Ratios								
OL	239,349	1.04	0.89	0.00	0.41	0.89	1.42	43.87
Z-score	224,599	5.19	11.73	-480.16	2.01	3.49	5.53	1105.20
O-score	218,080	-2.00	3.66	-209.69	-3.96	-2.53	-0.84	168.34
KZ-index	231,252	-11.3	78.16	-18085	-6.17	-1.03	0.90	4874.19
SA-index	289,573	-2.96	0.94	-5.96	-3.53	-3.03	-2.38	2.75
B7. Financing Ratios								
NSI	282,304	0.05	0.15	-2.60	0.00	0.00	0.03	3.52
ACCRUALS/TA	97,302	-0.03	0.09	-1.13	-0.07	-0.03	0.01	1.50
NO/P	231,898	-0.02	0.27	-25.52	-0.01	0.00	0.03	83.06
POA	225,306	-1.80	31.66	-9851	-1.53	-0.60	-0.02	1104.25

Table 2 – Continued

Variable	N	Mean	Std. Dev	Minimum	Lower Quartile	Median	Upper Quartile	Maximum
B8. Investment Ratios								
ASSETG	264,726	0.14	0.46	-0.99	-0.03	0.07	0.19	50.05
IG	232,052	0.54	7.66	-3.24	-0.29	0.06	0.56	3346
IVG	202,901	0.24	5.45	-1.00	-0.10	0.06	0.26	1858
IVC	256,284	0.01	0.06	-0.95	0.00	0.00	0.02	1.34
PI/A	231,577	0.08	0.22	-3.40	0.00	0.05	0.12	45.92
B9. Intangible Ratios								
R&D/M	133,287	0.07	0.19	0.00	0.00	0.03	0.07	39.32
LABOR/M	304,697	0.08	0.35	0.00	0.00	0.00	0.00	98.69
ADVERT/M	308,685	0.02	0.54	0.00	0.00	0.00	0.00	293.61
C. Instruments								
T-bill rate	1,134	0.27	0.25	-0.06	0.03	0.23	0.42	1.35
Excess market return	1,134	0.68	5.35	-29.13	-1.97	1.06	3.65	38.85
HML	1,134	0.32	3.50	-13.96	-1.39	0.14	1.72	35.46
Dividend Yield	1,134	3.74	1.70	1.11	2.26	3.49	4.8	13.84
Price-Earnings ratio	1,134	17.23	10.05	5.82	11.75	16.45	19.25	123.73
Default premium	1,134	1.12	0.68	0.32	0.7	0.91	1.31	5.64
Term premium	1,134	1.60	1.19	-3.65	0.83	1.68	2.43	6.22
Inflation	1,134	2.95	4.00	-10.74	1.31	2.56	4.28	19.67
Industrial production growth	1,134	3.42	10.18	-33.66	-0.53	3.24	7.41	62.04

Table 3. Distribution of the Firm-Level Presidential Premiums

This table reports the descriptive statistics of the raw, expected, and unexpected firm-level presidential premiums. The raw presidential premium is obtained from the following time-series regression:

$$r_{it} = \alpha_i + \delta_i D_{t-1} + \epsilon_{it}, \tag{1}$$

where r_{it} is the excess return on firm i at time t, D_{t-1} is a dummy variable that takes a value of one if the president in office is a Democrat at time $t-1$ and zero otherwise, α_i is the average excess return achieved by firm i under Republican presidencies, δ_i is the firm-level presidential premium, and ϵ_{it} is the error term. The expected presidential premium is obtained in equation (3) by replacing in (1) r_{it} by its expected component $E_{t-1}[r_{it}]$ obtained by regressing r_{it} on a set of nine lagged instrumental variables [see Equation (2)]. Similarly, the unexpected presidential premium is obtained by regressing the unexpected returns obtained from (2) on the presidential dummy variable [see Equation (4)]. Panel A shows the mean, standard deviation, robust t-statistic, minimum, lower and upper quartiles, median, and maximum values of the measured raw, expected, and unexpected firm-level presidential premiums. Panel B reports the percentage of positive and negative presidential premiums and the proportions of times that the firm-level presidential premiums are significant at the 1%, 5%, and 10% levels of statistical significance. The second column shows the number of observations (the firms for which the presidential premiums are computed). The raw, expected, and unexpected presidential premiums are reported in percent per month. The sample period runs from January 1926 to December 2020.

Variable	N	Mean	St. Dev.	t-stat	Minimum	Lower quartile	Median	Upper quartile	Maximum
A. Basic descriptive statistics on the raw, expected, and unexpected firm-level presidential premiums									
Raw premium	8,732	0.97	2.59	35.02	-14.42	-0.37	0.84	2.32	15.38
Expected premium	8,732	0.74	2.24	31.12	-12.57	-0.41	0.49	1.85	14.65
Unexpected premium	8,732	0.23	1.65	13.09	-8.62	-0.61	0.29	1.15	13.04

			Significantly positive				Significantly negative		
	N	% Positive	1%	5%	10%	% Negative	1%	5%	10%
B. Sign and significance of the raw, expected, and unexpected firm-level presidential premiums									
Raw premium	8,732	67.87	2.03	8.37	13.81	32.13	0.29	1.25	2.29
Expected premium	8,732	64.05	33.83	40.95	44.73	35.95	15.23	18.98	21.44
Unexpected premium	8,732	59.78	0.41	2.20	4.81	40.22	0.09	0.48	1.05

Table 4. Firm-Level Presidential Premiums by Industry

This table reports the descriptive statistics of the raw, expected, and unexpected firm-level presidential premiums by industry. The raw presidential premium is obtained from the following time-series regression:

$$r_{it} = \alpha_i + \delta_i D_{t-1} + \epsilon_{it}, \tag{1}$$

where r_{it} is the excess return on firm i at time t, D_{t-1} is a dummy variable that takes a value of one if the president in office is a Democrat at time $t-1$ and zero otherwise, α_i is the average excess return achieved by firm i under Republican presidencies, δ_i is the firm-level presidential premium, and ϵ_{it} is the error term. The expected presidential premium is obtained in equation (3) by replacing in (1) r_{it} by its expected component $E_{t-1}[r_{it}]$ obtained by regressing r_{it} on a set of nine lagged instrumental variables [see Equation (2)]. Similarly, the unexpected presidential premium is obtained by regressing the unexpected returns obtained from (2) on the presidential dummy variable [see Equation (4)]. Panel A shows the mean, standard deviation, and robust t-statistic of the measured raw, expected, and unexpected firm-level presidential premiums for each of Fama and French's 48-industry classification, while Panel B shows the same statistics but for the 12-industry classification. Details on the industry classifications are presented in Appendixes 2 and 3. The raw, expected, and unexpected presidential premiums are reported in percent per month. The sample period runs from January 1926 to December 2020. All industries with significant (at the 5% level) average firm-level presidential premiums are reported in bold.

Industry	N	Raw Premium			Expected Premium			Unexpected Premium		
		Mean	Std. Dev	t-stat	Mean	Std. Dev	t-stat	Mean	Std. Dev	t-stat
A. The 48-industry classification										
OIL	379	**2.35**	**2.95**	**15.50**	1.90	2.48	14.88	0.45	1.73	5.03
RLEST	105	**1.85**	**2.39**	**7.93**	1.51	2.24	6.90	0.36	1.70	2.18
TELCM	228	**1.79**	**2.63**	**10.26**	1.42	2.35	9.15	0.31	1.72	2.71
AERO	56	**1.66**	**1.97**	**6.32**	0.75	1.53	3.69	0.92	1.33	5.14
CHIPS	459	**1.66**	**2.68**	**13.27**	1.07	2.26	10.12	0.60	1.70	7.51
LABEQ	178	**1.58**	**2.34**	**9.01**	0.98	2.01	6.48	0.62	1.61	5.19
SODA	19	**1.57**	**2.23**	**3.07**	1.01	1.59	2.77	0.53	1.16	1.98
SHIPS	27	**1.51**	**1.45**	**5.39**	1.01	1.52	3.45	0.52	1.39	1.93
FABPR	43	**1.33**	**2.31**	**3.78**	0.93	1.59	3.82	0.38	1.72	1.43
MACH	338	**1.27**	**2.15**	**10.83**	0.94	1.83	9.41	0.33	1.41	4.34
DRUGS	484	**1.14**	**3.22**	**7.79**	1.07	2.92	8.08	0.07	2.22	0.65
ELCEQ	144	**1.11**	**2.12**	**6.29**	0.82	1.78	5.55	0.31	1.67	2.21
BOOKS	78	**1.10**	**2.16**	**4.49**	0.87	2.04	3.76	0.27	1.22	1.96
BLDMT	266	**1.09**	**2.03**	**8.74**	0.84	1.91	7.20	0.24	1.43	2.78
MINES	44	**1.03**	**2.72**	**2.50**	0.99	2.33	2.82	0.03	1.61	0.14
AUTOS	152	**0.96**	**2.13**	**5.59**	0.63	1.83	4.22	0.34	1.31	3.18
FIN	239	**0.96**	**2.22**	**6.67**	0.85	2.05	6.43	0.10	1.54	1.04

Table 4 – Continued

Industry	N	Raw Premium			Expected Premium			Unexpected Premium		
		Mean	Std. Dev	t-stat	Mean	Std. Dev	t-stat	Mean	Std. Dev	t-stat
PAPER	122	**0.94**	**2.12**	**4.90**	0.65	1.87	3.86	0.31	1.22	2.81
GOLD	33	**0.90**	**2.56**	**2.02**	0.81	2.13	2.18	0.11	1.52	0.40
COMPS	276	**0.90**	**2.82**	**5.28**	0.80	2.26	5.85	0.12	2.13	0.97
CHEM	169	**0.85**	**1.91**	**5.76**	0.66	1.88	4.56	0.20	1.34	1.98
OTHER	136	**0.84**	**2.71**	**3.60**	0.35	2.71	1.51	0.54	1.80	3.49
TRANS	230	**0.80**	**2.49**	**4.89**	0.58	2.15	4.08	0.22	1.30	2.57
STEEL	153	**0.80**	**2.29**	**4.30**	0.58	1.84	3.88	0.24	1.36	2.18
HSHLD	202	**0.78**	**2.03**	**5.49**	0.56	1.91	4.17	0.22	1.32	2.39
FUN	133	**0.75**	**2.45**	**3.52**	0.72	2.28	3.66	0.05	1.58	0.38
BOXES	37	**0.74**	**1.96**	**2.30**	0.46	1.69	1.67	0.27	1.42	1.18
CNSTR	109	**0.71**	**2.32**	**3.20**	0.66	2.13	3.20	0.05	1.29	0.38
WHLSL	360	**0.71**	**2.64**	**5.08**	0.59	2.30	4.90	0.13	1.62	1.51
CLTHS	163	**0.68**	**2.23**	**3.90**	0.22	1.77	1.56	0.47	1.24	4.88
PERSV	91	**0.68**	**2.74**	**2.37**	0.52	2.14	2.31	0.10	1.68	0.56
BUSSV	856	**0.59**	**2.80**	**6.20**	0.82	2.34	10.30	-0.22	1.92	-3.38
BANKS	1153	**0.57**	**1.72**	**11.32**	0.50	1.54	10.97	0.08	1.00	2.66
SMOKE	10	**0.57**	**0.65**	**2.78**	-0.08	0.67	-0.40	0.65	0.59	3.50
INSUR	289	**0.53**	**1.96**	**4.59**	0.37	1.91	3.29	0.16	1.15	2.31
FOOD	192	**0.50**	**1.68**	**4.11**	0.24	1.29	2.56	0.27	1.16	3.21
RTAIL	541	**0.45**	**2.38**	**4.38**	0.41	2.11	4.53	0.05	1.48	0.80
MEALS	182	0.42	3.06	1.83	0.40	2.61	2.08	0.02	1.43	0.23
AGRIC	30	0.35	2.54	0.75	0.59	2.41	1.35	-0.19	1.48	-0.72
RUBBR	109	0.31	2.23	1.46	0.20	2.18	0.95	0.09	1.24	0.73
HLTH	137	0.29	2.74	1.26	0.21	2.21	1.09	0.09	2.04	0.54
BEER	33	0.29	1.64	1.03	-0.01	1.49	-0.04	0.32	0.98	1.87
TOYS	87	0.26	2.55	0.95	0.25	2.20	1.04	-0.06	1.73	-0.32
UTIL	244	**0.23**	**1.07**	**3.35**	0.00	0.94	0.04	0.23	0.64	5.64
TXTLS	85	0.22	2.16	0.93	-0.13	1.75	-0.67	0.38	1.11	3.15
MEDEQ	260	0.14	2.84	0.81	0.15	2.44	0.97	0.01	1.71	0.11
COAL	20	0.12	2.87	0.19	0.51	1.98	1.15	-0.43	1.98	-0.96
GUNS	13	-0.09	1.58	-0.21	0.01	0.76	0.04	-0.13	1.41	-0.33

Table 4 – Continued

Industry	N	Raw Premium			Expected Premium			Unexpected Premium		
		Mean	Std. Dev	t-stat	Mean	Std. Dev	t-stat	Mean	Std. Dev	t-stat
B: 12-Industry Classification										
ENRGY	406	**2.23**	**2.98**	**15.12**	1.81	2.47	14.74	0.42	1.75	4.83
TELCM	228	**1.79**	**2.63**	**10.26**	1.42	2.35	9.15	0.31	1.72	2.71
BUSEQ	1419	**1.11**	**2.88**	**14.50**	0.97	2.33	15.68	0.15	2.00	2.80
MANUF	1267	**1.04**	**2.14**	**17.31**	0.75	1.85	14.34	0.30	1.39	7.64
OTHER	1207	**0.84**	**2.46**	**11.84**	0.67	2.24	10.39	0.18	1.54	4.00
DURBL	293	**0.84**	**2.08**	**6.87**	0.58	1.83	5.44	0.26	1.34	3.32
HLTH	881	**0.71**	**3.07**	**6.89**	0.66	2.72	7.25	0.05	2.05	0.79
CHEMS	235	**0.70**	**1.88**	**5.68**	0.49	1.76	4.27	0.21	1.34	2.41
MONEY	1786	**0.69**	**1.90**	**15.39**	0.58	1.74	14.14	0.11	1.16	4.04
NODUR	659	**0.56**	**2.08**	**6.86**	0.27	1.74	3.95	0.30	1.25	6.09
SHOPS	1069	**0.46**	**2.57**	**5.84**	0.43	2.24	6.22	0.05	1.51	1.00
UTILS	244	**0.23**	**1.07**	**3.35**	0.00	0.94	0.04	0.23	0.64	5.64

Table 5. Cross-Sectional Regressions of Presidential Premium on Percentile Rank of Firm Characteristics

This table reports the estimates for the time-series average of the intercepts and slope coefficients from the cross-sectional regressions of the firm-level presidential premiums on percentiles of firm characteristics. For each period t, we rank each firm characteristic c_{it} from its lowest to its highest values and assign it to a percentile rank $p(c_{it})$ from 1% to 100%. Then we estimate the following cross-sectional regressions each time t:

$$\hat{\delta}_i = \tau_{0t}^{Raw} + \tau_{1t}^{Raw} p(c_{it}) + e_{it}^{Raw}, \tag{6}$$

$$\hat{\theta}_i = \tau_{0t}^{Ex} + \tau_{1t}^{Ex} p(c_{it}) + e_{it}^{Ex}, \tag{7}$$

$$\hat{\lambda}_i = \tau_{0t}^{Unex} + \tau_{1t}^{Unex} p(c_{it}) + e_{it}^{Unex}. \tag{8}$$

where $\hat{\delta}_i$ is the raw firm-level presidential premium, $\hat{\theta}_i$ is the expected firm-level presidential premium, $\hat{\lambda}_i$ is the unexpected firm-level presidential premium; e_{it}^{Raw}, e_{it}^{Ex}, e_{it}^{Unex} are residual terms for the raw, expected and unexpected firm-level presidential premium respectively; τ_{0t}^{Raw}, τ_{0t}^{Ex}, and τ_{0t}^{Unex} are the cross-sectional averages of the firm-level presidential premium that is not associated with c_{it}; τ_{1t}^{Raw}, τ_{1t}^{Ex}, and τ_{1t}^{Unex} are the time-series averages of the estimated slope coefficient. The firm characteristics considered, defined in detail in Appendix 1, are two variables measuring the scope and maturity of the firms, namely SIZE (market capitalization) and AGE (the number of years since first appearing in the Compustat database); three liquidity-based ratios (CASH RATIO, QUICK RATIO, CURRENT RATIO, and Amihud's ILLIQUIDITY measure); four activity-based ratios given by INV-TURNOVER (inventory turnover), TA-TURNOVER (total asset turnover), REC-TURNOVER (receivables turnover), and PAY-TURNOVER (payables turnover); two valuation ratios given by BTM (book to market) and Tobin's Q; tree profitability-based ratios given by GP/A (gross profits-to-assets), ROA (return on asset), and MARGIN (profit margin); five ratio intended to measure financial risk, namely OL (operating leverage), Altman's Z-score, Ohlson's O-score, KZ-index (the Kaplan–Zingales index of financial constrain), and SA-index (Hadlock and Pierce's index of financial constrain); four ratios tracking the firms' financing policies, namely NSI (net stock issues), ACCRUALS/TA (accrual-to-total assets), NO/P (net payouts yield), and POA (percent operating accruals), five ratios tracking the firm's investment policies, namely ASSETG (asset growth), IG (investment growth), IVG (inventory growth), IVC (inventory changes), and PI/A (property investment-to-total assets), and finally three ratios related to intangibles, namely R&D/M (research & development-to-market), LABOR/M (labour expenses-to-market), and ADVERT/M (advertisement expense-to-market). All returns are reported in percent per month. The characteristics with significant (at the 5% level) effect on the presidential premium are reported in bold.

	Raw				Expected				Unexpected			
Firm Characteristics	τ_{0t}^{Raw}	t(τ_{0t}^{Raw})	τ_{1t}^{Raw}	t(τ_{1t}^{Raw})	τ_{0t}^{Ex}	t(τ_{0t}^{Ex})	τ_{1t}^{Ex}	t(τ_{1t}^{Ex})	τ_{0t}^{Unex}	t(τ_{0t}^{Unex})	τ_{1t}^{Unex}	t(τ_{1t}^{Unex})
A. Size and Maturity Characteristics												
SIZE	1.10	13.13	**-0.50**	**-4.28**	0.74	10.35	-0.57	-6.87	0.37	4.88	0.06	0.79
AGE	0.91	12.90	-0.12	-1.36	0.87	10.05	-0.83	-9.06	0.04	0.62	0.71	12.71

Table 5 – Continued

Firm Characteristics	Raw				Expected				Unexpected			
	τ_{0t}^{Raw}	t(τ_{0t}^{Raw})	τ_{1t}^{Raw}	t(τ_{1t}^{Raw})	τ_{0t}^{Ex}	t(τ_{0t}^{Ex})	τ_{1t}^{Ex}	t(τ_{1t}^{Ex})	τ_{0t}^{Unex}	t(τ_{0t}^{Unex})	τ_{1t}^{Unex}	t(τ_{1t}^{Unex})
B. Activity/Efficiency Ratios												
INV-TURNOVER	0.95	21.27	**-0.18**	**-4.19**	0.50	10.84	-0.15	-4.42	0.45	11.45	-0.03	-1.69
TA-TURNOVER	0.96	23.07	**-0.22**	**-3.73**	0.56	11.29	-0.21	-6.29	0.40	11.05	0.01	0.21
REC-TURNOVER	1.10	23.07	**-0.44**	**-10.18**	0.60	13.26	-0.29	-8.91	0.49	10.04	-0.14	-8.29
PAY-TURNOVER	1.13	16.15	**-0.41**	**-7.25**	0.78	20.37	-0.39	-8.30	0.36	6.83	-0.03	-0.99
C. Liquidity Ratios												
CASH RATIO	0.80	14.22	**0.20**	**3.31**	0.38	8.48	0.20	4.49	0.42	8.62	0.00	0.04
QUICK RATIO	0.77	14.06	**0.25**	**4.25**	0.39	8.83	0.17	4.18	0.38	7.90	0.08	2.75
CURRENT RATIO	0.81	16.28	**0.14**	**2.81**	0.45	9.91	0.05	1.23	0.36	7.69	0.09	3.98
ILLIQUIDITY	0.84	95.82	**0.39**	**15.15**	0.20	17.52	0.43	28.89	0.65	72.30	-0.04	-3.06
D. Valuation Ratios												
BTM	0.85	12.00	0.02	0.15	0.53	9.15	-0.15	-2.04	0.32	7.08	0.17	3.12
Tobin's Q	0.89	13.27	-0.07	-0.53	0.39	6.69	0.12	1.44	0.50	8.51	-0.18	-3.25
E. Profitability Ratios												
GP/A	1.00	34.92	**-0.27**	**-9.03**	0.52	11.18	-0.12	-4.87	0.48	9.63	-0.14	-6.96
ROA	1.06	19.54	**-0.38**	**-5.21**	0.61	10.37	-0.31	-6.02	0.45	7.05	-0.07	-1.45
MARGIN	0.88	19.83	-0.03	-0.55	0.41	8.65	0.07	2.28	0.47	7.93	-0.11	-2.96
F. Bankruptcy and Financial Constraint Ratios												
OL	1.11	24.02	**-0.42**	**-8.43**	0.61	13.66	-0.26	-6.72	0.49	12.54	-0.15	-7.01
Z-score	1.09	12.36	**-0.46**	**-3.53**	0.78	10.13	-0.47	-4.88	0.31	5.15	0.00	0.01
O-score	0.66	20.32	**0.39**	**4.65**	0.20	6.74	0.50	7.16	0.46	13.23	-0.11	-2.60
KZ-index	0.65	26.13	**0.42**	**5.05**	0.32	6.94	0.42	6.67	0.33	8.95	0.00	-0.05
SA-index	0.59	27.98	**0.52**	**5.73**	0.00	-0.06	0.90	11.29	0.58	43.62	-0.36	-4.38

Table 5 – Continued

	Raw				Expected				Unexpected			
Firm Characteristics	τ_{0t}^{Raw}	t(τ_{0t}^{Raw})	τ_{1t}^{Raw}	t(τ_{1t}^{Raw})	τ_{0t}^{Ex}	t(τ_{0t}^{Ex})	τ_{1t}^{Ex}	t(τ_{1t}^{Ex})	τ_{0t}^{Unex}	t(τ_{0t}^{Unex})	τ_{1t}^{Unex}	t(τ_{1t}^{Unex})
G. Financing Ratios												
NSI	0.81	18.91	0.08	1.22	0.34	8.40	0.21	4.28	0.47	11.99	-0.13	-3.73
ACCRUALS/TA	0.86	18.01	-0.08	-1.28	0.47	11.03	-0.02	-0.56	0.40	7.98	-0.06	-1.95
NO/P	1.05	13.01	**-0.47**	**-4.85**	0.92	14.06	-0.68	-11.01	0.14	2.06	0.20	4.13
POA	0.89	19.27	-0.06	-1.06	0.54	11.03	-0.02	-0.50	0.35	6.48	-0.04	-1.45
H. Investment Ratios												
ASSETG	0.91	15.74	-0.14	-1.37	0.45	7.64	-0.02	-0.24	0.47	9.18	-0.12	-2.76
IG	0.89	19.14	-0.02	-0.37	0.45	8.90	0.00	-0.02	0.43	9.24	-0.02	-0.87
IVG	0.90	20.33	-0.07	-1.22	0.42	9.30	-0.01	-0.31	0.47	10.24	-0.06	-2.34
IVC	0.94	21.91	**-0.10**	**-2.03**	0.49	10.33	-0.06	-1.65	0.45	8.81	-0.04	-1.84
PI/A	0.98	19.38	**-0.15**	**-1.97**	0.48	8.80	-0.02	-0.40	0.49	9.41	-0.13	-3.97
I. Intangible Ratios												
R&D/M	0.54	10.19	**0.68**	**8.69**	0.23	4.95	0.49	9.85	0.31	7.60	0.19	3.75
LABOR/M	1.16	17.37	**-0.62**	**-7.56**	0.70	11.42	-0.50	-7.82	0.46	8.99	-0.13	-4.91
ADVERT/M	0.91	26.51	**-0.12**	**-3.57**	0.51	11.93	-0.11	-4.30	0.40	9.34	-0.01	-0.62

Table 6. Cross-Sectional Regressions of Presidential Premium on Standardized Firm Characteristics

This table reports the estimates for the time-series average of the intercepts and slope coefficients from the cross-sectional regressions of the firm-level presidential premiums on the standardized firm characteristics. For each period t, we compute the cross-sectional average ($m_t(c_{it})$) and standard deviation ($s_t(c_{it})$) of each characteristic c_{it}. Then we standardize the characteristic by subtracting the associated mean and dividing by the standard deviation: $z(c_{it}) = \{c_{it} - m_t(c_{it})\}/s_t(c_{it})$. Then we estimate the following cross-sectional regressions each time t:

$$\hat{\delta}_i = \pi_{0t}^{Raw} + \pi_{1t}^{Raw} z(c_{it}) + \varrho_{it}^{Raw}, \tag{9}$$

$$\hat{\theta}_i = \pi_{0t}^{Ex} + \pi_{1t}^{Ex} z(c_{it}) + \varrho_{it}^{Ex}, \tag{10}$$

$$\hat{\lambda}_i = \pi_{0t}^{Unex} + \pi_{1t}^{Unex} z(c_{it}) + \varrho_{it}^{Unex}. \tag{11}$$

where $\hat{\delta}_i$ is the raw firm-level presidential premium, $\hat{\theta}_i$ is the expected firm-level presidential premium, $\hat{\lambda}_i$ is the unexpected firm-level presidential premium; ϱ_{it}^{Raw}, ϱ_{it}^{Ex}, ϱ_{it}^{Unex} are residual terms for the raw, expected and unexpected firm-level presidential premium respectively; π_{0t}^{Raw}, π_{0t}^{Ex}, and π_{0t}^{Unex} are the time-series averages of the estimated values of measure the cross-sectional average presidential effects not explained by the characteristic in question; π_{1t}^{Raw}, π_{1t}^{Ex}, and π_{1t}^{Unex} measure the sensitivities of the firm-level raw, expected, and unexpected presidential premiums, respectively, to changes in the given firm characteristic. The firm characteristics considered, defined in detail in Appendix 1, are two variables measuring the scope and maturity of the firms, namely SIZE (market capitalization) and AGE (the number of years since first appearing in the Compustat database); three liquidity-based ratios (CASH RATIO, QUICK RATIO, CURRENT RATIO, and Amihud's ILLIQUIDITY measure); four activity-based ratios given by INV-TURNOVER (inventory turnover), TA-TURNOVER (total asset turnover), REC-TURNOVER (receivables turnover), and PAY-TURNOVER (payables turnover); two valuation ratios given by BTM (book to market) and Tobin's Q; tree profitability-based ratios given by GP/A (gross profits-to-assets), ROA (return on asset), and MARGIN (profit margin); five ratio intended to measure financial risk, namely OL (operating leverage), Altman's Z-score, Ohlson's O-score, KZ-index (the Kaplan–Zingales index of financial constrain), and SA-index (Hadlock and Pierce's index of financial constrain); four ratios tracking the firms' financing policies, namely NSI (net stock issues), ACCRUALS/TA (accrual-to-total assets), NO/P (net payouts yield), and POA (percent operating accruals), five ratios tracking the firm's investment policies, namely ASSETG (asset growth), IG (investment growth), IVG (inventory growth), IVC (inventory changes), and PI/A (property investment-to-total assets), and finally three ratios related to intangibles, namely R&D/M (research & development-to-market), LABOR/M (labour expenses-to-market), and ADVERT/M (advertisement expense-to-market). All returns are reported in percent per month. The characteristics with significant (at the 5% level) effect on the presidential premium are reported in bold.

	Raw				Expected				Unexpected			
Firm Characteristics	τ_{0t}^{Raw}	t(τ_{0t}^{Raw})	τ_{1t}^{Raw}	t(τ_{1t}^{Raw})	τ_{0t}^{Ex}	t(τ_{0t}^{Ex})	τ_{1t}^{Ex}	t(τ_{1t}^{Ex})	τ_{0t}^{Unex}	t(τ_{0t}^{Unex})	τ_{1t}^{Unex}	t(τ_{1t}^{Unex})
A. Size and Maturity Characteristics												
SIZE	0.85	27.33	**-0.07**	**-5.26**	0.45	10.51	-0.09	-8.17	0.40	9.21	0.01	1.22
AGE	0.85	24.70	**-0.05**	**-2.39**	0.51	10.45	-0.23	-9.82	0.34	7.01	0.17	11.04

Table 6 – Continued

Firm Characteristics	Raw τ_{0t}^{Raw}	t(τ_{0t}^{Raw})	τ_{1t}^{Raw}	t(τ_{1t}^{Raw})	Expected τ_{0t}^{Ex}	t(τ_{0t}^{Ex})	τ_{1t}^{Ex}	t(τ_{1t}^{Ex})	Unexpected τ_{0t}^{Unex}	t(τ_{0t}^{Unex})	τ_{1t}^{Unex}	t(τ_{1t}^{Unex})
B. Activity/Efficiency Ratios												
INV-TURNOVER	0.86	24.54	-0.01	-0.81	0.43	10.53	0.00	-0.16	0.44	10.23	-0.01	-1.25
TA-TURNOVER	0.86	27.23	**-0.07**	**-5.04**	0.45	10.41	-0.06	-6.51	0.40	9.44	-0.01	-2.02
REC-TURNOVER	0.88	25.99	**-0.11**	**-12.32**	0.46	10.77	-0.07	-11.00	0.42	9.21	-0.05	-10.45
PAY-TURNOVER	0.93	19.73	**-0.09**	**-6.47**	0.59	15.13	-0.07	-5.62	0.35	6.98	-0.03	-4.11
C. Liquidity Ratios												
CASH RATIO	0.90	26.08	**0.07**	**4.31**	0.49	10.88	0.06	4.37	0.42	8.79	0.01	1.87
QUICK RATIO	0.90	26.25	**0.08**	**4.86**	0.48	10.85	0.05	4.16	0.42	8.80	0.02	3.53
CURRENT RATIO	0.88	27.39	**0.05**	**3.65**	0.47	10.60	0.02	2.15	0.41	8.81	0.03	3.91
ILLIQUIDITY	1.05	92.68	**0.13**	**21.11**	0.42	44.71	0.12	27.39	0.63	45.76	0.01	4.99
D. Valuation Ratios												
BTM	0.86	27.74	0.00	0.08	0.45	10.82	-0.04	-1.94	0.41	9.25	0.04	2.87
Tobin's Q	0.86	27.37	-0.03	-1.05	0.45	10.76	0.03	1.22	0.40	9.20	-0.06	-4.66
E. Profitability Ratios												
GP/A	0.87	28.24	**-0.10**	**-11.62**	0.46	10.64	-0.06	-7.58	0.41	9.25	-0.05	-8.70
ROA	0.87	27.76	**-0.11**	**-5.31**	0.46	10.70	-0.10	-6.33	0.41	9.00	-0.01	-0.61
MARGIN	0.86	27.48	**-0.04**	**-2.26**	0.45	10.57	-0.01	-0.71	0.41	9.26	-0.03	-2.75
F. Bankruptcy and Financial Constraint Ratios												
OL	0.90	25.10	**-0.12**	**-9.41**	0.48	11.17	-0.07	-6.62	0.42	9.15	-0.05	-9.90
Z-score	0.85	20.85	**-0.09**	**-2.19**	0.55	12.28	-0.09	-3.31	0.31	6.83	0.01	0.31
O-score	0.87	26.94	**0.13**	**5.07**	0.47	10.40	0.16	7.50	0.40	8.70	-0.03	-2.23
KZ-index	0.86	22.42	**0.05**	**3.31**	0.53	12.18	0.03	2.76	0.33	7.32	0.02	1.86
SA-index	0.86	24.80	**0.15**	**5.71**	0.50	10.49	0.26	11.12	0.36	7.63	-0.10	-4.19

Table 6 – Continued

Firm Characteristics	Raw				Expected				Unexpected			
	τ_{0t}^{Raw}	t(τ_{0t}^{Raw})	τ_{1t}^{Raw}	t(τ_{1t}^{Raw})	τ_{0t}^{Ex}	t(τ_{0t}^{Ex})	τ_{1t}^{Ex}	t(τ_{1t}^{Ex})	τ_{0t}^{Unex}	t(τ_{0t}^{Unex})	τ_{1t}^{Unex}	t(τ_{1t}^{Unex})
G. Financing Ratios												
NSI	0.85	27.03	**0.04**	**2.95**	0.45	10.22	0.07	6.44	0.40	9.24	-0.03	-3.43
ACCRUALS/TA	0.82	20.78	-0.02	-0.75	0.45	11.76	0.00	-0.19	0.37	8.47	-0.01	-1.38
NO/P	0.82	20.04	**-0.09**	**-5.05**	0.59	12.74	-0.16	-11.40	0.23	5.12	0.07	5.88
POA	0.86	23.02	-0.02	-1.50	0.53	12.69	-0.01	-1.49	0.33	6.96	-0.01	-0.88
H. Investment Ratios												
ASSETG	0.85	26.52	0.00	0.11	0.44	10.01	0.03	1.43	0.40	9.33	-0.03	-2.23
IG	0.87	26.80	0.02	1.58	0.45	10.22	0.03	3.03	0.42	9.37	-0.01	-1.37
IVG	0.86	24.67	0.01	0.49	0.42	10.23	0.02	1.67	0.45	10.35	-0.01	-2.10
IVC	0.89	25.76	-0.01	-0.86	0.46	10.64	0.00	-0.02	0.43	9.28	-0.01	-1.88
PI/A	0.90	26.16	-0.01	-0.56	0.47	10.60	0.02	1.23	0.43	9.01	-0.03	-3.73
I. Intangible Ratios												
R&D/M	0.88	29.79	**0.18**	**6.62**	0.48	10.63	0.14	7.73	0.41	9.13	0.04	2.54
LABOR/M	0.85	27.31	**-0.06**	**-4.57**	0.45	10.49	-0.05	-5.34	0.40	9.26	-0.01	-1.68
ADVERT/M	0.87	22.88	**-0.05**	**-3.63**	0.57	14.65	-0.03	-2.53	0.30	6.73	-0.03	-4.23

APPENDIX

Appendix 1. Variable Definitions

A. Size and Maturity Characteristics	
SIZE	Represents price times shares outstanding at the end of December of Calendar year y. It measures the scope of firms.
AGE	The number of years since the firm's first year of observation in Compustat. It measures the maturity of firms.
B. Liquidity Ratios	
CASH RATIO	Cash Ratio measures a company's ability to settle its short-term debt obligations using only cash and cash equivalents. It is computed as Cash and Cash Equivalents scaled by Current Liabilities.
QUICK RATIO	Quick Ratio measures a company's ability to settle its short-term debt obligations using assets that are easily convertible into cash. It is computed as Current Assets less Inventory scaled by Current Liabilities.
CURRENT RATIO	Current Ratio measures a company's ability to settle its short-term debt obligations using its current assets. It is computed as Current Assets scaled by Current Liabilities.
ILLIQUIDITY	Following Amihud (2002), illiquidity measures the ratio of absolute daily stock return to daily dollar trading volume, averaged over the prior months.
C. Activity/Efficiency Ratios	
Inventory Turnover (INV-TURNOVER)	Inventory Turnover measures the frequency of sales and replacement of sold inventory for a fiscal year. INV-TURNOVER is computed as cost of goods sold scaled by the average value of Inventory. The average inventory value is computed as Inventory at t plus inventory at time t - 1 divided by 2.
Total Asset Turnover (TA-TURNOVER)	Total Asset Turnover measures the ratio of total revenue to average assets. Average Assets is computed as: TA-TURNOVER = SALES/({AT+LAG(AT)}/2), where AT = Total asset at time t and LAG (AT) = Total assets at time t – 1.
Receivables Turnover (REC-TURNOVER)	Receivables Turnover measures the ratio of total revenue (sales) to average receivables, where average receivables is computed as {RECT+LAG(RECT)}/2, RECT = Receivables at time t, and LAG (RECT) = Receivables at time t – 1.
Payables Turnover (PAY-TURNOVER)	Payables Turnover measures the frequency of a company's payment to creditors for a given period. It is computed as Cost of Goods Sold plus Inventory balance scaled by average of Account Payables. The average of account payables is computed as Account Payables at time t plus Account Payables at time t - 1 divided by 2.
D. Valuation Ratios	
Book to Market (BTM)	Represents book value of equity divided by market value of equity; it is sometimes referred to as the value effect. According to Fama and French (1992), firms with high book-to-market have significant and positive excess returns and vice-versa.
Tobin's Q	Introduced by Nicholas Kaldor (1966) and popularized by James Tobin in the 1970s. Tobin's Q is the market value of a company divided by its assets' replacement cost. We compute Tobin's Q as: $Q = (AT - BOOK\_DFF + (PRCC\_C*CSHO)) / AT$,

	where AT is the firm's year-end Book Value of Total Assets, Book_Dff is Shareholder's Book Equity at year-end, PRCC_C denotes Close Market Price at the calendar year-end, and CSHO is the Shares Outstanding at the calendar year-end.
E. Profitability Ratios	
Gross Profits-to-Assets (GP/A)	Following Novy-Marx (2013), GP/A is computed as total revenue minus cost of goods sold divided by total assets.
Return on Asset (ROA)	ROA is the Net Income divided by Average Total Assets in year t. Average Total Assets is computed as Total Assets at time t plus Total Assets at time t - 1 divided by 2.
MARGIN	Profit margin measures the ratio between gross profit and sales. It is computed as total revenue minus cost of goods sold divided by total assets
F. Bankruptcy and Financial Constraint Ratios	
Operating Leverage (OL)	Following Novy-Marx (2011), we measure operating leverage (OL) as operating costs scaled by total assets (Compustat annual item AT, the denominator is current, not lagged, total assets).
Altman's Z-score	Developed by Altman (1968), The Z-score measures operating efficiency, total asset turnover, leverage ratio, asset liquidity, and earning power by a simple weighted average of five accounting ratios. Z-score is useful in predicting bankruptcy. Computed as: Z-score = 3.3*(EBIT/AT) +0.99*(SALE/AT) +0.6*((PRCC_C*CSHO)/LT) +1.2*(ACT/AT) +1.4*(RE/AT), where EBIT = Earnings before Interest and Tax, AT = Total Assets, SALE = Total Revenue, ACT= Working Capital, RE = Retained Earnings, PRCC_C*CSHO = Market Value Equity, LT = Book Value of Total Liabilities, PRCC_C = Close Market Price at the calendar year end, and CSHO = Shares Outstanding at the calendar year-end.
Ohlson's O-score	This is an alternative to Altman Z-score in predicting financial distress. We follow Ohlson (1980, Model 1 in Table 4) in constructing the O-score. Computed as: O-score = -1.32-0.407log(TA)+6.03TLTA-1.43WCTA+0.076CLCA -1.72OENEG-2.37NITA-1.83FUTL+ 0.285INTWO-0.521CHIN, where Size = Log of the total assets / log of GNP price level index, TLTA = Total liabilities / total assets, WCTA = Working capital / total assets, CLCA = Current liabilities / current, assets, NITA = Net income / total assets, FUTL = Cash flows from operation / total liabilities (though Ohlson used "funds from operations", we use Cash flows from operation as a proxy for funds from operations, TA = total assets, ENEG = 1 if total liabilities exceeds total assets, 0 otherwise, INTWO = 1 if net income was negative for the last two years, 0 otherwise, and CHIN = $(NI_t - NI_{t-1})/(\lvert NI_t\rvert - \lvert NI_{t-1}\rvert)$ with NI_t denoting net income for the most recent period. The denominator acts as a level of indicator. This variable estimates the level of change in net income.
KZ-index	We follow Kaplan & Zingales (1997) to compute the index of financial constrain as:

	KZ-index = -1.001909*((IB + DP)/LPPENT) +0.2826389*(Q1_KZ) +3.139193*LEVERAGE_KZ - 39.3678*((DVC+DVP)/LPPENT) -1.314759*CHE/LPPENT, where IB = Income Before Extraordinary Items, DP = Depreciation and Amortization, DVC = Dividends Common/Ordinary, DVP = Dividends - Preferred/Preference, LPPENT = lag of Property, Plant and Equipment, CHE = Cash and Short-Term Investments, Q1_KZ = (AT-CEQ+(PRCC_F*CSHO)-TXDB)/AT, CEQ = Common Equity, PRCC_F = close market price at the fiscal year end, CSHO = the shares outstanding at the calendar year end, TXDB = Deferred Taxes Balance Sheet, AT = Total Asset, LEVERAGE_KZ = (DLTT+DLC)/AA, DLTT = Total of Long-Term Debt, and DLC=Current Debts. Financially constrained firms have low-investment cash flow sensitivity and non-financially constrained firms exhibit a high investment-cash flow sensitivity.
SA-index	Following Hadlock and Pierce (2010), we construct this index for financial constrain using total assets and firm age. It is computed as: SA-index = (-0.737*log(AT))+(0.043*log(AT)*log(AT))-(0.040*AGE), where AT = Total Assets and AGE = Firm Age.
G. Financing Ratios	
Net Stock Issues (NSI)	Following Fama and French (2008), we expect a negative relation between NSI and stock returns. The characteristic is computed as: NSI = LOG (SASHARES / LSASHARES), where SASHARES = Split-adjusted shares outstanding at the fiscal year ending t - 1, LSASHARES = one-year lag of the split-adjusted shares outstanding (at the fiscal year-end t – 2).
Accrual-to-Total Assets (ACCRUALS/TA)	Following Sloan (1996), we measure operating accruals (OA) for the pre-1988 period in our data set as the changes in non-cash current assets, less the change in current liabilities (exclusive of short-term debt and taxes payable), less depreciation expense. From 1988 onwards, we follow Hribar and Collins (2002) to measure OA using the statement of cash flows as net income (item NI) minus net cash flow from operations (item OANCF). As a result, it is possible to mitigate measurement errors caused by non-operating activities, such as acquisitions and divestitures.
Net Payouts Yield (NO/P)	Following Boudoukh et al. (2007), we compute NO/P as the ratio of dividends plus repurchases minus common share issuances in year t to year-end market capitalization.
Percent Operating Accruals (POA)	Following Hafzalla, Lundholm, and Van Winkle (2011), we scale accruals by the absolute value of Net Income. POA is computed as follows: Net Income minus net cash flow from operations, scaled by the absolute value of Net Income. To compute POA deciles, we sort stocks into deciles at the end of June of each year t based on operating accruals scaled by the absolute value of net income (Compustat annual item NI) for the fiscal year ending in calendar year t -1. We calculate monthly decile returns from July of year t to June of t +1 and rebalanced the deciles in June of t +1.;
H. Investment Ratios	

Asset Growth (ASSETG)	According to Cooper, Gulen and Schill (2008), firms with high asset growth earn lower risk-adjusted returns than firms with low asset growth. This characteristic is computed as: ASSETG=(AT-LAT)/LAT, where AT = Total Assets at time t, while LAT is Total Assets at time t – 1.
Investment Growth (IG)	Following Xing (2008), we measure investment growth (IG) for the portfolio formation year t as the growth rate in capital expenditure. This characteristic is computed as: IG = CAPX/LCAPX – 1, where CAPX = Capital Expenditure at the end of year t and LCAPX = Capital Expenditure at the end of t - 1.
Inventory Growth (IVG)	Inventory Growth measures the annual inventory growth. IVG is computed as the inverse of the inventory ratio at time t scaled by the inventory at t - 1.
Inventory Changes (IVC)	Following Thomas and Zhang (2002), we construct the inventory changes as the change in inventory from the fiscal year ending in calendar year t - 2 to the fiscal year ending at t - 1, scaled by the average of total assets for fiscal years ending at t - 2 and t - 1.
Property Investment-to-Total Assets (PI/A)	Following Lyandres, Sun, and Zhang (2008), we measure Changes in PI/A as changes in gross property, plant, and equipment at time t plus changes in inventory at time t scaled by total assets at t - 1.
I. Intangible Ratios	
R&D-to-Market (R&D/M)	Research and Development-to-Market (R&D/M) is computed as Research and Development Expenses for the fiscal year t - 1 divided by the market equity at the end of December of t - 1.
Labour Expenses (LABOR/M)	Labour Expense as Percentage of Market Value (LABOR/M) is computed as a ratio of labour expenses to market equity at the end of December of t - 1.
Advertisement Expense-to-Market (ADVERT/M)	ADVERT/M measures the ratio of expenses to market equity at the end of December of t minus1.

Appendix 2. Fama and French 48 Industries Classification

Code	Description
AGRIC	Agriculture
FOOD	Food Products
SODA	Candy & Soda
BEER	Beer & Liquor
SMOKE	Tobacco Products
TOYS	Recreation
FUN	Entertainment
BOOKS	Printing and Publishing
HSHLD	Consumer Goods
CLTHS	Apparel
HLTH	Healthcare
MEDEQ	Medical Equipment
DRUGS	Pharmaceutical Products
CHEMS	Chemicals
RUBBR	Rubber and Plastic Products
TXTLS	Textiles
BLDMT	Construction Materials
CNSTR	Construction
STEEL	Steel Works
FABPR	Fabricated Products
MACH	Machinery
ELCEQ	Electrical Equipment
AUTOS	Automobiles and Trucks
AERO	Aircraft
SHIPS	Shipbuilding, Railroad Equipment
GUNS	Defense
GOLD	Precious Metals
MINES	Non-Metallic and Industrial Metal Mining
COAL	Coal
OIL	Petroleum and Natural Gas
UTIL	Utilities
TELCM	Communication
PERSV	Personal Services
BUSSV	Business Services
COMPS	Computers
CHIPS	Electronic Equipment
LABEQ	Measuring and Control Equipment
PAPER	Business Supplies
BOXES	Shipping Containers
TRANS	Transportation
WHLSL	Wholesale
RTAIL	Retail
MEALS	Restaurants, Hotels, Motels
BANKS	Banking
INSUR	Insurance
RLEST	Real Estate
FIN	Trading
OTHER	Almost Nothing

Appendix 3. Fama and French 12 Industry Portfolio

Industry code and description	**Standard Industrial Classification codes**
NODUR – Consumer Nondurables: Food, Tobacco, Textiles, Apparel, Leather, Toys	0100-0999, 2000-2399, 2700-2749, 2770-2799, 3100-3199, 3940-3989
DURBL – Consumer Durables: Cars, TVs, Furniture, Household Appliances	2500-2519, 2590-2599, 3630-3659, 3710-3711, 3714-3714, 3716-3716, 3750-3751, 3792-3792, 3900-3939, 3990-3999
MANUF – Manufacturing: Machinery, Trucks, Planes, Off Furniture, Paper, Com Printing	2520-2589, 2600-2699, 2750-2769, 3000-3099, 3200-3569, 3580-3629, 3700-3709, 3712-3713, 3715-3715, 3717-3749, 3752-3791, 3793-3799, 3830-3839, 3860-3899
ENRGY – Energy: Oil, Gas, and Coal Extraction and Products	1200-1399, 2900-2999
CHEMS – Chemicals and Allied Products	2800-2829, 2840-2899
BUSEQ – Business Equipment: Computers, Software, and Electronic Equipment	3570-3579, 3660-3692, 3694-3699, 3810-3829, 7370-7379
TELCM – Telecommunication: Telephone and Television Transmission	4800-4899
UTILS – Utilities	4900-4949
SHOPS – Wholesale, Retail, and Some Services (Laundries, Repair Shops)	5000-5999, 7200-7299, 7600-7699
HLTH – Healthcare, Medical Equipment, and Drugs	2830-2839, 3693-3693, 3840-3859, 8000-8099
MONEY – Finance	6000-6999
OTHER – Mines, Construction, Building Management, Trans, Hotels, Bus Serv, Entertainment	