The Geography of the Presidential Puzzle: How Political Alignment of U.S. States Affects Stock Returns

Candidate Number: 40410
The London School of Economics and Political Science
FM4T5 Portfolio Management 2024/2025

Abstract

Building on the literature of the "Presidential Puzzle", the empirical observation that US stock markets perform better under Democratic presidents, I introduce a geographic dimension by examining whether firms headquartered in Democratic, Republican or swing states exhibit systematically different abnormal returns. Using daily data from over 1,000 S&P 500 firms between 1998 and 2022, I construct abnormal returns via the Fama-French three-factor model and apply a difference-in-differences framework combined with event studies. Firms in blue states consistently outperform those in red and swing states in terms of abnormal returns. These performance differentials persist across election cycles and are robust to sectoral controls, volatility dynamics, and crisis periods.

Keywords: Presidential Puzzle, State-Level Political Alignment, Political Uncertainty
Word Count: $\sim$ 5200

Contents

1 Introduction

1.1 Presidential puzzle

In the run-up to presidential elections in the US, both the media and financial economists regularly discuss which candidate, Republican or Democrat, is more favorable for the US stock market. This was particularly evident when Donald Trump tweeted that the "Trump stock market rally is far outperforming past US presidents" (2019). Although this claim is inaccurate, as can be seen in Figure 1, the statement itself highlights a broader truth. Many investors, analysts and voters care deeply about the relationship between presidential elections and market performance.

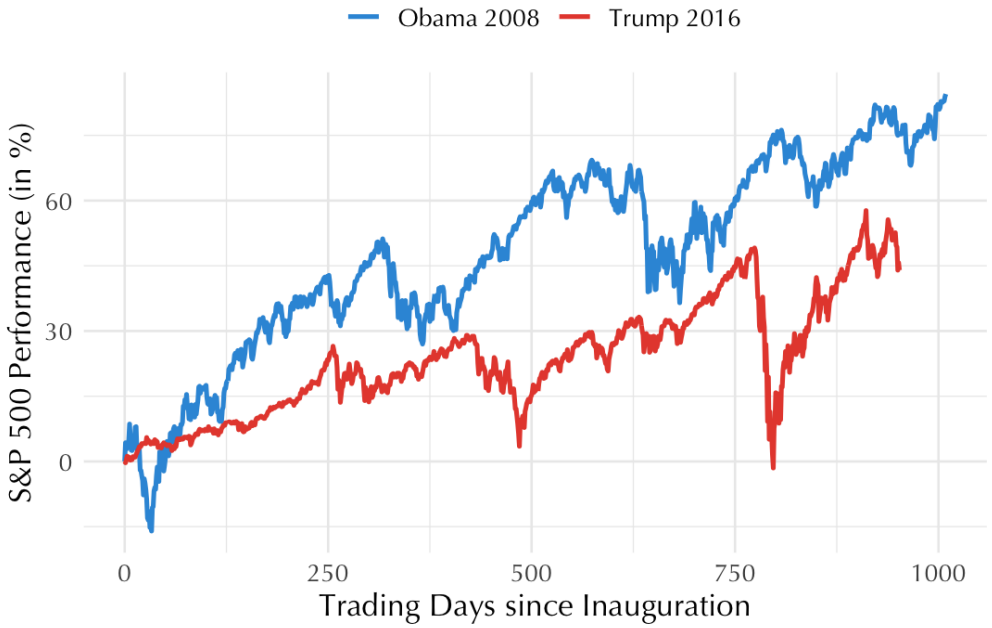

Figure 1: S&P 500 Performance since inauguration

Empirical data on this relationship between presidential elections and market performance reveals a significant pattern known as the presidential puzzle. From 1927 to 2015, the average market return under Democratic presidents was 11% per year, compared to only 2% per year under Republican presidents. This difference of almost 9% per year is both economically and statistically highly significant (Santa-Clara and Valkanov 2003). Various risk factors as possible explanations have already been ruled out, and several studies have examined and verified this phenomenon (Huang 1985, Hensel and Ziemba

1995, Pástor and Veronesi 2020). Financial market anomalies often appear to be coincidental and can sometimes be attributed to data mining. These anomalies then usually disappear in out-of-sample tests. The presidential puzzle, on the other hand, has proven to be robust over time. The difference in returns between Democrats and Republicans is around 9% per year in the initial period analyzed by Santa-Clara and Valkanov (2003) from 1927 to 1998, and is even greater in the subsequent period from 1999 to 2015. This suggests a genuine empirical regularity rather than a statistical coincidence (Pástor and Veronesi 2020). At a time of growing political polarization and global economic uncertainty, this interaction between politics and financial markets has become even more important. In this context, the presidential elections in the US are widely regarded as the defining political event generating periods of political uncertainty and consequently influencing asset prices and investor behavior (Meeuwis, Parker, Schoar and Simester 2022, Kempf and Tsoutsoura 2024).

This essay examines the presidential puzzle and adds a geographical dimension to it. The geographic dimension of the presidential puzzle could matter substantially since US states have considerable autonomy in taxation, regulation, and economic policy. If political geography affects returns systematically, it represents an unexploited source of cross-sectional variation that could inform investment strategies. Specifically, I investigate whether companies headquartered in states with Democratic, Republican or contested political leanings systematically exhibit different abnormal returns both during election cycles and over longer periods of time. The central research question is: Do US companies headquartered in politically aligned states experience systematically different stock market dynamics compared those in politically contested states?

My key finding is that companies based in states that traditionally vote Democratic achieve significantly higher abnormal returns than those in traditionally Republican states or swing states. This geographic effect persists across election cycles and appears to be independent of the national risk aversion cycle. This result suggests that the presidential puzzle may have an additional dimension correlated with geographic political factors going beyond the risk aversion theory identified by Pástor and Veronesi (2020).

1.2 Placement within the literature

The literature on the presidential puzzle begins with the empirical documentation by Santa-Clara and Valkanov (2003), who found that stock returns are systematically higher under Democratic presidents. This finding was remarkable not only for its magnitude, nearly 9% per year, but also for its consistency across different time periods and market conditions. Unlike this essay, Santa-Clara and Valkanov (ibid.) focused on a historical perspective and on aggregate market effects rather than on cross-sectional differences between companies or regions. The puzzle itself was subsequently deepened by the observation of Blinder and Watson (2016) that economic growth was stronger under Democrats too. From 1949 to 2013, real GDP growth in the US was on average 1.7 percentage points higher per year under Democratic presidents than under Republican presidents. This partisan performance gap has already been discussed in earlier studies. Hibbs and Hibbs Jr (1989) developed the partisan theory on the parties' different macroeconomic priorities and Alesina and Sachs (1986) analyzed political business cycles. According to the partisan view (Hibbs and Hibbs Jr 1989, Alesina and Sachs 1986), Democrats prioritize growth over inflation and Republicans prioritize the opposite. However, contrary to this hypothetical explanation to the presidential puzzle, Blinder and Watson (2016) found no evidence to support the hypothesis that the presidential puzzle is either dependent on systematic expansion of the money supply or more spendthrift fiscal policy on the part of Democrats. It is still tempting to offer theoretical explanations to the presidential puzzle based on the different economic policies of the two parties causing the presidential puzzle to attract interest in the popular media. Party affiliation is a pervasive dynamic force that shapes citizens' perceptions of and reactions to the political world (Bartels 2002). However, explanations based on economic superiority of one political party would require a high degree of market irrationality. Investors would have to repeatedly misprice stocks by failing to anticipate such political effects.

The most promising theoretical and empirically founded explanation so far was offered by Pástor and Veronesi (2020), who try to explain the presidential puzzle with endogeneity of election results. According to their theory, differences in returns are not caused by the actions of presidents, but by the timing of elections. When risk aversion and expected future returns are high, such as during an economic crisis, voters are more likely to elect a Democratic president because they demand greater social security.

Conversely, when risk aversion is low and expected returns are low, such as during an economic boom, voters prefer Republicans who promise to reduce corporate regulation. The explanation of Pástor and Veronesi (2020) is based on time-varying risk aversion, a widely accepted concept in financial economics (Campbell and Cochrane 1999). When risk aversion is high, investors demand higher compensation for risk, leading to higher average future returns. Therefore, risk aversion is higher among Democrats, leading to higher equity risk premiums and equity returns. According to this theory, high equity returns are not caused by Democrats rather both high returns and Democratic presidencies are caused by high risk aversion.

Although the literature on the presidential puzzle primarily focuses on aggregate market effects, several studies have examined systematic cross-sectional variations in political sensitivity. Political effects do not occur uniformly across all companies, but can vary significantly depending on company characteristics, sector exposure and geographical factors. Belo, Gala and Li (2013) show that during the terms of Democratic presidents companies with high exposure to government spending outperform those with low exposure, whereas during the terms of Republican presidents, they lag behind. Kempf, Luo, Schäfer and Tsoutsoura (2023) demonstrate that US institutional investors allocate more capital to countries with ideologically aligned governments in both syndicated loans and investment funds. The ideological distance between countries explains variations in bilateral investment beyond economic fundamentals, suggesting that political preferences systematically influence financial flows. However, cross-country evidence on the presidential puzzle is mixed and highlights the importance of institutional and geographical factors. Döpke and Pierdzioch (2006) examined the relationship between stock market returns and political cycles in Germany and found no significant differences between conservative and social democratic governments. While previous research on geographical aspects has mainly focused on whether the presidential puzzle is a specifically US phenomenon or whether similar patterns can be observed internationally, intra-national political effects, the geographical dimension of the puzzle within the US has largely been neglected. As the US is characterised by pronounced regional political differences, with individual states having considerable autonomy in areas such as taxation, regulation, and economic policy, this appears to be a promising gap in the literature.

This essay makes several contributions to the existing literature. Unlike previous stud-

ies that focused on aggregate market effects of the presidential puzzle, this analysis introduces a systematic geographical dimension to the political impact on stock returns. By examining how the location of a company's headquarters in a red, blue, or swing state affects its performance, a new perspective on the presidential puzzle is offered. The finding that companies in blue states consistently perform better suggests that while the model proposed by Pástor and Veronesi (2020) is compelling, it may not fully explain all aspects of the presidential puzzle. The geographical effects documented here appear to be independent of the national risk aversion cycle.

The remainder of this essay is structured as follows. In the second section I describe the data used, its sources and the construction of the key variables. Then I explain the statistical design in the third section, including the calculation of abnormal returns and the difference-in-differences model. In the fourth section, I present the empirical results, including the main findings, robustness tests and state specific differences. The final section concludes my main results, identifies current limitations and provides an outlook for possible future research.

2 Data

In this essay, I combine a variety of data sets from the fields of financial markets and political science. This section describes its main variables, sources and underlying assumptions. The compiled data set covers various variables at a daily frequency from November 1998 until November 2022 for over 1000 US companies which appeared in the S&P 500 at least once in the relevant time frame.[1]

This 24-year time series thus spans six US presidential elections: Bush (2000), Bush (2004), Obama (2008), Obama(2012), Trump (2016) and Biden (2020).[2] It provides ample pre- and post-election data and covers a variety of market conditions including the dot-com boom and crash, the 2008 financial crisis and the subsequent post-crisis recovery.

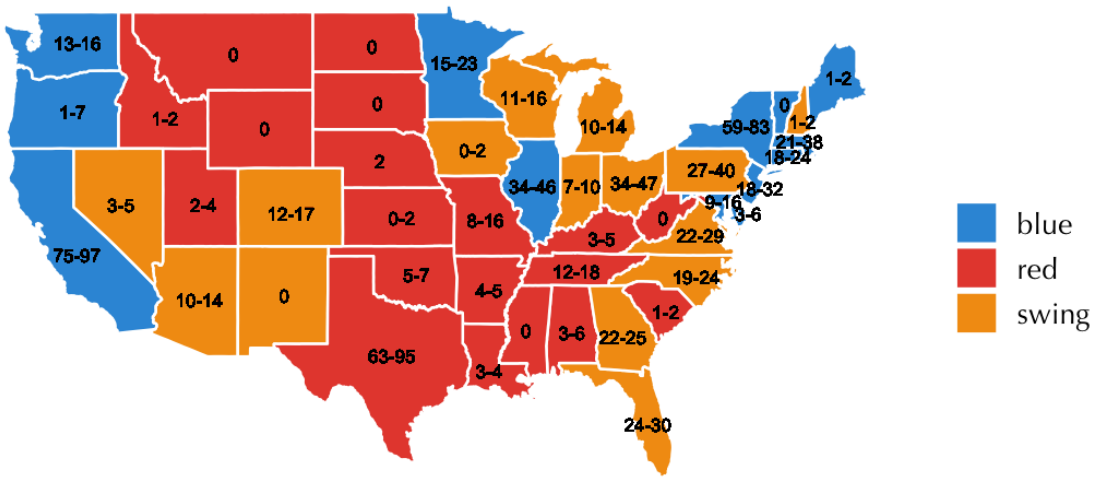

Figure 2: US sample
The states are classified by colour as traditionally blue or red or as swing states and the numbers indicate the minimum and maximum number of firms in the sample located in the specific state. Not shown on the map: Alaska AL (red, 3-6 firms), Hawaii HI (blue, 0 firms), New York NY (blue, 59-83 firms) and Washington DC (blue, 2-3 firms). More information can be found in tables 8 and 9 in the appendix.

Figure 2 illustrates the geographical distribution of the sample companies across the United States. The classification of states into three categories based on their political competitiveness and historical voting patterns is consistent with standard political

[1] An overview of all variables with their source and definition can be found in table 5 in the appendix.
[2] More information can be found in table 7 in the appendix.

science classifications. Party preferences vary from individual to individual, but are usually highly correlated within states. Consequently, the majority of states is biased to Democrats or Republicans (Ma and McLaren 2018). Most states are either "red" or "blue".[3] The map further shows the concentration of large corporations in blue states, such as California or New York as well as in large swing states, such as Ohio or Pennsylvania. With the exception of Texas, red states generally host fewer S&P 500 companies. This reflects the fact that the geographic distribution of the sample companies mirrors the concentration of large corporations in economically developed states. Blue states account for 46.9% of company observations, swing states for 33.3% and red states for 19.8%.

Although firms from most regions are represented, some northern parts of the American Rust Belt are not, due to the absence of any S&P 500 firms throughout the entire observation period. As states with no S&P 500 firms probably differ systematically from those with many S&P 500 firms, data availability is another source of non-random selection.[4] Nevertheless, when an economic weighting is applied and comparisons are drawn with other studies, this sample can still be described as highly informative with regard to developments in the US and the different developments in traditionally Republican states, traditionally Democratic states or swing states.

2.1 Source

The core of the data set relies on daily financial markets data from the Center for Research in Security Prices (2025), Fama and French (2025) and data on the locations of US firm headquarters from Compustat (Standard & Poor's 2025). The sample includes all US companies that have been in the S&P 500 and that have an US headquarter location in the Compustat database. Further, I use data on the US presidential elections between 1976 and 2020 from the MIT Election Data and Science Lab (2017) to obtain comprehensive and reliable voting data and to confirm the red, blue and swing state classification of US states.

[3] More information can be found in table 6 in the appendix.

[4] Red states without S&P 500 companies: AK, MS, MT, ND, SD, WV, WY. Blue states without S&P 500 companies: HI, VT. Swing states without S&P 500 companies: NM.

2.2 Stock data

To ensure adequate liquidity and data quality while maintaining a broad market representation, the analysis focuses on companies that were listed on the S&P 500 at least once between November 1998 and November 2022. The data set includes daily returns (*ret*), prices (*prc*), outstanding shares (*shrout*), market capitalization (*me*), and standard industrial classification (*siccd*) codes. The market capitalizations of the companies in the sample range from 2.6 million USD to 2.98 trillion USD with a mean of 23.8 billion USD providing representation of companies of various sizes. Companies with relatively small market capitalization in the sample can be explained by companies that grew during the review period and were included in the S&P 500 later or by companies that left the S&P 500 and then shrank. The sample includes almost all relevant SIC codes and the associated industry coverage can be considered as balanced. I use the SIC codes and their corresponding definitions from the US Securities and Exchange Commission to classify companies into the following sectors: finance, energy, healthcare, technology, defense and others.[5] Companies in the finance, energy, healthcare and defense sectors could be significantly more sensitive to political influence due to a higher degree of government regulation or greater dependence on government contracts.

2.3 Headquarter data

Geographical data on the location of company headquarters is obtained from the Compustat database and is combined with CRSP data. When considered alongside the general political orientation of the states, this results in a geographically differentiated political landscape that can be used to analyse company performance in general and during the period around presidential elections.

Unfortunately, the Compustat database does not provide headquarter locations for all companies on every trading day. Missing locations must be identified through careful research and interpolation. The Compustat database has gaps, particularly in the context of mergers and acquisitions or company relocation. Where there were one-day gaps and the company headquarters remained the same before and after, I filled these gaps using the identical before and after headquarter location. In many other cases of missing headquarters locations, I was able to close the gaps in the Compustat database

[5] A detailed official description of all SIC codes by the US Securities and Exchange Commission can be found here.

through my own research on company websites. For takeovers or spin-offs, I used the location of the acquiring company starting from the official takeover date. This reduced the number of companies with missing locations from approximately 118 companies to 48 companies. Only for the remaining 48 companies location gaps on certain dates in the data set could not be avoided. These are predominantly companies that have relocated their headquarters abroad, primarily for tax reasons and are therefore no longer eligible for our sample. Conclusions on geographical political alignment cannot be drawn for these 48 companies. I expected that a further sample bias will emerge, as companies that relocate their headquarters abroad are likely to differ systematically from other companies.[6] In general firms do not choose headquarters locations randomly. Large corporations may systematically prefer states with favorable business climates, regulatory environments or tax structures. This potential endogeneity means that the correlation between political geography and firm performance may reflect firms self-selecting into politically advantageous locations rather than location causing superior performance. While this study cannot fully resolve this identification challenge, the persistence of effects across different time periods and the differential response to presidential party changes suggest that political geography influences firm outcomes beyond simple location selection.

[6]Table 10 in the appendix summarizes the stories of the firms with lost headquarter locations on certain dates.

3 Statistical design

This section outlines the empirical methodology used to test whether firms based in politically aligned states exhibit systematically different stock market performance. The analysis employs multiple complementary approaches. As a first step, I take a thorough look at the data, calculate summary statistics and create visuals on cumulative excess returns after the election of Bush (2000), Bush (2004), Obama (2008), Obama (2012), Trump (2016) and Biden (2020) filtered for firms with headquarters in traditionally Republican states, traditionally Democratic states and swing states.[7]

3.1 Abnormal returns

I then calculate the abnormal returns using the Fama-French three-factor model to isolate firm-specific performance from systematic market movements. This approach ensures that measured performance differences reflect deviations beyond what would be expected based on systematic risk factors (Fama and French 2025). For each company-day observation, excess returns are first calculated.

$$excess\_ret_{i,t} = ret_{i,t} - rf_t \tag{1}$$

The Fama-French three-factor model is then estimated using rolling 252-day windows.

$$excess\_ret_{i,t} = \alpha_{i,t} + \beta_{i,t} \cdot mktrf_t + h_{i,t} \cdot hml_t + s_{i,t} \cdot smb_t + \epsilon_{i,t} \tag{2}$$

$\alpha_{i,t}$ is the constant, $mktrf_t$ is the market risk premium, hml_t is the high-minus-low book-to-market factor, smb_t is the small-minus-big size factor and $\beta_{i,t}$, $h_{i,t}$, $s_{i,t}$ are the time varying factor loadings which are then estimated using 252-day rolling windows and an OLS regression in order to capture time-varying exposure to systematic risk factors. Expected returns are calculated as:

$$\hat{exp}\_ret_{i,t} = \hat{\beta}_{i,t} \cdot mktrf_t + \hat{h}_{i,t} \cdot hml_t + \hat{s}_{i,t} \cdot smb_t \tag{3}$$

Finally, abnormal returns are derived as the difference between the actual excess returns ($excess\_ret_{i,t}$) and the estimated expected returns ($\hat{exp}\_ret_{i,t}$). These abnormal returns form the basis of my empirical analysis.

[7] Figure 4 in the appendix illustrates the performance in terms of cumulative excess returns for all presidential elections in the sample.

$$\hat{abnorm\_ret}_{i,t} = excess\_ret_{i,t} - \hat{exp\_ret}_{i,t} \tag{4}$$

This ensures that the measured abnormal returns reflect deviations in company-specific performance that differ from those expected based on systematic risk factors, such as the market risk premium, the book-to-market ratio and the size effect. I assume that $\epsilon_{i,t}$ is a well-behaved error term.

3.2 Baseline model

I then analyze the relationship between the political orientation of the country in which the company has its headquarters and the abnormal returns achieved using the following baseline model.

$$abnorm\_ret_{i,t} = date_t + \beta_1 \cdot swing_{i,t} + \beta_2 \cdot red_{i,t} + \epsilon_{i,t} \tag{5}$$

$date_t$ represents date fixed effects controlling for market-wide time trends, $swing_{i,t}$ is an indicator variable equal to 1 if firm i is headquartered in a swing state in period t, $red_{i,t}$ is an indicator variable equal to 1 if firm i is headquartered in a red state in period t. This baseline model and all following specifications use two-way clustered OLS standard errors by firm ($permno_i$) and $date_t$ to account for both cross-sectional correlation among firms and time-series correlation within firms.

To examine whether political effects vary with the party in power, I extend the baseline model.

$$\begin{aligned} abnorm\_ret_{i,t} = {} & date_t + \beta_1 \cdot swing_{i,t} + \beta_2 \cdot red_{i,t} \\ & + \gamma_1 \cdot rep_t \cdot swing_{i,t} + \gamma_2 \cdot rep_t \cdot red_{i,t} + \epsilon_{i,t} \end{aligned} \tag{6}$$

rep_t is an indicator for Republican presidencies, allowing differential effects across presidential regimes.

3.3 Event-study

In order to test for the dynamics of political effects around presidential elections, I conduct event studies with estimation windows extending up to 90 days before and

after US presidential elections. These event studies should capture both anticipatory effects and post-election adjustment periods.

$$abnorm\_ret_{i,t} = permno_i + date_t + \sum_{j=1}^{90} \beta_{1,j} \cdot lag(j)_{i,t} + \sum_{k=1}^{90} \beta_{2,k} \cdot lead(k)_{i,t} \tag{7}$$

I conduct a general event study for all states combined, and then for the swing, red and blue states separately. In addition, I examine the development of volatility during presidential elections to understand the dynamics of potential political uncertainty. $permno_i$ and $date_t$ represent firm fixed effects and time fixed effects allowing for firm and time specific trends to be taken into account in order to remove unobservable firm and time specific heterogeneity.

3.4 Diff-in-Diff: Volatility analysis

Moreover, I calculate the rolling 30-day return volatility for each permno and test whether volatility or political uncertainty is related differently to different state types.

$$\begin{aligned} rolling\_vol_{i,t} = {} & permno_i + \beta_1 \cdot swing_{i,t} + \beta_2 \cdot red_{i,t} \\ & + \gamma_1 \cdot pre\_elect_t + \gamma_2 \cdot post\_elect_t \\ & + \gamma_3 \cdot pre\_elect_t \cdot swing_{i,t} + \gamma_4 \cdot post\_elect_t \cdot swing_{i,t} \\ & + \gamma_5 \cdot pre\_elect_t \cdot red_{i,t} + \gamma_6 \cdot post\_elect_t \cdot red_{i,t} + \epsilon_{i,t} \end{aligned} \tag{8}$$

pre_elect_t indicates the six month period before elections and $post\_elect_t$ indicates the six month period after elections. This specification identifies whether political geography creates differential responses to election cycles beyond baseline performance differences.

3.5 Diff-in-Diff: Abnormal returns

A similar approach to the Diff-in-Diff model on volatility is applied as well on abnormal returns.

$$
\begin{aligned}
abnorm\_ret_{i,t} = \alpha &+ \beta_1 \cdot swing_{i,t} + \beta_2 \cdot red_{i,t} \\
&+ \gamma_1 \cdot pre\_elect_t + \gamma_2 \cdot post\_elect_t \\
&+ \gamma_3 \cdot pre\_elect_t \cdot swing_{i,t} + \gamma_4 \cdot post\_elect_t \cdot swing_{i,t} \\
&+ \gamma_5 \cdot pre\_elect_t \cdot red_{i,t} + \gamma_6 \cdot post\_elect_t \cdot red_{i,t} + \epsilon_{i,t}
\end{aligned} \tag{9}
$$

3.6 Robustness

Finally, I conduct several robustness tests to check the consistency of my results. I examine the size effect of companies, analyze whether the effects are persistent in sectors that are not expected to be particularly sensitive to political influence and exclude the period of financial crises (01-01-2007 until 12-31-2009). Moreover, I test whether swing states benefit from voting for the subsequent winner.

4 Results

This section presents the empirical findings on the relationship between political geography and stock market performance. The results provide strong evidence for systematic differences in abnormal returns based on firms' headquarters locations, with structural implications for understanding political risk in asset pricing.

4.1 Baseline model

The baseline model is the core of my econometric analysis. It includes time fixed effects, allowing for time specific trends and clusters by date and permno to take time serial correlation as well as cross sectional correlation into account. This simple baseline regression already suggests, as table 1 shows, a correlation between the political orientation of the state and the abnormal returns of companies based there, reflecting a result similar to that of the presidential puzzle. Swing state firms underperform compared to blue state firms by 0.0103% per day which is highly significant. Similarly, red state firms underperform significantly compared to blue state firms by 0.0144% per day. This corresponds to an annual underperformance of approximately 2.6% p.a. and approximately 3.6% p.a.[8] These magnitudes are economically substantial. Over the sample period, the cumulative differential approaches 90 percentage points.

Table 1: Baseline model

Dependent Variable:	abnorm_ret
swing	-0.000103***
	(3.33×10^{-5})
red	-0.000144**
	(6.72×10^{-5})
Fixed-effects	
date	Yes
Observations	4,045,474
R^2	0.01003
Within R^2	7.89×10^{-6}

OLS. Clustered (permno & date) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

[8] An explanation to the interpretation of regression coefficients can be found in the appendix B.

Furthermore, the geographic performance differences are significantly moderated by which political party controls the presidency. Table 2 reveals that the baseline underperformance of swing and red states intensifies under Democratic presidencies while narrowing under Republican administrations. Under Democratic presidents, swing states underperform blue states by 4.6% annually and red states underperform blue states by 5.2% annually. The conditional effect is nearly the double of the unconditional effect. Under Republican presidents, however, the performance advantage of blue states to swing states narrows to just 0.8% annually. Red states show a similar but less precisely estimated, not statistically significant pattern. These differential effects across presidential regimes suggest that the geographic patterns reflect genuine political mechanisms rather than spurious correlation with unobserved state characteristics.

Table 2: Presidential party effect

Dependent Variable:	abnorm_ret
swing	-0.000182***
	(4.48×10^{-5})
red	-0.000204**
	(8.94×10^{-5})
swing × rep	0.000150**
	(6.77×10^{-5})
red × rep	0.000114
	(0.000132)
Fixed-effects	
date	Yes
Observations	4,045,474
R^2	0.01003
Within R^2	1.05×10^{-5}

OLS. Clustered (date & permno) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

These results align with the findings of Rice (2024) that the alignment of party affiliation between company management and the president is associated with higher investment. Managers become more optimistic about their company's prospects when their preferred party is in power. This optimism-driven channel could influence various dynamics within federal states.

4.2 Event-study

Since abnormal returns are significantly moderated by the presidential party in office, one might ask whether the US presidential election, a time of high uncertainty about the next president, also marks a period of higher abnormal returns or higher volatility in these abnormal returns. Looking at the event studies in figures 5, 6, 7 and 8 in the appendix suggests that while abnormal returns do not jump greatly around elections, volatility in general does increase. Figure 3 illustrates the development of the volatility of abnormal returns in the six months before and after the presidential election.

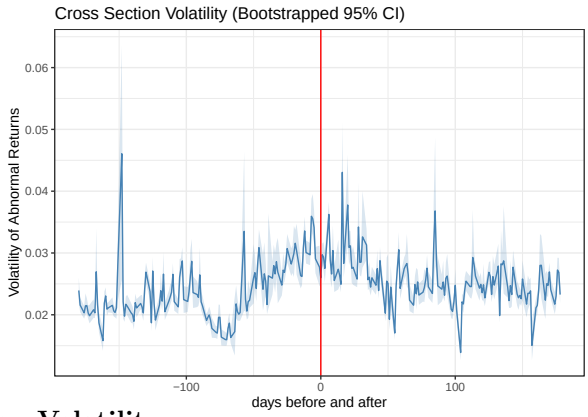

Figure 3: Cross Section Volatility
The event study covers the 180 days before and after US presidential elections. The blue lines mark the cross section volatility. The vertical light blue corridor marks bootstrapped 95% confidence intervals.

4.3 Diff-in-Diff: Volatility analysis

The volatility observed before and after presidential elections can be measured using the difference-in-differences volatility model. This model provides insight into the effect of political uncertainty on performance in different types of politically aligned states. The results in table 3 reveal systematic differences in initial volatility values, yet uniform responses to election cycles. Companies in swing states have a significantly higher base volatility of 0.35 percentage points, whereas those in red states have an even higher base volatility of 0.77 percentage points. Companies in blue states, on the other hand, serve as a more stable basis for comparison, in line with their role as economic centers. Pre-election effects demonstrate that all companies experience additional 0.25 percentage points of volatility prior to elections indicating a substantial and highly significant increase in uncertainty. The interaction terms suggest that, beyond their already elevated base values, swing and red states do not experience disproportionate additional

volatility prior to elections. Post-election dynamics reveal continued uncertainty even after the election outcome. All companies demonstrate a highly significant increase in volatility of 0.45 percentage points in the six months following elections. However, companies in red states experience a significant decline in volatility after elections suggesting that these companies benefit most from political clarity. Political uncertainty seems to affect blue states, swing states and red states slightly differently.

Table 3: Diff-in-Diff model

Dependent Variable:	rolling_vol
swing	0.003502**
	(0.001547)
red	0.007683**
	(0.003313)
pre_elect	0.002463***
	(0.000278)
post_elect	0.004497***
	(0.000386)
swing × pre_elect	0.000305
	(0.000227)
red × pre_elect	0.000150
	(0.000302)
swing × post_elect	1.75×10^{-5}
	(0.000305)
red × post_elect	-0.000790**
	(0.000343)
Fixed-effects	
permno	Yes
Observations	4,044,468
R^2	0.24922
Within R^2	0.02010

OLS Clustered (date & permno) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

4.4 Diff-in-Diff: Abnormal returns

Similar to volatility effects, abnormal return differentials persist throughout the entire election cycle rather than being concentrated around elections. The geographical base

effects remain robust in this specification (Table 4). Swing states lag behind performance by 0.0122% per day, while red states lag behind by 0.0149% per day. Post-election effects are significant for all companies with daily abnormal returns being 0.0269% higher in the six months following presidential elections. This equates to an annualised return premium of 6.8% in the post-election period confirming the existence of a post-election rally. In my sample, this rally appears independent of the political orientation of states lending weight to the idea that political geography influences fundamental business conditions rather than merely reflecting temporary, election-related uncertainties.

Table 4: Diff-in-Diff: Abnormal returns

Dependent Variable:	abnorm_ret
Constant	0.000216^{***}
	(3.4×10^{-5})
swing	-0.000122^{***}
	(3.59×10^{-5})
red	-0.000149^{**}
	(7.23×10^{-5})
pre_elect	-3.04×10^{-5}
	(0.000102)
post_elect	0.000269^{**}
	(0.000113)
swing × pre_elect	5.59×10^{-5}
	(0.000102)
red × pre_elect	3.81×10^{-5}
	(0.000221)
swing × post_elect	6.85×10^{-5}
	(0.000115)
red × post_elect	5.35×10^{-6}
	(0.000213)
Observations	4,045,474
R^2	2.87×10^{-5}
Adjusted R^2	2.67×10^{-5}

OLS. Clustered (date & permno) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

In line with above results, earlier findings by Knight (2006), Belo, Gala and Li (2013) and Mason (2015) show that political programs are gradually incorporated into stock

prices during the primaries, so well before the formation of a government or the implementation of actual policies. Santa-Clara and Valkanov (2003) also show that the difference in the aggregate presidential puzzle is not concentrated around election dates. If the pattern of higher abnormal returns in blue states persists throughout presidential terms and only varies in magnitude depending on the ruling party, it suggests that the market is either systematically surprised by dynamics in line with political geography or compensates for a permanent, non-diversifiable risk in blue states.

4.5 Robustness

To verify the reliability of my main results, I conduct several robustness tests to address potential confounding factors and alternative explanations.

First, I examine whether swing states that voted for the winning presidential candidate perform better. If this is the case, it would provide further evidence that the geographical dimension of the presidential puzzle is moderated by the president's party. The results in table 11 confirm this, thus pointing to a possible systematic preference for politically aligned states. Swing states that vote for the winning presidential candidate outperform other swing states by 0.0130% per day equivalent to an annual premium of 3.3 percentage points. Conversely, the coefficient for swing states that voted against the new president becomes more negative. While swing states that voted for the winner are able to compensate for their disadvantage, those that voted against the new president perform even worse. This establishes a link to the swing state bias hypothesis. Colantoni, Levesque and Ordeshook (1975) suggest that presidents deliberately favor swing states through various channels, such as tax and subsidy policy, infrastructure spending, military bases and regulatory treatment. Theoretical arguments by Persson and Tabellini (2002) and empirical evidence from Ma and McLaren (2018) suggest that swing states are disproportionately affected by political measures. According to Ma and McLaren (ibid.), a voter from a non-swing state is worth only 77% of a voter from a swing state in the US political process. They show that US trade policy, for example, has a strong preference for people living in swing states.

I then analyze the sample for remaining company size effects. Table 12 indicates that large-cap companies do indeed outperform by 0.0171% per day. However, the interaction terms remain insignificant. Larger companies perform better. Nevertheless, the

effects of political geography remain consistent across the entire size distribution of companies.

I further test whether the results remain robust in sectors that tend to be less sensitive to politics. Table 13 restricts the analysis to sectors that are less sensitive to politics, the sample excludes finance, energy, health, technology and defense companies. The geographical effects remain. Swing states underperform by 0.0146% per day and red states by 0.0213%. These results demonstrate that the effects of political geography extend beyond industries with obvious government links suggesting that political geography can generate widespread advantages or disadvantages.

To rule out the possibility that extreme events such as the 2007–2009 financial crisis distort the results of my test, I exclude this period in a robustness analysis. The geographical effects remain robust and statistically significant as shown in table 14. Swing states continue to underperform highly significantly by 0.0146% per day compared to blue states, while red states perform significantly worse than blue states by 0.0182% per day. The consistency of the results with and without extreme periods and across different time periods strengthens confidence that the documented patterns represent stable structural features of the US political economy and are not just temporary anomalies.

5 Conclusion

This essay introduces a geographical dimension to the well-established presidential puzzle revealing systematic cross-sectional differences in abnormal stock returns across US states. Firms headquartered in blue states consistently achieve higher abnormal returns than those in red and swing states. This performance differential persists across election cycles and market conditions.

The magnitude of these effects is economically substantial. Blue state firms outperform red state firms by 3.6% annually. Over the 24-year sample period, this translates to a cumulative performance gap of nearly 90 percentage points. Under Democratic presidents, these gaps widen to 4.6% and 5.1% annually for swing and red states respectively, while narrowing under Republican administrations. These findings extend beyond simple election uncertainty. Volatility analysis confirms that geographic performance differences persist during normal market periods and remain robust after controlling for sector, size, and crisis effects. This suggests that fundamental differences in political geography affects corporate performance rather than temporary political uncertainty phenomena. These results have implications for both investment practice and academic understanding. For portfolio managers, political geography represents a potentially previously unrecognized factor in cross-sectional return variation that could inform sector rotation and election cycle timing strategies. For researchers, these patterns suggest that the risk aversion theory of Pástor and Veronesi (2020), while compelling for aggregate effects, cannot fully explain the presidential puzzle. Despite increasing political polarization in the US, risk sharing across states still functions effectively according to Parsley and Popper (2021). So the geographic dimension appears independent of national risk aversion cycles.

Several limitations warrant acknowledgment. Most importantly, this study documents correlations between political geography and firm performance rather than establishing definitive causal relationships. Firms choose headquarters locations based on multiple factors including tax policy, regulatory environment, and labor markets which might correlate with political orientation. While the differential effects under different presidential administrations suggest genuine political mechanisms rather than pure selection, alternative explanations cannot be fully ruled out. The focus on S&P 500 firms may not generalize to smaller companies, and the binary state classification may miss import-

ant nuances. Future research could expand to broader firm samples, examine specific transmission channels such as federal spending patterns or regulatory differences and investigate whether these effects represent structural features of state business environments. Nevertheless, the systematic outperformance of blue state firms across multiple election periods suggests that political geography creates fundamental differences in corporate success in America.

References

Alesina, Alberto F and Jeffrey D Sachs (1986). *Political parties and the business cycle in the United States, 1948-1984*.

Bartels, Larry M (2002). 'Beyond the running tally: Partisan bias in political perceptions'. In: *Political behavior* 24, pp. 117–150.

Belo, Frederico, Vito D Gala and Jun Li (2013). 'Government spending, political cycles, and the cross section of stock returns'. In: *Journal of financial economics* 107.2, pp. 305–324.

Blinder, Alan S and Mark W Watson (2016). 'Presidents and the US economy: An econometric exploration'. In: *American Economic Review* 106.4, pp. 1015–1045.

Campbell, John Y and John H Cochrane (1999). 'By force of habit: A consumption-based explanation of aggregate stock market behavior'. In: *Journal of political Economy* 107.2, pp. 205–251.

Center for Research in Security Prices (2025). *CRSP US Stock Database*. Accessed April 17, 2025. Philadelphia, PA. URL: https://wrds-www.wharton.upenn.edu/.

Colantoni, Claude S, Terrence J Levesque and Peter C Ordeshook (1975). 'Campaign resource allocations under the Electoral College'. In: *American Political Science Review* 69.1, pp. 141–154.

Döpke, Jörg and Christian Pierdzioch (2006). 'Politics and the stock market: Evidence from Germany'. In: *European journal of political economy* 22.4, pp. 925–943.

Fama, Eugene F. and Kenneth R. French (2025). *Fama-French 3-Factor Model*. Accessed April 17, 2025. Philadelphia, PA. URL: https://wrds-www.wharton.upenn.edu/.

Hensel, Chris R and William T Ziemba (1995). 'United States investment returns during Democratic and Republican administrations, 1928–1993'. In: *Financial Analysts Journal* 51.2, pp. 61–69.

Hibbs, Douglas A and Douglas A Hibbs Jr (1989). *The American political economy: Macroeconomics and electoral politics*.

Huang, Roger D (1985). 'Common stock returns and presidential elections'. In: *Financial Analysts Journal* 41.2, pp. 58–61.

Kempf, Elisabeth, Mancy Luo, Larissa Schäfer and Margarita Tsoutsoura (2023). 'Political ideology and international capital allocation'. In: *Journal of Financial Economics* 148.2, pp. 150–173.

Kempf, Elisabeth and Margarita Tsoutsoura (2024). 'Political polarization and finance'. In: *Annual Review of Financial Economics* 16.

Knight, Brian (2006). 'Are policy platforms capitalized into equity prices? Evidence from the Bush/Gore 2000 presidential election'. In: *Journal of public Economics* 90.4-5, pp. 751–773.

Ma, Xiangjun and John McLaren (2018). *A swing-state theorem, with evidence*. Tech. rep. National Bureau of Economic Research.

Mason, Lilliana (2015). '"I disrespectfully agree": The differential effects of partisan sorting on social and issue polarization'. In: *American journal of political science* 59.1, pp. 128–145.

Meeuwis, Maarten, Jonathan A Parker, Antoinette Schoar and Duncan Simester (2022). 'Belief disagreement and portfolio choice'. In: *The Journal of Finance* 77.6, pp. 3191–3247.

MIT Election Data and Science Lab (2017). *U.S. President 1976–2020*. Version V8. URL: https://doi.org/10.7910/DVN/42MVDX.

Parsley, David and Helen Popper (2021). 'Risk sharing in a politically divided monetary union'. In: *Open Economies Review* 32, pp. 649–669.

Pástor, L'uboš and Pietro Veronesi (2020). 'Political cycles and stock returns'. In: *Journal of Political Economy* 128.11, pp. 4011–4045.

Persson, Torsten and Guido Tabellini (2002). *Political economics: explaining economic policy*.

Rice, Anthony B (2024). 'Executive partisanship and corporate investment'. In: *Journal of Financial and Quantitative Analysis* 59.5, pp. 2226–2255.

Santa-Clara, Pedro and Rossen Valkanov (2003). 'The presidential puzzle: Political cycles and the stock market'. In: *The Journal of Finance* 58.5, pp. 1841–1872.

Standard & Poor's (2025). *Compustat North America Database*. Accessed April 18, 2025. Philadelphia, PA.

Trump, Donald J. (Dec. 2019). *Trump Stock Market rally is far outpacing past U.S. presidents*. Tweet by @realDonaldTrump. URL: https://x.com/realDonaldTrump/status/1210571664037208064.

Appendix

Appendix A - Details on the data set

Table 5: Definitions and sources of variables

Variable	Definition	Source
permno	Permanent identifier	(1)
permco	Permanent company number	(1)
comnam	Company name	(1)
date	Calendar date	(1)
state	US state where the headquarter is located	(2)
prc	Closing price	(1)
ret	Returns	(1)
rf	Risk free rate	(3)
excess_ret	Excess returns, returns - risk-free rate	(1&3)
abnorm_ret	abnormal return	(1&3)
shrout	Shares outstanding	(1)
me	Market equity, market capitalization = shrout * prc	(1)
mktrf	Market risk premium	(3)
smb	Small minus big, small market cap minus big market cap	(3)
hml	High minus low, high minus low book-to-market	(3)
pre_election	1 during the 6 months before an election, 0 otherwise	(4)
post_election	1 during the 6 months after an election, 0 otherwise	(4)
siccd	Standard industry classification code. Description here.	(1)
policy_sensitive	1 if finance, energy, health or defense sector, 0 otherwise	(1)
swing_winner	1 if Swing State and voted for the winner, 0 if otherwise	(4)

(1) CRSP WRDS (Center for Research in Security Prices 2025)

(2) Compustat (Standard & Poor's 2025)

(3) Fama-French (Fama and French 2025)

(4) Election Data (MIT Election Data and Science Lab 2017)

Table 6: U.S state classification

#	red state	blue state	swing state
1	AL	CA	AZ
2	AK	CT	CO
3	AR	DE	FL
4	ID	HI	GA
5	KS	IL	IN
6	KY	ME	IA
7	LA	MD	MI
8	MS	MA	NV
9	MO	MN	NH
10	MT	NJ	NM
11	NE	NY	NC
12	ND	OR	OH
13	OK	RI	PA
14	SC	VT	VA
15	SD	WA	WI
16	TN	DC	
17	TX		
18	UT		
19	WV		
20	WY		

Red States (20 states): Alabama, Alaska, Arkansas, Idaho, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Montana, Nebraska, North Dakota, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, West Virginia and Wyoming. These states have almost always voted for the Republican candidate.

Blue States (16 states): California, Connecticut, Delaware, Hawaii, Illinois, Maine, Maryland, Massachusetts, Minnesota, New Jersey, New York, Oregon, Rhode Island, Vermont, Washington and Washington DC. These states have almost always voted for the Democratic candidate.

Swing States (15 states): Arizona, Colorado, Florida, Georgia, Indiana, Iowa, Michigan, Nevada, New Hampshire, New Mexico, North Carolina, Ohio, Pennsylvania, Virginia and Wisconsin. These states have often voted for different majorities in the past and are therefore typically the main focus of presidential election campaigns.

Table 7: U.S presidential elections

year	Democratic candidate	Republican candidate	Winner
2000	GORE, AL	BUSH, GEORGE W.	BUSH, GEORGE W.
2004	KERRY, JOHN	BUSH, GEORGE W.	BUSH, GEORGE W.
2008	OBAMA, BARACK H.	MCCAIN, JOHN	OBAMA, BARACK H.
2012	OBAMA, BARACK H.	ROMNEY, MITT	OBAMA, BARACK H.
2016	CLINTON, HILLARY	TRUMP, DONALD J.	TRUMP, DONALD J.
2020	BIDEN, JOSEPH R. JR.	TRMUP, DONALD J.	BIDEN, JOSEPH R. JR.

Table 8: Firm counts by each group

group	min #firms	date_min	max #firms	date_max
blue	279	2022-10-28	383	1999-04-01
red	109	2022-06-08	165	1998-11-25
swing_2000_blue	51	2022-11-17	71	1998-11-02
swing_2000_red	156	2022-10-03	192	1998-11-02
swing_2004_blue	51	2022-11-17	71	1998-11-02
swing_2004_red	156	2022-10-03	192	1998-11-02
swing_2008_blue	175	2022-11-17	227	1998-11-02
swing_2008_red	32	2019-12-09	38	2001-11-15
swing_2012_blue	148	2022-11-17	195	1998-11-02
swing_2012_red	59	2019-12-09	72	2001-11-30
swing_2016_blue	39	2020-10-02	52	1998-11-02
swing_2016_red	168	2022-11-17	211	1998-11-02
swing_2020_blue	121	2022-11-17	157	1998-11-02
swing_2020_red	86	2022-10-03	107	2001-11-30

Table 9: Company counts by state

state	min_companies	date_min	max_companies	date_max
AL	3	2004-11-01	6	1998-11-02
AR	4	1998-11-02	5	2006-07-19
AZ	10	2015-03-12	14	2006-11-20
CA	75	2022-10-28	97	2004-08-20
CO	12	2017-11-01	17	1998-11-02
CT	18	2018-11-29	24	1998-11-02
DC	2	2010-07-08	3	1998-11-02
DE	3	2008-11-14	6	1998-11-02
FL	24	1998-11-13	30	2013-01-22
GA	22	1999-01-14	25	2001-11-15
IA	0	1999-10-04	2	1998-11-02
ID	1	2006-06-02	2	1998-11-02
IL	34	2022-02-28	46	1998-11-02
IN	7	2017-09-01	10	2001-10-31
KS	0	2013-07-11	2	1998-11-25
KY	3	2016-11-29	5	1998-11-02
LA	3	2011-04-01	4	1998-11-02
MA	21	2018-03-09	38	2000-06-26
MD	9	2021-09-22	16	2005-11-21
ME	1	1998-11-02	2	2019-02-11
MI	10	2009-06-02	14	2000-06-30
MN	15	2018-10-22	23	1998-11-02
MO	8	2022-06-08	16	1998-11-02
NC	19	2015-07-07	24	1999-08-12
NE	2	1998-11-02	2	1998-11-02
NH	1	2006-03-02	2	1998-11-02
NJ	18	2012-04-02	32	1998-11-02
NV	3	2000-06-01	5	2004-12-16
NY	59	2022-04-11	83	2006-05-26
OH	34	2021-06-07	47	1998-11-02
OK	5	1998-11-02	7	2014-04-16
OR	1	2021-05-14	2	1998-11-02
PA	27	2016-05-23	40	1998-11-02
RI	3	1998-11-02	4	2014-09-25
SC	1	2001-09-06	2	1998-11-02
TN	12	2007-07-09	18	1998-11-02
TX	63	2021-03-17	95	1998-11-02
UT	2	2016-09-19	4	1998-11-02
VA	22	2020-10-02	29	1998-11-02
WA	13	1998-11-02	16	2005-08-10
WI	11	2020-07-21	16	1998-11-02

Red states without S&P 500 companies: AK, MSMT, ND, SD, WV, WY.

Blue states without S&P 500 companies: HI, VT.

Swing states without S&P 500 companies: NM.

Table 10: Firms without HQ-Location for some time periods

Nr.	Company name	Reason for missing US HQ Location
1	Eaton Corp/PLC	Ireland (Foreign domicile)
2	Signet Jewelers	Bermuda, UK
3	NXP Semiconductors	Netherlands
4	Ingersoll/Trane	Ireland
5	Delphi/Aptive	Insolvency/Restructuring
6	Michael Kors/Capri	British Virgin Islands
7	Pentair	Ireland
8	Mallinckrodt	Ireland, Insolvency/Restructuring
9	Allegion	Ireland
10	Markit	London
11	Solaredge Technologies	Israel
12	Dell	time without stock market listing
13	Adient PLC	Ireland
14	YUM China Holdings	China
15	Nvent Electric PLC	London
16	Ceridian HCM	Canada
17	Garrett Motion In	Switzerland, Ireland
18	Foster Wheeler	Switzerland, Bermuda
19	Linde	Ireland, UK, Switzerland
20	Amor PLC	Switzerland
21	Royal Dutch Petroleum	Netherlands, UK
22	Unilever	Netherlands, UK
23	Nabors Industries	Bermuda
24	Johnson Controls	Ireland
25	Tyco International	Bermuda, Switzerland, Ireland
26	Rowen Companies	UK
27	Medtronic	Ireland
28	AON	Ireland, Bermuda
29	ENSCO International Inc	UK
30	Coca Cola Enterprises	UK
31	Fruit of the Loom	Acquired by Berkshire Hathaway
32	Pernigo	Ireland
33	Praxair Inc	Ireland
34	Watson, Actavis, Allergen	Ireland
35	ACE,Chubb	Switzerland, Bermuda
36	Transocean	Switzerland
37	Risk Capital Holdings/ARCH Capital Group	Bermuda
38	Everest Re	Bermuda
39	EXELL LTD, XL Capital, XL Group	Bermuda
40	Global Crossing LTD	Insolvency / Restructuring
41	Delphi Automotive, Delphi Corp	Restructuring
42	Garmin LTD	Switzerland
43	Willis Group	Bermuda
44	Accenture	Bermuda, Ireland
45	Seagate	Cayman Islands, Ireland
46	Covidien	Bermuda, Ireland
47	Tyco Electronics	Bermuda, Switzerland
48	ENSCO PLC, Rowan, Valaris	UK

Appendix B - Details on the results

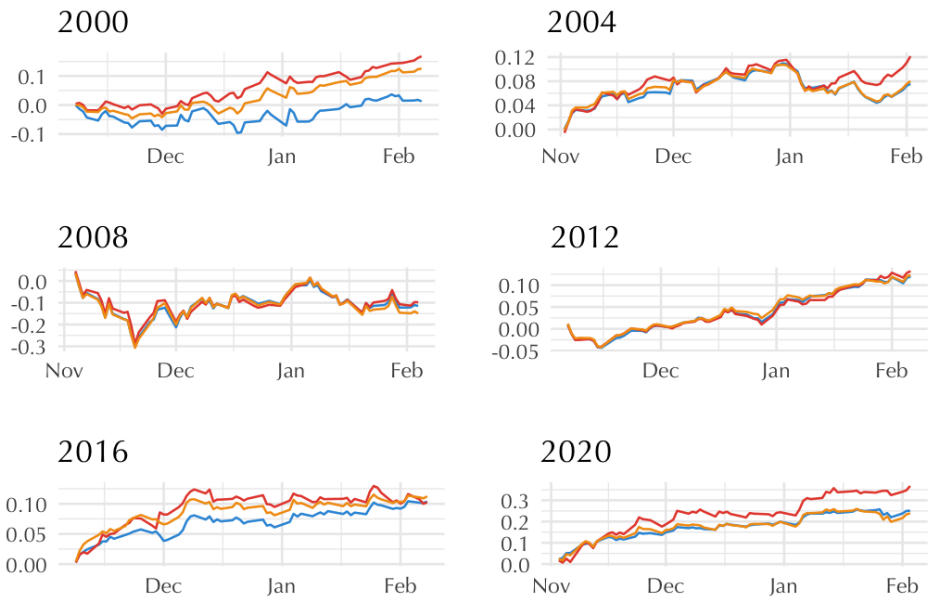

Figure 4: Cumulative Excess Returns
Performance in terms of cumulative excess returns filtered for firms with headquarters in traditionally Republican states (red), traditionally Democratic states (blue) and swing states (orange).

Interpretation of coefficients

$$\text{annualized abnormal return} = (1 + \text{daily abnormal return})^{252} - 1$$

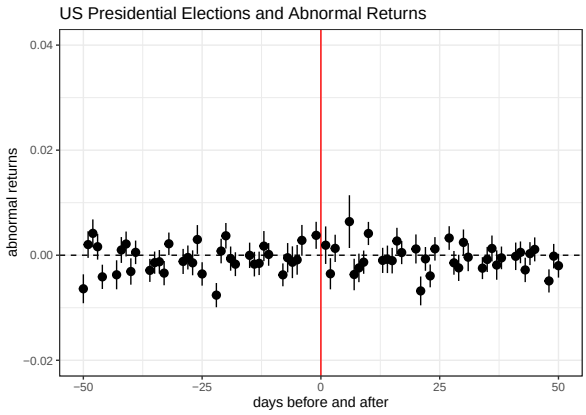

Figure 5: Event study
The event study covers the 50 days before and after a US presidential election. The dots mark the estimated OLS coefficients for the lags and leads. I control for firm and date fixed effects. The vertical lines mark 95% confidence intervals based on robust standard errors clustered at the firm and date level.

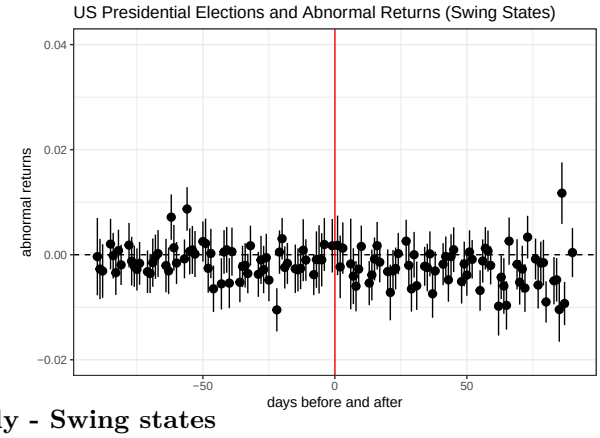

Figure 6: Event study - Swing states
The event study covers the 90 days before and after a US presidential election. The dots mark the estimated OLS coefficients for the lags and leads. I control for firm and date fixed effects. The vertical lines mark 95% confidence intervals based on robust standard errors clustered at the firm and date level.

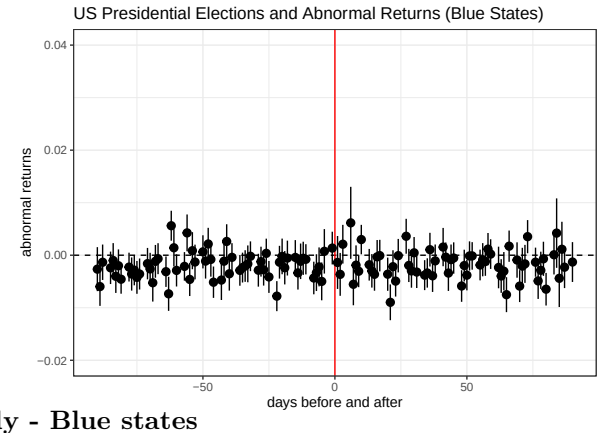

Figure 7: Event study - Blue states
The event study covers the 90 days before and after a US presidential election. The dots mark the estimated OLS coefficients for the lags and leads. I control for firm and date fixed effects. The vertical lines mark 95% confidence intervals based on robust standard errors clustered at the firm and date level.

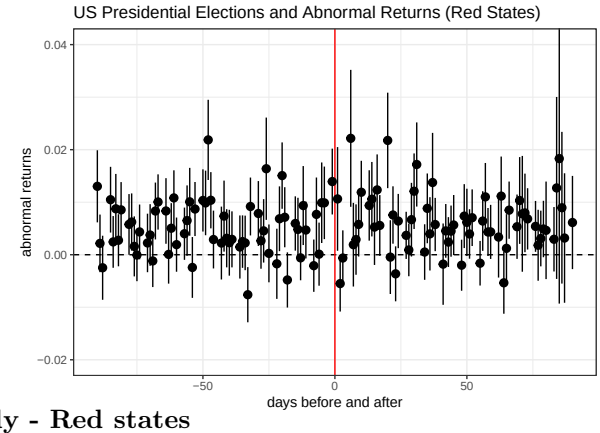

Figure 8: Event study - Red states
The event study covers the 90 days before and after a US presidential election. The dots mark the estimated OLS coefficients for the lags and leads. I control for firm and date fixed effects. The vertical lines mark 95% confidence intervals based on robust standard errors clustered at the firm and date level.

Table 11: Voting for the winner

Dependent Variable:	abnorm_ret
swing_winner	0.000130***
	(4.69×10^{-5})
swing	-0.000196***
	(5.12×10^{-5})
red	-0.000144**
	(6.72×10^{-5})
Fixed-effects	
date	Yes
Observations	4,045,474
R^2	0.01003
Within R^2	1.02×10^{-5}

OLS. Clustered (date & permno) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table 12: Firm size effects

Dependent Variable:	abnorm_ret
Constant	0.000130^{***}
	(4.5×10^{-5})
swing	$-8.2 \times 10^{-5**}$
	(3.41×10^{-5})
red	-0.000128*
	(6.73×10^{-5})
large_cap	0.000171^{***}
	(3.8×10^{-5})
pre_elect	-8.07×10^{-5}
	(0.000131)
post_elect	0.000366^{**}
	(0.000153)
large_cap × pre_elect	0.000154
	(0.000136)
large_cap × post_elect	-0.000144
	(0.000155)
swing × large_cap × pre_elect	8.07×10^{-5}
	(0.000115)
red × large_cap × pre_elect	8.88×10^{-5}
	(0.000261)
swing × large_cap × post_elect	-5.5×10^{-5}
	(0.000126)
red × large_cap × post_elect	-0.000126
	(0.000243)
Observations	4,045,474
R^2	4.84×10^{-5}
Adjusted R^2	4.57×10^{-5}

OLS. Clustered (date & permno) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table 13: Non-policy sensitive sectors

Dependent Variable:	abnorm_ret
Constant	0.000231***
	(5.55×10^{-5})
swing	-0.000146***
	(4.18×10^{-5})
red	-0.000213*
	(0.000120)
pre_elect	1.06×10^{-5}
	(0.000160)
post_elect	9.97×10^{-5}
	(0.000170)
swing × pre_elect	0.000190
	(0.000122)
red × pre_elect	0.000101
	(0.000380)
swing × post_elect	0.000172
	(0.000121)
red × post_elect	-0.000175
	(0.000347)
Observations	1,519,561
R^2	2.91×10^{-5}
Adjusted R^2	2.38×10^{-5}

OLS. Clustered (date & permno) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table 14: Without financial crisis 2007-2009

Dependent Variable:	abnorm_ret
Constant	0.000222***
	(3.62×10^{-5})
swing	-0.000146***
	(3.92×10^{-5})
red	-0.000182**
	(7.82×10^{-5})
pre_elect	5.48×10^{-5}
	(9.5×10^{-5})
post_elect	8.48×10^{-5}
	(0.000108)
swing × pre_elect	6.72×10^{-5}
	(0.000101)
red × pre_elect	-4.36×10^{-5}
	(0.000211)
swing × post_elect	8.23×10^{-5}
	(0.000112)
red × post_elect	3.34×10^{-5}
	(0.000215)
Observations	3,501,401
R^2	1.84×10^{-5}
Adjusted R^2	1.62×10^{-5}

OLS. Clustered (date & permno) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*