

Is Wall Street Turning Blue?

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Abstract

We demonstrate that since the early 1990's, it is becoming increasingly common for firms to be run by CEOs who are aligned with the Democratic Party, which we refer to as the *blue trend*. We find evidence that at least one factor driving this trend appears to be the rise of the role of women, who tend to have values that align with the Democratic Party. Further, we find that the blue trend is stronger in industries that are more considerable to women as a source of employees or customers (e.g., hospitality, computers, etc.). Nevertheless, the trend appears to be quite pervasive, as nearly 75% of industries turned bluer. The blue trend also has several implications on corporate governing and on the overall stock market performance and volatility, as the presence of more CEOs who are aligned with the Democratic Party is associated with the lower overall stock market returns. Collectively, our evidence suggests that there is a change in the leadership on Wall Street and that has implications for corporate culture, and the stock market landscape.

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JEL Classification: G12.

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1. Introduction

In the past few decades, demographic shifts and several social events shapes and changes the U.S culture and values. For instance, the steadily growing role of woman in our society, where they exhibit more participation in corporates and politics leaderships.¹ These changes have been influencing corporate culture and values. Indeed, in a recent survey of nearly 200 CEOs, they indicate that they do not ascribe to “the age-old notion that they function first and foremost to serve their shareholders and maximize profits.”² Do these changes in our society and in corporate culture have implications for the types of individuals who are ultimately selected to run public companies? What implications do these changes have on stock market performance and volatility? In addition, what sectors are affected most? This paper addresses these questions and related issues.

The purpose of this paper is to first document a key stylized fact, namely, that since 1992 it is becoming more and more common for CEOs to be aligned with the Democratic Party, a phenomenon we name it hereafter as the *‘blue trend’*. We also conduct cross-sectional analyses and examine which sectors have turned bluer and which have not, or actually turned redder. Furthermore, we examine whether politically sensitive sectors are also affected by the trend; specifically, are sectors that have historically been favored by the Republican Party also turning bluer? Lastly, we examine the implications of the blue trend for a host of issues, including the stock market performance and volatility.

Our key hypotheses is that corporate culture has changed, at the investor as well as corporate management levels, such that CEOs are now expected to also manage issues beyond simply maximizing shareholder value. These changes have implications for CEO selection, as a new set of skills are needed from CEOs. One key factor that potentially can aid us to identify the underlying

¹ See full article: <https://fortune.com/2020/05/18/women-ceos-fortune-500-2020/>

² Link to the survey summary: <https://www.cnbc.com/2019/08/19/the-ceos-of-nearly-two-hundred-companies-say-shareholder-value-is-no-longer-their-main-objective.html>

mechanisms to explain the blue trend is the raising role of women in our society. This is important since women tend to align more closely with the values of the Democratic Party, making it increasingly likely that firms will want to have CEOs whose values mirror those that are held by their customers, employees, and society. The raising role for women enhance diversity and inclusive culture, which appears to pay off. For example, a study reported by the Wall Street Journal suggests, “Diverse and inclusive cultures are providing companies with a competitive edge over their peers.”³ Altogether, these changes likely have consequences on Wall Street leadership. Yet, how do these changes in corporate culture affect the stock market landscape?

We set the stage by introducing graphical evidence about the blue trend and then analyze how this trend influences key inferences in finance. In summary, the results demonstrate three main points as follows. First, we document that Wall Street is turning bluer over time as more firms becoming more likely to be run by CEOs who are aligned with the Democratic Party. Second, the overall stock market performance has weakened as more CEOs are aligned with the Democratic Party and Democratic CEOs implement different corporate governing; in terms of capital expenditure, research and development, etc. Furthermore, we show that Democratic CEOs are more exposed to turnover than Republican counterparts are. Third, about 35 sectors turned blue and only one sector is neutral, while 12 sectors actually turned redder. Surprisingly, we find that some politically sensitive sectors have also turned blue.

To perform our analyses, we combine data from ExecuComp about CEO demographics with data from the Federal Election Committee (FEC) about CEOs’ political alignment and PAC donations. Our sample contains over 37,000 firm-year observations between 1992 and 2018. For the cross-sectional analyses, we collect data from French R. data library for the same period where we

³ See full article: <https://www.wsj.com/articles/the-business-case-for-more-diversity-11572091200>

analyze the blue trend across 48 industries/sectors. We also collect data from CRSP about key stock market indexes and macroeconomic conditions.

Our analyses face an econometrics challenge since about 35% of CEOs do not donate to any political parties, and thus we cannot observe their political alignment. To throw out these observations perhaps could cause some biases in our estimates, and on the other hand to assume that these CEOs are politically neutral could be challenged as a large portion of US citizens do not contribute to political parties, but do align themselves with a political party. To address this econometric issue, we introduce a binary variable that takes a value of 1 if the CEO contributes any amount to a political party, 0 otherwise, and then we employ the Heckman procedure conditional on making a political contribution where we estimate the predicted probability of being a Democratic CEO. To implement the Heckman procedure properly, we introduce an instrument that influences the likelihood that a CEO reveals his/her political orientation by making a political contribution, but is unrelated to the likelihood of firms having a Democrat CEO. We follow Bonaparte and Kumar (2013) and employ a measure for the CEO's exposure to political news, which is reflected in a binary variable takes a value of 1 if the company headquarter is located in swing state, 0 otherwise.

This paper contributes to the literature along several dimensions. First, to the best of our knowledge this study is the first to document that firms are increasingly hiring Democrat CEOs (which we refer to as the "blue trend"), and to document the resulting implications for stock market outcomes. Second, our stylized facts about the blue trend can explain some of the time-series variation in asset valuations and stock market volatilities; as we show higher performance and lower volatility caused by greater fraction of neutral CEOs. Finally, behavioral finance literature has always thrived by introducing a new exogenous behavioral aspect, and we believe the blue trend is a proper exogenous factor to be considered for future studies. Indeed, the change of the head of a company to turn blue is a game changer on the company values and governing style. For example, the research finds that

Democrats in general are more sensitive to the environment and support carbon free than Republicans, e.g., Di Giuli and Kostovetsky (2012).⁴

The rest of the paper is organized as follows. Section 2 reviews the literature about CEO political alignment and how it influences policymaking, and then presents the key hypotheses and identifies the underlying mechanism. Section 3 reports the data sets, definition of key variables and graphical evidence to support the stylized fact about the blue trend. Section 4 analyzes the overall impact of the stylized fact on the corporate governing and stock market outcomes. Section 5 presents cross sectional analyses by sector, where we show many sectors turned bluer. We draw conclusions in Section 6 where we show that there is a blue trend and its economic consequences.

2. Literature Review, Hypotheses and Identifying the Underlying Mechanisms

This section reviews studies related to CEO political alignment and corporate culture as well as review how CEO political alignment influence CEO policies and decision-making. We then introduce our key hypotheses, which are the foundation to our paper and analyses, and close with identifying the underlying mechanisms, hence, key factors that drive the blue trend.

2.1 Literature review

This subsection reviews the literature related to CEOs and corporate culture. We set the stage by focusing on why CEOs make political contributions or politically aligned to a party. We also discuss how CEOs personal attributes influence their leadership and policies as well as we examine whether CEO political alignment does influence company decision making and thus company policies. We then conduct a comparison between conservative ideology vs liberal ideology on CEOs value and

⁴ URL <https://www.pewresearch.org/science/2019/11/25/u-s-public-views-on-climate-and-energy/>

governing style. Finally, we close by reviewing whether politically aligned CEO adds a value and profitability to their own company.

We start the review on why CEOs actually politically aligned and exhibit their political ideology. Ansolabehere, de Figueiredo, and Snyder (2003) propose that political contributions often used to express CEO's political alignment and ideology, and not necessarily to establish political connections. In fact, Groseclose, Milyo, and Primo (2000) suggest that political connections established largely through direct lobbying activities. The political connection has some yield, as a study by Cooper, Gulen, and Ovtchinnikov (2010) demonstrate the benefits of strategic donations and political connections.

Now we turn to review the literature on the connections between managerial characteristics and corporate governing. Several studies show that managerial attributes and key CEOs characteristics such as: height and beauty (Graham, Harvey, and Puri, 2012), military background (Benmelech and Frydman, 2012), overconfidence (Malmendier and Tate, 2005), personal risk preferences (Chava and Purnanandam, 2010), life experiences (Malmendier, Tate, and Yan, 2011), are key elements of corporate policies.

Yet, the studies that most close to our work is the ones that focus on the imperative role of CEO political alignment on corporate governing and culture. Several studies in finance show that personal political preferences influence corporate policy maker and money managers, e.g., Hong and Kostovetsky (2012) and Hutton, Jiang and Kumar (2014). These findings are in line with the theory of behavioral consistency, which postulates that individuals display steady behavioral characters over various situations and circumstances, e.g., Epstein (1979) and Funder and Colvin (1991).

Finally, Niessen and Ruenzi (2010) and Chen, Parsley, and Yang (2012) show that connections with both Republican and Democratic politicians has an advantage to generate higher level of profitability. Along this line of research, Johnson and Mitton (2003), Khwaja and Mian (2005),

Claessens, Feijen, and Laeven (2008), Faccio (2010) show that political connect aid to have an easier path to debt. Furthermore, the political connection can increase firm value, e.g., Goldman, Rocholl, and So (2009), Hill, Kelly, Lockhart, and Van Ness (2011). How the blue trend influence stock market landscape is motivated by the work Grinblatt and Keloharju (2001), Morse and Shive (2010), and Bhattacharya and Groznic (2008) where they show how values can affect investments.

2.2 *Hypotheses*

This subsection discusses the main hypotheses, which are the foundation to our paper. Our first hypotheses is that corporate culture has changed and that has implication on the skill set required from a prospect CEO, as such to have a CEO that value diversity and culture inclusion. As a result, we observe more CEOs are aligned with the Democratic Party. The second hypotheses is that a more diverse CEOs background influence corporate governing and policies, and hence stock market outcomes.

To demonstrate the change in the corporate culture, we recall the survey of 200 CEOs values and its implication on corporate culture.⁵ In a group of approximately 200 CEOs from major U.S. corporations, that named as the ‘The Business Roundtable,’ which is founded in 1972, present a new classification of the “purpose of a corporation” as they dropped the profit maximization concept as the main goal. Instead, the purpose of corporation has changed to “investing in employees, delivering value to customers, dealing ethically with suppliers and supporting outside communities.” This change in the purpose of corporation named by the business roundtable as the “modern standard for corporate responsibility” and it “supersedes” previous visions.

⁵ Link to the survey summary: <https://www.cnbc.com/2019/08/19/the-ceos-of-nearly-two-hundred-companies-say-shareholder-value-is-no-longer-their-main-objective.html>

Moreover, Larry Fink the CEO of BlackRock chief Larry Fink, formerly called on CEOs to reevaluate the purpose of a corporation what he defined as the “inextricable link” between purpose and profit, issue a statement that support the new vision of purpose of corporation.⁶

Next, we demonstrate how the change in corporate culture, e.g., the blue trend has implication on the stock market landscape. Namely, we show that CEOs with different political alignment have a different set of policies and priorities. Conservatism versus liberalism exhibit different individuals attributes, which has implication on the CEO governing behavior, and thus, the company and the stock market general. Glasgow and Cartier (1985) suggest that an individual with a conservative ideology prefer familiar versus unfamiliar stimulus. In addition, Wilson (1973), Gillies and Campbell (1985) propose that a conservative individual exhibit greater aversion to ambiguity, uncertainty, and complexity. Furthermore, Kish, Netterberg, and Leahy (1973) shows that a conservative individual is less willing to engage in sensation pursuing behavior. There are other attributes associated with an individual with conservative views, such as greater awareness to the prospect of a losing (Wilson, 1973) and place job security higher than task variety (Atieh, Brief, and Vollrath, 1987, McAllister and Anderson, 1991); fear losses and value financial security (Jost, Glaser, Kruglanski, and Sulloway, 2003). In line of this research, Opler and Titman (1994) and Hackbarth (2008) demonstrate that financial conservatism could manifest itself as lower levels of corporate leverage. On the other hand, liberalism portrays a different picture, such as; Di Giuli and Kostovetsky (2012) validate that companies with Democratic political environments prefer socially responsible policies. Kam and Simas (2010) demonstrate that Democrats exhibit greater tolerance to risk than Republicans.

⁶ Full statement: <https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter>

2.3 *Identifying the Underlying mechanism*

In this subsection, we discuss and identify the underlying mechanism that causes the blue trend; namely, more CEOs are aligned with the Democratic Party. The greater role for women in our society, as the number of CEO women hit all time high with 37 women are currently serving as CEO, based on the 2020 *Fortune* 500 ranking.⁷ The Fortune 500 ranks America's largest companies and is viewed as a microcosm of U.S. business at large. Furthermore, in a study by the Washington State University summarized a few figures from Gallup poll “Women in America: Work and Life Well-Lived” show that “45 percent of employed women would like to become a CEO or have a position in senior management or leadership.”⁸

Interestingly, only 54 percent of men said the same, which shows a much smaller difference in ambition than conventional ideas about gender and work suggest.” These statistics are in line with data reported from the U.S. Department of labor market showing that in 1948 only 32.7% of Women entered the workforce, while 56.8% of women participate in the labor market for the year of 2016. To sum up, the gender diversity in boardrooms and C-suites across the country further enhance the blue trend as women are less aligned with the Republican Party than men.⁹

Does diversity and culture inclusion pay off? The Wall Street Journal presents a report that suggests “Diverse and inclusive cultures are providing companies with a competitive edge over their peers.”¹⁰ Altogether, these changes have consequences on the Wall Street leadership. Yet, how this corporate culture change affects the stock market landscape?

⁷ Fortune 500 rank: <https://fortune.com/2020/05/18/women-ceos-fortune-500-2020/>

⁸ Washington State University research article: <https://onlinemba.wsu.edu/blog/more-women-are-joining-the-c-suite-heres-how-theyre-doing-it/#:~:text=More%20Women%20Are%20Joining%20the%20C%2Dsuite.&text=Women%20have%20entered%20the%20workforce,women%20have%20reached%20executive%20positions.>

⁹ The Atlantic article: <https://www.theatlantic.com/ideas/archive/2020/02/how-women-became-democratic-partisans/606274/>

¹⁰ See full article: <https://www.wsj.com/articles/the-business-case-for-more-diversity-11572091200>

3. Data and Graphical Evidence

This section describes the data we utilize, especially from ExecuComp and Federal Election Committee (FEC). Then, we present definitions of key variables in the analyses, including, the computation of CEO political alignment and PAC donations. We then report graphical evidence illustrating that it is becoming more common for CEOs to be aligned with the Democratic Party.

3.1 Data sets

We collect several data sets to perform our analyses. The main data sets are from The Center for Research in Security Prices (CRSP), ExecuComp, FEC (<http://www.fec.gov>) and French R. Library data. Our sample begins with all CEOs on the ExecuComp database from 1992 to 2019. The data tracks executive compensation in S&P 1500 firms as well as the top executives' salary, bonus, and stock option data as well as company-specific financial statement information. The ExecuComp data reports additional details about CEO demographics, such as on age and gender. From Compustat data, we also gather information about other company specific information, such as the location of the firm's headquarters and to what sector it belongs to.

The second data set is from the FEC. We use this data to aid us with our key variables, which include CEOs' political orientation and firms' PAC donations. We follow the methodology of Hutton, Jiang and Kumar (2014) and Christensen et al. (2015) and collect data from the FEC about political contributions of top executive firm managers and then link them to ExecuComp based on their name, title, and position. We also obtain PAC donations and link them to companies based on their historical company names.

Additionally, we utilize data from the French R. Library, where we gather monthly information about each of the Fama French 48 industry sectors, which allows us to conduct cross-sectional analyses about what sectors are turning bluer, more neutral, or redder. We also collected data from

the Fred Data of St. Louis FED (<https://fred.stlouisfed.org/>) about the rating of companies' bond rating; we use this data to for macroeconomic control variables.

Lastly, from CRSP we collect monthly and daily data about key financial indexes including the return on the value-weighted index and the equal weighted index. From the daily data of these indexes, we measure the monthly stock market volatility from within-month daily return data using the methodology of French, Schwert, and Stambaugh (1987). We also use yields on treasuries 90-day bond rate and 10-years Treasury bond rate to compute some of the macroeconomics control variables.

3.2 *Variable definitions*

We consider two variables of special interest in our analyses. First, the CEO's political orientation and second the company's political leanings based on PAC donations. As an individual's political orientation is typically time invariant, we calculate the political leaning of the CEO based on personal political contributions made between 1991 and 2018 and applied it to all years in the dataset (including 2019). This is in line with Hong and Kostovetsky (2012) and Hutton et. al. (2014) and inferred political orientation via personal political contributions. In fact, Christensen et. al. (2015) noted, "An individual's political party identification is generally established in adolescence or early adulthood and remains stable over the individual's entire adult life (Green, Palmquist, and Schickler, 2002)."

Now we turn to define the PAC contribution. We use the same data set used by Christensen et. al. (2015). Here are key features on how they collect it. Company managers have mainly two ways to make political contributions; one via donate indirectly through their own company-sponsored Political Action Committees (PACs); or direct donation to candidates or party committees. Cooper, Gulen, and Ovtchinnikov (2010) argue that very often company-sponsored PACs contribute to several parties at the same time, thus we are only permissible to identify the second form on contributions to identify individual managers' personal political ideology. It is important to mention that there are limits

to individual contributions, which generally increase over time. The Individual contribution limits for the 2011–2012 election cycle were (www.fec.gov): \$2,500 to a candidate; \$30,800 to a national party; \$5,000 to a PACs with an overall (biennial) contribution limit of \$117,000.

The next set of control variables relate to the company’s financials, which we obtain from Compustat. Namely, we use Sales 1 Year percent change and named the variable as “% Sales change.” The second variable is Return on Assets and named the variable as “% Return on Assets” and the third variable is EPS 1 Year percent change and name the variable as “% EPS 1 year change.” The final set of control variables that we also utilize capture macroeconomic conditions, e.g., Keim and Stambaugh (1986), Campbell and Shiller (1988), Fama and French (1988, 1989), and Fama (1991). The first variable is the 3 months lag of price earning ratio and labeled as “L3.PE.” the second variable is 3 months lag of log dividend price ration and labeled as “L3.LogDP.” these two variables collected using the Robert Shiller website and described in Chapter 26 of Shiller’s earlier book (Market Volatility [Cambridge, MA: MIT Press, 1989]). The website offers monthly data about real prices, dividend and earnings back from January of 1871 till present (see more information about the methodology in Appendix C). The third variable is three months lag of term spread and labeled as “L3.TSP” between the yield to maturity of a 10-year Treasury note and the three-month Treasury bill. The forth variable calculates 3 months lag of relative interest rate, which is computed as the deviation of the three-month treasury bill rate from its one-year moving average and labeled as “L3.RR.” The variables L3.TSP and L3.RR gathered from the CRSP data. The final variable measure the default spread between yields of BAA- and AAA- rated bonds, and labeled as “L3.DSP,” we collected the data from the Fred data at St Louis federal bank.

In addition, using the CRSP we compute the excess return on value-weighted portfolio as $\log(VW_t) - \log(Bond_t)$, and the excess return on log value-weighted return as $\log(EW_t) - \log(Bond_t)$; here VW_t and EW_t are the value weighted and equal weighted return at month t ,

respectively. We calculate the monthly stock market volatility from within-month daily return data and using the methodology of French, Schwert, and Stambaugh (1987), we title the monthly volatility when using value-weighted portfolio “Volatility VW” and “Volatility EW” when we use equal-weighted portfolio.

The definition of key variables that are utilized from the ExecuComp are reported in Appendix A, while definitions of main variables that utilized using the CRSP are reported in Appendix B. Table 1 reports the summary statistics of key variables, namely, the mean, median standard deviation and the number of observations. The average age for CEO is about 55 and about 97% of CEO are male. The average return on assets is about 2.7% and the average monthly excess return on the log value-weighted index is about 1.2%.

3.3 *Graphical evidence*

We present several graphical evidence about the trends in CEOs political alignments. We begin figure 1 that depicts the fraction in percent of CEOs aligned with the Republican Party between 1992 and 2019. As we can see on the early 90s the majority of CEOs where aligned with the Republican Party. Since then, we can see the trend for which CEO become leaning more toward the Democratic Party and this trend peaked in the second half of the 2010s.

We can demonstrate the trend by observing decade’s summary average. Specifically, table 2 reports the averages of CEOs political alignments by decade. Column 1 reports the decade period, columns 2, 3 and 4 reports the fraction of CEOs by Republican, Democratic and Neutral, respectively. The last row measures the percentage difference between 2019 and 1992. We find that the percentage change between 90s and 10s in CEOs Republican political alignments is about 10.3%, where the increase in the Democratic political alignments is about 24.9%, and the neutral CEOs political

alignment increases by 30.5%. We observe similar figures if we compare the first year of the sample 1992 with the last year of the sample 2019.

The final graphical evidence is about the Per capita company PAC donation to the Democratic Party. Figure 2 depicts that there is a trend where recently we notice that more companies denote money to the Democratic Party than in the early 90s. We believe all of these figures and decade's based average statistics demonstrate that there is a trend in Wall street for which it becomes to be less republicans and turning more blue. Next section present rigorous analyses of the trend and implications of stock market returns and volatility as well as cross-sectional analyses at the sector levels.

4. CEO political alignment and stock market outcomes

This section reports rigorous evidence about the blue trend of more CEOs become to be aligned more with the Democratic party, and then present evidence that identify the underlying mechanism, which include women status. We then examine how this change in corporate culture influences stock market returns and volatility as well as CEO turnover.

4.1 *Empirical evidence on the trend*

This subsection presents rigorous facts about the blue trend as more CEOs are aligned with the stock market. To document the trend, we first introduce a binary variable named as $Dem_{i,t}$ takes a value of 1 if the CEO for company i at year t is aligned with the Democratic party, 0 otherwise. Then, we employ the following model, equation (1):

$$(1) \quad Dem_{i,t} = \delta * Year_t + \beta * X_{i,t} + Constant + \varepsilon_{i,t}$$

The parameter δ reflects the blue trend and the key independent variable is the variable year, which is normalized by dividing by 1,000. We denote $X_{i,t}$ as a set of variable controls such as CEO age and gender, as well as company's characteristics, where β is a set of parameters for these controls. Finally, the quantity ε_t is an error term reflects the unobservable.

As noted earlier, about 35% of CEOs don't report any information to infer about their political alignment. Throwing these observations perhaps will cause potential bias and also assuming these CEOs are neutral is challenging since perhaps they do have political ideology yet they are not interested to exhibit it via contribution to parties. Thus, we implement the Heckman procedure and create a binary variable takes a value of 1 if the CEO contributes to either party, 0 otherwise. This binary variable assists us with the selection equation, and conditional of this equation we then estimate the above model; thus, we employ a two-stage structural model.

To implement the Heckman procedure properly, we ought to have an instrument that influence the selection equation but not the dependent equation (above model). Our econometrics treatment is to utilize the political activism instrument introduced by Bonaparte and Kumar (2012) and argue that CEOs who live in swing state are more likely to be politically active and hence donate money to either party. Indeed, we follow their methodology and utilize similar states that are considered as swing states, namely, Ohio, Florida, Pennsylvania, Nevada, New Hampshire, Maine, Michigan, Wisconsin and North Carolina. Our instrument, therefore, takes a value of 1 if the company headquarter is in a swing state, 0 otherwise. Since our key dependent variable in the second stage (CEO political alignment $Dem_{i,t}$) is a binary variable and not continuous, we then we implement the "heckprob" Stata command.

Our key hypotheses is a positive (negative) value of δ means the sector turned Red or Republican (Blue or Democrat); if $\delta = 0$ means the sector has no trend between 1992 and 2018.

We report the results in table 3 for which the dependent variable in regressions (1) and (2) is a binary variable takes a value of 1 if the CEO is aligned with the Democratic party, 0 otherwise. The dependent variable in regression (3) and (4) is a binary variable takes a value of 1 if the CEO is aligned with the Republican party, 0 otherwise. The key independent variable is year, divided by 1000 to normalize. The other set of control variables include CEO age (years old), gender (1 if male, 0 otherwise); firm % return on assets titled, % change in sales, and % 1-year change in earnings per share. In regressions (1) and (3) we employ a Probit regression whereas in regression (2) and (4) we employ Heckprob model with state level of political activism as an instrument. We use robust standard error to calculate the t -statistics shown in parentheses. Detailed variable descriptions are given in Appendix A.

The results in these regressions demonstrate that the blue trend exists and statistically significant. Indeed the parameter in equation (2) stands at $\delta = 9.085$, which means more CEOs are alignment with the Democratic party. We also show that without accounting for the selection equation we will have different estimates and the blue trend will be overestimated as $\delta = 11.725$.

We also presented the blue trend by modifying the model and introduce a new binary variable that takes a value of 1 if the CEO is aligned with the Republican Party, and 0 otherwise. We report the results in regressions (3) and (4). The results demonstrate a negative coefficient, which means the blue trend accompanied by red trend, a trend as less CEOs are Republicans. Collectively, we demonstrate that more CEOs become aligned and donate more to the Democratic Party.

4.2 *Identifying the underlying mechanism*

As we noted earlier, that we consider two main factors that cause the blue trends. The rise of the role of women status and the rising inequality. As such, we collect data women status by state and then

examine how these factors influence the choice of CEO and hence the blue trend and then analyze to what extent these demographic changes capture the blue trend.

Specifically, we collect data about the women status from <https://statusofwomendata.org/> about women status. They composite an index that accounts for: employment and Earnings, poverty and Opportunity, health and well-being, reproductive rights, violence and safety, work and family, and political participation. To construct the composite index “each of the component indicators was converted to scores ranging from 0 to 1 by dividing the observed value for each state by the highest value for all states. Each score was then subtracted from 1 so that high scores represent lower levels of mortality, poor health, or disease. Scores were then given different weights.” The full methodology is reported via this link: <https://statusofwomendata.org/explore-the-data/methodology/>. Although the women status measures are reported by state, but it is not by every year but by only few years between 1996 and 2013. Thus we report the women status using the 2013 wave for the second half of the panel (2005-2018) and the wave of 2000 for the first half of the panel (1992-2004).

We then employ the following model, which is an extension of model (1) in the previous subsection.

$$(2) \quad Dem_{i,t} = \theta_1 * Womenstatus_i + \delta * Year_t + \beta * X_{i,t} + Constant + \varepsilon_{i,t}$$

Here the key parameter to estimate is θ_1 , and our key hypotheses is this parameter should be positive, as the rise of women status will enhance the selection of Democratic CEO.

We report the results in table 4, for which the dependent variable in all regressions is a binary that takes a value of 1 if the CEO politically aligned with the Democratic Party, 0 otherwise. The key dependent variables is women status by state. The other set of control variables include CEO age (years old), gender (1 if male, 0 otherwise); firm % return on assets titled, % change in sales, and % 1-

year change in earnings per share. In regressions (1) we employ a Probit regression and xtprobit in regression (2); whereas in regression (3) and (4) we employ a marginal Heckman probit model “Heckprob/mfx” with state level of political activism as an instrument. We use robust standard error to calculate the *t*-statistics shown in parentheses. Detailed variable descriptions are given in Appendix A.

The results in all of these regressions demonstrate that indeed the raising women status is a great channel identification for the rise of Democratic aligned CEOs and hence the blue trend. We also conduct an additional exercise for which we interact the women status by state with sectors that likely to be involved and exposed more to women, in term of clients or employees. We identify three sectors: hospitality, computer and consumer goods and then interact these sectors with the women status by state and report the results in regression (4). We select these sectors because substantial to women as a source of employees or customers. For instance, we select hospitality because women occupied over a half; and we select the technology sectors because this sector “take pride in changing the world of work.”¹¹ We find positive coefficients and statistically significant for hospitality and computer sectors but less for consumer goods sector, which means the greater the company/sector is exposed to a higher women status the higher the propensity to have a CEO aligned with the Democratic Party. Altogether, we identify the underlying mechanism and show evidence on could be possible causes for the blue trend.

For robustness, we employ another set of results in which the dependent variable constructed to be an order probit. Namely, we assign a value of 0 if the CEO is politically aligned with the republican party; 1 if the CEO is neutral and 2 if the CEO is aligned with the Democratic party. We believe the order probit structure of the dependent variable add depths to better understanding the

¹¹ View this article about Women role in hospitality <https://lodgingmagazine.com/how-women-became-more-than-half-of-the-hospitality-workforce/> and this article from statista about women in the technology sector: <https://www.statista.com/chart/4467/female-employees-at-tech-companies/>

blue trend. The key independent variable is year, divided by 1000 to normalize. The other set of control variables include CEO age (years old), gender (1 if male, 0 otherwise); firm % return on assets titled, % change in sales, and % 1-year change in earnings per share. In regressions 1-3 we employ an xtreg model with fixed effect “xtreg FE”, while in regressions 4-6 we employ a Heckman order probit model “Heckoprob” with state level of political activism as an instrument. We use robust standard error to calculate the t -statistics shown in parentheses. Detailed variable descriptions are given in Appendix A.

The results demonstrate two main findings, that the blue trend exists and statistically significant and second our identify channel, women status, explains some of the trend. Altogether, we believe our baseline results and the robustness estimation we employ demonstrate that there exists a blue trend and the raise of women status explain some of the trend. We will discuss other possible explanations later separately.

4.3 *The blue trend and corporate and stock market consequences*

Now we turn to examine how the blue trend influences specific corporate companies and the stock market performance and volatility in general. We first analyze the corporate consequences of the blue trend by employing a set of regressions where the dependent variables are company’s capital expenditure, research and development, return on equity, etc. and report the results in table 6.

Specifically, in regression: (1) is capital expenditure (CAPEX); (2) debt level (Leverage); (3) research and development (R&D); (4) return on equity (ROA); and (5) a binary variable takes a value of 1 if there is a CEO turnover for a company in a given year. The dependent variables in models (1), (2) and (3) are normalized by total asset. The key independent variables are a binary variable for Republican CEO and a binary for Democratic CEO. The other set of control variables include CEO age (years old), gender (1 if male, 0 otherwise); firm % return on assets titled, % change in sales, and % 1-year change in earnings per share. We employ “xtreg” model in regressions (1)-(5); and a

“heckprob” with marginal reporting (mfx) for regression (5). Appendix A reports detailed definitions of key variable and the numbers in parentheses are robust *t*-statistics.

Our focus is on the last five rows, for which we report the Wald test differences between Republican and Democrat coefficient variables with statistical reporting. We find that the difference between companies run by Democratic CEO exhibit different corporate governing that republicans as the difference is statistically significance. Furthermore, we demonstrate that a Democratic CEO is more exposed to turnover than a Republican CEO.

Now we turn to analyze the blue trend consequences at the aggregate stock market level and report the results in table 7. In particular, we regress in models: (1) and (2) excess return and volatility of the value-weighted index; and in regressions (3) and (4) is excess return and volatility using the equal-weighted index. The key independent variable is the fraction of Republican aligned CEOs; Democratic aligned CEOs. The other independent variables are: 3 month lag of price-earnings ratio and labeled as “L3.PE”; 3 month lag of log dividend price ratio and labeled as “L3.LogDP”; 3 month lag of the term spread between the yield to maturity of a 10-year Treasury note and the three-month Treasury bill and labeled as “L3. TSP”; 3 month lag of the relative interest rate computed as the deviation of the three-month Treasury bill rate from its one-year moving average and labeled as “L3.RR”; 3 month lag of default spread between yields of BAA- and AAA-rated bonds and labeled as “L3.DSP.” Appendix A reports detailed definitions of key variable and the numbers in parentheses are *t*-statistics computed using Newey-West (1987) estimator with 4 lags.

Our emphasis is in the last five rows where we report the Wald test of the coefficient differences between Republican and Democrat variables with statistical significance. The results demonstrate that the higher the fraction of Democratic CEOs the lower the excess return and the higher the volatility comparing with republican CEOs. Collectively, we show that the blue trend has

corporate and aggregate consequence on a range of factors at the company level as well as at the stock market overall.

5. Cross Sectional Sectorial Analyses

This section analyses the blue trend by sector. Specifically, we utilize data from the French Data Library, and focus on the 48 sectors that they offer. We think there are two points of interest to analyze. First, to estimate the trend by sector and second to examine what sectors are politically sensitive and whether the trend affects political sensitive sectors.

5.1 *The blue trend by sector*

We start our cross sectional analyses by employing the baseline model with and without sector fixed effects. This exercise will aid us to understand if there is a sectoral variation of the impact of the blue trend, which means in some sector is greater/weaker than others. We report the results in table 8, for which the dependent variable in all regressions is a binary that takes a value of 1 if the CEO politically aligned with the Democratic party, 0 otherwise. The key dependent variables are: women status by state. We also present two interaction variables between women status and sector (hospitality and computer). The other set of control variables include CEO age (years old), gender (1 if male, 0 otherwise); firm % return on assets titled, % change in sales, and % 1-year change in earnings per share. In all regressions we employ a Heckman probit “Heckprob” model with state level of political activism as an instrument. In regressions 2 and 4 we employ sector fixed effect.

We compare the results of regression 1 with 2 and of regression 3 with 4 and infer that that the fixed effect slightly weaken the blue trend as the coefficient of the variable year/1000 decline, yet the trend still exist and statistically significant.

Now that we establish there is a variation across sectors, next we analyze the effectiveness of the blue trend by sector. Specifically, we estimate the trend for CEO political alignments across sectors; to do so, we employ a model for which the dependent variable is the fraction of CEOs who are aligned with the republican party from sector i at time t , $\% Fraction\ CEO_{i,t}$, and the key independent variable is year normalized to be year-1992, so the value of year is 0, 1, 2, ..., 27. Hence,

$$\% Fraction\ CEO_{i,t} = \delta_i * Year_t + \varepsilon_t$$

Where δ_i is a parameter to estimate, which reflects the trend for a sector. A positive (negative) value of δ_i means the sector turned Red or Republican (Blue or Democrat); if $\delta_i = 0$ means the sector has no trend between 1992 and 2019. The quantity ε_t is an error term reflects the unobservable.

We report the results in table 9 where the first column reports the sector name, the second column reports the estimated parameter δ , which reflects the trend; column 3 and 4 reports the constant estimates and the R-squared. The last column interpret the results; whether the sector has turned Red (Republican), Blue (Democrat) or neutral. Appendix A reports detailed definitions of key variable and the numbers in parentheses are t -statistics computed using robust standard error.

The results demonstrate that there are 35 sectors turned to be blue and 12 sectors actually turned more republican. One sector, the Steel Works etc. is the only sector that is neutral. Yet, on the majority of sectors Republican aligned CEO are more than 50%.

5.2 *The blue trend and political sensitivity*

This subsection examine the comovement between blue trend and politically sensitive sectors. To do so, we estimate the political sensitivity for each sector and then compare it with the blue trend. To do so, we follow Addoum and Kumar (2016) methodology. Namely, we employ the following model:

$$\log(R_{i,t} - r_t^f) = Constant_i + \beta_i * \log(R_t^m - r_t^f) + \theta_i * D_t + \varepsilon_t$$

Here $R_{i,t}$ is the return for sector i at time t ; r_t^f the risk free rate of return at time t ; and R_t^m is the market return at time t . The quantity D_t is a binary variable takes a value of 1 if the president is from the democratic party, 0 otherwise. The parameters that we estimate are: β_i and θ_i which reflect sector's Beta sector political sensitivity, respectively. The quantity ϵ_t is an error term reflects the unobservable.

A positive (negative) value of θ_i means the sector is favored by Democratic (Republican) regime; if $\theta_i = 0$ means the sector is not favored by both party, and it is neutral. We utilize data from market, risk free and sectors monthly returns via the Kenneth R, French Date Library http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html; and the sample is between 1992 and 2019. We report the estimation results in table 10 that reports the estimation results of the political sensitivity by sector. The first column reports the sector name, the second column reports the sector β ; column 3 reports the sector sensitivity, hence the parameter θ ; column 4 and 5 reports the constant estimates and the R-squared. The last column interpret the results whether the sector is politically favored by Republican, Democrat or neutral. Appendix A reports detailed definitions of key variable and the numbers in parentheses are t -statistics computed using robust standard error.

The results demonstrate that either party does not favor most sectors. Specifically, 28 sectors are actually neutral while only 5 sectors favored by Democratic regime and 13 sectors are favored by republican regimes. A sector to be favored by a regime has to have a coefficient with an absolute t -statistics above 1. Given this sector list of favored by Republican regime, neutral and favored by Democratic regime we then cross it with the blue trend and report the results in figure 4 for which it depicts the relationship between sector's political sensitivity, the X axes, and sector's CEO political alignment trend, the Y axes. Positive (negative) values of X means favored by Democratic (Republican) regimes; while positive (negative) values of Y means the CEO political alignments trends more Republican (Democratic) between 1992 and 2019. The red solid line reflects the relationship.

The results demonstrate that the greater the political sensitivity the greater is the blue trend and hence Wall Street is turning bluer. In unreported regression, we regressed the trend value by sector over the square political sensitivity, and found a negative coefficient at -0.006 with a *t*-statistics of 2.67; which means the nonlinear relationship is statistically significant. The un-favored sectors or neutral sectors are not highly affected by the blue trend, perhaps it is because these sectors from the beginning were not dominant with Republican aligned CEOs, and thus the trend is smaller. In this breath, the very politically sector favored by Republican regimes maybe is too much Republican and thus as population and investors becomes to be more diverse there is room to have more Democrat aligned CEOs.

5.3 *Final thoughts- other possible explanations to the trend*

While we only focus on the raising women role in our society, it is important to mention that there are other possible factors that can explain the blue trend, such as the rise of the millennials in our society who contribute widely in the change of corporate values, where they celebrate social justice, equality and more diversity, e.g., Bonaparte et. al. (2020). Furthermore, the Pew Research Center show that the Z generation also follow the millennials and “Early Benchmarks Show ‘Post-Millennials’ on Track to Be Most Diverse, Best-Educated Generation,”¹² as well as that the Generation Z – diverse and on track to be the most well educated generation.

Several psychological and organization studies demonstrate some personality traits that Millennials exhibit, especially from the organizations’ perspectives. Howe and Strauss (2000), Gorman et al. (2004), Tapscott (1998), and Zemke et al. (2000) propose that Millennials are more accepting of

¹² Pew Research Center: <https://www.pewsocialtrends.org/2018/11/15/early-benchmarks-show-post-millennials-on-track-to-be-most-diverse-best-educated-generation-yet/>

diversity than previous generation, Furthermore, they suggest that they are more comfortable working in teams with diverse opinions.

The other possible explanation is the rising level of wealth inequality, thereby creating greater demand among citizens for wealth redistribution cause the majority of Republicans and Democrats to believe that “major changes are needed” to address it. Furthermore, the 2020 PEW survey about social trend, show that about 68% and 78% of low income Republicans and Democrats, respectively, support major changes to deal with the growing economic inequality.¹³ Furthermore, recent survey by CNBC shows that the majority of Americans support progressive proposals, such as paid maternity leave, government funding for childcare and boosting the minimum wage.¹⁴ In fact, in some issues there are bipartisan support. For example, 84% support paid maternity leave with 73% support from Republicans in the survey. Furthermore, 75% of the public support federal funding for childcare is with majority support from Republicans. Even one of the most progressive program of “Medicare for All” received a clear majority support at 54%.

¹³ View the PEW social trend survey via: <https://www.pewsocialtrends.org/2020/01/09/views-of-economic-inequality/>

¹⁴ Full survey analyses via: <https://www.cnbc.com/2019/03/27/majority-of-americans-support-progressive-policies-such-as-paid-maternity-leave-free-college.html>

6. Summary and Conclusion

The goal of this paper is to demonstrate the stylized fact that there is a blue trend, e.g., more CEOs turn to be align with the Democratic Party; we show the blue trend via personal donation and via company's contribution to Democratic PACs. This stylized fact is a game changer in corporate culture and corporate finance. Specifically, we demonstrate the CEOs political alignments has implications on stock market performance and volatility. Our analyses faces some econometrics challenges as a large part of CEOs do not report or have political donations, as such, we employ the Hackman procedure with an instrument capture information about state political activism level. Indeed, our econometrics treatment further establish the existence of the blue trend.

We present a possibly factor that aids our analyses to identify the underlying mechanism, namely, the rise of the women status by state. All of these factors demonstrate that these demographic and socioeconomic changes can explain some of the blue trend.

We also conduct a cross-sectional analyses and it shows findings that are even more interesting. Among the 48 sectors that defined by French R. Library, we find that about 35 sectors turn to be bluer whole 12 sectors actually turn to be redder. Only one sector, the metal, is neutral in terms there is no trend. Among the sectors that are politically sensitives, we observe that the blue trend actually break through more than the neutral sectors. Altogether, we believe we were able to document the blue trend and it implication on the overall stock market return and volatility and across sectors.

Altogether, we show that due to the rise of women status who are more aligned with the Democratic Party than men, companies adopt different selection consideration when they hire a CEO, as such, it causes greater number of CEOs to be aligned with the Democratic Party and that has implication on the top Wall Street leadership.

References

- Addoum, J. M., and A. Kumar. 2016. Political Sentiment and Predictable Returns, *Review of Financial Studies* 29, 3471-3518.
- Ansolabehere, S.; J. M. de Figueiredo; and J. M. Snyder. 2003. Why Is There So Little Money in US Politics? *Journal of Economic Perspectives*, 17, 105–130.
- Atieh, J. M.; A. P. Brief; and D. A. Vollrath. 1987. The Protestant Work Ethic Conservatism Paradox: Beliefs and Values in Work and Life. *Personality and Individual Differences*, 8, 577–580.
- Bhattacharya, U., Groznik, P., 2008. Melting pot or salad bowl: some evidence from U.S. investments abroad. *Journal of Financial Markets* 11, 228–258.
- Benmelech, E., and C. Frydman. 2012. “Military CEOs.” Working Paper, Harvard University.
- Bonaparte, Y., and Kumar A. 2012. Political activism, information costs, and stock market participation, *Journal of Financial Economics*, 107 (2012), pp. 760-786
- Bonaparte, Y., Bazley, W. and Jacoby, G. 2020. The Financial Acts of Millennials. *SSRN Working paper*
- Campbell, JohnY., and Robert J. Shiller, 1988, Stock prices, earnings, and expected dividends, *Journal of Finance*, 43, 661-676.
- Christensen, D., Dhaliwal, D., Boivie, S., and Graffin, Scott. 2015. Top management conservatism and corporate risk strategies: Evidence from managers' personal political orientation and corporate tax avoidance. *Strategic Management Journal Strat. Mgmt. J.*, 36: 1918–1938
- Chava, S., and A. Purnanandam. 2010. CEOs versus CFOs: Incentives and Corporate Policies. *Journal of Financial Economics*, 97, 263–278.
- Chen, H.; D. C. Parsley; and Y. Yang. 2012. Corporate Lobbying and Financial Performance. Working Paper, Vanderbilt University.
- Claessens, S.; E. Feijen; and L. Laeven. 2008. Political Connections and Preferential Access to Finance: The Role of Campaign Contributions. *Journal of Financial Economics*, 88, 554–580.
- Cooper, M. J.; H. Gulen; and A. V. Ovtchinnikov. 2010. Corporate Political Contributions and Stock Returns. *Journal of Finance*, 65, 687–724.
- Di Giuli, A., and L. Kostovetsky. 2012. Are Red or Blue Companies More Likely to Go Green? Politics and Corporate Social Responsibility. Working Paper, University of Rochester.
- Epstein, S. 1979. The Stability of Behavior: I. On Predicting Most of the People Much of the Time. *Journal of Personality and Social Psychology*, 37, 1097–1126.
- Faccio, M. 2010. Differences between Politically Connected and Non-Connected Firms: A Cross Country Analysis. *Financial Management*, 39, 905–928.
- Fama, Eugene F., and Kenneth R. French, 1988, Dividend yields and expected stock returns, *Journal of Financial Economics*, 22, 3-25.
- Fama, Eugene F., and Kenneth R. French. 1989. Business conditions and expected returns on stocks and bonds, *Journal of Financial Economics*, 25, 23-49.
- Fama, Eugene F., 1991. Efficient capital markets: II, *Journal of Finance*, 46, 1575-1648.
- French, Kenneth R., William Schwert, and Robert F. Stambaugh. 1987. Expected stock returns and volatility, *Journal of Financial Economics* 19, 3-29

- Funder, D. C., and C. R. Colvin. 1991. Explorations in Behavioral Consistency: Properties of Persons, Situations, and Behaviors. *Journal of Personality and Social Psychology*, 60, 773–794.
- Graham, J. R.; C. R. Harvey; and M. Puri. 2012. Managerial Attitudes and Corporate Actions. Working Paper, May (2012), Duke University.
- Green D, Palmquist B, Schickler E. 2002. Partisan Hearts and Minds: Political Parties and the Social Identities of Voters. Yale University Press: New Haven, CT.
- Gillies, J., and S. Campbell. 1985. Conservatism and Poetry Preferences. *British Journal of Social Psychology*, 24, 223–227.
- Glasgow, M. R., and A. M. Cartier. 1985. Conservatism, Sensation-Seeking, and Music Preferences. *Personality and Individual Difference*, 6, 393–395.
- Goldman, E.; J. Rocholl; and J. So. 2009. Do Politically Connected Boards Affect Firm Value? *Review of Financial Studies*, 22, 2331–2360.
- Gorman P, Nelson T, Glassman A. 2004. The Millennial generation: A strategic opportunity. *Organizational Analysis*.
- Grinblatt, M., Keloharju, M., 2001. How distance, language, and culture influence stockholdings and trades. *Journal of Finance* 56, 1053–1073.
- Groseclose, T.; J. Milyo; and D. Primo. 2000. Corporate PAC Campaign Contributions in Perspective. *Business and Politics*, 2, 75–88.
- Hackbarth, D. 2008. Managerial Traits and Capital Structure Decisions. *Journal of Financial and Quantitative Analysis*, 43, 843–881.
- Hill, M. D.; G. W. Kelly; G. B. Lockhart; and R. A. Van Ness. 2011. Determinants and Effects of Corporate Lobbying. Working Paper, University of Mississippi.
- Hong, H., and L. Kostovetsky. 2012. Red and blue investing: values and finance. *Journal of Financial Economics* 103, 1–19.
- Howe N, Strauss W. Millennials rising. 2000. *New York: Vintage Books*.
- Jenter, D., and Kanaan, F. 2015. CEO Turnover and Relative Performance Evaluation. *Journal of Finance* 70: 2155–84
- Johnson, S., and T. Mitton. 2003. Cronyism and Capital Controls: Evidence from Malaysia. *Journal of Financial Economics*, 67, 351–382.
- Jost, J. Glaser; A. W. Kruglanski; and F. J. Sulloway. 2003. Political Conservatism as Motivated Social Cognition.” *Psychological Bulletin*, 129, 339–375.
- Kam, C. D., and E. N. Simas. 2010. Risk Orientations and Policy Frames. *Journal of Politics*, 72, 1–16.
- Khwaja, A. I., and A. Mian. 2005. Do Lenders Favor Politically Connected Firms? Rent Provision in an Emerging Financial Market. *Quarterly Journal of Economics*, 120, 1371–1411.
- Keim, Donald B., and Robert F. Stambaugh, 1986, Predicting returns in stock and bond markets, *Journal of Financial Economics*, 17, 357-390.
- Kish, G. B.; E. E. Netterberg; and L. Leahy. 1973. Stimulus-Seeking and Conservatism. *Journal of Clinical Psychology*, 29, 17–20.
- Malmendier, U., and G. Tate. 2005. CEO Overconfidence and Corporate Investment. *Journal of*

- Finance*, 60 (2005), 2661–2700.
- _____; and J. Yan. 2011. Overconfidence and Early-Life Experiences: The Effect of Managerial Traits on Corporate Financial Policies. *Journal of Finance*, 66, 1687–1733.
- McAllister, P., and A. Anderson. 1991. Conservatism and the Comprehension of Implausible Texts.” *European Journal of Social Psychology*, 21, 147–164.
- Morse, A., Shive, S., 2010. Patriotism in your portfolio? *Journal of Financial Markets* 14 (2), 411–440.
- Newey, Whitney K; West, Kenneth D. 1987. A Simple, Positive Semi-definite, Heteroskedasticity and Autocorrelation Consistent Covariance Matrix. *Econometrica*. 55 (3): 703-708.
- Niessen, A., and S. Ruenzi. 2010. Political Connectedness and Firm Performance-Evidence from Germany. *German Economic Review*, 11, 441–464.
- Opler, T. C., and S. Titman. 1994. Financial Distress and Corporate Performance. *Journal of Finance*, 49, 1015–1040.
- Shiller, Robert, 1989, *Market Volatility*, Cambridge, MA: MIT Press.
- Tapscott D. 1998. *Growing up digital: The rise of the net generation*. New York: McGraw-Hill.
- Wilson, G. D. 1973. A Dynamic Theory of Conservatism. In Glenn D Wilson, ed.: *The Psychology of Conservatism*, pp. 257–265, Academic Press: London.
- Zemke R, Raines C, Filipczak B. 2000. *Generations at work: Managing the clash of veterans, Boomers, Xers, and Nexters in your workplace*. New York: AMACOM American Management Association.

Figure 1: Fraction of CEOs aligned by the Republican Party between 1992 and 2019

This figure depicts the fraction in percent of CEOs aligned with the Republican Party between 1992 and 2019.

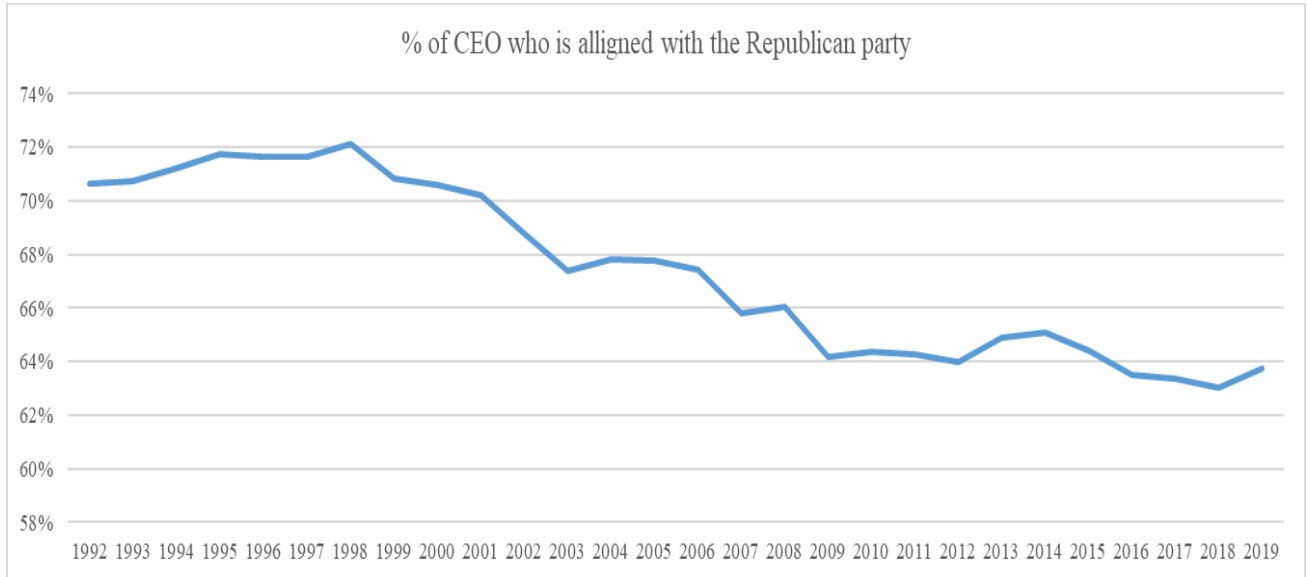


Figure 2: PAC donation to the Democratic Party by companies

This figure depicts the Per capita company PAC donation to the Democratic Party

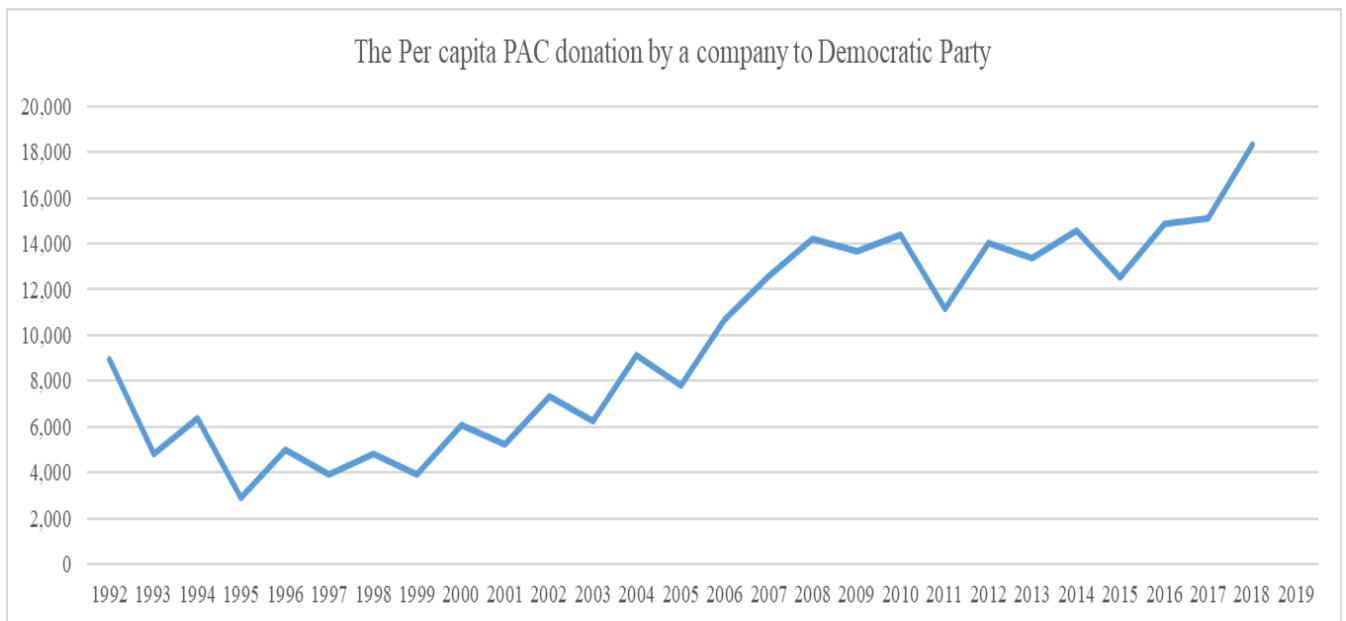
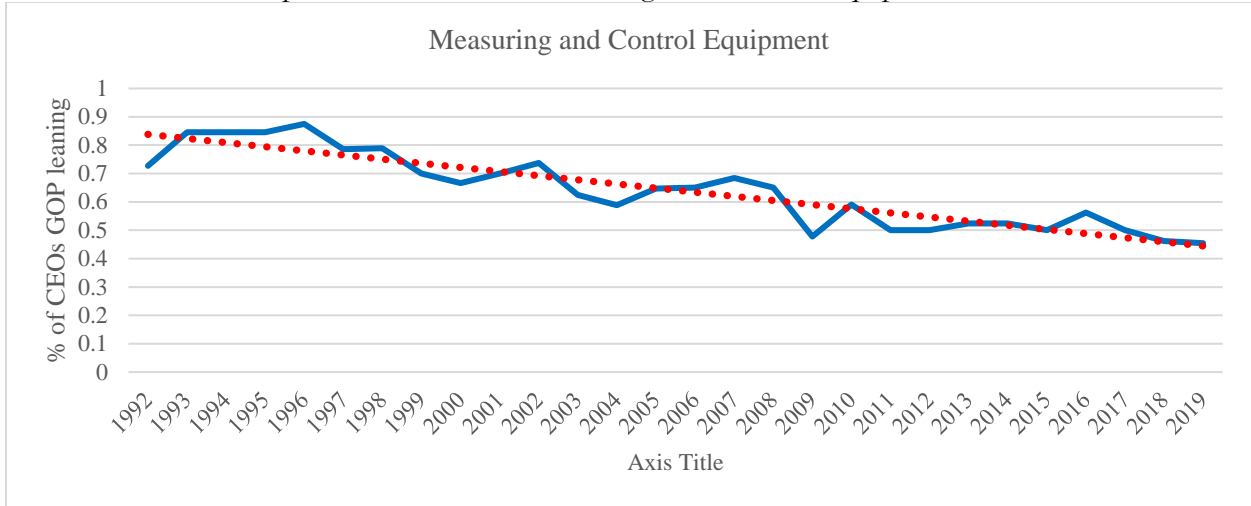


Figure 3: fraction of CEOs political align with the Republican Party by sectors (1992-2019)

This figure demonstrate the percentage of CEOs who are politically aligned with the Republican Party between 1992 and 2019. Panel A depicts the figure trend for sector Measuring and Control Equipment, and panel B shows the trend for the finance sector.

Panel A: fraction of republican CEOs for Measuring and Control Equipment sector



Panel B: fraction of republican CEOs for the healthcare sector

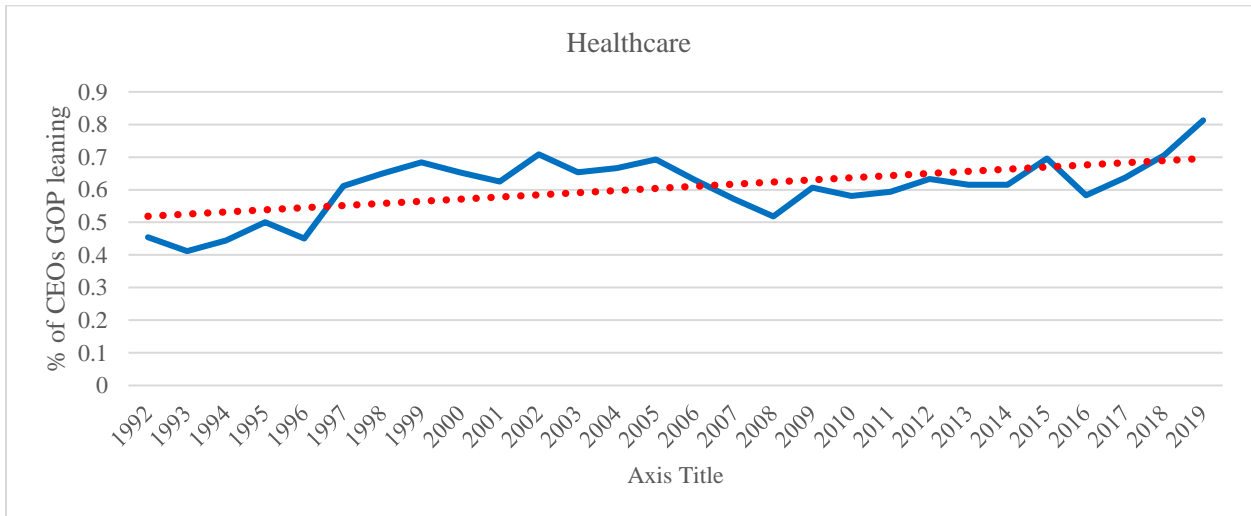


Figure 4: sectors political sensitivity and CEOs alignment trend (1992-2019)

This figure depicts the relationship between sector's political sensitivity, the X axes, and sector's CEO political alignment trend, the Y axes. Positive (negative) values of X means favored by Democratic (Republican) regimes; while positive (negative) values of Y means the CEO political alignments trends more Republican (Democratic) between 1992 and 2019. The red solid line reflects the relationship.

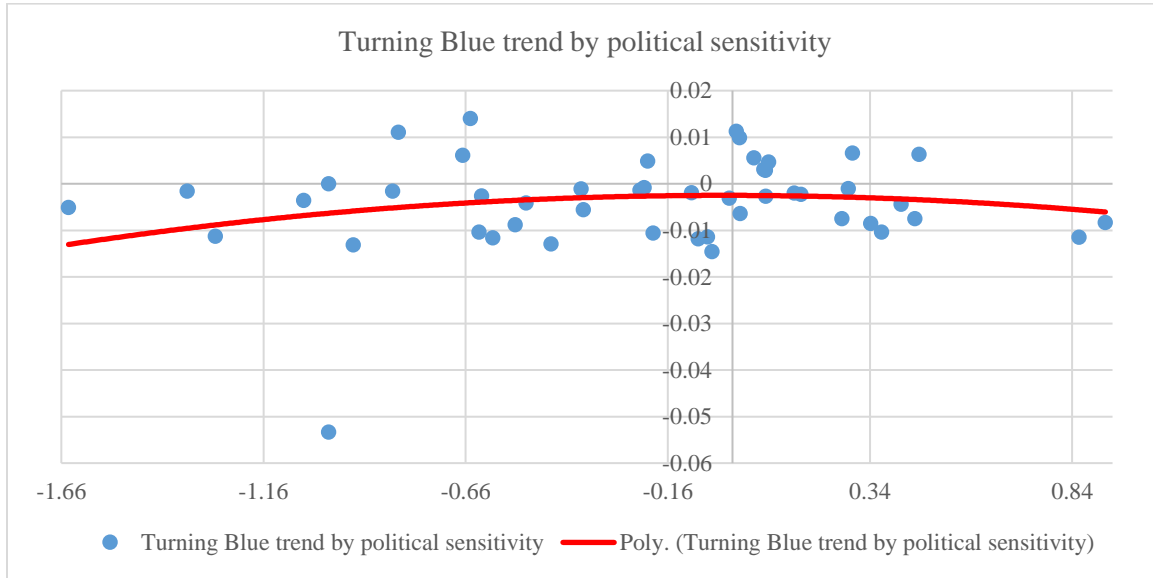


Table 1: Summary statistics of key variables

This table reports summary statistics, including the mean, standard deviation (Std), median and the number of observations. Detailed variable descriptions are given in Appendix A.

Variable	Mean	Std	Median	N
Republican aligned CEO	0.674	0.469	1.000	33,975
Democrat aligned CEO	0.293	0.455	0.000	33,975
Neutral aligned CEO	0.033	0.180	0.000	33,975
CEO political activism -binary	0.647	0.478	1.000	52,521
CEO turnover	0.144	0.351	0.000	52,521
Dem President- binary	0.587	0.492	1.000	52,521
Second term Pres. - binary	0.448	0.497	0.000	52,521
Age	55.803	7.619	56.000	47,118
Male	0.970	0.172	1.000	52,521
% Sales change	16.863	296.146	7.364	50,321
% Return on Assets	2.718	24.755	3.917	51,361
% EPS 1 year change	75.44	1069.94	12.66	37,472
CAPEX	0.051	0.059	0.035	48,855
Leverage	0.246	0.656	0.207	57,774
R&D	0.026	0.106	0.000	57,774
log(VW)-log(Bond)	0.012	0.030	0.015	58,530
log(EW)-log(Bond)	0.002	0.002	0.001	58,530
Volatility VW	0.017	0.035	0.023	58,530
Volatility EW	0.002	0.002	0.001	58,530
L3.PE	25.93	5.80	25.64	58,530
L3.LogDP	-3.95	0.20	-3.95	58,530
L3.TSP	0.007	0.019	0.005	58,530
L3.RR	0.000	0.000	0.000	58,530
L3.DSP	0.932	0.267	0.860	58,530

Table 2: fractions of politically aligned CEOs with a party by decade and year

This table reports the average of politically aligned CEOs with a Party by decades and year. Column 1 reports the period, columns 2, 3 and 4 reports the fraction of CEOs by Republican, Democratic and Neutral, respectively. The last row measures the percentage difference between 2019 and 1992.

Period	CEO political leaning		
	Republican	Democrat	Neutral
1992-2000	71.3%	25.7%	3.1%
2001 – 2010	66.7%	30.2%	3.1%
2011-2019	64.0%	32.1%	4.0%
% Change between 90s and 10s	-10.3%	24.9%	30.5%
1992	70.8%	25.6%	3.6%
2019	62.8%	32.6%	4.6%
% Change between 1992 and 2019	-12.7%	21.6%	20.1%

Table 3: the blue trend in Wall Street

This table reports regressions results to document stylized facts about the blue trend, more democratic CEOs. Specifically, the dependent variable in regressions (1), (2) and (3) is a binary variable takes a value of 1 if the CEO is aligned with the Democratic party, 0 otherwise. The dependent variable in regression (4), (5) and (6) is a binary variable takes a value of 1 if the CEO is aligned with the Republican party, 0 otherwise. The key independent variable is year, divided by 1000 to normalize. The other set of control variables include CEO age (years old), gender (1 if male, 0 otherwise); firm % return on assets titled, % change in sales, and % 1-year change in earnings per share. In regressions (1) and (4) we employ a Probit regression; “xtreg” regression in (3) and (6); whereas in regression (2) and (5) we employ a marginal Heckman probit “Heckprob/mfx” model with state level of political activism as an instrument. We use robust standard error to calculate the *t*-statistics shown in parentheses. Detailed variable descriptions are given in Appendix A.

VARIABLES	Dependent variable binary:					
	Democrat			Republican		
	(1)	(2)	(3)	(4)	(5)	(6)
Year/1,000	9.951 (3.51)	7.720 (3.45)	2.346 (2.31)	-11.210 (-4.02)	-8.303 (-3.87)	-2.881 (-2.73)
Age	-0.003 (-0.94)	-0.002 (-0.91)	-0.000 (-0.46)	0.004 (1.13)	0.003 (1.09)	0.001 (1.08)
Male	-0.680 (-4.71)	-0.491 (-5.23)	-0.187 (-2.99)	0.718 (4.95)	0.500 (5.90)	0.233 (3.48)
% Sales change	0.001 (1.41)	0.000 (1.44)	-0.000 (-0.59)	-0.000 (-1.00)	-0.000 (-1.35)	0.000 (1.14)
% Return on Assets	0.001 (0.22)	0.000 (0.11)	-0.001 (-0.74)	-0.001 (-0.13)	0.000 (0.05)	0.000 (0.37)
% EPS 1 year change	0.000 (0.29)	0.000 (0.43)	0.000 (2.22)	-0.000 (-0.02)	-0.000 (-0.19)	-0.000 (-2.14)
Constant	-19.711 (-3.48)	-15.853 (-3.54)	-4.209 (-2.10)	22.072 (3.96)	16.913 (3.95)	6.166 (2.95)
Political Activism instrument		0.318 (6.64)			0.319 (6.71)	
Constant		0.151 (6.95)			0.149 (6.86)	
athrho		2.041 (1.33)			-3.230 (-17.10)	
Regression type	Probit	Heckprob	xtreg FE	Probit	Heckprob	xtreg FE
Observations	27,300	46,751	27,300	27,300	46,751	27,300
Pseudo R2/[Wald chi2(6)]	0.0097	[48.00]	[3.58]	0.0108	[61.32]	[4.59]
Number of gvkey			2,912			2,912

Table 4: blue trend and identifying the underlying mechanism

This table reports regression results where the dependent variable in all regressions is a binary that takes a value of 1 if the CEO politically aligned with the Democratic party, 0 otherwise. The key dependent variables are: women status by state. We also present two interaction variables between women status and sector (hospitality and computer). The other set of control variables include CEO age (years old), gender (1 if male, 0 otherwise); firm % return on assets titled, % change in sales, and % 1-year change in earnings per share. In regressions (1), (2) and (3) we employ “xtreg” model with Fixed effect (FE); whereas in regressions (4), (5) and (6) we employ a marginal Heckman probit “Heckprob” model with state level of political activism as an instrument. We use robust standard error to calculate the *t*-statistics shown in parentheses. Detailed variable descriptions in Appendix A.

VARIABLES	Binary Democratic CEO					
	(1)	(2)	(3)	(4)	(5)	(6)
Year/1,000	2.346 (8.40)	1.809 (5.97)	1.839 (6.05)	7.718 (8.57)	3.392 (2.85)	3.397 (2.85)
Women status		0.125 (4.12)	0.107 (3.51)		1.608 (42.86)	1.616 (43.25)
Age	-0.000 (-1.61)	-0.000 (-0.45)	-0.000 (-0.47)	-0.002 (-2.83)	-0.002 (-1.96)	-0.002 (-1.84)
Male	-0.187 (-12.92)	-0.183 (-12.46)	-0.183 (-12.46)	-0.490 (-15.79)	-0.656 (-13.12)	-0.646 (-12.91)
% Sales change	-0.000 (-0.71)	-0.000 (-0.86)	-0.000 (-0.90)	0.000 (1.86)	0.001 (1.77)	0.001 (1.73)
% Return on Assets	-0.001 (-1.36)	-0.001 (-1.60)	-0.001 (-1.55)	0.000 (0.34)	0.001 (0.75)	0.001 (0.53)
% EPS 1 year change	0.000 (2.35)	0.000 (2.46)	0.000 (2.49)	0.000 (0.46)	0.000 (0.50)	0.000 (0.39)
Interaction hospitality			0.377 (1.51)			0.037 (2.45)
Interaction Computers			1.110 (3.96)			0.043 (3.03)
Constant	-4.209 (-7.53)	-3.657 (-6.37)	-3.764 (-6.54)	-15.850 (-8.77)	-13.116 (-5.51)	-13.167 (-5.52)
Political Activism instrument				0.318 (22.36)	0.291 (19.13)	0.292 (19.17)
Constant				0.151 (23.62)	0.143 (21.91)	0.141 (21.59)
athrho				7.708 (0.01)	-0.056 (-0.40)	-0.070 (-0.50)
Regression type	xtreg FE	xtreg FE	xtreg FE	Heckprob/mfx	Heckprob/mfx	Heckprob/mfx
Observations	27,300	26,674	26,597	46,751	46,125	46,048
Pseudo R2/[Wald chi2(6)]	0.011	0.012	0.012	[374.88]	[2120.04]	[2176.03]

Table 5: the blue trend in Wall Street- robustness

This table reports regressions results for robustness where the dependent variable in all regressions is an order probit variable takes values 0, 1 and 2 for CEO political alignment is Republican, Neutral and Democratic, respectively. The key independent variable is year, divided by 1000 to normalize. The other set of control variables include CEO age (years old), gender (1 if male, 0 otherwise); firm % return on assets titled, % change in sales, and % 1-year change in earnings per share. In regressions 1-3 we employ an xtreg model with fixed effect “xtreg FE”, while in regressions 4-6 we employ a Heckman order probit model “Heckoprob” with state level of political activism as an instrument. We use robust standard error to calculate the *t*-statistics shown in parentheses. Detailed variable descriptions are given in Appendix A.

VARIABLES	Dependent variable: order Probit (0,1,2=Democrat)					
	(1)	(2)	(3)	(4)	(5)	(6)
Year/1,000	5.227 (9.43)	3.807 (6.33)	3.823 (6.34)	8.600 (9.93)	4.916 (4.24)	4.767 (4.10)
Women status		0.277 (4.61)	0.241 (3.97)		1.473 (35.73)	1.491 (37.13)
Age	-0.002 (-2.75)	-0.001 (-1.59)	-0.001 (-1.55)	-0.003 (-3.27)	-0.003 (-2.50)	-0.003 (-2.29)
Male	-0.420 (-14.62)	-0.414 (-14.26)	-0.415 (-14.26)	-0.501 (-17.04)	-0.703 (-14.00)	-0.696 (-13.86)
% Sales change	-0.000 (-1.08)	-0.000 (-1.20)	-0.000 (-1.23)	0.000 (1.21)	0.000 (1.30)	0.000 (1.31)
% Return on Assets	-0.001 (-1.05)	-0.001 (-1.41)	-0.001 (-1.30)	0.000 (0.13)	0.000 (0.20)	0.000 (0.09)
% EPS 1 year change	0.000 (2.09)	0.000 (2.24)	0.000 (2.26)	0.000 (0.17)	0.000 (0.17)	0.000 (0.10)
Interaction hospitality			1.121 (2.26)			0.034 (2.32)
Interaction Computers			2.195 (3.94)			0.023 (1.63)
Constant	-9.375 (-8.45)	-7.686 (-6.75)	-7.835 (-6.86)	-17.514 (-10.07)	-15.508 (-6.68)	-15.287 (-6.57)
Political Activism instrument				0.317 (22.49)	0.291 (19.13)	0.292 (19.18)
Constant				0.151 (23.72)	0.143 (21.91)	0.141 (21.59)
athrho				3.291 (0.00)	0.044 (0.32)	0.021 (0.15)
Regression type	xtreg FE	xtreg FE	xtreg FE	Heckoprob	Heckoprob	Heckoprob
Observations	27,300	26,674	26,597	46,751	46,125	46,048
Pseudo R2/[Wald chi2(6)]	0.015	0.014	0.015	[454.77]	[1541.72]	[1669.90]
Number of gvkey	2,646	2,595	2,584			

Table 6: CEO political identity and corporate outcomes

This table reports regression results where the dependent variable in regression: (1) is capital expenditure (CAPEX); (2) debt level (Leverage); (3) research and development (R&D); (4) return on equity (ROA); and (5) a binary variable takes a value of 1 if there is a CEO turnover for a company in a given year. The dependent variables (1), (2) and (3) are normalized by total asset. The key independent variables are a binary variable for Republican CEO and a binary for Democratic CEO. The other set of control variables include CEO age (years old), gender (1 if male, 0 otherwise); firm % return on assets titled, % change in sales, and % 1-year change in earnings per share. The last five rows report the Wald test coefficient differences between Republican and Democrat variables with statistical significance estimates. We employ “xtreg” model with Fixed effect (FE) in regressions (1)-(5); and a “Heckprob” with marginal reporting (mfx) for regression (5). Appendix A reports detailed definitions of key variable and the numbers in parentheses are robust *t*-statistics.

VARIABLES	CAPEX (1)	Leverage (2)	R&D (3)	ROA (4)	CEO turnover (5)
Democrat	0.010 (4.90)	0.016 (3.02)	-0.001 (-1.32)	-0.003 (-1.60)	-0.238 (-3.15)
Republican	0.011 (5.41)	0.008 (1.57)	-0.000 (-0.17)	-0.002 (-0.92)	-0.159 (-2.19)
Age	-0.000 (-4.41)	0.000 (2.28)	-0.000 (-3.08)	0.000 (0.24)	-0.063 (-26.94)
Male	0.006 (3.00)	-0.014 (-2.61)	0.002 (3.16)	0.003 (1.36)	-0.209 (-2.69)
% Sales change	0.000 (8.73)	0.000 (3.11)	-0.000 (-2.34)	0.000 (14.86)	-0.004 (-6.87)
% Return on Assets	0.001 (19.12)	-0.006 (-32.81)	0.000 (11.17)		0.002 (0.70)
% EPS 1 year change	-0.000 (-5.23)	0.000 (2.00)	-0.000 (-1.13)	0.000 (8.39)	0.000 (1.28)
Constant	0.037 (10.65)	0.257 (28.35)	0.013 (12.79)	0.056 (16.68)	2.497 (15.67)
Regression type	xtreg FE	xtreg FE	xtreg FE	xtreg FE	Heckprob/mfx
Observations	22,002	27,300	27,300	27,300	27,300
R-squared	0.028	0.043	0.006	0.012	0.012
Number of gvkey	2,567	2,646	2,646	2,646	2,646
<u>Difference</u>					
Democrat - Republican	-0.001	0.008	-0.001	-0.001	-0.079
Percent %	-10.00%	50.00%	100.00%	33.33%	33.19%
F(1, 24648)	0.44	11.2	6.54	2.49	2.49
Prob > F = 0.1142	0.5058	0.0008	0.0106	0.1142	0.1142

Table 7: CEO political identity and stock market outcomes

This table reports regression results where the dependent variable in regressions: (1) and (2) excess return and volatility of the value weighted index; and in regressions (3) and (4) excess return and volatility using the equal weighted index. The key independent variable is the fraction of Republican aligned CEOs; Democratic aligned CEOs. The other independent variables are: 3 month lag of price-earnings ratio and labeled as “L3.PE”; 3 month lag of log dividend price ratio and labeled as “L3.LogDP”; 3 month lag of the term spread between the yield to maturity of a 10-year Treasury note and the three-month Treasury bill and labeled as “L3. TSP”; 3 month lag of the relative interest rate computed as the deviation of the three-month Treasury bill rate from its one-year moving average and labeled as “L3.RR”; 3 month lag of default spread between yields of BAA- and AAA-rated bonds and labeled as “L3.DSP.” The last five rows report the Wald test coefficient differences between Republican and Democrat variables with statistical significance estimates. Appendix A reports detailed definitions of key variable and the numbers in parentheses are *t*-statistics computed using Newey-West (1987) estimator with 4 lags.

VARIABLES	value weighted		equal weighted	
	return	volatility	return	volatility
	(1)	(2)	(3)	(4)
Democrat	-2.585 (-3.47)	0.297 (2.31)	-2.910 (-2.64)	0.295 (2.19)
Republican	-1.607 (-2.28)	0.243 (2.37)	-1.991 (-2.34)	0.241 (2.14)
Age	-0.010 (-2.41)	0.000 (0.18)	-0.009 (-1.44)	-0.000 (-0.11)
Male	-1.151 (-4.64)	0.033 (0.72)	-0.829 (-1.97)	0.017 (0.46)
IPE3	-0.001 (-5.15)	0.000 (3.82)	-0.002 (-4.46)	0.000 (4.32)
IDP3	-0.025 (-2.28)	0.004 (2.87)	-0.044 (-3.22)	0.006 (4.64)
ITSP3	-0.057 (-0.54)	0.017 (2.07)	-0.134 (-0.74)	0.013 (1.79)
IRR3	8.692 (3.07)	-0.772 (-1.66)	8.246 (2.43)	-0.784 (-1.42)
IDSP3	0.013 (1.88)	0.002 (2.23)	0.028 (2.88)	0.002 (3.39)
Constant	3.448 (3.89)	-0.280 (-1.68)	3.336 (2.32)	-0.242 (-1.36)
Observations	336	336	336	336
F(...)	22.77	172.09	15.37	88.86
<u>Difference</u>				
Democrat - Republican	-0.978	0.054	-0.919	0.054
Percent %	37.8%	18.2%	31.6%	18.3%
F(1, 24648)	28.73	2.06	7.08	2.98
Prob > F = 0.1142	0.000	0.153	0.008	0.085

Table 8: blue trend and sector fixed effect

This table reports regression results where the dependent variable in all regressions is a binary that takes a value of 1 if the CEO politically aligned with the Democratic party, 0 otherwise. The key dependent variables are: women status by state. We also present two interaction variables between women status and sector (hospitality and computer). The other set of control variables include CEO age (years old), gender (1 if male, 0 otherwise); firm % return on assets titled, % change in sales, and % 1-year change in earnings per share. In all regressions we employ a Heckman probit “Heckprob” model with state level of political activism as an instrument. In regressions 2 and 4 we employ sector fixed effect. We use robust standard error to calculate the t-statistics shown in parentheses. Detailed variable descriptions in Appendix A.

VARIABLES	Dependent variable: binary CEO Democrat			
	(1)	(2)	(3)	(4)
Year/1,000	7.718 (8.57)	5.927 (6.41)	3.392 (2.85)	2.823 (2.29)
Women status			1.608 (42.86)	1.550 (35.74)
Age	-0.002 (-2.83)	-0.001 (-1.69)	-0.002 (-1.96)	-0.002 (-1.56)
Male	-0.490 (-15.79)	-0.451 (-14.52)	-0.656 (-13.12)	-0.640 (-12.56)
% Sales change	0.000 (1.86)	0.000 (0.76)	0.001 (1.77)	0.000 (0.72)
% Return on Assets	0.000 (0.34)	-0.001 (-0.60)	0.001 (0.75)	-0.001 (-0.52)
% EPS 1 year change	0.000 (0.46)	0.000 (0.29)	0.000 (0.50)	0.000 (0.35)
Constant	-15.850 (-8.77)	-12.600 (-6.77)	-13.116 (-5.51)	-11.805 (-4.77)
Political Activism instrument	0.318 (22.36)	0.312 (21.89)	0.291 (19.13)	0.292 (19.18)
Constant	0.151 (23.62)	0.151 (23.56)	0.143 (21.91)	0.141 (21.59)
athrho	7.708 (0.01)	4.723 (0.00)	-0.056 (-0.40)	0.033 (0.23)
Sector FE	No	Yes	No	Yes
Regression type	Heckprob	Heckprob	Heckprob	Heckprob
Observations	46,751	46,674	46,125	46,048
Wald chi2(.)	374.88	1555.83	2120.04	2347.76

Table 9: CEOs political alignment trend between 1992 and 2019 by sector

This table reports the trend estimation results of the CEO political alignment by sector. The first column reports the sector name, the second column reports the estimated parameter δ , which reflects the trend; column 3 and 4 reports the constant estimates and the R-squared. The last column interpret the results; whether the sector has turned Red (Republican), Blue (Democrat) or neutral. Appendix A reports detailed definitions of key variable and the numbers in parentheses are *t*-statistics computed using robust standard error.

Sector	Year	Constant	R-squared	Turning
Agriculture	0.0140 (16.86)	0.6173 (47.20)	0.460	Red
Food Products	-0.0044 (-11.77)	0.7392 (126.61)	0.293	Blue
Candy & Soda	0.0063 (7.34)	0.7150 (52.62)	0.139	Red
Beer & Liquor	-0.0075 (-10.78)	0.8040 (73.31)	0.258	Blue
Tobacco Products	0.0029 (2.08)	0.8041 (37.04)	0.013	Red
Recreation	0.0111 (9.70)	0.1217 (6.76)	0.220	Red
Entertainment	-0.0026 (-5.24)	0.5343 (68.09)	0.076	Blue
Printing and Publishing	-0.0115 (-21.72)	0.6048 (72.66)	0.586	Blue
Consumer Goods	-0.0106 (-46.19)	0.7975 (220.09)	0.865	Blue
Apparel	0.0061 (12.72)	0.4547 (60.20)	0.327	Red
Healthcare	0.0066 (13.16)	0.5187 (66.19)	0.342	Red
Medical Equipment	-0.0031 (-12.29)	0.7484 (186.21)	0.311	Blue
Pharmaceutical Products	-0.0083 (-29.76)	0.6626 (151.73)	0.726	Blue
Chemicals	-0.0118 (-49.29)	0.9290 (246.35)	0.879	Blue
Rubber and Plastic Products	0.0113 (7.61)	0.5409 (23.11)	0.148	Red
Textiles	-0.0129 (-11.44)	0.9456 (53.36)	0.282	Blue
Construction Materials	-0.0056 (-12.57)	0.9279 (132.80)	0.321	Blue
Construction	-0.0016 (-3.21)	0.6361 (79.19)	0.030	Blue
Steel Works Etc	0.0000	0.8423	0.000	Neutral

	(0.06)	(152.04)		
Fabricated Products	-0.0533	1.2071	0.399	Blue
	(-10.51)	(30.64)		
Machinery	-0.0104	0.9223	0.747	Blue
	(-31.44)	(177.39)		
Electrical Equipment	0.0049	0.6736	0.105	Red
	(6.25)	(54.32)		
Automobiles and Trucks	0.0031	0.7897	0.338	Red
	(13.05)	(212.46)		
Aircraft	0.0056	0.5004	0.193	Red
	(8.94)	(51.03)		
Shipbuilding, Railroad Equipment	-0.0114	0.9215	0.262	Blue
	(-10.50)	(52.22)		
Defense	-0.0041	0.7473	0.028	Blue
	(-3.11)	(35.97)		
Precious Metals	-0.0016	0.8255	0.013	Blue
	(-2.12)	(67.73)		
Non-Metallic and Industrial Metal Mining	-0.0051	0.9173	0.153	Blue
	(-7.78)	(88.42)		
Coal	-0.0131	1.0846	0.550	Blue
	(-19.85)	(102.56)		
Petroleum and Natural Gas	-0.0011	0.9291	0.115	Blue
	(-6.58)	(367.24)		
Utilities	-0.0027	0.7093	0.294	Blue
	(-11.78)	(196.95)		
Communication	-0.0104	0.5635	0.820	Blue
	(-38.95)	(133.92)		
Personal Services	-0.0036	0.6774	0.283	Blue
	(-11.47)	(138.55)		
Business Services	-0.0019	0.5744	0.137	Blue
	(-7.27)	(142.75)		
Computers	-0.0085	0.6942	0.642	Blue
	(-24.49)	(126.50)		
Electronic Equipment	-0.0064	0.6826	0.692	Blue
	(-27.37)	(184.55)		
Measuring and Control Equipment	-0.0146	0.8382	0.840	Blue
	(-41.81)	(152.80)		
Business Supplies	-0.0010	0.8464	0.011	Blue
	(-1.92)	(105.24)		
Shipping Containers	-0.0113	0.8278	0.519	Blue
	(-18.97)	(88.47)		
Transportation	-0.0014	0.8083	0.037	Blue
	(-3.58)	(133.62)		
Wholesale	-0.0023	0.7222	0.112	Blue
	(-6.51)	(128.07)		
Retail	-0.0008	0.7087	0.045	Blue
	(-3.97)	(237.99)		
Restaurants, Hotels, Motels	-0.0088	0.7945	0.755	Blue
	(-32.11)	(184.59)		

Banking	-0.0020 (-7.44)	0.7253 (175.44)	0.142	Blue
Insurance	-0.0075 (-20.02)	0.7161 (121.64)	0.545	Blue
Real Estate	-0.0116 (-8.12)	0.9821 (43.58)	0.165	Blue
Trading	0.0047 (11.64)	0.5296 (82.95)	0.289	Red
Other	0.0099 (20.36)	0.5126 (67.35)	0.554	Red

Table 10: sector political sensitivity between 1992 and 2019 by sector

This table reports the estimation results of the political sensitivity by sector. The first column reports the sector name, the second column reports the sector β ; column 3 reports the sector sensitivity, hence the parameter θ ; column 4 and 5 reports the constant estimates and the R-squared. The last column interpret the results whether the sector is politically favored by Republican, Democrat or neutral. Appendix A reports detailed definitions of key variable and the numbers in parentheses are t -statistics computed using robust standard error.

Sector	Market excess return	Dem Pres. Binary	Constant	R-squared	Favorite by
Agriculture	0.6869 (9.92)	-0.0070 (-1.18)	0.0054 (1.21)	0.228	GOP
Food Products	0.4643 (10.63)	0.0039 (1.06)	-0.0001 (-0.04)	0.262	DEM
Candy & Soda	0.7274 (9.34)	0.0039 (0.58)	0.0011 (0.22)	0.213	Neutral
Beer & Liquor	0.4964 (9.37)	0.0040 (0.88)	0.0011 (0.32)	0.216	Neutral
Tobacco Products	0.4961 (5.88)	0.0011 (0.15)	0.0030 (0.56)	0.096	Neutral
Recreation	0.9567 (14.74)	-0.0079 (-1.43)	0.0013 (0.32)	0.395	GOP
Entertainment	1.3944 (22.46)	-0.0059 (-1.12)	0.0032 (0.80)	0.603	GOP
Printing and Publishing	0.9871 (22.10)	0.0084 (2.21)	-0.0076 (-2.66)	0.605	DEM
Consumer Goods	0.5894 (14.09)	-0.0022 (-0.61)	0.0039 (1.44)	0.375	Neutral
Apparel	0.9877 (17.32)	-0.0070 (-1.44)	0.0045 (1.22)	0.474	GOP
Healthcare	0.7546 (10.72)	0.0024 (0.40)	-0.0021 (-0.48)	0.261	Neutral
Medical Equipment	0.7887 (18.05)	-0.0002 (-0.07)	0.0022 (0.79)	0.498	Neutral
Pharmaceutical Products	0.6420 (14.07)	0.0091 (2.33)	-0.0029 (-0.99)	0.391	DEM
Chemicals	1.0263 (22.42)	-0.0010 (-0.24)	0.0001 (0.05)	0.604	Neutral
Rubber and Plastic Products	1.0036 (20.10)	-0.0004 (-0.09)	0.0001 (0.04)	0.551	Neutral
Textiles	1.2152 (15.44)	-0.0047 (-0.70)	-0.0024 (-0.47)	0.418	Neutral
Construction Materials	1.1582 (22.81)	-0.0042 (-0.97)	0.0012 (0.36)	0.611	Neutral
Construction	1.1816 (20.21)	-0.0080 (-1.61)	0.0033 (0.88)	0.551	GOP

Steel Works Etc	1.6415 (25.33)	-0.0091 (-1.64)	-0.0029 (-0.70)	0.659	GOP
Fabricated Products	1.1259 (14.60)	-0.0085 (-1.30)	-0.0007 (-0.14)	0.390	GOP
Machinery	1.3413 (29.19)	-0.0059 (-1.50)	0.0025 (0.84)	0.720	GOP
Electrical Equipment	1.2482 (29.11)	-0.0020 (-0.55)	0.0014 (0.51)	0.720	Neutral
Automobiles and Trucks	1.3100 (19.60)	0.0013 (0.23)	-0.0049 (-1.15)	0.540	Neutral
Aircraft	1.0103 (17.73)	0.0012 (0.24)	0.0019 (0.53)	0.490	Neutral
Shipbuilding, Railroad Equipment	1.0829 (14.63)	-0.0009 (-0.15)	0.0032 (0.68)	0.394	Neutral
Defense	0.5205 (6.92)	-0.0054 (-0.84)	0.0092 (1.91)	0.126	Neutral
Precious Metals	0.4473 (3.21)	-0.0164 (-1.38)	0.0058 (0.65)	0.033	GOP
Non-Metallic and Industrial Metal Mining	1.2238 (14.80)	-0.0160 (-2.27)	0.0071 (1.34)	0.397	GOP
Coal	1.2263 (8.28)	-0.0101 (-0.80)	-0.0022 (-0.24)	0.171	Neutral
Petroleum and Natural Gas	0.7928 (13.70)	-0.0033 (-0.67)	0.0021 (0.57)	0.361	Neutral
Utilities	0.3800 (8.12)	0.0010 (0.25)	0.0027 (0.89)	0.168	Neutral
Communication	0.9469 (24.17)	0.0040 (1.20)	-0.0034 (-1.34)	0.643	DEM
Personal Services	0.8769 (15.49)	-0.0115 (-2.39)	0.0044 (1.22)	0.419	GOP
Business Services	1.2737 (30.88)	-0.0007 (-0.21)	0.0003 (0.11)	0.743	Neutral
Computers	1.4643 (23.03)	0.0042 (0.78)	-0.0044 (-1.08)	0.619	Neutral
Electronic Equipment	1.5515 (24.03)	0.0013 (0.24)	-0.0017 (-0.41)	0.638	Neutral
Measuring and Control Equipment	1.2903 (27.27)	0.0003 (0.08)	-0.0007 (-0.24)	0.694	Neutral
Business Supplies	0.8633 (19.51)	0.0026 (0.70)	-0.0019 (-0.66)	0.539	Neutral
Shipping Containers	1.0295 (18.57)	-0.0131 (-2.79)	0.0062 (1.76)	0.509	GOP
Transportation	0.9222 (21.74)	-0.0023 (-0.63)	0.0015 (0.57)	0.589	Neutral
Wholesale	0.8785 (24.91)	0.0018 (0.59)	-0.0013 (-0.59)	0.655	Neutral

Retail	0.8688 (21.81)	-0.0020 (-0.59)	0.0027 (1.06)	0.590	Neutral
Restaurants, Hotels, Motels	0.7163 (16.38)	-0.0052 (-1.40)	0.0064 (2.31)	0.447	GOP
Banking	1.0646 (20.53)	0.0007 (0.15)	-0.0005 (-0.14)	0.562	Neutral
Insurance	0.9136 (20.50)	0.0024 (0.64)	0.0001 (0.05)	0.563	Neutral
Real Estate	1.2329 (16.87)	-0.0064 (-1.04)	-0.0016 (-0.34)	0.461	GOP
Trading	1.4149 (33.38)	0.0006 (0.16)	-0.0011 (-0.39)	0.772	Neutral
Other	1.0515 (18.49)	-0.0007 (-0.14)	-0.0062 (-1.71)	0.509	Neutral

Appendix A Key variable definitions

Panel A: ExecuComp data

Variable	Description	Source
CEO Democratic political alignment	1 if the CEO leaning toward the Republican party, 0 otherwise	Created using FEC data
CEO Republican political alignment	1 if the CEO leaning toward the Democratic party, 0 otherwise	Created using FEC data
Political Activism	1 if the state is considered as a swing state (politically active), 0 otherwise	Created
% Sales change	Sales 1 Year percent change	WRDS - ExecuComp
% Return on Assets	Return on Assets	WRDS - ExecuComp
% EPS 1 year change	EPS 1 Year percent change	WRDS - ExecuComp
Age	CEO years old	WRDS - ExecuComp
Male	1 if male, 0 otherwise	Created
CAPEX	Capital expenditure(capx) by total assets (at); (capx/at)	Created
Leverage	Sum of total Long-Term (dltt) and Current Liabilities (dlc) debts by total asset (at); (dlc+dltt)/at	Created
R&D	Research and development (xrd) by total assets (at); (xrd/at)	Created
Millennials by state	Fraction of millennials by state	Census
Women status by state	Women status based on earnings, poverty, violence, health, reproductive rights, etc. by state	https://statusofwomendata.org/

Panel B: CRSP data

Variable	Description	Source
log(VW)-log(Bond)	Excess return= log value weighted return - log 90 days of treasury bills	CRSP
log(EW)-log(Bond)	Excess return= log equal weighted return - log 90 days of treasury bills	CRSP
Volatility VW	Monthly standard deviation of value weighted return	CRSP
Volatility EW	Monthly standard deviation of equal weighted return	CRSP
L3.PE	3 months lag price earnings ratio	Shiller
L3.LogDP	3 months lag Log dividend price ratio	Shiller
L3.TSP	3 months lag the term spread between the yield to maturity of a 10-year Treasury note and the three-month Treasury bill	CRSP
L3.RR	3 months lag of the relative interest rate computed as the deviation of the three-month Treasury bill rate from its one-year moving average	CRSP
L3.DSP	3 months lag of default spread between yields of BAA- and AAA-rated bonds	FRB
Dem. President	1 if the President is Democratic, 0 otherwise	Created