Political Cognitive Biases Effects on Fund Managers' Performance

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Abstract

Who does a better job of managing money: Republicans or Democrats? Under rational agent hypothesis, financial industry practitioners should not be affected by political discourse, and investors cannot realize abnormal returns on publicly available information. Rare events, however, may silence rationality and potentiate cognitive dissonance on a spectrum of agents. We assembled a comprehensive dataset of equity hedge funds performance and matched the managers' political affiliation by their partisan contributions. We document higher returns of funds managed by Democrats for 10 subsequent months—from December 2008 to September 2009. This result is unique and robust to placebo time windows and random partisan affiliation shuffling. We conjecture that the conjunction of the financial crisis, Obama's election, and politically polarized interpretation of the US central bank policy during that period had an asymmetric impact on hedge fund managers' perception. In other periods, when the political discourse did not involve central bank policy, there was no statistically significant difference in fund managers performance depending on their political beliefs.

JEL Classification: D72, G11, G14

Keywords: Political Biases; Money Managers' Performance

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"The great enemy of truth is very often not the lie—deliberate, contrived and dishonest—but the myth—persistent, persuasive and unrealistic. Too often we hold fast to the cliches of our forebears. We subject all facts to a prefabricated set of interpretations. We enjoy the comfort of opinion without the discomfort of thought."

— John F. Kennedy, Commencement Address at Yale University, June 11, 1962

1 Introduction

At the heat of the 2016 primary race for presidential nomination, Sir Michael Hintze—founder of a large British multi-strategy hedge fund—warned against predicting chaos and assured that the US political system is "strong enough to withstand whoever."[1] This statement could probably be applied to an analogous overreaction to Obama's first presidency, when Republican equity hedge fund managers—identified by private campaign contributions—underperformed their Democratic peers for an unprecedented period of 10 months straight.

Ideology is an important bias in the financial industry which is not usually factored in. This study adds to the body of research on a variety of "irrational" factors in financial decision-making (Barber and Odean 2001; Shiller 2014). The partisan-based difference in the performance by hedge fund managers is an indication of the extent to which ideology can affect the processing of information and whose effects become salient during abnormal situations.

American equity hedge funds allocate clients' capital in US equities subject to constraints agreed to by the investors. These constraints may include the extent of exposure to the overall market moves (beta) and sector concentrations. Managers commonly have substantial discretion within these constraints on how to allocate the capital, and both beta and concentrations are subject to that discretion. The managers are compensated by receiving a percentage of the total returns of the fund over a benchmark plus a percentage of the capital under management. Funds underperforming a benchmark are frequently closed early, since the managers lose the expectations of the performance-based fee and want to remove the poor performance from evaluation by prospective clients.[2] It is generally assumed that, although there is a difference

[1] Mary Childs and Stephen Foley, "Hedge funds back Trump in expectation of pragmatic shift in tone," *Financial Times*, May 15, 2016.

[2] See Bykhovsky (2011) for a discussion of the informational asymmetry that allows hedge fund managers

between the principal's (investor's) and the agent's (manager's) utility functions, managers have sufficient incentives to deploy their full capabilities to maximize the fund's returns. Efficient market theory implies that the managers will utilize their training and all available information to maximize the fund's returns and that they will ignore irrelevant data.

The details of the US monetary policy, although scrupulously dissected by the professional classes, is rarely a subject of political rancor, much else for dramatically different interpretations of its expected effects by the political parties. The one exception was the period after Obama's election. While several expected policy actions—including quantitative easing operations undertaken by the US central bank—were viewed by the economic profession as largely consistent with what was understood at the time, there was an exceptionally wide partisan divide in their interpretation by the political parties. Republican commentators were prognosticating "hyperinflation" as a result of these policies and the subsequent debasement of the dollar, while the Democratic ones were either muted in their response or offered a defense for these policies.

Rational managers seeking to maximize their funds' returns would ignore these prognostications in their allocation decisions (Fama 1970; Fama 2014). One should not expect to observe a difference of decisions by rational agents based on their own political preference. Yet, we have observed differences in funds' performance depending on the political preferences by the managers. These differences became salient during the period of intense partisan discussions about the central bank's policy, but not in any other periods.

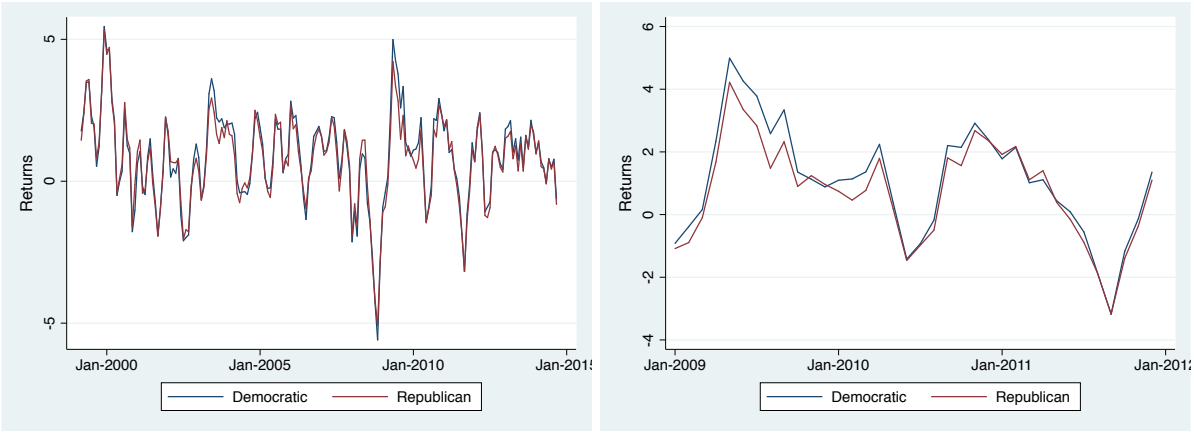
We identified political preferences by the managers by their political contributions. Although it may be argued that they were attempting to buy policy or contributed for other reasons, the relatively small amounts of the contributions make expressing partisan preference the more likely explanation for contributing.

Figure 1 presents three-month moving average returns of hedge funds by managers' partisan affiliation for the period 2004-2014 (left graph) and augmented for the period 2009-2011 (right graph). The correlation between managers' performance by partisan affiliation is strong (both plots are almost identical) for all periods, but the plots diverge at the end of 2008.

Upon closer inspection using monthly regressions, we find that the Democratic managers

to shut down funds without loss in reputation.

Figure 1: This figure presents three-month moving average returns of hedge funds by managers' partisan affiliation for the period 2004-2014 (left graph) and augmented for the period 2009-2011 (right graph).



outperformed the Republican managers from December 2008 to September 2009 by 7.2 percentage points return, which conversely is a high price paid by Republican managers and their clients to maintain a consistency of beliefs.

The paper proceeds as follows: In sections 2–4, we describe the data collection and matching, identification strategy, and main results. In section 5, we sketch a behavioral framework and narrative explanatory to our results. In section 6, we perform a series of robustness checks, including placebo time windows and randomized partisan affiliation. Section 7 discusses (and weakens) the possible alternative explanations of our results. Section 8 concludes and draws policy recommendations.

2 Data Treatment

2.1 Hedge Fund Data

We downloaded live and dead hedge fund performance data (including historical returns and Assets Under Management [AUM]), fund manager information, and fund perspectives for 1999-2014 from Hedge Fund Research.[3]

We studied only US equity hedge funds; international and foreign funds were excluded. Funds with keywords such as foreign country names, "emerging," "options," "international,"

[3] See: https://www.hedgefundresearch.com/.

"derivative," "convertible," "global," and "private equity" in their strategy description were also excluded.

We assigned appropriate benchmarks (called "bogeys") to each fund based on the fund's strategy. For example, if the strategy is "Fundamental Growth" or description implies that the fund is mainly investing in growth stocks, then the S&P Total Return Growth Index was used as the bogey; if the strategy is "Fundamental Value" or description implies that the fund is mainly investing in value stocks, then S&P Total Return Value Index was used as the bogey. If the main strategy is not included as above, such as "Multi-Strategy," or "Equity Market Neutral," the bogey was set to be S&P Total Return Index.

We then used time series regressions to measure the market exposures as well as excess returns for each fund. Using the results from previous steps and a single-factor linear regression model, market exposure (beta) and excess return (alpha) were calculated for each fund.

2.2 Political Data

The Federal Election Commission through its Individual Contributor Search[4] reports contributions made by individuals, Native American tribes, partnerships, sole proprietorships, limited liability companies (LLCs), and contributions by the candidate to all political committees including Independent Expenditure-Only Political Committees (Super PACs) and Political Committees with Non-Contribution Accounts (Hybrid PACs). The reports contain each contributor's name, location (city, state, and ZIP code), employer, committee name, date, and amount contributed.

We identified the political affiliation of fund managers by political contributions. It is very unlikely for a manager to contribute to a partisan campaign "strategically," e.g., against their beliefs with the aim of getting favors in the future. These contributions were relatively small and the contributors' base is wide. Therefore, we assume that contributions reveal true beliefs and partisan affiliation.

2.3 Matching

Using a Python script, we looked up hedge fund managers by name at the Federal Election Commission's Individual Contributor Search.

[4] See: http://www.fec.gov/finance/disclosure/norindsea.shtml.

We identified a match when the first and last name, state, and employer corresponded across the two datasets. The match on employer relied on the steam of the company name to allow for different syntaxes. To increase the number of matches, we then matched location by neighboring states:

(a) NYC area: NY-CT-NJ

(b) Boston area: MA-RI-NH-ME-VT

(c) DC area: DC-MD-VA

(d) Chicago area: IL-IN-MI-WI

(e) LA/SF areas: CA-NV-AZ

and treated these states as "equals." A handful of entries that were not matched automatically (about 5,000 names) were matched by hand.

The final dataset contained more than two million fund-month observations with the following fields: Fundid, Fundname, Lastname, Firstname, City, State, Country, Partyaffiliation, Level (1 = same state for manager and fund; 2 = neighboring states), Mainstrategy, Date, and Peformance. Overall, 264,222 observations were identified as uniquely Democratic, 262,332 observations were identified as uniquely Republican, and 1,621,053 observations were deleted as ambiguous (different managers contributed to more than one party) or where managers contributed to independent candidates (378 observations).

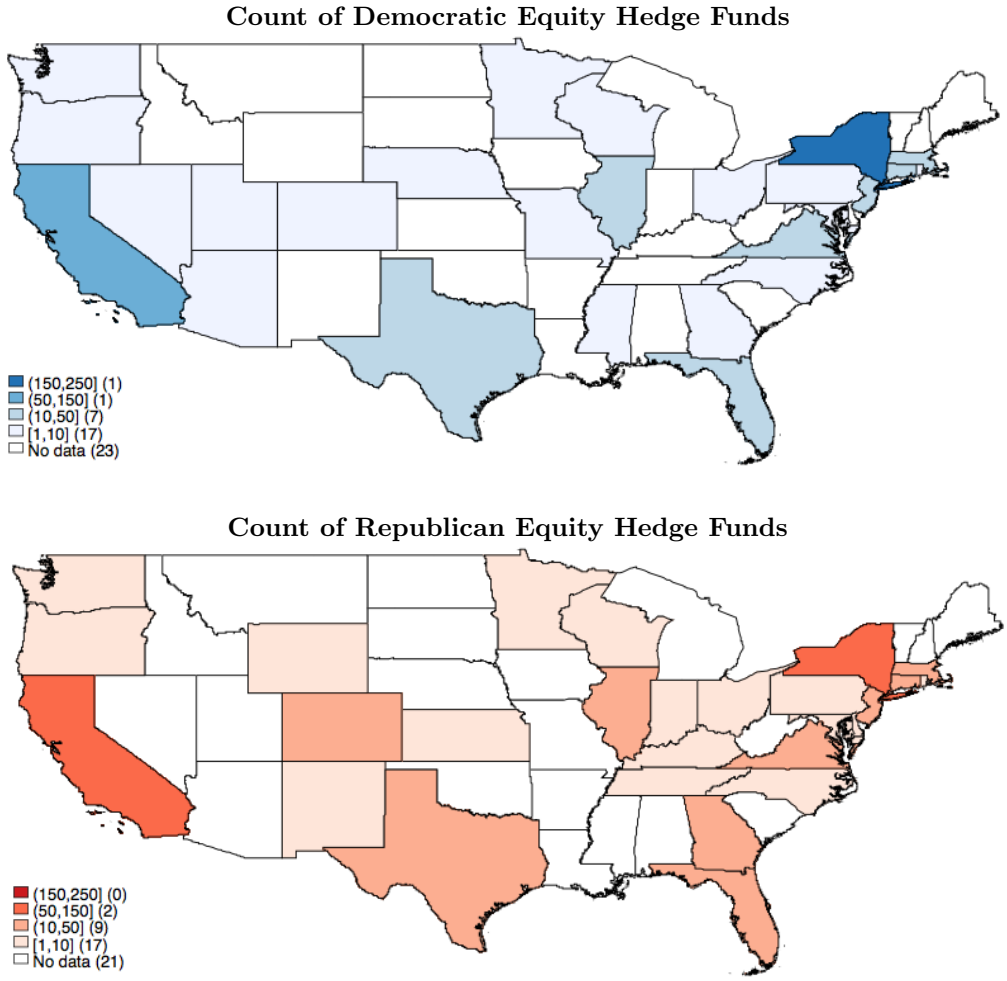
3 Identification Strategy

We dropped observations for which there was no performance calculated and focused on equity hedge funds, which constitute above 39% of our observations (see Table 1). Equity hedge fund managers are arguably the most talented and quickest to read market trends. Therefore, any change in their perception of the market will be promptly translated into their investment strategies.

Table 2 presents the summary statistics of money manages' performance and affiliation. The sample shows a large variance in terms of performance, but is balanced in terms of partisan affiliation, year (see Table 3), and state composition (see Table 4 and Figure 2).

The unconditional correlation between left- and right-wing managers is strong for all periods but several months from December 2008 to September 2009 (see Figure 1). Our hypothesis is that the conjunction of the financial crisis and politically polarized news during

Figure 2: This figure presents the count of funds identified as strictly Democratic (top map) and strictly Republican (bottom map) by state. We also identified 41 Democratic equity hedge funds from Alaska, which we do not displace for legibility constraints. States with no data are states where either equity hedge fund managers did not make contributions or teams were split in partisan contributions (i.e., on average partisan-neutral funds).



that period had an asymmetric impact on hedge fund managers's perception. The timing is not arbitrary: December 2008 is the first full month after Obama's election.[5]

To capture the differential effect of party affiliation in politically polarized periods, we

[5] Obama was elected 44th president of the United States on November 4, 2008. During the next weeks, the transition team was formed and the cabinet nominees announced. December 2008 is, thus, the first full month that captures the effects of the future president and his policy.

conducted difference-in-difference regression tests with the following basic specification:

$$Performance_{j,t} = \alpha + \beta_1 Democratic\ Manager_j + \beta_2 Democratic\ President_t + \beta_3 Shock_t + \beta_4 \left[Democratic\ Manager_j \times Shock_t\right] + \beta_5 S\&P\ 100\ Return_t + \epsilon \quad (1)$$

where $Performance_{j,t}$ is the monthly return of fund j at time t, $Democratic\ Manager_{j,t}$ is a dummy variable equal to 1 when equity hedge fund manager j was identified as Democratic, $Democratic\ President_t$ is a dummy variable equal to 1 when the US President at time t was Democratic, $Shock_t$ is a dummy variable equal to 1 that captures the informational exogenous and temporary shock that affected equity hedge fund managers' perspectives from December 2008 to September 2009, and zero outside this time window, $S\&P\ 100\ Return_t$ is the S&P 100 Return Index at time t, and ϵ is the error term.

Our variable of interest is the interaction term β_4, which captures the effect of being a Democratic equity hedge fund manager during the informational shock in comparison to Republican equity hedge fund managers.

4 Results

Tables 5 summarizes the results of our regressions. The strongest predictor of equity hedge fund managers is the S&P 100 Return Index—i.e., hedge fund managers hardly outperform the market. Overall, we find that Democratic equity hedge fund managers perform slightly better than Republican equity hedge fund managers and all equity hedge fund managers perform slightly better under a Democratic president (Model 1).

Our most striking results, however, are related to recent events. During the first months of the Obama administration, equity markets recovered at a fast pace, but not all took advantage of the recovery. Between December 2008 and September 2009, Democratic equity hedge fund managers outperformed their Republican peers by 0.73 percentage points monthly (Model 2). When adding state fixed effects (Model 3), our explanatory power (measured by R^2) rises marginally, suggesting that there are no strong regional effects.

Our results remain stable when we narrow the analyzed period to 2008-2010 (Model 4). The estimates are robust to fund status (live versus dead) controls and clustering at the fund level (Model 5). According to this restricted regression, Democratic equity hedge fund managers outperformed their Republican peers by 72 basis points monthly.

5 Partisan Dissonance

In this section, we harness cognitive dissonance theory (Festinger 1957) and cumulative prospect theory (Tversky and Kahneman 1992) to give a narrative to the significant difference in performance between Democratic and Republican equity hedge fund managers from December 2008 to September 2009.

5.1 Cognitive Dissonance Theory

Individuals tend to seek consistency among their cognitions (i.e., beliefs, opinions). When there is an inconsistency between observations and attitudes or behaviors (dissonance), unconscious changes take place to eliminate the dissonance: beliefs are adapted to match evidence or, more often, facts that do not match beliefs are silenced (Festinger 1957).

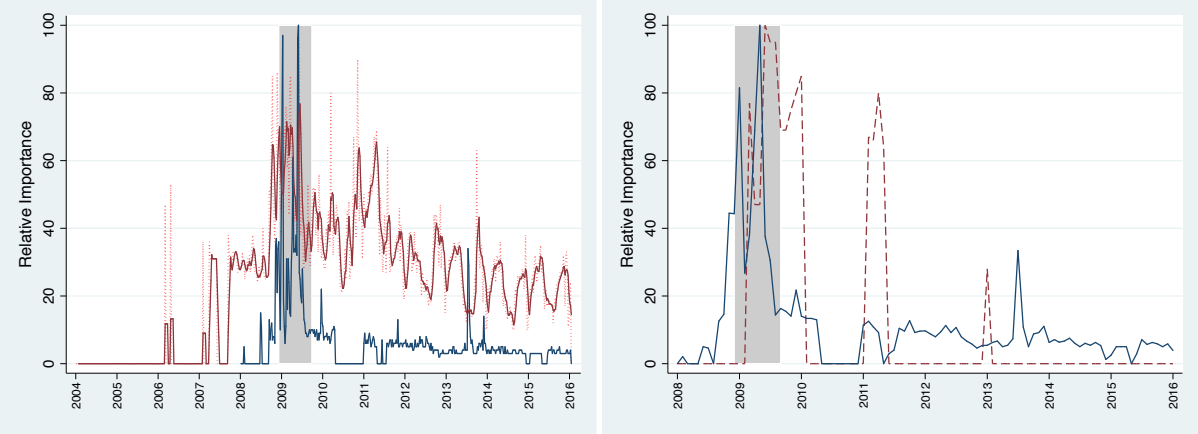
This mechanism is built in our minds to economize effort—i.e., it is too costly to internalize all new information without priors—and lower discomfort from the discrepancy between empirical evidence and past choices. Furthermore, individuals trade strong beliefs for rational behavior when there are weaker beliefs attached to the latter. For example, an anti-gun low-tax voter may be willing to silence her anti-gun beliefs for the advantage of low taxes.

The theory of cognitive dissonance has been applied to consumer behavior. For example, new car owners selectively notice advertisements that re-enforce the "efficacy" of their recent decision and reduce the uncertainty they feel about the wisdom of their choice (Erlich, Guttman, Schönbach, and Judson 1957). Similarly, individuals adjust their beliefs about job risk to reduce dissonance (Akerlof and Dickens 1982). A hedge fund manager's choice of a political party is arguably no less anxiety producing than the choice of a new car or job. Thus, political affiliation cannot be disregarded as an investment-evaluation factor.

Scholars have investigated the psychological foundations for investor behavior, focusing on price and return behavior to infer investor attitudes, beliefs, and behavior. Along these lines, mean reversion in stock prices can be interpreted as evidence of investor overreaction where investors overemphasize recent firm performance in forming future expectations (De Bondt and Thaler 1985) and excessive volatility in asset returns as suggestive of investing intense enthusiasm (Shiller, Fischer, and Friedman 1984). Furthermore, irrational traders with erroneous stochastic beliefs can explain in part the equity premium puzzle (De Long, Shleifer, Summers, and Waldmann 1990).

In previous sections, we offered direct evidence of how hedge fund managers' beliefs (based on their political contributions) affect performance. Our findings are consistent with the cognitive dissonance effect. There is evidence of (right-wing) media highlighting with persistency the risks of hyperinflation and bankruptcy from December 2008 and further into 2009 (see Figure 3). It is possible that, at that time, many Republicans for idealogical reasons adhered to the

Figure 3: This figure presents the relative importance of searches of particular words in Google that are indicative of investing climate. The left graph shows weekly data of relative importance of "bankruptcy" (solid blue line) and relative importance of "hyperinflation" (dotted red line) and four-week moving average of "hyperinflation" (solid red line) in all categories and "Web Searches" from 2004 to 2015. The right graph shows monthly data of relative importance regarding "bankruptcy" (solid blue line) and "hyperinflation" (dashed red line) in the "Business & Industrial" category in "News Search" from 2008 to 2015. The gray areas delimit the period from December 2008 to September 2009. Data are from Google Trends.



perspective of economic collapse, even when capital markets started to recover in early 2009. During the same period, Democrats presented a moderate attitude and invested accordingly.

5.2 Prospect Theory

The rational theory of choice assumes description invariance: equivalent formulations of a choice problem should give rise to the same preference order (Arrow 1982). There is strong evidence, however, that variations in the framing of options (e.g., in terms of gains or losses) yield systematically different preferences (Tversky and Kahneman 1986).

Tversky and Kahneman (1981) showed that framing the same problem in different ways produces asymmetric shifts of preference, depending on the psychological principles that govern the personal perception of decision problems and the evaluation of probabilities and outcomes.

The fact that the formulation of decision problems—e.g., type of words, medium, and context—shifts preferences and risk perception, challenges the principle of invariance that underlies the rational theory of choice.[6] A similar critic to the rational theory of choice is posted by the psychophysics of chance, which induce overweighting of sure things and of improbable events relative to events of moderate probability (Kahneman and Tversky 1984).

In a series of experiments, Tversky and Kahneman (1992) demonstrated a fourfold pattern of risk attitudes: (i) risk aversion for gains of moderate and high probability, (ii) risk seeking for losses of moderate and high probability, (iii) risk seeking for gains of small probability, and (iv) risk aversion for losses of small probability. Whether the partisan-based differential in the performance of the fund managers is related to the differentiation of their probability distributions or to different risk attitudes cannot be ascertained. The first seems to be the more likely, as there wasn't much difference in the managers' performance at other times, during which varying degrees of underlying uncertainty were present.

5.3 A Partisan Dissonance Story

The differences in personality between Democrats and Republicans in the US are well established (Lane 1955; Carney, Jost, Gosling, and Potter 2008; Gerber, Huber, Doherty, and Dowling 2012). In general, liberals are more open-minded, creative, curious, and novelty seeking, whereas conservatives are more orderly, conventional, better organized, and risk-averse. Distinct personality features lead to the development of biases that help manage information overflow, level cognitive dissonances, and simplify complicated decision-making situations. On the other hand, professionals (e.g., physicians, military officials, equity hedge fund managers) are not "ordinary"; they are expected be proofed from facilitatory heuristics and are rewarded for not yielding to their personality and biases. Therefore, there should not be significant differences between Democratic and Republican fund managers, as both types effectively manage

[6] A classical experiment of framing is "The Mojave Flu." Subjects were presented with the following case: You work for the Centers for Disease Control and there is an outbreak of a deadly disease called "The Mojave Flu" in a town of 600 people. All 600 people in the town are expected to die if you do nothing. You have come up with two different programs designed to fight to the disease: with Program 1, 200 people in the town will be saved; with Program 2, there is a 1/3 probability that 600 people will be saved, and a 2/3 probability that nobody will be saved. In the study, 72% of the subjects picked Program 1.

Now consider the same scenario *worded* differently: with Program 3, 400 people in the town will die; with Program 4, there is a 1/3 probability that nobody will die, and a 2/3 probability that 600 people will die. In the study, 78% of the subjects picked Program 4, even though the net result of the second set of choices is exactly the same as the first set (Program 1 $\equiv$ Program 3; Program 2 $\equiv$ Program 4).

their biases.

But professionals are not thoroughly bias-proofed. In an experiment involving 110 highly skilled professionals—engineers, scientists, and managers in a high-technology international engineering firm—Duchon, Dunegan, and Barton (1989) found that subtle changes in the frame of reference had a powerful effect on the perception of risk and R&D financial allocation decisions.

Based on cognitive dissonance theory (Festinger 1957) and cumulative prospect theory (Tversky and Kahneman 1992), the significant difference in performance between Democratic and Republican equity hedge fund managers from December 2008 to September 2009 can be recounted as follows:

(a) Professional equity hedge fund managers are considered to be bias-proofed; however, they may behave irrationally, particularly during tail events.[7]

(b) The concurrence of the financial crisis, Obama's election to presidential office,[8] and the Fed's decisive monetary intervention was unexpected (low probability) in most scenarios.

(c) Even though the information available across equity hedge fund managers is similar, the screening of information and the weights managers put to low probability political events depends on their political affiliation.

(d) Right-wing media highlighted the risks of hyperinflation and bankruptcy after Obama's election and during his first months in office; Republicans overweighted the risk of collapse.

(e) In all other circumstances, the differences in risk perception were not strong enough to trigger cognitive dissonance and asymmetric estimation of probabilities.

Due to the nature of the data, we cannot replicate experimentally the events and circumstances that led to a divergence in performance by Democratic and Republican equity hedge fund managers. In the following sections, we give support to our narrative by excluding the chance of a random effect and weakening alternative causal channels.

[7] Interestingly, one of Tversky and Kahneman's experiments involved 156 money managers (1992, p. 303).

[8] Barack Obama was considered by many pundits and commentators—before, during, and even after the primaries—as "not mainstream Democratic" (cf. "Why Obama will never, ever be elected president," http://www.dailykos.com/story/2009/11/4/798696/- with quotes from various experts who predicted Obama's defeat in the presidential race). Not surprisingly, most Republicans saw Obama as far too liberal and progressive to win the general presidential race (cf. "Why Barack Obama Will Not Win," by Steven M. Warshawsky, *American Thinker*, August 11, 2008. Available at: http://www.americanthinker.com/articles/2008/08/why_-barack_obama_will_not_win.html.

6 Robustness

At the current state of the art, behavioral patterns are the "residual" explanation when rational explanations fail. In this section, we present several robustness tests that weaken or rule out alternative causal channels to the cognitive bias explanation presented above of Democratic equity hedge fund managers outperforming Republican their peers by 7.2% from December 2008 until September 2009.

6.1 Geographical Selection Biases

Our results could be driven by outlier states with an over-representation of managers of one party that outperform (Democrats) or underperform (Republican) compared to the mean by partisan affiliation. To address this issue, we rerun our regression only for states with large and balanced representation of both equity hedge fund managers affiliated with both parties. Table 6 presents results for equity hedge fund managers from CA, CT, FL, IL, MA, NJ, NY, PA, TX, and VA; Table 7 shows results narrowed to managers located in CA, CT, IL, MA, NY, and TX (arguably, states with a sophisticated financial infrastructure). Our results remain stable (or are even stronger) when we narrow the geographical scope to states with large and politically balanced representation.

A perfect experiment would randomly assign equity hedge fund managers to different unexpected risks and political circumstances and analyze their performance depending on their political affiliation. A weak natural experiment would follow equity hedge fund managers across different administrations and economic events. Unfortunately, our data is constrained to 1999-2014, where we account for only two changes in the presidency of the US (from Bill Clinton to George W. Bush in 2001 and to Barack Obama in 2009) and two recessions (the dot-com bubble in March 2001–November 2001 and the financial crisis in December 2007–June 2009).

6.2 Mixed "Purple" Teams

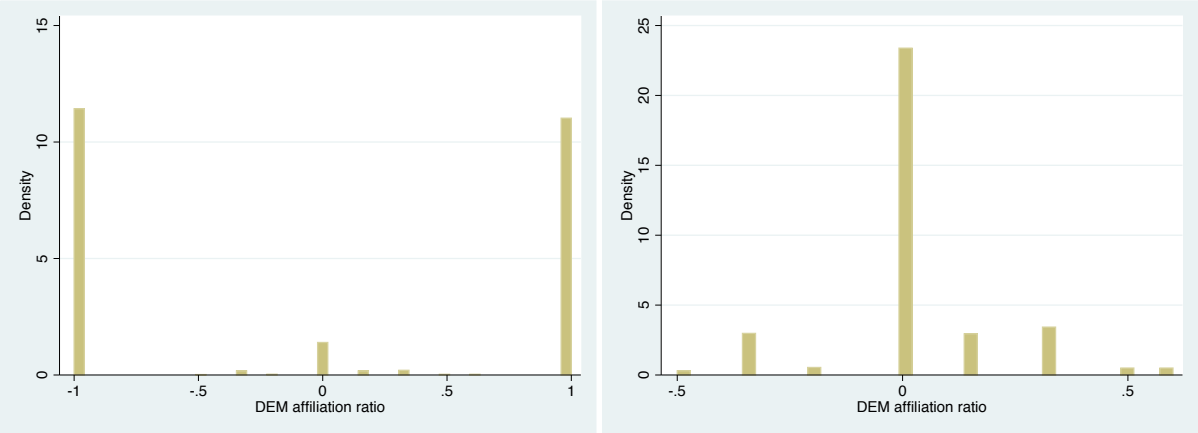
By design, we restricted our analysis to funds for which managers were univocally identified as one-sided partisan; i.e., we did not analyze funds for which managers contributed to more than one party. The case of a selection bias could potentially arise: It may be that the best Republican equity hedge fund managers are in teams with Democratic managers, so their

results are not captured in our estimates.

We now turn to mixed teams and construct a variable *Democratic Affiliation Ratio* equal to the number of identified Democratic managers minus the number of identified Republican Managers, divided by the number of identified partisan managers. Thus, our variable runs from -1 for strictly Republican teams to $+1$ for strictly Democratic teams.

Since most of the funds in our sample are strictly Democratic or Republican (see the left histogram in Figure 4) which we analyzed in Sections 3 and 4, we drop strictly partisan teams and focus on the *Democratic Affiliation Ratio* between -1 and $+1$ (see the right histogram in Figure 4).

Figure 4: This figure presents the histogram of Democratic affiliation ratio (equal to the number of identified Democratic manages minus the number of identified Republican managers, divided by the number of identified partisan managers) for the whole sample (left histogram) and for funds with mixed teams, i.e., with at least one manager affiliated with each party (right histogram).



To capture the effect of mixed partisan teams in politically polarized periods, we regress of the following specification:

$$\begin{aligned} Performance_{j,t} = \alpha + \beta_1 DEM\ ratio\ no\ shock_{j,t} + \beta_2 DEM\ ratio\ no\ shock^2_{j,t} \\ + \beta_3 DEM\ ratio\ shock_{j,t} + \beta_4 DEM\ ratio\ shock^2_{j,t} + \beta_5 S\&P\ 100\ Return_t + \epsilon \end{aligned} \tag{2}$$

where $Performance_{j,t}$ is the monthly return of fund j at time t, *DEM ratio (no) shock*$_{j,t}$ is the ratio of Democratic managers—as described above—in fund j at time t during "(no) shock" periods, *S&P 100 Return*$_t$ is the S&P 100 Return Index at time t, and ϵ is the error term. We use added square terms to the ratio of Democratic managers to capture eventual non-linearities, e.g., that balanced teams achieve better results than mixed teams.

Results presented in Table 8 show that there is no differential effect of mixed teams when there are more Democratic or Republican members in their composition.

6.3 Placebo Time Windows

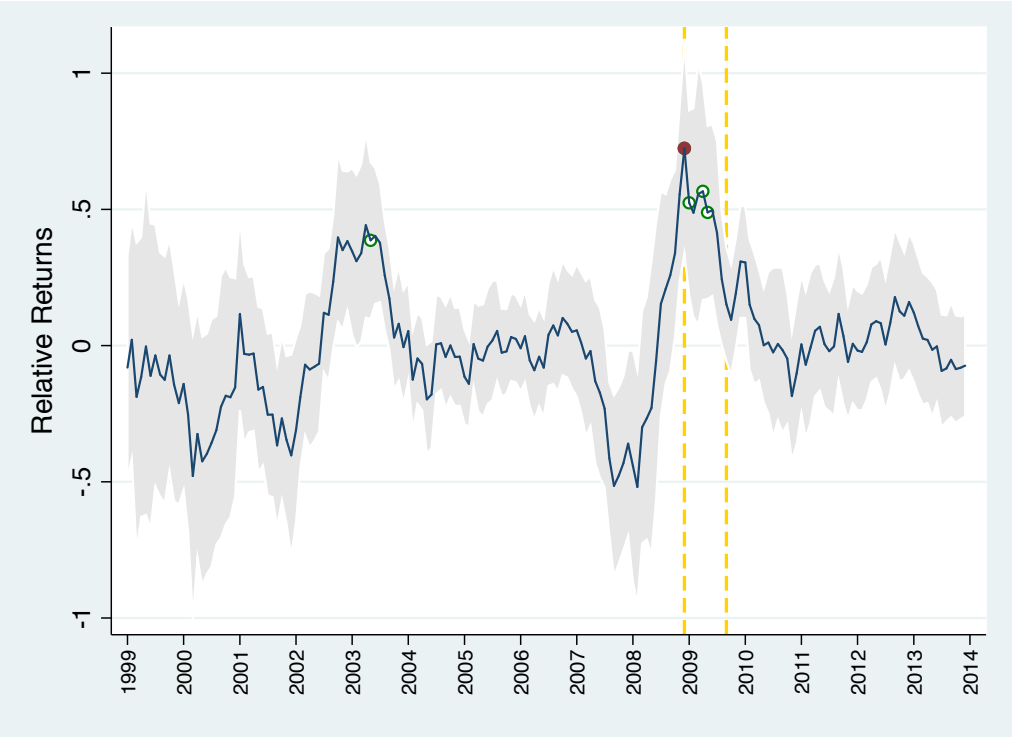
The identified 10-month period between December 2008 and September 2009 could have had homologous periods. If our time window is not unique, we should then expect similar results for other time windows of similar duration. We run our most restrictive regression—which included state and fund status fixed effects, as well as clustering standard errors at the fund-level (see Table 5, Model 5)—for all 10-month windows. Results of the interaction coefficient of subsequent 10-month windows and Democratic affiliation (overall 180 regressions) are shown in Figure 5.

During the analyzed 16 years, there is only one 10-month period—namely, from December 2008 to September 2009—when Democratic equity hedge fund managers outperformed their Republican counterparts by at least 10 basis points at a significance level of 1% or lower that it was by chance; there is no such period for Republican equity hedge fund managers. This period is also the only one when the relative performance exceeded 50 basis points, which compounds to almost 7.2% (8.7% on an annual scale). There is only one period of five months (from May 2003 to September 2003) outside our reference time window when Democratic equity hedge fund managers outperformed Republican equity hedge fund managers by at least 10 basis points at a significance level of 1%; there is no five-month period when Republican equity hedge fund managers outperformed Democratic equity hedge fund managers by at least 10 basis points at a significance level of 1%.

After implementing the Šidák adjusted p-values correction for multiple (simultaneous) comparisons, the coefficient attached to the analyzed time window remains statistically significant at the 5% level and all other periods become statistically insignificant.[9] In other words, the analyzed window from December 2008 to September 2009 is the only period where the difference in performance between Democratic and Republican equity hedge fund managers is

[9] The Šidák adjusted p-value for our estimate of interest equals $1-(1-p\text{-value})^n = 1-(1-.0002488)^{180} = .043797$; the mean p-value of the remaining windows is .9459, with a standard deviation of .1709, and minimum of .116. Analogously, the Bonferroni adjusted p-value for our estimate of interest equals $\min(1, p\text{-value} \times n) = \min(1, .0002488 \times 180) = .0447795$; the mean p-value of the remaining windows is .9636, with a standard deviation of .1447, and minimum of .124.

Figure 5: This figure shows the point estimates of the interaction term in equation (1) of subsequent 10-month forward-looking windows and Democratic affiliation (blue line). Thus, a point estimate above the zero line represents how much Democratic equity hedge fund managers outperformed Republican equity hedge fund managers in a 10-month window. The gray area represents the 95% confidence intervals. The green circles represent the beginning of five subsequent months of managers affiliated with one party outperforming the managers of the other party by at least 10 basis points at 1% significance level. The red dot represents the beginning of 10 subsequent months of managers affiliated with one party outperforming the managers of the other party by at least 10 basis points at 1% significance level. The yellow dashed vertical lines delimit the period of interest, i.e., from December 2008 to September 2009. Data are from Hedge Fund Research and Federal Election Commission. The sample period is 1999-2014.



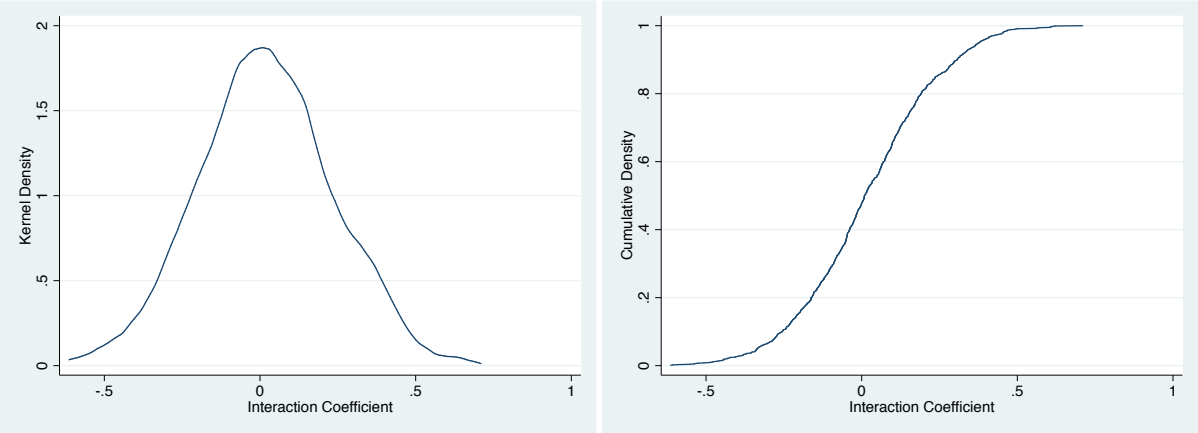
statistically significant.

6.4 Partisan Affiliation Shuffling

We performed Monte Carlo simulations, shuffling partisan affiliation in different ways. In the first simulation, we randomly replaced half of Democratic managers with Republican managers, thus each group resulted in a balanced mix of Democratic and Republican equity hedge fund managers as the members of the initial groups (with a ±1% tolerance). We then run our preferred regression (as in Table 5, Model 5) and stored the coefficient of the interaction of shuffled Democratic affiliation during the analyzed time window from December 2008 to

September 2009. We run this procedure 1,000 times, randomly re-shuffling partisan affiliation in each iteration. Figure 6 shows the Kernel distribution and cumulative density functions of the interaction coefficient (β_4 from equation 1) with shuffled affiliations during the analyzed time window from December 2008 to September 2009.

Figure 6: This figure presents the Kernel distribution function (left graph) and cumulative density function (right graph) of the interaction coefficient of 1,000 randomly shuffled affiliations during the analyzed time window from December 2008 to September 2009. In each iteration, half of the Democratic equity hedge fund managers were replaced by Republican equity hedge fund managers. The treatment and the control groups contain a balanced mix of randomly assigned Democratic and Republican managers.

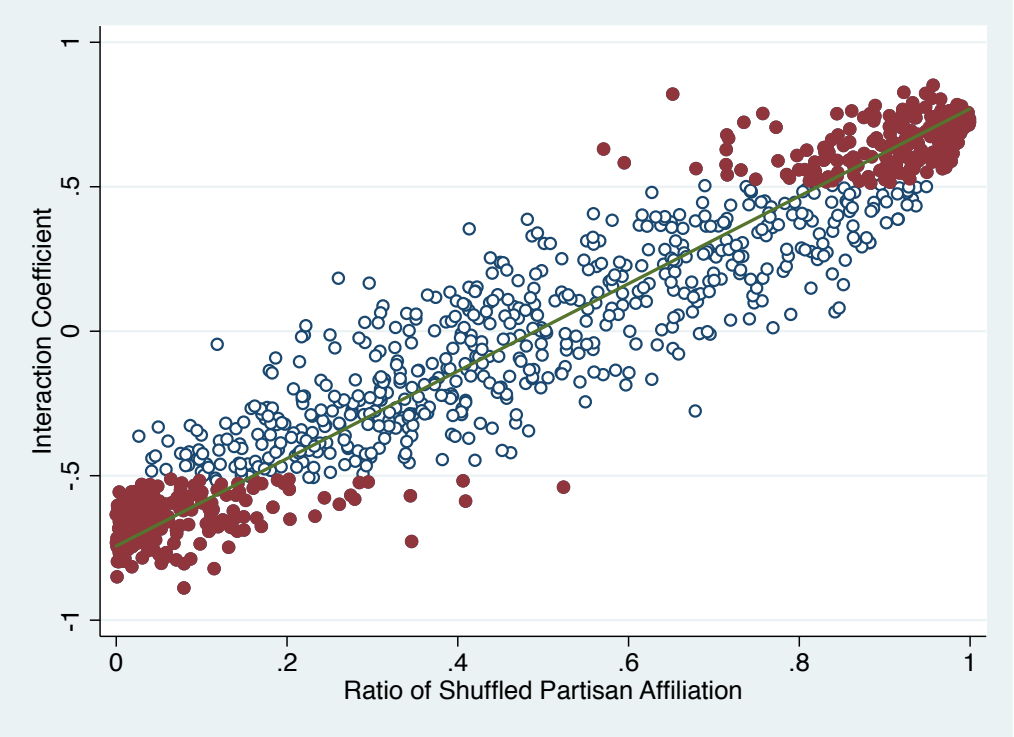


As expected, random treatment groups with equally shuffled partisan affiliations do not show significant differences from random control groups. The mean of the interaction coefficient is 0.018, with a standard deviation of 0.21. Only 16 observations (1.6%) showed coefficients higher than 0.5 at a 1% significance level. The combined probability of an estimate as high and significant as in our baseline estimation, shown in Model 5 in Table 5 was zero. In other words, the significant difference in performance between Democratic and Republican equity hedge fund managers in the period of December 2008–September 2009 was hardly by chance or driven by outliers.

To confirm these results, we next run a similar simulation, allowing for a random ratio of partisan switches. Whereas previously the replacement ratio was 1/2, in this simulation a Democratic ratio equal to zero means that all Democratic equity hedge fund managers where replaced by Republicans, and a ratio of 1 means that all Democrats remain "truly Democrats" in the treatment group and *vice versa*. Figure 7 plots the ratio of shuffled partisan affiliation

and the interaction coefficient of shuffled Democratic equity hedge fund managers during the analyzed period from December 2008 to September 2009.

Figure 7: This figure plots 1,000 randomly shuffled partisan affiliations and the interaction coefficient of shuffled Democratic equity hedge fund managers during the analyzed period from December 2008 to September 2009. The ratio of partisan affiliation replacement was random, where 0 represents all affiliations switched and 1 represents no replacement. Blue empty markers show coefficients not significant at the 1% level. Red markers show coefficients significant at the 1% level. The green line fits values at 1% significance.

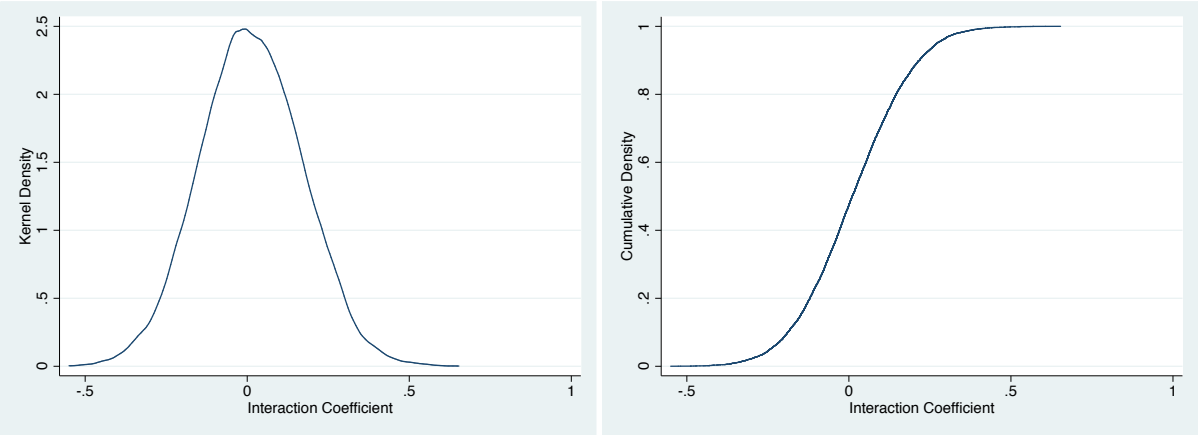


Statistically significant estimate points cluster at the extremes of the spectrum, i.e., when Democrats remain Democrats and Republicans remain Republicans, or everybody switches affiliation. The regression of the interaction coefficient and ratio of shuffled partisan affiliation shows an R^2 of 0.91, i.e., very high and robust at 0.1% significance.

Finally, we randomly replaced half of Democratic managers with Republican managers in each month; i.e., we allowed half of the managers to artificially "switch" affiliations each month. We run this procedure 10,000 times, randomly re-shuffling partisan affiliation. Figure 8 shows the Kernel distribution and cumulative density functions of the interaction coefficient of shuffled affiliation during the analyzed time window from December 2008 to September 2009.

Random treatment groups with equally shuffled partisan affiliation groups by month do

Figure 8: This figure presents the Kernel distribution function (left graph) and cumulative density function (right graph) of the interaction coefficient of 10,000 randomly shuffled affiliations during the analyzed time window from December 2008 to September 2009. In each iteration, half of the Democratic equity hedge fund managers were replaced by Republican equity hedge fund managers at the monthly level (i.e., hedge fund managers were allowed to change affiliation multiple times). The treatment and the control groups contain a balanced mix of randomly assigned Democratic and Republican managers.



to not show significant differences. The mean of the interaction coefficient is 0.013, with a standard deviation of 0.158. Only 18 observations (0.18%, i.e., less than two in one thousand) showed coefficients higher than 0.5 at a 1% significance level, and none (zero) was as high and significant as in our baseline estimation shown in Model 5 in Table 5.

The results of these simulations provide support that the significant difference in performance between Democratic and Republican equity hedge fund managers observed from December 2008 to September 2009 was not by chance or driven by outliers, but can be attributed to characteristics related to the partisan affiliation of the managers.

7 Alternative Explanations and Limitations

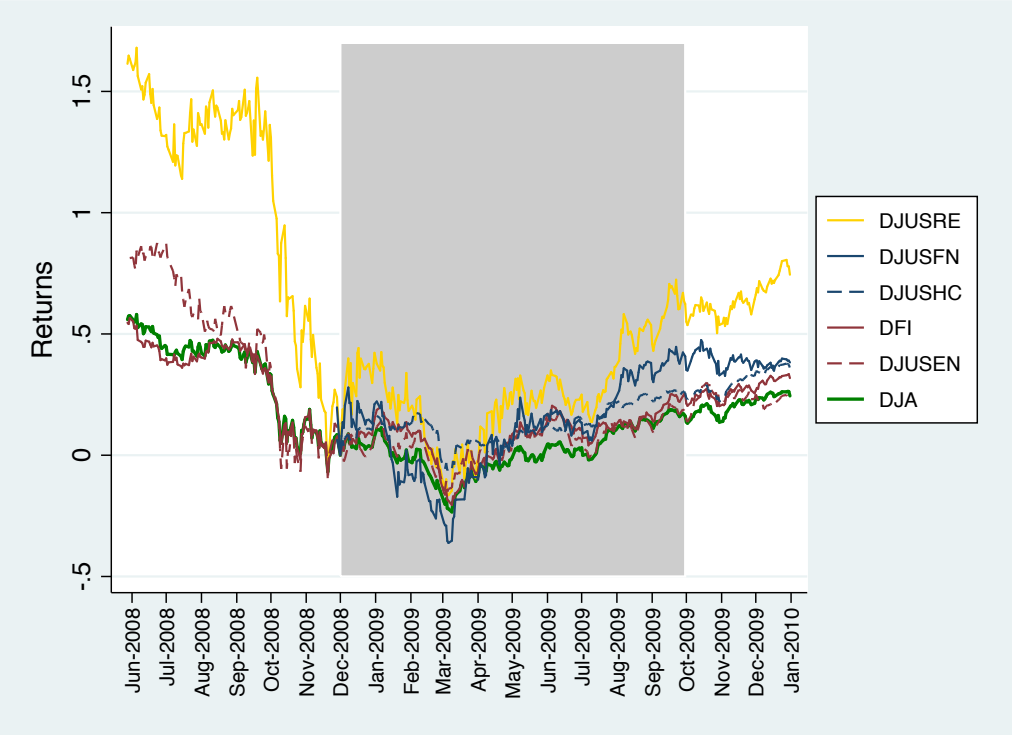
7.1 Portfolio Profiles

An alternative explanation of differential Democratic versus Republican performance could be that cognitive dissonance led to persistence in right-leaning portfolios. The Obama election platform was associated with limiting American military interventions, fostering sustainable energy policies, and promoting affordable medical insurance. It is possible that Republicans, instead of adapting their investments to the likely new policies, stuck to their current portfolios for ideological motives or overreacted shortening certain industries, which resulted in their

worsened performance.

There is vague evidence supporting this matter: between December 2008 and September 2009 real estate stocks and—to a lesser degree—health care stocks outperformed defense and oil & gas stocks. Financial stocks performed better overall during this 10-month time window, but only after recovering in mid March 2009 (see Figure 9). Also, real estate stocks sharply fell from mid 2008 until December 2008.

Figure 9: This figure shows the performance several indices: Dow Jones Composite (DJA) in thick green; Dow Jones U.S. Real Estate Index (DJUSRE) in yellow; AMEX Defense Index (DFI) in red; Dow Jones U.S. Oil and Gas Index (DJUSEN) in dashed red; Dow Jones U.S. Financials Index (DJUSFN) in blue; and Dow Jones U.S. Health Care Index (DJUSHC) in dashed blue. DJUSFN and DJUSHC data series start in December 2008. All indices' returns are normalized and zeroed on December 1, 2008. The gray area delimits the period from December 2008 to September 2009. Data are from Bloomberg.



The difference in performance between Democratic and Republican equity hedge fund managers from December 2008 to September 2009, and only in this period, cannot be attributed to consistently different portfolio preferences between the groups. E.g., should that have been the case, portfolios holding real estate stocks before December 2008 would have underperformed.

Unfortunately, we do not have the asset-level details of equity hedge funds' portfolios in 2009 to test this hypothesis. The Dodd-Frank Wall Street Reform and Consumer Protection Act (Pub.L. 111203, H.R. 4173) of July 2010 requires the registration at the SEC of hedge funds that manage over $100 million.[10] Its implementation could have allowed for analysis whether there are composition differences in the portfolios of Democratic versus Republican managers.

7.2 Social Networks and Insider Trading

Democrats could have benefited from insider information that accrued to abnormal returns in 2009. In this regard, research suggests that Republicans are prosecuted more often than Democrats for insider information (Ahern 2016).

Alternatively, Democrats' social networks could have proven more valuable from December 2008 to September 2009. At times of intense legislative activity, connections at the Capitol can serve to anticipate the implications of key legislation on businesses. Secretively coordinating hundreds of equity hedge fund managers across several states for such a long period seems, however, to be hardly plausible.

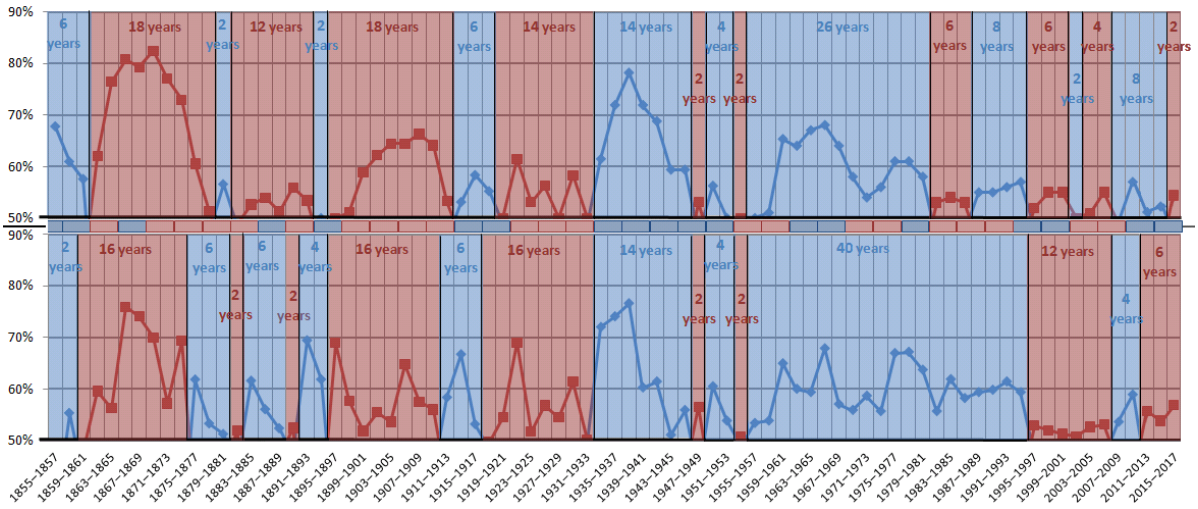
Also, the optimistic attitude of Democrats may have been reinforced by source dependence.[11] In the case at hand, Democratic equity hedge fund managers may have felt more competent when the political and policy decision-making center is closer to their beliefs.

Again, there is no evidence of this matter. There is no correspondence between control in Congress (see Figure 10) and the number of consecutive months when equity hedge fund managers affiliated with one political party outperformed their peers from the other political party (cf. Figure 5). On the contrary, the other significantly long period of performance separation falls from May 2003 to September 2003. At the time, Democratic equity hedge fund managers outperformed Republican ones, but Congress (both the Senate and the House) and the White House were controlled by Republicans.

[10] See, e.g., Chair Mary Jo White, "Five Years On: Regulation of Private Fund Advisers After Dodd-Frank," Keynote Address at the Managed Fund Association 2015 Conference, New York, NY, October 16, 2015. Available at: https://www.sec.gov/news/speech/white-regulation-of-private-fund-advisers-after-dodd-frank.html (accessed June 26, 2016).

[11] I.e., people often prefer a bet on a vague probability event in their area of competence over a bet on a matched chance clear probability event, which is related to the attribution of credit and blame (Heath and Tversky 1991).

Figure 10: This figure shows the combined control of the U.S. House of Representatives and control of the U.S. Senate. Each horizontal block equals two years (one session of Congress). On the scale, every other session of Congress is shown (i.e., 2009-2011 is all of 2009 and 2010, the newly elected take office in January 2011; i.e., 2007 is election year 2006). The upper block shows the majority party in the Senate, the lower block shows the majority party in the House, and the middle block shows the party in the White House (mid-terms are the line in the middle of each one-term 'block'). The left scale represents the percentage of seats in the Senate and the House, correspondingly. The Democratic party is in blue; the Republican party is in red. Data are from "Party in Power — Congress and Presidency — A Visual Guide to the Balance of Power in Congress, 1945-2008." USpolitics.about.com (accessed May 28, 2016).



7.3 Timely Optimism

The observed results could also be interpreted in a very narrowed way—as optimism of Democrats when their candidate was in power, combined with a lucky strike of markets recovering in early 2009. Should the president had been a Republican or markets had not recovered, the aftermath could have been different.

The data do not allow to check the counterfactuals in 2009. To address this limitation, we checked equity hedge fund managers' performance at other risky events under a Republican president contained in our time series: namely, the terrorist attack on the World Trade Center on September 11, 2001 and the Iraq's invasion of March 20–May 1, 2003. If equity hedge fund managers follow the party leadership during crisis, then we should expect Republican managers outperforming Democratic managers.

The data does not support this hypothesis:

(a) In August and September 2001, Republican equity hedge fund managers performed better

than Democratic managers; but in October and November, Democratic managers performed better than Republican managers;

(b) From March to September 2003 (7 months straight), Democratic hedge fund managers performed better than Republican managers.

I.e., in both cases the evidence shows that managers performed opposite to what a timely optimistic bias would suggest. Under Republican presidential leadership, Republican equity hedge fund managers performed worse after risky events than their Democratic counterparts.

7.4 Fund Flows

It is possible that fund managers where not politically biased, but investors were. After Obama's election, maybe Republican investors panicked and withdrew funds, forcing funds into fire sales that accounted for the difference in performance.

This explanation seems unlikely for several reasons. First, it would require a perfect alignment of thousands of Republican and Democratic investors in different funds. These funds are similar in their investor composition and investors often pool funds in more than one fund. Second, it would require that Republican investors be matching to Republican-run funds; otherwise, Democratic fund managers may arguably advise against selling, particularly if their profit and reputation are at risk. Third, it would require that funds' lockup requirements and withdrawal restrictions do not apply to the same extend to Democratic and Republican equity hedge funds. We do not have the monthly historical record of assets under management by fund to test how flows reacted in the analyzed period. From the global data and talks with hedge funds, there were portfolio realignments, but it does not seem that there was an asymmetric withdraw from hedge funds (i.e., some funds fire selling and other withholding their positions).

In any case, if Republican investors (which we cannot identify due to confidentiality of data) investing in funds run by Republican managers fire sold on the onset of the Obama presidency, this would move the weight of the cognitive dissonance effect from fund managers to investors, but would still be in line with the mechanism.

8 Conclusions

We document a large, significant, and lasting higher returns of Democratic equity hedge fund managers compared to their Republican peers from December 2008 to September 2009. The difference in performance is robust to several regression specifications, placebo time windows, and randomly shuffled partisan affiliation. Back-of-the-envelope calculations suggest that, given the $380 billion in equity hedge funds' assets under management in 2009,[12] the estimated 72 basis points difference in monthly performance between Democratic and Republican managers accrued $13.7 billion in relative losses for investors in funds managed by the later.

We argue that the divergence in political parties' interpretation of central bank policy following Obama's election sparked a difference in decision-making under cognitive dissonance. Rationally, both Democratic and Republican managers were equally aware of the political need to offer differing interpretations by the parties, and both should have ignored them. While all equity hedge fund managers were exposed to the same data, managers' investment decisions were affected by the framing dominant in their politically affine circles. The argument that the managers have intrinsically differing risk preferences is not supported in other uncertain times: When there was no such interpretation divergence, their fund performance was roughly similar.

We showed that partisan affiliation is an important bias in the financial industry, which was not considered during the financial crisis and recovery. The difference in performance by hedge fund managers is an indication of the extent to which ideology can affect the processing of information and whose effects become salient during abnormal situations. Analogously to portfolio disclosures mandated by the Dodd-Frank Act, partisan contributions and affiliation should also be subject to mandatory disclosure.

Cognitive dissonance appears to be a very important driver, even for highly trained professionals, with more work to be done on the topic in other decision-making areas and on the methods to lower its impact.

[12] See: "Hedge Funds Hit a High Note 2009 Industry Review," Credit Suisse, Tremont Hedge Fund Index, January 2010. Available at: http://www.hedgeindex.com/hedgeindex/documents/CS Tremont 2009 Industry Review v8.pdf (accessed June 3, 2016).

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Table 1: This table presents funds' breakdown by their main strategy. Data are from Hedge Fund Research.

Hedge Fund Strategies

Main Strategy	Freq.	Percent	Cum.
Equity Hedge	73,485	38.66	38.66
Event-Driven	21,148	11.12	49.78
Fund of Funds	35,847	18.86	68.64
Macro	26,204	13.78	82.42
Relative Value	33,420	17.58	100.00
Total	190,104	100.00	

Table 2: This table presents summary statistics of performance of the equity hedge fund managers by partisan affiliation. Fund performance is the monthly performance in percentage points of hedge funds. Democratic or Republican variables represent the political affiliation of fund managers by their partisan contribution. Data are from Hedge Fund Research and Federal Election Commission. The sample period is 1999-2014.

Summary Statistics of Performance

	count	mean	sd	p5	p95
Democratic	36,078	0.84	4.64	-6.65	8.42
Republican	37,407	0.73	4.57	-6.89	8.20
Total	73,485	0.78	4.61	-6.79	8.31

Table 3: This table presents the count of equity hedge fund managers in our sample by year and partisan affiliation. Data are from Hedge Fund Research and Federal Election Commission. The sample period is 1999-2014.

Count of Observations by Partisan Affiliation and Year

	Affiliation		
Year	Democratic	Republican	Total
1999	1,874	1,908	3,782
2000	2,128	2,062	4,190
2001	2,195	2,082	4,277
2002	2,203	2,392	4,595
2003	2,297	2,576	4,873
2004	2,334	2,594	4,928
2005	2,486	2,763	5,249
2006	2,522	2,695	5,217
2007	2,711	2,824	5,535
2008	2,619	2,773	5,392
2009	2,532	2,581	5,113
2010	2,311	2,471	4,782
2011	2,182	2,358	4,540
2012	2,164	2,180	4,344
2013	2,076	1,890	3,966
2014	1,444	1,258	2,702
Total	36,078	37,407	73,485

Table 4: This table presents the count of equity hedge fund manages in our sample by state and partisan affiliation. Data are from Hedge Fund Research and Federal Election Commission. The sample period is 1999-2014.

Count of Observations by Partisan Affiliation and State

	Affiliation		
State	Democratic	Republican	Total
AK	41	0	41
AZ	18	0	18
CA	5,448	7,799	13,247
CO	164	404	568
CT	2,173	3,468	5,641
DC	0	417	417
DE	0	19	19
FL	997	1,174	2,171
GA	20	839	859
IL	2,472	2,279	4,751
IN	0	526	526
KS	0	220	220
KY	0	373	373
MA	1,714	3,044	4,758
MD	79	372	451
MN	208	607	815
MO	91	0	91
MS	63	0	63
NC	406	86	492
NE	142	0	142
NJ	712	735	1,447
NM	0	56	56
NV	72	0	72
NY	17,080	9,772	26,852
OH	747	37	784
OR	105	27	132
PA	785	565	1,350
RI	71	8	79
TN	0	372	372
TX	1,413	3,305	4,718
UT	68	0	68
VA	500	541	1,041
WA	189	63	252
WI	300	179	479
WY	0	120	120
Total	36,078	37,407	73,485

Table 5: This table presents results from difference-in-differences linear regression estimations of fund performance on managers' political affiliation with a treatment period from December 2008 to September 2009 (Models 2–5). The dependent variables are hedge funds' monthly returns. Democratic manager is a dummy variable equal to one if the fund is univocally linked to a manager that contributed to a Democratic candidate or committee. The interaction terms capture the performance of Democratic managers during the event. Controls include S&P500 returns and state fixed effects. Data are from Hedge Fund Research, Federal Election Commission, and Compustat. The sample period is 1999-2014. Heteroskedasticity-robust standard errors are reported in parenthesis; * denotes significance at 10%, ** significance at 5%, and *** significance at 1%.

Managers' Political Affiliation and Fund Performance

	(1)	(2)	(3)	(4)	(5)
	1999-2014	1999-2014	1999-2014	2008-2010	1999-2014
Democratic Manager	0.109***	0.0667**	0.0481	-0.113	0.0476
	(0.0308)	(0.0312)	(0.0330)	(0.0948)	(0.0398)
Democratic President	0.0516*	-0.0179	-0.0167		-0.0183
	(0.0313)	(0.0318)	(0.0322)		(0.0461)
Dec2008-Sep2009		0.332***	0.344***	0.693***	0.344***
		(0.113)	(0.113)	(0.125)	(0.126)
Dec2008-Sep2009 × Dem Manager		0.728***	0.724***	0.833***	0.724***
		(0.160)	(0.160)	(0.179)	(0.197)
S&P 500 Return	0.441***	0.439***	0.439***	0.420***	0.439***
	(0.00453)	(0.00452)	(0.00453)	(0.00738)	(0.0153)
State fixed effects	No	No	Yes	Yes	Yes
Fund status fixed effects	No	No	No	No	Yes
Observations	73485	73485	73485	15287	73485
R^2	0.179	0.181	0.182	0.264	0.182
Clustered at fund ID	No	No	No	No	Yes

Table 6: This table presents results from difference-in-differences linear regression estimations of fund performance on managers' political affiliation with a treatment period from December 2008 to September 2009 (Models 2–5). The dependent variables are hedge funds' monthly returns. Democratic manager is a dummy variable equal to one if the fund is univocally linked to a manager that contributed to a Democratic candidate or committee. The interaction terms capture the performance of Democratic managers during the event. Controls include S&P500 returns and state fixed effects. Data are from Hedge Fund Research, Federal Election Commission, and Compustat. The sample period is 1999-2014. Geographical scope is limited to states with more than 1,000 equity hedge fund managers and balanced partisan representation: CA, CT, FL, IL, MA, NJ, NY, PA, TX, and VA. Heteroskedasticity-robust standard errors are reported in parenthesis; * denotes significance at 10%, ** significance at 5%, and *** significance at 1%.

Managers' Political Affiliation and Fund Performance
(CA, CT, FL, IL, MA, NJ, NY, PA, TX, and VA)

	(1)	(2)	(3)	(4)	(5)
	1999-2014	1999-2014	1999-2014	2008-2010	1999-2014
Democratic Manager	0.104***	0.0648**	0.0354	-0.103	0.0342
	(0.0322)	(0.0327)	(0.0336)	(0.0957)	(0.0400)
Democratic President	0.0672**	-0.0150	-0.0141		-0.0186
	(0.0327)	(0.0333)	(0.0335)		(0.0465)
Dec2008-Sep2009		0.483***	0.491***	0.802***	0.492***
		(0.116)	(0.116)	(0.129)	(0.130)
Dec2008-Sep2009 × Dem Manager		0.673***	0.666***	0.785***	0.666***
		(0.166)	(0.167)	(0.186)	(0.204)
S&P 500 Return	0.444***	0.442***	0.442***	0.434***	0.442***
	(0.00470)	(0.00468)	(0.00469)	(0.00755)	(0.0158)
State fixed effects	No	No	Yes	Yes	Yes
Fund status fixed effects	No	No	No	No	Yes
Observations	65976	65976	65976	13684	65976
R^2	0.184	0.186	0.186	0.283	0.186
Clustered at fund ID	No	No	No	No	Yes

Table 7: This table presents results from difference-in-differences linear regression estimations of fund performance on managers' political affiliation with a treatment period from December 2008 to September 2009 (Models 2–5). The dependent variables are hedge funds' monthly returns. Democratic manager is a dummy variable equal to one if the fund is univocally linked to a manager that contributed to a Democratic candidate or committee. The interaction terms capture the performance of Democratic managers during the event. Controls include S&P500 returns and state fixed effects. Data are from Hedge Fund Research, Federal Election Commission, and Compustat. Geographical scope is limited to states with more than 4,500 equity hedge fund managers and balanced partisan representation: CA, CT, IL, MA, NY, and TX. The sample period is 1999-2014. Heteroskedasticity-robust standard errors are reported in parenthesis; * denotes significance at 10%, ** significance at 5%, and *** significance at 1%.

Managers' Political Affiliation and Fund Performance
(CA, CT, IL, MA, NY, and TX)

	(1)	(2)	(3)	(4)	(5)
	1999-2014	1999-2014	1999-2014	2008-2010	1999-2014
Democratic Manager	0.129***	0.0876**	0.0563	-0.141	0.0543
	(0.0339)	(0.0344)	(0.0354)	(0.101)	(0.0420)
Democratic President	0.104***	0.0254	0.0269		0.0197
	(0.0346)	(0.0352)	(0.0354)		(0.0494)
Dec2008-Sep2009		0.424***	0.431***	0.753***	0.433***
		(0.122)	(0.122)	(0.135)	(0.138)
Dec2008-Sep2009 × Dem Manager		0.719***	0.711***	0.895***	0.711***
		(0.175)	(0.175)	(0.196)	(0.213)
S&P 500 Return	0.450***	0.448***	0.448***	0.441***	0.448***
	(0.00492)	(0.00491)	(0.00491)	(0.00790)	(0.0165)
State fixed effects	No	No	Yes	Yes	Yes
Fund status fixed effects	No	No	No	No	Yes
Observations	59967	59967	59967	12326	59967
R^2	0.188	0.190	0.190	0.290	0.190
Clustered at fund ID	No	No	No	No	Yes

Table 8: This table presents results from linear regression estimations of fund performance on mixed Democratic-Republican teams with a treatment period from December 2008 to September 2009. The dependent variables are hedge funds' monthly returns. Democratic ratio is the number of hedge fund managers identified as Democratic minus the number of managers identified as Republican, divided by the number of managers with partisan affiliation identified. Square terms capture non-linear effects. Controls include S&P500 returns, state fixed effects, and fund status. Data are from Hedge Fund Research, Federal Election Commission, and Compustat. Models 2, 4, and 6 are constrained in time to 2008-2010. Models 3 and 4 are constrained to funds located in CA, CT, FL, IL, MA, NJ, NY, PA, TX, and VA. Models 5 and 6 are further constrained to funds located in CA, CT, IL, MA, NY, and TX. The sample period is 1999-2014. Heteroskedasticity-robust standard errors are reported in parenthesis; * denotes significance at 10%, ** significance at 5%, and *** significance at 1%.

Mixed Partisan Teams and Fund Performance

	(1)	(2)	(3)	(4)	(5)	(6)
	1999-2014	2008-2010	1999-2014	2008-2010	1999-2014	2008-2010
Democratic ratio × no-shock	-0.512	-0.522	-0.517	-0.524	-0.530	-0.596
	(0.324)	(1.102)	(0.324)	(1.101)	(0.325)	(1.099)
Democratic ratio × no-shock sqr	-0.0626	-0.500	-0.0293	-0.495	-0.0125	-0.425
	(0.768)	(2.065)	(0.770)	(2.063)	(0.771)	(2.055)
Democratic ratio × shock	-2.609	-2.043	-2.613	-2.045	-2.500	-1.870
	(3.305)	(3.200)	(3.302)	(3.195)	(3.354)	(3.233)
Democratic ratio × shock sqr	-2.742	-1.676	-2.718	-1.676	-2.742	-1.718
	(6.467)	(6.148)	(6.459)	(6.138)	(6.407)	(6.074)
S&P 500 Return	0.403***	0.396***	0.404***	0.396***	0.415***	0.411***
	(0.0133)	(0.0205)	(0.0135)	(0.0205)	(0.0138)	(0.0207)
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Fund type fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6630	1470	6350	1428	5863	1392
R^2	0.198	0.297	0.200	0.299	0.214	0.313