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ABSTRACT

Using a proprietary dataset of the portfolio holdings of millions of anonymized households with trillions in wealth, we test the central tenet of rational-expectations theories of asset pricing and portfolio choice – that agents believe in a common model and update their beliefs identically in response to public signals – against alternative theories in which agents hold different models of the world and update beliefs heterogeneously. We identify households that ex ante are likely to believe in different models of the world using political party affiliation (probabilistically inferred from zip code), and our public signal is the unexpected outcome of the US election of November 2016. Relative to Democrats, Republican investors actively increase the share of equity and market beta of their portfolios following the election. Inconsistent with the effect being driven by differences in hedging needs with common beliefs, the results are robust to controls for age, wealth, income, state, and even county-employer fixed effects.

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In most theoretical models of financial markets, participants typically agree about the probabilities of different states of the world in equilibrium. Even in noisy rational expectations equilibria in which trade in assets does not fully reveal private information, public signals are common knowledge and disagreement only arises due to idiosyncratic private signals. Yet in practice, many participants and observers of asset markets often attribute trading and price movements to differences in beliefs in response to public signals. And in theory, trading and returns respond differently when investors believe in different models of the world and agree to disagree. Changes in disagreement generate trade in assets, as the newly pessimistic sell to the newly optimistic, and can alter asset demand and move asset prices (Miller, 1977; Harris and Raviv, 1993; Harrison and Kreps 1978; Morris, 1996; Scheinkman and Xiong 2003; Banerjee and Kremer, 2010; Simsek, 2013).

In this paper, we show that such disagreement exists and affects portfolio investment decisions. Our ability to distinguish the effects of disagreement from other factors that drive portfolio holdings, such as differences in hedging demand, liquidity shocks, risk aversion, or other preference parameters, comes from: our measure of models of the world, the public signal we study, and the wealth of information in our dataset.[1]

We identify investors that likely believe in different models of the world by categorizing them according to their likely political party affiliation based on political donations in their zip code. People with different party affiliations report holding different views both about the economy and about the efficacy of different economic policies (Bartels, 2002; Gaines et al., 2007; Curtin, 2016).

The public signal is provided by the large and unexpected change in governance of the United States associated with the national election of November 2016. Consistent with Republicans and Democrats believing in different models of the economy, Republicans report becoming much more optimistic about the future of the US economy at the time of the election, and Democrats report becoming more pessimistic (Curtin, 2017).

Our dataset is proprietary data containing the characteristics and individual portfolio holdings of millions of anonymized households covering trillions of dollars in investable wealth. We study a subsample that is reasonably representative of "typical" American investors with retirement savings: households with retirement savings accounts in the middle 80% of the age-adjusted distribution of retirement wealth, who we call *retirement investors*.[2]

[1]Note that throughout the paper, we use the term *preferences* to refer to the elements of investor objective functions that are distinct from *beliefs* and the investor's maintained *model* of the economy. This distinction is clear in expected utility theory, although beliefs and models are both a part of preferences.

[2]As we describe, we create this sample using cutoffs from the 2016 Survey of Consumer Finance. Retirement investors represent 40% of households, 47% of retirement wealth, and 41% of household investable wealth in the US.

Our main finding is that (likely) Republicans increase the exposure of their investments to the US stock market relative to (likely) Democrats following the election. Democrats increase their relative holdings of bonds and cash-like securities. This result is not driven by differences in returns but by active trading over a six-month horizon following the election, and the relative change in equity shares is more than twice as large among previously active investors. Consistent with the public signal of the election causing Republicans to become relatively more optimistic about the future performance of the US economy and to buy assets more exposed to US economic growth from Democrats, we find a significant increase in trading volume in our dataset following the election, regardless of political affiliation.

How do we show that the differences in portfolio behavior for people with different party affiliations are unlikely to be driven by i) ex ante differences in preferences or income risk prior to the election, ii) differences in the effect of the election on future incomes and hedging needs, iii) factors other than the election?

Ex ante differences: Investors that believe in different models of the economy should generically hold different portfolio. Consistent with this interpretation, prior to the election there are differences between Republican and Democrat investors, including some characteristics of initial portfolios, but these differences are economically small. More importantly, our results all hold conditioning on differences in initial wealth and portfolio holdings.

Hedging needs and income effects: Probably the most significant concern is that investors could respond differently to the election not because of differential changes in beliefs, but because the election will lead to differences in real economic outcomes for Republicans and Democrats, and so causes differences in hedging needs. For example, Republican voters might be employed in industries, firms or regions that will be more favorably affected by the policies of the new government. We show that our findings are robust to controlling for indicators of differences in hedging needs related to both labor income – age, income, and industry of the employer – and local economic conditions – state fixed effects, county manufacturing share, and county exposure to import competition. Our results are even robust to county-employer fixed effects, which control for factors related to both labor income and location.

Factors beyond the election: the public signal of the 2016 election was almost unique in its unexpected and large impact on national economic policy which makes it easier to measure the effects of the election shock and the consequent changes in economic beliefs, and to separate these effects from other coincident factors affecting beliefs and portfolios. The presidential election outcome was an unlikely event and the policy differences between presidential candidates were large. These large magnitudes reduce any bias arising from the normal changes in the economy and politics that might also cause differences in portfolio behavior. To bolster this claim, we show that the portfolio share

of equity moves similarly for Republicans and Democrats in the year prior to the election, presumably as other factors impact the economy.

The robustness of our findings to controlling for many characteristics related to hedging needs and preferences supports our interpretation that these portfolio changes are a response to changes in beliefs. However alternative interpretations remain possible such as the possibility that Republicans and Democrats consume different bundles of goods (unrelated to things we control for like location, income, wealth, employer, etc.) and that the election exposes them to different cost-of-living risks.[3] Thus as a final piece of evidence we revisit surveys of reported beliefs and show that not only do Republicans report becoming relatively more optimistic about the national economy after the election, but they do not report becoming relatively more optimistic about their own economic situations (consistent with Huberman, 2018).

While we cannot follow Gerber and Huber (2009, 2010) and measure whether consumer spending changed differentially by political affiliation, we find no evidence that saving rates changed differentially when we measure saving rates from account net inflows or contribution rates. That said, account flows can represent movement of funds across financial institutions and our findings are statistically imprecise. Nonetheless, our finding is consistent with Mian et al. (2017) finding no differences in consumption across counties with different political affiliations.

In the final two sections of the paper we analyze heterogeneity in differential portfolio reallocation across different groups of the population, different accounts, and alternative portfolio measures. In the final subsection, we also provide a back of the envelope calculation of the impact of the election on the net demand for equity through the channel of differential changes in beliefs arising from different models of the economy as measured by political affiliation. While the public signal generates a large increase in trading volume across people holding different models, the change in net demand due purely to disagreement is only on the order of a few billion dollars.

We interpret our evidence as showing that mainstream Americans who observe the same, common public signal about future US economic policy interpret this signal as having different implications for the economy depending on the model of the world that they believe in. We infer that the heterogeneity in beliefs is due to different models of the world because of our extensive controls for preferences and hedging differences. We conclude that there is heterogeneity in investor beliefs and updating driven by (dogmatically) different models, and that such models may be the correct way of generating observed levels of trade in assets and diversity in portfolio holdings, both of which are puzzling for quantitative rational expectations models (Guiso et al., 2002; Curcuru et al., 2010).

[3] See e.g. Pastor and Veronesi (2018) or Autor et al. (2017).

More specifically, what theories are consistent with our findings? It is unlikely that differences in beliefs which we document arise from differences in attention given the public event in question. It is also unlikely that the disagreement arose from different speeds of information processing, unless very slow, because we find no evidence that the divergence in behavior reverts. Our findings are also not predicted by most existing applications of psychological biases to differences in individual-level asset demand. The psychological behaviors that are closely related to our results are over-confidence, over-optimism, the disposition effect, confirmatory bias, and the representativeness heuristic.

Our paper supports theories of biased information processing that deliver heterogeneous updating of beliefs in response to public signals, such as theories of motivated beliefs or robust control with heterogeneous endowments and incomplete markets (see Brunnermeier and Parker, 2005; Benabou and Tirole, 2011; Hansen and Sargent, 2009). In particular, in the Benabou and Tirole (2011, Section VI) model of stake-dependent beliefs, people's investment choices are affected by what their allocations would imply about their beliefs. In this interpretation, the election made political identity more salient, and more solid for Republicans (more fragile for Democrats), and so lead to portfolio reallocation to equities (safer assets for Democrats). Our finding and this model are consistent with Linnainmaa, Melzer, and Previtero (forthcoming) and Cheng, Raina, and Xiong (2014) that shows that investment professionals hold portfolios that over-weight assets that they advise clients to hold or are involved in creating or selling.

Our paper also adds to existing studies with more indirect evidence that investors interpret public signals differently, which show that volume of asset trade rises after public signals (e.g. Kandel and Pearson, 1995), survey beliefs or stated forecasts widen (e.g. Bamber et al., 2009; Carlin et al., 2014), or stock prices move in predictable ways (see the survey Hong and Stein, 2007). Our results also suggests that beliefs may be the driving force in earlier work showing that the behavior of investors is related to their individual information or own specific outcomes (e.g. Vissing-Jorgensen, 2003; Malmendier and Nagel, 2011; Cookson and Niesser, 2016). Relative to these literatures, our contribution is the precision with which we are able to separate the effect of differences in beliefs from differences in preferences or hedging needs.

Finally, our paper also relates to a substantial political science literature on how people with different political beliefs interpret public news differently and how they respond to political events. Bartels (2002) and Gaines et al. (2007) document a partisan bias in perceptions of changes in economic performance and military outcomes, respectively. Subsequent work tries to distinguish whether this disagreement arises due to factors such as selective exposure, selective attention, motivated processing, and respondent bias (cheerleading). There is some evidence that cash incentives reduce

reported disagreement between party affiliates (Prior, 2007; Prior, Sood, and Khanna, 2015; Bullock, Gerber, Hill, Huber, 2015).

I. The Public Signal: The 2016 US Election

The public signal about the future performance of the US economy that we study is the unexpected outcome of the 2016 US national election.[4] We believe that this event is close to an ideal experiment for measuring how households who hold different priors update in response to a publicly observable signal.

First, the election outcomes – the winning presidential candidate and the party control of the House and Senate – were very public events. Thus, our results are unlikely to be due to differences in attention. Conditional on observing the outcome, households may process the information at different speeds or take different amounts of time to act, but there is no ex ante reason to believe that this differs by party affiliation. In the analysis below we will show that (likely) voters of each party actively responded to the election news in their investment choices.

Second, this election was also not correlated with other significant events, as was the case in the 2008 presidential election which coincided with a financial crisis. Such a correlation would weaken our claim that the differences we uncover are due to different interpretations about a given piece of news about future economic policies and performance.

Third, this presidential election, and the Republican party achieving a majority in the Senate, were associated with a very large and unexpected change in expected future US economic policy. While all presidential elections affect policy, this particular election involved two candidates with quite different policy proscriptions. More importantly, the outcome of the 2016 election was unexpected. For most other types of news about the economy or other changes in governance, such as most elections, legislation, and court decisions, information slowly arrives over time. Even for large changes in policy, information typically percolates slowly into the economy and the timing of its arrival is hard to pinpoint.

Figure 1 shows estimates of the probability of that the Democrat wins the US presidential election of 2016 (and the almost exactly complementary odds of the Republican winning) during 2016. The plotted series are the market prices of two contracts traded on Betfair that pay $1 conditional on the respective party winning the election. State prices of course reflect marginal utilities as well as probabilities, but Betfair is a UK-based internet betting exchange and because of US regulations, it is hard

[4]While the outcome of the presidential race was highly unlikely and the main news revealed by the election, we measure the effect of all the electoral outcomes including for example the fact that the Republican party won a majority in the US Senate, an event with roughly even odds prior to the election.

for American investors to enter this market.[5] Thus, these prices differ from probabilities only to the extent that the marginal utility of the UK investors are different across outcomes of the US presidential election. Figure 1 shows that the market predicted a Democratic victory the entire year before the election and with roughly 75% likelihood for the six months prior to the election.

Fourth, we can use differences in political affiliation as ex ante measures of differences in investors' models of the world. This measure is not derived from any economic behavior like portfolio allocation, for which differences might be directly due to differences in preferences like risk aversion or differences in income dynamics and resulting hedging needs. That said, a correlation between political affiliation and preference or hedging needs is of course possible, since beliefs about the economy are not randomly assigned but form endogenously. But our analysis will provide evidence that while there are ex ante differences in the portfolios of Republicans and Democrats on average, the changes in portfolio allocations in response to the election are not driven by these ex ante differences in economic exposure.[6] A related benefit is that we can use other household-level data that measures political affiliation to show how household responses differ along other dimensions, and in particular, we present evidence on survey measures of economic beliefs in Section VII.

All four features of this event are important for our study. People of different party affiliations are continually responding to all sorts of information and changes in their economic environment. And our hypothesis is that they are to some extent responding differently. Without the ability to differentiate households ex ante and without a large, public signal, we could not separate the portfolio response of households to the election from the effects of other factors, including their ex ante differences.[7]

II. Party Affiliation

We measure differences in economic models of the world from likely political party affiliation. We measure likely affiliation using publicly available data on individual campaign donations during the 2015-2016 election cycle from the Federal Election Commission aggregated to the zip code level. We restrict attention to contributions

[5]Alternative sources of betting market data on elections are the Iowa Electronic Market (IEM), Intrade, and PredictIt. Intrade shut down in 2013. IEM is a prediction market run by the University of Iowa, which is open to US households and is capped at $500. It has two markets for the presidential election: winner takes all and vote shares. The winner takes all contract is based on the popular vote, so it is not ideal for predicting the election outcome. PredictIt is another, more recent market open to US investors and also has capped trading. These markets are relatively small.

[6] It is also that case that political affiliation may be associated with different views of the likelihood of the outcomes of the 2018 election or the policies that are implemented conditional on the outcome. Again, these are subsumed into what we measure.

[7]To the extent that the arrival of other information also causes households with different political affiliations to behave differently, then it will bias our measured responses. How big is this bias? As we show, during the period before the election, the portfolios of households of different political affiliations behaved similarly, consistent with the arrival of little political news or other news that might be differentially interpreted. See our discussion in Section IV.

from individuals to political action committees associated with the two main parties or with their presidential nominees and with at least $20 million in donations (see Appendix A.1 for further details). For each zip code, we count the number of donors to either party. We limit our analysis to zip codes with at least 10 donating individuals and measure the *Republican contribution share* of a zip code as the number of donors to the Republican party or the Republican presidential nominee divided by the total number of donors in that zip code. Figure 2 shows the geographical distribution of the Republican contribution share aggregated from zip codes to counties.

For robustness, we also confirm that our results hold for two alternative measures of likely political affiliation. First, we consider the dollar-weighted version of Republican contribution share defined as the dollars donated to the Republication party or the Republican presidential nominee divided by the total amount donated in that zip code to either party.[8] Second, we use data on votes for the presidential election at the county level and define the Republican share of a county as the number of votes for the Republican candidate divided by the total number of votes to both parties' candidates.[9]

All of our measures surely have some mismeasurement, but we use them primarily to show the existence and a lower bound on the size of the effect of different beliefs rather than to provide estimation of a structural parameter or externally valid quantitative causal estimate. To the extent that mismeasurement is classical, our main results are attenuated.

III. Data on Households' Portfolios

Our main data are anonymized, account-level data on financial holdings from a large US financial institution. We have access to anonymized information on all accounts held directly at the firm by individual investors. For these accounts we observe end-of-month account balances and holdings, and all inflows, outflows, and transfers at a daily frequency. We observe assets at the CUSIP level for 87% of wealth. For the remaining 13% we observe only the characteristics of the fund the wealth is invested in. We aggregate all accounts – pre-tax, taxable, and un-taxed – across all members of a household and track household portfolios.[10] The data cover millions of households and trillions in financial wealth.

We also have access to some information on the characteristics of the investors themselves. We define the head of the household by selecting the (oldest) individual

[8]We find that donations weighted by people are more precise and more differentiating than donations weighted by dollars. Our hypothesis is that this is because the value-weighted donations measure is sensitive to outliers; a single wealthy donor can swing the measure for the whole area.

[9] Data are from David Leip's Atlas of U.S. Presidential Elections at uselectionatlas.org.

[10]Where there are multiple households that co-own a given retail account, we assign each account to a single individual by selecting the (oldest) owner with the highest total assets. This yields a unique mapping from investment accounts to households.

with the highest total assets, and we use the head's characteristics as that of the household for non-financial information like age and to assign the household to a NAICS industry of employment. Our main sample uses information from one year before to one year after the election, from October 31, 2015 to October 31, 2017.

While this data provides a unique view in retirement savings and the portfolio allocations of US households, there are two potential weaknesses of our data. First, while we observe a significant share of US households, this is obviously not a randomly selected sample. In particular, most observed household wealth is retirement savings and few households have very high net worth (as we document subsequently). Our analysis does not require a random sample, but we would like to understand the relationship between our sample and the US population. The second potential weakness is that we do not necessarily observe all the investable wealth of the households in our sample. One way this occurs is that we only observe one member of the household for some households. The other is that some households have wealth at other institutions.

To address these issues, we select a sub-sample of our data that meets a set of criteria which is likely to be reasonably representative of the US population that also meets this set of criteria. We focus on households with moderate levels of retirement wealth, which we call *retirement investors* (RIs). Specifically, we define RIs as households with heads of households between the ages of 25 and 85 without extremely high or low retirement wealth, defined as all wealth in retirement saving accounts of all types (excluding defined benefit plans and Social Security).

We use the 2016 Survey of Consumer Finances (SCF) to understand how the population of RIs compares to the US population and how well the wealth and portfolio holdings of the RI subsample of our account-level data compare to the RI subsample in the US. We focus on households with some retirement wealth. Using the 2016 SCF, we run quantile regressions of the log of retirement wealth on a third order polynomial in age. We then drop households with retirement wealth below the estimated 10^{th} percentile or above the 90^{th} by age.[11] This RI sub-sample of the SCF captures 40.0% of the US population, 47.3% of retirement wealth (roughly 50% of retirement wealth is held by the top 10 percent), and 41.0% of investable wealth held by households in the US according to the SCF. Investable wealth is defined as money market funds, non-money market funds, individual stocks and bonds, certificate of deposits, quasi-liquid retirement

[11]The age cutoff selects 92.4% of the U.S. population and 97.5% of retirement wealth and 94.8% of investable wealth according to the SCF. The restriction to having retirement wealth selects 50.0%, 97.5% and 88.8% respectively. For age 35 the 10^{th} and 90^{th} percentile cutoffs are roughly \$5,000 and \$32,000, and for age 65 they are roughly \$32,000 and \$1,000,000. For use in our sample, because we select our sample at the initial date October 31, 2015, we first translate these retirement wealth cutoffs from the SCF at the end of 2016 to cutoffs at the initial date by matching the corresponding quantiles of retirement wealth in our dataset between the two dates.

wealth, and other managed accounts.[12] Figure 3 shows the wealth distributions of the US population and of our subsample in the 2016 SCF.

Applying the same cutoffs to our data provides a sample of millions of investors and well more than a trillion in investable wealth.[13] The first panel of Figure 4 shows that the retirement wealth distribution of our RI sample of households lines up well with that measured by the SCF. The second panel of Figure 4 shows that our data also match reasonably well the distribution of total investable wealth in the SCF, but that our data is missing some non-retirement wealth mainly for households with more than 500,000 in investable wealth.

To characterize portfolio risk taking, we classify fund and security holdings into equity, long-term bonds, short-term bonds, and alternative assets (e.g. real estate and precious metals).[14] We calculate market betas by regressing fund and security excess returns on the market excess return over the period 2007-2017, requiring at least 24 months of return observations. We also use other security-level information, such as international and sector exposures. The details are in Appendix A.2.

Column 1 of Table 1 shows the details of the portfolios held by our RI sample, as of just prior to the election shock. Our average RI has $156,500 in investable wealth, of which 81 percent is in retirement accounts. Close to two thirds of wealth is invested in equity (the sum of directly held equity, equity funds, and the equity amount of funds that invest across asset types), and the portfolios have an average market beta of 0.75 (0.71 if households are weighted by wealth). The second column of Table 1 shows that, relative to the estimates from the SCF, our data capture most retirement wealth of RIs but miss a large share of non-retirement investable wealth (which we know from Figure 4 occurs for higher net worth households).

In addition to wealth information on all households, we observe age, gender, marital status, and zip code for the vast majority of individuals.[15] For a subset of households, we can construct an indicator variable for each employer, and we use the employer's NAICS code to assign each such household to a three-digit industry. For a subset of these households, we also observe annual income.

[12] In the SCF, "other managed accounts" includes personal annuities and trusts with an equity interest and managed investment accounts." Excluded categories of financial wealth are checking and savings accounts, saving bonds, cash value of life insurance, and other financial assets.

[13] We perform two additional screens in our sample. First, we select households with at least 50% of investable wealth in observable portfolio assets. Because of account types, we cannot measure characteristics like market exposures for a limited set of assets. Average holdings in these assets are less than 1.5% of total investable wealth. This restriction excludes only 1.3% of households in our RI sample. Second, we limit ourselves to households that have portfolio holdings between 20% and 500% of initial assets in every month. This gives us a balanced panel and drops people who start or stop using the firm during this period.

[14] Holdings in alternative assets are on average less than 1% of total assets and we do not separately analyze this investment class.

[15] Some data on marital status comes from a commercial consumer database and we treat entries that were not collected at the household level as missing. This database also has measures of education, home ownership, and household composition.

Column 1 of Table 2 shows that the average age of household heads in our RI sample is 50 years old, 43% of household heads are female, and 75% are married. Figure 5 shows that our sample is also tilted towards younger households than the SCF sample of RIs. This difference likely stems from attrition by households who can withdraw from retirement accounts without penalty starting at age 59.5. The average household income is $101,600 and the median is $78,000.

Figure 6 shows a scrambled map of the share of households in each US county that are in our sample of RIs. We calculate these shares using the number of households in the 2010 US Census for every county in the US, and then randomly reallocate the shares across counties in each state. Figure 7 shows the density of the share of population in each county that is in our RI dataset. We remind the reader that RI households represent only half of the US population (according to the SCF) and that we are using the term *household* when we in fact may only observe one of two (or more) earning and investing members.

Finally, we use zip code to link to measures of the likely model used by households to interpret the event, that is to link to measures of likely political affiliation. Our sample is tilted towards households that live in Democratic zip codes according to our contributions measure.[16] Tables 1 and 2 show the distribution of asset holdings and demographics by party affiliation of the zip code of the households. There are differences across zip codes associated with party affiliation, but they are small. Equity share varies by less than a percent across groups, and market beta (equally weighted) has almost no variation. Zooming in on equity shares, Figure 8 shows that equity shares decline with age, but show very little difference by political affiliation. In our analysis, we will control for both age and initial equity share.

IV. Household Portfolio Reallocation

This section shows that likely Republican households increased the exposure of their portfolios to US economic growth after the 2016 presidential election relative to likely Democratic households. We show that this effect is not driven by passive appreciation and is largely driven by active trades by households that had actively traded previously. We also show that this finding is robust to many controls for differences in preferences or hedging needs across households.

A. Graphical analysis

To begin, we simply plot the data. Figure 9 shows the change in the average portfolio share of equities (relative to October 31, 2016) for households in zip codes with different

[16] Appendix Figures A.1.a and A.1.b show the distribution of our households across areas with different political affiliations.

shares of contributions to each party, relative to the baseline share at the end of October 2016. The top panel in Figure 9 displays equally-weighted portfolio shares, the bottom figure displays the value-weighted portfolio shares, which sum the value of equity across all households in each group before dividing by total wealth for that group.

First, for all groups, the share of wealth invested in equities decreased prior to the election and rebounded afterwards, which suggests that uncertainty associated with the election caused reduced investment in the stock market by the majority of households regardless of party affiliation.[17]

Second, and our main result, once the election has been decided the share of wealth invested in equities rises in predominantly Republican zip codes relative to predominantly Democratic zip codes. Specifically, households living in Republican zip codes increased their equity exposure by roughly 0.4% percent of their wealth relative to those in the most Democratic zip codes, consistent with increased optimism about the economy by Republicans relative to Democrats.

Third, there are minimal differences in the evolution of the portfolio shares in equity across areas with different political affiliations prior to the election. During this time, there is information arriving about the likely outcome of the election, but the total change in probability over this period prior to the election is smaller than that on the one day of the election (Figure 1). The similarity of the movements in the equity share prior to the election is consistent with our evidence that there are only small prior differences in equity shares across zip codes with different political leanings. These zip codes are surely not the same, but are also not affected very differently by economic news (and the limited political news) in the year prior to the election. Figure 9.a does show a small rise in equity share in Democratic zip codes relative to Republican zip codes prior to the election, which is consistent with the slowly increasing probability of a Democratic victory in the presidential election during this period as shown in Figure 1.

We find similar results for long bonds and safe assets. Figures 10.a and 10.b show that households in zip codes that are predominantly Republican decreased the shares of their portfolios invested in both long-term bonds and short-term bonds (including MMMFs and CDs) following the election relative to those in zip codes that are predominantly Democratic. Appendix Figures A.2.a and A.2.b show the corresponding asset-weighted plots.

These results can be summarized by the differences in market betas of portfolios by likey political affiliation. Figure 11.a shows that movements in market beta are very similar prior to the election across political affiliations, and diverge post election, with market beta rising relatively more in Republican zip codes post election.

[17] Roughly two thirds of the pre-election decline comes from allocation decisions of households (see Figures 12.b and A.5). Post-election, allocation decisions on average are equity neutral.

One concern with these results so far is the possibility that these movements may be due to inactivity, initial differences in holdings, and appreciation resulting from the post-election stock market increase following the election. Republicans may hold more equity or equities with higher beta, and so have had a disproportionate increase in the equity share of their portfolios due to the post-election increase in stock prices. Like most wealth for the typical American household, the majority of the wealth that we observe is retirement wealth which is notably "sleepy." While we address these concerns in a regression framework subsequently, we present three transparent pieces of evidence that rejects this hypothesis here.

First, we find larger differential effects by party affiliation when we focus on households that are more active in the past, where an "active" household is defined as one that had at least one trade or exchange not associated with an account inflow or outflow during the year November 2014 to October 2015 (the year prior to our main sample). This sample is 29.7 percent of our original sample (Table 2). Figure 11.b shows that the portfolios of ex ante active traders have much larger differential increases in their market betas post-election than the typical investors. Figure 12.a shows that active traders have much larger relative increase in equity share for mostly Republican zip codes post-election, on the order of 1% of their investable wealth on average, a large effect. (Figures A.3.a and A.3.b in the Appendix show the corresponding plots for long bonds and safe assets, respectively, for the sample of active traders.)

Second, we focus on rebalancing in two different ways. Portfolio outcomes are driven by revaluations, reallocations, and inflows and outflows related to deposits and withdrawals. First, we measure rebalancing into equity as changes in equity share driven by either transfers of assets into or out of equity or withdrawals or inflows that change equity share. Specifically, we measure excess equity trading for household i in month t as

$$Excess\ Equity\ Trades_{i,t} = \frac{Equity\ Trades_{i,t} - Equity\ Share_{i,t-1} Total\ Trades_{i,t}}{Assets_{i,0}}.$$

Excess trading in long-term bonds and short-term bonds are defined analogously.

Figure 12.b shows cumulative excess equity trades from the end of October 2015. Prior to the election, rebalancing into equity was nearly identical across the distribution of zip codes by political affiliation. After the election, Republican zip codes reallocated wealth into equity, while primarily Democratic zip codes reallocated wealth out of equity. The total reallocation is roughly the same size as the total difference shows in Figure 9. Figures A.4.a and A.4.b in the Appendix show the same plots for excess long-term and short-term bond trades.

Our second method to focus on reallocation is simply to construct and track hypothetical portfolios as if there were no change in valuations of funds or securities.[18] We again find that the relative movement in portfolio share is driven by rebalancing and not by *ex-ante* differences in portfolios and differences in post-election performance (shown in Appendix Figure A.5).

While the previous results present the data in a transparent manner, they do not address the concern that the differential reallocation we observe is driven by different preferences or differential changes in the stochastic process of labor income (or other endowment income) and so are due to differences in hedging needs. For example, the election outcomes raised the probability of reductions in corporate tax rates, increases in barriers to trade, and reductions in various regulations, and the stock prices of companies in different industries were impacted quite differently (as we discuss in Section VIII). To the extent that affiliates of one party or the other work more in winning industries, or live nearer them, then the political outcome may differentially affect their future incomes and cost of living. Households may be trading to different portfolio positions in response.

B. Quantitative regression analysis

Both to control for differences in hedging needs and to quantify the differences in portfolio allocations across households, we now run a set of regressions of household equity shares on the Republican share of donations at the zip code level. We use portfolios exactly one year before the election to construct initial positions and create a sample of portfolio holdings every three months, starting with the end of January 2016 and ending with the end of October 2017, so we have four observations before the election (denoted -3, -2, -1, and 0 for October 31, 2016) and four periods after the election (1, 2, 3, and 4).

We estimate an equation of the form:

$$P_{i,t} = \sum_{s \neq 0} \left(\beta_s R_{z(i)} + \theta_s' X_i\right) 1_{t=s} + \tau_t + \tau_i + \eta_{i,t},$$

where $P_{i,t}$ is household i's portfolio share in equity at time t, $R_{z(i)}$ is the time-invariant Republican share of donations in zip code $z(i)$, X_i are individual control variables, and τ_t and τ_i are period-specific and individual-specific intercepts, respectively. Standard errors are clustered at the zip code level.

Our main effects of interest are the coefficients on Republican share in each three-month period following the election (β_t for t=1, 2, 3 and 4) which measure the differential effect of Republican share relative to October 31 (because we impose $\beta_0 = 0$).

[18] While conceptually simpler, this method is less clean because of dividend payments and fund changes.

It is important to emphasize that the effects of our control variables are allowed to be different in every three-month period (with the same normalization, $\theta_0 = 0$), just like the effect of the Republican share. Thus, when we control for a variable, we are not controlling for its average effect pre-election and post-election (as in common parlance), but we are controlling for differences related to this control variable in the specific quarter post-election.

To show that the differences in portfolios that we observe are due to differences in beliefs rather than differential hedging demands, we make use of many control variables, X_i, related to differences that might arise from differences in preferences, incomes, other wealth or the ways these factors are exposed to economic policies. Our baseline set of controls are second-order polynomials in initial equity share, age, and log initial wealth, which are as noted all interacted with quarterly indicator variables. Initial equity share and wealth are measured as of October 2015. These controls are designed to confirm that our quantitative results are not biased by initial differences that might be due to difference in, for example, risk aversion.

Table 3 shows the cumulative change, from the end of October, in equity share of Republican zip codes relative to Democratic zip codes from this baseline regression. We report the results for the four three-month periods in our sample following the election.[19] In the bottom row, we list the percentage of investors in the RI sample that are included in each regression. Recall that we require at least 10 donations in a zip code to calculate the zip code Republican contribution share. For 90.9% of investors in our RI sample, this yields a measure of political affiliation. In later columns, sample coverage drops when additional controls are included.

The first column of Table 3 shows our baseline result without controls and the second column shows the result with the baseline controls. During the first three months following the election, people in a zip code with only Republican donations increased their holdings of equity by 0.52 percent of their portfolio relative to a zip code with only Democratic donations, rising to 0.81 percent by the end of the second three-month period following the election.

This effect remains very similar as we control for a large number of variables that measure possible differences in hedging needs that might be correlated with political affiliation of zip code of residence. In a first set of controls, we capture direct characteristics of the labor income process that are interacted with quarterly dummies: a second-order polynomial in log labor income over 2015, income growth from 2016 to

[19]The Appendix contains tables which also display the three pre-election coefficients on Republican share and which correspond to the tables in the main paper. Table A.3 displays these additional coefficients for Table 3, Table A.4 for Table 4, and so forth.

2017, and an indicator variable for employer industry (3-digit NAICS).[20] The results are in columns (3) and (4).

Columns (5) through (7) show that we still find that Republicans increase their relative equity share when we control for a broad set of locational characteristics in order to capture differences in local economic conditions and the local effects of various economic policies. Specifically, we control for regional variation with indicators for urban dwelling, house price growth at the zip code level, and state indicator variables. To control for differential hedging needs related to the real effects of trade policy, we include an indicator for county manufacturing share from the Quarterly Census of Employment and Wages (in 2015) and county shipping costs from County Business Patterns (measured in 2015).[21] It is worth emphasizing again that, as in the previous columns, all controls are interacted with quarterly dummies. These controls do not do much to decrease the magnitude of our main finding. Column (6) replaces these characteristics of counties with county indicator variables and again the results are similar. Ultimately in column (7), we compare people in the same quarter working for the same employer and living in the same county but living in zip codes with different party affiliations by controlling for an indicator for each county interacted with each employer interacted with each three-month period and still find highly significant results. The magnitudes of our main effects are somewhat reduced, but this may occur because these indicator variables may be absorbing some valid variation. Our main measure of the effect of beliefs is a noisy measure of party affiliation at the zip code level. Table A.2 in the Appendix shows that the results are quite similar for our alternative measures of likely political affiliation.

These changes in portfolio are not large, in part because we do not observe individual-level political affiliations, so that even quite Republican or Democratic zip codes by our measures contain a mixture of Democratic and Republican investors. However, in part our effects are not large because most of the wealth of retirement investors is retirement wealth, and there is very little (active) trading in retirement accounts. As prior research has shown, retirement savers in the US largely stick to their default portfolio allocations and trade very rarely (for example Madrian and Shea, 2002, and Choi et al., 2013). The effects documented in Table 3 are for our entire sample of RIs. The effects are much larger among households that do re-allocate their wealth.

[20]Results are similar for 2-digit and for 4-digit NAICS controls. We use income growth from 2016 to 2017 to capture ex-post realized income growth. However, since these become available over a wide period in the year after, at the time of data collection (June 2018) not all the data was in yet. We include realized income growth for households with an equal number of members with observable labor income in both years.

[21]Urbanicity is defined by core-based statistical area (CBSA): metropolitan statistical area, micropolitan statistical area, and non-CBSA. As a measure of house prices at the zip code level, we use the Zillow Home Value Index (ZHVI) for all homes. We include house price growth from 2010 to 2015 and house price growth from 2015 to 2017 (end of year) as regression controls. Our county shipping costs are from Feenstra (1996) and Barrot, Loualiche, and Sauvagnat (forthcoming) and proxy for local firms' exposure to import competition.

Table 4 performs the same analyses as Table 3 on the subset of the population with active trading in the year prior to one year before the election. As with our graphical analysis, we find much larger differential portfolio movements among active households. The relative increase in equity share among likely Republicans who have made active trades is twice as large as that for the general population of RIs.

In sum, the regression analysis confirms that the public signal caused likely Republicans to increase their portfolio exposure to US growth relative to likely Democrats, and that we find this behavior even when controlling for many measures of differences in the real economic impact of the election, such as only using variation within people living in the same county and working for the same employer.

V. Trading Volume

A main motivation and implication of models with time-varying heterogeneous beliefs is that they generate trade among agents, something that the canonical model is either silent about or, when calibrated, tends to vastly under-predict. In this section we show that trading volume rises significantly following the election for our RI sample, consistent with these models and our interpretation of the election as a public shock that caused different movements in different households' beliefs.

We measure trades as the absolute value of the dollar amount of every purchase or sale of any security s, and define trading volume for household i in month t as:[22]

$$Trading\ Volume_{i,t} = \frac{\frac{1}{2}\sum_s(|Buy_{i,s,t}| + |Sell_{i,s,t}|)}{Assets_{i,0}}$$

Since this trading includes purchases and sales from inflows and outflows, we also construct a measure of active trades, which, as in the previous section, are trades or exchanges excluding those associated with inflows and outflows.

Figures 13.a plots average trading volume over time and shows that the volume of trade by our sample of retirement investors is on average low (relative to trading in the market), roughly 2.25% per month prior to the election. Active trades are roughly 1% per month, where we define active trades as in the previous section.

More importantly, the amount of trade rises significantly following the election. Figure 13.a shows that both total and active trading increase significantly in the month following the election. Total trading reaches more than 3% per month in March 2017. Figure 13.b shows that there is little difference in trading volume across the distribution of political affiliation in zip codes, including those that are most politically balanced.

[22]Trading volume is winsorized at 100% to remove sensitivity to a small number of extreme outliers. This affects less than 0.5% of the sample.

This similarity suggests that the Republicans and Democrats in moderate zip codes are both trading, just in opposite directions.

In contrast, there is no noticeable increase in trading activity in US equity markets overall, even in the submarket for ETFs. Presumably, this is because the trading of our sample is such a small share of total trade in US equity markets. We confirm this both with total US equity market volume and with the narrower ETF market volume, both from the CBOE (we plot these series in Figures A.6.a and A.6.b).

We conclude that the evidence on trading volume supports our hypothesis that this public event was interpreted differently by people with different models of the world, but we also note that this particular source of different beliefs can generate only a small amount of observed equity trades.

VI. Changes in Reported Beliefs

The final piece of evidence in favor of our hypotheses comes not from economic behavior but from reported expectations data. A large amount of prior research shows that Republicans and Democrats interpret not only political events differently, but that this leads to different reported economic expectations.[23] This section builds directly on Curtin (2016, 2017) and shows that in the University of Michigan Survey of Consumer Confidence (SCC), Republicans report much more optimism about the economy following the election while Democrats report more pessimism.[24]

Following Curtin (2016, 2017), we use both the usual monthly data on reported economic expectations in the SCC and special questions that the survey added about political affiliation from June to October 2016 and from February to April 2017. We cannot replicate the sample of RIs in the SCC, so instead analyze the subsample of households that hold stocks (63% of the sample weighted, 65% of the sample unweighted). The results are nearly identical for the entire SCC sample.

Our first result is that the election appears to have a dramatic effect of expectations of future national economic performance. Figure 14.a shows the average response among people with different party affiliations to the question "Looking ahead, which would you say is more likely – that in the country as a whole we'll have continuous good times during the next 5 years or so, or that we will have periods of widespread unemployment or depression, or what?" and we index the answers as Good times = 5, Good with qualifications = 4, Pro-con = 3, Bad with qualifications = 2, and Bad times = 1. On average, Republicans change from slightly pessimistic before the election, to highly

[23] See Conover, Feldman, and Knight (1986), Bartels (2002), Gaines et al. (2009), and Gillitzer and Prasad (2016).

[24] Das et al. (2017) find that reported beliefs about future macroeconomic outcomes are persistently different by socioeconomic status.

optimistic after and Democrats the reverse. Confirming this difference, Figure 14.b shows the same large changes in expectations of the unemployment rate in a year.

Our second result is that there are no similar large changes in people's reported expectations about their own economic circumstances. Figure 15.a plots by party affiliation the average answer to: "During the next 12 months, do you expect your income to be higher or lower than during the past year?" Democrats are more likely to expect higher income before election, but the advantage is small. Following the election, Republicans on average have higher reported expectations and Democrats lower, but the changes are moderate and the ultimate differences small. In contrast, Figure 15.b shows the changes in expectations of whether business conditions overall will be better or worse in a year and shows a much larger swing.

VII. Differences across Households and Accounts

A. Heterogeneity in responses across households

In this subsection, we show which characteristics of investors are associated with the largest differential responses to the election news, that is, we characterize the heterogeneity in the treatment effect. We run triple difference regressions to measure differential effects by prior year active trading, age, wealth, and equity share. We report the coefficients measuring the total response after six months in Table 5.

The interaction of Republican contribution share with active trading in the prior year highlights and confirms our previous results. The response in the equity shares of households with active trading in the prior year is almost four times as strong as those who were not active. Turning to age in column (2), there is significant variation across age groups, with the largest relative increases in equity shares for older pre-retirement investors. The coefficient for investors aged 55-64 is 1.02%, whereas the difference between Republicans and Democrats for investors with age below 35 is only $1.02 - 0.56 = 0.46$ percent of the portfolio. Equity shares move relatively more for wealthier households, with a doubling of wealth implying a 0.2 percent greater relative increase in equity shares by likely Republicans. With wealth and initial equity share, age becomes less important, with the largest responses for investors aged 45-54 and a response for investors above retirement age that is still significantly lower.

B. Heterogeneity in response across accounts

We break down our main findings by different account types to address questions such as do households primarily reallocate funds in retirement accounts or outside of these

accounts? Does money in accounts that receive more investment advice reallocate less?[25] We find that there are significant responses across all types of accounts, with slightly larger responses for investors with personal (non-retirement) accounts and slightly lower responses in accounts eligible for significant financial advice.

Table 6 shows how the responses differ across funds or different types of accounts held by RIs at the firm. The first column presents our main results again, which largely represent the response in retirement accounts, since this is the vast majority of wealth held by our RIs. In the second column, we restrict the sample to households that own personally advised accounts. The post-election coefficients on political affiliation are slightly smaller, but still significant. The same is true for the third column, which has results for the subset of households with a single, unmarried household head. Because we may only observe one member of a household, we are more confident that we observe the full portfolio of unmarried investors. A possible explanation for the lower magnitude in this sample is that these are typically younger investors with lower balances and a higher initial equity allocation (see Section VII.A).

In the final four columns, we zoom in on allocation decisions in different types of retirement and non-retirement accounts. In column 4, we present results for the subsample of households that have a personal investment account. The effects are slightly larger for these households. In column 5, we calculate portfolio allocations in this subsample exclusively for wealth that is in personal investment accounts, and find slightly smaller relative differences than for all (mostly retirement) wealth. Column 6 shows that we find larger effects for RIs that have a personal non-retirement brokerage account. But, as we found for the larger category of personal wealth, the larger effect is not driven by rebalancing in the specific account. In column 7, analogous to column 5, the divergence in equity shares is significant but smaller when considering only the part of investable wealth that is in non-retirement brokerage accounts.

VIII. Extensions

A. Household saving behavior

Gerber and Huber (2009, 2010) began a literature in political science studying whether local economic activity is affected differently by elections in localities with different political affiliations. These papers and the subsequent literature has primarily focused on consumption spending (McGrath 2016; Benhabib and Speigel, 2016, Gillitzer and Prasad, 2016; Mian, Sufi, and Khoshkou 2017). While there is disagreement across the papers, the balance of this evidence suggests little to no differential effect of the election on local consumption levels across areas with different dominant political affiliations.

[25] A common financial adviser line is "keep your politics out of your portfolio."

This finding is striking in part because one would expect differential *real* effects of the election outcome through policy on the current, and future economic circumstances of people with different political affiliations. In contrast to this literature, we measure individual-level behavior controlling for the real effects on the local economy and labor income. In this section, we show that there is some weak evidence that the typical Republican retirement investor decreased their saving by a small amount following the election, relative to their Democratic counterparts.

We investigate saving using three measures of inflows into accounts.

First, we investigate a measure that exists for all RIs in our sample, the *net flow rate*, defined as net account inflows less account outflows as a share of total initial balance:

$$Net\ Flow\ Rate_{i,t} = \frac{Deposits_{i,t} - Withdrawals_{i,t}}{Financial\ Wealth_{i,0}}.$$

Figure 16 shows these different saving rates by zip code quantiles, and reveals no difference by likely party affiliation. We also run a similar regression to that in Section IV but using the net flow rate as the dependent variable. Because net inflows have a large seasonal component, we report quarterly coefficients relative to the same quarter in the year prior to the election. The first column of Table 7 shows little evidence for differences in saving following the election. The coefficients are statistically insignificant and unstable across periods (and specifications), with point estimates ranging from -0.03 to 0.08 percent of investment wealth.

While net flow rate exists for all RIs, it has two disadvantages. First, for a given dollar amount of saving, it over-weights observations with low initial account balances. Consistent with this overweighting, among prime age RIs (age 45-55 in column 2) we find some evidence that Republican households, who became more optimistic, increased their saving relative to Democratic households following the election, although still not statistically significant.

At some loss of sample size however, we can instead measure a saving rate more directly by defining the *net saving rate* as net inflows to income:

$$Net\ Saving\ Rate_{i,t} = \frac{Deposits_{i,t} - Withdrawals_{i,t}}{Income_{i,t}}.$$

This has the obvious advantage of being a more standard measure of the saving rate but limits our sample to RIs for which we observe annual income. We construct quarterly measures by dividing annual income equally over the year. Column 3 of Table 7 shows statistically very weak evidence of the reverse of our first measure: that Republican households saved less relative to Democratic households following the election. While statistically insignificant, the effect is economically small but not trivial, on the order of a third of a percent of income.

The other disadvantage of our first measure of saving, which also applies to this second measure, is that these measures of saving rates have a lot of variation over time

and across people because of large withdrawals and large inflows, presumably both significantly due to transfers out of and into the financial institution rather than due to actual saving. A partial solution to this problem is to do the analysis at the account level rather than aggregating at the household level, by only measuring flows into and out of active retirement accounts as a fraction of income registered under those accounts. Column 4 of Table 7 shows the results of this exercise, and we find statistically stronger evidence that Republican households reduced their saving rates relative to Democratic households following the election.

As a better solution to the fact that inflows are noisy measures of actual saving, we measure the *retirement saving rate* as the chosen contribution rate (as percent of income) that we observe investors choosing associated with their active retirement accounts. The advantage of this measure is that it avoids account inflows and outflows that represent transfers from and to other institutions. This measure still does not avoid the possibility of substitution between retirement saving and non-retirement.

Column 5 of Table 7 shows economically small but now statistically strong evidence that the typical Republican retirement investor decreased their retirement saving rate following the election, relative to their Democratic counterpart.[26] However there are two important caveats to this evidence. First, as noted the effects are economically small, on the order of 0.05 percent of income. But second and more important, there is a similar sized decline in the year prior to the election (see Table A.7).

We take this evidence as suggestive of only very small effects of the election on households saving rates. If this were also true of consumption spending, this would have two implications. First, and less important given our extensive controls, a non-response of consumption further mitigates the concern that differences in the economic effects of the policy changes cause the differences in portfolio responses that we find. Second, only certain utility functions are consistent with differences in beliefs that cause differences in portfolio exposures to risk without causing differences in consumption changes. Specifically, these findings are consistent with a unit elasticity of intertemporal substitution.

The Michigan SCC data also supports this interpretation. As we showed in Figures 15.a and 15.b, in contrast to the large changes in beliefs about the future of the US economy, households report only small changes in their expectations about their own personal economic situations. Here we show that Republicans and Democrats do not report changing their views about whether it is a good time to consume.

Figures 17.a and 17.b show that we only observe small changes in responses to the questions: "Generally speaking, do you think now is a good or a bad time for people to

[26]Unlike in the rest of our analysis of saving rates, we do not measure the effect of contribution rates relative to a year before because there is almost no seasonality in contribution rates.

buy major household items / a house?" These figures show that, consistent with the strong economy, most people believe it is a good time to buy a house or major durable item before the election, with an observable difference between Democrats and Republicans only for the purchase of a durable item. This difference goes away after the election, with beliefs about the purchase of a durable item similar by party after the election. For the purchase of a house, Republicans and Democrats hold similar views prior to the election and Republicans become slightly more optimistic following the election.

B. Differences in the ex ante composition of equity holdings

While both the share of equity and the market beta of the portfolios of households with different political affiliations are quite similar prior to the election, the composition of their equity holdings is not. And stock market performance differed substantially across stocks and sectors expected to benefit from the unexpected change in party control (Wagner et al., 2018). These facts do not change our previous results.

We focus on stocks that were associated with industries that rallied immediately following the election and those that did not. We use Global Industry Classification Standard (GICS) codes to measure exposure to different sectors. We use the Morningstar benchmark for sector mutual funds and Compustat/CRSP for directly-held equity. The sectors are energy, materials, industrials, consumer discretionary, consumer staples, health care, financials, information technology, telecommunication services, utilities, and real estate. We classify an industry as a *winner* or *loser* from its stock market response from the end of October through to the end of 2016. The winning industries are financials, telecommunication services, energy, materials, and industrials, while the losing ones are consumer staples, utilities, information technology, health care, and real estate. Consumer discretionary is in the middle and is considered neither.

Figure 18 shows that households in zip codes with different predominant political affiliations held quite different exposures, with the top quintile of Republican zip codes holding 7.5% of their portfolios in winners relative to only 5% share for the top quintiles of Democratic zip codes (Figure 18.a). For losing industries, the picture is reversed with the most Democratic zip codes holding more than 6% of their portfolio in losing industries and the most Republican holding less than 5% (Figure 18.b). This difference in holdings is significantly due to people overweighting their employer's stock and employer's industry in their portfolio. For investors for whom we can construct the industry of their employer, 66% of the difference in allocation to winners and 14% of the difference in allocation to losers can be attributed to own industry allocations.

This heterogeneity however does not alter our main funding. First note that the shares shown in Figure 18.a and 18.b move nearly in parallel following the election. A

formal test, as reported in columns 5-8 of Table 8, reveals that Republican households slightly tilt their exposure towards winning sectors and reduce their exposure to losing sectors, relative to Democrats. The latter finding goes in the opposite direction of what follows from purely passive behavior, since Democrats start with higher initial exposure to losing sectors. This also suggests that investors of different political affiliations do not disagree on the extent to which the election differentially impacted the different sectors of the economy.

Second, recall that Figure 11 shows that the market beta of the portfolios of Republicans rises relative to Democrats after the election. Could this be due to differences in the market beta of the equity portfolio of people with different political affiliations? Figure 19 shows both minimal differences in market beta of equities by party affiliation and only small relative changes in beta of equity following the election.[27] Columns 3 and 4 in Table 8 quantify these differences. Within equity we still see an increase in market exposure of Republicans relative to Democrats, controlling for ex-ante differences. But the magnitude only explains a modest part of the overall relative difference in market exposure. This is consistent with our main set of results that focus on the rise in equity share of Republicans relative to Democrats.

C. The response of international share of portfolio

We find that differences in beliefs about the future state of the US economy do not translate into differential shifts into and out of international equity investments.[28]

Figure 20 shows the share of international equity across households sorted into quintiles by party affiliation of their zip code, relative to the end of October 2016. Prior to the election there is a small relative decrease in the international share held by the most Democratic zip codes, and a similar small relative decrease following the election. The overall rise in the portfolio shares of international equity is driven primarily by the fall in the international value of the dollar following the election. That is, there is a very small trend through the election towards Republican areas increasing their exposure to international equity relative to Democratic areas. Columns 9 and 10 of Table 8 show that regression analysis confirms this conclusion.

D. The Aggregate Impact of Different Changes in Beliefs

The public signal of the election changed beliefs and caused trade and portfolio allocation across households. Did this change in disagreement change the net demand for equity of the retirement investor sample that we observe? Did the heterogeneous

[27]We measure the market beta of equity holdings for pure equity funds and individual equities, conditional on owning any.

[28]Individual equity is classified as international if it is traded on an international exchange or if the company is incorporated outside the US. Equity funds are classified as domestic or international based on their product description.

changes in beliefs and the resulting trade contribute to the high returns on the stock market following the election?

We can provide only a very rough answer to these questions. We begin by defining the baseline relative to which we measure the effect of differences in the updating of beliefs. We assume that there would have been no change in the demand for equity from the election had the Democratic candidate won the election, that is, had the much more likely outcome occurred. Further, we base our calculation on our regressions using county vote share as the measure of political affiliation (see Table A.2) and assume there was no net change in the demand for equity in a county in which investible wealth is evenly split between Democrats and Republicans. Finally, we assume that wealth is uncorrelated with party affiliation within counties.

Under these three significant assumptions, the change in net demand for equity from each county is our regression coefficient times county wealth times the difference between county vote share and 0.5. Summing across counties leads to a decrease of $800 million in the demand for equity by the investors that we observe over the six-month period following the election.[29]

What about the aggregate demand for equity? We only observe a fraction of the retirement investors and wealth in each county. To scale our estimate to a measure for all retirement investors, we scale up the demand in each county by multiplying by the share of the population that we observe in that county (based on US Census data) times the national share of households that are retirement investors (from the 2016 SCF). Again, summing across counties, this crude estimate implies that the demand for equity declined by $1.36 billion among retirement investors in the US. Finally, while we do not know much about the political affiliations of very wealthy households, if we simply scale this number up by the inverse of the share of the investable wealth in the US held by retirement investors in the 2016 SCF, this back-of-the-envelope calculation implies that the election cause a decrease in the net demand for equity of $3.33 billion dollars in six months following the election. This is obviously a very rough estimate.

IX. Concluding Discussion

This paper presents evidence that people hold different models of the economy and that these different beliefs differentially affect trading behavior in response to a common public signal. Households which are likely Republican responded to the election by increasing their share of investments in equity and as a result increased their beta with the stock market. Households which are likely Democratic voters pulled money out of the stock market and invested instead in bonds and safe securities. The results are larger for

[29]We find a nearly identical number in an alternative calculation that allows a relationship between wealth and party affiliation. We estimate the linear relationship between wealth and party affiliation based on country-level data and assume the same relationship at the individual level.

households which have a history of trading more actively, which is in line with the prior research that a large fraction of households show sticky portfolio allocations in their retirement savings.

We provide extensive evidence that these differences in trading behavior are not driven by differential effects of the election on the income, risk exposure, or wealth of people with different affiliations through the real effects of changes in economic policies. We find highly significant effects even when we control for household characteristics and measures of hedging needs including employer-county fixed effects. Finally, we show that these differential trading behavior across households leads to an income of trading volumes, consistent with dynamic models of heterogeneous beliefs like Scheinkman and Xiong (2003).

Stock market movements in response to news are determined by heterogeneous investors that have different models of the economy and so update their beliefs and re-balance differentially in response to events that are common knowledge.

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Table 1: Summary Statistics on Portfolios of Retirement Investors Sample

			Republican contribution share				
	All	SCF	[0,0.35)	[0.35,0.45)	[0.45,0.55)	[0.55,0.65)	[0.65,1]
Share of sample	100.0%		40.8%	16.4%	13.5%	11.3%	8.9%
Average wealth (in 1,000 USD)							
Total investable wealth	156.5	300.5	166.8	156.6	154.9	159.8	148.2
Retirement wealth	126.8	140.8	128.9	129.8	128.9	131.9	124.8
Median wealth (in 1,000 USD)							
Total investable wealth	63.2	87.0	64.7	65.1	64.7	66.9	61.5
Retirement wealth	59.3	64.0	59.7	61.2	61.2	63.2	58.8
Average product shares							
Risky funds and securities	90.0%	93.2%	89.1%	90.2%	90.4%	90.4%	90.7%
Risky securities only	7.3%		7.0%	7.3%	7.4%	7.8%	7.7%
Riskless products	9.3%	4.3%	10.1%	9.1%	8.9%	8.9%	8.6%
Other assets	0.7%	2.6%	0.7%	0.7%	0.7%	0.7%	0.7%
Average allocation							
Equity share	69.3%	51.2%	69.7%	69.4%	69.2%	69.2%	68.7%
Long-term bond share	20.6%	44.3%	19.4%	20.7%	21.1%	21.2%	21.9%
Short-term bond share	9.4%	4.5%	10.2%	9.2%	9.0%	9.0%	8.7%
Market beta	0.751		0.752	0.751	0.751	0.752	0.751
Average allocation (weighted)							
Equity share	66.3%	58.4%	66.8%	66.4%	66.0%	65.6%	65.2%
Long-term bond share	21.9%	35.0%	20.7%	22.2%	22.5%	22.5%	23.5%
Short-term bond share	10.7%	6.5%	11.4%	10.3%	10.5%	10.8%	10.3%
Market beta	0.716		0.719	0.717	0.714	0.710	0.709

Notes: This table presents summary statistics on wealth and portfolio allocations of our retirement investors (RI) sample as of October 31, 2016, for the full sample and for five groups by zip code party affiliation measured from political contributions. We select households with quasi-liquid retirement wealth and run quantile regressions of log retirement wealth on a third order polynomial in age for households in the 2016 Survey of Consumer Finances (SCF). We use the fitted 10th and 90th percentiles by age as retirement wealth cutoffs at the initial date. We include households with age of the head between 25 and 85 years and create a balanced panel by filtering on households that have portfolio holdings between 20% and 500% of initial assets over the sample period from October 31, 2015 to October 31, 2017. All funds and individual securities are characterized as equity, long-term bonds, short-term bonds, or alternative assets. Mixed funds are subdivided into equity and long-term bonds. Market betas are obtained by regressing monthly fund or security excess returns on the value-weighted CRSP market excess return over the period 2007–2017 with at least 24 observations. We calculate portfolio betas for households that have at least 75% of risky assets in assets with observed betas.

Table 2: Summary Statistics on Demographics of Retirement Investors Sample

			Republican contribution share				
	All	SCF	[0,0.35)	[0.35,0.45)	[0.45,0.55)	[0.55,0.65)	[0.65,1]
Percentage of RI sample with observed							
Gender	94.4%		94.6%	94.8%	94.7%	94.8%	94.3%
Marital status	86.9%		85.4%	87.3%	87.9%	87.9%	88.8%
Personal assets	39.3%		42.4%	39.5%	38.7%	39.0%	36.1%
Brokerage assets	16.4%		18.7%	16.4%	15.0%	16.1%	14.2%
Employer industry	62.1%		59.8%	62.4%	62.8%	62.7%	64.2%
Labor income in 2015	48.7%		44.9%	50.0%	50.4%	51.0%	52.8%
Income growth over 2016-17	33.3%		29.8%	34.2%	34.4%	35.5%	37.5%
Active trade in prior year	29.5%		30.4%	30.3%	29.8%	30.5%	28.6%
Average age in years	49.8	51.9	48.9	50.1	50.5	50.7	50.7
% Female	43.3%	20.5%	46.2%	44.0%	42.6%	40.6%	37.6%
% Married	74.8%	68.5%	71.6%	75.5%	76.6%	78.3%	79.4%
Labor income in 2016 (in 1,000 USD)							
Average	101.6	100.2	113.9	100.0	97.2	99.9	93.2
Median	78.0	75.9	83.5	79.0	77.2	79.0	75.7
10th percentile	32.4	29.4	32.4	32.6	32.3	33.3	33.4
90th percentile	180.0	177.2	204.1	178.3	171.3	176.1	161.4

Notes: This table presents summary statistics on demographics and composition of our retirement investors (RI) sample as of October 31, 2016, for the full sample and for five groups by zip code party affiliation measured from political contributions. We select households with quasi-liquid retirement wealth and run quantile regressions of log retirement wealth on a third order polynomial in age for households in the 2016 Survey of Consumer Finances (SCF). We use the fitted 10th and 90th percentiles by age as retirement wealth cutoffs at the initial date. We include households with age of the head between 25 and 85 years and create a balanced panel by filtering on households that have portfolio holdings between 20% and 500% of initial assets over the sample period from October 31, 2015 to October 31, 2017.

Table 3: Regressions of Equity Share on Likely Political Affiliation

	Portfolio equity share (in %), all households						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Zip code Republican contribution share × Post 1 quarter	0.510	0.521	0.516	0.357	0.385	0.351	0.274
	(0.019)	(0.019)	(0.024)	(0.028)	(0.025)	(0.025)	(0.029)
Zip code Republican contribution share × Post 2 quarters	0.727	0.811	0.749	0.623	0.654	0.589	0.440
	(0.025)	(0.024)	(0.031)	(0.035)	(0.030)	(0.032)	(0.036)
Zip code Republican contribution share × Post 3 quarters	0.540	0.679	0.671	0.657	0.604	0.655	0.502
	(0.035)	(0.029)	(0.035)	(0.041)	(0.037)	(0.038)	(0.040)
Zip code Republican contribution share × Post 4 quarters	0.561	0.810	0.980	0.730	0.656	0.688	0.571
	(0.036)	(0.032)	(0.040)	(0.044)	(0.041)	(0.043)	(0.045)
Quarterly controls							
Initial equity share (2nd order)		Y	Y	Y	Y	Y	Y
Age (2nd order)		Y	Y	Y	Y	Y	Y
Log initial wealth (2nd order)		Y	Y	Y	Y	Y	Y
Employer industry (3-digit NAICS)			Y	Y			
Log labor income in 2015 (2nd order)				Y			
Labor income growth (2016-17)				Y			
Urbanicity					Y		
Zip code house price growth (2010-15, 2015-17)					Y		
State					Y		
County manufacturing share					Y		
County shipping costs					Y		
County						Y	
Employer × county							Y
Percentage of RI sample	90.9%	90.9%	55.8%	25.3%	83.9%	90.6%	56.7%

Notes: This table presents regression coefficients of quarterly household portfolio equity shares on the zip code Republican contribution share, interacted by quarterly dummies, for various sets of controls. The portfolio equity share is defined as the sum of equity securities, pure equity funds, and the equity portion of hybrid funds, relative to total portfolio assets. We report the results for the four quarters following the election, relative to allocations just before the election. In the baseline specification (2), we control for quarterly second-order polynomials in initial share and log financial wealth, a second-order polynomial in age below 65, a dummy for age above 65, as well as individual and time fixed effects. Financial wealth is defined as the total amount of household financial assets in retirement and non-retirement accounts. Wealth and the initial equity share are measured as of October 31, 2015. In specifications (3)-(8) we consider alternative sets of controls (interacted by a full set of quarterly dummies) that include employer industry dummies (3-digit NAICS), a second-order polynomial in log labor income over 2015, income growth over 2016–2017 (for the subset available as of June 2018), urbanicity (metropolitan, micropolitan, or non-CBSA), zip code house price growth from 2010–2015 and 2015–2017 (Zillow), state dummies, county manufacturing share (QCEW), county shipping costs (CBP), and county dummies. The sample is our full set of RI households. Standard errors are clustered at the zip code level.

Table 4: Regressions of Equity Share on Likely Political Affiliation for Active Investors

	Portfolio equity share (in %), active households						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Zip code Republican contribution share × Post 1 quarter	1.189	1.069	0.968	1.007	0.786	0.681	0.624
	(0.036)	(0.036)	(0.053)	(0.078)	(0.048)	(0.055)	(0.089)
Zip code Republican contribution share × Post 2 quarters	1.791	1.655	1.494	1.556	1.315	1.171	1.037
	(0.045)	(0.044)	(0.065)	(0.095)	(0.057)	(0.068)	(0.106)
Zip code Republican contribution share × Post 3 quarters	1.769	1.588	1.404	1.624	1.275	1.294	1.080
	(0.055)	(0.050)	(0.074)	(0.105)	(0.066)	(0.078)	(0.118)
Zip code Republican contribution share × Post 4 quarters	1.680	1.555	1.562	1.646	1.297	1.379	1.187
	(0.062)	(0.056)	(0.080)	(0.112)	(0.072)	(0.083)	(0.128)
Quarterly controls							
Initial equity share (2nd order)		Y	Y	Y	Y	Y	Y
Age (2nd order)		Y	Y	Y	Y	Y	Y
Log initial wealth (2nd order)		Y	Y	Y	Y	Y	Y
Employer industry (3-digit NAICS)			Y	Y			
Log labor income in 2015 (2nd order)				Y			
Labor income growth (2016-17)				Y			
Urbanicity					Y		
Zip code house price growth (2010-15, 2015-17)					Y		
State					Y		
County manufacturing share					Y		
County shipping costs					Y		
County						Y	
Employer × county							Y
Percentage of RI sample	27.5%	27.5%	12.8%	5.8%	25.6%	27.5%	13.0%

Notes: This table presents regression coefficients of quarterly household portfolio equity shares on the zip code Republican contribution share, interacted by quarterly dummies, for various sets of controls. The portfolio equity share is defined as the sum of equity securities, pure equity funds, and the equity portion of hybrid funds, relative to total portfolio assets. We report the results for the four quarters following the election, relative to allocations just before the election. In the baseline specification (2), we control for quarterly second-order polynomials in initial share and log financial wealth, a second-order polynomial in age below 65, a dummy for age above 65, as well as individual and time fixed effects. Financial wealth is defined as the total amount of household financial assets in retirement and non-retirement accounts. Wealth and the initial equity share are measured as of October 31, 2015. In specifications (3)-(8) we consider alternative sets of controls (interacted by a full set of quarterly dummies) that include employer industry dummies (3-digit NAICS), a second-order polynomial in log labor income over 2015, income growth over 2016–2017 (for the subset available as of June 2018), urbanicity (metropolitan, micropolitan, or non-CBSA), zip code house price growth from 2010–2015 and 2015–2017 (Zillow), state dummies, county manufacturing share (QCEW), county shipping costs (CBP), and county dummies. The sample is the subset of households with active trades or exchanges in the prior year. Standard errors are clustered at the zip code level.

Table 5: Regressions of Equity Share on Likely Political Affiliation, Heterogeneous Treatment Effects

	Portfolio equity share (in %), all households				
	(1)	(2)	(3)	(4)	(5)
Zip code Republican contribution share	0.381	1.020	0.808	0.812	0.426
× Post 2 quarters	(0.024)	(0.045)	(0.024)	(0.045)	(0.045)
Zip code Republican contribution share	1.453				1.457
× Post 2 quarters × Active before	(0.025)				(0.025)
Zip code Republican contribution share		-0.557		0.065	-0.030
× Post 2 quarters × Age $<$ 35		(0.064)		(0.068)	(0.068)
Zip code Republican contribution share		-0.353		0.019	0.014
× Post 2 quarters × Age 35-44		(0.053)		(0.057)	(0.057)
Zip code Republican contribution share		-0.039		0.135	0.168
× Post 2 quarters × Age 45-54		(0.050)		(0.052)	(0.052)
Zip code Republican contribution share		-0.277		-0.423	-0.676
× Post 2 quarters × Age $>$ 64		(0.063)		(0.065)	(0.065)
Zip code Republican contribution share			0.191	0.218	0.067
× Post 2 quarters × Log initial wealth			(0.014)	(0.015)	(0.015)
Zip code Republican contribution share			-0.760	-0.884	-0.929
× Post 2 quarters × Initial equity share (pct)			(0.095)	(0.103)	(0.102)
Quarterly controls					
Initial equity share (2nd order)	Y	Y	Y	Y	Y
Age bucket	Y	Y	Y	Y	Y
Log initial wealth (2nd order)	Y	Y	Y	Y	Y
Percentage of RI sample	90.9%	90.9%	90.9%	90.9%	90.9%

Notes: This table presents regression coefficients of various quarterly household portfolio measures on the zip code Republican contribution share, interacted by quarterly dummies and demographic variables. The portfolio equity share is defined as the sum of equity securities, pure equity funds, and the equity portion of hybrid funds, relative to total portfolio assets. To estimate heterogeneous treatment effects, we interact the zip code Republican contribution share each quarter by a dummy for active trading in the preceding year, 10-year age bins, log initial wealth (demeaned), and initial equity share (demeaned). We report the results for six months after the election, relative to allocations just before the election. We control for quarterly second-order polynomials in initial share and log financial wealth, 10-year age bins, as well as individual and time fixed effects. Financial wealth is defined as the total amount of household financial assets in retirement and non-retirement accounts. Wealth and the initial equity share are measured as of October 31, 2015. The sample is our full set of RI households. Standard errors are clustered at the zip code level.

Table 6: Equity Share Regressions on Subsamples

	Portfolio equity share (in %)						
	All (1)	Advised account (2)	Single (3)	Personal account (4)	Personal wealth only (5)	Brokerage account (6)	Brokerage wealth only (7)
Zip code Republican contribution share × Post 1 quarter	0.521 (0.019)	0.317 (0.057)	0.379 (0.032)	0.605 (0.026)	0.432 (0.033)	0.763 (0.041)	0.567 (0.061)
Zip code Republican contribution share × Post 2 quarters	0.811 (0.024)	0.592 (0.071)	0.598 (0.042)	0.956 (0.032)	0.653 (0.040)	1.155 (0.051)	0.612 (0.078)
Zip code Republican contribution share × Post 3 quarters	0.679 (0.029)	0.663 (0.080)	0.547 (0.050)	0.811 (0.037)	0.459 (0.045)	1.020 (0.058)	0.224 (0.092)
Zip code Republican contribution share × Post 4 quarters	0.810 (0.032)	0.688 (0.089)	0.674 (0.054)	0.777 (0.042)	0.411 (0.053)	0.921 (0.065)	0.567 (0.110)
Quarterly controls							
Initial equity share (2nd order)	Y	Y	Y	Y	Y	Y	Y
Age (2nd order)	Y	Y	Y	Y	Y	Y	Y
Log initial wealth (2nd order)	Y	Y	Y	Y	Y	Y	Y
Percentage of RI sample	90.9%	3.6%	20.0%	36.8%	34.2%	15.6%	12.5%

Notes: This table presents regression coefficients of quarterly household portfolio equity shares on the zip code or county Republican share, interacted by quarterly dummies, in various subsamples of the population: households with advised accounts (column 2), households with a single (not married) head of household (column 3), households with a personal brokerage or retirement account (column 4), wealth in personal accounts only (column 5), households with a personal non-retirement brokerage account (column 6), and wealth in personal brokerage accounts only (column 7). The portfolio equity share is defined as the sum of equity securities, pure equity funds, and the equity portion of hybrid funds, relative to total portfolio assets. We report the results for the four quarters following the election, relative to allocations just before the election. We control for quarterly second-order polynomials in initial share and log financial wealth, a second-order polynomial in age below 65, a dummy for age above 65, as well as individual and time fixed effects. Financial wealth is defined as the total amount of household financial assets in retirement and non-retirement accounts. Wealth and the initial equity share are measured as of October 31, 2015. The sample is our full set of RI households. Standard errors are clustered at the zip code level.

Table 7: Regressions of Saving Behavior on Likely Political Affiliation

	Net flow rate (in %)		Net saving rate (in %)		Contribution
	All	Age 45-54	Household	Account	rate (in %)
	(1)	(2)	(3)	(4)	(5)
Zip code Republican contribution share × Post 1 quarter	0.080	0.070	-0.398	-0.335	-0.041
	(0.027)	(0.040)	(0.345)	(0.119)	(0.008)
Zip code Republican contribution share × Post 2 quarters	-0.028	0.068	-0.297	-0.238	-0.028
	(0.039)	(0.044)	(0.346)	(0.162)	(0.009)
Zip code Republican contribution share × Post 3 quarters	0.023	0.071	-0.571	-0.029	-0.056
	(0.027)	(0.041)	(0.377)	(0.115)	(0.010)
Zip code Republican contribution share × Post 4 quarters	-0.030	0.027	1.310	0.091	-0.178
	(0.031)	(0.042)	(0.275)	(0.136)	(0.014)
Quarterly controls					
Initial equity share (2nd order)	Y	Y	Y	Y	Y
Age (2nd order)	Y	Y	Y	Y	Y
Log initial wealth (2nd order)	Y	Y	Y	Y	Y
Log labor income in 2015 (2nd order)			Y	Y	
Initial contribution rate (2nd order)					Y
Default annual increase of rate					Y
Percentage of RI sample	90.9%	23.8%	22.8%	22.8%	45.4%

Notes: This table presents regression coefficients of quarterly household saving measures on the zip code Republican contribution share, interacted by quarterly dummies. The net flow rate is constructed as deposits minus withdrawals as a fraction of initial balances. The net saving rate is defined as deposits minus withdrawals as a fraction of quarterly income (derived from dividing annual income evenly over the year). The contribution rate applies only to households actively contributing to a retirement account. To account for seasonality, we report coefficients in columns (1)–(4) relative to the same quarter in the year prior to the election. The coefficients in column (5) are relative to the contribution rate just before the election. We control for quarterly second-order polynomials in initial share and log financial wealth, a second-order polynomial in age below 65, a dummy for age above 65, as well as individual and time fixed effects. Financial wealth is defined as the total amount of household financial assets in retirement and non-retirement accounts. Wealth and the initial equity share are measured as of October 31, 2015. We additionally control for a second-order polynomial in log 2015 labor income when estimating the effects on saving rates, and we control for the initial elected contribution rate and personalized default annual increases of contribution rates in column (5). The sample is our full set of households. Standard errors are clustered at the zip code level.

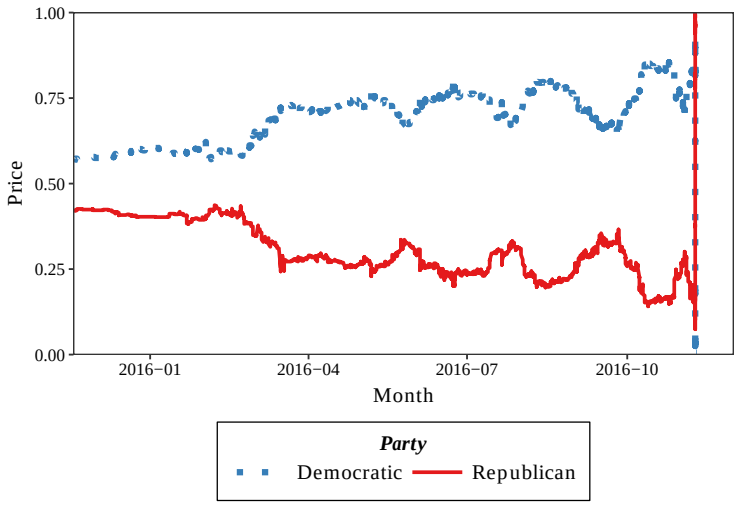
Table 8: Regressions of Portfolio Characteristics on Likely Political Affiliation

A. Market betas	Beta of portfolio		Beta of equity	
	All	Active	All	Active
	(1)	(2)	(3)	(4)
Zip code Republican contribution share × Post 1 quarter	0.414	1.017	0.131	0.256
	(0.024)	(0.051)	(0.025)	(0.050)
Zip code Republican contribution share × Post 2 quarters	0.575	1.511	0.146	0.331
	(0.031)	(0.060)	(0.029)	(0.056)
Zip code Republican contribution share × Post 3 quarters	0.538	1.306	0.083	0.161
	(0.037)	(0.068)	(0.039)	(0.064)
Zip code Republican contribution share × Post 4 quarters	0.568	1.180	0.031	0.036
	(0.044)	(0.078)	(0.043)	(0.071)
Quarterly controls				
Initial allocation (2nd order)	Y	Y	Y	Y
Age (2nd order)	Y	Y	Y	Y
Log initial wealth (2nd order)	Y	Y	Y	Y
Percentage of RI sample	71.2%	21.8%	44.2%	19.3%

B. Sector and global allocations	Winning sectors share of equity		Losing sectors share of equity		International share of equity	
	All	Active	All	Active	All	Active
	(5)	(6)	(7)	(8)	(9)	(10)
Zip code Republican contribution share × Post 1 quarter	0.025	0.049	-0.078	-0.181	0.055	0.048
	(0.008)	(0.021)	(0.008)	(0.022)	(0.012)	(0.021)
Zip code Republican contribution share × Post 2 quarters	0.020	-0.034	-0.153	-0.307	0.115	0.125
	(0.011)	(0.025)	(0.011)	(0.028)	(0.013)	(0.026)
Zip code Republican contribution share × Post 3 quarters	-0.004	-0.050	-0.196	-0.374	0.157	0.228
	(0.015)	(0.028)	(0.013)	(0.033)	(0.017)	(0.032)
Zip code Republican contribution share × Post 4 quarters	-0.040	-0.139	-0.204	-0.396	0.080	0.203
	(0.019)	(0.033)	(0.018)	(0.042)	(0.020)	(0.035)
Quarterly controls						
Initial allocation (2nd order)	Y	Y	Y	Y	Y	Y
Age (2nd order)	Y	Y	Y	Y	Y	Y
Log initial wealth (2nd order)	Y	Y	Y	Y	Y	Y
Percentage of RI sample	84.4%	26.2%	84.4%	26.2%	84.3%	26.2%

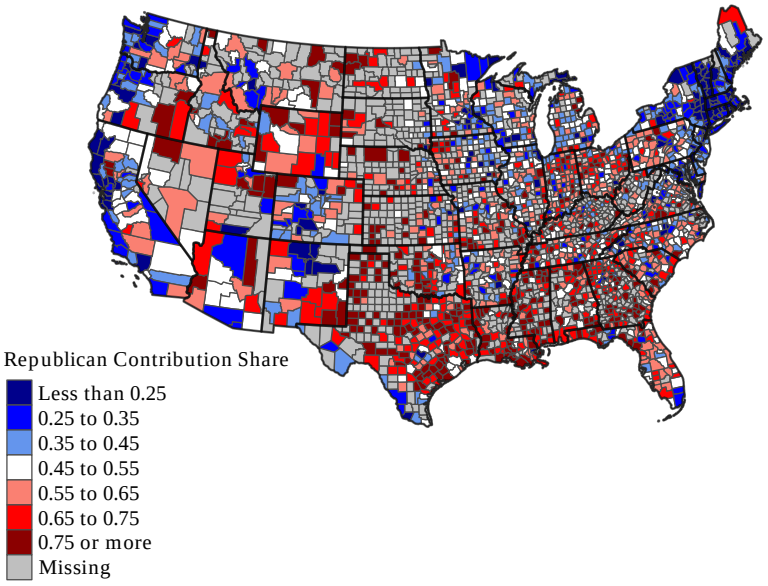
Notes: This table presents regression coefficients of quarterly household portfolio equity shares on the zip code Republican contribution share, interacted by quarterly dummies, for the full sample and for the subsample of households with active trading in the prior year. Market betas are obtained by regressing monthly fund or security excess returns on the value-weighted CRSP market excess return over the period 2007–2017 with at least 24 observations. We calculate portfolio betas for households that have at least 75% of risky assets in assets with observed betas. Winning sectors are defined as the top five sectors based on stock market returns from the election date until the end of 2016: financials, telecommunication services, energy, materials, and industrials. Losing sectors are defined as the bottom five sectors based on stock market returns from the election date until the end of 2016: consumer staples, utilities, information technology, health care, and real estate. Consumer discretionary is in the middle and is considered neither. The portfolio international share of equity is defined as the sum of international equity securities and funds relative to total equity products. We control for quarterly second-order polynomials in initial share and log financial wealth, a second-order polynomial in age below 65, a dummy for age above 65, as well as individual and time fixed effects. Financial wealth is defined as the total amount of household financial assets in retirement and non-retirement accounts. Wealth and the initial equity share are measured as of October 31, 2015. Standard errors are clustered at the zip code level.

Figure 1: Probability of Party Winning the 2016 Presidential Election



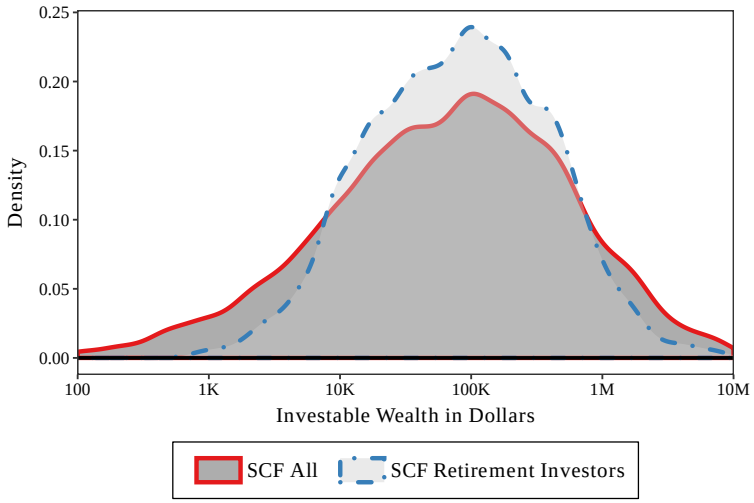
Notes: This figure plots the betting market-implied probabilities of a Democratic versus a Republican win over time. It shows the prices of two contracts traded on UK-based betting exchange Betfair, obtained through PredictWise, that pay $1 conditional on the respective party winning the election.

Figure 2: Map of Republican Contribution Share



Notes: This figure shows the geographical distribution of the Republican contribution share over the 2015-2016 election cycle. The Republican contribution share is defined as the number of individuals with campaign donations to the main Republican party and candidate committees as a fraction of the total number of individuals with campaign donations to the main committees of either party. We include zip codes with at least 10 donors and aggregate to the county level for geographical illustration.

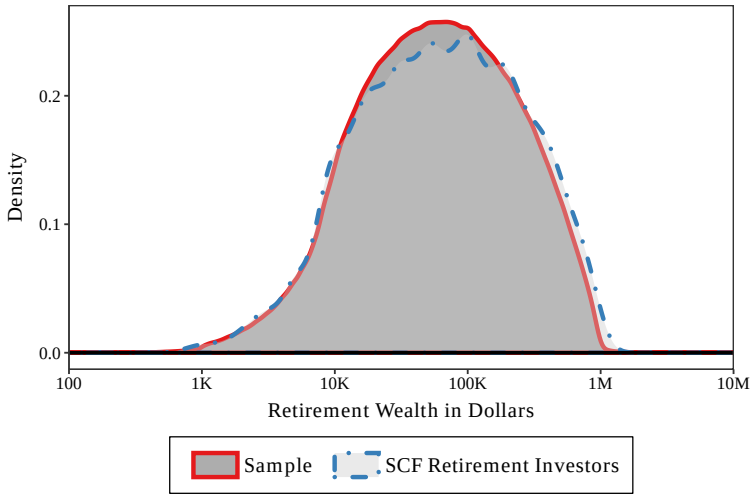
Figure 3: SCF Wealth Distribution in Population and RI Subsample



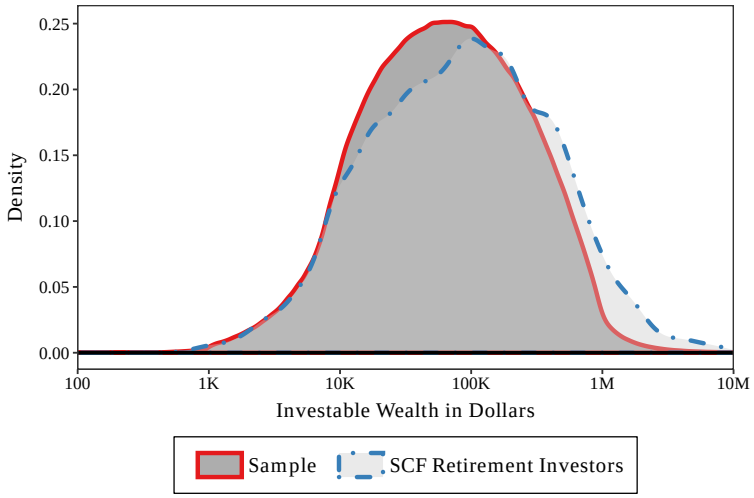
Notes: This figure plots the distribution of investable wealth (conditional on positive) in the full population and in the subsample of retirement investors (RIs) in the public version of the 2016 Survey of Consumer Finances (SCF). Investable wealth is defined as the sum of money market funds, certificate of deposits, stocks, bonds, pooled investment funds, retirement accounts, and other managed assets. To construct the RI subsample, we select households with age of the head between 25 and 85 and with quasi-liquid retirement wealth, and run quantile regressions of log retirement wealth on a third order polynomial in age. We use the fitted 10th and 90th percentiles by age as retirement wealth cutoffs.

Figure 4: Wealth Distribution in Comparison to SCF

(a) Retirement Wealth

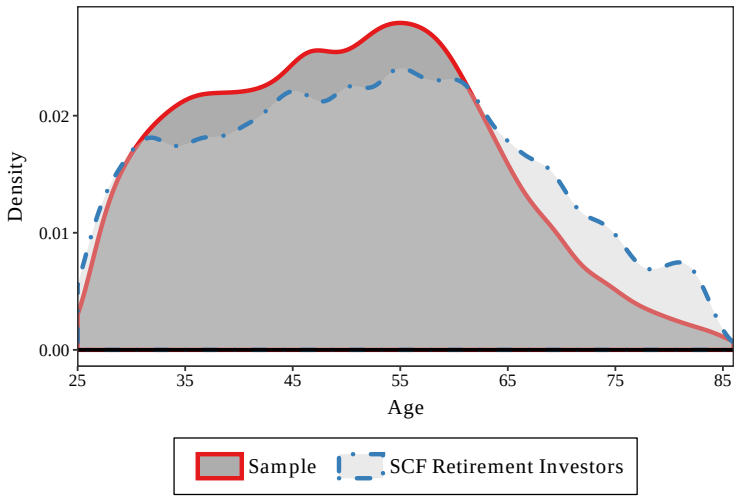


(b) Total Investable Wealth



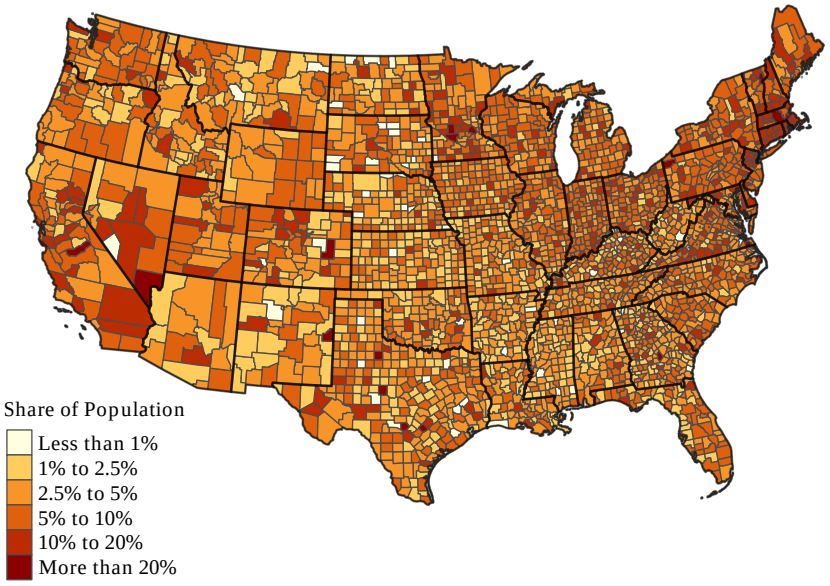
Notes: These figures plot the distributions of retirement wealth and total investable wealth, respectively, in our sample compared to the equivalent sample of RIs in the public version of the 2016 Survey of Consumer Finances (SCF). We select households with quasi-liquid retirement wealth and run quantile regressions of log retirement wealth on a third order polynomial in age for households in the 2016 SCF. We use the fitted 10th and 90th percentiles by age as retirement wealth cutoffs in both datasets. We include households with age of the head between 25 and 85 and filter our sample on households that have portfolio holdings between 20% and 500% of initial assets in every month in the sample.

Figure 5: Age Distribution in Comparison to SCF



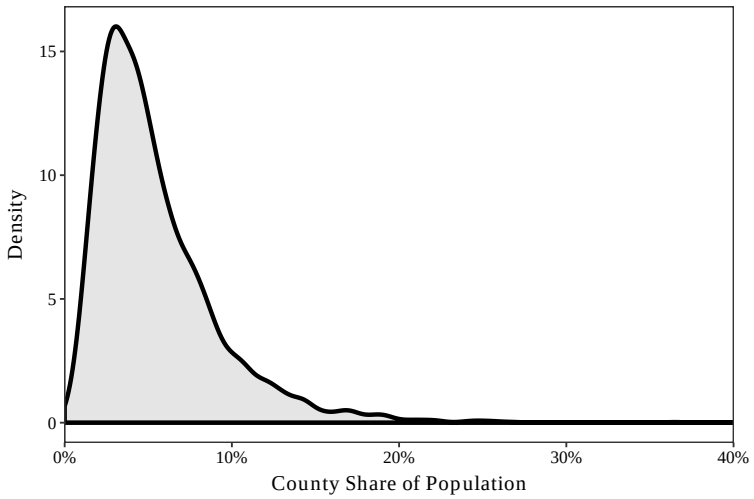
Notes: This figure plots the age distribution in our sample compared to the equivalent sample of RIs in the public version of the 2016 Survey of Consumer Finances (SCF). We select households with quasi-liquid retirement wealth and run quantile regressions of log retirement wealth on a third order polynomial in age for households in the 2016 SCF. We use the fitted 10th and 90th percentiles by age as retirement wealth cutoffs in both datasets. We include households with age of the head between 25 and 85 and filter our sample on households that have portfolio holdings between 20% and 500% of initial assets in every month in the sample.

Figure 6: Map of Household Coverage in Sample (Scrambled)



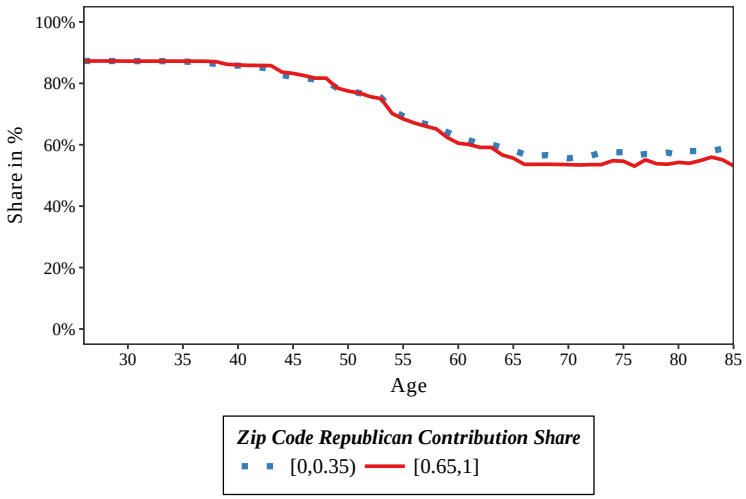
Notes: This figure shows the geographical distribution of household coverage in our sample of RIs relative to the population total number of households by county from the 2010 US Census (HSD01). We calculate the share for every county in the US and then randomly reallocate the shares across counties in each state for confidentiality reasons.

Figure 7: Distribution of Population Household Coverage by County



Notes: This figure plots the density of household coverage by county in our sample of RIs as a fraction of the population total number of households by county from the 2010 US Census (HSD01).

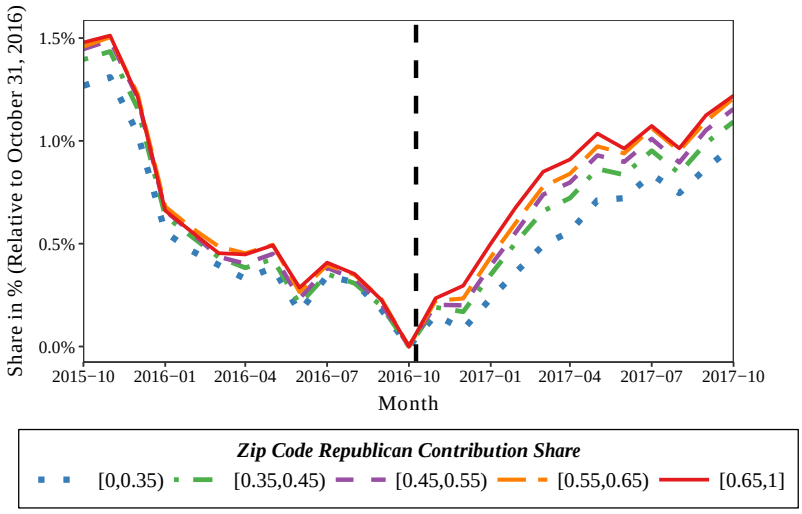
Figure 8: Median Equity Share over the Life Cycle by Political Affiliation



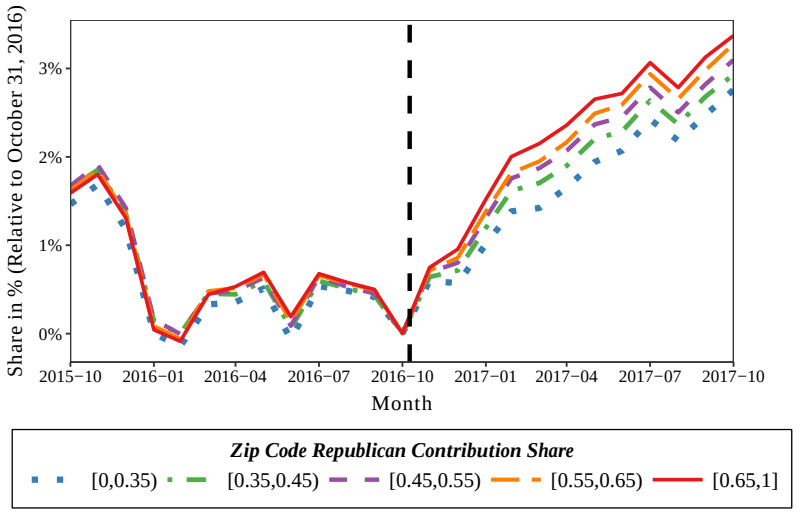
Notes: This plot illustrates the median equity share by age for Democrats versus Republicans, measured by zip code contribution share (two most extreme groups). Age and the equity share are measured as of October 31, 2016.

Figure 9: Portfolio Equity Share by Zip Code Party Affiliation

(a) Equity Share, Equally Weighted across Households



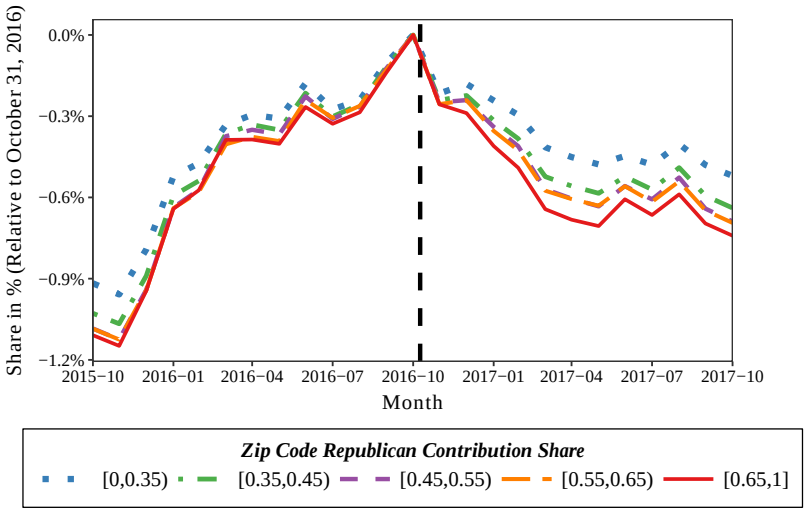
(b) Equity Share, Value Weighted across Households



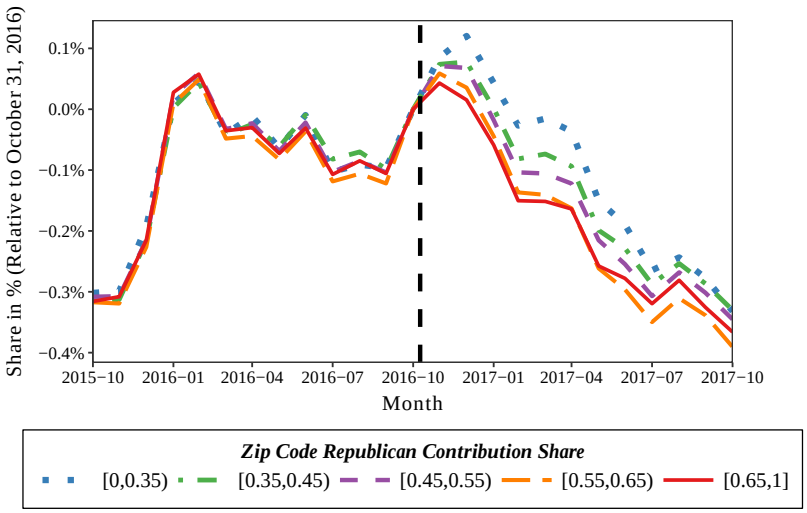
Notes: These graphs plot the average equity share of household portfolio assets in five groups by zip code party affiliation measured from political contributions, relative to the share by the end of October 2016. The portfolio equity share is defined as the sum of equity securities, pure equity funds, and the equity portion of hybrid funds, relative to total portfolio assets. The sample is our full set of RI households. Average shares by group are equally weighted and asset weighted across households, respectively.

Figure 10: Portfolio Bond Shares by Zip Code Party Affiliation

(a) Long-Term Bond Share (Equally Weighted across Households)



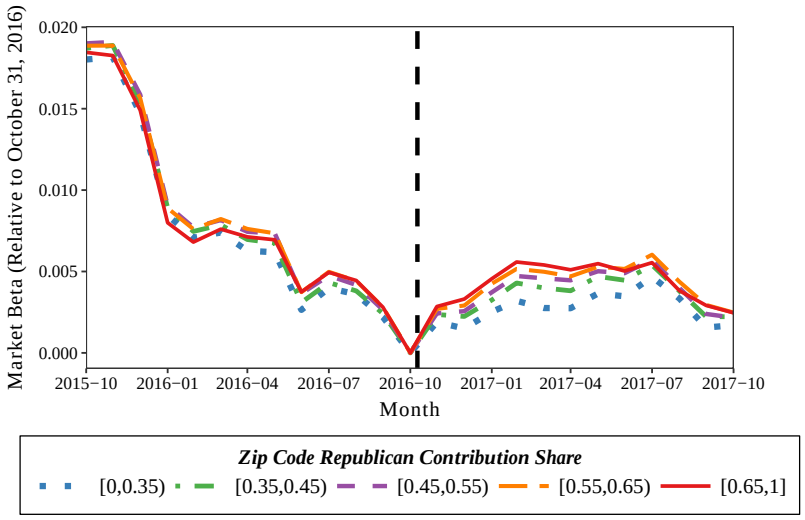
(b) Short-Term Bond Share (Equally Weighted across Households)



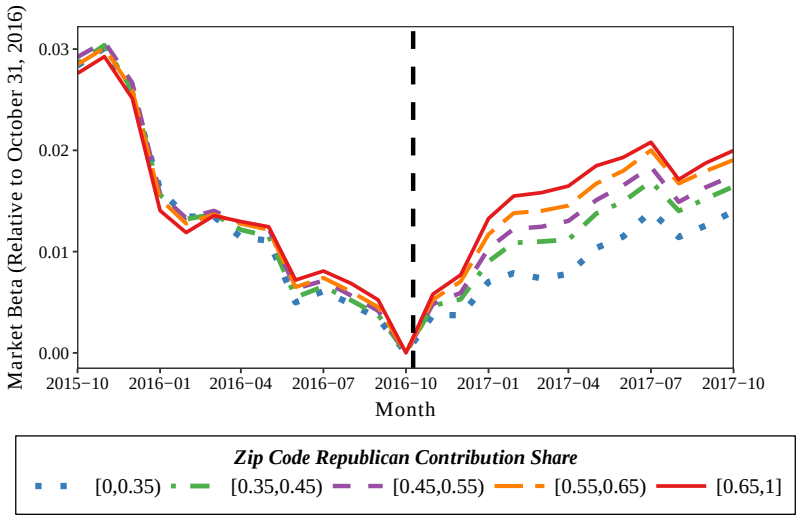
Notes: These graphs plot the average long-term bond share and short-term bond share, respectively, of household portfolio assets in five groups by zip code party affiliation measured from political contributions, relative to the share by the end of October 2016. The portfolio long-term bond share is defined as the sum of individual long-term bonds, pure bond funds, and the bond portion of hybrid funds, relative to total portfolio assets. The portfolio short-term bond share is defined as the sum of money market funds, individual short-term bonds, and CDs, relative to total portfolio assets. The sample is our full set of RI households. Average shares by group are equally weighted across households.

Figure 11: Portfolio Market Beta by Zip Code Party Affiliation

(a) Market Beta for Full Sample



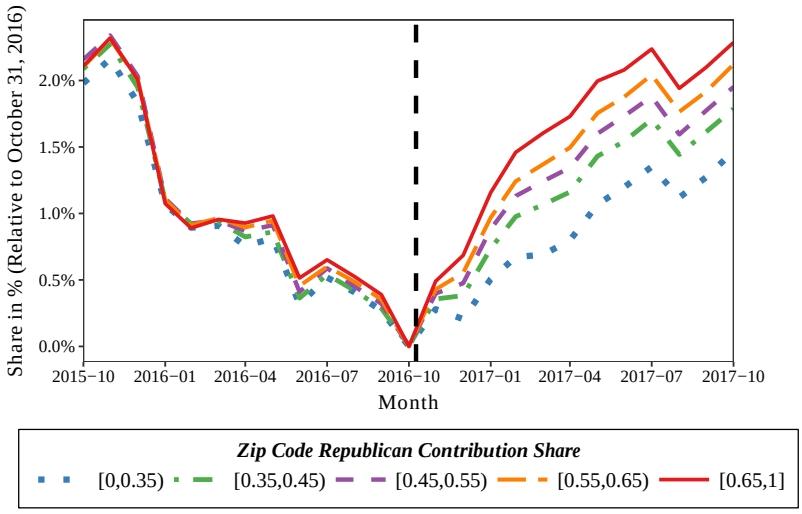
(b) Market Beta for Previously Active Sample



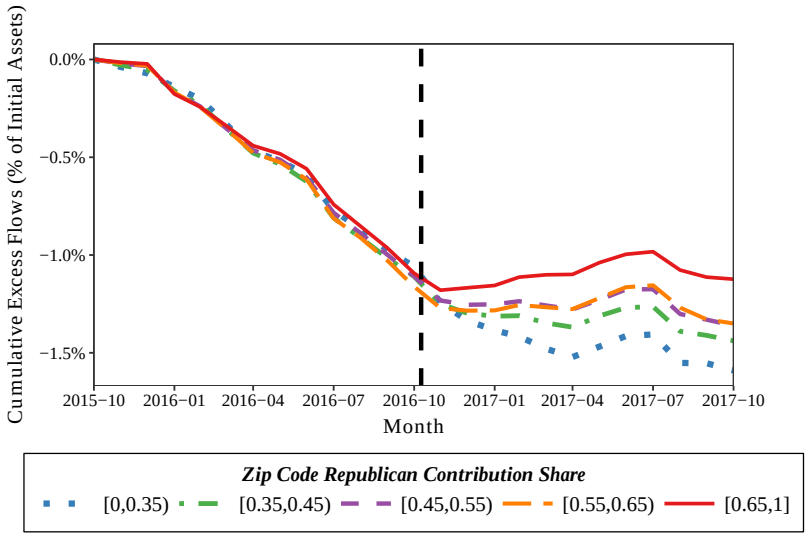
Notes: These graphs plot the average market beta of household portfolio assets in five groups by zip code party affiliation measured from political contributions, relative to the beta by the end of October 2016. Market betas are obtained by regressing monthly fund or security excess returns on the value-weighted CRSP market excess return over the period 2007–2017 with at least 24 observations. We calculate portfolio betas for households that have at least 75% of risky assets in assets with observed betas. The samples are our full set of RI households and the subset of RI households with active trades in the prior year, respectively. Portfolio betas are equally weighted across households.

Figure 12: Active Equity Rebalancing by Zip Code Political Affiliation

(a) Equity Share for Previously Active Sample



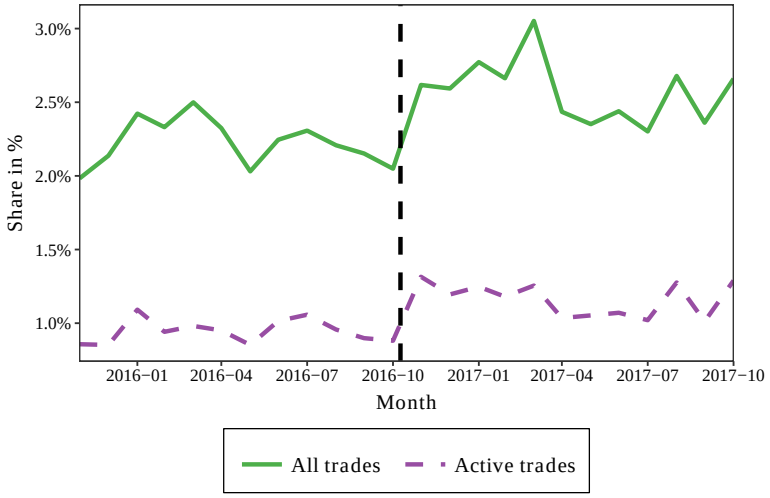
(b) Excess Equity Trades for Full Sample



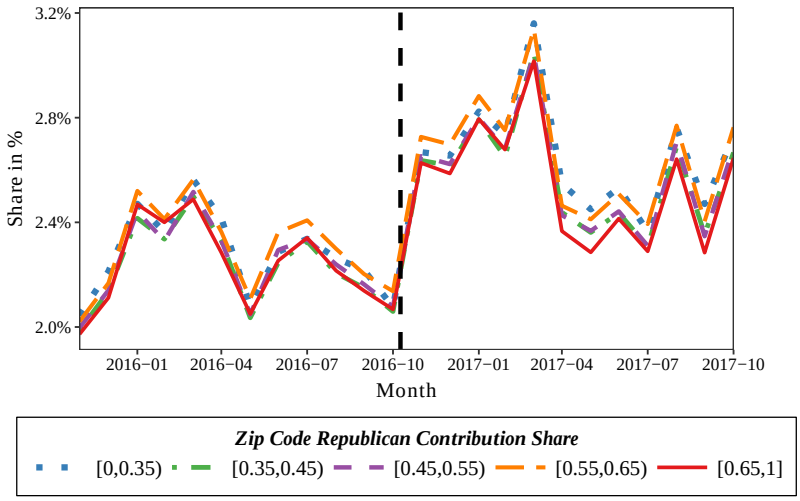
Notes: In the upper panel, we plot the average equity share of household portfolio assets in five groups by zip code party affiliation measured from political contributions, relative to the share by the end of October 2016. The portfolio equity share is defined as the sum of equity securities, pure equity funds, and the equity portion of hybrid funds, relative to total portfolio assets. The sample is the subset of RI households with active trades or exchanges in the prior year. In the lower panel, we plot cumulative excess flows into equity in five groups by zip code party affiliation measured from political contributions, starting from October 31, 2015. Excess flows are scaled by initial assets, and are defined as net equity flows minus the equity share from the previous month multiplied by total portfolio net flows. This is a measure of rebalancing into equity, where equity assets are defined as the sum of equity securities, pure equity funds, and the equity portion of hybrid funds. The sample is our full set of RI households. Average flow rates by group are equally weighted across households.

Figure 13: Trading Volume Relative to Initial Balance

(a) All and Active Trading Volume for Aggregate Sample



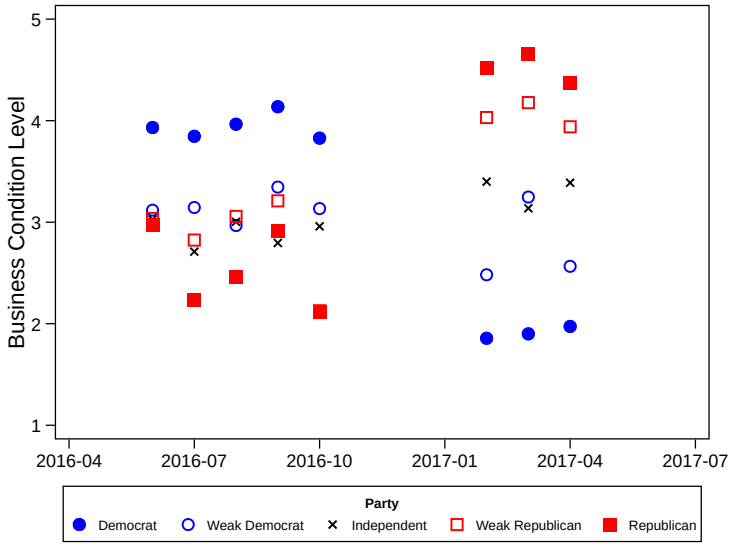
(b) Trading Volume by Zip Code Political Affiliation



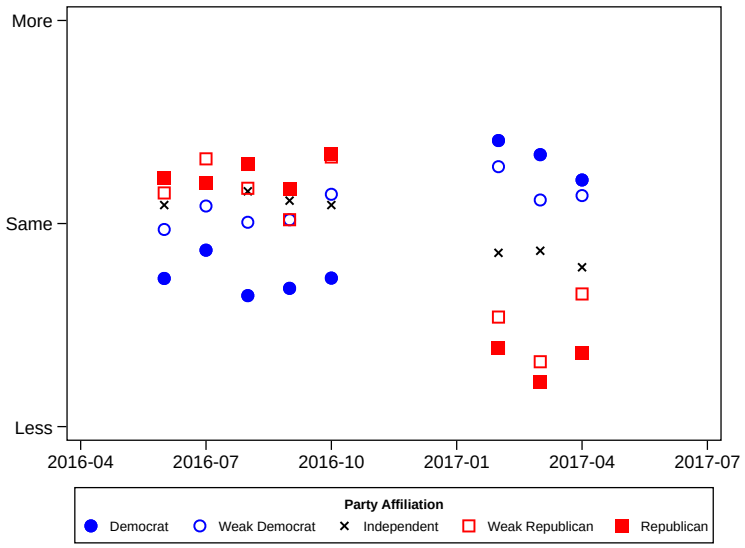
Notes: This figure plots average trading volume as a fraction of initial balance, where volume is defined as one half times the sum of the absolute values of buy and sell transactions. The upper panel plots the volume of all trades and of active trades or exchanges. The lower panel plots the volume of all trades in five groups by zip code party affiliation measured from political contributions.

Figure 14: Survey Expectations on Future State of the Economy

(a) Expected Business Conditions in 5 Years



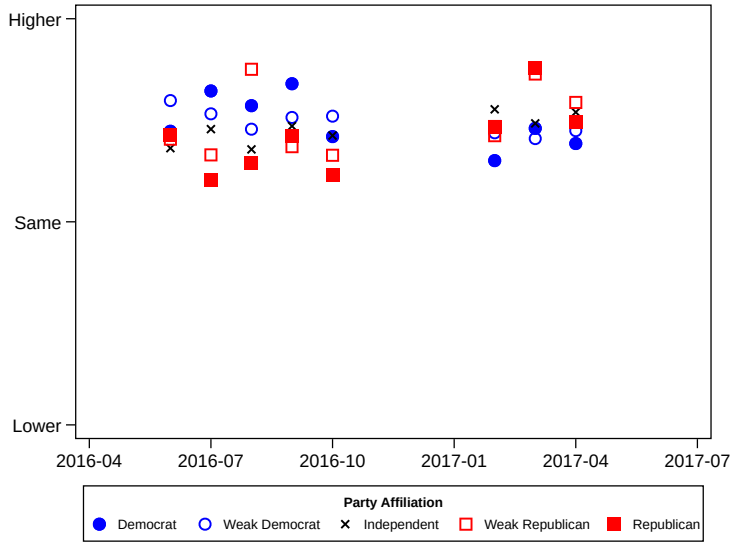
(b) Expectations on Unemployment



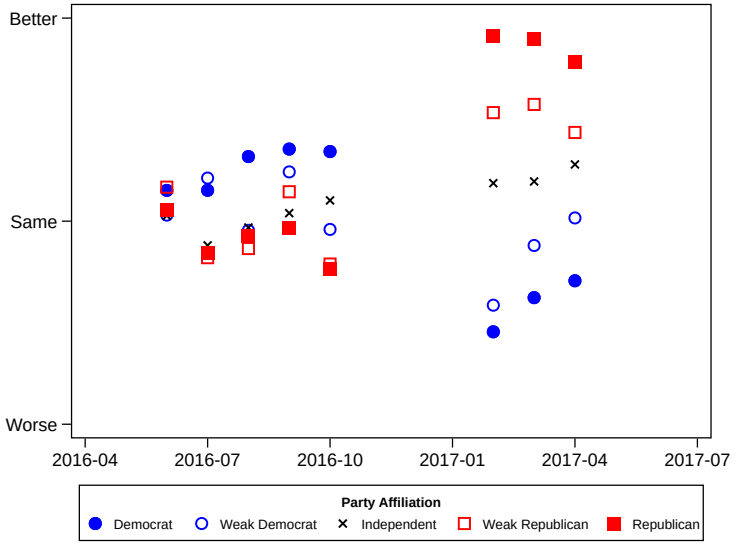
Notes: These graphs plot survey expectations on the future state of the economy by political affiliation. The data is from the University of Michigan Survey of Consumer Confidence (SCC). The upper panel shows the average response to the question "Looking ahead, which would you say is more likely – that in the country as a whole we'll have continuous good times during the next 5 years or so, or that we will have periods of widespread unempoyment or depression, or what?" Responses range from 1 (worst) to 5 (best). The lower panel shows expectations on unemployment in a year relative to the current unemployment rate.

Figure 15: Survey Expectations on Own Economic Circumstances Versus Overall Conditions

(a) Expected Own Income in 1 Year

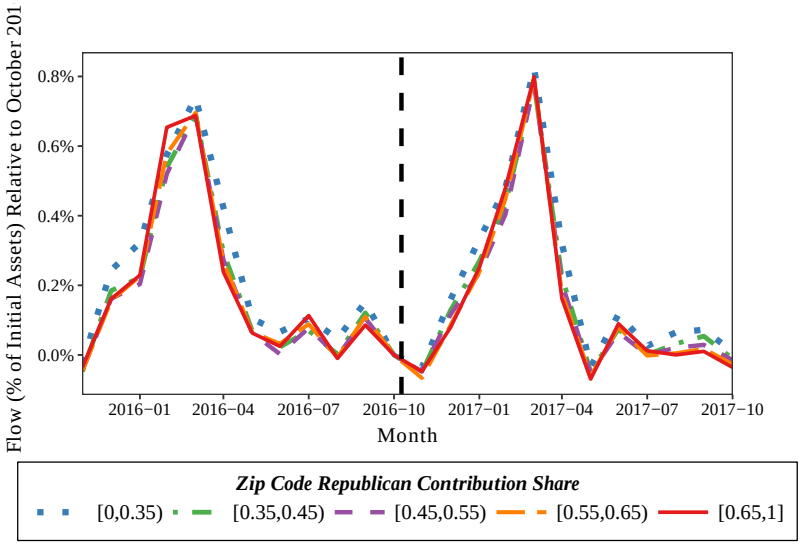


(b) Expected Business Conditions in 1 Year



Notes: These graphs plot survey expectations on the future state of own economic circumstances and the overall economy by political affiliation. The data is from the University of Michigan Survey of Consumer Confidence (SCC). The upper panel shows the average response to the question "During the next 12 months, do you expect your income to be higher or lower than during the past year?" The lower panel shows expectations on whether business conditions overall will be better or worse in a year.

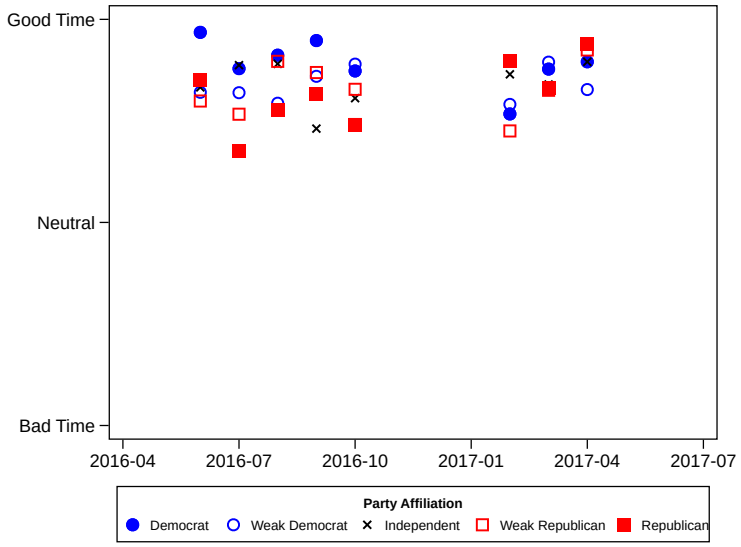
Figure 16: Household Net Flow Rates by Zip Code Party Affiliation



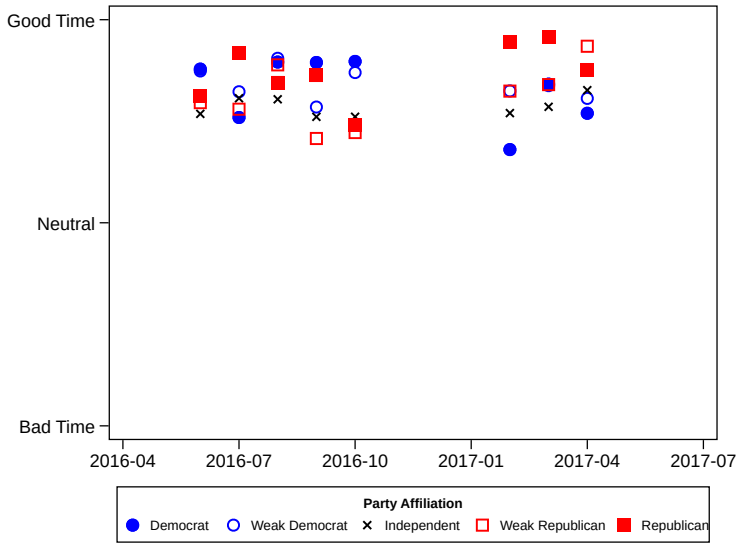
Notes: This graph plots average net flows as a fraction of initial financial wealth in five groups by zip code party affiliation measured from political contributions, relative to the savings rate in October 2016. Net flows are defined as total deposits minus withdrawals. The sample is our full set of RI households. Average flow rates by group are equally weighted across households.

Figure 17: Survey Evidence on Expenditures

(a) Conditions for Buying Major Household Items



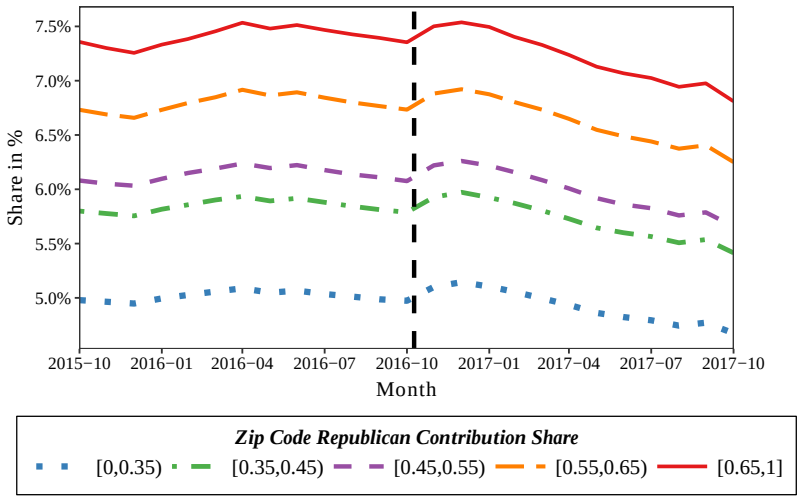
(b) Conditions for Buying a House



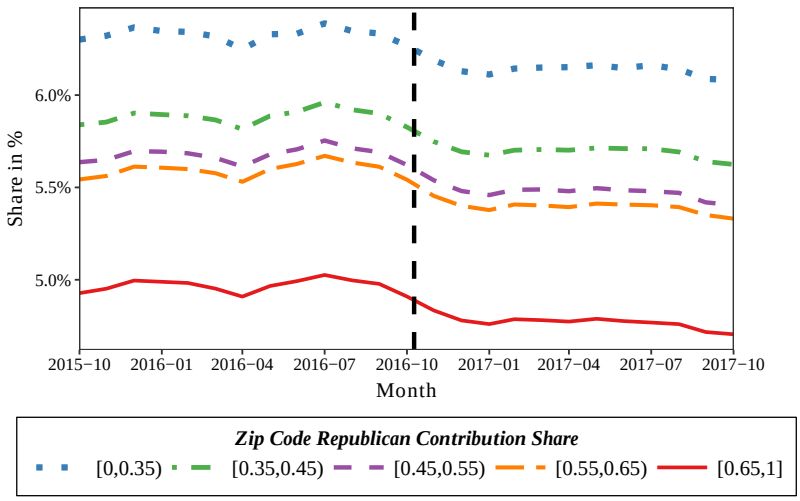
Notes: These graphs plot survey evidence on spending behavior by political affiliation. The data is from the University of Michigan Survey of Consumer Confidence (SCC). The upper panel shows the average response to the question "Generally speaking, do you think now is a good or a bad time for people to buy major household items?" The lower panel shows the response to the same question on buying a house.

Figure 18: Portfolio Share of Equity in Winning and Losing Sectors by Zip Code Party Affiliation

(a) Share of Equity in Winning Sectors

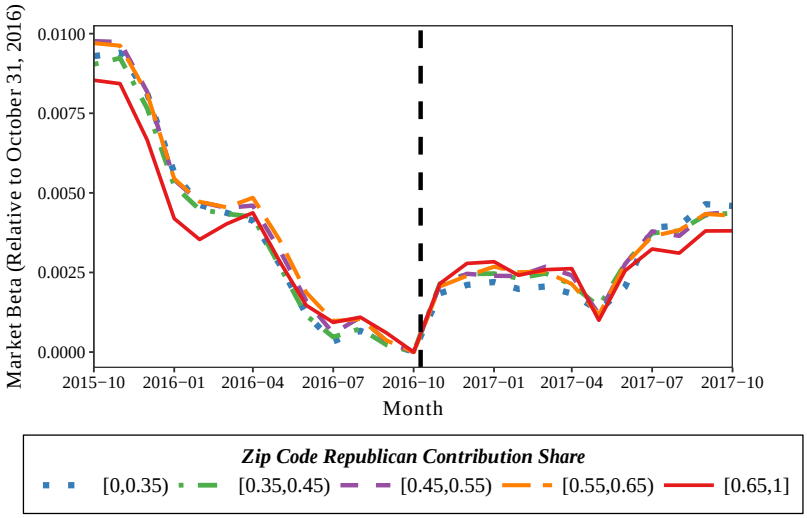


(b) Share of Equity in Losing Sectors



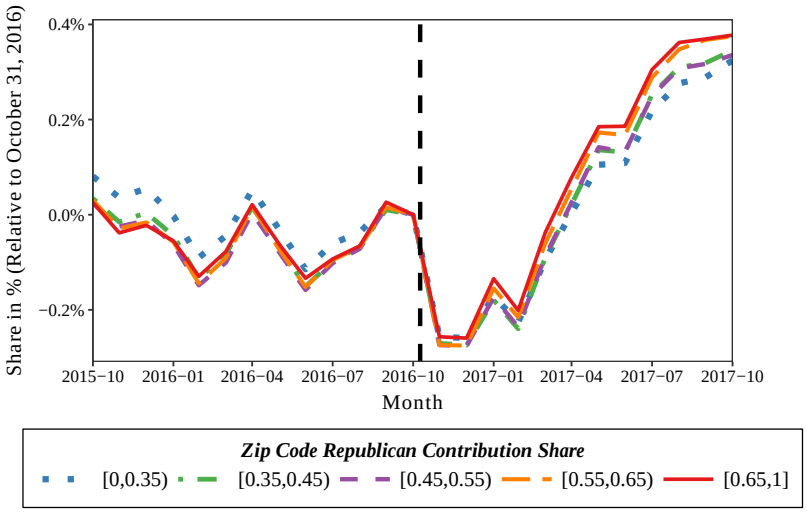
Notes: These graphs plot plots the average share of household equity and alternative products in winning and losing sectors, respectively, in five groups by zip code party affiliation measured from political contributions. Winning sectors are defined as the top five sectors based on stock market returns from the election date until the end of 2016: financials, telecommunication services, energy, materials, and industrials. Losing sectors are defined as the bottom five sectors based on stock market returns from the election date until the end of 2016: consumer staples, utilities, information technology, health care, and real estate. Consumer discretionary is in the middle and is considered neither. The sample is our full set of RI households. Average shares by group are equally weighted across households.

Figure 19: Market Beta of Equity by Zip Code Party Affiliation



Notes: This graph plots the average market beta of household equity assets in five groups by zip code party affiliation measured from political contributions, relative to the beta by the end of October 2016. Market betas are obtained by regressing monthly fund or security excess returns on the value-weighted CRSP market excess return over the period 2007–2017 with at least 24 observations. We calculate equity betas for households that have equity securities or funds and that have at least 75% of equity products in assets with observed betas. The sample is our full set of RI households. Equity betas are equally weighted across households.

Figure 20: Portfolio International Share of Equity by Zip Code Party Affiliation



Notes: This graph plots the average international share of household equity products in five groups by zip code party affiliation measured from political contributions, relative to the share by the end of October 2016. The portfolio international share of equity is defined as the sum of international equity securities and funds relative to total equity products. The sample is our full set of households. Average shares by group are equally weighted across households.

Appendix for

"Belief Disagreement and Portfolio Choice"

by Meeuwis, Parker, Schoar, and Simester

September 2018

A.1. Political Contributions Data

We construct a measure of likely political party affiliation using publicly available campaign finance data from the Federal Election Commission. We consider individual contributions to party committees, campaign committees, and political action committees during the 2015-2016 election cycle and aggregate to the zip code level to calculate the zip code Republican share of donations.

Individual contributions. We use donations from the FEC individual contributions file and limit the sample to contributions of individuals with a valid zip code on record. We impose a standard filter to select actual contribution transactions (transaction types 10, 11, 15, 15E, 21Y, and 22Y) and impose transaction amounts for refunds (types 21Y and 22Y) to be negative.

Party committees. We consider individual contributions to the main party and candidate committees by selecting committees with at least $20 million in contributions, supporting a party or presidential nominee. The restriction to more than $20 million in contributions yields a set of 32 committees for a total of $2.3 billion in individual contributions from 7.8 million transactions. Further restricting the list of committees to those not related to a senator or losing presidential primary candidate leaves 21 committees. Table A.1 provides an overview of the selected and discarded committees with more than $20 million in contributions by individuals. The resulting individual contributions sample includes 1.0 million distinct donors with a total of $1.8 billion in contributions. Of those donors, 672 thousand contribute to the Democratic party or candidate, 340 thousand contribute to the Republican party or candidate, and two thousand to both.

Republican contribution share. We select zip codes with at least 10 donors and construct the zip code Republican contribution share as the number of donors to the Republican party or candidate divided by the number of donors to either party. For robustness checks, we consider two alternative measures of likely party affiliations. First, we also construct the dollar-weighted version of the zip code Republican contribution share. Second, we calculate the county-level Republican vote share as the number of votes for the Republican candidate Donald J. Trump divided by the number of votes for either Trump or the Democratic candidate Hillary Clinton. Aggregating donations from zip codes to counties, the correlation between the Republican contribution share and the

Republican vote share across counties is 0.69. For the dollar-weighted contribution share aggregated to the county level, the correlation with the Republican vote share is 0.53.

Likely party affiliations in sample. Figure A.1.a plots the distribution of likely political affiliations measured by the zip code Republican contribution share in our sample of RIs. Figure A.1.b plots the distribution of county vote shares in the sample and population. Republican shares measured by donations are typically lower than Republican shares measured by votes. Relative to the population, our sample is tilted towards Democrats.

A.2. Household Portfolios Data

Asset classes. Investor portfolios consist of positions in funds, individual securities, and annuities. For some holdings (e.g. some annuities), we do not observe sufficient detail to categorize holdings. Average holdings in these assets are less than 1.5% of total (investable) assets. For 87% of all remaining assets in investor portfolios we observe the CUSIP, and for the other 13% we observe basic characteristics of the fund the wealth is invested in. We assign holdings to four different asset classes based on product descriptions: equity, long-term bonds, short-term bonds, and alternative assets. Equity holdings consist of pure equity funds, directly held equity, and the equity portion of funds that invest across asset classes. The long-term bond category includes bond funds, long-term government and corporate bonds, and the portion of funds that invest across asset classes that is not allocated to equity. The short-term bond category is composed of money market funds, short-term treasury bonds, and CDs. Alternative assets include real estate (REITs), precious metals, and royalty funds.

We split mixed-assets funds, such as lifecycle funds, into equity and long-term bond holdings based on fund equity shares. We use quarterly data on fund asset compositions from the CRSP Survivor-Bias Free US Mutual Fund database if available, and complement this with internally available quarterly target equity shares on other mixed-asset funds.

International exposure. To characterize international equity exposures in investor portfolios, we divide equity holdings into a domestic and an international component. Pure equity funds are characterized as either domestic or international based on internal product descriptions. We consider the equity portion of mixed-asset funds to be a domestic equity investment. For individual securities, we set the location to international if it is a foreign security (i.e., has a foreign ISIN) or if the company is incorporated outside of the US according to Compustat, and to domestic otherwise. We define the international share of equity as the ratio of international equity to total portfolio equity holdings.

Sector exposures. Investors can explicitly load on industries by investing in sector funds or by holding individual equities. We identify sector funds as funds that have a sector index as Morningstar benchmark. These sector indices are defined based on 11

Global Industry Classification Standard (GICS) sectors: energy, materials, industrials, consumer discretionary, consumer staples, health care, financials, information technology, telecommunication services, utilities, and real estate. For individual securities, we assign GICS industry codes to stocks by linking them to Compustat and CRSP data. If a stock can be linked to a Compustat record, we use the Compustat GICS sector code. If no Compustat record is available, we use the North American Industry Classification System (NAICS) code from CRSP and get the corresponding GICS code from a crosswalk table.[30]

Returns. We link observed portfolio holdings at the CUSIP level to external data on realized returns from CRSP stock, treasury, and mutual fund return files, as well as WRDS corporate bond returns. We complement these returns with internal return data on other products. We treat assets in the short-term bonds category as risk-free assets and assign the risk-free rate (one-month Treasury bill rate) as return. Not available are returns on limited partnerships, options, warrants and rights, TIPS, agency bonds, precious metals, and royalty funds. Together, these form a very small part of total holdings.

Market betas. To calculate CAPM market betas, we use all available return data from 2007 to 2017. We estimate betas from monthly regressions of excess asset returns on excess market returns. We assign a market beta to funds and securities that have at least 24 monthly return observations. We set the market beta of short-term bonds to zero. To deal with missing returns for certain asset types, we use the estimated beta on a corresponding ETF as a proxy for individual betas on agency bonds (ticker: AGZ), municipal bonds (MUB), TIPS (TIP), gold (IAU), silver (SLV), and platinum (PPLT). For mixed-asset funds, we account for time variation in betas due to a changing equity share of the portfolio (especially for lifecycle funds). In particular, we estimate the market beta of a mixed-asset fund with a time-varying equity share by assuming that the fund market beta is affine in the fund equity share with a fund-specific intercept and a common slope. We estimate the common slope in a pooled regression that includes all mixed-asset funds in investor portfolios.

[30] We use the concordance from NAICS to GICS provided by Alison Weingarden available (July 2018) at sites.google.com/site/alisonweingarden/links/industries.

Table A.1: Party Committees

A. Included committees	
Name	Amount (in USD)
HILLARY VICTORY FUND	418,127,519
HILLARY FOR AMERICA	281,412,789
PRIORITIES USA ACTION	151,702,351
TRUMP VICTORY	106,907,122
NEXTGEN CLIMATE ACTION COMMITTEE	90,834,927
REPUBLICAN NATIONAL COMMITTEE	89,493,374
DSCC	74,197,205
SENATE LEADERSHIP FUND	74,165,450
DCCC	73,561,758
TRUMP MAKE AMERICA GREAT AGAIN COMMITTEE	68,604,341
SENATE MAJORITY PAC	58,688,399
HILLARY ACTION FUND	45,522,557
NRSC	44,563,979
CONGRESSIONAL LEADERSHIP FUND	44,138,600
DONALD J. TRUMP FOR PRESIDENT, INC.	43,918,500
DNC SERVICES CORP./DEM. NAT'L COMMITTEE	41,855,861
HOUSE MAJORITY PAC	36,078,425
FUTURE45	24,555,649
REBUILDING AMERICA NOW	23,071,271
NRCC	22,773,247
MAKE AMERICA NUMBER 1	20,126,000
B. Excluded committees	
Name	Amount (in USD)
RIGHT TO RISE USA	91,047,726
BERNIE 2016	73,961,700
TEAM RYAN	53,432,005
CRUZ FOR PRESIDENT	47,481,222
CONSERVATIVE SOLUTIONS PAC	46,066,194
JEB 2016, INC.	31,080,894
MARCO RUBIO FOR PRESIDENT	30,833,321
VAN HOLLEN FOR SENATE	25,652,235
CARSON AMERICA	24,901,494
INDEPENDENCE USA PAC	21,665,124
UNINTIMIDATED PAC INC	20,717,593

Notes: This table lists all 32 campaign committees with at least $20 million in contributions during the 2015–2016 election cycle from individuals with a valid zip code on record. To construct our Republican contribution share measure for the 2016 presidential election at the zip code level, we include the subset of 21 committees that support a party or presidential nominee and exclude committees that are related to a senator or losing presidential primary candidate.

Table A.2: Equity Share Regressions with Alternative Political Affiliation Measures

	Portfolio equity share (in %), all households				
	Zip donations (nbr)	Zip donations (amt)	County votes	County donations (nbr)	County donations (amt)
	(1)	(2)	(3)	(4)	(5)
Republican share × Pre 3 quarters	0.107	0.086	-0.004	0.082	0.089
	(0.026)	(0.022)	(0.031)	(0.029)	(0.024)
Republican share × Pre 2 quarters	0.195	0.125	0.140	0.204	0.137
	(0.019)	(0.016)	(0.022)	(0.021)	(0.017)
Republican share × Pre 1 quarter	0.103	0.070	0.113	0.095	0.074
	(0.014)	(0.011)	(0.015)	(0.014)	(0.012)
Republican share × Post 1 quarter	0.521	0.327	0.532	0.539	0.389
	(0.019)	(0.016)	(0.021)	(0.019)	(0.017)
Republican share × Post 2 quarters	0.811	0.509	0.782	0.827	0.612
	(0.024)	(0.020)	(0.027)	(0.025)	(0.022)
Republican share × Post 3 quarters	0.679	0.410	0.516	0.591	0.438
	(0.029)	(0.024)	(0.034)	(0.031)	(0.026)
Republican share × Post 4 quarters	0.810	0.511	0.676	0.735	0.563
	(0.032)	(0.027)	(0.038)	(0.035)	(0.029)
Quarterly controls					
Initial equity share (2nd order)	Y	Y	Y	Y	Y
Age (2nd order)	Y	Y	Y	Y	Y
Log initial wealth (2nd order)	Y	Y	Y	Y	Y
Percentage of RI sample	90.9%	90.9%	99.2%	99.0%	99.0%

Notes: This table presents regression coefficients of quarterly household portfolio equity shares on the zip code or county Republican share, interacted by quarterly dummies, for various sets of party affiliation measures: zip code share of contributions in numbers and in dollars, county share of votes, and county share of contributions in numbers and in dollars. The portfolio equity share is defined as the sum of equity securities, pure equity funds, and the equity portion of hybrid funds, relative to total portfolio assets. We report the full set of results for the three quarters prior to the election and the four quarters following the election, relative to allocations just before the election. We control for quarterly second-order polynomials in initial share and log financial wealth, a second-order polynomial in age below 65, a dummy for age above 65, as well as individual and time fixed effects. Financial wealth is defined as the total amount of household financial assets in retirement and non-retirement accounts. Wealth and the initial equity share are measured as of October 31, 2015. The sample is our full set of RI households. Standard errors are clustered at the zip code level.

Table A.3: Regressions of Equity Share on Likely Political Affiliation

	Portfolio equity share (in %), all households						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Zip code Republican contribution share × Pre 3 quarters	0.308	0.107	0.027	0.071	0.186	0.197	0.163
	(0.029)	(0.026)	(0.032)	(0.037)	(0.035)	(0.036)	(0.040)
Zip code Republican contribution share × Pre 2 quarters	0.287	0.195	0.087	0.245	0.136	0.151	0.124
	(0.021)	(0.019)	(0.023)	(0.030)	(0.027)	(0.028)	(0.033)
Zip code Republican contribution share × Pre 1 quarter	0.126	0.103	0.024	0.070	0.104	0.091	0.058
	(0.014)	(0.014)	(0.017)	(0.022)	(0.018)	(0.020)	(0.040)
Zip code Republican contribution share × Post 1 quarter	0.510	0.521	0.516	0.357	0.385	0.351	0.274
	(0.019)	(0.019)	(0.024)	(0.028)	(0.025)	(0.025)	(0.029)
Zip code Republican contribution share × Post 2 quarters	0.727	0.811	0.749	0.623	0.654	0.589	0.440
	(0.025)	(0.024)	(0.031)	(0.035)	(0.030)	(0.032)	(0.036)
Zip code Republican contribution share × Post 3 quarters	0.540	0.679	0.671	0.657	0.604	0.655	0.502
	(0.035)	(0.029)	(0.035)	(0.041)	(0.037)	(0.038)	(0.040)
Zip code Republican contribution share × Post 4 quarters	0.561	0.810	0.980	0.730	0.656	0.688	0.571
	(0.036)	(0.032)	(0.040)	(0.044)	(0.041)	(0.043)	(0.045)
Quarterly controls							
Initial equity share (2nd order)		Y	Y	Y	Y	Y	Y
Age (2nd order)		Y	Y	Y	Y	Y	Y
Log initial wealth (2nd order)		Y	Y	Y	Y	Y	Y
Employer industry (3-digit NAICS)			Y	Y			
Log labor income in 2015 (2nd order)				Y			
Labor income growth (2016-17)				Y			
Urbanicity					Y		
Zip code house price growth (2010-15, 2015-17)					Y		
State					Y		
County manufacturing share					Y		
County shipping costs					Y		
County						Y	
Employer × county							Y
Percentage of RI sample	90.9%	90.9%	55.8%	25.3%	83.9%	90.6%	56.7%

Notes: This table presents regression coefficients of quarterly household portfolio equity shares on the zip code Republican contribution share, interacted by quarterly dummies, for various sets of controls. The portfolio equity share is defined as the sum of equity securities, pure equity funds, and the equity portion of hybrid funds, relative to total portfolio assets. We report the full set of results for the three quarters prior to the election and the four quarters following the election, relative to allocations just before the election. In the baseline specification (2), we control for quarterly second-order polynomials in initial share and log financial wealth, a second-order polynomial in age below 65, a dummy for age above 65, as well as individual and time fixed effects. Financial wealth is defined as the total amount of household financial assets in retirement and non-retirement accounts. Wealth and the initial equity share are measured as of October 31, 2015. In specifications (3)-(8) we consider alternative sets of controls (interacted by a full set of quarterly dummies) that include employer industry dummies (3-digit NAICS), a second-order polynomial in log labor income over 2015, income growth over 2016–2017 (for the subset available as of June 2018), urbanicity (metropolitan, micropolitan, or non-CBSA), zip code house price growth from 2010–2015 and 2015–2017 (Zillow), state dummies, county manufacturing share (QCEW), county shipping costs (CBP), and county dummies. The sample is our full set of RI households. Standard errors are clustered at the zip code level.

Table A.4: Regressions of Equity Share on Likely Political Affiliation for Active Investors

	Portfolio equity share (in %), active households						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Zip code Republican contribution share × Pre 3 quarters	0.142	0.162	-0.058	-0.098	0.315	0.581	0.554
	(0.055)	(0.055)	(0.080)	(0.106)	(0.070)	(0.080)	(0.122)
Zip code Republican contribution share × Pre 2 quarters	0.401	0.398	0.138	0.291	0.329	0.422	0.398
	(0.041)	(0.040)	(0.059)	(0.084)	(0.053)	(0.062)	(0.100)
Zip code Republican contribution share × Pre 1 quarter	0.224	0.226	0.149	0.204	0.210	0.214	0.232
	(0.030)	(0.030)	(0.045)	(0.064)	(0.041)	(0.047)	(0.076)
Zip code Republican contribution share × Post 1 quarter	1.189	1.069	0.968	1.007	0.786	0.681	0.624
	(0.036)	(0.036)	(0.053)	(0.078)	(0.048)	(0.055)	(0.089)
Zip code Republican contribution share × Post 2 quarters	1.791	1.655	1.494	1.556	1.315	1.171	1.037
	(0.045)	(0.044)	(0.065)	(0.095)	(0.057)	(0.068)	(0.106)
Zip code Republican contribution share × Post 3 quarters	1.769	1.588	1.404	1.624	1.275	1.294	1.080
	(0.055)	(0.050)	(0.074)	(0.105)	(0.066)	(0.078)	(0.118)
Zip code Republican contribution share × Post 4 quarters	1.680	1.555	1.562	1.646	1.297	1.379	1.187
	(0.062)	(0.056)	(0.080)	(0.112)	(0.072)	(0.083)	(0.128)
Quarterly controls							
Initial equity share (2nd order)		Y	Y	Y	Y	Y	Y
Age (2nd order)		Y	Y	Y	Y	Y	Y
Log initial wealth (2nd order)		Y	Y	Y	Y	Y	Y
Employer industry (3-digit NAICS)			Y	Y			
Log labor income in 2015 (2nd order)				Y			
Labor income growth (2016-17)				Y			
Urbanicity					Y		
Zip code house price growth (2010-15, 2015-17)					Y		
State					Y		
County manufacturing share					Y		
County shipping costs					Y		
County						Y	
Employer × county							Y
Percentage of RI sample	27.5%	27.5%	12.8%	5.8%	25.6%	27.5%	13.0%

Notes: This table presents regression coefficients of quarterly household portfolio equity shares on the zip code Republican contribution share, interacted by quarterly dummies, for various sets of controls. The portfolio equity share is defined as the sum of equity securities, pure equity funds, and the equity portion of hybrid funds, relative to total portfolio assets. We report the full set of results for the three quarters prior to the election and the four quarters following the election, relative to allocations just before the election. In the baseline specification (2), we control for quarterly second-order polynomials in initial share and log financial wealth, a second-order polynomial in age below 65, a dummy for age above 65, as well as individual and time fixed effects. Financial wealth is defined as the total amount of household financial assets in retirement and non-retirement accounts. Wealth and the initial equity share are measured as of October 31, 2015. In specifications (3)-(8) we consider alternative sets of controls (interacted by a full set of quarterly dummies) that include employer industry dummies (3-digit NAICS), a second-order polynomial in log labor income over 2015, income growth over 2016–2017 (for the subset available as of June 2018), urbanicity (metropolitan, micropolitan, or non-CBSA), zip code house price growth from 2010–2015 and 2015–2017 (Zillow), state dummies, county manufacturing share (QCEW), county shipping costs (CBP), and county dummies. The sample is the subset of households with active trades or exchanges in the prior year. Standard errors are clustered at the zip code level.

Table A.6: Equity Share Regressions on Subsamples

	Portfolio equity share (in %)						
	All (1)	Advised account (2)	Single (3)	Personal account (4)	Personal wealth only (5)	Brokerage account (6)	Brokerage wealth only (7)
Zip code Republican contribution share × Pre 3 quarters	0.107	-0.082	-0.012	0.132	0.310	0.145	-0.209
	(0.026)	(0.084)	(0.044)	(0.044)	(0.047)	(0.059)	(0.089)
Zip code Republican contribution share × Pre 2 quarters	0.195	0.093	0.097	0.350	0.392	0.380	-0.021
	(0.019)	(0.069)	(0.035)	(0.030)	(0.035)	(0.048)	(0.072)
Zip code Republican contribution share × Pre 1 quarter	0.103	0.040	0.074	0.204	0.285	0.224	0.111
	(0.014)	(0.051)	(0.026)	(0.022)	(0.026)	(0.036)	(0.057)
Zip code Republican contribution share × Post 1 quarter	0.521	0.317	0.379	0.605	0.432	0.763	0.567
	(0.019)	(0.057)	(0.032)	(0.026)	(0.033)	(0.041)	(0.061)
Zip code Republican contribution share × Post 2 quarters	0.811	0.592	0.598	0.956	0.653	1.155	0.612
	(0.024)	(0.071)	(0.042)	(0.032)	(0.040)	(0.051)	(0.078)
Zip code Republican contribution share × Post 3 quarters	0.679	0.663	0.547	0.811	0.459	1.020	0.224
	(0.029)	(0.080)	(0.050)	(0.037)	(0.045)	(0.058)	(0.092)
Zip code Republican contribution share × Post 4 quarters	0.810	0.688	0.674	0.777	0.411	0.921	0.567
	(0.032)	(0.089)	(0.054)	(0.042)	(0.053)	(0.065)	(0.110)
Quarterly controls							
Initial equity share (2nd order)	Y	Y	Y	Y	Y	Y	Y
Age (2nd order)	Y	Y	Y	Y	Y	Y	Y
Log initial wealth (2nd order)	Y	Y	Y	Y	Y	Y	Y
Percentage of RI sample	90.9%	3.6%	20.0%	36.8%	34.2%	15.6%	12.5%

Notes: This table presents regression coefficients of quarterly household portfolio equity shares on the zip code or county Republican share, interacted by quarterly dummies, in various subsamples of the population: households with advised accounts (column 2), households with a single (not married) head of household (column 3), households with a personal brokerage or retirement account (column 4), wealth in personal accounts only (column 5), households with a personal non-retirement brokerage account (column 6), and wealth in personal brokerage accounts only (column 7). The portfolio equity share is defined as the sum of equity securities, pure equity funds, and the equity portion of hybrid funds, relative to total portfolio assets. We report the results for the four quarters following the election, relative to allocations just before the election. We control for quarterly second-order polynomials in initial share and log financial wealth, a second-order polynomial in age below 65, a dummy for age above 65, as well as individual and time fixed effects. Financial wealth is defined as the total amount of household financial assets in retirement and non-retirement accounts. Wealth and the initial equity share are measured as of October 31, 2015. The sample is our full set of RI households. Standard errors are clustered at the zip code level.

Table A.7: Regressions of Saving Behavior on Likely Political Affiliation

	Net flow rate (in %)		Net saving rate (in %)		Contribution
	All	Age 45-54	Household	Account	rate (in %)
	(1)	(2)	(3)	(4)	(5)
Zip code Republican contribution share × Pre 3 quarters					0.169 (0.012)
Zip code Republican contribution share × Pre 2 quarters					0.151 (0.010)
Zip code Republican contribution share × Pre 1 quarter					0.109 (0.008)
Zip code Republican contribution share × Post 1 quarter	0.080 (0.027)	0.070 (0.040)	-0.398 (0.345)	-0.335 (0.119)	-0.041 (0.008)
Zip code Republican contribution share × Post 2 quarters	-0.028 (0.039)	0.068 (0.044)	-0.297 (0.346)	-0.238 (0.162)	-0.028 (0.009)
Zip code Republican contribution share × Post 3 quarters	0.023 (0.027)	0.071 (0.041)	-0.571 (0.377)	-0.029 (0.115)	-0.056 (0.010)
Zip code Republican contribution share × Post 4 quarters	-0.030 (0.031)	0.027 (0.042)	1.310 (0.275)	0.091 (0.136)	-0.178 (0.014)
Quarterly controls					
Initial equity share (2nd order)	Y	Y	Y	Y	Y
Age (2nd order)	Y	Y	Y	Y	Y
Log initial wealth (2nd order)	Y	Y	Y	Y	Y
Log labor income in 2015 (2nd order)			Y	Y	
Initial contribution rate (2nd order)					Y
Default annual increase of rate					Y
Percentage of RI sample	90.9%	23.8%	22.8%	22.8%	45.4%

Notes: This table presents regression coefficients of quarterly household saving measures on the zip code Republican contribution share, interacted by quarterly dummies. The net flow rate is constructed as deposits minus withdrawals as a fraction of initial balances. The net saving rate is defined as deposits minus withdrawals as a fraction of quarterly income (derived from dividing annual income evenly over the year). The contribution rate applies only to households actively contributing to a retirement account. To account for seasonality, we report coefficients in columns (1)–(4) relative to the same quarter in the year prior to the election. The coefficients in column (5) are relative to the contribution rate just before the election. We control for quarterly second-order polynomials in initial share and log financial wealth, a second-order polynomial in age below 65, a dummy for age above 65, as well as individual and time fixed effects. Financial wealth is defined as the total amount of household financial assets in retirement and non-retirement accounts. Wealth and the initial equity share are measured as of October 31, 2015. We additionally control for a second-order polynomial in log 2015 labor income when estimating the effects on saving rates, and we control for the initial elected contribution rate and personalized default annual increases of contribution rates in column (5). The sample is our full set of households. Standard errors are clustered at the zip code level.

Table A.8: Regressions of Portfolio Characteristics on Likely Political Affiliation

A. Market betas	Beta of portfolio		Beta of equity	
	All	Active	All	Active
	(1)	(2)	(3)	(4)
Zip code Republican contribution share × Pre 3 quarters	-0.181	-0.160	-0.258	-0.300
	(0.036)	(0.073)	(0.036)	(0.068)
Zip code Republican contribution share × Pre 2 quarters	0.074	0.305	-0.032	-0.039
	(0.027)	(0.056)	(0.029)	(0.056)
Zip code Republican contribution share × Pre 1 quarter	0.054	0.208	0.001	-0.004
	(0.017)	(0.041)	(0.022)	(0.042)
Zip code Republican contribution share × Post 1 quarter	0.414	1.017	0.131	0.256
	(0.024)	(0.051)	(0.025)	(0.050)
Zip code Republican contribution share × Post 2 quarters	0.575	1.511	0.146	0.331
	(0.031)	(0.060)	(0.029)	(0.056)
Zip code Republican contribution share × Post 3 quarters	0.538	1.306	0.083	0.161
	(0.037)	(0.068)	(0.039)	(0.064)
Zip code Republican contribution share × Post 4 quarters	0.568	1.180	0.031	0.036
	(0.044)	(0.078)	(0.043)	(0.071)
Quarterly controls				
Initial allocation (2nd order)	Y	Y	Y	Y
Age (2nd order)	Y	Y	Y	Y
Log initial wealth (2nd order)	Y	Y	Y	Y
Percentage of RI sample	71.2%	21.8%	44.2%	19.3%

Table continues on next page.

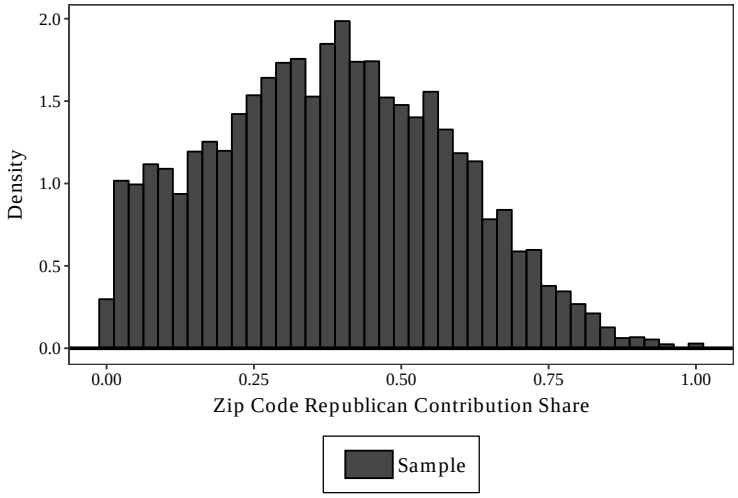
Table A.8 (continued): Regressions of Portfolio Characteristics on Likely Political Affiliation

B. Sector and global allocations	Winning sectors share of equity		Losing sectors share of equity		International share of equity	
	All	Active	All	Active	All	Active
	(5)	(6)	(7)	(8)	(9)	(10)
Zip code Republican contribution share × Pre 3 quarters	-0.241 (0.014)	-0.411 (0.031)	0.108 (0.013)	0.211 (0.031)	-0.122 (0.014)	-0.167 (0.029)
Zip code Republican contribution share × Pre 2 quarters	-0.039 (0.011)	-0.141 (0.023)	0.084 (0.011)	0.144 (0.028)	-0.084 (0.011)	-0.104 (0.023)
Zip code Republican contribution share × Pre 1 quarter	0.011 (0.008)	-0.004 (0.017)	0.070 (0.010)	0.145 (0.024)	-0.083 (0.009)	-0.118 (0.018)
Zip code Republican contribution share × Post 1 quarter	0.025 (0.008)	0.049 (0.021)	-0.078 (0.008)	-0.181 (0.022)	0.055 (0.012)	0.048 (0.021)
Zip code Republican contribution share × Post 2 quarters	0.020 (0.011)	-0.034 (0.025)	-0.153 (0.011)	-0.307 (0.028)	0.115 (0.013)	0.125 (0.026)
Zip code Republican contribution share × Post 3 quarters	-0.004 (0.015)	-0.050 (0.028)	-0.196 (0.013)	-0.374 (0.033)	0.157 (0.017)	0.228 (0.032)
Zip code Republican contribution share × Post 4 quarters	-0.040 (0.019)	-0.139 (0.033)	-0.204 (0.018)	-0.396 (0.042)	0.080 (0.020)	0.203 (0.035)
Quarterly controls						
Initial allocation (2nd order)	Y	Y	Y	Y	Y	Y
Age (2nd order)	Y	Y	Y	Y	Y	Y
Log initial wealth (2nd order)	Y	Y	Y	Y	Y	Y
Percentage of RI sample	84.4%	26.2%	84.4%	26.2%	84.3%	26.2%

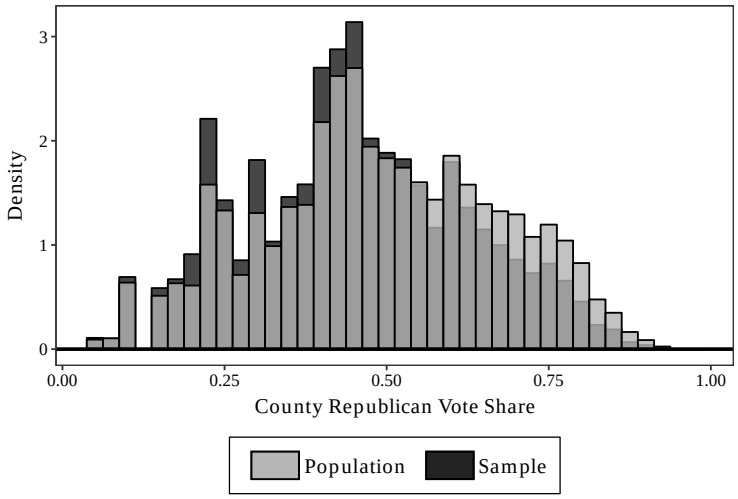
Notes: This table presents regression coefficients of quarterly household portfolio equity shares on the zip code Republican contribution share, interacted by quarterly dummies, for the full sample and for the subsample of households with active trading in the prior year. Market betas are obtained by regressing monthly fund or security excess returns on the value-weighted CRSP market excess return over the period 2007–2017 with at least 24 observations. We calculate portfolio betas for households that have at least 75% of risky assets in assets with observed betas. Winning sectors are defined as the top five sectors based on stock market returns from the election date until the end of 2016: financials, telecommunication services, energy, materials, and industrials. Losing sectors are defined as the bottom five sectors based on stock market returns from the election date until the end of 2016: consumer staples, utilities, information technology, health care, and real estate. Consumer discretionary is in the middle and is considered neither. The portfolio international share of equity is defined as the sum of international equity securities and funds relative to total equity products. We control for quarterly second-order polynomials in initial share and log financial wealth, a second-order polynomial in age below 65, a dummy for age above 65, as well as individual and time fixed effects. Financial wealth is defined as the total amount of household financial assets in retirement and non-retirement accounts. Wealth and the initial equity share are measured as of October 31, 2015. Standard errors are clustered at the zip code level.

Figure A.1: Distribution of Likely Political Affiliation Measures

(a) Republican Contribution Share



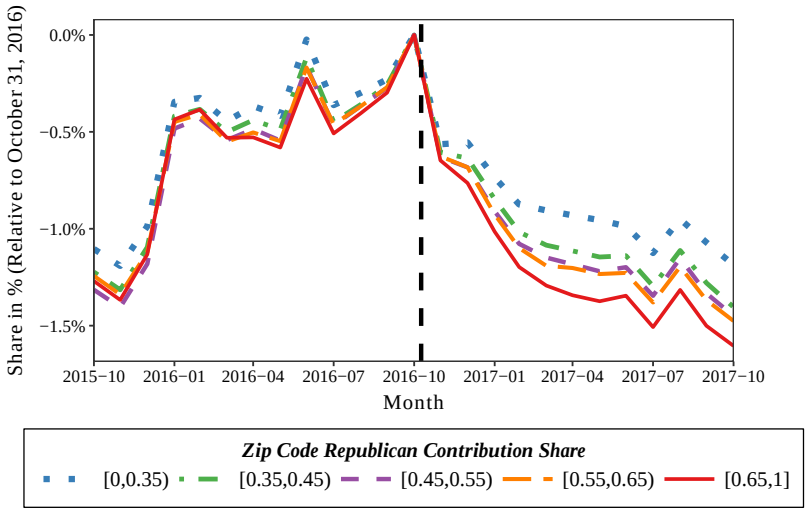
(b) Republican Vote Share



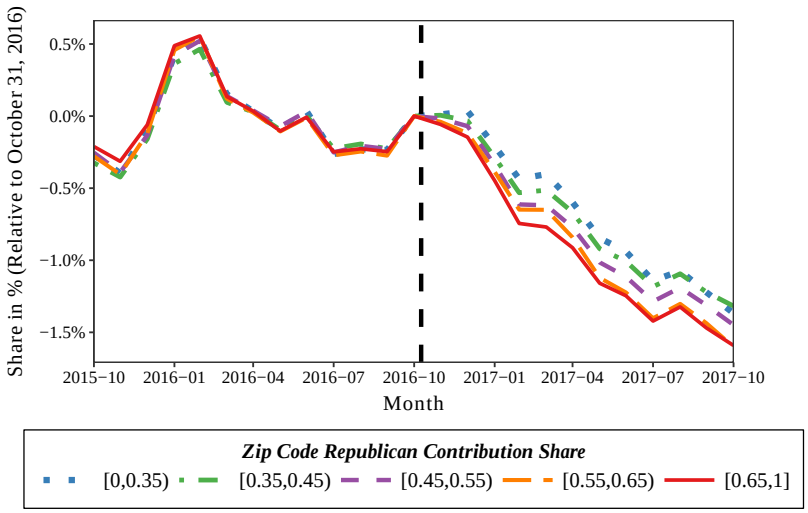
Notes: These graphs plot the distribution of the zip code Republican contribution share and the county Republican vote share, respectively. Panel (a) plots the distribution of the zip code Republican contribution share, defined as the number of individuals with campaign donations to the main Republican party and candidate committees as a fraction of the total number of individuals with campaign donations to the main committees of either party, in our RI sample. We include zip codes with at least 10 donors. Panel (b) plots the county Republican vote share, defined as the number of votes for Republican candidate Donald J. Trump divided by the total number of votes for Trump and for the Democratic candidate Hillary Clinton, in the population (2010 US Census) and in our RI sample.

Figure A.2: Portfolio Bond Shares by Zip Code Party Affiliation (VW)

(a) Long-Term Bond Share (Value Weighted across Households)



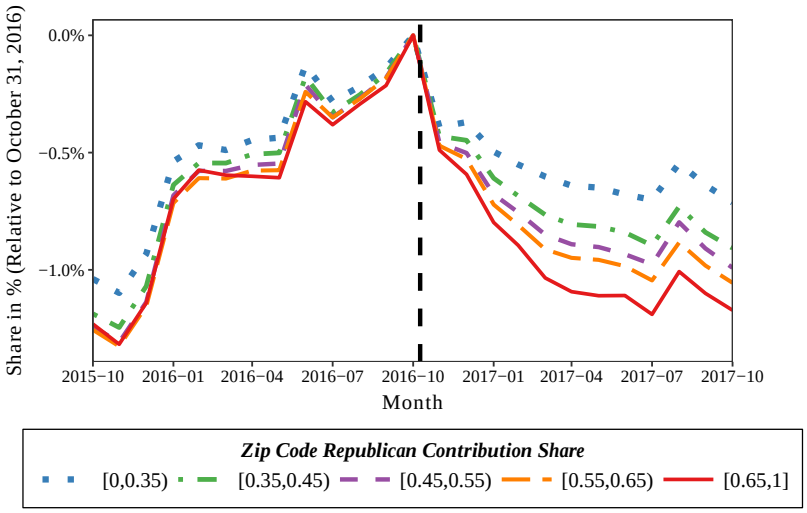
(b) Short-Term Bond Share (Value Weighted across Households)



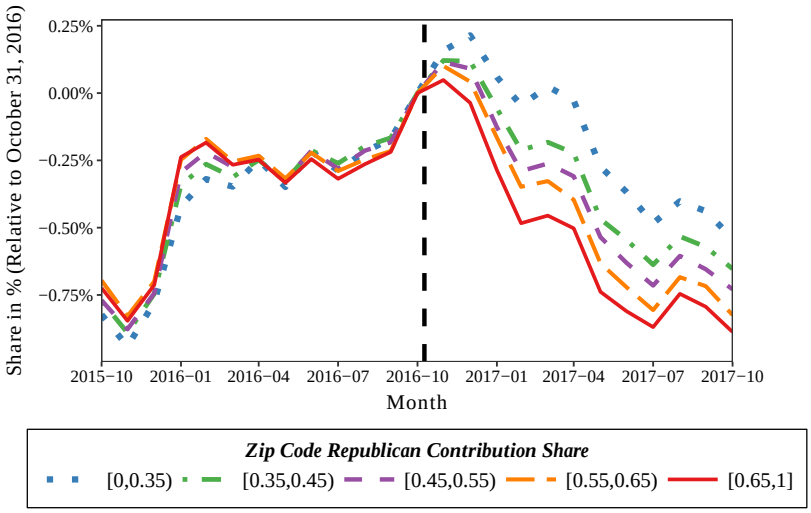
Notes: These graphs plot the average long-term bond share and short-term bond share, respectively, of household portfolio assets in five groups by zip code party affiliation measured from political contributions, relative to the share by the end of October 2016. The portfolio long-term bond share is defined as the sum of individual long-term bonds, pure bond funds, and the bond portion of hybrid funds, relative to total portfolio assets. The portfolio short-term bond share is defined as the sum of money market funds, individual short-term bonds, and CDs, relative to total portfolio assets. The sample is our full set of RI households. Average shares by group are asset weighted across households.

Figure A.3: Portfolio Bond Shares by Zip Code Party Affiliation for Active Sample

(a) Long-Term Bond Share (Equally Weighted across Households)



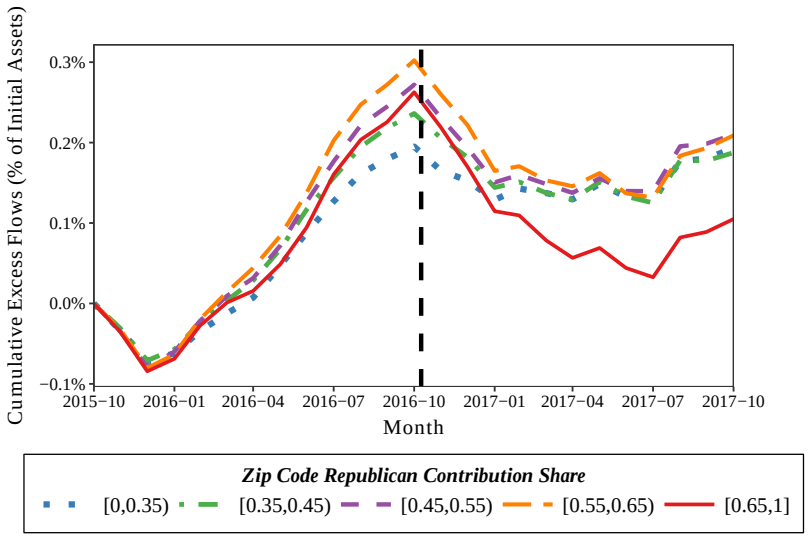
(b) Short-Term Bond Share (Equally Weighted across Households)



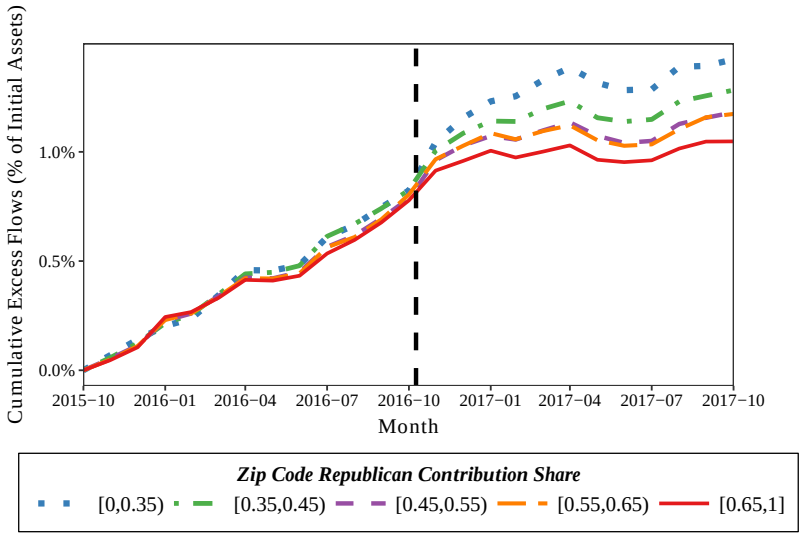
Notes: These graphs plot the average long-term bond share and short-term bond share, respectively, of household portfolio assets in five groups by zip code party affiliation measured from political contributions, relative to the share by the end of October 2016. The portfolio long-term bond share is defined as the sum of individual long-term bonds, pure bond funds, and the bond portion of hybrid funds, relative to total portfolio assets. The portfolio short-term bond share is defined as the sum of money market funds, individual short-term bonds, and CDs, relative to total portfolio assets. The sample is the subset of RI households with active trades or exchanges in the prior year. Average shares by group are equally weighted across households.

Figure A.4: Cumulative Excess Flows into Bonds

(a) Excess Long-Term Bond Trades

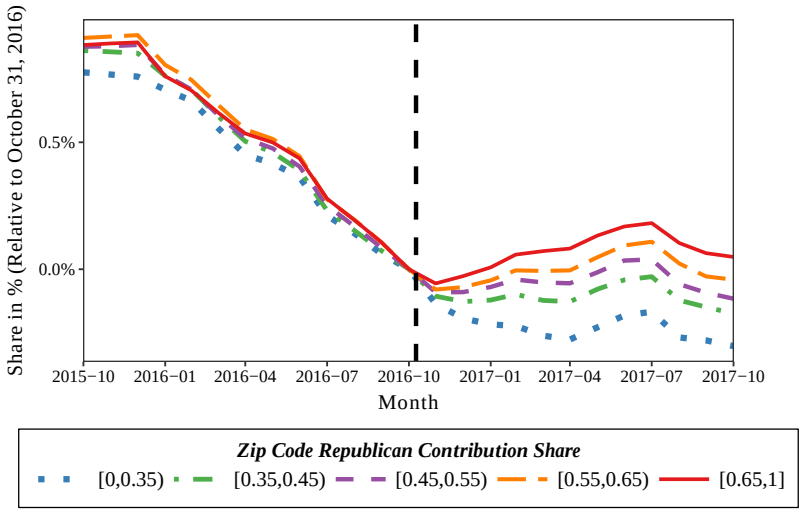


(b) Excess Short-Term Bond Trades



Notes: These graphs plot cumulative excess flows into long-term bonds and short-term bonds, respectively, in five groups by zip code party affiliation measured from political contributions, starting from October 31, 2015. Excess flows are scaled by initial assets, and are defined as net bond flows minus the bond share from the previous month multiplied by total portfolio net flows. This is a measure of rebalancing into long-term bonds and short-term bonds, where long-term bond assets are defined as the sum of individual long-term bonds, pure bond funds, and the bond portion of hybrid funds, and short-term bond assets are defined as the sum of money market funds, individual short-term bonds, and CDs. The sample is our full set of RI households. Average flow rates by group are equally weighted across households.

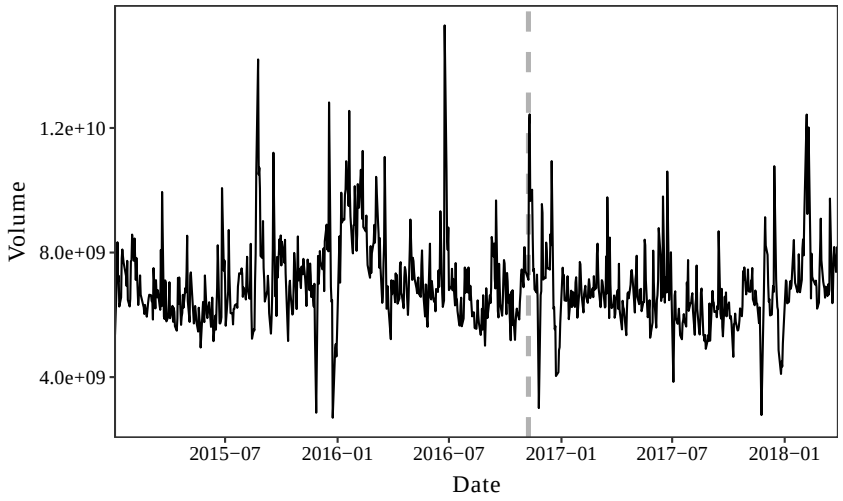
Figure A.5: Equity Share of Price-Constant Portfolios by Zip Code Party Affiliation



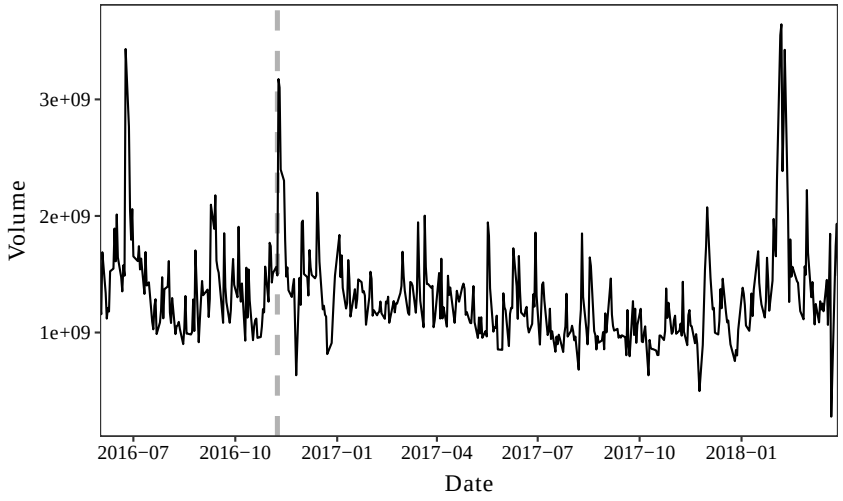
Notes: These graphs plot the average equity share of hypothetical price-constant household portfolios in five groups by zip code party affiliation measured from political contributions, relative to the share by the end of October 2016. The equity share is calculated for a hypothetical portfolio that is insensitive to passive appreciations. In particular, we start with initial household holdings as of October 2015, assume there are no price changes, and keep track of cumulative monthly dollar inflows and outflows at the asset level. For each month we then calculate the equity share from this hypothetical portfolio. Average shares by group are equally weighted across households.

Figure A.6: Trading Activity in US Markets

(a) US Equity Market Volume



(b) US ETF Market Volume



Notes: This figure plots total trading volume on US markets. The upper panel plots total US equity market volume. The lower panel plots the narrower ETF market volume. The data is sourced from the CBOE.