From the Horse's Mouth: What Matters to Individual Investors?*

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Abstract

We survey a representative sample of U.S. households about how well leading academic theories describe the way they decided how much to invest in stocks and their beliefs about mutual funds and the cross-section of stock returns. We find substantial support for many factors, particularly background risk, rare disasters, transactional factors, and fixed costs of stock market participation. Households tend to believe that past fund performance is a good signal of stock-picking skill, funds do not suffer from diseconomies of scale, value stocks are safer and have lower expected returns, and high-momentum stocks are riskier and have higher expected returns.

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The finance literature offers no shortage of theories of investor motivations and beliefs, which translate into individual choices and in aggregate determine asset prices. However, testing these theories with observational data has often been difficult. Predictions of competing models are often similar or identical (Fama, 1970; Cochrane, 2016; Kozak, Nagel, and Santosh, 2016).[1] Finding exogenous empirical variation in a hypothesized factor is usually impossible, and even if exogeneity were present, identification often relies upon the assumption of rational expectations, which may not hold. In leading models where long-run risk or rare disasters are important, the fundamental assumption is inherently difficult to verify without centuries of data (Hansen, Heaton, and Li, 2008).

We take a different approach in this paper: we ask a nationally representative sample of 1,098 U.S. households in the RAND American Life Panel (ALP) how well leading academic theories describe the way they decided what fraction of their portfolio to invest in equities, their beliefs about actively managed mutual funds, and their beliefs about the cross-section of individual stock returns. Despite the deep and enduring influence of Lintner's (1956) classic survey work on corporate dividend policy, qualitative surveys remain rare in financial economics research. Some notable recent exceptions in corporate finance are Graham and Harvey (2001), Brav et al. (2005), Graham, Harvey, and Rajgopal (2005), Gompers, Kaplan, and Mukharlyamov (2016), and Gompers et al. (2016). We view our paper as a contribution to household finance in the spirit of these earlier corporate finance papers. By asking about beliefs, motivations, and decision-making processes, we test the key assumptions of leading theories more directly than the usual approach of trying to infer the validity of these assumptions by examining downstream outcomes.

We find substantial support for many of the leading theories of how individuals determine their portfolio's equity share. Among representative-agent asset pricing

[1] Distinguishing between models that are observationally equivalent in existing data can be important because they may have different welfare or policy implications. For example, knowing that the stock market's expected returns vary because of irrational cashflow forecasts instead of rational time-varying risk aversion would have profound implications.

models, we find especially strong support for the rare disaster model, with 42% of respondents describing it as very or extremely important. However, there is also significant evidence for the importance of long-run consumption growth risk (28%), long-run consumption growth volatility risk (25%), consumption composition risk (27%), loss aversion (27%), and ambiguity aversion/parameter uncertainty (25%). These results suggest that each of these theories will not ultimately be successful in explaining equity prices in isolation. Moving to theories that have tended to be applied only at the individual level, we find especially strong support for the importance of health risk (44%), unemployment risk (40% of employed respondents), time remaining until retirement (45% of employed respondents), and needing to have enough cash on hand to pay for routine expenses (44%). Non-participation in the stock market is frequently driven by the fixed costs of participation (46% of nonparticipants).

Turning to mutual funds, 51% of those who have purchased an actively managed equity mutual fund say that the belief that it would give them a higher average return than a passive fund was very or extremely important in that decision. However, 28% of active fund investors say that a hedging motive—the belief that the active fund would have *lower* unconditional expected returns than the passive fund but higher returns when the economy does poorly— was very or extremely important. Consistent with Berk and Green (2004), 43% of all respondents agree or strongly agree that a fund having outperformed the market in the past is strong evidence that its manager has good stock-picking skills, but inconsistent with Berk and Green (2004), only 17% agree or strongly agree that funds have a harder time beating the market if they manage more assets. The recommendation of an investment advisor was very or extremely important for 48% of active fund investors' decision to buy an active fund.

Finally, regarding the cross-section of stock returns, a weak plurality of respondents (26%) believe—contrary to actual returns data—that value stocks normally have lower expected returns than growth stocks. More clear-cut is the opinion on relative risk: 41% believe that value stocks are normally less risky than

growth stocks. A weak plurality (23%) believe—consistent with returns data—that high-momentum stocks normally have higher expected returns going forward than low-momentum stocks, and the same proportion believe that high-momentum stocks are riskier.

Survey methodologies of course have weaknesses. Survey respondents might not be highly motivated to give accurate responses, and the meaning of each response category (e.g., "very important") probably differs across respondents. If response errors are uniformly and randomly distributed across response categories, and if the response category scale is consistent within each individual, then the ordinal ranking of importance and agreement ratings will still be informative. Response error that is biased in a certain direction—perhaps because of social desirability concerns or a poorly worded question—is more problematic. We crafted our questions to make them as morally and socially neutral as possible, and we pilot-tested them for comprehension. In addition, we solicited feedback on the questions' wording from researchers associated with particular theories.

More fundamentally, individuals might not know the true motivations for their decisions, either because they have not introspected seriously enough, their memory has faded, or they were subliminally influenced. A related critique is the "as if" argument of Friedman (1956): just as the professional billiard player does not consciously know the laws of physics but plays as if he does, our survey respondents may not regard a certain factor as important but nonetheless invest as if it were. Under this view, the fact that an assumption about investors' thought processes is false is unimportant as long as it generates accurate predictions of behavior.

We acknowledge that individuals may not have full insight into the true reasons behind their decisions. Our survey measures how individuals consciously *perceive* themselves to be making financial decisions. We argue that it is worthwhile to understand these perceptions for at least four reasons. First, an individual's perception about her decision-making process is unlikely to be entirely unrelated to her true decision-making process. We suspect that even the most ardent acolyte of Friedman does not dismiss her conversations with friends and family members as

completely uninformative about their thinking and motivations. And ceteris paribus, a model based on assumptions that are closer to the truth is more likely to successfully predict behavior than a model whose assumptions are further from the truth. Harris and Keane (1999) find that relative to a model that tries to predict health insurance plan choices using only plan attributes, adding individuals' survey responses about how important these health insurance plan attributes are to them doubles the model's predictive power. Second, an individual's perceived decision-making process affects how she will forecast her future actions, which is itself an input into the individual's actions today. Third, these perceptions can affect an individual's demand for debiasing mechanisms, information, and advice. Finally, we believe that it is inherently interesting to know what individuals believe about themselves and the reasons for their behavior. Barberis et al. (2015) argue that theory should endeavor to match survey measures of investor beliefs.

The remainder of the paper proceeds as follows. Section 1 discusses the process of designing our questions and our survey sample. Section 2 presents our questions and results relating to individuals' equity allocation decisions. Section 3 presents the same for our questions regarding actively managed equity mutual funds. Section 4 discusses our questions and results regarding investors' perceptions of value and momentum stocks. Section 5 concludes.

1. Survey design and sample

Our primary goal was to test a broad swath of the leading theories on the determinants of portfolio equity share and the reasons individuals invest in actively managed mutual funds. A secondary goal was get a general sense for how individuals think about the cross-section of expected stock returns. We designed our questions to map as closely as possible to the applicable theory or concept while excluding other theories or concepts and remaining comprehensible to a layperson.

After drafting our initial set of questions, we conducted a pilot using respondents recruited on Amazon's Mechanical Turk platform. To confirm that our

respondents understood the questions, we included "I don't understand" as an answer option. We also included a free response question at the end of the equity allocation section that gave respondents an opportunity to write in additional factors that we had not mentioned in the survey. Based on the responses, we revised our existing questions and added several new ones to the survey. We then ran a second pilot using Mechanical Turk to confirm that these new questions were understood by respondents.

Next, we solicited feedback on the questions from researchers, particularly those associated with theories we wished to test, and revised our questions in response. We ran a third Mechanical Turk pilot to confirm that the new questions were clear to respondents.

We conducted our final survey on the RAND American Life Panel (ALP), a sample of U.S. individuals at least 18 years of age. Panelists are paid at a rate of $40 per hour to answer survey questions, with a minimum of $3 per survey. RAND circulated a survey invitation to 2,148 members of the ALP, with a target sample size of about 1,000 survey completions. Because we reached the target survey completions sooner than expected, the survey invitation was closed early. Of those invited, 1,255 read our informed consent disclosure and 1,202 gave consent. 1,080 of the 1,202 reported being "the person in your family most knowledgeable about your assets, debts, and retirement planning." An additional 27 reported sharing that status equally with a spouse or partner. These 1,107 were then asked if they would like to answer additional questions in exchange for additional monetary compensation. The 1,098 who opted to do so form our final sample. The surveys were completed between December 14, 2016 and December 27, 2016. We anticipated that the survey would take approximately 10 minutes. Responses are weighted using raked sample weights provided by the ALP to form a nationally representative sample of financial decision-makers.[2]

[2] Raking was based on gender, age, race/ethnicity, education, number of household members, and household income. See https://alpdata.rand.org/index.php?page=weights for more details.

2. Equity Share of Portfolio

The first section of the survey asks about the factors that determine the fraction of the individual's wealth invested in equities. We begin by asking respondents the value of their investible financial assets[3] and what percentage of these assets is invested in stocks, either directly or through mutual funds. We classify respondents who report a zero allocation to equities as nonparticipants, and those who report a positive allocation as participants.

We then ask each respondent how important various factors are in determining the percentage of their investible financial assets currently invested in stocks.[4] The answer options for each question are "not important at all," "a little important," "moderately important," "very important," and "extremely important."[5]

The factors are presented to respondents in no particular order, but for the exposition that follows, we classify the factors into seven categories: factors from neoclassical asset pricing models, background risks and assets, nonstandard preferences, social and personal factors, expected return beliefs, heuristics, and transactional factors. When the direction in which a particular factor should push the equity share did not seem self-evident, we ask respondents follow-up questions regarding the directional effect of the factor.

Because we will discuss factors by category below, it may be helpful to begin with a high-level summary of the results across all categories to see which factors are relatively most important. This summary is in Table 1, which includes only the

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[3] We specify that this value should include "bank accounts, brokerage accounts, retirement savings accounts, investment properties, etc., but NOT the value of the home(s) you live in or any private businesses you own."

[4] Participants are asked "How important are the following factors in determining the percentage of your investable financial assets that is currently invested in stocks," whereas nonparticipants are asked "How important are the following factors in causing you to not currently own any stocks."

[5] While participants were not explicitly given the option of skipping questions, it was possible for them to do so. If a participant left the answer to a question blank, she would be asked to return to the previous page to complete the missing question. However, if she chose to continue the survey without returning to the prior page, the system would permit her to proceed.

questions that were asked of all respondents. The table presents the percent of respondents who report a factor was very or extremely important; the percent who report a factor to be moderately, very, or extremely important; and the mean rating where each possible response is given a numerical value between 1 and 5. The correlations among the three measures are 0.95 or higher, so going forward, we will focus on the percent who report a factor to be very or extremely important.

Table 1 shows that rather than a single dominant factor driving equity decisions, our respondents consider a variety of factors. Three factors stand out as being particularly important. The first of these is the risk of illness or injury to either the respondent or a member of her family, which is very or extremely important to 44% of respondents. Close behind—also with 44%—is the need to maintain cash on hand to pay for routine expenses. The third—a concern about rare economic disasters—is very or extremely important to 42% of respondents.

We then see a drop off, followed by another cluster of factors, including trust, human capital, and number of years until a large non-retirement expenditure. Below that, we see a very large number of factors that are very or extremely important to between 24% and 29% of respondents. Finally, at the bottom of Table 1, we have eight factors that receive less than 20% support.

2.1. Neoclassical Asset Pricing Factors

We investigate six factors that have been hypothesized to affect the equity premium in neoclassical asset pricing models with a representative agent. By market clearing, the representative agent must be happy to hold the market portfolio, so these theories are implicitly theories of portfolio choice. Table 2 contains the text of the questions and the percent of respondents who reported the factor is very or extremely important in determining their current portfolio equity share. The table also shows this percentage for demographic subsamples split by stock market participation status, wealth, income, gender, age, and educational attainment.

The most foundational assumption of standard asset pricing models is that assets that have low returns when the marginal utility of money is high are less

attractive. The consumption-based capital asset pricing model (CCAPM), where an asset's return covariance with consumption growth determines its risk premium, is a special case. To investigate whether individuals consciously think in these terms, we ask each respondent to rate the importance of both of these factors ("marginal utility of cash" and "marginal utility of consumption," respectively). We did not want to tell respondents that the stock market's return *actually* covaries positively with, say, consumption growth; we wanted to elicit whether they believed that this is true *and* this had a significant effect on their asset allocation. Therefore, we asked how important the "concern" that this covariance existed was. If the respondent believed that the stated object of concern was not true, then the natural response is that concern about it was not important.

The failure of the CCAPM is well-documented (Mehra and Prescott, 1985), leading to the other models we test in this section. Motivated by the rare disaster model of Rietz (1988) and Barro (2006), we ask our respondents about the importance of concern that a dollar invested in stocks will lose more money than a dollar deposited in a bank savings account during an economic disaster ("rare disaster"). To be consistent with the cutoff used by Barro and Ursúa (2012), we specified that the disaster in question is one where the economy's annual output drops by more than 10%.

In contrast to the sudden drop in disasters, the long-run risk model (Bansal and Yaron, 2004; Bansal, Kiku, and Yaron, 2012) hypothesizes that the equity premium is high because stock returns tend to be low when bad news about the expectation and volatility of consumption growth over the long run arrives. What sets the long-run risk model apart from the Merton (1973) ICAPM is that news about future consumption that is *not* reflected in consumption today affects investment decisions today. We therefore ask separate questions about the importance of stock return covariance with news about aggregate consumption growth over the next year ("bad news next year"), and about the importance of stock return covariance with news about aggregate consumption growth over the five-year period starting one year in the future ("bad news 5 year period (LRR)"). We do the same thing with respect to

economic uncertainty, and ask about the importance of stock return covariance with news about aggregate consumption uncertainty over the next year ("uncertainty next year") and about stock return covariance with news about aggregate consumption uncertainty over the ten-year period starting one year in the future ("uncertainty 10 year period (LRR)").

Piazzesi, Schneider, and Tuzel (2007) posit that households have nonseparable preferences over housing and a numeraire good, which leads them to fear "composition risk"—changes to the relative share of housing in their consumption basket. In their model, "an asset denominated in numeraire (nonhousing) consumption is more attractive if it pays out a lot when there is a relative shortfall of housing" (Piazzesi, Schenider, and Tuzle, 2007, p. 539). To capture the "physical living situation" factor, we ask about the importance of concern that stock returns will tend to be low when consumption from one's physical living situation is dropping more quickly than the rest of one's consumption basket.

Finally, we ask respondents about the role that consumption commitments play in their allocation decision ("consumption commitments"). Chetty and Szeidl (2016) show how components of the consumption bundle that are difficult to adjust in the short run can cause individuals to invest less in risky assets than they otherwise would.[6] The mechanism is related to Piazzesi, Schneider, and Tuzel (2007). When a portion of one's consumption bundle cannot be easily adjusted, a negative shock must be accommodated entirely through adjustment of uncommitted consumption (e.g., food). This raises the local curvature of utility.

Whereas our other questions are phrased so as to imply a specific directional effect, our consumption commitments question asks only about whether such

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[6] "The basic intuition underlying our analysis is straightforward. Consider an individual who consumes commitment (e.g., housing) and non-commitment (e.g., food) goods in equal shares. After making his commitment, suppose the individual faces a shock that necessitates a 10% reduction in expenditure. Since commitments are difficult or costly to adjust in the short run, the individual may rationally choose not to move out of his house, making the shock translate into a 20% drop in food consumption. The presence of commitments magnifies the impact of shocks, effectively making the consumer more risk averse. As a result, agents with commitments may rationally hold less risky portfolios and demand a higher equity risk premium." (Chetty and Szeidl 2004, 2).

commitments play a role in the respondent's decision-making. Because the model has a specific directional prediction—that higher consumption commitments should reduce equity investment—we ask follow-up questions about directionality to respondents who reported that consumption commitments were at least moderately important.

Table 2 shows that the rare disaster model has more support among our respondents than any other neoclassical asset pricing factor: 42% of respondents say that concern about a disaster played a very or extremely important role in determining their equity share. The rare disaster question is also the only factor in this category that receives more support among the high wealth respondents than it does among the low wealth respondents (47% versus 40%). The rare disasters model is an attempt to reconcile the equity premium with the CCAPM, but both the marginal utility of cash and marginal utility of consumption factors draw less support (33% and 27%, respectively) than rare disasters. This may indicate that most people do not think about their investments in terms of contemporaneous covariance with marginal utility, or people may have interpreted the marginal utility questions as applying to typical scenarios and not rare disasters.

The second most popular factor is consumption commitments, with 33% of respondents describing them as very or extremely important. However, in the follow-up question, among those who say that consumption commitments were very or extremely important, only 44% report that an increase in their consumption commitments as a fraction of income would lead them to reduce their equity exposure (or make them less likely to start participating in the stock market), as the theory predicts. 13% report that an increase in their consumption commitments would cause them to *increase* their equity exposure.

Surprisingly, 32% of respondents who say that consumption commitments are very or extremely important to their equity allocation decision go on to report that an increase in their consumption commitments would neither increase nor decrease their equity allocation (or, in the case of nonparticipants, make them neither more nor less likely to participate). There are several potential explanations for this result.

First, it may be that respondents' optimal policy function with respect to consumption commitments is locally flat, even though it is not flat globally. We did not specify the amount of the increase in consumption commitments. Therefore, it is possible that some respondents answered the question under the scenario of a small increase in consumption commitments, so we are measuring the locally flat portion of their policy function. Second, we did not specify over what time horizon the portfolio change is being measured. It may be that even though an increase in consumption commitments would cause some respondents to *eventually* change their equity share, they would not do so during the time period assumed. Third, even though we attempted to measure the partial derivative of equity share with respect to consumption commitments, respondents may be reporting the total derivative. Since changes in consumption commitments are likely to be accompanied by other economic events, the total derivative may be zero even if the partial derivative is not. Finally, it is possible that our respondents did not understand the question or answered carelessly.

Although the high incidence of respondents saying they would react contrary to the theoretical prediction of Chetty and Szeidl (2016) casts doubt on the quantitative aggregate importance of consumption commitments, we note that by asking follow-up questions, we have subjected consumption commitments to a tougher test than the other factors.

The two questions about stock return covariance with bad news about aggregate consumption growth over the next year garner 27% to 29% support. Because they describe nearly contemporaneous correlations, these can be interpreted as the aggregate consumption analogues of the two marginal utility questions, which ask about covariance with individual-specific marginal utility. The questions testing long-run risk—stock return covariance with news about *future* expected consumption growth and volatility—attract similar levels of support: 28% and 25%, respectively.

Composition risk involving one's physical living situation earns similar levels of support, with 27% of respondents describing it as very or extremely important.

2.2. Background Risks and Assets

There is a substantial literature on the effects of background risks on financial decisions (Heaton and Lucas 2000, Guiso and Paiella, 2008).

One background factor that has received a substantial amount of attention is employment risk. We therefore ask each respondent who is currently employed about the importance of employment risk in her equity allocation decision ("employment risk"). Because housing represents a large portion of the typical homeowner's wealth, we ask each respondent who reported owning her home about the importance of home value risk ("home value risk"). We also ask about the importance of non-financial assets, such as private business investment ("non-financial risk"), as well as the risk of illness or injury ("risk of illness/injury").

We also ask participants about two background factors that may make equity investments more attractive. First, we investigate whether stocks are viewed as a hedge against inflation, an argument that goes back to Bodie (1976) ("stocks as a hedge"). Second, we investigate the possibility that participants have other assets that attenuate the effect of poor equity returns on their utility. This attenuation could have a variety of sources, including hedging or wealth effect ("other assets as a cushion").

We also ask about a variety of other rational factors. One such factor is how much human capital the individual holds as a fraction of her financial assets, as measured by the expected wages earned over the remainder of life compared to current financial assets ("human capital"). Closely related to models that include human capital are those that incorporate the number of years remaining until retirement ("horizon, retirement"). We also ask about a third rational model, developed by Wachter (2002), which shows that the number of years remaining until a significant *non-retirement* expense can also affect portfolio risk-taking ("horizon, non-retirement").

Finally, we ask each nonparticipant whether the amount of money that she has available to invest is an important factor in her decision not to invest in stocks ("amount too small"). One possible motivation for such nonparticipation is fixed costs

of participation, as suggested by Vissing-Jørgensen (2003). We investigate this possibility in more detail, and discuss the results of this investigation in Section 2.7.

Table 3 shows that there is substantial heterogeneity in the importance of these factors. At the high end, over 46% of nonparticipants say that the amount (or lack thereof) they had available to invest was very or extremely important in their decision not to invest in stocks. Somewhat surprisingly, 28% of the *wealthy* nonparticipants, and 63% of the *high-income* nonparticipants also feel this way. Among employed participants, 45% of respondents report that the number of years remaining until retirement was very or extremely important. 38% of this 45% go on to say that extending their horizon by 10 years would cause them to increase their equity participation (or make them more likely to participate).[7] Human capital is somewhat less important, coming in at 34%. Interestingly, human capital is substantially more important to nonparticipants than it is to participants (40% vs 29%), and to younger respondents than it is to older respondents (35% vs 24%). Close behind is the number of years until a large *nonretirement* expenditure, which 33% of respondents describe as important.

Two background risks stand out from among the 6 we asked about. 44% report that the risk of illness or injury is very or extremely important. This is despite the fact that this risk is unlikely to be highly correlated with equity returns. Close behind is employment risk, at 40% of employed respondents. This factor is particularly important among low income and low wealth respondents, as well as among younger and less educated respondents.

Home value risk is somewhat less popular, but is still important to 27% of homeowner respondents. This risk is particularly acute for low-income respondents (32% vs 22%), older respondents (31% v 15%), and low-education respondents (32% vs 19%). The final three background factors – stocks as a hedge, other assets as a

[7] As with the consumption commitments follow-up questions, a surprising number (33%) of respondents who described the number of years remaining until retirement as being very or extremely important went on to say that working for an additional 10 years would neither increase nor decrease their equity allocation (or in the case of nonparticipants, make them neither more nor less likely to participate).

cushion, and non-financial risks – are each described as important by between 18% and 19% of respondents.

2.3. Nonstandard Preferences

We ask participants about four types of "nonstandard" preferences: loss aversion, ambiguity, internal habit, and external habit.

Loss aversion holds that individuals strongly dislike losses per se, quite apart from their impact on consumption. In order to investigate the role of this factor, we ask each respondent whether the possibility of even small losses on her stock investment makes her worry ("loss aversion"). We restrict the question to "small losses" because Rabin (2000) demonstrates that an expected utility maximizer must be either virtually risk neutral over small gambles or have "manifestly unrealistic risk aversion over large stakes" (Rabin, 2000, pp. 1281-2). Therefore, by focusing on small losses, this phrasing rules out the type of risk that a standard expected utility maximizer with increasing concave utility function would think is important.

Second, we ask respondents about the role of ambiguity, or parameter uncertainty in their investment decisions ("ambiguity/parameter uncertainty"). Ambiguity aversion captures the idea that individuals do not like situations in which they are uncertain about the probability distribution of a gamble (Ellsberg, 1961). While the literature has often focused on aversion to ambiguity, people may seek it as well. For example, Charness et al. (2013) find in a laboratory experiment that ambiguity seeking behavior was almost a common as behavior that is consistent with ambiguity aversion. Closely related to ambiguity aversion is the literature on parameter uncertainty. Working in this area, Hansen and Sargent (2001) and Hansen and Sargent (2011), for example, have focused on "robustness."

We also ask respondents questions based on both internal habit and external habit models. In the Constantinides (1990) internal habit model, an individual's past consumption generates a "subsistence" level, or "habit," and the individual's utility is a function of her consumption today *relative* to her habit. As a result, "small drop in consumption generates a large drop in consumption net of the subsistence level and

a large drop in the marginal rate of substitution." To investigate whether investors are consciously considering this factor, we ask each respondent about the importance of the difference between her current material standard of living and the level she is used to ("internal habit").

The external habit model of Campbell and Cochrane (1999), in contrast, posits that the agent's "habit" level is a function of *aggregate* past consumption. Like the internal habit model, utility is then defined over consumption relative to habit. As with internal habit, "low consumption relative to habit … implies a high curvature of the utility function." (Campbell and Cochrane 1999, 208-9) To investigate whether investors are consciously considering this factor, we ask each respondent about the importance of the difference between her current material standard of living and the level everybody else around her has experienced recently ("external habit"). We also ask follow-up questions about the directional effect of internal habit and external habit on the equity share.

Table 4 shows that loss aversion is described as important by 27% of respondents, but this figure rises to 36% among nonparticipants. Similarly, while ambiguity is important to 25% of all respondents, it is particularly important to low income (28% vs 20%) and low education (27% vs 21%) respondents. There is little evidence of ambiguity seeking among our respondents. Only 8% of respondents who rated ambiguity as very or extremely important say that a reduction in ambiguity would lead them to increase their exposure to equities, while 56% report that it would cause them to increase it. Young respondents appear to be particularly ambiguity averse: for them, the figure is 71% (compared to 41% in the older group).

The internal habit model received modest support – 25% of respondents – and like ambiguity, is particularly important to low income and low education respondents. The external habit model received even less support: 16% of respondents describe it as very or extremely important. It is, however, somewhat more popular among low income, wealth, and education respondents.

Digging further, among those who say that internal habit was important, 40% report that being closer to habit would be associated with a reduction in equity

exposure, while 8% say that it would be associated with an increase. These figures were even more bimodal for the external habit follow up questions: 44% say that being closer to habit would be associated with a reduction in equity exposure, while 12% say the opposite. Overall, 10% of respondents gave responses that were completely consistent with the internal habit model, and 7% did so for the external habit model.

2.4. Expected Return Beliefs

We ask about the role of four categories of expected return beliefs.

We begin with extrapolation. Greenwood and Shleifer (2014) examine survey evidence from a variety of sources, and find robust evidence that individuals hold extrapolative beliefs. Serial correlation in stock market returns should cause the unconditional willingness to hold equities to decrease, since stocks are a poor hedge; when they have had a poor return, future investment opportunities also decline.

We also ask our investors whether mean reverting beliefs play an important conscious role in their decision-making ("mean reversion"). Mean reversion means that stocks are a hedge, so unconditionally, people should be more willing to hold stocks.

If individuals believe that expected returns are time-varying, then their equity share at a particular moment in time may be affected by their view that expected returns are particularly high or low at that time. We therefore ask each respondent whether a belief that the returns she can expect to earn from investing in stocks right now are lower than usual plays an important role ("returns below average"). We also ask each participant the reverse question ("returns above average").

None of these factors receive the support of more than 25% of respondents. The most popular—the belief that returns are currently above average—is described as important by 24% of respondents. Right behind this is the converse, that returns are currently below average, with 23% support among participants. Extrapolation is important to 18% of respondents, and mean reversion to 17%. However, we note that to the extent that extrapolation operates unconsciously, our survey will tend to understate its importance.

2.5. Social and Personal Factors

We ask our respondents about eleven social and personal factors.

The first of these is religion. Religion has been thought to influence savings and economic behavior since at least Weber (1930). Kumar, Page, and Spalt (2011) and Benjamin, Choi, and Fisher (2016) find that Catholics are less risk-averse than Protestants. We therefore ask each respondent whether her religious beliefs, values and experience play an important role in her allocation decision ("religion").

There is also a body of work on the role of trust in financial markets. Guiso et al. (2008) study the effect of a lack of trust in financial markets, and they develop a model in which individuals seeking to invest in financial markets are worried about the possibility that, for example "the company is just a scam, that the manager steals all the proceeds, or that the broker absconds with the money instead of investing it." (Guiso et al. 2008, p. 2563) In light of this work, we ask respondents about the role of trust in their allocation decisions ("trust"). Closely related to this issue of trust is the difficulty of finding a reliable investment advisor ("lack of advisor") and a lack of financial knowledge ("lack of knowledge").

There is also a literature on the role of personal experience in financial decision making. Malmendier and Nagel (2011) find strong evidence relating households' risk-taking behavior to experienced returns. To investigate whether individuals are conscious of this effect, we ask each of our respondents two questions. First, we ask whether the feelings, attitudes, and beliefs about the stock market from living through stock market ups and downs (whether or not the respondent was invested in stocks at the time) play an important role ("life experience"). We also ask each respondent whether the feelings, attitudes, and beliefs about the stock market from her personal experiences of investing in the stock market played an important role ("personal experience"). This allows us to distinguish between experiences that the respondent lived through and those that she experienced directly.

We also ask respondents about the role of advice in financial decision making: advice from a professional financial advisor ("advice, professional"), advice from a

friend, family member, or coworker ("advice, peer"), and advice from media sources ("advice, media").

We ask nonparticipants about two additional personal factors. First, we ask about the importance of "financial phobia" discussed in Burchell (2003) and Shapiro and Burchell (2012) ("don't like to think about my finances"). Second, we ask about the importance of an often-heard explanation – "I never got around to it" ("never got around to it"). We ask respondents who described this last factor as at least moderately important several follow up questions to determine why this was the case. These results are discussed in section 2.7.

The most popular of these factors is not liking to think about one's finances, although we ask this only of nonparticipants. We discuss this factor in more detail in Section 2.7.

Fully 35% of respondents describe a lack of trust as a very or extremely important factor in their equity allocation decisions. This includes 32% of *participants* (and 40% of nonparticipants). While this factor is particularly popular among low income (39% vs 28%) and low education (40% vs 24%) respondents, it is equally popular among high and low wealth respondents (35% in each group). Close behind is a lack of knowledge about how to invest, which 34% of respondents describe as very or extremely important. As with a lack of trust, this is quite popular among both participants (31%) and nonparticipants (38%), and is particularly popular among low income (38% vs 27%) and education respondents (37% vs 26%). Closely related to these first two factors is the lack of a trustworthy advisor, which is important to 29% of respondents. These three factors suggest that individual investors are uncomfortable with the equity markets. At the same time, 25% of respondents report that the advice of a professional advisor is an important factor in their decisionmaking.

Table 6 also suggests that life experiences—the history of past returns over the respondents' lifetimes—is at least as important as personal experience with these returns (25% vs 24%). Both of these factors are more popular among high wealth respondents. Nearly tied with personal experience is religion, also at 24%. Advice

from peers and media sources receives less support (15% and 12%, respectively), and only 4% of respondents describe having intended to invest in stocks but never getting around to it as very or extremely important.

2.6. Other Factors (Heuristics and Transaction Factors)

Finally, we ask respondents about the role of five other factors.

The first is rule of thumb ("rule of thumb") such as investing (100 – age)% of assets in stocks, or investing 1/3 of one's wealth in each of stocks, bonds and real estate. We also ask respondents about the role of 401(k) defaults ("defaults"). Choi et al. (2002) found that a sizeable fraction of investors remain with the default asset allocation in their 401(k) plan.

We ask respondents about two transactional factors. These transaction factors were motivated by responses to the free-response questions in our initial pilot. Many of these respondents cited a concern about emergency liquidity. In our final survey, we therefore ask about the importance of a concern that stock investments will take too long to convert into spendable cash in an emergency ("emergency liquidity").

A second factor that was raised repeatedly in the free-response question was a concern about having enough cash available to meet routine expenses. We therefore include a question in our final survey about the importance of the amount of cash the respondent needs to have on hand to pay routine expenses ("cash on hand – routine"). Finally, we ask each respondent about the importance of what she knows about the stock market's returns during the decades before she was born ("returns from distant past").

A substantial fraction of respondents (44%) report that needing to have cash on hand to pay routine expenses was a very or extremely important factor, making it the most popular factor in this category. While this factor is particularly popular among low income and wealth individuals, 38% of high wealth and 34% of high income respondents also describe it as important very or extremely important.

The need for emergency liquidity also has substantial support, at 27% of respondents. Unsurprisingly, this factor is substantially less popular among high

income and wealth individuals. Given the importance of sticky defaults in other settings, it performs relatively poorly in our survey, with only 24% of respondents identifying it as very or extremely important. One potential explanation for this is that while defaults matter within particular investment accounts (such as, for example, a retirement account), individuals may be compensating elsewhere, and it may therefore not affect the final allocation. Returns from the distant past and rules of thumb also receive relatively little support, with only 15% and 12% of respondents, respectively.

2.7. Factors Specific to Non-Participants

To better understand the motivations of individuals who do not participate in the equity market, we ask a series of follow up questions specifically targeted at nonparticipants. As discussed in Section 2.2, we ask each nonparticipant if the amount she had available to invest is an important factor in her decision not to invest in stocks. 46% of nonparticipants say that it was a very or extremely important factor, and a further 10% describe it as moderately important. We then ask each of these respondents a series of follow up questions.

First, we ask how much money they would need to have available to make it worthwhile to invest in stocks. The results are presented in Table 8. While half the population say that they would require an amount less than $5,000, a sizeable proportion report needing a very large amount of money to make equity investments worthwhile. 16% report needing to have at least $25,000 available, and 13% report requiring at least $50,000.

Vissing-Jørgensen (2003) suggests several fixed costs which may make nonparticipation optimal for some individuals. These costs include the time, money and/or effort involved in setting up accounts, hiring financial advisors, and learning about stocks. We therefore ask our respondents about the importance of each of these factors. Vissing-Jørgensen (2003) also highlights per-period stock market participation costs, which could be related to each of these three factors. We therefore ask about the ongoing time, money, and/or effort it would take to maintain an

investment account, maintain a relationship with a financial advisor, and stay up to date on the stock market. Finally, Vissing-Jørgensen (2003) points out a more subtle cost, that owning stocks make it more complicated for individuals to prepare their tax returns. We therefore ask our respondents about the importance of this factor.

Finally, in the model of Cocco (2004), housing can "crowd out" stock market investment. Therefore, we ask each respondent who owns her home how important this factor is in causing her to not have enough money to make it worthwhile to invest in stocks.

Table 9 shows that information costs—both the costs of staying up to date about stocks and the cost of learning about them in the first place—are the most important reasons why respondents felt that they did not have enough money available to make it worthwhile investing in stocks (45% and 41%, respectively).[8] Costs of hiring and maintaining an advisor are close behind, at 39% and 38%, respectively. The place where there is the largest gap between the upfront fixed cost and the per-period fixed cost is with respect to investment accounts: 38% cite the costs of maintaining an account, while 32% cite setting one up. A smaller fraction (29%) cite tax complexity. This factor is more popular among lower income and wealth respondents. Finally, 24% of the respondents who own homes report that the fact of owning the home is an important factor. This number jumps to 42% for wealthy respondents.

We also ask a series of follow up questions to each nonparticipant who reported that never having gotten around to investing in stocks was at least a moderately important factor in why she does not currently own any stocks. This group represents 24% of nonparticipants.

Two of these factors we ask about are rational reasons for this choice reversal. First, we ask whether the respondent discovered that it takes more time, money, and/or effort to invest in stocks than she expected ("too costly"). Second, we ask

[8] This was even higher among wealthy respondents, where the figures were 71% for both. However, given that there are relatively few respondents in this category, these figures should be interpreted with caution.

whether she has less money available now than when she originally planned on investing in stocks was an important factor ("less money available now").

Two other factors are more ambiguous. First, we ask whether the respondent was too busy ("too busy"). Second, we ask about whether she decided it wasn't important enough to think about it ("not important enough"). Finally, we ask whether the respondent procrastinated for no good reason ("procrastinated"). In all five cases, we ask the respondents to rate the importance of each factor on the same Likert scale, from not important at all to extremely important.

Table 10 shows that the two clearly "rational" factors are the most popular of the five. The fact of having less money available is cited by 40% of respondents as being very or extremely important, while the discovery that investing in stocks is more costly than anticipated is cited by 31%. The fact of being too busy (20%) and of procrastinating for no reason (16%) come next, followed by a decision that it is simply not important enough to think about it (11%). We note, however, that because only 97 respondents were eligible for these questions, the standard errors on these estimates are quite large.

3. Actively Managed Mutual Funds

The second substantive section of our survey concerned the reasons why individuals purchase actively managed equity mutual funds. As discussed in Del Guercio and Reuter (2014), while there is widespread agreement that actively managed equity mutual funds earn negative alphas on average, they remain popular with investors. Our survey included questions designed to target four of the explanations that have been advanced for this continued popularity.

We begin by asking each respondent whether she has ever purchased shares in an actively managed stock mutual fund.[9] Those that report having done so are then

[9] 33% report having done so, including 35% of respondents who answered the question. Prior to this question, we asked each respondent whether she knows what a mutual fund is. 52% of respondents told us that they did (including 55% of respondents who answered the question). To ensure that all

asked to rate the importance of four factors in their reason for doing so. These factors are rated on the same five-point scale as the equity factors in Section 2.

First, we ask about the importance of advisor recommendations ("advisor recommendation"). Next, we investigate the possibility that investors purchase actively managed stock mutual funds because of a belief that actively managed funds provide higher returns ("higher returns").

A third possibility is hedging demand. Glode (2011) develops a model in which active funds provide relatively high returns in bad times (i.e., in states of the world in which the investors' marginal utility of money is high). We therefore ask each respondent about the importance of hedging demand in their decision-making ("hedging").

Finally, recognizing the importance of retirement savings plans in many individuals' financial lives, we consider the possibility that some investors are making financial decisions largely within the menu of options offered in their retirement plans. We therefore ask respondents about the importance of not having access to a suitable passively managed stock mutual fund in their employer-sponsored retirement savings plan ("passive not available").

The results are summarized in Panel A of Table 11. 51% of respondents who had experience with actively managed equity mutual funds indicate that a belief that they would generate higher returns than a passive fund is a very or extremely important factor in their decision to purchase them. Close behind, at 48%, is the recommendation of a financial advisor.

Hedging demand is described as very or extremely important by 28% of eligible respondents. A lack of passive funds was the least important, with only 19% pointing to this factor.

We also ask all our respondents (including those who have never made an investment in actively managed funds) two questions designed to test the

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respondents were answering the same question, we then provide a definition of a mutual fund, an actively managed stock mutual fund and a passively managed stock mutual fund.

assumptions of Berk and Green (2004). In the Berk and Green model, mutual fund managers have differential ability to generate high average returns. Recognizing this, investors direct funds towards managers that have had high past returns. Because there are decreasing returns to scale in the deployment of capital, these fund flows cause future expected returns to equalize across funds.

We therefore ask our respondents how much they agree with two statements. The first is that when an actively managed stock mutual fund gets more money to manage, it becomes harder for it to generate higher returns than the overall stock market ("size effect"). The second is that when an actively managed stock mutual fund has had significantly higher past returns than the overall stock market, this is strong evidence that its manager has good stock-picking skills ("managerial skill"). Respondents are given a choice among five answer options: "strongly disagree," "disagree," "neither agree nor disagree," "agree," and "strongly agree."

The results are summarized in Panel B of Table 11. While 43% of respondents agreed or strongly agreed that past returns are evidence of skill, only 17% agreed that there are decreasing returns to scale in active money management. High income and wealth respondents are substantially more likely to agree with the first factor (52% vs 38% and 49% vs 39%, respectively). This is also true about the second statement with respect to wealth (23% vs 14%), but less so with respect to income (19% vs 16%).

4. Cross-Sectional Equity Returns

In final section of the survey, we investigate our respondents' beliefs about value and momentum stocks. The prevalence and persistence of these two cross sectional factors is well established. For example, Asness et al. (2013) document the existence of value and momentum return premia in eight markets and asset classes. To gauge self-reported knowledge, we begin by asking each respondent whether she is familiar with the terms "growth stock" and "value stock." 24% of respondents report being familiar with both. 66% report not being familiar with either term, and 5%

report being familiar with only one of the terms. To ensure that all respondents are answering the same questions, we then provided respondents with a simple definition of a growth stock and of a value stock.[10]

We first ask respondents about their perceptions of the relative risks and returns of value stocks (compared to growth stocks). To do so, we ask each respondent to complete the following sentence: "Compared to a growth stock, I expect a value stock to normally be …" Respondents are given four possible answers to choose from: "riskier over the next year, on average, "equally risky over the next year, on average," "less risky over the next year, on average," and "no opinion." We also ask them to complete a second sentence: "Compared to a growth stock, I expect a value stock to normally have ..." Here, the answer choices are "higher returns over the next year, on average," "about the same returns over the next year, on average," "lower returns over the next year, on average," and "no opinion." The results are presented in Figures 1a and 1b.

Next, we ask them to complete similar sentences, this time comparing "a stock whose price fell a lot over the past year" to "a stock whose price rose a lot over the past year." The results are presented in Figures 2a and 2b.

Figure 1a shows that respondents view value stocks to be less risky than growth stocks. At the same time, however, a plurality believes that value stocks have lower expected returns, contrary to actual historical return data. More consistent with the historical data is respondents' average beliefs that high-momentum stocks have higher expected returns, although they also on average believe that high-momentum stocks are riskier.

5. Conclusions

We conduct a large-scale survey of U.S. individuals. Rather than a single driving factor, we find evidence that individuals consider a wide variety of factors in

[10] Specifically, we told participants the following: "A value stock is a stock that has a low price relative to its company's current profits (and other fundamentals). A growth stock is a stock that has a high price relative to its company's current profits (and other fundamentals)."

deciding what fraction of their portfolio to invest in stocks. We find particular support for background risks, rare disasters, transactional factors, and fixed costs of stock market participation in determining equity share. Households tend to believe that past fund performance is a good signal of stock-picking skill, funds do not suffer from diseconomies of scale, value stocks are safer and have lower expected returns, and high-momentum stocks are riskier and have higher expected returns.

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Table 1: Summary of importance of factors in equity allocation

The first column presents the proportion of respondents who described the factor as very or extremely important. The second presents the proportion of respondents who described the factor as at least moderately important. The third column presents the mean response, where the responses are translated into a five-point scale: not important = 1, a little important = 2, moderately important = 3, very important = 4, and extremely important = 5. All statistics are calculated using sampling weights.

	Very or Extremely Important	Moderately Important or More	Mean
Risk of Illness/Injury	44.0%	67.8%	3.24
Cash on Hand – Routine	43.9%	65.4%	3.16
Rare Disaster	42.3%	66.5%	3.18
Trust	35.0%	57.1%	2.89
Lack of Knowledge	33.9%	58.5%	2.85
Human Capital	33.5%	62.2%	2.97
Horizon, Non-Retirement	33.4%	56.4%	2.82
Consumption Commitments	33.2%	58.8%	2.91
Marginal Utility of Cash	32.9%	57.8%	2.85
Lack of Advisor	29.2%	49.9%	2.65
Bad News Next Year	28.5%	55.7%	2.75
Bad News 5 Year Period (LRR)	28.0%	53.4%	2.69
Emergency Liquidity	27.4%	48.7%	2.65
Marginal Utility of Consumption	27.3%	54.2%	2.71
Uncertainty Next Year	27.0%	53.4%	2.72
Physical Living Situation	26.9%	50.4%	2.67
Loss Aversion	26.6%	49.7%	2.61
Life Experience	25.4%	55.6%	2.75
Internal Habit	25.4%	51.6%	2.64
Ambiguity / Parameter Uncertainty	25.2%	53.3%	2.63
Advice, Professional	25.2%	46.2%	2.44
Uncertainty 10 Year Period (LRR)	24.8%	51.3%	2.66
Personal Experience	24.4%	52.5%	2.65
Sticky Defaults	24.3%	51.3%	2.57
Religion	24.2%	41.8%	2.41
Returns Below Average	23.8%	45.9%	2.51
Non-Financial Risk	18.3%	38.9%	2.22
Extrapolation	17.9%	40.8%	2.36
Mean Reversion	16.5%	43.4%	2.37
External Habit	15.7%	40.3%	2.29
Returns from Distant Past	15.4%	36.6%	2.24
Advice, Peer	14.7%	39.9%	2.25
Rule of Thumb	12.4%	35.8%	2.15
Advice, Other	11.7%	35.9%	2.12

Table 2: Neoclassical Asset Pricing Factors

This table presents results from a nationally representative survey of US households drawn from the RAND American Life Panel between December 14, 2016 and December 27, 2016. Respondents were asked to rate the importance of each factor in their equity allocation decision on a 5-point scale: "not important at all," "a little important," "moderately important," "very important," and "extremely important." Panel A presents the (weighted) proportion of respondents who described the factor as very or extremely important, with the standard error of that proportion below in parentheses. The first column presents these results for the entire sample. The second column presents the total number of respondents included in the denominator of the proportion. The remaining columns present these proportions with the sample divided in six different ways. Participants are all respondents who reported having non-zero investments in equities. High (low) wealth respondents are those who reported having at least (less than) $75,000 in investible financial assets. High (low) income respondents are those who reported a family income of at least (less than) $75,000. Young respondents are those under 40 years of age, while old respondents are those at least 60 years of age. High (low) education respondents are those with at least (less than) a Bachelors degree. Panels B and C presents the results of followup questions regarding the effect of an increase in the respondent's consumption commitments. Panel B reports the proportion of respondents who gave each reply, among those who described the factor as very or extremely important. Panel C reports proportion of respondents who gave each reply *and* described the factor as very or extremely important.

Label	**Question Text**	**All**	**N**	**Participant**		**Wealth**		**Income**		**Gender**		**Age**		**Education**	
				Yes	No	High	Low	High	Low	Female	Male	Young	Old	High	Low
Panel A: Proportion Very or Extremely Important															
Rare Disaster	Concern that in an economic disaster where the amount that the U.S. economy produces in a year shrinks by more than 10% -- like the Great Depression -- a dollar I invested in stocks would lose more value than a dollar I put in a bank savings account.	0.423	1098	0.433	0.421	0.467	0.398	0.350	0.463	0.426	0.419	0.396	0.429	0.364	0.450
		(0.029)		(0.033)	(0.053)	(0.035)	(0.042)	(0.039)	(0.038)	(0.033)	(0.047)	(0.067)	(0.033)	(0.034)	(0.038)
Consumption Commitments	My fixed expenses (like mortgage payments, rent, car payments, utility bills, etc.) that are difficult to adjust in the short run.	0.332	1098	0.278	0.415	0.251	0.385	0.286	0.358	0.352	0.313	0.308	0.260	0.284	0.355
		(0.026)		(0.028)	(0.048)	(0.031)	(0.037)	(0.041)	(0.033)	(0.031)	(0.040)	(0.055)	(0.028)	(0.034)	(0.034)
Marginal Utility of Cash	Concern that when I especially need the money, the stock market will tend to drop.	0.329	1098	0.291	0.394	0.311	0.342	0.295	0.349	0.323	0.335	0.287	0.314	0.262	0.361
		(0.028)		(0.029)	(0.053)	(0.034)	(0.041)	(0.041)	(0.037)	(0.029)	(0.048)	(0.066)	(0.030)	(0.030)	(0.038)
Bad News Next Year	Concern that when bad news arrives about how the U.S.'s material standard of living will change over the next year, the stock market will tend to drop.	0.285	1098	0.240	0.353	0.242	0.314	0.210	0.327	0.316	0.254	0.257	0.309	0.187	0.330
		(0.025)		(0.029)	(0.046)	(0.027)	(0.037)	(0.034)	(0.034)	(0.031)	(0.039)	(0.057)	(0.030)	(0.024)	(0.035)
Bad News 5 Year Period (LRR)	Concern that when bad news arrives about how the U.S.'s material standard of living will change over the 5 year period starting 1 year in the future, the stock market will tend to drop.	0.280	1098	0.239	0.340	0.239	0.307	0.227	0.310	0.317	0.244	0.230	0.292	0.187	0.324
		(0.024)		(0.026)	(0.046)	(0.029)	(0.035)	(0.035)	(0.032)	(0.031)	(0.036)	(0.052)	(0.031)	(0.024)	(0.033)
Marginal Utility of Consumption	Concern that when I have to cut my spending, the stock market will tend to drop.	0.273	1098	0.234	0.335	0.254	0.287	0.214	0.307	0.274	0.272	0.211	0.263	0.176	0.319
		(0.028)		(0.027)	(0.053)	(0.032)	(0.040)	(0.035)	(0.038)	(0.027)	(0.048)	(0.065)	(0.029)	(0.024)	(0.038)
Uncertainty Next Year	Concern that when uncertainty increases about how the U.S.'s material standard of living will change over the next year, the stock market will tend to drop.	0.270	1098	0.244	0.313	0.233	0.295	0.206	0.306	0.306	0.235	0.253	0.305	0.210	0.299
		(0.024)		(0.030)	(0.043)	(0.028)	(0.036)	(0.031)	(0.034)	(0.031)	(0.037)	(0.055)	(0.031)	(0.028)	(0.033)
Physical Living Situation	Concern that when the quality of my physical living situation (how nice my housing is, the safety of my neighborhood, etc.) is dropping faster than the rest of my material quality of life, the stock market will tend to drop.	0.269	1098	0.229	0.331	0.247	0.284	0.183	0.316	0.271	0.267	0.215	0.259	0.180	0.311
		(0.024)		(0.029)	(0.044)	(0.031)	(0.035)	(0.031)	(0.034)	(0.030)	(0.039)	(0.051)	(0.028)	(0.024)	(0.034)
Uncertainty 10 Year Period (LRR)	Concern that when uncertainty increases about how the U.S.'s material standard of living will change over the 10 year period starting 1 year in the future, the stock market will tend to drop.	0.248	1098	0.231	0.275	0.247	0.250	0.205	0.272	0.261	0.234	0.181	0.266	0.224	0.259
		(0.022)		(0.026)	(0.038)	(0.030)	(0.030)	(0.030)	(0.029)	(0.027)	(0.034)	(0.040)	(0.030)	(0.029)	(0.029)

Panel B: Among respondents who described the factor as very or extremely important, proportion of respondents.															
Consumption Commitments - If your fixed expenses rose as a fraction of your income, what effect would it have on your equity allocation?															
	Decrease the Percentage / Less Likely	0.441	344	0.306	0.570	0.402	0.456	0.486	0.422	0.429	0.455	0.553	0.386	0.441	0.441
		(0.046)		(0.052)	(0.066)	(0.074)	(0.057)	(0.089)	(0.053)	(0.056)	(0.075)	(0.098)	(0.063)	(0.069)	(0.058)
	Neither increase nor Decrease / Neither More nor Less Likely	0.316	344	0.444	0.189	0.353	0.301	0.346	0.301	0.310	0.322	0.140	0.458	0.342	0.306
		(0.038)		(0.057)	(0.047)	(0.061)	(0.048)	(0.078)	(0.044)	(0.048)	(0.062)	(0.065)	(0.061)	(0.069)	(0.046)
	Increase the Percentage / More Likely	0.128	344	0.131	0.128	0.108	0.136	0.077	0.151	0.107	0.151	0.166	0.117	0.094	0.141
		(0.033)		(0.051)	(0.043)	(0.045)	(0.043)	(0.042)	(0.043)	(0.029)	(0.061)	(0.077)	(0.032)	(0.047)	(0.042)
	I don't know	0.099	344	0.087	0.113	0.083	0.106	0.040	0.126	0.124	0.071	0.140	0.032	0.117	0.093
		(0.023)		(0.031)	(0.034)	(0.035)	(0.028)	(0.024)	(0.031)	(0.031)	(0.032)	(0.054)	(0.018)	(0.047)	(0.025)
Panel C: Proportion of respondents who both described the factor as very or extremely important and gave each response.															
Consumption Commitments - If your fixed expenses rose as a fraction of your income, what effect would it have on your equity allocation?															
	Decrease the Percentage / Less Likely	0.146	1098	0.085	0.237	0.101	0.176	0.139	0.151	0.151	0.142	0.171	0.100	0.125	0.157
		(0.020)		(0.016)	(0.043)	(0.024)	(0.029)	(0.036)	(0.025)	(0.026)	(0.031)	(0.045)	(0.021)	(0.023)	(0.028)
	Neither increase nor Decrease / Neither More nor Less Likely	0.105	1098	0.123	0.078	0.088	0.116	0.099	0.108	0.109	0.101	0.043	0.119	0.097	0.109
		(0.014)		(0.019)	(0.020)	(0.015)	(0.020)	(0.024)	(0.017)	(0.018)	(0.020)	(0.021)	(0.020)	(0.023)	(0.017)
	Increase the Percentage / More Likely	0.043	1098	0.036	0.053	0.027	0.052	0.022	0.054	0.038	0.047	0.051	0.031	0.027	0.050
		(0.012)		(0.015)	(0.018)	(0.012)	(0.017)	(0.012)	(0.017)	(0.010)	(0.021)	(0.025)	(0.008)	(0.014)	(0.016)
	I don't know	0.033	1098	0.024	0.047	0.021	0.041	0.011	0.045	0.044	0.022	0.043	0.008	0.033	0.033
		(0.008)		(0.009)	(0.014)	(0.009)	(0.011)	(0.007)	(0.011)	(0.011)	(0.010)	(0.017)	(0.005)	(0.014)	(0.009)

Table 3: Background Risks and Assets

This table presents results from a nationally representative survey of US households drawn from the RAND American Life Panel between December 14, 2016 and December 27, 2016. Respondents were asked to rate the importance of each factor in their equity allocation decision on a 5-point scale: "not important at all," "a little important," "moderately important," "very important," and "extremely important." Panel A presents the (weighted) proportion of respondents who described the factor as very or extremely important, with the standard error of that proportion below in parentheses. The first column presents these results for the entire sample. The second column presents the total number of respondents included in the denominator of the proportion. The remaining columns present these proportions with the sample divided in six different ways. Participants are all respondents who reported having non-zero investments in equities. High (low) wealth respondents are those who reported having at least (less than) $75,000 in investible financial assets. High (low) income respondents are those who reported a family income of at least (less than) $75,000. Young respondents are those under 40 years of age, while old respondents are those at least 60 years of age. High (low) education respondents are those with at least (less than) a Bachelors degree. Panels B and C presents the results of followup questions regarding the effect of an increase in the number of years that the respondent intends to work before retirement. Panel B reports the proportion of respondents who gave each reply, among those who described the factor as very or extremely important. Panel C reports proportion of respondents who gave each reply *and* described the factor as very or extremely important.

Label	Description	All	N	Participant		Wealth		Income		Gender		Age		Education	
				Yes	No	High	Low	High	Low	Female	Male	Young	Old	High	Low
Panel A: Proportion Very or Extremely Important															
Amount too Small *	The amount of money I have available to invest in stocks is too small.	0.462	376		0.462	0.277	0.488	0.625	0.435	0.369	0.560	0.585	0.256	0.707	0.416
		(0.052)			(0.052)	(0.092)	(0.057)	(0.123)	(0.057)	(0.049)	(0.082)	(0.096)	(0.044)	(0.061)	(0.061)
Horizon, Retirement - All ***	The number of years I (and my spouse/partner, if applicable) have left until retirement.	0.452	771	0.549	0.303	0.589	0.370	0.492	0.426	0.469	0.436	0.371	0.407	0.453	0.451
		(0.033)		(0.037)	(0.051)	(0.039)	(0.044)	(0.047)	(0.045)	(0.040)	(0.052)	(0.063)	(0.047)	(0.042)	(0.046)
Risk of Illness/Injury	The risk of expenses due to illness or injury to me or someone else in my family.	0.440	1098	0.442	0.444	0.429	0.449	0.390	0.467	0.468	0.411	0.384	0.458	0.345	0.484
		(0.029)		(0.033)	(0.052)	(0.034)	(0.041)	(0.041)	(0.037)	(0.033)	(0.047)	(0.068)	(0.033)	(0.033)	(0.038)
Employment Risk ***	Concern that I (or my spouse/partner, if applicable) might become unemployed, receive a pay cut, or not receive an expected pay increase.	0.397	771	0.372	0.451	0.339	0.434	0.317	0.449	0.437	0.360	0.409	0.255	0.311	0.444
		(0.035)		(0.038)	(0.068)	(0.040)	(0.050)	(0.042)	(0.049)	(0.040)	(0.058)	(0.074)	(0.044)	(0.037)	(0.049)
Human Capital	The difference between how much money I have available to invest right now and all the money I (and my spouse/partner, if applicable) expect to earn in wages over the rest of my life.	0.335	1098	0.294	0.402	0.330	0.341	0.328	0.339	0.338	0.333	0.346	0.242	0.289	0.357
		(0.029)		(0.030)	(0.053)	(0.036)	(0.041)	(0.042)	(0.038)	(0.031)	(0.048)	(0.066)	(0.030)	(0.035)	(0.038)
Horizon, Non-Retirement	How soon I will have significant expenses (like a car purchase, a down payment on a home, school tuition, etc.).	0.334	1098	0.335	0.341	0.278	0.372	0.353	0.324	0.339	0.329	0.383	0.194	0.357	0.324
		(0.026)		(0.033)	(0.045)	(0.033)	(0.038)	(0.043)	(0.033)	(0.031)	(0.043)	(0.060)	(0.026)	(0.038)	(0.034)
Home Value Risk ****	Concern that my home value might fall.	0.268	778	0.252	0.308	0.275	0.261	0.215	0.320	0.302	0.234	0.154	0.311	0.187	0.318
		(0.025)		(0.030)	(0.049)	(0.033)	(0.037)	(0.036)	(0.035)	(0.033)	(0.037)	(0.043)	(0.036)	(0.027)	(0.037)
Stocks as Hedge **	A belief that stocks are attractive because when my living expenses increase unexpectedly, the stock market will tend to rise.	0.192	708	0.192		0.196	0.187	0.174	0.213	0.196	0.188	0.146	0.198	0.107	0.258
		(0.027)		(0.027)		(0.036)	(0.041)	(0.040)	(0.037)	(0.036)	(0.040)	(0.053)	(0.039)	(0.024)	(0.043)
Other Assets as Cushion **	A belief that I can afford to take more risks in my financial portfolio because my non-financial assets (such as my home or small business) will cushion me against losses in my financial portfolio.	0.185	708	0.185		0.196	0.169	0.191	0.178	0.190	0.179	0.138	0.167	0.119	0.235
		(0.025)		(0.025)		(0.031)	(0.041)	(0.035)	(0.036)	(0.032)	(0.038)	(0.051)	(0.032)	(0.023)	(0.040)
Non-Financial Risk	Concern my non-financial assets other than my home -- such as my small business -- might lose value.	0.183	1098	0.153	0.230	0.157	0.200	0.140	0.207	0.212	0.154	0.168	0.148	0.122	0.212
		(0.021)		(0.022)	(0.040)	(0.028)	(0.029)	(0.029)	(0.028)	(0.030)	(0.028)	(0.042)	(0.025)	(0.023)	(0.028)
Panel B: Among respondents who described the factor as very or extremely important, proportion of respondents.															
Horizon, Retirement - Suppose that tomorrow, because you enjoy working so much, you decide to retire 10 years later than you had previously planned. What effect would it have on your equity allocation?:															

	of eligible respondents														
	Decrease the Percentage / Less Likely	0.042	357	0.039	0.053	0.031	0.054	0.045	0.040	0.054	0.031	0.049	0.037	0.055	0.035
		(0.012)		(0.012)	(0.032)	(0.012)	(0.021)	(0.018)	(0.017)	(0.021)	(0.012)	(0.028)	(0.018)	(0.024)	(0.013)
	Neither increase nor Decrease / Neither More nor Less Likely	0.331	357	0.342	0.285	0.325	0.337	0.339	0.325	0.334	0.328	0.348	0.201	0.360	0.315
		(0.041)		(0.048)	(0.080)	(0.057)	(0.060)	(0.059)	(0.057)	(0.055)	(0.062)	(0.091)	(0.050)	(0.061)	(0.054)
	Increase the Percentage / More Likely	0.384	357	0.421	0.285	0.440	0.329	0.484	0.307	0.354	0.413	0.363	0.339	0.453	0.346
		(0.042)		(0.050)	(0.072)	(0.058)	(0.058)	(0.062)	(0.054)	(0.049)	(0.067)	(0.088)	(0.068)	(0.058)	(0.056)
	I don't know	0.090	357	0.094	0.079	0.059	0.120	0.027	0.137	0.056	0.122	0.140	0.033	0.045	0.114
		(0.036)		(0.047)	(0.036)	(0.020)	(0.067)	(0.012)	(0.061)	(0.019)	(0.068)	(0.099)	(0.023)	(0.021)	(0.054)
Panel C: Proportion of respondents who both described the factor as very or extremely important and gave each response.															
Horizon, Retirement - Suppose that tomorrow, because you enjoy working so much, you decide to retire 10 years later than you had previously planned. What effect would it have on your equity allocation?:															
	Decrease the Percentage / Less Likely	0.019	771	0.021	0.016	0.018	0.020	0.022	0.017	0.025	0.013	0.018	0.015	0.025	0.016
		(0.005)		(0.007)	(0.010)	(0.007)	(0.008)	(0.009)	(0.007)	(0.010)	(0.005)	(0.011)	(0.007)	(0.011)	(0.006)
	Neither increase nor Decrease / Neither More nor Less Likely	0.150	771	0.187	0.086	0.191	0.125	0.167	0.139	0.156	0.143	0.129	0.082	0.163	0.142
		(0.021)		(0.029)	(0.029)	(0.037)	(0.025)	(0.034)	(0.028)	(0.030)	(0.030)	(0.039)	(0.020)	(0.034)	(0.027)
	Increase the Percentage / More Likely	0.173	771	0.231	0.086	0.259	0.122	0.238	0.131	0.166	0.180	0.135	0.138	0.205	0.156
		(0.022)		(0.030)	(0.025)	(0.038)	(0.024)	(0.037)	(0.025)	(0.025)	(0.035)	(0.036)	(0.029)	(0.030)	(0.029)
	I don't know	0.040	771	0.052	0.024	0.035	0.044	0.013	0.058	0.026	0.053	0.052	0.013	0.021	0.051
		(0.017)		(0.027)	(0.011)	(0.012)	(0.027)	(0.006)	(0.028)	(0.009)	(0.032)	(0.040)	(0.009)	(0.010)	(0.026)

* Among respondents who own zero equity.
** Among respondents who own non-zero equity.
*** Among employed respondents.
**** Among respondents who own a home.

Table 4: Nonstandard Preferences

This table presents results from a nationally representative survey of US households drawn from the RAND American Life Panel between December 14, 2016 and December 27, 2016. Respondents were asked to rate the importance of each factor in their equity allocation decision on a 5-point scale: "not important at all," "a little important," "moderately important," "very important," and "extremely important." Panel A presents the (weighted) proportion of respondents who described the factor as very or extremely important, with the standard error of that proportion below in parentheses. The first column presents these results for the entire sample. The second column presents the total number of respondents included in the denominator of the proportion. The remaining columns present these proportions with the sample divided in six different ways. Participants are all respondents who reported having non-zero investments in equities. High (low) wealth respondents are those who reported having at least (less than) $75,000 in investible financial assets. High (low) income respondents are those who reported a family income of at least (less than) $75,000. Young respondents are those under 40 years of age, while old respondents are those at least 60 years of age. High (low) education respondents are those with at least (less than) a Bachelors degree. Panels B and C presents the results of followup questions regarding the effect of (i) a decrease in consumption relative to internal habit; (ii) a decrease in consumption relative to external habit, and (iii) a reduction in ambiguity/parameter uncertainty. Panel B reports the proportion of respondents who gave each reply, among those who described the factor as very or extremely important. Panel C reports proportion of respondents who gave each reply *and* described the factor as very or extremely important.

Label	**Description**	**All**	**N**	**Participant**		**Wealth**		**Income**		**Gender**		**Age**		**Education**	
				Yes	**No**	**High**	**Low**	**High**	**Low**	**Female**	**Male**	**Young**	**Old**	**High**	**Low**
Panel A: Proportion Very or Extremely Important															
Loss Aversion	The possibility of even small losses on my stock investments makes me worry.	0.265	1098	0.209	0.356	0.241	0.282	0.207	0.299	0.312	0.219	0.274	0.239	0.166	0.312
		(0.025)		(0.027)	(0.047)	(0.033)	(0.035)	(0.039)	(0.032)	(0.032)	(0.036)	(0.053)	(0.030)	(0.026)	(0.034)
Internal Habit	The difference between my current material standard of living and the level I am used to.	0.254	1098	0.232	0.286	0.223	0.275	0.191	0.289	0.275	0.233	0.240	0.230	0.175	0.290
		(0.024)		(0.031)	(0.040)	(0.031)	(0.034)	(0.035)	(0.032)	(0.030)	(0.037)	(0.053)	(0.030)	(0.028)	(0.033)
Ambiguity / Parameter Uncertainty - All	I don't have a good sense of the average returns and risks of investing in stocks.	0.252	1098	0.222	0.304	0.232	0.265	0.204	0.279	0.286	0.218	0.225	0.211	0.206	0.274
		(0.022)		(0.026)	(0.041)	(0.030)	(0.031)	(0.031)	(0.030)	(0.029)	(0.033)	(0.043)	(0.026)	(0.027)	(0.030)
External Habit	The difference between my current material standard of living and the level everybody else around me has experienced recently.	0.157	1098	0.113	0.221	0.137	0.170	0.108	0.185	0.189	0.125	0.162	0.117	0.080	0.193
		(0.020)		(0.023)	(0.038)	(0.029)	(0.028)	(0.028)	(0.027)	(0.029)	(0.027)	(0.042)	(0.022)	(0.019)	(0.028)
Panel B: Among respondents who described the factor as very or extremely important, proportion of respondents.															
Internal Habit - If your material standard of living fell compared to what you are used to, what effect would this have on your equity allocation?															
	Decrease the Percentage / Less Likely	0.407	245	0.382	0.425	0.413	0.404	0.492	0.376	0.431	0.379	0.388	0.464	0.606	0.351
		(0.052)		(0.080)	(0.069)	(0.083)	(0.066)	(0.102)	(0.058)	(0.064)	(0.085)	(0.117)	(0.074)	(0.076)	(0.059)
	Neither increase nor Decrease / Neither More nor Less Likely	0.274	245	0.288	0.264	0.379	0.221	0.325	0.255	0.244	0.308	0.177	0.289	0.285	0.270
		(0.044)		(0.060)	(0.069)	(0.079)	(0.051)	(0.085)	(0.052)	(0.052)	(0.075)	(0.071)	(0.076)	(0.063)	(0.054)
	Increase the Percentage / More Likely	0.075	245	0.046	0.110	0.023	0.101	0.024	0.093	0.096	0.050	0.164	0.030	0.043	0.084
		(0.033)		(0.022)	(0.065)	(0.011)	(0.048)	(0.013)	(0.044)	(0.055)	(0.025)	(0.092)	(0.015)	(0.019)	(0.041)
	I don't know	0.224	245	0.246	0.201	0.124	0.275	0.084	0.276	0.192	0.263	0.271	0.209	0.057	0.272
		(0.054)		(0.084)	(0.067)	(0.047)	(0.074)	(0.039)	(0.069)	(0.052)	(0.097)	(0.132)	(0.061)	(0.024)	(0.066)
External Habit - If your material standard of living fell compared to what everybody else around you has experienced recently what effect would this have on your equity allocation?															
	Decrease the Percentage / Less Likely	0.447	135	0.330	0.540	0.536	0.402	0.478	0.436	0.480	0.395	0.413	0.551	0.583	0.420
		(0.069)		(0.108)	(0.094)	(0.116)	(0.081)	(0.145)	(0.078)	(0.088)	(0.111)	(0.134)	(0.104)	(0.111)	(0.078)
	Neither increase nor Decrease / Neither More nor Less Likely	0.255	135	0.220	0.265	0.203	0.281	0.257	0.254	0.239	0.279	0.248	0.327	0.299	0.246
		(0.061)		(0.063)	(0.094)	(0.067)	(0.084)	(0.092)	(0.076)	(0.080)	(0.097)	(0.127)	(0.103)	(0.093)	(0.072)
	Increase the Percentage / More Likely	0.117	135	0.194	0.063	0.029	0.160	0.027	0.146	0.075	0.179	0.228	0.081	0.065	0.126
		(0.050)		(0.107)	(0.026)	(0.022)	(0.071)	(0.027)	(0.064)	(0.028)	(0.112)	(0.124)	(0.038)	(0.050)	(0.058)
	I don't know	0.149	135	0.176	0.132	0.134	0.157	0.105	0.164	0.151	0.147	0.110	0.024	0.031	0.172
		(0.048)		(0.069)	(0.068)	(0.069)	(0.063)	(0.074)	(0.059)	(0.067)	(0.065)	(0.097)	(0.024)	(0.024)	(0.057)
Ambiguity / Parameter Uncertainty - If you had a better sense of the average returns and risks of investing in stocks, what effect would this have on your equity allocation?															
	Decrease the Percentage / Less Likely	0.080	272	0.038	0.124	0.026	0.110	0.009	0.109	0.060	0.106	0.083	0.075	0.013	0.104
		(0.034)		(0.023)	(0.064)	(0.015)	(0.051)	(0.009)	(0.047)	(0.038)	(0.061)	(0.067)	(0.033)	(0.011)	(0.046)
		0.189	272	0.168	0.212	0.187	0.191	0.164	0.200	0.221	0.148	0.111	0.279	0.196	0.187

	Neither increase nor Decrease / Neither More nor Less Likely	(0.036)		(0.040)	(0.059)	(0.049)	(0.048)	(0.054)	(0.045)	(0.047)	(0.053)	(0.063)	(0.063)	(0.049)	(0.045)
	Increase the Percentage / More Likely	0.560	272	0.591	0.529	0.542	0.571	0.573	0.555	0.545	0.579	0.712	0.405	0.614	0.540
		(0.047)		(0.061)	(0.071)	(0.073)	(0.062)	(0.080)	(0.058)	(0.058)	(0.078)	(0.090)	(0.067)	(0.063)	(0.059)
	I don't know	0.149	272	0.162	0.132	0.188	0.126	0.183	0.133	0.135	0.167	0.094	0.225	0.169	0.142
		(0.028)		(0.036)	(0.042)	(0.048)	(0.034)	(0.051)	(0.033)	(0.033)	(0.048)	(0.045)	(0.061)	(0.040)	(0.035)
Panel C: Proportion of respondents who both described the factor as very or extremely important and gave each response.															
Internal Habit - If your material standard of living fell compared to what you are used to, what effect would this have on your equity allocation?															
	Decrease the Percentage / Less Likely	0.103	1098	0.089	0.121	0.092	0.111	0.094	0.109	0.118	0.088	0.093	0.106	0.106	0.102
		(0.015)		(0.022)	(0.021)	(0.024)	(0.020)	(0.029)	(0.018)	(0.020)	(0.023)	(0.032)	(0.020)	(0.026)	(0.019)
	Neither increase nor Decrease / Neither More nor Less Likely	0.069	1098	0.067	0.075	0.084	0.061	0.062	0.074	0.067	0.072	0.043	0.066	0.050	0.078
		(0.012)		(0.013)	(0.023)	(0.020)	(0.015)	(0.017)	(0.016)	(0.015)	(0.019)	(0.017)	(0.021)	(0.010)	(0.017)
	Increase the Percentage / More Likely	0.019	1098	0.011	0.032	0.005	0.028	0.005	0.027	0.026	0.012	0.039	0.007	0.008	0.024
		(0.009)		(0.005)	(0.020)	(0.002)	(0.014)	(0.002)	(0.013)	(0.016)	(0.006)	(0.024)	(0.003)	(0.003)	(0.012)
	I don't know	0.057	1098	0.057	0.057	0.028	0.075	0.016	0.080	0.053	0.061	0.065	0.048	0.010	0.079
		(0.016)		(0.023)	(0.022)	(0.011)	(0.025)	(0.007)	(0.024)	(0.016)	(0.027)	(0.038)	(0.015)	(0.004)	(0.023)
External Habit - If your material standard of living fell compared to what everybody else around you has experienced recently what effect would this have on your equity allocation?															
	of all respondents														
	Decrease the Percentage / Less Likely	0.070	1098	0.037	0.119	0.074	0.068	0.052	0.081	0.091	0.049	0.067	0.064	0.047	0.081
		(0.014)		(0.015)	(0.026)	(0.025)	(0.016)	(0.024)	(0.017)	(0.021)	(0.017)	(0.025)	(0.017)	(0.017)	(0.018)
	Neither increase nor Decrease / Neither More nor Less Likely	0.040	1098	0.025	0.059	0.028	0.048	0.028	0.047	0.045	0.035	0.040	0.038	0.024	0.047
		(0.011)		(0.006)	(0.025)	(0.008)	(0.017)	(0.009)	(0.016)	(0.017)	(0.013)	(0.023)	(0.015)	(0.007)	(0.016)
	Increase the Percentage / More Likely	0.018	1098	0.022	0.014	0.004	0.027	0.003	0.027	0.014	0.022	0.037	0.009	0.005	0.024
		(0.008)		(0.014)	(0.006)	(0.003)	(0.013)	(0.003)	(0.013)	(0.005)	(0.016)	(0.023)	(0.004)	(0.004)	(0.012)
	I don't know	0.023	1098	0.020	0.029	0.018	0.027	0.011	0.030	0.029	0.018	0.018	0.003	0.002	0.033
		(0.008)		(0.008)	(0.016)	(0.010)	(0.012)	(0.008)	(0.012)	(0.014)	(0.008)	(0.016)	(0.003)	(0.002)	(0.012)
Ambiguity / Parameter Uncertainty - If you had a better sense of the average returns and risks of investing in stocks, what effect would this have on your equity allocation?															
	Decrease the Percentage / Less Likely	0.020	1098	0.008	0.038	0.006	0.029	0.002	0.030	0.017	0.023	0.019	0.016	0.003	0.028
		(0.009)		(0.005)	(0.021)	(0.004)	(0.015)	(0.002)	(0.014)	(0.011)	(0.014)	(0.016)	(0.007)	(0.002)	(0.013)
	Neither increase nor Decrease / Neither More nor Less Likely	0.048	1098	0.037	0.064	0.043	0.051	0.033	0.056	0.063	0.032	0.025	0.059	0.040	0.051
		(0.010)		(0.009)	(0.020)	(0.012)	(0.014)	(0.012)	(0.014)	(0.015)	(0.012)	(0.015)	(0.015)	(0.011)	(0.013)
	Increase the Percentage / More Likely	0.141	1098	0.131	0.161	0.126	0.152	0.117	0.155	0.156	0.126	0.160	0.085	0.126	0.148
		(0.017)		(0.022)	(0.028)	(0.025)	(0.023)	(0.025)	(0.023)	(0.022)	(0.026)	(0.037)	(0.017)	(0.024)	(0.022)
	I don't know	0.038	1098	0.036	0.040	0.044	0.033	0.037	0.037	0.039	0.037	0.021	0.047	0.035	0.039
		(0.007)		(0.008)	(0.014)	(0.011)	(0.009)	(0.011)	(0.009)	(0.010)	(0.011)	(0.010)	(0.014)	(0.008)	(0.010)

Table 5: Beliefs

This table presents results from a nationally representative survey of US households drawn from the RAND American Life Panel between December 14, 2016 and December 27, 2016. Respondents were asked to rate the importance of each factor in their equity allocation decision on a 5-point scale: "not important at all," "a little important," "moderately important," "very important," and "extremely important." The first column presents the (weighted) proportion of respondents who described the factor as very or extremely important, with the standard error of that proportion below in parentheses, for the entire sample. The second column presents the total number of respondents included in the denominator of the proportion. The remaining columns present these proportions with the sample divided in six different ways. Participants are all respondents who reported having non-zero investments in equities. High (low) wealth respondents are those who reported having at least (less than) $75,000 in investible financial assets. High (low) income respondents are those who reported a family income of at least (less than) $75,000. Young respondents are those under 40 years of age, while old respondents are those at least 60 years of age. High (low) education respondents are those with at least (less than) a Bachelors degree.

Label	**Description**	**All**	**N**	**Participant**		**Wealth**		**Income**		**Gender**		**Age**		**Education**	
				Yes	**No**	**High**	**Low**	**High**	**Low**	**Female**	**Male**	**Young**	**Old**	**High**	**Low**
Proportion Very or Extremely Important															
Returns Below Average	A belief that the returns I can expect to earn from investing in stocks right now are lower than usual.	0.238	1098	0.238	0.243	0.227	0.247	0.193	0.263	0.255	0.221	0.216	0.238	0.141	0.283
		(0.025)		(0.032)	(0.041)	(0.034)	(0.035)	(0.036)	(0.034)	(0.032)	(0.039)	(0.053)	(0.031)	(0.025)	(0.034)
Returns Above Average **	A belief that the returns I can expect to earn from investing in stocks right now are higher than usual.	0.228	708	0.228		0.220	0.237	0.195	0.264	0.210	0.244	0.224	0.170	0.111	0.318
		(0.033)		(0.033)		(0.037)	(0.058)	(0.040)	(0.051)	(0.037)	(0.052)	(0.078)	(0.034)	(0.023)	(0.051)
Extrapolation	A belief that low stock market returns tend to be followed by more low stock market returns.	0.179	1098	0.154	0.215	0.177	0.181	0.151	0.194	0.210	0.147	0.131	0.172	0.094	0.218
		(0.022)		(0.026)	(0.039)	(0.032)	(0.029)	(0.034)	(0.029)	(0.031)	(0.030)	(0.041)	(0.027)	(0.020)	(0.030)
Mean Reversion	A belief that **low** stock market returns tend to be followed by **high** stock market returns.	0.165	1098	0.186	0.136	0.192	0.149	0.171	0.162	0.157	0.173	0.115	0.171	0.102	0.195
		(0.020)		(0.028)	(0.029)	(0.032)	(0.026)	(0.035)	(0.025)	(0.024)	(0.033)	(0.034)	(0.029)	(0.019)	(0.028)

Table 6: Social and Personal Factors

This table presents results from a nationally representative survey of US households drawn from the RAND American Life Panel between December 14, 2016 and December 27, 2016. Respondents were asked to rate the importance of each factor in their equity allocation decision on a 5-point scale: "not important at all," "a little important," "moderately important," "very important," and "extremely important." The first column presents the (weighted) proportion of respondents who described the factor as very or extremely important, with the standard error of that proportion below in parentheses, for the entire sample. The second column presents the total number of respondents included in the denominator of the proportion. The remaining columns present these proportions with the sample divided in six different ways. Participants are all respondents who reported having non-zero investments in equities. High (low) wealth respondents are those who reported having at least (less than) $75,000 in investible financial assets. High (low) income respondents are those who reported a family income of at least (less than) $75,000. Young respondents are those under 40 years of age, while old respondents are those at least 60 years of age. High (low) education respondents are those with at least (less than) a Bachelors degree.

Label	Description	All	N	Participant		Wealth		Income		Gender		Age		Education	
				Yes	No	High	Low	High	Low	Female	Male	Young	Old	High	Low
Proportion Very or Extremely Important															
Don't Like to Think About My Finances *	I don't like to think about my finances.	0.356	376		0.356	0.296	0.364	0.231	0.376	0.460	0.245	0.387	0.237	0.283	0.369
		(0.047)			(0.047)	(0.077)	(0.052)	(0.114)	(0.051)	(0.056)	(0.062)	(0.094)	(0.046)	(0.072)	(0.054)
Trust	Concern that companies, managers, brokers, or other market participants might cheat me out of my investments.	0.350	1098	0.318	0.401	0.354	0.350	0.283	0.388	0.341	0.359	0.308	0.380	0.243	0.400
		(0.028)		(0.030)	(0.053)	(0.034)	(0.041)	(0.037)	(0.038)	(0.031)	(0.047)	(0.067)	(0.033)	(0.031)	(0.038)
Lack of Knowledge	My lack of knowledge about how to invest.	0.339	1098	0.310	0.375	0.310	0.359	0.268	0.379	0.387	0.291	0.313	0.327	0.263	0.374
		(0.026)		(0.032)	(0.045)	(0.034)	(0.037)	(0.036)	(0.035)	(0.032)	(0.040)	(0.055)	(0.033)	(0.031)	(0.035)
Lack of Advisor	Difficulty in finding a trustworthy advisor.	0.292	1098	0.273	0.323	0.317	0.278	0.251	0.316	0.314	0.270	0.233	0.326	0.223	0.325
		(0.024)		(0.028)	(0.044)	(0.033)	(0.033)	(0.035)	(0.032)	(0.031)	(0.036)	(0.048)	(0.032)	(0.028)	(0.033)
Life Experience	The feelings, attitudes, and beliefs about the stock market I've gotten from living through stock market ups and downs (whether or not I was invested in stocks at the time).	0.254	1098	0.285	0.220	0.348	0.198	0.275	0.243	0.240	0.268	0.191	0.335	0.289	0.237
		(0.022)		(0.028)	(0.036)	(0.033)	(0.028)	(0.034)	(0.029)	(0.026)	(0.035)	(0.043)	(0.032)	(0.032)	(0.028)
Advice, Professional	Advice from a professional financial advisor I hired.	0.252	1098	0.317	0.164	0.324	0.210	0.272	0.241	0.275	0.229	0.173	0.315	0.257	0.250
		(0.023)		(0.030)	(0.031)	(0.031)	(0.031)	(0.036)	(0.029)	(0.028)	(0.036)	(0.044)	(0.031)	(0.030)	(0.030)
Personal Experience	The feelings, attitudes, and beliefs about the stock market I've gotten from my personal experiences of investing in the stock market.	0.244	1098	0.273	0.212	0.308	0.206	0.255	0.238	0.228	0.260	0.199	0.266	0.270	0.232
		(0.022)		(0.028)	(0.036)	(0.033)	(0.029)	(0.035)	(0.029)	(0.028)	(0.035)	(0.044)	(0.029)	(0.032)	(0.029)
Religion	My religious beliefs, values, and experiences.	0.242	1098	0.225	0.260	0.200	0.269	0.192	0.269	0.276	0.208	0.184	0.286	0.167	0.277
		(0.023)		(0.026)	(0.042)	(0.026)	(0.034)	(0.035)	(0.030)	(0.030)	(0.034)	(0.045)	(0.032)	(0.029)	(0.031)
Advice, Peer	Advice from a friend, family member, or coworker.	0.147	1098	0.117	0.194	0.067	0.198	0.098	0.175	0.192	0.103	0.202	0.073	0.131	0.155
		(0.020)		(0.023)	(0.038)	(0.019)	(0.031)	(0.027)	(0.028)	(0.030)	(0.026)	(0.047)	(0.017)	(0.030)	(0.027)
Advice, Media	Advice from a book or an article I read, or from somebody on TV, radio, or the internet.	0.117	1098	0.113	0.126	0.089	0.135	0.097	0.128	0.125	0.108	0.143	0.095	0.086	0.131
		(0.019)		(0.024)	(0.030)	(0.023)	(0.027)	(0.028)	(0.024)	(0.024)	(0.028)	(0.040)	(0.024)	(0.025)	(0.025)
Never Got Around to It *	I intended to invest in stocks but never got around to it.	0.044	376		0.044	0.019	0.047	0.023	0.047	0.041	0.047	0.011	0.032	0.073	0.038
		(0.015)			(0.015)	(0.011)	(0.018)	(0.018)	(0.018)	(0.014)	(0.028)	(0.011)	(0.011)	(0.035)	(0.017)
*Among respondents who own zero equity															

Table 7: Other Factors

This table presents results from a nationally representative survey of US households drawn from the RAND American Life Panel between December 14, 2016 and December 27, 2016. Respondents were asked to rate the importance of each factor in their equity allocation decision on a 5-point scale: "not important at all," "a little important," "moderately important," "very important," and "extremely important." The first column presents the (weighted) proportion of respondents who described the factor as very or extremely important, with the standard error of that proportion below in parentheses, for the entire sample. The second column presents the total number of respondents included in the denominator of the proportion. The remaining columns present these proportions with the sample divided in six different ways. Participants are all respondents who reported having non-zero investments in equities. High (low) wealth respondents are those who reported having at least (less than) $75,000 in investible financial assets. High (low) income respondents are those who reported a family income of at least (less than) $75,000. Young respondents are those under 40 years of age, while old respondents are those at least 60 years of age. High (low) education respondents are those with at least (less than) a Bachelors degree.

Label	Description	All	N	Participant		Wealth		Income		Gender		Age		Education	
				Yes	No	High	Low	High	Low	Female	Male	Young	Old	High	Low
Proportion Very or Extremely Important															
Cash on Hand - Routine	The amount of cash I need to have on hand to pay routine expenses.	0.439	1098	0.359	0.562	0.381	0.477	0.337	0.496	0.419	0.458	0.451	0.373	0.332	0.489
		(0.029)		(0.032)	(0.048)	(0.035)	(0.041)	(0.040)	(0.037)	(0.033)	(0.047)	(0.066)	(0.032)	(0.035)	(0.038)
Emergency Liquidity	Concern that stock investments will take too long to convert into spendable cash in an emergency.	0.274	1098	0.227	0.349	0.213	0.313	0.187	0.322	0.296	0.252	0.257	0.260	0.168	0.323
		(0.029)		(0.029)	(0.055)	(0.032)	(0.042)	(0.036)	(0.039)	(0.032)	(0.048)	(0.068)	(0.032)	(0.028)	(0.039)
Defaults	The default investment allocation in my (and/or my spouse/partner's, if applicable) work-based retirement savings plan (for example, 401(k), 403(b), Thrift Savings Plan).	0.243	1098	0.255	0.235	0.221	0.259	0.233	0.249	0.257	0.229	0.242	0.164	0.191	0.267
		(0.028)		(0.028)	(0.056)	(0.028)	(0.041)	(0.034)	(0.039)	(0.029)	(0.048)	(0.066)	(0.024)	(0.029)	(0.038)
Returns from Distant Past	What I know about the stock market's returns during the decades before I was born.	0.154	1098	0.137	0.183	0.158	0.152	0.123	0.170	0.164	0.143	0.182	0.114	0.151	0.155
		(0.021)		(0.025)	(0.038)	(0.028)	(0.029)	(0.025)	(0.029)	(0.029)	(0.030)	(0.047)	(0.021)	(0.028)	(0.028)
Rule of Thumb	A rule of thumb (for example, "The percent you invest in stocks should be 100 minus your age" or "Invest one-third in stocks, one-third in bonds, and one-third in real estate").	0.124	1098	0.107	0.144	0.115	0.131	0.083	0.147	0.136	0.113	0.098	0.118	0.070	0.149
		(0.018)		(0.021)	(0.030)	(0.024)	(0.024)	(0.022)	(0.025)	(0.022)	(0.027)	(0.032)	(0.024)	(0.018)	(0.024)

Table 8: What is the least amount of money you would need to have available to make it worthwhile to invest in stocks?

This table presents results from a nationally representative survey of US households drawn from the RAND American Life Panel between December 14, 2016 and December 27, 2016. Respondents who reported having zero investment in equities were first asked to rate the importance of the following factor in causing them to not currently own any stocks: "The amount of money I have available to invest in stocks is too small." Responses were recorded on a 5-point scale: "not important at all," "a little important," "moderately important," "very important," and "extremely important." Respondents who responded at least moderately important were then asked to report the least amount of money they would need to have available to make it worthwhile to invest in stocks. The answer options were "$1 - $999," "$1,000 - $4,999," "$5,000 - $9,999," "$10,000 - $24,999," "$25,000 - $49,999," "$50,000 - $99,999," and "$100,000 or more." The first column presents the (weighted) percentage of eligible respondents in each category. The second column presents the cumulative percentage of respondents in each category.

Amount	Percentage	Cumulative Percentage
$1 - $999	23.7%	23.7%
$1,000 - $4,999	27.1%	50.8%
$5,000 - $9,999	12.8%	63.6%
$10,000 - $24,999	20.2%	83.8%
$25,000 - $49,999	3.9%	87.7%
$50,000 - $74,999	5.0%	92.7%
$75,000 - $99,999	4.0%	96.7%
$100,000 +	3.3%	100.0%

Table 9: Why is the Amount of Money You Have Too Small to Make It Worthwhile to Invest in Stocks?

This table presents results from a nationally representative survey of US households drawn from the RAND American Life Panel between December 14, 2016 and December 27, 2016. Respondents who reported having zero investment in equities were first asked to rate the importance of the following factor in causing them to not currently own any stocks: "The amount of money I have available to invest in stocks is too small." Responses were recorded on a 5-point scale: "not important at all," "a little important," "moderately important," "very important," and "extremely important." Respondents who responded at least moderately important were then asked to rate the importance of eight factors in causing the amount they have available to be too small to make it worthwhile to invest in stocks on the same 5-point scale.

The first column presents the (weighted) proportion of eligible respondents who described the factor as very or extremely important, with the standard error of that proportion below in parentheses, for the entire sample. The second column presents the total number of respondents included in the denominator of the proportion. The remaining columns present these proportions with the sample divided in five different ways. High (low) wealth respondents are those who reported having at least (less than) $75,000 in investible financial assets. High (low) income respondents are those who reported a family income of at least (less than) $75,000. Young respondents are those under 40 years of age, while old respondents are those at least 60 years of age. High (low) education respondents are those with at least (less than) a Bachelors degree.

Label	**Description**	**All**	**N**	**Wealth**		**Income**		**Gender**		**Age**		**Education**	
				High	**Low**	**High**	**Low**	**Female**	**Male**	**Young**	**Old**	**High**	**Low**
Proportion Very or Extremely Important													
Costs of Staying up to Date	The ongoing time, money, and/or effort it would take to stay up-to-date on the stock market.	0.449	229	0.714	0.429	0.229	0.492	0.554	0.355	0.370	0.478	0.467	0.444
		(0.068)		(0.137)	(0.070)	(0.102)	(0.079)	(0.059)	(0.102)	(0.112)	(0.070)	(0.099)	(0.082)
Costs of Learning About Stocks	The amount of time, money, and/or effort it would take to learn about stocks.	0.411	229	0.707	0.389	0.265	0.440	0.514	0.320	0.292	0.492	0.400	0.415
		(0.064)		(0.138)	(0.065)	(0.111)	(0.074)	(0.060)	(0.093)	(0.095)	(0.070)	(0.092)	(0.079)
Costs of Hiring an Advisor	The amount of time, money, and/or effort it would take to hire an investment advisor.	0.394	229	0.613	0.377	0.150	0.442	0.474	0.323	0.281	0.452	0.312	0.418
		(0.064)		(0.157)	(0.065)	(0.077)	(0.075)	(0.060)	(0.097)	(0.098)	(0.069)	(0.083)	(0.080)
Costs of Maintaining Advisor	The ongoing time, money, and/or effort it would take to maintain a relationship with an investment advisor after hiring him or her.	0.376	229	0.309	0.381	0.218	0.407	0.449	0.311	0.305	0.430	0.348	0.384
		(0.061)		(0.150)	(0.065)	(0.099)	(0.071)	(0.060)	(0.093)	(0.098)	(0.069)	(0.088)	(0.075)
Costs of Maintaining an Account	The ongoing time, money, and/or effort it would take to maintain an investment account after setting it up.	0.376	229	0.298	0.382	0.190	0.413	0.442	0.318	0.343	0.476	0.370	0.378
		(0.062)		(0.148)	(0.066)	(0.092)	(0.072)	(0.059)	(0.096)	(0.108)	(0.070)	(0.091)	(0.075)
Costs of Setting up an Account	The amount of time, money, and/or effort it would take to set up an investment account.	0.315	229	0.308	0.315	0.112	0.355	0.342	0.291	0.263	0.349	0.235	0.338
		(0.056)		(0.149)	(0.060)	(0.068)	(0.066)	(0.054)	(0.093)	(0.092)	(0.067)	(0.076)	(0.071)
Tax Complexity	Stock investments would make my tax returns harder to prepare.	0.286	229	0.179	0.294	0.052	0.331	0.386	0.196	0.231	0.342	0.253	0.295
		(0.054)		(0.099)	(0.057)	(0.032)	(0.064)	(0.059)	(0.075)	(0.085)	(0.068)	(0.084)	(0.065)
Home*	You said you own your home. How important is that in causing you to not have enough money to make it worthwhile to invest in stocks?	0.243	109	0.416	0.213	0.085	0.300	0.336	0.141	0.163	0.291	0.250	0.240
		(0.063)		(0.186)	(0.066)	(0.059)	(0.075)	(0.089)	(0.067)	(0.120)	(0.073)	(0.090)	(0.081)
* Among respondents who own a home.													

Table 10: Why Did You Not Get Around to Investing in Stocks?

This table presents results from a nationally representative survey of US households drawn from the RAND American Life Panel between December 14, 2016 and December 27, 2016. Respondents who reported having zero investment in equities were first asked to rate the importance of the following factor in causing them to not currently own any stocks: "I intended to invest in stocks but never got around to it." Responses were recorded on a 5-point scale: "not important at all," "a little important," "moderately important," "very important," and "extremely important." Respondents who responded at least moderately important were then asked to rate the importance of five factors in causing them to not get around to investing in stocks on the same 5-point scale.

The first column presents the (weighted) proportion of eligible respondents who described the factor as very or extremely important, with the standard error of that proportion below in parentheses, for the entire sample. The second column presents the total number of respondents included in the denominator of the proportion. The remaining columns present these proportions with the sample divided in five different ways. High (low) wealth respondents are those who reported having at least (less than) $75,000 in investible financial assets. High (low) income respondents are those who reported a family income of at least (less than) $75,000. Young respondents are those under 40 years of age, while old respondents are those at least 60 years of age. High (low) education respondents are those with at least (less than) a Bachelors degree.

Label	Description	All	N	Wealth		Income		Gender		Age		Education	
				High	Low	High	Low	Female	Male	Young	Old	High	Low
Proportion Very or Extremely Important													
Less Money Available Now	I have less money available now than when I originally planned on investing in stocks.	0.403	97	0.495	0.397	0.632	0.383	0.442	0.365	0.217	0.482	0.580	0.364
		(0.113)		(0.205)	(0.118)	(0.169)	(0.117)	(0.086)	(0.195)	(0.128)	(0.114)	(0.130)	(0.125)
Too Costly	I discovered that it takes more time, money, and/or effort to invest in stocks than I expected.	0.306	97	0.270	0.308	0.348	0.302	0.366	0.246	0.226	0.278	0.601	0.240
		(0.091)		(0.179)	(0.097)	(0.206)	(0.096)	(0.084)	(0.136)	(0.131)	(0.105)	(0.126)	(0.088)
Too Busy	I was too busy.	0.204	97	0.260	0.200	0.500	0.178	0.186	0.222	0.154	0.066	0.366	0.168
		(0.075)		(0.171)	(0.079)	(0.197)	(0.076)	(0.064)	(0.142)	(0.095)	(0.036)	(0.135)	(0.081)
Procrastinated	I procrastinated for no good reason.	0.155	97	0.641	0.121	0.283	0.144	0.207	0.103	0.067	0.365	0.114	0.164
		(0.054)		(0.173)	(0.048)	(0.177)	(0.055)	(0.068)	(0.064)	(0.049)	(0.120)	(0.064)	(0.067)
Not Important Enough	I decided it wasn't important enough to think about it.	0.113	97	0.173	0.108	0.242	0.101	0.160	0.065	0.127	0.041	0.275	0.076
		(0.047)		(0.163)	(0.049)	(0.206)	(0.046)	(0.068)	(0.048)	(0.089)	(0.026)	(0.145)	(0.038)

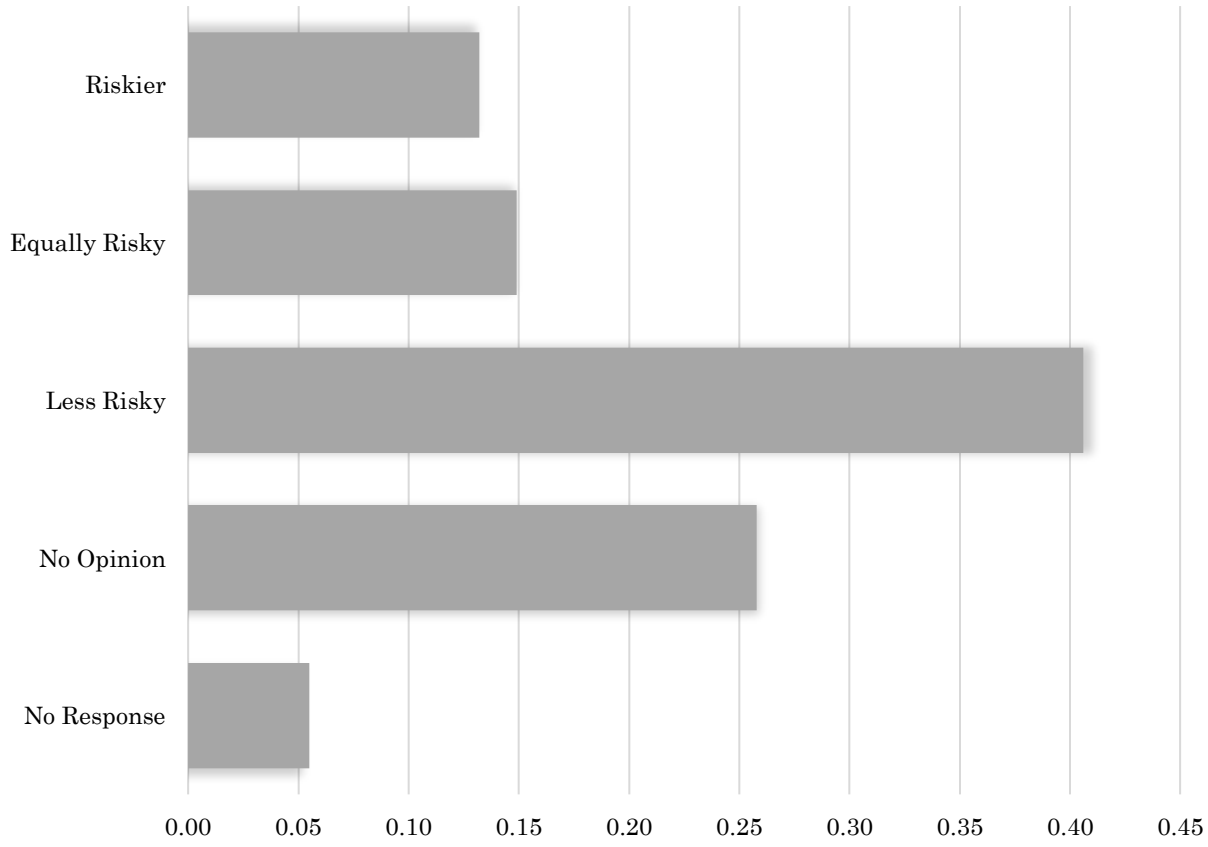
Table 11: Actively Managed Mutual Funds

This table presents results from a nationally representative survey of US households drawn from the RAND American Life Panel between December 14, 2016 and December 27, 2016. In Panel A, respondents were asked to rate the importance of each factor in their decision(s) to invest in an actively managed stock mutual fund instead of a passively managed stock mutual fund on a 5-point scale: "not important at all," "a little important," "moderately important," "very important," and "extremely important." The first column presents the (weighted) proportion of respondents who described the factor as very or extremely important, with the standard error of that proportion below in parentheses, for the entire sample. The second column presents the total number of respondents included in the denominator of the proportion. The remaining columns present these proportions with the sample divided in six different ways. Participants are all respondents who reported having non-zero investments in equities. High (low) wealth respondents are those who reported having at least (less than) $75,000 in investible financial assets. High (low) income respondents are those who reported a family income of at least (less than) $75,000. Young respondents are those under 40 years of age, while old respondents are those at least 60 years of age. High (low) education respondents are those with at least (less than) a Bachelors degree. In Panel B, respondents were asked to what extent they agree with each statement on a 5-point scale: "strongly disagree," "disagree," "neither agree nor disagree," "agree," and "strongly agree." The first column presents the (weighted) proportion of respondents who answered agree or strongly agree, with the standard error of that proportion below in parentheses, for the entire sample. The second column presents the total number of respondents included in the denominator of the proportion. The remaining columns present these proportions with the sample divided in six different ways. Participants are all respondents who reported having non-zero investments in equities. High (low) wealth respondents are those who reported having at least (less than) $75,000 in investible financial assets. High (low) income respondents are those who reported a family income of at least (less than) $75,000. Young respondents are those under 40 years of age, while old respondents are those at least 60 years of age. High (low) education respondents are those with at least (less than) a Bachelors degree.

Label	Description	All	N	Participant		Wealth		Income		Gender		Age		Education	
				Yes	No	High	Low	High	Low	Female	Male	Young	Old	High	Low
Panel A: Why invest in an actively managed fund over a passive fund? Proportion Responding Very or Extremely Important															
Higher Returns *	A belief that the actively managed stock mutual fund would give me higher returns on average than a passively managed stock mutual fund.	0.509	468	0.490	0.627	0.482	0.559	0.548	0.457	0.576	0.454	0.423	0.500	0.446	0.581
		(0.039)		(0.041)	(0.103)	(0.046)	(0.070)	(0.050)	(0.059)	(0.053)	(0.055)	(0.106)	(0.049)	(0.050)	(0.059)
Advisor Recommendation *	The recommendation of an investment advisor I hired.	0.482	468	0.489	0.438	0.458	0.528	0.499	0.459	0.578	0.403	0.528	0.572	0.509	0.452
		(0.039)		(0.041)	(0.117)	(0.045)	(0.073)	(0.052)	(0.058)	(0.056)	(0.053)	(0.107)	(0.048)	(0.050)	(0.060)
Hedging *	A belief that even though the actively managed stock mutual fund would have lower returns on average than a passively managed stock mutual fund, the actively managed fund would have higher returns than the passively managed fund when the economy does poorly (for example, during recessions or stock market crashes).	0.280	468	0.267	0.363	0.232	0.368	0.269	0.293	0.341	0.229	0.287	0.299	0.266	0.295
		(0.035)		(0.036)	(0.115)	(0.034)	(0.072)	(0.048)	(0.050)	(0.054)	(0.044)	(0.100)	(0.048)	(0.048)	(0.051)
Passive not Available *	A suitable passively managed stock mutual fund wasn't available in my employer-sponsored retirement savings plan.	0.188	468	0.198	0.126	0.158	0.242	0.184	0.195	0.227	0.156	0.202	0.116	0.151	0.231
		(0.035)		(0.039)	(0.050)	(0.037)	(0.071)	(0.047)	(0.051)	(0.059)	(0.040)	(0.100)	(0.027)	(0.040)	(0.058)
Label	Description	All	N	Participant		Wealth		Income		Gender		Age		Education	
				Yes	No	High	Low	High	Low	Female	Male	Young	Old	High	Low
Panel B: How much do you agree with the following statement? Proportion Responding Agree or Strongly Agree															
Managerial Skill	When an actively managed stock mutual fund has had significantly higher past returns than the overall stock market, this is strong evidence	0.430	1098	0.497	0.340	0.521	0.376	0.494	0.394	0.428	0.432	0.277	0.474	0.466	0.413
		(0.027)		(0.033)	(0.044)	(0.034)	(0.036)	(0.043)	(0.034)	(0.033)	(0.043)	(0.051)	(0.033)	(0.037)	(0.035)

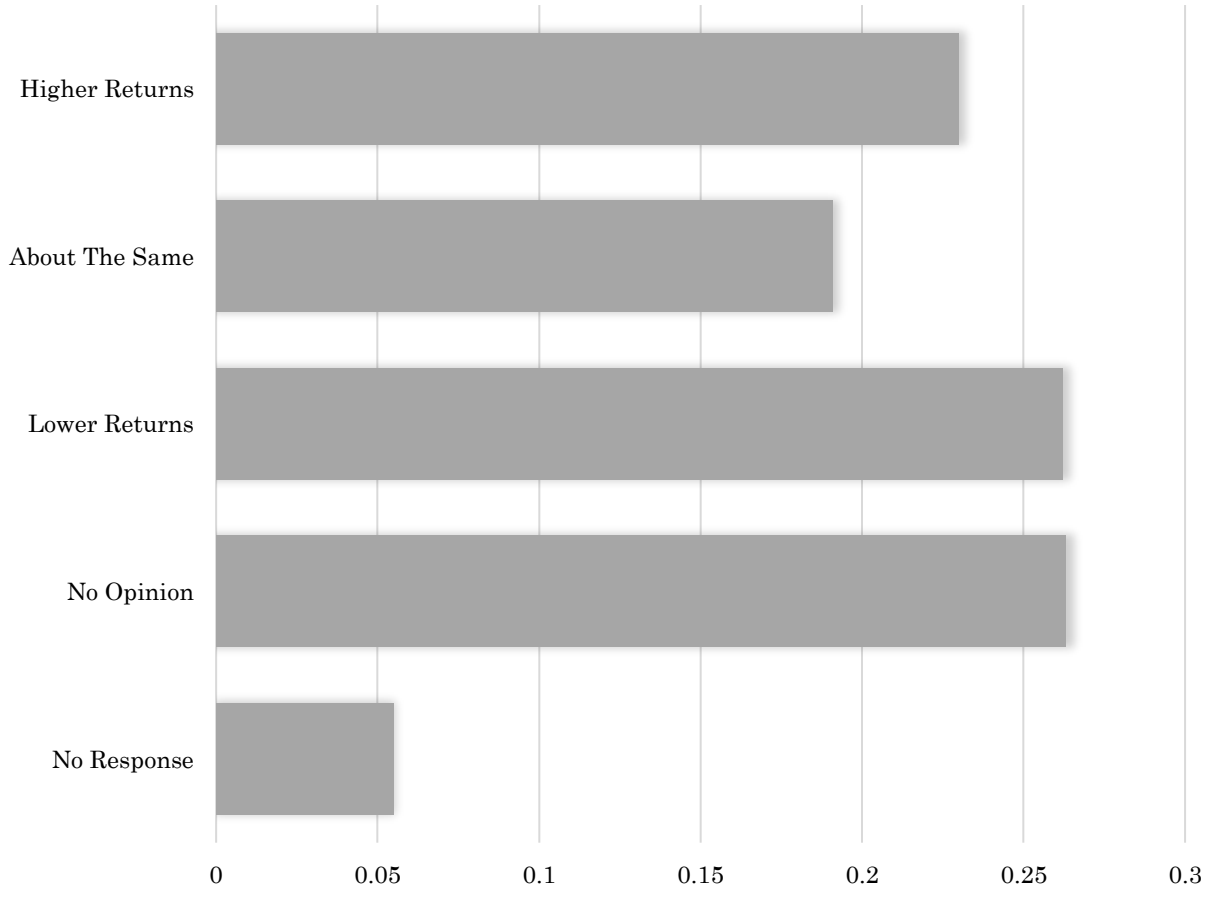
	that its manager has good stock-picking skills.														
Size Effect	When an actively managed stock mutual fund gets more money to manage, it becomes harder for it to generate higher returns than the overall stock market.	0.172	1098	0.189	0.141	0.228	0.139	0.188	0.164	0.133	0.212	0.152	0.171	0.167	0.175
		(0.021)		(0.024)	(0.038)	(0.030)	(0.028)	(0.031)	(0.028)	(0.029)	(0.031)	(0.043)	(0.025)	(0.025)	(0.029)
** Among respondents who had purchased an actively managed mutual fund at some point in the past.*															

Figure 1a: Compared to a growth stock, I expect a value stock to normally be… over the next year, on average.



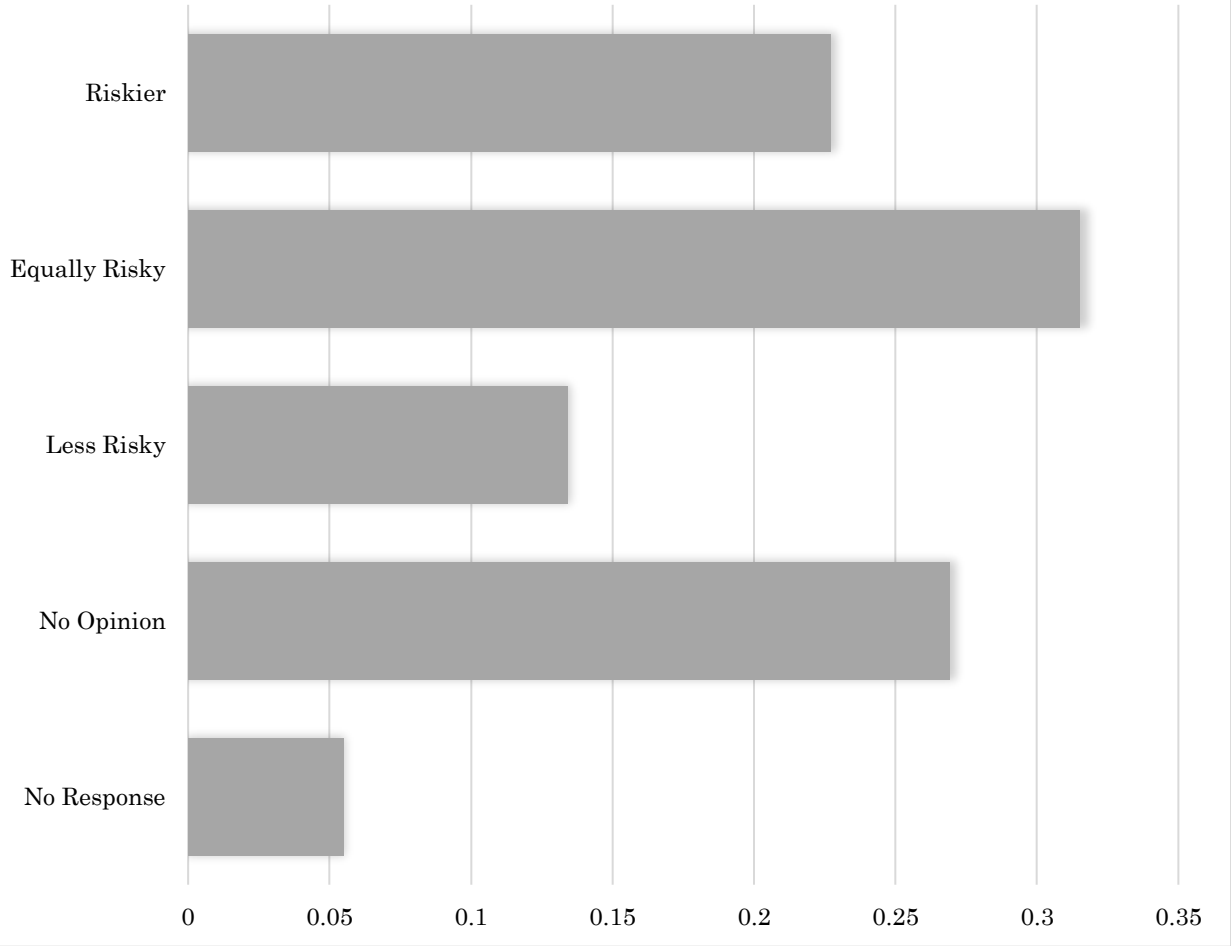
This figure presents results from a nationally representative survey of US households drawn from the RAND American Life Panel between December 14, 2016 and December 27, 2016. Respondents were asked to complete the following sentence: "Compared to a growth stock, I expect a value stock to normally be ..." The answer options were: "Riskier over the next year, on average," "Equally risky over the next year, on average," "Less risky over the next year, on average," and "No opinion." The length of each bar corresponds to the (weighted) proportion of respondents who gave each answer.

Figure 1b: Compared to a growth stock, I expect a value stock to normally have… over the next year, on average.



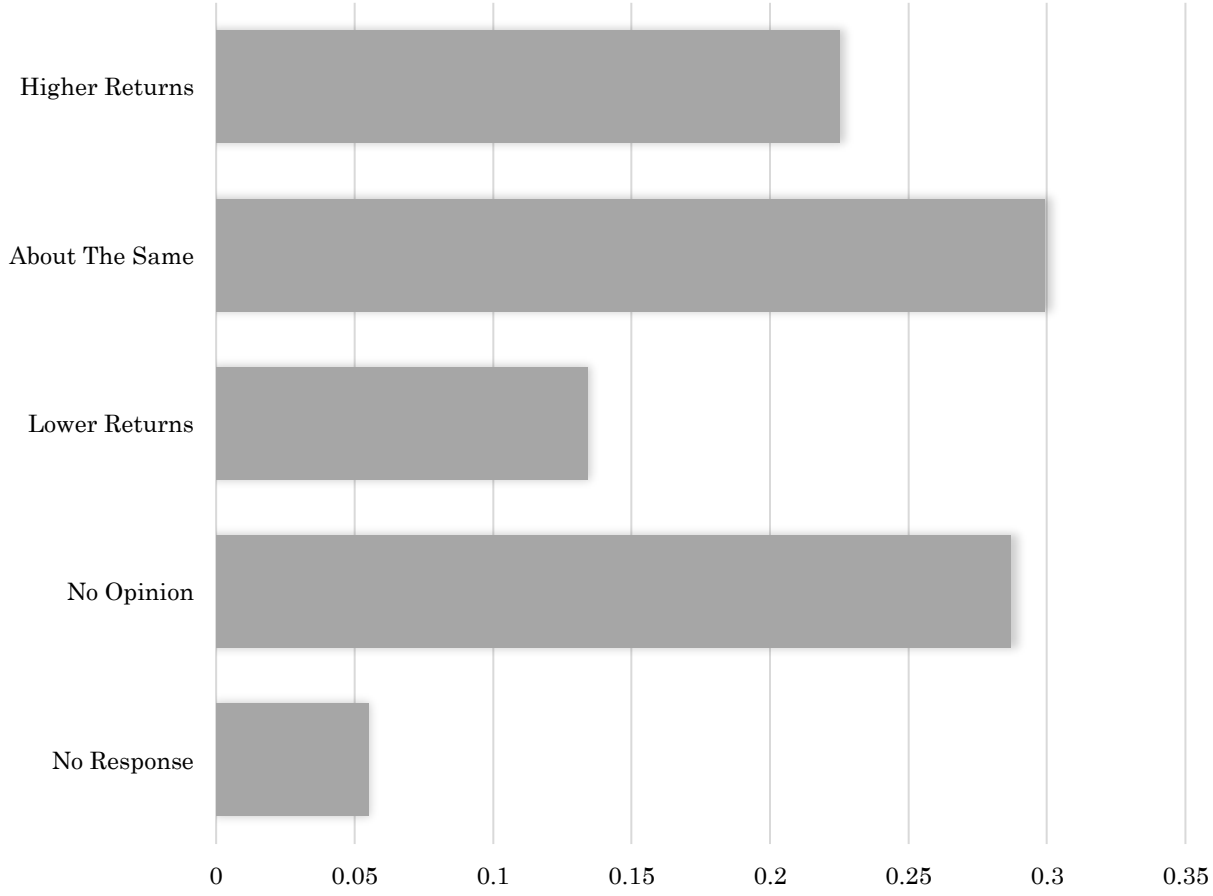
This table presents results from a nationally representative survey of US households drawn from the RAND American Life Panel between December 14, 2016 and December 27, 2016. Respondents were asked to complete the following sentence: "Compared to a growth stock, I expect a value stock to normally have …" The answer options were: "Higher returns over the next year, on average," "About the same returns over the next year, on average," "Lower returns over the next year, on average," and "No opinion." The length of each bar corresponds to the (weighted) proportion of respondents who gave each answer.

Figure 2a: Compared to a stock whose price fell a lot over the past year, I expect a stock whose price rose a lot over the past year to normally be… over the next year, on average.



This table presents results from a nationally representative survey of US households drawn from the RAND American Life Panel between December 14, 2016 and December 27, 2016. Respondents were asked to complete the following sentence: "1 Compared to a stock whose price fell a lot over the past year, I expect a stock whose price rose a lot over the past year to normally be …" The answer options were: "Riskier over the next year, on average," "Equally risky over the next year, on average," "Less risky over the next year, on average," and "No opinion." The length of each bar corresponds to the (weighted) proportion of respondents who gave each answer.

Figure 2b: Compared to a stock whose price fell a lot over the past year, I expect a stock whose price rose a lot over the past year to normally have… over the next year, on average.



This table presents results from a nationally representative survey of US households drawn from the RAND American Life Panel between December 14, 2016 and December 27, 2016. Respondents were asked to complete the following sentence: "Compared to a stock whose price fell a lot over the past year, I expect a stock whose price rose a lot over the past year to normally have ..." The answer options were: "Higher returns over the next year, on average," "About the same returns over the next year, on average," "Lower returns over the next year, on average," and "No opinion." The length of each bar corresponds to the (weighted) proportion of respondents who gave each answer.