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Market Risk

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What Stock Allocation Do Advisors Suggest and Does It Impact Clients?

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Issue Brief (2 of 2)



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Introduction

Market risk is a crucial consideration for those relying on financial assets as a major source of support in retirement. Retirement investors often have misperceptions about asset returns and limited knowledge about financial markets, potentially jeopardizing their long-term security. The role of financial advisors is to guide investors through their asset allocation decisions by helping them align their portfolios with their risk preferences and risk capacities.

Despite the importance of this advisor-client relationship, the literature remains relatively unsettled regarding how advisors construct portfolio recommendations and the extent to which they affect their clients' views on market risk. This *brief*, which is based on a recent study, addresses these knowledge gaps by analyzing data from two new surveys of financial advisors and retirement investors.¹

The discussion proceeds as follows. The first section briefly reviews prior studies on advisors' role in investors' portfolio decisions and financial planning. The second and third sections describe the data from the two surveys and the methodology for the analysis, respectively. The fourth section presents results on advisor recommendations and discusses the implications for clients' retirement security. The final section concludes that – while advisors do tailor their recommendations to clients' risk tolerance (but not the composition of their retirement income) – their recommended stock allocations for clients with average risk tolerance tend to be higher than desired by investors. But, this advice (even if potentially motivated by an advisor's desire for larger asset-based fees) is likely beneficial for many investors, as it reflects a better assessment of market risks and returns.

Background

Many households with meaningful financial assets rely on investment professionals. Ideally, an advisor should help individuals find the appropriate level of risk exposure by educating them about the risks and returns of investing; eliciting their risk tolerance preferences; lowering the costs of market participation; and helping them consider potentially relevant factors such as bequests, late-life health costs, and using the house as an asset. Prior research has found that while advisors do influence their clients to some extent, the evidence is mixed on the ultimate impact of financial advice on portfolio choices and investment outcomes.

¹ Aubry and Yin (2025a).

A number of studies have examined how advisors may help clients make better decisions and avoid mistakes. Some studies found that advisors help clients manage risks by diversifying their portfolios or reducing risks during downturns.² Another concluded that professional guidance can especially help clients with lower financial literacy.³

Prior studies also identified various limitations of advisors' influence on their clients. Using a unique Canadian dataset, one study determined that advisors exert substantial influence over their clients' asset allocation, but provide limited customization.⁴ And another concluded that while less-skilled investors generally benefit more from working with advisors, advisors are more likely to work with investors who are wealthier, older, and more experienced.⁵

While advisors have some positive impacts on their clients, research also highlights factors that may prevent advisors from providing advice in their clients' best interest. On the one hand, advisors may fall prey to the same pitfalls as individual investors. Based on a large sample of Canadian advisors, researchers found that they trade frequently, chase returns, prefer expensive and actively managed funds, and under-diversify.⁶ Alternatively, a number of studies have concluded that advisors may react to the financial incentive embedded in their compensation structure by recommending high-fee products or investments that do not necessarily result in higher net returns.⁷

In short, the literature is still relatively unsettled regarding the impact of advisors on households' portfolio choices.

Data

To better understand the practices of financial advisors and their influence on clients, this analysis uses two new surveys, one on advisors and one on investors – administered by Greenwald Research in mid-2024.

² See Kramer (2012); Goetzmann and Kumar (2008); French and Poterba (1991); Grinblatt and Keloharju (2001); Shapira and Venezia (2001); and Liu, Finke, and Blanchett (2024).

³ Von Gaudecker (2015).

⁴ Foerster et al. (2017).

⁵ Hackethal, Haliassos, and Jappelli (2012).

⁶ Linnainmaa, Melzer, and Previtero (2021).

⁷ See Hackethal, Haliassos, and Jappelli (2012); Mullainathan, Noeth, and Schoar (2012); Chalmers and Reuter (2020); and Kramer (2012).

The advisor survey questioned 400 financial advisors with at least three years of experience, \$30 million in assets under management, and 75 clients (of whom at least 40 percent are ages 50+). The survey first solicits basic information about each advisor’s practice – whether they work for a Registered Investment Advisor (RIA); the number, age, and wealth of clients they serve; the total assets they have under management; and their compensation structure. In addition, the survey asks about each advisor’s beliefs regarding the riskiness of various asset classes; their approach to communicating risk and providing financial advice; their view on the level of risk-taking among their clients when they initially meet; and asset allocation recommendations for hypothetical clients.

The investor survey questioned 1,016 retirement investors ages 48-78 with at least \$100,000 in total investable assets. To focus on those most reliant on these assets for retirement, the survey deliberately under-sampled those with a defined benefit (DB) plan.⁸ The survey begins with basic demographic and financial information – such as the investor’s age, marital status, total financial assets, and homeownership – and then asks about the respondent’s risk preferences, beliefs, and portfolio choices.⁹ Two key types of questions for this analysis are: 1) the respondents’ desired asset allocation, which can be compared with the recommended allocation from the advisor survey; and 2) whether they have ever worked with an advisor and, if so, whether it altered their appetite for risk.¹⁰

While the two surveys are not explicitly linked – that is, advisors cannot be matched with investors – weighting the responses to the advisor survey by the number of clients ages 50 or over helps make the investor survey results more relevant for comparison purposes.

⁸ Of the 1,016 respondents to the investor survey, 897 – 582 retirees and 315 near-retirees – have no DB plan. Sampling weights are used in the survey to make the results match the population. Results presented in this paper are based on respondents without DB coverage, but including those with DB plans yields very similar results and does not affect the conclusions.

⁹ The demographic and wealth profiles of the respondents in the investor survey are broadly consistent with those from other large household surveys such as the *Health and Retirement Study* and the *Survey of Consumer Finances* (see Aubry and Yin (2025b)).

¹⁰ Prior research suggests that roughly 50 percent of U.S. households work with a financial advisor. But, data from the investor survey suggest that 68 percent of near-retirees and 75 percent of retirees have worked with an advisor. The higher percentages in the investor survey likely reflect the fact that the sample is older and wealthier than the national average.

Methodology

Data from both surveys are used to investigate advisors' recommended asset allocations and to explore the impact of these recommendations on investors.

What Drives Advisors' Recommendations?

To understand what drives advisor recommendations, the analysis examines their recommended equity allocations for three hypothetical clients. Specifically, the advisor survey asks them about: 1) a baseline client who is a 65-year-old retired couple with moderate risk tolerance; 2) a client that matches the baseline except for having low risk tolerance; and 3) a client that matches the baseline except for having a larger share of financial wealth in the form of guaranteed lifetime income.

To investigate how recommendations might be influenced by various aspects of the advisors' practice, the study uses regression analysis to determine the impact of the following advisor-related factors:

- 1) *Advisor's compensation structure*, measured by the share of total compensation derived from percentage-of-asset fees. Prior research suggests that having a larger share of such compensation will be associated with a higher recommended stock allocation.
- 2) *Stock risk premium*, calculated as the difference between the assumed long-term returns of stocks and bonds reported by the advisor. A higher assumed stock risk premium is expected to increase the recommended allocation to stocks.
- 3) *Perceived riskiness of stocks*, measured by whether the advisor rates stocks higher than 4 on a 1-7 risk scale. The advisor's perceived riskiness of stocks is expected to be negatively associated with the recommended allocation to stocks.
- 4) *Type of advisor*. Both RIAs and broker dealers are required to act in their clients' best interest, but the RIA standard is more comprehensive and, thus, is expected to weaken the association, if any, between advisors' compensation structure and their advice. Hence, the equation includes an RIA variable and interacts RIA with the compensation structure variable.
- 5) *Income strategies*. The survey asks advisors to report the proportion of their retired clients with whom they use the following strategies to manage their investment:

- i. “Total return”: uses one main asset allocation across all the client’s accounts and relies on all facets of investment return (dividends, interest, capital gains, and principal) to finance a pre-determined monthly withdrawal amount.
- ii. “Bucket” or “time segmentation”: divides the client’s investable assets into categories, based on when – and for what purpose – the money is to be spent.
- iii. “Floor”: seeks to fund essential expenses through vehicles that provide income that is guaranteed for life, such as Social Security, pensions, and annuities.

A greater emphasis on securing basic spending may lead to more conservative portfolio recommendations. The equation includes a dummy variable that equals 1 if the advisor uses any given strategy for more than 25 percent of their clients.

How Do Advisors’ Recommendations Impact Clients?

This portion of the analysis starts by comparing recommended stock allocations to investors’ desired and actual allocations. An ideal dataset would include information on the recommended allocation to each investor, as well as data on each investor’s desired and actual asset allocation. But no survey – including the recent Greenwald surveys – contains all three measures together. So, the analysis instead compares *recommended* stock allocations from the advisor survey to investors’ *desired* stock allocation in the investor survey, and *actual* allocations reported in the *Health and Retirement Study* (HRS), a large household survey. Then, using data from the new investor survey, the analysis documents the share of retirement investors that believe working with an advisor has influenced their desired risk level.

The final question addressed is whether advisor recommendations are beneficial. The first step is to see whether advisors are better informed than investors about market risks and returns. The second step involves comparing advisor recommendations to the stock allocations prescribed in Morningstar’s target date funds to see whether the recommendations align with the portfolio choice of well-informed rational investors within the framework of lifecycle portfolio choice models.¹¹

¹¹ Asset allocations of Morningstar glide paths are obtained from Morningstar (2024a, b, and c). See Morningstar (2015) for an overview of the underlying methodology.

Results

This section presents the results of the analyses of financial advisors’ recommendations and their impact on retirement investors.

What Do Advisors Typically Recommend?

Table 1 shows, for each of the three hypothetical clients, the average and standard deviation of the stock allocation recommended by advisors. The average recommendations for the baseline client and the client with lower risk tolerance are 48 percent and 30 percent, respectively, suggesting that clients’ risk tolerance levels are a critical consideration for advisors.¹² The average recommendation for the client with more guaranteed income is a surprising 44 percent, even though guaranteed income is expected to crowd out an investor’s bond allocation and thus increase the allocation to stocks in their remaining liquid wealth.

Table 1. *Recommended Stock Allocation for Hypothetical Retired Households*

Statistic	Baseline client	Client with low risk tolerance	Client with increased guaranteed lifetime income
Mean	48%	30%	44%
Std. dev.	18	19	20

Note: To reflect the experience most relevant to near-retirees and retirees, responses in the advisor survey are weighted by the number of clients ages 50+ that the advisor serves.
Source: Authors’ calculations from the 2024 Greenwald Research Advisor Survey.

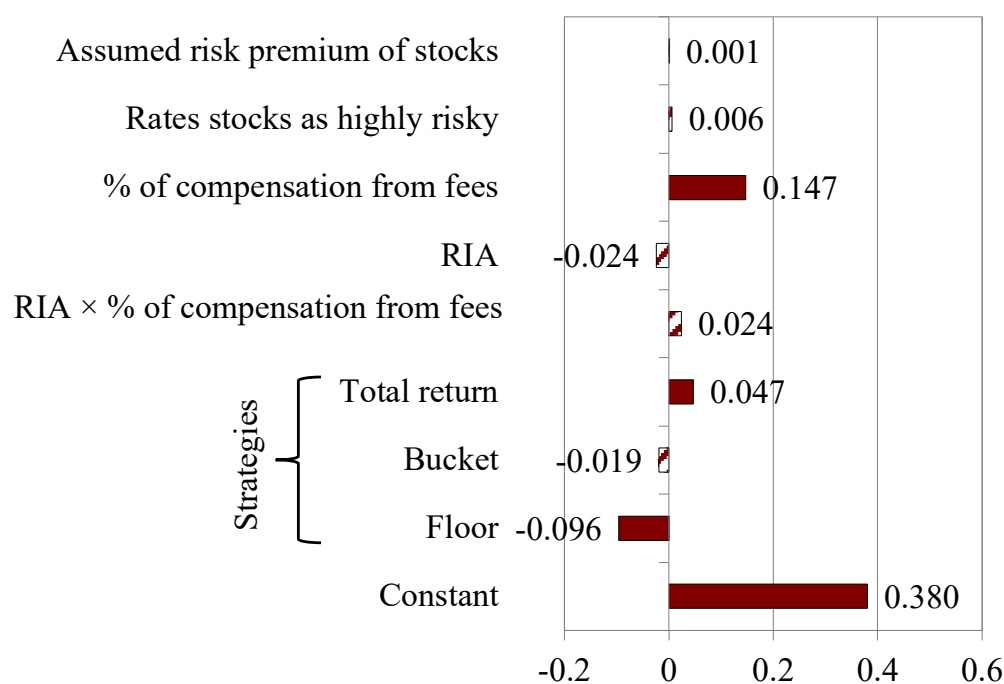
What Explains the Variation in Recommended Stock Allocations Across Advisors?

A closer look at advisors’ recommendations reveals significant variation – the recommended stock allocation for the baseline client has a standard deviation of 18 percentage points. A shift in equity allocation of this magnitude would have a substantial impact on retirement planning; thus, it is important to understand what factors might explain the wide range of recommendations across advisors for the same client.

¹² This result is consistent with the responses to a question in the advisor survey about topics advisors most commonly discuss with their clients, which show that advisors spend most of their time discussing the proper asset allocation for the risk preference of their clients.

Figure 1 presents the results of the regression that relates advisors' recommended stock allocation for the baseline client to various aspects of the advisors' practice, including assumptions and perceptions on stock returns, compensation structure, whether practicing as an RIA, and frequently used income strategies. The key finding is that the higher the share of the advisor's compensation derived from percentage-of-asset fees, the higher the recommended allocation to stocks under the baseline scenario. The type of commonly used income strategy also matters – in particular, advisors who frequently use the total return strategy recommend higher stock allocations, while those who frequently use the floor strategy recommend lower stock allocations, likely reflecting a higher priority given to securing essential spending.¹³ Interestingly, however, neither their beliefs about the riskiness of stocks, nor the risk premium for stocks in their financial models, appear to matter. Also, whether the advisor works for an RIA does not seem to have any direct impact on their recommendations or affect the impact of their compensation structure on recommendations.¹⁴

Figure 1. *Relationship Between Recommended Stock Allocation and Advisors' Characteristics*



¹³ The results are robust to changing the threshold used to define frequently used strategies and including more controls for the overall profiles of clients, such as the average wealth and average age of the advisor's client base.

¹⁴ This result is robust to distinguishing between RIAs with and without a formal affiliation by using separate dummy variables.

Notes: To reflect the responses most relevant to near-retirees and retirees, responses in the advisor survey are weighted by the number of clients ages 50+ that the advisor serves. The total return, bucket, and floor strategies were for more than 25 percent of clients. Solid bars are statistically significant.
Source: Authors' calculations from 2024 Greenwald Research Advisor Survey.

How Do Financial Advisors' Recommendations Impact Their Clients?

The analysis starts by comparing advisors' recommended stock allocations in the advisor survey to the investors' desired allocations in the investor survey. Table 2 shows that – on average – the recommended allocations are higher than the desired allocations for investors with average risk tolerance, but aligned for those with low risk tolerance.

Table 2. *Comparison of Recommended and Desired Allocations*

Statistic	Recommended allocation in Advisor Survey		Investors' desired allocation in Investor Survey	
	Avg. risk tolerance	Low risk tolerance	Avg. risk tolerance	Low risk tolerance
Mean	48%	30%	39%	29%
Std. dev.	18	19	24	22

Note: To reflect the responses most relevant to near-retirees and retirees, responses in the advisor survey are weighted by the number of clients ages 50+ that the advisor serves. The investor survey sample is limited to respondents ages 60-70 who are not covered by a DB plan.

Sources: Authors' calculations from 2024 Greenwald Research Investor and Advisor Surveys.

The discrepancy between advisors' recommendations and investors' desired stock allocations suggests that advisors tend to counsel their clients – at least those with moderate risk tolerance – to increase their stock allocations. This implication is consistent with the fact that *actual* stock allocations for investors are much closer to advisors' recommended allocations than to investors' desired allocations (see Table 3).¹⁵

¹⁵ This result is also consistent with Linnainmaa et al. (2019), who find plausibly causal evidence that advisors increase clients' willingness to take financial risks.

Table 3. *Recommended, Desired, and Actual Stock Allocations for Retirement Investors*

Statistic	Advisor recommended	Stocks as a percentage of investable assets	
		Desired in Investor Survey	Actual in HRS 2020
Mean	48%	39%	45%
Std. dev.	18	24	34

Notes: To reflect the responses most relevant to near-retirees and retirees, responses in the advisor survey are weighted by the number of clients ages 50+ that the advisor serves. The investor survey sample is limited to those ages 60-70 with average risk tolerance. The HRS sample is limited to respondents ages 60-70 who are not covered by a DB plan, own more than \$100,000 in investable assets, and have average overall risk preferences.

Sources: Authors' calculations from 2024 Greenwald Research Investor and Advisor Surveys and the University of Michigan, *Health and Retirement Study* (HRS) (2020).

This interpretation is also supported by what investors say directly about working with an advisor. Table 4 shows that 33 percent of retirement investors who work with an advisor think doing so has changed their risk appetite; among this group, about two-thirds say it has increased their risk appetite rather than decreased it (20 percent vs. 13 percent).

Table 4. *Self-Reported Impact of Working with Financial Advisors on Retirement Investors' Appetite for Investment Risk*

Appetite for risk	Share of retirement investors
Increased	20%
No change	67
Decreased	13

Note: The investor survey sample is limited to those who say that they have worked with an advisor.

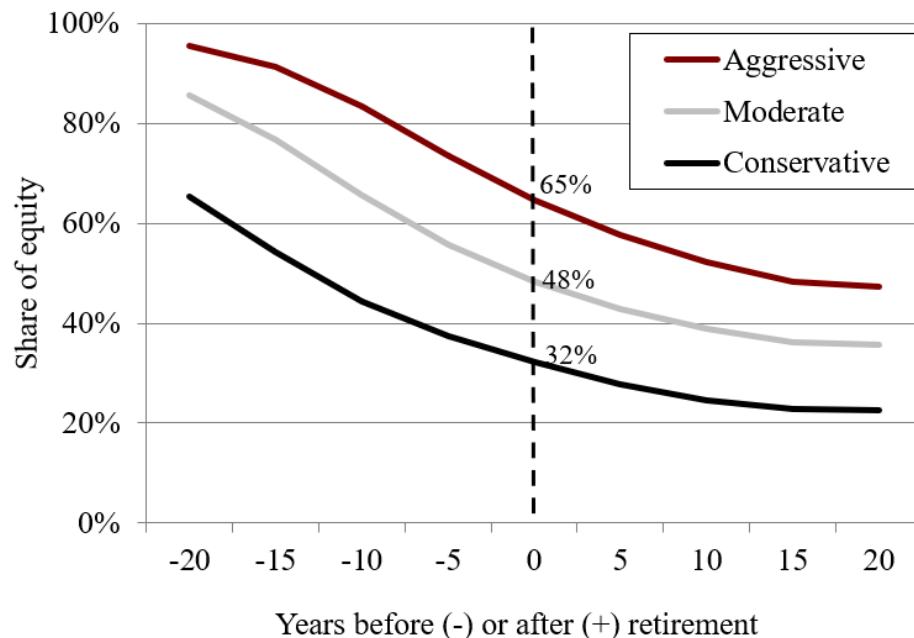
Sources: Authors' calculations from 2024 Greenwald Research Investor and Advisor Surveys.

Given that advisors do impact some of their clients' appetite for risk, the natural follow-on question is whether that impact improves their clients' retirement security. Two pieces of evidence support the idea that advisor recommendations do, broadly, help. First, comparing data from the investor and advisor surveys suggests that advisors – on average – have a more rational view of the risks and returns of stocks versus bonds, so one would expect retirement investors to benefit from advisors' greater knowledge and expertise.¹⁶

¹⁶ Research has found that increased financial literacy is usually associated with higher risk tolerance and stronger tendency to invest in risky assets (e.g. Hermansson and Jonsson 2021; Bannier and Neubert 2016; and Dimmock et al. 2016). Empirical evidence also suggests that positive expectations about the stock market result in greater stock

Second, advisors' average recommendations look quite similar to the stock allocations prescribed by target date funds (TDFs). For example, advisors' recommended allocations for hypothetical clients with moderate and lower risk tolerance (48 and 30 percent) match the stock allocations of the moderate and conservative variants of the Morningstar Lifetime Allocation Index (48 percent and 32 percent, respectively) (see Figure 2).¹⁷ TDFs are designed to reflect the optimal asset allocation that economic and finance theory would predict for a rational investor within the lifecycle-model framework. One would expect retirement investors to benefit from advisor recommendations that align broadly with optimal allocations based on long-standing principles of economic and finance theory.

Figure 2. *Glide Paths of Stock Allocation in Morningstar Lifetime Allocation Indexes*



Sources: Morningstar (2024 a, b, and c).

ownership (Dominitz and Manski 2007 and Beutel and Weber 2022). Aubry and Yin (2025b) also find that positive expectations about the stock market result in greater desired stock allocation.

¹⁷ Importantly, the model-based asset allocations in TDFs are not without caveat. First, the results of lifecycle portfolio choice models depend on model specifications and risk factors included. For example, incorporating more nuanced aspects of risk aversion and considerations such as bequest motives and health-related risks may lower the resulting optimal allocation to stocks. Second, TDF glide paths are generally developed for investors with average characteristics and are thus not sufficiently customized for individual investors. If financial advisors follow a similar methodology when giving recommendations, they may fall prey to the same issues. See Gomes (2020) and Gomes, Haliassos, and Ramadorai (2021) for a comprehensive review of the literature on lifecycle portfolio choice models.

Conclusion

Despite the prevalence of financial advisors, the academic literature remains relatively unsettled regarding advisors' impact on households' portfolio choices. More specifically, a significant knowledge gap remains regarding advisors' approach to portfolio recommendations and the extent to which they affect their clients' views on market risk.

This analysis used two new surveys of financial advisors and retirement investors to assess advisors' portfolio recommendations and explore their influence on clients' risk appetite in ways that support retirement security. The results show that – while advisors do tailor their recommendations to clients' risk tolerance (but not the composition of their retirement income) – their recommended stock allocations for those with average risk tolerance tend to be higher than what investors with average risk tolerance desire. But, this outcome is likely beneficial for many investors due to the more realistic assessment of risks and returns of advisors (even if potentially motivated by advisors' desire for larger asset-based fees).

References

- Aubry, Jean-Pierre and Yimeng Yin. 2025a. “What Stock Allocations Do Advisors Recommend and How Does It Impact Their Clients?” Working Paper. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Aubry, Jean-Pierre and Yimeng Yin. 2025b. “Do Desired Stock Allocations Differ From Actual Holdings?” Working Paper. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Bannier, Christina E. and Milena Neubert. 2016. “Gender Differences in Financial Risk Taking: The Role of Financial Literacy and Risk Tolerance.” *Economics Letters* 145: 130-135.
- Beutel, Johannes and Michael Weber. 2022. “Beliefs and Portfolios: Causal Evidence.” Research Paper 22-08. Chicago, IL: The University of Chicago, Booth School of Business.
- Chalmers, John and Jonathan Reuter. 2020. “Is Conflicted Investment Advice Better than No Advice?” *Journal of Financial Economics* 138(2): 366-387.
- Dimmock, Stephen G., Roy Kouwenberg, Olivia S. Mitchell, and Kim Peijnenburg. 2016. “Ambiguity Aversion and Household Portfolio Choice Puzzles: Empirical Evidence.” *Journal of Financial Economics* 119(3): 559-577.
- Dominitz, Jeff and Charles F. Manski. 2007. “Expected Equity Returns and Portfolio Choice: Evidence from the Health and Retirement Study.” *Journal of the European Economic Association* 5(23): 369-379.
- French, Kenneth and James Poterba. 1991. “Investor Diversification and International Equity Markets.” *The American Economic Review* 81(2): 222-226.
- Foerster, Stephen, Juhani T. Linnainmaa, Brian T. Melzer, and Alessandro Previtero. 2017. “Retail Financial Advice: Does One Size Fit All?” *The Journal of Finance* 72(4): 1441-1482.
- Goetzmann, William N. and Alok Kumar. 2008. “Equity Portfolio Diversification.” *Review of Finance* 12(3): 433-463.
- Gomes, Francisco. 2020. “Portfolio Choice Over the Life Cycle: A Survey.” *Annual Review of Financial Economics* 12(12): 277-304.
- Gomes, Francisco, Michael Haliassos, and Tarun Ramadorai. 2021. “Household Finance.” *Journal of Economic Literature* 59(3): 919-1000.
- Grinblatt, Mark and Matti Keloharju. 2001. “How Distance, Language, and Culture Influence Stockholdings and Trades.” *The Journal of Finance* 56(3): 1053-1073.

- Hackethal, Andreas, Michael Haliassos, and Tullio Jappelli. 2012. “Financial Advisors: A Case of Babysitters?” *Journal of Banking & Finance* 36(2): 509-524.
- Heaton, John and Deborah Lucas. 2000. “Portfolio Choice and Asset Prices: The Importance of Entrepreneurial Risk.” *The Journal of Finance* 55(3): 1163-1198.
- Hermansson, Cecilia and Sara Jonsson. 2021. “The Impact of Financial Literacy and Financial Interest on Risk Tolerance.” *Journal of Behavioral and Experimental Finance* 29: 100450.
- Kramer, Marc M. 2012. “Financial Advice and Individual Investor Portfolio Performance.” *Financial Management* 41(2): 395-428.
- Linnainmaa, Juhani, Brian Melzer, Alessandro Previtero, and Stephen Foerster. 2019. “Financial Advisors and Risk-Taking.” Working Paper. Available at: https://www.aleprevitero.com/wp-content/uploads/2021/05/FinancialAdviceRiskTaking_20191115.pdf
- Linnainmaa, Juhani T., Brian T. Melzer, and Alessandro Previtero. 2021. “The Misguided Beliefs of Financial Advisors.” *The Journal of Finance* 76(2): 587-621.
- Liu, Zhikun, Michael Finke, and David Blanchett. 2024. “Professional Financial Advice and Investor Behavior during the COVID-19 Pandemic.” *Financial Planning Review* 7(1): e1172.
- Morningstar. 2024a. *Morningstar Lifetime Allocation Indexes Aggressive*. Chicago, IL.
- . 2024b. *Morningstar Lifetime Allocation Indexes Conservative*. Chicago, IL.
- . 2024c. *Morningstar Lifetime Allocation Indexes Moderate*. Chicago, IL.
- . 2015. “Construction Rules for Morningstar Asset Allocation Index Family.” Morningstar Methodology paper. Chicago, IL.
- Mullainathan, Sendhil, Markus Noeth, and Antoinette Schoar. 2012. “The Market for Financial Advice: An Audit Study.” *SSRN Electronic Journal*.
- Shapira, Zur and Itzhak Venezia. 2001. “Patterns of Behavior of Professionally Managed and Independent Investors.” *Journal of Banking & Finance* 25(8): 1573-1587.
- Von Gaudecker, Hans-Martin. 2015. “How Does Household Portfolio Diversification Vary with Financial Literacy and Financial Advice?” *The Journal of Finance* 70(2): 489-507.
- University of Michigan. *Health and Retirement Study*, 2012-2020. Ann Arbor, MI.

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