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ABSTRACT

In this review, we argue that access to financial advice and the quality of this advice is shaped by a broad array of demand-side and supply-side constraints. While the literature has predominantly focused on conflicts of interest between advisors and clients, we highlight that the transaction costs of providing advice, mistaken beliefs on the demand side or supply side, and other factors can have equally detrimental effects on the quality and access to advice. Moreover, these factors affect how researchers should assess the impact of financial advice across heterogeneous groups of households. While households with low levels of financial literacy are more likely to benefit from advice—potentially including conflicted advice—they are also the least likely to detect misconduct, and perhaps the least likely to understand the value of paying for advice. Regulators should consider not only how regulation changes the quality of advice, but also the fraction of households who are able to receive it and how different groups would have invested without any advice. Financial innovation has the potential to provide customized advice at low cost, but also to embed conflicts of interest in algorithms that are opaque to households and regulators.

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1. Introduction

Retirement savings and portfolio allocation decisions are some of the most important financial decisions that households are required to make over their lifetimes. As a large academic literature demonstrates, these are complicated problems that many retail investors are ill prepared to solve on their own (e.g., Calvet, Campbell and Sodini, 2007; Lusardi and Mitchell, 2014; Lusardi and Mitchell, 2023). Surveys reveal that households seek advice on these topics from many different sources, including friends and family, but especially the financial services industry.[1] In total, FINRA reports that there were more than 600,000 registered representatives in the US in 2022.

Measuring the net benefit of investment advice, however, is difficult for at least three reasons. First, the academic literature on optimal portfolio allocation is ever evolving. While the benefits of portfolio diversification and fee minimization are well understood, many recent papers highlight the importance of considering heterogeneity in household characteristics and risk exposures, such as (un)employment risk, depreciation of a person's human capital, health risks, and many other factors. These underlying risk factors that in theory should shape a person's optimal portfolio are often not observable to the econometrician, and might or might not be observable to the financial advisor. Second, there is significant heterogeneity across people in the need for financial advice and in their ability to understand or follow advice (even independent of their risk exposures), and this heterogeneity might limit the type or complexity of advice that is useful for them to receive. Moreover, this underlying preparedness for advice is difficult to observe and likely goes beyond simple measures of financial literacy. Third, observing whether a household received "good" advice is complicated by the fact that most financial advice focuses on long-term problems, such as retirement savings, for which inference is slow for both households and researchers. While these different factors are typically difficult for academics (and financial advisors) to observe, they play a first-order role in determining whether and by how much households benefit from the investment advice that they receive.

The provision of financial advice through a for-profit market typically creates a situation where advice must be "sold" to retail investors. It is costly to provide well-informed financial advice. But if customers are unable to differentiate good advice from bad advice, higher quality advisors might not get rewarded for providing better advice. The less that investors are able to evaluate the quality of the advice they receive, the more that it can lead to agency distortions between financial advisors and their clients. Much of the existing literature on financial advice focuses on testing for conflicts of interest (COI) between advisors and their clients. The standard approach is to test for systematic deviations between client portfolios and hypothetical benchmark portfolios. In practice, however, deviations between client portfolios and benchmark portfolios are likely to reflect a combination of demand-side and supply-side constraints, of which COI are but one. Clients may suffer from low levels of financial literacy, behavioral biases, mistaken views on how to assess investment quality, and place too much or too little trust in advisors. Advisors may suffer from limited access to high-quality investment products, limited time to spend with each client, a limited understanding of their clients' preferences and goals, and their own mistaken views on how to assess investment quality. Demand-side constraints likely increase the potential gains from trade between clients and advisors while supply-side constraints likely work in the opposite direction. For example, when prospective clients have limited financial literacy, the desire to establish trust with and earn business from clients may lead advisors to offer very simple investment strategies. Offering more sophisticated but complex advice could overwhelm clients who do not understand the advice and fear that it will be impossible for them to monitor the actions of their advisors. Nevertheless, clients still may be better off with the portfolios recommended by their advisors than if they had invested on their own.

[1] Robb, Babiarz, and Woodyard (2012) find that 53% of US households have sought some form of financial advice over the past five years, with 30% seeking advice on saving or investing. A December 2023 survey by Bankrate finds that 35% of Americans sought advice during the year from a "financial advisor or other professional." See: https://www.bankrate.com/investing/financial-advisors/americans-financial-advice-top-place/

In the extreme, when customers have a limited understanding of finance, they might not realize that advice cannot come for free and, therefore, they might not understand when advisors are charging them via hidden fees. As a result, advisors who want to present their clients with clear information about how much advice costs might be forced to shroud their fees as well (Gabaix and Laibson, 2006). In that world, it may be necessary to accept some distortions in how advice is presented and how it is paid for (e.g., through hidden fees). If regulators attempt to eliminate hidden fees, the market potentially can potentially unravel, reducing both the supply of advice and the demand for advice. The fundamental policy question in such a second-best world is how to improve the quality of investment advice that households receive and follow without reducing existing gains from trade through decreased access or increased cost.

Our goal in this article is to expand the discussion of investment advice beyond COI to focus on the potential gains from investment advice in a world with numerous demand-side and supply-side constraints. Taking a more comprehensive view of the factors that affect the supply of and demand for "good" advice is important for understanding real-world bottle necks when it comes to improving market outcomes.[2] After describing a framework for evaluating investment advice, we seek to answer four questions. First, what do existing studies on demand for investment advice imply about selection into advice and the scope for gains from trade? Second, what do we know about the quality of matches between clients and advisors, the quality of advice that clients receive, and the extent to which clients update their views on advisor quality? Third, what do we know about the (potentially heterogeneous) impact of existing regulatory interventions intended to improve advisor quality and reduce COI? Fourth, what do we know about the ability of financial innovations, like robo-advice, to deliver high-quality, customized advice at low cost? We conclude by listing several open research questions.

2. Conceptual Framework

How might we quantify the potential gains from trade between financial advisors (or financial services firms) and their clients.[3] In an ideal world, high quality financial advisors can benefit their clients by helping them optimize their long-term savings goals and portfolio allocations. In practice, this translates into a series of different tasks such as constructing portfolios or suggesting products that are well matched to the client's financial circumstances and risk preferences, explaining financial concepts to clients, helping them stay the course when markets turn volatile, and reoptimizing when their clients' financial circumstances change. Some financial advisors also provide advice on how to minimize the tax burden of taxable portfolios. These tasks require some combination of expertise and effort. Even in the absence of any COI the quality of the advice that clients receive will depend on the expected profits generated from the interaction. For example, because maintaining an ongoing relationship requires time and effort, richer clients will typically be able to afford more personalized advice. To the extent that some products require more time to research and explain, richer clients also may benefit from access to a wider range of products. Importantly, some of these tasks are subject to more severe potential COI than others. For example, helping clients minimize the tax burden from trading activities (where legally allowed) is in the interest of both parties under most models of advisor compensation. In contrast, helping clients minimize commission payments to advisors is not in the interest of advisors.

Many COI arise from the fact that broker-dealers earn commissions only when their clients buy or sell assets. It is common for broker-dealers to receive commissions from financial service firms (e.g., mutual

[2] Our goal is not to downplay the potential damage from COI that might result from poorly designed products, excessive fees, or outright financial misconduct, but rather to expand the discussion to incorporate the full set of constraints that are potentially govern interactions between clients and advisors.
[3] See Spatt (2020) for a survey of conflicts of interest in additional financial settings.

fund families or insurance companies) when they sell those firms' products.[4] Stoughton, Wu, and Zechner (2011) highlight the role of indirect compensation to intermediaries, which they refer to as "kickbacks." When clients are sophisticated, kickbacks are used to support aggressive marketing by firms. When clients are unsophisticated, kickbacks serve as a form of price discrimination which subsidizes the cost of advice to smaller investors. In both cases, kickbacks are associated with higher investor expenses and lower investor returns. Inderst and Ottaviani (2012a, 2012b) describe a market with two types of customers. The naïve types believes that they will receive unbiased advice, allowing them to be exploited by high commissions. The more-sophisticated types are wary of the potential moral hazard and are willing to pay high upfront fees to avoid receiving biased advice later. Nevertheless, sophisticated customers still pay commissions as an efficient incentive for advisors to learn which products are the most suitable for them. This highlights an important interaction effect. Namely, clients with the highest need for advice are those for whom the potential for COI is highest because they are also the least likely to understand when they are being taken advantage of.

Thus, whether there are gains from trade between a client and advisor depends on the severity of the COI and the counterfactual behavior of the client (Chang and Szydlowski, 2020; Chalmers and Reuter, 2020; Sun, 2021). Rational investors should choose to seek and follow investment advice only when the expected utility of doing so—despite any COI—exceeds the expected utility of investing on their own. Chang and Szydlowski's (2020) matching model features rational investors with different levels of sophistication. In equilibrium, advisors with expertise in more information-sensitive assets attract less informed customers, provide less precise information, and earn higher rents. Even though distorted information leads to lower returns, it is the underlying distribution of financial literacy that determines customers' welfare, rather than the structure of fees. This result follows from the participation constraint. Investors rationally self-select into receiving advice based on their outside options. Poorly informed customers choose to seek advice because they realize that they would be worse off without advice, while better informed customers choose to forgo advice.

In a model that abstracts from COI between advisors and their clients, Gennaioli, Shleifer, and Vishny (2015) point out that trusted advisors can provide peace of mind to unsophisticated investors, allowing them to bear financial risk that they otherwise would not bear. The equilibrium is one in which unsophisticated investors hold equity portfolios sold by trusted advisors rather than the (risk-free) money market funds they would have purchased on their own. So long as the fee charged by the advisor is not too high, there are gains from trade whereby the client earns some of the equity premium that comes from bearing market risk and the advisor earns the rest of the equity premium in the form of a fee. As in Chang and Szydlowski (2020), one should think of cross-sectional variation in after-fee returns as arising from cross-sectional variation in the quality of clients' counterfactual portfolios.

In other words, there is an important distinction between whether a client receives and follows conflicted advice and whether the client is harmed by doing so. To measure harm, the appropriate benchmark is the client's counterfactual behavior, for which a researcher may have no good proxy.[5] The larger the financial literacy gap between clients and self-directed investors, the less appropriate it is to benchmark client portfolios against self-directed portfolios or standard academic benchmarks, like index funds, that the clients are unlikely to seek out on their own. More generally, the counterfactual portfolios of advice seekers are likely to depend on their financial literacy, preferences, and beliefs. They are also likely to depend on the institutional details of the setting in which they seek advice (Chalmers and Reuter, 2020). Further complicating matters, there are reasons to expect client portfolios to reflect a comprise between the types

[4] In contrast, registered investment advisors (RIAs) receive a percentage of assets under management as compensation for ongoing services. They have an incentive to increase assets under management.

[5] Of course, everything else equal, the client would benefit from receiving unbiased advice. Our point is simply that the value of advice depends on both the quality of the advice and the quality of the counterfactual behavior.

of investments that clients request and the types of investments that the advisors would recommend in the absence of any such constraints (Mullainathan, Nöth, and Schoar, 2012).

Theoretically, there are reasons to question whether regulations of commissions will benefit investors. In Inderst and Ottaviani's (2009) model, a firm seeks to incentivize its brokers to prospect for potential clients without incentivizing them to sell unsuitable products. However, "the incentives necessary to induce search effort subsequently tempt the agent to advise purchase indiscriminately." In their model, the impact of any regulatory change will depend on the firm's sales process, which is likely to internalize how difficult it is for brokers to attract new clients. Since paying the broker a flat wage and no commission results in no prospecting, under their model, banning commissions would eliminate brokers from the market for advice, an extreme supply-side response. Similarly, in Chang and Szydlowski's (2020) rational matching model, banning conflicted fees is likely to harm the least sophisticated investors—for whom the net benefit of conflicted advice is nonnegative—by eliminating access to advice.

The important real-world question is whether clients are benefitting from conflicted advice in the ways that these models imply. To take an extreme example, imagine that a regulator decides to eliminate conflicted advice by eliminating the financial advice industry. This regulation would benefit (former) clients who had overestimated the value of the client-advisor relationship, either by underestimating the impact of COI on their portfolios or by underestimating the quality of the financial decisions they would make on their own. At the same time, it would harm (former) clients for whom the net benefit of biased advice had been positive despite the COI.

3. Financial Literacy, Trust, and Selection into Financial Advice

The less that a potential client understands about finance, the greater the potential gains from trade from receiving advice and the less likely that the client is to recognize bad advice.[6] We begin by asking how demand for investment advice varies with financial literacy, while acknowledging that standard measures of financial literacy based on a small number of questions are too coarse to capture all of the relevant variation in household financial knowledge.

Calcagno and Monticone (2015) emphasize that households have three choices when it comes to investment advice: they can seek advice with the goal of implementing some or all of it on their own, invest on their own without any advice, or delegate portfolio management decisions to an advisor or asset manager. Italian survey data, they find higher demand for implementable advice among households with higher levels of financial literacy. Demand for delegated portfolio management, on the other hand, is negatively correlated with financial literacy and positively correlated with trust in advisors. Similarly, Chalmers and Reuter (2020) find that the demand for broker recommendations within a single US retirement plan is higher for participants who are younger, earning lower salaries, have lower levels of educational attainment, and work outside of a business school or economics department. They find that these same characteristics predict demand for target date funds (TDFs) when brokers are no longer available to plan participants.[7] As they

[6] Collins (2012) and Robb, Babiarz, and Woodyard (2012) study demand for advice regarding investments, insurance, tax planning, debt management, and loans using a nationally representative sample of US households. They find that demand for financial advice is increasing with financial literacy, income, and educational attainment. The notable exception is demand for advice on debt management. These patterns are consistent with households with higher levels of financial literacy being better able to understand and implement advice. Much of the investment advice that we discuss in this article takes the form of delegation, either by relying on advisor recommendations when constructing and managing portfolios or by outsourcing portfolio management decisions to a target date fund or managed account.

[7] Target date funds allow investors to outsource both asset allocation and portfolio management decisions. These funds automatically rebalance the portfolio from equity to fixed income when employees come closer to their (pre-specified) target retirement year. The formula describing how the target asset allocation changes with age is known as the glide

emphasize, the fact that less sophisticated investors are more likely to outsource portfolio management to brokers and TDFs raises significant questions about the quality of the counterfactual portfolios that they would hold in the absence of advice. Although they do not emphasis it, this form of selection into advice also raises significant questions about clients' ability to spot bad advice.

Reuter and Richardson (2022) study demand for in-person and online advice in a sample of US retirement plans administered by TIAA. Consistent with Calcagno and Monticone (2015), they find that demand for customized advice on asset allocation and retirement income levels are both increasing in age, account balances, and contribution levels (their proxy for income). However, they also find that rates of advice seeking are uniformly lower for participants investing through TDFs and speculate that reliance on delegated portfolios crowds out demand for more individualized advice on saving rates and asset allocation. For example, only 2.9% of those invested in a TDF between the ages of 50 and 59 seek advice on retirement income levels in a given year versus 8.3% of those not invested in a TDF.

Increasingly, researchers are fielding experiments to learn more about the demand for and the impact of investment advice. When Hung and Yoong (2013, Chapter 9) analyze survey answers of current US defined contribution (DC) retirement plan participants in the RAND American Life Panel, they find little evidence that advice seeking improves participant outcomes, but they recognize that the endogeneity of advice seeking complicates inference. When they run an online experiment where participants are asked to solve a hypothetical portfolio allocation task, they find that people with lower levels of financial literacy are more likely to seek advice, and that receiving advice improves their performance on the task.

Kim, Maurer, and Mitchell (2021) field an experimental module in the 2016 Health and Retirement Survey (HRS) of US adults 50 and older to study how cognitive ability and financial literacy influence demand for financial advice. They find that higher cognitive and financial literacy scores are associated with higher demand for advice from financial professionals and lower demand for "free" advice of the sort where the advisor is likely to receive "kickbacks" from the firms whose products are being sold. They conclude that variation in cognitive ability and financial literacy change the quality—rather than the quantity—of advice being sought. Of course, variation in cognitive ability and financial literacy is likely to be highly correlated with variation in the quality of counterfactual decision-making, and with the ability of clients to distinguish reasonable advice from misconduct.

Studies of demand for financial advice typically emphasize the independent roles of financial literacy and trust. Georgarakos and Inderst (2014) use data from the 2003 Eurobarometer survey to show that stock market participation in the European Union is increasing in both trust in financial advice and individuals' perceptions of legal protections in financial markets. Gurun, Stoffman, and Yonker (2018) treat the revelation of the Madoff Ponzi scheme in 2008 as a shock to trust in investors' property rights. They find that residents of US communities with greater exposure to Madoff's fraud were more likely to reallocate assets from registered investment advisors (RIAs) to bank savings accounts, and that RIAs with greater exposure were more likely to close. Kostovetsky (2016) tests the Gennaioli et al. (2015) version of trust as reducing investor anxiety about risk-taking in an event-study framework using ownership changes of US mutual funds following mergers and acquisitions. Kostovetsky finds larger outflows from retail share classes than from institutional share classes around the announcement date, and finds differentially larger outflows when acquiring companies have "prior legal controversies" and when funds charge higher fees. In an online experiment, Burke and Hung (2021) find that US participants with greater trust in advice are more likely to accept the offer of free advice, controlling for financial literacy scores and a range of demographic characteristics.

path (Balduzzi and Reuter 2019). TDFs have become the dominant default investment option in US defined contribution retirement plans.

4. What Do We Know About Matching between Clients and Advisors and About the Quality of Advice?

Studies of real-world financial advice fall into four categories. First, there are studies highlighting differences in the flows and performance of broker-sold and direct-sold mutual funds in the US. A key conclusion is that investors who seek investment advice from brokers find themselves in a market segment with lower average fund quality. These papers are focused on differences in the funds available to investors in different market segments rather than on the counterfactual behavior of broker clients. Second, there are broker-level studies that seek to explain cross-sectional differences in the likelihood that brokers commit financial misconduct. While it is possible to write down models where clients are better off relying on conflicted advice than investing on their, it is difficult to imagine situations where financial misconduct dominates clients' counterfactual choices. Third, there are studies that analyze account-level data, mostly from banks located outside the US. These papers compare client portfolios to various benchmark portfolios and seek to understand the influence of broker recommendations on trading. Typically, account-level data do not allow researchers to measure how clients' actual portfolios compare to the portfolios that advisors recommended or the portfolios that clients requested. Fourth, there are audit studies targeting financial advisors, which fill this gap by allowing researchers to observe advisor recommendations.

4.1. Fund-Level Evidence on Quality Differences Across Market Segments

In theory, financial advisors can benefit their clients by recommending investment options that are higher-quality and more appropriate than their clients are likely to choose on their own. For example, broker clients may benefit from reduced search costs. In practice, however, the abilities of advisors to steer clients towards high-quality investment products is complicated by market segmentation. Investors who choose to work with brokers—in the US and abroad—typically face a limited menu of investment options that charge elevated fees to pay sales commissions.

Many early studies of COI focused on fund-level data from the US mutual fund industry. To measure the costs and benefits of financial advice, Bergstresser, Chalmers, and Tufano (2009) study differences between funds sold through brokers and funds sold directly to do-it-yourself investors. They find that broker-sold funds underperform direct-sold funds even after adding back the distribution fees paid by broker-sold funds. While these authors tend to interpret underperformance as arising from COI, they acknowledge that brokers may be providing benefits, such as portfolio customization, which cannot be measured using fund-level data. Consistent with CIO, Christoffersen, Evans, and Musto (2013) find that fund-level inflows are increasing with commission payments to brokers, especially when those brokers are unaffiliated with the fund, and that commission-induced inflows are associated with subsequent fund-level underperformance. Similarly, Egan (2019) demonstrates that brokers are incentivized to sell dominated bonds to their clients. Del Guercio and Reuter (2014) attempt to rationalize the underperformance of broker-sold funds by demonstrating that competition in the broker-sold segment focuses much less on risk-adjusted performance, thereby reducing broker-sold families' incentives to take the costly steps required to generate alpha. Consequently, those investors who seek investment recommendations from brokers are inadvertently limiting themselves to a lower-quality set of funds. While Del Guercio and Reuter document that advice seekers would be better off, on average, holding broker-sold index funds than broker-sold actively managed funds, the low observed demand for broker-sold index funds may reflect COI, brokers catering to an underlying client preference for actively managed funds, or both.

Although brokers potentially could add value by discouraging their clients from engaging in return chasing, Friesen and Sapp (2007) find greater underperformance due to poor market timing among US broker-sold funds. Whether brokers are catering to an underlying client preference for return chasing or suffer themselves from mistaken beliefs about the benefits of return chasing is unclear. One area where brokers do appear to benefit their clients in the US is taxes. Analyzing data on weekly net flows for different mutual

fund share classes, Cici, Kempf, and Sorhage (2017) find evidence that US brokers help their clients avoid large taxable distributions. Furthermore, they argue that investors who self-select into the broker-sold market segment lack the sophistication required to avoid these taxes on their own.

4.2. Account-Level Studies of Client Portfolios and Audit Studies of Advisor Recommendations

4.2.1. Testing for COI

Most tests for COI rely on account-level data from non-US banks. The earliest papers benchmarked client portfolios against self-directed portfolios, while trying to account for differences in the characteristics of the two sets of investors (e.g., Hackethal, Haliassos, and Jappelli, 2012; Karabulut, 2013). More recent papers have sought to distinguish between trades initiated by clients and those recommended by advisors. Hoechle, Ruenzi, Schaub, and Schmid (2017) analyze trade-level data from a Swiss bank. They define advised clients as those who execute at least one advisor-initiated trade; these 1,095 clients make 4,297 advised trades and 13,133 independent trades. When they include investor fixed effects, they find that advisor-initiated trades underperform investor-initiated trades, but that advised clients continue to make advisor-initiated trades. Consistent with COI, Hoechle, Ruenzi, Schaub, and Schmid (2018) use data from the same Swiss bank to show that advised trades generate higher bank profits than independent trades. Similarly, Fecht, Hackethal, and Karabulut (2018) use detailed data from Deutsche Bundesbank to infer equity trades between the proprietary trading desks of German banks and their retail clients. They find that banks are more likely to sell stocks to their retail investors when the stocks are relatively illiquid, in periods when the market is relatively illiquid, and that stocks sold to retail investors tend to subsequently underperform. While these losses need to be weighed against whatever benefits the clients are receiving from advice, everything else equal, clients would clearly benefit from not trading against their banks.

Hackethal, Inderst, and Meyer (2012) highlight a potential dark side to trust in financial advisors. They study 328 German bank clients for whom they can match account-level administrative data on trading with survey data on trust in and reliance upon advice. They find that greater reliance on advisors is associated with greater trading volume (conditional on trading), more purchases of products for which advisors receive additional sales incentives, and higher revenues for the bank. For the net benefit of advice to be positive for this sample of trusting clients, their counterfactual portfolios would need to be particularly bad.

It is important to note that the papers described in this section analyze account-level data that pre-dates Markets in Financial Instruments Directive ("MiFID 1"), which took effect in the European Union (EU) in November 2007.[8] In addition to allowing firms to provide investment services to investors throughout the EU, MiFID 1 took steps to minimize potential COI. Among other things, the regulation required firms to collect information on investors to ensure that retail investors are only offered suitable investment products and to disclose the fees associated with their services. It is plausible that the quality of broker recommendations at EU firms increased in response to MiFID 1 (perhaps due to a reduction in discretion), but we are not aware of papers that exploit this change in regulation.[9] [10]

[8] Hackethal, Haliassos, and Jappelli (2012) and Karabulut (2013) both analyze German data for January 2003 to October 2005; Hoechle, Ruenzi, Schaub, and Schmid (2017, 2018) analyze Swiss data for January 2002 to June 2005; Hackethal, Inderst, and Meyer (2012) analyze German data for August 2005 to 31 July 2007; and Fecht, Hackethal, and Karabulut (2018) analyze German data for December 2005 to September 2009.

[9] While Fecht, Hackethal, and Karabulut's (2018) sample period includes the introduction of MiFID 1, the authors do not discuss the regulation.

[10] Markets in Financial Instruments Directive 2014 ("MiFID 2"), effective January 2018, expanded various reporting requirements and required firms to unbundle payments for trade execution from payments for sell-side research. Lang, Pinto, and Sul (2023) find that MiFID 2 changed the market for sell-side analyst recommendations and the frequency and quality of firm disclosures.

4.2.2. Counterfactual Portfolios Depend on the Setting

Chalmers and Reuter (2020) illustrate how the choice of counterfactual benchmark portfolios can depend on institutional details. During most of their sample period, participants in Oregon University System's Optional Retirement Plan (ORP) have the option to invest through four providers, one of which ("HIGH") allows participants to meet one-on-one with brokers. Given that demand for HIGH is decreasing in numerous proxies for financial literacy (as described above), it is inappropriate to assume that the typical broker client would have invested like the typical self-directed investor if HIGH were not an option. Instead, Chalmers and Reuter compare the portfolios of investors with high predicted demand for HIGH who do and do not invest through HIGH. Across these two groups, the authors find large differences in risk taking. Participants with high predicted demand for investment advice who work with brokers have market betas that are approximately 0.5 points higher than participants with high predicted demand for financial advice who do work with brokers. (They also tilt their portfolios towards higher-fee funds, even controlling for investment objective.) Part of the difference in risk taking is driven by abnormally high demand for the default money market fund by those not working with brokers.

Near the end of their sample period, ORP changes the options available to new participants, but not existing participants. New participants are limited to one provider for which the default investment option is a money market fund and another provider for which it is a target date fund (TDF). The same regression model that predicts demand for HIGH by new participants during the early regime predicts demand for TDFs during the later regime. When Chalmers and Reuter benchmark actual client portfolios against age-matched TDFs, they find similar levels of systematic risk but that TDFs earn significantly higher after-fee risk-adjusted returns. In other words, by changing the set of providers and introducing TDFs, ORP effectively changed the counterfactual portfolios of advice seekers. With TDFs available, financial advisors were no longer required to help participants invest in equity markets. Similarly, Mitchell and Utkus's (2022) find that demand for TDFs—and participant equity exposure—increases significantly when TDFs are added to the investment menus of retirement plans managed by Vanguard, even when the TDFs are not the default investment options.

4.2.3 Using Audit Studies to Test for COI and Mistaken Beliefs

An alternative approach to testing the importance of COI in advisor behavior is through the use of audit studies that emulate real world sales situations, as pioneered by Mullainathan, Nöth, and Schoar (2012). In this study, trained auditors who impersonate real world customers seek financial advice from real US advisors about how to improve upon one of four randomly selected treatment portfolios that represent different investment strategies. Some treatment portfolios present limited COI for the advisors; they are designed to allow advisors to easily improve the client's portfolio allocation and at the same time generate fee compensation for the advisor. An example of such a treatment portfolio is a customer whose portfolio consists entirely of an employer's stock. Other treatment portfolios present large COI for the advisors, because while the pre-existing investment strategies of customers are bad for the customers, they allow the advisor to generate significant fees. An example is the "chasing fund returns" treatment, which allows advisors to continuously adjust the portfolio and generate fee income. The study also includes a treatment arm where the client holds an "efficient portfolio," a diversified portfolio of low-cost index funds. Finally, the control group consists of auditors who do not have a discernible investment strategy, hold certificates of deposit, and express an interest in increasing risk to achieve higher returns. The study finds evidence of COI, since advisors only educate clients and move them out of bad investment strategies when the mistakes are in the advisor's interest and allow them generate fees. They do not debias clients about investment strategies that are not in the advisor's interest. In addition, in the treatment group where the clients already hold an efficient portfolio, advisors attempt to move them out of low fee index funds and into higher fee actively managed funds. The authors conclude that the market for financial advice is much more likely to exploit the biases of naïve clients when it is in their self-interest than attempt to de-bias them. But the study

also shows that in those situations where the interest of clients and advisors are aligned the advisors provide useful advice.

With respect to client characteristics, Mullainathan, Nöth, and Schoar (2012) find that COI seem to be aggravated for female US customers, who often are seen as being less financially savvy. Bhattacharya, Kumar, Visaria and Zhao (2023) conduct a similar audit study in Hong Kong and document that female clients receive inferior advice compared to their male counterparts. In particular, they find that female clients are advised to buy individual stocks and abstain from internationally diversifying their portfolios.

Anagol, Cole, and Sarkar (2017) conduct an audit study of the Indian life insurance industry. Consistent with COI, they find that advisors tend to recommend products that maximize commissions. They also find, however, that advisors will cater to the mistaken beliefs of their clients, even when (successfully) de-biasing them would result in higher commissions. Provocatively, in a survey of 32 life insurance agents, they find that agents likely hold mistaken beliefs themselves about the relative value of whole life insurance versus term life insurance. Although it is not an audit study, Linnainmaa, Melzer, and Previtero (2021) also finds evidence that advisors hold mistaken beliefs. The authors use a subset of the advisor and client data from Foerster et al. (2017) to argue that the low-quality advised portfolios in their sample of Canadian clients are more consistent with mistaken beliefs than COIs. They find that advisors' portfolios exhibit the same preference for expensive actively managed mutual funds, high turnover, under-diversification, and behavioral biases as their clients' portfolios. Furthermore, they find that advisors' portfolios underperform by the same magnitude as their clients' portfolios, even after the advisors have left the industry. The underperformance of clients' portfolios relative to benchmark portfolios is consistent with both COI and clients relying upon the recommendations of advisors with mistaken beliefs. To the extent that advisors hold mistaken beliefs, these beliefs would help to explain the lack of investor de-biasing.

4.2.4 Adding Value through Diversification?

One of the easiest ways that advisors can add value is through increased portfolio diversification. Analyzing portfolio holdings of a large sample of Dutch investors, Kramer (2012) finds that advised clients portfolios exhibit greater diversification and less home bias than self-directed portfolios. He finds similar patterns when studying changes in the portfolios of investors who self-select into advice. Von Gaudecker (2015) studies the portfolio diversification of Dutch households by measures difference in returns between each household's portfolio and the corresponding portfolio on the efficient frontier with the same level of risk (following Calvet, Campbell, and Sodini, 2007). Because he finds that "return loss" relative to the efficient frontier is low for both self-direct portfolios of households with high levels of financial literacy and advised portfolios, he concludes that financial advice is an effective substitute for financial literacy when it comes to diversification. Of course, the benefits of diversification need to be weighed against the costs. Hoechle, Ruenzi, Schaub, and Schmid (2017) find that while Swiss advisor-initiated trades increase portfolio diversification (and decrease the disposition effect), they nevertheless underperform client's own trades.

4.2.5 Adding Value through Customization?

Determining whether financial advisors help their clients construct portfolios that internalize their financial circumstances and risk preferences is difficult because it requires data not only on the recommended portfolio and the counterfactual portfolio, but also a way to measure the distances between these portfolios and the client's optimal portfolio. To shed light on this issue, Foerster et al. (2017) analyze data from four large Canadian advisory firms that cover over 10,000 advisors and 800,000 clients. They ask how much of the cross-sectional variation in client's risky share and home bias can be explained by observable client characteristics (risk tolerance, financial knowledge, investment horizon, income, net worth, and occupation) and how much can be explained by advisor fixed effects. Advisor fixed effects have a much larger impact on R-squared than client characteristics. Moving from the 25th to the 75th percentile in the advisor fixed

effect distribution leads to a 20-percentage-point increase in risky share and a 32-percentage-point increase in home bias. While it is natural to wonder to what extent these effects reflect matching between advisors and clients, the authors find similar results when they focus on clients who change advisors for plausibly exogeneous reasons. In other words, while investment recommendations appear to vary significantly across advisors, any given advisor appears to be offering something close to "one-size-fits-all" advice.

4.2.6 Client Assessments of Advisor Quality?

There is little research on the process through which clients match with advisors and even less on the process by which households update their beliefs over time about the quality and trustworthiness of their advisors.

Stolper and Walter (2018) use the random assignment of clients to advisors at a German savings bank, and detailed meeting notes, to study the likelihood that clients follow advisor recommendations. They find that male clients are more likely to accept the recommendations of male advisors and advisors who are of a similar age, while female clients are more likely to accept the recommendations of advisors that share their marital or parental status. While these advisor characteristics are unlikely to be correlated with standard measures of advisor quality, it is possible that shared characteristics help advisors to better tailor their advice to the client's financial needs.

Agnew et al. (2018) use a randomized experiment to learn about trust building between Australian advisors and their clients. They find that advisors can build trust by providing good advice on an easy topic during an initial meeting, making clients more likely to follow conflicted advice in later meetings. The desire to build trust during initial meetings may contribute to the high levels of catering found in Mullainathan, Nöth, and Schoar's (2012) study of US advisors. None of the papers cited in this section speak to the circumstances under which clients choose to end their relationships with advisors.

4.3 Broker-Level Evidence on Financial Misconduct?

A few studies have focused on outright fraud committed by advisors and the consequences of such actions. FINRA's BrokerCheck data, which contains brokers' employment histories, credentials, and misconduct records, allow researchers to study the incidence and determinants of broker misconduct in the US. Egan, Matvos, and Seru (2019) use these data to study 1.2 million advisors between 2005 and 2015. They find that over 7% of financial advisors have misconduct records, and that repeat offenders are relatively common. While approximately half of advisors with misconduct records are fired, the authors find that many are rehired by advisory firms in counties with fewer college graduates and more elderly investors (but higher incomes). In other words, some advisory firms appear to specialize in taking advantage of less sophisticated investors, allowing misconduct to persist. Relatedly, Dimmock, Gerken, and Graham (2018) provide evidence that financial misconduct can be contagious. They exploit branch-level changes in coworkers following 477 mergers between US advisory firms that involve over 150,000 advisors. They find that advisors working in branches that add groups of advisors with an above-average pre-merger history of misconduct are 37% more likely to engage in future misconduct themselves. As with studies of fund-level data, these researchers are unable to observe client's counterfactual behavior and any potential benefits that brokers provide to their clients. Of course, the more serious the misconduct, the less likely it is that the client ever benefited from the relationship. An important conclusion from this literature is that many clients lack the financial literacy required to avoid bad investment advice and unscrupulous advisors.

5. What Do We Know About the Effectiveness of Regulatory Interventions?

Ideally, regulation intended to reduce distortions from COI would do so without increasing client costs or impairing relationships between advisors and clients. In practice, however, regulation intended to reduce COI may increase the cost of advice (e.g., through higher compliance costs) or change the number and

quality of advisors available to provide advice. While higher quality advice is welfare increasing, higher costs and reduced access are welfare decreasing.

It is helpful to consider an example. The UK Retail Distribution Review (RDR) banned commissions and increased advisor certification requirements in 2012. As a result, the number of financial advisors dropped "from about 40,000 in 2011 to about 31,000 by January 2014" (Burke and Hung 2015, Chapter 8). Studies commissioned by the UK Financial Conduct Authority (FCA) shortly after the RDR suggest modest reductions in the number of households receiving advice and modest increases in the cost of advice (Burke and Hung 2015, Chapter 8). Therefore, the overall effect of the reform depends on how it impacted two different groups of households, and on their relative sizes. For the many households that continued receiving advice, the net benefit of the regulation depends on how much the quality of advice improved relative to pre-RDR and how much the cost of advice increased. For the households that lost access to advice, the net benefit of the regulation depends on how the quality of their investment and savings behavior changed relative to a counterfactual world in which advice was still available. Although difficult to measure, it is likely that some reluctantly self-directed households were made worse off by RDR.

Linnainmaa, Melzer, Previtero, and Foerster (2021) attempt to quantify the impact of lost advice on Canadian investors. In 2001, Canadian regulators in five of the ten provinces imposed stricter requirements on advisors selling mutual funds. These changes reduced the supply of advice (while arguably improving its quality) in some provinces relative to others. Within treated provinces, the authors estimate a 3-percentage-point reduction in the likelihood of using a financial advisor (the pre-reform rate was 35%), and a 2.3-percentage-point reduction in the likelihood of holding any mutual funds. Because the authors do not detect any changes in risk-taking among households who maintain their relationships with advisors, they conclude that the overall reduction in risk-taking is coming from households that lost access to advice. This finding highlights a potentially significant cost of lost access to financial advisors.[11] The paper does not explore the extent to which the stricter requirements on advisors improved the quality of advice that clients received post reform.

Other existing evidence on the extent to advice seekers can expect to benefit from regulation that limits or bans commissions is mixed. As part of the RDR, the UK banned commission-sharing between online investment platforms and mutual funds. Cookson et al. (2021) use data from the FCA to study the determinants of mutual fund recommendations to retail investors, which are provided by online investment platforms in the form of non-personal "best-buy" lists. Before the reform, platforms are more likely to recommend affiliated funds and funds that share a higher proportion of their revenues with the platform. Studying investor flows, they find that investors on these platforms discount recommendations of affiliated funds, but not recommendations influenced by the unobservable-to-investors revenue sharing. After the 2014 ban, the authors find that the quality of the platforms' recommendations increased, and the fees charged to investor fell by at least 26 basis points. (Over the full sample period, the average fee charged by funds offered on the UK platforms was 158 basis points.) These findings, which are consistent with the predictions in Stoughton, Wu, and Zechner (2011), highlight the benefits of the reform on the sample of *self-directed* investors who chose to invest through the online platforms. The paper does not speak, however, to changes in the quantity or quality of advice available through brokers.

When Schaub and Straumann (2022) study the effect of a court-ordered ban on kickbacks for a subset of banks in Switzerland, they find that banks respond to the ban by favoring proprietary mutual funds and structured products, changes which reduce client's after-fee returns, especially among those with lower levels of financial literacy. More generally, advisors (and firms) may be able to circumvent regulations of

[11] Chalmers and Reuter (2020) find that retirement plan participants can benefit from the elimination of conflicted advice, but only when they are offered access to TDFs as default investment options. When investors lose access to financial advisors in most other settings, the default option is not to invest.

commission payments because they have an informational advantage over their clients. Anagol, Cole, and Sarkar (2017) find that when India mandates the disclosure of commissions associated with some Indian life insurance products but not others, advisors respond by recommending products for which commissions do not need to be disclosed. Similarly, when India bans the front entry "loads" that mutual funds can pay to brokers as commissions, Anagol, Marisetty, Sane, and Venugopal (2017) find no differential change in flows between *ex ante* high-load and low-load funds. They conjecture that fund companies simply replaced the newly illegal entry loads with other forms of commissions.

Sokolinski (2023) studies the impact of reducing commissions in Israel. The empirical setting is one where virtually all mutual funds are sold through banks, all banks have access to all mutual funds, and all banks receive the same commission for selling a fund of a given type. In addition, since 2007, Israeli banks have been prohibited from basing in-house advisor compensation on sales of financial products, thereby eliminating any incentives for advisors to favor funds paying higher commissions. In 2013, there was a differential reduction in the commission that banks received for selling equity mutual funds. In response to the lower distribution costs, Sokolinski finds that equity mutual funds lowered their expense ratios one-for-one, and that families launched more equity funds, resulting in significant new net flows into this sector. While he finds significant competitive responses to the reform, it is unclear that commission reductions in other settings would generate similar responses. In essence, the Israeli regulation benefited mutual fund investors by transferring fee revenue from banks back to investors.

Edelen, Fong, and Han (2024) study a more complicated set of reforms adopted by Australia in 2013, known as the Future of Financial Advice (FOFA). FOFA eliminated sales commissions on financial products, required advisors to provide an annual fee disclosure, and, every two years, required clients receiving a fee disclosure to affirm that they want to continue receiving advice from their financial advisor. In their sample, advised clients outperform self-directed investors, and exhibit greater diversification, but also greater home bias. Their most novel findings involve how enhanced disclosure requirements and opt-in protocols influence investor decisions. Notably, they find that when confronted with clearer fee disclosure, more sophisticated investors tend to discontinue advice, which likely reflects their confidence in managing investments independently. To the extent that sophisticated clients can construct high-quality self-directed portfolios, they rationally may expect to benefit from no longer paying for advice. Less sophisticated clients, on the other hand, are much more likely to stop receiving advice due to their non-response to the biennial opt-in, and arguably they are the most likely to have benefited from receiving advice. To the extent that delegation is an optimal response to inattention (as argued in Pagel (2018)), the biennial opt-in requirement may be harming inattentive clients.

5.1 Standard of Care?

In markets that allow commission payments, the likelihood that advisors provide conflicted advice should respond to both the legal standard of care and the level of oversight from regulators. Historically, in the US, registered investment advisors (RIAs) have been held to a fiduciary standard while broker-dealers have been held to a (lower) suitability standard. Under the fiduciary standard, advisors cannot place their interests ahead of those of their clients and clients are typically charged a percent of assets under management for ongoing advice. Under a suitability standard, the products that brokers recommend must be suitable for clients (e.g., by recommending an equity fund when that is what the client requests and steering risk averse clients away from overly risky products), but, among the set of suitable products, brokers are permitted to recommend products that pay higher commissions.

One way to potentially improve the quality of financial advice is to subject brokers to a fiduciary standard. Bhattacharya, Illanes, and Padi (2020) exploit across-state differences in the regulation of broker-dealers in the US. Analyzing transaction-level data from "a major financial services provider … which sells a mix of annuities and insurance products in all fifty states," they find that fiduciary standards are associated with

25 basis point higher risk-adjusted returns and a shift towards fixed index annuities. While there are 16% fewer broker-dealers in border counties of states imposing fiduciary standards on broker-dealers, there is no difference in the volume of annuity transactions, suggesting that fiduciary standards in this market are able to eliminate low-quality advice without impacting access to advice.

The Department of Labor (DOL) proposed a rule to impose a fiduciary standard of care on brokers in April 2015 and issued the ruling in April 2016. Although it was overturned by the US Court of Appeals for the Fifth Circuit in March 2018, before going into effect, the court decision came after financial services firms had begun to make changes to their sales practices. Egan, Ge, and Tang (2022) find that the DOL rule reduced COI in the market for variable annuities and improved investor welfare. Specifically, they find that the market share of fixed index annuities increases from 27% to 47%, which helps to drive a sharp increase in risk-adjusted returns.

While the fiduciary standard is widely considered the gold standard for advice, Boyson (2019) argues that the movement from brokerage fee-based accounts to RIA fee-based accounts within dual-registered firms has been fraught with COI despite the fiduciary standard.[12] For example, she highlights that many dual-registered firms have been fined by the US Securities and Exchange Commission (SEC) for collecting commissions (via 12b-1 fees) on mutual funds sold in accounts charging asset-based fees. Charoenwong, Kwan, and Umar (2019) find that the quality of advice under the fiduciary standard responds to the level of regulatory oversight. Under the US Dodd-Frank Act, oversight of most "mid-size" RIAs shifted from the SEC to state regulators on January 1, 2012. They find that complaint rates of mid-size RIAs transitioning to state oversight increase by 0.3 to 0.4 percentage points per year (30% to 40% of the average complaint rate within their sample) relative to RIAs remaining under SEC oversight, that the increase is driven by complaint alleging fiduciary violations, and that the increase is larger in states where regulators have fewer resources.

There are also open questions about how more stringent standards of care might change the distribution of advisor quality. As discussed above, Foerster et al. (2017) find little evidence that Canadian clients are receiving customized advice from their advisors. Because the main predictor of client portfolio characteristics is an advisor fixed effect, regulation focused on eliminating COI is unlikely to benefit clients through increase portfolio customization. Why? Linnainmaa, Melzer, and Previtero's (2021) find that bad advice by Canadian advisors is more likely to reflect misguided beliefs than COI. To the extent that this finding generalizes, regulation intended to eliminate COI could have the unintended consequence of increasing the proportion of advisors with bad beliefs.

5.2 Disclosure?

More optimistically, there is evidence that regulations mandating public disclosure of prior bad behavior can benefit investors looking to delegate their investment decisions to a registered investment advisor or hire a broker. The SEC requires (most) US investment advisors to file Form ADV, which includes mandatory disclosures about past regulatory and legal violations and potential conflicts of interest.[13] The SEC also publishes litigation releases, which can be used to identify violations of the anti-fraud provisions of the Investment Advisers Act. Combining these two data sources, Dimmock and Gerken (2012) find that Form ADV disclosures are useful for predicting fraud. As they write, "avoiding the 5% of firms with the

[12] Dual-registered firms are US firms that are registered as both broker-dealers and registered investment advisors, allowing the firms to provide advice in exchange for a percentage of assets under management or to be compensated through sales commissions (also known as load payments).

[13] During Dimmock and Gerken (2012)'s sample period, the Investment Advisers Act required "all advisers with more than $25 million in assets under management and with 15 or more US clients to register with the SEC." According to a 2004 SEC ruling, hedge funds were required to register by February 2006; the ruling was overturned in June 2006.

highest ex-ante predicted fraud risk would allow an investor to avoid 29% of fraud cases and over 40% of the total dollar losses." Since the SEC already possesses these data, the authors argue that the SEC could benefit investors at very low cost by making it easier for investors to download Form ADV. Qureshi and Sokobin (2015) conduct a similar analysis on a mixture of public and private data and conclude that investors would also benefit from the release of data on investor harm from brokers' coworkers. In the absence of a third-party service like Morningstar that converts regulatory disclosures into easily interpreted ratings, however, it is unclear to what extent households benefit from the existence of these disclosures.

6. What Do We Know About the Potential for Financial Innovation to Improve the Quality of Advice and/or Delegation?

Financial innovation has the potential to significantly reduce the transaction costs of providing more granular or personally tailored financial advice and thus could significantly alter how individuals invest. To take a very early example, the introduction of open-end mutual funds in the US in the 1920s allowed retail investors to purchase shares in diversified portfolios from brokers without needing to construct their own portfolios. The introductions of retail index funds in the 1970s further lowered the cost of holding diversified portfolios, although index funds remain unpopular in the broker-sold market segment (Del Guercio and Reuter 2014), likely because brokers expect that recommending index funds will cost them clients (Del Guercio, Reuter, and Tkac 2010).

Importantly, financial innovation is likely to generate heterogeneous effects. Sun (2021) uses the staggered entry of Vanguard index funds in the US to study how actively managed funds in different market segments responded to the new products. Sun finds that direct-sold funds decreased their fees while broker-sold funds increased them. These competitive responses are consistent with a model in which the introduction of index funds caused the relatively sophisticated investors in the broker-sold segment to relocate to the direct-sold segment, leaving brokers with clients who are less sophisticated and less price-sensitive. For investors who chose to remain in the broker-sold segment, the net benefit of advice was reduced by the higher fees (but may still have been positive).

TDFs were introduced by Wells Fargo in 1994. Following the Pension Protection Act (PPA) of 2006, TDFs have become the dominant default investment option in defined contribution retirement plans. By gradually reducing exposure to market risk as investors approach a pre-specified target retirement date, TDFs relieve investors of the need to rebalance or otherwise manage their own portfolios. To the extent that less sophisticated plan participants no longer need to manage their own portfolios, they may be more likely to participate in retirement plans and invest in equity (Chalmers and Reuter, 2020; Mitchell and Utkus, 2022). Parker, Schoar, Cole and Simester (2021) document a powerful interaction between an innovation like TDFs and regulatory support via the PPA. Their study finds an initially strong treatment effect of the PPA's default allocation to TDFs by comparing participants who are hired just before or after the passing of the PPA. But their study also finds that over the next five years the control group converges toward the treatment group. Even people who were not defaulted into TDFs start investing in line with the TDF glide path. This suggests that the type of investment profiles that are "approved" by the PPA become a focal point for retail investors and possibly the financial service industry, which finds it safe to promote TDFs.

One potential downside to delegation, however, is that it may reduce the likelihood of participants seeking customized advice on savings rates or retirement income levels (Reuter and Richardson, 2022). The more heterogeneous the future income needs of plan participants, the larger the potential welfare cost of relying upon a default savings rate. Similarly, the glide path of the TDF series available in a given retirement plan may not align well with the financial circumstances or risk preferences of any given participant (Balduzzi and Reuter, 2019). On the other hand, delegation may allow participants to ride out market turmoil that they would not be able to ignore if they were managing their own portfolios. Blanchett, Finke, and Reuter (2020)

find that delegated investors in US retirement plans were significantly less likely to adjust their portfolios during the first quarter of 2020, when COVID-19 hit financial markets.

Robo-advice represents another significant innovation in the market for financial advice. Wealthy clients have long had the option of investing in accounts managed by (human) financial advisors. The advent of robo-advice significantly lowered the costs of managed accounts in the US by automating portfolio management, arguably increasing adopters' after-tax returns relative to their own counterfactual portfolios (Reher and Sokolinski, 2024). Rather than attempt to summarize the rapidly growing literature on robo-advice here, we refer interested readers to D'Acunto and Rossi (2023) for a thorough review of the ways that robo-advice tools may improve household decision-making with respect to investment, consumption, and savings decisions, including debt management.

Overall, applications of robo-advice have the potential to address the heterogeneous needs of different investors at low cost, and it is obvious that many traditional asset managers have begun providing these tools to their clients. But it is important to recognize that for robo-advice tools to improve investor welfare, investors must be willing to accept the advice. The more complicated the models used to provide robo-advice, the less likely investors are to understand the advice. As a result, less sophisticated investors might shy away from these products, or fail to realize when they are receiving bad advice. Furthermore, the more complicated the models, the more difficult it may prove for regulators and third parties like Morningstar to assess the quality of robo-advice. Finally, there are important open questions about the extent to which competition and regulation will limit any COI with respect to robo-advice.

7. Conclusion

As we emphasize in this article, the market for financial advice suffers from numerous demand-side and supply-side constraints. While it is common to interpret deviations between client portfolios and benchmark portfolios as arising from COI, many deviations are likely to reflect other frictions, such as the high cost of providing financial advice, which limits the amount financial education an advisor can provide, or mistaken beliefs of clients or advisors. To the extent that households with lower levels of financial literacy are the ones selecting into advice, researchers need to consider both the quality of advice that the households receive and the counterfactual choices that they would have made in its absence. Many households that select into advice may still be better off following conflicted advice than they would be investing on their own. Future research should focus more on the different types of advice begin provided over the course of the relationships between clients and advisors, how relationships form, and the conditions under which they end. For example, the existing evidence on the mistaken beliefs of advisors raises interesting questions about the role that these beliefs may play in attracting and retaining clients. The fact that the households in the greatest need of advice may be the least likely to detect misconduct also raises interesting questions about the extent to which misconduct goes undetected. Relatedly, it would be useful to know more about whether and how clients use existing disclosures on advisor quality to evaluate potential advisors.

Although it is natural for regulators to want to improve the quality of advice that households receive, attempts to reduce COI by eliminating commissions may simultaneously reduce the fraction of households who have access to advice and increase its cost. Therefore, when considering new regulation, it is important for regulators to place some weight on the likely counterfactual behavior of those households that might lose access to advice. To this end, we need more research on how households respond to the loss of advice. In some settings, regulators can influence counterfactual behavior by changing the way that households interact with financial services firms. Automatic enrollment into retirement plans increased the fraction of employees who began saving for retirement, at least in the short-run, and the Pension Protection Act of 2006 changed the default investment option from money market funds to TDFs, balanced funds, and

managed accounts.[14] For many households, TDFs may be a sensible investment vehicle for retirement savings, especially early in their careers. It is less clear, however, how regulators can introduce default investment options into other settings, like the management of individual retirement accounts and taxable accounts.

Finally, while financial innovations like robo-advice or other forms of automated advice promise to democratize financial advice, there are open questions about whether those households that will benefit the most from robo-advice will seek it out and trust it with their financial assets. There are also open questions about the extent to which households will be able to monitor the quality of advice that they are receiving from robo-advisors, increasing the need for research on how to measure the quality of customized advice.

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