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FIDUCIARY DUTY AND THE MARKET FOR FINANCIAL ADVICE

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ABSTRACT

Fiduciary duty may combat principal-agent problems in the provision of financial advice, but it may also impose costs through legal liability. We study the effects of fiduciary duty on the deferred annuity market using transaction-level data. Leveraging state-level variation in common law fiduciary duty, we find that it raises risk-adjusted returns by 25 bp without decreasing transacted volume. We develop a model of entry and advice provision, which shows that fiduciary duty operates by directly constraining low-quality advice rather than by solely increasing compliance costs. Overall, results suggest that expanding fiduciary duty would improve investor welfare.

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I. Introduction

Informed agents working on behalf of uninformed principals are subject to fundamental conflicts of interest. The primary legal mechanism for bridging this principal-agent problem has historically been *fiduciary duty*. Agents subject to fiduciary duty must act in the best interest of their principals, including a duty of care that requires agents to exert effort on behalf of them, and a duty of loyalty that requires agents to put aside any opportunities for private benefit. If agents fail to satisfy their fiduciary duty, they can be liable for any losses the principals incur.

In the United States, policymakers are engaged in a debate about the merits of fiduciary duty in the context of retail financial advisers. State and national regulators have imposed fiduciary duty on only some financial advisers, and there have been calls for its expansion to all. In 2012, the Department of Labor proposed expanding fiduciary duties to all advisers selling retirement products, but the rule never went into effect due to legal challenges. Since then, various states have considered legislation that would impose fiduciary standards. In June 2019, the SEC passed Regulation Best Interest, which states that financial advisers may not subjugate investors' interests to their own.[1] Given Americans save almost $30 trillion for retirement, much of which is in complex financial products sold through advisers, it is unsurprising that industry and consumer advocacy groups have spent millions lobbying on this issue.

Supporters of expanding fiduciary duty argue that it alleviates conflicts of interest. According to this viewpoint, fiduciary duty contracts the market for high fee products that harm consumers and benefit advisers who take commissions. Opponents argue that fiduciary duty does not have an impact on product choice, perhaps because most investors using brokers already know which product to buy, because competition already disciplines financial advisers, or because conflicts of interest are minimal. Additionally, opponents argue that fiduciary duty raises the cost of doing business across the board, leading to fewer advisers in the market and perhaps to even worse advice in equilibrium.

[1]The stated goal of Regulation Best Interest was to harmonize the standards across all types of financial advisers. There is debate over whether this rule corresponds to fiduciary standards, and the SEC has yet to issue detailed guidelines at the time of this draft.

This paper evaluates these competing claims empirically using a new dataset of transaction-level data for deferred annuity sales from an anonymous financial services provider ("FSP"). FSP is within the top-five companies by market share of annuities and representative of other large companies in this industry. This dataset contains information about every contract sold by FSP from 2013–2015, detailed data about the product and adviser and some limited data on the client. Crucially, for each transaction we observe the fiduciary status of the adviser and granular geographic information about the locations of the transacting parties. We supplement this data with hand-coded information about contract characteristics from SEC filings and open records requests. These contract terms are combined with data from Morningstar and CRSP about investment options within annuities. We aggregate these characteristics into a single valuation for each contract.

Our identification strategy leverages differences in fiduciary duty across types of advisers and across state borders. Advisers licensed as *registered investment advisers* (RIAs) have a fiduciary duty towards their clients at the national level, while those licensed as *broker-dealers* (BDs) do not. BDs are excluded from fiduciary duty because they historically have been considered order takers without a significant advisory function. Today, however, they do similar work with respect to retail investors (SEC, 2011, 2013a,b) and largely carry the same annuities at the same "prices" (fees, contract characteristics, etc.). Crucially, state courts in several states have ruled that BDs are fiduciaries within their borders, setting up common law variation in fiduciary standards. We compare behavior of BDs in states in which they have fiduciary duty to states in which they do not, using the difference in behavior of RIAs as a control. To control for differences across states, we restrict to counties along state borders at which there is a change in common law fiduciary standards.

Our difference-in-differences approach shows that state common law fiduciary duty improves investor welfare. Broker dealers facing fiduciary duty sell products with risk-adjusted returns that are 25 basis points higher. The increase in returns arises from a change in the set of transacted products. We find a shift towards fixed indexed annuities and away from variable annuities. Within variable annuities, sales shift towards those with more investment options, a larger variety of highly-rated investment options, and options with higher historical returns. Additionally, there is

no loss to investors from a contraction in the size of the market, as the same number of contracts and total dollars are invested in annuity products. This is despite a 16% drop in the number of brokers providing financial advice, which we estimate from an additional dataset with information about all advisers who can sell annuities.

These results show that common law fiduciary duty has a positive impact on retail investors. We show that there are two mechanisms that can deliver this result: fiduciary duty may align incentives between agents and principals, or it may just impose fixed costs that happen to drive out low-quality advisers. Distinguishing between these two channels has important implications for policy. The effects of expanding fiduciary duty to markets outside the ones under study or increasing its stringency depend on which channel dominates.

To disentangle these two mechanisms, we develop a model of entry into the provision of financial advice with heterogenous adviser qualities and differentially regulated firms. Detractors of extending fiduciary duty to all BDs argue that it will increase the cost of doing business, regardless of advice quality. If this mechanism, which we call the *fixed cost channel*, dominates, then fiduciary duty will lead to exit of BDs and potentially to entry of RIAs. However, proponents argue that it will constrain advisers from providing low quality advice. We name this mechanism the *advice channel*. If this channel holds, some advisers will improve their advice, while others will find it unprofitable to remain in the market and will exit. Their exit may induce the entry of previously unprofitable advisers offering high-quality advice. Thus, a testable implication of an advice channel is the entry of BDs offering high-quality advice when extending fiduciary duty to all advisers. By leveraging the distribution of advice (proxied by returns) rather than simply its mean, we find evidence for the presence of a substantial advice channel.

Related Literature. Despite the importance of studying the impact of fiduciary duty, there has been limited empirical work on this topic. Using cross-state common law variation, Finke and Langdon (2012) find that fiduciary duty does not impact the number of BDs per household and that advisers report that it constrains the advice they give. Their estimates are noisy, however, and their comparisons are conducted across entire states. Our border strategy addresses the issue that states with fiduciary

duty may be different in other dimensions; we are also able to directly observe transactions. Kozora (2013) considers a temporary change in the fiduciary standard for the municipal bond market and finds that stricter standards led to more sales of investment-grade bonds. Finally, Egan (2019) considers the impact of fiduciary duty in the reverse convertible bond market, documenting a high likelihood of purchase of dominated products. Through the lens of a search model, he estimates that extending fiduciary duty would increase risk-adjusted returns by 5–21 bp. In contrast, this paper focuses on the market for deferred annuities, a product that is mostly purchased as a vehicle for retirement savings and that has been directly mentioned by regulators as a source of concern. Additionally, our use of variation in common-law fiduciary duty allows us to identify its effects in the reduced form.

This paper is related to a broader literature on the market for financial advice. Theoretical work on financial advice has a long tradition (Inderst and Ottaviani, 2012a,b), and there is a growing body of recent empirical work on this issue. Egan et al. (2019) study the prevalance and geographic concentration of misconduct in this industry. Charoenwong et al. (2019) show that the agency in charge of enforcement affects quality, as proxied by complaints; we show that regulation itself affects outcomes, and we have direct observations of transacted products and use them to generate metrics of quality. In this paper we are agnostic about the potential recourse for offering suboptimal advice, but Kozora (2017) provides some evidence on this dimension by studying how properties of the product influence arbitration.

There is some debate in the academic literature on the extent of conflict-of-interest problems in financial settings. On the one hand, a number of papers have documented intermediaries responding to commissions and other incentives rather than offering clients appropriate advice.[2] In addition, a literature in finance has documented that mutual funds sold through brokers, rather than through direct sales, have lower returns and higher fees (Bergstresser et al. (2009), Christoffersen et al. (2013), del Guercio and Reuter (2014)). On the other hand, Linnainmaa et al. (2016) and Foerster et al. (2017) suggest that suboptimal advice may be due to

[2]See Anagol et al. (2017) for the context of life insurance, Mullainathan et al. (2012) for financial advisers, Dickstein (2016) for doctors, Guiso et al. (2018) for mortgages, Garrett (2019) for municipal bond underwriting, Hong (2018) and Barwick et al. (2017) for real estate, and Camara and Dupuis (2014) and DellaVigna and Hermle (2017) for movie reviews.

misconceptions about products rather than commissions. Our results show that equilibrium product choice is impacted by financial regulation targeting adviser conflicts of interest, suggesting both that brokers can improve investor returns through advice and that brokers in turn can be influenced by legal intervention.

We bring two main contributions to these literatures. First, we estimate the causal effects of extending common law fiduciary duty on product characteristics, returns, and market structure. Second, we show sufficient conditions for fiduciary duty to operate as a constraint on low-quality advice and document empirical evidence for this mechanism. This lends credence to the position that extending fiduciary duty to all BDs would ultimately result in higher returns for retail investors—even in markets other than the borders under study.

II. Institutional Details

In this section, we introduce the institutional setting. Section II.A discusses financial advisers in the US and how fiduciary standards have evolved. Section II.B discusses details of variable and fixed indexed annuities, the products we study in this paper.

II.A. Financial Advisers and Fiduciary Duty

The United States has two types of financial advisers, which evolved separately for historical reasons but now largely serve similar functions. Registered investment advisers (RIAs), are regulated at the federal level by the SEC under the Investment Advisers Act of 1940. Broker-dealers (BDs), were initially conceived as mere brokers, but have grown into the role of providing financial advice as well. They are subject to the Securities Exchange Act of 1934 and regulated by state law and by FINRA, a private industry regulator. RIAs must be affiliated with a brokerage firm to sell certain products, including annuities, and thus many such advisers are *dually registered* as broker-dealers and investment advisers. They are subject to fiduciary duty at the federal level on their advisory accounts. In our sample, all transacting advisers are either broker-dealers or dual registrants—as they are selling annuities—but we refer to them as BDs and RIAs nevertheless.

All financial advisers tend to perform many of the same functions when working

with individuals. Their primary role is to recommend and facilitate the purchase of investment vehicles, which are issued by upstream financial services providers. Broker-dealers are typically paid by commission, receiving a payment from the upstream supplier from every sales while charging nothing directly to clients. Compensation schemes for RIAs tend to be a combination of commissions and a percentage of assets under management. Advisers who are compensated, even in part, on the basis of commissions have a conflict of interest: they have an incentive to recommend high-commission products over ones that may be cheaper for their clients. Moreover, informed advisers with uninformed clients may have no incentive to exert effort to maximize their client's value if clients cannot verify the quality of advice *ex post*.

The patchwork of federal, state, and private regulation overseeing adviser behavior attempts to combat this conflict of interest by imposing legal duties on advisers. All BDs nationwide have a federal duty to deal fairly with their customer and must recommend products that are "suitable," as per FINRA regulation. This requirement does not specify that BDs must prioritize the customer's best interest over their own, as long as the product they recommend satisfies FINRA's suitability rules.[3] BDs are also required to provide customers with each product's prospectus, which includes all technical details about the investment vehicle but is not easily understood by a layperson. Any dispute that arises over a BD's regulatory compliance is arbitrated through FINRA's private dispute resolution process. Other claims may be brought under state or federal law. Nationwide regulation of RIAs is more stringent. RIAs have fiduciary duty imposed on them by the SEC, which requires that the RIA entirely disregard their own interest and work in the best interest of their customer. RIAs may still take commissions, but must disclose the resulting conflict of interest to their customer.[4] If a customer has a dispute with an RIA, the customer may sue in state or federal court, or enter into FINRA arbitration or external private arbitration.[5]

Consumer groups and the SEC have long been troubled by the difference in

[3] See http://www.finra.org/industry/suitability.

[4] RIAs that recommend higher commission products must justify that recommendation by using proprietary SEC-approved software that validates recommendations and by drafting disclosures to clients, among other costly compliance measures.

[5] Arbitrability varies across claims and states, although, to our knowledge, not across adviser types. Some states will allow tort claims to be brought that are very similar in nature to arbitrable claims even when there are mandatory arbitration clauses in the contract between client and adviser.

regulatory standards across BDs and RIAs. Studies by the SEC (SEC, 2011, 2013a,b) have suggested that that consumers often do not realize that BDs have an incentive to sell high commission products. They also are unable to tell whether their financial adviser is technically classified as a BD or a RIA, and many assume that all advisers are fiduciaries. Motivated by these concerns, the SEC recommended that standards be harmonized, requiring all advisers dealing with retail investors to offer the best possible contract in the investor's interest. The DOL promulgated a rule in 2016 largely following the SEC recommendation.[6] The rule would place a fiduciary duty on BDs that handle retirement savings for retail investors and require all advisers to sell customers the best available contract for them. In addition, the DOL rule requires contracts between advisers and consumers that specify the fiduciary duty and allow consumers to bring class action lawsuits to enforce it. The financial adviser industry pushed back on this rule, claiming it would significantly increase compliance costs for BDs and raise the spectre of expensive class action litigation, potentially putting some BDs out of business (Kelly, 2017). Litigation ultimately caused the DOL rule to be delayed indefinitely.[7] In June 2019, the SEC passed a final rule clarifying the duties placed on both RIAs and BDs. "Regulation Best Interest" harmonizes the standards to which BDs and RIAs are held, and requires all advisers to act in the best interest of their consumers.[8] Debates continue regarding the effect of this rule, relative to a more traditional fiduciary duty approach (Bernard, 2019; Marsh, 2019).

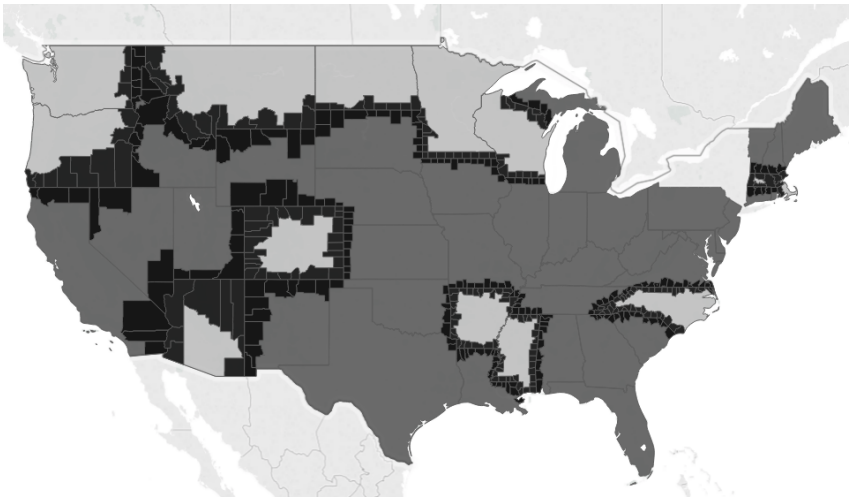
This project estimates the impact of imposing fiduciary duties on BDs leveraging cross-state variation in state common law. In some states, court rulings have imposed a common law duty of care that rises to the level of a fiduciary duty—a higher standard than required of BDs at the federal level. Finke and Langdon (2012) classify states into ones with no common law fiduciary duty on advisers and ones with some level of fiduciary duty; Figure 1 plots this classification. These duties

[6] See https://www.dol.gov/agencies/ebsa/laws-and-regulations/rules-and-regulations/completed-rulemaking/1210-AB32-2.

[7] The Fifth Circuit Court of Appeals vacated the DOL Rule in March 2018, stating the DOL had overstepped its regulatory authority. While the case may be appealed to the Supreme Court, it currently seems unlikely the DOL Rule will be resurrected. States have responded by imposing fiduciary duty through legislation, rather than common law.

[8] Clarifying guidance includes disclosure requirements and other documentation intended to ensure that consumers receive high quality advice. See https://www.sec.gov/rules/final/2019/34-86031.pdf.

Figure 1: Common law fiduciary duty on broker-dealers by state



States with some degree of fiduciary duty (dark grey) and none (light grey), per Finke and Langdon (2012). Counties in black are ones at borders between states with different fiduciary standards and consitute our main sample. New York, which does not impose common law fiduciary duty on its broker-dealers, and its surrounding counties are omitted, as New York has different suites of products.

allow clients to sue their financial advisers for low quality advice.[9] Since all RIAs already comply with uniform federal fiduciary duty standards, they provide a control against which to compare treated BDs (facing a fiduciary duty) relative to control BDs (facing only FINRA suitability rules). If fiduciary duty is effective, BDs will modify their behavior and their compliance programs, resulting in changes to their recommendations and to the investments made by their clients. Additionally, competitor behavior and market structure may be affected. Of course, states may not always be able to enforce these duties and common law may be less salient than legislation, suggesting that any estimate obtained by comparing state law regimes will likely be an underestimate of the impact of a federal rule.[10]

[9] Advisers who lie to their clients in a way that causes them material loss can always be sued for fraud or misrepresentation, under standard principles of tort law. Additional duties of care, including fiduciary duty, allow clients to recover losses sustained even when advisers have told clients the truth. This can occur when advisers suggest risky investments, "churn" across assets to increase their commissions, and otherwise do not tailor their advice to the needs of their client. For further discussion, see the Joint SEC/NASD Report (https://www.sec.gov/news/studies/secnasdvip.htm).

[10] Most state law fiduciary duty claims are brought by individual litigants, while statutory fiduciary duty claims could allow for more state enforcement actions and class actions.

II.B. Fixed and Variable Annuities

We restrict attention to annuities, one of the most common retirement vehicles with over $3 trillion in reserves. In addition to the size and importance of the annuity market, the DOL directly mentioned concerns about annuities as the impetus for their 2016 rule.[11] Most annuity contracts sold in the US are *deferred annuities*.[12] These products involve an accumulation phase, during which money is contributed to an account and invested, and a payout phase, during which payments are made from the account to the annuitant. Fixed indexed (FIA) and variable annuities (VA) are the most popular deferred annuity products. They share the structure of an accumulation and a payout phase, but differ in how the account grows during the accumulation phase, in the ways money can be withdrawn during both phases, in fee structure, and in the *riders*, or options, that can be added to the contract.

Investors in FIAs distribute their funds during the accumulation phase between a series of *crediting strategies*. Crediting strategies include fixed rates of return and the performance of the S&P 500, with a cap and a floor. All crediting strategies fully protect the investor from downside risk. In most cases, fees are not directly charged, so the client does not need to understand any further features of the product.[13] The main exception to this statement are *surrender charges*, which tax withdrawals taken in the first years of the accumulation period if they exceed a free withdrawal amount (typically 10% of contract value). Fixed indexed annuities can be converted into a fixed annuity once investors are sufficiently old, transitioning the contract into the payout phase; alternatively, they can be withdrawn. In the case of death during the accumulation period, beneficiaries receive the contract amount.

Variable annuities replace the small set of crediting strategies in FIAs with a pool of investment funds, with a wide range of asset allocations, risk profiles, and fees.

[11] The DOL stated that "[m]any other products, including various annuity products, among others, involve similar or larger adviser conflicts, and these conflicts are often equally or more opaque." It went on that the "greater degrees of complexity, magnif[ies] both investors' need for good advice and their vulnerability to biased advice." See https://www.federalregister.gov/documents/2016/04/08/2016-07924/definition-of-the-term-fiduciary-conflict-of-interest-rule-retirement-investment-advice.

[12] Fixed immediate annuities, in which investors turn over a lump sum in exchange for fixed periodic payments until death, are a very small fraction of the US annuity market.

[13] The margin comes from the the realized return of the index less the amount accrued.

The most basic VA contract resembles an FIA, with contract values accruing interest according to the performance of the set of funds chosen, and investors receiving the option of an annuity upon entering the payout phase. For this contract, investors pay an annual percentage fee, the expense ratios of the funds they invest in, and potentially surrender charges. Often, VA contracts are sold with *living benefit riders*, which establish a separate account called an *income base*, which for a fixed period of time grows by the maximum of the realizations of the fund return and a fixed rate. During the payout phase, clients choose between drawing down the account value, annuitizing it, or receiving a percentage of the income base in perpetuity. These riders essentially convert the VA into an option contract (Koijen and Yogo, 2018). This structure incentivizes risk-taking in fund selection. To mitigate this incentive, companies impose restrictions on the investment portfolio an annuitant can choose.

Optimal execution of VA contracts requires choosing appropriately from the pool of investment options, and if the contract is coupled with a living benefits rider, it further requires making correct decisions about when to take withdrawals. As a result, these contracts are more complex and difficult to value than a fixed indexed annuity. They also expose the annuitant to relatively more risk than FIAs do.

For annuities sold by FSP, there is no difference between BDs and RIAs in terms of the characteristics of the products they can choose to recommend. This implies both types of advisers can offer the same product with the same investment options and fees. A client choosing a particular product would have the same payout stream regardless of the adviser. What differs is how advisers are compensated by FSP.

III. Data and Empirical Strategy

In Section III.A, we describe the data provided to us by FSP about its transactions and the advisers that sell its products. Section III.B discusses data sources for the individual products in the dataset. Further details are in Appendix E.

III.A. Transactions, Advisers, and Clients

We have transaction-level data from a major financial services provider, FSP, which sells a mix of annuities and insurance products in all fifty states, has household

name recognition, and is publicly traded. Our main dataset consists of information about all transactions associated with financial products offered by FSP in the United States between 2008 and 2015. For each transaction, we observe the specific FSP product transacted, the date, the adviser selling the product, and the dollar amount. If a contract involves multiple transactions, such as recurring payments, then they can be grouped together, and we report the sum of the transaction amounts. The only client-level information we have is the client's zipcode and age. Although clients can also be linked across contracts, clients purchasing multiple contracts is rare.

Additionally, FSP has provided us data from Discovery Data for all advisers who could potentially sell annuities or life insurance in 2015, regardless of whether they transact with the company. This dataset allows us to observe basic demographics of the adviser as well as regulatory information such as licensing and whether the adviser is registered as a BD, an RIA, or both. While advisers cannot be matched externally, we are able to match them to FSP transactions. Discovery also includes information about the firms, including the firm footprint (e.g., local or national). A drawback of the Discovery dataset is that since we only have a snapshot in 2015, we have to restrict our analysis to a window of time around this period to ensure the accuracy of each adviser's licensing information; we restrict to 2013–2015. Additional sample selection decisions are reported in Appendix E.2.

Table 1 provides summary statistics for FSP contracts sold in the border counties highlighted in Figure 1 and for the advisers associated with them. About 21% of advisers are BDs. BDs and RIAs each sell about 5.7 FSP contracts on average over the sample, with some advisers selling significantly more. Conditional on selling an FSP annuity, BDs and RIAs sell VAs 79% and 90% of the time, respectively. Contract amounts are about $34,000 larger for RIAs. Finally, the average client is around retirement age, with a difference of about 3 years between BD and RIA clients. Summary statistics for the entire nation are broadly similar; see Appendix B.1.

III.B. Product Characteristics

We match the transaction dataset to external data sources containing information about the products. Beacon Research has provided historical data about the all fees and investment options available to annuitants; this data is sourced for quarterly

Table 1: Summary statistics for border counties

				Percentiles				
	N	Mean	Std.	10%	25%	50%	75%	90%
Adviser-Level Quantities								
Is Broker-Dealer								
FSP Advisers	3,936	0.207						
Contracts per Adviser								
BD	814	5.7	9.2	1	1	2	6	14
RIA	3,122	5.7	9	1	1	3	6	14
Contract-Level Quantities								
Is Variable Annuity								
BD	4,678	0.793						
RIA	17,794	0.900						
Contract Amounts ($K, 2015)								
BD	4,678	119.4	139.8	24.2	42.6	79.9	148.6	251.5
RIA	17,794	153.0	179.7	34.3	54.4	100.9	188.2	304.1
Client Age								
BD	4,678	61.3	10.3	49	55	62	68	74
RIA	17,794	64.5	9.5	54	59	65	71	77

prospectuses that VAs are required to file with the SEC. We also hand collected information about restrictions on investments and rider rules from prospectuses stored in EDGAR, the SEC's online database. We match investment options to the Morningstar Investment Research Center to collect information about fund ratings and investment styles, and we match them to the CRSP US Mutual Fund database for historical returns.

Contract characteristics for transacted annuities are summarized in Table 2, separated by whether the adviser is a BD or an RIA. Panel (A) shows historical undiscounted returns (net of expense ratios) of the underlying investment options, assuming either the return-maximizing allocation (subject to investment restrictions) or an equal allocation across funds (Benartzi and Thaler, 2001). Panel (B) shows the minimum and average expense ratio of all potential investments. Panel (C) shows the mortality and expense fee, an annual percentage fee that must be paid on all products, along with the average surrender charge over the surrender schedule—which must be paid only if money is withdrawn early.[14]

[14]The surrender charge varies by year since the purchase of the contract, and it declines to zero within

Table 2: Summary statistics for annuities sold by BDs and RIAs, border counties

	BD		RIA	
Characteristic	Mean	Std.	Mean	Std.
(A) Fund Return (%)				
Return-Maximizing	0.152	0.088	0.160	0.087
Equal	0.011	0.011	0.012	0.010
(B) Fund Expense Ratios (%)				
Minimum	0.503	0.022	0.500	0.020
Average	1.270	0.213	1.261	0.198
(C) Fees				
M&E Fee (%)	1.189	0.215	1.064	0.305
Surrender Charge (%)	3.737	1.197	2.963	1.436
(D) # Funds				
All	97.52	37.56	96.65	33.49
High Quality	27.39	12.63	33.12	14.09
Low Quality	34.74	17.24	30.57	19.06
(E) # Equity Styles				
Some High Quality	6.85	2.05	7.30	1.94
Only Low Quality	1.03	1.75	0.83	1.62
(F) # FI Styles				
Some High Quality	4.05	1.05	4.49	1.57
Only Low Quality	3.05	0.30	3.02	0.25
(G) Contract Return (all products)				
Risk-adjusted	0.031	0.012	0.027	0.010
Unadjusted	0.064	0.021	0.064	0.023

Panels (A)–(F) summarize characteristics of transacted VAs. Panel (G) summarizes characteristics of all transacted annuities. In Panel (D), "High Quality" refers to funds rated by Morningstar as 4 or 5 stars, and "Low Quality" refers to funds rated as 1 or 2 stars. In Panels (E) and (F), "Some High Quality" refers to styles covered at least by one high quality fund, and "Only Low Quality" refers to styles convered only by low quality funds.

Panels (D)–(F) are measures of the potential for diversification. We also report quality metrics for the underlying funds provided by Morningstar. Morningstar rates each fund on a scale of 1–5 stars based on its historical risk-adjusted return (net of expenses) relative to a peer group of funds. A fund is labeled *high-quality* if it receives at least 4 stars and *low-quality* if it receives 2 or fewer. Second, Morningstar

ten years. We average the surrender charges over this period (averaging in zeros if needed).

categorizes the *style* of both the equity and fixed-income investment of each fund into nine potential styles. Panel (D) counts the number of distinct investment options available per product, unconditionally and across quality levels. Panels (E) and (F) report the number of equity and fixed-income styles that are covered by at least one high-quality fund, as well as the number only covered by low-quality funds.

Table 2 shows that the variation across BDs and RIAs is small relative to the variation within adviser category. Given this heterogeneity, there is scope for advice to materially affect client outcomes and thus for regulation that shifts advice to have an impact. These characteristics may affect the return of the annuity, which we report in Panel (G). We discuss the procedure to calculate this return in Section III.C.

While FIAs do not have to file product characteristics with the SEC, we have collected archived rate sheets for these annuities through a series of open records requests to state insurance agencies. Beacon Research provides further information about them. Unfortunately, rates depend on the crediting strategies available in an FIA, so we do not have simple summary characteristics for FIAs like we do for VAs. However, we fold these rates into the return calculations.

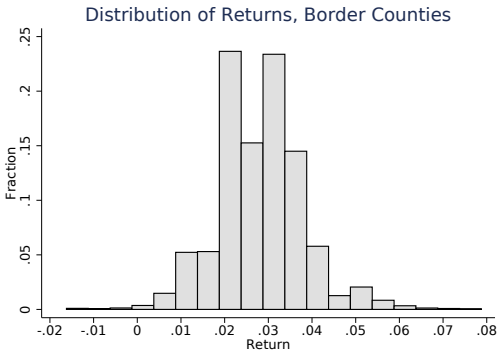
III.C. Calculating Net Returns

We aggregate contract characteristics into returns using two methods. Our preferred metric computes risk-adjusted returns, using a stochastic discount factor corresponding to a three-factor model (Cochrane, 2009). We also compute unadjusted returns, as they may align more closely with the information given to retail investors; del Guercio and Reuter (2014) shows that unsophisticated investors are more likely to follow unadjusted returns when investing in mutual funds.

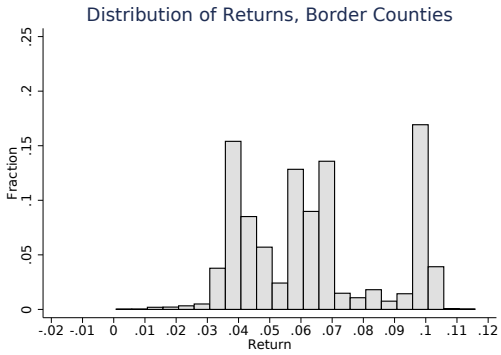
We compute returns of each annuity in an environment where the annual risk-free rate is 3%, for an individual who values money left to heirs equally as her own consumption. Computing the expected net present value of these products requires (i) information about the fees of the basic contract and all riders, (ii) expectations over the distribution of returns for all underlying funds in which the annuitant can invest, (iii) a stance on the discount rates, and (iv) an understanding of portfolio allocations (for a VA) or crediting strategies (for an FIA) and how the annuitant chooses whether and when to take the rider. This information, together with age and contract amount,

Figure 2: Distribution of returns, border counties

(a) Risk-adjusted



(b) Unadjusted



generates a net present value for each transaction. For interpretation, we present values as the annualized returns necessary in a fixed account to achieve the same net present value by the terminal age of the contract.[15]

As discussed above, we have fees and rate sheets, which directly deals with (i). We proxy (ii) using a Fama-French three-factor model for the underlying mutual funds, estimated using the historical distribution of returns from CRSP. We deal with (iii) discounting in two ways: for adjusted returns, we compute the stochastic discount factor that prices the factors and use this quantity to discount various states of the world. Alternatively, we compute returns for an individual who discounts all states of the future at 3%. Finally, given that a limitation of our dataset is that we do not see portfolio allocations of clients or execution of the riders, we tackle (iv) by formulating and solving the dynamic programming problem to find optimal execution of portfolio allocation or crediting strategy decisions, withdrawal decisions, and rider execution. Details of the factor model and discounting are in Appendix C, and an exposition of the dynamic program is in Appendix D.

Panel (G) of Table 2 shows that average returns of transacted products are slightly higher for BDs than RIAs. Figure 3 shows the full distribution of returns,

[15]That is, we find the return R such that

$$(1+\beta)^{T-A} \cdot (\text{Net Present Value}) = (1+R)^{T-A} \cdot (\text{Transaction Amount}),$$

where A is age, $\beta = 3\%$ is the discount rate, and T is the terminal age of the contract.

which vary highly across products. Risk adjusted returns for VAs and RIAs range largely between 0 and 6%, with long tails in either direction. Products in the mean of the distribution have risk adjusted returns of about 2.5%, meaning that client returns could potentially double if they were advised to invest in a different product. Similarly observations apply to the distribution of unadjusted returns.

III.D. Empirical Strategy

The simple comparison of product sales across legal regimes is tainted by the fact that fiduciary standards are not randomly assigned. For example, if preferences for financial instruments have influenced the adoption of fiduciary standards, then differences in product sales across states confounds the effect of fiduciary standards with differences in preferences. Instead, we think of fiduciary duty as an endogenous object that is the result of each state's judicial process. We address this issue in two steps. First, we restrict the analysis to counties on either sides of a border between states that differ in fiduciary status, since we expect that—and subsequently provide corroborating evidence for the fact that—border counties are similar to each other. Second, we compare the difference across the border for BDs to that for RIAs, leading to a difference-in-differences strategy. In particular, for a variety of outcomes Y_{ist}, we run the regression

$$\begin{aligned} Y_{ist} = \alpha_0 &+ \alpha_1 \cdot \mathbb{1}[\text{State has FD for BDs}]_s \cdot \mathbb{1}[\text{Adviser is BD}]_i \\ &+ \alpha_2 \cdot \mathbb{1}[\text{State has FD for BDs}]_s \cdot \mathbb{1}[\text{Adviser is RIA}]_i \\ &+ \alpha_3 \cdot \mathbb{1}[\text{Adviser is BD}]_i + \text{Border FE} + \text{Month FE} + \text{Age FE} + \epsilon_{ist}, \quad (1) \end{aligned}$$

where i represents an adviser, s a state, and t a transaction. We include border fixed effects to use only within-border variation, month-of-contract fixed effects to address any changes in product offerings and rates over time, and client age fixed effects.

Within (1), there are three objects of interest. First is the straightforward difference-in-differences estimator, $\alpha_1 - \alpha_2$ in this formulation. Under the null hypothesis that fiduciary duty has no equilibrium impact on market outcomes, we should estimate $\alpha_1 - \alpha_2$ to be zero. One may worry that counties on either side of

a state border differ from each other, either in the underlying demand for financial products or the supply of financial advice. However, the difference-in-differences estimator should alleviate this concern: as long as market differences across state borders are equal for BDs and RIAs, we would still expect $\alpha_1 - \alpha_2$ to be 0. In the results below, we will reject that $\alpha_1 - \alpha_2 = 0$ for most outcomes of interest, suggesting that fiduciary duty has an equilibrium impact. Under the assumption that there are no spillover effects onto RIAs one can interpret this difference-in-difference estimate as the causal effect of fiduciary duty on BDs.

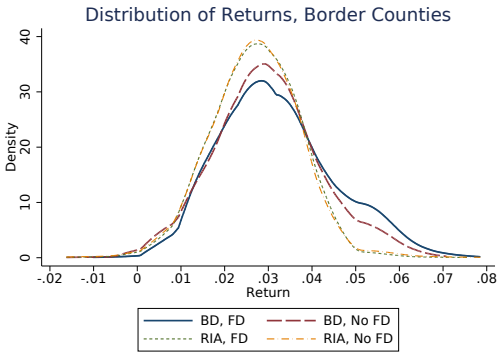
We also interpret α_1 and α_2 separately. Under the assumption that market conditions do not change sharply across the state border, α_1 alone is the causal impact of fiduciary duty on BDs, and α_2 can be interpreted as the spillover effect of BDs fiduciary duty onto RIAs. That is, interpreting both α_1 and α_2 as separate causal effects requires no shift in underlying market characteristics at the border.

The results show an effect of fiduciary duty on BDs, with α_1 being significantly different than zero for a variety of outcomes. However, we find no evidence of spillover effects on RIAs, with α_2 being economically and statistically zero for most outcomes. Moreover, we find limited evidence throughout for within-firm changes in the behavior of RIAs and on RIA entry.

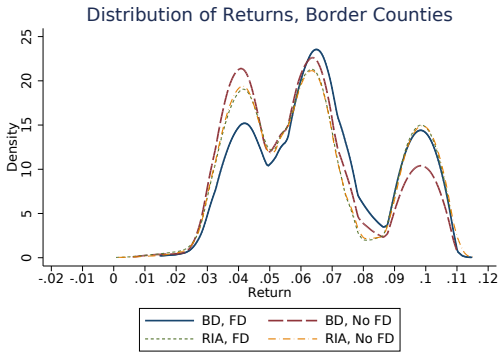
We provide four arguments in favor of the assumption that underlying market characteristics do not change sharply at the state border. First, demographic characteristics are balanced across the border (Appendix B.2). Second, even with covariate balance, one may be worried about differential selection of consumers to advisers as a function of the fiduciary status of the state. However, there is extensive survey evidence (SEC, 2011, 2013a,b; Hung et al., 2008) suggesting that consumers have very little information about which type of adviser they visit. Of course, there can still be selection on observables—certain consumers may choose to visit large companies, which are more likely to have RIAs—but the extent of this selection would have to vary significantly across borders for this to be a legitimate concern. Third, one can test for differential selection by using client and contract characteristics as outcomes in (1). Table B.4 in Appendix B.2 shows no significant effects on transaction amount, client age, or incidence of cross-state shopping (i.e., whether the adviser and client are from the same state), providing more suggestive evidence against differential

Figure 3: Returns for border counties, by adviser type and fiduciary status

(a) Risk-adjusted returns



(b) Unadjusted returns



selection. Finally, if there were significant differences across borders, we would have expected differences in RIA behavior as well.

IV. Does Fiduciary Duty Improve Investor Welfare?

To understand whether investor welfare improves through the imposition of fiduciary duty, we look at two sets of outcomes. First, in Section IV.A we ask whether fiduciary duty increases investor returns. Second, in Section IV.B we check whether improvements in returns are negated by a contraction in the size of the market. We consider an increase in returns coupled with non-decreasing market size as evidence of an increase in investors' welfare.[16]

IV.A. Effects on Returns

Figure 3 shows the distribution of returns, both risk-adjusted and not, of products sold by advisers in border counties, conditional on adviser type and fiduciary status. The distribution of returns for BDs in states with fiduciary duty is shifted rightward relative to states without it, for both risk-adjusted and unadjusted returns. The distributions for RIAs are almost identical for states with and without fiduciary duty,

[16]For this not to be the case, there would have to be strong preferences for advisory firms beyond the returns accrued by the products they sell. While in other settings there is substantial evidence of non-financial preferences for firms, whether these are welfare-relevant is up for debate.

Table 3: Returns on variable annuity products

	(1) Risk Adjusted Returns	(2) Unadjusted Returns
DID	0.0025**	0.0047*
	(0.0011)	(0.0023)
FD on BD	0.0020**	0.0034
	(0.0009)	(0.0021)
FD on RIA	-0.0006	-0.0013*
	(0.0010)	(0.0007)
Mean of Dep. Var	0.028	0.064
N	22,472	22,472

Annualized returns for variable annuities sold. Contracts are restricted to borders, specifications include border fixed, contract month, and age fixed effects. Standard errors are clustered at the state. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

lending credence to our empirical strategy.

The behavior of BDs with fiduciary duty does not mimic that of RIAs. Indeed, we do not expect it to. Broker-dealers and RIAs may work at firms that negotiate different contracts with FSP, may attract different clienteles, or may have different business models. Our identification strategy does allow for this selection across adviser types, as long as it is independent of the fiduciary status of the state.

Table 3 reports estimates of (1). Even controlling for compositional differences underlying Figure 3, we find a statistically and economically significant effect of fiduciary status on returns. Risk-adjusted returns increase by about 25 bp, which corresponds to approximately 9% of the base mean. This difference is due almost entirely to the effect on BDs, and—consistent with the figure—the effect on RIAs is negligible. Results are similar for unadjusted returns. The results are robust to heterogeneity in discounting across the population: in Appendix B.3, we let clients be a mix of those evaluating products in a risk-adjusted vs. an unadjusted manner. Over the space of all possible mixtures, we find that fiduciary duty improves returns by at least 18 bp.

IV.B. Effects on Market Size and Structure

This increase in returns may not improve overall welfare if the market for financial advice contracts, leading to fewer investments overall. In particular, critics of

Table 4: Market size and structure

	All Products	FSP Products		Entry		
	VA Sales	# of Contracts	Total Sales	Total Firms	BD Firms	RIA Firms
	(1)	(2)	(3)	(4)	(5)	(6)
$\mathbb{1}$[FD]	0.001	-0.023	0.043	-0.092	-0.157**	-0.037
	(0.049)	(0.064)	(0.046)	(0.069)	(0.076)	(0.068)
Mean	\$51.1 M	55.5	\$8.1 M	10.99	3.23	7.75
N	411	411	411	411	411	411

Regression of various metrics for total sales and number of firms on the fiduciary status of the county, controlling for log population, log median household income, and median age. Column (1) shows total sales of variable annuities across all firms. Columns (2) and (3) restrict to FSP and show number of annuity contracts (both fixed and variable) and total dollar sales of these contracts. Columns (4)–(6) show regressions of the number of firms of each type. All specifications use the $\log(x+1)$ transformation of the left-hand side, although means are presented without taking logs. Specifications include border fixed effects and standard errors are clustered at the border level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

fiduciary standards often claim that the net impact of such standards may be to decrease the number of firms and advisers in the market, thus limiting access to financial products for clients. To analyze this concern, we study whether the market size and the number of firms in the market changes.

First, we regress measures of market size on a fiduciary dummy, county controls, and border fixed-effects. We use three measures of market size: (i) total dollar sales of VAs at the county, which FSP has provided us through its membership in a consortium of annuity providers; (ii) total number of FSP contracts sold; and (iii) total dollar sales of FSP annuities. Table 4 provides results of these regressions. We find no statistically significant effects on market size. We estimate a zero effect of fiduciary status on dollar sales of VAs (across all providers). The standard errors allow us to rule out shifts of 10% in either direction with 95% confidence. We do not have data on sales of FIAs outside FSP, so Columns (2) and (3) focus on total FSP sales. We estimate a negative impact of fiduciary status on the number of annuity contracts sold by FSP and positive impact on total dollar sales of FSP annuities, but these effects are statistically indistinguishable from zero.

Second, we regress the (log of one plus the) total number of firms in a county on fiduciary status, controlling for border fixed effects and county covariates. We

say a firm has entered a county if it employs at least one adviser in that county who is marked as actively selling financial products in Discovery, regardless of whether it transacts with FSP. We find evidence of both a level and a compositional effect of fiduciary duty on market structure. Column (4) shows that imposing fiduciary duty reduces the total number of firms in the market by about 9%, although we cannot rule out a zero effect at the 10% level. Columns (5) and (6) suggest that this effect comes primarily from a drop in the number of BD firms, which are affected by the regulation. The number of such firms drops by 16% in counties with fiduciary duty, a number that is significant at the 5% level. By contrast, we do not estimate a statistically (or economically) significant effect on the number of RIA firms.[17]

On net, we find limited effects of fiduciary duty on the total size of the market despite exit of BD firms. An increase in returns without a corresponding drop in market size suggests that overall investor welfare increases in states with common law fiduciary duty.

V. Product Characteristics

The previous section establishes that fiduciary duty leads to an increase in returns without an appreciable change in market size. What are the changes in the characteristics of the underlying products transacted that lead to these observations?[18] There are two reasons for focusing on product characteristics. First, these properties are usually salient in prospectuses and brochures. Thus, they may well be the avenue through which steering towards higher-quality products happens: advisers may be more upfront about fees and expenses, or highlight that certain products have more restrictive investment options. Second, given these properties are the components of the returns that are presented in Section IV, understanding how fiduciary duty impacts them will help unpack the computations above.

[17] In Appendix B.4, we study whether fiduciary duty induced a compositional shift even within BD firms, and we divide firms into natural categories based on their footprint—e.g., whether they are local or national. We find evidence that local firms are most strongly affected common law fiduciary status. Moreover, while results are noisy, we do not find any evidence of an increase in the number of firms of any footprint.

[18] Recall that products characteristics, and thus payout streams, do not vary across states; what varies is the probability they are transacted.

V.A. Product Type

We estimate (1) with the raw properties of annuities mentioned in Section III on the left-hand side. The most salient characteristic is the type of annuity: variable or fixed indexed. Given that variable and fixed annuities serve similar purposes, the type of annuity is a salient characteristic of a product that an adviser can influence. Column (1) of Table 5 uses a dummy for whether the annuity is a variable annuity as the outcome variable, and we find a difference-in-differences estimate of a drop in the probability that the annuity is a variable annuity of 11 pp, or 12.5% of the base mean. Once again, the RIA effect is small (2.1 pp) compared to the BD difference (-8.9 pp), consistent with the fact that RIAs face the same regulatory regime and with the assumption that there are no changes in market characteristics at the border.

An adviser with fiduciary duty may be drawn to fixed annuities for a variety of reasons. First, FIAs tend to have higher (risk-adjusted) returns according to our calculations, and advisers may be aware that such annuities tend to be "better deals" and thus less willing to push variable annuities if they have fiduciary duty. Second, FIAs are simpler to explain to clients, because they do not include income and contract bases, or the complex riders that come with variable annuities. A shift to simpler products may limit the likelihood of the adviser being brought to the courtroom or arbitration by a client who claims fees and terms had not been properly explained. It would also be consistent with advisers using complexity as a proxy for (worse) quality; there is evidence that such a correlation exists in other settings (Célérier and Vallée, 2017). Finally, given that FIAs cannot generate negative unadjusted returns while VAs can, the shift to FIAs would also be consistent with a shift towards products that limit complaints from downside realizations.[19] Column (2) provides evidence of a shift towards products with lower downside risk, using the 10^{th} percentile of the total growth of a product as a measure.[20] Broker-dealers with fiduciary duty sell products with higher 10^{th} percentile returns.

[19] Only the income base of a VA is guaranteed to not have a negative return. The actual account value is not. Since the income base cannot be withdrawn, only annuitized, and the NPV of this annuity is lower than the dollar value of the income base, this implies that individuals with sufficiently low returns will receive lower payments than the value of their investment amount.

[20] An outcome where at the terminal age of the product, the client can withdraw K times the initial principal of the contract will be recorded as K. See Appendix D for details.

Table 5: Characteristics of products transacted

			Expense Ratio		Fund Returns		Fees	
	$\mathbb{1}$[VA]	10^{th} Perc.	Minimum	Average	Optimal	Equal	M&E	Surr. Chg.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
DID	-0.110***	0.704**	-0.006*	0.053**	0.0197*	0.0023**	-0.055	0.213
	(0.039)	(0.342)	(0.003)	(0.023)	(0.0107)	(0.0010)	(0.038)	(0.153)
FD on BD	-0.089**	0.568	-0.007**	0.062***	0.0195*	0.0023**	-0.047	0.123
	(0.035)	(0.354)	(0.003)	(0.020)	(0.0098)	(0.0010)	(0.035)	(0.158)
FD on RIA	0.021	-0.135	-0.001	0.009	-0.0002	-0.0000	0.009	-0.089
	(0.027)	(0.186)	(0.002)	(0.010)	(0.0036)	(0.0006)	(0.020)	(0.078)
Base Mean	0.878	2.609	0.501	1.263	0.159	0.012	1.088	3.109
N	22,472	22,472	19,730	19,730	19,730	19,730	19,730	19,730
	# Funds			# Equity Styles		# FI Styles		
	All	≥ 4 Stars	≤ 2 Stars	High Q.	Only Low Q.	High Q.	Only Low Q.	
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
DID	8.44*	3.84**	1.88	0.748**	-0.501*	0.277	-0.079**	
	(4.28)	(1.89)	(2.01)	(0.330)	(0.251)	(0.186)	(0.034)	
FD on BD	10.87***	3.59**	3.51	0.764***	-0.564**	0.169	-0.092***	
	(3.91)	(1.57)	(2.15)	(0.262)	(0.214)	(0.171)	(0.029)	
FD on RIA	2.43	-0.25	1.63	0.016	-0.063	-0.108	-0.013	
	(2.20)	(0.86)	(1.31)	(0.148)	(0.127)	(0.091)	(0.008)	
Base Mean	96.81	32.04	31.35	7.215	0.865	4.408	3.028	
N	19,730	19,730	19,730	19,730	19,730	19,730	19,730	

Estimates of (1) for various product characteristics. Columns (1) and (2) use the set of all annuities transacted in the border, while the other columns restrict to variable annuities. Standard errors are clustered at the state level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

V.B. Fees and Fund Returns

The remainder of Table 5 studies shifts within the VA market. A salient property of the investment menu is the expense ratio of the funds. Column (3) shows that the minimum expense ratio decreases by about 0.6 bp off the baseline of 50 bp, showing that clients have access to a (slightly) lower fee option. However, Column (4) shows that the average expense ratio increases by about 5.4 bp, which may be relevant if one is concerned about naive allocation methods. Column (5) documents a shift towards VAs that have funds with higher mean returns, net of expense ratio, assuming a return-maximizing allocation; the effect is substantial, amounting to about 13% of the base mean. Column (6) shows a similar result assuming a naive equal allocation rule, which allays concerns about the increase in the average expense ratio.

Columns (7) and (8) documents noisy effects on the two most salient fees associated with the product: the M&E fee and the surrender charge. We find a small and statistically insignificant decrease of 5.5 bp in the M&E fee and a noisy increase of about 21 bp in the surrender charge. We should highlight that unlike M&E ratios and expense ratios, the surrender charge is not necessarily paid. Additionally, lower fee FSP products always come with higher surrender charges, so advisers who are unconcerned about their clients needing to withdraw early should steer them towards higher surrender charge products.

V.C. Diversification

Another characteristic of interest is the number of funds available to investors. Column (9) estimates that fiduciary duty leads BDs to sell products with about 8.4 more funds, relative to the difference in RIA sales. Column (10) shows an increase of about 12% in the number of "high-quality" funds, as measured by Morningstar ratings of 4 or 5 stars. However, Column (11) reports a positive but less precisely estimated increase of about 6% in low-quality funds as well—as proxied by 2 or fewer stars. The increase in high-quality (or low-quality) funds is not a mechanical consequence of having a larger set of funds: the set of investment options offered is an active product design decision by FSP, and when it chooses to offer a product with more options it could only add low-quality funds.

A second relevant metric is the diversity of funds available. Using the categorization into equity and fixed income styles discussed in Section III, Columns (12) and (13) document an economically and statistically significant increase in the number of equity styles covered by at least one high-quality fund and a decrease in the number of equity styles covered by only low-quality funds. Columns (14) and (15) repeat the analysis for fixed income styles, but the effects are noisier and of smaller magnitude.

V.D. Discussion

While many of these characteristics feed into the returns computed in Section IV, not all of them are directly tied to returns. However, they are salient to clients and advisers, and responsiveness of such observable dimensions provides further credence that fiduciary duty is having an effect. Moreover, these characteristics are interesting since they are tied, at least heuristically, to higher quality. Historical returns of investment options are publicized in prospectuses and marketing brochures, and advisers with fiduciary duty may be hesitant to recommend products with low investment returns—even if risk-adjusted returns are aligned with the market. An adviser and a client who have a more-choice-is-better mindset may find products with a large number and variety of investment options more attractive. In the process of following these quality heuristics, advisers may well steer clients to products that indeed have higher returns on net.

A somewhat different reason these characteristics are interesting is that they may be related to recourse. Litigation about fiduciary duty in other settings, including ERISA, has cited higher numbers of investment options, higher quality funds, lower expense ratios, higher returns, and lower fees as supporting the conclusion that fiduciaries is performing their function. FINRA arbitration sometimes also cites similar characteristics as complaints against advisers. We are unable to say whether advisers are operating on heuristics they truly believe to be correlated with higher quality, or whether they are responding to other incentives such as a desire to avoid litigation; nevertheless, regardless of the underlying mechanism, we find evidence that characteristics of transacted products change when fiduciary duty is introduced.

VI. A Model of Fiduciary Duty

The previous sections have estimated the causal effect of extending common law fiduciary duty to BDs. A natural question is whether we can extend these results to speak to the effects of extending fiduciary duty to BDs at the federal level. This presents two challenges. The first is that it is unclear how the stringency of federal fiduciary duty would compare to its common law counterpart. The second is that extrapolating from border counties to the national level is fraught with the usual concerns regarding external validity.

Our approach to make headway on this issue is to understand the mechanism by which common law fiduciary duty operates: does it operate by increasing the cost of delivering low-quality advice or by increasing the fixed cost of doing business? One can rationalize our previous results through either channel. On the one hand, if fiduciary duty constrains low-quality advice, mean advice quality will increase. On the other, if advisers who offer the worse advice are also the least profitable, then an increase in fixed costs will drive them out of the market and also improve mean advice quality. One cannot assume that the advisers who offer the worst advice are also the least profitable: there is substantial heterogeneity across firms in commission schedules negotiated with FSP, scale, reputational considerations, and exposure to legal liability, among other issues. Instead, we build a model that provides testable implications of a constraining effect of fiduciary duty on low-quality advice without assumptions about the relationship between profitability and advice quality.

The intuition for these implications is simple: say firms earn profits as a function of the advice they give and of competition, and that there is heterogeneity across firms in both their profit-maximizing advice and their actual profits. In equilibrium, one can conceptualize the firms entering in decreasing order of profitability until the marginal firm breaks even. If fiduciary duty only raises the fixed cost of doing business, the marginal firm would have to be more profitable, but the ordering of profitability would not change. This implies that the set of entering firms is contained by the set of entrants in the baseline. However, if fiduciary duty increases the cost of providing low-quality advice, this will alter the relative profitability of firms, potentially leading to a different set of observed advice in the market. For instance,

we might see the emergence of especially high-quality advice. We now formalize this intuition, study its robustness to several extensions, and deliver a set of testable implications we can take to the data.

VI.A. Elements of the Model

To begin, assume that all firms are BDs; we add RIA firms to the model in Appendix A.2. Suppose there are M *categories* of firms indexed by m. This is meant to capture that the effect of fiduciary duty can vary across local, regional and national firms. Each firm j has a *type* $\theta_j \in [0,1]$ and can choose advice $a \in [0,1]$. We adopt the convention that higher values of a correspond to worse, or more distorted, advice. The distribution of types within category m is $H_m(\cdot)$. We assume $H_m(\cdot)$ is continuous, and we abuse notation by letting $H_m(S)$ denote the mass of types in set S. A firm of type θ and category m has a *base profit* function $\pi_m(a + g_m(\boldsymbol{\mu}); \theta)$ that we assume is single-peaked. As a normalization, we say that the maximum is attained at $a = \theta$ for some known value $\bar{\boldsymbol{\mu}}$. The actual profit of a firm of category m and type θ who enters and gives advice a when the equilibrium mass of entrants is $\boldsymbol{\mu} = (\mu_1, \ldots, \mu_M)$ is

$$f_m(\boldsymbol{\mu}) \cdot \pi_m\left(a + g_m(\boldsymbol{\mu}); \theta\right) - K_m,$$

where $f_m(\cdot)$ is decreasing in every component of $\boldsymbol{\mu}$, $g_m(\cdot)$ is increasing in each component of $\boldsymbol{\mu}$, and both are independent of θ. We conceptualize $f_m(\cdot)$ as the number of customers a firm receives if there are $\boldsymbol{\mu}$ entrants, $g_m(\cdot)$ as the direct effect of competition on advice, and K_m as the fixed cost of entry.

In equilibrium, the set of firms who enter the market is exactly the set that makes positive profits. Denote by $\mathcal{E}_m(\boldsymbol{\mu}, K_m)$ the set of types θ_j of category m who would enter if they believe that a mass $\boldsymbol{\mu}$ of firms of each category would enter and the fixed cost of entry is K_m. Then, for a fixed cost vector $\boldsymbol{K} \equiv (K_1, \ldots, K_M)$, an equilibrium consists of a mass $\boldsymbol{\mu}^*(\boldsymbol{K})$ such that

$$H_m\left(\mathcal{E}_m(\boldsymbol{\mu}^*(\boldsymbol{K}), K_m)\right) = \mu_m^*(\boldsymbol{K}).$$

It is instructive to discuss the elements of this model. First, θ captures the latent propensity to offer distorted advice. We remain agnostic about the sources of differences in θ. Firms may have negotiated different commission schedules with wholesalers and may also provide different splits of the commissions to individual advisers. They may also place different levels of emphasis on reputational considerations, or have different beliefs about the probability or cost of litigation. A key aspect of θ will be that the costs of fiduciary duty—which we will model in detail below—may vary depending on the advice given and on firm category, but will not *directly* depend on θ. This is meant to capture that the effects of regulation can vary as a function of the actual advice given and the firm category (for example, local, regional, or national), but not on the latent profitability of giving worse advice.

Second, $f_m(\cdot)$ and $g_m(\cdot)$ capture the two ways in which competition can affect advice: by shifting the quantity of consumers a firm receives ($f_m(\cdot)$) and by directly changing advice ($g_m(\cdot)$). Since $f_m(\cdot)$ changes how total profits scale with competition, it is natural to assume that it decreases with each component of $\boldsymbol{\mu}$. Note that we are excluding a direct effect of θ on $f_m(\cdot)$, essentially ruling out that the mass of consumers received by a firm (conditional on their category) is a function of their advice quality. We find this assumption to be reasonable for a number of reasons. First, given the previous evidence on the lack of consumer information in this market (SEC, 2011, 2013a,b; Egan et al., 2019), it seems unlikely that consumers are sorting to advisers based on unobserved profitability differences that remain after conditioning on firm observables captured by m; sorting that depends on characteristics like whether the firm is nationally recognized can be captured through the dependence on m. Second, note that this assumption is analogous to assuming that θ enters into $f_m(\cdot)$ in a multiplicatively separable fashion, so that we can envelope the effect of θ on $f_m(\cdot)$ into π, which does depend flexibly on θ. Thus, one can think of the restriction that $f_m(\cdot)$ is independent of θ as saying that the effect of the type on profits does not *differentially* change with competition.

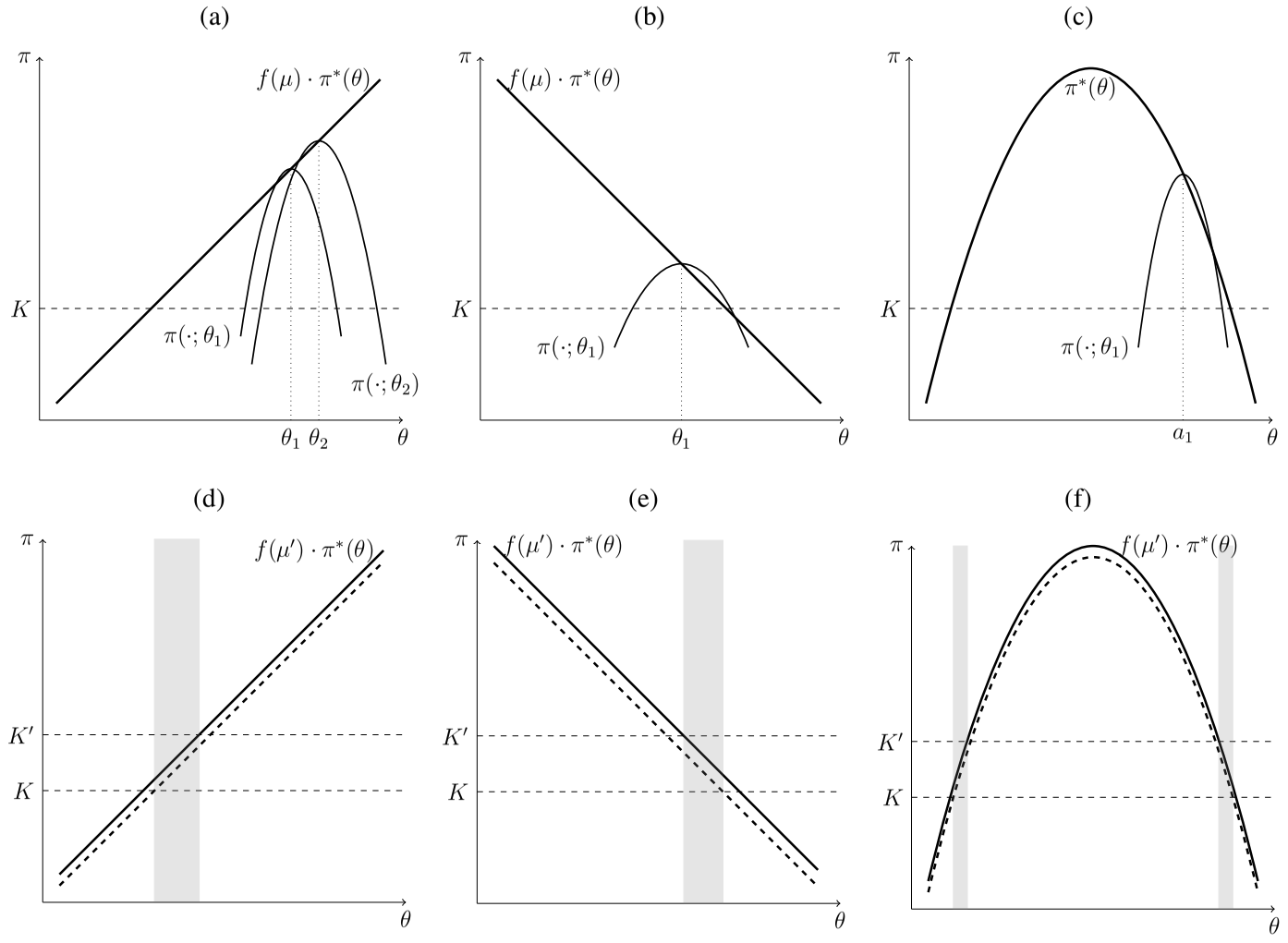
Next, consider $g_m(\cdot)$. We introduce this function to allow for competitive effects on advice—in particular, for the possibility that increased competition directly improves advice. Upon entry, a firm will choose advice a to maximize $\pi(a + g_m(\boldsymbol{\mu}); \theta)$. Thus, $g_m(\cdot)$ shifts the location of optimal advice without directly affecting profits.

As discussed before, we will assume that $g_m(\boldsymbol{\mu})$ is increases in each component of $\boldsymbol{\mu}$, so that increasing competition improves advice by shifting the optimal advice $a^*(\theta; \boldsymbol{\mu}) \equiv \arg\max_a \pi(a + g_m(\boldsymbol{\mu}); \theta)$ to the left. We believe that this monotonicity assumption is justifiable for a number of reasons. Tougher competition makes it easier for consumers to visit multiple financial advisers and identify questionable advice, as in some credence goods models (Dulleck and Kerschbamer, 2006). Furthermore, evidence from Egan et al. (2019) suggests that financial advisers with misconduct records are more likely to survive in markets with lower competition. Third, given that the "price" of the product is the same regardless of which adviser the client visits, concerns like showrooming effects—in which competition decreases the incentive to provide effort in advising clients—are not present in this market. Finally, firm strategies that depend on the distribution of θ likely also rely on consumers' knowledge of θ for each firm, which is unlikely in this setting. As with $f_m(\cdot)$, we still let $g_m(\cdot)$ depend directly on m so that consumers can be influenced by more salient aspects, like whether the firm is nationally recognized.

Finally, when we discuss our model of fiduciary duty below, we will not let $f_m(\cdot)$ or $g_m(\cdot)$ depend directly on whether the market has fiduciary duty. Arguing that $f_m(\cdot)$ and $g_m(\cdot)$ changes due to demand side factors induced by fiduciary standards suggests that imposing common law fiduciary duty changes how many people go to various firms, what type of firms they go to, or what sort of products they ask for when they arrive at these firms. Given the substantial survey evidence cited above that customers are not even aware of the fiduciary status of their advisers, we find it a priori implausible that consumers are making decisions about which advisers to talk to based on the common law fiduciary status of the state.

To illustrate the model, consider the case with $M = 1$ category and $g(\cdot) = 0$. Define $\pi^*(\cdot) \equiv \max_a \pi(a; \theta)$. Given that we do not take a stance on the source of heterogeneity, we also cannot take a stance on the behavior of $\pi(\cdot; \theta)$, and thus $\pi^*(\theta)$, with θ. Figure 4(a)–(c) illustrates three possibilities for $\pi^*(\cdot)$ and sample graphs of $\pi(\cdot; \cdot)$. Panel (a) illustrates the case where worse advice corresponds to highest profits. As discussed above, however, higher θ firms may in fact have lower profits so that cases such as (b) and (c) are also possible. Below, we develop predictions that hold over any shape of $\pi^*(\cdot)$.

Figure 4: Illustration of $\pi(\cdot;\cdot)$ and $\pi^*(\cdot)$, and the effects of a pure fixed cost channel



Different possible profit envelopes $\pi^*(\cdot)$, along with plots of the underlying $\pi_i(\cdot;a)$ that generate them. The fixed cost K is presented, and the fixed cost channel involves increasing this value. Panels (d)–(f) illustrate the effects of a pure fixed cost channel, by increasing the fixed cost from K to K'. The shaded types are the ones who exit the market. Note that types map directly to advice (in the same way) in each panel, but we do not show the underlying density $H(\cdot)$ of types.

VI.B. The Fixed Cost Channel

We return to the general model. We say that fiduciary duty operates through a *pure fixed cost channel* if imposing fiduciary duty on a market increases fixed costs of entry from K_m to $K'_m \geq K_m$ for all θ but does not alter $\pi(\cdot;\cdot)$ or the distribution $H_m(\cdot)$ of types in any way. This increase in fixed costs could correspond to compliance software or insurance, increased paperwork, increased overhead time required to deal with regulation, increased effort dedicated to oversight, etc.[21] In Appendix A.1.2, we prove the following.

Proposition 1. *Suppose $K'_m \geq K_m$ and that $\mu^*_m(\boldsymbol{K}') \leq \mu^*_m(\boldsymbol{K})$. Define $\mathcal{E}_m \equiv \mathcal{E}_m(\boldsymbol{\mu}^*(\boldsymbol{K}), K_m)$ and $\mathcal{E}'_m$ analogously. Then, $\mathcal{E}'_m \subseteq \mathcal{E}_m$.*

Proposition 1 states that if only the fixed cost increases, and if this leads to weak decreases in the mass of each category of firm, then the new set of firms who enters is a subset of the original set of firms. Note that the assumption that $\mu^*_m(\boldsymbol{K}') \leq \mu^*_m(\boldsymbol{K})$ is a not an assumption on primitives. However, one does expect that the assumption that an increase in fixed costs leads to a decrease in entry is a natural one. To formalize this intuition, Lemmas 1 and 2 in Appendix A.1.1 consider the simpler model with $M = 1$ and verify that the equilibrium is unique and the comparative statics with fixed costs imply that the number of entrants decreases with fixed cost increases.[22] We impose this assumption for two reasons. With $M > 1$ categories it is in principle possible to have the mass of one category increase due to decreased competition from another. Furthermore, given a partition of firms into categories, the mass of firms that enters is observable. Thus, this condition is testable and empirically useful.

Note also that the type θ can be multidimensional, to incorporate effects like

[21] In this section, we write the change in fixed costs as a change to the fixed costs of entry. We can instead have a constant fixed cost of entry and say that the effect of the fixed cost channel is to change the base profit function from $\pi(\cdot;\cdot,\cdot)$ to $\pi(\cdot;\cdot,\cdot) - c$. This would correspond to an increased per-transaction cost due to fiduciary duty. The key similarity, as discussed later, is that c is independent of advice and the ordering of profitability of types does not change with the imposition of fiduciary duty. Essentially, one should think of the "fixed" cost as fixed across types.

[22] We can in fact go further and say that even if there are firms who are not directly impacted by fiduciary duty, as long as competition between different firm categories is "not too strong"—in a manner that can be formalized—then the aforementioned comparative statics hold.

provision of different advice to different groups of customers. Appendix A.1.3 provides some examples and argues that the testable predictions below do not change. The key connection between these generalizations—as discussed at the start of this section—is that the above inclusion holds as long as fiduciary duty does not change the relative profitability of different types of firms. Thus, it simply shrinks the set of types who enter rather than rearranging them.

Since θ is not observable to the econometrician, to take Proposition 1 to the data we look for predictions on advice. In the following observation, we denote by $\underline{a}(\boldsymbol{K})$ and $\bar{a}(\boldsymbol{K})$ the least and most distorted advice observed among any entrants of any category in the market, as a function of the fixed costs.

Proposition 2. *Suppose $K'_m \geq K_m$ and that $\mu^*_m(\boldsymbol{K}') \leq \mu^*_m(\boldsymbol{K})$. If $g_m(\boldsymbol{\mu}) = 0$ for all m, then $\underline{a}(\boldsymbol{K}') \geq \underline{a}(\boldsymbol{K})$ and $\bar{a}(\boldsymbol{K}') \leq \bar{a}(\boldsymbol{K})$. If $g_m(\boldsymbol{\mu})$ is increasing in every component of its argument, $\underline{a}(\boldsymbol{K}') \geq \underline{a}(\boldsymbol{K})$.*

We prove this proposition in Appendix A.1.2. Under the pure fixed cost channel, the set of types that enter the market under fiduciary duty is a subset of the set that enters without. If competition does not have a direct impact on advice, then it must be that the advice we observe is also a subset. This would imply that the best advice in the market must (weakly) worsen and the worst advice should (weakly) improve. If competition improves advice, exit induced by the fixed cost increase would worsen all advice; thus, the prediction on best advice remains while the prediction on worse advice is now ambiguous. Thus, one testable prediction is that under the fixed cost channel the best observed advice does not improve when imposing fiduciary duty.

Importantly, there are no analogous predictions for how fiduciary duty affects moments such as the mean of the distribution of advice, even if it operates purely through a fixed cost channel. This is because we are not taking any stance on the shape of $\pi^*(\cdot)$ or $H(\cdot)$. Panels (d)–(f) of Figure 4 illustrate the effects of increasing the fixed cost in panels (a) through (c), again restricting to $M = 1$ and $g(\cdot) = 0$. In each situation, K increases to K', but the effective profit function ($f(\mu) \cdot \pi^*(\cdot)$) also increases slightly due to exit of firms, from the dashed lines to the solid ones. On net, however, firms exit, as denoted by the shaded areas. In panel (d), fiduciary duty operating through a fixed cost channel will increase the mean a since $\pi^*(\cdot)$ increases

in θ and increasing the fixed cost simply excludes low-θ firms from the market. In panel (e), the argument is reversed. In panel (f), the effect on the mean depends on $H(\cdot)$. In all three panels, however, the extremes of advice (weakly) decrease.

A second prediction relates to how a particular firm changes the advice it provides as a function of fiduciary duty. Suppose first that competition does not directly impact advice. Then, if a firm is able to cover the fixed cost of entry, the advice it provides does *not* depend on the fixed cost. If instead competition directly improves advice, then if the imposition of fiduciary duty increases fixed costs, the advice a firm provides will (weakly) worsen. We formalize these observations in the following.

Proposition 3. *Suppose $K'_m \geq K_m$ and that $\mu^*_m(\boldsymbol{K}') \leq \mu^*_m(\boldsymbol{K})$. Let $a^*_m(\theta; \boldsymbol{K})$ be the advice provided by a type θ firm of category m who enters when costs of entry are $\boldsymbol{K}$. Then $a^*_m(\theta; \boldsymbol{K}) \leq a^*_m(\theta; \boldsymbol{K}')$, with equality if $g_m(\cdot) = 0$.*

The proof, which we omit, notes that $a^*_m(\theta; \boldsymbol{K}) \equiv \arg\max_a \pi_m(a + g_m(\boldsymbol{\mu}); \theta)$ does not depend on $\boldsymbol{K}$ directly, and the direct effect of competition simply shifts the location of the maximum of the profit function. The testable implication is that under a pure fixed cost channel we should not see the advice of a firm improving upon imposition of fiduciary duty.

VI.C. The Advice Channel

Alternatively, fiduciary duty could make it differentially more costly to offer low-quality advice. We call this effect the *advice channel*. To model this channel, we say that the imposition of fiduciary duty introduces a cost function $c(a)$, where $c(a)$ is increasing in a. The profit to type θ from giving advice a is then $\pi_m(a + g_m(\boldsymbol{\mu}); \theta) - c(a)$. In this section, we will show that the predictions outlined in the previous section need not hold under an advice channel.

As an illustration, set $g_m(\cdot) = 0$ and suppose $c(\cdot)$ is such that fiduciary duty places a cap on advice: $c(a) = 0$ for $a \leq \bar{a}$ and $c(a)$ is infinite for $a > \bar{a}$. Figure 5(a) illustrates that firms with especially high values of θ, such as θ_2, cannot profitably offer any level of advice, and will be forced to exit. If there is exit of high θ firms, this makes it profitable for very low-θ firms to now enter, leading to the appearance of previously unprofitable high-quality advice. That is, the lowest type $\underline{\theta}$

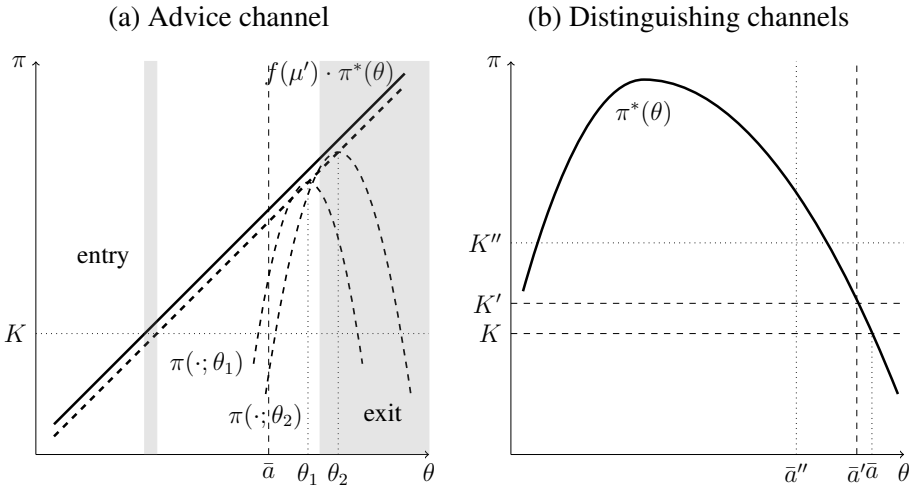
that enters decreases, and thus the highest-quality advice observed improves as well. Additionally, a firm that remains in the market after the imposition of fiduciary duty can actually improve its advice. Firms with moderately high values of θ, such as θ_1, will still profitably operate but will adjust their advice to $\bar{a} < \theta_1$. Neither of these observations could be rationalized through a pure fixed cost channel.

These observations are robust to any increasing $c(\cdot)$ and not a consequence of the stark assumption that fiduciary duty places a cap on advice. If $c(\cdot)$ is increasing, then it effectively acts as a handicap for higher-θ firms and can induce them to exit the market, leading to entry of lower-θ firms. Also, it is not necessarily the case that only high θ firms will improve their advice. Indeed, in the absence of a competitive effect on advice, all firms will have an incentive to improve their advice.[23] This also implies that in general, the emergence of high quality advice upon imposing fiduciary duty can come both from firms who only enter under fiduciary duty and from firms who enter in both regulatory regimes improving their advice.

One should not interpret the previous observations as necessary conditions for an advice channel. It is still possible for both extremes of the advice distribution to contract and for firms who enter both with and without fiduciary duty to offer worse advice under the more stringent standard, just like in a pure fixed cost channel. For example, if competition improves advice, then exit of low advice quality firms might lead surviving firms to worsen the advice they give. This would happen if the effect of competition is stronger than the effect of the cost of providing distorted advice, and could lead to a contraction of the best observed advice. Moreover, note that if an advice channel is present, then the worst advice could also worsen upon imposing fiduciary duty: in the case where firm types are multidimensional (see Appendix A.1.2), it is possible for the advice channel to induce entry of firms who give low a to most types of consumers but especially high a to a small set of them. The key observation, however, is that in an advice channel—unlike in a fixed cost channel—it is not necessary that both extremes of the advice distribution contract or for within-firm advice to worsen.

[23] See Appendix A.1.4 for a simple argument with monotone comparative statics.

Figure 5: Further illustration of the model



(a) Moving from the baseline (thick, dashed lines) to a fiduciary standard in which advice can be no larger than $\bar{a}$. The shaded area to the right illustrates types who exit due to the regulation since they cannot profitably adjust their advice. The shaded area to the left illustrates types offering previously unprofitably good advice who enter since the effective profit function increases due to the aforementioned exit. (b) A profit envelope under which strengthening fiduciary standards will lead to different results under a pure fixed cost channel and an advice channel (proxied by a cap)

VI.D. The Importance of Distinguishing These Channels

We argued earlier that distinguishing whether common law fiduciary duty operates through the advice channel or through the fixed cost channel offers insights into the effects of extending fiduciary duty at the federal level, and that quantifying the effect of fiduciary duty on the mean of observed advice is not sufficient to identify the channel through which it operates. We can now use the model to formalize these statements. First, consider the situation depicted in Figure 5(b), and suppose that in the baseline market without any fiduciary standards, the worst observed advice is given by $\bar{a}$, and that imposing fiduciary standards moves the worst observed advice to $\bar{a}'$. This shift could be rationalized by either a fixed cost moving to K' or a cap of $\bar{a}'$ being imposed through fiduciary standards. Second, assume that the regulator is considering making the policy more stringent.[24] In an advice channel, tightening

[24]Stringency of fiduciary duty regulations is a matter of current policy debate. Advocates of the defunct DOL Rule argue that the SEC's Best Interest Regulation does not live up the same standards.

the cap to $\bar{a}'' < \bar{a}'$ would push low-quality advice out of the market. However, tightening a fixed cost channel to $K'' > K'$ would induce exit of both high and low quality advice. In principle, a regulator could avoid this situation by estimating the empirical counterpart of $\pi^*(\cdot)$ and $H(\cdot)$. As this is difficult, however, a regulator could alternatively try to limit unintended consequences by ensuring that fiduciary duty does not operate solely through a fixed cost channel.

This figure also highlights that one can be more confident of the external validity of the causal effect if fiduciary duty operates through the advice channel than if it operates through the fixed cost channel. In the former, every surviving firm will distort their advice weakly less, leading to an overall improvement of average advice. In the latter, whether average advice increases or decreases depends on whether more low-quality or high-quality advice firms are displaced. This hinges on $H(\cdot)$ and on the shape of $\pi^*(\cdot)$, objects that may be quite heterogenous across markets.

These two channels are neither mutually exclusive nor exhaustive: fiduciary duty could both increase fixed costs and constrain advice, and it could be the case that it affects neither. Below, we test the hypothesis that there is no advice channel.

VII. Does Fiduciary Duty Directly Constrain Advice?

Consider two identical markets, where one does not impose fiduciary duty on BDs and the other does. We wish to test whether an advice channel exists, i.e., whether fiduciary duty engenders a direct constraint on low-quality advice. The primary test the model in Section VI provides is at the market-level. Under a pure fixed cost channel, the highest quality advice offered by any BD in the market with fiduciary duty is weakly worse than that offered in the market without. However, under the advice channel, this highest quality advice can improve.[25]

We use our preferred metric of risk-adjusted returns as the measure of the quality of advice, partialling out border, contract month, and age fixed effects, to arrive at a

Proposed state legislation (rather than common law) is also anecdotally of different stringencies, especially since enforcement methods will be different.

[25]The tests in this section are predicated on a decrease in the number of BD firms in the market, which Section IV.B supports. Moreover, Appendix B.4 suggests that there is no evidence of increases in the number of BD firms of any geographic footprint—a proxy for "categories."

Table 6: Effects on tails of risk-adjusted return distribution

Cutoff	0.010	0.015	0.020	0.025	0.030
	(1)	(2)	(3)	(4)	(5)
BD Proportion	0.063	0.008	0.006	0.003	0.003
	(0.008)	(0.002)	(0.002)	(0.002)	(0.002)
BD Difference	0.003	0.012***	0.010***	0.010***	0.006**
	(0.011)	(0.004)	(0.004)	(0.004)	(0.003)
RIA Proportion	0.116	0.048	0.030	0.015	0.009
	(0.004)	(0.002)	(0.002)	(0.001)	(0.001)
RIA Difference	-0.002	0.002	0.002	-0.001	-0.002
	(0.005)	(0.003)	(0.002)	(0.001)	(0.001)

Proportion of normalized risk-adjusted returns above various cutoffs as a function of adviser type and fiduciary duty. "BD Proportion" refers to the mass of advice above each cutoff for BDs in states without fiduciary duty. "BD Difference" is the difference in this quantity for BDs with and without fiduciary duty. The rows for RIAs are analogous. Standard errors are computed through the bootstrap. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

"normalized" risk-adjusted return that is comparable across all transactions. The test is based on the support of the distribution of this advice across adviser types, and we proxy for the support with the mass in the tails, i.e., the proportion of normalized returns that are above x for large values of x.[26]

The row marked "BD Proportion" of Table 6 shows the proportion of normalized returns above various cutoffs for BDs without fiduciary duty; the row marked "BD Difference" shows the change in this proportion when moving to border counties with fiduciary duty. For extreme cases, we find an economically and statistically significant increase in this proportion, consistent with an expansion of high-quality advice when imposing fiduciary duty. We find that changes in the shares in the tails are much more muted for RIAs than for BDs, which lends further credence to the fact that the changes in the distribution for BDs are not spurious. In summary, the

[26]Suppose we have two distributions A and B (with continuous and strictly increasing cdfs on their support) with the maximum M_A of the support of A strictly less than the maximum M_B of the support of B. We know that $F_A(M_A) = 1$ and $F_B(M_A) < F_B(M_B) = 1$, where $F_T(\cdot)$ is the cdf of T. Thus, $F_A(M_A) > F_B(M_A)$, so for x sufficiently close to M_A, $1 - F_A(x) < 1 - F_B(x)$ as well. For similar reasons, we could look at the effect on extreme quantiles; results are similar and available upon request. Mass in tails or quantiles are less sensitive to single observations than estimates for the support.

expansion in high-quality advice cannot be explained by a pure fixed cost channel but is consistent with the presence of an advice channel.

The model also provides a firm-level test. In a pure fixed cost channel, if a BD firm enters both markets, it offers weakly worse advice in the market with fiduciary duty. Under an advice channel, this firm may improve its advice under fiduciary duty. This test, however, is likely to be underpowered: if fiduciary duty does not greatly affect the cost of providing high-quality advice, then most firms entering both markets will not shift their recommendations. Nevertheless, we estimate (1) for all outcomes considered in this paper but also add firm fixed effects. Table B.6 in Appendix B.5 shows results of this analysis. While the results are noisy, as expected, the sign of the within-firm effect is broadly consistent with an increase in quality. This would not happen under a pure fixed cost channel.

VIII. Conclusion

This paper evaluates the effects of extending fiduciary duty to broker-dealers on returns, market structure, and observable characteristics of the the set of products consumers purchase. This question is motivated by recent regulatory discussion around expanding fiduciary duty to all broker-dealers. Supporters of the expansion argue that imposing fiduciary duty on all advisers will alleviate the conflict of interest and ensure that retirees choose products that are better suited to their needs. Opponents argue that fiduciary duty does not have a noticeable impact on product choice—perhaps because competition already disciplines financial advisers or perhaps because the conflict-of-interest was overblown to begin with—but will instead simply increase the cost of doing business, which will lead to fewer advisers in the market and fewer retirees purchasing beneficial products.

We evaluate these claims empirically by leveraging transactions-level data from a major financial services provider and a comprehensive dataset on the set of practicing financial advisers. We find that in the market for annuities, fiduciary duty increases risk-adjusted returns by 25 bp and induces an reduction of 16% in the number of BD firms without a change in the total sales of annuities. Unpacking this change in risk-adjusted returns we find that BDs with fiduciary duty are less likely to sell

variable annuities; when selling a variable annuity, they are more likely to steer customers towards products with more and higher-quality investment options. These results offer a extensive picture of the different effects of fiduciary duty in the market for financial advice.

These results on the mean causal impact of fiduciary duty are not informative of whether it operates by increasing fixed costs or by constraining low-quality advice. We develop a model of firms entering a market and selecting their advice that identifies properties of the distribution of advice that allow us to unpack these mechanisms. We find evidence in favor of the presence of a constraint on low-quality advice; that is, fiduciary duty does not simply increase fixed costs. These results suggest that extending fiduciary duty beyond the state borders under study would also increase advice quality in these locations, and that increases in the stringency of fiduciary standards would continue to deliver increased returns for retirees.

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