

Investor Protections and Stock Market Participation: An Evaluation of Financial Advisor Oversight*

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Abstract

We examine a regulatory change in Canada that increased the oversight of financial advisors in five of its ten provinces. This increased oversight of mutual fund dealers reduced households' use of financial advice and their mutual fund holdings. In lieu of mutual funds, households increased their cash holdings. The results are consistent with a decline in delegated investing caused by a negative shock to the supply of advice. Our estimates suggest financial advisors are important in facilitating stock market participation, particularly among low-wealth households. Investments and advisory channels not affected by the regulation—direct equity holdings and bank-affiliated advisors—show no effects, reducing concerns about confounding economic and financial market changes.

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1 Introduction

Does regulatory oversight of financial advisors increase households' participation in financial markets? The conventional view is that oversight is necessary to root out fraud, rent-seeking, and incompetence by financial intermediaries. These frictions act like taxes that raise the cost of delegated investing. Regulations that protect investors by eliminating these costs can therefore increase both delegation and market participation. Policymakers throughout the world have increasingly adopted this point of view. On the heels of the global financial crisis of 2008, many countries expanded oversight of financial advisors and strengthened investor protections with the aim of restoring individual investors' faith in financial markets.¹

Economists, however, have been less sanguine than policymakers about the benefits of such interventions. [Inderst and Ottaviani \(2009\)](#) highlight the dual role of advisors in prospecting for customers and making investment recommendations. They point out that well-intended regulations governing advisors' recommendations can backfire by inefficiently reducing advisors' efforts to locate new customers. [Berk and Van Binsbergen \(2022\)](#) caution that even uncontroversial rules aimed at eliminating fraud may reduce consumer welfare by muting competition for customers among the honest and skilled professionals who remain in the market. Further, there is the issue of industry self-regulation. Investor protections are commonly implemented through regulatory bodies formed and governed by industry participants themselves. Though advisors and brokerage firms argue that they are well-aligned with customers in eliminating bad behavior, a long literature in economics, beginning with [Friedman and Kuznets \(1945\)](#), urges skepticism. Occupational licensing and supervision can be used to restrict entry and diminish competition ([DeMarzo, Fishman, and](#)

¹[Burke and Hung \(2015\)](#) summarize the strengthening of protections between 2010 and 2015 in the United Kingdom, Australia, Germany, Singapore, and the European Union. In 2016 the Department of Labor issued its "conflict of interest rule" aimed at strengthening fiduciary duty for advisors and brokers serving retirement investors.

Hagerty 2005), resulting in increased rents for incumbent firms at the cost of consumers. The common theme of these prognoses is that well-intended regulations can inefficiently reduce the supply of advice, resulting in too little client delegation and market participation.

Only recently has the empirical literature in economics and finance begun to study the trade-offs in regulating financial advisors. Indeed, RAND economists commissioned by the U.S. Department of Labor in 2015 comment that “despite sweeping regulatory changes in many countries after the financial crisis, there has been little rigorous research investigating the impact of these changes” (Burke and Hung 2015). In complement to recent studies of the U.S. annuity (Bhattacharya, Illanes, and Padi 2020; Egan, Ge, and Tang 2020) and investment advisory (Charoenwong, Kwan, and Umar 2019) markets, we evaluate the impact of rules overseeing Canadian investment advisors and brokers.

In 2001, five of the ten provincial securities regulators in Canada strengthened investor protections by recognizing the recently formed Mutual Fund Dealers Association (MFDA) as a self-regulatory organization. This recognition came with a mandate: all agents who distribute mutual funds must obtain MFDA membership and follow its rules. The MFDA’s self-stated objective was to “[regulate] the operations, standards of practice and business conduct of its Members and their representatives with a view to enhancing investor protection and strengthening public confidence in the Canadian mutual fund industry.”² MFDA oversight had three key ingredients: 1) to establish new standards for business conduct; 2) to impose capital requirements, compliance protocols, and disclosure standards; 3) to create a regulator to supervise and enforce these rules. The MFDA membership requirement affected a significant share of the retail investment market, as more than half of Canadian households use mutual fund dealers for advice (Mutual Fund Dealers Association

²See <https://mfda.ca/about/our-history/object/>.

2017).

The differential adoption of MFDA regulation across provinces provides a natural experiment for measuring the causal impact of investor protections. Such regulations often come in response to significant market downturns such as the global financial crisis and apply at the federal level. Financial market developments therefore confound pre-post event studies of regulations. Likewise, cross-country evaluations pose the problem of disentangling the effects of investor protections from broader legal and institutional differences across countries. In the case of MFDA adoption, however, we can measure the changes in delegation and market participation within the same country and financial market, comparing across provinces. We first implement a differences-in-differences analysis using data on more than 30,000 households from the Canadian Financial Monitor (CFM), a survey that provides information on households' asset holdings, use of financial advisors, and socio-economic characteristics.

We find that MFDA adoption leads households to reduce their use of financial advisors. We estimate a 3-percentage-point reduction in the likelihood of using an advisor, a substantial decline relative to the baseline rate of 35% prior to the regulatory change. This decline is specific to non-bank advisors who are subject to the MFDA membership requirement. In a placebo test, we estimate an economically and statistically insignificant change in the use of bank advisors, whose regulatory oversight did not change through this period. The decline in non-bank advice affects unadvised households, who sign on with advisors at lower rates after the MFDA adoption. Previously advised households, by contrast, use advice at similar rates before and after the regulatory change.

MFDA adoption also reduces financial market participation. We estimate a 2.3-percentage-point

decline in the probability of holding mutual fund investments following the regulatory change. The regulation appears to affect low- and high-wealth households differently, as the declines in market participation are strongest among low-wealth investors. In lieu of mutual fund investments, households invest in low-risk assets like checking and savings accounts, but do not increase direct stock investments. The latter null finding is consistent with MFDA oversight affecting mutual fund dealers but not stock brokers. The net effect on asset allocation is a statistically significant 1.7-percentage point decline in the average household's equity share. Combining the estimated changes in the use of advisors and the equity share implies that having an advisor increases a household's allocation to equities by 52 percentage points. This interpretation allows for heterogeneous effects of the MFDA requirement on the use of advisors but assumes a monotonic effect, namely that all individuals are more likely or less likely to use advisors following the requirement.

Why did the MFDA investor protections reduce delegation? To comply with the MFDA requirements is costly. Media coverage and public comments submitted to securities regulators highlighted the need for increased staffing and investments in technology.³ Such increased costs might lead advisors to solicit or screen potential clients differently. They may avoid low-wealth clients for whom account management and compliance costs exceed expected revenues. We assess this possibility by examining advisor behavior following the MFDA regulation in administrative data from two large mutual fund dealers. The advisors are geographically dispersed, allowing us to compare new cohorts of clients differentially affected by the MFDA requirement. Following the regulatory change, the

³The following comments from the Canadian media illustrate the types of concerns that the industry voiced: "One of Newman's most senior staffers spends eight days a month on compliance issues alone, or 'non-profit producing activity' as Newman calls it, and that doesn't include costs the firm would have to incur if the MFDA ever found a problem. [...] The increase in regulation, the demands on supervision and the technology needed to live up to the MFDA requirements are all too much for the smaller firms, says IPC president Chris Reynolds." (Brown 2006) and "MFDA rules require firms to monitor daily trading and client interactions, which has forced funds to greatly increase their compliance staff and introduce new computer technology to track transactions." (McFarland and Nelson 2013).

average new client subjected to the MFDA invests \$18,000, a 50% increase compared to the \$12,000 invested by new clients without MFDA oversight. This evidence suggests that the MFDA requirements encourage advisors to serve clients with larger portfolios for whom revenues compensate for additional regulatory costs.

Our findings illustrate that regulatory oversight of financial advisors can reduce delegation and financial market participation. These consequences were clearly unintended. Canadian securities regulators adopted the rules to increase mutual fund participation by strengthening confidence in advisors. Our analysis complements recent work that examines the consequences of regulatory oversight on advisor misconduct ([Charoenwong, Kwan, and Umar 2019](#)) and annuity sales ([Bhattacharya, Illanes, and Padi 2020](#); [Egan, Ge, and Tang 2020](#)). Viewed in relation to [Charoenwong, Kwan, and Umar \(2019\)](#), our findings highlight a policy trade-off: eliminating advisor misconduct may come at the cost of reducing market participation, particularly among low-wealth households. Both [Bhattacharya, Illanes, and Padi \(2020\)](#) and [Egan, Ge, and Tang \(2020\)](#) note this trade-off and use structural models to conclude that increased oversight causes only modest declines in sales of annuity products. By contrast, we find that increased oversight of mutual fund distribution causes sizeable declines in sales.

Our findings buttress the importance of delegation for stock market participation. [Gennaioli, Shleifer, and Vishny \(2015\)](#) characterize financial advisors as money doctors: individuals who are reluctant to participate in the stock market on their own become willing to do so when guided by an advisor they trust. This model, therefore, predicts that if we were to reduce the supply of advisors via an exogenous shock, stock market participation would fall. Our first-stage estimates support this prediction. In fact, the estimated magnitude of the advisors' causal effect on participation is

large relative to many of the standard covariates in the stock market participation literature.⁴ We estimate that having an advisor increases the probability of having any equity investments by 44 percentage points. This facet of our results suggests that studies of stock market participation—and any proposals for encouraging more participation—should account for the supply and incentives of financial advisors.

2 Financial Advisor Oversight in Canada

Canada’s oversight of investment sales and brokerage is decentralized, with each province maintaining its own securities commission and regulations. Similar to the regulatory landscape in the U.S., Canada’s provincial regulators leave some industry policing to two self-regulatory organizations formed and governed by industry participants. The Mutual Fund Dealers Association (MFDA) oversees firms that exclusively distribute mutual funds. The Investment Industry Regulatory Organization of Canada (IIROC) oversees firms distributing a broader range of investments, including stocks, bonds, mutual funds, and options. MFDA-registered advisors are an important component of retail investment distribution in Canada. As of December 2022, its 85 members employ nearly 78,000 advisors and handle accounts worth C\$635B, or nearly 50% of retail investment assets.

The MFDA was established in June 1998. Five of the ten Canadian provinces accepted it as a regulatory body through “recognition orders” issued between February and November 2001. These legal mandates required all mutual fund dealers in those provinces to become members of the MFDA and abide by its rules. Specifically, as of February 2001, mutual fund dealers in Ontario, British Columbia, and Saskatchewan were required to register with the Mutual Fund Dealers Association of

⁴See, for example, [Merkoulova and Veld \(2022\)](#) for a survey.

Canada (MFDA) and follow the rules and regulations of the MFDA. This requirement expanded to Alberta in April 2001 and Nova Scotia in November 2001. The remaining five Canadian provinces remained free of this (or comparable) regulation until February 2004, when Quebec created a separate regulatory authority. Figure 1 summarizes this timeline.

2.1 The Mutual Fund Dealers Association

The formation of the MFDA created a significant regulatory apparatus. The organization's by-laws and membership rules both exceed fifty pages. The by-laws lay out the organization's constitution and basic operating procedures, including its governance structure, the membership application process, authority to conduct examinations, and disciplinary process. The institution conducts a full on-site compliance examination at each dealer every three years. It also has fairly broad authority to conduct targeted investigations, whether initiated by a client complaint, a request by a provincial securities commission, or a Board of Directors decision. Between 2019 and 2021, the MFDA opened 1,328 enforcement cases and imposed fines totaling C\$17M ([Mutual Fund Dealers Association 2021](#)). The MFDA collects membership fees to support its activities. These fees amounted to C\$32M in 2021.

2.2 MFDA Rules and Costs of Compliance

The MFDA rules establish operational and financial requirements for dealer firms as well as standards of business conduct for their employees. Operationally, the rules primarily affect internal supervision including the requirement to have a compliance officer. The financial requirements impose minimum capital levels up to C\$200,000, monthly financial reporting, and liability insurance against dishonest or fraudulent acts.

MFDA rules contain two main provisions regarding standards of conduct in giving advice. The “know your client” provision requires advisors’ due diligence in learning about, and keeping updated annually, their clients’ risk tolerance and investment objectives. Advisors must ensure the suitability of investments relative to the clients’ objectives. The second provision requires advisors to “deal fairly, honestly and in good faith with clients” ([Canadian Securities Administrators 2012](#)). In this dimension, the restrictions on advisor behavior are less stringent than the fiduciary duty imposed on Registered Investment Advisors in the United States. The latter requires advisors to prioritize client interests over their own in case of any conflicts.

Mutual fund dealers perceived the proposed MFDA rules as onerous: “[I]ndependent financial advisers objected to rules they said would stop them from selling funds unless they were employees or agents of a larger dealer” ([Blackwell 2001](#)). Consistent with this view, MFDA membership declined in the decade following its establishment as small dealers experienced prohibitively high costs. The MFDA President commented: “When our members resign, we ask them why you are resigning, and the majority say, ‘The cost is too great to run my own dealer – I’d rather...let somebody else worry about compliance infrastructure’” ([McFarland and Nelson 2013](#)).

3 Data and Identification strategy

3.1 Canadian Financial Monitor

Our first data source is the Canadian Financial Monitor (CFM), a household survey conducted by the market research firm Ipsos-Reid. The survey provides information about households’ personal banking, investments, credit, and insurance choices, including their use of financial advisors. Ipsos-Reid conducts the survey at monthly frequency, collecting repeated cross-sectional data on roughly

1,000 household per month.

Our sample covers January 1999, the survey's inception, through January 2004. We use the sample weights provided by the CFM to compute nationally representative estimates. Panel A of Table 1 displays descriptive statistics. The average respondent is 47 years old. The average household has income of C\$49,384 and financial assets of C\$61,992. Two-thirds of households are homeowners and one-third have a financial advisor.

Mutual funds are the most widely held financial assets outside of bank deposits. More than one third of households own mutual funds (36%). The next most common holdings are guaranteed investment certificates (31%), bonds (20%), and stocks (18%). The average household has half of their financial wealth in cash and approximately one-quarter each in bonds and equity. In computing asset allocations, we classify 50% of balanced mutual fund holdings as equity and 50% as bonds.

Panel B shows that advised households are more likely to own mutual funds, stocks, bonds, and guaranteed investment certificates (GICs) than unadvised households. These differences are sizable. For mutual funds, the ownership rates are 58% and 34% for advised and unadvised households. For stocks, bonds, and GICs, the participation rates are approximately 10 percentage points higher for advised households. These participation differences translate into substantially larger allocations to risky assets among advised households. The average advised household's equity share of 32% is approximately 1.5-times larger than the 20% share of the unadvised households.

These summary statistics indicate that advised households lean away from cash and towards riskier equity and fixed-income assets. However, because advised and unadvised households can differ in many dimensions, it is unclear to what extent these differences are due to advisor input.

Risk-taking in financial markets may depend on the same household characteristics that influence the demand for advice. In our subsequent analyses, we use a shock to the supply of financial advice to estimate the causal effect of financial advice on risk-taking.

3.2 Administrative Data from Canadian Mutual Fund Dealers

As a second data source, we use administrative records provided by two Canadian Mutual Fund Dealers. These firms advise just under C\$20 billion of assets, or just under 5% of the MFDA sector. The dataset contains transactions and demographic information for both clients and advisors from 1999 to 2012.⁵ We use these data to measure changes in advisors' fee revenue and clienteles following the MFDA requirement.

We limit the sample to individuals who become clients of these two dealers between 1999 and 2004. Panel C of Table 1 displays descriptive statistics for the resulting sample of 42,148 clients. The average client is 45 years old and has an account value of C\$27,000, of which 77% is invested in equities. This proportion is higher than the equity share in the Ipsos-Reid survey because the denominator excludes cash and low-risk savings held outside the mutual fund dealers.

3.3 Identification strategy

We identify the effect of increased oversight of financial advisors by using the MFDA requirement as a regulatory shock. We estimate the following differences-in-differences model:

$$y_{ipt} = \alpha + \beta \text{MFDA Required}_{pt} + \gamma_p + \delta_t + \boldsymbol{\eta} \mathbf{X}_{it} + \varepsilon_{ipt}, \quad (1)$$

⁵These two firms are the same as those examined in [Linnainmaa, Melzer, and Previtero \(2021\)](#).

in which subscripts i , p , and t index households, provinces, and months between January 1999 and January 2004, respectively, and γ_p and δ_t denote province and time fixed effects. We set the dependent variable y_{ipt} to measure either the households' use of financial advisors (Section 4.1) as well as their participation and allocation decisions (Sections 4.2 and 4.3). The variable *MFDA Required* is an indicator variable that takes the value of one in provinces with a MFDA registration requirement as of that date and zero otherwise. The vector \mathbf{X}_{it} contains household-level controls for income, home ownership, education, age, and retirement status.⁶ In some model versions, we include province and month fixed effects to control more flexibly for differences over time and across provinces. To estimate the model, we use weighted least squares, incorporating survey weights from the CFM to provide regression estimates that reflect a nationally representative sample. We cluster the observations by the province in calculating Huber-White standard errors. The coefficient β measures the impact of the registration requirement under the identifying assumption that affected and unaffected provinces are on parallel trends absent the regulation.

4 Estimates of the MFDA Regulation's Impact

4.1 Use of Financial Advisors

We first estimate the impact of the registration requirement on households' use of financial advisors. Table 2 reports the regression estimates from three models in which the dependent variable is an indicator of whether the household uses a financial advisor. In the first two regressions, we consider the use of financial advisors. In the third regression, we consider the use of bank advisors as a

⁶Ipsos-Reid codes household income as a categorical variable, and we use indicator variables that represent these categories as controls. We control flexibly for the age of the head of household with indicator variables for 16 five-year age bins covering ages 20 to 100. We code education based on the maximum level of education of the head of household and spouse and include indicators for each of four categories: high school diploma or less, some college, college degree, and graduate degree.

falsification test, since they were unaffected by the MFDA registration requirement.

The estimates in the first two regressions, with and without household controls \mathbf{X}_{it} , suggest that the registration requirement had a statistically and economically significant effect on the use of financial advisors. The estimated marginal effect of the MFDA requirement is between -2.7% and -3.2% , or approximately 10% of the unconditional probability of using an advisor (34.7%).⁷ The substantial increase in R^2 accompanying the inclusion of the household controls shows that income, home ownership, education, age, and retirement status substantially correlate with the use of advisory services.

The estimated effect in the third regression, in which the dependent variable measures the use of *bank* advisors, is closer to zero at -0.7% and not statistically significant. Therefore, the introduction of the MFDA requirement did not significantly alter the use of bank advisors. This null result is consistent with bank advisors falling outside the MFDA's increased regulatory oversight.⁸

In Figure 2 we plot estimates from an event-time version of equation (1). In this regression we interact the MFDA Required_{pt} variable with a set of indicator variables that keep track of the year relative to the initiation of the MFDA requirement. This figure shows that the usage of financial advisors in the affected and unaffected provinces begin to diverge after the MFDA initiation date. The reduction in the use of advisors increases over time, consistent with industry commentary (see Section 2.2) that the effects of the regulation took time to unfold.

The MFDA registration requirement reduced the use of financial advisors. Shifts in both demand and supply could have affected this equilibrium outcome. The goal of the regulation, of course, was

⁷Clustering with relatively few groups (Canada has ten provinces) provides noisy estimates of standard errors and may lead to overstating the statistical significance of regression coefficients. When we correct for this potential issue by using the wild cluster bootstrap procedure of Cameron, Gelbach, and Miller (2008), we estimate similar, in fact slightly tighter, confidence intervals around the point estimate for β .

⁸In Figure 2, we plot the estimated effects in event time around the introduction of the MFDA requirement for financial advisors and bank advisors.

to increase demand for advice by improving quality. The decline in the use of advisors suggests supply fell quite significantly, enough to offset any such increase in demand. In subsequent analyses in Section 5, we examine the changes in supply more thoroughly using administrative data from two mutual fund dealers.

4.2 Participation in Financial Markets

We next assess the MFDA requirement's effect on financial market participation. We study ownership of mutual funds as well as direct stock and bond investments. The latter two serve as placebo outcomes. Since mutual fund dealers do not broker these investments, they should not be directly affected by the MFDA requirement.

We report the regression estimates in Table 3. The MFDA requirement reduces the likelihood of mutual fund ownership by 2.3 percentage points (pp). The decline in equity mutual fund ownership of 2.2 pp, reported in column 2, almost entirely accounts for this change. Meanwhile, direct stock and bond investments do not significantly change following the MFDA requirement. Overall stock market participation declines by 1.4 pp, consistent with equity mutual fund ownership being an important component of market participation.

Our identifying assumption is that, absent the adoption of the MFDA, individuals in the treated and control regions would invest similarly. We provide two pieces of evidence supporting this assumption. First, we study the dynamics of household financial decisions around the introduction of the MFDA requirement. We plot the estimated effects in event time in Figure 3. The estimates show that the decline in mutual fund ownership, both for all funds (Panel A) and equity funds (Panel B), begins in the year following the introduction of the MFDA requirement. There is no difference in the mutual fund holdings leading up to the registration requirement.

Second, similar to how bank advisors remain outside the scope of the MFDA requirement, so do the direct stock holdings and other non-mutual fund products. The estimates in the non-mutual funds columns of Table 3 show that the MFDA requirement has no statistically significant effect on these non-mutual fund investments. In Panel C of Figure 3 we plot the estimated effect of the MFDA requirement for direct stock ownership in event time. In contrast to the results on the use of advisors and ownership of mutual funds, direct stock ownership rates diverge neither before nor after the introduction of the MFDA requirement.

4.3 Allocation Decisions

Table 4 shows that the MFDA requirement significantly affects households' portfolio compositions in addition to their participation decisions. In Panel A, we examine the proportions of cash, bonds, and equities in households' portfolios before and after the MFDA registration requirement. Household equity shares decrease by an average of 1.7 percentage points in provinces affected by the regulation vis-à-vis those unaffected. This estimate, which is statistically significant at the 1% level, represents a 5% decline from the 36% average equity share of the advised households. The decrease in equity share is balanced by increases in cash (1%) and bond (0.7%) holdings.

4.4 Two-stage Least Squares and the Economic Magnitudes

The reduced-form regressions in Tables 3 and 4 measure the average treatment effect (ATE) of the oversight regulation. In this section, we estimate the average effect of the treatment on the treated (ATT) to assess the economic magnitudes of an increase in regulatory oversight. To identify the ATT, we assume that the regulation affects only the financial decisions of those individuals who will now forgo financial advice at the margin. We estimate a two-stage least squares model in

which the key explanatory variable is the household’s use of a financial advisor, instrumented by the regulatory change:

$$\text{Use Advisor}_{ipt} = \alpha_1 + \beta_1 \text{MFDA Required}_{pt} + \gamma_{1p} + \delta_{1t} + \boldsymbol{\eta}_1 \mathbf{X}_{it} + \varepsilon_{1ipt}, \quad (2)$$

$$y_{ipt} = \alpha_2 + \beta_2 \widehat{\text{Use Advisor}}_{ipt} + \gamma_{2p} + \delta_{2t} + \boldsymbol{\eta}_2 \mathbf{X}_{it} + \varepsilon_{2ipt}. \quad (3)$$

Each regression includes household-level controls and province and month fixed effects. The first-stage regression is the same as reported in column 1 of Table 2. It provides an estimate of each household’s predicted probability of using an advisor ($\widehat{\text{Use Advisor}}_{ipt}$), allowing for variation due to the MFDA Required_{pt} instrumental variable. The second-stage regression uses this predicted probability to estimate advisors’ impact on financial decisions.

We report the estimates from this analysis in Table 5. We first investigate the effect of financial advisors on participation. Financial advisors increase the likelihood of owing any mutual funds by 72.4 percentage points (SE = 18.1%). This economically large effect is not entirely unexpected: MFDA regulation targets mutual fund dealers and, therefore, if it reduces the use of financial advisors, the effect should be the most pronounced in the ownership of mutual funds. Because of the large magnitude of this effect, and because many mutual funds are equity mutual funds, the use of advisors also has a causal effect on stock market participation. As in Table 3, our measure of stock market participation includes not only the mutual-fund channel affected by the MFDA requirement but also direct stockholdings (a channel unaffected by the MFDA requirement). Advisors increase stock market participation by 43.9 percentage points (SE = 21.3%).

We also investigate the effects of financial advisors on asset allocations. Having a financial advisor increases the share of risky (equity) assets by 52.3 percentage points (SE = 16.4%). This

increase in risky assets comes from similar reductions in safer assets, cash, and bonds. Financial advisors, in fact, reduce investments in cash and equivalent assets by 31.3 percentage points (SE = 14.0%) and in bonds by 21.1 percentage points. These estimates and their statistical significance are consistent with the reduced-form estimates reported in Tables 3 and 4; the incremental information in Table 5 is that the IV estimates measure the marginal effect of having an advisor rather than the marginal effect of the MFDA regulation.

We report the OLS estimates next to the IV estimates. The difference between these estimates measures the extent to which the use of financial advisors is endogenous. For example, if the use of financial advisors is independent of all household characteristics and preferences, the IV and OLS estimates should, on average, be close to each other. The main endogeneity concern we address with the IV regression is the possibility that households more likely to participate in the financial markets are also more likely to seek financial advice. That is, these households would participate to the same extent with or without financial advisors. If so, the OLS estimates for the marginal effect would overstate the advisors' causal effect on participation.

In Table 5, however, for both the participation decisions (mutual funds and equities) and for the share of assets invested in equities, the IV estimate is *larger*, not smaller, than the OLS estimate. The difference between the two estimators suggests that advisor use indeed correlates with the error term in the OLS regression but that the direction of the effect is the opposite of that hypothesized above. The OLS estimate's downward bias suggests that individuals comfortable holding mutual funds and risky assets, even when left on their own, appear to be less likely to solicit an advisor's input. Or, conversely, financial advisors appear to be key in getting households to take financial risks. The households who are reluctant to enter financial markets on their own are disproport-

tionately more likely to enter the market *only* when accompanied by an advisor. This evidence is consistent with the model of financial advisors as money doctors who mitigate clients' anxieties (Gennaioli, Shleifer, and Vishny 2015).

In the context of the MFDA oversight regulation, the evidence in Table 5 suggests that losing an advisor is more severe exactly for those clients who might need advisors the most to overcome their reluctance to take equity risk.

4.5 Robustness test: Matched differences-in-differences analysis

The analyses in Tables 2, 3, and 4 implicitly assume that the households in the treated provinces are not different from those in the control provinces in ways that would bias the differences-in-differences estimates. Although we have no reason to suspect this would be the case, we repeat these analyses in a matched difference-in-difference framework.

In Table A1, we kernel match the treated and control groups using propensity-score weights.⁹ We match households in these two groups by income, education, age, homeownership, and retirement status. This analysis aims to evaluate whether the results from the non-matched analysis are sensitive to any differences in these characteristics that also correlate with the use of advisors and asset allocation decisions. Table A1 shows that the remaining differences between the two groups are economically small.

Tables A2, A3, and A4 show, one at a time, that the matched differences-in-differences estimates are close to our main estimates. We find, for example, that (1) the estimated effect of the MFDA requirement for the use of advisors is now -3.5% ($SE = 1.1\%$), which slightly exceeds the estimate of -2.7% ($SE = 0.7\%$) in Table 2; (2) the estimated effect on the ownership of any mutual funds is

⁹See Heckman, Ichimura, and Todd (1997, 1998).

-3.5% ($SE = 0.6\%$), which also slightly exceeds the estimate of -2.3% ($SE = 0.7\%$) in Table A3; and (3) the estimated effect on the proportion of assets allocated into equities is -2.0% ($SE = 0.6\%$), which is similar to the estimate of -1.7% ($SE = 0.5\%$) in Table 4. In short, these matched sample estimates give no indication that the main tests are sensitive to the differences in the socio-demographic characteristics of the households residing in the treated and control provinces.

4.6 Participation following the MFDA Regulation Conditional on Client Assets

The estimates in Table 5 suggest that the effects of the MFDA regulation on stock market participation may depend on client characteristics: if individuals who are less likely to participate when left on their own are more likely to seek financial advice, then the regulation may have a greater impact on those with *unconditionally* lower participation rates. Mankiw and Zeldes (1991), Vissing-Jørgensen (2003), and Van Rooij, Lusardi, and Alessie (2011), and many others, find that wealth correlates positively with stock market participation. If so, we would expect the effects of the MFDA regulation on participation to depend on the level of household assets.

In Table 6, we modify the analyses of the use of advisors (Table 2) and the participation decision (Table 3) by adding the interaction between the level of household assets and the MFDA requirement. The econometric models are otherwise the same differences-in-differences specifications as in the earlier analyses.

In the first column, the dependent variable is an indicator variable for the use of advisors. The slope on the direct effect, *Assets Below Median*, is -15.7% and statistically highly significant. This estimate indicates that households with fewer assets are less likely to have financial advisors. Although we estimate the MFDA requirement to have a different effect on wealthy and poor households, the difference in the effects, -1% , is just 1.4 standard errors away from zero. That is, we

cannot reject the null hypothesis that the wealthy and poor households lose advisors (or fail to find new advisors) at the same intensity following the MFDA requirement.¹⁰

In the remaining columns, we measure the effects of the MFDA requirement on the participation decisions conditional on household assets. *Assets Below Median* is significantly negative in the regressions in which the dependent variable measures the ownership of mutual funds and equities. The last column, however, shows that, *conditional* on owning equities, low-wealth households' risky shares are higher.

Consistent with the hypothesis that the MFDA requirement should affect low-wealth households more, the estimated interaction between the MFDA requirement and the low-assets indicator variable is significantly negative in the participation regressions. That is, the MFDA requirement has a pronounced effect of lowering the stock market participation rate among low-wealth households. In fact, with this interaction, the direct effect of the MFDA requirement—which measures the regulation's effect on high-wealth households—is negative but statistically insignificant in the “any equities” regressions and marginally significant in the “any mutual funds” regression.

Why is the estimated interaction between the MFDA requirement and low assets statistically significant in the asset ownership regressions, but not in the use-of-advisors analysis? The net effect on the participation decision following the MFDA requirement depends on two channels: (1) the change in the use of advisors and (2) the reliance on advisors when making participation decisions. Even if the MFDA requirement caused both the wealthy and poor households to lose—or, from the perspective of as-of-yet-unadvised households, not gain—advisors at the same intensity, the effect on participation could still be large: it would occur if wealthy households are likely to participate

¹⁰The economic magnitude suggested by the point estimates is large, with the MFDA requirement having a $1.0/2.5 = 40\%$ larger effect on the use of advisors by households with fewer assets. In Table 7, we estimate this difference using the larger administrative data set to observe the flow of *new* clients and find an economically large and statistically significant effect.

even when not guided by advisors. Indeed, this is precisely the effect indicated by the differences between the IV and OLS coefficients in Table 3.

5 Changes in Fees and Advisors' Clienteles following the MFDA Regulation

The benefit of the Canadian Financial Monitor data, which we have used so far, is that it includes both the advised and unadvised households, a feature crucial for drawing inferences about the effects of the MFDA requirement on the use of financial advisors and stock market participation. The downside of these data is that they do not consistently track the same households over time nor keep track of who their financial advisors, if any, are. If the MFDA requirement decreases the number of financial advisors, as the estimates in Table 2 indicate, some previously advised households will go unadvised, and some households who would find advice (if advisors remained more plentiful) remain unadvised.

In this section, we use administrative data from the two MFDA dealers described in Section 3.2 to measure changes in new clients' portfolios and fees following the onset of the MFDA regulation.

5.1 Changes in Percentage and Dollar Fees

In Table A5 we measure changes in client fees around the MFDA regulation. We measure fees both as a fraction of the client assets under management (first three columns) and as the average dollar fee per client. We focus on clients that the advisors begin advising either before or after the MFDA regulation goes into effect. For each investor who enters the sample, we compute the average percentage or dollar fee over the first year. The fees in the first column are inclusive all the costs

that accrue to the investor: the estimate includes management expense ratios, front-end loads, and back-end loads, and we adjust for any savings that advisors sometimes pass on their clients from sales commissions. In the second column we measure, more narrowly, the value-weighted average management expense ratio (MER) charged by the funds that investors hold. In the third column, we first standardize MERs by computing, each month, the percentile rank of each fund's MER relative to all other funds in the same asset class.

The estimates in the first column show that, before the MFDA requirement, the average fee paid by clients is 2.49%. This estimate is consistent with studies that find that, in global comparisons, Canadian mutual funds have been among the most expensive. [Khorana, Servaes, and Tufano \(2009\)](#), for example, report an asset-weighted average fee of 2.56% for Canadian equity mutual funds. The slope on the *MFDA Required* variable is -40 basis points. This estimate indicates that the adoption of the MFDA requirement lowered the percentage fee that the typical client pays on their advice. The finding that advisors charge their new clients lower fees is not sensitive to how we measure fees. The estimates based on the more narrow MER-only measures are similar to the first regression that measures the all-in fees that clients pay.

The dollar fee regression in the last column shows that the decrease in percentage fees is more than fully offset by the increase in client assets. Whereas the typical client that joins before the regulation pays \$492.9 for advice over the first year of the advisor-client relationship, this dollar fee increases by \$271.9 for clients who join after the regulation. Because dollar fee equals, by definition, the client fee times the client assets under management, these estimates indicate that the post-regulation clients have significantly larger portfolios than those who join pre-regulation.

The estimates in the first three columns do not support the hypothesis that the MFDA reg-

ulation’s only effect was to lower competition. In the [Berk and Van Binsbergen \(2022\)](#) economy, for example, fees would increase because even competition from “charlatans” is beneficial (from the viewpoint of fees) in that it forces the good actors to compress their fees. These estimates *are* consistent with the idea that advisors have a fixed cost for servicing clients. An advisor with a large number of low-wealth clients would have to charge higher percentage fees to attain the same level of profitability as an advisor with a smaller number of high-wealth clients. If the regulation allowed advisors to increase the size of the average client, advisors may have responded to the regulation by lowering the fees.

5.2 Changes in Client Assets

If the MFDA requirements increase regulatory costs, we would expect advisors to serve clients with larger portfolios after the regulation; the added revenue would compensate for additional regulatory costs. The estimates in [Table 7](#) indicate that advisors acquire clients with substantially larger investment portfolios following the regulation. In the first column, in which the dependent variable is the log-portfolio value, the regulation’s estimated effect on portfolio values is an increase of $e^{0.662} - 1 = 94\%$. The average portfolio value increases from the pre-MFDA period’s C\$18,872 to C\$31,459 in the post-MFDA period.

In the second column we compare the post-MFDA clients’ portfolio values to the distribution of the portfolio values in the pre-MFDA period. The dependent variable takes the value of one if the client’s portfolio value is below the median portfolio value of the pre-MFDA client. This regression shows that the fraction of clients with low portfolio values decreases by 21.1 percentage points (SE = 4.9 pp).

This regression measures from the advisors’ viewpoint the same “use of advisors” effect as we

measured in Table 6 from the households' viewpoint. In the Canadian Financial Monitor data, low-asset households go unadvised at a 40% higher rate than the wealthier households after the MFDA requirement; this estimate is, however, noisy and not statistically significantly different from zero. The key difference in Table 7 is that we measure the portfolio values of *new* clients instead of measuring changes in a sample that pools, by necessity, all clients irrespective of how long they have been advised. That is, we ask whether the new clients that advisors begin to serve following the MFDA requirement are wealthier than those they attracted before the requirement.

How can advisors attract wealthier clients after the MFDA requirement? Suppose we have an economy in which all households are advised: there are multiple advisors and every household is matched with one. If we introduce a requirement that removes some advisors by increasing regulatory costs, some households will be newly unadvised. The advisors who remain can sift through this pool of the unadvised to find the clients who are the most profitable at the margin. Remaining advisors should compete for the wealthy clients, walking down the list of unadvised clients until they reach the point of saturation. In this world, the advisors who remain in business after the regulation would thus sign up wealthier-than-average clients. As discussed in Section 2.2, the Canadian advisory industry experienced a wave of consolidation following the MFDA requirement. As advisors merged with larger dealers or sold their books to advisors who remained, advisors had to assess which clients to retain, that is, which clients would be profitable enough to cover the added compliance costs.

5.3 Changes in Client Demographics

Table 8 shows that the MFDA regulation affects advisors' clientele that extends beyond the portfolio sizes. In this analysis, we use the information from the Know-Your-Client forms that advisors collect

from their clients.

The economically and statistically largest demographic shift relates to client age: the average client who joins post-MFDA regulation is 6.7 years older than the pre-MFDA client. The fraction of clients who are above the early retirement age doubles from 5.3 to 10.8 percentage points.¹¹ The differences in gender, financial knowledge, and net worth are neither statistically nor economically significant. Although there is an effect on salary—which is coded on a six-point scale—this effect is intertwined with age: the average salaries decrease because a larger number of the post-MFDA clients are retirees.

6 Conclusions

We study the effect of investor protections on households' financial market participation using Canadian provinces' 2001 adoption of new rules governing mutual fund distributors. Households residing in the five provinces that adopt the regulations reduce their holdings of mutual funds and the use of financial advice compared to households in other provinces with unchanged investor protections. Our estimates are consistent with regulatory costs causing a negative shock to the supply of advice, leading to fewer delegated purchases of mutual funds. In lieu of mutual funds, households in provinces adopting the investor protections hold larger balances in low-risk, low-return bank deposits and savings bonds.

Viewed together, our findings imply that advice is important in facilitating financial market participation and risk-taking. Households' low stock market participation rate has been a puzzle due to the significant return premium that the non-participants forgo. Our analysis suggests that

¹¹In the Canada Pension Plan, individuals can retire with full benefits at age 65. However, they can retire at age 60 in exchange for permanently reduced benefits.

burdensome regulation can exacerbate underparticipation, particularly for lower-wealth clients that become unprofitable to serve after accounting for regulatory costs. The use of financial advisors appears to have an economically large causal effect on stock market participation: the difference between having and not having an advisor translates to a difference of 44% in the stock market participation rate.

Much of the literature on the stock market participation puzzle adopts the viewpoint that households have full agency over their participation decisions; this literature looks for variables and economic mechanisms related to education, IQ scores, wealth, lack of stock market awareness, and non-standard preferences to explain why many households *choose* not to assume equity risk.¹² Our results suggest that a large part of nonparticipation may stem from frictions related to the delegation channel: if we reduce the supply of financial advisors, a household is less likely to have a financial advisor, and those left without advice are less likely to enter the markets on their own. Importantly for this explanation, we find that it is the households who are less likely to enter the markets on their own who are, all else equal, disproportionately more likely to seek financial advice. This explanation for nonparticipation has starkly different policy implications than those from explanations that place full agency on the households and ignore the delegation channel.

We find that the decrease in the supply of advisors post-MFDA regulation benefited those who remained in the market. Advisors started serving clients with higher portfolios and earned higher fees. The picture that emerges is that removing many advisors spoils the remaining advisors for choice: these remaining advisors chose to serve mostly the wealthier of the newly unadvised clients. This increase in the profitability of the average client coincides with the decreased participation

¹²See, for example, Christiansen, Joensen, and Rangvid (2008) (education), Vissing-Jørgensen (2003) (wealth), Grinblatt, Keloharju, and Linnainmaa (2011) (IQ), Hong, Kubik, and Stein (2004) (lack of stock market awareness) and Epstein and Schneider (2007) and Dow and Werlang (1992) (Knightian uncertainty and ambiguity aversion).

rate among low-wealth households.

We emphasize that our analysis does not provide a welfare evaluation of Canada's investor protections. We cannot conclude whether households benefit, on net, from greater oversight. In particular, we do not have the data necessary to identify regulatory benefits such as reducing fraud or improving the suitability of advisors' recommendations. Nevertheless, we believe it is noteworthy that a policy aimed at strengthening public confidence in the mutual fund industry led to a decline in participation in that market. In that way, our findings highlight the difficult trade-off regulators face—the regulatory burden that goes along with eliminating bad practices may well reduce the supply of advice and, by extension, households' financial market participation.

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Figure 1: **MFDA Registration Requirement in Canada, 2002.** Mutual fund dealers and their agents in five Canadian provinces were required to register with the Mutual Fund Dealers Association of Canada (MFDA) and follow the rules and regulations of the MFDA. This requirement went into effect in February 2001 in Ontario, British Columbia, and Saskatchewan; in April 2001 in Alberta; and in November 2001 in Nova Scotia. The other five provinces had neither MFDA requirement nor any comparable oversight until February 2004.

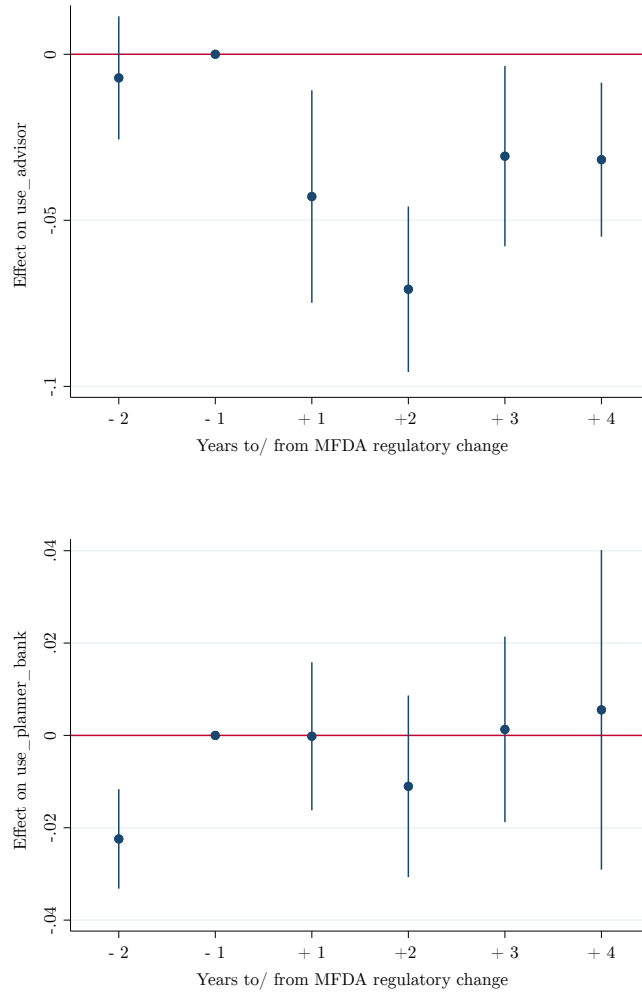
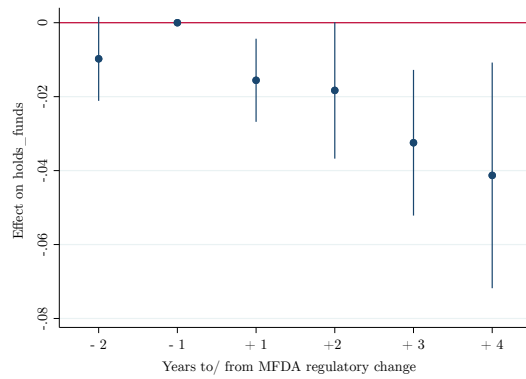
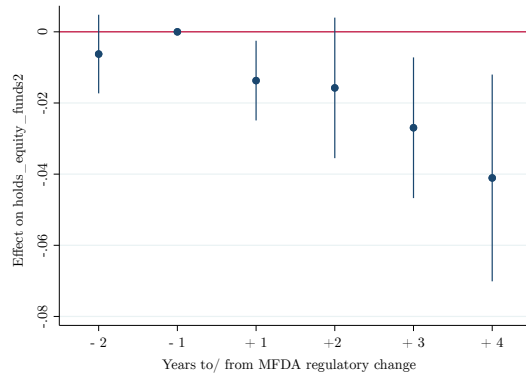


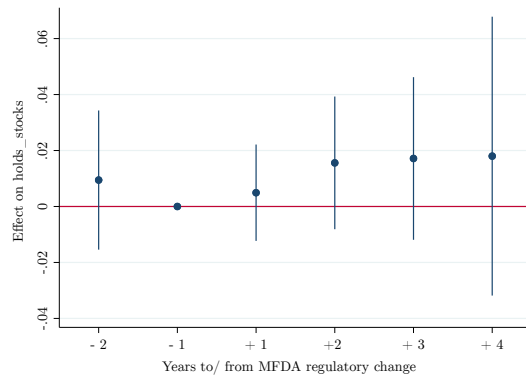
Figure 2: **The Effects of the Regulatory Change on the Use of Financial Advisors.** The top panel shows the estimated effect of the MFDA regulation on the probability of using a mutual fund advisor (i.e., the treated advisors). The bottom panel reports the MFDA effects on the probability of using a bank advisor (i.e., the placebo test). We plot the differences-in-differences coefficients between the treated and control provinces. The omitted category is the year prior to the introduction of the regulation in the treated province.



Panel A: Mutual fund ownership



Panel B: Equity mutual fund ownership



Panel C: Direct stock ownership

Figure 3: **The Effects of the Regulatory Change on Asset Allocation.** The figure shows the estimated effect of the MFDA regulation on the probability of owning mutual funds (Panel A), equity mutual funds (Panel B), and stocks (Panel C). We plot the differences-in-differences coefficients between the treated and control provinces. The omitted category is the year prior to the introduction of the regulation in the treated province.

Table 1: Descriptive statistics from survey and administrative data

Panels A and B report summary statistics from the Canadian Financial Monitor survey of Canadian households conducted by Ipsos-Reid. The data are the monthly surveys from January 1999 through January 2004. All the statistics are reported using survey weights. In Panel A we report information for the entire sample. *Age* is that of the head of household. *Education* is the maximum level of education of the head of household and spouse. The indicator variable *Retired* takes the value of one if the head of household is retired and zero otherwise. In Panel B we report financial information delineated by the household's use of financial advisor. *GICs*, guaranteed investment certificates, are term deposits offered by banks. In Panel C we report summary statistics for those 42,148 clients of two Canadian mutual fund dealers that sign up with an advisor from one year before to one year after the province in which they reside adopts the MFDA requirement. Advisors collect risk tolerance, financial knowledge, salary, and net worth information from their clients using know-your-client forms.

Panel A: All households

Variable	Mean	Std. Dev.
Age	46.6	15.3
Education (%)		
HS diploma or less	30.9	46.2
Some college	22.7	41.9
College degree	36.8	48.2
Graduate degree	9.6	29.4
Retired (%)	13.9	34.6
Homeowner (%)	66.0	47.4
Use financial advisor? (%)	34.7	47.6
Income (\$)	49,384	34,160
Assets (\$)	61,992	149,307
Asset allocations (%)		
Cash	50.8	42.1
Bonds	25.1	32.5
Equity	24.1	33.7
Participation decisions (%)		
Mutual funds	36.3	48.1
Stocks directly	18.2	38.6
Bonds directly	19.6	39.7
GICs	30.9	46.2
Checking or savings account	97.8	14.8

Panel B: Households with and without a financial advisor

Variable	With Advisor		Without Advisor	
	Mean	Std. Dev.	Mean	Std. Dev.
Asset allocations (%)				
Cash	32.7	36.7	51.1	42.2
Bonds	31.1	32.0	25.4	33.1
Equity	36.2	35.4	23.5	33.8
Participation decisions (%)				
Mutual funds	57.5	49.4	33.5	47.2
Stocks directly	29.4	45.6	18.7	39.0
Bonds directly	27.5	44.7	19.8	39.9
GICs	42.7	49.5	30.7	46.1
Checking or savings account	98.7	11.5	97.5	15.5

Panel C: Administrative data from two Canadian mutual fund dealers on new clients ($N = 42,148$)

		Mean	10 th	25 th	50 th	75 th	90 th
Demographics	Age	44.6	28.5	35.7	44.3	53.3	61.0
	Female	51.4					
Investment portfolio	Account value, \$K	27.2	1.0	3.4	10.6	29.8	68.1
	Equity share (%)	77.0	47.8	60.6	85.6	100	100

Table 2: Change in the Use of Financial Advisors following the MFDA Regulation

This table reports results from a regression of financial advisor usage on an indicator variable *MFDA required*. This variable is equal to one in the provinces adopting the MFDA regulation in the months following the adoption and zero otherwise. In columns 1 and 2, the outcome variable is an indicator variable that takes the value of one if the household uses any financial advisor and zero otherwise. In column 3, the outcome variable is an indicator variable that takes the value of one if the household uses a bank-employed financial advisor and zero otherwise. The estimates are computed using CFM survey sampling weights. All analyses include province and year fixed effects. In columns 2 and 3 we also include household controls for retirement status, homeownership, (categories of) age, education, and (categories of) income. The monthly survey data from CFM begin in January 1999 and ends in January 2004. Robust Huber-White standard errors are clustered at the province level.

	Dependent Variable: Indicator for Using an Advisor		
	Any Advisor		Bank Advisor
MFDA Required	-0.027*** (0.007)	-0.032*** (0.006)	-0.007 (0.012)
Observations	56,303	56,303	56,303
R-squared	0.01	0.07	0.09
Province and year FEs?	Y	Y	Y
Household controls?	N	Y	Y

Clustered standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 3: Participation in Financial Markets following the MFDA Regulation

This table reports results from a regression of asset ownership on an indicator variable *MFDA Required*. This variable is equal to one in the provinces adopting the MFDA regulation in the months following the adoption. In column 1, the outcome variable is an indicator variable equal to one if the household owns any mutual funds and zero otherwise. In column 2, the outcome variable is an indicator variable for ownership of equity mutual funds. In column 3, we investigate ownership of direct equity investments (individual stocks). In column 4, the outcome variable measures the ownership of bonds. In column 5, we analyze if the household owns any equity investment; we classify equity mutual funds, balanced mutual funds, and direct stockholdings as equity investments. All analyses include province and year fixed effects, and household controls for retirement status, homeownership, (categories of) age, education, and (categories of) income. The monthly survey data from CFM begin in January 1999 and ends in January 2004. Robust Huber-White standard errors are clustered at the province level.

	Dependent Variable: Indicator for Asset Ownership				
	Mutual funds		Stocks	Bonds	Equity, direct or indirect
	Any	Equity funds			
MFDA Required	-0.023*** (0.007)	-0.022*** (0.006)	-0.003 (0.010)	-0.001 (0.007)	-0.014* (0.008)
Observations	56,303	56,303	56,303	56,303	56,303
R-squared	0.19	0.12	0.12	0.05	0.21
Province & year FEs?	Y	Y	Y	Y	Y
Household controls?	Y	Y	Y	Y	Y

Clustered standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 4: Allocation Decisions following the MFDA Regulation

This table reports results from a regression of asset allocation on an indicator variable *MFDA Required*. This variable is equal to one in the provinces adopting the MFDA regulation in the months following the adoption. The dependent variable is the fraction of total financial assets invested in specific asset classes. In column 1, the outcome variable is the fraction of cash assets (checking and saving accounts, and money market funds) over total financial assets; in column 2, the outcome is the fraction of bond assets (bonds, GICs, and fixed income funds) over total financial assets; and in column 3, the outcome is the fraction of equity assets (individual stocks and equity and balanced mutual funds) over total financial assets. All analyses include province and year fixed effects, and household controls for: retirement status, homeownership, (categories of) age, education, and (categories of) income. The monthly survey data from CFM begin in January 1999 and ends in January 2004. Robust Huber-White standard errors are clustered at the province level.

	Dependent Variable: Proportion of Assets Allocated		
	Cash	Bonds	Equity
MFDA Required	0.010* (0.005)	0.007** (0.003)	-0.017*** (0.005)
Observations	54,712	54,712	54,712
R-squared	0.19	0.07	0.17
Province and year FEs?	Y	Y	Y
Household controls?	Y	Y	Y

Clustered standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 5: Measuring the Effects of Increased Regulatory Oversight: IV vs. Least Squares Estimates

This table reports results from ordinary least squares (OLS) and two-stage least squares (IV) regressions of financial behaviors on an indicator variable equal to one if the household uses a financial advisor. In the IV regressions we instrument the use of financial advisors with an indicator equal to one in the provinces adopting the MFDA regulation in the months following the adoption. Each row reports results for a different outcome variable. The first two regressions measure financial market participation. *Mutual funds* is an indicator variable that takes the value of one if the household owns any mutual funds and zero otherwise. *Equities (direct or indirect)* takes the value of one if the household owns any equity or balanced funds or has direct stockholdings and zero otherwise. The other three regressions measure effect on asset allocations. The outcome variables are the fractions of the total financial assets invested in cash, bond, or equities. We report the averages and definitions of these asset classes in the description of Table 4. All analyses include province and year fixed effects, and household controls for: retirement status, homeownership, (categories of) age, education, and (categories of) income. Robust Huber-White standard errors are clustered at the province level.

	The effect of financial advisors		N	R^2	Fixed effects	
	OLS	IV			Province	Time
Participation (%)						
Mutual funds	0.151*** (0.011)	0.724*** (0.181)	56,303	0.21	Y	Y
Equities (direct or indirect)	0.140*** (0.008)	0.439** (0.213)	56,303	0.23	Y	Y
Asset allocations (%)						
Cash	-0.133*** (0.003)	-0.313** (0.140)	54,712	0.21	Y	Y
Bonds	0.062*** (0.008)	-0.211** (0.102)	54,712	0.08	Y	Y
Equity	0.071*** (0.009)	0.523*** (0.164)	54,712	0.18	Y	Y

Clustered standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 6: Use of Advisors and Participation following the MFDA Regulation Conditional on Client Assets

This table reports results from a regression of financial advisor usage and asset ownership on indicator variables *MDFA Required* and *Assets Below Median*, and their interaction. *MDFA Required* is equal to one in the provinces adopting the MFDA regulation in the months following the adoption and *Assets Below Median* is equal to one for households below the median in asset values. In column 1, the outcome is an indicator variable that takes the value of one if the household uses any financial advisor and zero otherwise. In column 2, the outcome is an indicator variable equal to one if the household owns any mutual funds and zero otherwise. In column 3, the outcome variable is an indicator variable for ownership of any equities, either through direct ownership or mutual funds. In column 4, the outcome variable is the proportion of assets in equities, with direct stock ownership and equity and balanced mutual funds counted as equities. All analyses include province and year fixed effects, and household controls for: retirement status, homeownership, (categories of) age, education, and (categories of) income. The monthly survey data from CFM begin in January 1999 and ends in January 2004. Robust Huber-White standard errors are clustered at the province level.

	Dependent Variable:			
	Any Advisor	Asset Ownership		
		Mutual Funds	Any Equities	Percent Equities
MFDA Required	-0.025*** (0.007)	-0.008* (0.004)	-0.000 (0.008)	-0.007 (0.008)
MFDA Required \times Assets Below Median	-0.010 (0.007)	-0.023** (0.010)	-0.020** (0.007)	-0.015 (0.010)
Assets Below Median	-0.157*** (0.005)	-0.456*** (0.010)	-0.491*** (0.006)	0.296*** (0.011)
Observations	56,303	56,303	56,303	54,712
R-squared	0.09	0.35	0.38	0.31
Province & year FEs?	Y	Y	Y	Y
Household controls?	Y	Y	Y	Y

Clustered standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 7: Client Assets and Fees following the MFDA Regulation

This table reports results from a regression of portfolio values and fees on an indicator variable *MFDA Required*. This variable equals one in the provinces adopting the MFDA regulation in the months following the adoption. In column 1, the outcome is the log of the client *Portfolio Value*. In column 2, the outcome, $\mathbb{1}(\text{Low Portfolio Value})$, is an indicator variable equal to one for investors whose portfolio value is below the median relative to the pre-MFDA distribution of portfolio values. The median (mean) portfolio value pre-MFDA is equal to C\$6,683.61 (C\$18,871.98). In column 3, the outcome is the dollar amount of the client's fees. *Mean Value (pre-MFDA)* is the average value of the outcome variable in the pre-MFDA period. All analyses include fixed effects for provinces and years. The data are administrative records from two Canadian mutual fund dealers. We measure clients' account values over the first 12 months of observations starting from the day each investor enters the sample. Robust Huber-White standard errors are clustered at the investor level.

	Dependent Variable:		
	Portfolio Value (Log)	$\mathbb{1}(\text{Low Portfolio Value})$	Client Fees as \$ Value
MFDA Required	0.662*** (0.164)	-0.244*** (0.056)	271.86*** (71.38)
Mean Value (pre-MFDA)	8.701	0.500	492.87
Observations	172,700	172,700	172,700
R-squared	0.023	0.018	0.008
Province & year FEs?	Y	Y	Y

Clustered standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 8: Changes in Advisors' Clienteles following the MFDA Regulation

This table reports results from a regression of client demographics on an indicator variable *MFDA Required*. This variable is equal to one in the provinces adopting the MFDA regulation in the months following the adoption. In columns 1 and 3, the outcome is an indicator variable that takes the value of one for either female clients or clients older than 60 years. In column 2, the outcome is the client's age in years. In columns 4 through 6, the outcome is a categorical variable from the Know-Your-Client forms, indicating the client's financial knowledge, salary, and net worth. All analyses include province and year fixed effects. The data are administrative records from two Canadian mutual fund dealers. We measure each client's age as of the date they first enter the sample. Robust Huber-White standard errors are clustered at the investor level.

	Dependent Variable:					
	$\mathbb{1}(\text{Female})$	Age	$\mathbb{1}(\text{Age} > 60)$	Financial Knowledge (1 to 3)	Salary (1 to 6)	Net Worth (1 to 5)
MFDA Required	-0.069 (0.078)	6.708*** (1.416)	0.055*** (0.020)	-0.074 (0.095)	-0.332*** (0.120)	-0.067 (0.155)
Mean Value (pre)	0.466	41.182	0.053	1.790	2.059	4.156
Observations	103,867	103,867	103,867	103,867	103,867	103,867
R-squared	0.002	0.018	0.008	0.032	0.006	0.015
Province & year FEs?	Y	Y	Y	Y	Y	Y

Clustered standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A1: Treated vs. Control Groups: Comparison of Socio-demographic Characteristics

This table reports the demographic characteristics of the treated and control groups after matching by socio-demographic characteristics. We match treated and control households based on retirement status, homeownership, (categories of) age, education, and (categories of) income using propensity-score weights following Heckman, Ichimura, and Todd (1997, 1998). We do match on the use of financial advisors, but report the usage rates for the matched treated and control households.

Variable	Means		Difference	<i>t</i> -value	<i>p</i> -value
	Control Group (<i>N</i> = 8,129)	Treated Group (<i>N</i> = 16,874)			
Age	44.39	45.33	0.94	1.64	0.13
Education (coded as 1–6)	3.63	3.57	−0.06	1.50	0.17
Retired (%)	8.51	10.36	1.85*	1.92	0.09
Homeowner (%)	75.16	77.10	1.94	0.51	0.62
Income (\$)	47,705	47,913	208	0.21	0.84
Use a financial advisor? (%)	41.9	42.7	0.8	0.97	0.36

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A2: Change in the Use of Financial Advisors following the MFDA Regulation—Matched Differences-in-Differences Analysis

This table reports results from a regression of financial advisor usage on an indicator variable *MFDA required*. This variable takes the value of one in the provinces adopting the MFDA regulation in the months following the adoption. In column 1, the outcome variable is an indicator variable that takes the value of one if the household uses any financial advisor and zero otherwise. In column 2, the outcome variable is an indicator variable that takes the value of one if the household uses a bank-employed financial advisor and zero otherwise. The estimates are computed using CFM survey sampling weights. All analyses include province and year fixed effects. Treated and control households are matched based on retirement status, homeownership, (categories of) age, education, and (categories of) income. The monthly survey data from CFM begins in January 1999 and ends in January 2004. Robust Huber-White standard errors are clustered at the province level.

	Dependent Variable: Indicator for Using an Advisor	
	Any Advisor	Bank Advisor
MFDA Required	-0.035*** (0.011)	-0.008 (0.008)
Observations	56,303	56,303
R-squared	0.00	0.01
Province and year FEs?	Y	Y

Clustered standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A3: Participation in Financial Markets following the MFDA Regulation (Matched DiD)

This table reports results from a regression of asset ownership on an indicator variable *MFDA Required*. This variable equals one in the provinces adopting the MFDA regulation in the months following the adoption. In column 1, the outcome is an indicator variable equal to one if the household owns any mutual funds and zero otherwise. In column 2, the outcome variable is an indicator variable for ownership of equity mutual funds. In column 3, we investigate the ownership of direct equity investments (individual stocks). In column 4, we analyze if the household owns any equity investment; we classify equity mutual funds, balanced mutual funds, and direct stockholdings as equity investments. In columns 5 to 8, the outcome variables capture ownership of bonds, guaranteed investment certificates or GICs (a form of term deposits), and checking or saving accounts. All analyses include province and year fixed effects. Treated and control households are matched based on retirement status, homeownership, (categories of) age, education, and (categories of) income. The monthly survey data from CFM begins in January 1999 and ends in January 2004. Robust Huber-White standard errors are clustered at the province level.

	Dependent Variable: Indicator for Asset Ownership						
	Mutual funds		Equity Stocks	Equity, direct or indirect	Bonds	GICs	Checking or Savings
	Any	Equity funds					
MFDA Required	-0.035*** (0.006)	-0.032*** (0.007)	0.007 (0.009)	-0.018** (0.006)	-0.007 (0.004)	0.014 (0.010)	-0.001 (0.002)
Observations	56,303	56,303	56,303	56,303	56,303	56,303	56,303
R-squared	0.01	0.01	0.00	0.01	0.01	0.00	0.00
Province & year FEs?	Y	Y	Y	Y	Y	Y	Y

Clustered standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A4: Allocation Decisions following the MFDA Regulation (Matched DiD)

This table reports results from a regression of asset allocation on an indicator variable *MFDA Required*. This variable equals one in the provinces adopting the MFDA regulation in the months following the adoption. The dependent variable is the fraction of total financial assets invested in specific asset classes. In column 1, the outcome variable is the fraction of cash assets (checking and saving accounts, and money market funds) over total financial assets; in column 2, the outcome is the fraction of bond assets (bonds, GICs, and fixed income funds) over total financial assets; and in column 3, the outcome is the fraction of equity assets (individual stocks and equity and balanced mutual funds) over total financial assets. All analyses include province and year fixed effects. Treated and control households are matched based on retirement status, homeownership, (categories of) age, education, and (categories of) income. The monthly survey data from CFM begins in January 1999 and ends in January 2004. Robust Huber-White standard errors are clustered at the province level.

	Dependent Variable: Proportion of Assets Allocated		
	Cash	Bonds	Equity
MFDA Required	0.009* (0.005)	0.011* (0.005)	-0.020*** (0.006)
Observations	54,712	54,712	54,712
R-squared	0.00	0.00	0.01
Province and year FEs?	Y	Y	Y

Clustered standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A5: Client Fees following the MFDA Regulation

This table reports results from a regression of client fees on an indicator variable *MFDA Required*. This variable is equal to one in the provinces adopting the MFDA regulation in the months following the adoption. In column 1, the outcome is the fees the advisor earns as percentage of assets under management. In column 2, the outcome is the management expense ratio that the client pays as percentage of assets under management. In column 3, the outcome is the management expense ratio that the client pays as a percentile rank within each mutual fund asset class. In column 4, the outcome is dollar amount of these fees. *Mean Value (pre-MFDA)* is the average value of the outcome variable in the pre-MFDA period. All analyses include province and year fixed effects. The data are administrative records from two Canadian mutual fund dealers. We take the first 12 months of observations from each client when they first enter the sample and measure the fees in dollars and as a fraction of assets during this period. Robust Huber-White standard errors are clustered at the investor level.

	Dependent Variable:			
	Client Fees as % of AUM	Client MER as % of AUM	Client MER as Percentile within Asset Class	Client Fees as \$ Value
MFDA Required	-0.40*** (0.09)	-0.32*** (0.05)	-0.10*** (0.03)	271.86*** (71.38)
Mean Value (pre-MFDA)	2.49	2.40	0.43	492.87
Observations	172,700	172,700	172,700	172,700
R-squared	0.012	0.031	0.034	0.008
Province & year FEs?	Y	Y	Y	Y

Clustered standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$