# Same bank, same clients but different pricing: How do flat-fees for mutual funds affect retail investor portfolios? *

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**ABSTRACT**

What happens when a bank introduces a flat-fee pricing scheme for trading mutual funds to its brokerage clients while leaving everything else unchanged? Only 1.26% of clients adopt the fee scheme. Adopters have been using financial advice and are less prone to inertia. Difference-in-differences analyses of previously advised clients reveal that flat-fee clients seek and follow more advice and improve their portfolio efficiency. A second field experiment, with a large branch bank replicates the main results. We suggest that flat-fees increase trust in advisor quality and reject alternative explanations, like cost-advantages, sunk-cost fallacy, novelty effects or advisor (time) fixed effects.

JEL classification: D14; D18; G11; G24; G28

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# 1 Introduction

In August 2009, the bank we work with was among the first banks in Germany to introduce a flat-fee model (fee scheme) for trading and holding mutual funds. This fee scheme is marketed as an alternative way to pay for mutual fund products and services and runs in parallel with the bank's traditional inducement-based model (inducement scheme). In our study, we ask the following question: if clients are free to choose between a fee scheme and an inducement scheme at the same bank with the same unaltered service offerings at the same quality, will the clients use and benefit from the fee scheme?

Under the fee scheme, clients pay a quarterly fee in proportion to the average value of their total portfolio holdings, including stocks, bonds, funds, etc. The fees range from 0.7% to 1.0% p.a. depending on the portfolio size category. In exchange, front loads for mutual funds are waived, and any kickbacks that the bank receives from investment companies for clients holding a particular fund are reimbursed to the client. Under the traditional inducement scheme, which is still the standard model used at most banks in continental Europe in general and Germany in particular, clients pay front loads to the bank when purchasing mutual funds (at our bank, an average of 2.0% (1.2% at the 25% percentile and 2.6% at the 75% percentile)) and annual fund management fees of which kickbacks are a part. Consequently, trading and holding mutual funds may be relatively cheaper under the fee scheme for approximately half of the clients[1] because the cost differential between the two schemes is a function of the fund share, fund turnover and fund choice.[2] Importantly, there is no difference between the two schemes in the service quality and scope of advice or other available services or support. The advice does not change after switching to the fee scheme.[3]

All clients (fee scheme and inducement scheme) may equally consult (over the phone) with a team of professional financial advisors at no extra cost. All advisors are trained bank clerks, who are employed by the bank on a fixed-salary contract. The advisors are randomly assigned to clients on a call-by-call basis regardless of the client or scheme type. The advisors mainly

[1] The fee scheme is constructed by the bank and is cost-effective for approximately half of the clients. Cost-effective indicates that clients reduce their overall trading costs by switching to the fee scheme based on their trading behavior over the previous months. The Internet appendix (table A.I.) shows a calculation example of a cost advantage and a cost disadvantage, and this information is also provided to clients on the bank's website.

[2] The client effort for switching to the fee scheme is negligible (approximately 5 minutes) as it only requires checking a box online and entering a confirmation TAN. This effort is equivalent to the effort necessary when seeking investment advice for the first time. Prior to calling the team of advisors, clients also need to check a box online and enter a confirmation TAN. Clients are free to switch pricing schemes at each quarter end. For clients who have switched to the fee scheme we observe no switches back to the inducement scheme.

[3] See A.I. and tables A.II. to A.IV. in the Internet appendix.

aid clients in selecting mutual funds from the full universe of funds available on the German retail market. The bank's central investment committee provides advisors with a list of mutual funds from all fund categories that advisors are supposed to prioritize in their recommendations. However, according to their clients wishes, advisors are free to discuss all types of investment products.[4]

The data we obtained from the bank and use here, contain pseudonymized records on 55,551 randomly selected clients over the period from 2008 to 2015 for which demographic and portfolio data are available. Of these, 47,024 never consulted the advisory team but made only self-directed trades, and the remaining 8,527 consulted the advisory team at least once during the sample period. Client records contain socio-demographic information, full trading history, portfolio holdings at month-end, all transactions on savings and checking accounts (date and value in euros), and detailed information on any advisory meeting. The information on advisory meetings includes date and time, as well as the ISINs of all products recommended by the advisor. Additionally, we are equipped with a file that contains details on all fee payments from the clients to the bank and any kickbacks repaid by the bank to the clients as part of the fee scheme.

Our first finding is that the adoption rates of the new pricing scheme are low. In our full sample, only 1.26% of clients switch to the fee scheme. The adoption rates substantially vary between self-directed clients and advisory clients. Hardly any self-directed clients switched, whereas the adoption rate among the advised clients was 8.19%. The explanation for this wedge in adoption rates is unlikely to be unawareness as the fee scheme was advertised prominently on the main website of the bank and through multiple mailing campaigns to clients with positive portfolio holdings and at least one mutual fund position. Instead and consistent with the literature, the low adoption rates might be due to inertia and/or status quo bias (e.g., Cronqvist, Thaler, and Yu (2018), Samuelson and Zeckhauser (1988)) as investors are known to be driven by default options (see review by Beshears et al. (2009)). Evidence from a subgroup of 1,715 clients who sought advice for the first time after September 2009 shows that the willingness to switch to the new fee scheme increases to 19.5%. This finding demonstrates that when muting inertia, the switching rate increases, but the overall switching rates remain low. Therefore, status quo bias may be an important factor as clients newly opting for advice need to confirm

[4] We conduct a cross-sectional analysis, which shows that the funds on the recommendation list possess larger fund volumes, exhibit better historical performance, and are more expensive than the average fund in the respective market-wide peer groups. We provide the analysis in the Internet appendix in tables A.I. to A.III. The bank does not produce mutual funds. Additionally, operating an open architecture provides all funds with a comparable a priori likelihood of being on the list.

their choice of scheme. Notably, fees are paid at the end of each quarter, which reduces the influence of loss-aversion on the adoption decision. Additionally, when restricting to new advisees with a clear cost-benefit (high mutual fund share and turnover in mutual funds) by switching (based on their trading behavior in the previous months), the adoption rates are still low (23.8%). When we investigate which observable attributes of advisory clients make selecting the fee scheme more likely, we obtain positive relationships with being female, educational attainment, portfolio size, trading fees paid in the previous months under the inducement scheme, and finally, risk-adjusted net portfolio returns achieved in the past.

Our second group of findings is documenting positive changes in client behavior and portfolio outcomes that evolve after switching into the new pricing scheme. For our main tests, we employ an event-time panel difference-in-differences design that compares switchers to the fee scheme to a control group of propensity-score matched clients who stay in the inducement scheme. The matching is by client and switching date and uses socio-demographics, past investment behavior and differences in asset allocation as inputs. We opt for this strategy as the decision of a client to switch to the fee scheme is endogenous but might also be driven by factors unrelated to the introduction of the fee scheme. We leverage the fact that both compensation schemes run in parallel and that clients switch at different points in time. This creates both cross-sectional and time-series variation that helps better identify the effect of switching on investor portfolios. In the robustness section, we also use a group of clients who switch later as the control group and reach the same conclusions.

Our estimates show that, on average, opting into the fee scheme relative to staying in the inducement scheme results in an 18% increase in the share of mutual funds in the total portfolio volume and this goes in line with a fourfold increase in the number of client-advisor contacts. Regarding the average portfolio outcomes, we find a 30,774-euro increase in the portfolio volume and finally, an improvement in portfolio performance (3.5%) from the higher mutual fund shares and higher risk-adjusted gross returns (ignoring potential cost savings coming from the fee- or the inducement scheme) in the 36 months after the switch.

Our third group of findings validates that the increasing fund shares are achieved through the advisory channel. We rule out alternative cost-related economic mechanisms such as reaping cost savings because we show that self-directed trading in mutual funds remains of the same magnitude before and after the switch while advised fund trading significantly increases. We reject a sunk-cost fallacy phenomenon, i.e., the tendency to unduly factor earlier, non-recoupable expenses into present decisions (Arkes and Blumer (1985)) by using cross-sectional

regressions of the change in active funds and change in advisor contacts. We expect that if the sunk-cost fallacy applied, investors who have a cost disadvantage would use advice and mutual funds even more to reach the break-even point. Furthermore, we repeat our main analyses in a subgroup of clients who sought investment advice from the bank for the first time after the fee scheme was introduced to address novelty effects and compare the new fees under the inducement and fee schemes.

By analyzing the probability to follow received financial advice we show that fee scheme clients are approximately 40% more likely to follow an advisor's recommendation in comparison to the control group but also to their own previous behavior. We proceed with a recommendation-by-recommendation analysis of the advisor recommendations and find that switching clients increase their following to advisor recommendations with regards to recommended mutual funds that diversify their holdings across international markets and asset classes. While these findings indicate that clients experience a boost in trust after the switch, we present evidence that the same clients perceive the quality of advice of higher quality under the flat-fee scheme than under the inducement scheme. We achieve this by means of an online survey of 826 sample clients and find that most respondents indeed associate the fee scheme at the bank with fairer and better advisor recommendations and that most clients also feel more confident in investing in international capital markets under the fee scheme.

To ensure the robustness of our results, we run several tests. We compare the behavior of early switchers to that of clients who have not yet switched. Because these clients eventually switch to the fee scheme, both groups share the same attitude towards advice and are also likely to share non-observable variables, suggesting that we can isolate the effect from experiencing the new price model. Our results are robust to these alternative specifications. Controlling for advisor fixed effects and restricting to clients with a main banking relationship do not change our results.

A final concern is related to the field experiment. We are working with a large online bank whose clients might be sufficiently different from other clients. Hence, the results could potentially not be generalizable to the broader population of retail investors. Fortunately, there is a second implementation of a comparable fee scheme for securities trading and holding at a large branch bank. Their fee scheme started in July 2013 and did not focus on funds only but included all security types. Using the same approach used to analyze the effects, we find that our results seem to be generalizable to the effect of the introduction of a fee scheme.

To the best of our knowledge, there is neither empirical nor theoretical work that directly asks how the pricing of retail investment services affects household financial decision making. The most closely related theoretical work is performed by Gennaioli, Shleifer, and Vishny (2015), who show that asset allocation decisions are mediated by clients' trust in financial advisors. Their model focuses on the effect of clients' trust and the reaction of their financial advisors, whereas our field experiment allows us to focus on the changes in demand for financial advice in response to a new pricing scheme option. This study also connects well to the stream of papers by Inderst and Ottaviani (e.g., Inderst and Ottaviani (2009), Inderst and Ottaviani (2012a), Inderst and Ottaviani (2012b), Inderst and Ottaviani (2012c)). Their papers suggest that the incentives of financial advisors have heterogeneous effects on clients depending on the client's savviness and involvement. However, their research focuses on the financial advisory business and how advisors might respond to their incentives in light of different hypothetical clients. The reaction of clients to bank offerings is analyzed by Bhattacharya et al. (2012). The authors show that financial advice, even if unbiased and inexpensive, is neither taken up nor followed by clients. Their paper does not address the question of what makes people follow advice. However, reductions in costs, process innovations and their effects on portfolios are scrutinized by Barber, Odean, and Zheng (2005), who provide evidence that customers consider salient fees when making financial decisions. This finding applies to mutual fund investments. Finally, and only remotely related, papers related to financial advice have been published.[5] However, in our study, we are not concerned with issues related to the quality of financial advice, misconduct of advisors, or the willingness to cure biases because we focus solely on customer reactions to changes in payment schemes as advice is held constant.

As the impact of pricing schemes for retail investment on investment decisions and demand for advice has not been studied empirically, the empirical evidence provided by our study is of the highest importance for behavioral finance research, policy makers, regulators, and clients.[6] While the previous literature has shown that investors are relatively insensitive to fees (e.g., Choi, Laibson, and Madrian (2009), Elton, Gruber, and Busse (2004)), our paper shows that investors perceive the same financial services differently when switching to another pricing

[5] Empirical studies find that financial advisors affect the behavior of individual investors on average (Hackethal, Haliassos, and Jappelli (2012), Hoechle et al. (2018), Stolper and Walter (2018), Linnainmaa, Melzer, and Previtero (2018)); brokers charge mark-ups and sell dominated structured retail products (Célérier and Vallée (2017), Egan (2019)), repeatedly commit misconduct (Egan, Matvos, and Seru (2017a), Egan, Matvos, and Seru (2017b)) and fail to cure client biases (Mullainathan, Noeth, and Schoar (2012)).

[6] Thus far, regulators have mainly focused on financial advice. The United Kingdom (e.g., McMeel (2013)) and the Netherlands completely banned inducement-based financial advice, while Australia and the US have responded by mandating advisors to adhere to a fiduciary duty. The European Union requirements include the Markets in Financial Instruments Directive that advocate greater transparency and documentation.

scheme. Furthermore, changing the cost model leads to a sustainable and valuable change in clients' behavior. Thus, our paper contributes to the stream of literature concerning the evaluation of various policy responses in regulating consumer financial products (Thaler and Benartzi (2004), Campbell (2006), Campbell et al. (2011) Agarwal et al. (2009), Agarwal et al. (2014)) as well as to the effectiveness of default options (e.g., Beshears et al. (2009)). Financial institutions that offer high-quality financial advice and want their clients to follow such service as much as possible should deliberately introduce a flat-fee pricing scheme for managing their portfolios.

# 2 Experimental setting and data

## 2.1 Pricing schemes for mutual fund trading within the bank

The German online bank we are partnering with started out as an online brokerage. Over time, the bank has evolved into a full-service online retail bank and offers the complete range of retail products, including a platform for online trading, credit and savings products, and retirement solutions. With its various service offerings, the bank serves several hundred thousand customers. The bank itself does not issue financial products or mutual funds under its own management and instead runs an open architecture in selling mutual funds from all asset managers and thus independently markets its advice.

The bank uses the traditional inducement scheme, which continues to be the standard in most bank-client relationships in continental Europe in general and Germany in particular. Clients pay front loads (at this bank, an average of 2.0% (1.2% at the 25% percentile and 2.6% at the 75% percentile)) and annual management fees when purchasing mutual funds. Banks usually receive kickbacks out of this management fee. In September 2009, the bank was one of the first banks in Germany to introduce a fee scheme in parallel to this inducement scheme (see plot A in figure I for a timeline). Plot B in figure I shows the timeline of clients switching to the fee scheme. The bank introduced the fee scheme with a limited number of clients in September 2009 and made the fee scheme available to all clients in the second quarter of 2010. Clients are reported to be enrolled in the fee scheme at the beginning of the quarter in which they switch. We observe clients signing up for the fee scheme gradually over the whole sample period with peaks at the beginning of the offering.

[Insert Figure I about here]

Customers opting into the fee scheme pay a stepwise decreasing fee as a percentage of their average quarterly portfolio value ranging from 1% to 0.7% per annum for portfolio values under €100k and over €500k, respectively. Charging a percentage fee instead of a fixed fee per hour or counselling session mitigates the risk of reducing the demand of clients with smaller portfolios since costs scale with portfolio value. In return for paying the fee, front-end loads on mutual fund purchases are waived, and the bank reimburses all kickbacks they received at the end of each quarter. These benefits apply to all mutual fund purchases and holdings of a fee scheme client and not only to mutual funds recommended by the bank or the advisor. Independent of the payment scheme, direct transaction costs such as exchange and other trading fees apply. This results in a cost advantage for the fee scheme when trading funds with front-end loads or kickbacks but not for trades in other securities. Financial advice is also available at no extra cost. We provide a break-even analysis for two hypothetical clients A and B in figure II. The fund share as a percentage is illustrated on the x-axis, the fee advantage in euros is illustrated on the y-axis, and the monthly turnover is shown on the z-axis. The fee advantage is calculated as the costs for trading securities under the inducement scheme minus trading securities under the fee scheme. [7] This break-even analysis shows that clients benefit from switching into the fee scheme when they have, e.g., a mutual fund share above 50% and monthly turnovers above 5%. The bank constructed the scheme that 50% clients would benefit from switching to the fee scheme.

[Insert Figure II about here]

The bank informed about the newly offered fee scheme on its webpage with comparable calculation examples as those shown in table A.I. in the Internet appendix. Furthermore, the clients received an e-mail on the alternative pricing model when it became available. In addition to offering financial advice, for non-advisory clients, there is also purely technical and processual support in securities trading via telephone. Therefore, our results are likely not driven by clients being unaware of or not understanding the new pricing scheme. However, the inducement scheme is the default scheme for everyone since there are no recurring charges, whereas the fee scheme requires the client's action. Signing up for or changing to the fee scheme requires additionally subscribing by entering a 6-digit TAN (approximately 5 minutes of effort).

[7] Figure II includes the equation for the calculation of the fee advantage based on two hypothetical clients. We refer any reader interested in the detailed calculation to the extended example in table A.I. in the Internet appendix.

## 2.2 Advice

Financial advice began to be offered in July 2005 and is only available on the phone for investments and not for consumer loans or mortgages. The financial advisory services are provided by trained bank clerks in specialized call centers located in Germany. These bank clerks have all completed a three-year vocational training as bank officers or as insurance clerks with a training program involving on-the-job training in various departments at a bank, such as client advisory on investments and credit, functions as a teller and back-office responsibilities. In addition to the practical aspects of the training, apprentices spent two days a week at a vocational school and take classes on financial mathematics, finance, accounting, financial markets and products as well as regulations and legal issues. The bank hires trained bank clerks as full-time employees, and their salary is defined by the collective wage agreement for the banking industry. According to this collective wage agreement for private banks in Germany, financial advisors receive an annual gross salary of 30,000 to 45,000 euros depending on experience. As outlined by Hoechle et al. (2018) incentives affect advisor behavior. The variable payment of financial advisors is based on the success of the entire bank and its entire division and must not exceed one monthly gross salary per year. Therefore, variable financial incentives play a minor role for financial advisors employed by our bank. [8] Furthermore, the variable payments and advisor incentives do not change with the introduction of the fee scheme. Financial advice is free of charge for the clients because the initial charges and management fees do not differ between advised and self-directed trades.

The bank employs a central research unit to create a list of recommended products that is the basis for financial advice but can also be viewed by all clients of the bank when they are logged in. Advisors only discuss products not on the recommendation list on client request. The recommendation list is reviewed monthly. The research unit only considers delegated financial products such as mutual funds, index funds, ETFs and basket certificates for the recommendation list. There are no model portfolios that cater to different risk aversions. These asset allocation decisions mainly depend on self-reported risk aversion by the client in the know-your-customer (KYC) documentation. Ultimately, the asset allocation and the choice of a financial product are determined during the interaction of the advisor and the client.

[8] In line with this notion of weak-powered incentives, changing the performance metric on which the individual variable pay is based by the bank from portfolio turnover to assets under management, on January 1, 2011, had no effect on advisors' turnover with clients. This holds in unreported analyses we run and is confirmed by bank officials who closely monitored advisors during the period in which variable pay was based on turnover and the fee scheme was already made available in August 2009 to avoid gaming by the advisors.

The bank provides us with all purchase recommendations made by the advisors to clients from January 02, 2008. We use the data from the beginning of 2008 to the end of December 2015. Here, we analyze purchase recommendations only because sell recommendations are path dependent because they are subject to the existing portfolio of the client and therefore bias our assessment of what has changed in the advice. Since the advice has not changed, we do not find any differences in the recommendations under the fee scheme or the inducement scheme.[9]

### 2.3 Investor data

The online bank offers brokerage accounts in combination with current accounts and debit cards. Of their several hundreds of thousands of customers, we received pseudonymized records on a randomly chosen subset of 55,551 investors over the period from 2008 to 2015. For these investors, we received data on socio-demographic information, time-stamped security transactions, and monthly portfolio holdings. We were also granted access to transactions on liquidity accounts and balances as well as a file outlining whether a client has received financial advice and how often clients and advisors have interacted. The information on the advisory meetings importantly includes purchase recommendations, the date of the recommendation, and the product recommended as identified by the ISIN. We are also equipped with a file that shows the payment of fees to the bank as well as kickbacks paid to the clients, which allows us to identify clients in the fee scheme.

There are 113,000 client IDs that we receive from the bank. Combining these IDs with socio-demographic data and requiring the clients to be private clients, clients that are alive, clients above the age of 18 and clients with a securities portfolio during the period between 2007 and the end of the sample for at least 5 years reduces our sample to approximately 80,000 investors. In addition, to measure the effects of the introduction of the fee scheme, we need the clients to be active around its introduction. To do so, we require clients to have a portfolio for at least 200 days over the period between September 2008 and September 2009, the year before the introduction of the fee scheme. For some of these clients, additional demographic variables are missing because they are not mandatorily reported. This is the case for employment status, for example. Thus, our final sample consists of 55,551 clients. These investors are described in table I (column 1): The average investor included in our sample is 53 years old, married (59%), male (85%), a German resident (97%), and has been a client of the bank for 14 years. Most

[9] We provide the analyses on the purchase recommendations before and after the switch, summary statistics of recommended and not recommended funds, and characteristics of recommended funds in table A.II. to A.IV. as well as a discussion of the results in A.I. in the Internet appendix.

investors work as employees (50%), whereas 12% are retired. The average investor has a risk aversion of 3.58, which is measured on a scale of 1 (indicating high risk aversion) to 5 (indicating low risk aversion). Brokerage clients are generally expected (Cole, Paulson, and Shastry (2014)) and found to be more sophisticated than the overall population (Dorn and Huberman (2005)). Therefore, it is not surprising that 7% of our investors hold a doctoral degree. This value is higher than that of the German population (1.1%, German Federal Bureau of Statistics (2011)). These descriptive statistics are highly comparable to those reported in household finance studies based on US data (e.g., Odean (1998); Barber and Odean (2001)).

The average (median) investor holds a portfolio value of 46,124 (23,207) euros and pays trading fees of 455 (65) euros per year. The portfolio of the average investor is 51% single stocks and 35% actively managed funds. The average investor's actively managed funds are 80% equity, which is mainly focused on Germany (41%), Europe (16%), and multinational (18%). The portfolio of the average investor has an unsystematic variance share of 55% and receives and generates a portfolio performance of 5.7% per annum (4-factor alpha). These 4-factor alphas seem to be very high due to the period of observation. When using the entire period before the introduction of the fee scheme (January 2003 to September 2009) instead of the 12 months prior to September 2009, the 4-factor alphas are negative (-7.7% per annum), and the unsystematic variance share is approximately 34%, which is in line with findings in previous research on the performance of private investors in Germany and the US (e.g., Bhattacharya et al. (2017), Bhattacharya et al. (2012), Barber and Odean (2000)).

[Insert Table I about here]

Investor panel data sets based on administrative data are usually subject to the concern that they only observe play money accounts. To address this concern, we compare average portfolio values to official statistics. Deutsche Bundesbank (2014) reports an average portfolio value of a German stock market investor that is roughly of the same magnitude as the average portfolio value in our sample, which therefore seems to be comparable. Additionally, we compare portfolio holdings to self-reported gross annual household incomes for investors reporting these data. Since income is reported within several ranges, we use the midpoint of each range as a proxy for investor income. The mean ratio of the average portfolio value (for the entire sample period) to annual income is close to 1.2. As a comparison, the ratio of total financial assets to gross household income for the German population is roughly 1.1 (German Federal Bureau of Statistics (2008b), German Federal Bureau of Statistics (2008a), Deutsche Bundesbank (2014)).

## 2.4 Market data

We complement the bank data with data on mutual funds from Thomson Reuters Eikon and with market data from Thomson Financial Reuters Datastream. We use monthly position statements combined with transactions, transfers, and securities' returns to compute daily portfolio positions and daily return series (gross and net of transaction costs) for every investor. To do this, we first infer daily holdings from monthly position statements, security transactions, and account transfers. We have end-of-day holdings for the last day in every month. To obtain the next end-of-day holdings, we multiply the end-of-day value of each holding by the corresponding price return (excluding dividends but considering any capital actions) for that security. These holdings are then properly adjusted for any sales, purchases, and account transfers that occurred on that same day. We repeat this procedure for every security and investor for each trading day in a given month. The holdings on the last day of each month are then reconciled with the true holdings obtained from the online bank to address any data quality issues that might result from the market data.

Second, we compute daily portfolio returns as the weighted average of the returns of all securities held, purchased, or sold by the investor on that day. We use total return data (including dividends) for securities without transactions on that day. With our market data, we are able to cover 97% of the securities held or traded as measured by investors' total portfolio value. For securities that are either purchased or sold, we consider exact transaction prices to compute returns. We weight each security's return to calculate investors' daily portfolio returns. All holdings and sales are weighted by using values in euros based on the previous day's closing prices. All purchases are weighted by using the transaction value in euros. We compare the performance of investors using gross (before trading costs and after management costs of securities) returns and thereby ignore transaction costs. This is done to isolate the decision quality of the investments. Note that this procedure leads to inducement-scheme clients appearing to be in a relatively better position because we are ignoring front-end loads and do not account for the reimbursement of kickbacks for fee scheme clients. Our approach in this area is hence conservative with respect to the benefit of the fee scheme. We underestimate the effects by approximately 100 bps per year because we ignore the reimbursement of the kickbacks.

We use different risk-adjusted performance measures; therefore, we use the following 4 factors computed daily for the broadest German index (CDAX): the German market factor (MKT), a

bond factor, small minus big (SMB), high minus low (HML), and the momentum factor (MOM).

# 3 Empirical approach

## 3.1 Key metrics

To quantify the impact of the fee scheme on clients, we compare fee scheme clients to inducement-scheme clients. We use several measures of advice usage, portfolio allocation, trading behavior, and portfolio performance.

We provide one measure of advice usage and three measures of portfolio allocation. (1) We measure the total number of client-advisor interactions for each client by counting the number of calls initiated by the advisor or client. (2) We measure the HHI (Herfindahl-Hirschman index) as a measure of diversification and portfolio efficiency.[10] It is calculated as the sum of the squared portfolio weights of each asset (identified by its ISIN) in a portfolio at each month-end. Following Dorn, Huberman, and Sengmueller (2008a), mutual funds are counted as 100 different securities. The lower the value of this measure is, the higher the degree of diversification. (3) We also use the unsystematic variance share resulting from a 4-factor model using the German CDAX as the market. (4) We determine the share of active funds.

We measure trading activity and portfolio performance with four measures. (1) We measure the portfolio value in euros for each investor. (2) We determine the portfolio value and follow Barber and Odean (2001) to measure *portfolio turnover* and compute it for investor *i* in month *t*:

$$Portfolio\ turnover_{i,t} = 0.5 * \frac{purchases_{i,t}}{portfolio\ value_{i,t}} + 0.5 * \frac{sales_{i,t}}{portfolio\ value_{i,t-1}} \qquad (1)$$

When monthly portfolio turnovers are larger than 1, the turnover is set to 1 (= 100%) for that specific month. (3) To determine the potential advantage if clients switch to the fee scheme, we compare the fees paid in the last 12 months to the alternative fees that would be paid under fee-based advice when buying the same securities (recall the example and description in figure II). (4) We use the daily realized portfolio returns by considering all securities held, purchased, or sold by the investor on that day.

[10] The HHI is a measure of diversification widely used in the finance literature (Ivković, Poterba, and Weisbenner (2005), Dorn, Huberman, and Sengmueller (2008b), Ivković, Sialm, and Weisbenner (2008)).

## 3.2 Identification strategy

### *3.2.1 Difference-in-differences Analysis*

The main goal of our analysis is to investigate what effects the switch to the fee scheme has on trading decisions, asset allocation, and portfolio outcomes of investors. Because of the structure of our data, we use a difference-in-differences methodology to compare investors who opt for the fee scheme to those who remain in the inducement scheme. To mitigate concerns of endogeneity through self-selection, we employ propensity score matching in our main analyses. In the robustness section, we also discuss results from additional approaches to the endogeneity problem like comparing early to late switchers, comparing customers who start advice in the fee scheme to those who start in the inducement scheme. All of these analyses do not lead to different conclusions. We provide details on the matching in the following section.

Plot B of figure I shows that investors gradually switch to the fee scheme. We match one investor who remains in the inducement scheme to each switcher from the inducement scheme to the fee scheme. This creates a panel in which investors switch at different points in time. To investigate the effects, we analyze the effects from 12 (36) months around the switching date in event-time. This procedure creates both cross-sectional and time-series variations that help to better identify the effect of switching on investor portfolios. The resulting general panel regression setup is as follows:

$$\begin{aligned} Y_{i,t} = {} & \alpha_i + \beta_1 Event\ time \left(dummy\ (post = 1)\right)_i \\ & + \beta_2 Event\ time \left(dummy\ (post = 1)\right)_i * Fee\ (dummy)_i \\ & + \beta_3 PFE + \varepsilon_{i,t}\ . \end{aligned} \tag{2}$$

where Y represents one of our key metrics from the previous section. $\alpha_i$ displays the constant; Fee (dummy) is always set to one for clients who switch to the fee scheme, and the event-time dummy is set to one after the individual switching date of each investor into the fee scheme and zero otherwise. The switching date for the matched investors is aligned with the switching date of the treated switcher. PFE represents person fixed effects. Including additional time fixed effects has no effect on the results. However, we control for month fixed effects and event-time fixed effects and report the results in the Internet appendix (tables A.VII. and A.VIII). The effect we are interested in is the interaction term between the fee and the event-time dummy, which is measured by $\beta_2$. The null hypothesis is that the effect of switching on diversification, trading behavior, portfolio performance, or investment decisions is zero. We run the analyses using investor double-clustered standard errors on the person and the monthly date. In the

robustness section, we also show results that control for advisor fixed effects, compare investors who switch to either the inducement scheme or fee scheme and use late switchers as an alternative control group.

The advantage of this setup is that provided that there are parallel trends before the event, any common trends for the treatment and the control group after the event are controlled for as long as the decision to switch is exogenous. Opting for the fee scheme is not independent of (observable) investor characteristics, which may lead to self-selection and hence biased results. Thus, running the regression implied by equation (2) requires additional measures to counter this self-selection.

### *3.2.2 Treating endogeneity concerns*

To address the problem of a potential selection bias, we implement a propensity score matching approach initially introduced by Rosenbaum and Rubin (1983). We estimate the propensity score using a logit specification.[11] We choose a rather simple matching estimator because we match a switcher to the fee scheme to a similar investor who decides to remain in the inducement scheme. The downside of propensity score matching is, however, that there are observations discarded from the analysis. We match the nearest neighbor from the region of common support with replacement to avoid a loss in precision. We use both investor and portfolio characteristics. To ensure that the variables are unaffected by receiving financial advice, all independent variables are measured at the end of September 2009. This is the month prior to the introduction of the fee scheme. If variables require a time-series to be computed (e.g., turnover), we use the twelve months before September 2009.

The assumption that the two groups are comparable can be tested by checking for common trends before the date of the switch. Under the null hypothesis that the matching works well, we expect no difference in behavior between the two groups. This test is in the spirit of Heckman and Hotz (1989). Figure IV depicts the results of this test. The charts provide evidence for reasonably common trends before switching. In the Internet appendix, we test these common trends using differences-in-means tests for all matching variables (tables A.IX. and A.X.) as well as a placebo analysis with switching dates one year prior to the real dates (table A.XI.). We also find no meaningful difference if we assume the hypothetical switching date to be another year earlier. The result of this test indicates that our matching has successfully mitigated selection bias. For completeness we also run the difference-in-

[11] In unreported tests, we also consider probit specifications. The results do not depend on the specification we choose.

differences without matching. The resulting table can be found in the Internet appendix (A.XII.). As expected, without matching results are stronger. However, all effects go in the same direction and the effect sizes are comparable, documenting that our endogeneity treatment did work. In total, we conclude that our matching works and use the results to evaluate the effects of the securities account reports on the investment decisions of investors. Remaining time-invariant but unobserved differences are absorbed by the person fixed effects.

Even though there is little evidence to believe that our matching estimator may not be mitigating the endogeneity, we try out different approaches in the robustness section. One alternative way of addressing the endogeneity concern is comparing those customers who switch to the fee schemes early to those who decided to switch late. We split the sample at the median date of switching (July 2012). This strategy exploits the differences in the timing of the switching decision and assumes that those who switch early are comparable to those who switch late and behave similarly had they made decisions on their own. We discuss this approach in section 5.3. Results qualitatively match those of the propensity score. Furthermore, it might be conceivable that investors use financial advice at points in time that are special to the individual as they for example have decided to invest more into funds, which all financial advice offered by the bank is about. Alternatively, taking-up financial advice creates some form of excitement which both may be sources of endogeneity. To address both of these potential sources of endogeneity we compare investors who just start financial advice in the fee scheme to those who start in the inducement-scheme. We discuss the results in chapter 5.2 and show again no qualitative differences in the results.

# 4 Results & discussion

## 4.1 The use and users of the fee scheme and financial advice

To illustrate the adoption of the fee scheme by clients, we focus on the time-period between January 2008 and December 2015 (see figure III). In total, 1.26% make use of the fee scheme whereas 98.74% make use of the inducement scheme. The probability to switch in the fee scheme highly depends on whether a client makes use of financial advice or not. Hardly any self-directed client switched in the fee scheme. [12] Of the existing advised clients, 8.19% switch to the fee scheme after its introduction whereas 91.81% remain in the inducement scheme.

[12] However, all types of clients also trade on their own and never fully delegate to an advisor.

The low adoption rates are not due to the fee scheme being too expensive as the fee scheme is beneficial for approximately half of the clients in terms of costs. [13] Furthermore, the explanation for this wedge in adoption rates is unlikely to be unawareness as the fee scheme was advertised prominently on the main website of the bank and through multiple mailing campaigns to clients with positive portfolio holdings and at least one mutual fund position. Instead, and in line with literature, low adoption rates might be due to inertia and/or Status Quo bias (e.g., Cronqvist, Thaler, and Yu (2018), Samuelson and Zeckhauser (1988)) as investors are known to be driven by default options (see review of Beshears et al. (2009)). Chart C in figure III illustrates that the willingness to switch into the new fee scheme increases to 19.53% for clients seeking financial advice for the first time. In this setting, inertia is muted as clients newly opting for advice need to either confirm the inducement scheme or to choose the new fee scheme. While this switching rate is higher but still low, status quo bias is likely to be the driving force.[14] Additionally, when restricting to new advisees with a clear cost-benefit by switching based on their trading behavior in the previous months, adoption rates are still low (23.8%), indicating that cost advantage are neither the important factor in deciding for the fee scheme.

[Insert Figure III about here]

Almost all users of the fee scheme make use of financial advice at least once during the observation period. Thus, we restrict all further analyses on advised clients. Table I provides descriptive statistics for September 2009, which is the month when the fee scheme was made available. In total, we have 8,527 advisees in our sample for which all demographic information is available. Throughout our observation period, 8,209 of these investors received financial advice at least once under the inducement scheme. Of the advisees, 699 decided to switch from advice under the inducement scheme to advice under the fee scheme during our observation period (switcher to fee). In addition, and not the focus of any further analysis we also find that of the self-directed clients, 1,380 opted for advice under the inducement scheme (new inducement), and only 335 opted for advice under the fee scheme (new fee) during our observation period.[15] In other words, only 1 in 4 clients seeking financial advice opted for the fee scheme.

[13] The break-even analysis in figure II shows that the cost-effectiveness of the fee scheme is a function of fund share and portfolio turnover. Thus, clients with higher fund shares and higher portfolio turnover benefit more by switching in the fee scheme.

[14] It also becomes evident that even in the period when the fee scheme is offered the first time, far more investors opt for inducement-based advice than for the fee scheme.

[15] For the sake of brevity and simplicity we report summary statistics for inducement scheme clients and switchers as we compare switchers with matched inducement scheme clients in the following analyses. For all analyses, new advisees (self-

In terms of socio-demographic characteristics, switchers to the fee scheme are more likely to be female, more likely to hold a Ph.D., less likely to be already retired, have a slightly higher risk class, and a longer relationship with the bank than advised inducement-scheme clients. They also have higher portfolio values with lower turnovers from sales and purchases and pay more fees than do inducement clients. Thus, fee scheme clients seem to be less cost sensitive. Furthermore, they hold fewer single stocks and more actively managed funds and achieve higher returns when comparing 4-factor alphas. Note that the alphas are relatively similar between the two groups.

[Insert Table I about here]

Table II reports those demographics in probit regressions with a specification for switchers to the fee scheme compared to inducement-scheme clients (columns 1 and 2). Results from the probit analysis echo the results from the univariate comparisons.

[Insert Table II about here]

All in all, we find that investors are reluctant to switch to the fee scheme. When looking for reasons for this behavior, we find some socio-demographic characteristics to be indicative and potential cost savings to be a factor, but both are not the only explanations for the low adoption rates. On top, looking at clients who decide to start using financial advice are much more likely to use the inducement-scheme rather than the fee scheme. Unawareness and inertia are in these cases much less present. Still, clients are used to pay inducements, thus we conclude that the reasons against switching are likely due to a combination of inertia and status-quo bias.

### 4.2 Effects of the fee scheme on switchers

The previous section has shown that a small number of people switch to the fee scheme relative to the number of those who would have benefited. We continue by analyzing whether fee scheme clients change their behavior after the switch. As noted above and in the Internet appendix A.I. with tables A.II. to A.IV., the supply side remains unaltered, and only the costs of trading mutual funds change. Therefore, the expectation that fee scheme clients trade more in funds, because they are relatively cheaper, seems intuitive. However, if this reaction was only drive by a cost effect, then this effect should apply to both self-directed fund trading and to advised trading in mutual funds alike.

directed clients to advice under the inducement scheme or fee scheme) are excluded from our sample. We refer any reader interested in the summary statistics of new fee clients and new inducement clients to table A.V.(A.VI.) in the Internet appendix.

We use the above described difference-in-differences setting with matched pairs of switchers and socio-demographically similar non-switchers (both advised) to investigate the effects of the fee scheme on the decision making of private investors. We begin by examining how the advice is used and followed before turning to the question of how the asset allocation changes between the two groups. Ultimately, we seek an answer to the question of whether the fee scheme is beneficial for users, beyond potential cost advantages. We first depict the results graphically and then provide additional statistical robustness through regression analysis.

The graphical analyses in figure IV provide evidence that the common trends assumption, as a prerequisite for a difference-in-differences strategy, is satisfied.[16] Although there are sometimes level differences, the changes over the time-series are well aligned. After the switch to the fee scheme and in line with expectations, the figures provide evidence that fee scheme clients trade more in funds. The increasing fund share improves asset allocation and portfolio performance by using more diversified mutual funds. The key driver of this trend seems to be a steeply increasing number of talks and contacts with the advisor.

In detail, figure IV shows that clients switching to the fee scheme talk more often to their advisor after the switch. While inducement clients and switchers talk to an advisor once per year before the switch, the number of contacts increases for switchers to 3.5 contacts per year in the 10$^{th}$ month after the switch, whereas the number of contacts remains unchanged for inducement clients. Note that this effect is not a sensation or novelty effect of using a new advisory scheme because it also persists when considering the 36 months after the switch. Switchers increase their portfolio diversification (HHI) after the switch while increasing the total number of securities. Both effects are mainly driven by an increase in the share of active funds which is highly statistically significant. After 12 months, switchers hold a fund share of 80% in their portfolio after the switch, and inducement clients hold a share of roughly 62% active funds in a situation in which levels were comparable before.

Furthermore, switchers increase the portfolio value by approximately 20,000 euros from 120,000 to 140,000. Switchers double their portfolio turnover during the first month after their switch and remain at that higher level during the next months. While the previous figures provide evidence that the fee scheme improves asset allocation by inducing switchers to invest more in mutual funds due to an increasing number of contacts with the advisor, they also ultimately benefit from the switch in the form of higher portfolio performance measured by 4-

[16] Additional evidence on the quality of the match can be found in the Internet appendix (tables A.IX.to A.XII.).

factor alphas (Carhart 1997). The 4-factor alphas use the German CDAX as the basis to build daily factors.

We provide additional econometric validation of these results using a panel regression in event-time on advice usage, portfolio allocation, and portfolio performance. We are interested in the interaction term of the fee-advice dummy and event-time dummy. All specifications include person fixed effects, and standard errors are double-clustered on the portfolio ID and month-by-year. We provide the analysis with 12 (36) months before and after the individual switching date of the respective client and show the results in table III. As the two sets of results are comparable, we report the results with the longer time horizon only. Fee scheme clients are significantly more likely to talk with an advisor following the switch than are non-switchers. Switchers have approximately two additional advisory talks per year (panel C, column 1). They significantly increase their portfolio diversification (a 5.78% decrease in HHI) by increasing their fund share by 17.7% (columns 2 and 4). We find a significant increase in portfolio value and an increase in portfolio turnover by 1.67% (panel D, columns 1 and 2). In line with the higher fund share and increasing turnover, fee scheme clients pay significantly more (hypothetical) fees (104 euros) and increase their portfolio performance by 3.5% (columns 3 and 4).

[Insert Table III about here]

In the robustness section we demonstrate that these results hold for different approaches of defining the control group and by comparing early to late switchers and showing that the results are also not driven by novelty effects. The results also hold for advisor and time-fixed effects. We obtain similar results when we limit ourselves to clients who have their salary account with our bank and we also show that the same effects occur, when we analyze a comparable field experiment at a brick-and-mortar bank at a later point in time.

### 4.3 Economic mechanisms

We find that adoption of the fee scheme results in a higher fund share, and as a consequence, in better portfolio diversification. There are four economic mechanisms that could be responsible for that linkage. Firstly, as fund transaction costs are cut to zero under the fee scheme, the price of purchasing and holding funds declines also relative to other financial instruments and this might increase the demand for mutual funds. Secondly, clients might be subject to a form of the sunk cost fallacy. Because they pay a flat-fee they feel urged to purchase mutual funds in order to recoup the fee from saved fund transaction costs. Thirdly, mere novelty

effects from trading mutual funds at zero cost under the new scheme might prompt some clients to conduct more mutual funds transactions directly after switching. And fourthly, there could be a more subtle mechanism at work that works via an increase in trust in advisor recommendation quality. The new pricing scheme might reduce the perceived conflict of interest faced by financial advisors and, as a result, clients might be more willing to seek advice and follow the advisor's recommendations. We will show evidence that questions the validity of the first three explanations and that is consistent with the trustworthy advice channel.

#### *4.3.1 Are cost advantages explaining the results?*

The increasing fund share might be caused by clients switching to the fee scheme to purchase funds at reduced costs and reduce the total cost of holdings securities in a portfolio. [17] If reaping savings were the only reason to switch in the fee scheme, we would expect self-directed trades and advised trades to be of the same importance before and after the switch. The reason is, that irrespective of the chosen pricing model, financial advice is free and doesn't change. If cost advantages were the explanation, both self-directed and advised mutual fund trading would increase, because the lower costs apply irrespective of whether a mutual fund is purchased through an advisor or directly. It is important to recall that the clients in our sample are well experienced in trading all sorts of securities self-directedly. Thus, they are neither in need to consult an advisor for trade executions nor do they substantially save time (e.g., by lowering information costs) by doing so. Note that following also increases in mutual funds types they already traded before and those mutual funds they sell.

Our data allow us to investigate whether adoption of the fee scheme affects the relative probability of purchasing funds self-directedly or through an advisor in a difference-in-differences setting in event time. We flag each client-advisor contact and the respective recommendations. We analyze the probability to trade funds within 7 (30) days before and after the advisor interaction and differentiate between self-directed trading and trading based on recommendations by the advisor. This analysis is possible because a substantial number of investors trade in this period both self-directedly and based on recommendations. For mutual fund trading on advisor recommendation we flag each trade related to a recommendation in the following 7 (30) days. We include a dummy for recommended funds and two interaction terms. The first interaction term is for fee-scheme and event time and the second one for recommendation, advice and event time. The first one measures the changes in self-directed

[17] The only costs to pay for fee scheme clients is the remaining difference between the management fee and the reimbursed kickback.

mutual fund trading and the second one measures the changes in mutual fund trading based on financial advice. Table IV shows the results.

[Insert Table IV about here]

Looking at the latter interactions, we find that fee scheme advisees are 20.9% more likely to trade funds if they have been recommended after the introduction of the fee-scheme in the 7 days after the interaction with their advisor (column 1).[18] This effect is statistically significant on the 1%-level. We also look at the days before the interaction with an advisor (columns 3 and 4). In this time-period we do not find an increase in self-directed trading in mutual funds. In this case we are interested in the coefficients on Fee x Event-time because it shows the increase in self-directed mutual fund trading before the interaction with advisor but after the client has switched to the fee-scheme. It turns out to be statistically insignificant, showing no change in self-directed mutual fund trading.

Taken together, these findings contradict the idea of fee-scheme clients simply taking advantage of a cheaper way of trading funds. Fee-scheme clients are significantly more likely to trade on financial advisor's recommendations than self-directedly. Lower trading costs cannot cause this behavior because the same trading costs applied if clients traded on their own.

#### *4.3.2 Is the sunk cost fallacy/buffet effect explaining the results?*

A second explanation for the increasing fund share is the sunk cost fallacy and/or the buffet effect. The sunk cost fallacy dates back to the work of Arkes and Blumer (1985) and describes an effect according to which people continue a behavior or prefer an option once they have invested money or time into it although it is not necessarily the best option. A similar behavior is observed in all-you-can-eat buffets, where people consume as much as necessary to reach the break-even costs in comparison to the à la carte menu. If prices in an all-you-can-eat buffet drop, consumption from the buffet is consequently also reduced (Just and Wansink (2011)).

This suggests testable implications. If the sunk cost fallacy and/or the buffet effect could explain the rising fund share, we would expect that those who pay more are the ones who purchase more funds. We compare the clients who pay more under the fee scheme than they did previously when being inducement-advised to the clients who pay less under the fee scheme. Additionally, this group should be particularly eager to reach the break-even point and thus increase their fund shares more and, potentially, increase their advisor contacts.

[18] The same result applies when analyzing the 30 days before and after the interaction (column 2).

To test these implications, we look at changes in the mutual fund share and changes in number of contacts with advisors. The first variable allows to look at changes in the diversification and the second one allows to analyze whether or not people seek more financial advice. We employ three proxies for investors most susceptible to the sunk cost fallacy or the buffet effect. If sunk costs played a role, investors with larger portfolios for which the absolute costs in the fee-scheme are higher (columns 1 and 4), those who now pay more than before (columns 2 and 5) and those who are in the top two terciles of the fee scheme should have the largest effects (columns 3 and 6), if the sunk-fallacy or the buffet effect played a role.

[Insert Table V about here]

The tests we run are all insignificant. The sunk cost fallacy or the buffet effect does not explain our findings. One reason might be that the fee is only paid at the end of the quarter and that it is directly withdrawn from the customer account, while at the same time kickbacks are reimbursed. Previous literature shows that more mentally distant payments and means of payments mitigate the effect, which is consistent with our results (e.g., Prelec and Loewenstein (1998), Prelec and Simester (2001), Soman (2001b), Soman (2001a)).

#### *4.3.3 Is the 'novelty' effect explaining the results?*

The increasing fund share might be caused by the novelty of the fee scheme. The novelty effect describes the higher usage of new products and services after signing up for or buying them. This applies, for example, when individuals first sign up for a gym contract.

We hence focus on people who use financial advice services for the first time at this bank and thus may be subject to a novelty effect. and compare new investors under the fee scheme and new investors under the inducement scheme. Both groups have just started making use of financial advice and might be subject to a novelty effect. If our results were driven by the novelty effect the effects would not apply for new fee clients matched to new inducement clients. The results are summarized in Table VI.[19] We find that our main results remain significant and in a comparable size for new advisees. In particular, the increase in fund share is again observable. Thus, our results seem to be less likely to be driven by the novelty effect.

[Insert Table VI about here]

[19] We do not report counselling with an advisor per month before the take-up of advice for both groups because they were self-directed. Thus, a difference-in-difference analysis would not be meaningful for talks per month.

### *4.3.4 Is the fee-schemes increasing trust in the financial advice?*

#### *4.3.4.1 Following in less familiar products and asset classes*

The previous section has shown that cost-related arguments fail to explain our findings. On the contrary, fee scheme clients are more likely to consult an financial advisor and diversify more. We therefore proceed by analyzing the role of advice in explaining the surge in fund share. We first run a difference-in-differences specification that has a dummy for following advisor recommendations as the dependent variable. The dummy is one if a buy (sell) recommendation results in a buy (sell) decision[20] and zero otherwise. We also use a difference-in-differences analysis in event time over the 7 (and 30) days following an interaction with the financial advisor. To do so, we regress an indicator variable which is set equal to one if a trade is following a recommendation and zero otherwise, on an event-time dummy (before and after) and the interaction of the event-time dummy with whether a client switched to the fee-scheme. We include investor-fixed effects. In an additional specification, we control for cost advantages. We show the results in table VII.

[Insert Table VII about here]

We find that following increases by 38.9% for fee advisees for the 7 days after the advisor-client interaction (column 1). Following before switching was at 12.5%. Extending the specification to 30 days after the interaction reveals that following significantly increases by even 53.5% for fee-scheme clients. When comparing the results reported here with the ones in the following table V, note that table V weights asset classes and regions equally and is therefore not directly comparable.

When controlling for fees to be paid (inducement) or saved (fee) (see the explanation in previous section and calculation example in figure II), a fee advisee is even more likely (58.3%) to follow the received recommendations. Beyond increasing the propensity of following advice, all other variables involving fund fees turn out to be insignificant in explaining following. This provides further evidence that fees do not explain the mechanism behind the higher propensity of following by fee-scheme clients (column 3). Customers do not make their fund choice based on the announced fees of funds and take fees (more) into account after the switch.

An increase in the likelihood of following might be driven by an increase in trust into the received recommendations. This idea is in line with Gennaioli, Shleifer, and Vishny (2015) showing that investors with more trust are more likely to follow their advisors. Trust should be particularly important in products and asset classes clients know less about. Thus, looking at descriptive statistics may inform us whether they are also more likely to follow in more complex assets and/or more informationally distant assets. If they are more likely to follow in such less familiar and thus more information intensive products, this would be further evidence for clients' trust in the received recommendations. Furthermore, descriptive statistics may also inform whether the increase in following is found for both purchase and sell recommendations. Notably, selling funds has been free at any time.

To analyze this, we compare following in different types of funds as well as in funds that focus on different regions as well as following in purchase and sell recommendation before and after the switch. We show the results in table VIII. Although the content of financial advice does not change for fee scheme clients, fee clients follow their advisors more. This holds both for products and asset classes clients traded before but also for products and asset classes clients may not be experienced with. Following in products that are more complex or more informationally distant to clients may signal an increase in trust bearing in mind that cost savings do not contribute to explaining following. Additionally, following increases even more in sell recommendations. This provides further evidence that costs are indeed not the driving force as selling funds has always been free of costs.

[Insert Table VIII about here]

*4.3.4.2 Is the fee scheme changing the perception of advice? Evidence by an online survey*

To explore a potential change in clients' perception of the advice, we turn to an online survey with the clients of the bank that we administered in 2012. The invitation e-mail was sent out to 10,000 randomly drawn clients in our sample. The survey was online from the end of March to the beginning of May 2012. A total of 826 clients started the survey, and 709 completed it. Participants in the survey were predominantly male (84%), married (68%), had a college education (68%), and were, on average, 54 years old. Overall, the participants are comparable to the average client observed in our sample. The survey focused on collecting information on the respondents and their behavioral predispositions. We asked people whether they currently receive financial advice under the inducement scheme or fee scheme at this bank. In total, 45 who are also part of our sample responded that they were using financial advice under the fee

scheme. Those investors replied on a five-point Likert scale that they do not believe that the advice under the fee scheme is beneficial in terms of cost (43% do not agree, and 35% agree); however, 49% (32%) believe the quality of advice had (not) improved, 54% say the advisor now works in the best interest of the client, and 46% (vs. 39%) claim they are now more active in the stock market. Although the advice was not changed by the introduction of the fee scheme, clients experience the financial advice to be of better quality under the fee scheme.

### 4.4 Policy implication: Who would benefit the most from the fee-scheme?

We now turn to an important public policy question: Are the individuals who are most likely to benefit from the fee scheme the ones that are least likely to use it, and are the persons who obtain the least benefit from the fee scheme those who are most likely to use it? When we discuss the socio-demographic characteristics of switchers, it seems to be the case that more (less) financially savvy investors are more (less) likely to accept advice.

We revisit the probit regression used to explain switching, the test that investigates who switches from the inducement scheme to the fee scheme (table II). We take specification (2) that can be estimated for 8,527 customers because it has the highest R-squared. We then use the coefficient estimates from this specification to predict the 50% (predicted median probability of switching 11.7%) of these clients with the above median probability of accepting advice.[21] This allows us to test whether persons calculated to be less likely to switch are those who benefit most from using the fee scheme (i.e., whether the bottom half benefits more than the top half).

We now run the same regression that generated the results in Table III and report the results in table IX. This regression checks whether portfolio efficiency, trading behavior and performance improve for clients who switch to the fee scheme for both subgroups separately (clients likely to switch and clients unlikely to switch).

[Insert Table IX about here]

The coefficient on the interaction term indicates that those who are less likely to switch tend to benefit more. The coefficients are statistically significant and indicate that having more interactions with the advisor is associated with a stronger increase in portfolio diversification and an even higher portfolio value than those clients who are more likely to switch. Clients

[21] The results are robust to different cutoff points, including 10%, 20% or even 50%, with highest likelihood to opt for advice.

who are less likely to switch also achieve better performance during the 36 months before and after the switch relative to non-switchers.

The important result here is that clients who are less likely to switch to the fee scheme seek more financial advice and benefit from doing so by achieving an at least equally strong increase in portfolio efficiency than those predicted to switch. The above result and the results of analyzing the demographics of switchers all lead to the same conclusion: Those who benefit more (benefit less) from the fee scheme are least likely to opt for it (most likely to opt for it). Thus, policy makers and regulators might consider nudging clients who are less likely to switch into fee scheme by, e.g., a mandatory fee scheme with an optional opt-out, to improve overall well-being.

# 5 Robustness and further analyses

## 5.1 Advisor fixed effects

The literature on financial advice has recently provided evidence for strong advisor fixed effects in the portfolios of clients (Foerster et al. (2017)). Although in our case in which investors call in and the recommendation list is created by a central research unit that limits advisor leeway, advisor fixed effects are presumably small. We nevertheless run a robustness test in which we control for advisor fixed effects. In our case, the advisor fixed effects are based on the advisor with whom a client most often speaks.

We include the investor fixed effects in our standard regression model. However, instead of investor fixed effects, we use advisor fixed effects. In our specification with advisor fixed effects, we now include a fee dummy that is omitted from our main specification because of the investor fixed effects. The clustering strategy remains unaltered. The results are summarized in table X. We find that the inclusion of advisor fixed does not alter our results. The interaction term maintains both its magnitude and its statistical significance level. Hence, the advisor effects in the sample we consider are much smaller (or even negligible) than the ones that Foerster et al. (2017) observe for the Canadian sample. In our case, the R-squared hardly changes, whereas in their paper it nearly doubles.

[Insert Table X about here]

### 5.2 Using early versus late switchers to address the selection effect

In the main analyses, we used propensity score matching to address the endogeneity issue of the switching decision. A sensible alternative to this strategy is employing a strategy that exploits the differences in the timing of the switching decision. Assuming that those who switch early are comparable to those who switch later, we compare those who switch before July 2012 to those investors who had not yet switched at this date but switched later.

Using these two groups simplifies our main specification to only having an indicator for before and after the switch alongside investor fixed effects. The results from running this specification are reported in table XI. The results are comparable to those we reported earlier. The switch to the fee scheme increases the number of contacts and improves diversification by increasing the share of actively managed funds. It also leads to higher portfolio values, turnover and fees paid. All effects are highly significant except for the effect on performance.

[Insert Table XI about here]

The way we address the matching issue is not driving the results of our paper.

### 5.3 Restricting on clients with main banking relationship (main accounts)

An issue might be that the effects we observe are simply driven by clients with several bank accounts shifting new money in their account after enrolling in the fee scheme to trade especially mutual funds with this account. This argument is in line with taking advantage of the cost benefits of trading mutual funds and the issue that we might only observe play money accounts. To address this potential issue, we restrict our analysis on clients with a main banking relationship. We classify a client as having a main banking relationship if he/she receives monthly salary payments on their account. Therefore, we flag each client as a main account user if he or she receives at least three salaries between the start of our observation period in January 2008 and the introduction of the fee scheme in September 2009. We find that restricting our analysis to main account users yields qualitatively unaltered results. This shows that play money accounts or users shifting money into the bank do not drive our results. We show the results in table XII. Restricting the identification of main account users to one or more than three salary payments does not change our results.

[Insert Table XII about here]

### 5.4 Replication with an alternative data set from a brick-and-mortar bank

Our data stem from a large online bank in Germany and thus might be subject to the concern that we are only observing effects for a special group of online-affine, more active, and more financially literate investors that are less in need of financial advice. Furthermore, the bank plays a pioneering role in offering a flat-fee pricing scheme to its clients in a context directly following the financial crisis. We have already shown that the investors in our sample are comparable to the average German investor and controlled for the novelty effect in chapter 4.3.4.

However, to address the potential criticism of a selected online sample, we make use of a comparable dataset of a field experiment of one of the largest German banks with a widespread network of branches. In this bank, face-to-face financial advice is prevalent, with financial advisors ultimately executing customer orders. Self-directed trading by customers plays only a minor role. This bank also introduced an alternative flat-fee scheme in July 2013 where clients pay an annual fee of 1.45% of their portfolio value (but at least 145 euros quarterly) and do not pay for their securities account, nor do they pay initial charges for mutual fund purchases. Additionally, annual charges are reduced, and only third-party management fees, on average 0.25%, are charged. On the contrary, clients in the traditional inducement scheme pay a small securities account fee (if they execute at least one trade per month; otherwise, they pay an annual securities account fee of 0.175% of portfolio value), they also pay initial charges and annual charges in full. In both schemes, clients can refer to the same individual face-to-face financial advice in the branch, online or via phone at no extra cost, receive periodic newsletters including analyst reports, have access to several additional reports and sources of information (e.g., daily market assessment, 7-day outlook, 30-day outlook, detailed assessments of single products as stocks, bonds, ETFs, mutual funds, and certificates), and are allowed to participate in periodic CIO calls. Fee scheme clients trade every asset class (stocks, bonds, mutual funds, and certificates) at no cost, except for the remaining management fee. The offered financial advisory services are also the same for fee scheme and inducement-scheme clients. As self-directed trades play only a minor role, it seems fair to assume that portfolio turnover is mainly driven by advised trades. We expect the effect of the fee scheme not to be limited to mutual funds only because the cost benefits of the fee scheme in this bank occur for all instruments.

We apply the same identification strategy to the alternative dataset as we used for our main sample. We propensity-score match users of the fee scheme to non-users to reduce the effects of self-selection and then repeat both the graphical common trend analysis for the alternative

data set from the second bank and the difference-in-differences fixed effect regression. Using our alternative data set on one of the largest German banks in which clients are commonly advised and the fee scheme advantage is not limited to mutual funds demonstrates the robustness of our initial findings: Fee schemes lead clients to more frequently consult their financial advisors; as buy turnover increases in a setting where self-directed trading plays only a minor role, they increase their portfolio values and hold more diversified portfolios.

In detail, we include portfolio turnover, portfolio buy turnover, fund share, mutual fund share, value of mutual funds, portfolio diversification (HHI), and portfolio value (figure V). Fee scheme clients increase their portfolio turnover after having switched to the fee scheme. This increase is mainly driven by buy turnover. Additionally, switchers also increase mutual fund holdings. However, this increase is proportional to an increasing overall portfolio value. Fee scheme clients increase their portfolio values by approximately 20,000 euros to 100,000 euros in the 12 months after the switch. Furthermore, fee scheme clients improve their portfolio diversification, as the HHI falls after the switch.

[Insert Figure V about here]

We continue by analyzing the effect of the switch to the fee scheme in a pooled cross-sectional difference-in-differences analysis including an event-time dummy and its interaction with the fee scheme dummy on the above-mentioned variables. We show the results in table XIII. The regression results are in line with the graphical results and show that fee scheme clients significantly increase their portfolio turnover by 40.4% per month. This increase is driven by an increasing buy turnover in the same magnitude. The share of purchased mutual funds is not statistically significant, whereas the total value in active funds increases significantly by approximately 13,000 euros. It seems that the fee scheme clients hold their fund share constant but increase their overall portfolio value and mutual fund values. Fee scheme clients also significantly improve their portfolio diversification.

[Insert Table XIII about here]

Overall, the results for our alternative dataset lead to the same insights generated from our main analysis. The introduction of fee schemes induces clients to hold larger, more diversified portfolios and to interact more often with their advisors. This all occurs in a situation in which the supply processes and personnel remain unaltered.

# 6 Conclusion

If clients are free to choose between a fee scheme and an inducement scheme at the same bank, and there are no differences in the offered services or quality, will clients adopt and benefit from the new scheme? Although it could have been cost-effective for almost half of the clients to switch, only 1.26% of the clients actually adopted the new scheme. This low adoption rate is likely due to inertia and status quo bias.

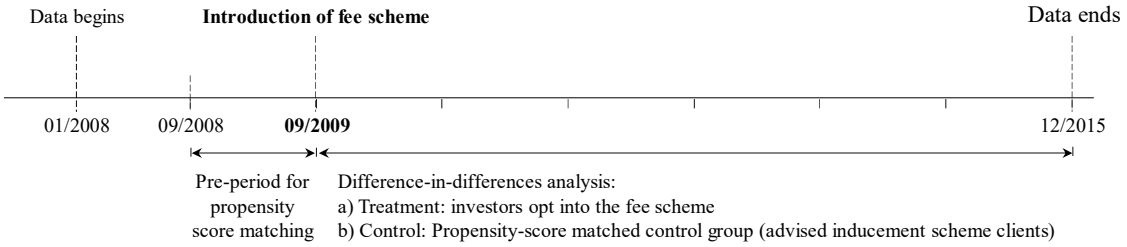
Clients opting into the fee scheme are already advised, hold more wealth, are more educated, are more likely to be female, and generate a fee advantage by switching. We find that switchers benefit from the switch by increasing their portfolio diversification due to a higher share of actively managed funds. Furthermore, switchers increase their portfolio value and their monthly portfolio turnover. We find that fee scheme clients speak more often with their financial advisor. The economic mechanism underlying the increasing fund share of fee advisees is not simply taking advantage of a cheaper way of trading funds, suffering from a sunk cost fallacy or being subject to the novelty effect. Instead, fee advice clients are approximately 40% more likely to follow the financial advisor's recommendations for funds in the first week after they have received the recommendation. The self-directed trading of funds, which has also become cheaper, does not change. Combining the types of funds and their regional focus with survey evidence, our study suggests that clients under the fee scheme value financial advice more than their counterparts under the inducement scheme. We show that these effects are not due to the experimental setting. Repeating our analyses with a comparable introduction of a fee scheme in a large German brick-and-mortar bank yields similar findings.

Our study shows that simply changing the cost model leads to a sustainable and valuable change in clients' behavior. These effects are stronger among clients who switched but would be unlikely to do so based on their demographics. Given the low adoption rates, considering a regulatory or policy intervention (e.g., a mandatory fee scheme or making a fee scheme the default scheme) might be worthwhile. Financial institutions that offer high-quality financial advice that want their clients to follow such service as much as possible could deliberately introduce the default of a flat-fee pricing scheme for managing client portfolios.

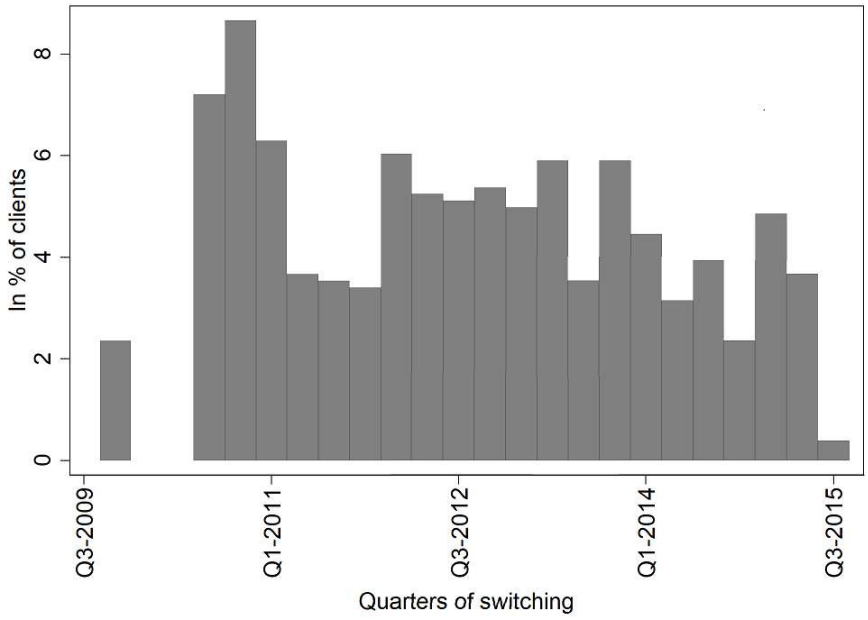
# Figures

## Figure I. Timeline and quarter of switching

Plot A: This chart shows the sequences of relevant events in the field study. The data we use for the paper start in 2008 and end in December 2015. For this period, we possess trading records, portfolio holdings, recommendations by advisors and client socio-demographic information.




Plot B: This figure shows the percentage of advised inducement-scheme clients switching to the fee scheme in each quarter. The x-axis illustrates quarters between the third quarter of 2009, in which the fee scheme was first available, and the third quarter of 2015. The y-axis illustrates the percentage of clients switching to the fee scheme in each quarter. Being enrolled in the fee scheme is reported at the beginning of the quarter in which clients sign up for the fee scheme.



## Figure II. Break-even analysis: Fee advantage

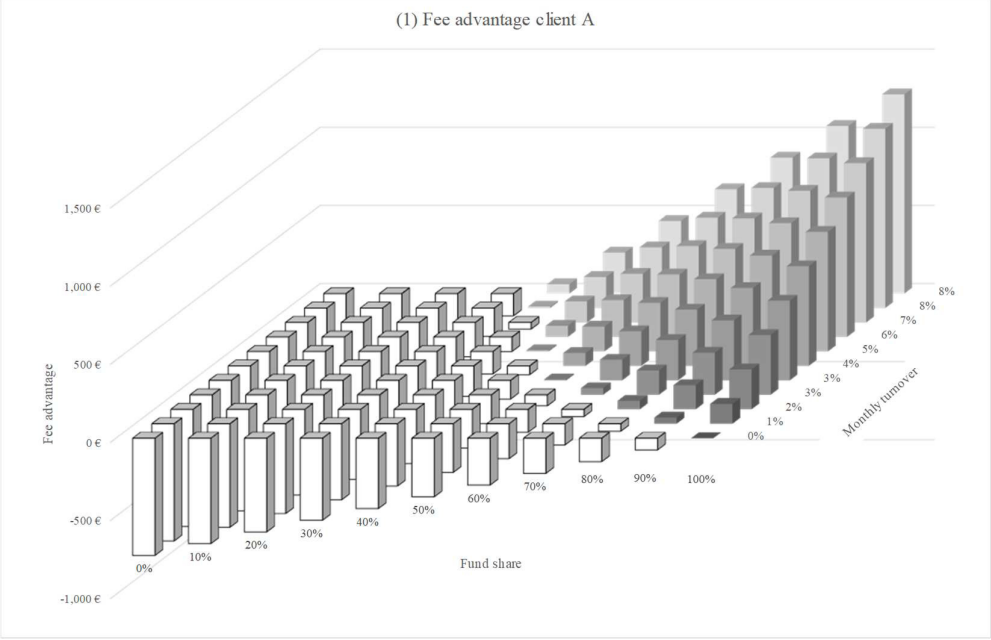
This figure presents a simulation of the fee (dis-)advantage with fixed portfolio values for the two potential clients A (€75,000 portfolio value) and B (€50,000 portfolio value). Table A summarizes the assumptions for the calculation, which are based on actual sample averages of our investors and their holdings. Chart (1) illustrates the fee advantages for client A, and chart (2) does so for client B. The x-axes describe the fund share in %, the y-axes show the fee advantage in euros, and the z-axes illustrate the monthly portfolio turnover in %. The fee advantage is calculated by the costs under the inducement scheme minus the costs under the fee scheme. In detail, the fee advantage is calculated as follows:

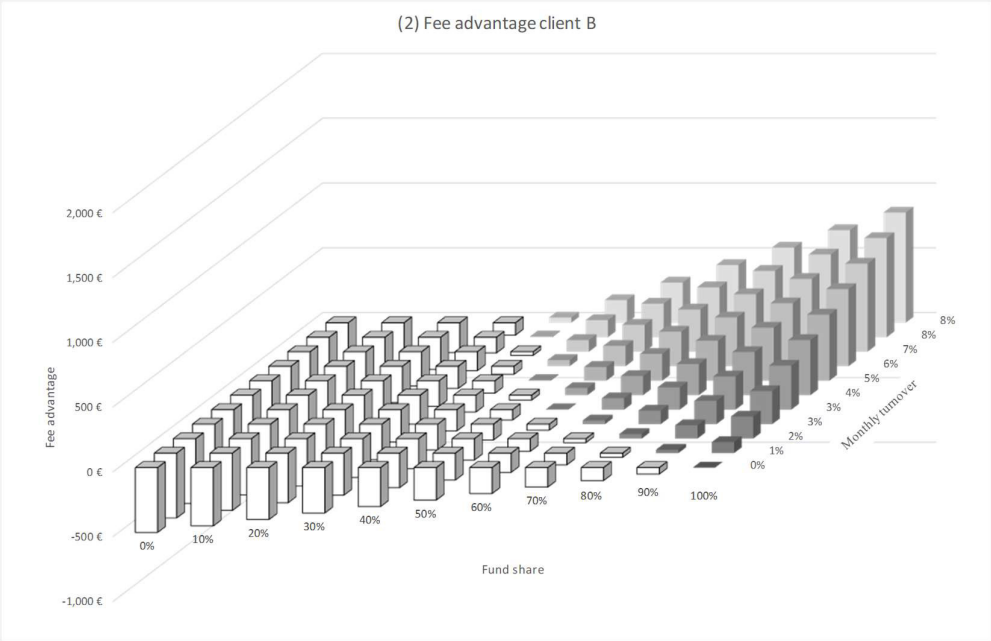
*Fee advantage = ((Fund share*Portfolio value*Yearly turnover*Initial charge) + (Fund share*Portfolio value*Management fee)) - ((Portfolio value*Flat-fee) + (Fund share*Portfolio value*(Management fee – Kickbacks)))*

Example calculation (client A, fund share = 80%, turnover p.a. =70%):

Fee advantage = ((80%*€75,000*70%*1.7%) + (80%*€75,000*1.25%)) - ((€75,000*1.0%) + (80%*€75,000*0.25%)) =€564

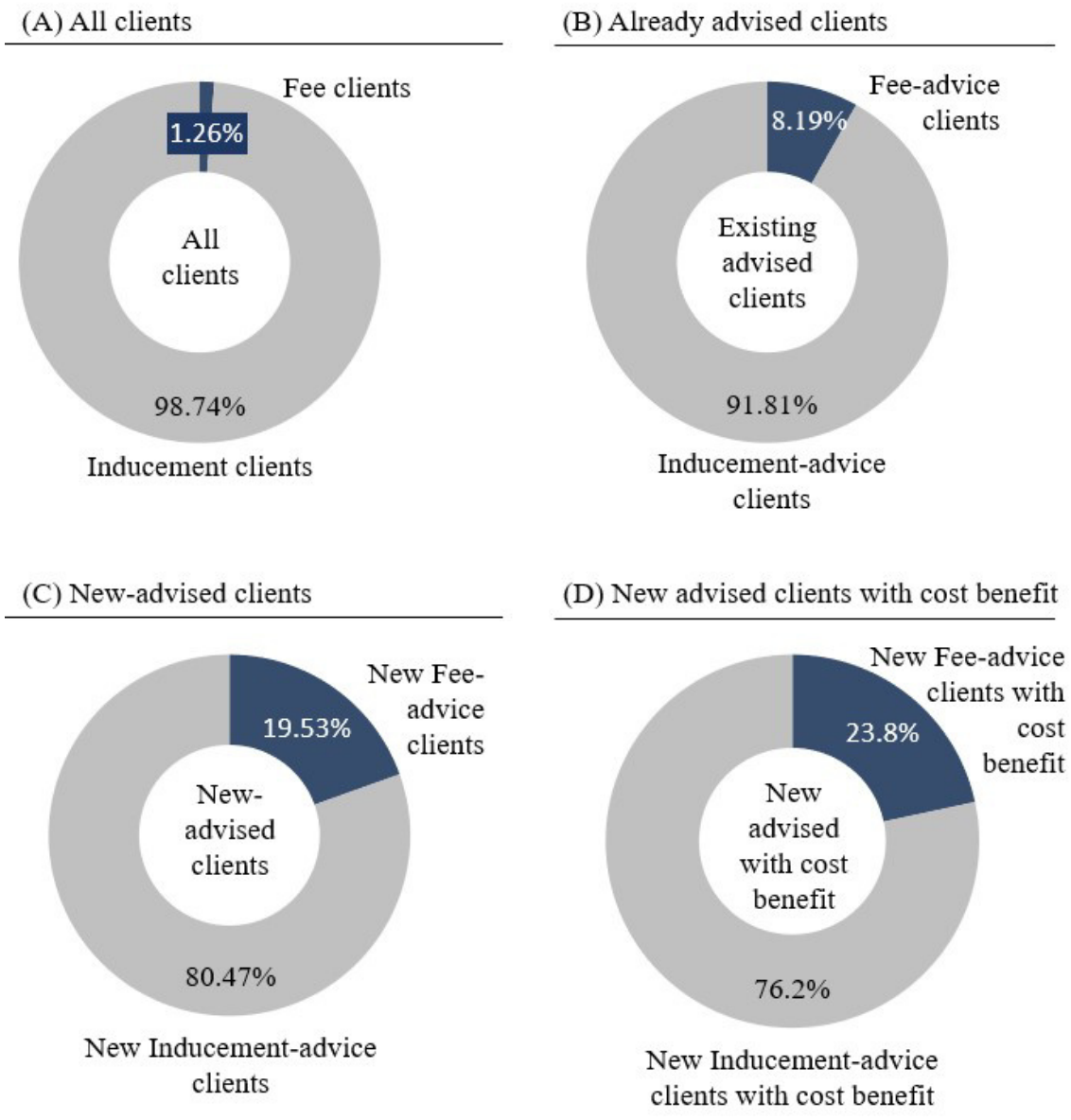
| *A. Key characteristics* | | Inducement-scheme | | Fee-scheme | |
|---|---|---|---|---|---|
| Client | Portfolio value | Initial charge | Management fee | Flat-fee | Mgmt fee - Kickbacks |
| A | 75,000 € | 1.70% | 1.25% | 1.00% | 0.25% |
| B | 50,000 € | 1.70% | 1.25% | 1.00% | 0.25% |



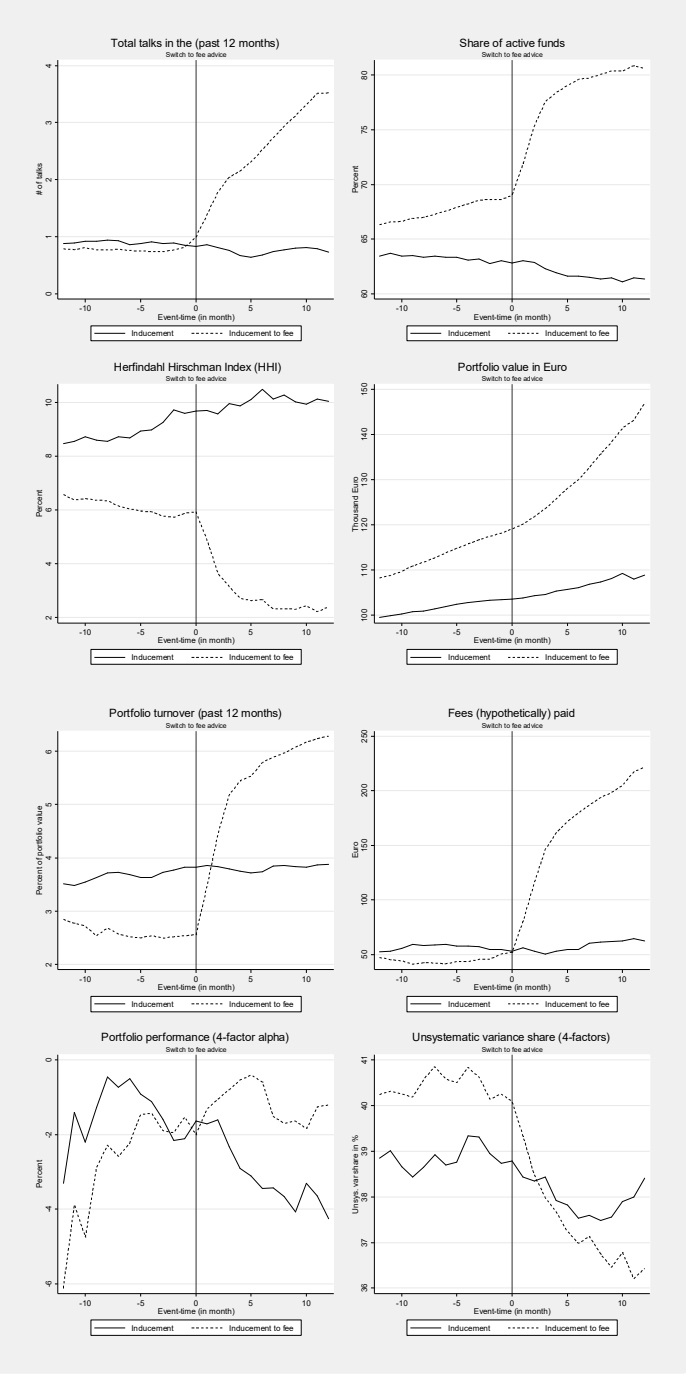
## Figure III. The usage of advice

This figure shows the percentage of users of the inducement scheme and the fee scheme. Chart (A) illustrates the share of fee scheme clients compared to all clients between January 2008 and December 2015. Chart (B) shows the percentage of fee scheme clients of already advised clients. Already advised clients include all clients that signed up for financial advice and received at least one advisor recommendation before September 2009. Chart (C) compares the percentage of new fee scheme clients (self-directed to financial advice under the fee scheme) to the percentage of new inducement scheme clients (self-directed to financial advice under the inducement scheme). Chart (D) compares the percentage of new fee scheme clients (self-directed to financial advice under the fee scheme) to the percentage of new inducement scheme clients (self-directed to financial advice under the inducement scheme) but restricts the sample to clients with a cost benefit from switching. A cost benefit occurs when a client pays overall less fees under the fee scheme compared to the inducement scheme based on the trading behavior in the previous 12 months.



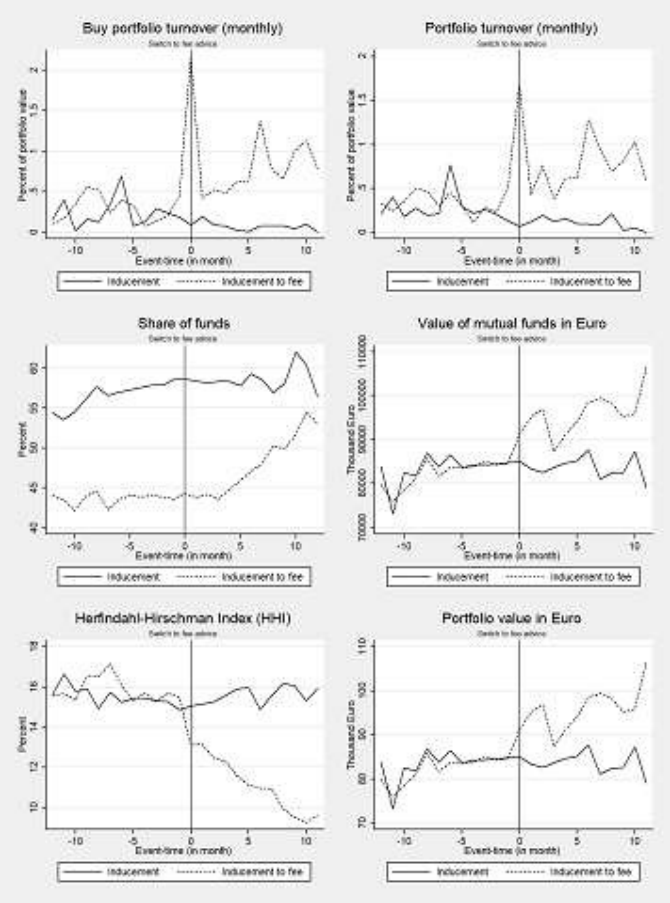
## Figure IV. Common trends and effects of the switch

The charts show the effect of the switch to the fee scheme on measures of advice usage, portfolio allocation and portfolio performance for switching clients compared to propensity-score-matched inducement-scheme clients in event time, analyzing the 12 months before and after the switch. Switchers are defined as inducement-scheme clients who switch to the fee scheme. Chart (1) shows the total number of talks with an advisor in the past 12 months, and chart (2) shows the share of active funds purchased. Chart (3) illustrates the monthly Herfindahl Hirschman Index (HHI) with mutual funds counted as 100 securities. Chart (4) shows the monthly portfolio value in thousands of euros, and chart (5) depicts the monthly portfolio turnover as a percentage of the portfolio value. Chart (6) illustrates the fees paid per year in euros. The fees for switchers are hypothetical costs that would have occurred without reimbursement. Chart (7) shows the portfolio performance per year in percentage terms measured by 4-factor alphas, and chart (8) illustrates the unsystematic variance share in percentage terms measured by 4-factor alphas.



## Figure V. Robustness Common trends and effects of the switch at a branch bank

The charts show the effect of the switch to the fee scheme at a branch bank on measures of portfolio allocation and trading behavior for switching clients compared to propensity-score-matched inducement-scheme clients in event-time, analyzing the 12 months before and after the switch. Switchers are defined as inducement-scheme clients who switch to the fee scheme. Chart (1) shows the monthly buy portfolio turnover as a percentage of the portfolio value, and chart (2) shows the monthly portfolio monthly turnover as a percentage of the portfolio value. Chart (3) shows the share of mutual funds purchased, and chart (4) shows the total value of mutual funds per month in euros. Chart (5) illustrates the monthly Herfindahl Hirschman Index (HHI) with mutual funds counted as 100 securities, and chart (6) shows the monthly portfolio value in thousands of euros.



# Tables

## Table I. Investor data and demographics of advised and non-advised clients

This table presents summary statistics for our retail investor data as of September 2009, which is the month before the fee scheme was made available. Column (1) shows the statistics for all clients whereas column (2) shows the statistics for inducement-scheme clients, and column (3) shows statistics for inducement-scheme clients switching to the fee scheme (Switchers). Column (4) shows statistics for self-directed clients. We report socio-demographic information on the clients' age (Age), their marital status (Married), if they are male (Gender), whether they hold a PhD (PhD), the length of the relationship with the bank (Length of relationship), whether they currently live in Germany (German resident) and whether they work as employees (Employed), are retired (Retired) or have another job (Other). We also include information on their portfolio and trading behavior. All variables that require a time-series to be computed use the previous 12 months. Thus, we include the average portfolio value in euros, the turnover from purchases, sales and the entire portfolio, the fees paid and a variable showing whether the fee scheme would have been beneficial in terms of costs based on the previous 12 months. We also include information on the asset allocation in September 2009. We show the asset allocation by instrument, asset class and regional focus. The asset class and the regional focus only account for funds and equities. Finally, there is information on diversification using the unsystematic variance share from a 4-factor model using the German CDAX and its constituents to build the factors as well as the Herfindahl-Hirschman Index assuming a mutual fund to be equal to 100 securities. We finally report average factor loadings for the previous 12 months and between January 2003 and September 2009 using the 4-factor model. Data on the investors come from the bank, while data on asset allocations come from the bank and Thomson Reuters Eikon. Other market data are taken from Thomson Reuters Financial Datastream. We include investors who had a portfolio for at least 200 days as of September 2009.

| *Date: End September 2009* | (1) | | | (2) | | | (3) | | | (4) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All clients | | | Inducement-advice | | | Inducement advice to fee-advice (Switchers) | | | Self-directed clients | | |
| | N | Mean | Median | N | Mean | Median | N | Mean | Median | N | Mean | Median |
| *Socio-demographics* | | | | | | | | | | | | |
| Age (in years) | 55,551 | 52.64 | 51.00 | 7,828 | 55.17 | 54.00 | 699 | 54.50 | 53.00 | 47,024 | 52.20 | 51.00 |
| Married (married = 1) | 55,551 | 0.59 | 1.00 | 7,828 | 0.64 | 1.00 | 699 | 0.68 | 1.00 | 47,024 | 0.57 | 1.00 |
| Gender (male = 1) | 55,551 | 0.85 | 1.00 | 7,828 | 0.86 | 1.00 | 699 | 0.84 | 1.00 | 47,024 | 0.85 | 1.00 |
| Ph. D. (yes = 1) | 55,551 | 0.07 | 0.00 | 7,828 | 0.07 | 0.00 | 699 | 0.09 | 0.00 | 47,024 | 0.07 | 0.00 |
| Length of relationship (in years) | 55,551 | 14.31 | 13.00 | 7,828 | 15.04 | 13.00 | 699 | 15.36 | 13.00 | 47,024 | 14.17 | 13.00 |
| Risk class (1 = low, 5 = high) | 55,551 | 3.58 | 4.00 | 7,828 | 3.84 | 4.00 | 699 | 3.91 | 4.00 | 47,024 | 3.54 | 4.00 |
| German resident (yes = 1) | 55,551 | 0.97 | 1.00 | 7,828 | 0.97 | 1.00 | 699 | 0.96 | 1.00 | 47,024 | 0.96 | 1.00 |
| Employed (yes = 1) | 55,551 | 0.50 | 0.00 | 7,828 | 0.46 | 0.00 | 699 | 0.45 | 0.00 | 47,024 | 0.50 | 1.00 |
| Retired (yes = 1) | 55,551 | 0.12 | 0.00 | 7,828 | 0.17 | 0.00 | 699 | 0.15 | 0.00 | 47,024 | 0.11 | 0.00 |
| Other (yes = 1) | 55,551 | 0.39 | 0.00 | 7,828 | 0.37 | 0.00 | 699 | 0.39 | 0.00 | 47,024 | 0.38 | 0.00 |
| *Portfolio & Trading (previous 12 months)* | | | | | | | | | | | | |
| Portfolio value (average past 12 months, in Euro) | 55,551 | 46,124 | 23,207 | 7,828 | 60,307 | 34,939 | 699 | 85,063 | 51,294 | 47,024 | 43,184 | 21,250 |
| Turnover from sales (past 12 months, in % per month) | 55,551 | 5.49 | 0.19 | 7,828 | 4.40 | 0.35 | 699 | 2.04 | 0.11 | 47,024 | 5.72 | 0.17 |
| Turnover from purchases (past 12 months, in % per month) | 55,551 | 6.84 | 1.62 | 7,828 | 5.80 | 1.73 | 699 | 4.14 | 1.85 | 47,024 | 7.05 | 1.59 |
| Turnover total portfolio (past 12 months, in % per month) | 55,551 | 6.16 | 1.32 | 7,828 | 5.10 | 1.40 | 699 | 3.09 | 1.31 | 47,024 | 6.39 | 1.30 |
| Trading Fees paid (past 12 months, in Euro) | 55,551 | 454.85 | 65.03 | 7,828 | 518.45 | 105.17 | 699 | 615.18 | 178.07 | 47,024 | 441.88 | 59.83 |
| Trading Fees paid funds (past 12 months, in Euro) | 55,551 | 106.07 | 0.00 | 7,828 | 217.61 | 19.52 | 699 | 471.05 | 106.63 | 47,024 | 82.08 | 0.00 |
| Advantage if fee-based scheme (past 12 months, in Euro) | 55,551 | -151.38 | -53.91 | 7,828 | -3.86 | -14.04 | 699 | 360.84 | 83.08 | 47,024 | -183.55 | -61.56 |

| contd. | (1) All clients | | | (2) Inducement-advice | | | (3) Inducement advice to fee-advice (Switchers) | | | (4) Self-directed clients | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Asset Allocation (in %)* | | | | | | | | | | | | |
| *by instrument:* | | | | | | | | | | | | |
| Funds (active) | 55,551 | 35.48 | 20.80 | 7,828 | 49.27 | 49.81 | 699 | 65.52 | 71.76 | 47,024 | 32.74 | 13.79 |
| Single stocks | 55,551 | 51.04 | 50.41 | 7,828 | 33.83 | 21.63 | 699 | 16.48 | 3.54 | 47,024 | 54.42 | 58.43 |
| Certificates | 55,551 | 4.59 | 0.00 | 7,828 | 7.36 | 0.00 | 699 | 9.68 | 1.49 | 47,024 | 4.05 | 0.00 |
| Funds (passive) | 55,551 | 3.30 | 0.00 | 7,828 | 3.88 | 0.00 | 699 | 1.87 | 0.00 | 47,024 | 3.23 | 0.00 |
| Single bonds | 55,551 | 3.08 | 0.00 | 7,828 | 2.94 | 0.00 | 699 | 2.10 | 0.00 | 47,024 | 3.12 | 0.00 |
| Other instrument | 55,551 | 2.50 | 0.00 | 7,828 | 2.73 | 0.00 | 699 | 4.35 | 0.00 | 47,024 | 2.43 | 0.00 |
| *by asset class (for funds):* | | | | | | | | | | | | |
| Equity | 55,551 | 79.65 | 93.89 | 7,828 | 74.30 | 83.65 | 699 | 69.66 | 73.83 | 47,024 | 80.69 | 95.83 |
| Fixed income | 55,551 | 6.05 | 0.00 | 7,828 | 6.97 | 0.00 | 699 | 8.17 | 3.05 | 47,024 | 5.86 | 0.00 |
| Real estate | 55,551 | 1.78 | 0.00 | 7,828 | 4.07 | 0.00 | 699 | 4.68 | 0.00 | 47,024 | 1.36 | 0.00 |
| Commodities | 55,551 | 4.15 | 0.00 | 7,828 | 2.74 | 0.00 | 699 | 0.91 | 0.00 | 47,024 | 4.44 | 0.00 |
| Money Market | 55,551 | 7.81 | 0.00 | 7,828 | 0.51 | 0.00 | 699 | 0.37 | 0.00 | 47,024 | 0.57 | 0.00 |
| Other asset class | | | | 7,828 | 11.40 | 0.00 | 699 | 16.22 | 9.57 | 47,024 | 7.09 | 0.00 |
| *by region (for equity & funds with equity):* | | | | | | | | | | | | |
| Germany | 55,551 | 40.88 | 27.67 | 7,828 | 30.45 | 16.84 | 699 | 17.86 | 5.56 | 47,024 | 42.73 | 30.59 |
| Multinational | 55,551 | 17.72 | 0.00 | 7,828 | 26.73 | 18.67 | 699 | 40.91 | 38.16 | 47,024 | 15.98 | 0.00 |
| Europe | 55,551 | 16.36 | 5.71 | 7,828 | 16.89 | 10.14 | 699 | 16.65 | 11.48 | 47,024 | 16.25 | 4.76 |
| Asia | 55,551 | 8.06 | 0.00 | 7,828 | 10.04 | 0.00 | 699 | 9.36 | 2.16 | 47,024 | 7.72 | 0.00 |
| North America | 55,551 | 10.43 | 0.00 | 7,828 | 6.86 | 0.00 | 699 | 3.91 | 0.00 | 47,024 | 11.05 | 0.00 |
| South America | 55,551 | 1.35 | 0.00 | 7,828 | 2.33 | 0.00 | 699 | 3.67 | 0.00 | 47,024 | 1.16 | 0.00 |
| Africa | 55,551 | 0.08 | 0.00 | 7,828 | 0.09 | 0.00 | 699 | 0.07 | 0.00 | 47,024 | 0.07 | 0.00 |
| Other region | 55,551 | 5.41 | 0.00 | 7,828 | 6.65 | 0.00 | 699 | 8.16 | 1.47 | 47,024 | 5.18 | 0.00 |
| *Diversification (in %)* | | | | | | | | | | | | |
| Unsystematic variance share (4 factor, over previous 12 months) | 55,551 | 55.47 | 53.66 # | 7,828 | 44.34 | 45.85 | 699 | 39.29 | 38.70 | 47,024 | 44.63 | 46.56 |
| Unsystematic variance share (4 factor, 01/2003-09/2009) | 55,548 | 34.08 | 36.14 # | 7,828 | 34.13 | 36.74 | 699 | 32.09 | 35.81 | 47,021 | 34.10 | 36.01 |
| HHI 100 | 55,551 | 19.89 | 8.95 # | 7,828 | 11.78 | 4.28 | 699 | 6.57 | 2.19 | 47,024 | 21.44 | 10.35 |
| Number of positions | 55,551 | 11.59 | 8.00 # | 7,828 | 13.92 | 11.00 | 699 | 14.50 | 12.00 | 47,024 | 11.16 | 8.00 |
| *Performance & Factor loadings (anualized from daily data over previous 12 months, in %)* | | | | | | | | | | | | |
| Alpha (4 factor) | 55,551 | 5.65 | 7.67 # | 7,828 | 8.03 | 8.27 | 699 | 10.80 | 9.44 | 47,024 | 5.17 | 7.53 |
| Beta | 55,551 | 73.36 | 72.85 # | 7,828 | 66.20 | 66.78 | 699 | 56.78 | 55.89 | 47,024 | 74.79 | 74.07 |
| SMB | 55,551 | 17.21 | 16.61 # | 7,828 | 20.52 | 20.17 | 699 | 23.88 | 23.28 | 47,024 | 16.56 | 15.51 |
| HML | 55,551 | 3.61 | 2.91 # | 7,828 | 2.55 | 2.96 | 699 | 1.23 | 2.87 | 47,024 | 3.82 | 2.90 |
| MOM | 55,551 | -19.54 | -16.71 # | 7,828 | -16.37 | -14.35 | 699 | -13.37 | -11.78 | 47,024 | -20.16 | -17.33 |
| *Performance & Factor loadings (anualized from daily data from 01/2003 - 09/2009, in %)* | | | | | | | | | | | | |
| Alpha (4 factor) | 55,548 | -7.65 | -1.52 # | 7,828 | -3.21 | -0.90 | 699 | -3.18 | -0.63 | 47,021 | -8.46 | -1.68 |
| Beta | 55,548 | 79.81 | 78.50 # | 7,828 | 74.13 | 74.59 | 699 | 65.08 | 66.52 | 47,021 | 80.98 | 79.38 |
| SMB | 55,548 | 31.16 | 30.46 # | 7,828 | 35.27 | 35.66 | 699 | 36.58 | 38.13 | 47,021 | 30.39 | 29.14 |
| HML | 55,548 | -6.63 | -4.05 # | 7,828 | -4.02 | -2.01 | 699 | -2.91 | -0.14 | 47,021 | -7.12 | -4.57 |
| MOM | 55,548 | -16.13 | -14.87 # | 7,828 | -12.57 | -12.46 | 699 | -11.05 | -9.26 | 47,021 | -16.80 | -15.45 |

## Table II. Demographics of switchers

This table presents results from probit regressions on switchers. The dependent variable in columns (1) and (2) is a dummy variable equal to one when an investor switches from financial advice under the inducement scheme to financial advice under the fee scheme (Switchers) and zero if the client continues to receive inducement-scheme advice. As explanatory variables, we use socio-demographic information on clients' age (Age), marital status (Married), gender (Gender), whether they hold a PhD (PhD), length of the relationship with the bank (Length of relationship), whether they currently live in Germany (German resident) and whether they work as employees (Employed), are retired (Retired) or have another job (Other). We also include information on their portfolio and trading behavior. All variables that require a time-series to be computed use the previous 12 months. We include the average portfolio value in euros, the turnover from purchases, sales and the entire portfolio as well as the fees paid and a variable showing whether the fee scheme would have been beneficial in terms of costs using the previous 12 months. We also include information on the asset allocation in September 2009. We show the allocation by instrument, asset class and regional focus. The asset class and the regional focus only account for funds and single stocks and not the total portfolio. Finally, we provide information on clients' diversification using the unsystematic variance share from a 4-factor model as well as the Herfindahl-Hirschman Index assuming a mutual fund to be equal to 100 securities. We finally report average factor loadings for the previous 12 months using the 4-factor model. The 4-factor model uses the German CDAX and its constituents to build daily factors. Data on the investors come from the bank, while data on asset allocations come from the bank and Thomson Reuters Eikon. Other market data are taken from Thomson Reuters Financial Datastream. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively. We use heteroscedasticity-robust standard errors.

| | (1) | (2) |
|---|---|---|
| | Inducement advice to fee advice (Switchers) | Inducement advice to fee advice (Switchers) |
| *Socio-demographics* | | |
| Age (in years) | -0.0041* | -0.0030 |
| | (0.0024) | (0.0025) |
| Married (1 = married) | 0.1133** | 0.0957** |
| | (0.0452) | (0.0462) |
| Gender (male = 1) | -0.0460 | -0.0238 |
| | (0.0564) | (0.0573) |
| Ph. D. (yes = 1) | 0.0149 | 0.0066 |
| | (0.0753) | (0.0768) |
| Length of relationship (in years) | 0.0077 | 0.0011 |
| | (0.0064) | (0.0066) |
| Risk class (1 = low, 5 = high) | 0.0382** | 0.0497*** |
| | (0.0170) | (0.0181) |
| German resident (yes = 1) | -0.2293** | -0.2446** |
| | (0.1082) | (0.1108) |
| Employee (yes = 1) | -0.0487 | -0.0734 |
| | (0.0448) | (0.0459) |
| Retired (yes = 1) | 0.0271 | 0.0196 |
| | (0.0749) | (0.0767) |
| *Portfolio & Trading (previous 12 months)* | | |
| Portfolio value (past 12 months, in Euro) | 0.0000*** | 0.0000*** |
| | (0.0000) | (0.0000) |
| Turnover total portfolio (past 12 months, in % per month) | -0.6289* | -0.4377 |
| | (0.3280) | (0.3333) |
| Trading Fees paid (past 12 months, in Euro) | -0.0001*** | -0.0001** |
| | (0.0000) | (0.0000) |
| Advantage if fee-based scheme (past 12 months, in Euro) | 0.0002*** | 0.0001*** |
| | (0.0000) | (0.0000) |
| *Asset Allocation (in %)* | | |
| *by instrument:* | | |
| Single stocks | | -0.0259 |
| | | (0.4680) |
| Single bonds | | -0.0607 |
| | | (0.5116) |
| Funds (active) | | 0.5049 |
| | | (0.4522) |
| Funds (passive) | | -1.0391** |
| | | (0.4954) |
| Certificates | | 0.5106* |
| | | (0.2715) |

| contd. | (1) Inducement advice to fee advice (Switchers) | (2) Inducement advice to fee advice (Switchers) |
|---|---|---|
| *by asset class (for funds):* | | |
| Equity | | -2.1317*** |
| | | (0.5463) |
| Fixed income | | -0.2255 |
| | | (0.3773) |
| Money Market | | -1.0678 |
| | | (0.7096) |
| Commodities | | -1.3303* |
| | | (0.7247) |
| Real estate | | -0.8599** |
| | | (0.3650) |
| *by region (for equity & funds with equity):* | | |
| Germany | | 1.7941*** |
| | | (0.4491) |
| Europe | | 1.5412*** |
| | | (0.4379) |
| North America | | 1.8443*** |
| | | (0.5059) |
| Africa | | 0.9303 |
| | | (1.1184) |
| South America | | 2.6391*** |
| | | (0.4954) |
| Asia | | 1.2418*** |
| | | (0.4558) |
| Multinational | | 1.9810*** |
| | | (0.4099) |
| Other region | | 2.0408*** |
| | | (0.4642) |
| *Diversification* | | |
| Unsystematic variance share (4 factor) | 0.2159* | 0.1496 |
| | (0.1251) | (0.1374) |
| HHI 100 (in %) | -0.6331*** | -0.7723*** |
| | (0.1597) | (0.2491) |
| *Performance & Factor loadings (previous 12 months)* | | |
| Alpha (4 factor) (in %) | 0.2395** | 0.2710** |
| | (0.1098) | (0.1302) |
| Beta (in %) | -0.3588*** | -0.0473 |
| | (0.0968) | (0.1186) |
| SMB (in %) | 0.1659 | -0.1538 |
| | (0.1071) | (0.1251) |
| HML (in %) | -0.0967 | -0.0435 |
| | (0.1079) | (0.1220) |
| MOM (in %) | 0.0652 | -0.0545 |
| | (0.1216) | (0.1449) |
| Constant | -1.1281*** | -1.2188*** |
| | (0.2181) | (0.3735) |
| Observations | 8,527 | 8,527 |
| R-squared (pseudo) | 0.0493 | 0.0881 |

*Robust standard errors in parentheses*
****p<0.01, **p<0.05, *p<0.1*

## Table III. Event-time study on the fee scheme's impact

This table presents a difference-in-difference analysis in event-time for clients switching to the fee scheme relative to a propensity-score-matched control group. Event-time is set to 1 after the switch to the fee scheme and zero otherwise. Fee advice is 1 for all clients switching to the fee scheme. Fee advice times event-time is the interaction effect of the two. Panel A includes regressions on advice usage and portfolio allocation. We report the number of talks per month, the Herfindahl-Hirschman Index (HHI) assuming a mutual fund to be equal to 100 securities, the unsystematic variance share from a 4-factor model and the share of active funds. Panel B includes measures of trading activity and portfolio performance. We show the monthly portfolio value in euros, the monthly portfolio turnover, the fees paid per year and the portfolio performance (4-factor alpha). Panels A and B report results for the period from 12 months before and 12 months after the switch in event-time. Panels C and D report the results of the same analyses as panels A and B but for 36 months before and after the switch. We use investor fixed effects. Standard errors are double-clustered on portfolio ID and month-by-year. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively.

*Panel A: Advice usage & Portfolio allocation (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | -0.108 | 0.0120*** | -0.00984 | -0.0198*** |
| | (0.0914) | (0.00402) | (0.00701) | (0.00541) |
| Fee-advice (dummy) x Event time (dummy) | 1.960*** | -0.0439*** | -0.0203** | 0.129*** |
| | (0.220) | (0.00560) | (0.00888) | (0.00954) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 19,765 | 32,827 | 32,881 | 32,827 |
| R-squared | 0.619 | 0.777 | 0.780 | 0.872 |

*Panel B: Trading activity & Portfolio performance (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
| Event time (dummy) | 4,679*** | 0.00220 | 1.674 | -0.0189** |
| | (1,568) | (0.00172) | (6.879) | (0.00812) |
| Fee-advice (dummy) x Event time (dummy) | 14,614*** | 0.0267*** | 122.5*** | 0.0323** |
| | (3,302) | (0.00314) | (14.27) | (0.0120) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 32,879 | 32,879 | 32,879 | 32,881 |
| R-squared | 0.975 | 0.849 | 0.750 | 0.448 |

*Panel C: Advice usage & Portfolio allocation (36 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | -0.0672 | 0.0207*** | -0.0281*** | -0.0328*** |
| | (0.0987) | (0.00571) | (0.00828) | (0.00850) |
| Fee-advice (dummy) x Event time (dummy) | 2.217*** | -0.0578*** | 0.00684 | 0.177*** |
| | (0.158) | (0.00697) | (0.0113) | (0.0124) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 49,794 | 86,549 | 86,694 | 86,549 |
| R-squared | 0.548 | 0.632 | 0.587 | 0.777 |

*Panel D: Trading activity & Portfolio performance (36 months before and after the switch)*

| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
|---|---|---|---|---|
| Event time (dummy) | 10,324*** | 0.00127 | -5.123 | -0.00539 |
| | (2,743) | (0.00238) | (6.226) | (0.00606) |
| Fee-advice (dummy) x Event time (dummy) | 30,774*** | 0.0167*** | 104.4*** | 0.0350*** |
| | (4,988) | (0.00328) | (10.75) | (0.00890) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 86,648 | 86,648 | 86,648 | 86,694 |
| R-squared | 0.904 | 0.668 | 0.590 | 0.207 |

*Robust standard errors in parentheses*
**** p<0.01, ** p<0.05, * p<0.1*

## Table IV. Analysis on cost advantages in an event-time study

This table presents panels in an event-time study for fee scheme clients. The dependent variable is trading in active mutual funds. Therefore, each trade is flagged with one if it is an active fund trade and zero otherwise. Column (1) illustrates active fund trading in the 7 days after an advisor contact whereas column (2) shows active fund trades in the 30 days after an advisor contact. Column (3) and (4) show active fund trading in the 7 and 30 days before an advisor contact. We use investor fixed effects. Standard errors are double-clustered on portfolio ID and month-by-year. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively.

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Mutual fund trading (Day 0 to 7) | Mutual fund trading (Day 0 to 30) | Mutual fund trading (Day -7 to 0) | Mutual fund trading (Day -30 to 0) |
| Event time (dummy) | 0.0271 | 0.0361 | 0.105 | 0.0463 |
| | (0.0295) | (0.0337) | (0.0804) | (0.0603) |
| Fee-advice (dummy) x Event time (dummy) | -0.0929* | -0.0713* | -0.0110 | 0.0420 |
| | (0.0477) | (0.0410) | (0.0924) | (0.0709) |
| Fee-advice (dummy) x Event time (dummy) x recommended (dummy) | 0.209*** | 0.222*** | | |
| | (0.0234) | (0.0170) | | |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 7,304 | 19,094 | 3,500 | 16,179 |
| R-squared | 0.453 | 0.456 | 0.582 | 0.530 |

*Robust standard errors in parentheses*
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

## Table V. Test for the sunk-cost fallacy

This table presents results from cross-sectional regressions on the percentage change in the mutual fund share and the percentage increase in the number of talks from the month of switching to twelve months after the switch. This analysis focuses on switchers to the fee scheme only. The fee more expensive dummy is a dummy variable equal to one when a fee scheme client pays more under the fee scheme relative to his/her costs in the previous year and zero otherwise. Fee in % differentiates clients by the percentage they have to pay under the fee scheme. All tests reject the presence of collinearity. We control for socio-demographic information of switchers using age, marital status, gender, PhD., the length of the relationship, the risk-class, being a German resident, being an employee, being retired and past portfolio performance. We use heteroscedasticity-robust standard errors following White (1980). ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| | Change in fund share | Change in fund share | Change in fund share | Change in talks | Change in talks | Change in talks |
| *Sunk-cost fallacy/ buffet effect measures* | | | | | | |
| Fee more expensive (dummy) | | 3.813 | 3.849 | | -0.0327 | -0.0160 |
| | | (2.826) | (2.858) | | (0.146) | (0.146) |
| Portfolio value | 5.01e-06 | 4.97e-06 | 6.22e-06 | 1.22e-07 | 1.22e-07 | -7.53e-07* |
| | (5.50e-06) | (5.40e-06) | (6.92e-06) | (4.22e-07) | (4.23e-07) | (3.96e-07) |
| Fee in % (medium group) | | | 5.463 | | | -0.729 |
| | | | (5.590) | | | (0.634) |
| Fee in % (highest group) | | | 3.686 | | | -1.098 |
| | | | (4.120) | | | (0.673) |
| *Socio-demographics & Performance* | | | | | | |
| Age (in years) | -0.107 | -0.108 | -0.125 | 0.00363 | 0.00363 | 0.00167 |
| | (0.100) | (0.101) | (0.117) | (0.00700) | (0.00701) | (0.00706) |
| Married (married = 1) | -2.196 | -1.879 | -1.726 | 0.111 | 0.109 | 0.117 |
| | (1.972) | (1.734) | (1.585) | (0.134) | (0.135) | (0.134) |
| Gender (male = 1) | 1.015 | 1.102 | 1.042 | 0.118 | 0.117 | 0.112 |
| | (0.826) | (0.903) | (0.859) | (0.176) | (0.175) | (0.175) |
| Ph. D. (yes = 1) | -0.555 | -0.112 | -0.493 | -0.157 | -0.162 | -0.204 |
| | (0.537) | (0.323) | (0.592) | (0.177) | (0.178) | (0.176) |
| Length of relationship (in years) | -0.0976 | -0.0975 | -0.141 | -0.00900 | -0.00912 | -0.0124 |
| | (0.107) | (0.108) | (0.150) | (0.0200) | (0.0201) | (0.0200) |
| Risk class (1 = low, 5 = high) | -0.0976 | -0.0975 | -0.141 | -0.00900 | -0.00912 | -0.0124 |
| | (0.107) | (0.108) | (0.150) | (0.0200) | (0.0201) | (0.0200) |
| German resident (yes = 1) | 2.462 | 2.205 | 2.130 | 0.348 | 0.350 | 0.409* |
| | (2.459) | (2.266) | (2.197) | (0.233) | (0.234) | (0.242) |
| Employed (yes = 1) | 1.123 | 1.281 | 1.153 | 0.0314 | 0.0301 | 0.0277 |
| | (1.387) | (1.496) | (1.372) | (0.138) | (0.138) | (0.139) |
| Retired (yes = 1) | 1.816 | 1.667 | 1.907 | -0.120 | -0.118 | -0.103 |
| | (1.853) | (1.748) | (1.987) | (0.237) | (0.236) | (0.237) |
| Performance (Alpha) | 1.338 | 1.597 | 1.812 | 0.0913 | 0.0878 | 0.119 |
| | (1.104) | (1.280) | (1.495) | (0.211) | (0.210) | (0.210) |
| Constant | 3.516 | 2.521 | 0.161 | 0.479 | 0.488 | 1.688** |
| | (2.952) | (2.294) | (2.366) | (0.504) | (0.508) | (0.785) |
| Observations | 620 | 620 | 620 | 638 | 638 | 638 |
| R-squared | 0.013 | 0.021 | 0.024 | 0.008 | 0.009 | 0.018 |

*Robust standard errors in parentheses*
**** p<0.01, ** p<0.05, * p<0.1*

## Table VI. Test for the novelty effect

This table presents a difference-in-difference analysis in event-time for clients switching from being self-directed to advice in the fee scheme and clients switching from being self-directed to advice under the inducement scheme. Neither group has received advice before. Event-time is set to 1 after the switch to the fee scheme and zero otherwise. Fee advice is 1 for all clients switching to the fee scheme. Fee advice times event-time is the interaction effect of the two. Panel A includes regressions on advice usage and portfolio allocation. We report the number of talks per month, the Herfindahl-Hirschman Index (HHI) assuming a mutual fund to be equal to 100 securities, the unsystematic variance share from a 4-factor model and the share of active funds. Panel B includes measures of trading activity and portfolio performance. We show the portfolio value in euros, the portfolio turnover, the fees paid and the portfolio performance (4-factor alpha). Panels A and B report results for the period from 12 months before and 12 months after the switch in event-time. Panels C and D report the results of the same analyses as panels A and B but applied to 36 months before and after the switch. We use investor fixed effects. Standard errors are double-clustered on portfolio ID and month-by-year. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively.

*Panel A: Advice usage & Portfolio allocation (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | | -0.0289*** | -0.0101* | 0.0308*** |
| | | (0.00405) | (0.00578) | (0.00602) |
| Fee-advice (dummy) x Event time (dummy) | | -0.0521*** | -0.0550*** | 0.151*** |
| | not applicable | (0.0117) | (0.0103) | (0.0170) |
| Investor fixed effects | | YES | YES | YES |
| Observations | | 45,229 | 45,354 | 45,229 |
| R-squared | | 0.713 | 0.792 | 0.860 |

*Panel B: Trading activity & Portfolio performance (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
| Event time (dummy) | 19,563*** | 0.0139*** | 422.6*** | 0.0242* |
| | (1,956) | (0.00167) | (41.01) | (0.0138) |
| Fee-advice (dummy) x Event time (dummy) | 9,705*** | 0.0286*** | 1,220*** | -0.00175 |
| | (3,525) | (0.00330) | (177.7) | (0.0171) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 44,959 | 44,959 | 44,959 | 44,996 |
| R-squared | 0.917 | 0.813 | 0.667 | 0.431 |

*Panel C: Advice usage & Portfolio allocation (36 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | | -0.0268*** | -0.0294*** | 0.0202*** |
| | | (0.00496) | (0.00716) | (0.00695) |
| Fee-advice (dummy) x Event time (dummy) | not applicable | -0.0545*** | -0.0283** | 0.178*** |
| | | (0.0110) | (0.0130) | (0.0177) |
| Investor fixed effects | | YES | YES | YES |
| Observations | | 116,221 | 116,585 | 116,221 |
| R-squared | | 0.643 | 0.642 | 0.802 |

*Panel D: Trading activity & Portfolio performance (36 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
| Event time (dummy) | 29,175*** | 0.00486** | 310.8*** | 0.0296* |
| | (2,683) | (0.00215) | (42.22) | (0.0165) |
| Fee-advice (dummy) x Event time (dummy) | 24,487*** | 0.0219*** | 1,057*** | -0.00851 |
| | (5,746) | (0.00396) | (220.8) | (0.0136) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 44,959 | 115,546 | 115,546 | 115,699 |
| R-squared | 0.917 | 0.674 | 0.425 | 0.262 |

*Robust standard errors in parentheses*
**** p<0.01, ** p<0.05, * p<0.1*

## Table VII. Following in an event-time study

This table presents panels in an event-time study for fee scheme clients receiving financial advice. The dependent variable is following, which is a dummy equal to one if a trade follows financial advice and 0 if the advice is not followed. Column (1) refers to following during the 7 days after an advisor interaction whereas column (2) and (23) illustrate following during the 30 days after an advisor interaction. We use investor fixed effects. Standard errors are double-clustered on portfolio ID and month-by-year. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively.

| | (1) | (2) | (3) |
|---|---|---|---|
| | Following (Day 0 to 7) | Following (Day 0 to 30) | Following (Day 0 to 30) |
| Event time (dummy) | -0.0530 | -0.0519 | -0.0754 |
| | (0.0530) | (0.0630) | (0.0555) |
| Fee-advice (dummy) x Event time (dummy) | 0.389*** | 0.535*** | 0.583*** |
| | (0.0672) | (0.0672) | (0.0585) |
| Fees (%) | | | 0.790 |
| | | | (1.621) |
| Event time (dummy) x Fees (%) | | | 1.347 |
| | | | (2.161) |
| Fee-advice (dummy) x Fees (%) | | | 0.574 |
| | | | (1.867) |
| Fee-advice (dummy) x Event time (dummy) x Fees (%) | | | -2.545 |
| | | | (2.458) |
| Investor fixed effects | YES | YES | YES |
| Observations | 9,120 | 13,430 | 13,430 |
| R-squared | 0.502 | 0.499 | 0.500 |

*Robust standard errors in parentheses*

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

## Table VIII. Following of purchase and sell recommendations

This table reports summary statistics on followed purchase (panels A and B) and sell (panels C and D) recommendations of inducement-scheme clients and switchers to the fee scheme before and after the actual switch date. The security characteristics come from the bank and are enriched with data from Thomson Reuters Eikon. The percentage numbers provided in this table are based on counts of purchase and sell recommendations that were followed. Panels A and C show a split by asset class, and panels B and D show a split by region. We group commodity and money market funds together because there are only a few recommendations. We report numbers for switchers and their propensity-score-matched controls. Columns 1 and 2 split the sample before the switch into switchers and those matched investors who remain in the inducement scheme. Columns 3 and 4 split the sample after the switch to the fee scheme.

| | Before switch date in fee scheme | | | | After switch date in fee scheme | | | |
|---|---|---|---|---|---|---|---|---|
| | N | Following Purchase Recommendations (inducement) | N | Following Purchase Recommendations (switchers) | N | Following Purchase Recommendations (inducement) | N | Following Purchase Recommendations (switchers) |
| *PANEL A: Following by asset class (in %)* | | | | | | | | |
| Equity | 382 | 31.15 | 1,528 | 15.18 | 908 | 29.85 | 12,062 | 65.08 |
| Fixed Income | 134 | 24.63 | 417 | 7.91 | 165 | 23.03 | 1,935 | 62.69 |
| Real Estate | 1 | 0.00 | 6 | 0.00 | 11 | 18.18 | 129 | 60.47 |
| Commodity & Money Market | 2 | 50.00 | 2 | 0.00 | 1 | 0.00 | 33 | 63.64 |
| *PANEL B: Following by region (in %)* | | | | | | | | |
| Multi-national | 202 | 33.66 | 858 | 17.02 | 443 | 26.86 | 5,365 | 63.93 |
| Europe | 81 | 25.93 | 269 | 10.78 | 194 | 26.80 | 2,780 | 66.44 |
| Asia | 6 | 16.67 | 45 | 8.89 | 41 | 34.15 | 790 | 66.58 |
| South America | 0 | 0.00 | 5 | 0.00 | 4 | 50.00 | 55 | 54.55 |
| Germany | 21 | 33.33 | 83 | 24.10 | 50 | 42.00 | 751 | 66.31 |
| North America | 28 | 35.71 | 93 | 6.45 | 60 | 35.00 | 1,021 | 65.43 |
| Other & Africa | 0 | 26.19 | 0 | 12.99 | 0 | 34.91 | 7 | 66.86 |

| | Before switch date in fee scheme | | | | After switch date in fee scheme | | | |
|---|---|---|---|---|---|---|---|---|
| | N | Following Sell Recommendations (inducement) | N | Following Sell Recommendations (switchers) | N | Following Sell Recommendations (inducement) | N | Following Sell Recommendations (switchers) |
| *PANEL C: Following by asset class (in %)* | | | | | | | | |
| Equity | 179 | 49.16 | 665 | 30.68 | 457 | 35.89 | 5,702 | 81.27 |
| Fixed Income | 28 | 64.29 | 58 | 39.66 | 59 | 47.46 | 1,004 | 84.66 |
| Real Estate | 2 | 0.00 | 15 | 26.67 | 7 | 28.57 | 35 | 62.86 |
| Commodity & Money Market | 2 | 0.00 | 1 | 0.00 | 1 | 0.00 | 27 | 81.48 |
| *PANEL D: Following by region (in %)* | | | | | | | | |
| Multi-national | 93 | 50.54 | 281 | 36.65 | 207 | 40.10 | 2,537 | 81.43 |
| Europe | 15 | 33.33 | 125 | 25.60 | 82 | 45.12 | 1,076 | 82.16 |
| Asia | 18 | 55.56 | 97 | 21.65 | 53 | 28.30 | 525 | 78.10 |
| South America | 10 | 80.00 | 30 | 26.67 | 19 | 26.32 | 170 | 71.76 |
| Germany | 17 | 41.18 | 39 | 33.33 | 36 | 13.89 | 426 | 84.04 |
| North America | 3 | 33.33 | 17 | 11.76 | 14 | 35.71 | 303 | 87.79 |
| Other & Africa | 0 | 48.39 | 2 | 35.23 | 0 | 40.38 | 10 | 81.00 |

## Table IX. Event-time study on the fee scheme's impact for likely and unlikely switchers

This table presents a difference-in-difference analysis in event-time for clients switching to the fee scheme relative to a propensity-score-matched control group. We split the fee scheme clients into clients who are likely (equal or above-median probability) and unlikely (below-median probability) to switch based on their predicted probability of switching derived from their demographics. Event-time is set to 1 after the switch to the fee scheme and zero otherwise. Fee advice is 1 for all clients switching to the fee scheme. Fee advice times event-time is the interaction effect of the two. Panel A includes regressions on advice usage and portfolio allocation. We report the number of talks per month, the Herfindahl-Hirschman Index (HHI) assuming a mutual fund to be equal to 100 securities, the unsystematic variance share from a 4-factor model and the share of active funds. Panel B includes measures of trading activity and portfolio performance. We show the portfolio value in euros, the portfolio turnover, the fees paid and the portfolio performance (4-factor alpha). Panels A and B report results for the period from 12 months before and 12 months after the switch in event-time. Panels C and D report the results of the same analyses as panels A and B but applied to 36 months before and after the switch. We use investor fixed effects. Standard errors are double-clustered on portfolio ID and month-by-year. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively.

*Panel A: Advice usage & Portfolio allocation (12 months before and after the switch)*

| | (1) | | (2) | | (3) | | (4) | |
|---|---|---|---|---|---|---|---|---|
| | Talks per month | | HHI | | Unsys. variance share | | Share of active funds | |
| | *Likely* | *Unlikely* | *Likely* | *Unlikely* | *Likely* | *Unlikely* | *Likely* | *Unlikely* |
| Event time (dummy) | -0.194 | 0.0371 | 0.0134** | 0.0107* | 0.000742 | -0.0440*** | -0.0281*** | -0.0119* |
| | (0.127) | (0.123) | (0.00593) | (0.00542) | (0.00896) | (0.0104) | (0.00911) | (0.00615) |
| Fee-advice (dummy) x Event time (dummy) | 1.863*** | 2.015*** | -0.0429*** | -0.0452*** | -0.0170 | 0.00173 | 0.119*** | 0.140*** |
| | (0.176) | (0.167) | (0.00838) | (0.00762) | (0.0113) | (0.0157) | (0.0139) | (0.0128) |
| Investor fixed effects | YES | YES | YES | YES | YES | YES | YES | YES |
| Observations | 10,739 | 9,026 | 16,495 | 16,332 | 16,517 | 42,673 | 16,495 | 16,332 |
| R-squared | 0.645 | 0.589 | 0.736 | 0.802 | 0.735 | 0.613 | 0.805 | 0.897 |

*Panel B: Trading activity & Portfolio performance (12 months before and after the switch)*

| | (1) | | (2) | | (3) | | (4) | |
|---|---|---|---|---|---|---|---|---|
| | Portfolio value | | Portfolio turnover | | Fees paid | | Portfolio performance | |
| | *Likely* | *Unlikely* | *Likely* | *Unlikely* | *Likely* | *Unlikely* | *Likely* | *Unlikely* |
| Event time (dummy) | 3,744* | 5,566** | 0.00720*** | -0.00255 | 92.42 | -48.57 | -0.0377*** | -0.00318 |
| | (2,116) | (2,254) | (0.00258) | (0.00246) | (158.8) | (52.03) | (0.0141) | (0.0130) |
| Fee-advice (dummy) x Event time (dummy) | 12,196*** | 17,327*** | 0.0242*** | 0.0289*** | 1,679*** | 1,235*** | 0.0498** | 0.0265 |
| | (3,519) | (3,456) | (0.00354) | (0.00397) | (228.2) | (125.4) | (0.0197) | (0.0187) |
| Investor fixed effects | YES | YES | YES | YES | YES | YES | YES | YES |
| Observations | 16,515 | 16,364 | 16,515 | 16,364 | 16,515 | 16,364 | 16,517 | 16,364 |
| R-squared | 0.982 | 0.952 | 0.776 | 0.880 | 0.755 | 0.726 | 0.432 | 0.473 |

*Panel C: Advice usage & Portfolio allocation (36 months before and after the switch)*

| | (1) | | (2) | | (3) | | (4) | |
|---|---|---|---|---|---|---|---|---|
| | Talks per month | | HHI | | Unsys. variance share | | Share of active funds | |
| | *Likely* | *Unlikely* | *Likely* | *Unlikely* | *Likely* | *Unlikely* | *Likely* | *Unlikely* |
| Event time (dummy) | -0.109 | -8.93e-05 | 0.0119 | 0.0292*** | -0.0116 | -0.0440*** | -0.0287** | -0.0368*** |
| | (0.137) | (0.147) | (0.00760) | (0.00812) | (0.0106) | (0.0104) | (0.0133) | (0.0106) |
| Fee-advice (dummy) x Event time (dummy) | 2.110*** | 2.325*** | -0.0478*** | -0.0676*** | 0.00910 | 0.00173 | 0.163*** | 0.192*** |
| | (0.179) | (0.188) | (0.00977) | (0.00978) | (0.0136) | (0.0157) | (0.0180) | (0.0169) |
| Investor fixed effects | YES | YES | YES | YES | YES | YES | YES | YES |
| Observations | 27,536 | 22,258 | 43,940 | 42,609 | 44,021 | 42,673 | 43,940 | 42,609 |
| R-squared | 0.543 | 0.552 | 0.576 | 0.669 | 0.530 | 0.613 | 0.667 | 0.822 |

*Panel D: Trading activity & Portfolio performance (36 months before and after the switch)*

| | Portfolio value | | Portfolio turnover | | Fees paid | | Portfolio performance | |
|---|---|---|---|---|---|---|---|---|
| | *Likely* | *Unlikely* | *Likely* | *Unlikely* | *Likely* | *Unlikely* | *Likely* | *Unlikely* |
| Event time (dummy) | 11,258** | 9,419*** | 0.00823** | -0.00548* | 58.23 | -177.5** | -0.0213 | 0.0110 |
| | (4,882) | (3,353) | (0.00371) | (0.00320) | (126.5) | (85.81) | (0.0150) | (0.0144) |
| Fee-advice (dummy) x Event time (dummy) | 24,672*** | 37,494*** | 0.0109** | 0.0221*** | 1,288*** | 1,195*** | 0.0453*** | 0.0376** |
| | (6,902) | (6,050) | (0.00415) | (0.00412) | (198.6) | (151.8) | (0.0142) | (0.0146) |
| Investor fixed effects | YES | YES | YES | YES | YES | YES | YES | YES |
| Observations | 43,998 | 42,650 | 43,998 | 42,650 | 43,998 | 42,650 | 44,021 | 42,673 |
| R-squared | 0.923 | 0.848 | 0.496 | 0.748 | 0.614 | 0.511 | 0.158 | 0.262 |

*Robust standard errors in parentheses*
**** p<0.01, ** p<0.05, * p<0.1*

## Table X. Robustness: advisor fixed effects

This table presents a difference-in-difference analysis in event-time for clients switching to the fee scheme relative to a propensity-score-matched control group controlling for advisor fixed effects. Event-time is set to 1 after the switch to the fee scheme and zero otherwise. Fee advice is 1 for all clients switching to the fee scheme. Fee advice times event-time is the interaction effect of the two. Panel A includes regressions on advice usage and portfolio allocation. We report the number of talks per month, the Herfindahl-Hirschman Index (HHI) assuming a mutual fund to be equal to 100 securities, the unsystematic variance share from a 4-factor model and the share of active funds. Panel B includes measures of trading activity and portfolio performance. We show the portfolio value in euros, the portfolio turnover, the fees paid and the portfolio performance (4-factor alpha). Panels A and B report results for the period from 12 months before and 12 months after the switch in event-time. Panels C and D report the results of the same analyses as panels A and B but applied to 36 months before and after the switch. Standard errors are double-clustered on advisor ID and month-by-year. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively.

*Panel A: Advice usage & Portfolio allocation (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | -0.0893 | -0.00564 | -0.0124 | 0.00197 |
| | (0.0974) | (0.00545) | (0.0124) | (0.0100) |
| Fee-advice (dummy) | -0.0308 | 0.00529 | -0.0126 | -0.0399 |
| | (0.167) | (0.0114) | (0.0236) | (0.0278) |
| Fee-advice (dummy) x Event time (dummy) | 1.985*** | -0.0261*** | -0.0187 | 0.108*** |
| | (0.170) | (0.00738) | (0.0147) | (0.0107) |
| Advisor fixed effects | YES | YES | YES | YES |
| Observations | 18,401 | 19,100 | 19,126 | 19,100 |
| R-squared | 0.290 | 0.060 | 0.067 | 0.098 |

*Panel B: Trading activity & Portfolio performance (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
| Event time (dummy) | 2,192 | 0.00440 | 275.2 | -0.0240 |
| | (2,916) | (0.00419) | (382.7) | (0.0194) |
| Fee-advice (dummy) | -59,971** | -0.000685 | -509.8 | -0.0244* |
| | (26,738) | (0.00659) | (322.1) | (0.0138) |
| Fee-advice (dummy) x Event time (dummy) | 16,227*** | 0.0251*** | 1,185*** | 0.0408* |
| | (1,423) | (0.00480) | (434.8) | (0.0220) |
| Advisor fixed effects | YES | YES | YES | YES |
| Observations | 19,126 | 19,126 | 19,126 | 19,126 |
| R-squared | 0.086 | 0.104 | 0.117 | 0.030 |

*Panel C: Advice usage & Portfolio allocation (36 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | -0.0920 | -0.0119 | -0.00742 | 0.0180 |
| | 19,100 | (0.00871) | (0.0167) | (0.0156) |
| Fee-advice (dummy) | 0.0168 | 0.00774 | 0.00188 | -0.0507* |
| | (0.132) | (0.0108) | (0.0208) | (0.0260) |
| Fee-advice (dummy) x Event time (dummy) | 2.307*** | -0.0266** | -0.0213 | 0.130*** |
| | (0.198) | (0.0100) | (0.0190) | (0.0184) |
| Advisor fixed effects | YES | YES | YES | YES |
| Observations | 46,609 | 50,584 | 50,646 | 50,584 |
| R-squared | 0.326 | 0.056 | 0.050 | 0.111 |

*Panel D: Trading activity & Portfolio performance (36 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
| Event time (dummy) | 8,039 | -0.000314 | 5.306 | 0.00176 |
| | (9,745) | (0.00481) | (190.4) | (0.0212) |
| Fee-advice (dummy) | -60,517** | 0.00138 | -498.7** | -0.00829 |
| | (26,381) | (0.00666) | (222.3) | (0.0120) |
| Fee-advice (dummy) x Event time (dummy) | 33,250*** | 0.0189*** | 1,219*** | 0.0345* |
| | (10,145) | (0.00510) | (255.7) | (0.0205) |
| Advisor fixed effects | YES | YES | YES | YES |
| Observations | 50,622 | 50,622 | 50,622 | 50,646 |
| R-squared | 0.085 | 0.068 | 0.092 | 0.018 |

*Robust standard errors in parentheses*
**** p<0.01, ** p<0.05, * p<0.1*

## Table XI. Robustness: early vs late switchers

This table presents a difference-in-difference analysis in event-time for clients switching to the fee scheme early (between September 2009 and July 2012) relative to those switching late (after July 2012). Panel A includes regressions on advice usage and portfolio allocation. Event-time is set to 1 after the switch to the fee scheme and zero otherwise. All other dummy variables are 1, as we are only analyzing fee scheme switchers. We report the number of talks per month, the Herfindahl-Hirschman Index (HHI) assuming a mutual fund to be equal to 100 securities, the unsystematic variance share from a 4-factor model and the share of active funds. Panel B includes measures of trading activity and portfolio performance. We show the portfolio value in euros, the portfolio turnover, the fees paid and the portfolio performance (4-factor alpha). Panels A and B report results for the period from 12 months before and 12 months after the switch in event-time. Panels C and D report the results of the same analyses as panels A and B but applied to 36 months before and after the switch. We use investor fixed effects. Standard errors are double-clustered on portfolio ID and month-by-year. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively.

*Panel A: Advice usage & Portfolio allocation (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | 1.090*** | -0.0239*** | -0.0308*** | 0.0874*** |
| | (0.135) | (0.00510) | (0.0104) | (0.0107) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 7,389 | 7,728 | 7,740 | 7,728 |
| R-squared | 0.627 | 0.697 | 0.749 | 0.806 |

*Panel B: Trading activity & Portfolio performance (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
| Event time (dummy) | 21,625*** | 0.0214*** | 1,877*** | 0.0143 |
| | (3,356) | (0.00262) | (170.7) | (0.0214) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 7,740 | 7,740 | 7,740 | 7,740 |
| R-squared | 0.980 | 0.715 | 0.747 | 0.425 |

*Panel C: Advice usage & Portfolio allocation (36 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | 1.427*** | -0.0287*** | -0.0471*** | 0.129*** |
| | (0.139) | (0.00594) | (0.0131) | (0.0127) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 19,259 | 21,521 | 21,546 | 21,521 |
| R-squared | 0.484 | 0.568 | 0.515 | 0.705 |

*Panel D: Trading activity & Portfolio performance (36 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
| Event time (dummy) | 45,569*** | 0.00960*** | 1,536*** | 0.0320 |
| | (6,449) | (0.00282) | (171.8) | (0.0222) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 21,522 | 21,522 | 21,522 | 21,546 |
| R-squared | 0.911 | 0.498 | 0.609 | 0.161 |

*Robust standard errors in parentheses*
**** p<0.01, ** p<0.05, * p<0.1*

## Table XII. Robustness: clients with main banking relationship (main accounts)

This table presents a difference-in-difference analysis in event-time for clients switching to the fee scheme relative to a propensity-score-matched control group. The analysis is restricted to clients using their account as main account. Main account users are defined as clients which received at least three salary payments between the start of the observation period in January 2008 and the introduction of the fee scheme in September 2009. Event-time is set to 1 after the switch to the fee scheme and zero otherwise. Fee advice is 1 for all clients switching to the fee scheme. Fee advice times event-time is the interaction effect of the two. Panel A includes regressions on advice usage and portfolio allocation. We report the number of talks per month, the Herfindahl-Hirschman Index (HHI) assuming a mutual fund to be equal to 100 securities, the unsystematic variance share from a 4-factor model and the share of active funds. Panel B includes measures of trading activity and portfolio performance. We show the monthly portfolio value in euros, the monthly portfolio turnover, the fees paid per year and the portfolio performance (4-factor alpha). Panels A and B report results for the period from 12 months before and 12 months after the switch in event-time. Panels C and D report the results of the same analyses as panels A and B but for 36 months before and after the switch. We use investor fixed effects. Standard errors are double-clustered on portfolio ID and month-by-year. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively.

*Panel A: Advice usage & Portfolio allocation (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | 0.0171 | 0.00459 | -0.00756 | -0.0187 |
| | (0.200) | (0.00715) | (0.0126) | (0.0125) |
| Fee-advice (dummy) x Event time (dummy) | 1.829*** | -0.0436*** | 0.0634*** | 0.143*** |
| | (0.266) | (0.0109) | (0.0185) | (0.0222) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 3,921 | 6,277 | 6,277 | 6,277 |
| R-squared | 0.613 | 0.748 | 0.752 | 0.856 |

*Panel B: Trading activity & Portfolio performance (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
| Event time (dummy) | 7,500*** | 0.00591** | -79.36 | -0.0233 |
| | (2,296) | (0.00246) | (98.43) | (0.0222) |
| Fee-advice (dummy) x Event time (dummy) | 14,468*** | 0.0203*** | 1,565*** | 0.0282 |
| | (5,457) | (0.00597) | (231.5) | (0.0326) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 6,277 | 6,277 | 6,277 | 6,277 |
| R-squared | 0.958 | 0.835 | 0.620 | 0.439 |

*Panel C: Advice usage & Portfolio allocation (36 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | 0.163 | 0.0168 | 0.0224 | -0.0270 |
| | (0.250) | (0.0110) | (0.0148) | (0.0210) |
| Fee-advice (dummy) x Event time (dummy) | 1.953*** | -0.0635*** | 0.0230 | 0.179*** |
| | (0.324) | (0.0134) | (0.0205) | (0.0285) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 9,815 | 16,597 | 16,597 | 16,597 |
| R-squared | 0.525 | 0.605 | 0.568 | 0.755 |

*Panel D: Trading activity & Portfolio performance (36 months before and after the switch)*

| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
|---|---|---|---|---|
| Event time (dummy) | 12,306*** | 0.00149 | -83.59 | -0.0152 |
| | (4,647) | (0.00519) | (109.3) | (0.0196) |
| Fee-advice (dummy) x Event time (dummy) | 36,096*** | 0.0123* | 1,192*** | 0.0136 |
| | (11,082) | (0.00688) | (204.2) | (0.0245) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 16,595 | 16,595 | 16,595 | 16,597 |
| R-squared | 0.843 | 0.689 | 0.528 | 0.187 |

*Robust standard errors in parentheses*
**** p<0.01, ** p<0.05, * p<0.1*

## Table XIII. Robustness: alternative bank data

This table presents a difference-in-differences analysis in event-time for clients switching to the fee scheme relative to a propensity-score-matched control group for an alternative dataset taken from a branch bank. Event-time is set to 1 after the switch to the fee scheme and zero otherwise. Fee advice is 1 for all clients switching to the fee scheme. Fee advice times event-time is the interaction effect of the two. We report the portfolio buy turnover, the portfolio turnover, the share of actively managed mutual funds, the total value held in actively managed mutual funds in euros, the Herfindahl-Hirschman Index (HHI) assuming a mutual fund to be equal to 100 securities, and the portfolio value. We report results for the period from 12 months before and 12 months after the switch in event-time. We use investor fixed effects. Standard errors are double-clustered on portfolio ID and month-by-year. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| | Portfolio buy turnover | Portfolio turnover | Share of active funds | Active fund value | HHI | Portfolio value |
| Event time (dummy) | -0.158*** | -0.150*** | 3.087*** | 4,006** | -0.114 | 4.006** |
| | (0.0580) | (0.0510) | (0.599) | (1,983) | (0.379) | (1.983) |
| Fee-advice (dummy) x Event time (dummy) | 0.398*** | 0.404*** | -1.080 | 13,407*** | -3.646*** | 13.41*** |
| | (0.139) | (0.119) | (1.000) | (3,220) | (0.820) | (3.220) |
| Investor fixed effects | YES | YES | YES | YES | YES | YES |
| Observations | 17,885 | 18,240 | 17,530 | 17,530 | 17,530 | 17,530 |
| R-squared | 0.080 | 0.064 | 0.926 | 0.967 | 0.875 | 0.967 |

*Robust standard errors in parentheses*
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

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# Internet Appendix

## Table A.I. Fee-scheme vs. Inducement scheme: Actual costs for hypothetical clients

These tables illustrate the choice sets and costs for two hypothetical clients A and B after the introduction of the fee scheme in September 2009. For the sake of simplicity, we assume that only three mutual funds are available. These mutual funds and their initial charges and management fees are displayed in Table A. The initial charges and management fees are comparable to observations in our sample. The two clients A and B decide to purchase all three funds in equal amounts as their planned mutual fund share (Table B). Client A has a portfolio value of €75,000 with a mutual fund share of 80% (€60,000), whereas client B has a smaller portfolio value of €50,000 and 12% (€6,000) mutual fund share. Both clients invest any remaining liquidity in stocks. Based on these numbers and available funds, table C computes the costs for the mutual fund purchases under the fee scheme and inducement scheme for both clients. It also compares the costs for either advised or self-directed purchases. It shows that there are no differences. The management fee for the fee scheme is set to 0.25% (management-fee minus kickback) for fee-scheme clients at the bank. The percentage-costs (flat fee) for the fee scheme decrease stepwise as the portfolio value increases and are 1% p.a. for portfolio values below €100,000. The fee advantage is calculated as shown in detail in figure III by the following formula:

Fee advantage = ((Fund share*Portfolio value*Annual turnover*Initial charge) + (Fund share*Portfolio value*Management fee)) - ((Portfolio value*Flat-fee) + (Fund share*Portfolio value*Management fee))

A negative fee advantage is equivalent to a disadvantage from opting for the fee scheme.

*A: Exemplified funds with initial charges and annualized costs*

| Fund | Initial charge | Management fee |
|---|---|---|
| DWS Top Dividende | 2,50% | 1,45% |
| Flossbach von Storch Multiple Opps | 2,50% | 2,00% |
| Fidelity European Growth | 0% | 1,50% |

*B: Exemplified portfolio characteristics for two clients*

| Portfolio characteristics | Client A | Client B |
|---|---|---|
| Assets under Management | 75.000 € | 50.000 € |
| Mutual fund share | 60.000 € | 6.000 € |
| Planned purchases (each fund) | 20.000 € | 2.000 € |
| Equity share | 15.000 € | 44.000 € |

*C: Choice sets for clients A and B and calculation of fee (dis-)advantages*

| *Fiscal year* | | | Initial charge | Management fee | Advisory scheme cost | Total costs | Fee Advantage |
|---|---|---|---|---|---|---|---|
| Client A | Inducement scheme | Advised trades | 1.000 € | 2.970 € | 0 € | **3.970 €** | |
| | | Self-directed trades | 1.000 € | 2.970 € | 0 € | **3.970 €** | |
| | *Cost differences self-directed vs advised trades* | | *0 €* | *0 €* | *0 €* | ***0 €*** | **3.070 €** |
| | Fee scheme | Advised trades | 0 € | 150 € | 750 € | **900 €** | |
| | | Self-directed trades | 0 € | 150 € | 750 € | **900 €** | |
| | *Cost differences self-directed vs advised trades* | | *0 €* | *0 €* | *0 €* | ***0 €*** | |
| Client B | Inducement scheme | Advised trades | 100 € | 297 € | 0 € | **397 €** | |
| | | Self-directed trades | 100 € | 297 € | 0 € | **397 €** | |
| | *Cost differences self-directed vs advised trades* | | *0 €* | *0 €* | *0 €* | ***0 €*** | **-118 €** |
| | Fee scheme | Advised trades | 0 € | 15 € | 500 € | **515 €** | |
| | | Self-directed trades | 0 € | 15 € | 500 € | **515 €** | |
| | *Cost differences self-directed vs advised trades* | | *0 €* | *0 €* | *0 €* | ***0 €*** | |

**Appendix A.I. Same advice**

Table A.II. summarizes the advice provided in terms of the number of recommendations for inducement-scheme clients and fee-scheme clients before and after the introduction of the fee scheme in September 2009. Switchers are defined as those clients that used financial advice under the inducement scheme at least once. We compare switchers to advised inducement-scheme clients who never opted for the fee scheme. In this analysis, we use switchers because their portfolios are more similar than those of newly advised clients where recommendations might hinge on the existing portfolios. Panel A shows that mutual funds represent more than 70% of all recommendations for both groups before the introduction of the fee scheme. As shown in Panel B, the most recommended asset class is equity, accounting for approximately 80% of the purchase recommendations. Regarding the regional focus of the mutual funds (Panel C), we find that most funds have a multinational focus (over 70%), followed by a focus on Europe (approximately 8%). German funds, the recommendation of which could be interpreted as a sign of catering to investors' home bias, play only a minor role. As expected, splitting the sample into a period before and after the fee scheme was introduced shows no signs of a structural break in recommendations made by advisors based on the list provided by the central research unit, which applies to both schemes. The last two columns compare the recommendations made between fee-scheme clients and inducement-scheme clients after fee-based advice became available. We find that all observations above remain qualitatively unaltered. However, in the instrument section, we see that the advice tends to include more mutual funds instead of structured financial products (certificates). This is a reaction to both the bad press and performance of certificates during the financial crisis and regulation in the EU, resulting in banks preferring recommending mutual funds over single stocks in order to reduce the complexity of documentation. The regional focus of purchase recommendations also changes synchronously for both groups: The share of funds focusing on Europe increases at the expense of multinational funds. The reduction in certificates is even stronger for purchase recommendations to fee-scheme advisees, likely because of cost advantages in trading mutual funds. In summary, if numbers change, they change for both fee and inducement clients in the same direction and by a similar order of magnitude. Thus, this table provides evidence that the supply of advice focuses on mutual funds and does not vary with the cost scheme chosen by the client. The remaining differences in the recommendations are likely to be due to client tastes and differences in the days when an interaction took place.

## Table A.II. Purchase recommendations before and after the switch

This table reports summary statistics on purchase recommendations made by the advisors of the bank between January 2008 and December 2015. The percentage values provided in this table are based on counts of recommendations. Panel A shows a split by instrument, panel B shows one by asset class and panel C shows one by region for all mutual funds and single stocks. All numbers are in percentages. The data stem from security properties provided by the bank and information from Thomson Reuters Eikon. Columns 1 and 2 split the sample before the fee scheme was available (September 2009) into switchers (those who switch at some point in time after September 2009) and those who remain in the inducement scheme after the introduction of the fee scheme. Columns 3 and 4 split the sample after the fee scheme was available and compare purchase recommendations made to clients switching to the fee scheme with purchase recommendations made to clients receiving financial advice only under the inducement scheme.

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Before fee scheme availability | | After fee scheme availability | |
| | Purchase recommendations (inducement) | Purchase recommendations (switchers) | Purchase recommendations (inducement) | Purchase recommendations (switchers) |
| *PANEL A: Recommendations by instrument (in %)* | | | | |
| Mutual funds | 87.21 | 85.42 | 89.68 | 92.63 |
| Certificates | 7.86 | 10.01 | 3.75 | 1.57 |
| ETFs and Index Funds | 2.89 | 2.45 | 3.24 | 3.58 |
| Single bonds | 2.04 | 2.12 | 0.78 | 0.43 |
| Single stocks | 0.00 | 0.00 | 2.55 | 1.79 |
| **Total** | **100** | **100** | **100** | **100** |
| *PANEL B: Recommendations by asset class (in %)* | | | | |
| Equity | 78.98 | 83.36 | 82.28 | 86.14 |
| Real Estate | 10.74 | 6.92 | 4.19 | 2.52 |
| Fixed Income | 10.17 | 9.72 | 13.29 | 11.17 |
| Money Market | 0.11 | 0.00 | 0.18 | 0.14 |
| Commodity | 0.00 | 0.00 | 0.06 | 0.04 |
| **Total** | **100** | **100** | **100** | **100** |
| *PANEL C: Recommendations by region for all funds and equity (in %)* | | | | |
| Multi-national | 71.69 | 70.62 | 55.94 | 48.70 |
| Europe | 8.48 | 6.73 | 17.97 | 21.58 |
| Asia | 5.49 | 6.82 | 4.91 | 6.79 |
| South America | 2.86 | 2.65 | 1.11 | 0.65 |
| Germany | 1.65 | 0.66 | 6.61 | 6.70 |
| North America | 1.61 | 2.46 | 3.82 | 7.05 |
| Africa | 0.07 | 0.00 | 0.09 | 0.06 |
| Other | 8.14 | 10.05 | 9.54 | 8.46 |
| **Total** | **100** | **100** | **100** | **100** |

We continue by investigating the differences between recommended mutual funds and non-recommended mutual funds that clients could in principle trade in table A.III. This table sheds light on the question of the criteria on which the research unit bases its recommendations.

In detail, we generate a list of all mutual funds available to the clients from the list of securities characteristics that we obtained from the bank and then run all the security identifiers through the Eikon database (formerly the Lipper mutual fund database) to obtain fund characteristics, investment focus, and fund size (total net assets (TNA)) and performance (net asset values (NAV)). We then use the list of purchase recommendations to clients and for each month collect information on the ISINs of funds that were recommended to clients. Using this monthly recommendation list, we group the recommended funds into peer groups by investment and

regional focus. For each peer group, we then select all funds from the list of all available funds to construct the peer group of the recommendations. We then compute the performance, size and other measures for recommended and available other funds. From the resulting database, we are then able to compare funds that were recommended to funds that were not recommended. Due to this procedure, all numbers we report relate to the month in which a fund was recommended.

The average recommended fund is by construction nearly identical to the average non-recommended fund in terms of fund characteristics, asset classes, and regional focus. In terms of costs, the average recommended fund has a 0.63% higher initial charge and a 0.15% higher annual charge than non-recommended funds. In terms of the selection strategy, the research team seems to be more likely to select larger funds, which have approximately 3.0 billion euros in assets under management, whereas non-recommended funds have somewhat less than 1 billion euros in assets under management. Additionally, they pursue a strategy of performance chasing by selecting funds with high past returns. Recommended funds have a return of 10% over the last twelve months, whereas non-recommended funds have a return of 3% over the last twelve months. Controlling for peer group fixed effects does not change this view. We are not judging whether performance chasing is a good or bad strategy; however, when using actively managed funds, it seems to be one of the rational explanations why investors still invest in actively managed funds even if the average actively managed fund underperforms (Gruber (1996)). This finding is reinforced when the trading costs associated with the funds are lower.

## Table A.III. Summary statistics of funds recommended and not recommended for purchase

This table reports summary statistics on funds recommended and not recommended for purchase by the bank. We generate a list of all mutual funds available to the clients from the list of security characteristics from the bank and enrich it by adding mutual fund sizes (Total net assets (TNA)) and prices (net asset values (NAV)) from the Thomson Reuters Eikon database. We then use the list of recommendations to clients for each month by the bank. Using this monthly recommendation list, we group the recommended funds into peer groups by investment (e.g., equity, fixed income) and regional focus. For each peer group, we then select all funds from the list of all available funds to construct a peer group. For this list of funds (recommended and peer funds) we compute the performance, size and other measures for recommended and non-recommended funds in the respective peer-group and month. Under this procedure, all numbers we report relate to the month in which a fund was recommended. A fund can be recommended in multiple months. Based on this monthly database, we generate the comparison below. As fund characteristics, we report whether a fund is distributing or retaining its profit (retaining) and has its domicile in Luxemburg (1=Luxemburg) or Germany (1=Germany). The omitted groups are all other domiciles, with Switzerland being the largest omitted one. We also include a dummy when the fund currency is euros (Currency (1= euro)) and a variable for the time a fund existed (Fund age). We also report the front-end load and the annual charges that are reported by fund management to Eikon (Initial charge and Annual charge). Based on the data, we also split by asset class and regional focus. We finally report fund size (Total net assets (TNA)) at the last month-end before the recommendation month, as well as 6, 12, 24 and 48 months prior to the last month-end before the recommendation month and also include fund returns 6, 12, and 24 months prior to the last month end-before the recommendation month. Differences are computed between non-recommended and recommended funds and p-values are based on a simple t-test of means.

| | Non-recommended funds | | | | Recommended funds | | | | Differences | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | Mean | Median | SD | N | Mean | Median | SD | Diff. | p-value |
| *Fund characteristics* | | | | | | | | | | |
| Retaining | 917,462 | 0.62 | | | 17,873 | 0.58 | | | -0.04 | 0.0000 |
| Fund domicile (1 = Luxemburg) | 917,462 | 0.61 | | | 17,873 | 0.60 | | | -0.01 | 0.0002 |
| Fund domicile (1 = Germany) | 917,462 | 0.14 | | | 17,873 | 0.18 | | | 0.05 | 0.0000 |
| Currency (1 = Euro) | 917,462 | 0.65 | | | 17,873 | 0.73 | | | 0.08 | 0.0000 |
| Fund age (in years) | 916,503 | 14.14 | | | 17,837 | 16.59 | | | 2.45 | 0.0000 |
| *Costs and fees (in %)* | | | | | | | | | | |
| Initial charge | 914,371 | 1.31 | 0.00 | 1.98 | 17,800 | 1.93 | 0.00 | 2.32 | 0.63 | 0.0000 |
| Annual charge | 915,289 | 0.90 | 1.00 | 0.64 | 17,837 | 1.06 | 1.35 | 0.66 | 0.15 | 0.0000 |
| *Asset classes (in %)* | | | | | | | | | | |
| Equity | 917,462 | 71.25 | | | 17,873 | 77.82 | | | 6.57 | 0.0000 |
| Fixed Income | 917,462 | 25.18 | | | 17,873 | 15.68 | | | -9.50 | 0.0000 |
| Commodity | 917,462 | 0.84 | | | 17,873 | 1.66 | | | 0.82 | 0.0000 |
| Money market | 917,462 | 0.67 | | | 17,873 | 0.51 | | | -0.15 | 0.0130 |
| Real Estate | 917,462 | 0.24 | | | 17,873 | 1.92 | | | 0.40 | 0.0000 |
| Other | 917,462 | 1.83 | | | 17,873 | 2.41 | | | 0.40 | 0.0000 |
| *Regional focus (in %)* | | | | | | | | | | |
| Multi national | 917,462 | 1.28 | | | 17,873 | 4.71 | | | 3.43 | 0.0000 |
| Europe | 917,462 | 6.86 | | | 17,873 | 10.66 | | | 3.81 | 0.0000 |
| Asia | 917,462 | 9.53 | | | 17,873 | 11.12 | | | 1.59 | 0.0000 |
| North America | 917,462 | 0.00 | | | 17,873 | 0.13 | | | 0.13 | 0.0000 |
| Germany | 917,462 | 0.01 | | | 17,873 | 0.06 | | | 0.05 | 0.0000 |
| South America | 917,462 | 0.00 | | | 17,873 | 0.02 | | | 0.02 | 0.0000 |
| Africa | 917,462 | 0.16 | | | 17,873 | 0.41 | | | 0.26 | 0.0000 |
| Other | 917,462 | 82.16 | | | 17,873 | 72.88 | | | -9.28 | |
| *Fund size before recommendation month (mio Euro)* | | | | | | | | | | |
| 1 month | 774,013 | 938 | 36 | 26,400 | 15,906 | 3,030 | 339 | 23,000 | 2,090 | 0.0000 |
| 6 months | 761,835 | 909 | 36 | 24,500 | 15,808 | 2,910 | 310 | 22,600 | 2,000 | 0.0000 |
| 12 months | 743,346 | 873 | 36 | 21,800 | 15,538 | 2,790 | 275 | 22,400 | 1,910 | 0.0000 |
| 24 months | 698,805 | 828 | 36 | 18,500 | 14,675 | 2,330 | 221 | 19,300 | 1,500 | 0.0000 |
| 48 months | 644,814 | 810 | 36 | 17,300 | 13,415 | 2,030 | 183 | 17,700 | 1,220 | 0.0000 |
| *Fund returns before deletion dates (in %)* | | | | | | | | | | |
| 6 months | 890,958 | 0.03 | 0.04 | 0.26 | 17,677 | 0.08 | 0.08 | 0.32 | 4.65 | 0.0000 |
| 12 months | 862,715 | 0.03 | 0.04 | 0.19 | 17,398 | 0.10 | 0.10 | 0.23 | 6.07 | 0.0000 |
| 24 months | 802,775 | 0.04 | 0.04 | 0.13 | 16,554 | 0.10 | 0.09 | 0.15 | 6.08 | 0.0000 |

The pooled (by recommendation month) cross-sectional regression on recommended funds (equal to 1) vs. non-recommended funds in the same peer group (equal to 0) in table IV that controls for year fixed effects and investment fund company fixed effects confirms findings from the descriptive statistics. The table shows that fund size and above-average portfolio

performance as well as higher initial and annual charges are the most important factors in explaining fund recommendations. When we split annual charges and initial charges into terciles, we find that purchase recommendations are more likely for funds with higher charges than the median group. Interestingly, for initial charges, there is also a higher probability of a recommendation for funds with a low initial charge. This may cater to clients who are cost sensitive and/or financially savvy (Inderst and Ottaviani (2009)). When splitting the fund size and fund performance within the peer group into quintiles, it becomes obvious that the bank prefers recommending funds from the two best performing quintiles and from the largest size quintile.

In columns 7 and 8, we split the regressions with respect to whether the fee scheme was already available (September 2009). This is to check whether the strategy of selecting and recommending mutual funds has changed. As expected, we find no evidence for a shift in the selection strategy. Before and after the fee scheme was available, fund size, fund performance and higher initial charges and annual charges are the most important factors in explaining recommendations.

# Table A.IV. Characteristics of recommended funds

This table presents results from a pooled cross-sectional regression on recommended funds. The dependent variable in columns (1) to (6) is the number of recommended funds, which is set to one if the fund was recommended and zero otherwise. For each month we use a database of funds recommended by the financial advisor and all available funds in the same peer group defined by asset class and regional focus. The dependent variable in column (7) focuses on recommended funds before the fee scheme was available, and column (8) shows the recommended funds after the fee scheme was available. As control variables, we include fund characteristics (fund age and domicile), costs and fees (initial and annual charges), fund size (Total net assets (TNA)), and fund returns based on Net asset values (NAV)). In addition to including the continuous variables in specification (1), we also use terciles of initial and annual charges and additionally quintiles for fund size and performance in specifications (2) to (6) to allow for non-linearities in the data. We also use fixed effects for asset classes (equity, fixed income, real estate, commodities and other), regional focus (Multinational, Germany, North America, South America, Asia, Africa and Other), investment company fixed effects and year fixed effects. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively. Standard errors are clustered by the month of the recommendation.

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| | Recommended funds | Recommended funds | Recommended funds | Recommended funds | Recommended funds | Recommended funds | Recommended funds (before fee scheme availability) | Recommended funds (after fee scheme availability) |
| *Fund characteristics* | | | | | | | | |
| Fund age (years) | 0.008** | 0.012*** | 0.014*** | 0.014*** | 0.008** | 0.014*** | 0.027*** | 0.010** |
| | (2.434) | (3.432) | (3.792) | (3.981) | (2.479) | (3.491) | (3.479) | (2.442) |
| Fund domicile (Luxemburg) | 0.015*** | 0.015*** | 0.015*** | 0.015*** | 0.014*** | 0.005 | 0.010 | -0.012 |
| | (3.206) | (3.005) | (3.122) | (3.079) | (2.970) | (0.112) | (0.129) | (-0.320) |
| Fund domicile (Germany) | 0.016* | 0.021** | 0.020** | 0.020** | 0.020** | 0.036 | 0.046 | 0.017 |
| | (1.720) | (2.253) | (2.220) | (2.284) | (2.304) | (0.888) | (0.639) | (0.552) |
| *Costs and fees (in %)* | | | | | | | | |
| Initial charge (front-load) | 0.230** | | | | | | | |
| | (2.207) | | | | | | | |
| Initial charge (1st tercile - lowest) | | 0.015*** | 0.018*** | 0.018*** | 0.020*** | 0.007* | 0.004 | 0.007* |
| | | (2.614) | (3.188) | (3.189) | (3.549) | (1.713) | (0.786) | (1.715) |
| Initial charge (3rd tercile -highest) | | 0.022*** | 0.026*** | 0.026*** | 0.027*** | 0.012*** | 0.015** | 0.010** |
| | | (4.168) | (4.654) | (4.669) | (4.881) | (2.744) | (2.157) | (2.542) |
| Annual charge (management fee) | 0.682** | | | | | | | |
| | (2.241) | | | | | | | |
| Annual charge (1st tercile - lowest) | | 0.002 | 0.003 | 0.003 | 0.002 | -0.000 | -0.004 | 0.001 |
| | | (0.765) | (0.859) | (0.799) | (0.568) | (-0.081) | (-0.827) | (0.450) |
| Annual charge (3rd tercile -highest) | | 0.014*** | 0.015*** | 0.014*** | 0.014*** | 0.017*** | 0.021*** | 0.015*** |
| | | (2.730) | (2.880) | (2.776) | (2.719) | (3.080) | (2.611) | (3.079) |
| *Fund returns before deletion dates (in %)* | | | | | | | | |
| Return past 12 month absolute | 0.037*** | | | | | | | |
| | (8.866) | | | | | | | |
| Perfomance quintile (1st quintile in peer group - lowest) | | -0.000 | 0.000 | -0.000 | -0.001 | -0.000 | -0.001 | 0.000 |
| | | (-0.014) | (0.017) | (-0.062) | (-0.394) | (-0.144) | (-0.595) | (0.052) |
| Perfomance quintile (2nd quintile) | | -0.002** | -0.002** | -0.002** | -0.002** | -0.002** | -0.004*** | -0.001 |
| | | (-2.434) | (-2.379) | (-2.293) | (-2.438) | (-2.275) | (-2.908) | (-1.143) |
| Perfomance quintile (4th quintile) | | 0.006*** | 0.006*** | 0.006*** | 0.006*** | 0.005*** | 0.009*** | 0.003*** |
| | | (5.626) | (5.652) | (5.863) | (5.957) | (6.052) | (4.495) | (3.473) |
| Perfomance quintile (5th quintile in peer group - highest) | | 0.026*** | 0.026*** | 0.026*** | 0.026*** | 0.025*** | 0.048*** | 0.014*** |
| | | (8.178) | (8.223) | (8.362) | (8.344) | (8.704) | (8.725) | (5.928) |
| *Fund size before recommendation month (mio Euro)* | | | | | | | | |
| ln of fund size (in Euro) | 0.008*** | | | | | | | |
| | (6.344) | | | | | | | |
| Fund size quintile (1st quintile - lowest) | | -0.006*** | -0.006*** | -0.006*** | -0.007*** | -0.011*** | -0.018*** | -0.008*** |
| | | (-4.048) | (-3.951) | (-4.141) | (-4.693) | (-6.152) | (-5.257) | (-4.194) |
| Fund size quintile (2nd quintile) | | -0.006*** | -0.006*** | -0.006*** | -0.006*** | -0.008*** | -0.013*** | -0.006*** |
| | | (-5.226) | (-5.339) | (-5.397) | (-5.702) | (-7.588) | (-5.750) | (-5.271) |
| Fund size quintile (4th quintile) | | 0.011*** | 0.011*** | 0.011*** | 0.011*** | 0.013*** | 0.026*** | 0.008*** |
| | | (5.833) | (5.845) | (5.912) | (6.052) | (6.668) | (5.588) | (4.589) |
| Fund size quintile (5th quintile - highest) | | 0.046*** | 0.046*** | 0.046*** | 0.047*** | 0.051*** | 0.074*** | 0.042*** |
| | | (5.437) | (5.460) | (5.493) | (5.556) | (6.403) | (5.706) | (6.380) |
| Asset class fixed effects | NO | NO | YES | YES | YES | YES | YES | YES |
| Regional focus fixed-effects | NO | NO | NO | YES | YES | YES | YES | YES |
| Year fixed effects | NO | NO | NO | NO | YES | YES | YES | YES |
| Investment company fixed-effects | NO | NO | NO | NO | NO | YES | YES | YES |
| Constant | -0.169*** | -0.057*** | -0.020 | -0.024 | 0.008 | -0.014 | -0.038 | -0.023 |
| | (-5.604) | (-4.573) | (-1.031) | (-1.231) | (0.422) | (-0.293) | (-0.473) | (-0.912) |
| Observations | 745,405 | 746,635 | 746,635 | 746,635 | 746,635 | 746,635 | 229,593 | 517,042 |
| R-squared | 0.025 | 0.029 | 0.032 | 0.035 | 0.039 | 0.113 | 0.176 | 0.090 |

*Robust t-statistics in parentheses*
**** p<0.01, ** p<0.05, * p<0.1*

The evidence in this section indicates that the introduction of the fee scheme has not changed the supply of advice in general or the advice provided to clients. We also show that advice tends to recommend funds that are actively managed, substantially larger, more costly and have had better performance in the past than funds that were not recommended. If recommendations do not change, then any change in advised trades is likely coming from changes in client choices and/or differences in the probability of following the received advice.

## Table A.V. Demographics of advised and non-advised clients

This table presents summary statistics for advised and non-advised clients. Column (1) shows the statistics for inducement-scheme clients, and column (2) shows statistics for inducement-scheme clients switching to the fee scheme (Switchers). Column (3) refers to clients that switch from self-directed to financial advice under the inducement scheme (New inducement), and column (4) refers to self-directed clients switching to financial advice under the fee scheme (New fee). Column (5) shows statistics for self-directed clients. We report socio-demographic information on the clients' age (Age), their marital status (Married), whether they are male (Gender), whether they hold a PhD (PhD), the length of the relationship with the bank (Length of relationship), whether they currently live in Germany (German resident) and whether they work as employees (Employed), are retired (Retired) or have another job (Other). We also include information on their portfolio and trading behavior. All variables that require a time-series to be computed use the previous 12 months. Thus, we include the average portfolio value in euros, the turnover from purchases, sales and the entire portfolio as well as the fees paid and a variable showing whether the fee schemes would have been beneficial in terms of costs using the previous 12 months. We also include information on the asset allocation in September 2009. We show the asset allocation by instrument, asset class and regional focus. The asset class and the regional focus only account for funds and equities. Finally, there is information on diversification using the unsystematic variance share from a 4-factor model using the German CDAX and its constituents to build the factors as well as the Herfindahl-Hirschman Index assuming a mutual fund to be equal to 100 securities. We finally report average factor loadings for the previous 12 months and between January 2003 and September 2009 using the 4-factor model. Data on the investors come from the bank, while data on asset allocations come from the bank and Thomson Reuters Eikon. Other market data are taken from Thomson Reuters Financial Datastream. We include investors who had a portfolio for at least 200 days as of September 2009.

| *Date: End September 2009* | (1) | | | (2) | | | (3) | | | (4) | | | (5) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Inducement-advice | | | Inducement advice to fee-advice (Switchers) | | | Self-directed to inducement advice (New inducement) | | | Self-directed to fee advice (New fee) | | | Self-directed clients | | |
| | N | Mean | Median | N | Mean | Median | | Mean | Median | N | Mean | Median | N | Mean | Median |
| *Socio-demographics* | | | | | | | | | | | | | | | |
| Age (in years) | 7,828 | 55.17 | 54.00 | 699 | 54.50 | 53.00 | 1380 | 54.30 | 53.00 | 335 | 51.09 | 51.00 | 47,024 | 52.20 | 51.00 |
| Married (married = 1) | 7,828 | 0.64 | 1.00 | 699 | 0.68 | 1.00 | 1380 | 0.65 | 1.00 | 335 | 0.61 | 1.00 | 47,024 | 0.57 | 1.00 |
| Gender (male = 1) | 7,828 | 0.86 | 1.00 | 699 | 0.84 | 1.00 | 1,380 | 0.85 | 1.00 | 335 | 0.83 | 1.00 | 47,024 | 0.85 | 1.00 |
| Ph. D. (yes = 1) | 7,828 | 0.07 | 0.00 | 699 | 0.09 | 0.00 | 1,380 | 0.08 | 0.00 | 335 | 0.12 | 0.00 | 47,024 | 0.07 | 0.00 |
| Length of relationship (in years) | 7,828 | 15.04 | 13.00 | 699 | 15.36 | 13.00 | 1,380 | 14.61 | 13.00 | 335 | 14.38 | 13.00 | 47,024 | 14.17 | 13.00 |
| Risk class (1 = low, 5 = high) | 7,828 | 3.84 | 4.00 | 699 | 3.91 | 4.00 | 1,380 | 3.51 | 4.00 | 335 | 3.36 | 4.00 | 47,024 | 3.54 | 4.00 |
| German resident (yes = 1) | 7,828 | 0.97 | 1.00 | 699 | 0.96 | 1.00 | 1,380 | 0.98 | 1.00 | 335 | 0.95 | 1.00 | 47,024 | 0.96 | 1.00 |
| Employed (yes = 1) | 7,828 | 0.46 | 0.00 | 699 | 0.45 | 0.00 | 1,380 | 0.47 | 0.00 | 335 | 0.44 | 0.00 | 47,024 | 0.50 | 1.00 |
| Retired (yes = 1) | 7,828 | 0.17 | 0.00 | 699 | 0.15 | 0.00 | 1,380 | 0.15 | 0.00 | 335 | 0.11 | 0.00 | 47,024 | 0.11 | 0.00 |
| Other (yes = 1) | 7,828 | 0.37 | 0.00 | 699 | 0.39 | 0.00 | 1,380 | 0.38 | 0.00 | 335 | 0.45 | 0.00 | 47,024 | 0.38 | 0.00 |
| *Portfolio & Trading (previous 12 months)* | | | | | | | | | | | | | | | |
| Portfolio value (average past 12 months, in Euro) | 7,828 | 60306.95 | 34939.13 | 699 | 85062.53 | 51293.62 | 1,380 | 48168.30 | 27945.57 | 335 | 37849.60 | 23157.68 | 47,024 | 43184.38 | 21250.04 |
| Turnover from sales (past 12 months, in % per month) | 7,828 | 4.40 | 0.35 | 699 | 2.04 | 0.11 | 1,380 | 3.77 | 0.08 | 335 | 2.73 | 0.00 | 47,024 | 5.72 | 0.17 |
| Turnover from purchases (past 12 months, in % per month) | 7,828 | 5.80 | 1.73 | 699 | 4.14 | 1.85 | 1,380 | 5.32 | 1.36 | 335 | 4.18 | 1.02 | 47,024 | 7.05 | 1.59 |
| Turnover total portfolio (past 12 months, in % per month) | 7,828 | 5.10 | 1.40 | 699 | 3.09 | 1.31 | 1,380 | 4.55 | 1.06 | 335 | 3.46 | 0.74 | 47,024 | 6.39 | 1.30 |
| Trading Fees paid (past 12 months, in Euro) | 7,828 | 518.45 | 105.17 | 699 | 615.18 | 178.07 | 1,380 | 364.00 | 65.06 | 335 | 332.06 | 46.84 | 47,024 | 441.88 | 59.83 |
| Trading Fees paid funds (past 12 months, in Euro) | 7,828 | 217.61 | 19.52 | 699 | 471.05 | 106.63 | 1,380 | 159.45 | 0.75 | 335 | 110.42 | 15.27 | 47,024 | 82.08 | 0.00 |
| Cost benefit by fee advice (yes = 1) | 7,828 | 0.46 | 0.00 | 699 | 0.67 | 1.00 | 1,380 | 0.44 | 0.00 | 335 | 0.56 | 1.00 | 47,024 | 0.29 | 0.00 |
| *Asset Allocation (in %)* | | | | | | | | | | | | | | | |
| *by instrument:* | | | | | | | | | | | | | | | |
| Funds (active) | 7,828 | 49.27 | 49.81 | 699 | 65.52 | 71.76 | 1,380 | 46.56 | 44.48 | 335 | 59.79 | 70.68 | 47,024 | 32.74 | 13.79 |
| Single stocks | 7,828 | 33.83 | 21.63 | 699 | 16.48 | 3.54 | 1,380 | 40.85 | 30.94 | 335 | 31.53 | 14.45 | 47,024 | 54.42 | 58.43 |
| Certificates | 7,828 | 7.36 | 0.00 | 699 | 9.68 | 1.49 | 1,380 | 5.14 | 0.00 | 335 | 3.05 | 0.00 | 47,024 | 4.05 | 0.00 |
| Funds (passive) | 7,828 | 3.88 | 0.00 | 699 | 1.87 | 0.00 | 1,380 | 3.34 | 0.00 | 335 | 1.84 | 0.00 | 47,024 | 3.23 | 0.00 |
| Single bonds | 7,828 | 2.94 | 0.00 | 699 | 2.10 | 0.00 | 1,380 | 2.88 | 0.00 | 335 | 2.12 | 0.00 | 47,024 | 3.12 | 0.00 |
| Other instrument | 7,828 | 2.73 | 0.00 | 699 | 4.35 | 0.00 | 1,380 | 1.24 | 0.00 | 335 | 1.68 | 0.00 | 47,024 | 2.43 | 0.00 |

Contd.

| contd. | (1) Inducement-advice | | | (2) Inducement advice to fee-advice (Switchers) | | | (3) Self-directed to inducement advice (New inducement) | | | (4) Self-directed to fee advice (New fee) | | | (5) Self-directed clients | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *by asset class (for funds):* | | | | | | | | | | | | | | | |
| Equity | 7,828 | 74.30 | 83.65 | 699 | 69.66 | 73.83 | 1,380 | 79.27 | 92.00 # | 335 | 82.02 | 94.24 | 47,024 | 80.69 | 95.83 |
| Fixed income | 7,828 | 6.97 | 0.00 | 699 | 8.17 | 3.05 | 1,380 | 7.01 | 0.00 # | 335 | 6.73 | 0.00 | 47,024 | 5.86 | 0.00 |
| Real estate | 7,828 | 4.07 | 0.00 | 699 | 4.68 | 0.00 | 1,380 | 2.57 | 0.00 # | 335 | 3.98 | 0.00 | 47,024 | 1.36 | 0.00 |
| Commodities | 7,828 | 2.74 | 0.00 | 699 | 0.91 | 0.00 | 1,380 | 2.95 | 0.00 # | 335 | 1.78 | 0.00 | 47,024 | 4.44 | 0.00 |
| Money Market | 7,828 | 0.51 | 0.00 | 699 | 0.37 | 0.00 | 1,380 | 0.79 | 0.00 # | 335 | 0.21 | 0.00 | 47,024 | 0.57 | 0.00 |
| Other asset class | 7,828 | 11.40 | 0.00 | 699 | 16.22 | 9.57 | 1,380 | 7.41 | 0.00 # | 335 | 5.27 | 0.00 | 47,024 | 7.09 | 0.00 |
| *by region (for equity & funds with equity):* | | | | | | | | | | | | | | | |
| Germany | 7,828 | 30.45 | 16.84 | 699 | 17.86 | 5.56 | 1,380 | 35.69 | 22.73 | 335 | 30.81 | 15.02 | 47,024 | 42.73 | 30.59 |
| Multinational | 7,828 | 26.73 | 18.67 | 699 | 40.91 | 38.16 | 1,380 | 21.97 | 9.53 | 335 | 29.77 | 21.78 | 47,024 | 15.98 | 0.00 |
| Europe | 7,828 | 16.89 | 10.14 | 699 | 16.65 | 11.48 | 1,380 | 18.66 | 9.17 | 335 | 19.13 | 11.90 | 47,024 | 16.25 | 4.76 |
| Asia | 7,828 | 10.04 | 0.00 | 699 | 9.36 | 2.16 | 1,380 | 8.54 | 0.00 | 335 | 9.43 | 0.00 | 47,024 | 7.72 | 0.00 |
| North America | 7,828 | 6.86 | 0.00 | 699 | 3.91 | 0.00 | 1,380 | 8.46 | 0.00 | 335 | 5.60 | 0.00 | 47,024 | 11.05 | 0.00 |
| South America | 7,828 | 2.33 | 0.00 | 699 | 3.67 | 0.00 | 1,380 | 1.77 | 0.00 | 335 | 1.74 | 0.00 | 47,024 | 1.16 | 0.00 |
| Africa | 7,828 | 0.09 | 0.00 | 699 | 0.07 | 0.00 | 1,380 | 0.05 | 0.00 | 335 | 0.06 | 0.00 | 47,024 | 0.07 | 0.00 |
| Other region | 7,828 | 6.65 | 0.00 | 699 | 8.16 | 1.47 | 1,380 | 4.72 | 0.00 | 335 | 4.72 | 0.00 | 47,024 | 5.18 | 0.00 |
| *Diversification (in %)* | | | | | | | | | | | | | | | |
| Unsystematic variance share (4 factor, over previous 12 months) | 7,828 | 44.34 | 45.85 | 699 | 39.29 | 38.70 | 1,380 | 46.20 | 47.70 | 335 | 45.50 | 46.71 | 47,024 | 44.63 | 46.56 |
| Unsystematic variance share (4 factor, 01/2003-09/2009) | 7,828 | 34.13 | 36.74 | 699 | 32.09 | 35.81 | 1,380 | 35.75 | 37.67 | 335 | 37.60 | 39.53 | 47,021 | 34.10 | 36.01 |
| HHI 100 | 7,828 | 11.78 | 4.28 | 699 | 6.57 | 2.19 | 1,380 | 14.05 | 5.00 | 335 | 12.40 | 2.52 | 47,024 | 21.44 | 10.35 |
| Number of positions | 7,828 | 13.92 | 11.00 | 699 | 14.50 | 12.00 | 1,380 | 12.25 | 9.00 | 335 | 10.49 | 9.00 | 47,024 | 11.16 | 8.00 |
| *Performance & Factor loadings (anualized from daily data over previous 12 months, in %)* | | | | | | | | | | | | | | | |
| Alpha (4 factor) | 7,828 | 8.03 | 8.27 | 699 | 10.80 | 9.44 | 1,380 | 7.94 | 8.39 | 335 | 6.75 | 8.53 | 47,024 | 5.17 | 7.53 |
| Beta | 7,828 | 66.20 | 66.78 | 699 | 56.78 | 55.89 | 1,380 | 69.85 | 70.36 | 335 | 64.81 | 67.41 | 47,024 | 74.79 | 74.07 |
| SMB | 7,828 | 20.52 | 20.17 | 699 | 23.88 | 23.28 | 1,380 | 17.29 | 17.55 | 335 | 17.63 | 21.64 | 47,024 | 16.56 | 15.51 |
| HML | 7,828 | 2.55 | 2.96 | 699 | 1.23 | 2.87 | 1,380 | 2.92 | 3.25 | 335 | 2.08 | 2.42 | 47,024 | 3.82 | 2.90 |
| MOM | 7,828 | -16.37 | -14.35 | 699 | -13.37 | -11.78 | 1,380 | -18.39 | -16.16 | 335 | -16.98 | -14.87 | 47,024 | -20.16 | -17.33 |
| *Performance & Factor loadings (anualized from daily data from 01/2003 - 09/2009, in %)* | | | | | | | | | | | | | | | |
| Alpha (4 factor) | 7,828 | -3.21 | -0.90 | 699 | -3.18 | -0.63 | 1,380 | -5.71 | -1.32 | 335 | -4.32 | -0.56 | 47,021 | -8.46 | -1.68 |
| Beta | 7,828 | 74.13 | 74.59 | 699 | 65.08 | 66.52 | 1,380 | 74.70 | 74.19 | 335 | 70.18 | 72.30 | 47,021 | 80.98 | 79.38 |
| SMB | 7,828 | 35.27 | 35.66 | 699 | 36.58 | 38.13 | 1,380 | 29.11 | 30.56 | 335 | 29.82 | 34.02 | 47,021 | 30.39 | 29.14 |
| HML | 7,828 | -4.02 | -2.01 | 699 | -2.91 | -0.14 | 1,380 | -6.61 | -3.63 | 335 | -6.77 | -2.93 | 47,021 | -7.12 | -4.57 |
| MOM | 7,828 | -12.57 | -12.46 | 699 | -11.05 | -9.26 | 1,380 | -17.57 | -15.65 | 335 | -15.85 | -13.68 | 47,021 | -16.80 | -15.45 |

## Table A.VI. Demographics of switchers and new fee clients

This table presents results from probit regressions on switchers and new fee clients. The dependent variable in columns (1) and (2) is a dummy variable equal to one when an investor switches from financial advice under the inducement scheme to financial advice under the fee scheme (Switchers) and zero if the client continues to receive inducement-scheme advice. The dependent variable in columns (3) and (4) is a dummy variable equal to one when an investor switches from self-directed to the fee scheme (New fee) and zero if the client switches to inducement-scheme advice (New inducement). As explanatory variables, we use socio-demographic information on clients' age (Age), marital status (Married), gender (Gender), whether they hold a PhD (PhD), length of the relationship with the bank (Length of relationship), whether they currently live in Germany (German resident) and whether they work as employees (Employed), are retired (Retired) or have another job (Other). We also include information on their portfolio and trading behavior. All variables that require a time-series to be computed use the previous 12 months. We include the average portfolio value in euros, the turnover from purchases, sales and the entire portfolio as well as the fees paid and a variable showing whether the fee scheme would have been beneficial in terms of costs using the previous 12 months. We also include information on the asset allocation in September 2009. We show the allocation by instrument, asset class and regional focus. The asset class and the regional focus only account for funds and single stocks and not the total portfolio. Finally, we provide information on clients' diversification using the unsystematic variance share from a 4-factor model as well as the Herfindahl-Hirschman Index assuming a mutual fund to be equal to 100 securities. We finally report average factor loadings for the previous 12 months using the 4-factor model. The 4-factor model uses the German CDAX and its constituents to build daily factors. Data on the investors come from the bank, while data on asset allocations come from the bank and Thomson Reuters Eikon. Other market data are taken from Thomson Reuters Financial Datastream. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively. We use heteroscedasticity-robust standard errors.

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Inducement advice to fee advice (Switchers) | Inducement advice to fee advice (Switchers) | New Fee to new inducement | New Fee to new inducement |
| *Socio-demographics* | | | | |
| Age (in years) | -0.0041* | -0.0030 | -0.0107*** | -0.0086** |
| | (0.0024) | (0.0025) | (0.0036) | (0.0037) |
| Married (1 = married) | 0.1133** | 0.0957** | -0.0027 | -0.0253 |
| | (0.0452) | (0.0462) | (0.0777) | (0.0791) |
| Gender (male = 1) | -0.0460 | -0.0238 | -0.0347 | 0.0034 |
| | (0.0564) | (0.0573) | (0.0975) | (0.0998) |
| Ph. D. (yes = 1) | 0.0149 | 0.0066 | 0.3301*** | 0.3011** |
| | (0.0753) | (0.0768) | (0.1198) | (0.1196) |
| Length of relationship (in years) | 0.0077 | 0.0011 | -0.0133 | -0.0142 |
| | (0.0064) | (0.0066) | (0.0128) | (0.0133) |
| Risk class (1 = low, 5 = high) | 0.0382** | 0.0497*** | -0.0071 | 0.0069 |
| | (0.0170) | (0.0181) | (0.0249) | (0.0266) |
| German resident (yes = 1) | -0.2293** | -0.2446** | -0.3951** | -0.4365** |
| | (0.1082) | (0.1108) | (0.1898) | (0.1939) |
| Employee (yes = 1) | -0.0487 | -0.0734 | -0.1554** | -0.1547** |
| | (0.0448) | (0.0459) | (0.0764) | (0.0773) |
| Retired (yes = 1) | 0.0271 | 0.0196 | 0.0447 | 0.0695 |
| | (0.0749) | (0.0767) | (0.1368) | (0.1387) |
| *Portfolio & Trading (previous 12 months)* | | | | |
| Portfolio value (past 12 months, in Euro) | 0.0000*** | 0.0000*** | -0.0000** | -0.0000* |
| | (0.0000) | (0.0000) | (0.0000) | (0.0000) |
| Turnover total portfolio (past 12 months, in % per month) | -0.6289* | -0.4377 | -0.7764 | -0.3436 |
| | (0.3280) | (0.3333) | (0.5434) | (0.5419) |
| Trading Fees paid (past 12 months, in Euro) | -0.0001*** | -0.0001** | 0.0000 | 0.0000 |
| | (0.0000) | (0.0000) | (0.0000) | (0.0000) |
| Advantage if fee-based scheme (past 12 months, in Euro) | 0.0002*** | 0.0001*** | 0.0000 | -0.0001 |
| | (0.0000) | (0.0000) | (0.0001) | (0.0001) |
| *Asset Allocation (in %)* | | | | |
| *by instrument:* | | | | |
| Single stocks | | -0.0259 | | -2.0721** |
| | | (0.4680) | | (1.0094) |
| Single bonds | | -0.0607 | | -1.5873 |
| | | (0.5116) | | (1.0707) |
| Funds (active) | | 0.5049 | | -1.3121 |
| | | (0.4522) | | (0.9902) |
| Funds (passive) | | -1.0391** | | -2.3773** |
| | | (0.4954) | | (1.0363) |
| Certificates | | 0.5106* | | -0.8446 |
| | | (0.2715) | | (0.5171) |

| contd. | (1) Inducement advice to fee advice (Switchers) | (2) Inducement advice to fee advice (Switchers) | (3) New Fee to new inducement | (4) New Fee to new inducement |
|---|---|---|---|---|
| *by asset class (for funds):* | | | | |
| Equity | | -2.1317*** | | 1.2682 |
| | | (0.5463) | | (0.9710) |
| Fixed income | | -0.2255 | | 1.2861 |
| | | (0.3773) | | (0.9539) |
| Money Market | | -1.0678 | | -0.4050 |
| | | (0.7096) | | (1.3923) |
| Commodities | | -1.3303* | | 1.4632 |
| | | (0.7247) | | (1.0546) |
| Real estate | | -0.8599** | | 1.6717* |
| | | (0.3650) | | (0.9671) |
| *by region (for equity & funds with equity):* | | | | |
| Germany | | 1.7941*** | | 0.5795 |
| | | (0.4491) | | (0.5818) |
| Europe | | 1.5412*** | | 0.1648 |
| | | (0.4379) | | (0.5584) |
| North America | | 1.8443*** | | 0.1325 |
| | | (0.5059) | | (0.6289) |
| Africa | | 0.9303 | | 4.2637 |
| | | (1.1184) | | (6.6651) |
| South America | | 2.6391*** | | 0.2596 |
| | | (0.4954) | | (0.7596) |
| Asia | | 1.2418*** | | 0.5617 |
| | | (0.4558) | | (0.6037) |
| Multinational | | 1.9810*** | | 0.5168 |
| | | (0.4099) | | (0.5502) |
| Other region | | 2.0408*** | | 0.6738 |
| | | (0.4642) | | (0.6517) |
| *Diversification* | | | | |
| Unsystematic variance share (4 factor) | 0.2159* | 0.1496 | -0.3749* | -0.4872** |
| | (0.1251) | (0.1374) | (0.2156) | (0.2336) |
| HHI 100 (in %) | -0.6331*** | -0.7723*** | -0.0477 | 0.5497** |
| | (0.1597) | (0.2491) | (0.1993) | (0.2427) |
| *Performance & Factor loadings (previous 12 months)* | | | | |
| Alpha (4 factor) (in %) | 0.2395** | 0.2710** | -0.1946 | -0.2125 |
| | (0.1098) | (0.1302) | (0.1556) | (0.1673) |
| Beta (in %) | -0.3588*** | -0.0473 | -0.3715*** | -0.3138* |
| | (0.0968) | (0.1186) | (0.1440) | (0.1668) |
| SMB (in %) | 0.1659 | -0.1538 | 0.2299 | 0.0454 |
| | (0.1071) | (0.1251) | (0.1489) | (0.1636) |
| HML (in %) | -0.0967 | -0.0435 | -0.1621 | -0.2883* |
| | (0.1079) | (0.1220) | (0.1653) | (0.1744) |
| MOM (in %) | 0.0652 | -0.0545 | 0.1126 | 0.2532 |
| | (0.1216) | (0.1449) | (0.1660) | (0.1885) |
| Constant | -1.1281*** | -1.2188*** | 0.9314*** | 0.7882 |
| | (0.2181) | (0.3735) | (0.3538) | (0.6071) |
| Observations | 8,527 | 8,527 | 1,715 | 1,715 |
| R-squared (pseudo) | 0.0493 | 0.0881 | 0.0320 | 0.0605 |

*Robust standard errors in parentheses*
**** p<0.01, ** p<0.05, * p<0.1*

## Table A.VII. Event-time fixed effects

This table presents a difference-in-difference analysis in event time for clients switching to the fee scheme relative to a matched control group. We set the event date to 12 months before the real introduction of the fee scheme (September 2009) and analyze the 12 months before and after this date. Event time is set to 1 after the switch (12 months earlier for the placebo test) to the fee scheme and zero otherwise. Fee advice is 1 for all clients switching to the fee scheme. Fee advice times event time is the interaction effect of the two. Panel A includes regressions on advice usage and portfolio allocation. We report the number of talks per month, the Herfindahl-Hirschman Index (HHI) assuming a mutual fund holds 100 securities, the unsystematic variance share from a 4-factor model and the share of active funds. Panel B includes measures of trading activity and portfolio performance. We show the portfolio value in euros, the portfolio turnover, the fees paid and the portfolio performance (4-factor alpha). Panels A and B report results for the period from 12 months before and 12 months after the switch in event time. Panels C and D report the results of the same analyses as panels A and B but applied to 36 months before and after the switch. We use investor fixed effects and event time fixed effects. Standard errors are double-clustered on portfolio ID and month-by-year. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively.

*Panel A: Advice usage & Portfolio allocation (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Fee-advice (dummy) x Event time (dummy) | 1.925*** | -0.0439*** | -0.0203** | 0.129*** |
| | (0.136) | (0.00560) | (0.00889) | (0.00955) |
| Investor fixed effects | YES | YES | YES | YES |
| Event-time fixed effects | YES | YES | YES | YES |
| Observations | 19,765 | 32,827 | 32,881 | 32,827 |
| R-squared | 0.663 | 0.777 | 0.781 | 0.872 |

*Panel B: Trading activity & Portfolio performance (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
| Fee-advice (dummy) x Event time (dummy) | 14,574*** | 0.0267*** | 1,468*** | 0.0376*** |
| | (2,489) | (0.00286) | (137.1) | (0.0137) |
| Investor fixed effects | YES | YES | YES | YES |
| Event-time fixed effects | YES | YES | YES | YES |
| Observations | 32,879 | 32,879 | 32,879 | 32,881 |
| R-squared | 0.976 | 0.850 | 0.754 | 0.453 |

*Panel C: Advice usage & Portfolio allocation (36 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Fee-advice (dummy) x Event time (dummy) | 2.158*** | -0.0578*** | 0.00679 | 0.177*** |
| | (0.137) | (0.00697) | (0.0113) | (0.0124) |
| Investor fixed effects | YES | YES | YES | YES |
| Event-time fixed effects | YES | YES | YES | YES |
| Observations | 49,794 | 86,549 | 86,694 | 86,549 |
| R-squared | 0.571 | 0.633 | 0.589 | 0.778 |

*Panel D: Trading activity & Portfolio performance (36 months before and after the switch)*

| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
|---|---|---|---|---|
| Fee-advice (dummy) x Event time (dummy) | 30,667*** | 0.0167*** | 1,253*** | 0.0406*** |
| | (4,592) | (0.00297) | (132.7) | (0.0104) |
| Investor fixed effects | YES | YES | YES | YES |
| Event-time fixed effects | YES | YES | YES | YES |
| Observations | 86,648 | 86,648 | 86,648 | 86,694 |
| R-squared | 0.906 | 0.669 | 0.592 | 0.215 |

*Robust standard errors in parentheses*
**** p<0.01, ** p<0.05, * p<0.1*

## Table A.VIII. Month fixed effects

This table presents a difference-in-difference analysis in event time for clients switching to the fee scheme relative to a matched control group. We set the event date to 12 months before the real introduction of the fee scheme (September 2009) and analyze the 12 months before and after this date. Event time is set to 1 after the switch (12 months earlier for the placebo test) to the fee scheme and zero otherwise. Fee advice is 1 for all clients switching to the fee scheme. Fee advice times event time is the interaction effect of the two. Panel A includes regressions on advice usage and portfolio allocation. We report the number of talks per month, the Herfindahl-Hirschman Index (HHI) assuming a mutual fund holds 100 securities, the unsystematic variance share from a 4-factor model and the share of active funds. Panel B includes measures of trading activity and portfolio performance. We show the portfolio value in euros, the portfolio turnover, the fees paid and the portfolio performance (4-factor alpha). Panels A and B report results for the period from 12 months before and 12 months after the switch in event time. Panels C and D report the results of the same analyses as panels A and B but applied to 36 months before and after the switch. We use investor fixed effects and month fixed effects. Standard errors are double-clustered on portfolio ID and month-by-year. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively.

*Panel A: Advice usage & Portfolio allocation (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | -0.833*** | 0.0110*** | -0.000790 | -0.0319*** |
| | (0.124) | (0.00289) | (0.00552) | (0.00447) |
| Fee-advice (dummy) x Event time (dummy) | 1.668*** | -0.0440*** | -0.0200** | 0.128*** |
| | (0.142) | (0.00557) | (0.00866) | (0.00948) |
| Investor fixed effects | YES | YES | YES | YES |
| Month fixed effects | YES | YES | YES | YES |
| Observations | 19,765 | 32,827 | 32,881 | 32,827 |
| R-squared | 0.701 | 0.780 | 0.804 | 0.873 |

*Panel B: Trading activity & Portfolio performance (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
| Event time (dummy) | -8,762*** | -0.00403*** | -413.2*** | -0.0134 |
| | (1,333) | (0.00150) | (83.65) | (0.00825) |
| Fee-advice (dummy) x Event time (dummy) | 14,664*** | 0.0267*** | 1,468*** | 0.0375*** |
| | (2,431) | (0.00285) | (136.3) | (0.0131) |
| Investor fixed effects | YES | YES | YES | YES |
| Month fixed effects | YES | YES | YES | YES |
| Observations | 32,879 | 32,879 | 32,879 | 32,881 |
| R-squared | 0.977 | 0.851 | 0.755 | 0.495 |

*Panel C: Advice usage & Portfolio allocation (36 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | -0.303*** | 0.0161*** | -0.0245*** | -0.0459*** |
| | (0.115) | (0.00457) | (0.00764) | (0.00707) |
| Fee-advice (dummy) x Event time (dummy) | 1.959*** | -0.0577*** | 0.00686 | 0.177*** |
| | (0.135) | (0.00696) | (0.0113) | (0.0123) |
| Investor fixed effects | YES | YES | YES | YES |
| Month fixed effects | YES | YES | YES | YES |
| Observations | 49,794 | 86,549 | 86,694 | 86,549 |
| R-squared | 0.594 | 0.636 | 0.622 | 0.778 |

*Panel D: Trading activity & Portfolio performance (36 months before and after the switch)*

| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
|---|---|---|---|---|
| Event time (dummy) | -13,993*** | 0.00609*** | 134.4 | -0.00245 |
| | (2,676) | (0.00210) | (81.32) | (0.00853) |
| Fee-advice (dummy) x Event time (dummy) | 30,700*** | 0.0166*** | 1,256*** | 0.0407*** |
| | (4,587) | (0.00294) | (132.5) | (0.0104) |
| Investor fixed effects | YES | YES | YES | YES |
| Month fixed effects | YES | YES | YES | YES |
| Observations | 86,648 | 86,648 | 86,648 | 86,694 |
| R-squared | 0.909 | 0.674 | 0.595 | 0.288 |

*Robust standard errors in parentheses*
**** p<0.01, ** p<0.05, * p<0.1*

## Table A.IX. Matching evaluation

This table presents summary statistics for our retail investor data as of September 2009, which is the month before the fee scheme was made available to switchers and propensity-score-matched control investors. Column (1) shows the statistics for fee-scheme clients, and column (2) shows statistics for the matched inducement-scheme clients. We report socio-demographic information on the clients' age (Age), their marital status (Married), if they are male (Gender), whether they hold a PhD (PhD), the length of the relationship with the bank (Length of relationship), whether they currently live in Germany (German resident) and whether they work as employees (Employed), are retired (Retired) or have another job (Other). We also include information on their portfolio and trading behavior. All variables that require a time-series to be computed use the previous 12 months. Thus, we include the average portfolio value in euros, the turnover from purchases, sales and the entire portfolio as well as the fees paid and a variable showing whether the fee schemes would have been beneficial in terms of costs using the previous 12 months. We also include information on the asset allocation in September 2009. We show the asset allocation by instrument, asset class and regional focus. The asset class and the regional focus only account for funds and equities. Finally, there is information on the diversification using the unsystematic variance share from a 4-factor model using the German CDAX and its constituents to build the factors as well as the Herfindahl-Hirschman Index assuming a mutual fund to be equal to 100 securities. We finally report average factor loadings for the previous 12 months using the 4-factor model. Data on the investors come from the bank, while data on asset allocations come from the bank and Thomson Reuters Eikon. Other market data are taken Thomson Reuters Financial Datastream. We include investors who had a portfolio for at least 200 days as of September 2009.

| *Date: End September 2009* | | (1) | | (2) | | (3) | (4) |
|---|---|---|---|---|---|---|---|
| | | Fee scheme clients | | Inducement scheme clients (matched) | | Diff | p-Value |
| | N | Mean | Median | Mean | Median | | |
| *Socio-demographics* | | | | | | | |
| Age (in years) | 662 | 55.12 | 53.00 | 54.61 | 53.00 | 0.51 | 0.40 |
| Married (married = 1) | 662 | 0.66 | 1.00 | 0.68 | 1.00 | -0.02 | 0.46 |
| Gender (male = 1) | 662 | 0.86 | 1.00 | 0.85 | 1.00 | 0.01 | 0.47 |
| Ph. D. (yes = 1) | 662 | 0.10 | 0.00 | 0.09 | 0.00 | 0.01 | 0.58 |
| Length of relationship (in years) | 662 | 15.36 | 13.00 | 15.41 | 13.00 | -0.05 | 0.77 |
| Risk class (1 = low, 5 = high) | 662 | 3.91 | 4.00 | 3.93 | 4.00 | -0.03 | 0.70 |
| German resident (yes = 1) | 662 | 0.96 | 1.00 | 0.96 | 1.00 | 0.01 | 0.57 |
| Employed (yes = 1) | 659 | 0.48 | 0.00 | 0.46 | 0.00 | 0.02 | 0.36 |
| Retired (yes = 1) | 659 | 0.15 | 0.00 | 0.16 | 0.00 | -0.01 | 0.71 |
| Other (yes = 1) | 659 | 0.37 | 0.00 | 0.39 | 0.00 | -0.01 | 0.71 |
| *Portfolio & Trading (previous 12 months)* | | | | | | | |
| Portfolio value (past 12 months, in Euro) | 662 | 103,587 | 50,917 | 119,107 | 74,957 | -15,520 | 0.12 |
| Turnover from sales (past 12 months, in % per month) | 662 | 3.87 | 0.50 | 2.16 | 0.51 | 1.71 | 0.00 |
| Turnover from purchases (past 12 months, in % per month) | 662 | 3.79 | 0.52 | 2.96 | 0.64 | 0.83 | 0.07 |
| Turnover total portfolio (past 12 months, in % per month) | 662 | 3.83 | 0.91 | 2.56 | 0.91 | 1.27 | 0.00 |
| Trading Fees paid (past 12 months, in Euro) | 662 | 639.52 | 68.90 | 627.67 | 116.85 | 11.84 | 0.92 |
| Trading Fees paid funds (past 12 months, in Euro) | 662 | 345.20 | 9.01 | 442.80 | 56.41 | -97.61 | 0.33 |
| Advantage if fee-based scheme (past 12 months, in Euro) | 661 | 161.87 | 28.01 | 374.53 | 93.19 | -212.66 | 0.01 |
| Cost benefit by fee advice (yes = 1) | 662 | 0.59 | 1.00 | 0.66 | 1.00 | -0.07 | 0.01 |
| *Asset Allocation (in %)* | | | | | | | |
| *by instrument:* | | | | | | | |
| Mutual Funds | 661 | 62.80 | 73.22 | 69.02 | 77.25 | -6.21 | 0.00 |
| Single stocks | 661 | 22.94 | 7.96 | 16.92 | 4.93 | 6.02 | 0.00 |
| Single bonds | 661 | 2.01 | 0.00 | 1.70 | 0.00 | 0.31 | 0.48 |
| Certificates | 661 | 5.39 | 0.00 | 6.70 | 0.00 | -1.31 | 0.08 |
| ETFs and Index Funds | 661 | 3.05 | 0.00 | 2.11 | 0.00 | 0.93 | 0.06 |
| Other instrument | 661 | 3.82 | 0.00 | 3.55 | 0.00 | 0.27 | 0.71 |
| *by asset class (for funds):* | | | | | | | |
| Equity | 661 | 74.34 | 0.83 | 0.73 | 0.79 | 0.02 | 0.21 |
| Fixed income | 661 | 8.21 | 0.01 | 0.10 | 0.05 | -0.01 | 0.08 |
| Real estate | 661 | 5.12 | 0.00 | 0.05 | 0.00 | 0.00 | 0.58 |
| Commodities | 661 | 1.10 | 0.00 | 0.01 | 0.00 | 0.00 | 0.11 |
| Money Market | 661 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.55 |
| Other asset class | 661 | 10.96 | 0.00 | 0.12 | 0.04 | -0.01 | 0.23 |
| *by region (for equity & funds with equity):* | | | | | | | |
| Multinational | 661 | 28.75 | 0.25 | 0.32 | 0.30 | -0.04 | 0.01 |
| Germany | 661 | 17.22 | 0.07 | 0.13 | 0.06 | 0.04 | 0.00 |
| Europe | 661 | 11.56 | 0.06 | 0.11 | 0.08 | 0.01 | 0.49 |
| Asia | 661 | 6.43 | 0.00 | 0.06 | 0.01 | 0.00 | 0.80 |
| North America | 661 | 4.53 | 0.00 | 0.03 | 0.00 | 0.01 | 0.09 |
| South America | 661 | 2.16 | 0.00 | 0.02 | 0.00 | 0.00 | 0.84 |
| Africa | 661 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 |
| Other region | 661 | 4.43 | 0.00 | 0.06 | 0.00 | -0.01 | 0.03 |
| *Diversification (in %)* | | | | | | | |
| Unsystematic variance share (4 factor) | 662 | 0.61 | 0.61 | 0.60 | 0.57 | 0.01 | 0.34 |
| HHI 100 | 661 | 0.10 | 0.02 | 0.06 | 0.02 | 0.04 | 0.00 |
| *Performance & Factor loadings (anualized from daily data over previous 12 months, in %)* | | | | | | | |
| Alpha (4 factor) | 662 | -0.02 | 0.01 | -0.02 | 0.00 | 0.01 | 0.66 |
| Beta | 662 | 0.63 | 0.61 | 0.59 | 0.58 | 0.04 | 0.07 |
| SMB | 662 | 0.29 | 0.24 | 0.29 | 0.23 | 0.00 | 0.96 |
| HML | 662 | 0.08 | 0.06 | 0.06 | 0.06 | 0.02 | 0.10 |
| MOM | 662 | -0.04 | -0.01 | -0.01 | -0.01 | -0.02 | 0.03 |

## Table A.X. Matching evaluation

This table presents results from probit regressions on switchers. The dependent variable in columns (1) and (2) is a dummy variable equal to one when an investor switches from financial advice under the inducement scheme to financial advice under the fee scheme (Switchers) and zero if the client continues to receive inducement-scheme advice. As explanatory variables, we use socio-demographic information on clients' age (Age), marital status (Married), gender (Gender), whether they hold a PhD (PhD), length of the relationship with the bank (Length of relationship), whether they currently live in Germany (German resident) and whether they work as employees (Employed), are retired (Retired) or have another job (Other). We also include information on their portfolio and trading behavior. All variables that require a time-series to be computed use the previous 12 months. We include the average portfolio value in euros, the turnover from purchases, sales and the entire portfolio as well as the fees paid and a variable showing whether the fee scheme would have been beneficial in terms of costs using the previous 12 months. We also include information on the asset allocation in September 2009. We show the allocation by instrument, asset class and regional focus. The asset class and the regional focus only account for funds and single stocks and not the total portfolio. Finally, we provide information on clients' diversification using the unsystematic variance share from a 4-factor model as well as the Herfindahl-Hirschman Index assuming a mutual fund to be equal to 100 securities. We finally report average factor loadings for the previous 12 months using the 4-factor model. The 4-factor model uses the German CDAX and its constituents to build daily factors. Data on the investors come from the bank, while data on asset allocations come from the bank and Thomson Reuters Eikon. Other market data are taken from Thomson Reuters Financial Datastream. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively. We use heteroscedasticity-robust standard errors.

| | (1)<br>Inducement advice to fee advice (Switchers) | (2)<br>Inducement advice to fee advice (Switchers) |
|---|---|---|
| *Socio-demographics* | | |
| Age (in years) | -0.0071* | -0.0070 |
| | (0.0043) | (0.0043) |
| Married (1 = married) | 0.0809 | 0.0779 |
| | (0.0762) | (0.0773) |
| Gender (male = 1) | -0.0910 | -0.1049 |
| | (0.1006) | (0.1013) |
| Ph. D. (yes = 1) | -0.0875 | -0.0833 |
| | (0.1206) | (0.1209) |
| Length of relationship (in years) | 0.0021 | -0.0004 |
| | (0.0109) | (0.0110) |
| Risk class (1 = low, 5 = high) | 0.0008 | -0.0006 |
| | (0.0298) | (0.0310) |
| German resident (yes = 1) | -0.0585 | -0.0356 |
| | (0.1784) | (0.1802) |
| Employee (yes = 1) | -0.0953 | -0.0988 |
| | (0.0773) | (0.0782) |
| Retired (yes = 1) | 0.1098 | 0.0959 |
| | (0.1281) | (0.1288) |
| *Portfolio & Trading (previous 12 months)* | | |
| Portfolio value (past 12 months, in % per month) | 0.0000 | 0.0000 |
| Turnover total portfolio (past 12 months, in % per month) | 0.2281 | 0.3678 |
| | (0.8006) | (0.8246) |
| Trading Fees paid (past 12 months, in Euro) | 0.0000 | -0.0000 |
| | (0.0001) | (0.0001) |
| Advantage if fee-based scheme (past 12 months, in Euro) | 0.0000 | 0.0000 |
| | (0.0000) | (0.0000) |
| *Asset Allocation* | | |
| *by instrument:* | | |
| Single stocks | | -0.5102 |
| | | (0.7115) |
| Single bonds | | -0.7181 |
| | | (0.8635) |
| Funds (active) | | -0.4278 |
| | | (0.6640) |
| Funds (passive) | | -0.2702 |
| | | (0.8372) |
| Certificates | | 0.6224 |
| | | (0.4844) |

Contd.

| contd. | (1) Inducement advice to fee advice (Switchers) | (2) Inducement advice to fee advice (Switchers) |
|---|---|---|
| *by asset class (for funds):* | | |
| Equity | | -0.3071 |
| | | (0.6910) |
| Fixed income | | 1.1472* |
| | | (0.6810) |
| Money Market | | 0.4307 |
| | | (1.0090) |
| Commodities | | 0.9834 |
| | | (1.1183) |
| Real estate | | 0.2468 |
| | | (0.6219) |
| *by region (for equity & funds with equity):* | | |
| Germany | | 1.2130* |
| | | (0.6678) |
| Europe | | 1.1640* |
| | | (0.6434) |
| North America | | 1.1891 |
| | | (0.8008) |
| Africa | | 5.0323 |
| | | (8.3062) |
| South America | | 1.1285 |
| | | (0.8267) |
| Asia | | 0.9376 |
| | | (0.6516) |
| Multinational | | 0.9844* |
| | | (0.5857) |
| Other region | | 0.9011 |
| | | (0.6215) |
| *Diversification* | | |
| Unsystematic variance share (4 factor) | -0.4443* | -0.3524 |
| | (0.2450) | (0.2596) |
| HHI 100 | 0.2711 | -0.0980 |
| | (0.3108) | (0.4423) |
| *Performance & Factor loadings (previous 12 months)* | | |
| Alpha (4 factor) (in %) | 0.1621 | 0.1502 |
| | (0.2431) | (0.2559) |
| Beta (in %) | -0.1339 | -0.0994 |
| | (0.1971) | (0.2403) |
| SMB (in %) | 0.2844 | 0.2300 |
| | (0.2213) | (0.2450) |
| HML (in %) | -0.2660 | -0.2171 |
| | (0.2235) | (0.2329) |
| MOM (in %) | -0.0795 | -0.1406 |
| Constant | 0.6970* | 0.3496 |
| | (0.3867) | (0.6185) |
| Observations | 1,330 | 1,330 |
| R-squared (pseudo) | 0.00679 | 0.0120 |

*Robust standard errors in parentheses*
**** p<0.01, ** p<0.05, * p<0.1*

## Table A.XI. Placebo test

This table presents a difference-in-difference analysis in event time for clients switching to the fee scheme relative to a matched control group. We set the event date to 12 months before the real introduction of the fee scheme (September 2009) and analyze the 12 months before and after this date. Event time is set to 1 after the switch (12 months earlier for the placebo test) to the fee scheme and zero otherwise. Fee advice is 1 for all clients switching to the fee scheme. Fee advice times event time is the interaction effect of the two. Panel A includes regressions on advice usage and portfolio allocation. We report the number of talks per month, the Herfindahl-Hirschman Index (HHI) assuming that a mutual fund holds 100 securities, the unsystematic variance share from a 4-factor model and the share of active funds. Panel B includes measures of trading activity and portfolio performance. We show the portfolio value in euros, the portfolio turnover, the fees paid and the portfolio performance (4-factor alpha). Panels A and B report results for the period from 12 months before and 12 months after the switch in event time. We use investor fixed effects. Standard errors are double-clustered on portfolio ID and month-by-year. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively.

| *Panel A: Advice usage & Portfolio allocation* | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | -0.0146 | 0.00558 | -0.0138* | -0.00189 |
| | (0.0771) | (0.00344) | (0.00762) | (0.00498) |
| Fee-advice (dummy) x Event time (dummy) | -0.104 | -0.0145*** | 0.00715 | 0.0249*** |
| | (0.0854) | (0.00431) | (0.00894) | (0.00627) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 18,804 | 31,617 | 31,672 | 31,617 |
| R-squared | 0.765 | 0.835 | 0.797 | 0.925 |
| *Panel B: Trading activity & Portfolio performance* | | | | |
| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
| Event time (dummy) | 3,812** | -0.00210 | -29.86 | 0.0292** |
| | (1,626) | (0.00222) | (59.61) | (0.0126) |
| Fee-advice (dummy) x Event time (dummy) | 4,652* | -0.00122 | -28.89 | 0.0191 |
| | (2,344) | (0.00249) | (66.65) | (0.0153) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 31,654 | 31,654 | 31,654 | 31,672 |
| R-squared | 0.976 | 0.852 | 0.796 | 0.442 |

*Robust standard errors in parentheses*
**** p<0.01, ** p<0.05, * p<0.1*

## Table A.XII. No matching test

This table presents a difference-in-difference analysis in event time for clients switching to the fee scheme relative to all inducement scheme clients. Event time is set to 1 after the switch to the fee scheme and zero otherwise. For inducement scheme clients we assume a switch date equal to the median switching date of switchers to the fee scheme. Fee advice is 1 for all clients switching to the fee scheme. Fee advice times event time is the interaction effect of the two. Panel A includes regressions on advice usage and portfolio allocation. We report the number of talks per month, the Herfindahl-Hirschman Index (HHI) assuming that a mutual fund holds 100 securities, the unsystematic variance share from a 4-factor model and the share of active funds. Panel B includes measures of trading activity and portfolio performance. We show the portfolio value in euros, the portfolio turnover, the fees paid and the portfolio performance (4-factor alpha). Panels A and B report results for the period from 12 months before and 12 months after the switch in event time. Panels C and D report the results of the same analyses as panels A and B but applied to 36 months before and after the switch. We use investor fixed effects. Standard errors are double-clustered on portfolio ID and month-by-year. ***, **, and * indicate that the coefficient estimates are significantly different from zero at the 1%, 5%, and 10% levels, respectively.

*Panel A: Advice usage & Portfolio allocation (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | 0.119*** | 0.0113*** | 0.113*** | -0.00576*** |
| | (0.0341) | (0.00206) | (0.0106) | (0.00195) |
| Fee-advice (dummy) x Event time (dummy) | 1.718*** | -0.0437*** | -0.0895*** | 0.110*** |
| | (0.117) | (0.00428) | (0.0129) | (0.00784) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 47,447 | 236,079 | 236,074 | 236,079 |
| R-squared | 0.670 | 0.865 | 0.855 | 0.930 |

*Panel B: Trading activity & Portfolio performance (12 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
| Event time (dummy) | 2,171* | -0.00482*** | -36.75 | -0.0232** |
| | (1,204) | (0.00109) | (28.08) | (0.0113) |
| Fee-advice (dummy) x Event time (dummy) | 25,853*** | 0.0303*** | 1,511*** | 0.0543*** |
| | (4,565) | (0.00225) | (120.4) | (0.0140) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 452,728 | 452,728 | 452,728 | 452,781 |
| R-squared | 0.955 | 0.779 | 0.581 | 0.326 |

*Panel C: Advice usage & Portfolio allocation (36 months before and after the switch)*

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Talks per month | HHI | Unsys. variance share | Share of active funds |
| Event time (dummy) | 0.176*** | 0.0345*** | 0.0867*** | -0.0319*** |
| | (0.0364) | (0.00380) | (0.00867) | (0.00358) |
| Fee-advice (dummy) x Event time (dummy) | 1.936*** | -0.0734*** | -0.0708*** | 0.173*** |
| | (0.104) | (0.00540) | (0.0110) | (0.00910) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 127,969 | 671,353 | 671,328 | 671,353 |
| R-squared | 0.597 | 0.712 | 0.685 | 0.837 |

*Panel D: Trading activity & Portfolio performance (36 months before and after the switch)*

| | Portfolio value | Portfolio turnover | Fees paid | Portfolio performance |
|---|---|---|---|---|
| Event time (dummy) | 7,330*** | -0.00114 | -5.427 | -0.0132 |
| | (1,657) | (0.00116) | (22.98) | (0.0121) |
| Fee-advice (dummy) x Event time (dummy) | 36,929*** | 0.0188*** | 1,210*** | 0.0469*** |
| | (5,723) | (0.00214) | (111.6) | (0.0121) |
| Investor fixed effects | YES | YES | YES | YES |
| Observations | 671,300 | 671,300 | 671,300 | 671,353 |
| R-squared | 0.926 | 0.734 | 0.540 | 0.270 |

*Robust standard errors in parentheses*
**** p<0.01, ** p<0.05, * p<0.1*