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ABSTRACT

Rationality would suggest that advice-seeking investors receive benefits from costly financial advice. However, evidence documenting these benefits for U.S. investors has so far been lacking. This paper is the first to document that U.S. mutual fund investors indeed receive one of the many previously hypothesized benefits associated with financial advice. The documented benefit comes from valuable tax-management advice that helps investors avoid taxable fund distributions and becomes even more valuable when investors face distributions that can cause large and hard-to-predict tax liabilities. Additional evidence suggests that financial advice helps with other aspects of tax management such as tax-loss selling.

JEL *classification:* D14; G11; G24; H24

Keywords: Mutual funds; Taxable fund distributions; Financial advisors

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1. Introduction

About one half of all mutual fund investors seek financial advice and are willing to pay for it (Investment Company Institute, 2014). Possible ways in which financial advisors can help their clients have been discussed in previous research. For example, Bergstresser et al. (2009) suggest that investors might receive tangible and intangible benefits in the form of portfolio customization that reflects individual asset allocation needs, reduced search costs, lower susceptibility to behavioral biases, and tax management advice, among others. However, despite the list of hypothesized benefits from financial advice, there has been no empirical evidence to date documenting such benefits for U.S. investors.[1] We fill this gap in the literature by documenting that U.S. mutual fund investors do indeed receive at least one of the many previously hypothesized benefits, which comes in the form of valuable tax-management advice.

Specifically, we examine whether financial advisors help U.S. mutual fund investors reduce their tax liabilities by actively helping them avoid taxable fund distributions. To address this question, we compare the tax-avoidance behavior of investors who operate under the guidance of financial advisors (hereafter, indirect investors) with that of investors who do not rely on financial advisors (hereafter, direct investors).

Using a broad sample of U.S. mutual funds over the period 1999 – 2011, we document tax-avoidance among both groups of investors. However, this behavior is much stronger for indirect investors than for direct investors as the tax-avoidance pattern in the indirect channel is about 60 percent stronger than in the direct channel. Our results hold even after we control for the advisors' compensation, changes in fund performance, and several other factors that can affect flows. Since previous research focusing on U.S. investors shows that investors who seek

[1] There are very few empirical studies that document benefits related to financial advice outside of the U.S. Using data from Israel and Germany, respectively, Shapira and Venezia (2001) and Hackethal et al. (2012) provide evidence that investors improve their portfolio performance by following financial advice.

advice are generally less sophisticated than those who do not (see, e.g., Malloy and Zhu, 2004; Investment Company Institute, 2008; Chalmers and Reuter, 2014),[2] we can attribute the stronger tax-avoidance pattern of indirect investors to the assistance provided by financial advisors.[3]

We consider several alternative explanations for our findings. First, we rule out the possibility that unobservable fund characteristics are responsible for our results by showing that our key finding persists even after we compare the behavior of direct and indirect investors within the same fund. Second, retirement investors, who have no incentive to avoid taxable distributions, perhaps make up a higher fraction of investors in the direct channel than in the indirect channel, which could lead to the flow patterns we observe. We rule this out by showing that the stronger tax-avoidance behavior of indirect investors persists even after we exclude share classes that are available to retirement investors. Finally, we rule out that investor trading patterns other than tax-avoidance lead to the flow patterns we observe by looking at flow patterns around tax-exempt and taxable distributions. We find flow evidence consistent with tax-avoidance only around taxable distributions but not around tax-exempt distributions. Furthermore, we find that these patterns are affected by the distribution channel only among the taxable distributions. These two findings suggest that the flow patterns around taxable distributions are more likely to be driven by tax-avoidance considerations and that the advisors'

[2] This view was first presented by Gruber (1996) in his AFA presidential address and has been corroborated by both empirical and theoretical studies. Malloy and Zhu (2004) show that investors from less affluent and less educated neighborhoods are more likely to invest through brokers. Chalmers and Reuter (2014) document younger individuals with less education and lower income to be more likely to choose financial advice for retirement decisions. Survey evidence also suggests that investors who seek financial advice are from households with lower income and financial assets (see Investment Company Institute, 2008). This empirical evidence is also supported by theoretical models of Inderst and Ottaviani (2009) and Stoughton et al. (2011) which imply that advisors service mainly less sophisticated investors.

[3] In Europe unsophisticated investors who most need professional financial advice appear less interested in it (Bhattacharya et al., 2012), most likely because they seem to rely more on family and friends as their main source of financial advice and are less likely to invest in the stock market (see, e.g., Rooij et al., 2011; Calcagno and Monticone, 2014). The reason for the lower participation of unsophisticated investors in the stock market is likely related to the fact that in Europe, unlike in the U.S., retirement investing is mainly done by the government.

influence on investors in this particular setting is more likely related to helping investors with tax-avoidance.

Extending our investigation, we argue that if financial advisors do indeed provide tax-management services to their clients, then their advice ought to lead to stronger tax-avoidance behavior in critical situations that affect investors in the most adverse ways. One such critical situation arises in the face of distributions that can cause large tax liabilities. Another one is when investors are facing distributions associated with tax liabilities that are hard to predict and consequently make financial planning more challenging. Our results support this view. We show that the difference in tax-avoidance behavior between direct and indirect investors is more pronounced for distributions that lead to larger tax liabilities and for distributions that are harder to predict.

We next explore whether the tax-avoidance advice from financial advisors interacts with other tax-related considerations. Ivkovic and Weisbenner (2009) show that, consistent with tax-loss selling, investors' propensity to sell fund shares that have declined in value is more pronounced in December. We hypothesize that tax-loss selling interacts with the tax-avoidance behavior that we document and that this effect is more pronounced in the indirect channel. Our results show that the tax-avoidance difference between direct and indirect investors gets stronger in December but only for funds where investors are most likely to be subject to capital losses. This finding is consistent with indirect channel investors being advised to not only delay additional investments until after the distribution date but to also redeem shares that have declined in value prior to the distribution date to harvest losses for tax-loss selling purposes.

Our paper is related to a growing number of studies that examine whether financial advice generates measurable benefits for U.S. investors. Bergstresser et al. (2009), Chalmers and Reuter (2014) and Del Guercio and Reuter (2014) show that financial advisors are unable to help investors pick outperforming funds. Mullainathan et al. (2012) document that financial

advisors fail to moderate their clients' behavioral biases. We contribute to this literature with findings suggesting that financial advisors are providing useful tax management advice to fund investors. To the best of our knowledge, ours is the first study to provide evidence of a tangible benefit delivered by financial advisors to their clients in the U.S. As such, our evidence provides concrete support for the view espoused by Del Guercio et al. (2010) and Del Guercio and Reuter (2014) that indirect channel investors demand and receive financial advisory services rather than purely portfolio management services.

Our study is also related to a second group of studies that examine how tax considerations shape decisions of individual fund investors (see, e.g., Barclay et al., 1998; Bergstresser and Poterba, 2002; Ivkovic and Weisbenner, 2009; Johnson and Poterba, 2010). We contribute to this literature by documenting that mutual fund investors are not homogeneous when responding to taxes. Instead, investors' reaction to taxes is related to the distribution channel through which they transact, whereby indirect channel investors display stronger tax awareness shaped in large part by financial advice.

The remainder of this paper is organized as follows. In Section 2, we discuss our data set and sample summary statistics. Section 3 presents our main findings on mutual fund investors' avoidance of taxable distribution across the direct and indirect distribution channels. In Section 4, we explore alternative explanations for our key finding. Section 5 investigates whether financial advice leads to stronger tax-avoidance behavior in situations that affect investors in the most adverse ways, and Section 6 examines whether the tax-avoidance effect interacts with tax-loss selling. In Section 7 we provide several robustness checks, and Section 8 concludes.

2. Data

2.1 DATA SOURCES AND SAMPLE CONSTRUCTION

We obtain mutual fund data from four databases: Thomson Reuters Lipper Flows, Thomson Reuters Mutual Fund Holdings, Center for Research in Security Prices (CRSP) Stock Files, and CRSP Survivor-Bias-Free U.S. Mutual Fund database.

Data on the primary distribution channels of U.S. equity fund shares as well as weekly data on net flows and assets under management are from Thomson Reuters Lipper Flows (Lipper). Lipper assigns each fund share class to one of its three distribution channel categories.[4] Share classes sold primarily through brokers and financial advisors are placed in the indirect channel category while share classes sold directly to investors are placed in the direct channel category.[5] The remaining distribution channel comprises share classes sold primarily to institutional investors. Holdings data for U.S. equity funds are from Thomson Reuters Mutual Fund Holdings database. The database reports the name, identifier, and number of shares for each security held by each mutual fund on each reporting date. Holdings data are supplemented with individual stock prices and other information from the CRSP Monthly and Daily Stock Files.

We obtain information on share class and fund characteristics, such as returns, expense ratios, portfolio turnover, and investment objectives from the CRSP Mutual Fund database. We estimate weekly returns for each share class by compounding daily returns. For the share classes we also obtain information on distribution dates, distribution amounts, and net asset

[4] Previous studies such as Bergstresser et al. (2009), Del Guercio et al. (2010) and Del Guercio and Reuter (2014) rely on the distribution channel classifications from Financial Research Corporation (FRC). However, since FRC's classification is based on Lipper's, differences between the two classification schemes are very small as documented by Bergstresser et al. (2009).

[5] Like previous studies listed above, we lack the data to distinguish between brokers and financial advisors. Thus, we will treat them as one group and for ease of exposition refer to them as financial advisors. Furthermore, given the recent growth in the activity of fee-based financial advisors who sell no-load funds but charge a fee as a percentage of the client's asset they manage, we expect there to be some funds classified as direct channel funds, part of which are sold by fee-based financial advisors. However, this effect would work against us finding a difference in the behavior of direct and indirect channels.

value reinvestment prices (NAV) from CRSP. Similar to Pástor and Stambaugh (2002) we assign a fund's investment objective classification based on the CRSP fund objective code.

We analyze flows at the share class level rather than at the fund level for two reasons. First, most share classes are distributed primarily only through one distribution channel, and accordingly, the Lipper classification of primary distribution channels is done at the share class level. Second, mutual funds allocate received dividends and realized capital gains on a pro-rata basis when making distributions and these distributions are paid net of expenses, causing distributions to differ across share classes.

To arrive at our final sample, we start by excluding all share classes with missing MFLINKS code. We next proceed by excluding shares sold through the institutional channel to examine the investment behavior of retail investors. This makes our study comparable to previous papers such as Bergstresser et al. (2009) and Del Guercio and Reuter (2014).

Since our focus is on taxable and actively managed U.S. domestic equity funds, we take additional steps to exclude index, international, sector, balanced, fixed-income, and tax-exempt funds. Next, we exclude all retirement share classes (R share classes) that are designed for retirement plans. We further require that each fund share has at least 52 weeks of flow and return data. Our final sample consists of 730,007 share class-week observations. It covers 2,425 U.S. domestic equity fund shares over the period September 1999 to June 2011.

2.2 SAMPLE CHARACTERISTICS

Table I presents summary statistics. About 75 percent of the share classes in our sample are sold through the indirect channel, which is consistent with Bergstresser et al. (2009). In terms of assets, however, indirect-sold shares are significantly smaller than the direct-sold ones. Hence, although they are more numerous, indirect share classes control a smaller amount of total assets. This is consistent with Del Guercio and Reuter (2014). Consistent with previous studies (see, e.g., Bergstresser et al. 2009, Del Guercio and Reuter 2014), indirect channel share

classes have significantly higher expense ratios, which translate into a lower (net-of-fee) performance of indirect share classes. In addition, indirect share classes have higher load fees, consistent with the fact that a sizable part of advisors' compensation comes out of loads.[6]

– Insert Table I approximately here –

Table I also reports statistics on fund shares' annual distribution yields. There are a total of 18,111 share class-year observations with at least one taxable distribution. Such observations are more likely in the indirect channel than in the direct channel, which is expected given the larger number of shares classes in the indirect channel. Most important, share classes in the indirect channel have significantly smaller distribution yields than those in the direct channel. This difference amounts to roughly 0.45 percentage points and is almost equally driven by funds' capital gains and dividend distributions.

To get a sense for the tax implications of the documented difference in distribution yields, we multiply the difference in distribution yields (0.45 percentage points) with the average marginal tax rate of investors as in Sialm (2009) and Sialm and Starks (2012). This calculation suggests that the difference in distribution yields translates into tax savings for indirect investors relative to direct investors of 11 bp.[7]

3. Main Results

This section explores our Tax-Advisory Hypothesis, which postulates that flows of indirect investors exhibit stronger tax-avoidance patterns than flows of direct investors. Our measurement of the tax-avoidance flow effect is based on a two-step procedure. First, for each share class *i* around each taxable distribution event, we compute the flow change from the week before to the week after the distribution week *t* as follows,

[6] Our load variable is measured as the sum of front-end and back-end load fees.
[7] This is based on the assumption that indirect investors pay the marginal tax rate of investors. However, indirect investors might have lower tax rates if their income is lower, which would potentially lead to a lower tax burden difference.

$$\Delta F_{i,t} = F_{i,t+1} - F_{i,t-1}, \tag{1}$$

where F is the net flow of fund share class i in week t normalized by its total net assets under management lagged by one week. Looking at fund shares' flow changes is attractive because it directly captures investors' net reaction around distribution weeks and minimizes the influence of share class and fund level characteristics on flows. Second, we compare flow changes around distribution weeks with flow changes around non-distribution weeks. To avoid flow changes of non-distribution weeks being affected by surrounding distribution events, we eliminate all non-distribution weeks that are preceded or followed by a distribution in the two weeks before or after. The intuition behind our approach for measuring tax-avoidance behavior is that if investors are delaying their investments in a particular share class in the week prior to the distribution week to avoid that distribution, then flows in the week before should be lower than in the week after, resulting in a higher flow change around distribution weeks compared to non-distribution weeks, all else equal.[8]

To test the Tax-Advisory Hypothesis, we employ several regression specifications in which the dependent variable, ΔF, is the flow change of fund share i in week t.[9] Our base model specification is as follows:

$$\begin{aligned}\Delta F_{i,t} = \alpha_0 + \alpha_1 Distribution_{i,t} + \beta_0 Indirect_i + \beta_1 Distribution_{i,t} \times Indirect_i \\ + \delta Delta\ Return_{i,t} + \gamma Advisor\ Compensation_{i,t} + \varepsilon_{i,t}.\end{aligned} \tag{2}$$

Our main independent variables are, *Distribution*, a binary variable that equals one if share class i is subject to a taxable distribution in week t and zero otherwise as well as, *Indirect*, a binary variable that equals one if share class i is sold indirectly and zero otherwise. Our key

[8] Investors might start thinking about avoiding distributions even sooner than week t-1 and wait even after t+1 to invest in a fund. To account for this possibility we replicate all tests in the paper with the modification that the dependent variable now denotes the difference between cumulative normalized net flows in weeks *t+1* to *t+2* and the cumulative normalized net flow in weeks *t-1* to *t-2*. Results (not reported) are qualitatively the same.

[9] We acknowledge that $F_{i,t+1}$ is affected by net flows in week t since net flows in t determine the total net assets under management in t. For robustness we employ:

$$\Delta F_{i,t} := (\text{net flows}_{i,t+1} / \text{assets under management}_{i,t-2}) - (\text{net flows}_{i,t-1} / \text{assets under management}_{i,t-2})$$

in an alternative specification and repeat our analyses. Results (not reported) are qualitatively the same.

test for the Tax-Advisory Hypothesis is based on the interaction of these two variables, which measures how the effect of distributions on the flow change variable differs between indirect and direct channels. Thus, we employ a difference in differences approach.

To control for flows reacting to past performance, which is an empirical regularity first documented by Ippolito (1992), Chevalier and Ellison (1997) and Sirri and Tufano (1998), we include the differential weekly return of share class *i* between week *t* and *t-2* (*Delta Return*). We also control for advisors' incentives to generate fees. The idea is that advisors could use taxable distributions as an excuse to encourage clients to make changes in their portfolios, which in turn generate transaction-based fees in the form of load charges. To control for this possibility, we include the total advisor compensation as an additional control, which is measured as the sum of front-end loads, back-end loads, and 12b-1 fees (*Advisor Compensation*).[10]

In further regressions we extend our baseline specification by sequentially including time (calendar month and year) fixed effects, investment objective fixed effects as well as other fund and share class level controls. Those controls include the fund share's total expense ratio (*Expense ratio*), the logarithm of the fund share's total net assets under management (*Share class assets*), and the fund's yearly turnover ratio (*Portfolio turnover*). The first two control variables are at the share class level, while the last one, *Portfolio turnover*, is at the fund level since multiple share classes are backed by the same portfolio and thus share the same turnover. To be consistent with the *Delta Return* calculation, which uses the return of week *t-2*, all four additional controls are lagged by two weeks. To account for possible correlations both within time periods and funds' share classes, we follow Petersen (2009) and cluster standard errors by fund and week.

[10] Results are not different when we do not include 12b-1 fees in this calculation.

– Insert Table II approximately here –

Results reported in Table II confirm a general tax-avoidance pattern in fund flows around taxable distributions. In all models, the incremental effect of a distribution on the flow change in the direct channel is about 0.30 percentage points, that is, the flow in the week after a taxable distribution is about 0.30 percentage points larger than the flow in the week before.

More importantly, however, the estimated coefficient on the interaction term shows that the tax-avoidance effect is significantly stronger in the indirect channel than in the direct channel. It is about 0.18 percentage points and is significant in all models. This suggests that the incremental effect of a distribution on the flow change in the indirect channel is about 0.48 percentage points, thus 60 percent larger than in the direct channel. This result provides support for our Tax-Advisory Hypothesis.

Although we do not have detailed data at the account level to make precise inferences about the economic magnitude of the effect, we make an attempt at a simple back-of-the-envelope calculation. A reasonable interpretation of our coefficient estimate is that for each distribution that an advised investor is able to avoid, the direct investor avoids only 62.5 percent (1/1.6) of the associated tax liability. The distribution yields reported in Table I, combined with marginal tax rates applied as in Sialm (2009) and Sialm and Starks (2012), produce tax burden estimates of 68 bp for the indirect and 79 bp for the direct share class. Thus, if the indirect investor was able to fully avoid her tax burden, the average direct investor would still carry a tax burden of 30 bp (37.5 percent of 79 bp), suggesting a tax saving of 30 bp for the indirect investor. However, this tax saving should be viewed as a rough approximation for the following reasons: First, because we rely on weekly but not daily flows, we might not be able to capture the full extent of the flow effect. Second, given the aggregate nature of the flow data, we are not able to determine the fraction of the indirect investors that are able to fully avoid their tax burdens. Finally, the tax saving is calculated based on the assumption of identical tax rates for

indirect and direct investors. Again, not having investor level data, we are unable to determine the difference in tax rates faced by the direct and indirect investors in our sample.

Regarding the control variables, *Delta Return* has a significantly positive impact on the flow change variable, which is consistent with flows following returns. The coefficient on *Advisor Compensation* is insignificant indicating that the compensation of advisors has no impact of fund shares' flow changes. All our results are virtually identical in the various models, suggesting that neither the fixed effects nor the other controls have a notable impact on our main finding.

In summary, our results suggest that mutual fund investors exhibit behavior that is consistent with a tax-avoidance motivation in both channels. However, the effect of tax-avoidance on flows is much stronger among indirect channel investors. This is consistent with financial advisors informing their clients about impending distributions and advising them accordingly to delay investments until after taxable distributions take place.

4. Alternative Explanations

In this section we explore alternative explanations for why indirect channel investors exhibit stronger tax-avoidance behavior.

4.1 DO UNOBSERVABLE FUND CHARACTERISTICS DRIVE THE RESULTS?

To rule out the possible impact of unobserved fund characteristics, we run a matched sample analysis and focus on a subset of funds that contemporaneously offer indirect- and direct-sold share classes. This allows us to compare the tax-avoidance behavior between indirect- and direct-sold share classes within the same fund.[11]

[11] Although most mutual fund families (e.g., Vanguard) offer automatic reinvestment programs whereby distributions are automatically reinvested on the day of the distributions, there could be families where automatic reinvestment takes place with a delay. For these families, delayed reinvestment of distributions could cause flows after the distribution week to be higher than before, creating a flow change pattern that would be consistent with tax-avoidance. However, the speed of automatic reinvestments is determined at the fund level, meaning that all

We start by estimating investors' reaction around distribution weeks and non-distribution weeks for each share class. We calculate the average flow changes for each share class across all distribution weeks and non-distribution weeks separately and denote these averages, respectively by $\overline{\Delta F^{Dist}}$ and $\overline{\Delta F^{Non-Dist}}$. Then we compute the difference between these averages for each share class *i* as:

$$\Delta FD_i = \overline{\Delta F_i^{Dist}} - \overline{\Delta F_i^{Non-Dist}}. \quad (3)$$

In economic terms, ΔFD measures the abnormal investor reaction to distributions in a particular share class. Since we are interested in comparing the abnormal reaction to fund distributions for indirect- and direct-sold share classes belonging to the same fund, we next average the abnormal flow changes, ΔFD, across all share classes that belong to the indirect and direct channels of fund *n*, respectively. We denote these averages as $\overline{\Delta FD_n^{Ind}}$ and $\overline{\Delta FD_n^{Direct}}$ and calculate the difference between them as follows:

$$DID_n = \overline{\Delta FD_n^{Ind}} - \overline{\Delta FD_n^{Direct}}, \quad (4)$$

Table III reports average $\overline{\Delta FD_n^{Ind}}$, $\overline{\Delta FD_n^{Direct}}$, and DID_n for the subset of 127 funds from our sample with share classes offered through both distribution channels.

– Insert Table III approximately here –

In the first row of Table III, the calculations are based on all share classes of a fund as described above, and in the second row we keep for each fund only the share class from each channel with the longest history. Both rows lead to the same conclusion, DID_n is positive and significant at the 5 percent level. This means that the tax-avoidance behavior of investors in the indirect channel is stronger than that of investors in the direct channel from the same fund.

the share classes that belong to the same fund would have the same reinvestment policy. Thus, comparing share classes within the same fund properly controls for unobserved reinvestment-related issues.

Thus, our main result persists even after we explicitly control for unobserved fund characteristics.

4.2 ARE RETIREMENT FLOWS RESPONSIBLE?

Even though we removed all share classes that are exclusively designed for retirement savings plans (R shares) from our sample, the remaining shares could still be jointly available to retirement investors (through retirement plans) and to non-retirement investors. Thus, it is possible that the share classes in the two distribution channels differ with respect to the fraction of flows that come from tax-exempt retirement investments. If retirement investments are more prevalent in the direct channel, we would expect flows in the direct channel to be less sensitive to tax considerations, consistent with the main finding of our paper. To examine whether retirement flows are responsible for the differential tax-avoidance behavior between direct and indirect investors, we identify share classes that experience no retirement flows in a given year and replicate our tests on that subset.

We identify share classes with no retirement flows from *Pensions & Investments* annual surveys, where mutual fund families report the assets held in defined contribution (DC) accounts in individual fund shares that are used the most by DC plans. Fund families are asked to report the 12 most used funds by DC plans in each broad investment category (Domestic Equity, Domestic Fixed Income, International Equity, Balanced, and Money Market). We link the DC information from the *Pensions & Investments* surveys to the share classes in our sample using share tickers and classify share classes with zero retirement flows each year by identifying share classes that have no DC asset information. Focusing on domestic equity funds, we identify families that report DC asset data for fewer than 12 funds. Then we consider funds for which the fund families do not report DC assets as having zero DC assets.

– Insert Table IV approximately here –

In Table IV we repeat the analysis of Table II on the subset of all share classes that we identify as having experienced zero retirement flows. Results from these additional tests are similar to those from of Table II: The flow reaction to taxable distributions is about 60 percent stronger in the indirect than in the direct channel. This suggests that our main result is not driven by differences in retirement flows between share classes sold in the direct and indirect channels.

4.3 DOES OUR FLOW CHANGE MEASURE REALLY CAPTURE TAX-AVOIDANCE BEHAVIOR?

To ensure that our key finding is indeed attributable to tax-induced investor reactions around fund distributions, we look for evidence of tax-avoidance behavior around taxable and tax-exempt distributions. The latter distributions have no effect on investors' tax liabilities and as such should not trigger a tax-related flow reaction. Thus, we should observe tax-avoidance behavior among taxable distributions but not among tax-exempt ones.

In Panel A of Table V we look at flow changes around taxable and tax-exempt distributions. Since tax-exempt fund distributions are very scarce among U.S. domestic equity funds (<0.1 percent), for the purposes of this analysis only, we employ a sample of U.S. municipal bond funds. An attractive feature of municipal funds is that, while their dividend (income) distributions are exempt from federal taxes (and at least partly from state taxes), their capital gain distributions are fully taxable at the federal level. This allows us to look at both taxable and tax-exempt distributions. Despite this attractive feature, the fact that municipal bond funds make distributions of monthly frequency does not allow us to compare weekly flow changes around distribution weeks and non-distribution weeks as before. Recall from Section 3 that in order to keep flow changes of non-distribution weeks from being affected by surrounding distribution events, we eliminate all non-distribution weeks that are preceded or

followed by a distribution in the two weeks before or after. For this reason, we confine our analysis only to distribution weeks.

We repeat a modified version of the analysis of Table II with no distribution channel distinction. Specifically, we replace the intercept with two indicator variables, *Tax-exempt distribution* and *Taxable distribution*, indicating whether a distribution is, respectively, tax-exempt or taxable.

– Insert Table V approximately here –

Results from Panel A support our claim that our flow change measure around taxable distributions indeed captures tax-avoidance behavior. In particular, we find flow evidence consistent with tax-avoidance only around taxable distributions but not around tax-exempt distributions.

In Panel B we conduct a more detailed exploration and investigate flow reactions around taxable and tax-exempt distributions stratified by distribution channel. We do this by interacting the variables *Tax-exempt distribution* and *Taxable distribution* with the indicator variables *Direct* and *Indirect*, which equal one if the share class is, respectively, directly or indirectly sold. Results from Panel B confirm our findings of Panel A as there is no consistent flow effect around tax-exempt distributions in both channels. However, the distribution channel seems to matter when looking at taxable distributions, as indirect-sold fund shares exhibit a significant and strong flow reaction around taxable distributions. This suggests that the difference in the flow patterns between direct and indirect investors originally documented in Table II are driven by financial advice intended to help with tax-avoidance.

5. Do Advisors Help more in Critical Situations?

In this section we test an additional hypothesis, which extends the Tax-Advisory Hypothesis. It postulates that financial advice should provide indirect investors with an even greater relative advantage in critical situations that affect investors in the most adverse ways. One such critical situation arises in the face of distributions that cause large tax liabilities. Another one is when investors are facing distributions that are hard to predict and consequently make financial planning more challenging.

5.1 TAX-AVOIDANCE AND SIZE OF TAX LIABILITIES

We investigate whether the value of financial advice increases with the tax liability of underlying distributions, that is, whether the difference in tax-avoidance behavior between indirect and direct channel investors increases with the associated tax liability.

To calculate tax liabilities, we follow Sialm (2009) and Sialm and Starks (2012) and multiply distribution yields with the average marginal tax rate of taxable investors that the distribution is subject to. The tax rates include federal and state taxes and represent the weighted average of investors' tax rates across income brackets.[12]

We split fund distributions into three equally sized groups every year based on the size of their associated tax liability. We then compare investors' reactions to distributions that fall in the high, medium, and low tax liability groups across the indirect and direct channel.

– Insert Table VI approximately here –

Table VI shows that the difference in tax-avoidance behavior between indirect and direct channel investors increases with the size of distributions' associated tax liabilities. In particular, the tax-avoidance differential among distributions with large tax liabilities amounts to 0.58

[12] The time series on investors' average marginal tax rates are obtained from the National Bureau of Economic Research (NBER): http://users.nber.org/~taxsim/.

percentage points (p-value<1 percent). This number suggests that for each distribution that the average advised investor is able to avoid, the average direct investor avoids only 55.5 percent (1/1.8) of the associated tax liability and, thus, has to carry a tax burden of 44.5 percent. Given that the tax burden in the direct share class is now 166 basis points[13], tax-related financial advice becomes even more valuable. Financial advice now provides investors with a 74 basis points advantage while the advantage was only 30 basis points in the base case of Table II.

Moving from high to medium tax liability distributions, the tax-avoidance differential, although still statistically significant, declines almost by a factor of three. Moving from medium to low tax liability distributions it drops even further.

5.2 TAX-AVOIDANCE AND HARD-TO-PREDICT DISTRIBUTIONS

We next examine whether the value of financial advice is greater for distributions that lead to hard-to-predict tax liabilities. Such distributions are undesirable from investors' point of view because they make financial planning more challenging. We argue that financial advisors are in a better position to assess distributions that are associated with hard-to-predict tax liabilities because their prior experience with selected mutual funds potentially gives them greater familiarity with the distribution patterns of these funds.[14]

To identify distributions with tax liabilities that are hard to predict, we split fund distributions into three equally sized groups every year based on the volatility of tax liabilities from distributions made by the corresponding share class during the previous three years. We argue that the tax liabilities of distributions from share classes that made distributions with very

[13] This is based on a calculation that conditions on share classes with distributions in the high tax liability group.
[14] The volatility of a fund's tax liabilities associated with its distributions is a function of the volatility of the distribution amounts but also of the change in the mix of the long-term capital gains, short-term capital gains, and dividends, which typically have been subject to different tax rates.

volatile tax liabilities in the past are hard to predict because in such situations it would be hard to extrapolate from past distribution patterns.[15]

Using a similar approach as in the previous section, we then compare investors' reactions to distributions with high, medium, and low volatility in their associated tax liabilities across the indirect and direct channels. Since the previous section shows that the size of the tax liability is related to the tax-avoidance behavior, we add the size of distributions' tax liabilities (*Tax liability size*) as an additional control.

– Insert Table VII approximately here –

As hypothesized, Table VII results suggest that the difference in tax-avoidance behavior between indirect and direct channel investors increases with the historical volatility of the corresponding distribution-related tax liabilities. In particular, the tax-avoidance differential effect among distributions coming from share classes with highly volatile historical tax liabilities amounts to about 0.27 percentage points (p-value<1 percent), suggesting that the tax-avoidance behavior of indirect investors in this distribution group is much stronger than that of direct channel investors. Moving from high to medium and medium to low volatility groups, the tax-avoidance differential declines by more than a half, becoming statistically insignificant. This evidence suggests that indirect investors, with the help of financial advisors, are better able to avoid hard-to-predict tax liabilities than direct investors.

Taken together, the findings of Section 5 suggest that the effect of tax-related financial advice has a targeted effect in helping investors avoid the least desirable tax events.

[15] Some mutual fund families announce estimates of their taxable distributions way ahead of the actual date of the year-end distributions. For example, Vanguard does so in the early part of November for all its equity funds (see https://personal.vanguard.com/us.) Other fund families, such as Guggenheim, explicitly state that they do not announce distribution estimates for some of the funds to avoid tax-related flow activity (see http://guggenheiminvestments.com/products/mutual-funds/distributions.) However, for families that do announce distribution estimates earlier, these are still estimates and are likely to differ from the actual distributions because of trading by mutual funds taking place after the distribution estimate announcement date but before the actual distribution date. We expect this difference to be even larger for funds that have a history of highly volatile distributions.

6. Do Advisors also help with Tax-Loss Selling?

In this section we examine whether financial advisors help investors with tax-loss selling, another well-known tax strategy studied, for example, by Ivkovic and Weisbenner (2009), in addition to helping them with avoidance of taxable distributions.

We hypothesize that the tax-avoidance differential effect will get stronger in the presence of tax-loss selling considerations. This is perhaps best illustrated by the following example. Consider an investor who is subject to large unrealized capital losses in the shares she holds in a fund that is about to make a taxable distribution. The optimal strategy for her is to redeem her shares right before the distribution date because this would allow her to harvest capital losses and avoid a taxable distribution at the same time. Such redemptions prior to a distribution would add to the tax-avoidance effect of other (both existing and new) investors who simply choose to delay their fund investments until after the distribution date.

To test for this hypothesized interaction, we first identify funds whose investors are most likely to engage in tax-loss selling. Not having cost basis information for the shares held by each individual investor, we argue that funds that performed worst during the previous year while having low levels of capital gains overhang in their portfolios are most likely to be good tax-loss selling candidates in December, when tax-loss selling is most likely to happen. This is so because they are subject to both short-term and long-term portfolio paper losses, which would suggest that the shares of the average investor in these funds are subject to capital losses.

Each sample week we sort share classes into terciles based on their fund's capital gains overhang at the end of the previous quarter.[16] Within each overhang tercile, we further sort share classes into terciles based on their compounded one-year NAV return. We use NAV returns rather than (net-of-fee) fund returns because NAV returns best reflect appreciation or

[16] The capital gain overhang of each mutual fund is computed by aggregating the capital gain overhangs of all positions. We use historical quarterly trades and prices at which stocks were purchased to estimate the cost basis of each position.

depreciation of the underlying shares, which in turn drives the tax-loss selling decisions of investors as shown in Ivkovic and Weisbenner (2009). Based on this sorting, we construct a tax-toss group, denoted by *TLG*, that consists of all share classes that belong to the low overhang – low return group. We estimate a regression model based only on observations that correspond to distribution weeks as follows:[17]

$$\begin{aligned}\Delta F_{i,t} = {} & \alpha_0 + \alpha_1 TLG_{i,t} + \alpha_2 December_i + \alpha_3 TLG_{i,t} \times December_i \\ & + \beta_0 Indirect_i + \beta_1 TLG_{i,t} \times Indirect_i + \beta_2 December_i \times Indirect_i \\ & + \beta_3 TLG_{i,t} \times December_i \times Indirect_i \\ & + \delta Delta\ Return_{i,t} + \gamma Advisor\ Compensation_{i,t} + \varepsilon_{i,t},\end{aligned} \tag{5}$$

where *TLG* represents a binary variable that equals one if share class *i* belongs to the tax-loss group that we consider as most likely to be subject to tax-loss selling in week *t* and zero otherwise. *December*, is a binary variable that equals one if the observation occurs in the month of December and zero otherwise. Our key test is based on the triple interaction, *TLG* × *December* × *Indirect*, which measures whether the difference in tax-avoidance between indirect and direct investors is stronger in December among funds that are candidates for tax-loss selling.

– Insert Table VIII approximately here –

Results from Table VIII show that there is a general December effect across all investors. Thus, investors seem to take a closer look at their investments and react more to distributions in December. However, the most interesting insight comes from the large positive coefficient on the triple interaction term. This suggests that the tax-avoidance differential between indirect and direct channel investors gets significantly stronger in December for funds that are most likely candidates for tax-loss selling. Thus, financial advisors seem to alert their clients to not

[17] The choice to restrict the regression observations to only distribution weeks is made primarily to keep the model traceable by reducing the number of interaction terms. However, when we repeat the analysis for all observations, that is, with the entire set of required interaction terms, our results (not reported) remain qualitatively the same.

only avoid distributions but to also engage in tax-loss selling in December if they currently hold fund shares that have depreciated in value.

7. Robustness

In this section we conduct additional robustness checks. In Subsection 7.1 we introduce alternative methods of estimating distribution's implicit tax liabilities. Subsection 7.2 examines whether our results hold for different types of distributions that are taxed at different rates, such as short-term capital gains, long-term capital gains, and dividend distributions.

7.1 ALTERNATIVE WAYS OF MEASURING TAX LIABILITIES

In Table IX we repeat the analysis of Table VI using alternative income tax rates applicable to an investor. In Panel A of Table IX, we use the federal tax rates that apply to the median income of U.S. households as a proxy for a representative investor. More specifically, we employ the median income of an U.S. household using U.S. Census Bureau data for each year. Then we use historical information on federal tax rates of individual income and calculate for each point in time the marginal tax rates for long-term gains distributions, short-term gains distributions, and dividends that apply to the respective median-income household.[18]

– Insert Table IX approximately here –

Results from Panel A of Table IX are similar to those of Table VI. As an additional check, in Panel B we employ the highest income tax rates to which an investor could have been subjected. Our results remain unaffected. Lastly, in Panel C we repeat the analysis assuming no differences in tax rates across distributions and across time. In other words, we perform the stratification into the three tax liability groups based on the normalized dollar amount of the

[18] Information on federal individual income tax rates is from the Tax Foundation's website, http://taxfoundation.org/tax-basics.

distributions, which explicitly assumes no differences in tax rates across distributions and time. Again, results from these additional tests are similar to those from Table VI.

7.2 CAPITAL GAINS VERSUS DIVIDENDS

Although Section 5.1 explicitly recognizes that capital gains and dividends are subject to different tax rates and thus generate different tax liabilities for the same distribution amount, it is possible that our results are driven primarily by avoidance of one type of distribution. For example, investors might be more eager to avoid capital gains distributions because these types of distributions could be caused by other investors' redemptions or the idiosyncratic trading behavior of the portfolio manager and thus are outside of their control.

We explore this possibility by slightly modifying the tests of Table VI. In Panel A of Table X we stratify short-term capital gains distributions into three groups based on the size of their associated tax liabilities and introduce two binary variables to account for other types of distributions. The first indicator variable, *Long-term gains distribution*, takes the value of one if share class *i* is subject to a long-term capital gains distribution during week *t* and zero otherwise. The second indicator variable, *Dividend distribution*, takes the value of one if there is a dividend distribution at that distribution date and zero otherwise. In Panel B we stratify long-term capital gains distributions into three groups based on the size of their associated tax liabilities and introduce two binary variables, *Short-term gains distribution* and *Dividend distribution*, to account for other types of distributions. In Panel C we stratify dividend distributions into three groups based on the size of their associated tax liabilities and use a binary variable *Gains distribution*.

– Insert Table X approximately here –

Results from Table X confirm that there is a tax-avoidance differential effect for all types of distributions. Furthermore, we again find that the tax-avoidance differential effect is stronger among the larger distributions, thus confirming our findings in Table VI.

8. Summary and Conclusion

With more than 200,000 personal financial advisors, the market for financial advice in the U.S. is characterized by tremendous size and activity.[19] What happens in this market affects the investment decisions of millions of investors and shapes portfolio decisions, which collectively cover billions of dollars. Despite this level of activity in this important market and the number of individuals that are affected by it, our understanding of the economic forces that shape the interactions among its different players is limited at best.

Recent studies have begun to address the gap between the importance and our rather limited knowledge of the market for financial advice. The fact that a non-trivial fraction of mutual fund investors seek financial advice, for which they are willing to pay, suggests that these investors receive certain benefits from financial advice. However, no direct empirical evidence of these benefits for U.S. mutual fund investors has been documented.

Our paper contributes to the academic literature that seeks to understand the role of financial advisors in their clients' decision making by being the first to provide evidence of a particular tangible benefit delivered by financial advisors to U.S. mutual fund investors. The tangible benefit we document appears in the form of useful tax-management advisory services to fund investors, which help them engage in tax-avoidance strategies. Ruling out alternative explanations, we show that financial advice puts its beneficiaries, indirect channel investors, at a clear advantage over their peers who do not receive financial advice.

[19] Bureau of Labor Statistics: http://www.bls.gov/ooh/business-and-financial/personal-financial-advisors.htm.

A more detailed exploration shows that financial advice appears to target situations when investors need this advice the most. In other words, we document financial advice to be even more valuable when investors are facing situations that significantly increase the size or the unpredictability of their tax liabilities. This, taken together with our evidence that investors' tax-avoidance behavior shaped by financial advisors is intensified by what appear to be tax-loss selling considerations, suggests that financial advice comprehensively addresses several facets of tax management.

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Table I. Share class characteristics by distribution channel

This table reports share class characteristics and information on taxable distributions for our sample of U.S. equity fund shares between 1999 and 2011. Share classes are categorized by their primary channel of distribution. We classify a share class as belonging to the Indirect (Direct) distribution channel based on classification provided by Lipper. Share class assets represents the share class' total net assets under management in million USD; Expense ratio, is the share class' fees charged for total services. Total Load is the combined front-end and back-end load of the share class, and Carhart alpha is the share class' annualized risk-adjusted return from the Carhart (1997) 4-factor model. Alpha estimates are obtained from 12-month window regressions of funds' net-of-fee excess returns on the excess market return, HML (value) factor, SMB (size) factor, augmented by the MOM (momentum) factor. Total distributions are measured as the distribution amount per share normalized by the share's net asset value (NAV). Tax burden of distributions are calculated by multiplying distributions' yields with the average marginal tax rate of investors as in Sialm (2009) and Sialm and Starks (2012). Capital gains distributions and Dividend distributions are measured, respectively, as the capital gains and dividend distribution amount per share normalized by the share's NAV at the distribution date. Expense ratio, Total load, Carhart alpha and the information on share class' tax burdens and distribution yields are reported in percentage points. ***, **, * denote statistical significance at the 1%, 5%, and 10% significance level, respectively.

	All share classes	Indirect	Direct	Difference
Share class characteristics:				
Number of share classes	2,425	1,802	623	
Share class assets (in million USD)	450.55	253.94	1,019.24	-765.30 ***
Expense ratio (in %)	1.64	1.79	1.21	0.57 ***
Total load (in %)	2.66	3.36	0.63	2.73 ***
Carhart alpha (in %)	-0.98	-1.16	-0.45	-0.71 ***
Tax burden and taxable distributions:				
Number of annual observations	18,111	13,260	4,851	
Total distributions (in %)	2.93	2.81	3.26	-0.45 ***
Tax burden of distributions (in %)	0.71	0.68	0.79	-0.11 ***
Capital gains distributions (in %)	2.61	2.54	2.80	-0.25 **
Dividend distributions (in %)	0.32	0.27	0.46	-0.20 ***

Table II. Impact of financial advice on tax-avoidance behavior

This table presents results from pooled OLS regressions that relate fund shares' flow changes with fund shares' distributions. The analysis is done at the share class and weekly level. We estimate share classes' flow changes as:

$$\Delta F_{i,t} = F_{i,t+1} - F_{i,t-1}.$$

Thereby, for each share class and week flow changes (ΔF) are estimated as the differential between fund shares' weekly net flows before and after the week of observation. Net flows are reported in percentage points and normalized by fund shares' assets under management lagged by one week. The main independent variables include: Distribution, a binary variable that equals one if the share class is subject to a taxable distribution and zero otherwise as well as Indirect, a binary variable that equals one if the share class is indirectly sold and zero otherwise. Additional independent controls include Delta return, Advisor compensation, Expense ratio, Share class assets, and Portfolio turnover. Delta return, is the fund shares differential in weekly returns between the current week and the return lagged by two weeks. Advisor compensation, is the size of the compensation that financial advisors receive measured as the sum of the front-end load, back-end load, and 12b-1 fee. Expense ratio, represents the fund share's total expense ratio. Share class assets, represents the logarithm of the fund share's total net assets under management. Portfolio turnover is the fund's yearly turnover ratio. Expense ratio, Share class assets, and Portfolio turnover are lagged by two weeks. Regressions are run with and without calendar month and year fixed effects and investment objective fixed effects. P-values reported in parentheses are based on robust standard errors clustered by fund and week. ***, **, * denote statistical significance at the 1%, 5%, and 10% significance level, respectively.

Dependent variable: difference in normalized weekly net flows around week t				
Model:	1	2	3	4
Constant	-0.0085	0.0463	0.0395	0.0055
	(0.2465)	(0.4814)	(0.5453)	(0.9395)
Distribution	0.3118 ***	0.2789 ***	0.2872 ***	0.2876 ***
	(0.0000)	(0.0001)	(0.0001)	(0.0001)
Indirect	-0.0049	-0.0048	-0.0031	-0.0059
	(0.4668)	(0.9688)	(0.9798)	(0.9621)
Distribution* Indirect	0.1685 **	0.1805 **	0.1845 **	0.1852 **
	(0.0396)	(0.0272)	(0.0234)	(0.0228)
Delta return	0.0189 ***	0.0188 ***	0.0188 ***	0.0188 ***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Advisor compensation	0.0008	0.0008	0.0007	0.0009
	(0.3066)	(0.3158)	(0.3985)	(0.3084)
Expense ratio				0.0088
				(0.1183)
Share class assets				0.0020
				(0.3292)
Portfolio turnover				0.0000
				(0.4339)
Calendar month fixed effects	No	Yes	Yes	Yes
Calendar month fixed effects* Indirect	No	Yes	Yes	Yes
Year fixed effects	No	Yes	Yes	Yes
Year fixed effects* Indirect	No	Yes	Yes	Yes
Investment objective fixed effects	No	No	Yes	Yes
Number of observations	730,007	730,007	730,007	730,007
Adj.-R^2	0.0024	0.0027	0.0027	0.0027

Table III. Funds with indirect- and direct-sold shares

This table presents results on flow measures for funds that have contemporaneous indirect- and direct-sold fund shares. We compare the tax-avoidance behavior of indirect and direct investors within the same fund by using a difference in differences flow measure, DID. We obtain the difference in differences flow measure in a two-step procedure. First, we estimate the differential between fund shares' flow changes around distribution weeks and non-distribution weeks as:

$$\Delta FD_i = \overline{\Delta F_i^{Dist}} - \overline{\Delta F_i^{Non-Dist}},$$

where $\overline{\Delta F_i^{Dist}}$ represents a share class' average flow change (ΔF) over distribution weeks and $\overline{\Delta F_i^{Non-Dist}}$ represents a share class' average flow change (ΔF) over non-distribution weeks. Second, we calculate the difference in differences flow measure DID for each fund n as:

$$DID_n = \overline{\Delta FD_n^{Ind}} - \overline{\Delta FD_n^{Direct}},$$

where $\overline{\Delta FD_n^{Ind}}$ ($\overline{\Delta FD_n^{Direct}}$) represents the average flow change differential around distribution weeks and non-distribution weeks of all share classes that belong to the indirect (direct) distribution channel. We report statistics on flow change differentials and the difference in differences flow measure for two subsamples. Results in the first row include all the share classes that belong to a fund that has at least one contemporaneous direct- and indirect-sold share class. Results from the second row include only the share classes with the longest history for each fund and distribution channel. P-values are reported in parentheses. ***, **, * denote statistical significance for flow differentials larger than zero at the 1%, 5%, and 10% significance level, respectively.

	ΔFD		
Share class subsample	Indirect	Direct	DID
All	0.5421 **	0.0836	0.4585 **
	(0.0189)	(0.7198)	(0.0307)
With longest history	0.6297 **	0.1760	0.4537 **
	(0.0133)	(0.4740)	(0.0438)

Table IV. Impact of financial advice on tax-avoidance behavior for non-DC fund shares

This table presents results from pooled OLS regressions that relate fund shares' flow changes with fund shares' distributions. The sample is restricted to the observations of fund shares without defined contribution (DC) investments. The main independent variables include: Distribution, a binary variable that equals one if the share class is subject to a taxable distribution and zero otherwise as well as Indirect, a binary variable that equals one if the share class is indirectly sold and zero otherwise. Other independent variables are defined as in Table II but not reported for brevity. They include Delta return and Advisor compensation (Model 1-4), augmented by Expense ratio, Share class assets, and Portfolio turnover in Model 4. Regressions are run with and without calendar month and year fixed effects and investment objective fixed effects. P-values reported in parentheses are based on robust standard errors clustered by fund and week. ***, **, * denote statistical significance at the 1%, 5%, and 10% significance level, respectively.

Dependent variable: difference in normalized weekly net flows around week t				
Model:	1	2	3	4
Constant	-0.0108	-0.0110	-0.0168	-0.0437
	(0.1709)	(0.8453)	(0.7651)	(0.5084)
Distribution	0.3306 ***	0.2958 ***	0.3035 ***	0.3039 ***
	(0.0001)	(0.0003)	(0.0002)	(0.0002)
Indirect	-0.0018	0.0293	0.0307	0.0279
	(0.8201)	(0.8383)	(0.8307)	(0.8458)
Distribution* Indirect	0.1584 *	0.1719 **	0.1768 **	0.1774 **
	(0.0699)	(0.0458)	(0.0393)	(0.0385)
Other fund and share class controls	Yes	Yes	Yes	Yes
Calendar month fixed effects	No	Yes	Yes	Yes
Calendar month fixed effects* Indirect	No	Yes	Yes	Yes
Year fixed effects	No	Yes	Yes	Yes
Year fixed effects* Indirect	No	Yes	Yes	Yes
Investment objective fixed effects	No	No	Yes	Yes
Number of observations	570,716	570,716	570,716	570,716
Adj.-R^2	0.0024	0.0027	0.0027	0.0027

Table V. Tax-exempt versus taxable distributions

This table presents results from pooled OLS regressions that analyze investors' tax-avoidance behavior to tax-exempt and taxable distributions. The sample is restricted to observations of municipal bond fund shares that are subject to a fund distribution. In Panel A, the main independent variables include: Tax-exempt distribution, a binary variable that equals one if the share class is subject to a tax-exempt distribution and zero otherwise as well as Taxable distribution, a binary variable that equals one if the share class is subject to a taxable distribution and zero otherwise. In Panel B, the additional independent variables include: Direct, a binary variable that equals one if the share class is directly sold and zero otherwise as well as Indirect, a binary variable that equals one if the share class is indirectly sold and zero otherwise.. Other independent variables in all panels are defined as in Table II but not reported for brevity. They include Delta return and Advisor compensation (Model 1-3), augmented by Expense ratio, Share class assets, and Portfolio turnover in Model 3. In all panels, regressions are run with and without calendar month and year fixed effects. P-values reported in parentheses are based on robust standard errors clustered by fund and week. ***, **, * denote statistical significance at the 1%, 5%, and 10% significance level, respectively.

Panel A: Tax-exempt versus taxable distributions

Dependent variable: difference in normalized weekly net flows around week t			
Model:	1	2	3
Tax-exempt distribution	0.3259	0.3280	0.2990
	(0.1252)	(0.1270)	(0.1764)
Taxable distribution	0.2684 ***	0.2431 ***	0.2439 ***
	(0.0000)	(0.0001)	(0.0001)
Other fund and share class controls	Yes	Yes	Yes
Calendar month fixed effects	No	Yes	Yes
Year fixed effects	No	Yes	Yes
Number of observations	89,582	89,582	89,582
Adj.-R^2	0.0020	0.0027	0.0049

Panel B: Tax-exempt versus taxable distribution by distribution channel

Dependent variable: difference in normalized weekly net flows around week t			
Model:	1	2	3
Tax-exempt distribution* Direct	0.3291	0.0516	0.1184
	(0.1350)	(0.7512)	(0.5131)
Taxable distribution* Direct	0.1873	0.2050	0.2507 *
	(0.1308)	(0.1199)	(0.0637)
Tax-exempt distribution* Indirect	0.3166	0.3697	0.3101
	(0.1471)	(0.1408)	(0.2345)
Taxable distribution* Indirect	0.2774 ***	0.2471 ***	0.2423 ***
	(0.0000)	(0.0001)	(0.0001)
Other fund and share class controls	Yes	Yes	Yes
Calendar month fixed effects	No	Yes	Yes
Calendar month fixed effects* Indirect	No	Yes	Yes
Year fixed effects	No	Yes	Yes
Year fixed effects* Indirect	No	Yes	Yes
Number of observations	89,582	89,582	89,582
Adj.-R^2	0.0015	0.0023	0.0042

Table VI. Size of tax liability and tax-avoidance behavior

This table presents results from pooled OLS regressions that relate fund shares' flow changes with distributions' tax liabilities stratified into terciles. The main independent variables include: High tax liability, Medium tax liability, Low tax liability, which are all binary variables that equal one if the share class is subject to a taxable distribution that belongs, respectively, to the highest, medium, and lowest tercile based on the distributions' implied tax liabilities and zero otherwise. Tax liabilities are calculated by multiplying distributions' size with the average marginal tax rates of investors as in Sialm (2009) and Sialm and Starks (2012). Indirect, is a binary variable that equals one if the share class is indirectly sold and zero otherwise. Other independent variables are defined as in Table II but not reported for brevity. They include Delta return and Advisor compensation (Model 1-4), augmented by Expense ratio, Share class assets, and Portfolio turnover in Model 4. Regressions are run with and without calendar month and year fixed effects and investment objective fixed effects. P-values reported in parentheses are based on robust standard errors clustered by fund and week. ***, **, * denote statistical significance at the 1%, 5%, and 10% significance level, respectively.

Dependent variable: difference in normalized weekly net flows around week t				
Model:	1	2	3	4
Constant	-0.0084	0.0594	0.0567	0.0365
	(0.2495)	(0.3616)	(0.3810)	(0.6078)
High tax liability	0.7439 ***	0.7191 ***	0.7219 ***	0.7222 ***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Medium tax liability	0.0546	0.0352	0.0418	0.0423
	(0.4850)	(0.6585)	(0.5968)	(0.5932)
Low tax liability	-0.1064 *	-0.1216 **	-0.1173 **	-0.1169 **
	(0.0501)	(0.0224)	(0.0284)	(0.0292)
Indirect	-0.0048	-0.0131	-0.0123	-0.0153
	(0.4777)	(0.9171)	(0.9222)	(0.9031)
High tax liability* Indirect	0.5632 ***	0.5797 ***	0.5799 ***	0.5800 ***
	(0.0003)	(0.0002)	(0.0002)	(0.0002)
Medium tax liability* Indirect	0.1683 *	0.1868 **	0.1889 **	0.1891 **
	(0.0523)	(0.0370)	(0.0351)	(0.0348)
Low tax liability* Indirect	0.1333 **	0.1484 **	0.1521 **	0.1528 **
	(0.0484)	(0.0265)	(0.0232)	(0.0228)
Other fund and share class controls	Yes	Yes	Yes	Yes
Calendar month fixed effects	No	Yes	Yes	Yes
Calendar month fixed effects* Indirect	No	Yes	Yes	Yes
Year fixed effects	No	Yes	Yes	Yes
Year fixed effects* Indirect	No	Yes	Yes	Yes
Investment objective fixed effects	No	No	Yes	Yes
Number of observations	730,007	730,007	730,007	730,007
Adj.-R^2	0.0041	0.0042	0.0042	0.0042

Table VII. Volatility of funds' tax liabilities and tax-avoidance behavior

This table presents results from pooled OLS regressions that relate fund shares' flow changes with fund shares' volatility of distributions stratified into terciles. The main independent variables include: High volatility distribution, Medium volatility distribution, Low volatility distribution, which are all binary variables that equal one if the share class is subject to a taxable distribution that belongs, respectively, to the highest, medium, and lowest tercile based on the share classes' volatilities of distributions' tax liabilities during the previous three years and zero otherwise. Tax liability size, represents the size of distribution's tax liabilities and are calculated by multiplying distributions' size with the average marginal tax rates of investors as in Sialm (2009) and Sialm and Starks (2012). Indirect, is a binary variable that equals one if the share class is indirectly sold and zero otherwise. Other independent variables are defined as in Table II but not reported for brevity. They include Delta return and Advisor compensation (Model 1-4), augmented by Expense ratio, Share class assets, and Portfolio turnover in Model 4. Regressions are run with and without calendar month and year fixed effects and investment objective fixed effects. P-values reported in parentheses are based on robust standard errors clustered by fund and week. ***, **, * denote statistical significance at the 1%, 5%, and 10% significance level, respectively.

Dependent variable: difference in normalized weekly net flows around week t				
Model:	1	2	3	4
Constant	-0.0084	0.0040	0.0047	-0.0166
	(0.2538)	(0.9521)	(0.9436)	(0.8214)
High volatility distribution	-0.1459 *	-0.1549 *	-0.1531 *	-0.1534 *
	(0.0872)	(0.0678)	(0.0707)	(0.0706)
Medium volatility distribution	-0.0134	-0.0224	-0.0196	-0.0196
	(0.8537)	(0.7605)	(0.7885)	(0.7892)
Low volatility distribution	-0.0662	-0.0857	-0.0856	-0.0864
	(0.6647)	(0.5667)	(0.5671)	(0.5638)
Indirect	-0.0049	-0.0274	-0.0273	-0.0280
	(0.4646)	(0.8346)	(0.8352)	(0.8313)
High volatility distribution* Indirect	0.2592 ***	0.2702 ***	0.2709 ***	0.2715 ***
	(0.0068)	(0.0045)	(0.0044)	(0.0044)
Medium volatility distribution* Indirect	0.1083	0.1164	0.1175	0.1178
	(0.2316)	(0.2007)	(0.1974)	(0.1963)
Low volatility distribution* Indirect	0.1521	0.1715	0.1731	0.1750
	(0.4244)	(0.3643)	(0.3593)	(0.3549)
Tax liability size	0.5985 ***	0.5971 ***	0.5965 ***	0.5964 ***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Other fund and share class controls	Yes	Yes	Yes	Yes
Calendar month fixed effects	No	Yes	Yes	Yes
Calendar month fixed effects* Indirect	No	Yes	Yes	Yes
Year fixed effects	No	Yes	Yes	Yes
Year fixed effects* Indirect	No	Yes	Yes	Yes
Investment objective fixed effects	No	No	Yes	Yes
Number of observations	728,760	728,760	728,760	728,760
Adj.-R^2	0.0054	0.0056	0.0056	0.0056

Table VIII. Interaction of tax-deferral with tax-loss selling

This table presents results from pooled OLS regressions that relate fund shares' flow changes to determinants of tax-loss selling interacted with fund shares' distribution channel. The sample is restricted to the observations that are subject to fund distributions. The main independent variables include: TLG, a binary variable that equals one if the share class belongs to the portfolio that exhibits the lowest level of capital gains overhang and had the worst one-year performance and zero otherwise. December, a binary variable that equals one if the observation week lies in December and zero otherwise. Indirect, is a binary variable that equals one if the share class is indirectly sold and zero otherwise. Other independent variables are defined as in Table II but not reported for brevity. They include Delta return and Advisor compensation (Model 1-4), augmented by Expense ratio, Share class assets, and Portfolio turnover in Model 4. Regressions are run with and without year fixed effects and investment objective fixed effects. P-values reported in parentheses are based on robust standard errors clustered by fund and week. ***, **, * denote statistical significance at the 1%, 5%, and 10% significance level, respectively.

Dependent variable: difference in normalized weekly net flows around week t				
Model:	1	2	3	4
Constant	0.0914	0.3219	0.2118	-0.1495
	(0.2376)	(0.3183)	(0.5155)	(0.7210)
TLG	0.0264	0.0094	0.0524	0.0551
	(0.8443)	(0.9428)	(0.6853)	(0.6779)
December	0.4334 ***	0.4398 ***	0.3035 **	0.3037 **
	(0.0019)	(0.0003)	(0.0121)	(0.0130)
TLG* December	-0.3672	-0.3144	-0.2951	-0.2842
	(0.2252)	(0.2910)	(0.3137)	(0.3287)
Indirect	0.0803	0.4513	0.5097	0.4303
	(0.4583)	(0.2496)	(0.2037)	(0.2906)
TLG* Indirect	-0.2290	-0.2456	-0.2763 *	-0.2670 *
	(0.1392)	(0.1037)	(0.0658)	(0.0758)
December* Indirect	0.0338	-0.0099	-0.0145	-0.0270
	(0.8242)	(0.9473)	(0.9241)	(0.8614)
TLG* December* Indirect	0.7941 **	0.8476 **	0.8482 **	0.8391 **
	(0.0186)	(0.0112)	(0.0116)	(0.0126)
Other fund and share class controls	Yes	Yes	Yes	Yes
Year fixed effects	No	Yes	Yes	Yes
Year fixed effects* Indirect	No	Yes	Yes	Yes
Investment objective fixed effects	No	No	Yes	Yes
Number of observations	19,542	19,542	19,542	19,542
Adj.-R^2	0.0092	0.0251	0.0315	0.0319

Table IX. Size of tax liability and tax-avoidance behavior for alternative tax rates

This table presents results from pooled OLS regressions that relates fund shares' flow changes with distributions' tax liabilities stratified into terciles. In Panel A, the main independent variables include: High tax liability, Medium tax liability, Low tax liability, which are all binary variables that equal one if the share class is subject to a taxable distribution that belongs, respectively, to the highest, medium, and lowest tercile based on the distributions' implied tax liabilities and zero otherwise. Tax liabilities are calculated by multiplying distributions' size with the federal tax rates that apply to the median income group of U.S. households. Indirect, is a binary variable that equals one if the share class is indirectly sold and zero otherwise. In Panel B, distributions belong, respectively, to the highest, medium, and lowest tercile based on distributions' implied tax liabilities that are estimated using the highest federal tax rates that these distributions could have been subject to. In Panel C, we stratify distributions into terciles based on distributions' size, that is, we assume that there is no difference in the tax rates across distribution types and over time. In all panels, other independent variables are defined as in Table II but not reported for brevity. They include Delta return and Advisor compensation (Model 1-4), augmented by Expense ratio, Share class assets, and Portfolio turnover in Model 4. Regressions are run with and without calendar month and year fixed effects and investment objective fixed effects. P-values reported in parentheses are based on robust standard errors clustered by fund and week. ***, **, * denote statistical significance at the 1%, 5%, and 10% significance level, respectively.

Panel A: Median federal tax rates

Dependent variable: difference in normalized weekly net flows around week t				
Model:	1	2	3	4
Constant	-0.0084	0.0585	0.0559	0.0360
	(0.2497)	(0.3710)	(0.3891)	(0.6135)
High tax liability	0.7487 ***	0.7231 ***	0.7257 ***	0.7260 ***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Medium tax liability	0.0454	0.0258	0.0324	0.0329
	(0.5608)	(0.7445)	(0.6798)	(0.6757)
Low tax liability	-0.0872	-0.1022 *	-0.0979 *	-0.0975 *
	(0.1272)	(0.0711)	(0.0849)	(0.0865)
Indirect	-0.0048	-0.0123	-0.0115	-0.0144
	(0.4791)	(0.9220)	(0.9271)	(0.9085)
High tax liability* Indirect	0.5572 ***	0.5739 ***	0.5743 ***	0.5743 ***
	(0.0003)	(0.0003)	(0.0003)	(0.0003)
Medium tax liability* Indirect	0.1730 **	0.1912 **	0.1933 **	0.1935 **
	(0.0415)	(0.0289)	(0.0273)	(0.0271)
Low tax liability* Indirect	0.1149	0.1300 *	0.1335 *	0.1342 *
	(0.1045)	(0.0654)	(0.0592)	(0.0581)
Other fund and share class controls	Yes	Yes	Yes	Yes
Calendar month fixed effects	No	Yes	Yes	Yes
Calendar month fixed effects* Indirect	No	Yes	Yes	Yes
Year fixed effects	No	Yes	Yes	Yes
Year fixed effects* Indirect	No	Yes	Yes	Yes
Investment objective fixed effects	No	No	Yes	Yes
Number of observations	730,007	730,007	730,007	730,007
Adj.-R^2	0.0041	0.0042	0.0042	0.0042

Table IX. Size of tax liability and tax-avoidance behavior for alternative tax rates (continued)

Panel B: Highest federal tax rates

Dependent variable: difference in normalized weekly net flows around week t				
Model:	1	2	3	4
Constant	-0.0084	0.0582	0.0557	0.0358
	(0.2501)	(0.3708)	(0.3890)	(0.6142)
High tax liability	0.7415 ***	0.7155 ***	0.7181 ***	0.7184 ***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Medium tax liability	0.0527	0.0330	0.0397	0.0402
	(0.5031)	(0.6795)	(0.6161)	(0.6123)
Low tax liability	-0.0861	-0.1014 *	-0.0970 *	-0.0966 *
	(0.1289)	(0.0713)	(0.0856)	(0.0873)
Indirect	-0.0047	-0.0122	-0.0113	-0.0143
	(0.4824)	(0.9228)	(0.9281)	(0.9093)
High tax liability* Indirect	0.5527 ***	0.5695 ***	0.5699 ***	0.5700 ***
	(0.0004)	(0.0003)	(0.0003)	(0.0003)
Medium tax liability* Indirect	0.1828 **	0.2010 **	0.2031 **	0.2033 **
	(0.0332)	(0.0230)	(0.0217)	(0.0215)
Low tax liability* Indirect	0.1091	0.1244 *	0.1278 *	0.1286 *
	(0.1220)	(0.0768)	(0.0698)	(0.0685)
Other fund and share class controls	Yes	Yes	Yes	Yes
Calendar month fixed effects	No	Yes	Yes	Yes
Calendar month fixed effects* Indirect	No	Yes	Yes	Yes
Year fixed effects	No	Yes	Yes	Yes
Year fixed effects* Indirect	No	Yes	Yes	Yes
Investment objective fixed effects	No	No	Yes	Yes
Number of observations	730,007	730,007	730,007	730,007
Adj.-R^2	0.0040	0.0042	0.0042	0.0042

Table IX. Size of tax liability and tax-avoidance behavior for alternative tax rates (continued)

Panel C: Indiscriminitating tax rates

Dependent variable: difference in normalized weekly net flows around week t				
Model:	1	2	3	4
Constant	-0.0085	0.0595	0.0569	0.0367
	(0.2463)	(0.3628)	(0.3807)	(0.6070)
High tax liability	0.7655 ***	0.7413 ***	0.7439 ***	0.7442 ***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Medium tax liability	0.0233	0.0040	0.0104	0.0110
	(0.7619)	(0.9589)	(0.8931)	(0.8881)
Low tax liability	-0.0801	-0.0946 *	-0.0904	-0.0899
	(0.1565)	(0.0901)	(0.1055)	(0.1075)
Indirect	-0.0049	-0.0151	-0.0144	-0.0173
	(0.4650)	(0.9042)	(0.9088)	(0.8899)
High tax liability* Indirect	0.5775 ***	0.5950 ***	0.5954 ***	0.5955 ***
	(0.0002)	(0.0001)	(0.0001)	(0.0001)
Medium tax liability* Indirect	0.1776 **	0.1968 **	0.1987 **	0.1989 **
	(0.0384)	(0.0266)	(0.0253)	(0.0251)
Low tax liability* Indirect	0.1070	0.1219 *	0.1254 *	0.1261 *
	(0.1189)	(0.0740)	(0.0668)	(0.0655)
Other fund and share class controls	Yes	Yes	Yes	Yes
Calendar month fixed effects	No	Yes	Yes	Yes
Calendar month fixed effects* Indirect	No	Yes	Yes	Yes
Year fixed effects	No	Yes	Yes	Yes
Year fixed effects* Indirect	No	Yes	Yes	Yes
Investment objective fixed effects	No	No	Yes	Yes
Number of observations	730,007	730,007	730,007	730,007
Adj.-R^2	0.0042	0.0044	0.0044	0.0044

Table X. Size of tax liability and tax-avoidance behavior for gains and dividend distributions

This table presents results from pooled OLS regressions that relates fund shares' flow changes with short-term gains distributions (Panel A), long-term gains distributions (Panel B), and dividend distributions (Panel C). The distributions are stratified into terciles based on the size of their associated tax liabilities. The main independent variables include: High short-term gains (long-term gains, dividend) distribution, Medium short-term gains (long-term gains, dividend) distribution, Low short-term gains (long-term gains, dividend) distribution, which are all binary variables that equal one if the share class is subject to a short-term gains (long-term gains, dividend) distribution that belongs, respectively, to the highest, medium, and lowest tercile based on the distributions' tax liabilities and zero otherwise. Indirect, is a binary variable that equals one if the share class is indirectly sold and zero otherwise. Additional control variables, added as needed, include: Long-term gains distribution, a binary variable that equals one if the share class is subject to a long-term gains distribution and zero otherwise; Short-term gains distribution, a binary variable that equals one if the share class is subject to a short-term gains distribution and zero otherwise; Dividend distribution, a binary variable that equals one if the share class is subject to a dividend distribution and zero otherwise; and Gains distribution, a binary variable that equals one if the share class is subject to a capital gain distribution and zero otherwise. In all panels, other independent variables are defined as in Table II but not reported for brevity. They include Delta return and Advisor compensation (Model 1-4), augmented by Expense ratio, Share class assets, and Portfolio turnover in Model 4. Regressions are run with and without calendar month and year fixed effects and investment objective fixed effects. P-values reported in parentheses are based on robust standard errors clustered by fund and week. ***, **, * denote statistical significance at the 1%, 5%, and 10% significance level, respectively.

Panel A: Short-term gains distributions

Dependent variable: difference in normalized weekly net flows around week t				
Model:	1	2	3	4
Constant	-0.0103	0.0164	0.0196	0.0032
	(0.1633)	(0.8030)	(0.7653)	(0.9642)
High short-term gains distribution	0.4359	0.4296	0.4295	0.4310
	(0.1171)	(0.1223)	(0.1223)	(0.1210)
Medium short-term gains distribution	-0.0173	-0.0247	-0.0250	-0.0248
	(0.9335)	(0.9045)	(0.9035)	(0.9044)
Low short-term gains distribution	-0.1663	-0.1735	-0.1738	-0.1744
	(0.4467)	(0.4224)	(0.4217)	(0.4201)
Indirect	-0.0028	-0.0211	-0.0213	-0.0213
	(0.6894)	(0.8715)	(0.8707)	(0.8707)
High short-term gains distribution* Indirect	0.8223 **	0.8264 **	0.8261 **	0.8263 **
	(0.0258)	(0.0260)	(0.0260)	(0.0260)
Medium short-term gains distribution* Indirect	0.4607	0.4671	0.4671	0.4672
	(0.1127)	(0.1095)	(0.1095)	(0.1094)
Low short-term gains distribution* Indirect	0.4089	0.4153 *	0.4158 *	0.4160 *
	(0.1028)	(0.0971)	(0.0968)	(0.0966)
Long-term gains distribution	0.9420 ***	0.9378 ***	0.9376 ***	0.9368 ***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Dividend distribution	0.0125	0.0118	0.0123	0.0124
	(0.6816)	(0.7004)	(0.6849)	(0.6842)
Other fund and share class controls	Yes	Yes	Yes	Yes
Calendar month fixed effects	No	Yes	Yes	Yes
Calendar month fixed effects* Indirect	No	Yes	Yes	Yes
Year fixed effects	No	Yes	Yes	Yes
Year fixed effects* Indirect	No	Yes	Yes	Yes
Investment objective fixed effects	No	No	Yes	Yes
Number of observations	730,007	730,007	730,007	730,007
Adj.-R^2	0.0048	0.0049	0.0049	0.0049

Table X. Size of tax liability and tax-avoidance behavior for gains and dividend distributions (continued)

Panel B: Long-term gains distributions

Dependent variable: difference in normalized weekly net flows around week t				
Model:	1	2	3	4
Constant	-0.0099	0.0199	0.0228	0.0047
	(0.1827)	(0.7628)	(0.7282)	(0.9480)
High long-term gains distribution	1.4491 ***	1.4400 ***	1.4400 ***	1.4393 ***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Medium long-term gains distribution	0.5627 ***	0.5535 ***	0.5531 ***	0.5526 ***
	(0.0005)	(0.0005)	(0.0005)	(0.0005)
Low Long-term gains distribution	0.1649	0.1550	0.1549	0.1545
	(0.1067)	(0.1233)	(0.1237)	(0.1250)
Indirect	-0.0033	-0.0220	-0.0222	-0.0227
	(0.6325)	(0.8654)	(0.8643)	(0.8611)
High long-term gains distribution* Indirect	0.6362 **	0.6477 **	0.6475 **	0.6480 **
	(0.0487)	(0.0466)	(0.0466)	(0.0465)
Medium long-term gains distribution* Indirect	0.5084 ***	0.5206 ***	0.5208 ***	0.5210 ***
	(0.0078)	(0.0068)	(0.0068)	(0.0068)
Low long-term gains distribution* Indirect	0.1646	0.1779	0.1779	0.1782
	(0.1577)	(0.1266)	(0.1268)	(0.1263)
Short-term gains distribution	0.3336 **	0.3306 **	0.3306 **	0.3306 **
	(0.0292)	(0.0306)	(0.0307)	(0.0306)
Dividend distribution	0.0189	0.0194	0.0199	0.0204
	(0.5333)	(0.5219)	(0.5074)	(0.5006)
Other fund and share class controls	Yes	Yes	Yes	Yes
Calendar month fixed effects	No	Yes	Yes	Yes
Calendar month fixed effects* Indirect	No	Yes	Yes	Yes
Year fixed effects	No	Yes	Yes	Yes
Year fixed effects* Indirect	No	Yes	Yes	Yes
Investment objective fixed effects	No	No	Yes	Yes
Number of observations	730,007	730,007	730,007	730,007
Adj.-R^2	0.0055	0.0056	0.0056	0.0056

Table X. Size of tax liability and tax-avoidance behavior for gains and dividend distributions (continued)

Panel C: Dividend distributions

Dependent variable: difference in normalized weekly net flows around week t				
Model:	1	2	3	4
Constant	-0.0099	0.0021	0.0047	-0.0120
	(0.1772)	(0.9750)	(0.9437)	(0.8696)
High dividend distribution	-0.1180 *	-0.1199 *	-0.1189 *	-0.1190 *
	(0.0800)	(0.0710)	(0.0743)	(0.0746)
Medium dividend distribution	-0.1804	-0.1854	-0.1843	-0.1844
	(0.1326)	(0.1229)	(0.1226)	(0.1226)
Low dividend distribution	-0.1335	-0.1371 *	-0.1359 *	-0.1355 *
	(0.1017)	(0.0905)	(0.0930)	(0.0942)
Indirect	-0.0027	-0.0002	-0.0003	-0.0006
	(0.6958)	(0.9985)	(0.9980)	(0.9966)
High dividend distribution* Indirect	0.2122 **	0.2127 **	0.2131 **	0.2132 **
	(0.0188)	(0.0182)	(0.0180)	(0.0179)
Medium dividend distribution* Indirect	0.2620 **	0.2687 **	0.2693 **	0.2695 **
	(0.0371)	(0.0327)	(0.0333)	(0.0330)
Low dividend distribution* Indirect	0.1201	0.1245	0.1243	0.1248
	(0.2289)	(0.2093)	(0.2112)	(0.2102)
Gains distribution	1.2219 ***	1.2147 ***	1.2143 ***	1.2140 ***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Other fund and share class controls	Yes	Yes	Yes	Yes
Calendar month fixed effects	No	Yes	Yes	Yes
Calendar month fixed effects* Indirect	No	Yes	Yes	Yes
Year fixed effects	No	Yes	Yes	Yes
Year fixed effects* Indirect	No	Yes	Yes	Yes
Investment objective fixed effects	No	No	Yes	Yes
Number of observations	730,007	730,007	730,007	730,007
Adj.-R^2	0.0044	0.0046	0.0046	0.0046

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