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# The effect of taxes on shareholder inflows around mutual fund distribution dates

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ABSTRACT

Taxable investors who are considering purchasing mutual fund shares around the dates when a mutual fund is planning a taxable distribution can reduce the present discounted value of their tax liability by delaying their purchase until after the distribution date. Non-taxable shareholders, such as those who invest through IRAs and other tax-deferred accounts, face no such incentive for delaying a purchase of the fund. This paper compares daily shareholder transactions by taxable and non-taxable investors in the mutual funds of a single no-load fund complex around distribution dates. Gross inflows to taxable accounts are significantly lower in the weeks preceding distribution dates than in the weeks following them, but gross inflows to tax-deferred accounts do not change around these dates. This finding suggests that some taxable shareholders time their purchase of mutual fund shares to avoid the tax acceleration associated with distributions. Taxable shareholders who purchase shares just before distribution dates also have shorter holding periods, on average, than those who buy just after a distribution. Since the cost of the distribution-related tax acceleration for pre-distribution buyers is related to the expected holding period of the shares, this finding provides some evidence of clientele formation among the buyers of mutual fund shares.



A voluminous literature has examined the impact of dividend taxes and capital gains taxes on the behavior of common stock investors, with particular emphasis on how these taxes affect portfolio composition and asset trading decisions. However, even though data from the Investment Company Institute (2015) suggest that 30.3 million (24 percent of) U.S. households own mutual funds outside tax-deferred retirement accounts, relatively little is known about how taxes affect the behavior of investors in intermediated investment vehicles such as mutual funds. The taxes associated with mutual fund ownership outside retirement accounts can be substantial. One study nearly a decade ago, Lipper Associates (2007), estimates that in 2006, open end mutual funds distributed $234 billion in long-term capital gains, $31 billion in short-term gains, and $154 billion in taxable dividends, thereby generating at least $24 billion in investor tax liability. Taxes on capital gain distributions accounted for nearly $14 billion of this total. Total capital gain distributions vary from year to year, but these statistics indicate that they can be substantial and that they could have a non-trivial impact on investors' after-tax returns.

Mutual fund investors are taxed under a specialized set of tax rules. All fund shareholders as of a given date share in a fund distribution in proportion to their fund ownership, regardless of their holding period or whether the fund's share price

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has increased or decreased since their date of purchase. This tax provision raises the possibility that a fund investor who purchases fund shares just before a taxable distribution will be liable for capital gains taxes even though the value of her fund shares may have fallen since she purchased them. Financial advisors caution taxable investors against buying mutual fund shares just before distribution dates, particularly as the year-end distribution season approaches.

Several legislative proposals, for example Saxton (2004), have called for modifying the tax rules governing mutual fund distributions to allow deferral of the tax liability on distributed gains until the investor sells her fund shares. Assessing how these proposals would affect investor behavior requires information on several aspects of the mutual fund market, including the current effect of distribution taxes on the purchase and sale decisions of fund investors.

Tax return data leave little doubt that taxable investors report and pay taxes on billions of dollars in mutual fund distributions, but there have been relatively few studies of how taxes affect the behavior of mutual fund investors. Barclay et al. (1998) were among the first to focus on capital gains "overhang" in open end mutual funds. They found that funds with substantial embedded unrealized capital gains, which place investors at greatest risk for future capital gain distributions, attract smaller net inflows than comparable funds without a capital gains overhang. Bergstresser and Poterba (2002) examined gross inflows and gross outflows from equity mutual funds in an effort to understand whether investors consider the tax burden on fund returns in making their investment decisions. They found that open-end funds with high historical tax burdens on taxable shareholders attract smaller inflows than funds with comparable before-tax return experiences but lower shareholder tax burdens.

Several studies have suggested that fund managers consider the implications of their asset management decisions for taxable investors. Plancich (2003) and Chen et al. (2011) found that the payment of fund-level distributions changes around major tax law changes such as the Taxpayer Relief Act of 1997. Khorana and Servaes (1999) found that fund management companies responded to the accumulation of capital gains "overhang" in a fund by creating new funds that mimic existing funds, but lack the embedded capital gains that may discourage taxable investors from buying the fund's shares. Christoffersen et al. (2005) observed that the investing public displays substantial tax rate heterogeneity, which complicates the challenge facing managers who try to consider their investors' tax burdens. Sialm and Starks (2012) examined mutual funds that participate in the 401(k) market, and they found that funds with a greater share of their holdings through 401 (k) accounts were less tax-efficient than funds that relied more heavily on taxable investors.

This paper investigates whether taxes affect the timing of mutual fund purchases around the dates when funds make taxable distributions. We exploit a proprietary six-year panel database that includes all trades within and across all funds in one actively managed no-load mutual fund family. We compare trades made through tax-deferred accounts—primarily traditional and Roth IRAs—with trades made through taxable accounts. While we cannot be certain of the marginal tax rate that applies to distributions received by the funds' taxable shareholders, we know that distributions paid to tax-deferred accounts are untaxed. We find that taxable shareholder inflow is 27 percent lower in the four weeks before a distribution date than in the four weeks following the distribution. By comparison, we cannot reject the null hypothesis that inflows from investors who hold fund shares in tax-deferred accounts are equal before and after a distribution date. These findings suggest that at least some taxable shareholders are aware of impending distributions and time their purchases to reduce their tax impact. These findings offer new evidence on how taxes affect the behavior of mutual fund shareholders.

Although we observe a modest decline in fund inflows just before the distribution date, we still find many taxable investors purchasing fund shares before distributions. These investors may regard the potential near-term change in the fund's net asset value (NAV) as large enough to warrant purchasing the fund, and the associated tax payment acceleration, before the distribution. We cannot observe investors' expectations of future returns, but we can measure investors' ex-post holding periods. We find that taxable fund investors who purchase shares just prior to distribution dates on average liquidate their accounts slightly sooner than those who purchase just after distribution dates. Because the cost of tax acceleration is increasing in the taxable investor's holding period, this finding suggests that pre-distribution buyers may have a smaller incentive than post-distribution buyers to defer their purchase.

Our study is similar in spirit to Graham and Kumar's (2006) analysis of how individual investor characteristics are correlated with trading decisions around ex-dividend days for common stocks. They found that older and lower income investors are more likely to purchase stocks before ex-dividend days than afterward, and they suggested that this could potentially be explained by tax considerations. They could not test this proposition directly, since their data set did not include any information on investors' tax circumstances. Our comparison of trading in taxable and tax-deferred accounts offers a more powerful test of how tax status affects trading around the dates of record that determine tax liability.

Our paper is divided into five sections. The first describes the tax treatment of mutual fund shareholders and explains how a mutual fund capital gain distribution accelerates capital gains tax liability. Section two describes the data set that we analyze and presents summary statistics. The third section presents our findings on the differences between gross inflows before and after fund distributions. It reports results for both taxable and tax-deferred households, and it contrasts patterns before and after the enactment of the Taxpayer Relief Act of 1997, which altered the marginal tax rates on capital gains. Section three also presents some tests for turn-of-year effects. The fourth section fits proportional hazard models for the risk that a shareholder decides to close her account, contrasting shareholders who open accounts just prior to distribution dates with those who open accounts just afterward. The last section summarizes our findings and outlines directions for future work.