Converting Actively-Managed Mutual Funds to ETFs

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Abstract

Several years ago, I opined that it would be difficult or impossible to convert a conventional actively-managed fund to the ETF format. My feeling was that shareholders who do not value ETF tax efficiency would argue that the loss in portfolio confidentiality was more important to them than any advantage the ETF format offers. My conclusion was premature. The ETF structure does offer an important advantage to all ongoing fund investors.

Introduction

At an industry conference in March of 2000, I offered the observation that it would be difficult to convert an existing actively-managed mutual fund to an ETF or to add an ETF share class to the fund without objections from some non-taxpaying investors in the fund. My concern was based on the premise that the pre-ETF-conversion holders of such funds purchased their shares with the understanding that the fund manager, like most active fund managers, was keeping information on the composition of the fund's portfolio and changes to that portfolio as confidential as possible. Some of the work that I have done since that time has persuaded me that the difficulty of conversion may not be as great as I had anticipated. This is an explanation of that relatively modest epiphany.

Differences in portfolio disclosure between conventional mutual funds and ETFs

The disclosure requirements for a conventional actively-managed fund have been relatively simple. The manager has been required to disclose all the positions in the portfolio every six months. These *semi-annual* portfolio disclosures became available to investors about 60 days after the date of the portfolio snapshot. The SEC is now mandating *quarterly* disclosure with the same 60-day lag. In contrast, index ETFs publish their creation and redemption baskets (which reflect the portfolio composition very closely) *each day* before the market opens. Furthermore, it has become standard practice for ETFs to publish an intraday fund share value based on the underlying portfolio[1] valued at 15-second intervals throughout the trading day. Obviously, the difference in the quantity and timeliness of the published portfolio information for these two types of funds is substantial.

There have been a variety of proposals for actively-managed ETFs. All of those proposals call for more frequent disclosure of fund portfolios than the mutual fund standard.[2] Apart from portfolio disclosure relating to the in-kind creation and redemption baskets which are an integral part of the economic advantages offered by ETFs, the intraday calculation itself -- whether alone

[1] Or on the creation basket.

[2] In some of the proposals, the disclosure takes the form of changes in the creation basket that parallel changes in the portfolio. In other cases the creation basket would not reflect the precise portfolio and investors face a tradeoff between the length of the confidential trading period and the level of trading costs inside the fund associated with entry and exit of shareholders.

or in conjunction with specifications for the creation and redemption baskets -- will provide substantial information on portfolio composition to knowledgeable financial analysts. The level of knowledge that some investors could develop on fund portfolio contents and portfolio changes would permit them to trade against the interests of the fund with adverse effects on the fund's performance. Some approaches to actively-managed ETFs result in more transaction costs to ongoing shareholders than others, but the probability of some increased transaction costs associated with increased portfolio disclosure is always present.

My original concern over the effect of introducing an ETF share class to an established fund was that all shareholders do not benefit from the ETF structure in the same way. Pre-ETF-share-class investors who receive no advantages from the tax efficiency of ETFs might reasonably argue that the new ETF structure is of little or no apparent advantage to them. Since they originally invested in the fund on the assumption that the fund's portfolio composition would be kept as secret as possible for as long as possible, the change might be costly to them. I was concerned that the difference in objectives might open the fund board to potential liability if they added an ETF share class and increased disclosure. Fortunately, ETFs have other features that appeal to *all* ongoing investors. These features can shield the board from complaints that converting to a single ETF share class is disadvantageous to some shareholders. The fund board *will* have to evaluate some tradeoffs if they propose to convert to an ETF.

The cost of providing liquidity to mutual fund share traders

Studies of the impact of fund trading costs associated with each investment by new shareholders or cash redemption by existing shareholders in conventional actively-managed funds offer compelling evidence that the cost of this trading activity to ongoing (non-trading) shareholders is substantial. Reducing these costs can more than offset the market impact costs associated with earlier revelation of changes in portfolio content in an ETF – probably in most cases. This cost tradeoff deserves careful attention from all fund investors.

Roger M. Edelen (1999), a Wharton School (University of Pennsylvania) professor, attempted to quantify the adverse effect of shareholder entry and exit costs on fund performance. Edelen was looking at the effect of these purchases and sales on the performance of funds that sell and

redeem their shares for cash. His results highlight the inherent performance advantage of the ETF structure (creation- and redemption-in-kind) for *all* ongoing fund shareholders, whether or not other ETF features such as the fund's tax efficiency matters to them.

Using a sample of 166 conventional (no load) funds ranging in type from "small cap" to "income," Edelen investigated the cost to the fund of providing liquidity to investors who enter and leave the fund.[3] The design of his study focused on the cost of providing this liquidity by examining the purchases and sales of securities by the fund over a series of six-month periods. The reason for the six-month intervals was the traditional portfolio reporting frequency for mutual funds noted earlier. With data on semi-annual portfolio holdings and turnover, Edelen was able to break down each fund's trading into flow and non-flow components with a reasonable degree of precision and to estimate how much of the flow-related trading was incremental trading from having to purchase and sell portfolio securities in response to the entry and exit of trading shareholders.

Edelen does not attribute a fund performance cost to the trading flow if the manager is able to use the flow to make desired portfolio changes. He concludes that for the average fund in his sample, 30% of the flow in and out of the fund does not result in incremental trading, and that about half of the fund's total trading will be flow-related. If 70% of flow results in incremental trading, then about 35% of *total* fund trading would be incremental trading from providing liquidity for entering and leaving shareholders. It is important to note that the average fund Edelen studied was clearly not used aggressively by fund traders. Aggressive trading could cause a rate of annual portfolio turnover of several hundred percent.[4] The modest share turnover he found in the fund sample notwithstanding, the trading costs which Edelen attributes to providing liquidity to shareholders entering and exiting the fund accounts for an average *net* reduction in

[3] The no load requirement is not important. Loads may be waived on large purchases of some share classes in load funds and Edelen was looking at fund performance for ongoing shareholders between two points, not the return *realized* by a shareholder from purchase to sale.

[4] The incremental cost of providing liquidity is probably a slightly declining percentage of total flow trading costs because higher share turnover will mean that purchases and sales are more likely to offset one another.

annual investor return of about 1.43%, not materially less than the average fund's expense ratio.[5] While it is hazardous to extrapolate these results for an "average" fund with average in-and-out trading activity to funds that do not take steps to protect their ongoing shareholders from the costs of providing liquidity to active traders, there are certainly a number of funds where the costs of providing liquidity to entering and exiting shareholders run substantially higher.

The significance of this research for ETFs is that each ETF shareholder pays his or her own entry and exit costs. Once an ETF shareholder enters the fund, there *are no meaningful further entry or exit costs penalizing the shareholder's performance* until that shareholder's own shares are sold. The secondary market (exchange trading) costs of shareholder trading in ETF shares are generally lower than a conventional fund's cost of providing liquidity directly. More importantly, with ETFs, trading costs fall where they should fall – on the trader rather than on the ongoing fund shareholders.

While the ongoing shareholders of conventional open-end funds bear the cost of entry or exit by any shareholder, the most egregious effect is from short-term fund share traders. We have called a number of conventional fund companies' 800 numbers and found most of these funds eager to accept trades in their funds until 3:59:59 p.m. each trading day. Such trades are also facilitated by some fund supermarkets where the fund does not even know the identity of the beneficial shareholder or the shareholder's trading advisor.[6]

[5] The magnitude of the cost is partly due to the fact that this liquidity is most commonly demanded when the market is moving at the close and the movement continues into the following day. Edelen's published figure was an abnormal negative fund return of 1.63% net of expenses vs. a negative return of .20% without the cost of providing liquidity. We use the net figure, 1.43%, here. One industry executive observed, when hearing the results of Edelen's analysis for the first time, that the performance penalty from in-and-out trading is "a lot bigger than that." Most similar studies have focused on opportunities for fund share traders to make a profit from this type of trading activity, e.g., Greene and Hodges (2002), and many of them focus on funds holding non-U.S. stocks, e.g., Goetzmann (2001). The effect of mispricing of foreign stocks has been largely overcome by an amendment to Rule 22c-1, which encourages fair value pricing in net asset value calculations. See Barbash (1997) and Chalmers, et al. (2001). The studies which try to determine whether a fund share trader can make money trading shares in a conventional fund that holds domestic stocks ignore certain trading costs that affect ongoing shareholders more than fund share traders. Edelen's paper is the only one we have found that looks directly at the ongoing investor performance effect.

[6] These calls were made before the recent scandal concerning hedge fund purchases of fund shares at net asset value long after the 4:00 p.m. net asset value calculation was made. Since such trades are clearly illegal under SEC rule 22-c-1, we did not even raise the question.

With an ETF, a short-term trader does not affect the portfolio of the fund unless his trades stimulate creation or redemption of ETF shares in-kind. When creation or redemption occurs, the Authorized Participant (or the trader) pays all the costs of buying or selling portfolio stocks and the creation or redemption fee which covers the administrative and processing costs of the transaction. The bid-asked spread quoted for fund shares on the market reflects the Authorized Participant's expected costs to create and redeem in-kind. This cost is partly offset (and the fund share quote spread often reduced) by the fact that market makers may trade five to ten times as many shares in the secondary market as they create or redeem. This in-kind creation and redemption structure is in marked contrast to the cash purchase and sale of shares in a conventional fund that leaves the fund (more precisely its ongoing shareholders in most cases) with *all* the costs of buying or selling portfolio securities. The significance of this difference between conventional funds and ETFs is that other things equal, *an ETF should outperform a comparable conventional fund by the conventional fund's net cost of providing liquidity to entering and leaving fund share traders.*

The significance of the transaction costs associated with entry to and exit from a conventional mutual fund compared to the opportunity costs associated with more comprehensive and prompter revelation of portfolio content and changes, will determine the kinds of conventional-to-ETF conversions that are justified. Using this comparison, hard-to-convert funds are the same kinds of funds that are most difficult to operate as actively-managed ETFs in the first place. The funds that will be most difficult to convert are funds with illiquid positions and, especially, any fund where establishing or eliminating a position is likely to take more than a few days.

Implications

Several implications of this discussion for active conventional fund conversions to ETFs are worth noting. The reasoning behind most of these points will be obvious, but a few will require some rumination by the reader.

- There are interesting tradeoffs among fund portfolio liquidity, liquidity provided to fund share traders and liquidity in individual securities that affect the portfolio management process.

- Subject to the previous point, the conclusion I should have reached originally is that conversions of existing active funds into ETFs make sense *only if all entry to and exit from the fund is through the ETF share class*, perhaps after an interim period when pre-conversion shareholders can leave through cash redemptions.
- There are some important regulatory hurdles which any conversion would have to clear. Offsetting these hurdles is an obvious regulatory problem with a conventional fund purchase and sale process that places such a heavy toll on a fund's ongoing shareholders.
- The only reason for ETF (or conventional fund) portfolio confidentiality is to protect existing fund shareholders and other clients of the fund's advisor from the transaction costs (including opportunity costs) of front-running by traders who learn of the fund advisor's trading plans.
- The actively-managed fund portfolio trading process is different with an actively-managed ETF.
- Early conversions of conventional funds to ETFs may benefit from a publicity effect.

B I B L I O G R A P H Y

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