

Passive vs. Active for the Taxable Investor

By Robert N. Gordon

This article isn't going to resolve the debate about the added value of active management.

It will, however, establish a framework for an optimum condition and demonstrate a strategy aimed at faithfully and efficiently replicating desired results. It also will show how to ascertain just how much alpha must be added to overcome the cost of active management.

Theoretically, a "perfect investment" creates no taxable income and is held for life. If the position is held until death, no taxes are ever paid on the asset (because of the step-up in basis at death) and no fees are paid for ongoing management to maintain the position.

Passive management is managing a portfolio to replicate an index, trading only passively as the index changes. Active management entails more-frequent trading with the goal of superior returns.

Passive management approaches the "perfect investment" because of the following three assumed attributes:

1. Index fund managers charge lower management fees than active managers charge.
2. Indexed portfolios have lower transaction costs because index managers trade only when the index composition changes.
3. Buy-and-hold investors should pay less in tax than those with more-rapid portfolio turnover.

Of course, these are only assumptions. Some active managers aren't that active at all, they just aren't indexers. A long-term buy-and-hold active manager can be very efficient, too. Some index portfolios change more often than others. The key is turnover. Active management could outperform indexing, even

on an after-tax basis, but it must clear substantial performance hurdles before achieving that goal.

Kirby (1984) observed that investors would be well served if they simply purchased a well-diversified portfolio, put the stock certificates in a coffee can, and forgot about them for a long time. Arnott and Jeffrey (1993) first attacked the problem quantitatively in "Is Your Alpha Big Enough to Cover Its Taxes?" where they explore the passive/active debate for taxable investors. Their conclusions bear out the above assumptions.

Fees

Historically non-indexed active managers have charged more than 1 percent to their mutual funds clients. On average, managers of open-end index mutual funds have charged less than active managers, and more recently exchange-traded fund (ETF) index fund managers have charged even less. Even a few open-end funds match the low ETF management fees. Salisbury (2007) concluded that "big, low-cost index funds . . . outperformed the ETFs in most of the comparisons we set up. For the 40 time periods studied, the mutual funds prevailed in 34—including a sweep of the one-, three-, and 10-year after-tax categories."

Taxes

Tax drag may be less obvious than investment-related cost differences, but it can have more impact. For example, an investor who realizes short-term gains from a portfolio change keeps only 60 cents of every trading-dollar profit. A buy-and-hold investor who holds until death keeps 100 percent of

every trading-dollar profit. Short-term trading would have to outperform the "coffee can" approach by 66 percent to produce the same after-tax return.

Now consider the example where the buy-and-hold investment is sold before death. Assume that the investment has been held for at least 12 months so long-term capital gains tax is due. If the long-term capital gains tax is 20 percent, the investor is left with 80 percent of every trading dollar. The short-term trading then would have to outperform buy-and-hold by 33 percent to have the same after-tax value.

Luck (1998) estimated that an active manager needs more than 200 basis points in outperformance (alpha) to beat an index fund after tax. Luck's "Tax-Advantaged Investing" pointed out just how important it is for individual taxpayers to achieve long-term gains status. He calculated that further tax efficiency can only come from a portfolio that has a turnover rate of less than 20 percent.

Alpha

Research shows that active management can be most effective in less-efficient markets. Whether it's because the securities aren't widely followed or because the companies are located far from financial centers, active managers' alpha is better among these inefficient asset classes.

A 2009 paper by State Street Global Advisors titled "Passive and Active Management: A Balanced Perspective" observed that over 15 years about 60 percent of the active managers outperformed in the emerging markets and small growth categories. In fixed income, only 12 percent could beat the index.



Consistency of Alpha

Historically most non-indexed managers underperformed the indexes that represent their style of investing. Although some managers outperform every year, few outperform on a regular basis. Bogle (2001) looked at the top 20 performing open-end mutual funds over 10 years to see how those managers did over the next 10 years. Although a few repeated their stellar performances, most wound up in the middle of the pack in the second 10-year period. The number-one performer in the first 10 years ended up number 128 in the second period. Bogle repeated the exercise for a third decade and although one fund was in the top 20 in all three decades, picking managers based on prior performance again did not prove rewarding.

The State Street paper noted that although 29 percent of all large-cap managers outperformed the index in 2004–2005, only 9.2 percent outperformed the index over three years; only 5.1 percent outperformed the index over four years, and only 0.5 percent of the large-cap managers beat the index in each of five years.

Once an investor has decided to index, the question becomes with which vehicle do you index?

ETF vs. Indexed Mutual Fund

ETFs possess no tax magic. ETFs are regulated investment companies (RICs), just like open-end mutual funds. Both are corporations that aren't taxed as long as the RIC distributes at least 90 percent of its taxable income to its holders. When an index has a portfolio change, the change should have the same tax effect on the ETFs and the mutual funds that replicate the index. When a company is taken over for cash it usually triggers gain for both. Most of the tax efficiency of ETFs comes from their passive nature, not because they are ETFs.

ETFs' redemption mechanism can make them more tax-efficient than most of their open-end mutual-fund

cousins. ETFs exploit an ability to distribute in-kind. When investors want to exit an open-end mutual fund, the fund may need to sell part of its portfolio to raise cash to meet the redemption request. These portfolio sales may trigger capital gains. ETFs, however, only redeem in actual shares of the underlying portfolio. These in-kind distributions don't trigger gains. Arnott and Jeffrey (1993) estimate redemption-caused gains distributions cost investors 47 basis points a year.

All RICs can opt to distribute in kind. Most mutual funds retain this ability to relieve a massive liquidity problem caused by too many investors redeeming. Only Vanguard has combined the characteristics of ETFs and open-end mutual funds; the Vanguard ETFs are merely share classes of the Vanguard open-end index mutual funds. Those redeeming from a Vanguard ETF can get shares acquired years ago at a very low cost basis by the Vanguard mutual fund. The ETF effectively acts as a dialysis machine for low-basis shares owned by the mutual fund.

Trading ETFs entails costs not associated with indexed mutual funds. Investors pay a brokerage commission to buy or sell an ETF; no-load indexed mutual funds charge no commission on purchase or redemption. An ETF trader incurs friction costs imbedded in the bid-ask spread; open-end funds are redeemed at net asset value without any slippage.

Exotic ETFs

Exotic investment ETFs are becoming more prevalent. But as a rule, the more exotic the ETF, the further the ETF drifts from the assumed beneficial characteristic of ETFs. The S&P 500 has

a 2–4 percent turnover rate, the Russell 2000 has a much higher turnover rate, and so on. Actively managed ETFs seem to miss the point completely.

Exotic ETFs usually have wider bid-ask spreads than an S&P 500 ETF. ETFs following a small-cap emerging markets index will demonstrate more tracking error than an S&P 500 ETF.

The newest strain of exotic ETFs—leveraged and inverse ETFs—just don't work mathematically for more than one day. For example, consider the price performance of a 2X ETE, which is an ETF promising a return equal to twice the daily movement of an index. If an index declines 10 percent the first day and then appreciates 10 percent the second day, an unleveraged ETF would be down 1 percent at the end of the second day. As table 1 shows, a 2X ETF would decline by 4 percent over the two days, not the expected 2 percent.

The longer you're in leveraged ETFs the worse the distortion gets; research demonstrates that the more volatile the underlying, the more dramatic the distortion in the return. So, beware exotic ETFs.

ETNs: The Perfect Structure?

Exchange-traded notes (ETNs) come the closest to our "perfect investment." ETNs are issued by counterparties that promise payoffs tied to an index. ETNs are prepaid forward contracts and as such aren't taxed until disposition. ETNs are indexed but because they are but notes with payoffs keyed to an index, portfolio changes have no tax effects for the note owners. The Investment Company Institute, which is the trade group for ETFs and mutual funds, has lobbied unsuccessfully to change this treatment for ETNs. Furthermore, no tracking

TABLE 1: PRICE PERFORMANCE OF 2X ETF

	Unleveraged ETF	2X ETF
Value after day one	90	80
Value after day two	99	96
Performance	-1%	-4%



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error is possible with ETNs. However, ETNs do have a credit risk that is not present in any of the other indexed investment vehicles discussed above.

Separately Managed Accounts

A separately managed index portfolio can have advantages over either ETFs or indexed mutual funds. A separately managed account allows for granular management of the index components. This management can judiciously take some long-term gains, but its greater added value comes from harvesting losses. Arnott et al. (2001) concluded that loss-harvesting an indexed portfolio could add about 80 basis points annually after-tax. Not many active managers consistently beat the index by 80 basis points a year.

But loss-harvesting has a few drawbacks. It can cause tracking error. Arnott et al. (2001) utilized a model that ignored the wash-sale rule¹ and sold securities at a loss then immediately repurchased the same shares. The replacement securities introduce tracking error into the portfolio. Also, ETFs and open-end mutual funds have a tax advantage over individually managed accounts. Management fees from separately managed accounts are treated as miscellaneous itemized deductions and thus are not deductible for many clients. ETF and mutual fund investors don't have this problem; ETFs and mutual funds are not tax-transparent vehicles. ETFs and mutual funds net their fees against income before arriving at their distribution calculations. A nondeductible management fee can be 70 percent more expensive than a deductible fee.

Conclusions

An active manager has to produce stel-

lar outperformance to overcome the tax drag that comes from trading. Managers with less turnover seem to be the most tax- and cost-efficient, and index managers operate under a consistent buy-and-hold philosophy. This expected tax efficiency, married with lower management fees and transaction costs, should make indexed investing an easy choice for many of the widely followed asset classes. 

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Endnote

- ¹ The “wash sale rules” of I.R.C. Section 1091 deny a current capital loss when the property sold (that created the loss) is repurchased within 30 days of the sale. Instead the loss increases the investor's tax basis in the repurchased shares.

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