SPDR UNIVERSITY

ETF Pricing: Determining the True Cost of Ownership

As the dynamics of the exchange traded fund (ETF) landscape continue to evolve, understanding the differences among the array of products available is vital to determining which fund may offer the best solution for a portfolio. Investors using expense ratio as their sole determining factor when evaluating ETFs may fail to consider the other variables that affect the total cost of ownership. The unique structure of ETFs, along with how the products trade, make it necessary to dig a little deeper to get a complete picture on what it costs to own an ETF.

HOW DO YOU DETERMINE ETFS' COSTS?

The cost of ownership for an ETF is derived from multiple components including expense ratio, commissions and bid/ask spread, as well as other factors such as tracking error.

FIGURE 1: ETF COST OF OWNERSHIP

EXPENSE RATIO + COMMISSION + SPREAD (+ TRACKING ERROR) = TOTAL COST OF OWNERSHIP

Source: SSgA.

EXPENSE RATIO

The expense ratio represents the portion of your investment that the fund charges on an annual basis for management fees. These costs incurred range from trading and marketing expenses to custodial and index licensing fees. Consider that the average large cap blend ETF has an expense ratio of just 34 basis points (bps) compared to 122 bps for the mutual fund in the same category.[1] The disparity is uniform across the domestic and international equity product set and is even more pronounced for passive fixed income funds. In terms of expense ratio, the average fixed income ETF has an expense ratio of 30 bps whereas the average bond mutual fund has an expense ratio of 103 bps.[2] Extensive work has been done that demonstrates the impact of a fund's expenses and fees on an investor's net return. In this arena, ETFs have a compelling and decisive advantage. However, ETFs are structured and trade differently than mutual funds, so investors need to look beyond the expense ratio to calculate costs.

In addition, investors may also compare the expense ratios among similar ETFs. All else being equal, lower expense ratios are positive for investors. However, they are not the only variable ETF investors should consider when evaluating total costs. Because ETF expense ratios are already low across many categories, savings generated by a reduction in fees can be offset by other variables such as wide bid/ask spreads and premiums/discounts.

TRADING COSTS

Investors should also consider the trading costs, from transaction costs and commissions to bid/ask spreads, associated with buying ETF shares. ETF shares trade like a stock on major exchanges, therefore trading ETFs may incur additional costs that are important to quantify and compare.

COMMISSIONS

A commission is the service charge assessed by a broker or investment advisor in return for providing investment advice and/or handling the purchase or sale of a security. Most major, full-service brokerages derive most of their profits from charging commissions on client transactions. Commissions vary widely from firm to firm.[3] Frequent trading of securities, including ETFs, could significantly increase commissions and other costs such that they may offset any savings from low fees or costs.

While some providers have begun to offer commission free trading for some ETFs, "free" may actually come with a hidden price tag. If the commission-free ETFs that you choose have higher expense ratios, your overall returns could be lower than they would if you paid a commission to buy an ETF with a lower expense ratio. Alternatively, if a commission-free ETF has low trading volume, a wide bid/ask spread could end up costing you a lot more than the amount you saved on commissions. However, Frequent trading of ETF could significantly increase commissions and other costs such that they may offset any savings from low fees or costs.

Varying costs make it difficult to make an apples to apples comparison between funds, but demonstrate the importance of looking beyond the commission alone. As appealing as commission-free trades might seem at first glance, those trades might still have costs associated with them that affect the total cost of ownership.

BID/ASK SPREAD

Another component of a fund's trading cost is the bid/ask spread. The bid is the price at which a buyer is willing to buy ETF shares, and the ask is the price at which a seller is willing to sell ETF shares. The difference between the bid and the ask is the bid/ask spread, which indicates the overall cost of transacting in any security (plus any applicable brokerage commission costs). These spreads are a cost associated with transacting in the secondary market, or at the exchange level. Trading volume can also impact a fund's spread. Thinly-traded ETFs tend to have wide bid-ask spreads that can end up costing you. In general, the more active the ETF, the cheaper it is to trade.

Bid/ask spreads are composed of a number of fixed and variable costs. In order to fully understand what an investor is actually paying for in a bid/ask spread, investors need to account for three different categories of cost when facilitating ETF trades.

– **CREATION/ REDEMPTION FEE** This is a fixed cost that the ETF sponsor charges an Authorized Participant (AP) for interacting with the ETF trust to create or redeem shares. The fee varies amongst funds and is a cost per order, not per creation or redemption unit. Since this is a fixed cost, this variable in the spread equation is constant unless an ETF sponsor changes their creation/redemption fees.

– **SPREAD OF THE UNDERLYING SECURITIES IN AN ETF BASKET** One major variable cost that ETF traders often encounter is the cost of gathering the underlying securities. For less liquid, esoteric asset classes, such as the high yield or municipal markets, this cost is greater, thus spreads tend to be wider for ETFs with more thinly traded underlying markets.

– **RISK** At times, risk can be the highest cost component of spreads, especially during periods of elevated market volatility. What most investors would call investment exposure, ETF traders call risk. In order to avoid this risk, traders will hedge investment exposure with the use of underlying securities, options, futures contracts or even other ETFs. Depending upon the liquidity of the underlying instruments used to initiate a hedge, it can be costly to maintain market neutrality when trading ETFs. This hedging cost will be included in an ETF's spread and passed along to investors trading in the secondary market.

If any of these three cost categories rise, this is reflected in an ETF's spread, meaning investors transacting on the secondary market pay higher fees to participate. Much like a farmer who raises corn prices after an increase in the price of fertilizer, water or equipment, an ETF trader may widen spreads if any of his/her costs or risks rise.

EVALUATING THE TOTAL COST OF OWNERSHIP: AN EXAMPLE

The hypothetical scenario in Figure 2 illustrates how these inputs can affect the overall cost of two different ETFs. An investor may be inclined to choose ABC ETF due to the lower expense ratio, but when the commission and spread are taken into account, XYZ ETF may be the better choice from a total cost perspective.

FIGURE 2: HYPOTHETICAL ETF OWNERSHIP SCENARIO

COSTS	ABC ETF (BPS)	XYZ ETF (BPS)
Expense Ratio	20	30
Commission	10	10
Spread	15	2
Total Cost of Ownership	**45**	**42**

Source: SSgA.

In addition, the investor could also look at the tracking error of each ETF against its benchmark to further determine the difference in total cost of ownership.

TRACKING ERROR

Understanding tracking error is also important to understanding an ETF's overall cost. Tracking error is defined as the difference between a fund's NAV performance and the total return of the underlying index. Depending on an investor's time horizon, tracking error can be measured daily, monthly, quarterly or annually. For example, an investor actively trading ETFs would be more concerned with how an ETF tracks on a daily basis, whereas a long-term investor might only monitor a fund's tracking on a yearly basis. In either case, funds with tighter tracking should have a competitive advantage.

With an ETF that seeks to track the performance of an index, ideally, the fund should tightly track the underlying index. Profound differences in performance between the fund and the index may be a red flag for poor fund management or excessive trading costs. However, not all ETFs are created equal. ETFs can employ a full replication, optimization-based, synthetic replication, or an active management approach to govern portfolio construction and trading decisions. These different approaches dictate how closely a fund tracks its index—and how well the fund suits a given portfolio.

When evaluating tracking error, it is also important to look at the fund's underlying index. Index construction, index methodology and the potential for tracking differences and taxes can also offset any benefits of a lower expense ratio. For example, certain index weighting methodologies can lead to differences in performance and risk/return characteristics among seemingly similar indexes. The level of frequency in which an index discloses its holdings can also have an impact; the more frequently the index reports holdings, the greater the transparency and the easier it is to determine how closely the ETF tracks its index. Rebalancing can also have an effect on tracking error. If the index frequently adds and removes holdings, those decisions can impact funds that tightly track the index by changing market exposure and increasing trading costs, which reduces investors' returns.

CONCLUSION

ETF usage continues to increase as investors embrace ETFs for their inherent benefits such as low cost, tax efficiency,[4] liquidity and transparency. As a result, there are more ETF products available to choose from then ever before. Understanding the unique structure of ETFs, including the factors that affect cost, will allow investors to more efficiently buy and sell ETFs. Investors need to dig deeper than the expense ratio to determine the total cost of ownership, by also examining commissions, bid/ask spreads and tracking error. It is important not to put too much focus on one factor, such as expense ratio, or investors may miss out on valuable information and wind up paying even more for the security in the end.

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[1] Morningstar, SSgA, as of 12/31/2011. Average Prospectus Net Expense ratio for large blend ETFs and open end large blend mutual funds as defined by Morningstar.
[2] Morningstar, SSgA, as of 12/31/2011. Average Prospectus Net Expense ratio for fixed income ETFs and fixed income open end funds as defined by Morningstar.
[3] http://www.investopedia.com/terms/c/commission.asp#ixzz28qA0KnH3
[4] Passive management and the creation/redemption process can help minimize capital gains distributions.

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Diversification does not ensure a profit or guarantee against loss.

All investing involves risk. Investors are encouraged to seek the advice of well-qualified financial advisors, accountants, attorneys and other professionals before making any investment decision.

Frequent trading of ETF could significantly increase commissions and other costs such that they may offset any savings from low fees or costs.

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