



ETF Investing, Part 3: Avoiding Pitfalls and Practical Applications

This is our final paper in a three-part series on Exchange Traded Funds, or ETFs. Our first white paper addressed the history and evolution of this increasingly popular investment vehicle, while the second described the different structures and mechanical aspects--- how they are created, redeemed, supported and collateralized. Today, we will address practical applications for investors; how to apply these structures to diversified investment portfolios, and potential pitfalls as well.

Let's start by addressing some key areas to avoid in this space. Generally speaking, we believe investors should avoid overly complex, volatility mitigating, or leveraged ETF structures, unless they are prepared to monitor and rebalance their positions on a daily basis. Many such strategies use derivatives, such as futures and options, to achieve their targeted returns, but often, the stated time horizon for the ETF or ETN is very short term, even one day. The end result is that the portfolio manager is closing the books and resetting his/her positions on a very short term basis, and consequently the ETF investor should also rebalance in order to achieve the expected outcome. An investor following a buy and hold approach, therefore, may be faced with the potential for "decay", a consequence of derivatives investing, because he/she is unaware of the mismatching time horizons between portfolio manager and investor. Please look at the chart below, which tracks the performance of VIX, or the CBOE Volatility Index (S&P 500) to VXX, the Barclays S&P 500 Short-Term Futures ETN (exchange traded note). The relationship between VIX and VXX clearly underscores the problematic nature of following buy and hold strategies in many such structures. While the technical reasons are beyond the scope of this paper, if an investor chooses to hedge, we would suggest less complicated hedging strategies, such as protective puts or simply holding extra cash.



Second, while ETFs are generally viewed as liquid investments, we believe any potential investor should carefully analyze the ETF itself in addition to the underlying investments to determine the fund's likely liquidity. According to SPDR (Standard & Poor's Depository Receipts) University, or spdrs.com, while ETF trading volume accounted for 42% of all equity dollar volume in 2014, more than 80% of ETFs trade less



than \$10 million per day. Now, if the underlying securities are liquid, e.g. blue chip stocks, liquidity can be enjoyed via the redemption process through the authorized participant. For the average investor, however, this is a practical impossibility given the share requirement needed to redeem in such a manner (typically 50,000 shares). Therefore, for our purposes, we generally recommend avoiding ETFs that hold potentially illiquid underlying investments, such as high yield or convertible bonds. Referring back to our second paper on ETFs, authorized participants are charged with maintaining an orderly creation/redemption process and facilitating parity between the NAV and market price to the extent feasible. However, as investments grow less liquid, transactions and costs will increase, making their tasks more difficult; the more illiquid the underlying securities the greater the implicit cost of running the strategy.

While we're on the subject of potential liquidity issues for certain types of bonds, it is important to note that replication strategies in both bond index mutual funds and bond ETFs tend to experience similar potential problems. Unlike large cap, liquid, blue chip stocks, many bonds are not easily purchased in large volumes, or at least enough to fully replicate a bond index. As a result, index managers will sample an index, or purchase bonds that are similar in quality, duration, and other characteristics, to those in the index, but that may be more easily attainable. The end result is potential tracking error between the ETF and index, and also wider bid/ask spreads and potential liquidity issues if certain bonds must be sold to meet redemptions. We therefore favor investing in bond ETFs that focus on the highest quality and most liquid bonds, those emphasizing government securities or agencies.

To this point, we've addressed some areas of concern within the ETF universe. Knowing these potential pitfalls, which types of ETFs should an investor consider purchasing and how do they fit into an asset allocation framework and process?

As mentioned above, avoiding ETFs that hold potentially illiquid investments is important for investors to recognize. Instead, focus on those ETFs that blend the liquidity of the structure itself with the underlying investments, e.g. SPY, which is an S&P 500 Index ETF, or IJH, the S&P 400 MidCap ETF. In addition, look for ETFs that trade fairly actively. While not entirely scientific, one may look for daily trading volumes in the \$500,000 to \$1 million range, which will eliminate much of the universe that could present liquidity problems.

At Lynx we often recommend ETFs to gain low cost exposure to an asset class we favor, if we believe the space is efficiently priced and therefore difficult to outperform an index with an active strategy. Another situation may arise if a search for active managers fails to uncover compelling enough opportunities in a certain asset class; we may move to an ETF to gain low cost exposure and minimize expenses as a temporary placeholder until an appropriate actively managed option is uncovered. In general, ETFs offer greater choices than traditional index mutual funds in terms of commodity, sector and market cap strategies, creating flexibility to attain exposure to a specific area of the market quickly and inexpensively.

In conclusion, ETFs have been a revolutionary trend in terms of diversification, investor choice, and cost control, and are a valuable tool for investors, individual and institutional alike. However, with any positive development there is the inevitable proliferation of complexity and over-engineered product offerings. We therefore urge investors to approach ETFs with a healthy sense of skepticism; keeping it simple, and liquid, is the message when investing in Exchange Traded Fund.

Date: June, 2016