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Implementation and Management of an ETF Portfolio

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Investors are increasingly appreciating the considerable advantages of an Exchange Traded Fund (ETF) portfolio: liquidity, transparency, low cost, and the ability to take advantage of alternative investments that typically fall outside of the three traditional asset classes (stocks, bonds and cash); namely, physical assets such as real estate, precious metals, energy, commodities, as well as, specialized investment vehicles like hedge funds, private equity funds and managed futures accounts. The question I am often asked after having reviewed the benefits of ETF investing with a potential client is: How does one start and monitor an ETF portfolio? One conceptual framework that can be systematically applied to a wide range of relevant variables in the implementation and management of an ETF portfolio is the subject of this month's commentary.

Step 1: Determine Market Fundamentals

The initial step in developing an ETF model is to ascertain the momentum and direction of aggregate demand and aggregate supply and the corresponding potential impact and implications on price levels, corporate profits and interest rates. This includes analyzing demand factors such as consumption, retail sales, capital and durable goods, foreign trade, and monetary and fiscal policies in conjunction with the supply determinants of manufacturing and production, capacity utilization, productivity, inventories and employment. A useful one-stop source for these data is the following briefing.com link <http://www.briefing.com/Investor/Public/Calendars/EconomicCalendar.htm>.

Step 2: Verify Fundamental Analysis with Technical Indicators and Other Sources

In order to be confident that the conclusions developed with fundamental analysis are accurate, it is imperative to validate one's conclusion with independent sources and technical indicators. For example, if fundamental economic research suggests a favorable economic outlook, but aggregate market indices are trending in a different direction, these inconsistencies need to be resolved before developing portfolio allocation criteria. Useful sources for this exercise are: the Economic Cycle Research Institute <http://www.businesscycle.com/solutions/investment/> which presents weekly forecasts of aggregate demand and interest rates, and <http://www.investors.com/> which contains practical tools for overall market and comparative sector charting and analysis.

Step 3: Create an Asset Allocation Model

Having developed an understanding of the current and future overall market environment, diversified ETF portfolio guidelines should be developed taking into account each client's personal circumstances such as age, investment objectives and suitability. The goal is to diversify across and within all asset classes, including physical assets and specialized investment vehicles. A diversified ETF portfolio can be observed at <http://analyticsllc.net/Diversified%20ETF%20Portfolio0001.pdf>, whereas, the concept of tactical asset allocation, which utilizes alternative investments products to takes advantage

of changes in the business cycle is summarized at <http://analyticsllc.net/Sector%20Analysis.pdf> and http://www.analyticsllc.net/Favorable_Styles_Sectors_March_2011.pdf .

Step 4: Select ETFs to Fit Client Specific Models

Another advantage of exchange traded funds is the limited and definable universe; i.e., only slightly more than 1,000 ETFs are traded under the jurisdiction of the Security Exchange Commission. Thus the admissible set of options for inclusion in a given ETF portfolio is distinct and narrow, especially if one uses filters as the basis for preliminary selection. For example, if one restricts ETFs to only those where 1 million shares are traded on a daily basis (which one may wish to do to guarantee sufficient trading liquidity), the resulting number of appropriate ETFs reduces to slightly over 60. The ETF Screen and ETF Table websites, <http://www.etfscreen.com/> and <http://www.etftable.com/> , permit a detailed analysis of the entire spectrum of ETFs, including relative strength, which is a consistent predictor of performance [http://analyticsllc.net/Buy%20-%20Don't%20Hold%20\(Part%202\).pdf](http://analyticsllc.net/Buy%20-%20Don't%20Hold%20(Part%202).pdf) and http://www.analyticsllc.net/Momentum_Revisited.pdf . Company composition and the structure of each ETF can be observed at <http://www.morningstar.com/Cover/ETFs.aspx> .

Step 5: Apply Risk Management Criteria

Another benefit of exchange traded funds is the ability to apply sound and objective risk management. By placing a stop order, for example, an investor makes a decision about the selling price before the actual sale, and thus removes an emotional element while reducing the risk of significant losses. Proper use of stop orders allows profits to increase, but automatically triggers a sale if the price drops to some predetermined level.

Where to set a stop order is obviously a critical consideration. If the stop order is set too close to the initial price, a small downward movement will cause the investor to lose the ETF and potential gain. On the other hand, if the stop order is set too far below the initial price, a large downward movement in price will be fully absorbed by the investor. Assuming, however, a normal distribution of price movement, it is possible to predict a range of probable outcomes by defining the risk the investor is willing to accept. For example, by setting the stop loss order at one standard deviation there is a 16% chance of being stopped out due to random error, whereas a two standard deviation decision rule reduces that likelihood to 7% <http://analyticsllc.net/ETF's%20and%20Stops.pdf> .

It is sometimes useful, in addition to using standard deviation in conjunction with a sell strategy, to employ 100 and 200 day moving averages to help identify trend changes in the overall market, specific ETFs and sectors. A useful website in this regard is <http://www.vectorvest.com/> .

Step 6: Monitor and Reallocate

If one gives credence to, and utilizes the statistical relationship between relative strength and ETF performance as one selection criteria, periodic reevaluation of an ETF portfolio is necessary as relative strength statistics are constantly changing. Thus repeating Steps 1 through 5 at least once a year is recommended.