

Research of ETFs

A guide for Financial Advisors

- ▶ Exercise better, tighter control over clients' asset allocation
- ▶ Select and monitor the best funds for each client with new analytical tools suitable for any investment strategy
- ▶ Provide highly tailored, ongoing investment oversight

Table of Contents

Introduction	5
Taking Charge with ETFs	6
Analyzing ETFs	9
Building ETF Portfolios	17
Putting it in Practice	21
Appendix A: ALTAR Score™	24
Appendix B: Resources	27

Introduction

Exchange Traded Funds are part of a larger, secular trend towards index investing. While many financial advisors have embraced ETFs others view them as a threat or are unsure how they can use them to add value for clients. Often, one's view of ETFs is tied to his or her view on the merits of active versus passive investing.

The central drawback of actively managed funds is that investors don't really know what they own

But the debate over active versus passive management largely misses the point when it comes to financial planning. The central drawback of actively managed funds is that investors don't really know what they own. This needlessly complicates portfolio building.

ETFs overcome this thanks to their transparency, allowing investors to know exactly what they own at any point in time. And with so many variations available—from the broadest to most narrow indices—ETFs fit the bill in a way that opaque mutual funds cannot, whether the advisor aims to simply provide clean, transparent asset allocation or highly tailored, ongoing tactical investment management.

Adopting ETFs for use in clients' portfolios puts the advisor in full control

This also has important implications for the *business* of investment advice. Advisors who entrust client assets to mutual fund managers are essentially outsourcing asset allocation and portfolio management to some degree. But adopting ETFs for widespread use in clients' portfolios reverses this, putting the advisor in full control. For those who manage portfolios of individual stocks, ETFs are the ideal bridge to transition clients from a transaction-based account to a fee-based account while still providing full-service, individualized financial planning and oversight.

However, this increased role requires a heightened level of commitment from advisors as well. Selecting the right mix of ETFs for each client takes more than examination of issuers' websites and a quick check of rating systems that were designed to evaluate actively managed mutual funds.

This guide explains how advisors can seize the opportunity to provide more effective financial planning services by adopting ETFs for widespread use in clients' portfolios and build better, more enduring relationships in the process. We will walk readers through the inadequacies of existing research methods, argue the benefits of a fundamentally-driven, forward-looking analysis, and illustrate how advisors can put these tools to work in the real world.

We assume the reader is already familiar with the basic structure and workings of exchange traded funds, including their advantages and disadvantages versus traditional mutual funds in terms of costs, tax efficiency, and trading flexibility. For those wanting more information, Appendix B includes a list of resources on these and other topics.

Taking charge with ETFs

The vast majority of financial advisors are familiar with exchange traded funds, their advantages and disadvantages, and aware of their popularity. So is a good portion of the investing public. ETFs are part of a larger, secular trend towards index investing. Since 1993, assets in equity index funds (including both ETFs and index mutual funds) have increased from \$24 billion to \$1.273 trillion as of the end of 2009, an increase of more than 5,000%, or 28% annually (Figure 1). ETFs now account for about half of all equity index assets.

More important however is the shift in the investment landscape. Over the same time period, assets in index investments have increased from just 3% to 26% of all equity fund investments in the United States (Figure 2), meaning that they have gained market share at the expense of actively managed funds.

Figure 1: Equity Index Assets
1993-2009

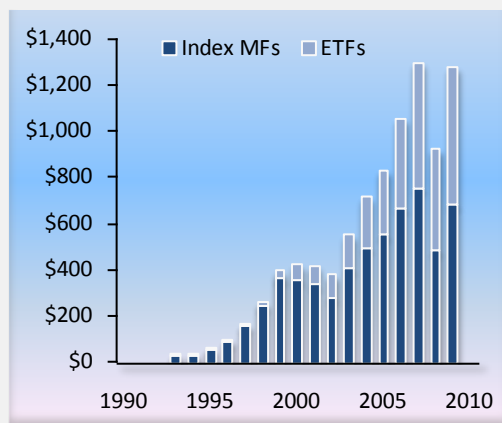
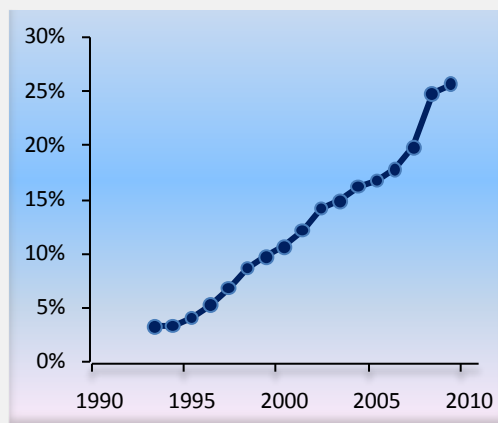


Figure 2: Index Assets as % of Total Assets
1993-2009 (Equity funds only)



Source (Figures 1 & 2): Investment Company Institute

There are several reasons for this, including popularization of the once-academic concept of index investing, innovation and advertising by ETF issuers, and changes in compensation practices in the advisory business, not to mention public anger at mutual fund scandals and performance records.

Surveys tell us that although many advisors have already adopted ETFs in clients' portfolios to some degree, many also believe they must "justify their existence" by also selecting and monitoring active managers or single stocks. This is an unfortunate mistake.

Among the many benefits that ETFs offer investors—including tax efficiency, intra-day trading, low fees and versatility (the ability to sell short)—the one that often gets overlooked is transparency. The central drawback of actively managed funds is

that the manager doesn't know each investor's overall financial picture and investors don't know what they own, a point the debate over active versus passive management tends to ignore.

Let's examine that from both sides. The active mutual fund manager knows what the portfolio holds, of course, but is selecting securities on behalf of thousands or millions of end investors he has never met, and whose investment preferences he has no knowledge of. In a sense, this disconnected structure violates the first rule of the investing profession, "Know thy client."

Besides serving investors with many different goals and preferences, the manager cannot know what else the investor holds. If the manager decides to overweight the technology sector, for example, an investor (or his advisor) who also reached the same conclusion and bought a technology fund separately would have an unintended and possibly dangerous concentration in the sector.

How is an advisor to effectively build and monitor a client's investment portfolio if he has only a rough idea of what's in it?

The investor is also flying blind. Most actively managed funds provide only a range of possible investment choices: a "global equity" fund may say in its prospectus that it will invest between 0% and 30% of its assets in emerging markets, for example. Disclosure of actual holdings is only given periodically after the fact, and then usually incomplete.

The fact that most investors own more than one fund—and that the definitions of various assets in which they can invest may be inconsistent—only compounds the lack of clarity. How is an advisor to effectively build and monitor a client's investment portfolio if he has only a rough idea of what's in it? Picture a driver navigating the expressway on a rainy day without windshield wipers for a clear view; he may be able to make out blurry images of other traffic and the sides of the road, but chances of reaching one's destination safely are diminished (Figure 3).

Figure 3: Asset allocation with mutual funds is like rainy driving without wipers



Source: AltaVista Research

Changing the Dynamic

This presents both an opportunity and a challenge for advisors. Instead of acting as middleman between investor and the mutual fund by “handing over” client assets to an outside manager, the advisor using ETFs can assume direct control over clients’ portfolios.

Advisors are in a unique position to exercise better control of clients’ portfolios

Whether that means simple, clean asset allocation (more “passive” investing) or highly tailored, ongoing tactical investment oversight (more “active” investing) is a matter for agreement between client and advisor. In either case, the advisor is in a unique position to fill this role as the only one with a complete view of a client’s overall financial picture.

The advisor using ETFs will not find himself in the uncomfortable position of having to explain to the client why a mutual fund performed poorly after investing in ways different from what was intended (so-called “style drift”) which he would not have chosen for the client if only he had known about it.

However, this increased role also presents a challenge. Previously, due diligence meant *manager* due diligence. After selecting several managers and allocating clients’ assets, the advisor could generally “set it and forget it” until the next quarterly review. Due diligence did not extend to the underlying securities themselves, and day-to-day portfolio management was outsourced to the manager, who made decisions on investors’ behalf (and without their knowledge).

This changes with ETFs. All index funds, including ETFs, simply aim to track their benchmarks. There is no active manager evaluating underlying securities and making decisions, such as to get out of emerging markets if they become overheated or to go bargain hunting in a beaten-up sector. So a portfolio of ETFs is essentially on auto-pilot.

A portfolio of ETFs is essentially on auto-pilot. It falls to the advisor to monitor, analyze and adjust it.

As a result it falls to the advisor to monitor, analyze and adjust the portfolio. Although the desired frequency and thoroughness of these functions may differ among advisors, performing them well requires more than the information provided on issuers’ websites or from rating systems designed to evaluate actively managed funds (discussed in more detail later). It requires a comprehensive set of tools designed specifically for ETFs to make a disciplined, detailed analysis of the funds.

Therein lays the opportunity. Using these tools to provide highly customized portfolios over which he maintains direct control and responsibility, the advisor can change the dynamic from being at the mercy of active fund managers claiming “it’s a stock picker’s market,” to being in charge in “the index picker’s market.”

Analyzing ETFs

The marketplace for ETF research can be broken into four basic types: 1) Mutual fund-style research, 2) Portfolio strategy, 3) Industry reporting, and 4) Trading metrics. Each has helpful elements but significant shortcomings as a comprehensive tool for advisors. We briefly discuss each of these below before turning to the case for a fundamentally-driven approach.

Mutual fund-style research

The most prominent type of ETF analysis is mutual fund-style research (“MF”), generally practiced by the same firms that already rate mutual funds. This approach focuses on past returns to generate a rating for the fund. While this may be helpful to know, it has serious drawbacks as a rating methodology for ETFs.

No active managers to evaluate

Investors understand that past performance is no guarantee of future results, but when we examine a mutual fund this way what we’re really doing is evaluating the manager, so it makes sense to ask how well he or she has performed in the past.

However ETFs do not have active managers making decisions about the portfolio; the funds are simply meant to track an index. Financial sector ETFs rode bank stocks all the way down during the financial crisis as they were designed to do, but that doesn’t make them “bad” funds, and it doesn’t tell the investor much if anything about likely *future* performance.

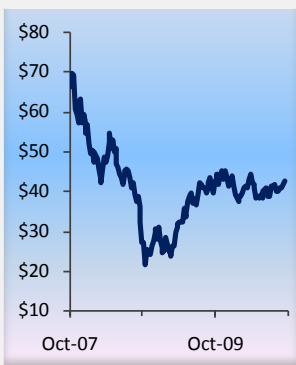
In fact, to the degree one believes in reversion to the mean, using past performance as the primary factor in a fund’s rating is a *contrary* indicator. The FTSE/Xinsha China 25 fund (FXI) had no such rating until the third anniversary of its listing, when it received the highest rating possible from a major firm using the MF approach, based on the fund’s exceptional performance until that point.

The two figures in the sidebar break the fund’s performance into two time series. The top one shows performance from listing until its third anniversary, when it received its first rating; the bottom shows the subsequent performance. Though an extreme example, it illustrates our point quite well: while reasonable analysts might have disagreed about the future prospects for Chinese stocks at the time, rating the fund so highly based solely on the “hockey-stick” graph on the top is absurd from an investment perspective. To extend our driving analogy, one can’t drive by looking only in the rear view mirror. Trying to invest that way can be equally dangerous.

FXI: Performance history
initial listing through rating



performance since rating



Source: Bloomberg

Limited history

Any model is only as good as the data put into it, and in the case of ETFs often times trading history is very limited. More than half of the ETFs available today are less than three years old, the minimum trading history that most firms using past performance need to generate a rating. This puts those products “off limits” to many advisors who might otherwise have good use for them.

Portfolio Strategy

Another type of ETF research is Portfolio Strategy, practiced by broker/dealers and prevalent on investing blogs, based on an analysis of economic and market trends. An investment strategist will generally recommend ETFs poised to benefit if their predictions unfold as expected. For example, they may recommend a Consumer Discretionary ETF to play a rebound in consumer spending, or advise clients to overweight emerging markets using an Emerging Market ETF, on the basis that they have fast-growing economies.

Whether very general or specific, this type of investment analysis informs the asset allocation decision, one of the most important decisions an investor can make. But although ETFs are an excellent tool for implementing an asset allocation plan, this isn't technically *ETF* analysis. Typically, little if any investment research goes into selecting the particular funds to be used to implement the strategy.

Typically, little if any research goes into selecting the particular funds to be used to implement the strategy

Which Emerging Market ETF should the advisor use? The default choice of many investors based on the well-known MSCI index may be sufficient for a basic three-part allocation between domestic, developed foreign and emerging market equities, but what of the two dozen other diversified emerging markets ETFs, or the dozens more country funds? Each is different from the others in terms of composition, exposure, and investment potential, some quite dramatically.

If, for example, the portfolio strategist's advice to investors is to reduce exposure to emerging markets on the basis that they have become “overheated,” how would that differ if the investor instead had a fundamentally-weighted emerging market ETF, with much different characteristics? High-level asset allocation is a critical part of the investment process, but it can't fine tune a portfolio with fund-level intelligence.

Finally, if the advisor either disagrees with the strategist (consumer spending *isn't* going to rebound, for example) or the advice simply isn't appropriate for the particular client (the strategist, like the active fund manager, is providing generalized advice), then the advisor is at a dead end.

Industry Reporting

ETFs garner a lot of media attention and there are a lot of articles in industry publications about products available and how others are using them. This can be quite helpful as product awareness and learning from peers is of obvious importance. However it isn't investment research and isn't consistent—i.e., one publication's approach will be different from another's, making it difficult to compare funds mentioned in different places in any sort of methodical way.

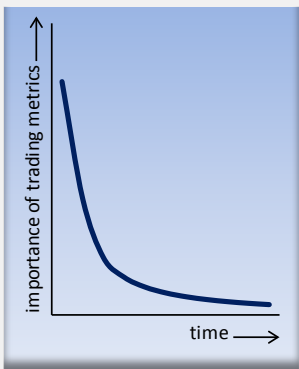
Trading Metrics

ETFs now account for roughly one-third of trading volume on the NYSE, a staggering number that far exceeds their size relative to the total market capitalization of listed securities, illustrating the extent to which ETFs have also become short-term trading vehicles. Trading Metrics cover such things as tracking error, bid-ask spreads, premiums or discounts to NAV, and often misunderstood issues of liquidity.

These issues are paramount for short-term traders looking to profit from moves of a few basis points, but they diminish in importance rapidly as the investor's time horizon lengthens because longer-term changes in price (whether positive or negative) are likely to dwarf these trading issues in size. Not to discount these issues when they arise, but insofar as advisors use ETFs for long-term financial planning, Trading Metrics are of limited use.

For example, although investors prefer ETFs with minimal tracking error all else being equal, an investor who rode the NASDAQ-100 Tracking Fund (QQQQ) all the way down as the Tech bubble burst in 2000-01 would probably find little consolation in the fact that it tracked its benchmark nearly perfectly. The far more important decision would have been whether to hold QQQQ in the first place.

Trading Metrics diminishing returns



Source: AltaVista Research

Table 1: ETF Research Marketplace

Type	Mutual fund approach	Portfolio Strategy	Industry reporting	Trading metrics
Practitioners	Traditional mutual fund rating firms, etc.	Wire houses, newsletters, blogs	Financial press, blogs, fund issuers, etc.	Brokerages, financial data vendors
Content	Past performance analysis	Implementation of given strategy w/ ETFs	Product awareness, trend following	Trading efficiency (tracking error, bid/ask spreads, etc.)
Drawbacks	Backwards-looking, useless with new funds or cross-category	Subjective, based on strategist's conclusion	Not <i>investment</i> research	Importance diminishes with longer-term investments

Source: AltaVista Research

The Case for a Fundamental Approach

All of the approaches discussed up to here fail to make full use of an ETF's most important advantage—its transparency. The Fundamental Approach relies on it.

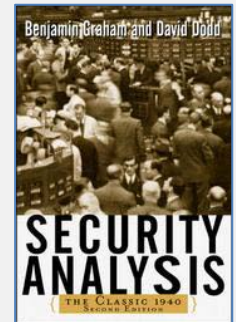
Because the holdings of an ETF are public information a completely different type of analysis becomes possible. By aggregating the fundamental data available—both historical results and forecasts—for each constituent in an ETF, one can develop a view of the ETF as a whole based on fundamentals. Essentially, the Fundamental Approach applies the traditional tools of security analysis first published by Graham & Dodd¹ in 1934 to ETFs. The primary benefit of this approach is that it is forward-looking.

It is common in the financial press to discuss earnings growth and perhaps price-to-earnings ratios for well-known indices such as the S&P500. One can do those calculations because the composition of the index is made public. Similarly, because ETF holdings are transparent, it is possible to calculate those figures for any equity exchange traded fund.

There is no reason to stop at earnings and P/E multiples. In fact, most of the questions an investor would have when investigating a single stock can—and should—be answered when investigating an ETF. These questions might include:

- What are expectations for sales and EPS growth?
- What rates of profitability (margins, return on equity, etc.) have these firms achieved historically and how does that compare to current forecasts?
- How are estimates changing along with economic conditions?
- What's happening on the balance sheet?
- How is it being valued by the market, both in absolute terms and relative to other investments?

The result of answering these questions allows investors to view and value ETFs in a very familiar way—in much the same way they might evaluate a single stock. This also addresses a number of the shortcomings of the other approaches to ETF analysis (Table 2). Primary among them is that asking and answering questions about expectations and how they are changing is inherently more informative about the future than simply looking at past performance as the MF approach does.



Graham & Dodd, 1934

The primary benefit of the fundamental approach is that it is forward-looking

¹ Graham, Benjamin and Dodd, David. *Security Analysis*, McGraw-Hill, 1934

Table 2: FA approach to ETFs addresses some of the shortcomings of other methods

Advantage	Explanation
Forward looking	Evaluates funds based on forward-looking measures of investment merit, not just past performance
Timely	Keeps advisors on top of changing market conditions and expectations since relevant data is always up-to-date
Objective & familiar	The traditional, time-tested tools of security analysis are applied to ETFs. Advisors use the results of these calculations, not opinions.
Strategy-agnostic	Allows advisors to find ETFs that fit the desired investment strategy—be it "deep value," "earnings momentum" or "GARP," etc.—however they define it.
Leading-edge	Can be applied to new listings, providing a broader universe from which to select well-researched ideas.

Rating an ETF

Summarizing any security into a single number, phrase, or icon (“strong buy” or “five stars”) is somewhat of an exercise in futility. There are simply too many factors of indeterminate importance, and there’s little proof that highly-rated securities consistently outperform poorly rated ones. Celebrity analysts and “hot” buy lists typically don’t stay that way for long.

Nonetheless, ratings continue to be an important part of investment research, used by some as a screening criterion, by others as a reality check on their own conclusions, and altogether ignored by others.

Whatever they’re worth, what should a rating *rate*? The rhetorical answer is that it should tell you if a security represents a good investment. But that’s too broad to be of much use: a good investment for whom, under what scenario? Like the active fund manager, a rating doesn’t know the end client. Only the advisor’s informed judgment can make that decision.

In reality, ratings are limited to describing how a security ranks overall with respect to the analytical approach taken. Under the MF approach, which focuses on past returns, the rating tells us if the fund *was* a good investment (usually relative to how other funds performed). Similarly, the TM approach rates the fund’s effectiveness as a trading vehicle.

So it follows that since the purpose of fundamental analysis is to evaluate a security's investment potential, a rating consistent with the FA approach needs to convey an impression of an ETF's overall investment merit. We created the ALTAR Score™ for this purpose.

Short for AltaVista Long Term Annual Return forecast, it relates profitability of firms in the ETF to the stocks' valuations. Specifically, it compares return on equity to price-to-book value, two metrics directly related by financial theory (discussed in more detail in Appendix A). The formula is:

ALTAR Score™ Formula

$$ROE_{avg} \div \frac{P}{BV_{FY1}} - fees$$

where ROE_{avg} is the average Return on Equity over the course of the business cycle and P/BV is the price-to-book value multiple for the current forecast year ("FY1"). Finally, we subtract fund fees, which diminish returns realized by investors but are not typically a big driver of results.

The aim of this approach is to provide an estimate of returns from an owner's perspective. In other words, if an investor had enough money to buy these businesses outright and operate them for his own benefit, what sort of rate of return could he expect? Expressed as a percentage—higher being better—this is an *internal* rate of return, with no forecast of how the market may value these securities in the future.

While there are many other profitability and valuation metrics that can be considered by the advisor, as a fundamental rating it offers several advantages over "snapshot" metrics such as a price-to-earnings ratio since it facilitates comparisons across industries and in different stages of the economic cycle, and relates growth and profitability to valuations.

This is helpful because while an investor might make an informed judgment that a Tech stock "deserves" a higher P/E than a bank stock, when extended to broader indices—especially unfamiliar ones—this judgment becomes far less intuitive.

Advantages vs. other rating methodologies

Beyond the difference in what it measures, the ALTAR Score™ addresses some of the short-comings inherent in other approaches to ratings, and in particular the MF approach. Both would seem to be critical to the advisor's role of acting portfolio manager on behalf of clients.

Dynamic asset allocation

As we have seen, because the MF rating tells investors if a fund *was* a good investment, it suggests increasing allocation to areas that have already risen substantially, guaranteeing a “buy high, sell low” bias. In contrast, the ALTAR Score™ tends to dynamically allocate assets away from areas that may be overheated and into areas that may be undervalued, because as prices rise, the ALTAR Score™ will fall unless there is an offsetting increase in long-term profitability of the underlying firms.

Intrinsic measurement

Additionally, the ALTAR Score™ has the benefit of being an intrinsic measure; its value for one ETF is independent of other funds that the rating firm places in the same peer group (always a contentious issue). As a result, it facilitates comparisons not only between funds in the same category but across categories. For example, advisors can determine not only which are the most attractive funds within the large cap and small cap categories, but also whether large caps in general appear more attractive than small caps.

An illustration

Consider again the problem of choosing an emerging market ETF from the dozens available. Assets of over \$50 billion² suggest that the iShares MSCI Emerging Markets fund (EEM) is the default choice of many investors/advisors.

But is that really the best fund for a particular investor? What about the lesser known SPDR S&P Emerging Markets ETF (GMM)? Or perhaps the fundamentally-weighted WisdomTree Emerging Markets Equity Income fund (DEM)?

When DEM was new in July 2007 and had no trading history and therefore no rating under the MF approach, Fundamental Analysis was able to give advisors clear insights into the differences between it and EEM.

²As of November 8, 2010

Beyond important differences in sector and geographic allocation, the Fundamental Approach showed that firms in DEM had higher and more consistent levels of profitability (Figure 4) over the course of the business cycle yet the stocks traded at discount valuation multiples. As a result, DEM had a higher ALTAR Score™ of 10.8% compared with 8.9% for EEM.

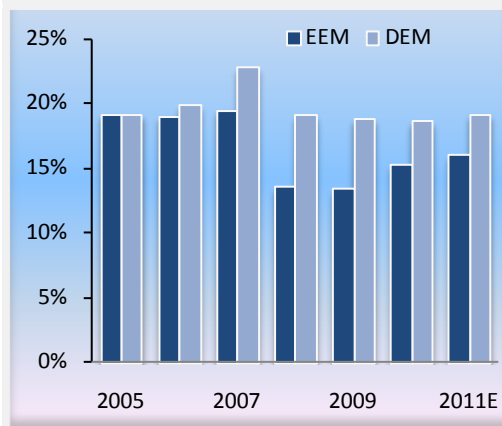
Further, while at the time many investment strategists insisted that the rest of the world's economies would "decouple" from the U.S., FA showed estimates for emerging markets firms trending lower.

Having this information, the advisor might well have decided to buck the popular choice and select DEM instead, which from this analysis appeared to be a more defensive, value-oriented option. They would have been richly rewarded for doing so: since then DEM has returned 28.4% while EEM has only gained 6.7% (Figure 5).

Of course there is *a lot* more fundamental data available on which to base such decisions, and fundamental analysis is rarely clear cut, typically involving trade-offs of one sort or another. But at a minimum this allows advisors to make more informed judgments about the suitability of both well-known and relatively obscure ETFs for particular clients, thereby broadening the opportunities available and increasing the value an advisor brings to the table.

Figure 4: Return on Equity

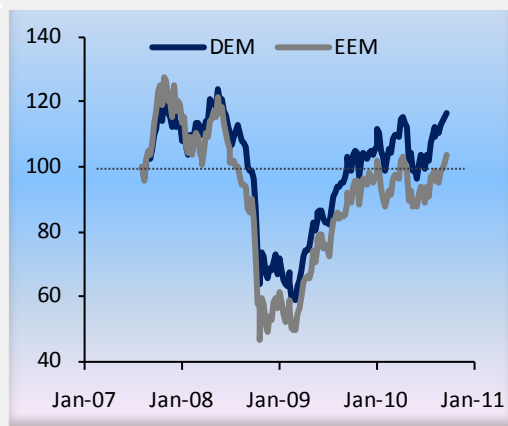
EEM vs. DEM, 2005-2011E



Source: AltaVista Research

Figure 5: Relative performance

EEM vs. DEM, July 2007-Sept. 2010



Source: Bloomberg



Building ETF portfolios

Combining multiple securities into a disciplined, strategic portfolio is both art and science. This is where advisors have the most opportunity to add value using ETFs, since again advisors are in the unique position of having a complete view of the client's portfolio.

Modern Portfolio Theory

Unfortunately, many of the portfolio building tools available are based on the mutual fund approach to ETF analysis, and as a result suffer from the same basic deficiency of relying on past prices. In a nutshell, they “optimize” a portfolio to produce the greatest returns for a given amount of risk based on the historical relationship between the price movements of various securities.

Such models are only as good as they data on which they rely

This is known as “Modern Portfolio Theory,” based on the assumption that markets are perfectly efficient. As readers are likely aware, MPT has taken some hits in recent years as it misled investors into believing that housing prices could never fall—because for over 100 years they never had—or that in any case other assets would be unaffected because up until that point they hadn't been highly correlated. Until one day they were.

Although the academic debate will no doubt continue, what is undeniable is that such models are only as good as they data on which they rely. In the case of ETFs that data is often very limited, providing far less history on which to base an

analysis. Because returns, volatility and covariance between securities all change over time, portfolio optimizing software often produces wildly different recommendations depending on length of history examined, periodicity and weighting given to more recent observations.

This isn't to say advisors should ignore history or the purpose of MPT, which is to diversify away unnecessary risk. Rather, on a practical basis these tools have diminished usefulness when applied to ETFs due to their limited history.

The Fundamental 'Big Picture'

So how does an advisor build a competitive advantage using ETFs? By leveraging the additional information that the FA approach provides to build and monitor a custom portfolio designed specifically for a particular client's investment strategy.

Most advisors have a strategic asset allocation plan for each client, setting a range of possible allocations for each category. Within equities, a simple plan might call for 40-60% U.S. stocks, including 0-20% in small-caps; and 40-60% in foreign stocks, including 0-20% in emerging markets. It may also specify allocations for sectors.

However the tactical decision as to exactly what portion of assets to allocate to small caps comes down not only to one's view of small caps in general (such as might be provided by a portfolio strategist's report) but also to the particular fund(s) that can represent this part of the portfolio. Each option would impact the portfolio differently, not only in terms of the obvious sector and geographic allocations, but also in terms of investment merit: even such well known ETFs as the iShares S&P Small Cap 600 (IJR) and Russell 2000 (IWM) funds are dramatically different in terms of the profitability and valuations of the underlying securities. Therefore, these tactical decisions should not be made in isolation.

Fortunately, the fundamental data points for a given fund can be aggregated up to the portfolio level in the same way we aggregated single-stock fundamentals up to the fund level. Doing so can provide a clear and up-to-date picture of the portfolio overall and therefore better information with which to manage it for clients.

Illustration: global equity portfolio

A sample portfolio is the most effective way to illustrate the benefits. Below describes the construction of a global equity portfolio with a *relative value* strategy—i.e., with superior fundamentals and/or more attractive valuations than the benchmark.

Using the Portfolio Builder tool³ an investor can assemble between 6-12 ETFs that have the desired relative value characteristics. The process involves some trial and error to see how funds which appear attractive as singular investments affect the whole. One is able to quickly see the exact geographic and sector allocations for the portfolio as a whole and how these compare to the benchmark, in this case the FTSE All-World Stock Index. This alone gives advisors a much better picture than is possible with a portfolio of actively managed mutual funds (Figure 6).

Figure 6: Portfolio Builder screenshot



Source: ETF Research Center

But more significantly, the advisor could determine that the assembled portfolio is comprised of firms that are more profitable over the course of the business cycle—measured both in terms of Return on Equity (Figure 7) and Net Margins (Figure 8)—and that these firms had delivered faster compound sales and book value growth, similar dividend growth but slightly worse earnings growth (as result of profitability having declined from higher levels to their current depressed levels).

Yet at the same time the investor can see that despite these better fundamentals, in aggregate the stocks in this portfolio trade at slightly more attractive valuation multiples than do stocks in the

benchmark, whether one examines the price-to-earnings ratio, price-to-book value, or dividend yield—either trailing or forecast multiples. Price-to-sales ratios were equal (Table 3).

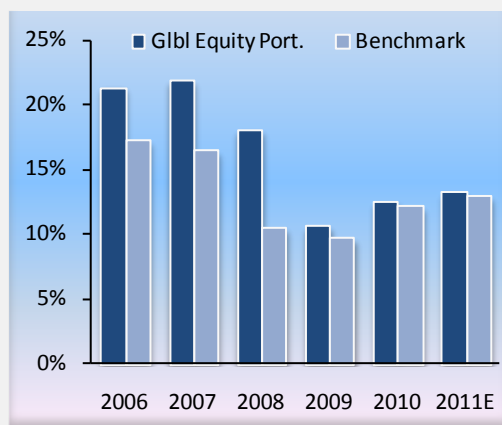
³ Part of the ETF Research Center (see page 22 for details)

In this way, an investor is able to select funds for a diversified portfolio with very specific characteristics. Advisors will no doubt want to design different portfolios for different clients: “earnings momentum” may be desirable for some clients while “deep value” is recommended for others. Still others may want a “safe income.”

Those strategies are defined differently by different investors. But the point is that whatever the strategy and however it is defined, the Fundamental Approach allows the advisor to build and monitor an ETF portfolio that is constituent with that strategy in a disciplined and methodical fashion.

Figure 7: Return on Equity

Model portfolio vs. benchmark, 2006-2011E



Source (Figures 3 & 4): www.etfresearchcenter.com

Figure 8: Net Margins

Model portfolio vs. benchmark, 2006-2011E

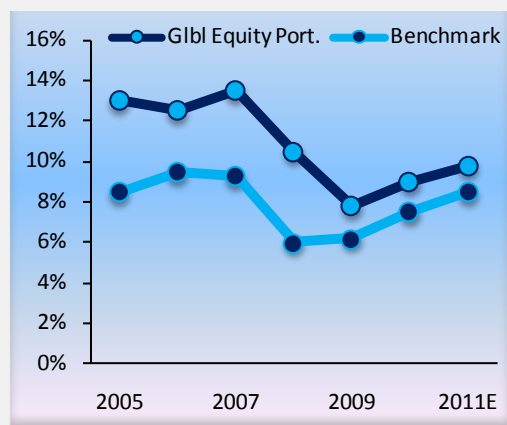


Table 3: Valuation comparison

	2009	2010E	2011E
Price-to-earnings (x)	15.6	11.9	10.4
	18.9	13.2	11.4
Price-to-sales (x)	1.2	1.0	1.0
	1.2	1.0	0.9
Price-to-book value (x)	1.5	1.4	1.3
	1.7	1.5	1.4
Yield (gross, %)	3.0	3.1	3.4
	2.4	2.6	3.0

Note: **Portfolio values in bold**; benchmark values in normal typeface.

Source: www.etfresearchcenter.com



Putting it in practice

Adding value for clients

Indexing has grown rapidly as a piece of the investing pie. Many advisors have embraced index investments like ETFs to one degree or another, but many also see them as a threat, or simply aren't sure how to best use them to add value for clients.

Advisors can add tremendous value by simply having tighter control over clients' asset allocation. The central drawback to managed funds is that investors (and their advisors) don't really know what they own, forcing them to outsource asset allocation to a degree. ETFs solve this dilemma thanks to their transparency, but their prudent selection and monitoring is both different and more involved than with managed funds.

Again, advisors are in a unique position to fill this role, further increasing their importance in the process of financial planning and hopefully cementing a stronger relationship with the client. There is a lot of information and analysis available on ETFs, but much of it is ill-suited to assist advisors in this regard. However, a fundamentally-driven approach can fill many of these gaps.

Fundamental Analysis provides advisors with a more complete picture and therefore allows advisors to better build and monitor ETF portfolios tailored to the individual needs of each client. Even for very basic tactical asset allocation decisions the FA approach can help identify opportunities:

- Are foreign equities relatively cheap versus a domestic (for example)?
- Enough to justify overweighting the category versus its strategic allocation?
- What if I use index B instead of index A?

The more granular the advisor wishes to be in identifying opportunities in relatively unknown indices, the more valuable this information likely becomes. In short, the reasons investors consider fundamental analysis in selecting single stocks are the same reasons they should consider it for ETFs.

Adopting ETFs for widespread use in clients' portfolios allows for clear and precise control over asset allocation—a critical advantage over actively managed mutual funds. But by using fundamental tools to evaluate ETFs advisors can do far more, providing clients:

- ✔ Forward-looking, unbiased due diligence on potential ETF investments
- ✔ Fund selection tailored for any investment strategy
- ✔ Day-to-day portfolio management to take advantage of changing opportunities
- ✔ Full use of new and relatively unknown indices

ETF Research Center

Hopefully we've made our case on the benefits of fundamental analysis of ETFs in financial planning. Conducting the analysis however is time-consuming, tedious, and expensive, given the thousands of securities in hundreds of ETFs available. Advisors are unlikely to deliver a lot of value for clients doing this number-crunching themselves, but rather by using the results of this analysis to better inform their selection and monitoring of funds for clients.

The ETF Research Center (www.etfresearchcenter.com) is built to provide financial advisors online access to AltaVista's fundamentally-driven ETF research. The purpose is to apply the traditional tools of security analysis to ETFs in a transparent, unbiased manner, and show readers the results. It is up to the advisor—who after all is the only one who knows the end client—to decide what is the best fit. The site includes both free and subscription content.

Table 4: Tools & reports on ETF Research Center

Online tools	Written reports (PDF)
Fund details	ETF Advisor (monthly)
Fund screening	ETF Spotlight (weekly)
Portfolio builder	Sector SPDR Analyzer (monthly)
Hedge finder	Reporting Monitor (earnings season)

Register for the Advisor Directory

Although ETFs can be an empowering tool for investors, assuming the responsibilities of portfolio manager is a full time job. Most individual investors have better things to do, and some of our customers have asked us to recommend advisors.

In an effort to handle these requests in a systematic and transparent way, we are building an ETF Advisor Directory. The database will contain profiles and contact information for advisors who make exchange traded funds a major focus of their practice. An advisor profile can include details on the advisor's services, investment philosophy, and most importantly, how they incorporate ETFs into their practice and any special expertise they can offer.

If you provided your name and email at www.etfresearchcenter.com before downloading this report you will receive an email invitation to register when the database is open, scheduled for late Q1 2011. Otherwise you are encouraged to check the website occasionally for an announcement. The database will be free both for individual investors to search and for advisors to register (they do not need to be subscribers to the ETF Research Center).

Appendix A: ALTAR Score™

Overview

The ALTAR Score™ is AltaVista's rating system for ETFs. Short for AltaVista Long Term Annual Return forecast, it was designed to summarize the findings of our fundamental approach to ETF analysis, and is rooted in financial theory (discussed below) that relates a firm's Return on Equity (ROE) to the stock's price-to-book value multiple (P/BV). The formula is:

ALTAR Score™ Formula

$$ROE_{avg} \div \frac{P}{BV_{FY1}} - fees$$

where ROE_{avg} is the average Return on Equity over the course of the business cycle; P/BV_{FY1} is the price-to-book value multiple for the current forecast year; and $fees$ is the fund's expense ratio. The result is expressed as a percentage, with higher values being better, *ceteris paribus*.

The idea is to provide investors with an estimate of the *internal* rate of return from the owner's perspective. There is no subjective assessment of how the market might value these securities at some point in the future, such as that implied by a "target price."

A simple illustration

Imagine a firm that manufactures widgets. Management is able to achieve a 10% return on owner's equity, on average, over the course of the business cycle. If the company's shares are currently selling for 2X owner's equity, or book value, and as an investor I were to buy the entire company so that the profits accrue to me, then the return I could expect on my investment is about 5% (10% ROE ÷ 2X owner's equity).

Academic foundation

The ALTAR Score™ is based on the relationship between return on equity (ROE) and price-to-book value (P/BV) multiples, established in the financial literature by Wilcox⁴. Table 4 shows how the formula relating ROE and P/BV is derived from algebraic manipulation of the Dividend Discount Model, one of the earliest and most basic approaches to equity valuation.

Table 5: Derivation of P/BV and ROE valuation model

Dividend Discount Model	Substitutions	Rearranged algebraically
$P = \frac{D}{k - g}$	$\begin{aligned} ROE &= EPS \div BV \\ g &= ROE(1 - payout) \end{aligned}$	$\frac{P}{BV} = \frac{ROE - g}{k - g}$

*Note: where D is dividends per share; k is the required rate of return, and g is the growth rate for dividends
Source: AltaVista Research*

The advantages of ROE & P/BV as a model for valuation include its simplicity and versatility, and the fact that it provides an estimate of intrinsic value rather than a subjective measure of what value the security “deserves.” However the model also has limitations as a practical valuation tool in that small errors in estimation of hard-to-forecast terms *k* and *g* result in large changes in outcome (the difference between *k*=0.08 and *k*=0.07 when *g*=0.06 for example is a multiplier on the numerator of 50x versus 100x).

The ALTAR Score™ avoids this by dropping these terms, since the purpose isn’t to derive a precise value for the security but rather to broadly relate *observed* values so that they may be easily compared to help identify areas of potential under- and over-valuation.

The astute observer may notice that the original equation is a geometric relationship between P/BV and ROE, whereas the ALTAR Score™ contemplates a linear relationship. So while the ALTAR Score™ would imply that a firm which earns a 20% ROE should be worth twice the P/BV multiple of a firm that earns a 10% ROE, the original equation would suggest a multiple more than twice as much (for most realistic values for *k* and *g*). As a result, one could argue that the ALTAR Score™ is biased against firms with higher levels of ROE.

⁴ Wilcox, *Financial Analysts Journal*, Jan/Feb 1984; also updated by Wilcox and Philips, *Financial Analysts Journal*, Summer 2005.

While this is true in theory, in practice we've found that, through observations on thousands of equities across all sectors, the line of best fit as determined by regression analysis is typically a geometric equation with very low convexity (that is, a very shallow bend) and in many cases is in fact a linear equation, meaning the degree to which the ALTAR Score™ may be biased against high-multiple (i.e., "growth") equities is small.

Lastly, the model rests on ROE that is constant (which is why we use average ROE to estimate a reasonable value for this). In reality, of course, no firm or industry maintains above-average returns forever, so in the long run a linear relationship may in fact help correct some of the growth bias inherent in the theoretical model.

Appendix B: Resources

ETF Basics

Exchange Traded Funds Manual

by Gary Gastineau

Publisher: Wiley

Comprehensive reference volume for financial professionals, written by a man who was instrumental in their development.

The ETF Book: All You Need to Know About Exchange-Traded Funds

by Richard A. Ferri, CFA

Publisher: Wiley

ETF basics to portfolio management strategies using ETFs

Online tools

ETF Research Center

Online access for financial advisors to AltaVista Research's ETF analysis and tools.

Free and subscription content at www.etfresearchcenter.com.

Publications of Index Universe

www.indexuniverse.com

Provide industry news, columns, research and features about index-based investing and trading.

Journal of Indexes

Academically-oriented "book of record" on index-based investing

Exchange Traded Funds Report (ETFR)

Comprehensive new and analysis of ETFs and the industry

Journal of Index Investing

from Institutional Investor Journals

<http://www.ijournals.com/toc/jii/current>



The online ETF research portal built for financial advisors:



- ✔ Detailed, fundamentally-driven analysis on over 600 equity ETFs
- ✔ Screen funds on important, forward-looking investment criteria
- ✔ Generate trade and investment ideas
- ✔ Build and monitor all-ETF portfolios with the Portfolio Builder tool
- ✔ Keep on top of changing markets with daily updates of critical data

Disclaimer:

Trading in securities is not appropriate for all persons, as the risk of loss is substantial. Speak to your financial advisor to see if it is appropriate for you.

The information and opinions herein are for general information use only and are based on data obtained from recognized statistical services and other sources believed to be reliable. However, such information has not been verified by AltaVista Research, LLC ("AltaVista"), and we do not make any representations as to its accuracy or completeness. AltaVista does not assume any liability for any loss that may result from the reliance by any person upon any information or opinions it provides. Any statements which are non-factual in nature constitute only current opinions, and are subject to change without notice.

Officers and directors of AltaVista (or one of its affiliates) may have positions in securities referred to herein and may sell any security mentioned herein. AltaVista may from time to time, issue reports based on fundamentals, such as expected trends, as well as reports based on technical factors, such as price and volume movements. Since such reports rely upon different criteria, there may be instances when their conclusions are not in concert.

Neither the information contained in this newsletter or on the altavista-research.com website, nor any opinion expressed herein is intended as an offer or solicitation with respect to the purchase or sale of any security or as personalized investment advice.

Copyright © 2011 AltaVista Research, LLC. No part of this newsletter may be reproduced, stored in a retrieval system, used in an electronic word processing program nor a spreadsheet, or transmitted in any form or by any means electronic, mechanical, photocopying, recording, or otherwise without the express prior written consent of AltaVista Research, LLC.

THE PAST PERFORMANCE OF A MUTUAL FUND, STOCK, OR INVESTMENT STRATEGY CANNOT GUARANTEE ITS FUTURE PERFORMANCE. IF YOU HAVE ANY QUESTIONS ABOUT THIS RESEARCH, PLEASE CONTACT YOUR PROFESSIONAL FINANCIAL ADVISOR.