Nate Geraci: The best portfolio is the one your clients stick to

With so many ETFs to choose from, helping clients find the right ones is crucial.

Also: Understanding the growth and acceptance of bond ETFs  Busting two myths about bond ETF liquidity  Designing factor portfolios for your clients
It’s 2019.... Do you know how to select the best ETFs for your clients?

With the popularity of ETFs continuing to soar in 2019—more than $3.5 trillion was invested in almost 2,000 funds¹—we examined a number of important aspects of ETFs. First, we talked to registered investment advisor Nate Geraci, who emphasized the importance of knowing how to pick ETFs that potentially align with clients’ investment objectives from a big sea of choices. Then we took a deep dive into the growing realm of bond ETFs in two separate pieces that help make clear that the age of bond ETFs is here. Finally, we analyzed how advisors should approach portfolio construction in the expanding universe of factor-based investing.

4 Nate Geraci: The best portfolio is the one your clients stick to
Clients may be winners when it comes to declining fund fees, but they still need help picking suitable ETFs.

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Expanding adoption of bond ETFs reflects the fact that advisors grasp that indexing works in fixed income, and that bond ETFs can be a safe and liquid choice.

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ETFs have made significant inroads since Nate Geraci helped launch The ETF Store ten years ago. They have undermined a pricey commission-based approach to money management and have also expedited the ushering in of a new order of low-cost products and an emphasis on asset allocation.

But in a low-cost ETF ecosystem where price differences among competing ETFs are often negligible, advisors must raise their game when choosing appropriate ETFs for their clients, Geraci said. Moreover, he said investment management has become commoditized.

Therefore, the winners of the next generation of advice will be those who are ready to guide clients through all kinds of market cycles and financial challenges and can make sure their clients own the portfolios they will stick with for the long haul.

Nate Geraci
President
The ETF Store, Inc.

A registered investment advisor and ETF educator, Nate Geraci evangelizes about the power of ETFs at his Overland Park, Kansas-based RIA and on the radio show ETF Prime.

Vanguard: Walk me through that moment when you first saw something new and different and full of unexplored potential in ETFs.

Nate Geraci: The real aha moment for me was in late 2007 to early 2008, when I was using ETFs in my own account. I think I started to understand the potential cost advantages of the ETF structure, along with the ability to trade intraday and build a diversified portfolio with them. With all these benefits, it just struck me as extremely compelling, especially in contrast to the old way of doing things. Again, there was a lot of commission-based product still being offered—even in 2007 and 2008. From an innovative standpoint, the ETF struck me as a disruptive technology.

When did the dream of building a diversified all-ETF portfolio become a reality?

NG: I think there was critical mass in 2007–2008. The challenge was that very few people were aware that ETFs existed. If you look at the products going back even to the early 2000s, you had broad-based equity ETFs available, you had broad-based bond ETFs available, and you had a gold product launch in 2004. So by 2007, you had the ability to build a diversified portfolio. Of course, since that time, it’s only become easier. You can slice and dice the market in a million different ways now with ETFs, for better or worse.
What do you think about the ETF education challenge?

NG: It’s a difficult challenge because there’s a lot of noise in the market. There are a lot of different investment products available to individual investors and advisors. It’s not just product proliferation on the ETF side—it’s in the entire investment landscape. One of the things we have done is stayed persistent with ETF education, continuing to inform individual investors and the public on the different products that exist, how to use them in a portfolio, and their potential benefits. I don’t know that we have a magic formula for it; it’s just the consistency and persistency of our message.

Are investors catching on?

NG: We have seen phenomenal growth across the ETF industry, but I think we’re just getting started.

It’s often said that ETFs have democratized investing. I think that’s exactly what ETFs have done. They’ve taken strategies that investors could not have dreamed of accessing even 15 years ago and made them readily available at a very low cost. Investors can construct a portfolio in a multitude of ways. They can also inflict damage on their portfolios in a multitude of ways. And this brings us back to the ETF education piece.

How do you see the future unfolding?

NG: I think we’ll continue to see product innovation, and we’ll continue to see ETFs take market share from other investment vehicles. And the more the public is educated on the potential benefits of ETFs, the more adoption you’re going to see.

Low cost is great, but it isn’t everything, is it?

NG: I like this particular topic. There aren’t too many things that we know for sure in investing. We don’t know what the markets are going to do tomorrow, we don’t know what they’re going to do next year, and we don’t know what’s going to happen with the political landscape or the economic landscape. But when we look into an investment portfolio, we know one thing for sure: Investment costs matter. And we know that lower costs are better than higher costs. So it’s imperative for every investor to pay attention to investment costs.

That said, as fees have continued to come down, they have become less important. What I mean by that is that as ETF fees become a few basis points, and potentially zero at some point in the future, a few basis points difference in cost isn’t

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Growth of ETF assets vs. index mutual funds (in trillions)

Net assets for October of each year

<table>
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<tr>
<th>Year</th>
<th>All ETFs</th>
<th>Index mutual funds</th>
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<tr>
<td>2018</td>
<td>$3.5</td>
<td>$3.4</td>
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</tbody>
</table>

Source: Morningstar Direct.

1 Includes active and passive products.
The best portfolio is the one your clients stick to

Nate Geraci: The best portfolio is the one your clients stick to

Going to matter if an investor has the exposure wrong. We’re now at a point where it’s almost as if investors have won on the fee side, so now the critical area to focus on is due diligence in portfolio construction.

Let’s talk about due diligence.

NG: The most important decisions are asset-class exposures and how you are gaining access to those asset classes. So if you’re not starting there, you’re doing it wrong. But there are other factors to look at such as the liquidity of the ETF. Or how is the ETF taxed? Does it trade commission-free? So cost is just one area to look at in the entire due diligence process.

An advisor’s ETF due diligence checklist

- Is the ETF low cost?
- What is the ETF’s asset-class exposure?
- How does the ETF achieve its exposure?
- Is the ETF highly liquid?
- Is the ETF tax-efficient?
- Does the ETF trade commission-free?

So how do you discuss asset allocation with a prospect or a client?

NG: We take a longer-term view of the markets—we are strategic asset allocators. We believe it’s important to build a globally diversified portfolio of stocks and bonds and potentially include some alternative areas, such as real estate. In terms of our portfolios, we have very conservative all the way to very aggressive. So in our conversations with the client, we’re going to determine the best fit. But it’s my belief that investment management is now, in many ways, commoditized, and if you’re a fiduciary advisor and you’re truly trying to do the right thing for the client, a portfolio should look relatively similar across different advisors.

From there, it gets into investor behavior and how to get investors to stick to their plans. The best portfolio for individual clients is the one they can stick to. If you’re in index-based strategies or in factor-based strategies or in active strategies—whatever the case may be—it’s only going to work if the investor sticks with it. We construct globally diversified portfolios because our experience has been that they provide the best path toward good investor behavior. If you start trying to tinker with the portfolio and get into esoteric asset classes and try to get too cute, then you’re bringing in risk that the investor may not have the wherewithal to stomach over the long term.

Are some advisors unprepared for the future?

NG: First, advisor value propositions are becoming important. There’s been a lot of focus on fund fees and ETF fees. But the spotlight is starting to shift to advisor fees and to what value investment advisors provide.²

Most advisors expect downward pressure on their fees

Financial advisors will experience fee compression in the next five years

- 20% Strongly agree
- 45% Agree
- 24% Neutral
- 9% Disagree
- 2% Strongly disagree


Note: Cerulli Associates collected data in partnership with the Investments & Wealth Institute (formerly IMCA) and The Financial Planning Association. Data represent survey responses from all advisors. The data and analysis cover financial advisors operating across all channels, including wirehouse, national/regional broker/dealer (B/D), independent B/D, hybrid registered investment advisor (RIA), independent RIA, insurance B/D, and retail bank B/D.

For advisors, if all they’re offering is the investment management piece, I think it’s going to be a very difficult environment for them moving forward. Advisors that are not offering full financial planning and not doing all the things on the investment management side—the tax-loss harvesting, the disciplined rebalancing, everything that goes into portfolio management—I think it’s going to be a really difficult slog going forward.

Let’s turn to the active-versus-passive debate. What do you think about the future of active management?

**NG:** I think the active-versus-passive debate is a tired debate. If you look at the past ten years or so, the predominant trend has been from high cost to low cost. It’s not necessarily active to passive. It’s been investors seeking lower costs. And, ultimately, any decision an investor makes about a portfolio is active. You decide what allocation you want to U.S. stocks; you decide what allocation you want to international stocks and to bonds. All of those are active decisions.

That means that even rebalancing is an active decision?

**NG:** Exactly. Everything you do as an investor is ultimately active, and that has to be the starting point when you start talking about this debate.

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### The zero-sum game and the impact of costs

**a. Distribution of investor returns before costs**

- Under-performing dollars
- Out-performing dollars

**b. Distribution of investor returns after costs**

- Under-performing dollars
- Out-performing dollars

Source: Vanguard.

We know from the data that outperforming a market-cap-weighted strategy in a particular asset class is a difficult proposition for active managers. We also know, regarding active management, that costs matter. So the lower the fee hurdle for active managers, the more they’re going to have the opportunity to provide outperformance.

And, again, whether you’re talking market-cap-weighted index strategies, factor-based strategies, or traditional active management, the best strategy for investors is the one they can stick to. So if you’re an investor in a market-cap equity strategy, you’re potentially going to get the returns of the market no matter what, and you have to be comfortable with that.

Another thing I’ll say is, the biggest advantage of the rise of passive investing is that it’s weeding out high cost closet index funds—active managers that are just effectively replicating benchmark indexes and charging a high fee for it. That’s been a huge service to investors.

What else is worth emphasizing when we talk about active?

**NG:** If you’re going to invest in traditional active management and factor-based strategies, you have to have a lot of patience regarding underperformance. There could potentially be long periods of underperformance. You have to give them time to work. If you believe an active manager can
outperform in the long run, you have to give that manager the time. If you believe a value strategy is going to have a premium over time and you want to overweight that factor, you have to believe that will work over the long term. The point here is that it’s a fool’s errand to try to time factors or active managers.

What is your view on factor-based investing?

NG: Value, momentum, quality, low volatility have proved to be academically robust factors, with strong research underpinning each. I think as an investor, if you’re evaluating different factor ETFs, I think you need to think of them in terms of a spectrum. There are ETFs out there that will offer you just a slight tilt toward, say, the value factor, or ETFs that will go all in on the value factor. As an investor, you have to decide how much of a tilt you’re willing to make and—surprise, surprise—it gets back to the pain of what you can stomach in terms of tracking error. What can you stick with? So if you believe in the value factor and you believe it can offer a premium long term, how much tracking error can you stomach to take advantage of it?

I know I sound like a broken record, but the right strategy is the one the investor can stick to.

Note: Nate Geraci is not affiliated with Vanguard, and Vanguard does not make any representation regarding his views.
Understanding the growth and acceptance of bond ETFs

A conversation with Rich Powers, head of Vanguard ETF Product Management, on how and why bond ETFs have come of age.

It seems as though every ETF-related conference or forum nowadays touts the growth of bond ETFs. Is this a real trend, and what’s behind it?

Yes, we can attest to the consistent growth of assets in bond ETFs. Over the last three years, U.S.-listed bond ETF assets have grown from $348 billion to $652 billion (see chart below). And in those 36 months, zero months had negative cash flow. There are now more than 350 bond ETFs, 70% of which follow an index strategy.1 ETFs aren’t just the future of fixed income portfolio construction, they’re a force to be reckoned with today.

What’s driving this growth?

It’s due to three things:

- Investors increasingly are realizing that indexing works just as well in fixed income as in equities—particularly because of its low-cost hurdle in a low-yield environment.

- Also, investors have gotten comfortable with the liquidity of bond ETFs, and new types of institutional investors in bond ETFs have driven growth.

- Finally, investors and advisors often use fixed income ETFs to target particular sections of the fixed income market to target duration and risk.

continued on next page

Growth of U.S.-listed bond ETF assets (in billions)

Source: Morningstar, Inc.

You say investors are becoming comfortable with bond ETF liquidity. Can you explain that a bit more?

It’s no secret that some bonds don’t trade very often, or, sometimes, very cheaply. Long-dated corporate bonds have a liquidity cost score (LCS)\(^2\) of 110 basis points, for instance. Investors aren’t off base in at least asking how an ETF that trades throughout the day can own bonds that simply may not trade. But remember that ETFs are securities that trade on the market themselves. And 80% of the trading in bond ETFs is from one ETF holder to another—the underlying bonds aren’t even touched in those cases. When underlying bonds do need to be bought or sold to facilitate an ETF creation or redemption, most managers of the largest ETFs ask for only a small, fairly liquid, and statistically representative subset of the whole portfolio to be delivered by the authorized participant. So going back to the 110-basis-point LCS for long corporate bonds, we see, on the other hand, that the LCS for Vanguard Long-Term Corporate Bond ETF (VCLT) is a spread of only about 6 basis points.

Is bond indexing much like equity indexing?

Bond indexing is a bit more complicated. As mentioned, some bonds don’t trade frequently. If a benchmark includes a bond that doesn’t trade frequently or is snapped up in its entirety by, say, a pension fund at issuance, you might wonder how an index fund buys its requisite portion to track the index. Bond ETF managers employ a technique called \textit{optimization} to track corporate, mortgage-backed, municipal and international bond benchmarks (and, to a degree, even U.S. government benchmarks).

To optimize, portfolio managers first identify the exposures in a benchmark that really drive performance. This would include the benchmark’s duration, maturity bucket exposure, credit-quality bucket exposure, and issuer and sector exposures. They then build a portfolio that has exactly the same weights to those exposures, even if it includes fewer bonds. They’re seeking to have a portfolio that matches each of those risk-driver weights—not only in the absolute, but also in a matrix format. For instance, we’d want the portfolio weight of communication services sector bonds that are A-rated and in the 10- to 12-year maturity range to match the benchmark’s corresponding weight.

Investment process: Sampling vs. full replication

We strike the right balance between tracking error and the cost of investing.

\footnotesize

2 Liquidity cost score is a bond-level liquidity measure that is defined as the cost of a standard, institutional-size, round-trip transaction, comparable to a bid-ask spread for the underlying bonds.
How do managers decide which specific bonds to pick?

Well, let’s run with that previous example. Say the portfolio manager needs to maintain a hypothetical 1.5% weight in A+-rated, ten-year, communication services sector exposure. That manager could then fill that bucket with a bond issue from either Company A or Company B, even if both issues are in the benchmark. It’d be reasonable to expect that either issue would provide similar risk and return. But if Company B were trading too rich because of illiquidity, our traders could select the Company A issue instead. So we value our traders’ input. Additionally, credit analysts may have an opinion on the long-term outlook for an issuer. For example, if their view were that Company B’s issue had a greater likelihood of performing differently from the benchmark, we would pick Company A to fill the slot.

All else being equal, we want to hold all the issues in the same weights as the benchmark. But that’s just not possible in much of the bond market. So understanding a team’s expertise in applying the techniques we’ve just reviewed is important. Tight tracking is still achievable, but a lot goes into it.

This is another example of how much human expertise and experience goes into indexing. Indexing at Vanguard is sophisticated. It is anything but turning on the computers and letting them run. We understand how to do it because we’ve been doing it since the company started more than 40 years ago.

Are there any other considerations that advisors should keep in mind when picking among bond ETFs?

We always encourage advisors to start by thinking about what the right exposure for the portfolio is—be it short-term versus long-term duration or government versus corporate versus broad aggregate, for instance. Then the advisor should zero in on the ETFs that best provide that exposure.

“[Indexing] is anything but turning on the computers and letting them run. We understand how to do it because we’ve been doing it since the company started more than 40 years ago.”

Rich Powers

Tips for choosing the right bond ETF

- Determine the desired exposure.
- Determine the way to obtain that exposure.
- Is there a low-cost alternative?
- Is the ETF’s liquidity sufficient?
- What is the ETF’s tracking error?

It certainly seems that while bond ETF investing is growing and important, there’s more than meets the eye.

That’s exactly right. Advisors should keep the simple facts in mind: Bond ETFs offer the opportunity for low-cost, liquid, and predictable exposure. There’s homework to be done, but the outcome can be well worth it.
Over the past decade, issuers have introduced more than 300 bond ETFs, and assets under management have grown to more than $650 billion across the industry. Growth has accelerated since the first bond ETFs came to market 16 years ago. The reasons for this growth are clear, but doubts about bond ETFs persist among some investors who worry that when markets turn volatile, the liquidity of bond ETFs will drop, making trading potentially perilous. Such fears are off the mark.

The two layers of liquidity inherent in ETFs—the secondary market on the exchange and the primary market, where shares are created and redeemed with the issuer—help insulate bond ETFs from their less liquid underlying constituents. Because about 80% of the trades occur in the secondary market, fixed income ETFs expose investors to a broad and diverse set of bonds with much tighter bid-ask spreads than if they traded the same bonds individually.

With the popularity of bond ETFs growing, it may be time to understand thoroughly how bond ETFs remain highly tradable—even in roiled markets.

Doubts about bond ETFs persist among some investors who worry that when markets turn volatile, the liquidity of bond ETFs will drop ... Such fears are off the mark.

Adam DeSanctis
Analyst, Vanguard U.S. ETF Capital Markets Team

But this doesn’t eliminate concerns that many investors have regarding bond ETFs. What if the liquidity of the ETF isn’t there? And if liquidity dries up, what happens to your investor’s assets? Those are valid concerns. We’ll examine a few myths and realities about how bond ETFs trade and apply the results of our analysis to help set future expectations.

Understanding bond markets

One of the major differences between equity and fixed income ETFs and their underlying portfolios is the marketplaces where they trade.

Equities trade on exchanges and are governed by regulations that require interexchange routing procedures—all of which give investors the best possible prices across venues. This creates a reasonably centralized marketplace where investors can benefit from pooled liquidity. Because of this centralization, it’s quite easy to execute trades of multiple securities at once.

Trading fixed income securities, and corporate bonds in particular, is quite different from trading equities. For example, corporate bonds trade via a fragmented dealer network, with multiple dealers offering separate pools of liquidity that investors must evaluate.

This means that the bond market is less transparent than the equities marketplace and that it can be difficult to know the true price of a bond. It also adds operational complexity, making it more challenging to trade a portfolio’s securities in a single execution.

In these nuances reside some misunderstandings, so let’s turn our attention to debunking a few bond ETF myths.

Insights from the U.S. ETF Capital Markets Desk

As we explore two bond ETF trading myths and realities on the following page, remember that while individual bonds trade in diffuse, noncentralized markets, fixed income ETFs are listed on exchanges, bringing all those far-flung bonds together in exchange-traded packages.

This makes most bond ETFs more liquid than the securities they hold, even in turbulent markets. The liquidity effect of bond ETFs can actually make the ETFs themselves price-discovery mechanisms at times when underlying markets in individual bonds may be roiled and illiquid.

The point is that concerns among some investors that bond ETFs can be very difficult to trade in volatile scenarios are a bit off the mark, as our debunking of myths on the following page seeks to demonstrate.

We hope this discussion and the charts on the following pages help alleviate some concerns around trading fixed income ETFs.

But as always, please reach out to the Vanguard U.S. ETF Capital Markets Team if you would like to discuss anything about ETFs at 484-618-3837.

continued on next page
Debunking bond ETF myths

Myth no. 1
Bond ETF investors won’t be able to find liquidity during market sell-offs.

Reality
Bond ETF trading tends to surge during volatile market periods.

As the figure below shows, trading volume on exchanges for many fixed income ETFs tends to increase during periods of volatility.

The takeaway is that investors who need to buy or sell a fixed income ETF during a turbulent episode find a deeper secondary market than usual—a clear positive.

To put that in perspective, if investors wanted to gain access to a broad portfolio of individual bonds, they would need to find a counterparty to trade each bond, which would be almost impossible and expensive in a volatile market.

With an ETF, liquidity is channeled into one location that easily matches investors that might not meet otherwise. Moreover, as we noted earlier, more than 80% of bond ETF trades occur in the secondary market, which essentially means that when a bond ETF changes hands, the underlying bonds themselves are not trading.

Investors tend to use bond ETFs for liquidity during times of market volatility
Aggregate daily trading volume across all U.S.-listed bond ETFs

Source: Vanguard calculations, based on data from Bloomberg.
Notes: Volume in the secondary market is defined as the aggregate amount traded across all U.S.-listed bond ETFs. The chart includes data from January 3, 2013, through October 31, 2018.
Myth no. 2

Bond ETFs trade with wider bid-ask spreads during market sell-offs.

Reality

Spreads hold up well during market sell-offs and are still narrower than when trading individual bonds directly.

ETF investors benefit from the ability to trade bond portfolios in the equity market ecosystem without incurring the costs of trading the underlying bonds. This helps fixed income investors to avoid transaction costs, and the savings can be substantial.

As we illustrate in the figure below, even on days with the most extreme market movements, the volume-weighted average bid-ask spread of corporate ETF trade is as low as a few basis points. That’s well below the transaction costs that would be incurred by buying and selling a complete bond portfolio.

Investors who remain leery can protect themselves from wider bid-ask spreads by using limit orders (for a discussion of limit orders, see the spring 2018 issue of ETF Perspectives). Limit orders enable them to set the price at which they are willing to buy or sell an ETF, essentially taking the risk of mispricing off the table.

**Transaction costs associated with trading fixed income ETFs remain stable and cheaper than those associated with trading bonds directly**

Average daily corporate ETF bid-ask spreads vs. underlying bond bid-ask spreads

Source: Vanguard calculations, based on data from Bloomberg and Barclays Point.

Notes: ETF spreads are measured as the volume-weighted bid-ask spread across all corporate ETFs. Barclays LCS, is used as the proxy for bond market bid-ask spreads. The performance of the Bloomberg Barclays U.S. Credit Corporate 5–10 Year Total Return Index was used to identify the largest single-day market moves and underlying bond bid-ask spreads. Data include observations between January 3, 2017, and October 31, 2018, from the zero to 99th percentile and exclude holidays.
I always tell everyone there is no optimal portfolio for every client and/or every practice, since the optimal portfolio is fully dependent on the goals and objectives of each client and each practice, and that's true for factor-based investing as well.

Advisors have definitely begun adopting our factor funds, and plenty more want to know how to implement thoughtful factor-based exposure. That can be a hard question to answer in more ways than one. But Vanguard, as a partner and advocate for the advisory community, stands committed to producing research, tools, and strategies to help answer such challenging implementation questions.

For example, you could assemble the same factor-focused portfolio in countless ways, ranging from traditional bottom-up active management to a size and style “nine-box” approach to using next generation products such as our highly targeted, low-cost active factor ETFs. Also, different clients and advisory practices may want different factor exposures, which would render as many factor portfolios as there are client preferences.

At Vanguard, we have a suite of products that includes market-cap-weighted index strategies, traditional bottom-up active funds, size and style funds that employ factor tilts inside of an overall cap-weighted approach, and actively managed factor-based ETFs that dispense with cap weighting. Again, the right choice depends on client and/or advisory practice objectives, as well as the client’s willingness to accept risks.

Embarking on a factors-finding mission

When you’re trying to figure out what factor exposure makes sense for your clients, you have to:

1) Start with asset allocation.

2) Then determine what level, if any, of active exposure makes sense for their long-term plans.

Let’s say you set out to assemble a hypothetical 60% stocks/40% bonds broad-market global portfolio for a client who is looking for outperformance. Given the outperformance objective, you have to determine the appropriate active approach. Are you going to use bottom-up fundamental managers, or are you interested in a factor-based investment?1

1 Vanguard considers any deviation from broad-market, market-cap-weighted indexing to be active management—even non-cap-weighted strategies in rules-based indexes.
Let’s also say that you wanted about a third of your client’s equity allocation to be active and that you decided you would obtain the active exposure using factor ETFs.

To keep your client’s portfolio well diversified, you decide to devote 40% of the equity allocation to international stocks. You then divide the 60% of the U.S. equity allocation in half, investing 30 percentage points in a total market index strategy and the other 30 percentage points in a factor-based ETF.

Determining the allocation is all about aligning with your client’s objectives and, more important, understanding what the client can stick to during all market cycles. It also is highly dependent on your beliefs as the advisor, along with your preferences and the value proposition of your practice.

**Mustering single-factor fortitude**

While factor investing has existed at least since Benjamin Graham and David Dodd published their classic book in 1934, *Security analysis*, it was largely limited to market-cap-weighted design or traditional pure style managers. But factor-based investing now has become much more targeted and explicit given the launch of active factor ETFs.

Our factor ETFs are untethered from the market-cap weighting of earlier factor funds, and their expense ratios are about a third of the expense ratio of the average manager of a traditional bottom-up active fund. Also, the level of factor exposure is especially

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**Hypothetical equity allocation to factor ETF**

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Equity allocation
- 24% international stocks
- 18% total market index strategy
- 18% factor-based ETF

Bond allocation
- 40% bonds
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3 Vanguard calculations using data from Morningstar as of December 31, 2017.
important to an understanding of how our single-factor ETFs can potentially enhance returns or dampen volatility, depending on the choice and client goals.

From a behavioral coaching standpoint, you have to make sure that your clients understand that the tracking error of these factor funds is much larger than that of a market-cap-weighted factor fund. In other words, their returns can look very different from a total-market cap-weighted index fund because the weighting of securities differs from that of cap-weighted funds in ways that increase the degree of factor exposure.

That tracking error also means that investors who believe in factors must be extremely patient. If one believes in the factor he or she is investing in, the greater the degree of exposure to that factor provides the highest capture of the factor. That represents an improvement because of the more pure exposure to the factor.

Understanding the smoother multifactor ride

If your clients or your practice does not have a strong conviction in an individual or select few factors you wish to overweight, a multifactor fund is a great place to start. The Vanguard strategy seeks to provide long-term capital appreciation by investing in U.S. stocks that target three factors, value, momentum, and quality, after an initial volatility screen. Such a strategy offers potential diversification benefits that can help reduce the active risk associated with exposure to a single factor.

Harnessing high-octane exposure with single factors

But for those who believe that now’s the time for, say, momentum or value, our single-factor ETFs are about a third less costly than a bottom-up active approach and are designed to deliver much more concentrated factor exposure than a market-cap-weighted style factor fund from the size and style universe.

We designed our factor ETFs to provide strong and consistent factor exposure that investors can get in a transparent, broadly diversified, and long-only solution. Our active implementation, which includes reviewing portfolios daily and rebalancing them when necessary, helps maximize their factor concentrations.

Active equity factor implementation can maintain more consistent exposure

Active implementation leads to more consistent factor exposure

Indexed implementation leads to factor decay, which is only eliminated periodically

Source: Vanguard.

Notes: Figure is hypothetical and stylized and is for purposes of illustration only. Factor-weighted indexes, by design, require more trading than market-cap-weighted indexes, increasing the risk of front-running. For more about factor index front-running, see Joop Huij and Georgi Kyosev, 2016. Price response to factor index additions and deletions. Available at papers.ssrn.com/abstract=2846982.

That might mean that a client who had, say, half of his or her equity allocation in a style-box value fund could potentially get the same level of value exposure with a smaller position in our value factor-based ETF. Again, that’s because with our factor-based ETF, the client would get a more targeted exposure to factors without the diluting effect of market-cap-weighting methodology.

Assessing the future of factor ETFs

In assessing the future of factor-based investing, it’s important to remember that there are still substantial assets invested in higher-cost active funds that happen to carry a lot of factor exposure.

Given that we’ve been in one of the longest bull markets in history, many advisors and investors are stuck with large capital gains in these high-cost funds. We believe that if the market falls and the cost basis of some of these high-cost active funds falls below their market value, factor funds will represent great value and opportunity for advisors.

Advisors could potentially replace these higher-cost active funds with factor ETFs, which are about a third of the cost, while not incurring any capital gains.³ The chart above shows the differences between average Vanguard expense ratios and average industry expense ratios for different strategies, including traditional actively managed mutual funds.

In other words, we believe that many of the highest-cost active funds of today are most likely not going to be around 20 years from now.

In this context, we believe our factor ETFs are innovative and disruptive in that they may be less expensive and more targeted versions of high-cost active. As you take measure of how to achieve targeted factor exposures in client portfolios, our ETFs loom as vehicles that can potentially deliver a whole variety of exposures in a high-octane, low-cost, and tradable ETF wrapper.

For more information about Vanguard Factor ETFs, please check out our Factor Center by visiting advisors.vanguard.com and clicking Resources on the navigation bar.
Connect with Vanguard® > advisors.vanguard.com

For more information about Vanguard funds or Vanguard ETFs, visit advisors.vanguard.com or call 800-997-2798 to obtain a prospectus or, if available, a summary prospectus. Investment objectives, risks, charges, expenses, and other important information are contained in the prospectus; read and consider it carefully before investing.

Vanguard ETF Shares are not redeemable with the issuing Fund other than in very large aggregations worth millions of dollars. Instead, investors must buy and sell Vanguard ETF Shares in the secondary market and hold those shares in a brokerage account. In doing so, the investor may incur brokerage commissions and may pay more than net asset value when buying and receive less than net asset value when selling.

Diversification does not ensure a profit or protect against a loss.

Please remember that all investments involve some risk. Be aware that fluctuations in the financial markets and other factors may cause declines in the value of your account. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income.

Investments in stocks or bonds issued by non-U.S. companies are subject to risks including country/regional risk and currency risk.

Funds that concentrate on a relatively narrow market sector face the risk of higher share-price volatility.

Factor funds are subject to investment style risk, which is the chance that returns from the types of stocks in which the fund invests will trail returns from the stock market. Factor funds are subject to manager risk, which is the chance that poor security selection will cause the fund to underperform relevant benchmarks or other funds with a similar investment objective.

Tax-loss harvesting involves certain risks, including, among others, the risk that the new investment could perform worse than the original investment, and that transaction costs could offset the tax benefit. There may also be unintended tax implications. We recommend that you consult a tax advisor before taking action.

Bond funds are subject to interest rate risk, which is the chance bond prices overall will decline because of rising interest rates, and credit risk, which is the chance a bond issuer will fail to pay interest and principal in a timely manner or that negative perceptions of the issuer’s ability to make such payments will cause the price of that bond to decline.