
Morningstar's Guide to US Active ETFs

Observation and analysis of key active ETF trends.

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Executive Summary

Exchange-traded funds used to be synonymous with passive investing. At the start of 2019, actively managed ETFs represented just over 2% of the US ETF market. Since then, organic growth for the active ETF market has consistently exceeded 20% per year, pushing actively managed ETFs' share of the ETF market to 8.5% at the end of March 2024. Meanwhile, actively managed mutual funds racked up significant outflows.

A few catalysts drove the rapid growth of active ETFs: 1) The SEC passed the "ETF Rule" in 2019, streamlining the ETF listing process and giving portfolio managers more flexibility when creating and redeeming ETF shares, 2) investors and their advisors have increasingly sought out low-cost funds, 3) portfolio managers have accepted greater portfolio transparency, and 4) traditional mutual fund providers began to convert existing mutual funds into ETFs.

Traditional mutual fund companies began launching ETFs as the headwinds grew stronger for active mutual funds. But pivoting to ETFs does not assure asset growth. Some asset managers have found salvation in the ETF market, and they have quickly risen through the ranks of the largest active ETF issuers. Others have failed to translate the success of their mutual fund franchise to the ETF market.

Asset managers aren't the only ones that should pay attention to the evolution of actively managed ETFs. For better or worse, investors should understand the nuances that ETFs introduce to actively managed portfolios. Capacity risks and wide bid-ask spreads can derail otherwise solid strategies.

Our research imparts a few lessons on how investors can find success with active ETFs. We provide an overview of the active ETF market, discuss the benefits and drawbacks of the ETF structure, compare different approaches taken by active managers, and break down trends and offerings by asset class.

Key Takeaways

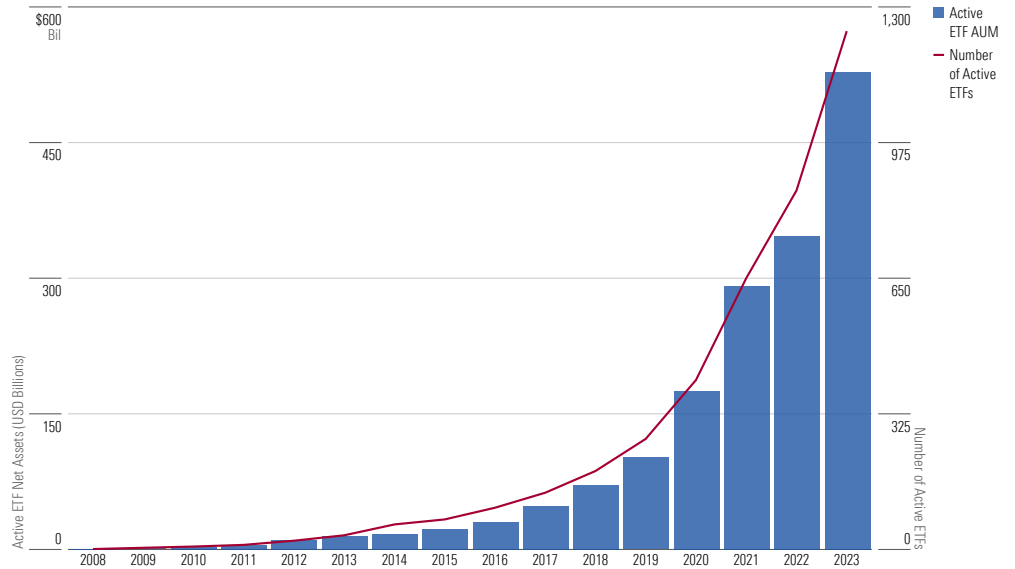
- ▶ Active ETFs have exploded in number and assets in recent years, but they still represent a small slice of the ETF market (8.5%) and active fund market (4%).
- ▶ ETFs could offer a lifeline for active managers. Active ETF assets are expanding, while active mutual fund assets are contracting.
- ▶ The ETF wrapper can be beneficial or harmful, depending on the investment strategy.
- ▶ Unlike mutual funds, ETFs can't close to new investors when they get too big. Strategy capacity is critical in the ETF structure. Our analysts recommend focusing on ETFs that hold liquid securities and reasonably diversified portfolios to avoid capacity risk.
- ▶ ETFs present a growth opportunity for active managers, but assets have mostly funneled to a few issuers, like Dimensional, and funds, like JPMorgan Equity Premium Income ETF.
- ▶ ETF investors love low fees. About half of active ETF assets fall in the cheapest quintile, while over 75% of assets sit in the cheapest two quintiles.
- ▶ For similar strategies, active ETFs tend to be priced near institutional share class levels. Most investors will find a lower fee in an ETF than a mutual fund with a comparable strategy.
- ▶ The average active ETF has similar category-relative active risk as active mutual funds. But ETF strategies with below-average active risk hold a greater proportion of assets than in mutual funds.
- ▶ Asset managers can approach ETFs in a few ways, including launching a new strategy, copying an existing mutual fund strategy, or converting a mutual fund into an ETF. Several pending filings for ETF share classes await a decision from the SEC, although no timeline for the decision has been made public.
- ▶ Some traditional discretionary active equity managers, like Fidelity and T. Rowe Price, opted for special nontransparent ETF structures, but they largely failed to gather significant investor interest. Portfolio managers have shown an increasing willingness to launch fully transparent ETFs more recently. Bond managers are less concerned about transparency.
- ▶ Trading illiquid ETFs can be costly for investors. Waiting for an ETF to grow its asset base and build a track record can benefit investors.
- ▶ Fixed income was the most popular active ETF asset class early on, but active equity ETFs have ascended the throne. Active multi-asset ETFs are few and far between since mutual funds and CITS dominate retirement plans.

A Source of Growth for Active Management

Throughout the 2010s, actively managed exchange-traded funds existed on the periphery of the ETF universe. So intertwined were passive investing and ETFs that investors needed reminders that "active ETF" is not an oxymoron.

Seemingly overnight, active ETFs have ascended from obscurity to ubiquity. Their rise stems from a mixture of legislation, product development, and market events and trends that brought their unique advantages into focus.

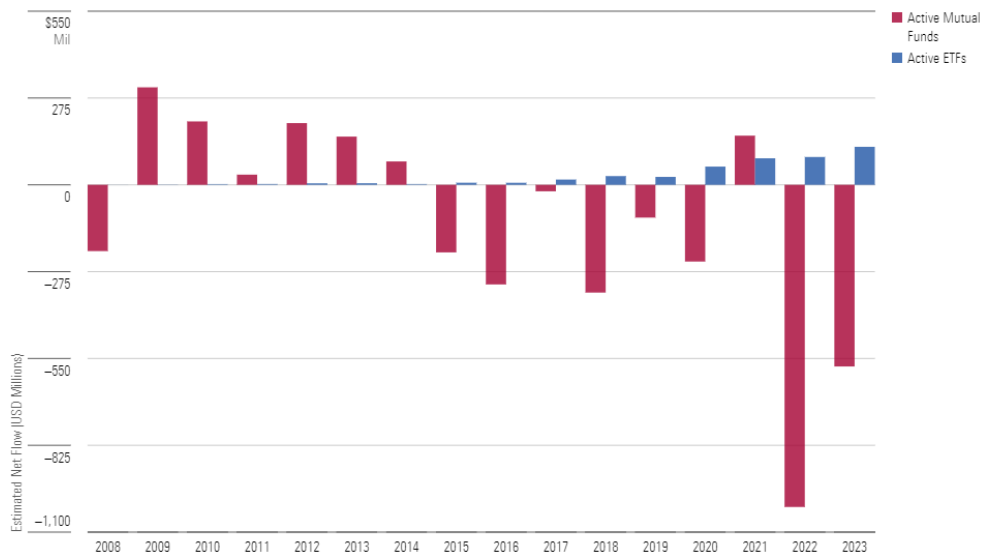
Exhibit 1 Active ETFs' Growth Accelerates



Source: Morningstar Direct. Data as of Dec. 31, 2023.

Despite recent growth, the size of the active ETF market still pales in comparison to the active mutual fund market, underlining the massive opportunity for these burgeoning products. Actively managed mutual funds claimed more than USD 13 trillion in assets at 2023's end, nearly 25 times more than active ETF's USD 530 billion. Flows and growth rates suggest active ETFs are becoming an increasingly large thorn in active mutual funds' side, highlighting the urgency for legacy mutual fund managers to embrace the ETF wrapper.

Exhibit 2 Investors Increasingly Prefer Active ETFs to Active Mutual Funds



Source: Morningstar Direct. Data as of Dec. 31, 2023.

Actively managed mutual funds have been in outflows for eight of the last 10 years, with an average organic growth rate of negative 2% per year. With outflows totaling USD 1.6 trillion in 2022 and 2023, it appears the decline of active mutual funds is picking up steam.

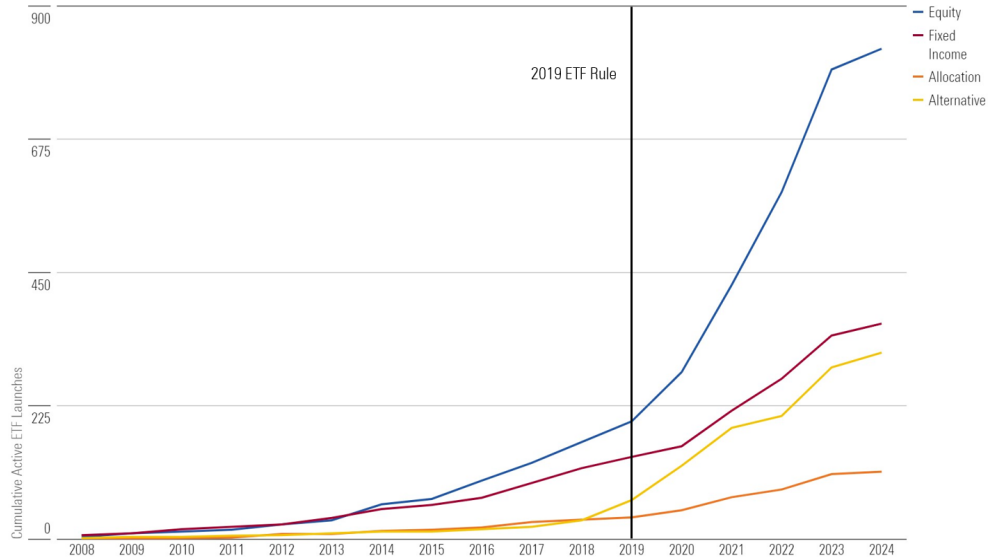
Starting from near-zero two decades ago, active ETFs have enjoyed steady growth and now claim a meaningful piece of the actively managed fund pie. The average organic growth rate for the group was 37% in the last 10 years and shows no signs of slowing.

Today, US investors have access to 1,200 active ETFs covering most types of strategies and asset classes. That wasn't always the case. Active bond ETFs were the first to catch on. Pimco was ahead of the trend, launching Pimco Enhanced Short Maturity Active ETF and Pimco Active Bond ETF in 2009 and 2012, respectively. Those funds' early success helped Pimco lead the active ETF pack from 2012 through 2016.

Market trends in the late 2010s and a 2019 regulatory change ushered in a new era of active ETF competition, bringing in new players and ending Pimco's reign, though it remains a key player.

The SEC's Rule 6c-11, commonly referred to as the "ETF Rule," spurred much of the innovation now common to the ETF wrapper. This rule, promulgated in 2019, streamlined the SEC approval process for ETFs, which previously required exemptive relief for each ETF, making it easier to bring ETFs to market. The rule also permitted fund providers to create and redeem ETF shares with custom baskets. This was important because it gave active managers flexibility when tapping into ETFs' tax efficiency. Many mutual fund providers that entered the ETF market in recent years cite the ETF Rule as the catalyst. Since the rule, the number of active ETFs has nearly tripled; many of the largest active ETFs have been launched since 2019. Exhibit 3 emphasizes this point.

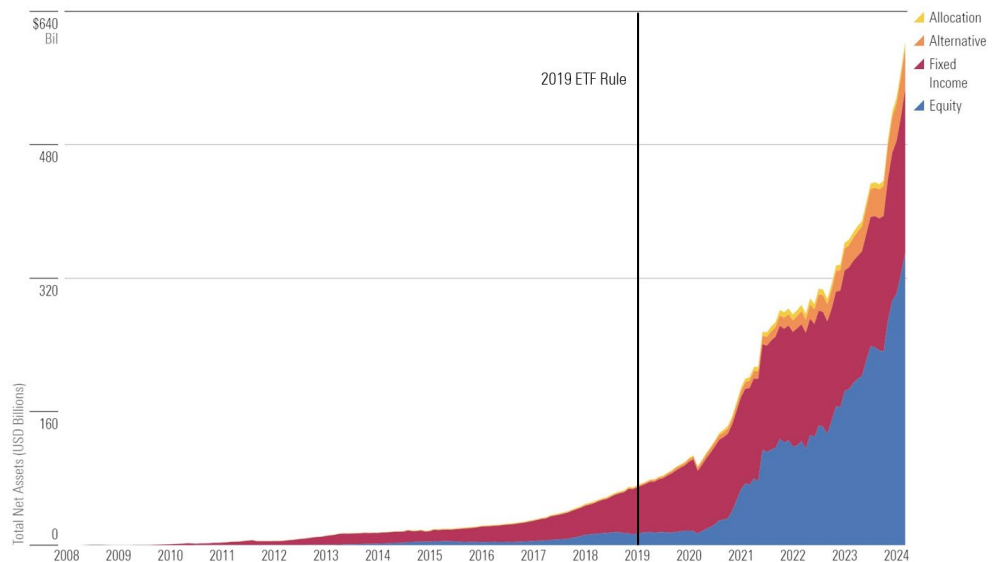
Exhibit 3 Active ETF Launches Swelled Following the 2019 ETF Rule



Source: Morningstar Direct. Data as of March 31, 2024. Data for 2024 through March.

The active ETF market has been built on bond strategies. The Bears Stearns Current Yield Fund was the first ever active ETF in 2008. Active equity ETFs have taken over since the ETF Rule, though, because the tax efficiency of ETFs benefit equity strategies even more than bonds.

Exhibit 4 Active ETF Assets Also Swelled Following the ETF Rule



Source: Morningstar Direct. Data as of March 31, 2024. Data for 2024 through March.

Active ETFs are here to stay. After years of relative obscurity, investors and advisors are taking to the products at a record pace. Investors love their tax efficiency and accessibility, while asset managers

attempt to capitalize on this newfound demand. This paper explores how these products work, why investors like them, and how asset managers are choosing to adopt them.

Benefits of the ETF Structure

In many ways, ETFs are an evolution of mutual funds. ETFs differ in that they trade throughout the day on stock exchanges, and they are also often more tax-efficient, transparent, and accessible. ETF fees also are often cheaper than their mutual fund forebears.

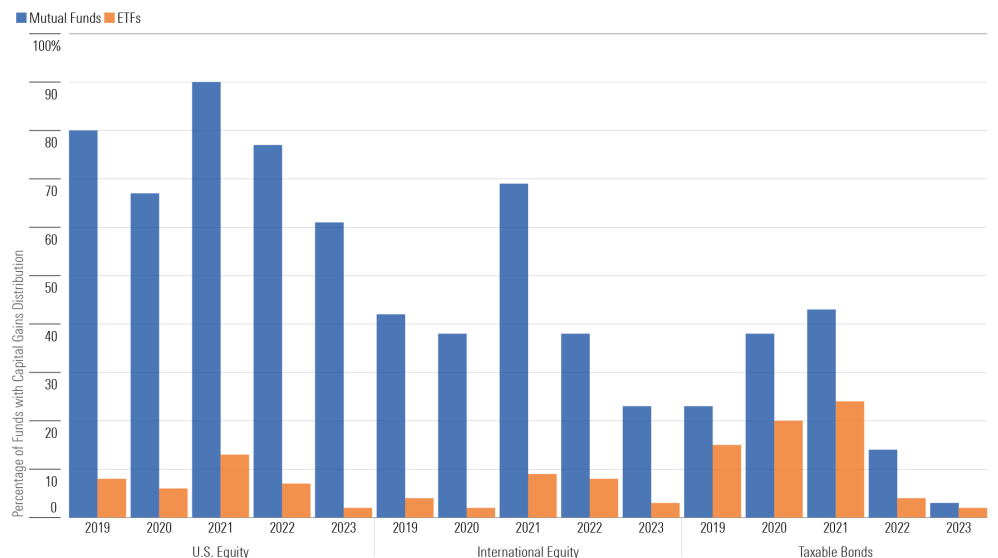
Below are ETFs' key advantages over mutual funds, as well as when they matter most.

Tax-Efficiency

ETFs have a tax advantage over mutual funds, but the size of their advantage depends on the fund's investment strategy and asset class. Unlike mutual funds that must buy or sell holdings to accommodate inflows or redemptions, ETFs can exchange shares for underlying holdings and vice versa via their creation and redemption process without creating a taxable event. This allows ETF managers to avoid realizing capital gains but does not help with dividends, interest, or most gains from derivatives. As a result, stock ETFs tend to benefit from in-kind creations and redemptions more than bond funds since they have more capital gains.

Investors will still need to pay capital gains taxes when they sell their ETFs, but the flexibility to choose when to take gains can be powerful. Higher tax efficiency lowers investors' overall costs and increases their long-term results. Exhibit 5 illustrates how much more tax efficient ETFs are than mutual funds. For example, 2% of US stock ETFs distributed capital gains in 2023 versus 61% of equity mutual funds. The advantage extends to international stocks but narrows significantly for bond ETFs.

Exhibit 5 The Tax Advantage of ETFs Is Greatest for Stocks



Source: Morningstar Direct. Data as of Dec. 31, 2023.

Low Cost

ETFs often have lower fees than similar mutual funds. Asset managers often set ETF fees at similar levels as the cheapest share classes of mutual fund strategies, sometimes cheaper. This is partly why the average active ETF fee (0.65%) is 36% cheaper than the average active mutual fund. ETFs also don't have sales loads or 12b-1 fees.

Transparency

Most ETFs are more transparent than mutual funds because they report holdings daily and levy simple fees.

Most ETFs must disclose holdings every day, making it harder for managers to stray from their processes and easier for investors to know what they own.

ETFs don't charge sales loads or distribution levies like 12b-1 fees. For the most part, ETF investors simply pay the ETF's expense ratio, which is more fixed and transparent than a mutual fund's, another win for investors.

Flexibility

Investors can buy or sell ETFs throughout the trading day like stocks. They also can go long, sell them short, buy them on margin, trade options on them, and lend them to others for a fee. This versatility attracts a diverse investor base, which bolsters ETFs' liquidity.

In comparison, mutual funds price orders at their end-of-day net asset value, which means investors can only trade at closing prices. They can't short, lend, or trade options on mutual fund shares; and sales loads, and sometimes redemption fees, can make them costly to trade.

Active ETFs Are Not a Panacea

Flow trends favor active ETFs over active mutual funds, but not all active ETFs are favorable. Many strategies have adopted ETF wrappers looking for salvation only to find struggle. For active ETFs, it's less John F. Kennedy's "a rising tide lifts all boats," and more Warren Buffett's "only when the tide goes out do you discover who's been swimming naked." ETFs' transparency exposes them for what they are, benefiting some and hurting others.

Outside of the largest active ETF categories, such as long-only US and non-US equity, few have gathered substantial assets because active ETFs are still new and ETFs' advantages erode in less-liquid markets.

Drawbacks of the ETF Structure

ETFs come with several good qualities, but there are a few disadvantages as well.

Exhibit 6 Benefits of ETFs and Mutual Funds

Feature	ETFs	Mutual Funds
Tax Efficiency	✓	
Low Fees	✓	
Daily Transparency	✓	
Flexible Trading	✓	
Can Close to New Investors		✓
Trading Costs		✓

Source: Morningstar.

Lack of Capacity Constraints

Active funds often have a limit to how big they can get to preserve their investment style. When a fund reaches capacity, it can slip into mediocrity or start altering its strategy. Mutual funds can close to new investors to control capacity, but ETFs cannot.

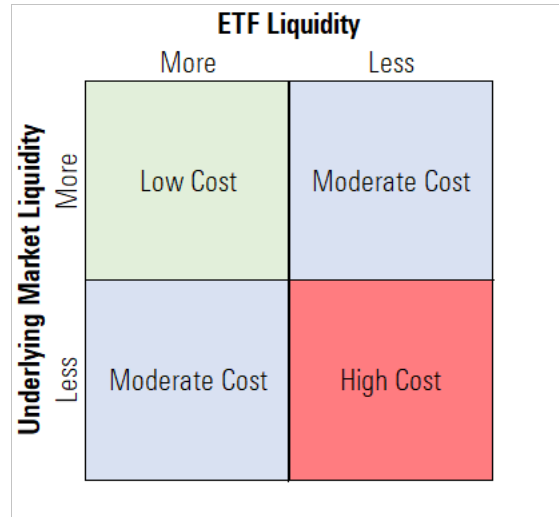
Capacity becomes a bigger issue for concentrated strategies or those investing in illiquid markets, where the size of the fund is more likely to affect the market impact of its trades. ETF investors need to watch the size of concentrated active funds that play in small sandboxes.

Higher Trading Costs

Flexibility comes at a price. Since ETFs trade like stocks, they also have bid-ask spreads, or the difference between what buyers offer and sellers ask for shares. When spreads are wide, they add to investors' costs. Smaller, more unique ETFs can have wide spreads, especially near the opening and closing of the trading day when liquidity tends to be thin. Paying a bad market price relative to an ETF's NAV can take a bite out of returns, and the more investors trade at bad prices, the higher their costs. Mutual fund investors, however, can only buy and sell shares once per day at the fund's NAV.

ETFs with more assets and higher trading volume often are more liquid and have tighter bid-ask spreads. ETFs that track popular indexes with frequently traded constituents, such as the S&P 500 or US Treasuries, also tend to have smaller spreads because market makers who facilitate ETFs' share creations and redemptions know their underlying holdings and how to hedge them well. Strategies focused on narrower market slices, such as micro-cap stocks or obscure bonds, can be riskier for market makers, forcing them to widen their spreads. Historical bid-ask spreads, net assets, and trading volumes can help paint a picture of an ETF's liquidity.

Exhibit 7 Two Levels of Liquidity Affect ETF Trading Costs

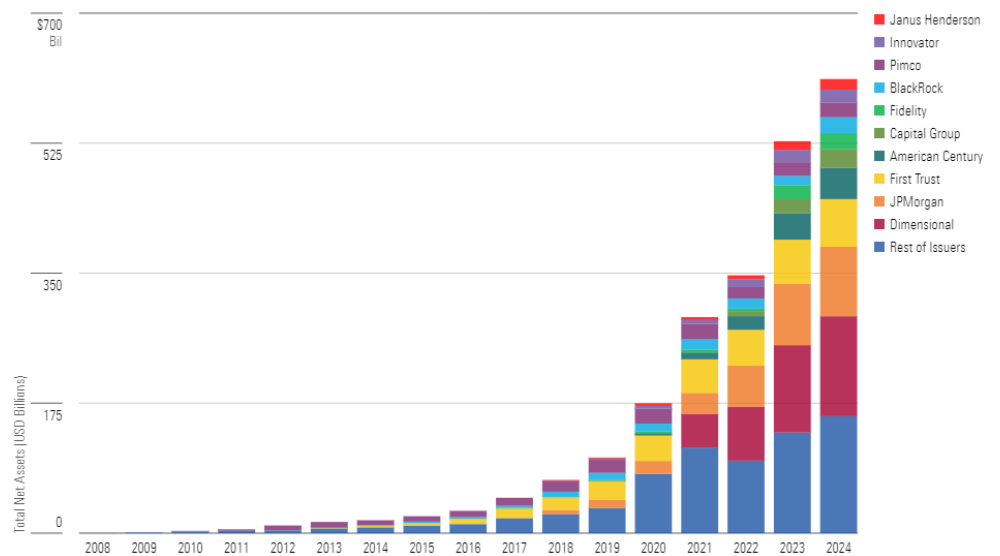


Source: Morningstar.

Investors Favor Few Active ETFs

There are many active ETFs, but only a few funds from a handful issuers have been successful, so far. Exhibit 8 illustrates the lopsided nature of the USD 611 billion market, as of March 31, 2024. The top 10 issuers controlled 74% of assets under management. Most of the 320 providers who have tried active ETFs have had limited success.

Exhibit 8 Active ETF Market Composition



Source: Morningstar Direct. Data as of March 31, 2024.

The same factors that decide fates across the investment industry determine active ETFs' winners and losers. These include performance, breadth of offerings, and most importantly, fees. History shows investors prefer lower-priced investments, and the same is true for active ETFs. Funds in the cheapest quintile of active ETFs hold more than USD 325 billion in assets, while the most expensive quintile holds just USD 35 billion. Today's leader, Dimensional, charges an average fee of just 0.24%, a fraction of the whole group's 0.69%. It still pays to be cheap.

Active ETF success has been concentrated within Morningstar Categories, too. As of March 31, 2024, 25 categories had more than USD 5 billion in assets. Of these, 14 had two or fewer ETFs with more than USD 1 billion. Nine categories had over 50% of their assets in a single ETF. Most notably, JPMorgan Equity Premium Income ETF, the biggest fund in the third-largest active ETF category, derivative income, had almost USD 34 billion, or 60% of the group's assets.

Exhibit 10 Top 15 Active ETF Categories by Assets

Morningstar Category	Net Assets (USD Bil)	ETFs With AUM Over USD 1 Bil	Largest Fund % of Category AUM
Large Blend	90.20	15	30%
Ultrashort Bond	80.03	12	28%
Derivative Income	55.42	4	61%
Options Trading	45.53	2	8%
Foreign Large Blend	34.37	7	19%
Intermediate Core-Plus Bond	31.24	8	25%
Large Value	30.56	6	35%
Small Value	26.96	5	40%
Large Growth	18.18	5	29%
Diversified Emerging Mkts	16.26	4	31%
Intermediate Core Bond	12.72	3	37%
Small Blend	10.71	2	75%
Bank Loan	10.22	2	55%
Mid-Cap Growth	9.42	1	82%
Preferred Stock	8.67	2	61%

Source: Morningstar Direct. Data as of March 31, 2024.

Active ETFs are a growth opportunity for active managers, but only a few have been able to take full advantage, so far. They have not been a panacea for traditional active firms in the throes of outflows.

Active Share

The line separating active and passive investments has become increasingly blurry. Hundreds of strategies build portfolios with strict rules rather than human touches yet qualify as active because they

don't track indexes. Some of them are more active than others. How can you tell the difference? Active share can help.

A Brief Word on Active Share

Active share is a measure of how different a fund is from its benchmark.¹ A portfolio that perfectly mirrors its benchmark has a 0% active share, and a long-only portfolio with no overlapping holdings has a 100% active share.² For example, Dimensional US Equity ETF has more than 2,500 holdings weighting similarly to broad market-cap-weighted indexes and had a 5% active share versus the Russell 1000 Index at 2023's end, the lowest among active US stock ETFs. Meanwhile, Absolute Select Value ETF has fewer than 20 stocks in common with the same benchmark and a 91% active share.

Examining the Active US Equity ETF Market

Conventional wisdom says that ETFs are best suited for indexlike strategies with low active share. Their transparency and inability to close could pose capacity problems for concentrated, high active share strategies that rely on a handful of best ideas.

There are plenty of high-conviction active ETFs, though. The second column of Exhibit 11 lists the simple average active share of active US equity open-end and exchange-traded funds versus their category indexes. It shows that the two cohorts are similarly active. ETFs' active share is slightly more indexlike—2.3 percentage points lower—but the margin is thin. In other words, the average active equity mutual fund is just barely bolder than the average active stock ETF.

Exhibit 11 Comparing Active Share for Active US Stock Strategies

Vehicle	Simple Avg Active Share (%)	Weighted Avg Active Share (%)
Mutual Fund	75.2	62.4
ETF	72.9	50.3

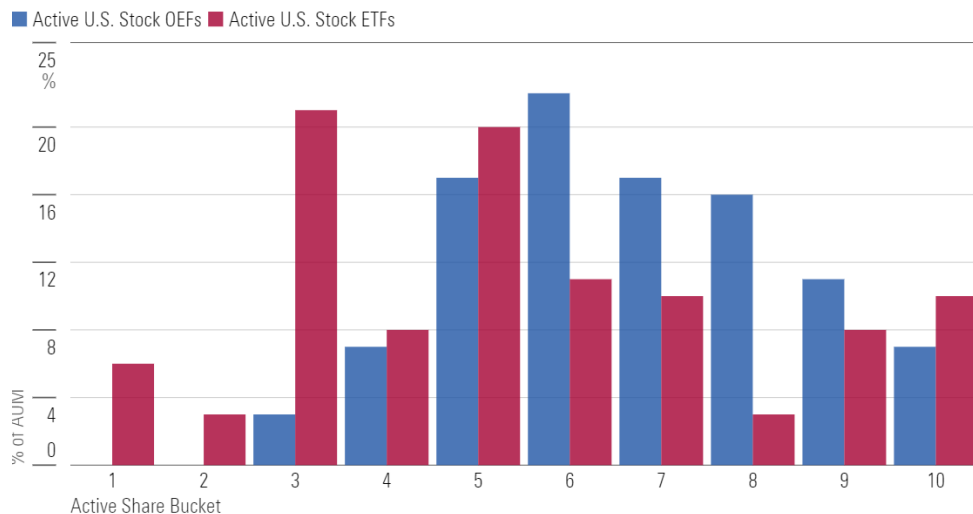
Source: Morningstar Direct. Data as of Dec. 31, 2023.

Exhibit 11 also shows that low active share active ETFs are more popular than similar mutual funds. When weighted by assets, average active share shrinks to about 50%, much lower than ETFs' simple average active share (72.9%) and open-end funds' weighted average active share (62.4%). Investors in both vehicles have put more money in benchmark-conscious or systematic strategies, but the trend is more pronounced among ETFs.

¹ All active share measurements in this section are computed relative to the Morningstar Category Index.

² Greengold, R. 2021. "Unattractive Share." <https://www.morningstar.com/lp/unattractive-share>.

Exhibit 12 Money Gravitates Toward Active US Stock ETFs With Lower Active Share



Source: Morningstar Direct. Data as of Dec. 31, 2023. X-axis buckets: 1 = 0-10% active share, 2 = 11-20%...10 = 91-100%.

The Impact of Conversions

It's possible that transparency and capacity concerns have made investors skeptical of high active risk ETFs, though the 2020-21 stampede into the very high active share (95%) Ark Innovation ETF casts doubt on that theory. A batch of mutual-fund-to-ETF conversions may better explain the popularity of low-active share ETFs.

About 38% of active US stock ETF assets sit in light touch, systematic strategies with a 32% average active share that Dimensional Fund Advisors converted from open-end funds. The USD 24 billion Dimensional US Core Equity 2 ETF was more than twice the size of the next-largest active US equity ETF at 2023's end and has just a 29.8% active share.

These Dimensional strategies already had about USD 37 billion in assets when they converted, so when they converted to ETFs, they instantaneously shrank the overall weighted average active share. So, active ETFs' comparatively low active share does not necessarily mean investors are wary of high-conviction strategies in ETFs.

Exhibit 13 Active Share of the 10 Largest Active US Stock ETFs

Name	Ticker	Net Assets (USD Bil)	% of Active US Equity Market	Is Converted	Active Share (%)	Prospectus Net Expense Ratio
Dimensional US Core Equity 2 ETF	DFAC	27.4	14.1%	Yes	29.8	0.17
Avantis US Small Cap Value ETF	AVUV	10.9	5.6%	No	60.7	0.25
Dimensional US Marketwide Value ETF	DFUV	10.7	5.5%	Yes	41.5	0.21
Dimensional US Targeted Value ETF	DFAT	10.1	5.2%	Yes	47.6	0.28
Dimensional US Equity ETF	DFUS	9.0	4.6%	Yes	5.8	0.09
Dimensional US Small Cap ETF	DFAS	8.0	4.1%	Yes	35.5	0.26
ARK Innovation ETF	ARKK	7.8	4.0%	No	94.8	0.75
BlackRock U.S. Equity Factor Rttm ETF	DYNF	7.2	3.7%	No	55.8	0.30
Capital Group Dividend Value ETF	CGDV	7.0	3.6%	No	82.8	0.33

Source: Morningstar Direct. Asset data as of March 31, 2024. Active share data as of Dec. 31, 2023.

Active Share and Fees

Another explanation for the popularity of low active share funds is their expenses. Strategies that stick close to their benchmarks tend to be cheap. As investors' appreciation of the benefits of low expenses has grown, they have flocked to low active share funds—not for their light-touch strategies but for their low fees.

How Active Managers Have Entered the ETF Market

When it comes to launching an ETF, issuers can take a few different approaches. They can:

- ▶ Develop a new strategy.
- ▶ Use an existing strategy.
- ▶ Convert a mutual fund into an ETF.
- ▶ Add an ETF share class.
- ▶ Consider a nontransparent structure.

Exhibit 14 The Largest Active ETFs

Name	Ticker	ETF Launch Date	Conversion	Substantially Similar MF?	AUM (USD Bil)	Medalist Rating
JPMorgan Equity Premium Income ETF	JEPI	5/20/2020	No	Yes	33.8	Bronze
Dimensional US Core Equity 2 ETF	DFAC	6/11/2021	Yes	Yes	27.4	Gold
JPMorgan Ultra-Short Income ETF	JPST	5/17/2017	No	No	22.6	Silver
JPMorgan Nasdaq Equity Premium Inc ETF	JEPO	5/3/2022	No	No	11.8	Neutral
PIMCO Enhanced Short Maturity Active ETF	MINT	11/16/2009	No	No	11.0	Gold
Avantis US Small Cap Value ETF	AVUV	9/24/2019	No	Yes	10.9	Silver
Dimensional US Marketwide Value ETF	DFUV	5/6/2022	Yes	No	10.7	Bronze
Dimensional US Targeted Value ETF	DFAT	6/11/2021	Yes	Yes	10.1	Silver
Dimensional US Equity ETF	DFUS	6/11/2021	Yes	No	9.0	Silver
Dimensional US Small Cap ETF	DFAS	6/11/2021	Yes	Yes	8.0	Gold

Source: Morningstar Direct. Data as of March 31, 2024.

New Strategy

Most active ETF strategies are unique and represent new approaches to beating benchmarks. The benefits of ETFs make developing and launching a new strategy easy. Today, investors can access hundreds of strategies covering dozens of asset classes developed exclusively for ETFs. Until recent outflows and poor performance, ARK Innovation ETF was the most successful truly new ETF strategy—a title currently held by JPMorgan Ultra-Short Income ETF.

The approach of launching a new strategy follows an asset manager's normal product development playbook. Strategy development could take longer than alternatives, and new resources may be required to run the ETF. But the biggest downside of this approach is having to build the ETF's track record and asset base from scratch.

Substantially Similar ETF

Another way issuers are porting their mutual fund expertise to active ETFs is by launching ETFs that are substantially similar to existing mutual funds (sometimes referred to as "clones"). Managers run these ETFs in tandem with established mutual funds, hoping their prior success translates to the ETF. This approach keeps mutual fund investors and distributors happy while tapping a new market of ETF investors. There are numerous examples of firms taking this approach but Dimensional Fund Advisors, Capital Group (American Funds), and T. Rowe Price have been among the most successful.

Launching a cloned strategy is the most operationally efficient approach. The ETF can use the same portfolio managers and track record as the mutual fund, lending it instant credibility. The biggest

tradeoff for ETF clones is that distribution platforms like online brokerages could boot the clones' more-expensive mutual fund share classes for regulatory and/or economic reasons.

Mutual-Fund-to-ETF Conversion

Some issuers prefer not to launch new ETFs at all, instead choosing to convert existing mutual funds to spur demand and harness the wrapper's tax efficiency. Relatively few firms have tried this approach and even fewer have found success. Only about 5% of all active ETFs were converted from existing mutual funds. Despite this, four of the largest 10 active ETFs are converted mutual funds from Dimensional, as shown in Exhibit 14.

Only Dimensional has found meaningful success using conversions. It converted seven mutual funds between mid-2021 and mid-2022 that now collectively represent more than USD 72 billion—almost 60% of its ETF assets. Given Dimensional's success, it's worth considering why more firms don't go this route or haven't found the same success.

Despite the benefits to investors and the interest from fund providers, the process can be difficult, and it isn't a one-size-fits-all solution to enter the ETF market. Converted funds must still have merit and charge competitive fees, and their issuers must have the resources and network to support them after the conversion. Evidence suggests that switching to the ETF structure alone isn't enough to guarantee that a fund will attract new investors. Exhibit 15 punctuates this point.

Exhibit 15 Life as an ETF Hasn't Been Easy for Most Converts

Name	Ticker	Total Net Assets (USD Bil)	Cumulative Net Flows Since Conversion (USD Bil)
Dimensional US Core Equity 2 ETF	DFAC	27.4	9.5
Dimensional US Marketwide Value ETF	DFUV	10.7	1.1
Dimensional US Targeted Value ETF	DFAT	10.1	2.5
Dimensional US Equity ETF	DFUS	9.0	1.9
Dimensional US Small Cap ETF	DFAS	8.0	3.3
Dimensional International Value ETF	DFIV	7.1	2.4
Dimensional World ex US Core Eq 2 ETF	DFAX	6.7	2.0
JPMorgan International Rsrch Enh Eq ETF	JIRE	6.0	-0.57
Fidelity Enhanced Large Cap Core ETF	FELC	2.4	0.27
Fidelity Enhanced Large Cap Growth ETF	FELG	2.4	0.01
All Others		17.5	0.93

Source: Morningstar Direct. Data as of March 31, 2024.

The limited success of most converted funds speaks to the intense competition in the current ETF market. Part of the reason that Dimensional has proved more successful rests with its tight connection to its advisor-dominated client base. Its ETFs also have lower fees than many actively managed funds, and most are among the most diversified in their respective categories, meaning they're more appealing to a wider range of investors than many other ETFs and mutual funds. So far, none have been able to replicate Dimensional's success.

Issuers converting mutual funds into ETFs benefit from inheriting the mutual funds' performance track record. However, converting may not be ideal, or even possible, for many mutual funds. Those with a lot of retirement plan clients may find their plan sponsors can't support ETFs on their platforms, making a conversion all but impossible. Likewise, those using 12b-1 fees or other means to pay for marketing would cut off their established distribution networks since ETFs don't charge 12b-1 fees.

ETF Share Class

The final approach mutual fund companies may soon be able to take is bolting an ETF share class onto an existing mutual fund. Vanguard is currently the only issuer allowed to use an ETF share class, and the exemption only applies to passive strategies. In May 2023, Vanguard's patent on the ETF share class expired, opening the door for other asset managers to use them. As of March 1, 2024, seven firms, including Dimensional, Morgan Stanley, and Fidelity, have sought exemptive relief from the SEC to offer active ETF share classes, which has yet to be approved for any asset manager, including Vanguard. If regulators approve, ETF investors will gain another avenue to access successful mutual fund strategies—one that sidesteps many of the operational challenges of converting a mutual fund. While currently on hold, wider adoption of the ETF share class could represent a big win for investors and ETFs in the long run.

The ETF share class structure could be a best-of-both-worlds solution for mutual fund companies. They wouldn't have to worry about retirement plan assets, disrupting distribution networks, or creating new strategies to break into the ETF market. The ETFs would boost the tax efficiency of the mutual fund share classes and in turn benefit from their track record and assets. The only downside would be ETF investors potentially facing distributions from preexisting capital gains and sharing of portfolio costs early on, which is likely the cause of the SEC's reluctance to widely adopt an ETF share class.

Active Nontransparent ETFs

Historically, ETFs were required to report holdings daily. That changed nearly five years ago, when the SEC approved the first nontransparent ETFs. While each structure was unique, the general purpose was to shield the ETF's holdings while giving enough information to market makers to price their shares accurately throughout the trading session.

Active nontransparent ETFs, or semitransparent ETFs, offer issuers the tax and distribution benefits of ETFs but allow managers the relative secrecy of mutual funds. For guarded active mutual fund managers, this setup could be ideal. However, these types of funds have yet to take off. Since their quiet introduction in 2016, 70 have launched, and 50 have survived through February 2024. That remnant holds USD 5.2 billion, with Fidelity Blue Chip Growth ETF the largest, claiming just over USD 1 billion.

Fund stalwarts like Fidelity and T. Rowe Price were among the early adopters, but that wasn't enough for nontransparent ETFs to gain traction. The structures created confusion for advisors and investors alike. Portfolio managers have become more comfortable with transparency in recent years as money has poured out of active mutual funds and into active ETFs, perhaps putting the final nail in the active nontransparent ETF coffin.

Asset-Class Breakdown

Active Equity ETFs: Uncommon to Ubiquitous

It seemed like they would never arrive; now they're showing up among the biggest fund companies.

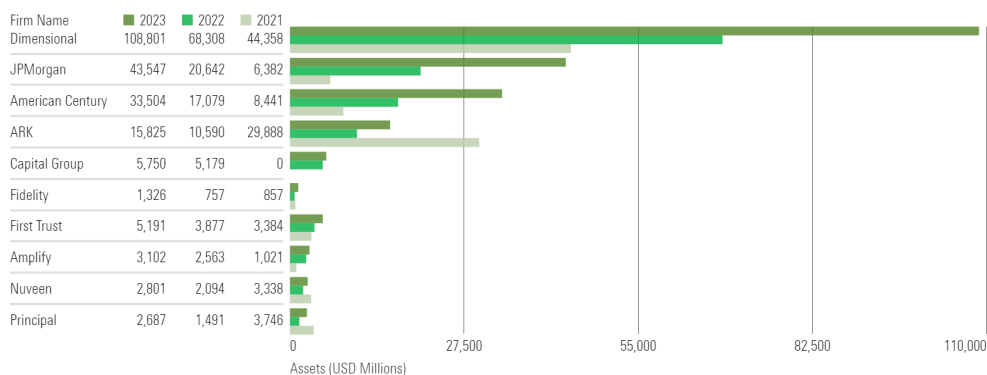
Active ETFs have gained momentum among once-skeptical active equity managers in recent years, in no small part because of the SEC's ETF Rule. Most active managers had long been reluctant to give away their "secret sauce" by disclosing their holdings daily like other ETFs. Eventually, however, traditional fund companies have embraced ETFs as another distribution vehicle for their strategies. Companies like T. Rowe Price and Fidelity launched nontransparent ETFs by cloning existing strategies and keeping daily holdings opaque. Investors have preferred fully transparent ETFs, though, and nontransparent ETFs have garnered few assets. So, fund companies have shifted gears.

After T. Rowe Price's 2020 nontransparent ETF launch fizzled, for example, it birthed a handful of fully transparent ETFs in 2023, including one run by star manager David Giroux. Even Capital Group, the parent of the conservative American Funds family, has gotten comfortable enough with the vehicle to launch in 2022 its own fully transparent active ETFs.

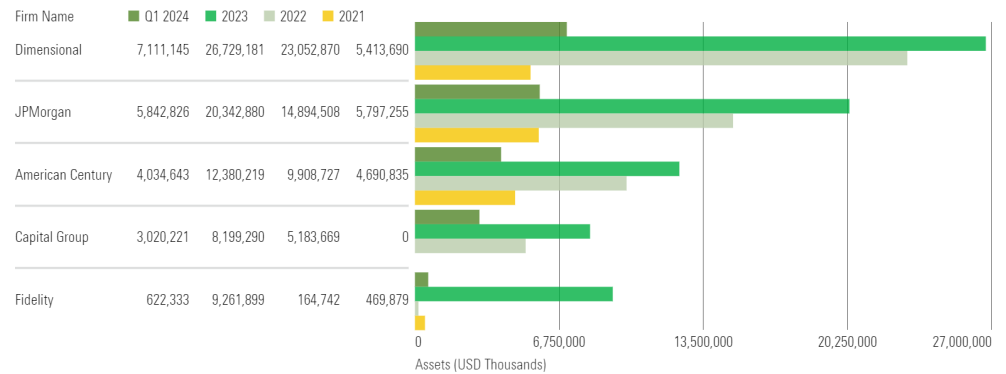
So far, three firms have dominated active equity ETF assets: Dimensional Fund Advisors, J.P. Morgan, and Avantis Investors (a subsidiary of American Century). As of year-end 2023, Dimensional topped the charts with USD 109 billion, followed by J.P Morgan with USD 51 billion and Avantis with USD 33 billion. Fidelity and Capital Group have had success, too.

The Players in Active Equity ETFs

Exhibit 16 Total Equity Assets by Firm (in USD Millions)



Source: Morningstar Direct. Data as of Dec. 31, 2023.

Exhibit 17 Estimated Equity Net Flows by Firm

Source: Morningstar Direct. Data as of March 31, 2024.

Active Equity ETF Landscape

The large-blend Morningstar Category holds the most active equity ETF assets. Yet, assets have also accumulated in surprising places. The derivative income category is the second largest by assets, as J.P. Morgan's two covered-call offerings, JPMorgan Equity Premium Income ETF and JPMorgan Nasdaq Equity Premium Inc ETF, have been very successful.

Exhibit 18 Equity ETFs by Morningstar Category

Morningstar Category	No. of ETFs	Net Assets (USD Bil)	% of Category Assets
US Fund Large Blend	128	90.2	26%
US Fund Derivative Income	45	55.4	16%
US Fund Foreign Large Blend	27	34.4	10%
US Fund Large Value	54	30.6	9%
US Fund Small Value	14	27	8%
US Fund Large Growth	54	18.2	5%
US Fund Diversified Emerging Mkts	29	16.3	5%
US Fund Small Blend	15	10.7	3%
US Fund Mid-Cap Growth	12	9.4	3%
US Fund Foreign Small/Mid Value	5	7.9	2%

Source: Morningstar Direct. Data as of March 31, 2024.

Considerations for Active Equity ETFs

Liquid stocks are ideal given capacity constraints.

All active managers must know their funds' capacity limits, or how big they can get before asset size impedes their strategies. Active ETF managers have to be especially careful because ETFs cannot close. ETFs with liquid, or frequently traded, holdings, like large-cap stocks, work best in the ETF wrapper, which is why active stock ETFs in large-cap categories hold the most assets, as shown in Exhibit 19.

Unfortunately, large-cap US stocks tend to be the toughest market for active managers to find a consistent edge over passive peers.

Exhibit 19 Number of ETFs and AUM by Morningstar Style Box



Source: Morningstar Direct. Data as of March 31, 2024.

Broader portfolios extend capacity.

Concentrated active small- and mid-cap strategies can quickly run into capacity issues, but well-diversified portfolios, like those from Dimensional and Avantis, can forestall those problems. Active ETF assets in the small-value, -blend, and -growth Morningstar Categories all fall in the top 10 thanks to such offerings. These firms have been successful in less-liquid markets because they start with a broad portfolio as their target market, then tilt toward stocks with certain characteristics, like low valuations and high profitability, which often results in portfolios that spread their assets over hundreds or even thousands of stocks, limiting their capacity risk.

Follow these rules for foreign investing as well.

Another capacity-constrained market is emerging markets, where stocks tend to be less liquid than those in developed markets. Emerging-markets ETFs can have wider spreads and bigger gaps between their market prices and NAVs, so active strategies in this group also need to be well diversified to work as ETFs. Once again, Dimensional has had success running large emerging-markets strategies because they are more indexlike. Global large-cap strategies work well in ETF wrappers because they tend to focus on developed markets and larger emerging economies like China and India.

ETF clones offer several advantages, but understand the differences first.

All things equal, if a fund company offers a cheaper ETF clone of a traditional active mutual fund, investors are better off in the ETF. Except when all things are not equal.

Most ETF clones cost about the same as the institutional shares of the mutual funds. The former has other cost advantages over the latter, though. The ETFs usually distribute fewer capital gains than their mutual fund twins. Indeed, most American Century, Fidelity, and T. Rowe Price ETFs paid out zero capital gains in 2022 and 2023, unlike their mutual fund pairs. That could change as the ETFs accumulate embedded gains, but the ETF structure should still limit their tax costs.

Mutual funds also typically hold more cash than ETFs to meet redemptions. Dimensional's and Avantis' ETF clones often hold less than one fifth of the cash their corresponding mutual funds hold. The amounts are small but can still drag on a mutual fund's performance relative to the ETF clones.

That said, the nontransparent ETFs clones can't invest in foreign holdings or private companies, which can cause performance disparities with mutual fund siblings that dabble in such securities, such as those from Fidelity and T. Rowe Price. Investors need to know of these potential discrepancies before investing.

Top Firms' ETF Approaches

ARK Investment Management

Style: Concentrated

Transparency: Fully Transparent

Fees: Below Average (75 basis points)

One of the most talked about active ETF players is ARK Investment Management, thanks to its outspoken leader, Cathie Wood. Wood launched the firm in 2014 and has established a broad media presence and enthusiastic following, which peaked following the covid pandemic. As high-growth technology firms prospered, so did ARK's ETF lineup, which took in more than USD 20 billion in 2020, led by ARK Innovation ETF. By the end of 2020, ARK was by far the biggest active player with more than USD 30 billion in assets, more than all other active equity ETF issuers combined. Assets peaked at USD 51 billion in early 2021 but quickly shrank as the ETF's performance reversed. As of January 2024, ARK's AUM sat at USD 13 billion, and its fund lineup remained thematic and growth-focused.

American Century (and subsidiary Avantis)

Style: Concentrated (American Century) and Broadly Diversified (Avantis)

Transparency: Nontransparent (American Century) and Fully Transparent (Avantis)

American Century Fees: Low (39-45 basis points); clones are roughly 20 basis points cheaper than institutional share class, slightly cheaper than R6 share class

Avantis Fees: Low (15-42 basis points); clones priced similar to mutual fund

American Century joined the active ETF market in 2018 by launching two fixed-income strategies, but they didn't make their mark until former Dimensional co-CEO Eduardo Repetto launched Avantis from within American Century in 2019. The firm now lists 43 ETFs, with 27 coming from Avantis, which accounts for more than 90% of American Century's USD 36 billion in AUM. Avantis US Small Cap Value ETF has garnered more than USD 9 billion in assets.

Six of Avantis' equity ETFs had more than USD 1 billion in assets at year-end 2023. Several of American Century's ETFs have similar mutual fund counterparts, including versions of American Century Focused Dynamic Growth and Focused Large Cap Value and are nontransparent. These have garnered few assets since their launches.

Capital Group

Style: Diversified

Transparency: Fully Transparent

Fees: Low (33-54 basis points); clones cheaper than most share classes

Capital Group, parent of American Funds, was late to the active ETF party but launched its first ETFs in February 2022. These included five fully transparent equity strategies and one fixed-income strategy that take very similar approaches to some insurance accounts they manage. As fully transparent ETFs that report their holdings daily, Capital's vehicles can own non-US securities that trade in different time zones—a feature unavailable to nontransparent ETFs, aside from ADRs and GDRs. So, Capital's lineup includes international strategies. The firm now has a total of 14 ETFs.

Like all of Capital's strategies, multiple independent managers run these ETFs. These strategies are not clones of American mutual funds, but they draw on managers from the same talent pool.

Dimensional Fund Advisors

Style: Broadly Diversified

Transparency: Fully Transparent

Fees: Low (12-43 basis points); clones priced similar to mutual fund

Dimensional first joined the ETF fray in late 2020 by launching three strategies. In 2021, Dimensional became one of the first asset managers to convert mutual funds into ETFs when it recast six tax-managed strategies. The firm now boasts 38 ETFs, including 28 equity ETFs. These new ETFs have proved popular among clients, and six of the top 10 active ETFs by assets are Dimensional's, including Dimensional US Core Equity 2, Dimensional US Marketwide Value, and Dimensional US Target Value, which all landed within the top five as of Dec. 31, 2023. Dimensional takes a similar approach across strategies to create indexlike portfolios that lean into factors such as size, valuation, and quality.

Fidelity

Style: Mixed

Transparency: Mixed (seven Nontransparent, 15 Fully Transparent equity ETFs)

Fees: Low to Below Average (18-59 basis points); clones mixed: some priced like K share class (employer-sponsored retirement plan) and some more expensive, like Fidelity Magellan ETF

Fidelity rolled out nine nontransparent active ETFs in 2020 and 2021, many of which were based on its existing strategies, such as Silver-rated Fidelity Blue Chip Growth ETF and Bronze-rated Fidelity Magellan ETF. The ETF versions of these strategies share the same managers as the mutual funds—including Blue Chip Growth's Sonu Kalra and Magellan's Sammy Simnagar. The Blue Chip Growth ETF's portfolio looks a different around the edges than the mutual fund's, while the Magellan ETF's portfolio barely deviates

from its mutual fund cousin. In 2023, the firm converted 12 equity mutual fund strategies to fully transparent ETFs.

J.P. Morgan

Style: Diversified

Transparency: Fully Transparent (except for one small-value ETF)

Fees: Low to Below Average (17-74 basis points); clones are priced roughly 20 basis points cheaper than institutional share classes, in line with R6 (qualified retirement plan).

J.P. Morgan first got into active ETFs with several fixed-income and alternative/hedge fund-oriented strategies before the ETF Rule came out. In 2020, the firm launched its crown jewel covered call strategy, JPMorgan Equity Premium Income, which was the top-ranking active ETF by assets at the end of 2023. It later launched another covered call strategy, JPMorgan Nasdaq Equity Premium Income ETF, which also ranks among the top five active ETFs by assets.

T. Rowe Price

Style: Diversified

Transparency: Mixed (five Nontransparent and five Fully Transparent equity ETFs)

Fees: Low to Below Average (31-57 basis points); clones priced comparably to institutional share class

T. Rowe Price also started with nontransparent ETFs of strategies like T. Rowe Price Blue Chip Growth and T. Rowe Price Growth Stock, both Silver-rated in 2020. The ETFs give investors without institutional-sized assets access to well-managed strategies at institutional prices. Both ETF portfolios have more than 90% portfolio overlap with the mutual fund versions, eliminating only non-US holdings without ADRs and private companies, in which Blue Chip Growth has a small stake. Yet, those strategies haven't had much success out of the gates, so the firm launched several fully transparent options, including T. Rowe Price Capital Appreciation ETF, run by star manager David Giroux.

Active Fixed-Income ETFs: On Firm Footing

Fixed-income strategies are not new to the active ETF landscape, yet the popularity of these strategies continues to grow and may make sense for investors who favor the flexibility and tax efficiency of an ETF with the benefits of active bond management. The evolution of actively managed fixed-income ETFs is just the latest chapter in the history of these vehicles. Although passive, or index-tracking, ETFs dominated the early years of the ETF industry, the introduction of active fixed-income ETFs in 2008 gave investors another way to hire professional fund managers to navigate the complexities of the bond market.

Fixed-income strategies often get swept up in the broader debate about whether investors should use passive or active funds or ETFs. Inefficiencies in fixed-income markets typically favor active managers in most categories, not only in theory but also based on historical performance. While it is true that index strategies can offer compelling super-low fees, they struggle to navigate the relative inefficiencies of the bond market as well as active managers do. Active strategies can often gain an edge by investing in higher-quality spread sectors, such as corporate bonds or securitized debt, while market-value-weighted indexes concentrate in larger, highly liquid, and often lower-yielding investments like US Treasuries.

Although passive bond ETFs remain popular among investors, they face several challenges, including the complexity of fully replicating indexes, the lack of fundamental credit research, and the inability to take advantage of relative value opportunities in changing markets. For those reasons, active bond strategies have a tremendous opportunity in the ETF wrapper.

The Players in Active Fixed-Income ETFs

Active bond ETF offerings continue to grow as fund companies roll out new strategies or sibling strategies of existing mutual funds. The last few years have marked significant growth for active bond ETFs with about 200 distinct strategies launched since December 2020, including 73 in 2023 alone, more than any other prior year. However, the market value of active bond ETFs still pales in comparison to passive strategies. Of the approximately USD 1.56 trillion in bond ETFs as of March 2024, active strategies only made up USD 196 billion, or about 13% of the fixed-income ETF universe. A handful of firms dominate active bond assets, but there have been some recent formidable new entrants.

Consider that just five fund companies made up 57.6% of active fixed-income ETF assets, while the 15 largest comprise 87.9%. The three largest active bond ETF providers, First Trust, J.P. Morgan, and Pimco, continue to add new ETFs to their lineups or, in J.P. Morgan's case, to convert longtime mutual fund strategies into ETFs. Newer entrants include other well-respected fixed-income shops that recently warmed up to the ETF wrapper; Capital Group (American Funds), for example, launched its first actively managed bond ETF in 2022 and now has six distinct offerings. Likewise, star mutual fund managers, such as BlackRock's Rick Rieder and Pimco's Dan Ivascyn, have begun launching their first ETFs.

Exhibit 20 Top 15 Active Fixed-Income ETFs by Fund Company

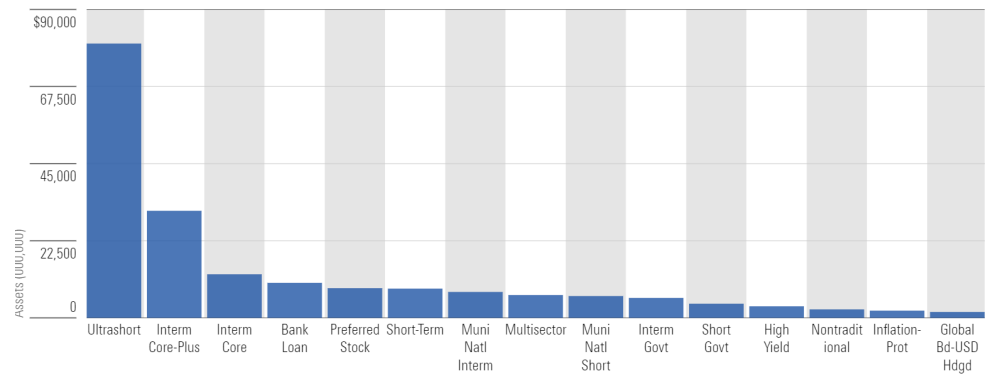
Fund Company	AUM (USD Mil)	% Active Bond ETFs
First Trust	33,779	17.2%
JPMorgan	33,348	17.0%
Pimco	19,584	10.0%
Janus Henderson	14,225	7.2%
BlackRock	12,264	6.2%
Dimensional	10,833	5.5%
State Street	9,789	5.0%
Fidelity	8,711	4.4%
PGIM	6,926	3.5%
Franklin Templeton	5,188	2.6%
Vanguard	4,414	2.2%
Invesco	4,176	2.1%
Capital Group	3,960	2.0%
Victory Capital	3,024	1.5%
Hartford Funds	2,577	1.3%
Totals	172,799	87.9%

Source: Morningstar Direct. Data as of March 31, 2024.

Active Fixed-Income ETF Asset Classes

Certain fixed-income asset classes have been more prevalent than others among active fixed-income ETFs thus far. Similar to mutual funds, taxable-bond strategies make up more than 90% of active bond ETF assets with the remainder in tax-exempt municipal approaches. Asset growth in Morningstar Categories also has been lopsided. Exhibit 21 shows ultrashort bond strategies have gained the most active ETF assets, making up 41.9% of all active bond ETFs' assets. Pimco Enhanced Short Maturity Active ETF was also one of the early success stories for active bond ETFs and a big reason why Pimco sits near the active bond ETF throne. In fact, shorter-duration offerings—including ultrashort bond, short-term bond, and muni national short-term categories—make up more than half of the total universe of active bond ETFs. Ultrashort bonds have always been among the largest active bond ETF categories, perhaps because of the shared tactical nature of the category and the ETF structure, but all three short-term categories have seen inflows in recent years as yields have risen and the yield curve has inverted. Intermediate Core and Intermediate Core-Plus are the second- and third-largest categories, with about 23.0% of the universe combined; bank loans follow with 5.3% of the universe, while other sectors claim less than 5% each.

Exhibit 21 Top 15 Active Fixed-Income ETFs by Morningstar Category



Source: Morningstar Direct. Data as of March 31, 2024.

Active bond ETFs will evolve, but they have been around long enough to prove that various strategies are viable, and even successful, in an ETF format. Investors still need to do their homework, though. Here are important factors to consider.

Considerations for Active Bond ETFs

Stick with larger, more-seasoned strategies.

Seasoned active-bond ETFs with clear track records are limited. Of the approximately 364 active bond ETFs launched since 2008, 51, or about 14%, were either liquidated or merged, and those strategies, on average, lasted less than five years. Of the 313 active bond ETFs in existence as of March 2024, 187, or about 66%, debuted within the last three years. Fund closures can hit investors with big tax bills or costs

related to winding down the fund. Fund mergers can plunk shareholders in a strategy they didn't sign up for.

Size also matters. Just over half of active bond ETFs have less than USD 100 million in assets, while more than 80% have less than USD 500 million. An ETF's small size alone doesn't disqualify it from consideration, especially if these strategies have large, viable, sibling open-end funds with solid track records. For example, T. Rowe Price in March 2023 launched its T. Rowe Price Floating Rate ETF; it has less than USD 100 million in assets, but its open-end twin has more than USD 8 billion. A smaller ETF, however, could mean higher trading costs for investors. It is worthwhile to wait for an ETF's asset base to mature before investing.

Bond markets are fragmented and complex. It takes time to build a portfolio for a new ETF and reproduce the risk profile of its related mutual fund. Bonds predominantly trade over-the-counter (not on a centralized exchange), making it harder to source liquidity for a wide range of options. The inability to buy thinly traded names and structures can impact a manager's ability to achieve a desired risk profile in short order. For example, a mutual fund may own legacy bonds that are not readily available for purchase in an ETF following the same strategy.

Higher-quality, liquid asset classes make more sense for now.

Over-the-counter trading can leave bonds susceptible to periods of low liquidity. High-yield bonds and bank loans, and more-complex asset classes, such as structured credit, can be less liquid. However, one of the benefits of ETFs is that they can serve as an efficient secondary market to provide liquidity to investors when underlying bonds aren't trading. Bond ETF bid-ask spreads may widen during periods of volatility, though, increasing trading costs during liquidity crunches, but they still may have lower trading costs than those of the underlying bonds during those periods. The Investment Company Institute's covid-19 working group found that ETF spreads widened during March 2020, but the average component bid-ask spreads were several times higher in high-yield bonds and roughly the same in investment-grade bonds.³

Although capacity can be an issue for some assets classes, fixed-income ETFs rarely have to close to new investors because of the breadth and depth of the bond market. For example, the US Treasury market is the world's largest and most liquid fixed-income market and has efficient trading costs.

Favor value over cost, but don't overlook bid-ask spreads.

Investors should weigh the benefits of low-cost passive ETFs with the potential for an active bond manager to add value. For example, active management can matter in bank loans: In the decade ended March 2024, active bank-loan funds' median annualized 3.5% return beat the median passive fund's return by 40 basis points.

³ Investment Company Institute. 2020. "Experiences of US Exchange-Traded Funds During the COVID-19 Crisis."
http://www.ici.org/pdf/20_rpt_covid2.pdf.

Investors also should consider the total cost of ETF ownership, not just fees. Since ETFs trade like stocks, they also have bid-ask spreads, or the difference between what buyers offer and sellers ask for shares. When ETF spreads are wide, they add to investors' costs. Trading impact costs are typically low for larger, more widely traded strategies and higher for newer, lightly traded offerings.

ETF's tax efficient structure may not apply.

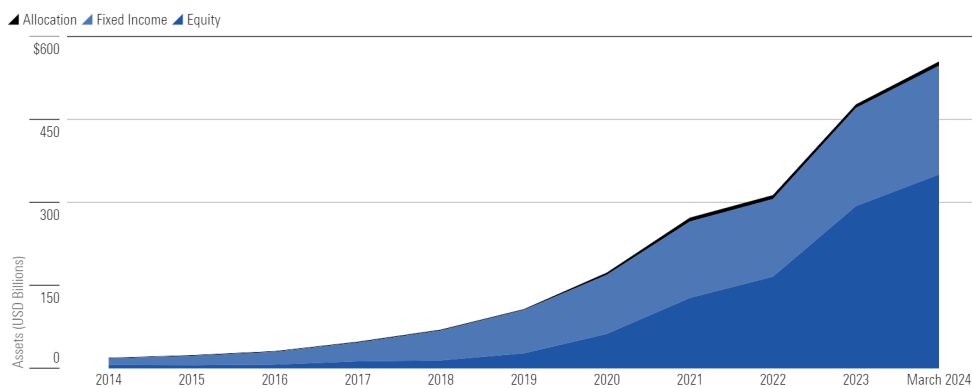
Bond strategies benefit less from the tax efficiency of ETFs than equity funds. Much of a bond's total return comes from interest income, which is taxed the same regardless of vehicle. ETFs do a good job of limiting capital gains, so ETFs could help the tax efficiency of longer duration and more credit-sensitive strategies. Conversely, ETFs' tax efficiencies are lost on strategies with low duration and credit risk, such as ultrashort high-quality bond funds.

Asset Managers' Active Bond ETF Approaches

Managers can take three approaches to launching active bond ETFs: They can convert an existing mutual fund to an ETF and assume that track record; they can launch a new ETF that shares a strategy with an existing mutual fund; or they can launch a different strategy. Investors should consider the implications of each scenario. For a new ETF, managers will likely face challenges with ramping up to build a diversified portfolio. Depending on the asset class, it can take longer to build a portfolio with the desired securities, which can result in performance differences early on.

Active Allocation ETFs: A Few Steps Behind

Although active equity and bond ETFs have gained significant traction since the mid-to-late 2010s, multi-asset offerings are still waiting for their moment. As of March 2024, active allocation ETFs tallied less than USD 8 billion in total assets, well below the roughly USD 350 billion and USD 196 billion for equity and bond offerings, respectively. Without demonstrated interest from investors, providers have been hesitant to launch allocation ETFs, instead focusing on faster-growing vehicles like target-date funds and model portfolios. In total, 105 allocation active ETFs were launched over the last decade, dwarfed by the over 1,100 active equity and bond ETFs combined. And of that small group of launches, 27 have already liquidated, with an average life span of roughly three years.

Exhibit 22 Active Allocation ETFs Haven't Gained Traction

Source: Morningstar Direct. Data as of March 31, 2024.

Where Is Everyone?

Growing assets usually drive product expansion and innovation as investment providers look to gain market share in an expanding market segment. However, without signs of consistent growth, many have remained on the sidelines, hesitant to dedicate research time and spend to develop new offerings.

Retail investors and advisors haven't demanded active allocation ETFs. Investors have gravitated to target-date funds through their 401(k) plans, using them as "set-it and forget-it" retirement savings options. Many of these investors also probably don't have much additional money to invest outside those plans; otherwise, there might be more potential flows for active allocation ETFs.

For many advisors, active allocation ETFs duplicate what they try to do for clients. Most look at ETFs, mutual funds, and other vehicles as building blocks for client portfolios. They mix equity and fixed-income offerings with more-niche funds like liquid alternatives, real assets, and commodities to achieve specific risk levels, leaving little room for multi-asset strategies. Advisors might use an active multi-asset ETF to anchor portfolios, complementing it with satellite holdings, but this is a less common practice. Using precanned multi-asset funds also limits advisors' ability to tailor portfolios to clients' specific needs or preferences and may make it harder for them to justify their own asset-management fees.

Structurally, launching an active allocation ETF also comes with unique challenges. Allocation ETFs require both equity and fixed-income market makers to exchange ETF shares for baskets of underlying ETF securities—in this case, potentially including both stocks and bonds in each basket. The need to contract across multiple asset classes for creating and redeeming shares adds a layer of complexity that can result in wider bid-ask spreads. Indeed, spreads for these products historically have been wider than for equity and fixed-income active ETFs.

To sidestep this hurdle, some firms have launched funds using ETFs for some or all of their underlying holdings. For instance, the recently launched Capital Group Core Balanced ETF invests in individual stocks while anchoring the fixed-income piece of the portfolio with Capital Group Core Plus Income ETF.

This reduces complexity, lowers transactions costs, and outsources asset allocation to Capital Group's managers.

Asset managers have been more reluctant to launch active allocation ETFs because of subdued interest from retail investors and advisors and structural headaches. There are also very few index allocation ETFs, only 28 as of March 2024, indicating the ETF wrapper hasn't gained much traction with allocation investors overall.

The Players in Active Allocation ETFs

Few firms have had success gathering assets with active allocation ETFs. Of the 50 firms with at least one such offering, only five have more than USD 500 million in assets.

Exhibit 23 depicts the top 10 firms by active allocation ETF assets. As of March 2024, WisdomTree topped the charts, with USD 1.35 billion in assets. The firm offers two active ETFs in Morningstar's Allocation Global Broad Morningstar Category Group: Wisdom Tree US Efficient Core Fund and Wisdom Tree International Efficient Core Fund. The former offering surpassed USD 1 billion in assets in March—the biggest active allocation ETF by assets. It tries to outpace a traditional 60/40 stock/bond portfolio by using leverage, scaling the asset mix to a 90/60/10 split among equities, short-term fixed-income, and a Treasuries future overlay.

State Street, Evoke, Cabana, and The Brinsmere Funds round out the top five active allocation ETF managers before a sizable drop to the sixth spot, though none crack USD 1 billion in assets. Missing from the top 10, and in some cases the list entirely, are some of the largest asset managers and asset-allocation players, such as Vanguard, Fidelity, T. Rowe Price, and BlackRock. BlackRock did recently reenter the fold, launching a new target-date ETF series in late 2023, and Capital Group snuck into the seventh position after its September 2023 launch of Capital Group Core Balanced ETF. The other three firms remain on the active allocation ETF sidelines in the US, though Vanguard and Fidelity offer them in Canada.

Exhibit 23 Top Active Allocation ETF Providers

Firm	AUM USD Millions	% of Total AUM
WisdomTree	\$ 1,351.8	17.7%
State Street	\$ 855.9	11.2%
Evoke	\$ 734.6	9.6%
Cabana	\$ 588.4	7.7%
The Brinsmere Funds	\$ 559.4	7.3%
Cambria ETF	\$ 310.5	4.1%
Capital Group	\$ 307.4	4.0%
Adaptive ETF	\$ 278.1	3.6%
STFM	\$ 230.3	3.0%
Fairlead Funds	\$ 218.1	2.9%
	\$ 5,434.5	
Total Providers		50
Total Assets	\$	7,642.9
Top 10 % of Total		71.1%

Source: Morningstar Direct. Data as of March 31, 2024.

Active Allocation ETF Landscape

The limited number of active allocation ETFs are spread across Morningstar Categories as shown in Exhibit 24. Strategies falling into one of the five target-risk allocation categories—conservative, moderately conservative, moderate, moderately aggressive, and aggressive—are the most popular. Wisdom Tree US Efficient Core Fund is the largest by assets, sitting at just over USD 1 billion, with Evoke's RPAR Risk Parity ETF a distant second at USD 647 billion. Instead of building a 60/40 portfolio that gets about 90% of its risk from stocks, the risk parity strategy constructs a portfolio that derives equal amounts of risk from each of its multiple asset classes, including global equities, commodities, US Treasury Inflation-Protected Securities, and US Treasuries.

Most target-risk ETFs land in the moderate allocation category. Funds in this group typically deliver a volatility profile similar to that of a portfolio with a strategic stock allocation ranging from 50% to 70%. However, most of these funds get there in a less traditional manner. They often don't feature a strategic 60/40 stock/bond split but rather a more short-term-focused approach, an emphasis on risk mitigation, or an objective like income generation; it's a mixed bag.

Allocation ETFs mostly feature fund of funds, mixing individual securities ETFs, or just different ETFs. Using underlying ETFs can lessen complexity and help reduce transaction costs.

Exhibit 24 Active Allocation ETFs by Morningstar Category

Morningstar Category	Number of Active ETFs	AUM USD Millions
US Fund Tactical Allocation	19	\$2,188.9
US Fund Moderate Allocation	23	\$1,739.6
US Fund Global Allocation	13	\$1,494.1
US Fund Aggressive Allocation	1	\$1,028.5
US Fund Moderately Conservative Allocation	7	\$991.1
US Fund Moderately Aggressive Allocation	2	\$94.1
US Fund Conservative Allocation	2	\$55.4
US Fund Target-Date Categories	10	\$51.3

Source: Morningstar Direct. Data as of March 31, 2024.

Signs of Green Shoots

Although asset growth has been slow and product launches measured, Capital Group and BlackRock, two of the largest asset-allocation managers, launched active multi-asset ETFs in 2023.

Capital Group Core Balanced ETF is launched.

In September 2023, Capital Group launched the Capital Group Core Balanced ETF, its first active allocation ETF. This ETF has a solid foundation. It mimics American Funds American Balanced, whose cheapest share classes had Morningstar Medalist Ratings of Silver as of March 2024. (The ETF's 0.33% fee aligns with those shares.) It also shares three portfolio managers with the mutual fund. This may help the ETF stand out to both retail investors and the firm's substantial advisor base. Like the fund, which has a strong long-term record, this ETF can invest 50%-75% of its assets in equities and much of the remainder in bonds. The managers run their own sleeves independently. The equity portfolio holds a mix of dividend-paying and more growth-oriented fare.

This is not a clone of the mutual fund, though. The funds have several nonoverlapping managers running their respective equity sleeves, and the mutual fund also owns a multi-asset strategy. As a result, the funds' equity exposure has roughly 63% overlap with the ETF. The two vehicles also have very different fixed-income portfolios. While the mutual fund has four managers building independent investment-grade bond portfolio sleeves, the ETF uses Capital Group Core Plus Income ETF, which recently held about 13% of its assets in high-yield debt, for its fixed-income exposure.

BlackRock gives target-date ETFs another shot.

On Oct. 17, 2023, BlackRock launched the iShares LifePath Target Date series, a collection of 10 active ETFs that range from a target retirement year of 2065 to those currently in retirement. It is the only target-date ETF available in the US. BlackRock has positioned this series as an easy retirement savings option for millions of Americans who lack access to workplace retirement plans. It is not the first time the firm has ventured into this arena; it launched the iShares Target Date series in 2008 but closed it six years later.

Whereas the first index-based iteration tracked allocation indexes, the new version is actively managed and taps the firm's retirement research to make timely and prudent allocation changes without having to rely on a third-party index provider who may not agree with the team's views. The research underpinning this series also drives the firm's other target-date strategies like BlackRock LifePath Index, which had a Gold Morningstar Medalist Rating as of March 2024.

Although the new series is similar to the BlackRock LifePath Index mutual fund series, there are discernible differences. For example, the ETF series' international-equity exposure includes iShares Core MSCI International Developed Markets ETF and iShares Core MSCI Emerging Markets ETF, whereas the mutual fund version holds iShares Core MSCI Total International Stock ETF. That allows the ETF managers to make tactical shifts between developed and emerging stocks. ■■

Appendix

Exhibit 25 Top Active Equity ETFs by AUM

Name	Ticker	Morningstar Medalist Rating	Morningstar Medalist Rating People Pillar	Morningstar Medalist Rating Process Pillar	Net Assets (USD Bil)
JPMorgan Equity Premium Income ETF	JEPI	Bronze	Above Average	Above Average	33.8
Dimensional US Core Equity 2 ETF	DFAC	Gold	Above Average	Above Average	27.4
JPMorgan Nasdaq Equity Premium Inc ETF	JEPO	Neutral	Above Average	Average	11.8
Avantis US Small Cap Value ETF	AVUV	Silver	Above Average	Above Average	10.9
Dimensional US Marketwide Value ETF	DFUV	Bronze	Average	Above Average^Q	10.7
Dimensional US Targeted Value ETF	DFAT	Silver	Above Average	Above Average	10.1
Dimensional US Equity ETF	DFUS	Silver	Average	Above Average^Q	9.0
Dimensional US Small Cap ETF	DFAS	Gold	Above Average	Above Average	8.0
ARK Innovation ETF	ARKK	Negative	Below Average	Below Average	7.8
BlackRock U.S. Equity Factor Rttm ETF	DYNF	Neutral	Average^Q	Average^Q	7.2
Dimensional International Value ETF	DFIV	Silver	Above Average	Above Average	7.1
Capital Group Dividend Value ETF	CGDV	Silver	Above Average	Above Average	7.0
Dimensional World ex US Core Eq 2 ETF	DFAX	Bronze	Average	Above Average^Q	6.7
Avantis US Equity ETF	AVUS	Silver	Above Average	Above Average	6.6
JPMorgan International Rsrch Enh Eq ETF	JIRE	Silver	Above Average	Above Average^Q	6.0
Dimensional International Core Eq 2 ETF	DFIC	Silver	Above Average	Above Average	5.8
Dimensional International Cr Eq Mkt ETF	DFAI	Gold	Above Average	Above Average	5.7
Avantis International Small Cap Val ETF	AVDV	Bronze	Above Average	Above Average	5.6
Dimensional US Core Equity Market ETF	DFAU	Gold	Above Average	Above Average	5.4
Capital Group Growth ETF	CGGR	Silver	Above Average	Above Average	5.2

Source: Morningstar Direct. Data as of March 31, 2024.

Exhibit 26 Top Active Fixed-Income ETFs by AUM

Name	Ticker	Morningstar Medalist Rating	Morningstar Medalist Rating People Pillar	Morningstar Medalist Rating Process Pillar	Net Assets (USD Bil)
JPMorgan Ultra-Short Income ETF	JPST	Silver	Above Average	Above Average	22.6
PIMCO Enhanced Short Maturity Active ETF	MINT	Gold	High	High	11.0
Fidelity Total Bond ETF	FBND	Gold	High	High	7.9
Janus Henderson AAA CLO ETF	JAAA	Negative	Average	Low^Q	7.5
First Trust Enhanced Short Maturity ETF	FTSM	Neutral	Average	Average	6.6
PGIM Ultra Short Bond ETF	PULS	Neutral	Average^Q	Average^Q	6.3
SPDR Blackstone Senior Loan ETF	SRLN	Neutral	Above Average	Average	5.6
BlackRock Ultra Short-Term Bond ETF	ICSH	Bronze	Average	Above Average^Q	5.6
First Trust Preferred Sec & Inc ETF	FPE	Neutral	Average	Average	5.3
First Trust TCW Opportunistic Fxd Inc ETF	FIXD	Silver	Above Average	High	5.2
Dimensional Core Fixed Income ETF	DFCF	Bronze	Average	Above Average^Q	4.7
PIMCO Active Bond ETF	BOND	Silver	High	Above Average	4.2
Vanguard Ultra-Short Bond ETF	VUSB	Neutral	Average	Average	4.2
First Trust Low Duration Oppos ETF	LMBS	Neutral	Average	Average	4.0
Janus Henderson Mortgage-Backed Sec ETF	JMBS	Neutral	Average	Average	3.9
BlackRock Short Duration Bond ETF	NEAR	Bronze	Above Average	Above Average^Q	3.0
JPMorgan Core Plus Bond ETF	JCPB	Silver	Above Average	Above Average	2.9
SPDR® DoubleLine Total Return Tact ETF	TOTL	Bronze	Above Average	Average^Q	2.8
BlackRock Flexible Income ETF	BINC	Silver	Above Average	Above Average^Q	2.7
JPMorgan Ultra-Short Municipal Inc ETF	JMST	Silver	Above Average	Above Average	2.6

Source: Morningstar Direct. Data as of March 31, 2024.

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