

ETF Report

THE MAGAZINE FOR ETF INVESTORS

DECEMBER 2020

2020

KEY

TRENDS

2020's BIGGEST DEVELOPMENTS IN ETFs

New
Breakout
Stars

Other
Launches
To Watch

Innovation
Vs.
Tradition

ARK Founder
On Firm's
Success

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2020 was a chaotic year, but ETFs have come out ahead

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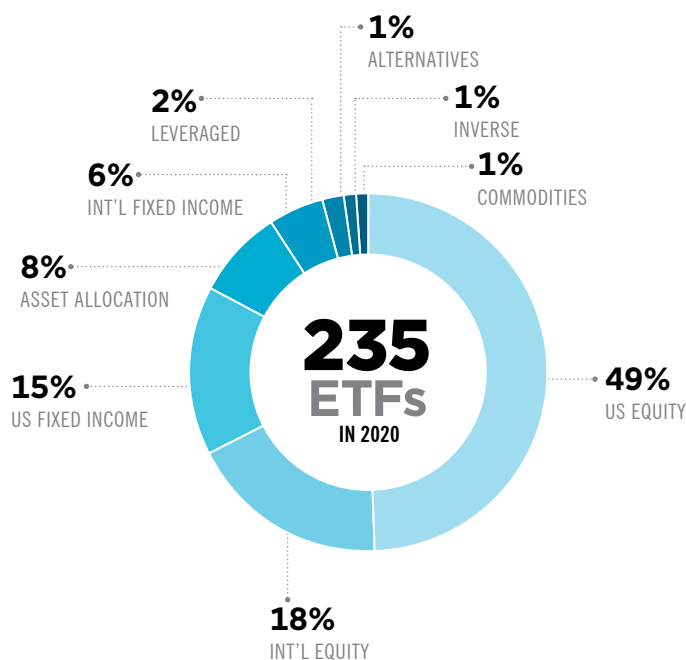
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ETF Launches



FEATURED ETF

Defiance Next Gen SPAC Derived ETF (SPAK)

New fund covers an area previously uncharted in ETFs

Defiance ETFs, an issuer focused on providing passive exposure to disruptive innovation, launched an ETF targeting special purpose acquisition corporations (SPACs). The [Defiance Next Gen SPAC Derived](#)

[ETF \(SPAK\)](#) tracks an index provided by Indxx and invests in a mix of SPACs (20% weight at reconstitution) and SPAC-derived companies (80%), the prospectus says.

The fund lists on the NYSE Arca and comes with a expense ratio of 0.45%.

SPACs are similar to IPOs or private equity in that they are companies formed with the intention of acquiring or merging with an existing company. They have a set

period in which to complete this transaction or they are dissolved and the money returned to investors.

Matthew Bielski, CEO of Defiance, describes SPACs as “private-equity-style IPOs.”

The underlying index has minimum size, float and liquidity requirements. Although reconstitutions occur on an annual basis, securities can be added to the index throughout the year on set dates. At the ETF’s launch, the index had 36 components.

Bielski noted that there is also a governance clause that screens out any company that is subject to a fraud-related investigation. As such, Nikola Motor Company, a popular SPAC-related company that is currently under SEC investigation, is not in the index. ●

SPAK Quick View	
ISSUER	Defiance
SEGMENT	Equity: U.S. - Total Market
EXPENSE RATIO	0.45%
STRUCTURE	Open-Ended fund
INCEPTION	9/30/2020

ETF LAUNCH ACTIVITY

LAUNCHES

U.S. EQUITY

- AllianzIM US Large Cap Buffer10 Oct
- AllianzIM US Large Cap Buffer20 Oct
- American Conservative Values
- BlackRock Future Innovators
- Defiance Next Gen SPAC Derived
- Emles Federal Contractors
- Emles Made in America
- ETRACS Alerian Midstream Energy ETN
- FT Cboe Vest US Equity Buffer - Oct
- FT Cboe Vest US Equity Deep Buffer
- Innovator Double Stacker 9 Buffer - Oct
- Innovator Double Stacker
- Innovator Triple Stacker - Oct
- Invesco NASDAQ 100
- Invesco NASDAQ Next Gen 100
- iShares US Small Cap Value Value Factor
- LeaderShares AlphaFactor Tactical Focused
- Trend Aggregation Conservative
- TrueShares Structured Outcome (Oct)

INT'L EQUITY

- BlackRock Future Health
- BlackRock Future Tech
- Global X CleanTech
- Global X Data Center REITs/Digital Infrastr
- iShares ESG Advanced MSCI EM
- iShares Virtual Work/Life Multisector
- LeaderShares Activist Leaders
- Nifty India Financials
- ProShares MSCI Transformational Changes

U.S. FIXED INCOME

- ClearShares Piton Intermed Fixed Income
- Emles Real Estate Credit
- iShares BB Rated Corporate Bond
- Rareview Dynamic Fixed Income
- Rareview Tax Advantaged Income
- SoFi Weekly Income

INT'L FIXED INCOME

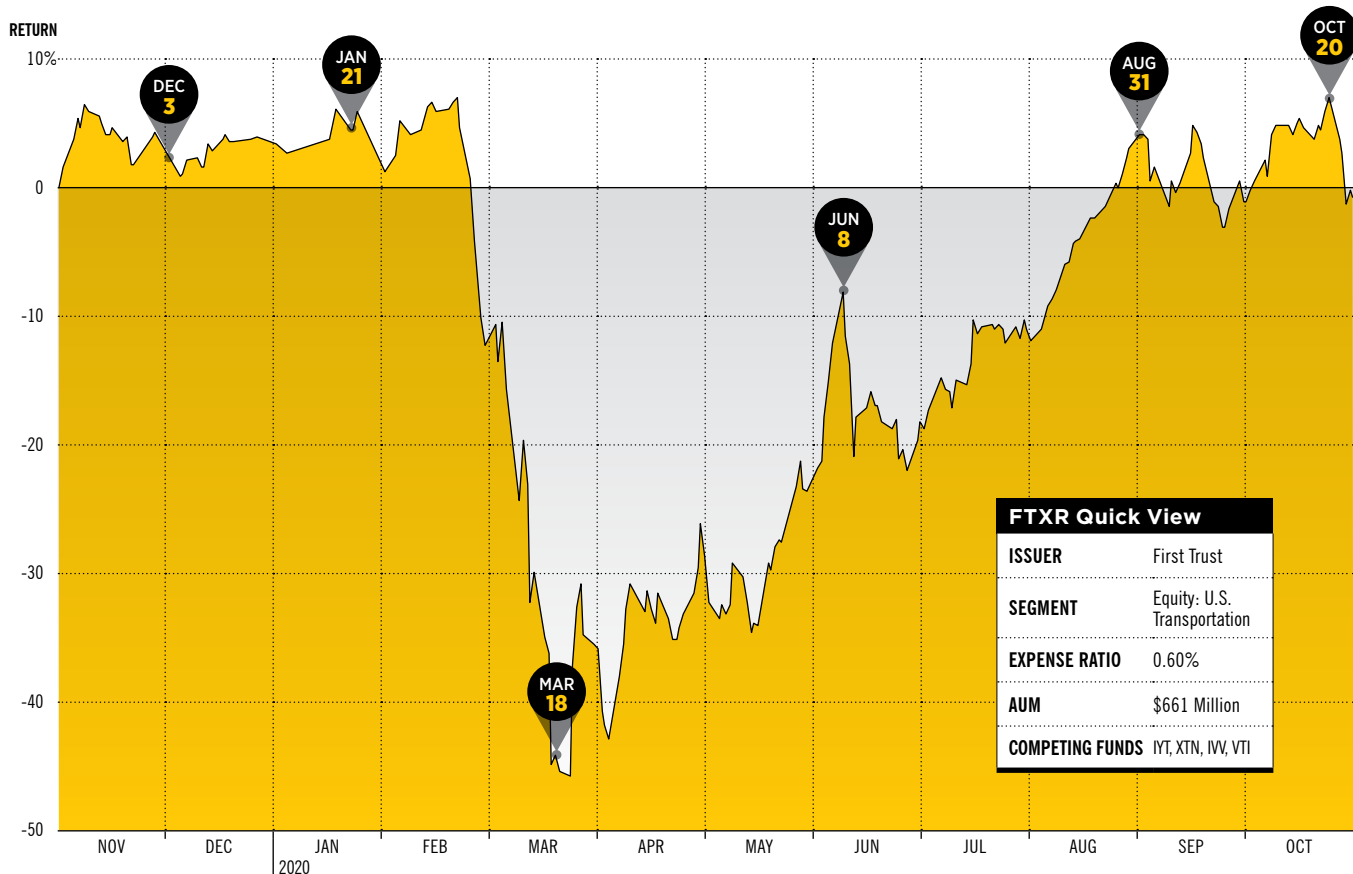
- Avantis Core Fixed Income
- Avantis Short-Term Fixed Income
- Janus Henderson AAA CLO

Source: ETF.com. Data and information as of 10/31/2020. ETF Filings sidebar covers launches and closures for the month of October 2020.

ETF Explainer: **FTXR**

First Trust Nasdaq Transportation ETF

Each month, we look at an ETF selected by ETF.com based on its performance and importance to investors. This month, we consider the performance of the \$661 million [First Trust Nasdaq Transportation ETF \(FTXR\)](#), which has underperformed the broad U.S. market during the past year, but has pulled ahead in recent months. All the companies mentioned below are holdings in FTXR, unless otherwise noted (*).



DEC 3 Old Dominion Freight Line’s fourth quarter report mentions decreases in less-than-truckload revenues due to lower shipments and tonnage in November.

JAN 21 Expeditors International of Washington sees its share price plunge over the course of two trading days after warning it’ll miss earnings and revenue consensus estimates for the fourth quarter.

MAR 18 Shipping and delivery company UPS sees its share price spike as the broad U.S. market moves closer to its bottom and the coronavirus pandemic grows.

JUN 8 Airline stocks see a dramatic but brief rally as hopes rise that the worst of the pandemic is over, but the industry is set to have its worst year in history.

AUG 31 Tesla shares reach new record highs and well-above-average volume after its five-for-one stock split takes effect, driving its market capitalization to more than \$430 billion.

OCT 20 General Motors announces plans to invest \$2 billion in six different U.S. manufacturing facilities and roll out an electric-powered version of its Hummer truck.

Source: Bloomberg; data for 10/31/2019-10/31/2020

MONTHLY FLOWS

Below are the ETFs that experienced the top and bottom flows in October, as well as the net flows for major asset classes.

TOP GAINERS

TICKER	FUND	ISSUER	NET FLOWS (\$M)	AUM (\$M)
VTI	Vanguard Total Stock Market ETF	Vanguard	3,759.84	163,635.35
VXUS	Vanguard Total International Stock ETF	Vanguard	2,601.48	28,260.24
BND	Vanguard Total Bond Market ETF	Vanguard	1,978.41	64,108.78
ESGU	iShares ESG Aware MSCI USA ETF	BlackRock	1,961.49	10,478.23
TLT	iShares 20+ Year Treasury Bond ETF	BlackRock	1,648.08	19,795.10
MBB	iShares MBS ETF	BlackRock	1,487.75	23,829.24
BNDX	Vanguard Total International Bond ETF	Vanguard	1,446.05	33,964.45
EMB	iShares JP Morgan USD Emerging Markets Bond ETF	BlackRock	1,399.64	17,483.12
VCSH	Vanguard Short-Term Corporate Bond ETF	Vanguard	1,383.69	34,127.37
AGG	iShares Core U.S. Aggregate Bond ETF	BlackRock	1,178.56	81,734.87

BIGGEST LOSERS

TICKER	FUND	ISSUER	NET FLOWS (\$M)	AUM (\$M)
SPY	SPDR S&P 500 ETF Trust	SSGA	-7,354.70	280,255.43
EFA	iShares MSCI EAFE ETF	BlackRock	-1,525.82	44,707.61
HYG	iShares iBoxx USD High Yield Corporate Bond ETF	BlackRock	-1,019.21	24,669.07
NEAR	iShares Short Maturity Bond ETF	BlackRock	-997.43	4,398.61
BBEU	JPMorgan BetaBuilders Europe ETF	JPMorgan Chase	-984.87	3,805.34
IYG	iShares U.S. Financial Services ETF	BlackRock	-808.39	957.94
IUR	iShares Core S&P Small-Cap ETF	BlackRock	-782.84	41,594.32
USMV	iShares MSCI USA Min Vol Factor ETF	BlackRock	-694.03	32,244.99
GLD	SPDR Gold Trust	SSGA	-628.65	75,623.38
IGIB	iShares 5-10 Year Investment Grade Corp Bond ETF	BlackRock	-603.86	10,910.46

ASSET CLASSES

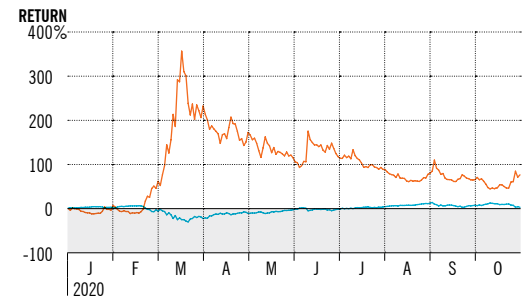
	NET FLOWS (\$M)	AUM (\$M)	% OF AUM
U.S. Equity	5,566.83	2,594,762.65	0.21%
International Equity	8,562.46	859,522.42	1.00%
U.S. Fixed Income	19,012.62	937,931.74	2.03%
International Fixed Income	3,461.14	112,837.15	3.07%
Commodities	-333.53	144,862.20	-0.23%
Currency	-295.43	1,926.84	-15.33%
Leveraged	-544.83	34,945.15	-1.56%
Inverse	321.92	14,585.68	2.21%
Asset Allocation	290.08	11,842.95	2.45%
Alternatives	306.94	5,635.42	5.45%

INTERESTING CHARTS OF PAST 12 MONTHS

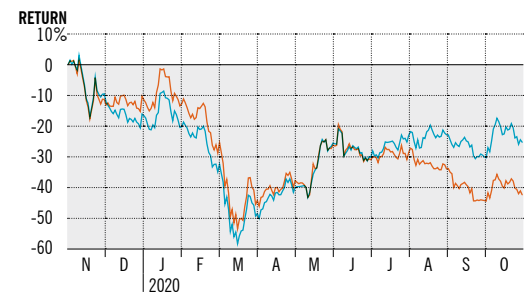
The below charts highlight some of the key ETF trends of the past 12 months.



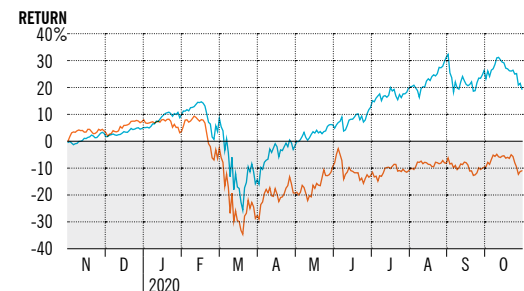
Short-term VIX futures did exactly what they were supposed to when the market tanked in March, providing a much-needed counterweight to plunging stocks.



Index-based MJ weathered the market crash a little better than the actively managed CNBS, but the actively managed competitor has seen a stronger recovery since August.



During the past 12 months, value has been among the worst-performing equity factors, while momentum was one of the best.



Sources: FactSet, Bloomberg; data as of 10/31/2020

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The Truth About Bond ETF Liquidity

Given how liquidity in the bond market has dried up, many investors understandably have come worry about the liquidity risk of ETFs based on those bonds.

Some critics argue that if interest rates rise and spark a mass market exodus, bond ETF investors are the ones who'll get burned the worst. Others claim those fears are entirely overblown, and that in a panic, bond ETFs are the safest place to be. The truth is somewhere in the middle.

It comes back to how ETF liquidity works. If you're reading this publication, you understand the basics, and that it occurs on two tiers—at the level of the securities an ETF holds (primary liquidity) and at the level of the ETF itself (secondary liquidity).

IT'S MORE THAN THE BONDS

The bond market is more illiquid than the stock market. Many bonds trade infrequently. What's more, new regulations introduced in the wake of the 2008-09 financial crisis have dried up bond market liquidity even further, making it harder for banks to maintain deep inventories and retain talent.

But bond ETF liquidity isn't wholly dictated by the underlying bond market. An ETF's liquidity is a function both of how it trades in the secondary market and how easily APs can create and redeem ETF shares. The liquidity of the bond market is only part of the puzzle.

In fact, because bond ETFs are so liquid, they can sometimes circumvent illiquidity in their underlying bonds because they'll trade when their underlying bonds won't. Research by BlackRock shows that bond ETFs trade, on average, four to five times more frequently than the underlying bond market.

PRIMARY LIQUIDITY MATTERS

Primary liquidity is still important, however. It's tempting to think that the liquidity of the underlying bonds doesn't matter to ETF investors. But that's not true. Primary liquid-

ity, for example, influences the premiums and discounts that an ETF develops.

When it's hard for an AP to buy up underlying bonds, they're more likely to let the ETF trade at a premium to its market price before making new shares. Likewise, when investors want out, an AP will also let the ETF trade at a discount to net asset value (NAV) before buying up the ETF shares to redeem if those underlying bonds are illiquid.

Though most retail investors can focus on secondary, "on screen" liquidity, the liquidity of the underlying market is always important.

LIQUIDITY WHEN RATES RISE

If interest rates rise and liquidity dries up from the underlying bond market altogether, it's unlikely investors will lose their shirts to mispricing and enormous discounts to NAV.

For starters, a bond ETF's price, even at a discount to NAV, may actually be a better measure of the fair value of its portfolio than the prices of its underlying bonds. Individual bond values are hard to calculate for a number of reasons, and the investment industry relies on bond pricing services, trading desk surveys, matrix models and so on for accurate pricing.

In stressed markets, an ETF's price may fall below its reported NAV. When that happens, it essentially means the APs think the bond pricing service is wrong and don't believe they can actually liquidate the underlying bonds for their reported values.

Large premiums and discounts don't necessarily signal mispricing in a bond ETF. Instead, the ETF may be performing price discovery for the value of its underlying bonds. This is more likely the case if the ETF's shares trade regularly, and with high volume. Also in the case of a bond panic, ETF shareholders don't get stuck bearing the costs of other shareholders exiting their positions, unlike what happens with mutual funds. ●

SELECTED TERMS

Counterparty Risk

It's the risk an investor faces that whoever is on the other side of the deal might fail. For example, ETF issuers offer a pattern of returns for a given fee in an ETF wrapper. They can be a source of counterparty risk if they don't deliver on what that ETF prospectus promises. Depending on the type of exchange-traded product, counterparty risk is higher or lower. Exchange-traded notes, which are debt instruments, pose counterparty risk associated with the institutions backing them and whether they can meet these debt obligations. ETFs that use a lot of derivatives contracts in their portfolios can also face counterparty risk stemming from the parties issuing these contracts.

Custom Basket

Like it sounds, a custom basket refers to a select grouping of securities, customized for a purpose. In ETFs, custom baskets come into play during the creation/redemption process for the purpose of improving tax efficiency. When ETF issuers rebalance portfolios, some ETF holdings may have incurred capital gains, which would have to be realized at rebalance. A custom basket is an in-kind mix of only certain securities the ETF issuer wants to trade (redeem) to avoid having to pass on capital gains distributions down the road. Until recently, only some ETFs were allowed to use custom baskets, but the Securities and Exchange Commission changed that when, in September 2019, it approved Rule 6c-11, known as the "ETF Rule." Under the new rule, effective in 2020, all ETFs may use custom baskets, which is great news for ETF investors everywhere.

Market Maker

Also known as a liquidity provider, a market maker is someone who facilitates ETF trading, ensuring tight bid/ask spreads, depth and smooth trading throughout the day. Every ETF has a lead market maker, many of which are incentivized by exchanges to keep markets humming along.

Open-End Funds

These are portfolios of securities that have an elastic supply of shares that trade on an exchange at net asset value. ETFs and most mutual funds are open-end funds.

Securities Lending

This is the common practice of ETFs lending underlying securities to short-sellers. By lending out securities, the ETF picks up extra revenue that can ultimately lower overall costs and boost results for the ETF. If an ETF holds a hot in-demand security, lending it out can generate significant revenue for ETF shareholders. The biggest risk associated with this practice is counterparty risk.

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UPCOMING EPISODES

DECEMBER 1

Chris Huemmer, senior investment strategist at FlexShares ETFs, outlines the case for low volatility investing and their US Quality Low Volatility Index Fund (QLV)

Paul Dellaquila, president of Defiance ETFs, discusses the rise of special purpose acquisition companies (SPACs) and the Defiance NextGen SPAC Derived ETF (SPAK)

DECEMBER 8

George Milling-Stanley, chief gold strategist at State Street Global Advisors, weighs in on the gold versus bitcoin debate

Connor O'Brien, CEO & president of O'Shares ETFs, walks through their rules-based approach to investing

DECEMBER 15

Sarah Kjellberg, U.S. head of iShares Sustainable ETFs, goes in-depth on sustainable investing, including highlighting the iShares lineup of sustainable ETFs

DECEMBER 22

Ben Johnson, director of Global ETF Research at Morningstar, and **Dave Nadig**, chief investment officer and director of research at ETF Trends and ETF Database, recap the year in ETFs and look ahead to 2021

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Key Trends Captured In Largest New Launches



By Heather Bell
ETF Report Editor

Some interesting themes emerge with a little digging

On par with the rest of the world, this year has been a strange and wild ride for ETFs in many corners of the industry. Launches have been going strong, and closures have been hitting record levels before the 12 months are even over.

There were 235 launches in the first 10 months of 2020, and the largest of them are nothing to sneeze at. They are also perhaps the least surprising things about the events of 2020.

The top 20 launches of the first 10 months of 2020 basically reflect the most-talked-about trends of the year, but perhaps not in the way most might expect. Plain vanilla ETFs have long been the largest asset gatherers, and were well-represented in the ranks; however, ESG—perhaps the most talked about investment trend in 2020, with at least 20 associated launches—only had two representatives among the top launches.

But risk management tools are really the big winners. Defined outcome ETFs had their first truly big year, and similar strategies have proliferated. Investors have been nervous during the pandemic and in the lead-up to the election, increasing the appeal of such products. They're the largest category in the top 20 launches, outnumbering even the plain vanilla funds.

TOP 20 LAUNCHES OF 2020

1. **BBMC** JPMorgan BetaBuilders U.S. Mid Cap Equity
2. **SGOV** iShares 0-3 Month Treasury Bond
3. **KOKU** Xtrackers MSCI Kokusai Equity
4. **LDEM** iShares ESG MSCI EM Leaders
5. **DFEB** FT Cboe Vest U.S. Equity Deep Buffer ETF - February
6. **TDSC** Cabana Target Drawdown 10
7. **FLGV** Franklin Liberty U.S. Treasury Bond
8. **EDOC** Global X Telemedicine & Digital Health
9. **TDSB** Cabana Target Drawdown 7
10. **TECB** iShares U.S. Tech Breakthrough Multisector
11. **GSID** Goldman Sachs MarketBeta International Equity
12. **FFEB** FT Cboe Vest U.S. Equity Buffer ETF - February
13. **GSUS** Goldman Sachs MarketBeta U.S. Equity
14. **SIXH** 6 Meridian Hedged Equity-Index Option Strategy
15. **FDG** American Century Focused Dynamic Growth
16. **KJAN** Innovator Russell 2000 Power Buffer ETF - January
17. **TDSD** Cabana Target Drawdown 13
18. **WFH** Direxion Work From Home
19. **EUSB** iShares ESG Advanced Total USD Bond Market
20. **BETZ** Roundhill Sports Betting & iGaming

Source: FactSet; data as of 10/30/2020

1. BBMC	JPMorgan BetaBuilders U.S. Mid Cap Equity ETF
ASSET CLASS	Equity: U.S. - Mid Cap
AUM (\$M)	INCEPTION
\$1,001.92	4/14/20

2. SGOV	iShares 0-3 Month Treasury Bond ETF
ASSET CLASS	Fixed Income: U.S. - Government, Treasury Investment Grade Ultra-Short Term
AUM (\$M)	INCEPTION
\$915.16	5/26/20

7. FLGV	Franklin Liberty U.S. Treasury Bond ETF
ASSET CLASS	Fixed Income: U.S. - Government, Treasury/Investment Grade
AUM (\$M)	INCEPTION
\$422.67	6/9/20

PLAIN VANILLA LEADERS

Simple, plain vanilla passive investing took the crown for highest assets under management for new launches in 2020. The [JPMorgan BetaBuilders U.S. Mid Cap Equity ETF \(BBMC\)](#) claimed the top spot and had more than \$1 billion as of the end of October, after launching in mid-April. The equity fund is the latest of the passive market-cap-weighted ETFs that J.P. Morgan began rolling out in 2018.

The popular BetaBuilders family currently includes nine ETFs covering core asset classes with rock-bottom pricing. BBMC, for example, comes with an expense ratio of 0.07%. The broad U.S. ETF in the same family charges just 2 basis points.

Interestingly, the bulk of BBMC's assets came in quite recently: More than \$1 billion in flows flooded the fund in the last half of October.

The [iShares 0-3 Month Treasury Bond ETF \(SGOV\)](#) trailed fairly closely behind. The fund launched in late May and has \$915 million in assets. Because iShares is the largest ETF issuer in the world, it's not shocking that it has one of the year's top launches.

Maybe what's more surprising is that, with so many other ETF options for what is essentially a money market fund, SGOV took in nearly \$1 billion in about five months. The bulk of that comes from Boston Private Wealth, an advisory firm that, at last count, had \$737 million invested in the fund. SGOV tracks an index of U.S. Treasury securities with three months or less of remaining maturity.

Fixed income ETFs have been dominating ETF inflows in 2020, pulling in \$160 billion through the end of October versus \$91 million for U.S. equity ETFs, and SGOV is likely surfing that wave. Its bargain basement expense ratio of 0.03% probably doesn't hurt either.

One of the only other fixed income ETFs besides SGOV to make the top 20 was the [Franklin Liberty U.S. Treasury Bond ETF \(FLGV\)](#), which claimed the No. 7 spot, with \$424 million. The actively managed fund invests in U.S. Treasuries that have one to 30 years of remaining maturity. It uses derivatives to enhance its returns.

FEES FACTOR IN

The top two new ETFs of 2020 seem to reflect the fact that the lowest-cost and simplest ETFs claim the highest assets every year. This trend continues with the [Xtrackers MSCI Kokusai Equity ETF \(KOKU\)](#), which launched in April and had \$731 million in assets under management at the end of October. It's in the No. 3 spot.

KOKU is interesting, because it has one institutional shareholder that represents most of the fund's assets: Nissay Asset Management, a subsidiary of Nippon Life Group. The ETF is basically an EAFE fund for Japanese investors, tracking developed markets with the exception of Japan.

The fund has one competitor, the [iShares MSCI Kokusai ETF \(TOK\)](#), which has been around since 2007 and has about

\$152 million in AUM. The reason for that disparity is likely the fact that TOK costs 0.25% versus KOKU's 0.09% expense ratio.

Further down the list of top new launches are two plain vanilla funds launched by Goldman Sachs. The [Goldman Sachs MarketBeta International Equity ETF \(GSID\)](#) and the [Goldman Sachs MarketBeta U.S. Equity ETF \(GSUS\)](#) claimed the No. 11 and 13 spots, with \$263 million and \$243 million in assets, respectively.

The two funds were part of a three-fund rollout in May and track simple cap-weighted indexes: one covering developed markets and the other the U.S. They are the first plain vanilla funds to be added to the Goldman lineup, one similar in simple vanilla construction to the JP Morgan BetaBuilders brand.

Clearly the titans of Wall Street are all in regarding their ETF push.

3. KOKU	Xtrackers MSCI Kokusai Equity ETF
ASSET CLASS	Equity: Developed Markets Ex-Japan - Total Market
AUM (\$M)	INCEPTION
\$731.12	4/8/20

11. GSID	Goldman Sachs MarketBeta International Equity ETF
ASSET CLASS	Equity: Developed Markets Ex-U.S. - Total Market
AUM (\$M)	INCEPTION
\$262.86	5/12/20

13. GSUS	Goldman Sachs MarketBeta U.S. Equity ETF
ASSET CLASS	Equity: U.S. - Total Market
AUM (\$M)	INCEPTION
\$243.27	5/12/20

ESG NEWCOMERS

This was a big year for ESG investing, and two environmental, social and governance ETFs in particular received a warm welcome. The [iShares ESG MSCI EM Leaders ETF \(LDEM\)](#) claimed the No. 4 spot, with \$661 million after launching in February. Meanwhile, the [iShares ESG Advanced Total USD Bond Market ETF \(EUSB\)](#) fell into the No. 18 spot, with \$136 million after launching in June.

LDEM counts Finnish pension insurer Ilmarinen as its largest shareholder. Ilmarinen was behind two of the biggest launches of 2019, both of which are ESG funds.

EUSB is notable because it's one of the few fixed income ESG funds available to investors.

4. **LDEM** iShares ESG MSCI EM Leaders ETF

ASSET CLASS	Equity: Emerging Markets - Total Market
AUM (\$M)	INCEPTION
\$660.71	2/5/20

19. **EUSB** iShares ESG Advanced Total USD Bond Market ETF

ASSET CLASS	Fixed Income: U.S. - Broad Market
AUM (\$M)	INCEPTION
\$135.59	6/23/20

NONTRANSPARENT ACTIVE

Surprisingly, despite a decade of hype before they started launching, only one nontransparent actively managed ETF made it into the ranks of the top launches in 2020. The [American Century Focused Dynamic Growth ETF \(FDG\)](#) was No. 15 on our list, with \$190 million at the end of October.

The fund invests primarily in midcap and large cap U.S. growth companies. It discloses its holdings 15 days after the end of each quarter—rather than daily or monthly—and are therefore referred to as semitransparent ETFs. Although roughly a dozen active funds that don't disclose their holdings daily have rolled out, FDG is the only one that cracked the top 20 ranks.

15. **FDG** American Century Focused Dynamic Growth ETF

ASSET CLASS	Equity: U.S. - Large Cap
AUM (\$M)	INCEPTION
\$190.12	3/31/20

8. **EDOC** Global X Telemedicine & Digital Health ETF

ASSET CLASS	Equity: Global Health Care
AUM (\$M)	INCEPTION
\$387.13	7/29/20

18. **WFH** Direxion Work From Home ETF

ASSET CLASS	Equity: Global Casinos / Gaming
AUM (\$M)	INCEPTION
\$136.70	6/25/20

10. **TECB** iShares U.S. Tech Breakthrough Multisector ETF

ASSET CLASS	Equity: U.S. - Total Market
AUM (\$M)	INCEPTION
\$318.69	1/8/20

20. **BETZ** Roundhill Sports Betting & iGaming ETF

ASSET CLASS	Equity: Global Casinos / Gaming
AUM (\$M)	INCEPTION
\$128.57	6/4/20

CORONAVIRUS TRENDS

The year also saw a bevy of new ETFs launch after the effects of the coronavirus became clear. The [Global X Telemedicine & Digital Health ETF \(EDOC\)](#) is perhaps the most successful of these. It launched in late July and currently has \$387 million, claiming the No. 8 slot in the top 20.

EDOC is a pretty straightforward fund that clearly was intended to capitalize on the paradigm shifts caused by the pandemic. However, its close neighbor on the list, the [iShares U.S. Tech Breakthrough Multisector ETF \(TECB\)](#), rolled out in January, well before COVID-19 really took off at the global level. That said, TECB captures many of the trends that pandemic-inspired ETFs are focused on. It has \$318 million in assets and fell into the tenth spot on the list.

The [Direxion Work From Home ETF \(WFH\)](#) and the [Roundhill Sports Betting & iGaming ETF \(BETZ\)](#) are in the Nos. 18 and 20 spots, respectively, with \$137 million and \$129 million in assets. The former launched in late June, while BETZ debuted earlier in the month.

WFH is an obvious pandemic beneficiary, while BETZ is probably less so. However, it's a unique fund that no doubt got a boost from millions of consumers finding themselves sequestered in their homes with an internet connection—and probably some beer.

RISK MANAGEMENT

ETFs DOMINATE

Market risk has been at the forefront of investors' minds, and in 2020 we saw a host of new-to-ETFs tools hit the market, including seven funds that made it into the top 20.

First Trust saw two of its defined outcome ETFs gather significant assets during the year. These risk management tools allow investors to see their downside exposure mitigated, usually to the tune of 5% or more, while their upside participation is also limited or reduced.

The [FT Cboe Vest U.S. Equity Deep Buffer ETF - February \(DFEB\)](#) protects against losses ranging from 5-30%, meaning that investors can lose up to 5% in a decline, but then are protected from further losses up to a 30% decline in the S&P 500 Price Index. DFEB ended October with \$506 million in assets and claimed the No. 5 spot.

Its counterpart, the [FT Cboe Vest U.S. Equity Buffer ETF - February \(FFEB\)](#), claimed the No. 12 spot, with \$245 million in assets. It protects the investor against the first 10% of losses.

Newcomer Cabana saw three of its ETFs make it into the top 20. The funds in this family, which all launched in September, invest in multiple asset classes—including equities, fixed income, real estate, currencies and commodities—with the intention of limiting downside risk and allowing the investor to stay invested in the market. Its strategy relies on repeating business cycles, with funds looking to limit losses to targeted percentages ranging from 5% to 16%, though the methodology is very different from those of defined outcome ETFs.

BYOA Becoming House Rule

Much of what we've seen above are prime examples of the "Bring Your Own Assets" (BYOA) trend that's

been prevalent in the ETF space during the past few years. The strategies were previously available as separately managed accounts.

With Cabana, the new products were seeded with a total of \$1 billion—not bad for a small advisory firm that just passed \$1 billion in assets under management before getting into ETFs for the first time.

The three funds included in the top 20, and their assets, are as follows: [Cabana Target Drawdown 10 ETF \(TDSC\)](#), \$502 million; [Cabana Target Drawdown 7 ETF \(TDSB\)](#), \$329 million; and [Cabana Target Drawdown 13 ETF \(TSSD\)](#), \$158 million. The funds claimed the Nos. 6, 9 and 17 spots, respectively, among the top funds.

Another risk management ETF in that top 20 is the [6 Meridian Hedged Equity-Index Option Strategy ETF \(SIXH\)](#), which rolled out in May, and claimed the No. 14 spot.

While the entire 6 Meridian family of ETFs has a focus on high quality or low volatility stocks, SIXH is the only one that implements an options-based hedging strategy designed to perform well in down markets. Wealth manager 6 Meridian, similar to Cabana, packaged products it had run in other wrappers into an ETF structure; almost all of its four ETFs have substantial assets.

Finally, the defined outcome [Innovator Russell 2000 Power Buffer ETF - January \(KJAN\)](#), the remaining risk management ETF in the top 20, claims the No. 16 spot, with \$166 million in assets. It's not surprising that this particular fund should have so much in assets: Small cap stocks have been a popular asset class for investors seeking diversification, but they've severely underperformed the broader U.S. market year to date. Innovator rolled out its first buffer funds in 2018 and has since amassed \$4.5 billion in assets in this category. ●

5. **DFEB** FT Cboe Vest U.S. Equity Deep Buffer ETF - February

ASSET CLASS	Equity: U.S. - Large Cap
AUM (\$M)	INCEPTION
\$505.87	2/21/20

6. **TDSC** Cabana Target Drawdown 10 ETF

ASSET CLASS	Asset Allocation: Target Outcome
AUM (\$M)	INCEPTION
\$502.18	9/16/20

9. **TDSB** Cabana Target Drawdown 7 ETF

ASSET CLASS	Asset Allocation: Target Outcome
AUM (\$M)	INCEPTION
\$329.04	9/16/20

12. **FFEB** FT Cboe Vest U.S. Equity Buffer ETF - February

ASSET CLASS	Equity: U.S. - Large Cap
AUM (\$M)	INCEPTION
\$245.04	2/21/20

14. **SIXH** 6 Meridian Hedged Equity-Index Option Strategy ETF

ASSET CLASS	Equity: U.S. - Large Cap
AUM (\$M)	INCEPTION
\$190.12	5/11/20

16. **KJAN** Innovator Russell 2000 Power Buffer ETF - January

ASSET CLASS	Equity: U.S. - Small Cap
AUM (\$M)	INCEPTION
\$166.05	1/1/20

17. **TSSD** Cabana Target Drawdown 13 ETF

ASSET CLASS	Asset Allocation: Target Outcome
AUM (\$M)	INCEPTION
\$158.40	9/16/20

Source: FactSet; data as of 10/31/2020



By Sumit Roy
Senior Staff Writer
for ETF.com

Not every viable
ETF gathers large
amounts of assets
right out of the gate

INTERESTING LAUNCHES IN 2020



Launching a successful ETF is hard. Launching one that takes off immediately is even harder.

Sometimes it takes a while for a fund to catch on with investors. A period of strong performance or a strategy that finds itself at the right place at the right time could propel an ETF from obscurity into popularity in a snap.

We've written about the top 20 ETF launches of 2020 on page 12 of this issue. Here we take a look at some of the interesting launches of the year that fall outside that list—funds that haven't necessarily captured a ton of investor dollars just yet, but that are compelling enough that they could find themselves in the limelight in the future.

REACHING FOR YIELD

Collateralized debt obligations (CDOs) got a bad rap during and after the global financial crisis, and rightfully so. They were a large contributor to the woes inflicted on the financial system more than a decade ago.

It may be surprising then that a similar group of securities is as popular as ever today: collateralized loan obligations (CLOs). Just like CDOs, CLOs group illiquid securities into batches that are then securitized and sold to investors. Instead of the mortgage-backed securities that make up CDOs, CLOs are typically composed of leveraged loans, or floating rate bank loans with low credit ratings.

And just like CDOs, CLOs are tranching debt securities. That means the highest-rated slices get paid before lower-rated slices get their share.

The [Janus Henderson AAA CLO ETF \(JAAA\)](#) focuses on these CLOs: the highest quality tranches with the lowest default risk. It's a strategy that could be attractive for investors looking for the extra yield of leveraged loans with the security of the senior tranches.

The fund attracted a cool \$120 million in one short month on the market, but it has the potential to grow much more in today's low yield environment. Its sole competitor is the [AAF First Priority CLO Bond ETF \(AAA\)](#), which was first to market from a brand new issuer, and has roughly \$10 million in AUM so far.

SECTOR PICKING

Active management is usually thought of as "stock picking." But that's just one way to do it. Another way to do it is a step higher, at the sector level. That's what the [Day Hagan/Ned Davis Research Smart Sector ETF \(SSUS\)](#) does.

It picks and chooses which of the 11 stock market sectors to overweight and underweight based on a proprietary sector model. You can call it "sector picking."

According to the manager, sectors are weighted based on fundamental, technical, economic and behavioral indicators.

SSUS has picked up \$123 million since its January debut.

NEXT GEN OF TRIPLE Q'S

The triple-Q's are as popular as ever. The [Invesco QQQ Trust \(QQQ\)](#), one of the first ETFs on the market, is having one of its best years ever, in terms of both inflows and performance.

It's not a surprise then that the ETF's issuer, Invesco, added another fund to its lineup, based on a similar theme. The [Invesco NASDAQ Next Gen 100 ETF \(QQQJ\)](#) tracks what Invesco calls the next generation of Nasdaq-listed companies.

While QQQ focuses on the 100 largest nonfinancial firms on the exchange, QQQJ tracks the next 100 biggest. The result is a completely different portfolio, but one that's still heavy on technology and health care. The two sectors combine to make up nearly 65% of the ETF.

But where QQQJ really differs from its counterpart is the market capitalization of its holdings. QQQJ's top holdings are in the \$30 billion to \$40 billion range, while QQQ, of course, holds giants with market caps of over \$1 trillion.

For investors looking to invest in Nasdaq-listed tech and health care stocks on the smaller side, QQQJ is an intriguing option. The fund currently has \$167 million in assets under management.

Others may find some interest in a QQQ clone that Invesco launched at the same time as QQQJ. The [Invesco Nasdaq 100 ETF \(QQQM\)](#) is 5 basis points cheaper than QQQ—at 0.15%—and provides an alternative vehicle to investors more concerned about cost than liquidity.

REFERENCED ETFs

TICKER	FUND	EXPENSE RATIO	AUM (\$M)	INCEPTION	SEGMENT
JAAA	Janus Henderson AAA CLO ETF	0.25%	120.4	10/16/20	Fixed Income: Global - Corporate, Bank Loans Investment Grade Floating Rate
AAA	AAF First Priority CLO Bond ETF	0.25%	10.0	9/9/20	Fixed Income: U.S. - Corporate, Bank Loans Investment Grade Floating Rate
SSUS	Day Hagan/Ned Davis Research Smart Sector ETF	0.79%	124.5	1/17/20	Equity: U.S. - Large Cap
QQQJ	Invesco NASDAQ Next Gen 100 ETF	0.15%	179.1	10/13/20	Equity: U.S. - Large Cap
QQQM	Invesco NASDAQ 100 ETF	0.15%	-	10/13/20	Equity: U.S. - Large Cap
VCEB	Vanguard ESG U.S. Corporate Bond ETF	0.12%	59.9	9/22/20	Fixed Income: U.S. - Corporate, Broad-based Investment Grade
EUSB	iShares ESG Advanced Total USD Bond Market ETF	0.12%	135.4	6/23/20	Fixed Income: U.S. - Broad Market
SPAK	Defiance Next Gen SPAC Derived ETF	0.45%	21.2	9/30/20	Equity: U.S. - Total Market
INDF	Nifty India Financials ETF	0.75%	2.8	10/20/20	Equity: India Sector Financial Services
CHB	Global X China Biotech Innovation ETF	0.65%	-	9/22/20	Equity: China Biotech

Source: FactSet, data as of 11/12/2020

2020 has been a banner year for ESG

ESG MOVES TO FIXED INCOME

2020 has been a banner year for ESG. ETFs that select stocks based on environmental, social and governance criteria have really caught the attention of investors, who have added billions of dollars to those funds.

Could fixed income ETFs be next? Vanguard seems to think so. The venerable fund company launched the [Vanguard ESG U.S. Corporate Bond ETF \(VCEB\)](#) in September, and the fund has already picked up a solid \$60 million in assets.

VCEB tracks the broad U.S. investment-grade corporate bond universe based on the Bloomberg Barclays US Corporate Index. It then narrows its portfolio based on ESG criteria supplied by index company MSCI.

While VCEB is not the first ESG bond ETF to the market, it is significant that Vanguard's first ETF launch in two years is in this category. A similar launch this year was the [iShares ESG Advanced Total USD Bond Market ETF \(EUSB\)](#), which rolled out in June and currently has \$135 million.

SPAC PHENOMENON

If you made a list of top financial market stories of the year, the explosion of the special purpose acquisition companies (SPACs) has to be on it.

SPACs, which are also known as blank check companies, have dominated the initial public offering (IPO) market this year, raising \$63.6 billion via 174 IPOs, according to SPAC Insider. That's more money raised through SPACs than in the past 10 years combined.

These companies raise money in the hopes of merging with private companies, offering a quicker, more guaranteed route to the public markets for those companies than if they went through the traditional IPO process.

SPACs have historically had a reputation of bringing low quality, specula-

tive companies to market. But several successful SPAC mergers this year – like those that brought DraftKings, Virgin Galactic and Hyliion public – have piqued investors' appetite for this up and coming asset class.

The [Defiance Next Gen SPAC Derived ETF \(SPAK\)](#) is the first ETF to capitalize on the trend. The fund currently has 36 holdings, 80% of which are stocks of companies that have already gone through the complete SPAC process, and another 20% in SPACs that are still searching for companies to merge with. SPAK has \$21 million in AUM.

It remains to be seen whether this year's SPAC phenomenon has staying power, but if it does, SPAK is one potential way to play it.

NON-US COUNTRY SECTORS

ETFs covering specific slices of foreign markets were once quite common, but they've mostly disappeared due to difficulty in gathering assets, unless they target the Chinese market. However, 2020 saw the launch of at least two international sector funds.

The [Nifty India Financials ETF \(INDF\)](#) is the more recent rollout, and the first of its kind from a new entrant to the ETF markets: NextFins. There have been funds, now long closed, that tracked India's small cap market and infrastructure sector, but none has covered India's financials market.

Meanwhile, in September, Global X rolled out another addition to its broad offering of China-focused sector and industry funds with the launch of the [Global X China Biotech Innovation ETF \(CHB\)](#). ●

HOW DO YOU COMPARE ETFs?

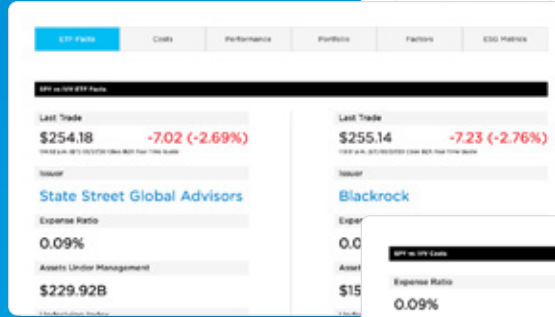
At ETF.com, we understand that not all ETFs are created equal

ETF Comparison Tool

Simply select two ETF tickers using the search boxes and you'll instantly be able to compare two ETFs

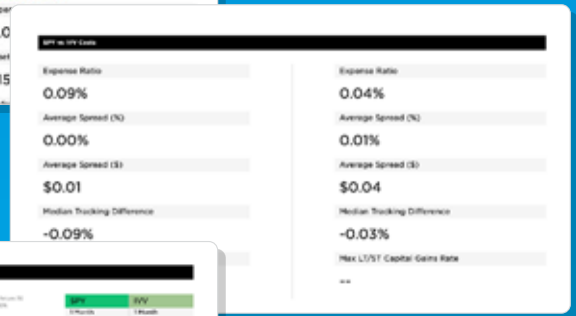
Real-Time ETF Quotes

Compare the most recent price, issuer, expense ratio, AUM, underlying index and number of holdings per fund



ETF Cost Breakdown

Take an in-depth look at how each fund's costs compare



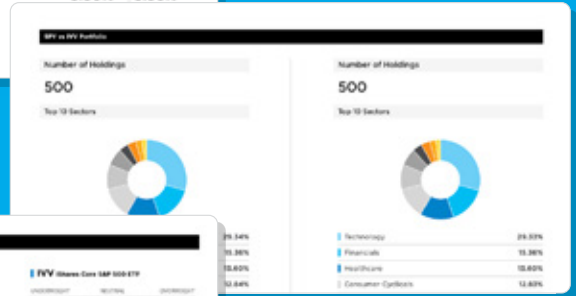
Fund vs. Fund Performance

Compare how each fund performed year-over-year



Portfolio Makeup

Top 10 sector and stock holdings



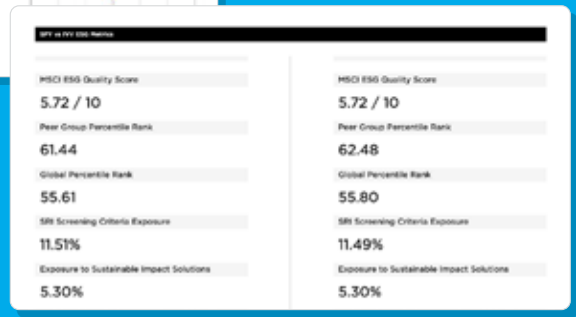
MSCI Factor Box

Easy-to-compare factor boxes



MSCI ESG Metrics

Key ESG metrics breakdown



Learn more at ETF.com/etfanalytics/ETF-comparison-tool

ETFs

ETFs look a lot different than when they were first launched nearly 30 years ago

MOVING BEYOND PASSIVE ROOTS

The U.S. ETF industry has come a long way from its roots of low-cost marketlike passive investing. That initial value proposition of the index-based ETF wrapper has matured, and is now trying to break new ground to grow.

Is this a good evolution when it comes to investing, or should we be concerned?

From the original [SPDR S&P 500 ETF Trust \(SPY\)](#) to the 2,300-plus U.S.-listed ETFs today, we've witnessed a lot of them – many of them full of bells and whistles – come and go over the years.

This year, the shockwaves of a global pandemic hitting markets fueled a lot of fanfare around things like thematic ETFs, actively managed funds and even the arrival of non-transparent strategies.

Perhaps lost in the wave of new and right-for-the-time ETF tools that have dominated our attention this year was the simple idea that broad-based passive index investing with a long time horizon is still a sound strategy for anyone looking to weather the ups and downs of markets.

It's been easy to wonder in 2020 if the originally – and predominately – passive ETF market of yore is also the ETF market of the future.

In truth, it depends who you ask.



By Cynthia Murphy
Managing Editor of ETF.com

YEAR-TO-DATE TOP GAINERS
FIGURE 1

TICKER	FUND	NET FLOWS (\$M)	AUM (\$M)	% OF AUM	OCT 2020 NET FLOWS (\$M)
VOO	Vanguard S&P 500 ETF	23,824.73	157,286.99	15.15%	216.27
VTI	Vanguard Total Stock Market ETF	21,839.67	163,635.35	13.35%	3,759.84
GLD	SPDR Gold Trust	20,307.24	75,623.38	26.85%	-628.65
LQD	iShares iBoxx USD Investment Grade Corporate Bond ETF	17,553.58	56,464.24	31.09%	1,150.75
QQQ	Invesco QQQ Trust	15,929.60	130,921.16	12.17%	-105.38
BND	Vanguard Total Bond Market ETF	13,269.44	64,108.78	20.70%	1,978.41
VCIT	Vanguard Intermediate-Term Corporate Bond ETF	12,218.37	39,497.68	30.93%	659.67
VXUS	Vanguard Total International Stock ETF	11,078.92	28,260.24	39.20%	2,601.48
IAU	iShares Gold Trust	9,586.69	31,680.34	30.26%	558.12
AGG	iShares Core U.S. Aggregate Bond ETF	9,290.68	81,734.87	11.37%	1,178.56

Source: FactSet; data as of 10/31/2020

‘THE DOOR HAS BEEN OPENED A LITTLE MORE THAN NORMAL TO SHINY OBJECTS’

LOSING FOCUS

Some long-timers say that the ETF industry may have lost its focus as it’s grown, and gotten caught in the hype and the thrill of “what’s new.” Is the effort by issuers to keep feeding the beast with new fare leading the industry astray, away from the core benefits of ETFs in the building of a low cost, well-diversified portfolio?

A recent marketing campaign from ARK Funds, the poster child for successful active management, is a good example of that concern. The campaign, which takes aim at broad-based passive investors, ties back to a report the company calls “The Bad Ideas report.”

The gist of the message is that owning the market through broad-based passive products simply wouldn’t do for anyone serious about investing for the future.

That type of investing, the firm says, is best suited for investors “afraid” of innovative companies, looking for the “comfort” of what they know has worked in the past. According to ARK founder Cathie Wood, the campaign is simply meant to be “provocative” in order to jolt investors into thinking differently about investing.

The campaign is hardly representative of the industry as a whole, and while ARK is all-in on active investing, it’s obvious that suggesting that broad-based passive investing is cowardly would rub some people the wrong way.

“Everyone likes to chase performance. A lot of managers crash and burn when they do something like ARK did,” said Rick Ferri, a well-known advisor, and founder of Ferri Investment Solutions. “You have to stay humble. I’ve been around the business a long time, and when we see managers get this confident, maybe the cycle is about to come to an end.”

ACTIVELY CATCHING UP

The increase in new launches and asset flows in the active management ETF segment suggests this space is just now catching speed.

A look at the new 235 ETFs that have come to market this year shows that more than half of new ETF launches (through

Oct. 31) were actively managed ETFs. That represents more than 120 new funds in total, some of them in semi- and non-transparent wrappers. (Remember that daily transparency of portfolio holdings has been one of the most beloved benefits of ETFs over mutual funds since the beginning. Lack of transparency is now the latest in ETF innovation.)

Only 12% of the launches—about 29 new ETFs—were categorized as vanilla, according to FactSet data. And vanilla here goes a long way from a broad-based market-cap-weighted portfolio to include even thematic ETFs.

That’s not surprising: With some 120 ETF issuers in the market and more coming in at rapid speed—thanks to the lower-bar-to-entry courtesy of the ETF Rule—product development and innovation will try to go where few have gone before. At times, it may go places that don’t really seem to benefit long-term investors very much.

But the low cost, broad-based beta world—the cap-weighted funds of the world—is pretty crowded already. Unless it’s to bring in something infinitely cheaper—which is hard to do in the era of Vanguard, and with 0.03% expense ratios common in this space—finding a new tune and reaching a new crowd will take some clever thinking.

HYPE VS. IMPLEMENTATION

This concern about a veering industry focus aimed at growing the size of the asset pie—if we can even say that—may be more about confusing noise for implementation.

“There’s no question that launches have been much more focused on shiny objects or innovation, because asset managers are working hard to find opportunity in a very saturated market,” said FactSet Director of ETF Research Elisabeth Kashner. “That’s reflected in the count of launches and closures,”

“But that’s what asset managers are doing,” she added. “ETF investors don’t have to follow what asset managers are doing. What we see in investor behavior is entirely different, and reflected in asset flows.”

As of the end of October, the biggest ETF creations com-

prised cheap beta products like the [Vanguard S&P 500 ETF \(VOO\)](#), with \$23 billion in net inflows; the [Vanguard Total Stock Market ETF \(VTI\)](#), with \$22 billion in net inflows; the [iShares iBoxx USD Investment Grade Corporate Bond ETF \(LQD\)](#); [Invesco QQQ Trust \(QQQ\)](#); the [Vanguard Total Bond Market ETF \(BND\)](#) and so on (Figure 1).

“How many shiny objects do you find in that list of flows?” Kashner said.

‘95/5 PHENOMENON’

Eric Balchunas, senior ETF analyst at Bloomberg Intelligence, has been tracking the ETF market with a fine-tooth comb on a daily basis for a long time, and he best illustrated the difference between what we, in this industry, pay attention to, and what ETF investors are actually doing.

What we find fascinating when it comes to storytelling may be very different from how we actually invest our money. He called it the “95/5 Phenomenon” (Figure 2).

“It can feel as though some of the non-Bogle-like shiny objects and ideas that are outside of dirt cheap beta are taking over, but they get a lot more press because they’re more interesting to talk about,” Balchunas said. “There’s plenty of money going into cheap beta.”

“Theme ETFs are having a good year because of COVID-related themes,” he explained. “It’s an unusual year, where the door has been opened a little more than normal to shiny objects, but at least two-thirds of the money continues to go to Bogle-like products.”

ETF issuers that are bringing to market some of these ETFs that fall into the “shiny object” category may be finding success because they appeal to a new group of investors. As Ferri put it, they’re chasing “thematic-type hot money,” or traditional active fund buyers that are now entering the ETF fold

for the first time. Some of the newest ETF issuers are veterans of the mutual fund world looking to break into the ETF space because that’s where their clients want to go.

That’s not a loss for the ETF industry, or a surrender to the noisemakers. That’s a win for the ETF wrapper itself.

U.S.-listed ETFs had attracted more than \$350 billion in 2020 as of the end of October, putting the overall market close to the \$5 trillion-in-assets mark—the bulk of which remains allocated to broad-based plain vanilla funds.

“More money dollarwise will continue to go to BlackRock and Vanguard, but it’s going to continue to get more dispersed,” Ferri said. “That’s not a signal that people are doing more of this new ‘other stuff,’ but that they’re doing more of it in ETFs now rather than in mutual fund wrappers.”

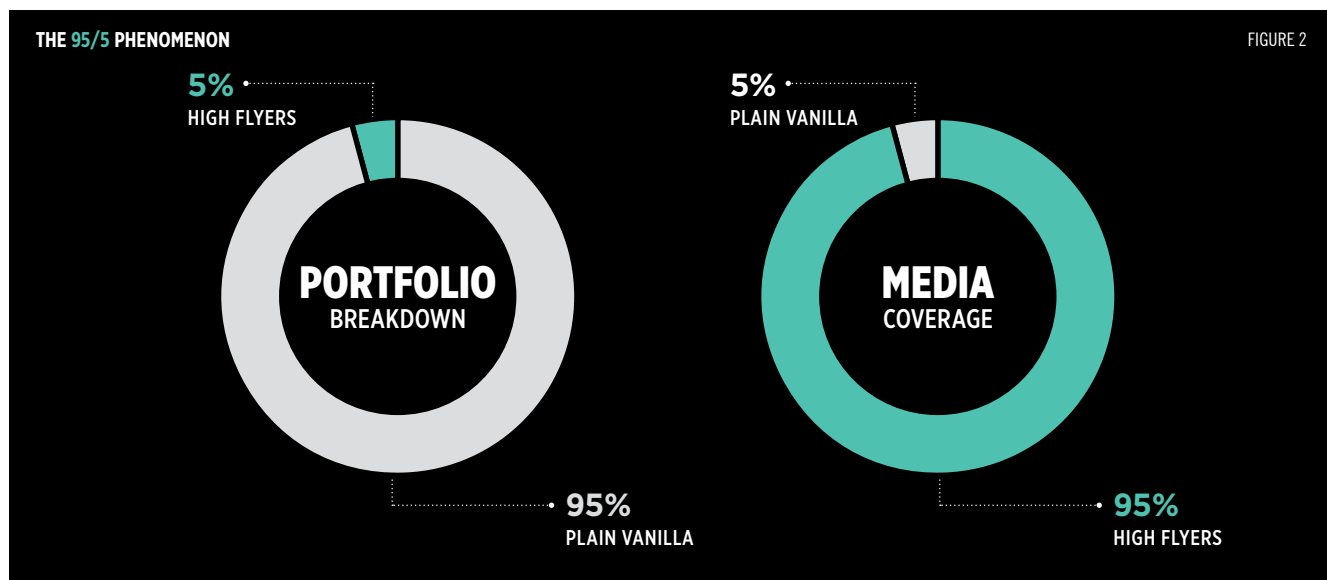
ISSUER VS. INVESTOR DISCONNECT?

The data suggests there’s a disconnect between ETF issuers and ETF investors when it comes to new product ideas and actual demand for implementation. New is attention-grabbing, but it’s not always right for everyone.

“Product development hasn’t lost its way, but messaging perhaps has,” Ferri noted. “Part of the problem is that ETF issuers don’t want to advertise direct to retail. They want to advertise to advisors. But individual buyers, as a market, are 50x the size of the advisor market.”

Ferri says that if you want to grow your ETF footprint today as a new entrant, coming up with a novel idea is less important than messaging what actually sells: tax efficiency.

“ARK is doing that well, spot on, even if their latest marketing campaign misses the most important message,” Ferri said. “The way to get the audience to listen is taxes. You don’t want taxes. And ETFs give you that: They’re cheaper and you don’t have to pay taxes at the end of the year.” ●



Source: Bloomberg/Eric Balchunas



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ETF Dictionary

Stumped on an ETF term? We get it! The ETF world has many unique terms that may not be familiar to some investors. Here's a quick guide to some key definitions.

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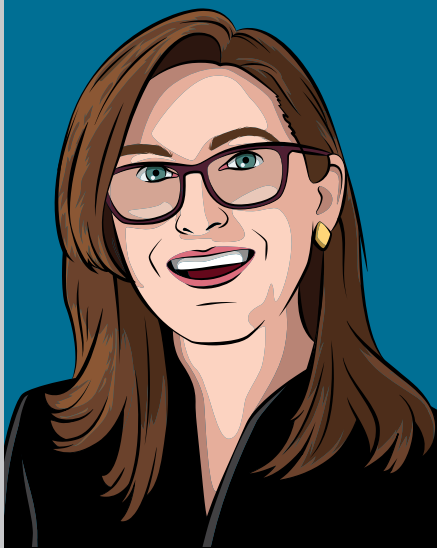
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CATHIE WOOD

The Sensational Year For Ark ETFs

By Cinthia Murphy



It may have been a challenging year for active investors everywhere, but 2020 will go down in history as the best year yet for ARK Funds. The boutique ETF active manager known for sometimes-contrarian conviction in disruptive innovation saw founder Cathie Wood and its ETF tickers become household names.

Through the end of October, ARK had picked up some \$10 billion in net creations, led by the \$5.2 billion asset haul of the [ARK Innovation ETF \(ARKK\)](#). ARKK is now the biggest active equity ETF in the market, with \$10.9 billion.

Here, Wood tells us what she's taking away from the roller coaster that has been 2020.

ARK has consistently pulled in assets throughout 2020. To what do you attribute this breakout year?

A couple of things have happened this year. First, innovation takes off during tough times. That's when consumers and businesses are willing to think about doing things differently. They're scared. They're looking for answers, solutions to their problems. And we have a lot of problems.

Because innovation in products and services is usually cheaper, faster, more productive and more creative, people turn to it much more quickly than would otherwise be the case. Some of the companies we invest in are telling us that they didn't expect to see these sorts of customers or clients for at least three to five years, but they're all coming to them now.

The other reason ARK has seen inflows, even when the market's been unsettled, is because of our communication with clients. We have webinars once a month, and anyone can join. All of our analysts are on them.

[Early in the pandemic.] I started doing YouTube videos every Friday, "Stay at Home With Cathie." I'm not saying we're the reason [investors] did anything differently, but at least they had data to back up some of the decisions they were making.

Active management in the ETF space has seen slow growth from the beginning. You stand out on three fronts: great storytelling; full transparency, which is unheard of among active managers; and die-hard conviction. Is that the winning recipe for ETF active managers?

The ETF world is so fond of transparency, it's almost become a part of the ETF industry's identity. That's why we wanted to do it, so I agree on the importance of transparency. We publish our trades every day—anyone who signs up for our newsletter can get it.

We had an explosion of requests during the coronavirus because they knew we were actively managing the portfolios aggressively every day. We disclose not only our holdings at the end of every day, but our trades every day, and our research has been key.

Our research is the starting point for the storytelling. As a portfolio manager, I need to be able to communicate our research, but some of it is so deep in the weeds, I have to pull it out and just say, "OK, this is what is important here. This is what will move people into thinking about this, even if they don't act on it."

That's really what we want, to communicate to people how their lives are going to change. The storytelling is really important. And believe me, sometimes, especially in the genomics space, we have to take a number of cuts at it, because it's very, very tough stuff!

Out of our research comes the conviction you're talking about. In fact, it helps, as I'm digging deeply into the research and pulling out what we can share with people, to increase my own conviction as a portfolio manager. It's a virtuous cycle.

One of the most important metrics for an active manager is performance. Do you worry that the stellar run ARK ETFs have had this year may come to an end, and folks will hold you to it?

We're going to go through periods of underperformance here and there, and

we'll have critics dismissing our strategies—as they already are—as nothing but a bubble strategy. I'll be fine with it. I'm convinced that our strategy, which will go through periods of underperformance—it's inevitable—will get back on the relative outperformance track. The platforms and technologies around which we base all of our research are ready for prime time. Many are already in prime time. And they're moving at an exponential growth rate.

Now, many people don't know what that is, because it doesn't happen very often. But we got a glimpse from the tech and telecom bubble—Amazon, in particular—that companies, if they've invested aggressively in the short term, and sacrificed short-term profitability, will capture the lion's share of some massive markets.

in price would have meant some very good periods.

But the end of the story is, whale oil died. We do think the end of the story is that oil is in a world of hurt for a very long time. That doesn't mean you can't pick up value and trade on it. However, we're not going to do that—that's not what we do; others will do it much better.

The other thing I'll say about value and growth investors is that I actually consider ARK a value investor. We have a five-year time horizon, but we're not going to buy anything that we don't think is a good value over a five-year period.

One of the things that managers don't do enough research on is intangible assets. Value investors tend to stick to price-to-book, and book is collapsing. And because of the search for yield, you get

build wealth and make their futures more secure, frankly I'm thrilled. It's been a very humbling year, too. I've been working a lifetime, and I feel like I've been working to make this sort of thing happen as I saw the investing world move away from innovation.

In the public markets, as the indexes were outperforming active for so long, there was almost a defection from innovation to the point where, when I said I was going to start this company, people were saying, "You're crazy. Active is going away."

For the past seven years now, we've been trying to make our way in this world, and most people didn't think there was a place for us. We had to earn our place. It opened my eyes to what we're up against and how we

Innovation takes off during tough times

People made fun of Amazon for years because Jeff [Bezos] wasn't letting any topline growth drop to the bottom line. Look who's laughing now. The traditional retail space is in shambles. And we're at only 16% penetration online to total retail. That destruction is only going to intensify.

I fully expect to see the value world experience some dramatic moves to the upside here. I say that because in the history of disruptive innovation—and you really have to go back to the late 1800s—if you looked at the whale oil industry (used for lighting) right as we were discovering oil and learning how we could move toward electricity, the whale oil industry collapsed its investment in exploration.

Whale oil prices started gyrating enormously, with extreme volatility, and I presume, if there were whale oil plays in markets around that time, that the collapse in investment and the rise

people investing in dividend yield stocks like auto companies that have 5-7% yields. But they're cheap for a reason.

This lack of focus on intangible assets is where certain strategies are going to lose out. We fully expect extreme volatility around some of these dying trends. It's not what we're going to play, but I'm sure there'll be some great trading opportunities.

When you think of 2020, and the year it's been for ARK and for disruptive technologies, what will you take away from this year?

We were able to go out there and help lend perspective to how these innovative companies were going to solve problems created by the coronavirus. We were able to hold investors' hands, saying, "OK, the odds of this turning into a V-shaped recovery are very high, and here are the reasons."

To the extent that we helped people

really need to share our conviction in our research and our investing.

It's all transparent. The active world now doesn't understand what we're doing by giving our research away, showing our trades every day, putting our models out there. Now the ETF world gets us, but the active world where I came from is trying to figure this out.

The ETF industry is much more entrepreneurial than the traditional asset management world. That's why we've fit in. We've been willing to push the envelope a bit.

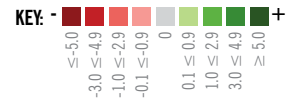
My only surprise is that active isn't happening faster—just because I know that the ETF world believes that active is viable, it could be very interesting, and the community's very entrepreneurial. I don't know about nontransparent ETFs, though, because I see how much transparency means to the ETF community. That's another hurdle for them. But I do believe in active management. ●

October was a mixed month for commodity ETFs, though more funds were in negative territory than not. The worst performer was the [United States Gasoline Fund LP \(UGA\)](#), with a decline of 11.35%. It was followed by the [United States Oil Fund LP \(USO\)](#) and the [iPath Bloomberg Cocoa Subindex Total Return ETN \(NIB\)](#), down 10.75% and 10.16%, respectively. At the other end of the performance spectrum was the [United States Natural Gas Fund LP \(UNG\)](#), which was up 11.66%. The [iPath Series B Bloomberg Sugar Subindex Total Return ETN \(SGG\)](#) was up 7.06%, and the [iPath Series B Bloomberg Cotton Subindex Total Return ETN \(BAL\)](#) increased by 5.05%. In terms of flows, redemptions outweighed creations, with the entire category losing nearly \$1 billion. The [SPDR Gold Trust \(GLD\)](#) claimed the No. 1 spot for outflows, with a loss of \$663.8 million; USO bled \$389.9 million; and the [Invesco Optimum Yield Diversified Commodity Strategy No K-1 ETF \(PDBC\)](#) shed \$83.7 million. The [iShares Silver Trust \(SLV\)](#) gained \$261.4 million, trailed distantly by the [Aberdeen Standard Physical Precious Metals Basket Shares ETF \(GLTR\)](#), which rose just \$19.1 million; and the [Aberdeen Standard Physical Platinum Shares ETF \(PPLT\)](#), which increased by \$16.5 million. ●

Commodity Performance

OCTOBER 2020

BROAD-BASED	AGS	ENERGY	INDUST. METALS	PRECIOUS METALS
BROAD USGI -0.11%	BROAD DBA -1.29%	BROAD DBE -8.06%	BROAD DBB 2.97%	BROAD GLTR -0.69%
BROAD DBC -3.14%	COFFEE JO -6.08%	GASOLINE UGA -11.35%	COPPER JJC 0.94%	GOLD GLD -0.52%
BROAD DJP 1.90%	SUGAR SGG 7.06%	NATURAL GAS UNG 11.66%	NICKEL JJN 4.32%	PLATINUM PPLT -5.21%
BROAD FTGC 0.00%	COCOA NIB -10.16%	CRUDE OIL USO -10.75%	LEAD LD -0.68%	SILVER SLV 1.62%
BROAD GCC -0.81%	COTTON BAL 5.05%		ALUMINUM JJU 4.79%	PALLADIUM PALL -4.00%
BROAD GSG -3.44%			TIN JJT 1.59%	
BROAD PDBC -3.22%				



Top Inflows

	TICKER	NET FLOWS (\$M)	AUM (\$M)
iShares Silver	SLV	261.4	13,385.6
Aberdeen Std Phys Precious Metals	GLTR	19.1	761.3
Aberdeen Standard Phys Platinum	PPLT	16.5	1,078.3
FT Glb Tactical Commodity Strt	FTGC	12.1	171.6
Invesco DB Base Metals Fund	DBB	3.0	140.0

Top Outflows

	TICKER	NET FLOWS (\$M)	AUM (\$M)
SPDR Gold	GLD	-663.8	75,623.4
United States Oil	USO	-389.9	3,422.0
Invesco Opt Yld Diversfd Commod No K-1	PDBC	-83.7	2,478.5
Invesco DB Agriculture	DBA	-41.4	548.9
Invesco DB Commodity	DBC	-31.8	1,000.6

Sources: Bloomberg and FactSet. Data from 9/30/2020 to 10/31/2020. ETFs chosen to represent each sector based on the most liquid ETF in each segment of the ETF.com ETF Classification System.

Country Returns

OCTOBER 2020

DEVELOPED MARKETS			EMERGING MARKETS			FRONTIER MARKETS
AMERICAS	EMEA	ASIA-PACIFIC	AMERICAS	EMEA	ASIA-PACIFIC	
CANADA EWC -3.43%	AUSTRIA EWO -2.67%	AUSTRALIA EWA 0.25%	ARGENTINA ARGT 1.03%	EGYPT EGPT -4.17%	CHINA FXI 5.00%	NIGERIA NGE 19.96%
UNITED STATES SPY -2.49%	BELGIUM EWK -7.36%	HONG KONG EWH -1.92%	BRAZIL EWZ -2.89%	GREECE GREK -10.44%	INDIA INDA -0.80%	VIETNAM VNM -0.74%
	DENMARK EDEN -2.51%	JAPAN EWJ -1.41%	CHILE ECH -0.79%	POLAND EPOL -15.43%	INDONESIA EIDO 5.85%	
	FINLAND EFNL -5.16%	NEW ZEALAND ENZL 3.18%	COLOMBIA GXG -1.69%	QATAR QAT -5.14%	MALAYSIA EWM -3.17%	
	FRANCE EWQ -4.55%	SINGAPORE EWS -3.69%	MEXICO EWW 2.40%	RUSSIA RSX -7.14%	PAKISTAN PAK 1.05%	
	GERMANY EWG -9.78%		PERU EPU -0.69%	SAUDI ARABIA KSA -4.65%	PHILIPPINES EPHE 5.64%	
	IRELAND EIRL 2.32%			SOUTH AFRICA EZA 0.30%	SOUTH KOREA EWY -0.67%	
	ISRAEL EIS -0.11%			TURKEY TUR -10.22%	TAIWAN EWT 0.58%	
	ITALY EWI -6.44%			UAE UAE -2.37%	THAILAND THD -2.77%	
	NETHERLANDS EWN -2.50%					
	NORWAY NORW -7.10%					
	PORTUGAL PGAL -5.73%					
	SPAIN EWP -3.45%					
	SWITZERLAND EWL -5.21%					
	UNITED KINGDOM EWU -4.51%					

Country ETFs had a few bright spots in October, most notably the [Global X MSCI Nigeria ETF \(NGE\)](#), which was up an impressive 19.96% for the month. It was followed distantly by the [iShares MSCI Indonesia ETF \(EIDO\)](#), up 5.85%; and the [iShares MSCI Philippines ETF \(EPHE\)](#), up 5.64%. On the downside, the [iShares MSCI Poland ETF \(EPOL\)](#) fell 15.43%, the [Global X MSCI Greece ETF \(GREK\)](#) declined 10.44% and the [iShares MSCI Turkey ETF \(TUR\)](#) dropped by 10.22%. When it comes to flows, the [SPDR S&P 500 ETF Trust \(SPY\)](#) hemorrhaged \$10 billion, the [iShares MSCI Germany ETF \(EWG\)](#) lost a far less dramatic \$332 million and the [iShares MSCI Spain ETF \(EWP\)](#) saw outflows of just \$34.8 million. The inflows were less stark and less dispersed, with the [iShares MSCI Japan ETF \(EWJ\)](#) gaining \$647.6 million, the [iShares MSCI Taiwan ETF \(EWT\)](#) pulling in \$113.4 million and the [iShares MSCI Australia ETF \(EWA\)](#) adding \$111.5 million. ●

Top Inflows

TICKER	NET FLOWS (\$M)	AUM (\$M)
iShares MSCI Japan ETF	EWJ 647.6	10,471.9
iShares MSCI Taiwan ETF	EWT 113.4	4,616.8
iShares MSCI Australia ETF	EWA 111.5	1,296.5
iShares MSCI United Kingdom ETF	EWU 82.9	2,179.9
iShares MSCI Mexico ETF	EWW 82.9	805.5

Top Outflows

TICKER	NET FLOWS (\$M)	AUM (\$M)
SPDR S&P 500 ETF Trust	SPY -10,013.2	280,255.4
iShares MSCI Germany ETF	EWG -332.0	2,413.0
iShares MSCI Spain ETF	EWP -34.8	331.1
iShares China Large-Cap ETF	FXI -26.8	3,445.7
iShares MSCI UAE ETF	UAE -24.6	12.3



Note: This list intends to capture the returns of most liquid ETFs tracking individual countries around the world. It does not capture every country in the MSCI All Country World Index.



ETF DATA

U.S.-LISTED ETFs BY ASSET CLASS AND YEAR-TO-DATE RETURN

- Data as of 10/31/2020
- Exp Ratio is annual expense ratio
- AUM is net assets in \$US millions
- YTD is year-to-date
- 3YR and 5YR returns are annualized
- Includes all U.S.-listed ETFs and ETNs with assets of \$98 million and above
- Source: ETF.com

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
U.S. EQUITY: TOTAL MARKET						
Renaissance IPO	IPO	0.60	316.4	63.36	22.27	19.24
ERShares Entrepreneur 30	ENTR	0.49	144.4	30.69	-	-
Motley Fool 100	TMFC	0.50	328.1	23.14	-	-
Fidelity NASDAQ Composite	ONEQ	0.21	3,024.8	22.23	18.59	17.78
SPDR S&P Kensho New Economies	KOMP	0.20	1,221.2	20.58	-	-
First Trust US Equity Opportunities	FPX	0.58	1,512.4	19.33	13.95	13.70
American Century STOXX US Qual Gr	QGRO	0.29	205.9	19.14	-	-
Goldman Sachs Hedge Industry VIP	GVIP	0.45	119.9	18.74	13.00	-
Global X Millennials Thematic	MILN	0.50	98.7	18.08	18.76	-
Invesco DWA Momentum	PDP	0.62	1,725.9	17.41	14.36	12.40
iShares MSCI USA Momentum Factor	MTUM	0.15	11,874.9	13.48	13.49	15.53
IQ Candriam ESG US Equity	IQSU	0.09	223.7	10.90	-	-
iShares MSCI USA ESG Select	SUSA	0.25	1,822.9	9.07	12.05	12.90
Vanguard ESG US Stock	ESGV	0.12	2,097.3	8.05	-	-
iShares ESG Aware MSCI USA	ESGU	0.15	10,603.3	5.64	11.53	-
iShares MSCI KLD 400 Social	DSI	0.25	2,195.8	5.33	11.21	11.82
Nationwide Max Diversctn US Core	MNDU	0.34	98.8	5.15	10.52	-
JPMorgan BetaBuilders US Equity	BBUS	0.02	241.6	4.01	-	-
Innovator IBD 50	FFTY	0.80	186.3	3.51	2.56	9.36
Vanguard Total Stock Market	VTI	0.03	165,587.6	3.41	10.11	11.52
iShares Core S&P Total US Stock Mkt	ITOT	0.03	26,965.6	3.25	10.04	11.47
iShares Dow Jones US	IYY	0.20	1,261.8	3.21	10.10	11.37
Schwab US Broad Market	SCHB	0.03	15,527.4	3.20	10.01	11.43
Vanguard Russell 3000	VTHR	0.10	695.3	3.16	9.92	11.27
Xtrackers MSCI USA ESG Leaders	USSG	0.10	2,514.0	3.12	-	-
iShares Russell 3000	IWW	0.20	9,416.9	3.11	9.89	11.32
iShares ESG MSCI USA Leaders	SUSL	0.10	2,472.6	3.05	-	-
Vanguard Dividend Appreciation	VIG	0.06	46,952.1	2.30	11.23	12.05
TrimTabs All Cap US Free-Cash-Flow	TTAC	0.59	174.0	2.06	8.41	-
Global X Conscious Companies	KRMA	0.43	424.3	1.93	10.58	-
SPDR Portfolio S&P 1500 Composite	SPTM	0.03	3,606.4	1.81	9.71	11.24
iShares MSCI USA Quality Factor	QUAL	0.15	19,180.3	1.40	10.33	11.04
First Trust DW Momentum/Low Vol	DVOL	0.60	121.7	0.59	-	-
WisdomTree US Qual Div Gr	DGRW	0.28	4,415.7	0.26	9.32	11.37
Franklin Liberty US Low Volatility	FLLV	0.29	117.6	-0.41	11.00	-
Avantis US Equity	AVUS	0.15	463.9	-0.65	-	-
ALPS Barron's 400	BFOR	0.65	108.9	-0.96	2.25	6.92
Timothy Plan US Large/Mid Cap Core	TPLC	0.52	149.8	-0.98	-	-
SPDR MSCI USA StrategicFactors	QUS	0.15	756.0	-2.09	9.41	10.82

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
FlexShares US Quality Low Volatility	QLV	0.22	111.8	-2.16	-	-
Invesco Dividend Achievers	PFM	0.53	409.1	-2.27	7.91	9.59
iShares MSCI USA Size Factor	SIZE	0.15	617.9	-2.45	7.03	9.29
WisdomTree US Multifactor	USMF	0.28	138.1	-2.65	6.51	-
VanEck Vectors Mstar Wide Moat	MOAT	0.48	3,354.8	-2.99	11.03	13.70
RiverFront Dyn US Div Advantage	RFDA	0.52	122.3	-3.02	5.23	-
FlexShares Mstar US Mkt Factor Tilt	TILT	0.25	1,187.0	-3.26	5.92	9.01
iShares MSCI USA Multifactor	LRGF	0.20	795.8	-3.41	4.53	8.16
iShares MSCI USA Equal Weighted	EUSA	0.15	220.6	-3.66	6.48	8.73
Invesco Defensive Equity	DEF	0.55	251.6	-3.97	7.27	9.95
iShares MSCI USA Min Vol Factor	USMV	0.15	32,256.5	-4.48	8.50	10.27
iShares Core Dividend Growth	DGRO	0.08	11,718.2	-5.41	8.15	10.90
VictoryShares US MultiFactor Min Vol	VSMV	0.35	133.0	-6.58	7.49	-
Invesco Dynamic Market	PWC	0.58	119.9	-6.65	0.51	5.39
FlexShares Quality Dividend	QDF	0.37	1,277.6	-8.50	4.17	7.19
FlexShares Quality Div Defensive	QDEF	0.37	417.2	-8.84	4.98	7.54
Schwab Fundamental US Broad Mkt	FNDB	0.25	221.4	-9.19	4.29	7.50
VictoryShares MSCI USA Val Mom	ULVM	0.20	457.7	-10.41	0.01	-
WisdomTree US Total Dividend	DTD	0.28	710.6	-11.34	3.71	7.47
Legg Mason Low Vol High Dividend	LVHD	0.27	673.3	-11.90	1.99	-
Vident Core US Equity	VUSE	0.48	309.0	-12.67	-1.62	3.76
Invesco BuyBack Achievers	PKW	0.62	626.0	-12.92	3.43	6.06
American Century STOXX US Qual Val	VALQ	0.29	135.7	-13.00	-	-
Global X Adaptive US Factor	AUSF	0.27	132.3	-13.11	-	-
Invesco Raymond James SB-1	RYJ	0.76	101.2	-15.83	-0.19	4.48
Virtus Real Asset Income	VRAI	0.55	101.1	-25.47	-	-
iShares US Tech Breakthrough Multisector	TECB	0.40	318.7	-	-	-
Goldman Sachs MarketBeta US Equity	GSUS	0.07	243.3	-	-	-
U.S. EQUITY: TOTAL MARKET GROWTH						
iShares Core S&P US Growth	IUSG	0.04	9,188.7	15.90	15.84	15.15
First Trust Multi Cap Growth AlphaDEX	FAD	0.66	179.4	10.65	10.53	11.59
Janus Henderson Sm/Mid Cap Gr Alpha	JSMD	0.30	116.6	8.80	12.87	-
American Century Focused Dynamic Gr	FDG	0.45	181.6	-	-	-
U.S. EQUITY: TOTAL MARKET VALUE						
iShares Core S&P US Value	IUSV	0.04	6,550.5	-13.34	2.83	6.71
iShares MSCI USA Value Factor	VLUE	0.15	6,858.5	-16.73	-0.08	5.24
Vanguard US Value Factor	VFVA	0.14	113.6	-18.20	-	-
Alpha Architect US Quantitative Value	QVAL	0.49	111.5	-21.06	-2.67	1.26
U.S. EQUITY: EXTENDED CAP						
Vanguard Extended Market	VXF	0.06	10,531.8	4.32	7.76	10.16
iShares Russell 2500	SMMD	0.15	112.9	-4.39	4.48	-
Invesco FTSE RAFI US 1500 Small-Mid	PRFZ	0.39	1,448.8	-11.65	-0.62	5.64
U.S. EQUITY: LARGE CAP						
Invesco QQQ Trust	QQQ	0.20	133,488.1	27.37	21.95	19.99
Pacer Trendpilot 100	PTNQ	0.65	791.7	19.66	18.28	15.17
Invesco S&P 500 Downside Hedged	PHDG	0.39	143.1	17.09	8.60	7.37
Direxion NASDAQ-100 Equal Weighted	QQEQ	0.35	279.4	15.20	15.40	14.92
First Trust Nasdaq-100 Equal Weighted	QQEW	0.59	900.8	15.09	15.18	14.75
First Trust NASDAQ-100 Ex-Technology	QQXT	0.60	118.8	14.46	13.07	9.96
JPMorgan US Momentum Factor	JMOM	0.12	137.2	11.80	-	-
Nationwide Risk-Managed Income	NUSI	0.68	130.5	10.90	-	-
Invesco S&P 500 Top 50	XLG	0.20	1,592.0	9.58	13.30	13.71
Aptus Drawdown Managed Equity	ADME	0.79	171.8	8.28	4.07	-
First Trust Lunt US Factor Rotation	FCTR	0.65	99.0	8.01	-	-
Inspire 100	BIBL	0.35	136.2	7.90	-	-
iShares S&P 100	OEF	0.20	6,767.2	6.05	11.92	12.41
iShares Russell Top 200	IWL	0.15	844.2	5.39	10.17	10.76
Vanguard Mega Cap	MGC	0.07	2,875.1	4.82	9.82	10.51
Vanguard Large-Cap	VV	0.04	18,544.9	4.60	11.01	12.02
Xtrackers S&P 500 ESG	SNPE	0.10	323.1	4.47	-	-
SPDR S&P 500 Fossil Fuel Reserves Free	SPYX	0.20	692.4	4.33	11.08	-
Vanguard Russell 1000	VONE	0.08	1,639.7	3.94	10.58	11.67
iShares Russell 1000	IWB	0.15	22,693.3	3.85	10.53	11.66
Innovator S&P 500 Power Buffer - August	PAUG	0.79	109.5	3.69	-	-
Schwab 1000	SCHK	0.05	1,163.1	3.67	10.44	-

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
Innovator S&P 500 Power Buffer - October	POCT	0.80	190.8	3.65	-	-
Distillate US Fundamental Stability/Value	DSTL	0.39	178.8	3.59	-	-
Goldman Sachs JUST US Large Cap Equity	JUST	0.20	147.1	3.57	-	-
Schwab US Large-Cap	SCHX	0.03	22,175.3	3.54	8.99	9.95
Goldman Sachs ActiveBeta US Large Cap	GSLC	0.09	9,918.0	3.34	10.58	11.24
VictoryShares US 500 Enh Volatility Wtd	CFO	0.35	636.4	3.32	6.36	9.51
Innovator S&P 500 Ultra Buffer - October	UOCT	0.80	105.8	3.18	-	-
iShares Mstar Large-Cap	JKD	0.20	769.5	3.08	9.05	11.46
SPDR Portfolio S&P 500	SPLG	0.03	6,659.3	3.04	10.55	11.56
Aptus Collared Income Opportunity	ACIO	0.79	153.9	3.02	-	-
SPDR S&P 500 Trust	SPY	0.09	280,966.0	2.94	10.38	11.63
Vanguard S&P 500	VOO	0.03	159,369.5	2.77	10.40	11.68
Invesco S&P 500 Quality	SPHQ	0.15	2,206.7	2.63	10.24	11.58
FT Cboe Vest US Equity Deep Buffer - Aug	DAUG	0.85	150.3	2.53	-	-
Innovator S&P 500 Buffer - January	BJAN	0.80	141.8	2.51	-	-
Barclays ETN+ Shiller CAPE ETN	CAPE	0.45	204.9	2.50	10.94	13.54
Nationwide Risk-Based US Equity	RBUS	0.30	106.1	2.41	9.17	-
Overlay Shares Large Cap Equity	OVL	0.78	112.2	2.32	-	-
Global X S&P 500 Catholic Values	CATH	0.29	379.9	2.25	9.86	-
FT Cboe Vest US Equity Buffer - November	FNOV	0.85	129.4	2.18	-	-
Innovator S&P 500 Power Buffer - July	PJUL	0.79	112.2	2.13	-	-
Principal US Mega-Cap	USMC	0.12	1,511.3	1.96	10.00	-
Innovator S&P 500 Power Buffer - January	PJAN	0.79	288.9	1.94	-	-
JPMorgan US Quality Factor	JQUA	0.12	386.5	1.83	-	-
First Trust Capital Strength	FTCS	0.58	5,977.8	1.79	8.86	11.01
Innovator S&P 500 Ultra Buffer - January	UJAN	0.79	112.1	1.56	-	-
FT Cboe Vest US Equity Deep Buffer - Nov	DNOV	0.85	134.9	1.52	-	-
Fidelity Quality Factor	FQAL	0.29	147.0	1.42	9.26	-
Innovator S&P 500 Power Buffer - April	PAPR	0.79	187.6	1.38	-	-
iShares Core S&P 500	IVV	0.03	212,012.6	1.36	8.18	9.40
Innovator S&P 500 Power Buffer - Sept	PSEP	0.79	287.8	0.90	-	-
John Hancock Multifactor Large Cap	JHML	0.29	903.9	0.56	8.84	10.59
Fidelity Low Volatility Factor	FDLO	0.29	359.9	0.03	10.95	-
Amplify CWP Enhanced Dividend Income	DIVO	0.49	107.3	-0.20	8.61	-
VictoryShares Dividend Accelerator	VSDA	0.35	268.7	-0.40	11.16	-
Main Sector Rotation	SECT	0.80	559.4	-1.18	5.89	-
Xtrackers Russell 1000 US QARP	QARP	0.19	107.3	-1.65	-	-
VictoryShares US EQ Inc Enh Volatility Wtd	CDC	0.35	570.6	-1.69	4.85	8.57
Franklin LibertyQ US Equity	FLQL	0.15	1,212.5	-1.90	9.13	-
Goldman Sachs Equal Weight US Large Cap	GSEW	0.09	356.8	-2.18	7.09	-
SPDR SSGA Gender Diversity	SHE	0.20	134.2	-2.22	6.94	-
Davis Select US Equity	DUSA	0.63	270.1	-2.27	5.30	-
First Trust Large Cap Core AlphaDEX	FEX	0.60	891.0	-2.88	4.19	7.29
First Trust Horizon Managed Vol Domestic	HUSV	0.70	174.5	-2.88	7.35	-
Global X NASDAQ 100 Covered Call	QYLD	0.60	1,352.6	-3.28	5.56	7.27
HCM Defender 500	LGH	1.25	107.9	-3.29	-	-
VictoryShares US 500 Volatility Wtd	CFA	0.35	608.9	-3.75	6.27	9.39
0?Shares US Quality Dividend	OUSA	0.48	533.7	-3.95	7.12	9.05
Invesco Russell 1000 Equal Weight	EQUAL	0.20	452.6	-4.00	4.41	7.37
Invesco RAFI Strategic US	IUS	0.19	135.5	-4.28	-	-
ProShares Large Cap Core Plus	CSM	0.46	388.8	-4.49	4.95	8.03
WisdomTree US LargeCap	EPS	0.08	399.2	-4.63	5.58	8.00
ProShares S&P 500 Dividend Aristocrats	NOBL	0.35	6,066.0	-4.65	7.86	9.55
ALPS Equal Sector Weight	EQL	0.28	152.3	-4.79	4.22	6.31
Invesco S&P 500 Equal Weight	RSP	0.20	13,648.1	-5.32	5.74	8.35
Invesco Russell 1000 Dynamic Multifactor	OMFL	0.29	990.6	-5.36	-	-
SPDR Dow Jones Industrial Average Trust	DIA	0.16	22,380.4	-5.38	6.60	10.97
SPDR Russell 1000 Momentum Focus	ONEO	0.20	216.6	-5.39	3.17	-
Xtrackers Russell 1000 Compr Factor	DEUS	0.17	150.6	-5.77	4.77	-
JPMorgan Diversified Return US Equity	JPUA	0.18	547.1	-6.12	4.85	7.92
SPDR SSGA US Large Cap Low Volatility	LGLV	0.12	528.8	-6.17	8.34	10.00
Hartford Multifactor US Equity	ROUS	0.19	237.7	-6.40	3.71	7.14
Invesco S&P 500 High Beta	SPHB	0.25	193.9	-6.87	3.84	8.02
SPDR Russell 1000 Low Volatility Focus	ONEV	0.20	406.1	-7.94	6.29	-
IQ Chaikin US Large Cap	CLRG	0.25	247.1	-7.96	-	-
Invesco S&P 500 Revenue	RWL	0.39	719.3	-8.44	3.45	5.88

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
Schwab Fundamental US Large Company	FNDX	0.25	4,485.5	-8.50	4.86	7.81
First Trust Rising Dividend Achievers	RDVY	0.50	1,322.1	-8.90	6.32	10.12
WisdomTree CBOE S&P 500 PutWrite	PUTW	0.44	109.1	-8.93	-0.82	-
Pacer US Cash Cows 100	COWZ	0.49	196.5	-8.95	2.92	-
Invesco S&P 500 Low Volatility	SPLV	0.25	8,195.3	-8.98	6.15	8.65
WisdomTree US LargeCap Dividend	DLN	0.28	2,232.4	-9.13	5.03	8.24
Invesco FTSE RAFI US 1000	PRF	0.39	3,753.8	-9.17	3.58	7.14
Global X S&P 500 Covered Call	XYLD	0.60	105.9	-9.78	2.03	5.14
Invesco S&P 500 BuyWrite	PBP	0.49	162.0	-12.23	-0.87	2.49
Timothy Plan High Dividend Stock	TPHD	0.52	110.1	-12.79	-	-
Pacer Trendplot US Large Cap	PTLC	0.60	1,798.4	-14.05	2.23	5.03
ALPS Sector Dividend Dogs	SDOG	0.40	890.5	-15.88	-1.12	4.50
SPDR Russell 1000 Yield Focus	ONEY	0.20	374.8	-17.75	0.68	-
WisdomTree US Dividend ex-Financials	DTN	0.38	486.9	-17.95	-1.14	3.81
VictoryShares US Lrg Cap High Div Vol Wtd	CDL	0.35	166.4	-18.65	0.35	5.75
Invesco S&P 500 High Dividend Low Vol	SPHD	0.30	2,242.1	-22.66	-3.31	3.82
SPDR Portfolio S&P 500 High Dividend	SPYD	0.07	1,928.7	-27.23	-3.98	2.95
FT Cboe Vest US Equity Deep Buffer - Feb	DFEB	0.85	505.9	-	-	-
FT Cboe Vest US Equity Buffer - February	FFEB	0.85	245.0	-	-	-
6 Meridian Hedged Equity-Option	SIXH	0.81	190.1	-	-	-
Innovator S&P 500 Power Buffer - Feb	PFEB	0.79	115.3	-	-	-
Day Hagan/ND Research Smart Sector	SSUS	0.79	114.7	-	-	-
Invesco NASDAQ Next Gen 100	QQQJ	0.15	114.3	-	-	-
JPMorgan Equity Premium Income	JEPI	0.35	110.0	-	-	-
6 Meridian Mega Cap Equity	SIXA	0.82	103.4	-	-	-
U.S. EQUITY: LARGE CAP GROWTH						
Vanguard Mega Cap Growth	MGK	0.07	9,321.9	23.62	19.54	17.31
iShares Mstar Large-Cap Growth	JKE	0.25	1,746.8	22.04	19.77	16.62
Vanguard Growth	VUG	0.04	60,345.3	21.97	18.64	16.48
iShares Russell Top 200 Growth	IWY	0.20	3,128.5	21.59	19.54	18.05
Schwab US Large-Cap Growth	SCHG	0.04	11,978.9	21.09	19.16	16.82
Vanguard Russell 1000 Growth	VONG	0.08	4,762.7	20.35	18.76	17.26
iShares Russell 1000 Growth	IWF	0.19	57,428.1	19.97	18.54	17.10
Nuveen ESG Large-Cap Growth	NULG	0.35	349.1	19.55	19.66	-
Invesco Dynamic Large Cap Growth	PWB	0.56	727.3	17.22	14.92	14.84
SPDR Portfolio S&P 500 Growth	SPYG	0.04	9,130.7	17.02	16.55	15.43
iShares S&P 500 Growth	IWV	0.18	29,225.6	16.96	16.46	15.38
Vanguard S&P 500 Growth	VOOG	0.10	4,282.4	16.89	16.45	15.38
First Trust Large Cap Growth AlphaDEX	FTC	0.61	993.6	13.72	12.05	11.77
Invesco S&P 500 Pure Growth	RPG	0.35	2,430.5	10.39	11.10	11.61
SoFi Select 500	SFY	0.00	112.7	7.98	-	-
Invesco S&P 500 GARP	SPGP	0.34	192.8	-3.83	11.87	12.94
U.S. EQUITY: LARGE CAP VALUE						
Fidelity Value Factor	FVAL	0.29	215.5	-6.62	6.06	-
Vanguard Value	VTV	0.04	50,493.2	-12.39	3.09	7.26
Schwab US Large-Cap Value	SCHV	0.04	6,581.8	-12.42	2.20	6.62
Vanguard Mega Cap Value	MGV	0.07	2,865.5	-12.48	3.46	7.50
Vanguard Russell 1000 Value	VONV	0.08	2,700.4	-12.63	1.92	5.73
Nuveen ESG Large-Cap Value	NULV	0.35	534.6	-12.65	3.08	-
iShares Russell 1000 Value	IWD	0.19	35,373.0	-12.69	1.82	5.68
SPDR Portfolio S&P 500 Value	SPYV	0.04	5,661.3	-13.01	3.30	6.95
iShares Russell Top 200 Value	IWX	0.20	769.4	-13.10	2.27	5.83
Vanguard S&P 500 Value	VOOV	0.10	1,247.8	-13.19	3.01	6.77
iShares S&P 500 Value	IVE	0.18	15,339.5	-13.27	2.95	6.72
First Trust Large Cap Value AlphaDEX	FTA	0.60	628.7	-15.31	-0.89	5.20
iShares Mstar Large-Cap Value	JKF	0.25	441.9	-16.06	1.13	5.89
Invesco Dynamic Large Cap Value	PWV	0.56	604.9	-17.83	-2.02	4.61
Invesco S&P 500 Pure Value	RPV	0.35	623.7	-26.02	-4.79	1.72
U.S. EQUITY: MID CAP						
Invesco S&P Midcap Momentum	XMMO	0.34	731.1	10.80	19.37	17.48
Vanguard Mid-Cap	VO	0.04	35,280.2	0.12	7.45	9.05
iShares Russell Mid-Cap	IWR	0.19	20,783.7	-1.84	6.65	8.80
John Hancock Multifactor Mid Cap	JHMM	0.42	1,568.3	-2.34	6.17	8.90
iShares Mstar Mid-Cap	JKG	0.25	650.4	-4.48	5.23	7.75
Schwab US Mid-Cap	SCHM	0.04	6,512.3	-5.51	4.78	7.98
First Trust Mid Cap Core AlphaDEX	FNX	0.61	591.4	-6.24	3.22	7.15

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
Vanguard S&P Mid-Cap 400	IVOO	0.10	844.7	-6.63	2.80	7.30
iShares Core S&P Mid-Cap	IJH	0.05	44,353.3	-6.64	2.84	7.34
SPDR S&P Midcap 400 Trust	MDY	0.23	14,892.6	-6.71	2.66	7.14
SPDR Portfolio S&P 400 Mid Cap	SPMD	0.05	2,638.3	-6.74	2.71	6.89
JPMorgan Diversified Ret US Mid Cap	JPME	0.24	221.4	-7.17	3.41	-
ProShares S&P MidCap 400 Div Aristocrats	REGL	0.41	701.2	-7.43	2.98	8.13
Pacer Trendplot US Mid Cap	PTMC	0.60	385.7	-9.11	-1.64	4.54
Invesco Zacks Mid-Cap	CZA	0.69	210.5	-12.88	2.53	7.53
Invesco S&P MidCap 400 Revenue	RWK	0.39	202.2	-13.62	-0.23	4.39
WisdomTree US MidCap	EZM	0.38	516.6	-14.88	-0.82	4.61
WisdomTree US MidCap Dividend	DON	0.38	2,331.9	-20.68	-1.83	4.02
Invesco S&P MidCap Low Volatility	XMLV	0.25	1,694.8	-20.91	-0.15	6.10
JPMorgan BetaBuilders US Mid Cap	BBMC	0.07	1,001.9	-	-	-

U.S. EQUITY: MID CAP GROWTH

iShares Mstar Mid-Cap Growth	JKH	0.30	1,171.3	22.51	18.47	15.76
Nuveen ESG Mid-Cap Growth	NUMG	0.40	197.3	21.45	16.88	-
iShares Russell Mid-Cap Growth	IWP	0.24	13,354.9	13.93	14.97	13.93
Vanguard Mid-Cap Growth	VOT	0.07	8,537.6	13.19	13.71	12.64
Invesco S&P MidCap 400 Pure Growth	RFG	0.35	331.6	12.33	5.20	6.57
First Trust Mid Cap Growth AlphaDEX	FNYY	0.70	396.5	11.82	12.17	13.00
Vanguard S&P Mid-Cap 400 Growth	IVOG	0.15	688.4	2.53	6.18	9.16
iShares S&P Mid-Cap 400 Growth	IJK	0.17	6,763.4	2.50	6.16	9.15
SPDR S&P 400 Mid Cap Growth	MDYG	0.15	1,340.7	2.36	6.16	9.15

U.S. EQUITY: MID CAP VALUE

iShares Russell Mid-Cap Value	IWS	0.24	9,806.9	-12.21	0.67	5.10
Vanguard Mid-Cap Value	VOE	0.07	9,061.9	-12.70	0.99	5.23
Nuveen ESG Mid-Cap Value	NUMV	0.40	119.3	-15.06	0.69	-
SPDR S&P 400 Mid Cap Value	MDYV	0.15	910.5	-16.58	-1.19	4.71
Vanguard S&P Mid-Cap 400 Value	IVOV	0.15	438.8	-16.67	-1.25	4.71
iShares S&P Mid-Cap 400 Value	IJJ	0.18	4,437.2	-16.71	-1.32	4.64
iShares Mstar Mid-Cap Value	JKI	0.30	326.4	-19.53	-1.90	4.33

U.S. EQUITY: SMALL CAP

Invesco DWA SmallCap Momentum	DWAS	0.60	247.3	4.05	7.42	9.47
Invesco S&P SmallCap Momentum	XSMO	0.39	101.8	1.71	9.26	10.73
Nuveen ESG Small-Cap	NUSC	0.40	367.7	-1.35	5.29	-
Vanguard Small-Cap	VB	0.05	29,332.6	-4.27	4.59	8.22
iShares ESG Aware MSCI USA Small-Cap	ESML	0.17	359.5	-4.95	-	-
Vanguard Russell 2000	VTWO	0.10	1,916.6	-6.48	2.34	7.36
iShares Russell 2000	IWM	0.19	41,318.3	-6.57	2.21	7.31
Schwab US Small-Cap	SCHA	0.04	10,071.2	-6.70	2.39	6.97
Goldman Sachs ActiveBeta US Small Cap	GSSC	0.20	161.3	-8.12	1.54	-
OPShares US Small-Cap Quality Dividend	OUSM	0.48	102.3	-8.25	2.48	-
First Trust Small Cap Core AlphaDEX	FYX	0.63	443.3	-8.58	0.73	6.10
VictoryShares USA Small Cap Val Momtm	USVM	0.24	249.2	-8.97	0.43	-
Invesco S&P SmallCap 600 Revenue	RWJ	0.39	218.1	-9.00	-1.85	3.49
John Hancock Multifactor Small Cap	JHSC	0.42	483.6	-9.68	-	-
JPMorgan Diversified Return US Small Cap	JPSE	0.29	150.8	-10.17	1.25	-
iShares MSCI USA Small-Cap Multifactor	SMLF	0.30	541.1	-10.70	0.53	6.25
Principal US Small-Cap Multi-Factor	PSC	0.38	649.8	-11.99	-1.08	-
Vanguard S&P Small-Cap 600	VIOO	0.10	947.4	-12.80	0.22	6.50
SPDR Portfolio S&P 600 Small Cap	SPSM	0.05	2,523.4	-12.89	0.09	6.05
SPDR S&P 600 Small Cap	SPLY	0.15	1,032.8	-13.03	0.13	6.42
iShares Core S&P Small-Cap	IJR	0.06	42,267.8	-13.04	0.21	6.50
WisdomTree US SmCap Qual Div Growth	DGRS	0.38	101.5	-14.10	-0.46	5.26
iShares Mstar Small-Cap	JKU	0.25	185.2	-14.51	-0.07	5.12
Schwab Fundamental US Small Company	FNDA	0.25	2,927.5	-14.97	-1.09	4.62
iShares MSCI USA SmCap Min Vol Factor	SMMV	0.20	821.3	-15.86	2.79	-
IQ Chaikin US Small Cap	CSML	0.35	134.2	-16.69	-5.64	-
ProShares Russell 2000 Dividend Growers	SMDV	0.41	552.7	-18.80	-2.15	5.80
WisdomTree US SmallCap	EES	0.38	374.1	-19.10	-3.18	4.71
SPDR SSGA US Small Cap Low Volatility	SMLV	0.12	188.4	-21.80	-2.87	4.10
WisdomTree US SmallCap Dividend	DES	0.38	1,305.4	-22.86	-5.65	2.39
Invesco S&P SmallCap Low Volatility	XSLV	0.25	1,380.5	-31.57	-7.35	2.35
Innovator Russell 2000 Power Buffer - Jan	KIAN	0.79	166.1	-	-	-

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
U.S. EQUITY: SMALL CAP GROWTH						
MFAM Small-Cap Growth	MFMS	0.85	113.8	25.40	-	-
iShares Mstar Small-Cap Growth	JKK	0.30	285.9	15.27	12.02	13.05
Vanguard Small-Cap Growth	VBK	0.07	11,578.4	9.48	12.30	12.86
iShares Russell 2000 Growth	IWO	0.24	9,321.9	4.72	7.88	10.43
Vanguard Russell 2000 Growth	VTWG	0.15	372.8	4.71	7.90	10.40
First Trust Small Cap Growth AlphaDEX	FYC	0.70	162.1	0.99	4.39	9.03
Vanguard S&P Small-Cap 600 Growth	VIOG	0.16	403.4	-6.23	3.64	8.27
SPDR S&P 600 Small Cap Growth	SLYG	0.15	1,548.6	-6.44	3.60	8.27
iShares S&P Small-Cap 600 Growth	IJT	0.18	4,179.3	-6.60	3.47	8.19
Invesco S&P SmallCap 600 Pure Growth	RZG	0.35	103.7	-8.94	-0.69	5.30

U.S. EQUITY: SMALL CAP VALUE

Vanguard Small-Cap Value	VBR	0.07	13,651.1	-15.58	-1.94	4.12
Avantis US Small Cap Value	AVUV	0.25	379.8	-16.51	-	-
Vanguard Russell 2000 Value	VTWV	0.15	345.8	-18.53	-4.10	3.68
iShares Russell 2000 Value	IWN	0.24	8,190.0	-18.60	-4.15	3.65
SPDR S&P Small-Cap Value	SLYV	0.15	2,087.1	-19.75	-2.28	4.38
Vanguard S&P Small-Cap 600 Value	VIOV	0.15	498.9	-19.90	-3.54	4.34
iShares S&P Small-Cap 600 Value	IUS	0.18	4,921.6	-19.91	-3.61	4.25
iShares Mstar Small Cap Value	JKL	0.30	258.4	-21.96	-6.94	0.72
Invesco S&P SmallCap 600 Pure Value	RZV	0.35	111.5	-25.21	-8.74	-1.06

U.S. EQUITY: MICRO CAP

iShares Micro-Cap	IWC	0.60	744.7	-6.78	0.27	5.81
First Trust Dow Jones Select MicroCap	FDM	0.60	105.0	-23.97	-5.31	4.14

U.S. EQUITY: BASIC MATERIALS

Materials Select Sector SPDR	XLB	0.13	4,124.3	4.66	4.47	9.13
Invesco S&P 500 Equal Weight Materials	RTM	0.40	202.5	4.34	5.29	10.15
Vanguard Materials	VAW	0.10	1,820.0	2.20	2.38	8.53
Fidelity MSCI Materials	FMAT	0.08	189.6	2.02	2.26	8.43
iShares US Basic Materials	IYM	0.43	647.2	0.73	1.10	7.68
First Trust Materials AlphaDEX	FXZ	0.65	118.2	-1.75	-0.90	7.01
SPDR S&P Metals & Mining	XME	0.35	575.0	-15.49	-6.33	9.22

U.S. EQUITY: CONSUMER CYCLICALS

ProShares Online Retail	ONLN	0.58	738.5	76.26	-	-
ProShares Long Online/Short Stores	CLIX	0.65	258.8	74.35	-	-
Amplify Online Retail	IBUY	0.65	1,017.2	72.79	33.34	-
Fidelity MSCI Consumer Discretionary	FDIS	0.08	1,029.6	25.97	19.58	15.08
Vanguard Consumer Discretionary	VCR	0.10	3,805.8	23.51	18.21	14.32
VanEck Vectors Retail	RTH	0.35	179.6	20.08	22.35	15.10
iShares US Home Construction	ITB	0.42	2,175.1	17.66	9.97	14.42
SPDR S&P Homebuilders	XHB	0.35	1,409.5	15.19	9.06	8.77
Consumer Discr Select Sector SPDR	XLY	0.13	15,752.6	15.06	17.34	13.62
SPDR S&P Retail	XRT	0.35	363.9	9.55	9.73	3.20
iShares US Consumer Services	IYC	0.43	1,059.2	6.91	14.66	11.46
First Trust Consumer Discr AlphaDEX	FXD	0.64	1,100.0	-5.95	4.14	4.47
Invesco S&P 500 Equal Weight Cons Discr	RCD	0.40	283.9	-6.97	5.58	4.11
Invesco Dynamic Leisure/Entertainment	PEJ	0.63	257.9	-33.25	-10.00	-4.27

U.S. EQUITY: CONSUMER NON-CYCLICALS

iShares US Consumer Goods	IYK	0.43	624.1	10.32	8.72	8.18
Invesco DWA Cons Staples Momentum	PSL	0.60	110.2	4.88	8.35	7.32
Fidelity MSCI Consumer Staples	FSTA	0.08	817.8	0.99	8.18	7.20
Consumer Staples Select Sector SPDR	XLP	0.13	13,317.6	0.82	8.43	7.39
Vanguard Consumer Staples	VDC	0.10	5,355.8	0.74	8.07	7.12
First Trust Consumer Staples AlphaDEX	FXG	0.64	246.5	-4.00	3.27	3.28
Invesco S&P 500 Equal Wt Cons Staples	RHS	0.40	476.4	-4.05	6.63	6.43

U.S. EQUITY: ENERGY

First Trust North Am Energy Infrastructure	EMLP	0.96	1,704.0	-19.72	-2.98	1.02
Tortoise North American Pipeline	TPYP	0.40	280.4	-32.15	-8.48	-2.13
Global X MLP & Energy Infrastructure	MLPX	0.45	451.0	-34.99	-11.74	-7.55
Barclays ETN+ Select MLP ETN	ATMP	0.95	133.5	-43.00	-17.22	-10.20
JPMorgan Alerian MLP ETN	AMJ	0.85	1,362.0	-43.77	-18.77	-12.89
ETRACS Alerian MLP Infrastr ETN Ser B	MLPB	0.85	141.2	-44.96	-21.40	-14.70
Alerian MLP	AMPL	0.87	3,243.2	-46.56	-20.23	-13.85
Global X MLP	MLPA	0.46	596.3	-47.34	-19.90	-12.99
Energy Select Sector SPDR	XLE	0.13	8,739.4	-49.55	-20.95	-12.14

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
iShares US Energy	IYE	0.42	358.7	-49.99	-21.89	-13.40
Fidelity MSCI Energy	FENY	0.08	384.7	-50.24	-22.41	-13.69
Vanguard Energy	VDE	0.10	2,308.9	-50.33	-22.40	-13.47
iShares US Oil & Gas Expl & Production	IEO	0.42	118.2	-53.15	-23.12	-15.05
SPDR S&P Oil & Gas Expl/Production	XOP	0.35	1,623.4	-56.05	-32.25	-21.75
InfraCap MLP	AMZA	2.41	100.8	-64.28	-34.11	-24.21
U.S. EQUITY: FINANCIALS						
iShares US Broker-Dealers/Sec Exchanges	IAI	0.42	99.1	-8.37	3.87	10.40
Invesco S&P 500 Equal Weight Financials	RYF	0.40	143.1	-15.34	-0.41	6.93
First Trust Financials AlphaDEX	FXO	0.63	491.2	-16.25	-1.00	5.04
Invesco KBW Property & Casualty Ins	KBWP	0.35	175.4	-17.87	1.09	5.89
iShares US Financials	IYF	0.42	1,185.3	-18.00	0.84	6.39
SPDR S&P Insurance	KIE	0.35	321.2	-18.39	-0.62	5.61
iShares US Financial Services	IYG	0.42	968.4	-20.06	0.65	7.39
Financial Select Sector SPDR	XLF	0.13	17,098.0	-20.84	-1.46	6.22
Vanguard Financials	VFH	0.10	5,842.0	-21.24	-1.99	5.98
Fidelity MSCI Financials	FNCL	0.08	701.0	-21.29	-1.98	5.98
VanEck Vectors BDC Income	BIZD	10.24	200.1	-25.50	-3.13	2.77
iShares US Regional Banks	IAT	0.42	242.7	-26.20	-6.03	3.46
SPDR S&P Regional Banking	KRE	0.35	1,223.3	-27.14	-8.02	1.44
SPDR S&P Bank	KBE	0.35	1,533.8	-28.12	-7.89	1.32
Invesco KBW Bank	KBWB	0.35	700.5	-30.36	-6.53	3.40
Invesco KBW High Div Yield Financial	KBWD	1.58	226.0	-33.74	-9.35	-1.32
U.S. EQUITY: HEALTH CARE						
Invesco DWA Healthcare Momentum	PTH	0.60	543.6	42.60	25.34	19.94
Principal Healthcare Innovators	BTEC	0.42	106.7	25.03	17.15	-
SPDR S&P Biotech	XBI	0.35	5,458.2	18.68	10.61	11.34
SPDR S&P Health Care Equipment	XHE	0.35	598.5	13.71	15.27	18.53
First Trust Health Care AlphaDEX	FXH	0.62	1,311.0	13.28	12.10	9.84
iShares US Medical Devices	IHI	0.42	8,199.4	12.97	20.37	20.74
iShares NASDAQ Biotechnology	IBB	0.46	8,951.4	8.61	7.89	4.01
Invesco S&P 500 Equal Weight Health Care	RYH	0.40	697.9	5.00	10.23	9.66
Fidelity MSCI Health Care	FHLC	0.08	2,043.3	4.42	11.24	10.26
Vanguard Health Care	VHT	0.10	11,192.1	4.34	11.17	10.28
Invesco S&P SmallCap Health Care	PSCH	0.29	388.5	3.44	13.46	14.90
ALPS Medical Breakthroughs	SBIO	0.50	213.1	3.26	14.62	9.00
iShares US Healthcare	IYH	0.43	2,214.7	2.87	10.42	9.63
First Trust NYSE Arca Biotechnology	FBT	0.55	1,887.9	2.71	8.06	7.93
Invesco Dynamic Biotech/Genome	PBE	0.58	222.5	1.31	6.67	2.83
Health Care Select Sector SPDR	XLV	0.13	22,456.5	1.15	9.84	9.23
iShares US Healthcare Providers	IHF	0.42	914.9	0.55	12.31	11.34
iShares US Pharmaceuticals	IHE	0.42	345.5	0.43	3.19	1.90
SPDR S&P Pharmaceuticals	XPH	0.35	222.5	-2.93	3.54	-0.12
Invesco Dynamic Pharmaceuticals	PJP	0.56	312.2	-3.73	0.61	-0.77
U.S. EQUITY: INDUSTRIALS						
Invesco Dynamic Building & Construction	PKB	0.59	138.1	7.24	2.71	8.41
iShares Transportation Average	IYT	0.42	1,167.6	1.62	5.17	7.41
Invesco S&P 500 Equal Weight Industrials	RGI	0.40	362.1	0.18	7.30	11.01
iShares US Industrials	IYJ	0.42	941.5	-0.92	6.54	10.89
First Trust Nasdaq Transportation	FTXR	0.60	641.3	-4.05	0.31	-
Fidelity MSCI Industrials	FIDU	0.08	414.5	-4.52	4.26	9.28
Industrial Select Sector SPDR	XLI	0.13	12,273.1	-5.32	4.09	9.17
Vanguard Industrials	VIS	0.10	3,108.7	-5.76	3.71	8.68
First Trust Industr/Producer Dur AlphaDEX	FXR	0.63	234.1	-7.53	3.82	9.26
SPDR S&P Transportation	XTN	0.35	286.0	-8.25	0.11	5.68
Invesco Aerospace & Defense	PPA	0.59	598.0	-20.32	1.85	9.91
SPDR S&P Aerospace & Defense	XAR	0.35	968.0	-21.29	2.46	10.87
iShares US Aerospace & Defense	ITA	0.42	2,366.5	-31.28	-4.57	6.28
U.S. EQUITY: TECHNOLOGY						
WisdomTree Cloud Computing	WCLD	0.45	895.7	64.50	-	-
SPDR FactSet Innovative Technology	XITK	0.45	277.6	49.79	30.05	-
Invesco NASDAQ Internet	PNQI	0.60	944.3	44.82	21.59	21.01
Invesco DWA Technology Momentum	PTF	0.60	262.4	42.32	27.02	21.72
SPDR S&P NYSE Technology	XNTK	0.35	504.7	41.24	22.69	23.45
First Trust Dow Jones Internet	FDN	0.52	10,265.2	34.42	20.29	20.24

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
iShares Expanded Tech-Software Sector	IGV	0.46	5,187.1	31.52	25.19	24.59
iShares US Technology	IYW	0.43	5,987.2	26.72	22.94	22.97
First Trust Cloud Computing	SKYY	0.60	4,903.4	26.33	20.86	20.77
SPDR S&P Semiconductor	XSD	0.35	579.8	25.59	24.11	26.44
iShares Expanded Tech Sector	IGM	0.46	2,742.9	24.70	22.32	22.74
First Trust Technology AlphaDEX	FXL	0.61	2,179.1	24.08	21.02	22.20
Invesco Dynamic Software	PSJ	0.56	519.1	24.04	23.47	23.34
VanEck Vectors Semiconductor	SMH	0.35	2,796.5	23.72	21.79	28.37
iShares PHLX Semiconductor	SOXX	0.46	3,673.2	22.80	22.48	29.40
Fidelity MSCI Information Technology	FTEC	0.08	4,477.1	22.74	22.54	22.78
Vanguard Information Technology	VGIT	0.10	35,886.2	22.73	23.66	23.45
Technology Select Sector SPDR	XLK	0.13	33,494.5	22.17	22.44	22.35
Invesco Dynamic Semiconductors	PSI	0.57	280.9	19.89	14.72	26.66
SPDR S&P Software & Services	XSW	0.35	264.0	16.63	20.15	19.17
First Trust NASDAQ-100 Technology Sector	QTEC	0.57	2,883.7	16.53	17.72	22.93
HCM Defender 100	QQH	1.25	123.7	14.60	-	-
ProShares S&P Tech Dividend Aristocrats	TDV	0.46	104.0	6.50	-	4.83
Invesco S&P 500 Equal Weight Technology	RYT	0.40	1,822.9	6.20	14.70	18.74
Invesco S&P SmallCap Information Tech	PSCT	0.29	236.2	-6.41	3.73	11.91
Direxion Work From Home	WFH	0.45	136.7	-	-	-
U.S. EQUITY: TELECOMMUNICATIONS						
Communication Svcs Select Sector SPDR	XLC	0.13	10,315.9	11.16	-	-
Vanguard Communication Services	VOX	0.10	2,683.4	10.04	6.55	6.05
Fidelity MSCI Communication Services	FCOM	0.08	552.2	9.60	10.70	10.66
iShares US Telecommunications	IYZ	0.42	351.4	-8.83	-1.60	0.22
U.S. EQUITY: UTILITIES						
Utilities Select Sector SPDR	XLU	0.13	11,774.7	-0.79	7.79	11.03
First Trust Utilities AlphaDEX	FXU	0.63	203.8	-2.99	3.34	6.66
Vanguard Utilities	VPU	0.10	4,363.1	-3.02	6.96	10.82
Fidelity MSCI Utilities	FUTY	0.08	1,104.0	-3.30	6.84	10.70
iShares US Utilities	IDU	0.43	840.1	-3.35	6.41	10.20
Invesco S&P 500 Equal Weight Utilities	RYU	0.40	245.1	-4.40	7.05	9.50
U.S. EQUITY: REAL ESTATE						
Pacer Benchmark Data & Infrastr Real Est	SRVR	0.60	1,063.3	6.06	-	-
Pacer Benchmark Industrial Real Estate	INDS	0.60	113.1	1.77	-	-
Real Estate Select Sector SPDR	XLRE	0.13	2,047.1	-9.75	5.13	5.61
iShares Cohen & Steers REIT	ICF	0.34	1,775.6	-14.04	2.52	3.50
iShares US Real Estate	IYR	0.42	4,053.6	-14.89	2.28	4.28
Vanguard Real Estate	VNQ	0.12	27,688.6	-15.39	1.66	3.39
Fidelity MSCI Real Estate	FREL	0.08	1,042.6	-15.54	2.05	4.24
iShares Residential/Multisector Real Est	REZ	0.48	355.0	-17.92	1.93	3.84
JPMorgan BetaBuilders MSCI US REIT	BBRE	0.11	797.6	-19.29	-	-
iShares Core US REIT	USRT	0.08	1,386.0	-19.78	-0.46	2.17
PPTY-U.S. Diversified Real Estate	PPTY	0.49	98.8	-22.54	-	-
SPDR Dow Jones REIT	RWR	0.25	1,184.9	-23.46	-2.51	0.09
Schwab US REIT	SCHH	0.07	4,131.2	-24.10	-2.69	0.04
iShares Mortgage Real Estate	REM	0.48	1,053.0	-37.16	-8.76	0.73
VanEck Vectors Mortgage REIT Income	MORT	0.41	177.4	-37.96	-9.50	0.73
Invesco KBW Premium Yield Equity REIT	KBWY	0.35	163.0	-41.54	-16.76	-5.10
U.S. EQUITY: HIGH DIVIDEND YIELD						
Schwab US Dividend Equity	SCHD	0.06	12,901.9	-1.33	8.01	10.63
First Trust Value Line Dividend	FVD	0.70	8,826.7	-10.99	3.81	7.77
SPDR S&P Dividend	SDY	0.35	15,865.6	-11.98	3.61	7.75
Vanguard High Dividend Yield	VYM	0.06	26,281.0	-12.87	2.09	6.57
First Trust Mstar Dividend Leaders	FDL	0.45	1,227.5	-17.19	0.72	5.58
WisdomTree US High Dividend	DHS	0.38	676.5	-17.80	-0.78	4.03
iShares Core High Dividend	HDV	0.08	5,096.2	-17.82	0.57	4.42
iShares Select Dividend	DVY	0.39	12,338.3	-18.66	-0.68	5.19
Invesco High Yield Equity Div Achievers	PEY	0.52	617.2	-19.01	-0.89	5.61
Invesco S&P Ultra Dividend Revenue	RDIV	0.39	574.3	-28.74	-3.43	2.48
Global X SuperDividend US	DIV	0.46	413.9	-32.59	-9.63	-3.40
GLOBAL EQUITY						
ARK Innovation	ARKK	0.75	10,193.6	81.40	38.96	37.38
ProShares Pet Care	PAWZ	0.50	146.2	35.99	-	-
AdvisorShares DW FSM All Cap World	DWAW	1.24	101.3	22.20	-	-

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
iShares MSCI Global Impact	SDG	0.49	202.3	19.60	11.85	-
ClearBridge All Cap Growth	CACG	0.54	176.1	9.70	13.05	-
First Trust Dorsey Wright Focus 5	FV	0.87	2,054.3	7.29	8.15	8.49
Davis Select Worldwide	DWLD	0.63	286.9	4.82	3.68	-
iShares Global 100	IOO	0.40	2,419.5	2.12	8.49	10.21
iShares MSCI ACWI Low Carbon Target	CRBN	0.20	484.2	-0.44	6.00	8.32
iShares MSCI ACWI	ACWI	0.32	12,608.5	-0.57	5.79	8.46
Vanguard Total World Stock	VT	0.08	14,235.2	-1.11	5.42	8.36
SPDR Portfolio MSCI Global Stock Market	SPGM	0.09	412.6	-1.45	5.36	7.90
iShares MSCI Global Min Vol Factor	ACWV	0.20	5,590.6	-5.67	5.10	7.35
First Trust Dorsey Wright Dynamic Focus 5	FVC	0.71	208.2	-5.98	1.57	-
Principal Active Global Dividend Income	GDVD	0.58	277.2	-6.85	3.74	-
Inspire Global Hope	BLES	0.52	102.7	-9.11	1.72	-
GLOBAL EQUITY EX-U.S.						
First Trust Intl Equity Opportunities	FPXI	0.70	425.0	39.94	17.98	16.61
Davis Select International	DINT	0.68	238.1	8.39	-	-
American Century Quality Diversified Intl	QINT	0.39	106.3	0.64	-	-
WisdomTree Glb ex-US Qual Div Growth	DNL	0.58	228.5	0.26	6.06	9.40
Vanguard Intl Dividend Appreciation	VIGI	0.20	2,469.3	-1.55	4.73	-
Vanguard ESG International Stock	VSGX	0.17	1,286.5	-3.84	-	-
Vanguard FTSE All-World ex-US	VEU	0.08	24,545.5	-6.66	0.07	4.64
iShares Core MSCI Total International	IXUS	0.09	20,795.7	-6.84	-0.11	4.67
Vanguard Total International Stock	VXUS	0.08	28,495.2	-7.15	-0.22	4.52
iShares MSCI ACWI ex US	ACWX	0.32	3,187.0	-7.21	-0.33	4.28
Vanguard FTSE All-World ex-US Small-Cap	VSS	0.11	4,843.0	-7.50	-1.64	4.32
SPDR MSCI ACWI ex-US	CWI	0.30	1,253.6	-7.56	-0.19	4.43
First Trust Dorsey Wright Intl Focus 5	IFV	1.06	217.5	-12.16	-2.98	1.98
FlexShares International Quality Dividend	IQDF	0.47	454.6	-14.19	-4.12	1.81
Avantis International Small Cap Value	AVDV	0.36	283.0	-16.73	-	-
Vident International Equity	VIDI	0.59	397.2	-18.24	-7.24	1.63
Invesco International Dividend Achievers	PID	0.53	457.4	-23.31	-3.74	-0.05
INTERNATIONAL EQUITY: BLENDED DEVELOPMENT						
ClearBridge Large Cap Growth ESG	LRGE	0.59	112.2	15.20	18.01	-
iShares Asia 50	AIA	0.50	1,999.3	12.98	6.95	12.76
iShares MSCI All Country Asia ex Japan	AAJ	0.68	4,605.5	7.36	3.46	8.94
Fidelity Blue Chip Growth	FBCG	0.59	106.5	-	-	-
INTERNATIONAL EQUITY: DEVELOPED						
BlueStar Israel Technology	ITEQ	0.75	131.7	29.73	20.26	-
iShares MSCI Denmark	EDEN	0.53	141.4	20.47	8.51	11.08
iShares MSCI Intl Momentum Factor	IMTM	0.30	578.1	5.78	4.10	7.20
Invesco S&P Intl Developed Momentum	IDMO	0.26	302.1	5.07	4.23	4.53
Invesco DWA Dev Markets Momentum	PIZ	0.81	155.6	3.94	4.12	6.56
iShares MSCI New Zealand	ENZL	0.50	162.0	3.50	12.78	14.37
iShares MSCI Sweden	EWD	0.55	297.3	3.00	1.72	5.74
iShares MSCI Netherlands	EWN	0.50	221.8	0.90	4.42	8.61
Knowledge Leaders Developed World	KLDW	0.75	152.2	0.73	4.88	8.86
iShares MSCI EAFE Growth	EFG	0.40	8,523.2	0.42	4.50	6.49
FlexShares STOXX Global ESG Impact	ESGG	0.42	112.8	-0.34	6.79	-
Franklin FTSE Japan	FLJP	0.09	453.4	-0.36	-	-
WisdomTree Intl Qual Div Growth	IQDG	0.42	139.8	-0.81	2.95	-
JPMorgan BetaBuilders Japan	BBJP	0.19	5,407.6	-0.90	-	-
iShares MSCI Japan	EWJ	0.49	10,433.4	-0.90	1.48	5.16
iShares MSCI World	URTH	0.24	994.5	-1.29	6.20	8.50
Invesco S&P Intl Developed Quality	IDHQ	0.29	100.9	-1.43	4.16	6.78
iShares MSCI Kokusai	TOK	0.25	152.6	-1.47	6.79	8.69
WisdomTree Intl Hedged Qual Div Growth	IHDG	0.58	775.7	-1.91	4.90	7.41
Vanguard FTSE Pacific	VPL	0.08	3,687.0	-2.46	0.81	5.85
iShares MSCI Switzerland	EWL	0.50	1,641.5	-2.65	6.23	6.45
iShares Core MSCI Pacific	IPAC	0.09	965.7	-3.64	1.45	5.98
Xtrackers MSCI Japan Hedged Equity	DBJP	0.45	187.3	-3.66	0.47	3.24
iShares Currency Hedged MSCI Japan	HEWJ	0.49	248.3	-4.17	0.33	3.25
iShares MSCI Intl Quality Factor	IQLT	0.30	2,039.8	-5.31	3.27	5.52
ProShares MSCI EAFE Dividend Growers	EFAD	0.51	115.1	-5.58	2.10	2.68
WisdomTree Japan SmallCap Dividend	DFJ	0.58	244.7	-6.19	-2.27	5.99
SPDR S&P International Small Cap	GWX	0.40	674.8	-6.38	-1.96	4.25

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
Nationwide Risk-Based International	RBIN	0.42	108.1	-6.58	-0.07	-
iShares MSCI Saudi Arabia	KSA	0.74	487.9	-6.86	6.62	5.00
iShares MSCI EAFE Small-Cap	SCZ	0.40	9,243.5	-7.63	-0.60	5.37
First Trust RiverFront Dyn Developed Intl	RFDI	0.83	132.0	-7.71	-3.02	-
Invesco FTSE RAFI DM ex-US Small-Mid	PDN	0.49	310.4	-7.73	-2.13	4.15
iShares MSCI Intl Small-Cap Multifactor	ISCF	0.40	129.4	-7.91	-0.60	5.82
IQ Candriam ESG International Equity	IQSI	0.15	102.4	-7.94	-	-
Fidelity Dividend for Rising Rates	FDRR	0.29	272.2	-8.12	5.68	-
SPDR MSCI EAFE Fossil Fuel Reserves Free	EFAX	0.20	121.5	-8.40	-0.56	-
iShares MSCI Israel	EIS	0.59	114.6	-8.50	3.46	2.44
SPDR Portfolio Developed World ex-US	SPDW	0.04	7,714.8	-8.74	-0.62	3.73
Vanguard FTSE Developed Markets	VEA	0.05	73,123.4	-9.11	-0.87	3.67
Schwab International Equity	SCHF	0.06	18,999.1	-9.12	-0.87	3.61
Schwab International Small-Cap Equity	SCHC	0.11	2,450.7	-9.21	-1.84	3.68
WisdomTree Japan Hedged Equity	DXJ	0.48	1,484.2	-9.33	-3.76	1.22
iShares Core MSCI Intl Developed Markets	IDEV	0.05	3,340.7	-9.34	-0.67	-
Goldman Sachs ActiveBeta Intl Equity	GSIE	0.25	1,761.4	-9.34	-0.31	-
SPDR MSCI EAFE StrategicFactors	QEFA	0.30	373.6	-9.48	0.35	3.82
JPMorgan BetaBuilders Canada	BBCA	0.19	3,664.7	-9.60	-	-
iShares MSCI Germany	EWG	0.49	2,373.5	-9.68	-5.38	1.54
iShares Core MSCI EAFE	IEFA	0.07	68,817.1	-9.76	-0.90	3.58
iShares MSCI Hong Kong	EWH	0.49	1,131.1	-9.91	-1.20	4.23
IQ 50 Percent Hedged FTSE International	HFXI	0.20	252.0	-10.07	-0.39	3.73
JPMorgan BetaBuilders Intl Equity	BBIN	0.07	1,882.2	-10.10	-	-
iShares ESG MSCI EAFE	ESGD	0.20	3,061.9	-10.18	-0.84	-
iShares MSCI EAFE	EFA	0.32	44,324.9	-10.34	-1.27	3.00
JPMorgan BetaBuilders Dev Asia ex-Japan	BBAX	0.19	1,482.7	-10.43	-	-
Avantis International Equity	AVDE	0.23	345.8	-10.52	-	-
John Hancock Multifactor Developed Intl	JHMD	0.39	426.1	-10.54	-2.16	-
iShares MSCI Canada	EWC	0.49	2,159.8	-10.55	-0.48	4.40
iShares MSCI EAFE Min Vol Factor	EFMV	0.20	10,043.1	-10.85	0.08	3.19
JPMorgan Diversified Ret International	JPIN	0.37	876.8	-10.85	-2.42	2.23
iShares MSCI Europe Small-Cap	IEUS	0.40	124.0	-11.24	-1.83	3.97
iShares MSCI Australia	EWA	0.50	1,272.7	-11.38	-0.06	5.55
iShares Currency Hedged MSCI EAFE	HEFA	0.35	2,120.3	-11.71	0.13	4.05
Xtrackers MSCI EAFE Hedged Equity	DBEF	0.35	3,366.9	-11.74	0.08	3.98
iShares MSCI Pacific ex-Japan	EPP	0.48	1,772.0	-11.87	-0.77	4.83
Schwab Fundamental Intl Small Company	FNDC	0.39	1,796.6	-11.99	-3.92	3.75
First Trust DM ex-US AlphaDEX	FDT	0.80	331.6	-12.32	-5.18	2.03
iShares MSCI Intl Multifactor	INTF	0.30	802.8	-12.51	-3.53	2.07
SPDR Portfolio Europe	SPEU	0.09	126.8	-13.23	-1.50	1.65
Hartford Multifactor Dev Mkts (ex-US)	RODM	0.29	1,857.8	-13.40	-2.06	3.16
Franklin FTSE Europe	FLEE	0.09	198.5	-13.42	-	-
JPMorgan BetaBuilders Europe	BBEU	0.09	3,728.9	-13.59	-	-
iShares MSCI Eurozone	EZU	0.49	3,924.8	-13.66	-4.14	1.93
Vanguard FTSE Europe	VGK	0.08	11,699.2	-13.74	-2.39	2.20
iShares Core MSCI Europe	IEUR	0.09	3,201.5	-13.79	-2.25	2.29
Fidelity High Dividend	FDVV	0.29	523.6	-14.26	3.44	-
VictoryShares MSCI Intl Value Momntm	UVM	0.35	353.8	-14.29	-5.93	-
iShares Europe	IEV	0.59	1,322.3	-14.62	-3.01	1.46
FlexShares Mstar DM ex-US Factor Tilt	TLTD	0.39	500.8	-14.84	-4.30	2.11
First Trust Europe AlphaDEX	FEP	0.80	326.5	-14.86	-4.07	2.94
Xtrackers MSCI Europe Hedged Equity	DBEU	0.45	404.6	-15.20	-0.71	3.68
WisdomTree Europe Hedged Equity	HEDJ	0.58	1,671.1	-15.24	-1.91	3.09
iShares Currency Hedged MSCI Eurozone	HEZU	0.52	520.0	-15.82	-1.78	2.80
WisdomTree Intl MidCap Dividend	DIM	0.58	146.7	-15.84	-4.29	1.93
WisdomTree Intl SmallCap Dividend	DLS	0.58	1,236.8	-15.99	-4.93	3.34
SPDR Euro STOXX 50	FEZ	0.29	1,594.1	-16.10	-4.44	1.08
IQ 500 International	IQIN	0.25	216.2	-16.16	-	-
WisdomTree International Equity	DWM	0.48	519.7	-16.31	-4.20	1.28
Invesco RAFI Strategic Developed ex-US	ISDX	0.23	231.9	-16.35	-	-
Schwab Fundamental Intl Large Company	FNDF	0.25	4,090.9	-16.73	-4.58	1.52
WisdomTree Intl Dividend ex-Financials	DOO	0.58	116.6	-17.15	-3.52	0.70
WisdomTree Dyn Currency Hedged Intl	DDWM	0.40	135.0	-17.26	-3.47	-
Invesco FTSE RAFI Dev Markets ex-US	PXF	0.45	874.1	-17.49	-5.46	1.00

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
WisdomTree International LargeCap Div	DOL	0.48	311.9	-17.56	-4.39	0.68
Pacer Trendpilot International	PTIN	0.66	108.7	-17.77	-	-
iShares MSCI France	EWQ	0.50	758.2	-17.93	-3.33	2.94
Invesco S&P Intl Dev Low Volatility	IDLV	0.25	781.9	-18.24	-2.53	2.08
WisdomTree Europe SmallCap Dividend	DFE	0.58	273.2	-20.47	-6.60	1.49
iShares MSCI EAFE Value	EFV	0.39	5,391.1	-21.23	-7.46	-1.07
Pacer Global Cash Cows Dividend	GCOW	0.60	110.4	-21.80	-3.99	-
iShares MSCI Italy	EWI	0.49	158.8	-21.87	-6.70	-2.09
ALPS International Sector Dividend Dogs	IDOG	0.50	125.2	-21.92	-5.76	0.81
iShares MSCI Intl Value Factor	IVLU	0.30	456.5	-22.13	-7.46	-1.59
iShares MSCI Singapore	EWS	0.50	484.8	-24.45	-7.22	-0.91
iShares MSCI Spain	EWP	0.50	325.8	-26.67	-11.86	-4.52
iShares MSCI United Kingdom	EWU	0.50	2,159.1	-27.54	-7.79	-3.15
Global X MSCI Greece	GREK	0.57	108.6	-40.74	-11.49	-8.73
Xtrackers MSCI Kokusai Equity	KOKU	0.09	731.1	-	-	-
Goldman Sachs MarketBeta Intl Equity	GSID	0.20	262.9	-	-	-
INTERNATIONAL EQUITY: EMERGING						
KraneShares CSI China Internet	KWEB	0.76	3,375.5	47.56	9.75	15.89
WisdomTree China ex-SOE	CXSE	0.32	453.0	44.24	14.33	20.57
Invesco Golden Dragon China	PGJ	0.70	197.8	30.32	8.91	12.99
KraneShares Bosera MSCI China A Share	KBA	0.60	699.0	25.20	8.23	5.21
iShares MSCI China A	CNYA	0.60	522.2	24.41	8.12	-
First Trust Chindia	FNI	0.60	178.9	23.56	9.30	12.39
iShares MSCI China	MCHI	0.59	6,357.6	21.72	7.63	12.24
SPDR S&P China	GXC	0.59	1,636.5	21.40	7.46	12.26
Xtrackers Harvest CSI 300 China A-Shares	ASHR	0.65	1,991.5	20.82	6.45	6.32
SPDR S&P Emerging Asia Pacific	GMF	0.49	590.2	11.27	5.57	10.53
WisdomTree Emerging Markets ex-SOE	XSOE	0.32	2,391.4	11.22	5.67	11.13
Invesco BLDRS Emerging Markets 50 ADR	ADRE	0.18	142.9	10.49	5.80	11.33
iShares MSCI Taiwan	EWT	0.59	4,565.0	9.80	8.84	12.75
iShares MSCI Emerging Markets Asia	EEMA	0.50	490.4	9.45	3.90	9.53
iShares MSCI BRIC	BKF	0.69	254.2	5.44	4.54	10.78
iShares MSCI South Korea	EWY	0.59	5,073.7	4.36	-2.54	5.69
Xtrackers MSCI Emerging Markets Hedged	DBEM	0.65	105.9	3.61	2.82	6.63
iShares Currency Hedged MSCI EM	HEEM	0.68	178.0	3.50	3.23	7.67
SPDR MSCI EM Fossil Fuel Reserves Free	EEMX	0.30	99.1	3.46	1.97	-
Invesco DWA EM Momentum	PIE	0.90	158.2	3.16	2.33	6.21
iShares ESG Aware MSCI EM	ESGE	0.25	4,732.5	1.54	2.72	-
iShares Core MSCI Emerging Markets	IEMG	0.13	55,219.5	0.39	1.46	7.53
iShares MSCI Emerging Markets	EEM	0.68	24,515.3	0.23	1.22	7.44
Vanguard FTSE Emerging Markets	VVO	0.10	62,229.9	0.10	2.11	7.47
Schwab Emerging Markets Equity	SCHE	0.11	7,309.1	-0.04	2.59	7.89
SPDR Portfolio Emerging Markets	SPEM	0.11	4,478.7	-0.67	1.85	7.74
iShares MSCI India Small Cap	SMIN	0.76	191.6	-1.45	-9.25	2.42
Goldman Sachs ActiveBeta EM Equity	GEM	0.45	1,722.9	-2.75	0.58	6.37
iShares MSCI EM Multifactor	EMGF	0.45	570.5	-2.91	-0.20	-
iShares MSCI Emerging Markets Small-Cap	EEMS	0.69	204.1	-3.07	-2.50	3.11
SPDR S&P Emerging Markets Small Cap	EWX	0.65	508.8	-3.77	-1.94	5.18
iShares MSCI India	INDA	0.69	3,161.2	-4.18	-0.61	4.39
WisdomTree India Earnings	EPI	0.84	599.0	-4.49	-3.39	4.33
Avantis Emerging Markets Equity	AVEM	0.33	360.4	-4.60	-	-
iShares MSCI EM Min Vol Factor	EEMV	0.25	4,032.0	-5.31	0.12	3.56
SPDR MSCI EM StrategicFactors	QEMM	0.30	135.3	-6.26	-0.65	4.76
John Hancock Multifactor EM	JHEM	0.49	671.2	-6.85	-	-
FlexShares Mstar EM Factor Tilt	TLTE	0.59	229.1	-8.20	-3.37	4.24
PIMCO RAFI Dynamic Multi-Factor EM	MFEM	0.49	658.8	-8.85	-1.77	-
iShares India 50	INDY	0.93	596.6	-8.99	-0.51	5.11
iShares MSCI Malaysia	EWM	0.49	362.7	-9.16	-3.42	-0.34
WisdomTree EM SmallCap Dividend	DGS	0.63	1,471.5	-11.42	-2.24	5.77
VictoryShares MSCI EM Value Momentum	UEVM	0.45	216.8	-12.07	-5.97	-
Invesco S&P EM Low Volatility	EELV	0.29	271.2	-14.72	-2.91	1.31
First Trust EM Small Cap AlphaDEX	FEMS	0.80	130.5	-15.34	-4.34	6.55
JPMorgan Diversified Return EM Equity	JPEM	0.44	215.2	-16.65	-3.42	3.53
iShares MSCI Philippines	EPHE	0.59	118.3	-17.69	-8.21	-3.81
First Trust Emerging Markets AlphaDEX	FEM	0.80	375.1	-17.82	-4.88	5.00

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
Invesco FTSE RAFI Emerging Markets	PXH	0.50	980.4	-19.14	-3.55	5.90
Schwab Fundamental EM Large Company	FNDE	0.39	2,951.8	-20.83	-4.36	5.45
WisdomTree EM High Dividend	DEM	0.63	1,478.8	-21.09	-2.91	4.15
VanEck Vectors Russia	RSX	0.67	991.1	-22.09	1.15	7.28
SPDR S&P Emerging Markets Dividend	EDIV	0.49	248.0	-22.32	-4.01	2.00
iShares Emerging Markets Dividend	DVYE	0.49	528.4	-23.04	-5.22	3.45
iShares MSCI South Africa	EZA	0.59	306.7	-23.10	-9.42	-3.53
iShares MSCI Mexico	EWH	0.49	761.9	-23.85	-10.17	-7.01
iShares MSCI Chile	ECH	0.59	386.4	-26.89	-20.78	-5.40
iShares MSCI Indonesia	EIDO	0.59	286.6	-28.05	-10.39	-0.43
iShares MSCI Thailand	THD	0.59	373.9	-29.07	-9.48	1.25
iShares MSCI Russia	ERUS	0.59	388.5	-29.54	1.85	7.50
iShares MSCI Poland	EPOL	0.61	186.9	-33.29	-18.11	-5.44
iShares MSCI Turkey	TUR	0.59	196.0	-34.07	-22.80	-12.88
iShares Latin America 40	ILF	0.48	821.0	-37.27	-12.27	0.22
iShares MSCI Brazil	EWZ	0.59	4,751.0	-42.71	-10.16	5.79
iShares ESG MSCI EM Leaders	LDEM	0.16	660.7	-	-	-
INTERNATIONAL EQUITY: FRONTIER						
VanEck Vectors Vietnam	VNM	0.66	383.4	-7.82	-1.89	-1.04
iShares MSCI Frontier 100	FM	0.79	378.7	-11.07	-2.55	2.56
GLOBAL EQUITY: SECTOR						
Invesco Solar	TAN	0.71	1,838.6	123.28	43.40	20.40
ARK Genomic Revolution	ARKG	0.75	2,905.0	96.12	39.21	28.71
ARK Next Generation Internet	ARKW	0.76	2,983.0	92.41	43.61	41.68
First Trust NASDAQ Clean Edge Grm Energy	QCLN	0.60	776.2	91.39	33.59	27.07
Invesco WilderHill Clean Energy	PBW	0.70	895.4	86.18	38.96	25.26
O'Shares Global Internet Giants	OGIG	0.48	499.8	72.34	-	-
ARK Fintech Innovation	ARKF	0.75	933.6	70.48	-	-
iShares Global Clean Energy	ICLN	0.46	1,972.3	67.18	30.46	17.53
ALPS Clean Energy	ACES	0.65	443.9	65.32	-	-
Invesco Global Clean Energy	PBD	0.75	125.6	62.13	23.08	17.13
Global X Video Games & Esports	HERO	0.50	378.7	61.94	-	-
Global X Lithium & Battery Tech	LIT	0.75	873.1	58.56	6.05	18.24
VanEck Vectors Video Gaming and eSports	ESPO	0.55	577.4	56.88	-	-
ARK Autonomous Technology & Robotics	ARKQ	0.75	760.4	55.47	21.68	26.32
VanEck Vectors Low Carbon Energy	SMOG	0.62	167.6	52.18	23.16	18.03
Global X Social Media	SOCL	0.65	238.9	50.43	17.34	22.39
Global X Cloud Computing	CLOU	0.68	1,250.1	48.92	-	-
WedbushMG Video Game Tech	GAMR	0.75	125.9	48.70	14.31	-
iShares MSCI Global Silver/Metals Miners	SLVP	0.39	209.3	39.60	15.93	21.22
Amplify Transformational Data Sharing	BLOK	0.70	134.8	32.69	-	-
Sprott Junior Gold Miners	SGDJ	0.50	105.1	30.95	11.40	16.74
Reality Shares Nasdaq NexGen Economy	BLCN	0.68	129.7	30.12	-	-
iShares MSCI Global Gold Miners	RING	0.39	506.7	30.11	21.19	22.35
Global X Artificial Intelligence/Technology	AIQ	0.68	99.6	29.63	-	-
VanEck Vectors Gold Miners	GDX	0.52	16,036.1	28.04	19.37	20.92
Global X Silver Miners	SIL	0.66	971.2	27.95	10.87	16.90
Sprott Gold Miners	SGDM	0.50	262.2	27.41	16.81	18.36
iShares Genomics Immunology/Healthcare	IDNA	0.47	164.6	27.29	-	-
Global X Robotics & Artificial Intelligence	BOTZ	0.68	1,838.9	27.04	6.41	-
VanEck Vectors Junior Gold Miners	GDJX	0.53	5,844.3	25.91	18.85	22.72
First Trust Global Wind Energy	FAN	0.62	242.8	24.92	13.22	13.32
iShares Robotics/Artificial Intelligence Multisector	IRBO	0.47	203.6	23.60	-	-
Global X FinTech	FINX	0.68	735.5	19.63	18.98	-
iShares Global Tech	IXN	0.46	4,230.9	19.54	19.06	21.47
U.S. Global GO Gold/Prec Metal Miners	GOAU	0.60	109.4	19.42	20.14	-
Invesco Cleantech	PZD	0.65	323.6	17.46	11.26	15.69
ALPS Disruptive Technologies	DTEC	0.50	126.8	16.57	-	-
iShares Cybersecurity and Tech	IHAK	0.47	139.8	15.23	-	-
ROBO Global Robotics and Automation	ROBO	0.95	1,308.3	14.81	6.12	15.22
First Trust Nasdaq AI and Robotics	ROBT	0.65	124.3	12.83	-	-
First Trust NASDAQ Cybersecurity	CIBR	0.60	2,179.1	12.83	15.07	13.95
iShares Exponential Technologies	XT	0.47	2,637.6	12.41	12.42	15.41
ETFMG Prime Cyber Security	HACK	0.60	1,522.0	10.53	14.40	11.69
iShares Global Comm Services	IXP	0.46	319.1	10.26	7.56	5.48

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
ETFMG Prime Junior Silver Miners	SIJ	0.69	408.6	10.13	8.92	18.64
Global X Internet of Things	SNSR	0.68	245.1	10.02	10.39	-
Defiance Next Gen Connectivity	FIWG	0.30	555.7	9.11	-	-
First Trust Indxx NextG	NXTG	0.70	623.0	7.12	5.49	10.50
iShares Global Consumer Discretionary	RXI	0.46	283.3	6.31	10.06	9.08
Global X Copper Miners	COPX	0.65	103.5	6.25	-3.77	8.95
Invesco Water Resources	PHO	0.60	1,142.7	5.96	12.22	12.86
First Trust Water	FIW	0.55	555.2	4.36	10.91	16.46
ETFMG Prime Mobile Payments	IPAY	0.75	768.9	2.48	14.61	14.90
Invesco Global Water	PIO	0.75	208.0	1.83	9.14	9.01
iShares Global Materials	MXI	0.45	410.2	1.34	2.77	9.32
Invesco S&P Global Water	CGW	0.59	713.0	1.02	7.67	9.86
iShares Global Healthcare	IXJ	0.46	2,174.5	0.06	8.98	7.58
VanEck Vectors Rare Earth/Strat Metals	REMX	0.60	162.7	0.00	-16.50	1.12
Global X Uranium	URA	0.71	139.7	-1.02	-1.47	-3.33
First Trust NASDAQ Technology Dividend	TDIV	0.50	1,164.5	-1.02	9.65	12.48
iShares Global Utilities	JXI	0.46	140.8	-1.71	6.40	8.27
Global X US Infrastructure Development	PAVE	0.47	372.1	-1.88	4.57	-
iShares Global Consumer Staples	KXI	0.46	606.4	-3.11	3.99	4.86
VanEck Vectors Agribusiness	MOO	0.56	615.2	-3.42	4.85	8.52
iShares Global Timber & Forestry	WOOD	0.46	233.1	-4.75	-1.32	7.35
iShares Global Industrials	EXI	0.46	258.6	-5.85	2.00	7.28
VanEck Vectors Pharmaceutical	PHX	0.36	218.2	-6.87	4.06	0.02
FlexShares STOXX Global Broad Infrastr	NFRA	0.47	1,859.2	-8.79	2.97	4.97
iShares MSCI Global Metals/Mining Prod	PICK	0.39	281.4	-8.96	-1.52	9.17
Invesco Global Listed Private Equity	PSP	1.58	150.3	-11.09	0.80	6.15
SPDR S&P North Am Natural Resources	NANR	0.35	388.2	-16.49	-4.01	-
FlexShares Mstar Global Upstream Nat Res	GUNR	0.46	2,929.5	-17.82	-2.38	4.59
ProShares DJ Brookfield Global Infrastr	TOLZ	0.47	134.1	-17.98	-1.00	2.40
SPDR S&P Global Infrastructure	GII	0.40	334.0	-19.54	-2.75	2.59
iShares Global Infrastructure	IGF	0.46	2,791.0	-19.55	-2.84	2.50
SPDR S&P Global Natural Resources	GNR	0.40	994.5	-20.17	-5.08	3.46
FlexShares Global Quality Real Estate	GQRE	0.45	265.2	-20.31	-3.28	0.69
iShares Global Financials	IXG	0.46	235.4	-22.56	-5.59	1.92
iShares Global REIT	REET	0.14	2,029.0	-23.82	-2.21	0.27
SPDR Dow Jones Global Real Estate	RWO	0.50	1,399.1	-23.86	-3.25	-0.80
Davis Select Financial	DFNL	0.64	125.0	-24.27	-3.99	-
iShares North American Natural Resources	IGE	0.46	288.9	-33.84	-13.29	-6.79
ETFMG Alternative Harvest	MJ	0.75	576.1	-34.43	-25.58	-
US Global Jets	JETS	0.60	1,773.0	-46.29	-16.32	-7.62
Global X SuperDividend REIT	SRET	0.59	314.9	-47.01	-13.98	-2.70
iShares Global Energy	IXC	0.46	651.1	-48.56	-19.45	-9.76
VanEck Vectors Oil Services	IOH	0.35	393.7	-63.90	-40.40	-29.48
Global X Telemedicine & Digital Health	EDOC	0.68	387.1	-	-	-
Roundhill Sports Betting & iGaming	BETZ	0.75	128.6	-	-	-
GLOBAL EX-U.S. EQUITY: SECTOR						
VanEck Vectors Biotech	BBH	0.35	465.8	9.24	6.87	4.64
Vanguard Global ex-U.S. Real Estate	VNUQ	0.12	4,238.1	-20.49	-2.87	1.91
Xtrackers International Real Estate	HAAU	0.10	264.0	-20.53	-4.42	2.72
iShares International Developed Real Est	IFGL	0.48	228.0	-22.01	-2.44	0.49
SPDR Dow Jones International Real Estate	RWX	0.59	793.1	-24.32	-4.13	-1.74
INTERNATIONAL EQUITY: DEVELOPED SECTOR						
iShares MSCI Europe Financials	EUFN	0.48	582.2	-31.21	-13.51	-5.55
INTERNATIONAL EQUITY: EMERGING SECTOR						
Global X MSCI China Consumer Discr	CHIQ	0.65	401.9	59.65	20.89	19.04
Emerging Markets Internet & Commerce	EMQQ	0.86	1,129.1	55.86	14.94	19.82
KraneShares MSCI All China Health Care	KURE	0.65	133.8	50.71	-	-
Invesco China Technology	CQQQ	0.70	1,051.1	41.54	8.63	17.26
KraneShares EM Consumer Technology	KEMQ	0.60	147.0	17.30	5.21	-
Columbia Emerging Markets Consumer	ECON	0.59	166.8	8.18	-1.51	2.68
GLOBAL EQUITY: HIGH DIVIDEND YIELD						
SPDR S&P Global Dividend	WDIV	0.40	155.2	-24.12	-4.29	0.96
First Trust Dow Jones Global Select Div	FGD	0.59	334.6	-24.23	-6.08	0.28
Global X SuperDividend	SDIV	0.59	628.6	-35.73	-14.25	-5.43

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
GLOBAL EX-U.S. EQUITY: HIGH DIVIDEND YIELD						
SPDR S&P International Dividend	DWV	0.45	548.3	-16.33	-2.68	2.72
Vanguard International High Div Yield	YIMI	0.27	1,331.5	-18.33	-4.72	-
INTERNATIONAL EQUITY: HIGH DIVIDEND YIELD						
Xtrackers MSCI EAFE High Div Yield Equity	HDEF	0.20	436.3	-18.23	-4.87	-0.29
WisdomTree Intl High Dividend	DTH	0.58	148.1	-22.47	-6.54	-0.54
iShares International Select Dividend	IDV	0.49	3,081.6	-23.29	-4.64	1.31
First Trust Stoxx European Select Div	FDD	0.58	168.8	-26.30	-5.79	-0.38
U.S. FIXED INCOME: BROAD MARKET - BROAD MATURITIES						
Fidelity Corporate Bond	FCOR	0.36	225.2	7.50	6.43	6.07
iShares Core Total USD Bond Market	IUSB	0.06	5,535.0	5.83	4.87	4.28
iShares Yield Optimized Bond	BYLD	0.20	191.1	2.24	4.44	4.37
iShares Edge US Fixed Income Bal Risk	FIBR	0.25	131.8	1.64	3.42	3.71
iShares ESG Adv Total USD Bond Market	EUSB	0.12	135.6	-	-	-
U.S. FIXED INCOME: BROAD MARKET - LONG-TERM						
iShares Core 10+ Year USD Bond	ILTB	0.06	401.8	11.17	8.99	8.25
U.S. FIXED INCOME: BROAD MARKET - SHORT-TERM						
iShares Core 1-5 Year USD Bond	ISTB	0.06	4,702.0	3.86	3.41	2.85
VictoryShares USAA Core Short-Term Bond	USTB	0.34	237.8	3.76	3.36	-
First Trust Enhanced Short Maturity	FTSM	0.40	5,171.8	1.01	1.98	1.68
First Trust Low Duration Strategic Focus	LDSF	0.82	142.2	0.65	-	-
U.S. FIXED INCOME: GOVERNMENT/CREDIT - INTERMEDIATE						
VictoryShares Core Intermediate Bond	UITB	0.38	547.4	5.39	5.25	-
iShares Core 5-10 Year USD Bond	IMTB	0.06	130.4	4.84	4.56	-
Vident Core US Bond Strategy	VBND	0.41	398.6	3.62	3.90	3.34
U.S. FIXED INCOME: GOVERNMENT/CREDIT - LONG-TERM						
Vanguard Long-Term Corporate Bond	VCLT	0.05	5,520.1	6.96	8.04	8.46
iShares 10+ Year Inv Grade Corporate Bond	IGLB	0.06	2,366.2	6.92	7.93	8.15
SPDR Portfolio Long Term Corporate Bond	SPLB	0.07	965.2	6.91	7.89	8.27
iShares iBonds Dec 2028 Term Corporate	IBDT	0.10	207.0	6.77	-	-
Invesco BulletShares 2027 Corporate Bond	BSCR	0.10	250.1	6.75	6.20	-
ProShares Inv Grade-Int Rate Hedged	IGHG	0.30	421.1	-4.21	1.34	3.13
iShares Int Rate Hedged Long-Term Corp	IGBH	0.16	560.9	-5.02	0.70	3.02
U.S. FIXED INCOME: GOVERNMENT						
Invesco 1-30 Laddered Treasury	PLW	0.25	166.0	12.46	7.58	5.30
iShares US Treasury Bond	GOVT	0.15	15,078.9	7.58	5.07	3.46
WisdomTree Floating Rate Treasury	USFR	0.15	1,354.9	0.61	1.57	1.13
iShares Treasury Floating Rate Bond	TFLO	0.15	407.4	0.46	1.52	1.15
Franklin Liberty US Treasury Bond	FLGV	0.09	422.7	-	-	-
U.S. FIXED INCOME: TREASURY - SHORT TERM						
SPDR Portfolio Short Term Treasury	SPTS	0.06	3,123.8	3.08	2.45	1.73
Schwab Short-Term US Treasury	SCHO	0.05	7,877.0	3.04	2.62	1.76
Vanguard Short-Term Treasury	VGSH	0.05	9,566.4	2.99	2.62	1.77
iShares 1-3 Year Treasury Bond	SHY	0.15	21,207.0	2.97	2.52	1.69
Franklin Liberty Short Duration US Govt	FTSD	0.25	516.5	2.68	2.24	1.61
Invesco Treasury Collateral	CLTL	0.08	917.8	0.89	1.71	-
iShares Short Treasury Bond	SHV	0.15	19,957.2	0.81	1.68	1.19
Goldman Sachs Access Treasury 0-1 Year	GBIL	0.12	2,963.9	0.49	1.57	-
SPDR Bloomberg Barclays 1-3 Month T-Bill	BIL	0.14	13,861.1	0.41	1.43	0.99
iShares 0-3 Month Treasury Bond	SGOV	0.03	915.2	-	-	-
U.S. FIXED INCOME: TREASURY - INTERMEDIATE						
iShares 7-10 Year Treasury Bond	IEF	0.15	19,626.2	9.90	6.20	4.24
SPDR Portfolio Intermediate Treasury	SPTI	0.06	2,667.5	7.51	5.12	3.40
Schwab Intermediate-Term US Treasury	SCHR	0.05	3,431.0	7.48	4.86	3.37
Vanguard Intermediate-Term Treasury	VGIT	0.05	6,830.6	7.46	4.85	3.39
iShares 3-7 Year Treasury Bond	IEI	0.15	11,329.7	6.68	4.42	3.06
U.S. FIXED INCOME: TREASURY - LONG-TERM						
PIMCO 25+ Year Zero Coupon US Treasury	ZROZ	0.15	424.5	23.04	14.38	10.25
Vanguard Extended Duration Treasury	EDV	0.07	1,703.1	22.84	13.77	9.80
iShares 20+ Year Treasury Bond	TLT	0.15	19,508.7	17.66	10.66	7.60
SPDR Portfolio Long Term Treasury	SPTL	0.06	2,553.9	17.63	10.56	7.46
Vanguard Long-Term Treasury	VGLT	0.05	2,619.7	17.18	10.54	7.49
iShares 10-20 Year Treasury Bond	TLH	0.15	1,626.0	13.79	8.09	5.58
U.S. FIXED INCOME: AGENCIES						
iShares Agency Bond	AGZ	0.20	904.2	5.57	4.12	3.00

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
U.S. FIXED INCOME: AGENCY MBS						
Janus Henderson MBS	JMBS	0.32	578.5	4.81	-	-
FlexShares Disciplined Duration MBS	MBSD	0.20	100.0	4.79	3.61	2.60
SPDR Portfolio Mortgage Backed Bond	SPMB	0.06	2,771.4	3.93	3.69	2.77
iShares MBS	MBB	0.06	23,827.0	3.86	3.64	2.83
Vanguard Mortgage-Backed Securities	VMBS	0.05	11,874.9	3.35	3.47	2.79
iShares GNMA Bond	GNMA	0.15	481.1	3.12	3.16	2.51
First Trust Low Duration Opportunities	LMBS	0.67	6,390.5	1.17	2.32	3.14
U.S. FIXED INCOME: TIPS						
PIMCO 15+ Year US TIPS	LTPZ	0.20	593.5	19.91	11.17	8.85
Quadratic Int Rate Vol/Inflation Hedge	IVOL	0.99	660.3	11.40	-	-
PIMCO Broad US TIPS	TIPZ	0.20	111.4	8.64	5.53	4.44
SPDR Portfolio TIPS	SPIP	0.12	2,035.6	8.57	5.54	4.42
iShares TIPS Bond	TIP	0.19	24,003.8	8.33	5.34	4.26
Schwab US TIPS	SCHP	0.05	12,871.3	8.30	5.41	4.33
FlexShares iBoxx 5-Year Target Dur TIPS	TDTF	0.18	597.2	7.60	5.03	3.93
SPDR Bloomberg Barclays 1-10 Year TIPS	TIPX	0.15	484.2	6.32	4.28	3.39
FlexShares iBoxx 3 Yr Target Dur TIPS	TDTT	0.18	1,431.3	4.94	3.55	2.71
PIMCO 1-5 Year US TIPS	STPZ	0.20	660.0	3.76	2.88	2.33
iShares 0-5 Year TIPS Bond	STIP	0.06	2,843.9	3.69	3.01	2.43
Vanguard Short-Term Inflation-Protected Sec	VTIP	0.05	9,461.2	3.33	2.92	2.36
U.S. FIXED INCOME: MUNICIPAL - BROAD MARKET						
Invesco Taxable Municipal Bond	BAB	0.28	2,108.8	5.53	6.18	6.34
IQ MacKay Municipal Insured	MMIN	0.31	170.4	4.78	4.60	-
SPDR Nuveen Bloomberg Barclays Muni	TFI	0.23	3,256.1	3.59	4.03	3.60
iShares National Muni Bond	MUB	0.07	18,195.9	2.75	3.73	3.34
Vanguard Tax-Exempt Bond	VTEB	0.06	9,396.5	2.65	3.84	3.50
iShares California Muni Bond	CMF	0.25	1,590.4	2.56	3.57	3.22
Invesco New York AMT-Free Muni	PZT	0.28	101.7	2.49	4.15	4.14
Invesco National AMT-Free Municipal	PZA	0.28	2,138.3	2.06	4.14	4.07
Invesco California AMT-Free Municipal	PWZ	0.28	448.5	2.05	4.22	4.07
iShares New York Muni Bond	NYF	0.25	474.1	1.72	3.07	2.90
First Trust Managed Municipal	FMB	0.50	1,708.3	1.46	3.79	4.04
Hartford Municipal Opportunities	HMOP	0.30	120.8	0.07	-	-
VanEck Vectors CEF Municipal Income	XMPT	1.86	147.7	-0.25	4.57	5.07
First Trust Municipal High Income	FMHI	0.55	119.1	-0.47	-	-
U.S. FIXED INCOME: MUNICIPAL - SHORT-TERM						
VanEck Vectors AMT-Free Short Municipal	SMB	0.20	222.2	2.47	2.48	1.92
PIMCO Short Term Municipal Bond Active	SMMU	0.35	253.7	2.12	2.21	1.76
SPDR Bloomberg Barclays Short Term Muni	SHM	0.20	4,279.7	2.08	2.10	1.52
iShares Short-Term National Muni Bond	SUB	0.07	3,838.3	1.81	2.01	1.44
JPMorgan Ultra-Short Municipal Income	JMST	0.18	835.7	1.80	-	-
iShares Short Maturity Municipal Bond	MEAR	0.25	291.1	1.01	1.45	1.20
First Trust Ultra Short Duration Municipal	FUMB	0.35	103.7	0.76	-	-
U.S. FIXED INCOME: MUNICIPAL - INTERMEDIATE						
iShares iBonds Dec 2025 Term Muni Bond	IBMN	0.18	119.1	4.05	-	-
iShares iBonds Dec 2024 Term Muni Bond	IBMM	0.18	179.6	3.23	-	-
VanEck Vectors Intermediate Muni	ITM	0.24	1,711.9	3.11	4.27	3.81
PIMCO Intermediate Municipal Bond Active	MUNI	0.35	532.4	3.05	3.80	3.31
iShares iBonds Dec 2023 Term Muni Bond	IBML	0.18	276.1	2.53	2.58	-
iShares iBonds Dec 2022 Term Muni Bond	IBMK	0.18	356.2	2.01	2.01	2.12
iShares iBonds Dec 2021 Term Muni Bond	IBMJ	0.18	311.2	1.21	1.41	1.51
U.S. FIXED INCOME: MUNICIPAL - LONG-TERM						
VanEck Vectors AMT-Free Long Municipal	MLN	0.24	218.4	3.10	4.85	4.63
Xtrackers Municipal Infrastructure Revenue Bond	RVNU	0.15	108.5	2.10	4.42	4.80
U.S. FIXED INCOME: MUNICIPAL - HIGH YIELD						
SPDR Nuveen HiYld Municipal Bond	HYMB	0.35	1,206.0	-1.42	4.59	3.86
VanEck Vectors Short HiYld Municipal	SHYD	0.35	230.6	-2.03	2.77	2.47
VanEck Vectors High-Yield Municipal	HYD	0.35	2,762.0	-4.17	2.68	3.60
U.S. FIXED INCOME: CORPORATE - INVESTMENT GRADE - BROAD MATURITIES						
Vanguard Long-Term Bond	BLV	0.05	5,371.6	11.89	10.45	9.89
iShares Edge Investment Grade Enh Bond	IGEB	0.18	160.2	7.60	6.26	-
iShares Government/Credit Bond	GBF	0.20	186.8	7.03	5.37	4.22
iShares iBoxx USD Inv Gr Corporate Bond	LQD	0.14	56,302.2	6.78	6.82	6.25
iShares Aaa-A Rated Corporate Bond	QLTA	0.15	1,484.4	6.78	5.77	5.15

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
FlexShares Core Select Bond	BNDC	0.35	109.4	6.56	4.72	-
Franklin Liberty Investment Grade Corp	FLCO	0.35	1,032.3	6.51	5.93	-
SPDR Portfolio Corporate Bond	SPBO	0.06	275.3	6.44	6.36	5.60
Nuveen ESG US Aggregate Bond	NUBD	0.20	176.3	6.35	4.76	-
Goldman Sachs Access Inv Grade Corp	GIGB	0.14	687.8	6.34	6.19	-
Overlay Shares Core Bond	OVV	0.79	117.9	6.30	-	-
Vanguard Total Bond Market	BND	0.04	64,027.4	6.26	5.08	4.05
iShares ESG Aware USD Corporate Bond	SUSC	0.18	618.3	6.23	5.98	-
Franklin Liberty US Core Bond	FLCB	0.15	1,647.4	6.17	-	-
iShares ESG Aware US Aggregate Bond	EAGG	0.10	617.9	6.10	-	-
iShares Core US Aggregate Bond	AGG	0.04	81,631.2	6.10	4.94	3.96
Schwab US Aggregate Bond	SCHZ	0.04	8,374.1	6.08	4.89	3.92
Principal Inv Grade Corporate Active	IG	0.26	324.2	6.08	-	-
SPDR Portfolio Aggregate Bond	SPAB	0.04	5,468.1	6.03	4.92	3.92
iShares Broad USD Inv Grade Corporate	USIG	0.06	5,870.7	6.00	6.00	5.46
PIMCO Investment Grade Corporate Bond	CORP	0.20	811.3	5.97	5.96	5.80
JPMorgan US Aggregate Bond	JAGG	0.07	695.9	5.86	-	-
Vanguard Total Corporate Bond	VTC	0.05	674.9	5.73	-	-
WisdomTree Yield Enhanced US Aggregate	AGGY	0.12	1,324.8	4.13	4.77	4.36
Hartford Schroders Tax-Aware Bond	HTAB	0.39	110.0	4.12	-	-
Fidelity Low Duration Bond Factor	FLDR	0.15	243.3	1.86	-	-
iShares Interest Rate Hedged Corporate	LQDH	0.24	451.8	-2.48	1.89	3.05
Nuveen Sachs Access US Aggregate Bond	GCOR	0.14	109.3	-	-	-
U.S. FIXED INCOME: CORPORATE - INVESTMENT GRADE - SHORT-TERM						
Schwab 1-5 Year Corporate Bond	SCHJ	0.05	123.6	4.28	-	-
iShares 1-5 Yr Inv Grade Corporate Bond	IGSB	0.06	20,460.4	4.25	4.09	3.05
Vanguard Short-Term Bond	BSV	0.05	27,838.6	4.22	3.39	2.51
WisdomTree Yield Enh US Short-Term Agg	SHAG	0.12	128.7	4.07	3.51	-
Vanguard Short-Term Corporate Bond	VCSH	0.05	34,152.4	4.04	3.85	3.28
iShares ESG Aware 1-5 Year USD Corporate	SUSB	0.12	445.1	4.03	3.78	-
iShares 0-5 Year Inv Grade Corporate Bond	SLQD	0.06	2,063.0	3.90	3.65	3.00
SPDR Portfolio Short Term Corporate Bond	SPSB	0.07	7,028.7	3.27	3.23	2.67
JPMorgan Ultra-Short Income	JPST	0.18	14,931.1	1.92	2.55	-
PIMCO Enh Short Maturity Active ESG	EMNT	0.24	133.1	1.89	-	-
iShares Ultra Short-Term Bond	ICSH	0.08	4,922.7	1.50	2.38	1.89
Goldman Sachs Access Ultra Short Bond	GSST	0.16	170.0	1.43	-	-
PIMCO Enhanced Short Maturity Active	MINT	0.36	14,448.8	1.40	2.20	2.08
SPDR SSGA Ultra Short Term Bond	ULST	0.20	302.2	1.29	2.23	1.87
PGIM Ultra Short Bond	PULS	0.15	1,092.8	1.11	-	-
iShares iBonds Dec 2020 Term Corporate	IBDL	0.10	983.5	1.02	1.87	2.21
Invesco BulletShares 2020 Corporate Bond	BSCK	0.10	1,342.8	0.98	1.78	2.21
ClearShares Ultra-Short Maturity	OPER	0.20	120.1	0.59	-	-
American Shares Sage Core Reserves	HOLD	0.36	111.0	-0.05	1.53	1.40
U.S. FIXED INCOME: CORPORATE - INVESTMENT GRADE - INTERMEDIATE						
Invesco BulletShares 2026 Corporate Bond	BSCQ	0.10	308.0	7.45	6.29	-
Schwab 5-10 Year Corporate Bond	SCHI	0.05	171.3	7.02	-	-
iShares iBonds Dec 2026 Term Corporate	IBDR	0.10	552.2	6.91	6.17	-
FlexShares Credit-Scored US Corporate	SKOR	0.22	202.6	6.85	5.33	4.57
iShares 5-10 Year Inv Grade Corporate	IGIB	0.06	10,906.2	6.78	6.69	5.22
Invesco BulletShares 2028 Corporate Bond	BSCS	0.10	141.8	6.76	-	-
Vanguard Intermediate-Term Corporate	VCIT	0.05	39,396.0	6.71	6.23	5.66
iShares iBonds Dec 2025 Term Corporate	IBDQ	0.10	841.9	6.53	5.78	5.62
iShares iBonds Dec 2027 Term Corporate	IBDS	0.10	337.9	6.27	6.15	-
Invesco BulletShares 2025 Corporate Bond	BSCP	0.10	700.2	6.15	5.58	5.09
SPDR Portfolio Intermediate Corporate	SPIB	0.07	5,980.1	5.75	5.03	4.44
Invesco BulletShares 2024 Corporate Bond	BSCO	0.10	1,139.7	5.30	4.88	5.01
iShares iBonds Dec 2024 Term Corporate	IBDP	0.10	1,035.3	4.72	4.69	4.92
iShares iBonds Dec 2023 Term Corporate	IBDO	0.10	1,302.9	4.65	4.19	4.43
American Century Diversified Corporate	KORP	0.29	136.5	4.45	-	-
Invesco BulletShares 2023 Corporate Bond	BSCN	0.10	1,415.6	4.31	4.12	4.52
Inspire Corporate Bond Impact	IBD	0.50	160.3	3.76	3.41	-
Invesco BulletShares 2022 Corporate Bond	BSCM	0.10	2,099.3	3.32	3.40	3.79
iShares iBonds Dec 2022 Term Corporate	IBDN	0.10	1,419.9	3.17	3.35	3.68
Invesco BulletShares 2021 Corporate Bond	BSCL	0.10	2,094.0	2.09	2.51	2.99
iShares iBonds Dec 2021 Term Corporate	IBDM	0.10	1,552.6	2.00	2.59	2.84

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
U.S. FIXED INCOME: CORPORATE - INVESTMENT GRADE - FLOATING RATE						
Invesco Variable Rate Investment Grade	VRIG	0.30	453.1	1.15	2.21	-
VanEck Vectors Inv Grade Floating Rate	FLTR	0.14	440.3	0.98	2.50	2.45
iShares Floating Rate Bond	FLOT	0.20	5,592.2	0.68	2.08	1.90
SPDR BB Investment Grade Floating Rate	FLRN	0.15	2,584.7	0.60	2.07	1.96
U.S. FIXED INCOME: CORPORATE - HIGH YIELD - BROAD MATURITIES						
iShares Fallen Angels USD Bond	FALN	0.25	322.2	6.02	5.80	-
Pacer Trendpilot US Bond	PTBD	0.60	314.3	4.59	-	-
VanEck Vectors Fallen Angel HiYld Bond	ANGL	0.35	3,265.2	4.12	5.22	8.66
Goldman Sachs Access HiYld Corp	GHYB	0.34	159.9	0.89	4.01	-
SPDR Portfolio High Yield Bond	SPHY	0.15	143.5	0.64	3.53	4.93
JPMorgan High Yield Research Enhanced	JPHY	0.24	234.9	0.50	3.89	-
IQ S&P High Yield Low Volatility Bond	HYLV	0.40	107.7	0.41	4.41	-
iShares Broad USD HiYld Corp	USHY	0.15	6,164.4	0.36	3.80	-
FlexShares High Yield Value-Scored Bond	HYGV	0.37	189.7	0.16	-	-
SPDR Bloomberg Barclays High Yield Bond	JNK	0.40	12,019.9	-0.74	3.30	4.89
iShares iBoxx USD HiYld Corp	HYG	0.49	23,839.3	-0.85	3.44	4.96
Xtrackers USD HiYld Corp	HYLB	0.15	6,546.1	-0.90	3.46	-
Invesco Senior Loan	BKLN	0.65	3,963.3	-3.03	1.82	2.87
High Yield	HYLD	1.29	102.9	-3.26	1.73	4.05
WisdomTree Int Rate Hedged HiYld Bond	HYZD	0.43	126.0	-5.79	0.42	3.46
U.S. FIXED INCOME: CORPORATE - HIGH YIELD - SHORT-TERM						
SPDR Short Term High Yield Bond	SJNK	0.40	3,313.2	0.36	3.12	4.69
Invesco BulletShares 2020 HiYld Corp	BSJK	0.42	636.5	-1.01	1.71	3.77
iShares 0-5 Year HiYld Corp	SHYG	0.30	4,921.6	-1.59	2.67	4.36
PIMCO 0-5 Year HiYld Corp	HYS	0.56	1,448.9	-2.48	2.26	4.45
U.S. FIXED INCOME: CORPORATE - HIGH YIELD - INTERMEDIATE						
Vanguard Intermediate-Term Bond	BIV	0.05	14,903.0	8.17	6.00	4.71
iShares Intermediate Govt/Credit Bond	GVI	0.20	2,286.9	5.60	4.17	3.20
Invesco Fundamental HiYld Corp	PHB	0.50	812.0	-0.25	3.35	4.76
Invesco BulletShares 2025 HiYld Corp Bond	BSJP	0.42	136.3	-1.21	3.38	-
Invesco BulletShares 2024 HiYld Corp Bond	BSJO	0.42	183.0	-1.99	2.93	-
Invesco BulletShares 2023 HiYld Corp Bond	BSJN	0.42	413.5	-2.29	2.48	4.45
Invesco BulletShares 2022 HiYld Corp Bond	BSJM	0.42	665.1	-3.22	1.61	4.35
Invesco BulletShares 2021 HiYld Corp Bond	BSJL	0.42	987.2	-3.96	1.64	3.97
U.S. FIXED INCOME: CORPORATE - ASSET-BACKED						
iShares CMBS	CMBS	0.25	491.6	6.27	4.97	4.05
U.S. FIXED INCOME: CORPORATE - CONVERTIBLES						
iShares Convertible Bond	ICVT	0.20	868.7	30.34	16.68	14.78
SPDR Bloomberg Barclays Conv Securities	CWB	0.40	5,266.0	25.97	14.60	13.63
U.S. FIXED INCOME: CORPORATE - PREFERRED STOCK						
Innovator S&P Inv Grade Preferred	EPRF	0.47	126.8	3.24	5.32	-
Global X US Preferred	PFFD	0.23	773.7	2.99	5.23	-
Invesco Financial Preferred	PGF	0.61	1,649.4	2.75	4.95	5.58
SPDR Wells Fargo Preferred Stock	PSK	0.45	1,262.8	2.01	4.61	5.04
Invesco Preferred	PGK	0.52	6,396.8	1.94	4.89	5.51
iShares Preferred and Income Securities	PFF	0.46	17,504.1	0.51	3.64	4.22
VanEck Vectors Preferred Sec ex Financials	PPXF	0.41	758.2	-0.88	4.47	5.32
Invesco Variable Rate Preferred	VRP	0.50	1,443.1	-0.99	3.22	5.28
GLOBAL FIXED INCOME						
First Trust SSI Strategic Convertible Sec	FCVT	0.95	242.3	23.44	13.70	-
Invesco Total Return Bond	GTO	0.50	463.9	8.18	6.75	-
First Trust TCW Opportunistic Fixed Inc	FIXD	0.55	4,220.8	7.19	5.54	-
JPMorgan Core Plus Bond	JCPB	0.40	111.0	7.19	-	-
Fidelity Total Bond	FBND	0.36	1,531.1	7.10	5.46	5.04
Hartford Total Return Bond	HTRB	0.30	761.7	6.70	5.21	-
Western Asset Total Return	WBND	0.47	162.9	6.13	-	-
iShares Global Green Bond	BGRN	0.20	133.6	5.89	-	-
PIMCO Active Bond	BOND	0.73	3,856.7	5.58	4.88	4.34
RiverFront Dynamic Core Income	RFCD	0.52	112.2	5.28	4.25	-
Columbia Diversified Fixed Inc Allocation	DIAL	0.28	536.4	5.09	5.58	-
Vanguard Total World Bond	BNDW	0.06	455.4	5.04	-	-
SPDR Dorsey Wright Fixed Inc Allocation	DWFI	0.60	115.6	4.93	1.82	-
SPDR Bloomberg Barclays Intl Treasury	BWX	0.35	951.2	4.78	3.58	3.47
Fidelity Limited Term Bond	FLTBB	0.36	196.6	4.62	3.73	2.94
SPDR Intl Corporate Bond	IBND	0.50	238.5	4.55	1.74	3.10

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
PIMCO Enhanced Low Duration Active	LDUR	0.79	695.5	4.33	3.27	2.96
First Trust TCW Unconstrained Plus Bond	UCON	0.75	221.3	3.96	-	-
Vanguard Total International Bond	BNDX	0.08	33,980.8	3.87	5.00	4.30
iShares Core International Aggregate Bond	IAGG	0.09	3,205.7	3.84	4.92	-
JPMorgan Intl Bond Opportunities	JPIB	0.50	165.8	2.87	3.91	-
Janus Henderson Short Duration Income	VNLA	0.26	2,676.5	2.72	2.92	-
SPDR DoubleLine Total Return Tactical	TOTL	0.55	3,213.7	2.54	3.32	3.12
SPDR DoubleLine Short Dur Tot Ret Tactical	STOT	0.45	146.7	2.05	2.45	-
SPDR Short Term Intl Treasury Bond	BWZ	0.35	242.2	2.02	0.45	1.33
FlexShares Ready Access Variable Income	RAVI	0.25	469.2	1.87	2.41	1.90
RiverFront Strategic Income	RIGS	0.47	117.9	1.66	2.98	4.19
Invesco Ultra Short Duration	GSY	0.23	3,011.6	1.57	2.47	2.17
Anfield Universal Fixed Income	AFIF	1.32	99.0	1.46	-	-
Franklin Liberty Intl Aggregate Bond	FLIA	0.25	229.5	1.09	-	-
iShares Short Maturity Bond	NEAR	0.25	4,398.6	1.08	2.14	1.86
ETFMG Sit Ultra Short	VALT	0.30	105.8	0.66	-	-
IQ Ultra Short Duration	ULTR	0.25	196.1	0.26	-	-
Aware Ultra-Short Duration Enhanced Inc	AWTM	0.23	235.6	-0.23	-	-
First Trust Preferred Securities & Income	FPE	0.85	5,427.1	-0.60	3.84	5.87
SPDR FTSE Intl Govt Infl-Protected Bond	WIP	0.50	324.4	-0.65	1.83	2.98
Invesco Global Short Term High Yield Bond	PGHY	0.35	196.4	-0.90	1.57	4.08
FormulaFolios Tactical Income	FFTI	1.04	228.8	-3.14	1.21	-
Hartford Core Bond	HCRB	0.29	125.8	-	-	-
Janus Henderson AAA CLO	JAAA	-	119.5	-	-	-
GLOBAL FIXED INCOME: CORPORATE - PREFERRED STOCK						
Principal Spectrum Preferred Sec Active	PREF	0.55	178.9	3.11	4.70	-
First Trust Institutional Pref Sec/Income	FPEI	0.85	284.7	0.53	3.75	-
Global X SuperIncome Preferred	SPFF	0.58	183.4	-1.16	2.62	2.66
GLOBAL FIXED INCOME: HIGH YIELD						
Fidelity High Yield Factor	FDHY	0.45	129.1	4.89	-	-
Franklin Liberty High Yield Corporate	FLHY	0.40	218.0	2.11	-	-
First Trust Tactical High Yield	HYLS	1.23	1,974.2	0.44	4.09	4.70
SPDR Blackstone / GSO Senior Loan	SRLN	0.70	1,689.4	-1.18	2.70	3.20
First Trust Senior Loan	FTSL	0.86	1,278.5	-1.80	2.24	2.87
INTERNATIONAL FIXED INCOME: DEVELOPED						
iShares International Treasury Bond	IGOV	0.35	1,083.5	5.58	3.01	3.47
Invesco International Corporate Bond	PICB	0.50	118.3	4.75	3.00	3.33
iShares US & Intl High Yield Corp Bond	GHYG	0.40	177.0	-0.57	2.84	4.94
INTERNATIONAL FIXED INCOME: EMERGING						
iShares J.P. Morgan EM Corporate Bond	CEMB	0.50	215.1	2.06	4.25	5.80
iShares China Large-Cap	FXI	0.74	3,450.7	1.93	1.34	5.67
VanEck Vectors EM High Yield Bond	HYEM	0.40	420.6	-0.34	2.75	5.86
Vanguard Emerging Markets Govt Bond	VWOB	0.25	1,860.4	-0.47	3.53	5.37
iShares JP Morgan USD EM Bond	EMB	0.39	17,187.7	-0.98	2.96	5.17
SPDR Bloomberg Barclays EM Local Bond	EBND	0.30	872.7	-2.88	1.15	3.60
iShares J.P. Morgan EM High Yield Bond	EMHY	0.50	304.0	-4.62	0.59	4.65
iShares JPM EM Local Currency Bond	LEMB	0.30	499.9	-5.06	-1.33	1.75
Invesco Emerging Markets Sovereign Debt	PCY	0.50	2,682.6	-5.85	1.51	4.13
VanEck Vectors JPM EM Local Curr Bond	EMLC	0.30	3,017.7	-5.89	-0.36	2.64
WisdomTree Emerging Markets Local Debt	ELD	0.55	121.5	-7.67	-0.31	2.70
First Trust EM Local Currency Bond	FEMB	0.85	180.3	-8.08	-0.78	2.07
COMMODITIES: BROAD MARKET						
Teucrium Soybean	SOYB	2.50	99.9	1.90	-4.37	-1.98
Teucrium Corn	CORN	3.71	129.7	-9.93	-8.16	-10.40
First Trust Global Tactical Commodity	FTGC	0.95	172.5	-10.25	-5.46	-4.64
Aberdeen Std All Commodity K-1 Free	BCI	0.25	276.7	-10.80	-4.66	-
iPath Bloomberg Commodity Total Ret ETN	DJP	0.70	446.6	-13.09	-5.95	-3.93
United States Commodity	USCI	1.03	103.5	-19.60	-10.21	-6.70
Invesco Opt Yld Diversfd Commod No K-1	PDBC	0.59	2,433.0	-20.11	-6.89	-3.17
Invesco DB Commodity Tracking	DBC	0.89	985.7	-20.69	-6.66	-3.05
iShares Commodities Select Strategy	COMT	0.48	195.5	-26.52	-7.04	-2.34
iShares S&P GSCI Commodity	GSG	0.85	676.1	-35.97	-12.47	-9.47
COMMODITIES: AGRICULTURE						
Invesco DB Agriculture	DBA	0.89	547.2	-12.14	-8.41	-6.83
COMMODITIES: ENERGY						
United States Natural Gas	UNG	1.28	340.1	-24.44	-18.94	-20.15

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
Invesco DB Oil	DBO	0.78	373.5	-39.83	-10.46	-10.56
United States 12 Month Oil	USL	0.82	183.9	-41.19	-10.79	-8.46
United States Brent Oil	BNO	0.88	299.8	-54.53	-16.61	-10.71
United States Oil	USO	0.79	3,313.3	-75.36	-33.90	-26.60
COMMODITIES: INDUSTRIAL METALS						
Invesco DB Base Metals	DBB	0.80	139.8	4.35	-5.06	5.36
COMMODITIES: PRECIOUS METALS						
Aberdeen Standard Physical Silver	SIVR	0.30	737.6	31.99	11.89	8.45
iShares Silver	SLV	0.50	12,880.3	31.83	11.67	8.24
SPDR Gold MiniShares	GLDM	0.18	3,680.3	23.58	-	-
Perth Mint Physical Gold	AAAU	0.18	497.9	23.50	-	-
GraniteShares Gold	BAR	0.17	1,261.7	23.49	13.67	-
Aberdeen Standard Physical Gold	SGOL	0.17	2,655.9	23.46	13.33	10.13
Invesco DB Precious Metals	DBP	0.78	163.0	23.40	11.81	8.47
iShares Gold	IAU	0.25	31,698.1	23.38	13.58	10.18
VanEck Merk Gold	OUNZ	0.25	414.3	23.37	13.50	10.05
SPDR Gold	GLD	0.40	75,601.6	23.30	13.45	10.02
Aberdeen Std Physical Precious Metals	GLTR	0.60	752.7	22.13	13.75	10.14
Invesco DB Gold	DGL	0.78	163.9	21.32	12.06	8.74
Aberdeen Standard Physical Palladium	PALL	0.60	351.4	13.41	30.36	26.09
Aberdeen Standard Physical Platinum	PPLT	0.60	1,075.8	-12.45	-3.18	-3.46
CURRENCY: DEVELOPED						
Invesco CurrencyShares Swiss Franc	FXF	0.40	258.9	4.61	1.66	0.33
Invesco CurrencyShares Japanese Yen	FXJ	0.40	252.8	3.27	2.24	2.36
Invesco CurrencyShares Euro	FXE	0.40	334.5	3.05	-0.85	0.33
Invesco CurrencyShares Australian Dollar	FXA	0.40	153.7	-0.14	-2.46	0.30
Invesco CurrencyShares British Pound	FXB	0.40	130.9	-2.48	-1.02	-3.69
Invesco CurrencyShares Canadian Dollar	FXC	0.40	136.2	-2.61	-0.71	-0.28
ASSET ALLOCATION						
Aptus Defined Risk	DRSK	0.78	490.7	11.92	-	-
Cambria Tail Risk	TAIL	0.59	409.4	11.65	-1.25	-
WisdomTree 90/60 US Balanced	NTSX	0.20	348.7	9.46	-	-
Amplify BlackSwan Growth/Treasury Core	SWAN	0.49	707.0	7.68	-	-
iShares Core Conservative Allocation	AOK	0.25	774.6	3.21	4.91	5.32
iShares Core Moderate Allocation	AOM	0.25	1,294.4	2.30	4.89	5.73
ClearShares OCIO	OCIO	0.62	109.5	0.77	3.84	-
iShares Core Growth Allocation	AOR	0.25	1,432.6	0.73	4.86	6.57
iShares Core Aggressive Allocation	AOA	0.25	1,025.2	-0.94	4.83	7.24
SPDR SSGA Global Allocation	GAL	0.35	246.5	-2.90	3.38	5.13
DeltaShares S&P 500 Managed Risk	DMRL	0.35	367.1	-5.04	4.99	-
Principal Active Income	YLD	0.49	220.7	-5.28	1.82	4.64
Invesco CEF Income Composite	PCEF	2.55	711.5	-9.59	1.01	5.71
iShares Mstar Multi-Asset Income	YILD	0.60	254.8	-10.35	0.20	3.39
Amplify High Income	YYY	2.28	223.7	-12.57	-1.37	3.85
DeltaShares S&P Intl Managed Risk	DMRI	0.50	163.3	-15.98	-4.00	-
Multi-Asset Diversified Income	MDIV	0.73	432.6	-24.51	-4.98	-0.89
Invesco Zacks Multi-Asset Income	CVY	0.94	105.8	-27.13	-4.90	0.70
Cabana Target Drawdown 10	TDSC	0.69	502.2	-	-	-
Cabana Target Drawdown 7	TDSB	0.68	329.0	-	-	-
Cabana Target Drawdown 13	TDSD	0.68	158.4	-	-	-
ALTERNATIVES: ABSOLUTE RETURN						
RPAR Risk Parity	RPAR	0.50	777.3	8.46	-	-
AGFIQ US Market Neutral Anti-Beta	BTAL	2.11	218.4	3.21	6.15	2.82
IQ Merger Arbitrage	MNA	0.77	742.5	3.04	3.32	4.64
IQ Hedge Multi-Strategy Tracker	QAI	0.78	738.7	0.16	2.07	2.08
First Trust Long/Short Equity	FTLS	1.60	306.7	-2.06	4.05	5.78
Core Alternative	CCOR	1.09	118.9	-2.40	3.34	-
WisdomTree Managed Futures Strategy	WTMF	0.65	111.8	-6.15	-2.32	-2.38
ALTERNATIVES: TACTICAL TOOLS						
ProShares VIX Mid-Term Futures	VIXM	0.87	106.1	93.57	21.25	-5.21
iPath Series B S&P 500 VIX Short Futs ETN	VXX	0.89	1,247.2	75.46	-	-
ProShares VIX Short-Term Futures	VIXY	0.85	315.0	74.82	-8.28	-38.68
LEVERAGED						
MicroSectors FANG + 3X Leveraged ETN	FNGU	0.95	937.4	193.03	-	-
MicroSectors FANG + 2X Leveraged ETN	FNGO	0.95	149.1	141.06	-	-

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
ProShares Ultra VIX Short-Term Futures	UVXY	0.95	1,505.1	67.42	-34.44	-72.65
DB Gold Double Long ETN	DGP	0.75	136.7	44.54	22.68	15.81
ProShares Ultra QQQ	QLD	0.95	3,073.7	40.31	34.73	33.68
Direxion Daily 20+ Year Treasury Bull 3X	TMF	1.05	291.6	39.08	21.24	13.63
ProShares Ultra Gold	UGL	0.95	276.9	37.41	20.15	14.21
ProShares Ultra Technology	ROM	0.95	590.2	36.35	35.76	39.88
ProShares UltraPro QQQ	TQQQ	0.95	8,777.3	35.70	39.53	42.62
ProShares Ultra Silver	AGQ	0.95	604.5	34.25	8.47	4.26
Direxion Daily CSI 300 China A Sh Bull 2X	CHAU	1.21	98.7	34.19	5.12	8.94
Credit Suisse FI Large Cap Growth Enh ETN	FLGE	1.52	242.1	24.02	24.91	26.54
UBS AG FI Enhanced Large Cap Growth ETN	FBGX	1.29	126.1	24.00	25.04	26.62
Direxion Daily Technology Bull 3X	TECL	1.08	1,779.9	6.30	33.96	46.33
ProShares Ultra NASDAQ Biotechnology	BIB	0.95	195.2	4.78	6.13	-0.71
Direxion Daily S&P Biotech Bull 3X	LABU	1.04	314.2	-6.49	-10.87	-6.76
ProShares Ultra S&P 500	SSO	0.91	2,329.4	-7.60	11.80	16.97
Direxion Daily Semiconductor Bull 3X	SOXL	0.96	1,387.4	-9.29	19.61	57.95
Virtus InfraCap US Preferred Stock	PFFA	2.01	146.0	-21.35	-	-
ProShares Ultra Dow30	DDM	0.95	303.2	-23.22	3.43	15.06
Direxion Daily FTSE China Bull 3X	YINN	1.37	270.8	-23.72	-18.83	-4.27
Direxion Daily Healthcare Bull 3x	CURE	1.08	103.3	-23.97	8.78	11.71
ProShares UltraPro S&P500	UPRO	0.93	1,430.6	-26.74	7.71	18.68
Direxion Daily S&P 500 Bull 3X	SPXL	1.01	1,375.4	-27.07	7.68	18.43
ProShares Ultra MidCap400	MVV	0.95	109.8	-27.73	-4.69	6.71
ProShares Ultra Russell2000	UWM	0.95	135.4	-28.58	-6.35	6.13
Direxion Daily MSCI EM Bull 3x	EDC	1.33	138.2	-32.47	-19.03	1.37
Direxion Homebuilder/Supplies Bull 3X	NAIL	0.99	378.6	-41.82	-17.44	6.76
ProShares Ultra Financials	UYG	0.95	428.4	-44.70	-8.23	5.02
ProShares UltraPro Dow30	UDOW	0.95	624.4	-45.88	-4.93	15.29
Direxion Daily Small Cap Bull 3x	TNA	1.12	867.4	-55.27	-21.08	-1.10
ProShares UltraPro Russell2000	URTY	0.95	172.8	-55.30	-20.98	-0.84
Direxion Daily Gold Miners Bull 2X	NUGT	1.17	973.0	-55.87	-18.85	-10.91
Direxion Daily Financial Bull 3x	FAS	0.99	1,328.9	-64.23	-16.99	2.67
Credit Suisse Mo 2xLev Mort REIT ETN	REML	1.30	107.9	-82.27	-38.32	-
Direxion Daily Aerospace/Def Bull 3X	DFEN	0.99	195.0	-84.40	-38.66	-
Direxion Daily Junior Gold Miners Bull 2X	JNUG	1.12	629.7	-85.89	-46.11	-31.63
Direxion Daily Regional Banks Bull 3X	DPST	0.99	109.4	-87.26	-53.29	-27.96
Direxion Daily Energy Bull 2x	ERX	1.06	255.2	-95.12	-68.79	-51.90
Direxion Daily MSCI Brazil Bull 2X	BRZU	1.29	165.8	-95.41	-64.29	-35.46
ProShares Ultra Bloomberg Crude Oil	UCO	0.95	1,024.0	-95.57	-64.02	-54.39
Direxion S&P Oil/Gas Exp/Prod Bull 2X	GUSH	1.17	343.6	-98.66	-87.35	-76.23
INVERSE						
Invesco DB US Dollar Bullish	UUP	0.79	451.5	-2.31	2.13	0.73
ProShares Short Dow30	DOG	0.95	427.9	-7.30	-9.65	-12.26
ProShares Short Russell2000	RWM	0.95	399.9	-10.37	-7.89	-11.17
Direxion Daily S&P 500 Bear 1X	SPDN	0.50	166.1	-12.97	-11.72	-
ProShares Short S&P500	SH	0.90	3,000.2	-13.49	-12.10	-12.41
AdvisorShares Ranger Equity Bear	HDGE	3.36	136.4	-17.16	-19.12	-15.81
ProShares Short 20+ Year Treasury	TBF	0.94	209.7	-18.79	-10.03	-7.86
AdvisorShares Dorsey Wright Short	DWSH	3.67	100.3	-21.15	-	-
ProShares UltraShort Dow30	DXD	0.95	170.6	-24.53	-23.61	-26.24
ProShares Short QQQ	PSQ	0.95	797.9	-30.91	-21.85	-19.64
ProShares UltraShort Russell2000	TWM	0.95	102.2	-31.91	-22.01	-25.63
ProShares UltraShort S&P500	SDS	0.91	1,053.5	-33.19	-27.32	-26.28
ProShares UltraShort 20+ Year Treasury	TBT	0.92	485.5	-36.73	-21.38	-16.87
ProShares UltraPro Short Dow30	SDOW	0.95	573.2	-46.42	-39.21	-40.53
Direxion Daily Financial Bear 3X	FAZ	1.07	274.6	-46.96	-39.37	-40.99
ProShares Short VIX Short-Term Futures	SVXY	1.38	298.3	-48.29	-57.17	-22.63
Direxion Daily S&P 500 Bear 3X	SPXS	1.07	773.9	-53.99	-43.21	-40.52
ProShares UltraPro Short S&P500	SPKU	0.93	932.6	-54.08	-43.05	-40.24
Direxion Daily Small Cap Bear 3X	TZA	1.07	527.2	-55.82	-38.02	-40.86
ProShares UltraPro Short Russell2000	SRTY	0.95	149.3	-56.31	-38.79	-41.14
ProShares UltraShort QQQ	QID	0.95	295.4	-57.98	-43.40	-38.70
ProShares UltraPro Short QQQ	SQQQ	0.95	1,430.0	-77.58	-61.76	-55.48
Direxion Daily Gold Miners Bear 2x	DUST	1.07	104.7	-85.60	-68.89	-74.71

THE LAST WORD

2020'S BRIGHT SPOT: ETFs



HEATHER BELL
ETF Report Editor

It's early November at this writing, but really, the end of the year can't come fast enough. With a global pandemic that has killed more than 1 million globally, a highly polarizing presidential race, and a bruised and battered economy, it's hard to see the bright side of this calendar year.

But in the world of ETFs, 2020's light shined brightly, astonishing given the pandemic's devastating impact on markets and the economy in March. As the year moved into the second quarter, the long-anticipated arrival of the first non-transparent active ETFs signaled a banner day for the industry. The active model in all its disclosure stripes was complete, with the newest change making the ETF space more welcoming to active mutual fund managers.

Will this open the floodgates to mutual fund companies that have shunned ETFs for myriad reasons? A main sticking point had been the inability to replicate winning active strategies in an ETF due to traditional active ETFs' frequency of disclosure.

We don't have much proof that investors are itching to get their hands on traditional active management in an ETF wrapper. Instead, it seems issuers are the ones talking up this demand. Roughly a dozen ETFs of this type rolled out this year, but while reception was warm, it was also muted. It remains to be seen if the reason goes beyond the fact that they rolled out on very unsteady ground.

Industry Renovation?

But if they *do* take off, buoyed by the enthusiasm of those silent investors, it could reshape the industry entirely, drawing in mutual fund companies in greater numbers and bringing active management once again to the forefront. If they don't,

well, that seems like the blow that would permanently consign active management to a satellite strategy rather than the core of a portfolio.

Overall, the ETF industry is showing very healthy signs. Ten months in, the yearly record for closures has already been smashed to pieces, and there's even a real possibility that the record for launches will also be broken by the year's close. New ideas following failed ones is the key to innovation.

Innovation Pace Thriving

The ETF concept is in its late 20s now, staring 30 in the face. While it's clear the pace of innovation in the industry is still thriving, Cinthia Murphy raises the question in this issue of whether ETFs have drifted too far from their roots. In Murphy's article, Elisabeth Kashner of FactSet emphasized that, "There's no question that launches have been much more focused on shiny objects or innovation, because asset managers are working hard to find opportunity in a very saturated market."

I'm a big believer in index investing, and I think active management works best at the margins of a portfolio. With roughly \$280 billion of new assets under management this year going into plain vanilla index funds, the roots of the ETF industry are as strong ever. The biggest ETFs in the industry are those plain vanilla, core exposure funds, with the more specialized and strategy-driven funds out on the edges.

But make no mistake: The innovation is going beyond the boundaries of the plain vanilla to embrace everything from risk management to ESG to niche themes and unexplored corners of the markets. ●

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