

ETF Report

THE MAGAZINE FOR ETF INVESTORS

OCTOBER 2020

ADVERTISEMENT

**today's innovations
are tomorrow's
possibilities**



Invesco



Invest in the innovators of the Nasdaq-100. All in one ETF.

Let's invest in greater possibilities together.

[invesco.com/qqqetf](https://www.invesco.com/qqqetf)



Invesco



NOT FDIC INSURED | MAY LOSE VALUE | NO BANK GUARANTEE

There are risks involved with investing in ETFs, including possible loss of money. ETFs are subject to risks similar to those of stocks. Investments focused in a particular sector, such as technology, are subject to greater risk, and are more greatly impacted by market volatility, than more diversified investments.

Before investing, consider the Fund's investment objectives, risks, charges and expenses. Visit [invesco.com/fundprospectus](https://www.invesco.com/fundprospectus) for a prospectus containing this information. Read it carefully before investing.

Invesco Distributors, Inc.

OCTOBER 2020

ETF Report

THE MAGAZINE FOR ETF INVESTORS

THE STATUS

OF EMERGING

MARKETS

- Emerging Markets & The Pandemic
- Excluding China
- How Advisors Use Emerging Market ETFs
- Defined Outcome Strategies

PUBLISHED BY
ETF.com/ETFReport



Cboe | Listed

iShares.
by BlackRock

VanEck[®]

ProShares[®]

Goldman Sachs Asset Management

 **Vanguard**

ETFs by **J.P.Morgan**
Asset Management

GLOBAL X
by Mirae Asset

DWS

STATE STREET
GLOBAL ADVISORS.
SPDR

 **Invesco**

CAMBRIA

ESOTERICA

 American Century
Investments[®]

 **PACER** ETFs

 FlexShares[®]

nuveen
A TIAA Company

 **SALT**
FINANCIAL.

 **alpha** architect

 **FRANKLIN TEMPLETON**
INVESTMENTS


 **Motley Fool**
Asset Management

 **Premise Capital**

LEGG MASON
GLOBAL ASSET MANAGEMENT

 **INNOVATOR**

 **LITTLE HARBOR**
ADVISORS

 **AlphaClone**

 **MAIN**
MANAGEMENT
ETF ADVISORS, LLC

strategy**shares.**

 **WISDOMTREE**[®]

 **Tortoise**[™]

 **REGENTS PARK**
FUNDS

 **Exponential**ETFs

 **FormulaFolio**Funds

 **Saba** | Capital

 **ARK**
INVEST

 **First Trust**

EVENT
SHARES

 **APTUS CAPITAL ADVISORS**

ALPS 
A DST Company

HARTFORDFUNDS
Our benchmark is the investor.[®]

TUTTLE
TACTICAL
MANAGEMENT
Proven Strategies... Better Solutions

 **POINTBRIDGE**
CAPITAL

 **TRIMTABS**
Asset Management

 **Cboe**
VEST

 **ARROWFUNDS**
TARGETING PORTFOLIO SOLUTIONS

 **Principal**

agility shares[™]

 **TS**
TRUESHARES
Powered by TrueMark Investments

 **VIRTUS**
ETFs

 **CORNERCAP**
INVESTMENT COUNSEL

LAUNCH

List your new ETP on Cboe

CboeListings.com

SWITCH

Transfer your ETP to a better marketplace

Listings@cboe.com

Contents

FEATURES

10

Emerging Markets Weather The Pandemic

Emerging markets have been hit hard by COVID-19, but some are handling it better than others

By Debbie Carlson

14

Taking China Out Of The Equation

The emerging market ETFs that exclude China may deserve a second look from investors

By Lara Crigger

18

Advisors On EM Funds In Portfolios

Four advisors discuss the ETFs they use to provide their clients with emerging market exposure

By Debbie Carlson

22

Supplement: Overview Of The Defined Outcome Space

A new category of risk management ETFs is making a name for itself

By Heather Bell

DEPARTMENTS

6 ETF Launches: FUNL

Newcomer's ETF incorporates more than 120 factors

7 ETF Explainer: OGIG

Top-performing ETF has the inside track on internet companies

8 Data At A Glance

A review of fund flows and key trends around gold and silver, fixed income and homebuilders

9 Education

Understanding ETFs' tax efficiency

26 Commodities In Review

A natural gas ETF led the way in August

27 Countries In Review

Country ETFs were dominated by developed market countries

28 ETF Data

Our monthly databank breaks down ETF and ETN returns for every market segment

38 The Last Word

Maybe it's time to give China its own category

PUBLISHER, GLOBAL HEAD OF SALES

Noel d'Ablemont Smith
nsmith@etf.com

REPRINT SALES

sales@etf.com

EDITOR

Drew Voros
dvoros@etf.com

MANAGING EDITOR

Heather Bell

COPY EDITOR

Lisa Barr

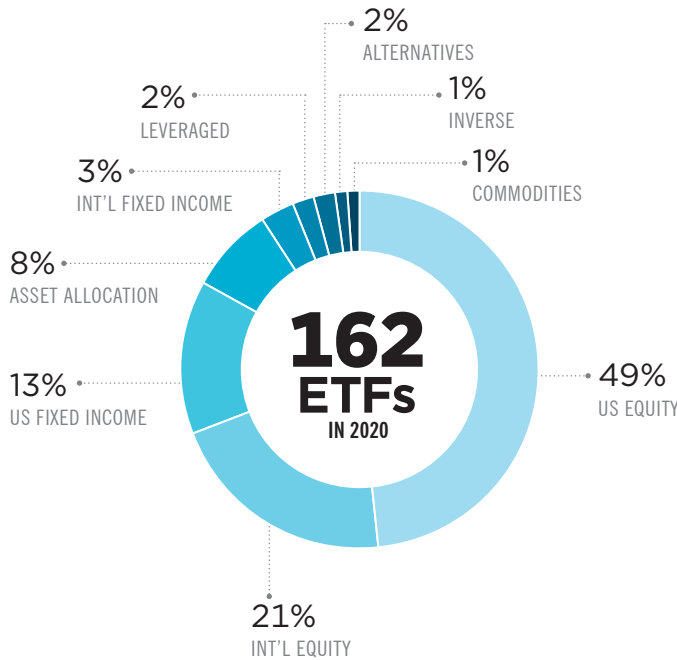
HEAD OF DESIGN

Patrick Hamaker

ETF.com

17 State Street, 32nd Floor
New York, NY 10004
www.ETF.com

ETF Launches



FEATURED ETF

CornerCap Fundametrics Large-Cap ETF (FUNL)

New ETF relies on more than 120 fundamental factors

Atlanta-based CornerCap Wealth Advisors entered the ETF market in August with the launch of an actively managed, factor-based ETF. The [CornerCap Fundametrics Large-Cap ETF \(FUNL\)](#) targets companies that fall within the market capitalization range of the large-cap Russell 1000 Index.

FUNL comes with an expense ratio of 0.50% and lists on Cboe Global Markets, the parent company of ETF.com.

The new ETF relies on CornerCap’s proprietary in-house quantitative research system, which evaluates companies based on more than 120 fundamental factors, to sort

companies into peer groups, which are determined primarily by valuation but also by additional criteria in order to arrive at an “optimized risk adjusted mix.”

“We create models that really capture the long term factor advantages of these different peer groups,” said Jeffrey Moeller, CornerCap’s director of research.

Portfolio trading decisions are made using the Fundametrics Alpha Composite and the Fundametrics Financial Warnings Overlay, which are, respectively, designed to identify those stocks likely to outperform and those facing risks that threaten their performance, according to the prospectus. It also notes that the Alpha Composite focuses on relative valuation, earnings growth rates and cash flow measurements. ●

ETF LAUNCH/CLOSURE ACTIVITY

LAUNCHES

U.S. EQUITY

- CornerCap Fundametrics Large-Cap
- FT Cboe Vest Fund of Buffer
- North Shore Dual Share Class
- Sterling Capital Focus Equity
- T. Rowe Price Blue Chip Growth
- TrueShares Structured Outcome - August

INT'L EQUITY

- Defiance NASDAQ Junior Biotechnology
- Direxion Connected Consumer
- T. Rowe Price Blue Chip Growth
- T. Rowe Price Dividend Growth
- T. Rowe Price Growth Stock

U.S. FIXED INCOME

- Innovator 20+ Yr Treas Bond 5 Floor - July
- Innovator 20+ Yr Treas Bond 9 Buffer - July

INT'L FIXED INCOME

- Anfield Dynamic Fixed Income

CLOSURES

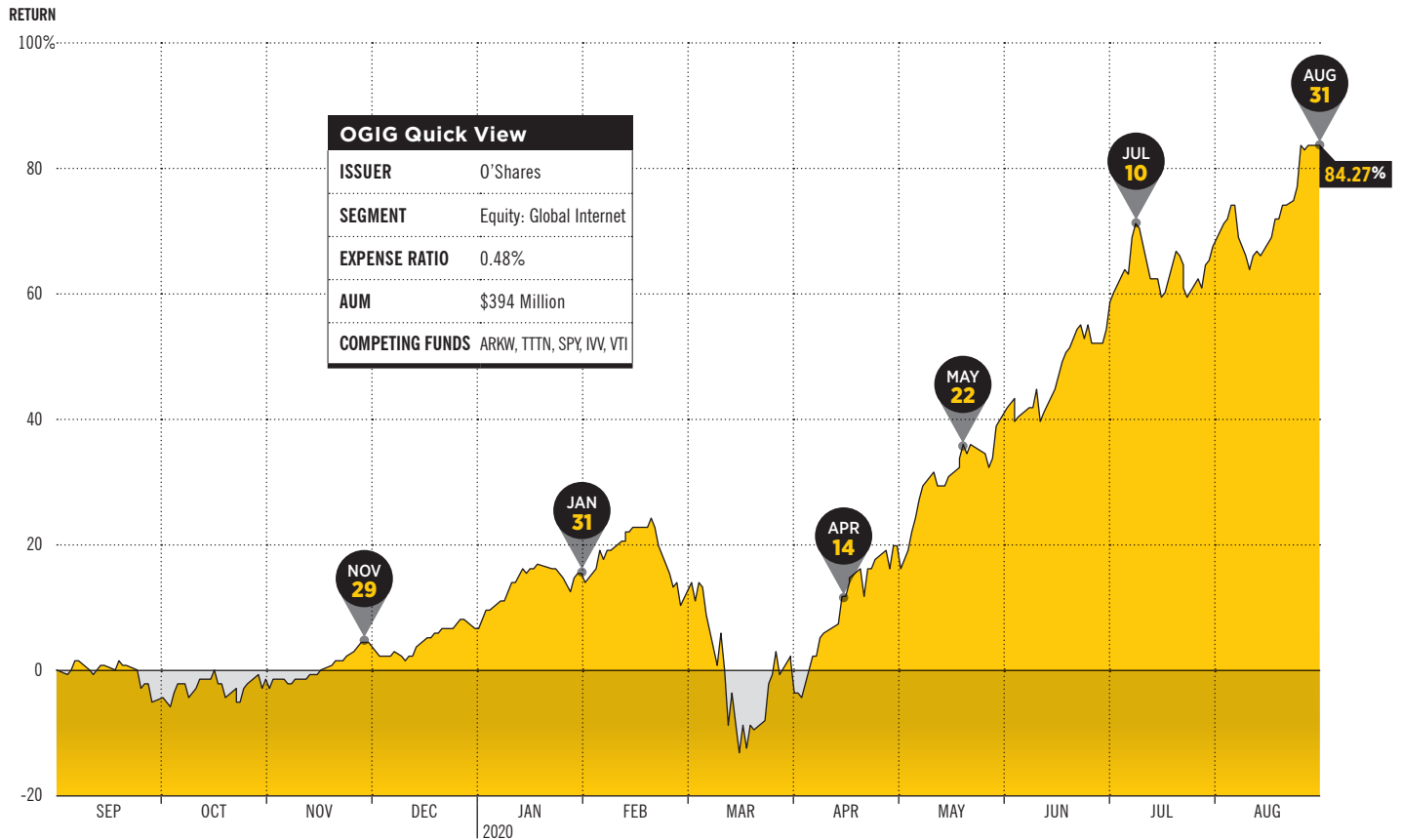
- Hartford Multifactor Low Vol US Equity
- Hartford Multifactor REIT
- iPath US Treasury 10-year Bull ETN
- iPath US Treasury 2-year Bear ETN
- iPath US Treasury 2-year Bull ETN
- iPath US Treasury Flatten ETN
- iPath US Treasury Steepener ETN
- IQ 50 Percent Hedged FTSE Europe
- IQ 50 Percent Hedged FTSE Japan
- IQ Global Agribusiness Small Cap
- IQ Leaders GTAA Tracker
- IQ Short Duration Enh Core Bond US
- iShares Currency Hedged MSCI Australia
- iShares Currency Hedged MSCI Italy
- iShares Currency Hedged MSCI South Korea
- iShares Currency Hedged MSCI Spain
- iShares Currency Hedged MSCI Switzerland
- iShares Edge MSCI Min Vol Europe
- iShares Edge MSCI Min Vol Japan
- iShares Europe Developed Real Estate
- Principal Contrarian Value
- Principal Sustainable Momentum

Source: ETF.com. Data and information as of 8/31/2020. ETF Filings sidebar covers launches and closures for the month of August 2020.

ETF Explainer: **OGIG**

O'Shares Global Internet Giants 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 \$394 million **O'Shares Global Internet Giants ETF (OGIG)**, which tracks some of the largest internet-related stocks in the world. All the companies mentioned below are holdings in OGIG, unless otherwise noted (*).



NOV 29 Alibaba stock price surges after the company has a secondary listing debut on the Hong Kong Stock Exchange in the second-largest offering of the year and HSBC rates it a "Buy."

JAN 31 Facebook closes out its worst week since September 2019 after reporting a 51% increase in expenses over the prior year and announces slower growth expectations.

APR 14 Amazon plans to slash the commissions paid by its affiliate marketing program even as its customers spend \$11K per second during the pandemic.

MAY 22 E-commerce platform Pinduoduo reports quarterly growth of 44% for the second quarter, despite the time period reflecting the height of the coronavirus pandemic.

JUL 10 Tencent Holdings announces it is in exclusive negotiations to acquire popular Hong Kong games developer Leyou Technologies.*

AUG 31 Zoom sees its share price rise sharply after it says sales for the second quarter quadrupled from the prior-year quarter, blasting past consensus expectations.

Source: Bloomberg; data for 8/31/2019-8/31/2020

MONTHLY FLOWS

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

TOP GAINERS

TICKER	FUND	ISSUER	NET FLOWS (\$M)	AUM (\$M)
QQQ	Invesco QQQ Trust	Invesco	2,269.27	139,560.98
BND	Vanguard Total Bond Market ETF	Vanguard	2,217.79	60,422.00
IEFA	iShares Core MSCI EAFE ETF	BlackRock	2,181.88	72,011.57
VTI	Vanguard Total Stock Market ETF	Vanguard	2,028.34	166,483.62
VCSH	Vanguard Short-Term Corporate Bond ETF	Vanguard	1,776.67	31,723.56
TIP	iShares TIPS Bond ETF	BlackRock	1,333.90	23,572.09
VCIT	Vanguard Intermediate-Term Corporate Bond ETF	Vanguard	1,136.77	38,668.53
VXUS	Vanguard Total International Stock ETF	Vanguard	974.74	24,860.87
HYLB	Xtrackers USD High Yield Corporate Bond ETF	Deutsche Bank	974.02	6,207.46
ARKK	ARK Innovation ETF	ARK	944.13	8,044.90

BIGGEST LOSERS

TICKER	FUND	ISSUER	NET FLOWS (\$M)	AUM (\$M)
SPY	SPDR S&P 500 ETF Trust	SSGA	-2,471.38	307,856.67
VUG	Vanguard Growth ETF	Vanguard	-1,716.83	63,629.28
SHV	iShares Short Treasury Bond ETF	BlackRock	-1,716.10	19,829.20
TLT	iShares 20+ Year Treasury Bond ETF	BlackRock	-1,519.44	17,850.30
SDY	SPDR S&P Dividend ETF	SSGA	-1,505.35	15,831.13
IWF	iShares Russell 1000 Growth ETF	BlackRock	-1,312.72	61,712.69
TQQQ	ProShares UltraPro QQQ	ProShares	-1,040.20	8,352.62
NOBL	ProShares S&P 500 Dividend Aristocrats ETF	ProShares	-1,025.06	6,304.20
BIL	SPDR Bloomberg Barclays 1-3 Month T-Bill ETF	SSGA	-755.15	13,861.86
USMV	iShares MSCI USA Min Vol Factor ETF	BlackRock	-701.47	34,830.88

ASSET CLASSES

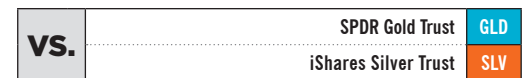
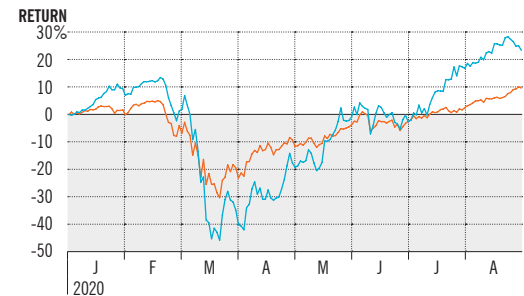
	NET FLOWS (\$M)	AUM (\$M)	% OF AUM
U.S. Equity	1,638.58	2,740,633.51	0.06%
International Equity	9,305.22	879,529.28	1.06%
U.S. Fixed Income	13,355.79	919,409.77	1.45%
International Fixed Income	2,752.14	100,672.89	2.73%
Commodities	3,228.46	152,346.18	2.12%
Currency	149.71	1,908.63	7.84%
Leveraged	-1,488.34	41,335.90	-3.60%
Inverse	813.45	13,811.00	5.89%
Asset Allocation	180.75	10,994.49	1.64%
Alternatives	457.37	5,151.61	8.88%

INTERESTING CHARTS OF PAST 12 MONTHS

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



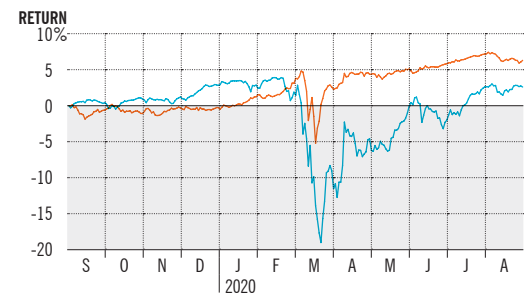
ITB has significantly outperformed SPY for most of the year, though it was hit harder during the market crash.



Gold rose steadily throughout the past 12 months, but silver saw a tremendous boost in July and August.



During the past 12 months, junk bonds have been on a wild ride compared to the broad investment-grade market.



Sources: FactSet, Bloomberg; data as of 8/31/2020

ETF UNIVERSITY

Explaining ETFs' Greater Tax Efficiency

One of the big selling points for ETFs as investment vehicles is that they're far more tax efficient than competing mutual funds.

If a mutual fund or ETF holds securities that have appreciated in value, and sells them for any reason, they will create a capital gain. These sales can result either from the fund selling securities for a tactical move, due to a rebalancing effort, or to meet redemptions from shareholders. By law, if funds accrue capital gains, they must pay them out to shareholders at the end of each year.

Capital Gains

As a general rule, ETFs do much better than mutual funds when it comes to paying out capital gains. In fact, the vast majority of ETFs don't pay out any capital gains. According to a blog post on the SPDR ETF website, Morningstar data indicates just 6.2% of U.S.-listed ETFs paid out a capital gain in 2018, but more than 60% of mutual funds did so.

Further, during the past decade, the blog notes, the level of ETFs paying capital gains has remained below 10%. Meanwhile, during the same time period, between 16% and 62% of mutual funds have paid out capital gains during those years, and the trend seems to be moving higher over time.

Why such a huge difference? For starters, because they're index funds, most ETFs have very little turnover, and thus amass far fewer capital gains than an actively managed mutual fund would. And, as the blog notes, 70% of mutual funds are actively managed. However, ETFs are also more tax efficient than index

mutual funds, thanks to the magic of how new ETF shares are created and redeemed.

When a mutual fund investor asks for her money back, the mutual fund must sell securities to raise cash to meet that redemption. But when an individual investor wants to sell an ETF, he simply sells it to another investor like a stock. No muss, no fuss, no capital gains transaction for the ETF.

Even Better With APs

What happens when an authorized participant (AP) redeems shares of an ETF with an issuer? Actually, it gets better. When an AP redeems shares, the ETF issuer doesn't typically rush out to sell stocks to pay the AP in cash. Rather, the issuer simply pays the AP "in kind"—delivering the underlying holdings of the ETF itself. No sale means no capital gains.

The ETF issuer can even pick and choose which shares to give to the AP—meaning the issuer can hand off the shares with the lowest possible tax basis. This leaves the ETF issuer with only shares purchased at or even above the current market price, thus reducing the fund's tax burden and ultimately resulting in higher after-tax returns for investors.

The system doesn't work so smoothly for all ETFs. Fixed income ETFs, which have more turnover and often have cash-based creations and redemptions, are less tax efficient than their equity brethren.

But all else equal, ETFs win hands-down, with two decades of history showing they have the best tax efficiency of any fund structure in the business.

SELECTED TERMS

Actively Managed ETF

Most ETFs track an index, in what's known as index-based or passive investing. An actively managed ETF is a fund that literally has a portfolio manager at the helm of the fund, making active allocation decisions rather than passively tracking a benchmark. Active managers have long been plagued with persistence issues—meaning that few outperform indexes, and the ones that do aren't likely to repeat that outperformance consistently—hindering adoption of actively managed ETFs, which are often more expensive to own than their passive counterparts.

Authorized Participant

He or she is the protagonist of the ETF creation/redemption process most investors will never know. Designated by an ETF issuer, the AP is someone with purchasing power who creates and redeems shares of an ETF, keeping the supply elastic to meet demand. When there's new appetite for a given ETF, the AP will create shares of that ETF through the in-kind creation/redemption mechanism, keeping supply ample and helping the ETF trade in line with its net asset value (NAV). Ample supply means no need for steep premiums. When demand dries up and ETF share prices face a discount, the AP can redeem shares of the ETF from the market, reducing supply, allowing the ETF to trade back in line with its NAV. The AP plays a crucial role in ETF liquidity and trading.

Creation/Redemption Mechanism

It's how ETF shares are created and redeemed, in a process that's unique to the ETF structure. When there's demand for new shares of an ETF, an AP buys the securities the ETF holds, and hands that basket of securities to the ETF issuer in exchange for ETF shares. This is known as an in-kind transaction—securities for shares. In the case of a redemption, this process works in reverse. The in-kind nature of the creation/redemption mechanism is crucial to how ETFs trade because it allows them to trade throughout the day in line with the value of their underlying holdings (their NAV).

Custodian

In the ETF ecosystem, the custodian—often a large bank—is responsible for holding all the securities and cash for an ETF. That custody role is crucial to the day-to-day operations of a fund, even if it's a largely overlooked role by most investors. Custodians hardly make headlines, and most investors don't know who custodies the ETFs they own. But occasionally custodians are all the buzz, when companies involved with things like federally illegal marijuana find their way into ETF wrappers. Then suddenly, custody becomes a hot-button issue.

3 KEY TAKEAWAYS	ONE	TWO	THREE
	Just 6% of ETFs paid out capital gains in 2018. 62% of mutual funds paid out capital gains during the same year.	Most ETFs are index funds, which reduces the odds of them paying capital gains. Most mutual funds are actively managed.	The in-kind redemption mechanism allows ETFs to avoid racking up most capital gains.



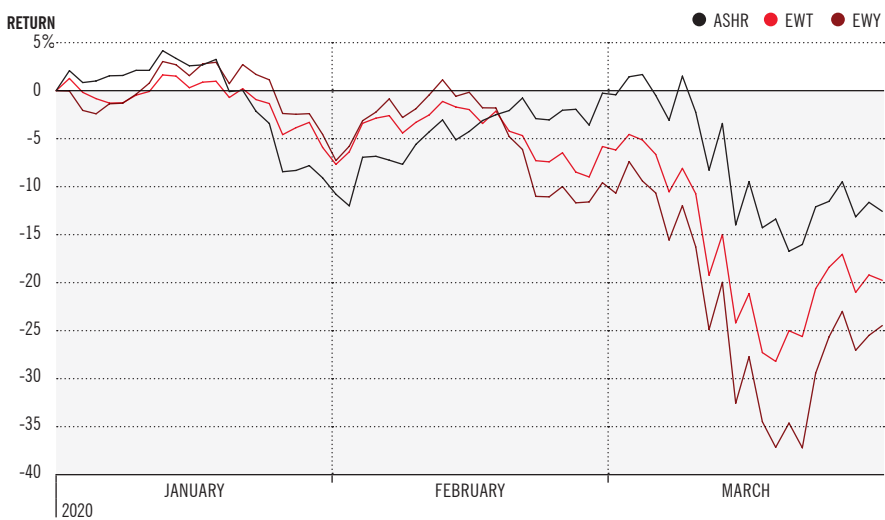
By Debbie Carlson
Contributor to ETF.com
and ETF Report

COVID RESPONSE VARIES

ACROSS EMERGING MARKETS

EMERGING MARKETS HAVE BEEN HIT HARD BY CORONAVIRUS, BUT SOME WERE HIT HARDER THAN OTHERS

ASHR VS. EWT VS. EWY



Source: Bloomberg, data covers 1/2/2020-3/31/2020

The coronavirus has had a devastating impact across the globe, hitting emerging market countries with varying degrees of severity.

New cases of COVID-19 are still climbing globally. The top three countries with the highest reported cases and death totals are the U.S., Brazil and India. As of late August, emerging markets in the Americas occupied five of the top 10 spots: Brazil, Peru, Mexico, Colombia and Chile, demonstrating how that region has been hit the hardest.

Kevin Carter, creator of the [Emerging Markets Internet & Ecommerce ETF \(EMQQ\)](#), is concerned about how the coronavirus will continue to affect emerging markets, particularly in countries with high population density.

“I’m really worried about the human toll,” he said.

The outbreak began in mainland China and quickly spread to the rest of Asia, Europe and the Americas. Of all the regions, Carter observes that Asian countries appeared to control the virus better, perhaps because of traditional hygiene practices such as wearing masks when ill.

Ed Lopez, head of ETF product at VanEck, says several factors determined how successfully certain countries

responded to the virus, including geography, populations and general attitude.

“While it probably wasn’t great for human rights, China has the ability to lock down their nation, to shut down cities and force people to comply,” Lopez explained. “Perhaps that helped them quite a bit more versus what you’re seeing in Brazil, where there’s a confusing, conflicting approach.”

IMPACTS & RECOVERY

The coronavirus caused a global recession, but how each of those country’s markets rebounded in part depended on the sector, explains Todd Rosenbluth, senior director of ETF and mutual fund research at CFRA Research.

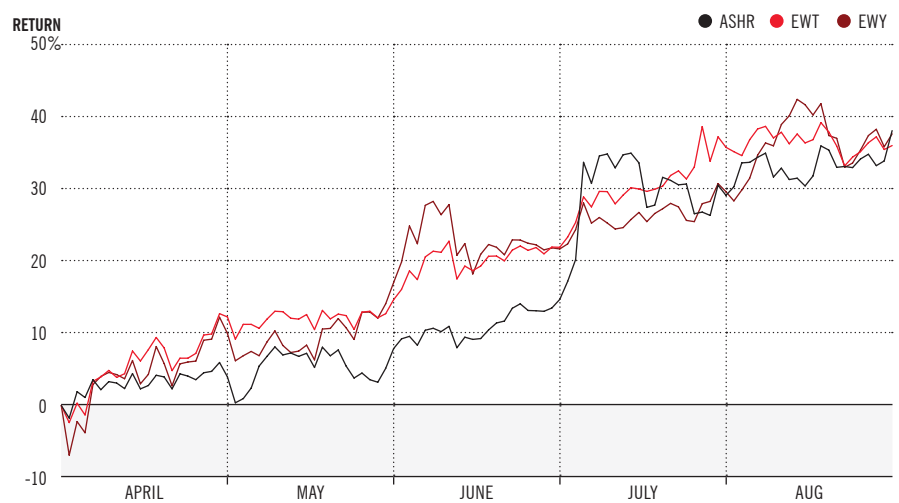
The best-performing single-country ETFs had a heavy exposure to technology and growth-oriented communication services. To him, it’s not surprising that single-country ETFs such as the [iShares MSCI Taiwan ETF \(EWT\)](#), the [iShares MSCI South Korea ETF \(EWY\)](#) and the [iShares MSCI China A ETF \(CNYA\)](#) performed well.

EMQQ’s Carter believes China has advantages over other countries, noting the centralized and authoritarian government can stop outbreaks, in addition to having technology for contact tracing by using phone apps.

“By all accounts, China’s economy is bouncing back,” he noted. “Apple, Starbucks and Tesla are telling us that people are in stores and buying things. So that’s a real advantage for China.”

A China critic, Perth Tolle, founder of Life + Liberty Indexes, and creator of the [Freedom 100 Emerging Market ETF \(FRDM\)](#), says advisors should look to Taiwan and South Korea as standouts

ASHR VS. EWT VS. EWY



Source: Bloomberg, data covers 4/1/2020-8/31/2020

in dealing with COVID-19—not just in emerging markets, but compared to the rest of the world.

“They were very fast acting and they were very transparent,” she said.

In the initial outbreaks, Taiwan’s and South Korea’s transparency pressured their respective stock markets, Tolle explains, but since then, their markets have bounced back stronger than China’s. She also noted that because of South Korea’s aggressiveness in tackling the disease with testing, contact tracing and quarantining, they did not lock down their economy.

PERFORMANCE DIVERGES

To contrast China with Taiwan and South Korea, she points to performance charts for the [Xtrackers Harvest CSI 300 China A-Shares ETF \(ASHR\)](#) versus those for EWT and EWY from Jan. 2 to March 23, which covers the beginning of the drawdown in

they have to really be on top of the situation, as it’s much easier and cheaper to prevent it than actually dealing with it.”

Carter notes that he’s watching India, too. The country has the third-highest number of reported cases and death rates, but some initial news reports show that some areas, such as in Mumbai’s dense slums, 60% of residents show evidence of infection and recovery, and that new cases in the cities are starting to slow.

Yet even as the number of cases may be declining in the cities, they are rising in rural areas, suggesting that India has had trouble slowing the spread, VanEck’s Lopez notes.

LOOKING AHEAD

As the world continues to deal with the coronavirus, Tolle believes Taiwan and South Korea are poised to continue their rebound and will benefit from the trend

He adds that initiatives to expand internet access with its Digital India program could lead to long-term growth as that infrastructure builds out: “I think it’s one of the most exciting EM stories.”

IN LATIN AMERICA ...

While certain Asian countries are recovering, Latin America continues to struggle. The outbreak in Brazil, an emerging market previously known for its robust health system, “was a case of a total failure of leadership,” Ozer said.

CFRA’s Rosenbluth points out that Brazil’s economy was already hard-hit before the coronavirus, so he’s not sure how connected it may be to current ETF performance. Brazil has more exposure to energy and materials, two sectors pummeled by the slowing global economy.

For other emerging markets hit hard by the virus such as Mexico and Rus-

‘AT THIS POINT, THE SMART THING TO DO WOULD BE TO FOCUS ON CERTAIN SECTORS’

Asia’s markets to the market bottom, and then from March 23 to late August (see Figures 1 and 2).

Tolle notes China started its market-enhancing measures such as restricting stock sales just after the Chinese New Year holidays at the beginning of February. On July 6, the government took out a front page ad in the Security Times, a state newspaper, telling Chinese citizens to buy stocks. She attributes a spike in China’s market on that day to the ad.

Alon Ozer, chief investment officer of Omnia Family Wealth, agrees that Taiwan and South Korea not only handled the cases better, but may emerge in better shape than most emerging markets because of how they controlled COVID. He also puts Singapore on that list for the same reason.

“These smaller countries in emerging markets know what would be the cost of having so many patients,” he said. “So

of decoupling and supply chain diversification out of China.

“Being world leaders in semiconductor technology makes them even more important to the U.S. going forward,” she said, pointing specifically to Taiwan Semiconductor and Samsung.

Omnia’s Ozer agrees with Rosenbluth that the countries with a technology sector are likely to do well, along with those with a good health care and biotechnology industry: “At this point, the smart thing to do would be to focus on certain sectors.”

Two examples of his thinking include the [KraneShares CSI China Internet ETF \(KWEB\)](#) and the [KraneShares MSCI All China Health Care Index ETF \(KURE\)](#).

Even though India continues to struggle with the spread of the virus, Lopez suggests the outlook for the country is positive if it can get back to implementing its economic reforms with more foreign direct investment and privatization.

sia, it’s harder to extrapolate weak ETF performance and COVID-19. “It might be correlated, but it just as easily might not be,” Rosenbluth noted.

Rusty Vanneman, chief investment officer at Orion Advisor Solutions, sees potential investments in Latin America despite coronavirus problems: “I actually think Latin America looks intriguing, because it’s been beaten down so hard by COVID.”

He says the region’s sensitivity to commodity prices, along with a weaker U.S. dollar, may set it up for a rebound. Vanneman notes that, for now, he’d use a broad-based regional index ETF for exposure, such as the [iShares Latin America 40 ETFs \(ILE\)](#), the biggest by assets under management.

“If an investor thinks that inflation expectations continue to move higher, the dollar continues to get weaker,” he explained, “then the relative valuations for emerging markets are very attractive, particularly in Latin America.” ●

SPONSORED BY

iShares
by BlackRock

"Most helpful plain-English resource for investors who want to demystify ETFs."

- Bloomberg



THE
ETF PRIME
PODCAST

Each week, the advisors from The ETF Store and the staff of ETF.com keep you up to date on what's going on in the world of ETFs, to help you become a better investor

UPCOMING EPISODES

OCTOBER 6

Rich Powers

Head of ETF Product Management at Vanguard

Eric Becker

Portfolio Manager at Water Island Capital

OCTOBER 13

Andrew Chanin

Co-Founder & CEO of ProcureAM

Andrew Rodriguez

CEO & Chief Investment Officer of Change Finance

OCTOBER 20

Lisa Chai

Senior Research Analyst at ROBO Global

Matt Raynor

Head of Strategic Accounts at Principal Global

OCTOBER 27

Todd Rosenbluth

Senior Director of ETF and Mutual Fund Research at CFRA

Jay Jacobs

SVP, Head of Research & Strategy at Global X Funds

ETF Prime is available on Apple Podcasts, Google Play, Spotify or wherever you find your favorite podcasts

To learn more, visit ETFprime.com

ETF
.com



By Lara Crigger
Senior Staff Writer
ETF.com

For many, emerging markets exposure is synonymous with China; these days, investors have more options

EMERGING MARKETS ... WITHOUT CHINA?

For many investors, “emerging markets” is synonymous with China—for good reason. China is by far the largest emerging economy; in fact, it’s the second-largest economy in the world, after only the U.S. The Asian country’s presence looms large in market-capitalization-weighted and smart beta strategies alike; roughly a third of all emerging market ETF assets now are invested in Chinese equities.

Yet there are significant risks to investing in China, from concentration risk to valuation concerns. Increasingly, many investors are seeking a more finely tailored approach to the country—if they want exposure to it at all.

32% AVERAGE EM ALLOCATION TO CHINA

In emerging markets, China exposure is ubiquitous: The average emerging market (EM) ETF (excluding leveraged, inverse and defined outcome ETFs) places about 32% of its portfolio in China stocks. That translates to roughly \$72 billion of total invested assets in EM equity ETFs.

Many ETFs have much higher exposures, though. The largest EM fund, the \$62 billion [Vanguard FTSE Emerging Markets Equity ETF \(VWO\)](#), puts 44% of its portfolio in China, while the second-largest ETF, the \$56 billion [iShares Core](#)

Emerging Market ETFs With The Highest Exposure To China

FIGURE 1

TICKER	FUND	EXPENSE RATIO	AUM (M)	CHINA EXPOSURE	TOTAL AUM IN CHINA (M)
BKF	iShares MSCI BRIC ETF	0.69%	\$143	70.8%	\$101
EMQQ	Emerging Markets Internet & Ecommerce ETF	0.86%	\$927	61.0%	\$565
FNI	First Trust Chindia ETF	0.60%	\$167	57.7%	\$96
ISEM	Invesco RAFI Strategic Emerging Markets ETF	0.35%	\$21	57.1%	\$12
ECON	Columbia Emerging Markets Consumer ETF	0.59%	\$166	52.7%	\$88
EEMA	iShares MSCI Emerging Markets Asia ETF	0.50%	\$546	49.7%	\$272
ADRE	Invesco BLDERS Emerging Markets 50 ADR Index Fund	0.18%	\$133	48.7%	\$65
PBEE	Invesco PureBeta FTSE Emerging Markets ETF	0.15%	\$2	46.2%	\$1
GMF	SPDR S&P Emerging Asia Pacific ETF	0.49%	\$539	46.0%	\$248
EMGF	iShares Edge MSCI Multifactor Emerging Markets ETF	0.45%	\$535	45.7%	\$245

Sources: Fund issuers, ETF.com and FactSet; data as of 8/27/2020

MSCI Emerging Markets Equity ETF (IEMG), allocates 39%.

Meanwhile, the ETF with the most exposure to China stocks is the \$143 million **iShares MSCI BRIC ETF (BKE)**, with a whopping 71% of its portfolio in China (Figure 1).

RISKS TO INVESTING IN CHINA

However, there are many reasons an emerging market investor might want an ETF that forgoes China equities.

The first is concentration risk. Broad-based emerging market ETFs are supposed to provide diversification, but that’s a tall order when a third of the portfolio (or more) is invested in the equities of a single country—especially when the valuations of said equities can be suspect. The Luckin Coffee delisting from Nasdaq due to fraud is a recent example.

It’s difficult for foreign investors to obtain independently verifiable data about Chinese company performance or fundamentals because the government so tightly controls what investors see.

In fact, Shanghai’s and Shenzhen’s markets often move according to Beijing’s command. For example, in July, when China’s government took out a full-page ad in a securities-focused newspaper, A-shares (as tracked by the **XTrackers Harvest CSI 300 China A-Shares ETF (ASHR)**) popped 11%.

“Government rhetoric is the only indicator anybody has for what’s going to happen in the stock market in China,” said Perth Tolle, founder of Life + Liberty Indexes. “None of the other data is transparent, or widely available or reliable.”

As a result, some investors prefer to more finely tune their China equity exposure, investing in only the themes or sectors they trust; in which case, an ex-China emerging market ETF can be a vital customization tool.

Meanwhile, for ESG-minded investors, a broad ex-China EM ETF can still offer marketlike exposure without the risk of investing in a country potentially cooking its books or engaging in human rights abuses.

EXCLUDING CHINA

As of Sept. 1, there were four emerging market ETFs that have no exposure to China: the \$74 million **iShares MSCI Emerging Markets ex China ETF (EMXC)**,

the \$19 million **Columbia EM Core ex-China ETF (XCEM)**, the \$19 million **Freedom 100 Emerging Market ETF (FRDM)** and the \$2 million **KraneShares MSCI Emerging Markets ex China Index ETF (KEMX)**.

(A fifth, the \$14 million **Global X MSCI Next Emerging & Frontier ETF (EMFM)**, also holds frontier stocks; for that reason, we aren’t including it in the following analysis.)

EMXC is the iShares product—and, perhaps unsurprisingly, is the biggest. The fund’s index, which is essentially the MSCI Emerging Markets Index but with China excised, covers roughly 85% of the emerging market universe by market cap.

XCEM is the next biggest (by a hair). Like EMXC, XCEM offers a broad take on emerging markets, just missing China exposure. The ETF, which Columbia acquired in 2016, is the oldest ex-China EM ETF on the market—and the cheapest, with an expense ratio of just 0.16%.

Ex-China Emerging Market ETFs

FIGURE 2

TICKER	FUND	EXPENSE RATIO	AUM (M)	# OF HOLDINGS	LARGEST COUNTRY
EMXC	iShares MSCI Emerging Markets ex China ETF	0.25%	\$74.5M	522	Taiwan, 22%
XCEM	Columbia EM Core ex-China ETF	0.16%	\$20.8M	101	Taiwan, 24.9%
FRDM	Freedom 100 Emerging Market ETF	0.49%	\$20.7M	103	Taiwan, 25.8%
KEMX	KraneShares MSCI Emerging Markets ex China Index ETF	0.49%	\$2.4M	301	Taiwan, 24.2%

Source: FactSet, data as of 9/8/2020

Nipping at XCEM's heels is FRDM, the only smart beta ETF of the bunch. FRDM uses, selects and weights stocks according to "freedom weighting," a methodology that evaluates countries based on more than 75 metrics of civil, political and economic freedoms afforded their citizens. It's also the only ETF of the four that doesn't specifically exclude China in its investment objective.

Finally, there's KEMX, which uses the same index as EMXC but charges almost twice as much (0.49% versus EMXC's 0.25%). From boutique issuer KraneShares, best known for its highly thematic China equity ETFs, KEMX isn't meant to be used in isolation, but to complement other KraneShares products.

DIFFERENT TAKES, SAME THEME

Though three of the four ex-China emerging market ETFs offer the same basic approach—broad emerging market exposure, with China carved out—that doesn't mean they're interchangeable (Figure 2).

Interestingly, according to ETF Action's ETF Overlap Analyzer Tool, there are only 20 stocks common to all four ETFs, out of a total 616 unique holdings. Even KEMX and EMXC, which track the same index, only share roughly 64% of their portfolios.

Overlap Matrix

FIGURE 3

	EMXC	XCEM	FRDM	KEMX
EMXC				
XCEM	37.1% 76 names			
FRDM	20.6% 68 names	25.2% 29 names		
KEMX	63.5% 245 names	43.8% 69 names	24.2% 49 names	

Source: ETF Action; data as of 9/1/2020

The discrepancy arises from the fact that EMXC holds hundreds more stocks than does KEMX (Figure 3).

As such, the four ETFs have differed widely in their returns. FRDM is the clear outperformer, having dropped the least year to date; it's down 6%. (It's up 7% over a 12-month basis, however.)

Meanwhile, XCEM lags behind, with an 11% drop year to date and just a 1% gain over the past year (Figure 4).

FREEDOM WEIGHTING: SECRET SAUCE?

So why is FRDM the standout? It comes back to that freedom-weighting, which avoids not just China but any country with markets and a citizenry that rank as less free.

Therefore, while FRDM possesses a hefty allocation to Taiwan (26%)

and South Korea (22%), similar to its competitors, the fund breaks away by forgoing exposure in Brazil and Russia, which comprise anywhere from 14-17% of the other ETFs' portfolios.

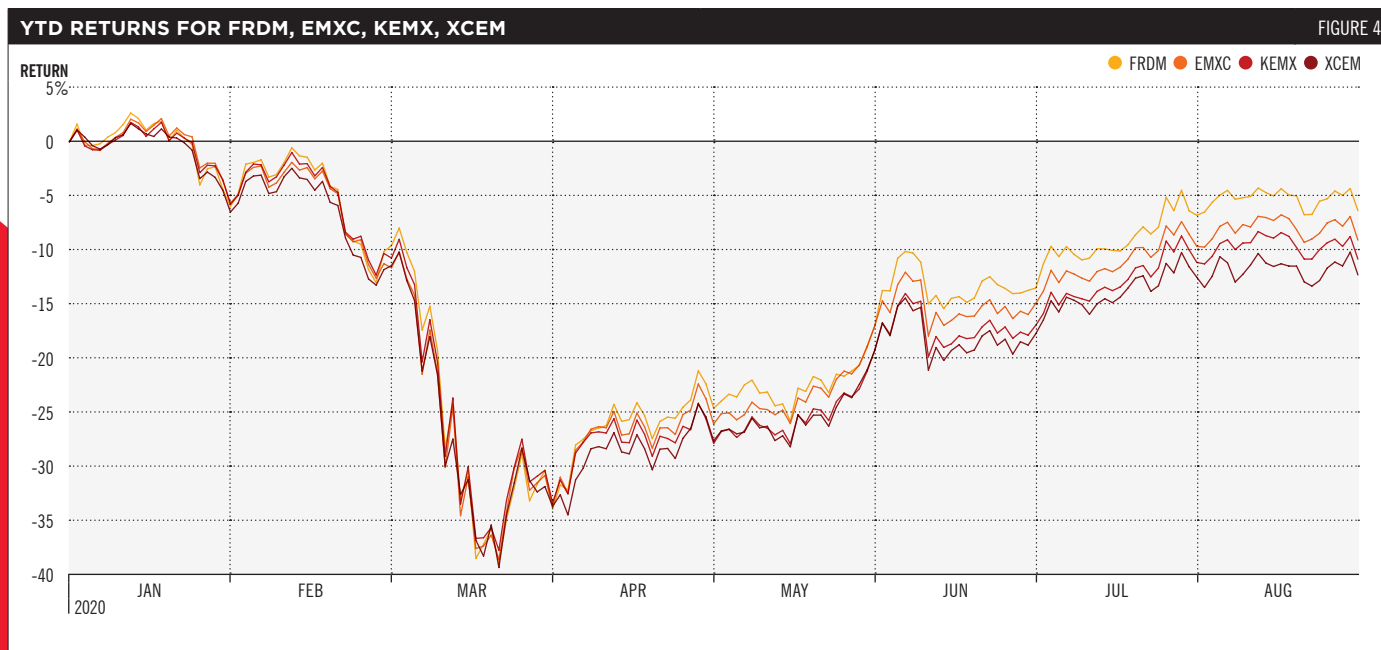
In addition, at 3%, FRDM's allocation to India is substantially smaller than the other ETFs, which all have roughly 14% allocated to the country.

Instead, FRDM is bolstered by a significant allocation to Poland (16%) and Chile (15%)—countries that have their own problems, but that still rank more highly than their peers.

LAGGING PERFORMANCE

It's worth remembering, however, that all four ex-China emerging market ETFs exhibit worse performance than emerging market funds that do allocate to the country. VWO, for example, has returned 2% year to date, and is up 15% on a one-year basis—almost double FRDM's return.

Performance isn't everything, however—especially if you don't or can't necessarily trust the numbers coming out of China. As with all investments, you should consider the risks carefully before investing in an emerging market fund, whether it holds China stocks or not—especially if an autocratic regime is involved. ●



Source: Bloomberg, year-to-date as of 8/31/2020

HOW DO YOU COMPARE ETFs?

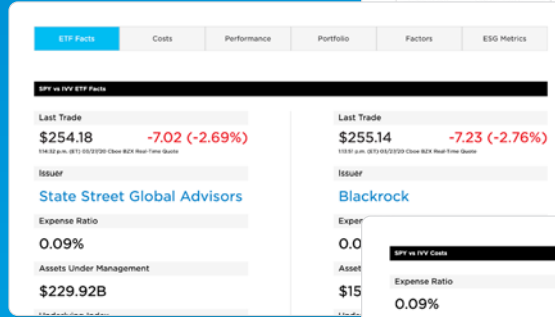
At ETF.com, we understand that not all ETFs are created equal

ETF Comparison Tool

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

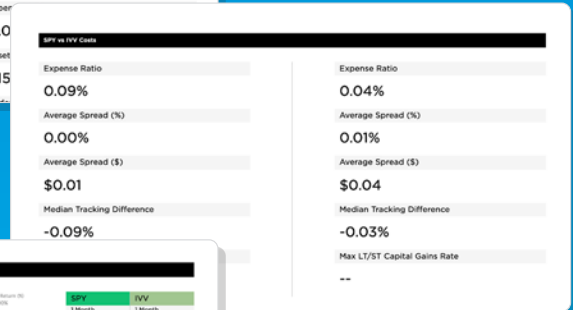
Real-Time ETF Quotes

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



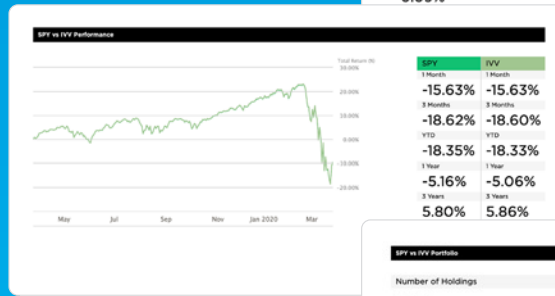
ETF Cost Breakdown

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



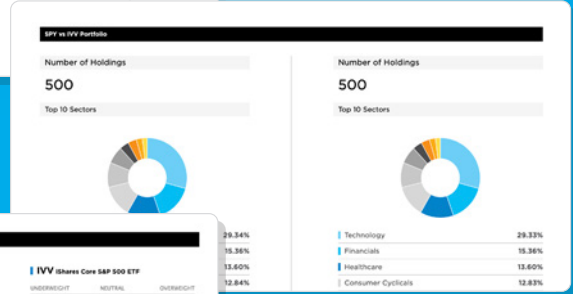
Fund vs. Fund Performance

Compare how each fund performed year-over-year



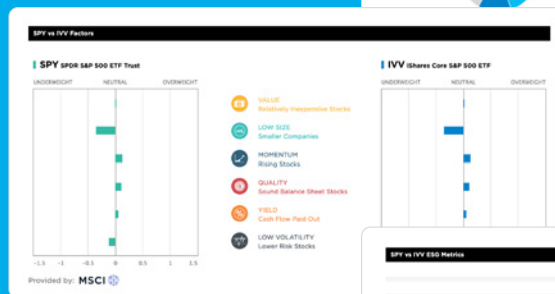
Portfolio Makeup

Top 10 sector and stock holdings



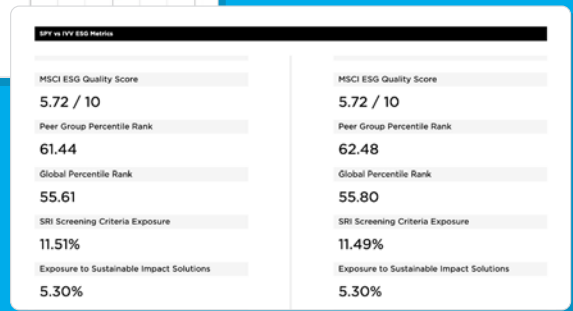
MSCI Factor Box

Easy-to-compare factor boxes



MSCI ESG Metrics

Key ESG metrics breakdown



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



Samuel Deane

Financial Planner
Deane Financial Partners

Emerging markets make up about 10-20% of a globally diversified portfolio allocation for Samuel Deane's clients, who generally are younger and can take on more risk. His clients' portfolios lean heavily on equities, anywhere from 80-100%.

He includes emerging markets because they have the potential to create higher returns. "My investment philosophy regarding emerging market ETFs is that they can come in all shapes and sizes," Deane said. "But not every fund, for lack of a better phrase, is worth your time and money."

He has two starting criteria when it comes to an emerging market ETF: low fees, and ones that are large and liquid enough to buy and sell with no complications.

"Many low-cost index funds are competitive on price and have billions in assets that drive a higher average trading volume," Deane explained. "Those are the sort of things that I look into when deciding

which ETF to implement in our strategies."

One of the emerging market ETFs he's using is the [Vanguard FTSE Emerging Market ETF \(VWO\)](#), an index-based ETF that excludes South Korea. Deane says he likes that it offers broad-based exposure and invests in large and small cap stocks, including China A-shares.

However, Deane says he's considering looking at other funds, too, because he wants to lessen his exposure to China. Mainland China, Hong Kong and Taiwan comprise more than 50% of the fund. Deane notes that he's looking at the [Freedom 100 Emerging Market ETF \(FRDM\)](#), a principles-selected, market-cap-weighted index fund that has no exposure to mainland China or Hong Kong, although says he has not researched it deeply yet.

"It's something I've thought about recently, although I haven't made any changes," Deane added.

Emerging markets can provide a portfolio with diversification and outsized returns, but with that can come risk. Here, four advisors describe how they incorporate emerging markets in their portfolios and the ETFs they use to do it.

HOW 4 ADVISORS

By Debbie Carlson



Nate Fischer

Chief Investment Strategist
Strategic Wealth Partners

Nate Fischer uses emerging market ETFs for smaller accounts where buying individual securities would be costlier.

"If you're looking for cheap, easy beta [in emerging markets], ETFs are the best way to play it," Fischer said.

His firm uses both equity and fixed income products, many from the iShares suite, including the [iShares Core MSCI EAFE ETF \(IEFA\)](#) for broad equity exposure and the [iShares Core International Aggregate Bond ETF \(IAGG\)](#) on the fixed income side.

If Fischer has a macro theme or believes the U.S. dollar will outperform a certain country's currency and wants a tactical allocation, he may consider a currency-hedged equity strategy using the offerings from WisdomTree.

When investing in emerging market bonds, Fischer says advisors need to think about the impact of the U.S. dollar so it doesn't act as a head wind:

"You've got to be cautious about that when you're buying bonds."

If the U.S. dollar is strong, he may employ the [iShares Interest Rate Hedged Emerging Markets Bond ETF \(EMBH\)](#), or if the U.S. dollar is weaker, the unhedged [iShares JP Morgan USD Emerging Markets Bond ETF \(EMB\)](#).

In a portfolio breakdown, on the equity side, 20-30% of the portfolio is allocated to international holdings, with 40% of that to emerging markets. On the fixed income side, Fischer treats bonds similarly to high yield holdings—anywhere from 0-15%.

"They do offer pretty decent yields, but you're assuming a lot of risks versus a 10-year Treasury," he noted.



Timothy Hooker

Co-founder
Dynamic Wealth Solutions

Timothy Hooker uses emerging markets as his clients' only exposure to international markets at this time, with holdings representing 10-15% of a client's equity allocation.

His clients generally are aggressive investors driven by performance. It's one of the reasons Hooker doesn't use broad-based emerging market ETFs, and instead uses niche and sector funds instead.

"Our clients say they want emerging market exposure because they see this as an opportunity for the long term," he said. "Our investors are aggressive. They like to see performance and capital appreciation, and we believe that the ETF is a great way to capture that return."

There are two emerging market funds Hooker uses: the [KraneShares CSI China Internet ETF \(KWEB\)](#) and the [First Trust Chindia ETF \(FNI\)](#).

Hooker uses KWEB to target the growth in the rise of the Chinese middle class and their increased

discretionary income. The expense ratio for KWEB is 76 basis points, which he admits is expensive, but says that the return justifies the higher fee.

"It's not as diverse as some of the Vanguard and SPDR funds," he explained. "These are high-conviction funds: 61% of KWEB's holdings are in the top 10."

For clients who want less China exposure or want more exposure to India, Hooker says FNI fits the bill. He sees the ETF as a good way to diversify away from China and still post strong returns.

Even though these are concentrated ETFs, Hooker uses them as core emerging market positions. And these two funds get his clients interested in emerging market investing.

"When we started our firm six years ago, we used funds like SPEN [SPDR Portfolio Emerging Markets ETF] and DEM." Hooker noted, "But we couldn't get clients excited about them as much as we can with KWEB and FNI."

ADVISORS USE EMERGING MARKET ETFs



Rob Williams

Principal, Managing Director
Sage Advisory Services

On the equity side of a client's portfolio, Rob Williams allocates between 60% domestic stock and 40% international, with about 10% in emerging market ETFs, generally. He prefers broad-based ETFs, but will occasionally tilt to add regional exposure.

Williams says right now there are a few good reasons to have emerging market holdings, including monetary policy, a weaker dollar and attractive valuations. Looking toward the end of the year, he's more cautious, because of the coming election and tensions between the U.S. and China.

The [iShares Core MSCI Emerging Markets ETF \(IEMG\)](#) is Williams' pick for core emerging market exposure, and he currently has a tilt toward Asia, using the [iShares MSCI Emerging Markets Asia ETF \(EEMA\)](#) to express that view.

For investors with an income focus, he's used the DEM, and for clients with an environmental, social and governance mandate, the [iShares ESG](#)

[MSCI EM ETF \(ESGE\)](#) fits the bill.

On the fixed income side, Williams will either choose a dollar-based ETF or one that's based on the local currency, depending on his view. He cautions that advisors need to be aware of the exchange rate impact on the fixed income side.

William's core fixed income emerging market ETFs are either the [iShares JP Morgan USD Emerging Markets Bond ETF \(EMB\)](#) or the [Invesco Emerging Markets Sovereign Debt ETF \(PCY\)](#). PCY is similar to EMB, he explains, but the nuance with PCY is that it's all sovereign debt: "EMB has a little corporate debt mixed in there, so if we want a broader base, but want to include some credit, we'll use that one."

Those two are dollar-denominated, so there's no currency bet. If Williams has a view on the dollar weakening, or wants exposure to local currency, his pick is the [VanEck Vectors J.P. Morgan EM Local Currency Bond ETF \(EMLC\)](#).

S&P Dow Jones Indices

A Division of **S&P Global**

There's more to it Strength in numbers

For every idea, for every strategy,
S&P DJI is the solution.

spdji.com/indexology



+ 125 years tracking financial markets

+ ESG and factor analysis covering over 10,000 stocks

+ More than 1,000 ETFs listed globally

+ The S&P 500[®], underlying the world's largest ETF

+ Unbiased data powering over 900,000 indices

HOW DEFINED OUTCOME ETFs WORK

This trend in ETFs provides a new angle on risk management



By Heather Bell
ETF Report Editor

Defined outcome ETFs aren't exactly new at this point, with the first funds of this type launched by Innovator in August 2018. In fact, the concept behind them is rooted in annuities and structured products.

But given the market turmoil we've seen in 2020, they're getting far more attention in this environment, especially now with stocks at all-time highs. The idea of protecting investment dollars from experiencing the full effects of a market downturn makes more sense with every new market high.

The demand we've seen from investors for these funds has been healthy, with the group of more than 70 ETFs pulling in over \$2.5 billion in assets under management (AUM) this year.

They can be used in portfolios for a number of purposes related to taking some risk off the table. Ultimately, these strategies allow investors to stay in the market when volatility is up because of a built-in "buffer" from market losses.

That's important, because many significant market gains can be attributed to single-day movements, and if you're out of the market for even just a few days, you could find yourself missing out. Market timing is a loser's game, as we know.

Defined outcome ETFs also have implications for retirement investing at a time when fixed income isn't performing as it has done historically. Traditionally, investors reduce their equity exposure as they get closer to retirement and shift more of their portfolio into fixed income, seeking stability and income.

But with rates so low, fixed income isn't what it used to be. With the added protection of the downside buffer,

investors can conceivably maintain their equity allocations for longer than they normally would.

Keep in mind, though, these funds don't pay equity dividends, and you're taking on the risk that can come with derivatives, even if you're limiting your equity risk.

Investors can even rotate the funds through their portfolios, locking in their gains and refreshing their buffers. For example, an investor could buy an Innovator Buffer ETF with downside protection of 9%. If the market rises over time and gets close to or exceeds its cap, the investor can sell the fund for a gain, then buy a similar ETF that resets on another date but has a higher cap remaining.

While Innovator was first to market with the concept, it was quickly followed by First Trust, then AllianzIM and TrueMark. There are currently about 70 defined outcome products on the market; likely there are more on the way.

HOW THEY WORK

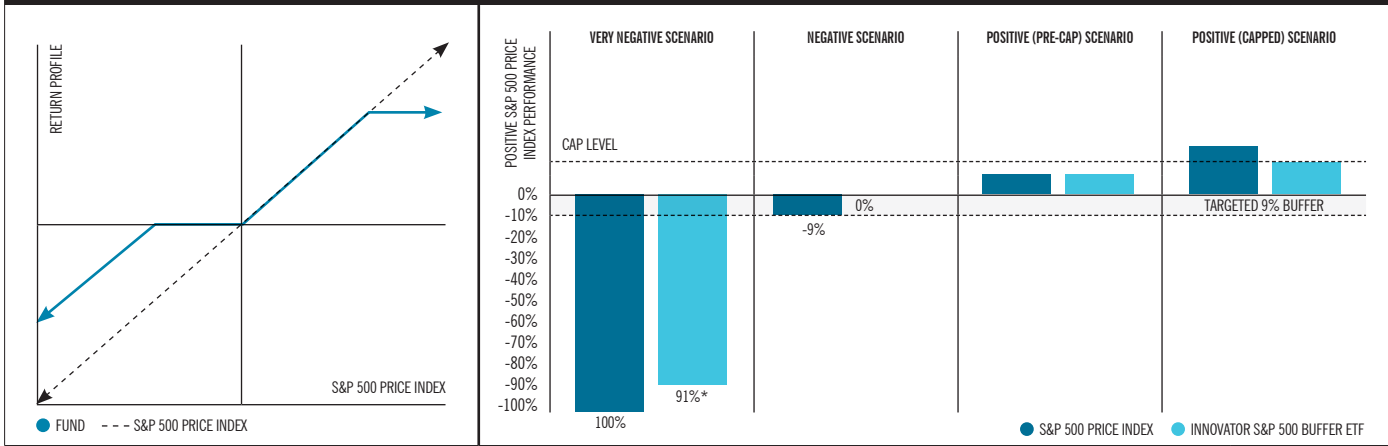
There are subtle differences between all the models. However, there are certain similarities that all of the funds seem to have in common.

For one thing, they all invest in Flexible Exchange (FLEX) options based on an index or ETF. The vast majority invest in FLEX options tied to the S&P 500 Index or ETFs that track it, though Innovator does offer some that track other key indexes like the MSCI EAFE Index or the Russell 2000 Index. There are also versions of these funds that offer exposure to fixed income (Figure 1).

In the simplest terms, the fund managers (all of the ETFs of this type are actively managed) buy call options

HOW DEFINED OUTCOME ETFs WORK

FIGURE 1



**This graph is provided merely to illustrate the outcomes that the fund seeks to provide based upon the performance of the S&P 500 Price Index. Shareholders may experience losses greater than 91%, including loss of their entire investment. There is no guarantee that these outcomes will be achieved over the course of the outcome period.*

These graphics are adapted from a prospectus filed by Innovator. However, the information is applicable to most other defined outcome ETFs.

to capture the upside and put options to provide the downside protection, though the reality is more complicated. Innovator’s documentation on how its funds work details seven different types of options positions used to achieve the strategy’s goals. The cost of the options on the reset day is what determines the upside caps or limitations.

The thing to remember is that the hard limits change after the first day. So, say the targeted market goes down 1% the next day. If you’re invested in a fund with 10% downside protection, you won’t experience that loss, but you only have another 9% left on that buffer.

If you enter the fund on that day, you start out with a 9%, not a 10%, buffer. Similarly, if you buy a fund that has a cap of 8.5% on its reset day, but you buy it only after it’s risen 1% from the reset day, you’ll only have 7.5% of potential upside remaining.

All of the issuers of these funds have tools available on their websites to let you know what limits you’ll be getting on the day you purchase one of their funds.

Other key points of differentiation are expense ratios and buffer/cap ranges. Here we’ll offer an overview of the issuers currently offering these products.

INNOVATOR

The founders of PowerShares—Bruce Bond and John Southard—acquired Innovator a few years after they sold that first ETF business to Invesco.

Bond was already considered a dynamo in the ETF space after turning PowerShares into a leading issuer. He and Southard returned for an encore with the purchase of Innovator. They had a solid idea of

what they wanted to do, inspired by annuities to bring a new type of product to market—the defined outcome ETF.

In all, 36 of the ETFs in Innovator’s defined outcome lineup offer buffered exposure to the S&P 500 Price Index, with the “Buffer” ETFs protecting against the first 9% of losses, while the “Power Buffer” ETFs protect against the first 15% of losses.

The “Ultra Buffer” ETFs allow a 5% loss, but protect against the next 30% of losses, up to 35%. All of those funds come with an expense ratio of 0.79%, and reset annually. Innovator offers three of these ETFs for each month of the year.

The issuer also has similar products tied to the Nasdaq-100, Russell 2000, MSCI EAFE and MSCI Emerging Markets indexes, and recently launched fixed income versions that invest in FLEX options on the [iShares 20+ Year Treasury Bond ETF \(TLT\)](#).

The [Innovator 20+ Year Treasury Bond 9 Buffer ETF – July \(TBJL\)](#) protects against a loss of up to 9%, while the [Innovator 20+ Year Treasury Bond 5 Floor ETF – July \(TFJL\)](#) has a 5% floor and doesn’t allow investors to lose anything after that.

Innovator currently has more than \$3 billion in AUM invested in these funds.

FIRST TRUST

First Trust was racing Innovator to the finish line to launch similar products, but ended up launching the first of its lineup in November 2019.

Its “Buffer” products protect against the first 10% of losses, while its “Deep Buffer” products allow for 5% in

losses, but protect against the next 25% of losses up to 30%. First Trust currently has a lineup of more than a dozen buffer ETFs, with \$1.4 billion in AUM across its family. All of its ETFs come with an expense ratio of 0.85%.

Interestingly, instead of FLEX options on the S&P 500 Price Index, the First Trust ETFs invest in FLEX options on the [SPDR S&P 500 ETF Trust \(SPY\)](#). This can have more tax advantages, but also potentially comes with a higher cost.

Another thing to keep in mind is that the First Trust ETFs reset in the middle of their designated month, while the Innovator ETFs reset on the first trading day of their designated month. This means their upside caps can differ quite a bit because of those dates and the fact that they reference different underlying structures.

For example, the [Innovator S&P 500 Ultra Buffer ETF – June \(UJUN\)](#), which has a downside buffer allowing for 5% of losses but prevents any losses beyond that up to 35%, has an upside cap of 7.25% before expenses. Meanwhile, the [FT Cboe Vest U.S. Equity Buffer ETF – June \(FJUN\)](#), which has a downside buffer preventing losses greater than 5% up to 25%, has an upside cap of 10.28% before expenses.

The reset dates are a point of differentiation. Upside caps are directly related to the prices of the underlying FLEX options and are fixed for the following year on

their reset day. This means there can be a significant difference between the two.

ALLIANZ INVESTMENT MANAGEMENT

AllianzIM, a large international financial firm, made its entry into the ETF space earlier this year with the launch of its first two defined outcome ETFs, though the firm already had a foot in the door through its subsidiary PIMCO. The Allianz approach to the space involves two lines of ETFs, with one protecting against a loss of 10%, and the other protecting against a loss of 20%.

The funds are intended to reflect the performance of the S&P 500 Index, but their prospectuses say that the FLEX options in the portfolio are based on “an underlying index.” The ETFs come with an expense ratio of 0.74%, and are currently available with reset dates scheduled for the months of April and June. Each of the Allianz funds currently has between \$3 million and \$4 million in AUM.

TRUEMARK

TrueMark made its defined outcome ETF debut at the same time as Allianz, but with a key point of differentiation.

TrueMark’s twist on the concept means the buffer against downside performance covers a range—in this case, 8-12%, with 10% as the ultimate, average target—and there is no set cap on upside performance. The fund uses options contracts, including FLEX options, on the S&P 500 Price Index and SPY to achieve its goal.

Rather than seeing their upside participation halted at a particular level, investors simply see their percentage of participation in that upside reduced by a certain percentage due to the cost of the options contracts, the prospectus indicates.

According to TrueMark, investors should expect to receive 75-85% of the upside performance of the underlying index. The three funds in the TrueMark defined outcome lineup have combined AUM of roughly \$23 million.

MORE TO COME

Beyond the current roster of players, other ETF issuers are also eyeing the category, with IndexIQ and ProShares among the firms filing prospectuses for funds with defined outcome objectives.

Additionally, existing funds are already being packaged into strategies, with Innovator and First Trust recently rolling out on the same day dueling laddered ETFs that maintain exposure to multiple defined outcome ETFs. ●

DEFINED OUTCOME ETF UNIVERSE				FIGURE 1
ISSUER	# OF ETFs	ER	FLEX OPTIONS ON	PROTECTION
Innovator				
US Large Cap Buffer	12	0.79%	S&P 500 Price Index	9%
Power Buffer	12	0.79%	S&P 500 Price Index	15%
Ultra Buffer	12	0.79%	S&P 500 Price Index	5-35%
Nasdaq	4	0.79%	Nasdaq-100 Price Index	15%
Russell 2000	4	0.79%	Russell 2000 Price Index	15%
EM	2	0.89%	MSCI Emerging Markets Price Index	15%
EAFE	2	0.85%	MSCI EAFE Price Index	15%
20-Year Bond 5 Floor	1	0.79%	iShares 20+ Year Treasury Bond ETF (TLT)	5%+
20-Year Bond 9 Buffer	1	0.79%	iShares 20+ Year Treasury Bond ETF (TLT)	9%
First Trust				
Buffer	7	0.85%	SPDR S&P 500 ETF Trust (SPY)	10%
Deep Buffer	7	0.85%	SPDR S&P 500 ETF Trust (SPY)	5-30%
AllianzIM				
Buffer10	2	0.74%	"an underlying index"	10%
Buffer20	2	0.74%	"an underlying index"	20%
TrueMark				
	3	0.79%	S&P 500 Price Index or ETF tracking it	8-12%

Source: ETF.com



ETF.com Education Center

Whether you're a novice or seasoned ETF investor, our comprehensive educational library is the perfect place to learn about ETFs.



ETF University Video Series

Learn all about exchange-traded funds, and how they can benefit you and your clients with our series of educational videos.



ETF Basics

Read all about the ins and outs of ETFs, from how the ETF structure works, to asset class details, to best practices in ETF selection. Our comprehensive library has it all.



ETF Frequently Asked Questions

Have a question about ETFs? Don't be shy! Check out our archive for transcripts from past sessions.



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.

START LEARNING TODAY!

Learn more at
[ETF.com/etf-education-center](https://www.ETF.com/etf-education-center)



August was a great month for commodity ETFs, with all but three notching positive returns. The runaway winner was the [United States Natural Gas Fund LP \(UNG\)](#), with an increase of 37.82%; followed distantly by the [iShares Silver Trust \(SLV\)](#), up 15.81%; and the [iPath Series B Bloomberg Nickel Subindex Total Return ETN \(JJN\)](#), up 15.27%. The three worst performers weren't even down 1%. The [iPath Series B Bloomberg Sugar Subindex Total Return ETN \(SGG\)](#) fell 0.96%, while the [SPDR Gold Trust \(GLD\)](#) and the [iPath Series B Bloomberg Tin Subindex Total Return ETN \(JJT\)](#) fell 0.32% and 0.16%, respectively. GLD led the inflows with a gain of \$602.8 million, while the [Invesco Optimum Yield Diversified Commodity Strategy No K-1 ETF \(PDBC\)](#) gained \$224.8 million and the [Invesco DB Agriculture Fund \(DBA\)](#) added \$186.2 million. Meanwhile, UNG lost \$114.7 million, the [United States Commodity Index Fund \(USCI\)](#) decreased by \$34.4 million and the [United States Gasoline Fund LP \(UGA\)](#) saw \$11.3 million in outflows. ●

Commodity Performance

AUGUST 2020

BROAD-BASED	AGS	ENERGY	INDUST. METALS	PRECIOUS METALS
BROAD USCI 6.08%	BROAD DBA 3.95%	BROAD DBE 5.41%	BROAD DBB 6.41%	BROAD GLTR 4.94%
BROAD DBC 4.64%	COFFEE JO 7.74%	GASOLINE UGA 8.76%	COPPER JJC 5.18%	GOLD GLD -0.32%
BROAD DJP 7.89%	SUGAR SGG -0.96%	NATURAL GAS UNG 37.82%	NICKEL JJN 15.27%	PLATINUM PPLT 3.08%
BROAD FTGC 5.11%	COCOA NIB 11.56%	CRUDE OIL USO 5.19%	LEAD LD 7.16%	SILVER SLV 15.81%
BROAD GCC 6.22%	COTTON BAL 3.30%		ALUMINUM JJU 5.51%	PALLADIUM PALL 7.30%
BROAD GSG 4.65%			TIN JJT -0.16%	
BROAD PDBC 4.79%				



Top Inflows

	TICKER	NET FLOWS (\$M)	AUM (\$M)
SPDR Gold	GLD	602.8	78,733.5
Invesco Opt Yld Diversified Comm No K-1	PDBC	224.8	2,787.6
Invesco DB Agriculture	DBA	186.2	604.6
United States Oil	USO	157.7	4,573.6
iShares Silver	SLV	149.2	15,693.5

Top Outflows

	TICKER	NET FLOWS (\$M)	AUM (\$M)
United States Natural Gas	UNG	-114.7	365.2
United States Commodity	USCI	-34.4	113.0
United States Gasoline	UGA	-11.3	101.9
iPath Series B Bloomberg Coffee ETN	JO	-11.2	67.0
iPath Bloomberg Cocoa ETN	NIB	-3.8	15.9

Sources: Bloomberg and FactSet. Data from 7/31/2020 to 8/31/2020. ETFs chosen to represent each sector based on the most liquid ETF in each segment of the ETF.com ETF Classification System.

Country Returns

AUGUST 2020

DEVELOPED MARKETS			EMERGING MARKETS			FRONTIER MARKETS
AMERICAS	EMEA	ASIA-PACIFIC	AMERICAS	EMEA	ASIA-PACIFIC	
CANADA EWC 5.13%	AUSTRIA EWO 4.94%	AUSTRALIA EWA 4.42%	ARGENTINA ARGT -3.26%	EGYPT EGPT 6.27%	CHINA FXI 6.26%	NIGERIA NGE -0.55%
UNITED STATES SPY 6.98%	BELGIUM EWK 2.50%	HONG KONG EWH 7.53%	BRAZIL EWZ -8.36%	GREECE GREK 4.93%	INDIA INDA 4.48%	VIETNAM VNM 7.30%
	DENMARK EDEN 5.29%	JAPAN EWJ 6.79%	CHILE ECH -7.21%	POLAND EPOL 3.13%	INDONESIA EIDO 4.64%	
	FINLAND EFNL 7.94%	NEW ZEALAND ENZL 3.18%	COLOMBIA GXG 4.95%	QATAR QAT 4.11%	MALAYSIA EWM -2.86%	
	FRANCE EWQ 4.69%	SINGAPORE EWS 2.31%	MEXICO EWW 1.17%	RUSSIA RSX 3.56%	PAKISTAN PAK 2.12%	
	GERMANY EWG 6.55%		PERU EPU 3.21%	SAUDI ARABIA KSA 7.52%	PHILIPPINES EPHE 2.47%	
	IRELAND EIRL 6.09%			SOUTH AFRICA EZA -0.96%	SOUTH KOREA EWY 4.66%	
	ISRAEL EIS 2.44%			TURKEY TUR -7.42%	TAIWAN EWT -1.46%	
	ITALY EWI 4.08%			UAE UAE 3.76%	THAILAND THD -0.58%	
	NETHERLANDS EWN 4.06%					
	NORWAY NORW 8.07%					
	PORTUGAL PGAL 2.44%					
	SPAIN EWP 2.25%					
	SWITZERLAND EWL 2.96%					
	UNITED KINGDOM EWU 2.74%					

Country ETFs had a rather sunny August,

with the vast majority of funds recording positive returns. The top fund was the [Global X MSCI Norway ETF \(NORW\)](#), with a return of 8.07%; the [iShares MSCI Finland ETF \(EFNL\)](#) followed, with a return of 7.94%; and the [iShares MSCI Hong Kong ETF \(EWH\)](#) claimed the No. 3 spot, with a return of 7.53%. The [iShares MSCI Brazil ETF \(EWZ\)](#) was at the head of the laggards, with a decline of 8.36%, while the [iShares MSCI Turkey ETF \(TUR\)](#) and the [iShares MSCI Chile ETF \(ECH\)](#) fell 7.42% and 7.21%, respectively. Flows were somewhat skewed, with the [SPDR S&P 500 ETF Trust \(SPY\)](#) losing \$2.5 billion; the [iShares MSCI Japan ETF \(EWJ\)](#) followed distantly, pulling in less than one-tenth of that, or \$223 million; and the [iShares China Large-Cap ETF \(FXI\)](#) lost \$196.3 million. The [iShares MSCI Germany ETF \(EWG\)](#) was at the other end of the spectrum, with a gain of \$279.1 million; followed by the [VanEck Vectors Russia ETF \(RSX\)](#), which pulled in \$130.5 million; and the [iShares MSCI Thailand ETF \(THD\)](#) gained \$100.7 million. ●



Top Inflows

	TICKER	NET FLOWS (\$M)	AUM (\$M)
iShares MSCI Germany	EWG	279.1	2,916.3
VanEck Vectors Russia	RSX	130.5	1,146.1
iShares MSCI Thailand	THD	100.7	448.0
iShares MSCI Mexico	EWW	93.0	878.7
iShares MSCI France	EWQ	64.2	889.7

Top Outflows

	TICKER	NET FLOWS (\$M)	AUM (\$M)
SPDR S&P 500	SPY	-2,471.4	307,856.7
iShares MSCI Japan	EWJ	-223.0	9,899.1
iShares China Large-Cap	FXI	-196.3	3,493.2
iShares MSCI Hong Kong	EWH	-59.4	1,329.8
iShares MSCI Italy	EWI	-43.0	209.8



Index Data Source: MSCI.
Sources: Bloomberg and FactSet.
Data from 7/31/2020 to 8/31/2020.

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 08/31/2020
- 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	118.9	56.14	23.38	17.80
ERShares Entrepreneur 30	ENTR	0.49	142.8	38.20	-	-
Motley Fool 100 Index	TMFC	0.50	330.6	34.75	-	-
Fidelity NASDAQ Composite	ONEQ	0.21	3,217.1	32.22	23.63	21.04
Goldman Sachs Hedge Industry VIP	GVIP	0.45	114.6	25.35	16.71	-
American Century STOXX US Qual Growth	QGRO	0.29	264.8	24.81	-	-
Global X Millennials Thematic	MLN	0.50	98.4	24.19	22.63	-
iShares MSCI USA Momentum Factor	MTUM	0.15	11,960.6	23.11	19.64	18.65
First Trust US Equity Opportunities	FPX	0.58	1,481.8	20.93	17.17	14.19
SPDR S&P Kensho New Econ Composite	KOMP	0.20	1,203.7	20.92	-	-
Invesco DWA Momentum	PDP	0.62	1,675.7	20.91	17.32	13.76
IQ Candriam ESG US Equity	IQSU	0.09	154.4	19.96	-	-
iShares MSCI USA ESG Select	SUSA	0.25	1,800.9	15.02	15.66	15.43
Vanguard ESG US Stock	ESGV	0.12	1,973.8	14.72	-	-
iShares ESG Aware MSCI USA	ESGU	0.15	8,952.4	12.66	15.57	-
iShares MSCI KLD 400 Social	DSI	0.25	2,253.0	12.15	15.40	14.58
Innovator IBD 50	FFTY	0.80	218.9	11.14	8.43	11.54
JPMorgan BetaBuilders US Equity	BBUS	0.02	198.5	11.10	-	-
Xtrackers MSCI USA ESG Leaders Equity	USSG	0.10	2,675.7	10.12	-	-
iShares ESG MSCI USA Leaders	SUSL	0.10	2,573.2	9.85	-	-
iShares Dow Jones US	IYY	0.20	1,357.4	9.70	14.00	13.81
Schwab US Broad Market	SCHB	0.03	16,573.6	9.39	13.88	13.80
Vanguard Total Stock Market	VTI	0.03	166,483.6	9.35	13.89	13.82
Vanguard Russell 3000	VTHR	0.10	711.1	9.24	13.74	13.67
iShares Russell 3000	IWV	0.20	10,032.3	9.15	13.72	13.65
iShares Core S&P Total US Stock Market	ITOT	0.03	28,467.7	9.12	13.81	13.91
Nationwide Max Diversification US Core	MXDU	0.34	100.4	9.11	-	-
SPDR Portfolio S&P 1500 Composite	SPTM	0.03	3,827.5	8.25	13.71	13.69
TrimTabs All Cap US Free-Cash-Flow	TTAC	0.59	187.0	8.19	13.15	-
Global X Conscious Companies	KRMA	0.43	278.1	7.54	14.43	-
iShares MSCI USA Quality Factor	QUAL	0.15	19,952.9	7.48	14.58	13.92
WisdomTree US Quality Dividend Growth	DGRW	0.28	4,184.0	5.95	13.25	14.07
Vanguard Dividend Appreciation	VIG	0.06	47,919.0	5.78	14.15	13.86
Franklin Liberty US Low Volatility	FLV	0.29	125.9	4.79	14.45	-
FlexShares US Quality Low Volatility	QLV	0.22	112.0	4.77	-	-
RiverFront Dynamic US Div Advantage	RFDA	0.52	134.0	4.44	10.06	-
Avantis US Equity	AVUS	0.15	437.7	4.11	-	-
VanEck Vectors Mstar Wide Moat	MOAT	0.48	3,533.3	3.56	14.30	15.96
SPDR MSCI USA StrategicFactors	QUS	0.15	773.7	3.41	13.05	13.35

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
First Trust DW Momentum & Low Vol	DVOL	0.60	104.6	3.19	-	-
WisdomTree US Multifactor	USMF	0.28	140.9	2.83	10.60	-
Invesco Defensive Equity	DEF	0.55	307.3	2.41	11.24	11.99
Invesco Dividend Achievers	PFM	0.53	408.0	2.18	10.86	11.74
FlexShares Mstar US Market Factor Tilt	TILT	0.25	1,279.8	1.13	9.34	10.76
Timothy Plan US Large/Mid Cap Core	TPLC	0.52	156.2	1.09	-	-
ALPS Barron's 400	BFOR	0.65	113.2	0.98	5.41	7.54
First Trust Value Line 100	FVL	0.70	102.3	0.56	2.95	3.25
iShares MSCI USA Min Vol Factor	USMV	0.15	34,830.9	0.39	11.22	12.53
iShares MSCI USA Multifactor	LRGF	0.20	835.8	0.05	7.82	9.75
VictoryShares US Multi-Factor Min Vol	VSMV	0.35	168.6	-0.05	11.19	-
iShares MSCI USA Size Factor	SIZE	0.15	837.6	-0.21	9.13	10.79
Invesco Dynamic Market	PWC	0.58	213.9	-0.51	5.24	7.83
iShares MSCI USA Equal Weighted	EUSA	0.15	227.4	-0.62	8.96	10.06
iShares Core Dividend Growth	DGRO	0.08	12,019.7	-0.83	11.61	13.31
FlexShares Quality Dividend	QDF	0.37	1,391.0	-2.42	7.72	9.74
FlexShares Quality Dividend Defensive	QDEF	0.37	456.8	-2.89	8.52	10.13
Schwab Fundamental US Broad Market	FNDB	0.25	243.0	-4.10	7.92	9.72
WisdomTree US Total Dividend	DTD	0.28	756.6	-6.11	7.13	10.02
VictoryShares MSCI USA Value Momentum	ULVM	0.20	482.2	-7.40	-	-
Invesco BuyBack Achievers	PKW	0.62	699.2	-8.43	6.45	7.99
Vident Core US Equity	VUSE	0.48	334.5	-8.60	1.76	4.97
American Century STOXX US Quality Value	VALQ	0.29	138.3	-8.79	-	-
Legg Mason Low Volatility High Dividend	LVHD	0.27	675.9	-10.01	3.47	-
Global X Adaptive US Factor	AUSF	0.27	148.3	-11.10	-	-
Invesco Raymond James SB-1 Equity	RYJ	0.76	110.2	-13.26	2.56	4.92
Virtus Real Asset Income	VRAI	0.55	111.9	-19.05	-	-
C-Tracks M/H Strategic Div Reinvestor ETN	DIVC	0.70	119.4	-20.48	-2.93	3.44
iShares US Tech Breakthrough Multisector	TECB	0.40	373.6	-	-	-
Goldman Sachs MarketBeta US Equity	GSUS	0.07	257.7	-	-	-
U.S. EQUITY: TOTAL MARKET GROWTH						
iShares Core S&P US Growth	IUSG	0.04	9,849.2	24.85	20.53	18.10
First Trust Multi Cap Growth AlphaDEX	FAD	0.66	179.4	13.81	14.01	12.71
Janus Henderson Sm/Mid Cap Gr Alpha	JSMG	0.30	129.6	9.79	15.67	-
American Century Focused Dyn Growth	FDG	0.45	206.3	-	-	-
U.S. EQUITY: TOTAL MARKET VALUE						
iShares Core S&P US Value	IUSV	0.04	6,654.1	-9.80	5.80	8.43
iShares MSCI USA Value Factor	VLUE	0.15	6,146.7	-14.04	3.02	6.79
Vanguard US Value Factor	VFVA	0.14	125.2	-16.74	-	-
Alpha Architect US Quantitative Value	QVAL	0.49	112.1	-19.22	0.01	1.63
U.S. EQUITY: EXTENDED CAP						
Vanguard Extended Market	VXF	0.06	10,096.5	6.93	10.65	10.82
iShares Russell 2500	SMMD	0.15	100.2	-3.09	7.57	-
Invesco FTSE RAFI US 1500 Small-Mid	PRFZ	0.39	1,512.2	-9.81	2.59	6.30
U.S. EQUITY: LARGE CAP						
Invesco QQQ Trust	QQQ	0.20	139,561.0	39.23	27.40	24.25
Pacer Trendplot 100	PTNQ	0.65	884.6	26.70	22.23	16.69
Invesco S&P 500 Downside Hedged	PHDG	0.39	138.7	23.20	11.60	8.60
Direxion NASDAQ-100 Equal Weighted	QQQE	0.35	310.8	21.36	18.38	17.31
First Trust Nasdaq-100 Equal Weighted	QQEW	0.59	953.8	21.06	18.17	17.07
First Trust NASDAQ-100 Ex-Tech Sector	QQXT	0.60	111.2	20.10	14.41	11.67
Invesco S&P 500 Top 50	XLG	0.20	1,692.4	19.86	18.42	17.48
Nationwide Risk-Managed Income	NUSI	0.68	128.4	18.00	-	-
JPMorgan US Momentum Factor	JMOM	0.12	137.4	17.10	-	-
First Trust Lunt US Factor Rotation	FCTR	0.65	104.3	15.46	-	-
Aptus Drawdown Managed Equity	ADME	0.79	163.7	15.33	8.47	-
iShares S&P 100	OEF	0.20	7,386.5	14.80	16.50	15.77
iShares Russell Top 200	IWL	0.15	821.3	13.89	14.54	13.69
Vanguard Mega Cap	MGC	0.07	3,033.2	12.70	14.00	13.34
Xtrackers S&P 500 ESG	SNPE	0.10	270.7	12.36	-	-
Inspire 100	BIBL	0.35	114.7	11.58	-	-
Overlay Shares Large Cap Equity	OVL	0.78	98.1	11.52	-	-
Vanguard Large-Cap	VV	0.04	19,847.4	11.40	15.03	14.63
SPDR S&P 500 Fossil Fuel Reserves Free	SPYX	0.20	659.8	11.40	15.11	-
iShares Mstar Large-Cap	JKD	0.20	848.3	10.65	12.94	14.36

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
iShares Russell 1000	IWB	0.15	24,886.2	10.36	14.43	14.15
Vanguard Russell 1000	VONE	0.08	1,679.4	10.35	14.45	14.15
Global X S&P 500 Catholic Values	CATH	0.29	401.5	10.29	14.49	-
Goldman Sachs JUST US Large Cap Equity	JUST	0.20	153.1	10.28	-	-
Schwab 1000 Index	SCHK	0.05	1,146.7	10.24	-	-
Invesco S&P 500 Quality	SPHQ	0.15	2,263.8	10.21	14.40	14.29
Principal US Mega-Cap Multi-Factor Index	USMC	0.12	1,687.2	10.08	-	-
Schwab US Large-Cap	SCHX	0.03	23,296.0	10.03	12.66	12.30
Distillate US Fundamental Stability/Value	DSTL	0.39	174.4	9.91	-	-
SPDR Portfolio S&P 500	SPLG	0.03	6,639.5	9.78	14.56	14.20
SPDR S&P 500 Trust	SPY	0.09	307,856.7	9.68	14.37	14.33
Goldman Sachs ActiveBeta US Large Cap	GSLC	0.09	10,425.5	9.62	14.51	-
Vanguard S&P 500	VOO	0.03	166,106.9	9.57	14.42	14.40
Fidelity Quality Factor	FQAL	0.29	155.2	9.38	13.49	-
iShares Core S&P 500	IIV	0.03	220,893.4	8.52	12.08	12.03
First Trust Capital Strength	FTCS	0.58	6,046.2	8.43	13.10	13.83
JPMorgan US Quality Factor	JQUA	0.12	388.9	8.25	-	-
HCM Defender 500 Index	LGH	1.25	114.6	7.98	-	-
Aptus Collared Income Opportunity	ACIO	0.79	139.4	7.48	-	-
Innovator S&P 500 Power Buffer - June	PJUN	0.79	106.2	6.95	-	-
Barclays ETN + Shiller CAPE ETN	CAPE	0.45	209.5	6.80	13.25	16.03
Innovator S&P 500 Power Buffer - August	PAUG	0.79	122.3	6.46	-	-
Xtrackers Russell 1000 US QARP	QARP	0.19	100.9	6.10	-	-
Fidelity Low Volatility Factor	FDLO	0.29	376.1	5.77	14.81	-
VictoryShares US 500 Enhanced Vol Wtd	CFO	0.35	651.9	5.68	8.95	10.78
Nationwide Risk-Based US Equity	RBUS	0.30	107.2	5.63	-	-
Innovator S&P 500 Buffer - January	BJAN	0.80	157.2	5.43	-	-
John Hancock Multifactor Large Cap	JHML	0.29	911.1	5.23	12.13	-
FT Cboe Vest US Equity Buffer - November	FNOV	0.85	138.7	4.99	-	-
FT Cboe Vest US Equity Deep Buffer - Aug	DAUG	0.85	133.9	4.97	-	-
Main Sector Rotation	SECT	0.83	600.0	4.73	-	-
Innovator S&P 500 Power Buffer - July	PJUL	0.79	121.6	4.46	-	-
Innovator S&P 500 Power Buffer - October	POCT	0.80	213.8	3.81	-	-
Innovator S&P 500 Ultra Buffer - January	UJAN	0.79	143.0	3.74	-	-
Innovator S&P 500 Power Buffer - January	PJAN	0.79	288.5	3.63	-	-
O?Shares US Quality Dividend	OUSA	0.48	545.7	3.60	10.76	12.39
FT Cboe Vest US Eq Deep Buffer - Nov	DNOV	0.85	146.3	3.52	-	-
Innovator S&P 500 Ultra Buffer - October	UOCT	0.80	98.9	3.48	-	-
ProShares Large Cap Core Plus	CSM	0.45	440.7	3.33	9.12	10.85
VictoryShares Dividend Accelerator	VSDA	0.35	274.1	2.95	14.49	-
Invesco RAFI Strategic US	IUS	0.19	144.1	2.85	-	-
SPDR SSGA Gender Diversity Index	SHE	0.20	136.0	2.75	10.14	-
Franklin LibertyQ US Equity	FLQL	0.15	1,332.7	2.60	12.71	-
Innovator S&P 500 Power Buffer - April	PAPR	0.79	200.0	2.55	-	-
First Trust Horizon Managed Vol Domestic	HUSV	0.70	203.3	1.53	9.60	-
Global X NASDAQ 100 Covered Call	QYLD	0.60	1,280.0	1.44	8.35	10.24
SPDR Dow Jones Industrial Average Trust	DIA	0.16	23,590.9	1.19	11.40	14.02
WisdomTree US LargeCap	EPS	0.08	426.2	1.06	9.08	10.42
Davis Select US Equity	DUSA	0.63	279.1	1.02	8.85	-
Goldman Sachs Equal Weight US Large Cap	GSEW	0.09	321.9	0.92	-	-
ALPS Equal Sector Weight	EQL	0.28	156.9	0.73	7.34	8.46
First Trust Large Cap Core AlphaDEX	FEX	0.60	956.0	0.42	6.84	8.51
VictoryShares US EQ Income Enh Vol Wtd	CDC	0.35	592.7	-0.20	6.54	10.16
Invesco Russell 1000 Equal Weight	EQAL	0.20	478.9	-0.72	7.07	8.80
VictoryShares US 500 Volatility Wtd	CFA	0.35	679.6	-1.30	8.95	10.75
ProShares S&P 500 Dividend Aristocrats	NOBL	0.35	6,304.2	-1.36	10.70	11.33
SPDR SSGA US Large Cap Low Volatility	LGLV	0.12	642.6	-2.14	11.25	12.58
Hartford Multifactor US Equity	ROUS	0.19	268.7	-2.22	7.52	9.65
Invesco S&P 500 Equal Weight	RSP	0.20	13,238.7	-2.35	8.26	9.83
Invesco Russell 1000 Dynamic Multifactor	OMFL	0.29	1,008.7	-2.86	-	-
Xtrackers Russell 1000 Compr Factor	DEUS	0.17	150.4	-2.87	7.64	-
SPDR Russell 1000 Momentum Focus	ONEO	0.20	342.9	-2.94	5.94	-
WisdomTree US LargeCap Dividend	DLN	0.28	2,369.8	-3.44	8.58	10.91
Invesco S&P 500 Revenue	RWL	0.39	788.2	-3.49	6.49	7.78
Schwab Fundamental US Large Company	FNDX	0.25	4,765.7	-3.51	8.36	10.06
JPMorgan Diversified Return US Equity	JPUS	0.18	564.5	-3.70	7.06	-

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
Invesco S&P 500 High Beta	SPHB	0.25	134.1	-4.11	7.81	9.36
Invesco S&P 500 Low Volatility	SPLV	0.25	9,144.9	-4.60	8.75	11.06
Invesco FTSE RAFI US 1000	PRF	0.39	4,050.0	-4.82	6.80	9.10
Pacer US Cash Cows 100	COWZ	0.49	223.4	-4.89	5.71	-
IQ Chaikin US Large Cap	CLRG	0.25	256.7	-5.28	-	-
First Trust Rising Dividend Achievers	RDVY	0.50	1,328.6	-5.50	9.34	11.77
SPDR Russell 1000 Low Volatility Focus	ONEV	0.20	513.9	-5.99	8.38	-
WisdomTree CBOE S&P 500 PutWrite	PUTW	0.44	117.5	-6.07	0.58	-
Global X S&P 500 Covered Call	XYLD	0.60	108.1	-7.25	3.98	6.76
Pacer Trendpilot US Large Cap	PTLC	0.60	2,143.0	-8.25	5.95	6.32
Invesco S&P 500 BuyWrite	PBP	0.49	175.6	-8.84	0.57	3.96
Timothy Plan High Dividend Stock	TPHD	0.52	110.8	-11.98	-	-
WisdomTree US Dividend ex-Financials	DTN	0.38	543.3	-14.27	1.63	5.86
ALPS Sector Dividend Dogs	SDOG	0.40	974.3	-14.76	0.77	5.83
SPDR Russell 1000 Yield Focus	ONEY	0.20	386.9	-15.78	3.02	-
VictoryShares US Lrg Cap High Div Vol Wtd	CDL	0.35	188.8	-16.91	2.18	7.50
Invesco S&P 500 High Dividend Low Vol	SPHD	0.30	2,472.8	-19.76	-1.09	5.85
SPDR Portfolio S&P 500 High Dividend	SPYD	0.07	2,030.1	-25.60	-2.09	-
FT Cboe Vest US Equity Deep Buffer - Feb	DFEB	0.85	535.8	-	-	-
FT Cboe Vest US Equity Buffer - February	FFEB	0.85	211.9	-	-	-
6 Meridian Hedged Equity-Index Option	SIXH	0.81	191.2	-	-	-
Innovator S&P 500 Power Buffer - Feb	PFEV	0.79	145.6	-	-	-
6 Meridian Mega Cap Equity	SIXA	0.82	109.5	-	-	-
U.S. EQUITY: LARGE CAP GROWTH						
Vanguard Mega Cap Growth	MGK	0.07	9,983.4	35.17	24.78	21.01
iShares Russell Top 200 Growth	IWY	0.20	3,193.6	33.78	25.46	22.06
iShares Mstar Large-Cap Growth	JKE	0.25	1,878.2	33.58	25.20	20.31
Vanguard Growth	VUG	0.04	63,629.3	31.97	23.38	19.68
iShares Russell 1000 Growth	IWF	0.19	61,712.7	30.19	23.89	20.40
Vanguard Russell 1000 Growth	VONG	0.08	4,921.1	30.19	24.01	20.45
Schwab US Large-Cap Growth	SCHG	0.04	12,739.3	29.77	23.61	19.49
Nuveen ESG Large-Cap Growth	NULG	0.35	361.7	27.85	24.89	-
SPDR Portfolio S&P 500 Growth	SPYG	0.04	9,517.4	26.47	21.36	18.82
Vanguard S&P 500 Growth	VOOG	0.10	4,479.6	26.42	21.30	18.78
iShares S&P 500 Growth	IWG	0.18	31,931.2	26.32	21.22	18.75
Invesco Dynamic Large Cap Growth	PWB	0.56	955.0	23.85	19.53	17.14
First Trust Large Cap Growth AlphaDEX	FTC	0.61	1,039.4	19.22	16.01	13.49
Invesco S&P 500 Pure Growth	RPG	0.35	2,593.0	15.36	14.84	13.53
SoFi Select 500	SFY	0.00	110.3	14.89	-	-
Invesco S&P 500 GARP	SPGP	0.34	207.6	-1.50	14.71	14.55
U.S. EQUITY: LARGE CAP VALUE						
Fidelity Value Factor	FVAL	0.29	208.9	-0.83	9.79	-
Vanguard Mega Cap Value	MGV	0.07	3,039.6	-8.15	6.89	9.70
iShares Russell Top 200 Value	IWX	0.20	682.9	-8.68	5.29	7.98
Vanguard Value	VTV	0.04	52,155.2	-8.73	6.17	9.18
Schwab US Large-Cap Value	SCHV	0.04	6,898.6	-8.86	5.16	8.73
Nuveen ESG Large-Cap Value	NULV	0.35	521.7	-9.15	6.13	-
SPDR Portfolio S&P 500 Value	SPYV	0.04	5,410.3	-9.25	6.35	8.79
iShares S&P 500 Value	IVE	0.18	16,297.1	-9.36	6.01	8.59
iShares Russell 1000 Value	IWD	0.19	37,089.6	-9.38	4.34	7.35
Vanguard Russell 1000 Value	VONV	0.08	2,665.9	-9.40	4.42	7.38
Vanguard S&P 500 Value	VOOV	0.10	1,252.8	-9.41	6.01	8.59
iShares Mstar Large-Cap Value	JKF	0.25	463.5	-11.21	4.83	8.20
First Trust Large Cap Value AlphaDEX	FTA	0.60	654.5	-12.99	1.14	6.36
Invesco Dynamic Large Cap Value	PWV	0.56	673.6	-13.66	1.46	6.42
Invesco S&P 500 Pure Value	RPV	0.35	641.2	-24.48	-2.48	2.85
U.S. EQUITY: MID CAP						
Invesco S&P Midcap Momentum	XMMO	0.34	689.0	9.91	21.59	17.53
Vanguard Mid-Cap	VO	0.04	35,178.5	1.83	9.40	9.87
iShares Russell Mid-Cap	IWR	0.19	21,370.8	-0.52	8.68	9.58
John Hancock Multifactor Mid Cap	JHMM	0.42	1,588.3	-1.28	8.23	-
iShares Mstar Mid-Cap	JKG	0.25	678.8	-1.76	7.95	9.01
Schwab US Mid-Cap	SCHM	0.04	6,727.4	-3.82	7.15	8.72
iShares Core S&P Mid-Cap	IJH	0.05	45,767.0	-5.55	5.34	8.06
SPDR S&P Midcap 400 Trust	MDY	0.23	15,505.0	-5.61	5.15	7.85
SPDR Portfolio S&P 400 Mid Cap	SPMD	0.05	2,629.8	-5.64	5.56	7.28

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
Vanguard S&P Mid-Cap 400	IVOO	0.10	898.6	-5.68	5.25	7.97
First Trust Mid Cap Core AlphaDEX	FNX	0.61	616.9	-5.99	5.48	7.33
JPMorgan Diversfd Return US Mid Cap	JPME	0.24	225.2	-6.19	5.25	-
ProShares S&P MidCap 400 Div Aristocrats	REGL	0.40	725.3	-6.24	5.29	9.58
Pacer Trendpilot US Mid Cap	PTMC	0.60	433.8	-8.01	0.52	4.76
Invesco S&P MidCap 400 Revenue	RWK	0.39	212.8	-12.01	1.88	5.03
Invesco Zacks Mid-Cap	CZA	0.69	228.5	-13.29	3.96	7.82
WisdomTree US MidCap	EZM	0.38	557.6	-14.86	1.26	5.04
Invesco S&P MidCap Low Volatility	XMLV	0.25	2,051.2	-17.47	2.55	8.26
WisdomTree US MidCap Dividend	DON	0.38	2,592.7	-19.30	0.18	5.33
U.S. EQUITY: MID CAP GROWTH						
iShares Mstar Mid-Cap Growth	JKH	0.30	1,152.8	23.98	20.78	16.15
Nuveen ESG Mid-Cap Growth	NUMG	0.40	177.4	22.94	19.82	-
Vanguard Mid-Cap Growth	VOT	0.07	8,402.7	15.59	16.01	13.41
iShares Russell Mid-Cap Growth	IWP	0.24	13,408.5	15.42	17.64	14.71
First Trust Mid Cap Growth AlphaDEX	FNV	0.70	355.8	11.82	14.95	13.32
Invesco S&P MidCap 400 Pure Growth	RFV	0.35	330.0	10.09	6.89	6.28
Vanguard S&P Mid-Cap 400 Growth	IVOG	0.15	775.5	3.92	9.12	9.99
SPDR S&P 400 Mid Cap Growth	MDYG	0.15	1,823.1	3.75	9.07	10.02
iShares S&P Mid-Cap 400 Growth	IJK	0.24	6,929.6	3.65	8.94	9.89
U.S. EQUITY: MID CAP VALUE						
iShares Russell Mid-Cap Value	IWS	0.24	10,278.4	-10.99	2.31	5.92
Vanguard Mid-Cap Value	VOE	0.07	9,343.2	-11.66	2.58	6.04
Nuveen ESG Mid-Cap Value	NUMV	0.40	112.0	-13.80	3.02	-
Vanguard S&P Mid-Cap 400 Value	IVOV	0.15	508.8	-15.63	0.92	5.39
SPDR S&P 400 Mid Cap Value	MDYV	0.15	980.6	-15.71	0.93	5.41
iShares S&P Mid-Cap 400 Value	IJJ	0.25	4,640.1	-15.78	0.79	5.30
iShares Mstar Mid-Cap Value	JKI	0.30	343.4	-17.91	0.14	5.37
U.S. EQUITY: SMALL CAP						
Invesco DWA SmallCap Momentum	DWAS	0.60	235.6	4.32	10.50	8.68
Invesco S&P SmallCap Momentum	XSMO	0.39	100.8	3.91	11.91	10.72
Nuveen ESG Small-Cap	NUSC	0.40	323.0	-3.59	6.77	-
Vanguard Small-Cap	VB	0.05	29,231.1	-3.79	6.83	8.52
iShares ESG Aware MSCI USA Small-Cap	ESML	0.17	365.7	-4.78	-	-
Schwab US Small-Cap	SCHA	0.04	10,151.0	-5.27	5.05	7.41
Vanguard Russell 2000	VTWO	0.10	1,821.0	-5.43	5.09	7.71
iShares Russell 2000	IWM	0.19	41,596.6	-5.51	4.96	7.64
Invesco S&P SmallCap 600 Revenue	RWJ	0.39	237.3	-6.10	1.64	4.56
QShares US Small-Cap Quality Dividend	OUSM	0.48	104.7	-6.45	5.02	-
VictoryShares MSCI USA SmCap Val Mom	USVM	0.24	254.9	-7.34	-	-
Goldman Sachs ActiveBeta US Small Cap	GSSC	0.20	154.2	-7.46	4.93	-
First Trust Small Cap Core AlphaDEX	FYX	0.63	428.3	-7.67	3.64	6.42
JPMorgan Diversfd Return US Small Cap	JPSE	0.29	160.6	-8.63	4.21	-
John Hancock Multifactor Small Cap	JHSC	0.42	500.9	-8.63	-	-
Principal US Small-Cap Multi-Factor	PSC	0.38	668.9	-8.69	3.21	-
iShares MSCI USA Small-Cap Multifactor	SMLF	0.30	571.7	-9.92	3.43	6.75
Vanguard S&P Small-Cap 600	VIOO	0.10	1,004.3	-10.93	3.83	7.46
SPDR S&P 600 Small Cap	SLY	0.15	1,063.9	-10.95	3.75	7.40
iShares Core S&P Small-Cap	IJR	0.06	44,385.4	-11.06	3.82	7.47
SPDR Portfolio S&P 600 Small Cap	SPSM	0.05	2,443.2	-11.11	3.13	6.51
iShares MSCI USA Small-Cap Min Vol Factor	SMMV	0.20	869.6	-12.84	5.06	-
iShares Mstar Small-Cap	JKU	0.25	189.9	-12.86	2.41	5.74
Schwab Fundamental US Small Company	FNDA	0.25	3,049.0	-12.93	1.80	5.50
WisdomTree US SmCap Qual Div Growth	DGRS	0.38	102.3	-13.23	2.65	5.86
IQ Chaikin US Small Cap	CSML	0.35	125.2	-14.30	-1.14	-
WisdomTree US SmallCap	EES	0.38	411.9	-17.61	0.58	5.38
ProShares Russell 2000 Dividend Growers	SMDV	0.40	594.1	-18.32	-0.59	7.38
SPDR SSGA US Small Cap Low Volatility	SMLV	0.12	222.2	-18.78	0.25	6.02
WisdomTree US SmallCap Dividend	DES	0.38	1,432.1	-20.61	-2.43	3.66
Invesco S&P SmallCap Low Volatility	XSLV	0.25	1,631.3	-29.31	-4.02	4.40
Innovator Russell 2000 Power Buffer - Jan	KIAN	0.79	125.1	-	-	-
U.S. EQUITY: SMALL CAP GROWTH						
MFAM Small-Cap Growth	MFMS	0.85	106.4	27.29	-	-
iShares Mstar Small-Cap Growth	JKK	0.30	266.4	14.29	14.45	12.85
Vanguard Small-Cap Growth	VBK	0.07	11,309.6	10.21	14.87	12.74

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
iShares Russell 2000 Growth	IWO	0.24	9,318.4	6.13	10.84	10.50
Vanguard Russell 2000 Growth	VTWG	0.15	372.5	6.10	10.92	10.47
First Trust Small Cap Growth AlphaDEX	FGC	0.70	159.0	2.74	7.52	9.97
Vanguard S&P Small-Cap 600 Growth	VIOG	0.16	329.8	-3.84	7.33	9.30
SPDR S&P 600 Small Cap Growth	SLYG	0.15	1,660.3	-3.94	7.32	9.37
iShares S&P Small-Cap 600 Growth	IUT	0.25	4,558.8	-4.12	7.15	9.25
Invesco S&P SmallCap 600 Pure Growth	RZG	0.35	116.8	-6.75	2.48	5.93
U.S. EQUITY: SMALL CAP VALUE						
Vanguard Small-Cap Value	VBR	0.07	13,697.0	-14.99	0.17	4.84
Avantis US Small Cap Value	AVUV	0.25	360.9	-16.39	-	-
Vanguard Russell 2000 Value	VTWV	0.15	308.0	-17.62	-1.39	4.32
iShares Russell 2000 Value	IWN	0.24	8,341.2	-17.63	-1.51	4.27
SPDR S&P 600 Small Cap Value	SLV	0.15	2,115.2	-18.35	1.25	5.21
Vanguard S&P Small-Cap 600 Value	VIOV	0.15	503.7	-18.46	-0.05	5.19
iShares S&P Small-Cap 600 Value	IJS	0.25	5,045.8	-18.52	-0.16	5.14
iShares Mstar Small Cap Value	JKL	0.30	272.5	-21.09	-4.86	1.29
Invesco S&P SmallCap 600 Pure Value	RZV	0.35	117.2	-22.95	-4.25	-0.38
U.S. EQUITY: MICRO CAP						
iShares Micro-Cap	IWC	0.60	767.6	-5.03	3.58	6.06
First Trust Dow Jones Select MicroCap	FDM	0.60	107.9	-21.69	-1.46	5.33
U.S. EQUITY: BASIC MATERIALS						
Materials Select Sector SPDR	XLB	0.13	3,459.2	3.84	6.81	10.03
iShares US Basic Materials	IYM	0.43	355.8	3.24	4.52	9.16
Fidelity MSCI Materials Index	FMAT	0.08	178.1	1.72	4.74	9.21
Vanguard Materials	VAW	0.10	1,701.6	1.55	4.76	9.26
Invesco S&P 500 Equal Weight Materials	RTM	0.40	173.4	-0.64	6.29	9.64
First Trust Materials AlphaDEX	FXZ	0.65	104.4	-4.23	0.77	6.66
SPDR S&P Metals & Mining	XME	0.35	589.2	-14.44	-6.59	5.85
U.S. EQUITY: CONSUMER CYCLICALS						
ProShares Online Retail	ONLN	0.58	332.7	82.77	-	-
ProShares Long Online/Short Stores	CLIX	0.65	257.7	81.69	-	-
Amplify Online Retail	IBUY	0.65	955.1	77.19	36.18	-
Fidelity MSCI Consumer Discretionary	FDIS	0.08	1,093.3	35.25	23.77	18.12
Vanguard Consumer Discretionary	VCR	0.10	4,030.2	30.84	21.77	17.01
VanEck Vectors Retail	RTH	0.35	170.9	26.59	25.84	16.99
iShares US Home Construction	ITB	0.42	2,209.9	23.31	17.62	15.04
Consumer Discr Select Sector SPDR	XLY	0.13	16,212.3	20.53	20.33	16.55
SPDR S&P Homebuilders	XHB	0.35	1,186.6	16.70	12.56	8.77
SPDR S&P Retail	XRT	0.35	470.5	13.54	11.51	3.58
iShares US Consumer Services	IYC	0.43	1,166.4	12.03	16.98	13.80
First Trust Consumer Discr AlphaDEX	FXD	0.64	1,127.2	-3.43	6.74	5.36
Invesco S&P 500 Eq Wt Consumer Discr	RCD	0.40	120.2	-6.19	6.21	5.19
Invesco Dynamic Leisure/Entertainment	PEJ	0.63	318.3	-25.58	-5.54	-0.55
U.S. EQUITY: CONSUMER NON-CYCLICALS						
iShares US Consumer Goods	IYK	0.43	708.4	16.72	10.88	10.88
Consumer Staples Select Sector SPDR	XLP	0.13	14,321.9	5.56	9.23	9.68
Fidelity MSCI Consumer Staples Index	FSTA	0.08	723.0	5.32	9.01	9.35
Vanguard Consumer Staples	VDC	0.10	5,732.6	5.12	8.85	9.26
Invesco DWA Cons Staples Momentum	PSL	0.60	111.6	4.67	8.85	7.85
Invesco S&P 500 Eq Wt Consumer Staples	RHS	0.40	558.0	3.16	8.87	9.21
First Trust Consumer Staples AlphaDEX	FXG	0.64	267.0	0.42	4.35	4.51
Invesco Dynamic Food & Beverage	PBJ	0.63	106.3	0.38	3.69	2.84
U.S. EQUITY: ENERGY						
First Trust North American Energy Infrastr	EMLP	0.96	1,853.6	-18.05	-2.62	0.97
Tortoise North American Pipeline	TPYP	0.40	306.7	-25.49	-5.96	-1.72
Global X MLP & Energy Infrastructure	MLPX	0.45	505.2	-27.80	-9.59	-6.73
First Trust Energy AlphaDEX	FXN	0.65	699.5	-35.23	-17.82	-15.22
JPMorgan Alerian MLP Index ETN	AMJ	0.85	1,518.0	-37.66	-17.04	-12.42
Barclays ETN+ Select MLP ETN	ATMP	0.95	152.6	-37.97	-15.81	-10.26
Energy Select Sector SPDR	XLE	0.13	10,298.8	-38.42	-12.99	-8.00
iShares US Energy	IYE	0.42	434.3	-39.19	-14.17	-9.33
ETRACS Alerian MLP Infrastr ETN Ser B	MLPB	0.85	174.1	-39.32	-17.48	-
Fidelity MSCI Energy	FENY	0.08	460.0	-39.49	-14.72	-9.76
Vanguard Energy	VDE	0.10	2,779.2	-39.64	-14.71	-9.49
Alerian MLP	AMPLP	0.87	3,535.0	-40.85	-18.68	-13.14

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
Global X MLP	MLPA	0.46	681.1	-41.01	-18.43	-12.55
iShares US Oil & Gas Expl & Production	IEO	0.42	296.5	-41.14	-13.38	-10.53
Invesco S&P 500 Equal Weight Energy	RYE	0.40	100.0	-41.92	-16.07	-11.49
SPDR S&P Oil & Gas Expl & Production	XOP	0.35	2,218.4	-44.73	-23.62	-18.49
iShares US Oil Equipment & Services	IEZ	0.42	132.8	-54.02	-31.15	-24.74
SPDR S&P Oil & Gas Equip & Services	XES	0.35	103.8	-56.56	-35.36	-29.72
InfraCap MLP	AMZA	2.41	112.1	-58.19	-31.57	-23.93

U.S. EQUITY: FINANCIALS

iShares US Broker-Dealers & Sec Exch	IAI	0.42	110.4	-4.40	8.26	11.71
iShares US Financials	IYF	0.42	1,380.5	-12.98	4.92	8.40
Invesco S&P 500 Equal Weight Financials	RYF	0.40	154.2	-14.03	2.44	8.26
iShares US Financial Services	IYG	0.42	1,855.2	-14.49	6.05	9.22
Invesco KBW Property & Casualty Ins	KBWP	0.35	184.6	-14.54	3.85	8.15
SPDR S&P Insurance	KIE	0.35	550.1	-15.90	1.88	7.16
Financial Select Sector SPDR	XLX	0.13	18,883.0	-17.32	2.62	7.84
Vanguard Financials	VFH	0.10	6,233.9	-18.72	1.66	7.36
Fidelity MSCI Financials	FNCL	0.08	747.9	-18.88	1.68	7.35
First Trust Financials AlphaDEX	FXO	0.63	525.3	-19.24	-0.58	5.14
VanEck Vectors BDC Income	BIZD	10.24	215.8	-21.44	-1.00	2.92
Invesco KBW Bank	KBWB	0.35	779.4	-30.66	-3.84	3.39
iShares US Regional Banks	IAT	0.42	235.0	-31.17	-5.43	2.24
SPDR S&P Bank	KBE	0.35	1,321.8	-31.51	-6.50	0.84
Invesco KBW High Div Yield Financial	KBWD	1.58	232.4	-31.87	-7.78	-0.87
SPDR S&P Regional Banking	KRE	0.35	1,282.4	-32.25	-7.26	0.91

U.S. EQUITY: HEALTH CARE

Invesco DWA Healthcare Momentum	PTH	0.60	507.3	36.26	25.66	16.62
SPDR S&P Biotech	XBI	0.35	5,461.2	17.58	10.20	8.83
Principal Healthcare Innovators	BTEC	0.42	99.6	16.58	14.20	-
iShares US Medical Devices	IHI	0.42	8,134.7	15.07	22.74	21.33
SPDR S&P Health Care Equipment	XHE	0.35	570.8	12.98	16.77	17.43
iShares NASDAQ Biotechnology	IBB	0.46	9,376.7	12.69	7.10	3.74
First Trust Health Care AlphaDEX	FXH	0.62	1,311.0	12.34	11.84	8.13
Invesco S&P 500 Equal Weight Health Care	RYH	0.40	732.1	9.54	11.92	10.37
Vanguard Health Care	VHT	0.10	11,681.3	8.90	12.92	11.18
Fidelity MSCI Health Care	FHLC	0.08	2,083.2	8.84	12.93	11.13
iShares US Healthcare	IYH	0.43	2,358.2	8.35	12.42	10.81
First Trust NYSE Arca Biotechnology	FBT	0.55	2,014.6	7.96	8.93	7.38
SPDR S&P Health Care Services	XHS	0.35	100.2	7.34	10.02	5.51
Health Care Select Sector SPDR	XLV	0.13	24,666.5	7.28	12.07	10.87
iShares US Pharmaceuticals	IHE	0.42	357.6	5.37	3.96	1.52
Invesco Dynamic Biotechnology & Genome	PBE	0.58	261.2	5.13	6.39	2.23
Invesco S&P SmallCap Health Care	PSCH	0.29	385.4	3.13	14.78	13.58
iShares US Healthcare Providers	IHF	0.42	981.1	2.96	13.62	10.49
Invesco Dynamic Pharmaceuticals	PJP	0.56	356.4	1.92	1.95	-0.84
ALPS Medical Breakthroughs	SBIO	0.50	176.9	-2.06	11.99	5.66
SPDR S&P Pharmaceuticals	XPH	0.35	232.2	-2.85	1.70	-3.42

U.S. EQUITY: INDUSTRIALS

Invesco Dynamic Building & Construction	PKB	0.59	163.6	5.84	6.48	8.15
iShares Transportation Average	IYT	0.42	873.1	2.22	7.02	8.34
Invesco S&P 500 Equal Weight Industrials	RGI	0.40	325.1	1.83	9.96	12.21
iShares US Industrials	IYJ	0.42	879.4	1.72	9.63	12.79
Fidelity MSCI Industrials	FIDU	0.08	396.1	-2.38	7.04	10.88
Industrial Select Sector SPDR	XLI	0.13	11,603.0	-3.29	6.54	11.00
Vanguard Industrials	VIS	0.10	3,127.0	-3.66	6.35	10.36
SPDR S&P Transportation	XTN	0.35	243.1	-5.32	3.22	6.68
First Trust Industr/Prod Durables AlphaDEX	FXR	0.63	195.2	-6.11	6.90	9.72
Invesco Aerospace & Defense	PPA	0.59	697.8	-14.02	6.67	12.74
SPDR S&P Aerospace & Defense	XAR	0.35	1,278.4	-16.46	7.10	12.65
iShares US Aerospace & Defense	ITA	0.42	2,887.6	-24.19	0.53	9.33

U.S. EQUITY: TECHNOLOGY

WisdomTree Cloud Computing	WCLD	0.45	701.5	75.07	-	-
SPDR NYSE Technology	XNTK	0.35	510.5	53.24	29.34	27.57
SPDR FactSet Innovative Technology	XITK	0.45	238.4	52.03	33.42	-
Invesco NASDAQ Internet	PNQI	0.60	886.9	51.36	25.09	24.53
Invesco DWA Technology Momentum	PTF	0.60	251.3	43.03	31.47	23.21

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
First Trust Dow Jones Internet	FDN	0.52	10,461.6	42.60	25.44	23.72
iShares Expanded Tech-Software Sector	IGV	0.46	5,570.2	39.91	30.41	28.25
iShares US Technology	IYW	0.43	6,484.4	37.97	29.81	27.22
First Trust Cloud Computing	SKYY	0.60	5,202.6	37.96	26.86	24.10
Technology Select Sector SPDR	XLK	0.13	37,393.7	35.85	29.90	27.15
iShares Expanded Tech Sector	IGM	0.46	2,879.0	35.54	29.27	27.15
Fidelity MSCI Information Technology	FTEC	0.08	4,751.3	34.87	29.91	27.33
Vanguard Information Technology	VTG	0.10	38,685.4	34.84	31.01	27.98
HCM Defender 100	QQH	1.25	131.4	31.74	-	-
First Trust Technology AlphaDEX	FXL	0.61	2,298.0	28.82	26.39	24.14
Invesco Dynamic Software	PSJ	0.56	594.1	25.95	27.90	25.35
VanEck Vectors Semiconductor	SMH	0.35	2,798.3	24.02	27.59	30.76
iShares PHLX Semiconductor	SOXX	0.46	3,664.8	23.04	28.24	31.57
SPDR S&P Software & Services	XSW	0.35	280.8	23.02	24.84	21.42
First Trust NASDAQ-100 Tech Sector	QTEC	0.57	3,021.9	22.14	23.69	26.10
Invesco Dynamic Semiconductors	PSI	0.57	344.9	20.24	21.60	28.03
SPDR S&P Semiconductor	XSD	0.35	555.0	19.97	26.58	27.92
Invesco S&P 500 Equal Weight Technology	RYT	0.40	1,875.8	11.26	19.59	21.68
Invesco S&P SmallCap Info Technology	PSCT	0.29	248.3	-5.22	7.27	13.46

U.S. EQUITY: TELECOMMUNICATIONS

Communication Services Select Sector SPDR	XLC	0.13	11,132.9	18.52	-	-
Vanguard Communication Services	VOX	0.10	2,947.6	15.50	6.99	8.22
Fidelity MSCI Communication Services	FCOM	0.08	584.4	15.10	11.39	12.93
iShares US Telecommunications	IYZ	0.42	365.2	-1.19	-0.45	2.92

U.S. EQUITY: UTILITIES

First Trust Utilities AlphaDEX	FXU	0.63	214.0	-5.42	1.92	7.11
Utilities Select Sector SPDR	XLU	0.13	12,131.9	-6.58	6.01	10.57
Vanguard Utilities	VPU	0.10	4,023.2	-8.07	5.55	10.65
Fidelity MSCI Utilities	FUTY	0.08	831.0	-8.18	5.51	10.54
iShares US Utilities	IDU	0.43	774.2	-8.23	5.02	10.06
Invesco S&P 500 Equal Weight Utilities	RYU	0.40	241.5	-9.00	5.19	9.49

U.S. EQUITY: REAL ESTATE

Pacer Data/Infrastructure Real Estate	SRVR	0.60	871.2	14.11	-	-
Pacer Industrial Real Estate	INDS	0.60	99.0	6.09	-	-
Real Estate Select Sector SPDR	XLRE	0.13	2,394.4	-4.78	6.82	-
iShares Cohen & Steers REIT	ICF	0.34	1,879.3	-8.55	4.10	6.67
iShares US Real Estate	IYR	0.42	3,526.9	-10.24	3.85	7.01
Vanguard Real Estate	VNQ	0.12	29,347.5	-10.37	3.22	6.40
Fidelity MSCI Real Estate	FREL	0.08	1,098.5	-10.55	3.88	6.99
JPMorgan BetaBuilders MSCI US REIT	BBRE	0.11	915.9	-14.29	-	-
iShares Core US REIT	USRT	0.08	1,441.5	-14.83	1.27	5.09
iShares Residential Real Estate	REZ	0.48	371.2	-15.10	2.29	5.90
PPTY-U.S. Diversified Real Estate	PPTY	0.49	107.3	-15.17	-	-
SPDR Dow Jones REIT	RWR	0.25	1,287.3	-18.87	-0.90	3.09
Schwab US REIT	SCHH	0.07	4,403.0	-19.41	-1.00	3.07
Invesco KBW Premium Yield Equity REIT	KBWY	0.35	176.1	-34.83	-13.20	-1.35
iShares Mortgage Real Estate	REM	0.48	1,103.8	-36.24	-8.71	0.46
VanEck Vectors Mortgage REIT Income	MORT	0.41	185.4	-37.31	-9.71	0.41

U.S. EQUITY: HIGH DIVIDEND YIELD

Schwab US Dividend Equity	SCHD	0.06	12,966.4	0.79	11.11	12.82
SPDR S&P Dividend	SDY	0.35	15,831.1	-8.93	6.31	9.81
First Trust Value Line Dividend	FVD	0.70	9,193.4	-8.93	5.73	9.60
Vanguard High Dividend Yield	VYM	0.06	27,274.9	-9.02	5.21	8.90
iShares Core High Dividend	HDV	0.08	5,663.8	-11.50	4.01	7.42
WisdomTree US High Dividend	DHS	0.38	736.7	-14.11	1.59	6.37
First Trust Mstar Dividend Leaders	FDL	0.45	1,335.9	-14.59	2.66	7.93
iShares Select Dividend	DVY	0.39	13,054.9	-17.98	0.82	6.51
Invesco High Yield Equity Div Achievers	PEY	0.52	649.4	-19.07	0.25	7.01
Invesco S&P Ultra Dividend Revenue	RDIV	0.39	619.4	-26.18	-0.97	4.24
Global X SuperDividend US	DIV	0.46	431.9	-29.06	-7.96	-1.86

GLOBAL EQUITY

ARK Innovation	ARKK	0.75	8,044.9	90.47	43.10	38.45
ProShares Pet Care	PAWZ	0.50	109.0	33.17	-	-
iShares MSCI Global Impact	SDG	0.49	188.5	26.04	15.54	-
ClearBridge All Cap Growth	CACG	0.54	186.2	17.87	16.99	-

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
First Trust Dorsey Wright Focus 5	FV	0.87	2,211.1	14.53	12.93	9.68
iShares Global 100	IOO	0.40	2,545.9	11.26	13.59	13.46
Davis Select Worldwide	DWLD	0.63	293.5	6.77	7.02	-
iShares MSCI ACWI Low Carbon Target	CRBN	0.20	460.6	5.58	9.38	10.37
iShares MSCI ACWI	ACWI	0.32	12,805.0	4.78	9.10	10.46
SPDR Portfolio MSCI Global Stock Market	SPGM	0.09	410.7	4.65	9.14	9.99
Vanguard Total World Stock	VT	0.08	14,658.9	4.00	8.70	10.17
First Trust Dorsey Wright Dynamic Focus 5	FVC	0.71	243.0	0.41	6.08	-
iShares MSCI Global Multifactor	ACWF	0.35	119.2	-1.67	4.76	7.74
iShares Edge MSCI Min Vol Global	ACWW	0.20	5,941.0	-1.87	7.07	9.18
Principal Active Global Dividend Income	GDVD	0.58	291.3	-2.39	6.57	-
Inspire Global Hope	BLES	0.52	112.3	-3.92	4.96	-
Cambria Global Value	GVAL	0.65	99.8	-23.70	-7.97	1.84

GLOBAL EQUITY EX-U.S.

First Trust Intl Equity Opportunities	FPXI	0.70	276.1	48.33	21.32	18.38
Davis Select International	DINT	0.68	234.8	8.28	-	-
American Century Quality Diversified Intl	QINT	0.39	101.8	4.56	-	-
WisdomTree Global ex-US Qual Div Gr	DNL	0.58	216.6	3.14	8.30	10.32
Vanguard Intl Dividend Appreciation	VIGI	0.20	2,445.4	1.23	6.18	-
Vanguard ESG International Stock	VSGX	0.17	1,215.1	-1.13	-	-
Vanguard FTSE All-World ex-US	VEU	0.08	25,555.6	-3.07	2.61	5.93
Vanguard FTSE All-World ex-US SmCap	VSS	0.11	5,453.4	-3.11	1.07	5.76
iShares Core MSCI Total Intl Stock	IXUS	0.09	21,220.0	-3.14	2.52	5.93
Vanguard Total International Stock	VXUS	0.08	24,860.9	-3.20	2.49	5.84
iShares MSCI ACWI ex US	ACWX	0.32	3,144.7	-3.50	2.31	5.52
SPDR MSCI ACWI ex-US	CWI	0.30	1,310.7	-3.63	2.47	5.82
Xtrackers MSCI All World ex US Hedged	DBAW	0.40	104.3	-3.97	3.89	6.03
First Trust Dorsey Wright Intl Focus 5	IFV	1.06	228.4	-8.17	-0.24	3.79
FlexShares Intl Quality Dividend	IQDF	0.47	490.8	-9.75	-2.07	3.18
Avantis International Small Cap Value	AVDV	0.36	275.6	-12.29	-	-
Vident International Equity	VIDI	0.59	441.5	-13.89	-5.05	3.42
Invesco International Dividend Achievers	PID	0.53	509.5	-20.19	-1.79	0.82

INTERNATIONAL EQUITY: BLENDED DEVELOPMENT

ClearBridge Large Cap Growth ESG	LRGE	0.59	118.9	25.33	23.11	-
iShares Asia 50	AIA	0.50	1,522.3	9.54	7.92	13.84
iShares MSCI All Country Asia ex Japan	AAXU	0.68	4,311.3	6.21	4.61	9.96

INTERNATIONAL EQUITY: DEVELOPED

BlueStar Israel Technology	ITEQ	0.75	121.6	30.65	23.58	-
iShares MSCI Denmark	EDEN	0.53	108.9	22.57	9.52	11.05
iShares MSCI Intl Momentum Factor	IMTM	0.30	510.2	10.08	7.45	7.86
iShares MSCI Sweden	EWD	0.55	247.2	8.82	4.46	6.78
FlexShares STOXX Global ESG Impact	ESGG	0.42	120.9	7.77	11.22	-
Invesco DWA Dev Mkts Momentum	PIZ	0.81	152.7	7.45	6.44	7.48
iShares MSCI Kokusai	TOK	0.25	162.3	5.82	10.67	10.97
iShares MSCI New Zealand	ENZL	0.50	169.0	5.66	12.73	17.64
iShares MSCI World	URTH	0.24	948.6	5.28	10.04	10.59
iShares MSCI Netherlands	EWN	0.50	189.1	5.00	7.03	9.94
iShares MSCI EAFE Growth	EFG	0.40	8,625.1	4.83	7.43	8.20
iShares MSCI Switzerland	EWL	0.50	1,718.6	4.35	8.95	7.91
Knowledge Leaders Developed World	KLDW	0.75	153.8	3.64	7.47	10.01
iShares MSCI Germany	EWG	0.49	2,916.3	3.45	1.41	4.94
Invesco S&P Intl Developed Quality	IDHQ	0.29	99.0	2.97	7.00	8.28
WisdomTree Intl Quality Div Growth	IQDG	0.42	138.1	2.57	5.35	-
iShares MSCI Intl Quality Factor	IQLT	0.30	1,838.5	-0.67	6.15	7.45
Franklin FTSE Japan	FLJP	0.09	416.3	-0.79	-	-
WisdomTree Intl Hedged Quality Dividend Growth	IHDG	0.58	787.0	-0.79	7.32	8.87
iShares MSCI Japan	EWJ	0.49	9,899.1	-1.27	3.73	5.42
JPMorgan BetaBuilders Japan	BBJP	0.19	5,109.8	-1.30	-	-
iShares MSCI Israel	EIS	0.59	105.3	-1.41	6.88	4.03
IQ Candriam ESG International Equity	IQSI	0.15	106.0	-1.88	-	-
Vanguard FTSE Pacific	VPL	0.08	3,690.3	-1.97	2.80	6.67
Fidelity Dividend for Rising Rates	FDRR	0.29	300.8	-2.14	9.31	-
ProShares MSCI EAFE Dividend Growers	EFAD	0.50	124.4	-2.27	4.19	4.09
JPMorgan BetaBuilders Canada	BBCA	0.19	3,990.4	-2.56	-	-
Nationwide Risk-Based Intl Equity	RBIN	0.42	112.1	-2.74	-	-

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
iShares Core MSCI Pacific	IPAC	0.09	969.5	-2.93	3.21	6.48
iShares MSCI Canada	EWC	0.49	2,280.4	-2.98	3.36	5.70
SPDR MSCI EAFE Fossil Fuel Reserves Free	EFAX	0.20	121.7	-3.02	2.46	-
Xtrackers MSCI Japan Hedged Equity	DBJP	0.45	209.9	-3.18	4.22	3.62
First Trust RiverFront Dynamic Dev Intl	RFDI	0.83	144.2	-3.25	-0.20	-
iShares Currency Hedged MSCI Japan	HEWJ	0.49	246.5	-3.59	4.08	3.60
SPDR Portfolio Developed World ex-US	SPDW	0.04	8,094.8	-4.04	2.52	5.24
Vanguard FTSE Developed Markets	VEA	0.05	76,440.1	-4.06	2.37	5.29
SPDR S&P International Small Cap	GWX	0.40	704.1	-4.06	-0.12	5.19
iShares MSCI EAFE Small-Cap	SCZ	0.40	9,263.8	-4.13	2.18	6.61
iShares MSCI Intl Small-Cap Multifactor	ISCF	0.40	128.8	-4.16	2.61	6.81
Schwab International Equity	SCHF	0.06	19,874.9	-4.17	2.35	5.12
iShares Core MSCI Intl Developed Mkts	IDEV	0.05	3,059.5	-4.28	2.51	-
SPDR MSCI EAFE StrategicFactors	QEFA	0.30	372.8	-4.51	3.13	5.40
iShares MSCI Europe Small-Cap	IEUS	0.40	132.1	-4.52	2.24	5.68
iShares ESG MSCI EAFE	ESGD	0.20	3,027.6	-4.60	2.60	-
Goldman Sachs ActiveBeta International	GSIE	0.25	1,744.5	-4.60	2.49	-
iShares Core MSCI EAFE	IEFA	0.07	72,011.6	-4.68	2.29	5.10
JPMorgan BetaBuilders International	BBIN	0.07	1,953.5	-4.82	-	-
Schwab International Small-Cap Equity	SCHC	0.11	2,586.9	-4.85	0.85	4.96
iShares MSCI Hong Kong	EWH	0.49	1,329.8	-4.88	0.59	6.68
SPDR Portfolio Europe	SPEU	0.09	139.8	-4.93	2.82	3.95
iShares MSCI Saudi Arabia	KSA	0.74	518.4	-5.05	6.04	-
Invesco FTSE RAFI DM ex-US SmallMid	PDN	0.49	336.5	-5.06	-0.11	5.07
iShares MSCI EAFE	EFA	0.32	48,797.2	-5.10	1.97	4.57
John Hancock Multifactor Developed Intl	JHMD	0.39	466.5	-5.14	1.11	-
iShares MSCI Eurozone	EZU	0.49	4,501.7	-5.21	0.44	4.33
SPDR Euro STOXX 50	FEZ	0.29	1,847.2	-5.31	1.14	4.08
IQ 50 Percent Hedged FTSE International	HFXI	0.20	270.0	-5.59	2.90	5.15
Avantis International Equity	AVDE	0.23	343.1	-5.61	-	-
JPMorgan BetaBuilders Europe	BBEU	0.09	5,216.3	-5.85	-	-
Vanguard FTSE Europe	VGK	0.08	12,576.9	-5.88	1.71	4.32
iShares Core MSCI Europe	IEUR	0.09	3,675.4	-6.01	1.73	4.33
Franklin FTSE Europe	FLEE	0.09	227.8	-6.03	-	-
JPMorgan BetaBuilders Dev Asia ex-Japan	BBAX	0.19	1,570.1	-6.03	-	-
JPMorgan Diversfd Return International	JPIN	0.37	959.6	-6.24	0.30	3.90
iShares MSCI EAFE Min Vol Factor	EFMV	0.20	10,956.5	-6.25	2.09	4.91
iShares Europe	IEV	0.59	1,458.3	-6.58	1.13	3.60
iShares MSCI Australia	EWA	0.50	1,257.5	-6.81	1.70	6.92
First Trust DM ex-US AlphaDEX	FDT	0.80	416.3	-6.86	-1.83	3.86
iShares MSCI Pacific ex-Japan	EPP	0.48	1,879.4	-7.03	1.06	6.65
iShares MSCI Intl Multifactor	INTF	0.30	938.1	-7.25	-0.21	3.77
First Trust Europe AlphaDEX	FEP	0.80	374.3	-7.68	0.16	5.09
Xtrackers MSCI EAFE Hedged Equity	DBEF	0.35	3,713.7	-7.90	3.53	5.33
iShares Currency Hedged MSCI EAFE	HEFA	0.35	2,265.8	-8.05	3.56	5.49
WisdomTree Japan SmallCap Dividend	DFJ	0.58	239.4	-8.28	-1.11	5.97
Fidelity High Dividend	FDVJ	0.29	550.9	-8.43	7.07	-
WisdomTree Japan Hedged Equity	DJX	0.48	1,485.2	-8.69	0.08	1.77
Hartford Multifactor DM (ex-US)	RODM	0.29	2,076.2	-8.87	0.58	4.76
Schwab Fundamental Intl Small Company	FNDC	0.39	1,889.4	-9.03	-1.47	4.85
Invesco RAFI Strategic Developed ex-US	ISDX	0.23	250.8	-9.48	-	-
IQ 500 International	IQIN	0.25	240.2	-9.73	-	-
iShares Currency Hedged MSCI Eurozone	HEZU	0.52	575.9	-9.82	2.87	5.08
FlexShares Mstar DM ex-US Factor Tilt	TLTD	0.39	567.6	-9.82	-1.07	3.44
VictoryShares MSCI Intl Val Momentum	UIVM	0.35	335.9	-9.91	-	-
Xtrackers MSCI Europe Hedged Equity	DBEU	0.45	433.9	-9.92	3.01	5.53
iShares MSCI France	EWQ	0.50	889.7	-9.96	1.56	5.50
WisdomTree International Equity	DWM	0.48	600.2	-10.95	-1.02	2.96
WisdomTree International MidCap Div	DIM	0.58	170.8	-11.07	-1.41	3.77
WisdomTree Intl Div ex-Financials	DOO	0.58	115.4	-11.21	-0.24	2.28
WisdomTree International LargeCap Div	DOL	0.48	354.2	-11.25	-0.86	2.47
WisdomTree Europe Hedged Equity	HEJ	0.58	1,856.8	-11.28	2.06	5.17
Invesco FTSE RAFI Dev Markets ex-US	PXF	0.45	949.7	-11.60	-1.84	2.77
Schwab Fundamental Intl Large Company	FNDF	0.25	4,131.7	-11.82	-1.31	3.04
iShares MSCI Italy	EWI	0.49	209.8	-11.83	-2.16	0.32

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
WisdomTree Dyn Currency Hedged Intl	DDWM	0.35	154.7	-12.38	-0.20	-
Pacer Trendpilot International	PTIN	0.66	148.2	-13.18	-	-
WisdomTree Europe SmallCap Dividend	DFE	0.58	332.5	-13.44	-2.76	3.27
WisdomTree Intl SmCap Dividend	DLS	0.58	1,344.5	-13.51	-2.66	4.40
ALPS International Sector Dividend Dogs	IDOG	0.50	158.6	-14.13	-1.27	3.01
Invesco S&P Intl Dev Low Volatility	IDLV	0.25	847.7	-14.24	-0.67	3.92
First Trust Horizon Managed Vol Dev Intl	HDMV	0.80	117.2	-14.27	-1.56	-
iShares MSCI EAFE Value	EFV	0.39	6,116.8	-14.83	-3.84	0.55
Pacer Global Cash Cows Dividend	GCOW	0.60	132.4	-15.21	-0.75	-
iShares MSCI Intl Value Factor	IVLU	0.30	462.4	-16.12	-3.70	0.03
iShares MSCI Spain	EWP	0.50	477.2	-19.20	-8.84	-3.01
iShares MSCI Singapore	EWS	0.50	527.4	-20.14	-4.52	1.20
iShares MSCI United Kingdom	EWU	0.50	2,181.6	-20.69	-3.85	-0.91
Global X MSCI Greece	GREK	0.57	135.4	-31.63	-10.29	-3.56
Goldman Sachs MarketBeta International	GSID	0.20	280.9	-	-	-
Xtrackers MSCI Kokusai Equity	KOKU	0.09	131.7	-	-	-
INTERNATIONAL EQUITY: EMERGING						
KraneShares CSI China Internet	KWEB	0.76	2,787.3	44.47	9.20	19.55
WisdomTree China ex-SOE	CXSE	0.32	363.0	37.62	15.77	22.92
Invesco Golden Dragon China	PGJ	0.70	196.5	29.46	8.74	16.55
iShares MSCI China A	CNYA	0.60	533.7	25.39	9.75	-
KraneShares Bosera MSCI China A Share	KBA	0.60	654.9	25.23	9.29	6.47
First Trust Chindia	FNI	0.60	176.8	21.96	9.62	14.68
Xtrackers Harvest CSI 300 China A-Shares	ASHR	0.65	1,999.7	19.23	7.42	8.26
SPDR S&P China	GXC	0.59	1,454.0	19.11	8.56	14.09
iShares MSCI China	MCHI	0.59	6,206.8	18.48	8.53	13.21
WisdomTree Emerging Markets ex-SOE	XSOE	0.32	1,808.5	9.29	6.75	12.40
SPDR S&P Emerging Asia Pacific	GMF	0.49	559.5	9.10	6.23	11.44
iShares MSCI Emerging Markets Asia	EEMA	0.50	568.0	7.47	4.95	10.68
Invesco BDRS Emerging Markets 50 ADR	ADRE	0.18	139.3	7.26	5.30	11.86
iShares MSCI Taiwan	EWT	0.59	4,292.1	6.86	8.45	13.03
iShares MSCI BRIC	BKF	0.69	149.8	4.98	5.73	11.24
iShares Currency Hedged MSCI EM	HEEM	0.68	187.4	3.88	4.78	8.29
Invesco DWA EM Momentum	PIE	0.90	158.2	3.80	3.74	6.29
Xtrackers MSCI EM Hedged Equity	DBEM	0.65	106.4	3.63	4.02	7.48
SPDR MSCI EM Fossil Fuel Reserves Free	EEMX	0.30	98.1	1.87	2.26	-
iShares MSCI South Korea	EYW	0.59	4,965.8	1.42	-0.59	7.81
iShares ESG MSCI EM	ESGE	0.25	3,653.1	0.78	3.44	-
iShares Core MSCI Emerging Markets	IEMG	0.13	55,547.6	0.07	2.44	8.32
Vanguard FTSE Emerging Markets	VVO	0.10	63,054.2	-0.02	2.73	7.93
iShares MSCI Emerging Markets	EEM	0.68	24,464.0	-0.15	2.17	8.00
SPDR Portfolio Emerging Markets	SPEM	0.11	4,469.5	-0.43	2.58	8.45
Schwab Emerging Markets Equity	SCHE	0.11	7,319.7	-0.48	3.08	8.24
SPDR S&P Emerging Markets Small Cap	EWX	0.65	523.2	-0.94	-0.17	6.96
iShares MSCI Emerging Markets Small Cap	EEMS	0.69	213.5	-1.40	-0.85	4.72
iShares Edge MSCI Multifactor EM	EMGF	0.45	550.8	-1.76	1.11	-
iShares MSCI India Small Cap	SMIN	0.76	201.9	-2.49	-7.61	3.12
Goldman Sachs ActiveBeta EM	AVEM	0.45	1,743.5	-2.65	1.69	-
Avantis Emerging Markets Equity	AVEM	0.33	250.2	-3.83	-	-
iShares Edge MSCI Min Vol EM	EEMV	0.25	4,300.5	-4.07	1.16	4.42
iShares MSCI India	INDA	0.69	3,183.1	-4.81	0.26	4.54
iShares MSCI Malaysia	EWM	0.49	341.9	-4.97	-1.73	0.76
SPDR MSCI EM StrategicFactors	QEMM	0.30	152.8	-5.17	0.31	5.60
WisdomTree India Earnings	EPI	0.85	608.6	-5.81	-2.85	4.64
John Hancock Multifactor EM	JHEM	0.49	692.8	-6.51	-	-
FlexShares Mstar EM Factor Tilt	TLTE	0.59	234.1	-6.89	-2.06	5.46
PIMCO RAFI Dynamic Multi-Factor EM	MFEM	0.49	668.9	-7.70	-	-
VictoryShares MSCI EM Value Momentum	UEVM	0.45	177.6	-8.80	-	-
First Trust EM SmCap AlphaDEX	FEMS	0.80	151.6	-9.00	-1.52	9.24
VanEck Vectors Russia	RSX	0.67	1,146.1	-9.17	7.23	10.47
iShares India 50	INDY	0.93	626.8	-9.51	0.11	5.42
WisdomTree EM SmallCap Dividend	DCS	0.63	1,548.4	-9.90	-1.15	6.76
First Trust Emerging Markets AlphaDEX	FEM	0.80	435.9	-12.67	-1.85	6.92
iShares MSCI Poland	EPOL	0.61	256.1	-13.06	-10.89	-1.50
Invesco S&P EM Low Volatility	EELV	0.29	290.7	-13.32	-2.72	2.21

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
JPMorgan Diversified Return EM	JPEM	0.44	278.3	-13.46	-1.88	4.77
iShares MSCI Russia	ERUS	0.59	472.0	-16.88	8.62	10.58
Invesco FTSE RAFI Emerging Markets	PXH	0.50	1,074.5	-16.95	-2.61	6.42
WisdomTree EM High Dividend	DEM	0.63	1,616.8	-17.27	-1.21	4.98
Schwab Fundamental EM Large Company	FNDE	0.39	3,103.8	-17.53	-2.38	6.74
iShares Emerging Markets Dividend	DVYE	0.49	645.9	-19.56	-4.03	4.56
SPDR S&P Emerging Markets Dividend	EDIV	0.49	272.8	-19.92	-3.82	2.59
iShares MSCI Thailand	THD	0.59	448.0	-20.62	-3.85	3.77
iShares MSCI Philippines	EPHE	0.59	118.6	-22.18	-8.88	-4.71
iShares MSCI Chile	ECH	0.59	448.2	-22.46	-17.57	-4.35
iShares MSCI Indonesia	EIDO	0.59	327.4	-22.82	-8.47	1.20
iShares MSCI South Africa	EZA	0.59	336.7	-22.83	-10.59	-3.64
iShares MSCI Turkey	TUR	0.59	183.3	-25.79	-22.34	-9.87
iShares MSCI Mexico	EWX	0.49	878.7	-26.64	-14.62	-7.06
iShares Latin America 40	ILF	0.48	920.4	-34.20	-11.37	0.50
iShares MSCI Brazil Small-Cap	EWZS	0.59	99.2	-35.74	-2.39	14.28
Franklin FTSE Brazil	FLBR	0.19	98.3	-36.32	-	-
iShares MSCI Brazil	EWZ	0.59	5,504.5	-36.39	-6.84	6.22
iShares ESG MSCI EM Leaders	LDEM	0.16	660.5	-	-	-
INTERNATIONAL EQUITY: FRONTIER						
VanEck Vectors Vietnam	VNM	0.66	378.9	-8.07	0.92	-0.28
iShares MSCI Frontier 100	FM	0.79	371.2	-13.57	-2.06	2.17
GLOBAL EQUITY: SECTOR						
ARK Next Generation Internet	ARKW	0.76	2,353.4	95.29	46.61	43.37
ARK Genomic Revolution	ARKG	0.75	2,046.8	84.71	37.91	25.57
Invesco Solar	TAN	0.71	1,333.8	84.38	39.10	16.05
First Trust NASDAQ Green Energy	QCLN	0.60	478.1	74.87	33.36	24.48
O'Shares Global Internet Giants	OGIG	0.48	411.7	72.80	-	-
ARK Fintech Innovation	ARKF	0.75	561.8	68.31	-	-
Invesco WilderHill Clean Energy	PBW	0.70	644.4	66.94	39.24	23.07
Global X Video Games & Esports	HERO	0.50	248.6	65.97	-	-
ARK Autonomous Technology & Robotics	ARKQ	0.75	584.5	62.87	27.68	28.19
VanEck Vectors Video Gaming/eSports	ESPO	0.55	471.8	62.57	-	-
ALPS Clean Energy	ACES	0.65	372.6	60.37	-	-
Global X Cloud Computing	CLOU	0.68	1,139.4	54.95	-	-
iShares MSCI Global Silver Miners	SLVP	0.39	246.7	54.41	15.92	24.55
WedbushMG Video Game Tech	GAMR	0.75	117.2	51.56	16.58	-
Global X Silver Miners	SIL	0.66	1,122.2	50.22	13.54	21.17
iShares MSCI Global Gold Miners	RING	0.39	568.7	47.04	21.58	26.62
iShares Global Clean Energy	ICLN	0.46	1,336.1	46.50	25.64	15.33
Global X Social Media	SOCL	0.65	214.7	45.24	18.18	23.76
Global X Lithium & Battery Tech	LIT	0.75	766.3	44.55	8.13	18.35
Sprott Gold Miners	SGDM	0.50	300.5	44.49	18.46	23.20
VanEck Vectors Gold Miners	GDX	0.52	17,893.0	44.36	20.37	25.31
VanEck Vectors Low Carbon Energy	SMOG	0.62	149.8	44.30	23.97	16.89
VanEck Vectors Junior Gold Miners	GDXJ	0.53	6,600.1	42.43	18.96	25.94
Sprott Junior Gold Miners	SGDJ	0.50	106.9	42.16	9.65	18.75
Reality Shares Nasdaq NexGen Economy	BLCN	0.68	116.3	40.32	-	-
U.S. Global GO Gold/Prec Metal Miners	GOAU	0.60	120.3	38.38	22.22	-
Amplify Transformational Data Sharing	BLOK	0.70	124.8	35.63	-	-
iShares Global Tech	IXN	0.46	4,555.8	31.19	26.32	25.98
iShares Cybersecurity and Tech	IHAK	0.47	123.9	29.53	-	-
ETFMG Prime Junior Silver Miners	SILJ	0.69	426.9	28.70	8.15	25.21
Global X FinTech	FINX	0.68	731.5	28.35	24.96	-
iShares Genomics Immunology/Healthcare	IDNA	0.47	152.6	28.00	-	-
iShares Robotics/Artificial Intelligence	IRBO	0.47	182.9	26.24	-	-
Global X Robotics & Artificial Intelligence	BOTZ	0.68	1,722.9	24.25	10.70	-
First Trust NASDAQ Cybersecurity	CIBR	0.60	2,222.6	23.04	19.87	16.13
ALPS Disruptive Technologies	DTEC	0.50	113.2	21.41	-	-
ETFMG Prime Cyber Security	HACK	0.60	1,586.4	21.18	19.25	13.49
First Trust Global Wind Energy	FAN	0.62	190.8	20.53	12.12	13.58
Invesco Cleantech	PZD	0.65	289.8	17.47	14.29	16.84
First Trust Nasdaq Artificial Intel/Robotics	ROBT	0.65	121.8	16.90	-	-
iShares Exponential Technologies	XT	0.47	2,715.3	16.69	15.33	16.84
ROBO Global Robotics and Automation	ROBO	0.95	1,291.4	15.00	9.73	15.80

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
Global X Uranium	URA	0.71	174.5	14.46	-1.62	-1.87
iShares Global Comm Services	IXP	0.46	312.9	14.33	7.99	6.53
Defiance Next Gen Connectivity	FIWG	0.30	479.0	13.86	-	-
Global X Internet of Things	SNSR	0.68	234.8	13.79	14.54	-
ETFMG Prime Mobile Payments	IPAY	0.75	807.7	13.78	21.23	18.81
First Trust Indxx NextG	NXTG	0.70	579.4	10.05	8.26	12.63
Global X Copper Miners	COPX	0.65	108.1	9.76	-3.83	9.02
iShares Global Consumer Discretionary	RXI	0.46	253.7	8.59	12.50	10.99
First Trust NASDAQ Technology Dividend	TDIV	0.50	1,311.3	7.26	15.38	15.93
iShares Global Healthcare	IXJ	0.46	2,315.6	7.04	11.48	9.00
iShares Global Materials	MXI	0.45	387.2	4.28	5.38	10.19
Invesco Global Water	PIO	0.75	210.3	3.08	11.17	10.23
Invesco Water Resources	PHO	0.60	1,108.8	2.72	13.97	13.04
iShares Global Consumer Staples	KXI	0.46	619.2	2.35	5.54	7.35
VanEck Vectors Rare Earth/Strat Metals	REMX	0.60	191.9	1.84	-11.65	-0.01
VanEck Vectors Pharmaceutical	PPH	0.36	233.5	1.61	7.00	0.91
First Trust Water	FIW	0.55	531.8	1.01	12.77	16.79
Invesco S&P Global Water	CGW	0.59	699.4	-0.53	8.87	10.87
iShares Global Timber & Forestry	WOOD	0.46	243.8	-0.84	3.06	8.56
VanEck Vectors Agribusiness	MOO	0.56	610.8	-1.21	8.05	8.29
iShares Global Industrials	EXI	0.46	202.9	-2.70	5.00	9.09
iShares Global Utilities	JXI	0.46	140.0	-3.36	5.85	8.64
Global X US Infrastructure Development	PAVE	0.47	235.2	-3.97	6.51	-
FlexShares STOXX Global Broad Infrastr	NFRA	0.47	1,914.0	-4.58	4.29	6.50
iShares MSCI Global Metals/Mining Prod	PICK	0.39	298.0	-5.03	-0.52	8.94
SPDR S&P North American Natural Res	NANR	0.35	480.6	-7.21	0.32	-
Invesco Global Listed Private Equity	PSP	1.58	157.7	-7.65	3.98	6.90
FlexShares Mstar Gbl Upstr Nat Res	GUNR	0.46	3,357.7	-9.57	2.06	6.57
ProShares DJ Brookfield Global Infrastr	TOLZ	0.46	159.9	-13.14	0.26	3.79
SPDR S&P Global Natural Resources	GNR	0.40	1,188.1	-13.45	-0.83	4.88
FlexShares Global Quality Real Estate	GQRE	0.45	288.8	-15.58	-1.20	3.26
iShares Global Infrastructure	IGF	0.46	3,192.9	-16.13	-1.83	3.73
SPDR S&P Global Infrastructure	GII	0.40	353.9	-16.27	-1.88	3.79
iShares Global Financials	IXG	0.46	249.2	-17.43	-1.96	3.61
iShares Global REIT	REET	0.14	2,130.9	-19.05	-0.68	3.06
SPDR Dow Jones Global Real Estate	RWO	0.50	1,565.2	-19.31	-1.73	1.91
Davis Select Financial	DFNL	0.64	138.9	-21.05	-0.60	-
ETFMG Alternative Harvest	MJ	0.75	562.2	-23.95	-23.02	-
iShares North American Natural Res	IGE	0.46	390.0	-25.06	-7.71	-4.05
iShares Global Energy	IXC	0.46	1,309.0	-37.15	-11.31	-5.54
US Global Jets	JETS	0.60	1,587.8	-43.62	-14.25	-4.49
Global X SuperDividend REIT	SRET	0.59	334.3	-45.14	-13.11	-1.70
VanEck Vectors Oil Services	IOH	0.35	587.2	-52.71	-32.85	-26.00
Global X Telemedicine & Digital Health	EDOC	0.68	313.7	-	-	-
Direxion Work From Home	WFH	0.45	99.4	-	-	-
GLOBAL EX-U.S. EQUITY: SECTOR						
VanEck Vectors Biotech	BBH	0.35	498.3	15.08	6.35	5.36
Xtrackers International Real Estate	HAUJ	0.10	267.0	-15.89	-1.32	4.48
Vanguard Global ex-US Real Estate	VNQI	0.12	4,681.2	-15.89	-0.73	4.17
iShares Intl Developed Real Estate	IFGL	0.48	246.1	-16.55	-0.42	2.79
SPDR Dow Jones International Real Estate	RWX	0.59	927.6	-19.72	-2.58	0.56
INTERNATIONAL EQUITY: DEVELOPED SECTOR						
iShares MSCI Europe Financials	EUFN	0.48	763.5	-21.39	-8.95	-3.26
INTERNATIONAL EQUITY: EMERGING SECTOR						
KraneShares MSCI All China Health Care	KURE	0.65	115.0	55.13	-	-
Emerging Markets Internet & Commerce	EMOQ	0.86	983.1	53.54	15.95	22.80
Global X MSCI China Consumer Discr	CHIQ	0.65	241.2	45.69	20.78	20.85
Invesco China Technology	CQQQ	0.70	1,000.7	34.86	9.38	20.59
KraneShares EM Consumer Technology	KEMQ	0.60	143.6	21.30	-	-
Columbia Emerging Markets Consumer	ECON	0.59	169.1	8.60	-1.43	3.34
GLOBAL EQUITY: HIGH DIVIDEND YIELD						
SPDR S&P Global Dividend	WDIV	0.40	232.3	-19.56	-2.07	2.58
First Trust DJ Global Select Div	FGD	0.59	381.8	-21.29	-4.30	1.55
Global X SuperDividend	SDIV	0.59	654.8	-32.85	-12.99	-4.16

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	601.6	-11.14	-0.70	4.20
Vanguard Intl High Div Yield	VYMI	0.27	1,381.5	-13.27	-2.00	-
INTERNATIONAL EQUITY: HIGH DIVIDEND YIELD						
Xtrackers MSCI EAFE High Div Yld Equity	HDEF	0.20	474.9	-12.00	-0.72	1.85
WisdomTree International High Dividend	DTH	0.58	172.6	-15.95	-3.08	1.48
iShares International Select Dividend	IDV	0.49	3,478.8	-17.81	-1.99	3.26
First Trust Stoxx European Select Div	FDD	0.58	206.0	-18.50	-1.30	2.45
U.S. FIXED INCOME: BROAD MARKET - BROAD MATURITIES						
Fidelity Corporate Bond	FCOR	0.36	206.3	7.87	6.54	6.29
iShares Core Total USD Bond Market	IUSB	0.06	5,429.5	6.33	4.96	4.44
iShares Yield Optimized Bond	BYLD	0.20	199.4	2.87	4.65	4.57
iShares Edge US Fixed Inc Bal Risk	FIBR	0.25	132.8	2.16	3.64	3.92
U.S. FIXED INCOME: BROAD MARKET - LONG-TERM						
iShares Core 10+ Year USD Bond	ILTB	0.06	451.7	13.43	9.48	9.09
U.S. FIXED INCOME: BROAD MARKET - SHORT-TERM						
iShares Core 1-5 Year USD Bond	ISTB	0.06	4,322.3	4.01	3.40	2.94
VictoryShares USAA Core Short Bond	USTB	0.34	106.0	3.51	-	-
First Trust Low Duration Strategic Focus	LDSF	0.82	130.6	1.01	-	-
First Trust Enhanced Short Maturity	FTSM	0.40	5,154.0	0.93	2.04	1.32
U.S. FIXED INCOME: GOVERNMENT/CREDIT - INTERMEDIATE						
VictoryShares Core Intermediate Bond	UITB	0.38	458.0	5.77	-	-
iShares Core 5-10 Year USD Bond	IMTB	0.06	131.1	5.46	4.58	-
Vident Core US Bond Strategy	VBND	0.41	399.4	4.31	3.83	3.55
U.S. FIXED INCOME: GOVERNMENT/CREDIT - LONG-TERM						
iShares Long-Term Corporate Bond	IGLB	0.06	1,809.4	8.43	8.64	8.95
SPDR Portfolio Long Term Corporate Bond	SPLB	0.07	899.6	8.33	8.63	9.09
Vanguard Long-Term Corporate Bond	VCLT	0.05	5,085.2	8.25	8.74	9.23
iShares iBonds Dec 2028 Term Corporate	IBDT	0.10	189.0	7.40	-	-
Invesco BulletShares 2027 Corporate Bond	BSCR	0.10	227.7	7.27	-	-
ProShares Inv Grade-Int Rate Hedged	IGHG	0.30	203.8	-5.40	1.91	3.07
U.S. FIXED INCOME: GOVERNMENT						
Invesco 1-30 Laddered Treasury	PLW	0.25	202.8	14.31	7.57	5.90
iShares US Treasury Bond	GOVT	0.15	14,409.6	8.48	4.96	3.76
WisdomTree Floating Rate Treasury	USFR	0.15	1,491.9	0.56	1.65	1.23
iShares Treasury Floating Rate Bond	TFLO	0.15	402.4	0.46	1.60	1.18
Franklin Liberty US Treasury Bond	FLGV	0.09	376.6	-	-	-
U.S. FIXED INCOME: TREASURY - SHORT TERM						
SPDR Portfolio Short Term Treasury	SPTS	0.06	3,126.1	3.11	2.30	1.77
Schwab Short-Term US Treasury	SCHO	0.05	7,666.6	3.07	2.52	1.80
iShares 1-3 Year Treasury Bond	SHY	0.15	21,347.2	3.02	2.44	1.73
Vanguard Short-Term Treasury	VGSH	0.05	9,143.3	2.99	2.52	1.80
Franklin Liberty Short Duration US Govt	FTSD	0.25	458.4	2.86	2.32	1.62
Invesco Treasury Collateral	CLTL	0.08	938.2	0.93	1.78	-
iShares Short Treasury Bond	SHV	0.15	19,829.2	0.80	1.71	1.19
Goldman Sachs Access Treasury 0-1 Year	GBIL	0.12	3,045.6	0.80	1.73	-
SPDR Bloomberg Barclays 1-3 Month T-Bill	BIL	0.14	13,861.9	0.42	1.48	0.98
iShares 0-3 Month Treasury Bond	SGOV	0.07	830.2	-	-	-
U.S. FIXED INCOME: TREASURY - INTERMEDIATE						
iShares 7-10 Year Treasury Bond	IEF	0.15	19,638.7	11.07	6.00	4.66
SPDR Portfolio Intermediate Treasury	SPTI	0.06	2,625.4	8.07	5.05	3.59
Schwab Intermediate-Term US Treasury	SCHR	0.05	3,362.4	8.00	4.66	3.61
Vanguard Intermediate-Term Treasury	VGIT	0.05	6,521.2	7.98	4.65	3.61
iShares 3-7 Year Treasury Bond	IEI	0.15	11,324.1	7.06	4.21	3.26
U.S. FIXED INCOME: TREASURY - LONG-TERM						
PIMCO 25+ Year Zero Coupon US Treasury	ZROZ	0.15	458.6	28.70	14.95	11.61
Vanguard Extended Duration Treasury	EDV	0.07	1,787.1	27.26	13.85	10.97
iShares 20+ Year Treasury Bond	TLT	0.15	17,850.3	20.85	10.76	8.51
SPDR Portfolio Long Term Treasury	SPTL	0.06	2,710.5	20.71	10.69	8.33
Vanguard Long-Term Treasury	VGLT	0.05	2,125.5	20.21	10.62	8.36
iShares 10-20 Year Treasury Bond	TLH	0.15	1,269.7	16.19	8.20	6.24
U.S. FIXED INCOME: AGENCIES						
iShares Agency Bond	AGZ	0.20	839.4	5.86	4.05	3.16
U.S. FIXED INCOME: AGENCY MBS						
Janus Henderson MBS	JMBS	0.32	508.7	4.68	-	-
SPDR Portfolio Mortgage Backed Bond	SPMB	0.06	2,158.5	4.10	3.63	2.95

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
iShares MBS	MBB	0.06	22,391.9	3.87	3.54	2.97
Vanguard Mortgage-Backed Securities	VMBS	0.05	11,630.4	3.59	3.47	2.98
iShares GNMA Bond	GNMA	0.15	424.1	3.14	3.18	2.59
First Trust Low Duration Opportunities	LMBS	0.67	5,875.6	1.21	2.34	3.27
U.S. FIXED INCOME: TIPS						
PIMCO 15+ Year US TIPS	LTPZ	0.20	565.4	22.88	11.81	9.13
Quadratic Int Rate Vol/Inflation Hedge	IVOL	0.99	500.2	12.23	-	-
SPDR Portfolio TIPS	SPIP	0.12	1,945.1	9.80	5.77	4.60
PIMCO Broad US TIPS	TIPZ	0.20	99.5	9.61	5.70	4.52
iShares TIPS Bond	TIP	0.19	23,572.1	9.48	5.54	4.44
Schwab US TIPS	SCHP	0.05	12,073.3	9.36	5.58	4.51
FlexShares iBoxx 5-Yr Target Dur TIPS	TDTF	0.18	578.7	8.70	5.21	4.09
SPDR Bloomberg Barclays 1-10 Yr TIPS	TIPX	0.15	452.0	7.10	4.38	3.39
FlexShares iBoxx 3 Yr Target Dur TIPS	TDTT	0.18	1,435.9	5.54	3.72	2.85
PIMCO 1-5 Year US TIPS	STPZ	0.20	635.5	4.19	3.01	2.40
iShares 0-5 Year TIPS Bond	STIP	0.06	2,643.1	4.05	3.18	2.48
Vanguard Short-Tm Infl-Prot Securities	TVIP	0.05	8,762.8	3.71	3.07	2.44
U.S. FIXED INCOME: MUNICIPAL - BROAD MARKET						
Invesco Taxable Municipal Bond	BAB	0.28	1,990.4	7.72	6.91	7.11
IQ MacKay Municipal Insured	MMIN	0.31	129.2	5.33	-	-
SPDR Nuveen Bloomberg Barclays Muni	TFI	0.23	3,315.9	4.00	3.99	4.01
iShares California Muni Bond	CMF	0.25	1,588.8	3.35	3.74	3.64
Hartford Municipal Opportunities	HMOP	0.30	112.3	3.28	-	-
Invesco New York AMT-Free Muni	PZT	0.28	98.8	3.21	4.39	4.53
iShares National Muni Bond	MUB	0.07	17,918.0	3.16	3.75	3.67
Vanguard Tax-Exempt Bond	VTEB	0.06	8,750.6	2.96	3.83	3.79
Invesco National AMT-Free Muni	PZA	0.28	2,677.2	2.70	4.29	4.49
Invesco California AMT-Free Muni	PWZ	0.28	452.0	2.51	4.15	4.38
iShares New York Muni Bond	NYF	0.25	469.2	2.42	3.19	3.38
First Trust Managed Municipal	FMB	0.50	1,629.3	1.73	3.98	4.41
VanEck Vectors CEF Municipal Income	XMPT	1.86	157.5	0.40	4.00	6.04
First Trust Municipal High Income	FMHI	0.55	114.2	-0.74	-	-
U.S. FIXED INCOME: MUNICIPAL - SHORT-TERM						
VanEck Vectors AMT-Free Short Muni	SMB	0.20	207.7	2.65	2.40	2.13
SPDR Nuveen Bloomberg Short Muni	SHM	0.20	4,154.6	2.36	1.96	1.67
PIMCO Short Term Municipal Bond Active	SMMU	0.35	225.8	2.14	2.14	1.82
iShares Short-Term National Muni	SUB	0.07	3,627.4	2.03	1.94	1.62
JPMorgan Ultra-Short Municipal Income	JMST	0.18	583.7	1.70	-	-
iShares Short Maturity Municipal Bond	MEAR	0.25	260.9	0.94	1.43	1.20
U.S. FIXED INCOME: MUNICIPAL - INTERMEDIATE						
VanEck Vectors AMT-Free Intermed Muni	ITM	0.24	1,684.7	3.67	4.31	4.29
iShares iBonds Dec 2024 Term Muni Bond	IBMM	0.18	154.4	3.45	-	-
PIMCO Intermediate Muni Bond Active	MUNI	0.35	504.0	3.24	3.86	3.67
iShares iBonds Dec 2023 Term Muni Bond	IBML	0.18	257.3	2.61	2.18	-
iShares iBonds Dec 2022 Term Muni Bond	IBMK	0.18	350.7	2.02	1.65	-
iShares iBonds Dec 2021 Term Muni Bond	IBMJ	0.18	305.5	1.37	1.17	-
U.S. FIXED INCOME: MUNICIPAL - LONG-TERM						
VanEck Vectors AMT-Free Long Municipal	MLN	0.24	207.7	3.49	5.01	5.13
Xtrackers Municipal Infrastr Rev Bond	RVNU	0.15	105.5	3.13	4.85	5.36
U.S. FIXED INCOME: MUNICIPAL - HIGH YIELD						
SPDR Nuveen HiYld Municipal Bond	HYMB	0.35	1,272.2	-1.23	3.60	4.43
VanEck Vectors Short HiYld Municipal	SHYD	0.35	230.4	-1.45	2.96	2.79
VanEck Vectors High-Yield Municipal	HYD	0.35	2,886.2	-3.67	2.87	4.49
U.S. FIXED INCOME: CORPORATE - INVESTMENT GRADE - BROAD MATURITIES						
Vanguard Long-Term Bond	BLV	0.05	5,491.3	13.90	11.03	10.72
iShares Aaa-A Rated Corporate Bond	QLTA	0.15	1,398.1	7.89	6.13	5.72
iShares Government/Credit Bond	GBF	0.20	275.2	7.88	5.51	4.57
Overlay Shares Core Bond	OVB	0.79	113.5	7.85	-	-
iShares iBoxx USD Inv Grade Corporate	LQD	0.14	56,129.6	7.80	7.21	6.83
iShares Edge Inv Grade Enh Bond	IGEB	0.18	160.6	7.75	6.27	-
Goldman Sachs Access Inv Grade Corp Bond	GIGB	0.14	640.1	7.29	6.57	-
SPDR Portfolio Corporate Bond	SPBO	0.06	233.7	7.17	6.58	6.05
FlexShares Core Select Bond	BMNC	0.35	105.0	7.12	4.77	-
Nuveen ESG US Aggregate Bond	NUBD	0.20	150.7	7.10	-	-
PIMCO Investment Grade Corporate Bond	CORP	0.20	780.2	7.07	6.36	6.22

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
Franklin Liberty Inv Grade Corporate	FLCO	0.35	984.2	7.07	6.28	-
Vanguard Total Bond Market	BND	0.04	60,422.0	6.96	5.13	4.36
Schwab US Aggregate Bond	SCHZ	0.04	8,204.7	6.94	5.01	4.26
iShares ESG Aware US Aggregate Bond	EAGG	0.10	434.5	6.87	-	-
iShares Core US Aggregate Bond	AGG	0.04	78,803.7	6.80	5.00	4.28
iShares ESG Aware USD Corporate Bond	SUSC	0.18	499.5	6.79	6.33	-
SPDR Portfolio Aggregate Bond	SPAB	0.04	5,415.5	6.72	4.98	4.29
iShares Broad USD Inv Grade Corporate	USIG	0.06	5,255.9	6.68	6.16	5.91
Principal Inv Grade Corporate Active	IG	0.26	322.3	6.65	-	-
JPMorgan US Aggregate Bond	JAGG	0.07	684.0	6.61	-	-
Franklin Liberty US Core Bond	FLCB	0.15	1,617.5	6.59	-	-
Nuveen Enh Yield US Agg Bond	NUAG	0.20	169.6	6.51	4.85	-
Vanguard Total Corporate Bond	VTC	0.05	612.2	6.42	-	-
WisdomTree Yield Enh US Agg Bond	AGGY	0.12	1,312.0	4.95	5.00	4.82
Fidelity Low Duration Bond Factor	FLDR	0.15	191.2	1.86	-	-
iShares Int Rate Hedged Corp Bond	LQDH	0.24	242.3	-3.13	2.39	2.89
U.S. FIXED INCOME: CORPORATE - INVESTMENT GRADE - SHORT-TERM						
Schwab 1-5 Year Corporate Bond	SCHJ	0.05	105.8	4.39	-	-
Vanguard Short-Term Bond	BSV	0.05	26,625.0	4.35	3.32	2.63
iShares Short-Term Corporate Bond	IGSB	0.06	19,938.8	4.27	4.09	3.13
WisdomTree Yield Enh US Short Agg Bond	SHAG	0.12	113.5	4.11	3.37	-
iShares ESG Aware 1-5 Yr USD Corporate	SUSB	0.12	370.4	4.10	3.81	-
Vanguard Short-Term Corporate Bond	VCSH	0.05	31,723.6	4.07	3.85	3.44
iShares 0-5 Year Inv Grade Corp Bond	SLQD	0.06	1,891.4	3.93	3.65	3.08
SPDR Portfolio Short Corporate Bond	SPSB	0.07	6,671.2	3.23	3.24	2.78
JPMorgan Ultra-Short Income	JPST	0.18	13,893.8	1.90	2.64	-
PIMCO Enh Short Maturity Active ESG	EMNT	0.24	133.1	1.74	-	-
iShares Ultra Short-Term Bond	ICSH	0.08	4,375.6	1.49	2.45	1.92
Goldman Sachs Access Ultra Short Bond	GSST	0.16	149.7	1.36	-	-
PIMCO Enhanced Short Maturity Active	MINT	0.36	14,344.6	1.27	2.28	2.03
SPDR SSGA Ultra Short Term Bond	ULST	0.20	302.2	1.11	2.18	1.81
Invesco BulletShares 2020 Corporate Bond	BSCK	0.10	1,497.2	1.05	1.80	2.38
iShares iBonds Dec 2020 Term Corporate	IBDL	0.10	1,055.6	1.04	1.85	2.43
PGIM Ultra Short Bond	PULS	0.15	1,039.7	0.96	-	-
ClearShares Ultra-Short Maturity	OPER	0.20	120.1	0.49	-	-
AdvisorShares Sage Core Reserves	HOLD	0.35	111.2	-0.10	1.63	1.39
U.S. FIXED INCOME: CORPORATE - INVESTMENT GRADE - INTERMEDIATE						
Invesco BulletShares 2026 Corporate Bond	BSCQ	0.10	293.2	7.84	6.48	-
Invesco BulletShares 2028 Corporate Bond	BSCS	0.10	128.7	7.66	-	-
Schwab 5-10 Year Corporate Bond	SCHI	0.05	177.2	7.47	-	-
iShares Intermediate-Term Corporate	IGIB	0.06	11,157.1	7.38	6.81	5.52
Vanguard Intermediate-Term Corp	VCIT	0.05	38,668.5	7.32	6.37	6.20
iShares iBonds Dec 2026 Term Corporate	IBDR	0.10	508.7	7.16	6.23	-
FlexShares Credit-Scored US Corporate	SKOR	0.22	192.1	7.12	5.52	4.71
iShares iBonds Dec 2025 Term Corporate	IBDQ	0.10	777.9	6.78	5.85	6.07
iShares iBonds Dec 2027 Term Corporate	IBDS	0.10	317.0	6.67	-	-
Invesco BulletShares 2025 Corporate Bond	BSCP	0.10	638.9	6.38	5.64	-
SPDR Portfolio Intermediate Corp Bond	SPIB	0.07	6,127.5	6.00	5.13	4.68
Invesco BulletShares 2024 Corporate Bond	BSCO	0.10	1,084.5	5.57	4.97	5.49
iShares iBonds Dec 2024 Term Corporate	IBDP	0.10	949.9	5.05	4.76	5.31
American Century Divrsfd Corporate Bond	KORP	0.29	121.1	4.69	-	-
iShares iBonds Dec 2023 Term Corporate	IBDO	0.10	1,222.7	4.44	4.11	4.73
Invesco BulletShares 2023 Corporate Bond	BSCN	0.10	1,330.6	4.40	4.17	4.83
Inspire Corporate Bond Impact	IBD	0.50	163.4	4.26	3.68	-
Invesco BulletShares 2022 Corporate Bond	BSCM	0.10	2,062.2	3.33	3.37	4.13
iShares iBonds Dec 2022 Term Corporate	IBDN	0.10	1,343.6	3.08	3.26	4.05
Invesco BulletShares 2021 Corporate Bond	BSCJ	0.10	2,029.5	2.17	2.52	3.30
iShares iBonds Dec 2021 Term Corporate	IBDM	0.10	1,514.2	2.01	2.55	3.09
U.S. FIXED INCOME: CORPORATE - INVESTMENT GRADE - FLOATING RATE						
VanEck Vectors Inv Grade Floating Rate	FLTR	0.14	474.2	0.98	2.59	2.41
Invesco Variable Rate Investment Grade	VRIG	0.30	463.9	0.98	2.27	-
iShares Floating Rate Bond	FLOT	0.20	5,788.1	0.58	2.18	1.83
SPDR Inv Gr Floating Rate	FLRN	0.15	2,541.3	0.52	2.19	1.93
U.S. FIXED INCOME: CORPORATE - HIGH YIELD - BROAD MATURITIES						
iShares Fallen Angels USD Bond	FALN	0.25	249.3	6.30	6.45	-
Pacer Trendpliot US Bond	PTBD	0.60	223.8	5.46	-	-

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
VanEck Vectors Fallen Angel HiYld Bond	ANGL	0.35	3,061.8	5.30	6.14	8.93
Goldman Sachs Access HiYld Corp Bond	GHYB	0.34	150.3	1.98	-	-
IQ S&P High Yield Low Volatility Bond	HVLY	0.40	109.2	1.78	4.95	-
JPMorgan High Yield Research Enhanced	JPHY	0.24	212.7	0.99	4.27	-
FlexShares High Yield Value-Scored Bond	HYGV	0.37	186.5	0.79	-	-
SPDR Portfolio High Yield Bond	SPHY	0.15	127.8	0.69	3.72	5.11
iShares Broad USD HiYld Corp Bond	USHY	0.15	5,742.9	0.64	-	-
Xtrackers USD HiYld Corp Bond	HYLB	0.15	6,207.5	0.12	4.08	-
SPDR Bloomberg Barclays High Yield Bond	JNK	0.40	13,322.8	-0.20	3.77	4.91
iShares iBoxx USD HiYld Corp Bond	HYG	0.49	31,324.1	-0.32	3.87	5.11
Invesco Senior Loan	BKLN	0.65	4,458.5	-1.63	2.49	2.97
WisdomTree Interest Rate Hedged HiYld	HYZD	0.43	128.4	-5.10	1.37	3.68
High Yield	HYLD	1.25	102.2	-5.63	1.57	2.73
Highland iBoxx Senior Loan	SNLN	0.61	126.2	-6.84	-0.14	1.48
U.S. FIXED INCOME: CORPORATE - HIGH YIELD - SHORT-TERM						
SPDR Short Term HiYld Bond	SJNK	0.40	3,505.2	-0.02	3.29	4.47
Invesco BulletShares 2020 HiYld Corp Bond	BSJK	0.42	719.1	-0.86	2.09	3.76
iShares 0-5 Year HiYld Corp Bond	SHYG	0.30	4,944.1	-1.44	2.97	4.40
PIMCO 0-5 Year HiYld Corp Bond	HYS	0.56	1,181.0	-2.17	2.56	4.50
U.S. FIXED INCOME: CORPORATE - HIGH YIELD - INTERMEDIATE						
Vanguard Intermediate-Term Bond	BIV	0.05	14,163.2	8.91	5.93	5.10
iShares Intermediate Govt/Credit Bond	PVI	0.20	2,231.6	5.93	4.09	3.37
Invesco Fundamental HiYld Corp Bond	PHB	0.50	757.9	0.94	4.06	5.17
Invesco BulletShares 2025 HiYld Corp Bond	BSJP	0.42	130.8	-0.77	-	-
Invesco BulletShares 2024 HiYld Corp Bond	BSJO	0.42	175.2	-1.41	3.44	-
Invesco BulletShares 2023 HiYld Corp Bond	BSJN	0.42	382.2	-1.85	2.99	-
Invesco BulletShares 2022 HiYld Corp Bond	BSJM	0.42	678.0	-3.18	1.97	4.38
Invesco BulletShares 2021 HiYld Corp Bond	BSJL	0.42	993.2	-3.70	2.05	4.18
U.S. FIXED INCOME: CORPORATE - ASSET-BACKED						
iShares CMBS	CMBS	0.25	471.2	6.17	4.66	4.11
U.S. FIXED INCOME: CORPORATE - CONVERTIBLES						
iShares Convertible Bond	ICVT	0.20	975.6	34.83	19.31	16.14
SPDR Bloomberg Barclays Conv Sec	CWB	0.40	5,518.9	29.07	16.37	14.63
U.S. FIXED INCOME: CORPORATE - PREFERRED STOCK						
Invesco Financial Preferred	PGF	0.61	1,594.3	3.61	5.20	6.28
Global X US Preferred	PPFD	0.23	689.2	3.12	-	-
Invesco Preferred	PGX	0.52	6,214.7	3.03	5.32	6.21
SPDR Wells Fargo Preferred Stock	PSK	0.45	1,247.7	2.65	4.86	5.70
iShares Preferred and Income Securities	PFF	0.46	16,869.6	0.97	3.61	4.62
Invesco Variable Rate Preferred	VRP	0.50	1,473.9	0.05	3.70	5.68
VanEck Vectors Pref Sec ex Financials	PPXF	0.41	752.7	-0.81	4.56	5.44
GLOBAL FIXED INCOME						
First Trust SSI Strategic Convertible Sec	FCVT	0.95	284.4	27.50	16.01	-
Invesco Total Return Bond	GTO	0.50	352.7	8.91	7.18	-
Fidelity Total Bond	FBND	0.36	1,359.8	7.87	5.68	5.11
First Trust TCW Opportunistic Fixed Inc	FIXD	0.55	3,632.6	7.61	5.59	-
Western Asset Total Return	WBND	0.47	147.5	7.53	-	-
JPMorgan Core Plus Bond	JCPB	0.40	105.6	7.03	-	-
Hartford Total Return Bond	HTRB	0.30	719.2	6.99	-	-
SPDR Dorsey Wright Fixed Inc Allocation	DWFI	0.60	130.1	6.71	2.42	-
SPDR Bloomberg Barclays Intl Corporate	IBND	0.50	180.3	6.44	1.92	3.27
Columbia Divrsfd Fixed Inc Allocation	DIAL	0.28	444.9	6.16	-	-
PIMCO Active Bond	BOND	0.73	3,622.5	6.13	4.95	4.45
RiverFront Dynamic Core Income	RFCI	0.52	124.6	5.88	4.36	-
SPDR International Treasury Bond	BWX	0.35	916.5	5.00	2.75	3.71
Vanguard Total World Bond	BNDW	0.06	446.5	4.79	-	-
Fidelity Limited Term Bond	FLTB	0.36	181.1	4.60	3.67	3.05
iShares Global Green Bond	BGRN	0.20	98.8	4.37	-	-
PIMCO Enhanced Low Duration Active	LDUR	0.79	608.0	3.76	3.23	2.91
JPMorgan Intl Bond Opportunities	JPIB	0.50	167.1	3.60	4.42	-
First Trust TCW Unconstrained Plus Bond	UCON	0.75	204.3	3.40	-	-
SPDR Short Term Intl Treasury Bond	BWZ	0.35	244.7	2.94	0.07	1.50
SPDR DoubleLine Total Return Tactical	TOTL	0.55	3,229.8	2.79	3.24	3.26
iShares Core Intl Aggregate Bond	IAGG	0.09	2,774.3	2.73	4.77	-
Vanguard Total International Bond	BNDX	0.08	30,315.8	2.64	4.66	4.34

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
Janus Henderson Short Duration Income	VNLA	0.26	2,231.7	2.59	3.01	-
RiverFront Strategic Income	RIGS	0.47	128.2	2.43	3.48	4.53
Anfield Universal Fixed Income	AFIF	1.32	121.6	2.01	-	-
FlexShares Ready Access Variable Income	RAVI	0.25	433.4	1.90	2.49	1.97
SPDR DoubleLine Short Dur Total Ret	STOT	0.45	143.3	1.82	2.28	-
SPDR FTSE Intl Govt Infl-Protected Bond	WIP	0.50	331.4	1.54	1.72	3.51
Invesco Ultra Short Duration	GSY	0.23	2,864.5	1.51	2.58	2.16
iShares Short Maturity Bond	NEAR	0.25	5,734.2	0.92	2.16	1.85
IFMGM Sit Ultra Short	VALT	0.30	102.0	0.48	-	-
IQ Ultra Short Duration	ULTR	0.25	178.8	0.13	-	-
First Trust Preferred Securities & Income	FPE	0.85	5,348.5	-0.27	4.36	6.29
Aware Ultra-Short Duration Enh Income	AWTM	0.23	310.3	-0.29	-	-
Franklin Liberty Intl Aggregate Bond	FLIA	0.25	216.1	-0.43	-	-
Invesco Global Short Term HiYld Bond	PGHY	0.35	194.2	-0.91	1.79	4.41
FormulaFolios Tactical Income	FFTI	1.04	235.8	-2.38	1.60	-
Hartford Core Bond	HCRB	0.29	136.6	-	-	-
INTERNATIONAL FIXED INCOME: DEVELOPED						
iShares International Treasury Bond	IGOV	0.35	999.5	6.38	2.47	3.70
Invesco International Corporate Bond	PICB	0.50	124.5	6.31	3.29	3.55
iShares US & Intl High Yield Corp Bond	GHYG	0.40	175.8	0.73	3.40	5.49
INTERNATIONAL FIXED INCOME: EMERGING						
iShares J.P. Morgan EM Corporate Bond	CEMB	0.50	196.2	3.51	4.88	6.12
Vanguard Emerging Markets Govt Bond	WVOB	0.25	1,754.9	1.98	4.38	6.17
iShares China Large-Cap	FXI	0.74	3,493.2	1.60	2.51	6.95
iShares JP Morgan USD EM Bond	EMB	0.39	16,239.2	1.59	3.86	5.99
VanEck Vectors EM High Yield Bond	HYEM	0.40	432.7	1.30	3.79	6.51
SPDR Bloomberg Barclays EM Local Bond	EBND	0.30	765.6	-1.82	0.59	3.98
iShares JPM EM High Yield Bond	EMHY	0.50	313.8	-1.95	1.68	5.67
Invesco Emerging Mkts Sovereign Debt	PCY	0.50	2,916.5	-2.23	2.61	5.35
iShares JPM EM Local Currency Bond	LEMB	0.30	447.0	-3.65	-2.00	2.21
VanEck Vectors JPM EM Local Curr Bond	EMLC	0.30	3,143.7	-4.28	-0.94	3.15
WisdomTree Emerging Markets Local Debt	ELD	0.55	127.5	-6.66	-0.57	3.26
First Trust EM Local Currency Bond	FEMB	0.85	183.5	-6.72	-1.57	2.30
GLOBAL FIXED INCOME: CORPORATE - PREFERRED STOCK						
Principal Spectrum Pref Sec Active	PREF	0.55	146.2	3.38	5.17	-
First Trust Institutional Pref Sec/Income	FPEI	0.85	302.4	0.71	4.40	-
Global X SuperIncome Preferred	SPFF	0.58	187.2	-0.58	2.32	2.58
GLOBAL FIXED INCOME: HIGH YIELD						
Fidelity High Yield Factor	FDHY	0.45	114.4	5.62	-	-
Franklin Liberty HiYld Corp	FLHY	0.40	167.2	2.80	-	-
VanEck Vectors Intl High Yield Bond	IHY	0.40	99.7	2.66	3.90	5.94
First Trust Tactical High Yield	HYLS	1.23	1,971.6	0.58	4.21	4.62
SPDR Blackstone / GSO Senior Loan	SRLN	0.70	1,535.2	-0.79	3.16	3.13
First Trust Senior Loan	FTSL	0.86	1,324.8	-1.18	2.63	2.91
COMMODITIES: BROAD MARKET						
First Trust Glb Tactical Commodity Strat	FTGC	0.95	125.4	-8.27	-4.25	-4.61
Aberdeen Std All Commodity K-1 Free	BCI	0.25	270.4	-9.17	-3.44	-
iPath Bloomberg Commodity ETN	DJP	0.70	474.9	-10.77	-4.38	-4.23
Invesco Opt Yld Divrsfd Comm No K-1	PDBC	0.59	2,787.6	-14.19	-2.79	-2.25
Teucrium Corn	CORN	3.71	114.5	-14.73	-10.65	-11.24
Invesco DB Commodity	DBC	0.89	1,113.5	-15.11	-2.64	-2.34
Elements Rogers Intl Commodity ETN	RJI	0.75	101.1	-16.70	-3.55	-3.69
United States Commodity	USCI	1.03	113.0	-16.78	-8.87	-6.29
iShares Commodities Select Strategy	COMT	0.48	207.6	-21.17	-2.95	-1.75
iShares S&P GSCI Commodity	GSG	0.85	735.7	-30.60	-8.03	-9.14
COMMODITIES: AGRICULTURE						
Invesco DB Agriculture	DBA	0.89	604.6	-10.99	-6.71	-6.24
COMMODITIES: ENERGY						
United States Natural Gas	UNG	1.28	365.2	-16.13	-19.24	-22.57
Invesco DB Oil Fund	DBO	0.78	467.0	-27.93	-1.56	-8.56
United States 12 Month Oil	USL	0.82	240.6	-29.71	-2.36	-6.30
United States Gasoline	UGA	0.75	101.9	-37.09	-12.76	-9.72
United States Brent Oil	BNO	0.88	416.3	-44.03	-6.00	-8.91
United States Oil	USO	0.79	4,573.6	-70.16	-26.51	-24.80

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
COMMODITIES: INDUSTRIAL METALS						
Invesco DB Base Metals	DBB	0.80	142.6	4.42	-4.38	4.20
COMMODITIES: PRECIOUS METALS						
Aberdeen Standard Physical Silver	SIVR	0.30	887.5	57.33	16.60	13.65
iShares Silver Trust	SLV	0.50	15,693.5	57.25	16.36	13.40
Invesco DB Precious Metals	DBP	0.78	177.1	34.14	13.31	10.61
Aberdeen Standard Phys Precious Metals	GLTR	0.60	761.2	32.55	15.36	12.52
Aberdeen Standard Physical Gold	SGOL	0.17	2,793.5	29.55	13.69	11.29
SPDR Gold MiniShares Trust	GLDM	0.18	3,519.4	29.52	-	-
GraniteShares Gold Trust	BAR	0.17	1,341.3	29.52	-	-
iShares Gold Trust	IAU	0.25	31,805.5	29.45	13.85	11.32
Perth Mint Physical Gold	AAAU	0.18	504.6	29.44	-	-
VanEck Merk Gold	OUNZ	0.25	394.8	29.36	13.73	11.20
SPDR Gold Trust	GLD	0.40	78,733.5	29.34	13.68	11.18
Invesco DB Gold	DGL	0.78	173.4	27.73	12.45	9.96
Aberdeen Standard Physical Palladium	PALL	0.60	367.4	15.61	33.22	29.57
Aberdeen Standard Physical Platinum	PPLT	0.60	1,090.4	-3.34	-2.69	-2.08
CURRENCY: DEVELOPED						
Invesco CurrencyShares Swiss Franc	FXF	0.40	237.8	6.35	0.82	0.20
Invesco CurrencyShares Euro	FXE	0.40	375.5	5.76	-0.76	0.43
Invesco CurrencyShares Australian Dollar	FXA	0.40	161.3	4.90	-2.02	1.39
Invesco CurrencyShares Japanese Yen	FXJ	0.40	260.6	2.15	0.71	2.22
Invesco CurrencyShares British Pound	FXB	0.40	129.0	0.71	0.92	-2.97
Invesco CurrencyShares Canadian Dollar	FXC	0.40	139.0	-0.41	-1.04	0.28
ASSET ALLOCATION						
WisdomTree 90/60 US Balanced	NTSX	0.20	361.5	16.80	-	-
Aptus Defined Risk	DRSK	0.78	428.1	15.75	-	-
Amplify BlackSwan Growth/Treasury Core	SWAN	0.49	593.1	13.42	-	-
Cambria Tail Risk	TAIL	0.59	323.9	11.74	-2.73	-
iShares Core Conservative Allocation	AOK	0.25	719.4	5.25	5.96	6.14
iShares Core Moderate Allocation	AOM	0.25	1,279.7	5.00	6.34	6.66
ClearShares OCIO	OCIO	0.67	113.6	4.47	6.35	-
iShares Core Growth Allocation	AOR	0.25	1,470.2	4.32	6.99	7.81
iShares Core Aggressive Allocation	AOA	0.25	1,068.9	3.61	7.58	8.86
SPDR SSGA Global Allocation	GAL	0.35	255.5	0.63	5.66	6.38
DeltaShares S&P 500 Managed Risk	DMRL	0.35	401.8	-0.01	8.79	-
Principal Active Income	YLD	0.49	231.2	-3.59	2.89	5.33
Invesco CEF Income Composite	PCEF	2.55	760.7	-4.94	3.35	7.31
SPDR SSGA Income Allocation	INKM	0.50	107.1	-5.51	2.84	4.91
iShares Mstar Multi-Asset Income	IYLD	0.60	276.8	-7.70	1.28	4.34
Amplify High Income	YYY	2.28	226.1	-9.61	0.36	5.26
DeltaShares S&P Intl Managed Risk	DMRI	0.50	170.6	-12.16	-1.46	-
Multi-Asset Diversified Income	MDIV	0.73	499.5	-21.52	-3.80	0.15
Invesco Zacks Multi-Asset Income	CVY	0.94	118.6	-24.04	-2.51	1.60
ALTERNATIVES: ABSOLUTE RETURN						
RPAR Risk Parity	RPAR	0.50	757.0	13.02	-	-
AGFIQ US Market Neutral Anti-Beta	BTAL	2.11	221.6	6.64	6.06	3.21
First Trust Long/Short Equity	FTLS	1.60	293.6	4.13	7.70	7.93
IQ Hedge Multi-Strategy Tracker	QAI	0.78	761.6	1.46	2.85	2.33
Core Alternative	CCOR	1.09	134.3	0.33	4.85	-
IQ Merger Arbitrage	MNA	0.77	697.0	-2.65	1.96	2.85
WisdomTree Managed Futures Strategy	WTMF	0.65	112.7	-4.80	-1.38	-2.00
ALTERNATIVES: TACTICAL TOOLS						
iPath Ser B S&P 500 VIX Short Futures ETN	VXX	0.89	995.5	77.58	-	-
ProShares VIX Short-Term Futures	VIXY	0.85	284.5	76.75	-17.03	-42.77
LEVERAGED						
MicroSectors FANG + 3X Leveraged ETN	FNGU	0.95	702.4	291.59	-	-
MicroSectors FANG + 2X Leveraged ETN	FNGO	0.95	150.6	188.11	-	-
ProShares Ultra Silver	AGQ	0.95	803.2	100.66	19.40	15.27
ProShares UltraPro QQQ	TQQQ	0.95	8,352.6	86.44	61.34	59.18
ProShares Ultra VIX Short-Term Futures	UVXY	1.65	1,324.3	75.72	-46.23	-76.81
ProShares Ultra QQQ	QLD	0.95	3,507.9	70.93	47.84	43.64
DB Gold Double Long ETN	DGP	0.75	153.2	70.45	26.27	19.91
ProShares Ultra Technology	ROM	0.95	710.4	64.53	52.13	49.86

FUND NAME	TICKER	EXP RATIO %	AUM (\$M)	YTD %	3YR %	5YR %
Direxion Daily Technology Bull 3X	TECL	1.08	2,082.3	55.36	62.68	65.32
ProShares Ultra Gold	UGL	0.95	311.2	52.82	20.75	16.74
Direxion Daily 20+ Year Treasury Bull 3X	TMF	1.05	294.1	51.88	21.52	16.40
UBS AG FI Enhanced Large Cap Growth ETN	FBGX	1.29	173.0	47.87	36.99	33.96
Credit Suisse FI Lrg Cap Growth Enh ETN	FLGE	1.52	302.5	46.84	36.47	33.76
Direxion Daily CSI 300 China A Sh Bull 2X	CHAU	1.21	119.2	31.07	7.06	12.64
ProShares Ultra NASDAQ Biotechnology	BIB	0.95	217.7	14.80	5.00	-1.39
ProShares Ultra Health Care	RXL	0.95	110.6	6.76	17.66	15.92
ProShares Ultra S&P 500	SSO	0.90	3,091.8	6.10	20.31	22.77
Direxion Daily S&P Biotech Bull 3X	LABU	1.04	444.2	-2.59	-10.24	-13.96
Direxion Daily Semiconductor Bull 3X	SOXL	0.96	1,581.9	-2.68	39.50	66.81
Direxion Daily Healthcare Bull 3x	CURE	1.08	138.5	-7.16	16.02	16.50
ProShares UltraPro S&P500	UPRO	0.92	1,765.8	-8.78	20.67	27.71
Direxion Daily S&P 500 Bull 3X	SPXL	1.01	1,557.3	-9.11	20.66	27.44
ProShares Ultra Dow30	DDM	0.95	396.8	-11.30	13.13	21.58
Virtus InfraCap US Preferred Stock	PFFA	2.01	143.3	-19.30	-	-
Direxion Daily FTSE China Bull 3X	YINN	1.37	313.4	-22.90	-15.95	-1.49
ProShares Ultra MidCap400	MVW	0.95	131.3	-25.26	0.17	8.20
ProShares Ultra Russell2000	UWM	0.95	171.4	-26.09	-0.99	6.84
Direxion Dly Homebuild/Supplies Bull 3X	NAIL	0.99	497.0	-28.75	2.72	8.73
Direxion Daily MSCI EM Bull 3x	EDC	1.33	163.4	-31.63	-16.43	2.77
ProShares UltraPro Dow30	UDOW	0.95	810.1	-32.24	9.00	25.24
ProShares Ultra Financials	UYG	0.95	512.0	-36.95	-0.34	9.14
Direxion Daily Gold Miners Bull 2X	NUGT	1.17	1,228.5	-42.56	-20.21	-5.26
ProShares UltraPro Russell2000	URTY	0.95	215.0	-52.23	-13.74	0.24
Direxion Daily Small Cap Bull 3x	TNA	1.12	1,077.3	-52.31	-13.91	-0.07
Direxion Daily MSCI India Bull 3X	INDL	1.33	126.3	-55.52	-29.46	-11.56
Direxion Daily Financial Bull 3x	FAS	0.99	1,705.4	-57.94	-7.19	7.97
ProShares Ultra Oil & Gas	DIG	0.95	112.0	-73.40	-37.59	-27.45
Direxion Daily Aerospace/Def Bull 3X	DFEN	0.99	251.6	-78.28	-27.63	-
Direxion Daily Junior Gold Miners Bull 2X	JNUG	1.12	903.9	-81.34	-48.19	-29.15
Credit Suisse Monthly 2xLev Mort REIT ETN	REML	1.30	124.4	-81.52	-38.04	-
Direxion Daily Regional Banks Bull 3X	DPST	0.99	134.8	-88.96	-51.32	-28.49
Direxion Daily Energy Bull 2x	ERX	1.06	370.2	-92.45	-60.69	-46.99
ProShares Ultra Bloomberg Crude Oil	UCO	0.95	1,360.7	-93.47	-55.72	-52.34
Direxion Daily MSCI Brazil Bull 2X	BRZU	1.29	193.3	-94.20	-61.62	-37.04
MicroSectors US Big Oil 3X Leveraged ETN	NRGU	0.95	164.7	-94.25	-	-
Direxion Daily Oil/Gas Exp/Prod Bull 2X	GUSH	1.17	465.5	-97.80	-83.13	-74.67
INVERSE						
Invesco DB US Dollar Bullish	UUP	0.79	399.3	-4.12	2.26	0.50
ProShares Short Russell2000	RWM	0.95	464.9	-10.29	-9.93	-11.41
ProShares Short Dow30	DOG	0.95	383.2	-12.59	-13.23	-14.58
Direxion Daily S&P 500 Bear 1X	SPDN	0.50	163.5	-17.76	-14.52	-
ProShares Short S&P500	SH	0.89	2,748.4	-17.96	-14.84	-14.42
AdvisorShares Ranger Equity Bear	HDGE	3.12	141.4	-18.84	-20.45	-17.32
ProShares Short 20+ Year Treasury	TBF	0.91	177.2	-20.63	-10.01	-8.67
AdvisorShares Dorsey Wright Short	DWSH	3.07	98.3	-22.42	-	-
ProShares UltraShort Russell2000	TWM	0.95	113.5	-31.19	-25.27	-26.00
ProShares UltraShort Dow30	DXD	0.95	165.1	-32.53	-29.46	-30.08
ProShares Short QQQ	PSQ	0.95	573.6	-35.64	-24.74	-22.26
ProShares UltraShort 20+ Year Treasury	TBT	0.89	447.6	-39.37	-21.30	-18.29
ProShares UltraShort S&P500	SDS	0.90	1,070.7	-39.56	-31.64	-29.61
ProShares Short VIX Short-Term Futures	SVXY	1.38	442.3	-46.82	-52.36	-19.10
Direxion Daily Financial Bear 3X	FAZ	1.07	288.1	-51.15	-44.57	-43.75
ProShares UltraPro Short Dow30	SDOW	0.95	546.5	-54.20	-45.91	-45.05
Direxion Daily Small Cap Bear 3X	TZA	1.07	585.3	-54.51	-41.63	-41.28
ProShares UltraPro Short Russell2000	SRTY	0.95	156.8	-55.08	-42.42	-41.54
Direxion Daily S&P 500 Bear 3X	SPXS	1.07	770.7	-59.96	-48.03	-44.47
ProShares UltraPro Short S&P500	SPXU	0.91	988.9	-59.98	-47.88	-44.19
ProShares UltraShort QQQ	QID	0.95	284.5	-62.89	-47.24	-42.49
ProShares UltraPro Short QQQ	SQQQ	0.95	1,394.4	-80.88	-65.33	-59.43
Direxion Daily Gold Miners Bear 2x	DUST	1.07	137.9	-87.83	-67.99	-77.76
Direxion Daily Semiconductor Bear 3X	SOXS	1.08	100.5	-	-	-

THE LAST WORD

RETHINKING CHINA



HEATHER BELL
ETF Report Editor

THE COUNTRY HAS OUTGROWN ITS EMERGING MARKET STATUS

Pulling this issue of ETF Report together, one thing stood out to me: China is inextricably linked—if not synonymous, as Lara Crigger’s article notes—with emerging markets. It positively dominates the category, representing (along with Hong Kong) well over one-third the weight of any given broad emerging market ETF. And maybe that needs to change.

For the past 20 years or so, China has been a unique growth story, stunning investors with its rapid expansion and the opening of its markets.

After reaching incredible economic success, it’s now the second-largest economy in the world, with the largest population of any country, at 1.4 billion. That doesn’t sound like an *emerging* market, or even a developing one, if you want to get picky with terminology. China has *arrived*.

So why is it still so strongly associated with emerging markets, an asset class whose very name implies an economy in its early stages?

Authoritarian State

Further, China is not a democracy. You can’t really even call it a genuine communist state, despite it being led by the Chinese Communist Party. Almost every sizable market in the world is at least technically a democracy.

China’s government is not considered trustworthy either, not by its citizens and not by the wider world. It’s long been suspected that its leaders can be manipulative with financial data. And with the rise of environmental, social and governance strategies, its authoritarian government opens up another can of worms for investors.

China essentially operates with its own set of rules, so that alone could be an argument for making it its own asset class.

But consider the international sector ETFs targeting single markets. For China, there are U.S.-listed ETFs covering all the key sectors and some themes in China’s markets—16 in all. There’s even an ETF issuer (KraneShares) largely devoted to providing ETFs with different angles on China’s market.

What about other countries? India is represented by one consumer-focused ETF, while Israel is the focus of two technology funds. That’s about it.

Its Own Category

We treat the U.S. as a separate market from the rest of the world. It is, of course, the home country for U.S. investors, but in a globalized world, that doesn’t matter so much. What really makes a focused and granular allocation make sense is the fact that it’s the largest economy in the world.

China’s sheer economic size despite being classified as an emerging market also suggests it’s a special case.

Pulling China out of broad emerging market indexes and making it its own category will also give smaller emerging markets a chance to shine. The top three countries in the [iShares MSCI Emerging Markets ex China ETF \(EMXC\)](#) are Taiwan, South Korea and India, and their weights are nearly double what they are in the China-inclusive [iShares Core MSCI Emerging Markets ETF \(IEMG\)](#).

Currently, China dwarfs every other emerging market. There’s no reason to keep it in a traditional emerging market index. It doesn’t have to be added to developed market indexes, but it’s big enough to stand on its own. For those investors who like to get granular with their U.S. investments, targeting certain factors or strategies, it seems like doing the same for China would be a smart step to take. ●

Global Fund Services

2019 Best ETF Custodian
- voted by ETF.com

Helping bring your ETP goals to life.

Our fully integrated services and technology provide full support for any type of exchange traded product.

Get to know us by contacting:

Mike Castino | 630.649.8356
michael.castino@usbank.com

usbank.com/globalfundservices



U.S. Bank Global Fund Services is a wholly owned subsidiary of U.S. Bank, N. A.
U.S. Bank does not guarantee the products, services, or the performance of its affiliates and third-party providers
©2020 U.S. Bank 050820 348492

NEXT-GENERATION SOLUTIONS FOR Today's Investors

WST Capital Management is a model provider offering quantitative risk-managed asset class solutions powered by ETFs.

→ WWW.WSTCM.COM



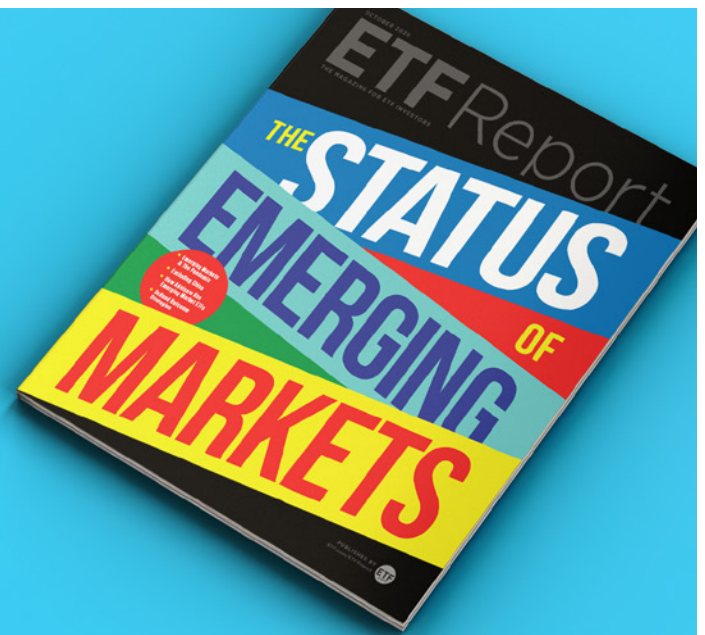
Elizabeth Marchetti
Investment Director

elizabeth.marchetti@wstcm.com
(757) 623-3676



Want to reach
20,000+ Advisors and RIAs
who use ETFs in their practice?

Post your ad in the ETF Report Marketplace!



Contact Noel d'Ablemont-Smith @ 646.558.6985 or nsmith@etf.com to learn more

If your portfolio got you here, can it take you where you want to go next?

TrueShares ETFs invest in the emerging themes and technologies driving the dynamic world we live in.

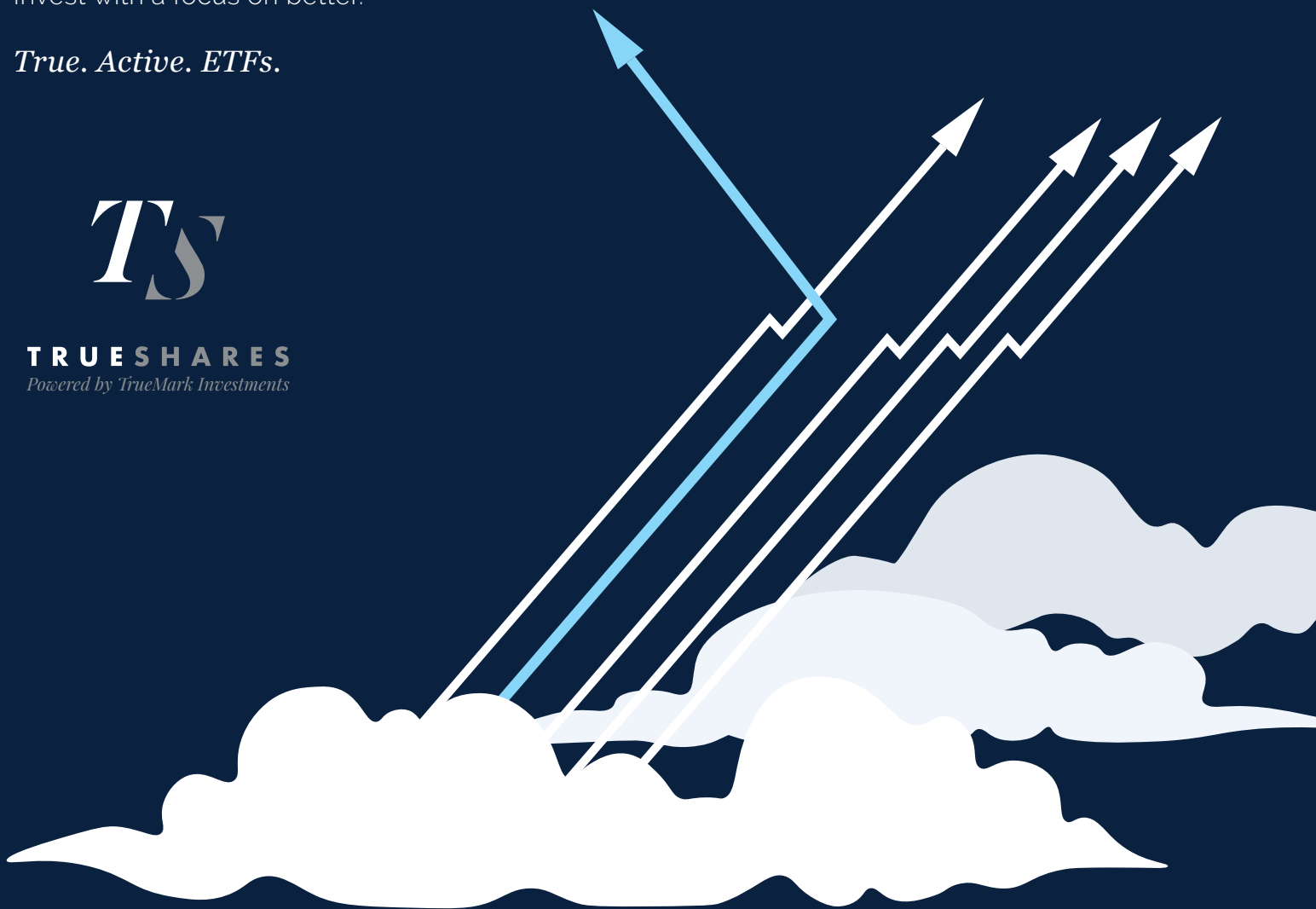
Invest with a focus on better.

True. Active. ETFs.



TRUESHARES

Powered by TrueMark Investments



Before investing, carefully consider the TrueShares ETFs investment objectives, risks, charges and expenses. Specific information about TrueShares is contained in the prospectus and a summary prospectus, copies of which may be obtained by visiting www.true-shares.com. Read the prospectus carefully before you invest. An investment in TrueShares ETFs is subject to numerous risks, including possible loss of principal. TrueShares ETFs are bought and sold through exchange trading at market price, not Net Asset Value (NAV), and are not individually redeemed from the fund. Foreside Fund Services LLC, distributor. NOT FDIC INSURED — NO BANK GUARANTEE — MAY LOSE VALUE



www.true-shares.com