ETF Report

THE MAGAZINE FOR ETF INVESTORS
FEBRUARY 2021

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FEBRUARY 2021

ETF Report

THE MAGAZINE FOR ETF INVESTORS

NOT GETTING YOUR ISSUE?

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LEVERAGED

INVERSE

An overview of the

COMPLEX WORLD

of geared ETFs

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VOLUME 21 | NO. 2

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Stories by Heather Bell
ETF Report Editor

DEPARTMENTS

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CONTACT

Publisher,
Global Head of Sales
Noel d'Ablemont Smith
nsmith@etf.com

Editor-In-Chief
Drew Voros
dvoros@etf.com

ETF Report Editor
Heather Bell
hbell@etf.com

Copy Editor
Lisa Barr

Senior Designer
Patrick Hamaker

Reprint Sales
sales@etf.com

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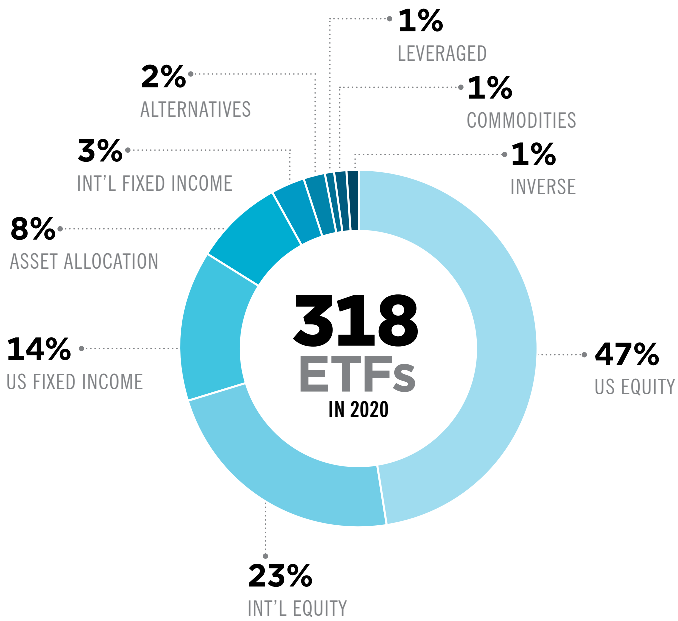
ETF Launches



Featured ETF

BNE

Blue Horizon BNE ETF

In December, newcomer Blue Horizon Capital rolled out an ETF that covers the entire alternative energy economy. The **Blue Horizon BNE ETF (BNE)** targets companies in five segments: electric vehicles and other new energy-consuming applications; energy storage; performance materials; energy distribution; and energy generation, according to the press release.

BNE comes with an expense ratio of 0.87% and lists on the NYSE Arca.

While there are many alternative energy ETF products available, BNE is unique in that it covers the entire ecosystem related to the "new energy" economy, from generation to the manufactured products that reach end users.

The index holds 100 securities from five segments and 25 subsegments, and it equal weights them on a semiannual rebalancing schedule. Govind Arora, president of Blue Horizon, compares the early stages of the new energy economy to the early days of the internet economy, in that investors don't yet know who the "winners" will be. The equal weighting keeps large companies from overshadowing smaller up-and-comers.

Eligible companies must meet size and liquidity minimum thresholds, and each is scored on revenue, market share, growth and technology leadership relative to peers. The highest-scoring companies are selected for inclusion, with each of the segments limited to no more than 30 holdings.

BNE Quick View

ISSUER	SEGMENT	EXPENSE RATIO	STRUCTURE	INCEPTION
Exchange Traded Concepts	Equity: Global Renewable Energy	0.87%	Open-Ended Fund	12/8/2020

ETF LAUNCH ACTIVITY

U.S. EQUITY
AVDR US LargeCap ESG
AVDR US LargeCap Leading
Ballast Small/Mid Cap
Cabot Growth
Direxion World Without Waste
FT Cboe Vest Growth-100 Buffer - Dec
FT Cboe Vest US Equity Buffer - Dec
FT Cboe Vest US Equity Deep Buffer - Dec
Gotham Enhanced 500
Inspire Faithward Large Cap Momentum ESG
Inspire Faithward Mid Cap Momentum ESG
Invesco Focused Discovery Growth
Invesco US Large Cap Core ESG
JPMorgan Carbon Transition US Equity
Pacer Swan SOS Conservative (Dec)
Pacer Swan SOS Flex (Dec)
Pacer Swan SOS Fund of Funds
Pacer Swan SOS Moderate (Dec)
QRAFT AI-Enhanced US Next Value
Simplify Growth Equity PLUS Convexity
Simplify Growth Eq PLUS Downside Convexity
Sound Equity Income
Swan Hedged Equity US Large Cap
TrimTabs Donoghue Forlines Risk Mngd Innov
TrueShares Structured Outcome (Dec)

INT'L EQUITY
Adasina Social Justice All Cap Global
Amplify Pure Junior Gold Miners
Blue Horizon BNE
Dimensional Emerging Core Equity Market
Distillate Intl Fundamental Stability & Value
First Trust Intl Developed Capital Strength
FT Cboe Vest International Equity Buffer - Dec
Invesco Real Assets ESG
Invesco Select Growth
KraneShares CICC China Consumer Leaders
Merlyn.AI SectorSurfer Momentum
Rayliant Quantamental China Equity
Simplify Volt Cloud and Cybersecurity Disruption
Simplify Volt Fintech Disruption
Simplify Volt Pop Culture Disruption
Simplify Volt RoboCar Disruption/Tech
SmartETFs Advertising & Marketing Tech
SP Funds S&P Global REIT Sharia
The SPAC and New Issue
UPHOLDINGS Compound Kings

U.S. FIXED INCOME
Avantis Core Municipal Fixed Income
Sound Enhanced Fixed Income
TrimTabs Donoghue Forlines Tactical HiYld
VanEck Vectors Moody's Analytics BBB Corp
VanEck Vectors Moody's Analytics IG Corp

INT'L FIXED INCOME
Invesco High Yield Bond Factor

ALTERNATIVES
KFA Mount Lucas Index Strategy

ASSET ALLOCATION
Advisorshares Q Portfolio Blended Alloc
Advisorshares Q Dynamic Growth

COMMODITIES
WisdomTree Enhanced Commodity Strategy

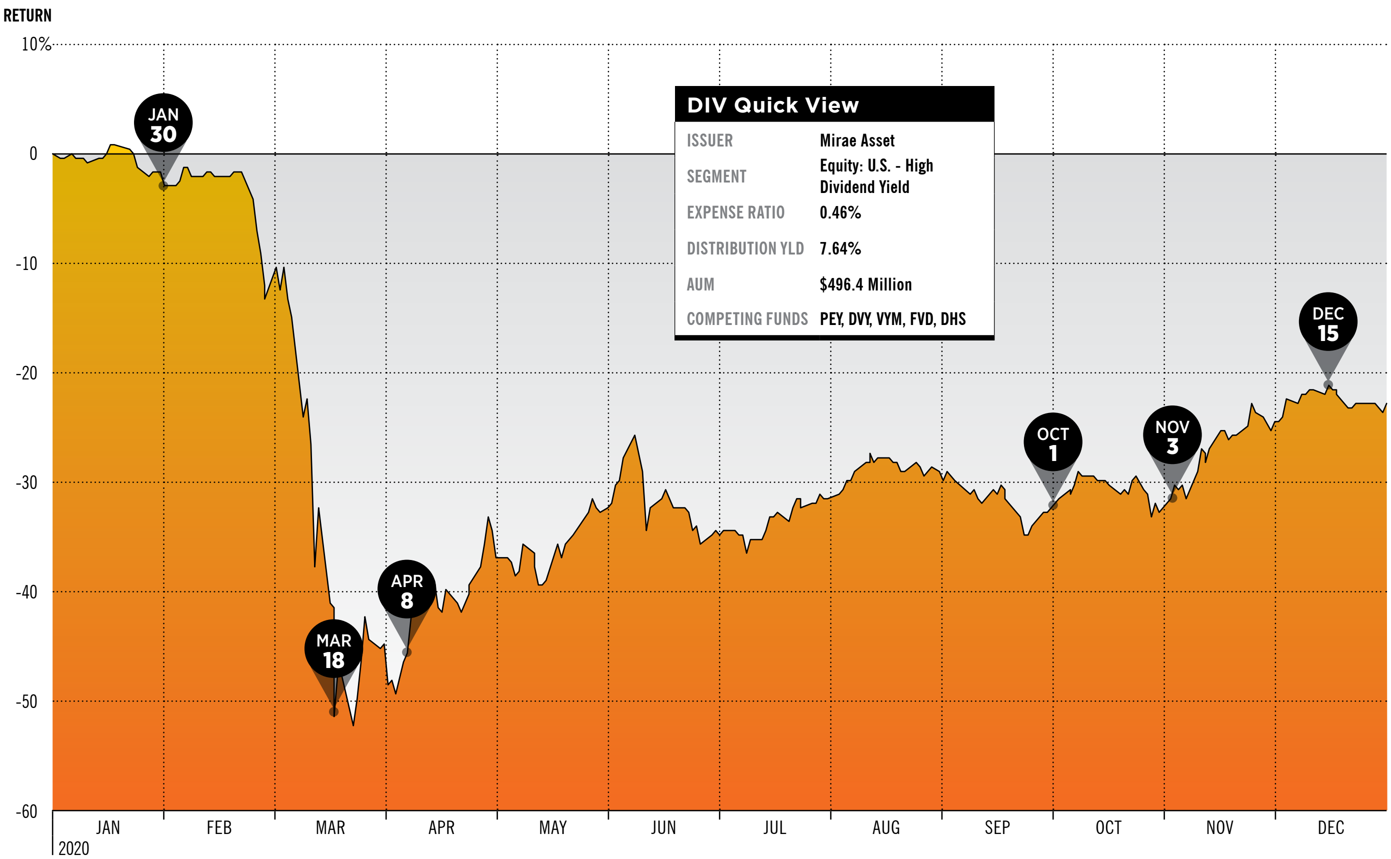
LEVERAGED
MicroSectors Gold Miners 3X Lev ETN

INVERSE
MicroSectors Gold Miners -3X Inv Lev ETN

Source: ETF.com. Data and information as of 12/31/2020. The above sidebar covers launches for the month of December 2020.

ETF Explainer

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 $496.4 million **Global X SuperDividend U.S. ETF (DIV)**, which, like other dividend ETFs, underperformed the S&P 500 Index in 2020. All the companies mentioned below are holdings in DIV, unless otherwise noted (*).



DIV Quick View

ISSUER	Mirae Asset
SEGMENT	Equity: U.S. - High Dividend Yield
EXPENSE RATIO	0.46%
DISTRIBUTION YLD	7.64%
AUM	$496.4 Million
COMPETING FUNDS	PEY, DVY, VYM, FVD, DHS

JAN 30 Altria Group's stock is hit hard after reporting a $4 billion charge from its stake in e-cigarette maker Juul Labs. Altria says it has reworked its deal with the company.

MAR 18 Arbor Realty Trust, along with other commercial mortgage companies, sees its share price plummet more than the broad stock market as the financial turmoil worsens.

APR 8 Kraft Heinz is one of 13 S&P 500 stocks to erase its pandemic-related losses after seeing a sizable bump in sales, with the firm projecting 3% growth for the first quarter.

OCT 1 In the wake of strong results for the first fiscal quarter driven by the pandemic, General Mills sees its stock price increase despite a decline for its peer group.

NOV 3 B&G Foods sees increased expectations for 3Q earnings due to growth in at-home consumption, although foodservice sales fell due to decreased restaurant patronage.

DEC 15 Tobacco supplier Universal's stock price soars, despite recent earnings declines, due to diversification efforts, continued strong dividends and well-timed stock buybacks.

Source: Bloomberg; data for 12/31/2019-12/31/2020

Data At A Glance

Monthly Flows

Below are the ETFs that experienced the top and bottom flows in December 2020, as well as the net flows for major asset classes.

TOP GAINERS

TICKER	FUND	ISSUER	NET FLOWS ($M)	AUM ($M)
VTI	Vanguard Total Stock Market ETF	Vanguard	5,424.29	200,920.71
IEMG	iShares Core MSCI Emerging Markets ETF	BlackRock	3,598.98	68,609.30
IWM	iShares Russell 2000 ETF	BlackRock	3,296.57	58,757.37
ARKK	ARK Innovation ETF	ARK	3,253.47	18,048.41
ARKG	ARK Genomic Revolution ETF	ARK	3,192.49	7,885.87
BND	Vanguard Total Bond Market ETF	Vanguard	2,437.14	68,065.47
VXUS	Vanguard Total International Stock ETF	Vanguard	2,203.37	38,568.24
BNDX	Vanguard Total International Bond ETF	Vanguard	1,989.41	37,194.53
AGG	iShares Core U.S. Aggregate Bond ETF	BlackRock	1,908.76	85,132.94
TIP	iShares TIPS Bond ETF	BlackRock	1,654.90	26,307.94

BIGGEST LOSERS

TICKER	FUND	ISSUER	NET FLOWS ($M)	AUM ($M)
VOO	Vanguard S&P 500 ETF	Vanguard	-5,135.00	176,967.89
SPY	SPDR S&P 500 ETF Trust	SSGA	-4,298.34	326,894.62
IVV	iShares Core S&P 500 ETF	BlackRock	-3,778.41	237,299.61
QUAL	iShares MSCI USA Quality Factor ETF	BlackRock	-3,467.86	21,481.15
LQD	iShares iBoxx USD Investment Grade Corp Bond ETF	BlackRock	-3,177.06	55,074.49
HYG	iShares iBoxx USD High Yield Corporate Bond ETF	BlackRock	-1,845.05	25,719.29
DIA	SPDR Dow Jones Industrial Average ETF Trust	SSGA	-1,815.97	24,089.56
IEF	iShares 7-10 Year Treasury Bond ETF	BlackRock	-1,448.43	14,833.75
GLD	SPDR Gold Trust	State Street	-1,385.31	71,026.84
BBEU	JPMorgan BetaBuilders Europe ETF	JPMorgan	-1,110.98	3,407.90

ASSET CLASSES

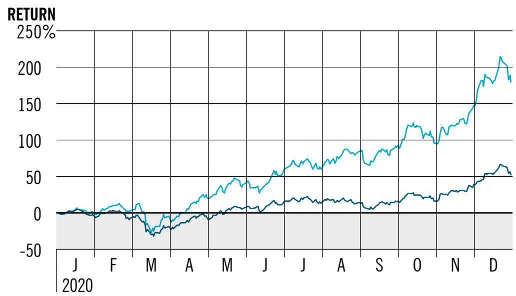
	NET FLOWS ($M)	AUM ($M)	% OF AUM
U.S. Equity	13,462.65	3,085,507.44	0.44%
International Equity	29,955.00	1,062,379.37	2.82%
U.S. Fixed Income	14,412.20	968,811.08	1.49%
International Fixed Income	4,752.31	123,724.66	3.84%
Commodities	-789.86	143,985.38	-0.55%
Currency	57.13	1,918.11	2.98%
Leveraged	-1,151.08	45,314.10	-2.54%
Inverse	39.43	10,880.72	0.36%
Asset Allocation	313.27	13,265.64	2.36%
Alternatives	151.33	5,291.75	2.86%

Interesting Charts Of Past 12 Months

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

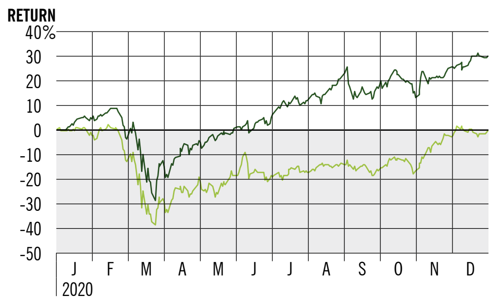
ARKG ARK Genomic Revolution ETF
GNOM Global X Genomics & Biotechnology ETF

While the genomics category did quite well in 2020, ARKG's active management seems to have boosted its performance even further.



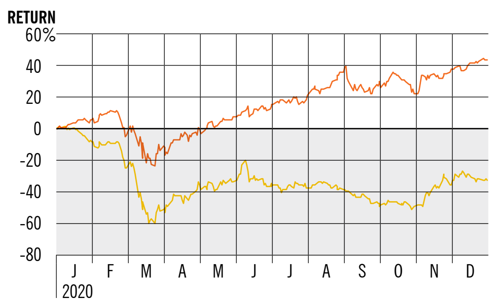
VLUE iShares MSCI USA Value Factor ETF
MTUM iShares MSCI USA Momentum Factor ETF

The momentum factor dominated in 2020, significantly outperforming value, which was the worst-performing factor of the year.



XLE Energy Select Sector SPDR Fund
XLK Technology Select Sector SPDR Fund

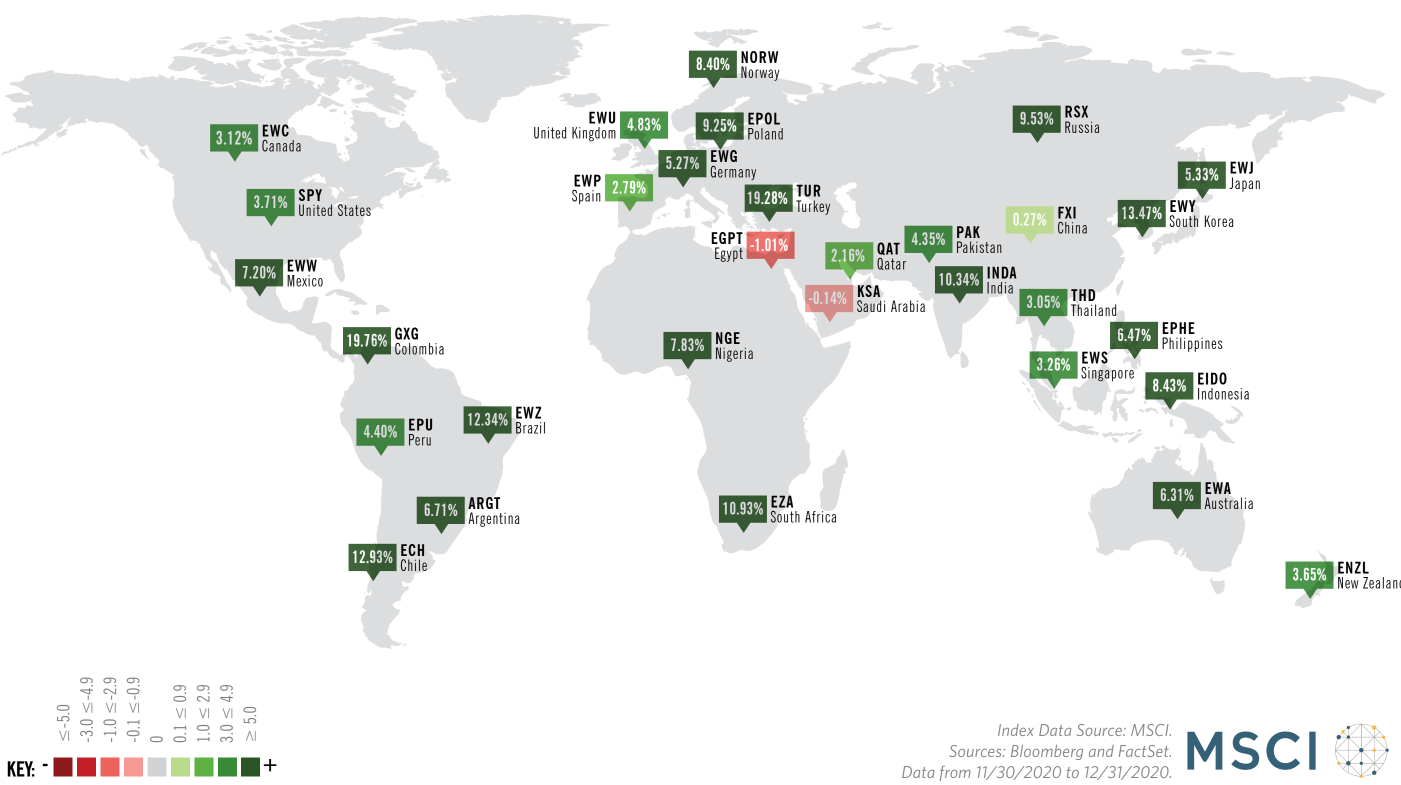
The technology sector was propelled upward by the pandemic in 2020, while the decline in driving helped put energy at the back of the pack.



Sources: FactSet, Bloomberg; data as of 12/31/2020

Countries

December was a remarkable month for country ETFs, with only two landing in negative territory. The **Global X MSCI Colombia ETF (GXG)** led the way, with a gain of 19.76%; followed closely by the **iShares MSCI Turkey ETF (TUR)**, which was up 19.28%; and more distantly by the **iShares MSCI South Korea ETF (EWY)**, up 13.47%. The funds that were the worst performers were either barely down at all for the month or actually slightly positive. They included the **VanEck Vectors Egypt Index ETF (EGPT)**, down 1.01%; the **iShares MSCI Saudi Arabia ETF (KSA)**, down 0.14%; and the **iShares China Large-Cap ETF (FXI)**, up 0.27%. Flows were mixed, with the **SPDR S&P 500 ETF Trust (SPY)** bleeding $4.3 billion, the **iShares MSCI Germany ETF (EWG)** losing $350.2 million and the **iShares MSCI Chile ETF (ECH)** giving up $32.2 million. At the other end of the spectrum, the **iShares MSCI India ETF (INDA)** pulled in more than any other ETF, at $753 million; while EWY gained $374.7 million and the **iShares MSCI Japan ETF (EWJ)** attracted $325.2 million.



Index Data Source: MSCI.
Sources: Bloomberg and FactSet.
Data from 11/30/2020 to 12/31/2020.

MSCI

TOP INFLOWS

TICKER	FUND	NET FLOWS ($M)	AUM ($M)
INDA	iShares MSCI India	753.0	4,864
EWY	iShares MSCI South Korea	374.7	7,298
EWJ	iShares MSCI Japan	325.2	13,452
FXI	iShares China Large-Cap	217.4	4,124
RSX	VanEck Vectors Russia	216.5	1,621

TOP OUTFLOWS

TICKER	FUND	NET FLOWS ($M)	AUM ($M)
SPY	SPDR S&P 500	-4,298.3	332,000
EWG	iShares MSCI Germany	-350.2	2,585
ECH	iShares MSCI Chile	-32.2	496
EWQ	iShares MSCI France	-19.8	890
EWN	iShares MSCI Netherlands	-12.1	266

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 Comparison Tool

The ETF.com Comparison Tool allows investors to make one-to-one comparisons on a variety of features and metrics between any two ETFs
www.etf.com/etfanalytics/etf-comparison-tool

Facts & Costs

TICKER	FUND
SOCL	**Global X Social Media ETF**

ISSUER

Mirae Asset

AUM	EXPENSE RATIO	AVERAGE DAILY $ VOLUME	NUMBER OF HOLDINGS
$308.25M	**0.65%**	**$3.42M**	**39**

AVERAGE SPREAD (%)	AVERAGE SPREAD ($)	MEDIAN TRACKING DIFFERENCE (12 MO)	MAX LT/ST CAPITAL GAINS RATE
0.21%	**$0.12**	**-0.86%**	**20.00%/39.60%**

Performance

1 MONTH	3 MONTHS	YTD	1 YEAR	3 YEARS	5 YEARS
7.13%	27.81%	3.06%	77.76%	22.37%	28.37%

Facts & Costs

TICKER	FUND
XLC	**Communication Services Select Sector SPDR**

ISSUER

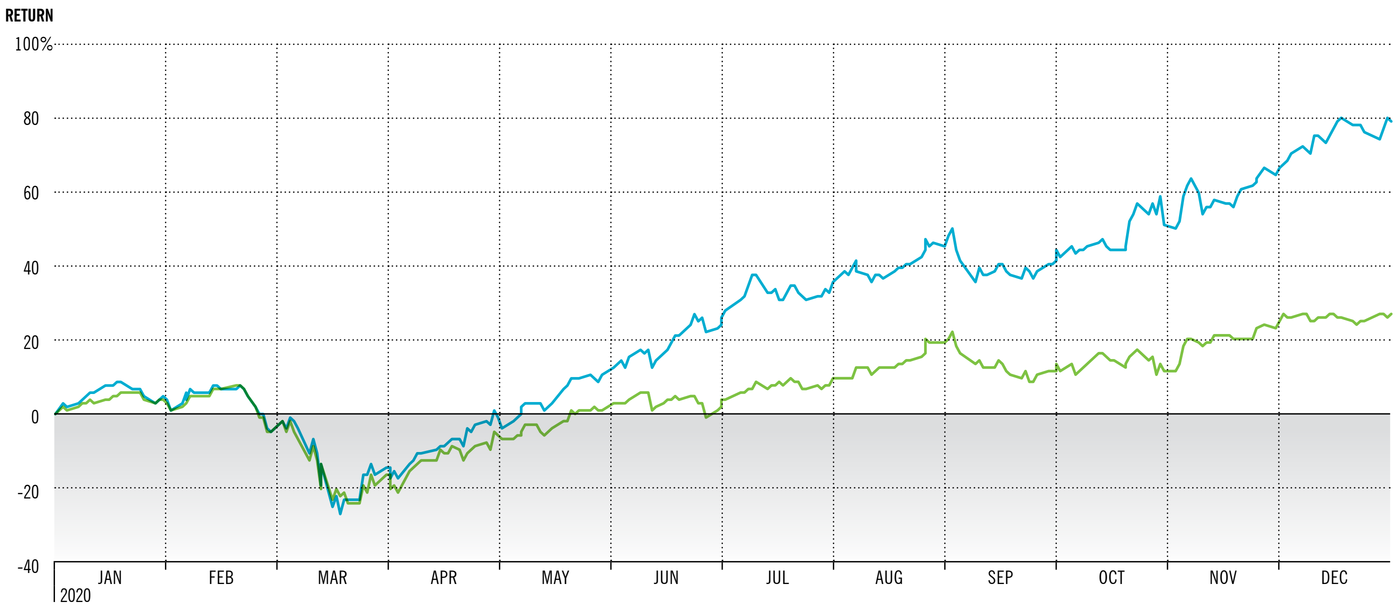
State Street Global Advisors

AUM	EXPENSE RATIO	AVERAGE DAILY $ VOLUME	NUMBER OF HOLDINGS
$12.70B	**0.13%**	**$200.16M**	**27**

AVERAGE SPREAD (%)	AVERAGE SPREAD ($)	MEDIAN TRACKING DIFFERENCE (12 MO)	MAX LT/ST CAPITAL GAINS RATE
0.02%	**$0.01**	**-0.12%**	**20.00%/39.60%**

Performance

1 MONTH	3 MONTHS	YTD	1 YEAR	3 YEARS	5 YEARS
-0.02%	13.83%	-0.30%	24.05%	—	—



Source: Bloomberg, 12/31/2019-12/31/2020

SOCL TOP 5 SECTORS

Software & IT Services	98.20%
Telecommunications Services	1.00%
Media & Publishing	0.39%
Leisure Products	0.23%
Diversified Retail	0.18%

SOCL TOP 10 HOLDINGS

Snap, Inc. Class A	9.79%
Tencent Holdings Ltd.	7.90%
Facebook, Inc. Class A	7.73%
Twitter, Inc.	6.92%
Baidu, Inc. Sponsored ADR Class A	6.72%
Match Group, Inc.	6.50%
NAVER Corp.	6.03%
Spotify Technology SA	4.92%
Pinterest, Inc. Class A	4.90%
NetEase, Inc. Sponsored ADR	4.73%

XLC TOP 9 SECTORS

Internet Services	58.35%
Broadcasting	18.78%
Wireless Telecommunications Services	8.86%
Integrated Telecommunications Services	5.04%
Software	3.34%
Advertising & Marketing	2.04%
Toys & Juvenile Products	1.87%
Leisure & Recreation	0.88%
Consumer Publishing	0.84%

XLC TOP 10 HOLDINGS

Facebook, Inc. Class A	20.91%
Alphabet Inc. Class A	11.73%
Alphabet Inc. Class C	11.38%
Activision Blizzard, Inc.	4.87%
T-Mobile US, Inc.	4.59%
Walt Disney Company	4.54%
Netflix, Inc.	4.53%
Comcast Corporation Class A	4.52%
Charter Communications, Inc. Class A	4.34%
Verizon Communications Inc.	4.27%

Source: ETF.com and Bloomberg. Data and information as of 1/13/2021.

ETF Stock Finder

The ETF.com Stock Finder Tool helps you find an ETF's allocation to a certain stock
www.etf.com/etfanalytics/etf-stock-finder

Each month, we look at selected stocks based on their performance and importance to investors. This month, we highlight Etsy, Inc. (ETSY), Visa Inc. Class A (V) and Teladoc Health, Inc. (TDOC).

Stock

ETSY

Etsy, Inc.

ETFs Holding ETSY	ETSY Shares in ETFs
176	**12.4 Million**

Biggest Holder	Largest Allocation
SPY SPDR S&P 500 ETF Trust	**LIV** Emles @ Home ETF

Most ETSY Exposure

Ticker	Fund	% of Allocation
LIV	Emles @ Home ETF	5.73%
EBIZ	Global X E-commerce ETF	5.42%
ACSI	American Customer Satisfaction ETF	4.65%
ONLN	ProShares Online Retail ETF	4.25%
CLIX	ProShares Long Online/Short Stores ETF	4.21%

Most ETSY Shares

Ticker	Fund	# of Allocation
SPY	SPDR S&P 500 ETF Trust	1.30M
FDN	First Trust Dow Jones Internet Index Fund...	1.17M
IVV	iShares Core S&P 500 ETF	953.91K
VB	Vanguard Small-Cap ETF	904.32K
VBK	Vanguard Small-Cap Growth ETF	753.41K

Top-Performing ETFs With ETSY

Ticker	Fund	30-day % Change
RETL	Direxion Daily Retail Bull 3x Shares	28.65%
QMOM	Alpha Architect U.S. Quantitative Momentum E...	11.42%
IBUY	Amplify Online Retail ETF	10.32%
XRT	SPDR S&P Retail ETF	9.14%
WANT	Direxion Daily Consumer Discretionary Bull 3...	8.57%

Top ETF Strategies Using ETSY

Strategy	# of ETFs
Vanilla ETFs	47
Multi-factor ETFs	24
Active Management ETFs	20
Growth ETFs	17
ESG ETFs	15

Stock

V

Visa Inc. Class A

ETFs Holding V	V Shares in ETFs
240	**123.4 Million**

Biggest Holder	Largest Allocation
SPY SPDR S&P 500 ETF Trust	**IYG** iShares U.S. Financial Services ETF

Most V Exposure

Ticker	Fund	% of Allocation
IYG	iShares U.S. Financial Services ETF	10.56%
IYF	iShares U.S. Financials ETF	6.32%
IPAY	ETFMG Prime Mobile Payments ETF	5.76%
DIVO	Amplify CWP Enhanced Dividend Income ETF	5.05%
FDG	American Century Focused Dynamic Growth ETF...	4.63%

Most V Shares

Ticker	Fund	# of Allocation
SPY	SPDR S&P 500 ETF Trust	17.77M
IVV	iShares Core S&P 500 ETF	12.77M
VOO	Vanguard S&P 500 ETF	9.89M
VIG	Vanguard Dividend Appreciation ETF	8.87M
VTI	Vanguard Total Stock Market ETF	8.67M

Top-Performing ETFs With V

Ticker	Fund	30-day % Change
BLOK	Amplify Transformational Data Sharing ETF...	23.86%
KOMP	SPDR S&P Kensho New Economies Composite ETFXZ	11.27%
PFI	Invesco DWA Financial Momentum ETF	8.45%
DTEC	ALPS Disruptive Technologies ETF	7.40%
VFMO	Vanguard U.S. Momentum Factor ETF	6.71%

Top ETF Strategies Using V

Strategy	# of ETFs
Vanilla ETFs	49
Active Management ETFs	40
Multi-factor ETFs	35
ESG ETFs	23
Fundamental ETFs	22

Stock

TDOC

Teladoc Health, Inc.

ETFs Holding TDOC	TDOC Shares in ETFs
124	**14.7 Million**

Biggest Holder	Largest Allocation
ARKK ARK Innovation ETF	**ARKK** ARK Innovation ETF

Most TDOC Exposure

Ticker	Fund	% of Allocation
ARKG	ARK Genomic Revolution ETF	6.62%
ENTR	ERShares Entrepreneur 30 ETF	5.00%
ARKK	ARK Innovation ETF	4.51%
IHF	iShares U.S. Healthcare Providers ETF	4.25%
ARKW	ARK Next Generation Internet ETF	3.82%

Most TDOC Shares

Ticker	Fund	# of Allocation
ARKK	ARK Innovation ETF	3.97M
ARKG	ARK Genomic Revolution ETF	2.53M
FDN	First Trust Dow Jones Internet Index Fund...	1.05M
ARKW	ARK Next Generation Internet ETF	951.48K
VO	Vanguard Mid-Cap ETF	880.68K

Top-Performing ETFs With TDOC

Ticker	Fund	30-day % Change
ARKK	ARK Innovation ETF	11.22%
AFSM	First Trust Active Factor Small Cap ETF	10.55%
HELX	Franklin Genomic Advancements ETF	10.47%
BTEK	BlackRock Future Tech ETF	10.01%
HTEC	ROBO Global Healthcare Technology and Innova...	8.38%

Top ETF Strategies Using TDOC

Strategy	# of ETFs
Vanilla ETFs	32
Active Management ETFs	22
Multi-factor ETFs	17
Growth ETFs	11

Source: ETF.com. Data and information as of 1/12/2021.

SUPER BOOSTER…

By Heather Bell
ETF Report Editor

The peril, the promise and the history of geared ETFs

If you take a deep breath before diving into this article, you're not alone. Leveraged and inverse ETFs have a long-standing reputation of being overly complicated, delivering return streams that can result in confounded investors.

These products are index-based trading tools, and they're all about the math. The compounding of returns tied to the level of leverage of each of these strategies can quickly grow in magnitude in either direction—super booster or super bummer. Sure, that massive run to the upside is thrilling, but equally large or even larger losses dot the space like headstones in a graveyard.

Yet this part of the ETF universe has a long, rich history dating back to the first launch by ProShares in 2006. Currently, leveraged and inverse ETFs listed in the U.S. have more than $57 billion in assets under management. There are 88 inverse ETFs and 106 leveraged ETFs.

In 2020, the inverse and leveraged space experienced a paradigm shift, as a large number of leveraged and inverse funds listed in the U.S. shuttered, many of them reduced to ashes by the market volatility seen during the year.

New launches, meanwhile, were few. The leveraged funds had a net loss of 56 products, while the inverse ETF universe fell by more than 30 products. What happened?

First, let's be clear: Leveraged and inverse ETFs do—and have done—*exactly* what they're designed to. There have never been any accusations that these funds don't produce results aligned with their stated goals.

But go back to March 2020 and the volatile market action we saw then and won't soon forget. Massive price dislocation at amazing volume and speed was the perfect storm to rattle ETFs seeking to deliver geared returns. Many geared strategies saw share prices drop dramatically, forcing some ETNs into mandatory redemptions. Closures quickly mounted.

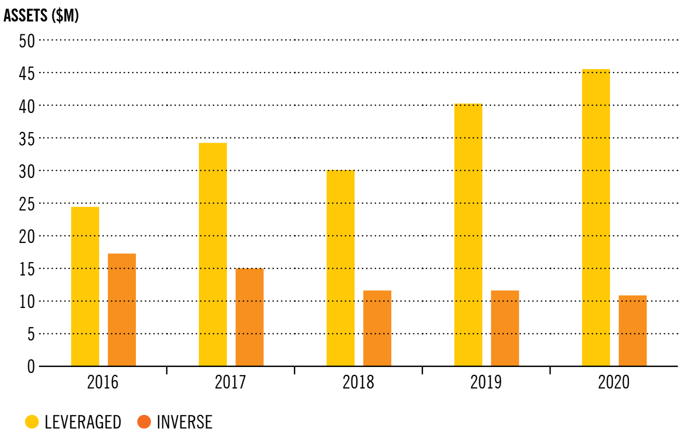
Yet as some crashed and burned, others soared, with popular products like the **MicroSectors FANG+ Index 3X Leveraged ETN (FNGU) and the ProShares UltraPro QQQ (TQQQ)** up 379% and 110% for the year, respectively.

Lois Gregson, senior ETF analyst with FactSet, says this pruning of the space is a good thing.

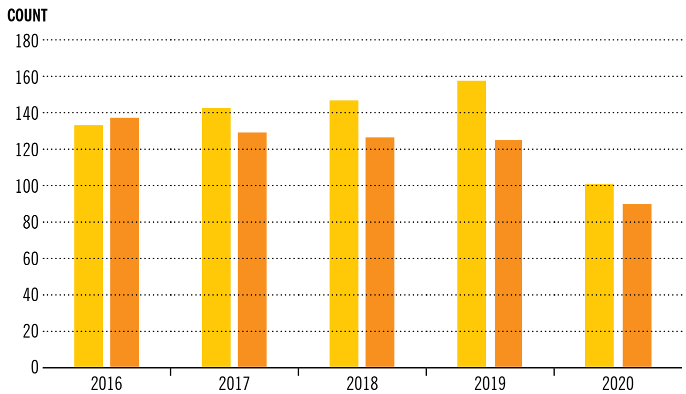
"Issuers want investors to have a good experience, and to work with clients who understand their products. They want them to be used in the way they're intended to be used," she said. "It's easy to misunderstand these products, so I think they're taking a close look at how they can best serve the investment community."

Of these geared ETFs, 36 offer 3x exposure

Annual Assets, Leveraged/Inverse ETFs



Annual Count, Leveraged/Inverse ETFs



Source: FactSet

OR SUPER BUMMER?

TOP 10 LEVERAGED ETFs

TICKER	FUND	EXPENSE RATIO	AUM	INCEPTION
TQQQ	ProShares UltraPro QQQ	0.95%	$9.41B	2/9/2010
QLD	ProShares Ultra QQQ	0.95%	$3.89B	6/19/2006
SSO	ProShares Ultra S&P 500	0.91%	$3.21B	6/19/2006
FAS	Direxion Daily Financial Bull 3x Shares	0.99%	$2.41B	11/6/2008
SOXL	Direxion Daily Semiconductor Bull 3X Shares	0.96%	$2.34B	3/11/2010
TECL	Direxion Daily Technology Bull 3X Shares	1.08%	$1.89B	12/17/2008
UPRO	ProShares UltraPro S&P500	0.93%	$1.80B	6/25/2009
SPXL	Direxion Daily S&P 500 Bull 3X Shares	1.01%	$1.68B	11/5/2008
TNA	Direxion Daily Small Cap Bull 3x Shares	1.12%	$1.62B	11/5/2008
UVXY	ProShares Ultra VIX Short-Term Futures ETF	0.95%	$1.54B	10/3/2011

TOP 10 INVERSE ETFs

TICKER	FUND	EXPENSE RATIO	AUM	INCEPTION
SH	ProShares Short S&P500	0.90%	$1.84B	6/19/2006
SQQQ	ProShares UltraPro Short QQQ	0.95%	$1.54B	2/9/2010
SDS	ProShares UltraShort S&P500	0.91%	$721.43M	7/11/2006
SPXU	ProShares UltraPro Short S&P500	0.93%	$648.06M	6/25/2009
TBT	ProShares UltraShort 20+ Year Treasury	0.92%	$625.39M	5/1/2008
PSQ	ProShares Short QQQ	0.95%	$514.66M	6/19/2006
SPXS	Direxion Daily S&P 500 Bear 3X Shares	1.07%	$512.47M	11/5/2008
SDOW	ProShares UltraPro Short Dow30	0.95%	$511.74M	2/11/2010
SVXY	ProShares Short VIX Short-Term Futures ETF	1.38%	$415.09M	10/3/2011
TZA	Direxion Daily Small Cap Bear 3X Shares	1.07%	$385.51M	11/5/2008

Source: FactSet; data as of 1/11/2021

to an underlying index, while 62 offer 2x exposure. Another 23 provide -3x exposure, while 39 have -2x exposure and 22 provide -1x exposure. There are a handful of funds that offer variable or other multiples, but no existing products currently provide exposure in magnitudes greater than 3x/-3x.

Given that the entire U.S.-listed ETF and ETN universe at the end of 2020 was just shy of 2,400 products, and assets under management are approaching $5.7 trillion, leveraged and inverse products are a drop in the bucket. Their alchemy, however, is fairly potent.

MEMORY LANE

Leveraged and inverse ETFs were controversial right out of the gate in 2006. Even though 2x leveraged and inverse exposure had been around for several years by that time in a mutual fund wrapper, regulators were uneasy with the risks associated with these products. The SEC sat on the original ProShares filing for the first-of-their-kind ETFs for over seven years before approving it.

Over the years, the SEC has alternated between approving applications for geared investment vehicles and raising concerns about them. Regulators have had a troubled relationship with these strategies.

The primary concern about using leveraged/inverse ETFs is that investors don't understand how they work, and therefore can get burned due to the increased risk that comes with an amped-up ride and math that isn't apparent on the surface. You don't get 2x or 3x that the performance of the underlying index no matter the time period you hold it; it's more complicated than that.

After all, if a fund can go up twice its index in one day, it can go down just as much. And that's putting it simply, because things like compounding, erosion and daily resets—largely foreign concepts to many ETF investors at the time of their first debut—can turn the ride wild very quickly.

PROBLEM CHILD

As the years went on, this segment of ETFs grew, and the 2x, -2x and -1x funds were joined by 3x and -3x ETFs. The concerns never really went away—regulators continue to focus on the need for investor education; on the swaps underlying the funds and their transparency (or lack thereof); and the market impact of the products—namely, did they add to market volatility?

The SEC even put a freeze, or a timeout, on applications from new issuers to launch leveraged and inverse ETFs back in 2010, essentially giving Direxion and ProShares—the only two issuers with these types of products in the market at the time—a duopoly on the space.

There have been warnings about and investigations into these products almost from the moment the first ones launched. There have been lawsuits against their issuers as well. But to no avail, because at the end of the day, these powerful tools have been delivering on their design. The confusion from investors using these trading tools as buy-and-hold products is more often than not the root of investor discontent.

A few years ago, we almost saw 4x ETFs make it to market, showing that attitudes can change over time. Consider also that when the SEC talked about imposing further limits on how retail investors could access leveraged and inverse ETFs in 2019, it received about 6,000 letters on the matter speaking out against such changes.

CHANGES TO THE RULES

Ultimately, Rule 18f-4 under the Investment Company Act, approved in late 2020, has done much to clarify many of the concerns and uncertainties around leveraged and inverse ETFs.

For one thing, it opened up the market for new products again, so that issuers don't need special exemptive relief to launch such funds, meaning other issuers besides Direxion and ProShares can easily enter the space.

The rule also limited the amount of leverage that could be offered to 200% (in either direction). The existing funds offering 3x exposures can continue to trade, but no one can issue any more of them. We may have gotten increasingly more comfortable with playing with fire, but regulators are holding steady on their mission to protect us from getting burned.

To Direxion President Rob Nestor, new players in this space would be a welcome addition. He says his firm has always been uncomfortable, on principle, with the effective duopoly they've had with ProShares on leveraged and inverse products. Although firms like MicroSectors, VelocityShares and UBS offer leveraged and inverse exchange-traded notes, ProShares and Direxion are the only firms that do so with the ETF wrapper.

"We've encouraged rule making that would open it up to other providers," Nestor said. "Competition is a bedrock of our system."

The changes "will also open the door to greater competition, choice and innovation, which we welcome, as it's fundamentally a good thing for investors," said ProShares CEO Michael Sapir, though he does not believe the decision to disallow more 3x/-3x ETFs was in investors' best interests.

ETNs PART OF THE FORMULA

Remember that exchange-traded notes are an entirely different structure that's not governed by the 1940 Act, and there are quite a few inverse and leveraged products in their ranks. They're often lumped in with ETFs, but at their most basic level, they're unsecured debt obligations that don't actually hold anything.

The lack of regulation around ETNs has made them a popular wrapper for leveraged and inverse exposure, but the ETN structure can be fickle. In 2016, Credit Suisse closed two of its most successful and popular ETNs, the **VelocityShares 3x Long Crude Oil ETN (UWTI)** and the **VelocityShares 3x Inverse Crude Oil ETN (DWTI)**, which were approaching combined assets under management of $2 billion.

At the time, it was assumed that Credit Suisse wanted to clean up its balance sheet, and the extra $1 billion in debt didn't look good. Whatever their motivation, that move was a reminder that most ETN prospectuses (at least the newer ones) clearly state that they're subject to being called by their issuers at will. And if they delist—relegating them to over-the-counter (OTC) markets—they can leave investors trapped due to the illiquid nature of OTC trading. That doesn't happen often, but it could.

Ultimately, geared ETNs are a miniscule portion of the overall exchange-traded product universe, representing about 30 products (22 leveraged, nine inverse), only one of which, FNGU, has more than $1.25 billion in assets under management. The entire group of leveraged and inverse ETNs has about $2.6 billion in assets.

Leveraged and inverse ETFs may not be for everyone, but their history and performance over the years continue to show two important things. First, when used properly, these types of strategies can deliver outsized performance—or desired hedging—as designed. More importantly, they show that the ETF wrapper can deliver access to even some of the most complicated strategies, even if that math can leave many dazed during volatile times. ●

HOW THEY WORK

			LEVEL	EXPOSURE BEFORE RESET	EXPOSURE AFTER RESET
DAY 1		INDEX	100		
		-2X ETF	100	-200	-200
DAY 2	INDEX UP 10%	INDEX	110		
	ETF LOSES 20%	-2X ETF	80	-220	-160
DAY 3	INDEX DOWN 10%	INDEX	99		
	ETF GAINS 16%	-2X ETF	96	-144	-192

Complicated or not, there's a lot to like about getting twice the returns of an index, which is what a 2x leveraged ETF promises. It's just important to keep in mind some best practices ideas when using these funds.

The first thing to remember is that these products have resets. A few ETNs have monthly resets, which means that if the index goes up 5% in a month, your portfolio goes up 10%. However, the majority of leveraged and inverse ETFs have a daily reset. That means that, every day, the 2x multiplier restarts. It also means the math doesn't work quite the way most people think if they just took a cursory look at the chart.

For example, if your 2x fund's index goes up 1% on a particular day, you get a return of 2% that day. However, if you buy a 2x leveraged ETF and its index goes down 1% on that day, and then on the next day it goes back up 1%, you're still not back to where you started, because that 1% of upside builds off the lower starting point on that second day.

The table to the left provides a more in-depth explanation involving a -2x fund.

On day 1, the -2x fund is at 100. On day 2, the index goes up 10% to 110, and the fund falls 20% to 80. So far, so good. But on day 3, the index falls 10%: 10% of 110 is 11, so the index falls from 110 to 99. And 20% of 80 is 16, so the fund rises from 80 to 96.

This example shows the fund doing exactly what it promises—delivering -2x returns each day. The example also shows how compounding can add up quickly and surprise an investor.

After all, the daily -2x exposure works perfectly, but after two days, the index is down 1%, and the fund is down 4%. These effects are amplified even further when you look at the 3x and -3x ETFs.

This product design, while effective when used correctly, is the reason most investors don't look at leveraged and inverse ETFs as long-term holdings. The daily reset feature makes these products ideal for very-short-term holding periods—as in one day, or perhaps one week—so turnover in these ETFs is pretty big.

(We have additional graphics on pages 20-21 in this issue to demonstrate how popular leveraged and inverse ETFs performed in 2020.)

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

ETF Prime

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

FEBRUARY 2

Rob Arnott, founder of Research Affiliates, weighs in on the current state of factor investing and the "smart beta" ETF landscape

Joe Terranova, CNBC contributor and chief market strategist for Virtus Investment Partners, discusses the Virtus Terranova U.S. Quality Momentum ETF (JOET)

FEBRUARY 9

Daniil Shapiro, associate director of product development at Cerulli Associates, walks through their latest ETF research highlighting key industry trends

Andrew Beer, managing member at Dynamic Beta investments, offers an introduction to their iM DBi Hedge Fund Replication ETFs

FEBRUARY 16

Shelly Antoniewicz, senior director, industry & financial analysis at Investment Company Institute, expands on the resiliency of ETFs and what's next for the structure

Bob Shea, CEO of TrimTabs Asset Management, spotlights their ETF lineup, including the U.S. Free Cash Flow Quality ETF (TTAC)

FEBRUARY 23

Amit Anand, co-founder of the Nifty India Financials ETF (INDF), outlines the investment case for India's financial services companies and the country as a whole

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By Heather Bell
ETF Report Editor

Inverse and leveraged ETFs can be useful tools, but they're really designed for experienced traders

ETFs FOR THE BOLD & BRAVE

There's a certain amount of mystery around who's investing in *any* ETF, but even more so with inverse and leveraged ETFs.

These funds have huge levels of trading volume relative to their size within the ETF market. Consider that, as of mid-January, the $1.5 billion **ProShares UltraPro Short QQQ ETF (SQQQ)** was second only to the $333.5 billion **SPDR S&P 500 ETF Trust (SPY)** in terms of 45-day average daily share volume.

Further, even though these funds represent about 1% of all U.S.-listed ETF assets, 15 of them are among the top 50 ETFs with regard to average daily share volume.

Leveraged and inverse ETFs are trading tools more than anything else. However, there are many ways to use them—and some can be quite surprising, and maybe even a little dangerous.

CORE USERS

The vast majority of leveraged and inverse ETF users do appear to be traders, what with the funds' outsized volumes and turnover. They can also be used as a way to enhance returns or as a hedging vehicle or risk management tool.

Direxion, the No. 2 issuer of leveraged and inverse ETFs, has 60 such funds holding $19.3 billion in assets under management (AUM). Its customer base for the products is two-thirds your "classic active trader" and one-third "tactically oriented financial advisors, RIAs and hedge funds," conjectures its president Rob Nestor.

Meanwhile, ProShares, the first issuer to roll out leveraged and inverse ETFs, has nearly $36 billion in AUM in these funds. These investors include mainly "financial professionals and other knowledgeable investors," according to CEO Michael Sapir.

Nestor asserts that the flows around leveraged and inverse funds are indicative of a sophisticated investor base.

"The leveraged and inverse business has a very different flow profile than the rest of the ETF business. As is typical in most areas of investment management, people tend to chase performance. Beyond core exposures, the highest-flow products are those with the highest returns, and vice versa," he explained. "It's exactly opposite in leveraged and inverse—it's highly countercyclical. Most of the redemption activity is in the highest-performing products. All the evidence indicates, in aggregate, that people understand them."

Both Direxion and ProShares have plowed massive amounts of money and hours into providing education around the leveraged and inverse products they offer regarding how they work, in the interests of ensuring that investors understand the ins and outs of them and that they're more likely to have a good experience with the products.

MAGNIFYING EXPOSURES

Matthew Tuttle, CEO and chief investment officer of Tuttle Tactical Management, an advisory firm and asset manager associated with six different ETFs, says that when managing portfolios, his firm views assets as being either short or long volatility.

"Anything on the equity side is short volatility—it does better when volatility is going down, and does worse when volatility is going up. We want to always have some sort of counterbalance that's long volatility," he said, noting that his firm uses inverse ETFs as part of its long-volatility sleeve.

Among the leveraged and inverse ETFs he uses in his portfolios regularly are the **ProShares Short QQQ (PSQ)**, the **Direxion Daily 20+ Year Treasury Bull 3X Shares (TMF)**, the **Direxion Daily S&P 500 Bull 3X Shares (SPXL)** and the **ProShares UltraPro QQQ (TQQQ)**.

"We've got tactical models that will move us into inverse ETFs when or if the market starts going back down," Tuttle noted. "It's a really effective way to get inverse exposure, and it's easier than selling stuff short." He further points out that, with such products, there are no worries about borrowing or prime brokers.

But his firm doesn't just use them as a risk management tool. Leveraged ETFs especially can be used to magnify exposures.

"The beauty of leveraged ETFs as a whole is that they allow you—as long as you know what you're doing—to gain access to things like Treasuries or all the different equity markets, while using less capital," Tuttle elaborated. "I can take 30% of our portfolio and put it into things that will do well as volatility is increasing. But if I want the remaining 70% of my portfolio to have more than 70% equity exposure, that's where levered ETFs can do a really good job."

He notes that the holding periods really depend on the markets, but are typically shorter term—as in anything from a few days to a few weeks, but can range widely. Tuttle believes the next market crash will resemble more what we saw in March 2020, which necessitated shorter holding periods.

'VOLATILITY DRAG' CAN IMPACT RETURNS

"If you really want to understand volatility drag, look at 3x levered inverse funds and how they did in March, and you'll be shocked," said Tuttle. "Most—if not all—were down in March when the market was down around 15%. You're thinking it should be up 45% and it's actually down." (To see the effects of volatility-drag laid out visually, see the charts on pages 20-21.)

"Because of the volatility-drag on anything levered, typically we're going to have short-term holding periods," he added. "Assuming that bear markets going forward look more like February and March than they do 2008, I assume our holding period would remain fairly short."

While Tuttle says he typically holds 10% in Treasuries, he doesn't think that's enough protection, nor does he think the traditional 60/40 portfolio allocation provides enough either. That's where inverse ETFs come in.

"The only thing out there that's guaranteed to go up when the market goes down is an inverse ETF," he said.

HEDGE FUND TOOL

Coe Magruder is the founder and CEO of Washington Growth Strategies, an RIA firm. And since 2014, he's also run his own hedge fund, the Washington Growth Fund, in which he's the largest shareholder. The hedge fund relies heavily on leveraged equity ETFs, though Magruder says he doesn't really use inverse funds. Notably, he does use regular long ETFs for his advisory clients and no leveraged products.

However, Magruder's hedge fund has recorded outsized returns, up 43.88% in 2019 and up 47.18% in 2020 on net.

"I'm big on earnings growth, GDP growth—if it looks like it's going to grow at an accelerated rate, then that's something I start positioning myself to look to buy," he said.

"I use the leverage when I see strong momentum. I try to stay with it as long as I can; I'm not a big trader—meaning, I'd like to hold it over a year," Magruder added. "But when I see something coming, I know I need to get out of the way."

'The only thing guaranteed to go up when the market goes down is an inverse ETF'

'The more volatility, the more the distortion'

Indeed, he maintained a market position in the ProShares Ultra S&P 500 (SSO) from after the 2008 Financial Crisis crash, entering the fund in 2009, through February 2020, when spiking volatility drove him into a 100% cash position shortly before the March crash. You read that right: He held on to a 2x ETF for more than a decade and came out of it OK—great, even.

"I'm looking for any hiccup that would tell me to run for shelter. You can't buy this stuff and walk away," Magruder said.

However, he almost immediately started phasing SSO back in to his portfolio after the March chaos.

Right now, the hedge fund holds a 45% position in SSO, with the Direxion Daily Small Cap Bull 3x Shares (TNA) claiming a 19.8% weighting, and the Direxion Daily MSCI Emerging Markets Bull 3x Shares (EDC) at 11.5%. Magruder believes signs point to positive things ahead for small caps and emerging markets, but thinks technology is a bit overbought and facing head winds, so he's phasing out of TQQQ.

ALL IN ON LEVERAGE

David Kreinces is the founder and chief investment officer of ETF Portfolio Management, which specializes in trend following and risk parity, and takes a bold approach with leveraged ETFs in its portfolio. While the firm eschews leveraged and inverse products tied to narrower indexes, it embraces those that cover broad and core asset classes.

"When you see what the extreme volatility does to the distortion of the returns, you see that the more volatility, the more the distortion," he said. "When you're dealing with the larger asset classes or the stronger uptrends, the distortion is less of an issue."

Like Magruder, Kreinces takes a long-term view of these asset classes, and notes that while the ProShares UltraPro S&P500 (UPRO) had a frustrating year in 2020, both TQQQ and UPRO have delivered much better returns over the last 10 years relative to their unleveraged counterparts.

SPLITTING TIME BETWEEN TQQQ & TMF

Kreinces' firm uses a benchmark for many of its clients that usually splits itself evenly between TQQQ and TMF, with a 6% carveout for bitcoin in the form of the Grayscale Bitcoin Trust (GBTC).

However, certain allocations can be "turned off" as a form of risk control, and when interviewed, he said that was the current case with the TMF allocation. However, if volatility increases, the allocation to TQQQ could be reduced.

"I think it's hard to remember sometimes, when momentum is in your favor, how fast it can turn. Investors like to say that the market takes the escalator up and the elevator down," Kreinces noted.

He's very clear that these are products that can quickly turn ugly, but also points out that investors can "tiptoe" into them by adding them in small increments to a portfolio.

TREAD CAREFULLY

While these products definitely have their devotees, all of those investors are very clear that they watch both their geared holdings and the wider markets closely. Good outcomes depend largely on capturing the strongest trends and knowing when to exit a position.

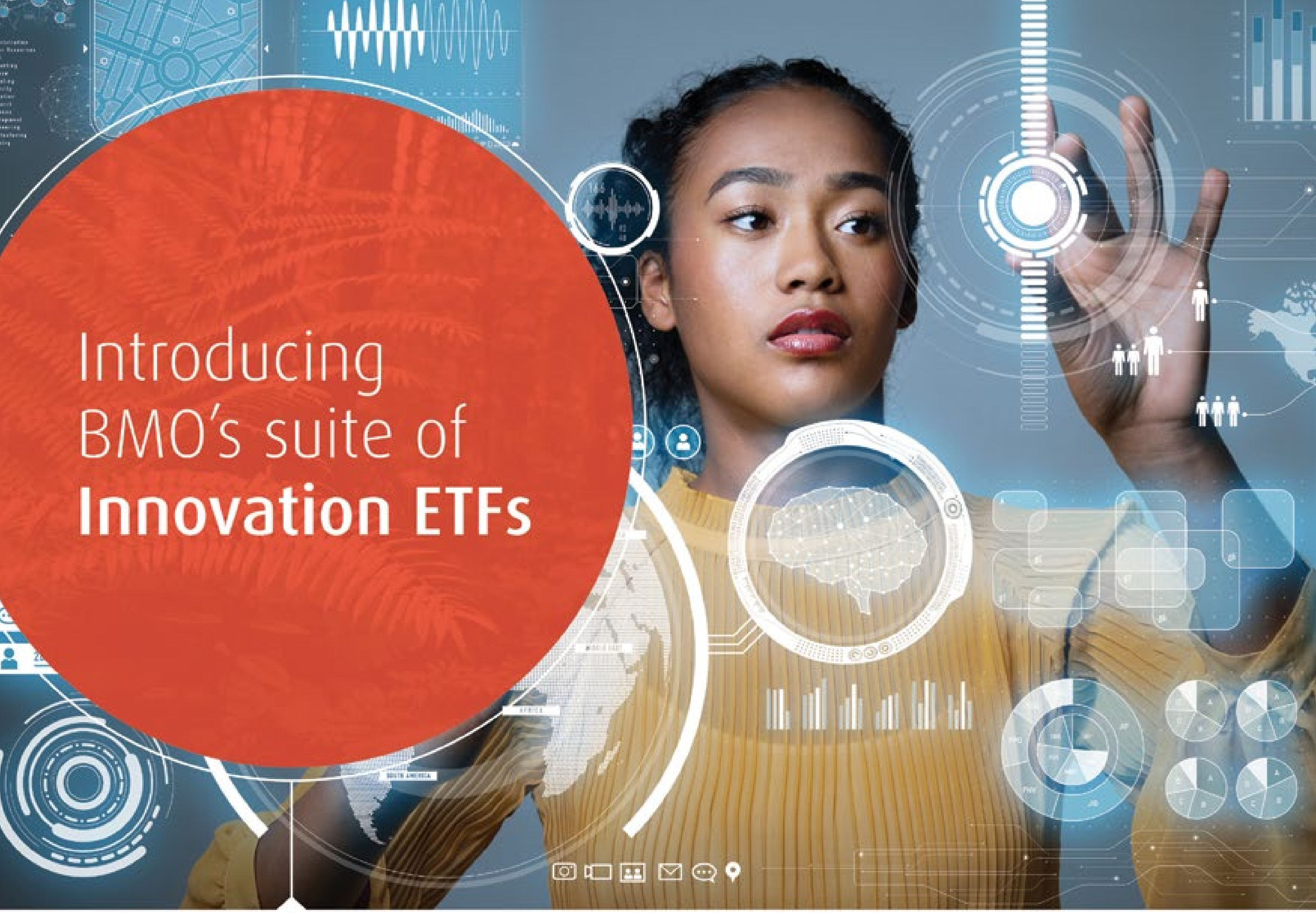
FactSet Senior ETF analyst Lois Gregson notes that even sophisticated investors can be confused by these products, mentioning that, in the course of her career, the CEOs of at least two brokerages have requested her help to understand how they work.

She recommends that if investors decide to venture into a leveraged or inverse ETF, they should write down why they're in it, and if that reasoning changes, to simply get out of the position.

"It may trade like a stock. It doesn't behave like a stock. More than likely, it's not going to come back to you. You need to cut your loss and get out," Gregson said. "It's OK to be wrong. It's not OK to *stay* wrong." ●

4 Best Practices

1	Understand how the products work (the information is out there)
2	Understand your reasoning for purchasing the fund
3	Pay attention to how the ETF performs as well as the bigger market picture
4	Get out when the trend turns against you



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INVERSE / LEVERAGED ETFs IN CHARTS

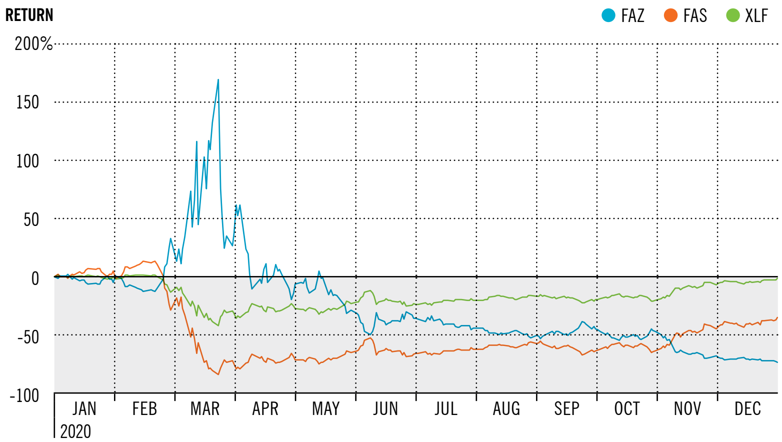
A look at the 2020 performance of key leveraged/inverse ETF complexes

By Heather Bell
ETF Report Editor

The XLF Complex

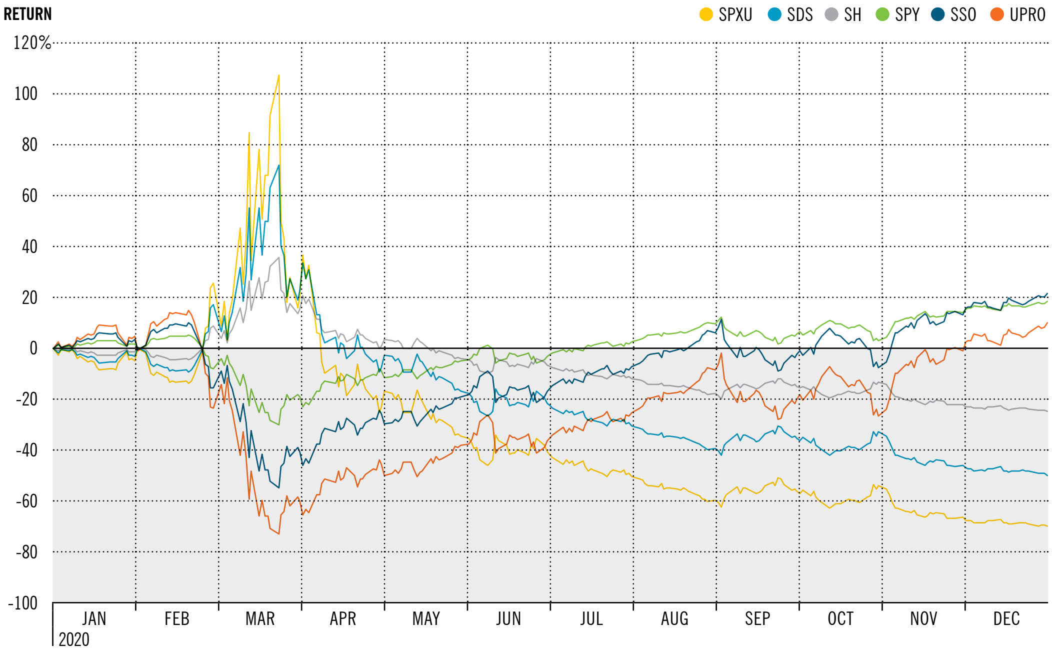
The $29.9 billion **Financial Select Sector SPDR Fund (XLF)** shares an index, the S&P Financial Select Sector Index, with the $1.4 billion **Direxion Daily Financial Bull 3X Shares (FAS)** and the $173.7 million **Direxion Daily Financial Bear 3X Shares (FAZ)**. XLF is the largest and most actively traded financial services ETF, so it makes sense that there are leveraged and inverse ETFs tied to the same benchmark such that they can be used as precise hedging tools alongside of it.

XLF Complex ETF Performance In 2020



Source: FactSet, 12/31/2019-12/31/2020

SPY ETF Complex Performance In 2020



Source: FactSet, 12/31/2019-12/31/2020

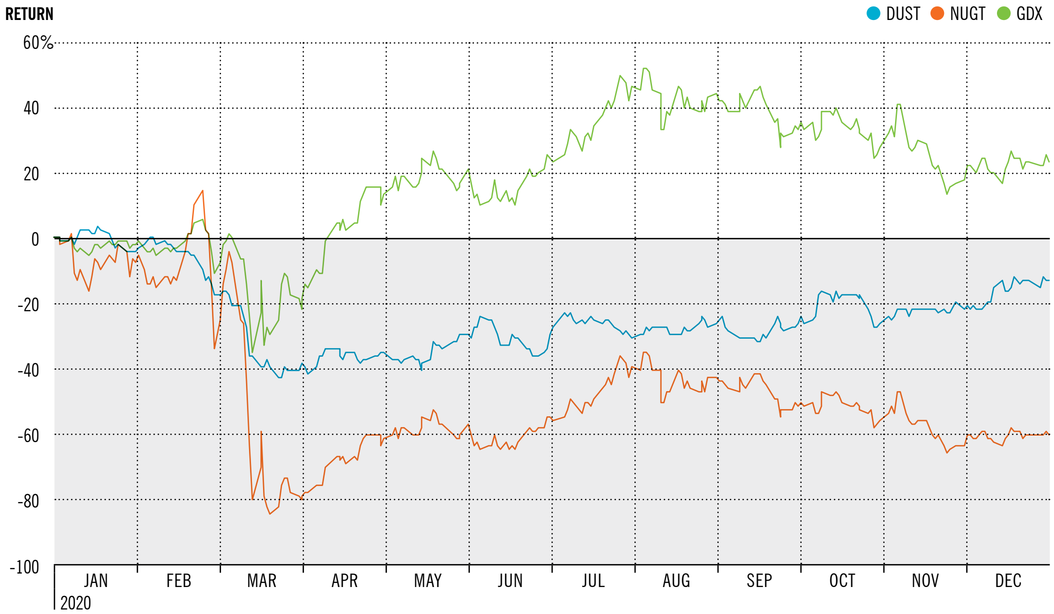
The SPY Complex

The largest ETF in the world, the $333.7 billion **SPDR S&P 500 ETF Trust (SPY)**, tracks the S&P 500 Index. There are no fewer than nine inverse or leveraged ETFs tied to this index as well. The ProShares complex alone includes the $1.8 billion **ProShares Short S&P500 ETF (SH)**, a -1x fund; the $3.5 billion **ProShares Ultra S&P 500 ETF (SSO)**, a 2x fund; the $1.8 billion **ProShares UltraPro S&P500 ETF (UPRO)**, a 3x fund; the $722.6 million **ProShares UltraShort S&P500 ETF (SDS)**, a -2x fund; and the $659.6 million **ProShares UltraPro Short S&P500 ETF (SPXU),** a -3x fund. This graph illustrates the pattern of returns for the funds in the complex. Note that UPRO finished the year significantly below SPY, despite the fact that SPY finished the year with positive returns.

GDX Complex

The $16.3 billion **VanEck Vectors Gold Miners ETF (GDX)** tracks the NYSE Arca Gold Miners Index. Direxion offers two ETFs tracking the index: the $1.1 billion **Direxion Daily Gold Miners Index Bull 2X Shares (NUGT)** and the $104.5 million **Direxion Daily Gold Miners Index Bear 2X Shares (DUST)**. Interestingly, similar to the situation with SPY and UPRO, GDX outperformed its leveraged and inverse counterparts. It further supports the point that daily resets, over time, can produce a return that seems incongruous with the "double exposure" that the ETF provides.

GDX Complex Performance In 2020

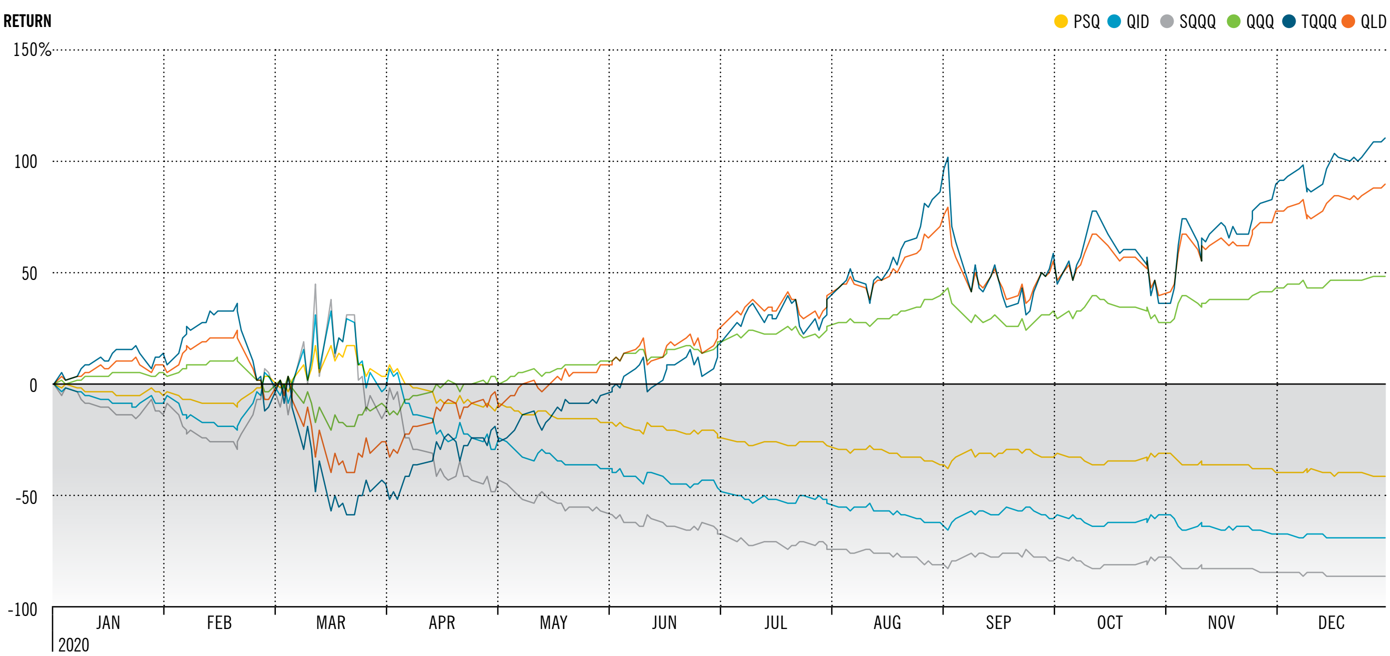


Source: FactSet, 12/31/2019-12/31/2020

QQQ Complex

The $149.6 billion **Invesco QQQ Trust (QQQ)** tracks an index that it shares with five geared ETFs issued by Proshares. The largest is the $9.4 billion **ProShares UltraPro QQQ ETF (TQQQ)**, a 3x fund. It's followed by the $3.9 billion **ProShares Ultra QQQ (QLD)**, a 2x fund; the $1.5 billion **ProShares UltraPro Short QQQ (SQQQ)**, a -3x fund; the $515.8 million **ProShares Short QQQ ETF (PSQ)**, a -1x fund; and the $243 million **ProShares UltraShort QQQ ETF (QID)**, a -2x fund.

QQQ Complex Performance In 2020



Source: FactSet, 12/31/2019-12/31/2020

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ETF DATA

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

- Data as of 12/31/2020
- 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 $118 million and above
- Source: ETF.com

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
U.S. EQUITY: TOTAL MARKET						
Renaissance IPO	IPO	0.60	747.4	107.88	32.23	25.80
SPDR S&P Kensho New Economies	KOMP	0.20	1,815.4	61.28	-	-
ERShares Entrepreneur 30	ENTR	0.49	153.1	50.31	24.77	-
First Trust US Equity Opportunities	FPX	0.58	1,960.2	47.87	20.90	19.09
Fidelity NASDAQ Composite	ONEQ	0.21	3,616.3	44.89	24.38	22.04
Global X Millennials Thematic	MILN	0.50	129.1	44.77	25.23	-
Goldman Sachs Hedge Industry VIP	GVIP	0.45	163.6	43.79	20.15	-
Motley Fool 100	TMFC	0.50	389.6	42.00	-	-
American Century STOXX US Qual Growth	QGRO	0.29	254.6	37.98	-	-
Invesco DWA Momentum	PDP	0.62	2,376.8	36.59	19.58	16.63
iShares MSCI USA Momentum Factor	MTUM	0.15	13,129.4	29.85	17.57	18.60
IQ Candriam ESG US Equity	IQSU	0.09	327.2	28.24	-	-
Vanguard ESG US Stock	ESGV	0.12	2,966.0	25.67	-	-
Etho Climate Leadership US	ETHO	0.47	118.8	25.44	17.06	17.58
iShares MSCI USA ESG Select	SUSA	0.50	2,283.1	24.67	15.83	16.38
iShares ESG Aware MSCI USA	ESGU	0.15	13,317.4	22.54	15.62	-
Vanguard Total Stock Market	VTI	0.03	200,920.7	21.03	14.45	15.44
iShares MSCI KLD 400 Social	DSI	0.50	2,608.6	20.94	15.09	15.29
Vanguard Russell 3000	VTHR	0.10	844.2	20.89	14.27	15.23
Schwab US Broad Market	SCHB	0.03	18,013.3	20.78	14.37	15.35
FlexShares STOXX US ESG Impact	ESG	0.32	118.0	20.78	14.70	-
iShares Core S&P Total US Stock Market	ITOT	0.03	32,127.7	20.71	14.31	15.34
JPMorgan BetaBuilders US Equity	BBUS	0.02	284.1	20.63	-	-
iShares Russell 3000	IWV	0.20	10,557.3	20.55	14.21	15.21
iShares Dow Jones US	IYY	0.20	1,432.1	20.10	14.21	15.15
iShares ESG MSCI USA Leaders	SUSL	0.10	2,791.2	18.87	-	-
Xtrackers MSCI USA. ESG Leaders Equity	USSG	0.10	2,828.8	18.75	-	-
TrimTabs US Free Cash Flow Quality	TTAC	0.59	184.4	18.30	11.81	-
Innovator IBD 50	FFTY	0.80	203.6	18.20	7.35	13.15
SPDR Portfolio S&P 1500 Composite	SPTM	0.03	4,251.5	17.96	13.63	14.82
ALPS Barron's 400	BFOR	0.65	124.0	17.59	7.11	11.38
Avantis US Equity	AVUS	0.15	583.7	17.52	-	-
Global X Conscious Companies	KRMA	0.43	400.9	17.52	13.68	-
iShares MSCI USA Quality Factor	QUAL	0.15	21,481.2	17.03	13.91	14.56
iShares MSCI USA Size Factor	SIZE	0.15	1,056.0	16.25	11.89	13.29
FlexShares Mstar US Market Factor Tilt	TILT	0.25	1,385.2	16.08	10.90	13.52
Vanguard Dividend Appreciation	VIG	0.06	53,051.5	15.40	13.57	14.92
iShares MSCI USA. Equal Weighted	EUSA	0.15	283.6	15.01	11.15	13.26
VanEck Vectors Mstar Wide Moat	MOAT	0.48	4,086.0	14.85	15.19	18.07
Timothy Plan US Large/Mid Cap Core	TPLC	0.52	162.8	14.56	-	-
WisdomTree US Quality Dividend Growth	DGRW	0.28	5,103.3	13.85	11.76	14.71
SPDR MSCI USA StrategicFactors	QUS	0.15	823.9	12.40	12.78	13.87
Franklin Liberty US Low Volatility	FLLV	0.29	125.9	12.35	13.87	-
WisdomTree US Multifactor	USMF	0.28	155.7	11.92	9.78	-
First Trust DW Momentum/Low Vol	DVOL	0.60	123.0	11.12	-	-
iShares MSCI USA Multifactor	LRGF	0.20	874.3	11.11	8.19	11.62
RiverFront Dyn US Dividend Advantage	RFDA	0.52	133.5	11.10	8.63	-
FlexShares US Quality Low Volatility	QLV	0.22	124.5	9.65	-	-
iShares Core Dividend Growth	DGRO	0.08	14,556.8	9.50	11.57	14.50
Schwab Fundamental US Broad Market	FNDB	0.25	263.3	9.43	8.98	12.02
Invesco Dividend Achievers	PFM	0.53	508.6	9.07	9.72	12.18
Invesco Dynamic Market	PWC	0.58	121.5	8.54	4.86	9.16
Invesco BuyBack Achievers	PKW	0.62	992.0	8.45	9.17	11.58
Invesco Defensive Equity	DEF	0.50	253.8	7.62	9.79	12.91
Vident Core US Equity	VUSE	0.48	357.7	6.74	2.99	8.59
Invesco Raymond James SB-1 Equity	RYJ	0.76	124.7	6.21	6.10	10.13
iShares MSCI USA Min Vol Factor	USMV	0.15	33,111.2	5.64	10.99	12.44
FlexShares Quality Dividend	QDF	0.37	1,418.9	4.92	6.68	10.78
VictoryShares US Multi-Factor Min Vol	VSMV	0.35	145.1	4.43	9.40	-
VictoryShares MSCI USA Value Momentum	ULVM	0.20	505.2	3.52	3.58	-
FlexShares Quality Dividend Defensive	QDEF	0.37	452.4	3.21	7.34	10.81
WisdomTree US Total Dividend	DTD	0.28	812.4	2.43	7.10	10.95
Global X Adaptive US Factor	AUSF	0.27	150.5	1.27	-	-
American Century STOXX US Quality Value	VALQ	0.29	167.1	0.57	-	-
Legg Mason Low Volatility High Dividend	LVHD	0.27	693.6	-1.30	4.62	9.05
Virtus Real Asset Income	VRAI	0.55	151.9	-5.85	-	-
iShares US Tech Breakthrough Multisector	TECB	0.40	349.2	-	-	-
Goldman Sachs MarketBeta US Equity	GSUS	0.07	283.6	-	-	-
U.S. EQUITY: TOTAL MARKET GROWTH						
First Trust Multi Cap Growth AlphaDEX	FAD	0.63	202.7	34.90	16.93	16.32
iShares Core S&P US Growth	IUSG	0.05	10,456.2	32.65	19.79	18.58
Janus Henderson Sm/Mid Cap Gr Alpha	JSMD	0.30	153.6	30.79	17.76	-
American Century Focused Dyn Growth	FDG	0.45	218.6	-	-	-
U.S. EQUITY: TOTAL MARKET VALUE						
Vanguard US Value Factor	VFVA	0.14	164.8	2.31	-	-
iShares Core S&P US Value	IUSV	0.05	7,557.1	1.55	6.64	10.58
iShares MSCI USA Value Factor	VLUE	0.15	9,196.9	-0.24	4.10	9.68
Alpha Architect US Quantitative Value	QVAL	0.49	139.1	-5.90	-1.16	6.51
U.S. EQUITY: EXTENDED CAP						
Vanguard Extended Market	VXF	0.06	13,765.1	32.43	15.39	16.08
iShares Russell 2500	SMMD	0.24	181.6	19.97	11.17	-
Invesco FTSE RAFI US 1500 Small-Mid	PRFZ	0.39	1,747.6	11.85	6.50	11.35
U.S. EQUITY: LARGE CAP						
Invesco QQQ Trust	QQQ	0.20	151,436.3	48.62	27.30	23.99
Direxion NASDAQ-100 Equal Weighted	QQQE	0.35	370.5	37.65	21.12	19.23
First Trust Nasdaq-100 Equal Weighted	QQEW	0.59	1,171.2	37.28	20.88	18.99
First Trust NASDAQ-100 Ex-Technology	QQXT	0.60	146.2	36.84	18.20	14.27
First Trust Lunt US Factor Rotation	FCTR	0.65	132.1	30.15	-	-
Pacer Trendpilot 100	PTNQ	0.65	812.7	29.38	20.30	17.24
JPMorgan US Momentum Factor	JMOM	0.12	149.0	29.20	16.23	-
Invesco S&P 500 High Beta	SPHB	0.25	535.6	25.63	12.44	16.16
Invesco S&P 500 Top 50	XLG	0.20	1,738.5	24.16	16.49	16.70
Inspire 100	BIBL	0.35	160.1	22.64	13.72	-
iShares Russell Top 200	IWL	0.15	902.6	22.10	15.78	16.11
Vanguard Mega Cap	MGC	0.07	3,282.8	21.53	15.46	16.12
iShares S&P 100	OEF	0.20	7,206.6	21.21	15.29	15.75
Vanguard Large-Cap	VV	0.04	21,204.5	20.98	14.92	15.66
Vanguard Russell 1000	VONE	0.08	1,970.4	20.90	14.69	15.44
Schwab US Large-Cap	SCHX	0.03	25,493.3	20.83	14.82	15.61
iShares Russell 1000	IWB	0.15	25,818.3	20.77	14.62	15.44
Schwab 1000	SCHK	0.05	1,396.9	20.77	14.60	-
Invesco Russell 1000 Dynamic Multifactor	OMFL	0.29	1,234.0	20.26	16.59	-
Overlay Shares Large Cap Equity	OVL	0.79	123.8	20.18	-	-
SPDR S&P 500 Fossil Fuel Reserves Free	SPYX	0.20	887.5	19.89	14.75	15.53

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
Xtrackers S&P 500 ESG	SNPE	0.10	399.6	19.89	-	-
VictoryShares US 500 Enh Volatility Wtd	CFO	0.35	748.9	19.59	9.88	13.22
Barclays ETN+ Shiller CAPE ETN	CAPE	0.45	274.7	19.47	15.20	16.98
iShares Mstar Large-Cap	JKD	0.20	863.0	19.39	13.17	15.02
Distillate US Fundamental Stability/Value	DSTL	0.39	207.9	19.31	-	-
Invesco S&P 500 Downside Hedged	PHDG	0.39	131.3	19.01	8.02	7.75
Goldman Sachs JUST US Large Cap Equity	JUST	0.20	189.7	18.85	-	-
Global X S&P 500 Catholic Values	CATH	0.29	452.1	18.80	13.79	-
SPDR Portfolio S&P 500	SPLG	0.03	7,785.9	18.52	14.21	15.10
HCM Defender 500	LGH	1.23	130.8	18.51	-	-
iShares Core S&P 500	IVV	0.04	237,299.6	18.40	14.08	15.18
SPDR S&P 500 Trust	SPY	0.09	326,894.6	18.37	14.03	15.11
Vanguard S&P 500	VOO	0.03	176,967.9	18.29	14.06	15.18
Goldman Sachs ActiveBeta US Large Cap	GSLC	0.09	11,384.8	18.29	13.91	14.51
Aptus Drawdown Managed Equity	ADME	0.79	200.4	18.20	6.67	-
SPDR SSGA Gender Diversity	SHE	0.20	180.4	17.97	12.10	-
Nationwide Risk-Managed Income	NUSI	0.68	160.8	17.85	-	-
John Hancock Multifactor Large Cap	JHML	0.29	991.7	17.00	12.76	14.30
Invesco S&P 500 Quality	SPHQ	0.15	2,390.8	16.95	13.24	14.60
Invesco Russell 1000 Equal Weight	EQAL	0.20	550.8	16.63	9.66	12.34
JPMorgan US Quality Factor	JQUA	0.12	437.9	16.52	12.90	-
Fidelity Quality Factor	FQAL	0.29	164.6	16.21	12.49	-
Principal US Mega-Cap	USMC	0.12	1,782.4	16.07	13.05	-
Main Sector Rotation	SECT	0.80	649.1	15.64	10.18	-
Goldman Sachs Equal Weight US Large Cap	GSEW	0.09	534.2	15.39	11.41	-
Xtrackers Russell 1000 US QARP	QARP	0.19	122.8	14.86	-	-
Invesco RAFI Strategic US	IUS	0.19	154.1	14.57	-	-
First Trust Large Cap Core AlphaDEX	FEX	0.59	1,008.2	14.25	9.33	12.64
Davis Select US Equity	DUSA	0.63	309.0	14.22	9.47	-
First Trust Rising Dividend Achievers	RDVY	0.50	1,862.5	13.43	12.06	16.05
First Trust Capital Strength	FTCS	0.58	6,963.0	13.03	11.11	13.48
Invesco S&P 500 Equal Weight	RSP	0.20	18,045.1	12.71	10.23	12.69
Amplify CWP Enhanced Dividend Income	DIVO	0.49	190.2	12.44	10.78	-
FT Cboe Vest US Equity Buffer - November	FNOV	0.85	177.7	12.30	-	-
Fidelity Low Volatility Factor	FDLO	0.29	394.2	12.23	13.64	-
VictoryShares Dividend Accelerator	VSDA	0.35	316.7	12.19	13.27	-
VictoryShares US EQ Inc Enhanced Volatility Wtd	CDC	0.35	639.1	12.14	8.05	11.90
VictoryShares US 500 Volatility Wtd	CFA	0.35	677.4	11.99	10.03	13.27
WisdomTree US LargeCap	EPS	0.08	458.2	11.94	11.13	13.89
Pacer US Cash Cows 100	COWZ	0.49	246.8	11.74	7.45	-
ALPS Equal Sector Weight	EQL	0.28	167.0	10.88	10.00	12.19
SPDR Russell 1000 Momentum Focus	ONEO	0.20	249.7	10.78	7.08	10.60
Franklin LibertyQ US Equity	FLQL	0.15	1,480.7	10.70	11.33	-
ProShares Large Cap Core Plus	CSM	0.46	423.0	10.40	8.47	11.54
Innovator S&P 500 Power Buffer - October	POCT	0.80	206.9	10.40	-	-
Aptus Collared Income Opportunity	ACIO	0.79	178.3	9.86	-	-
SPDR Dow Jones Industrial Average Trust	DIA	0.16	24,089.6	9.61	9.67	14.48
Schwab Fundamental US Large Company	FNDX	0.25	5,373.4	9.14	9.18	12.15
IQ Chaikin US Large Cap	CLRG	0.25	284.3	9.11	6.67	-
Xtrackers Russell 1000 Compr Factor	DEUS	0.17	170.7	8.86	8.40	11.27
Global X NASDAQ 100 Covered Call	QYLD	0.60	1,633.4	8.74	8.95	9.62
Invesco S&P 500 Revenue	RWL	0.39	831.0	8.64	8.61	11.57
Innovator S&P 500 Power Buffer - Sept	PSEP	0.79	318.5	8.48	-	-
Innovator S&P 500 Power Buffer - Dec	PDEC	0.79	211.5	8.45	-	-
ProShares S&P 500 Dividend Aristocrats	NOBL	0.35	7,007.9	8.37	10.12	12.52
FT Cboe Vest US Equity Deep Buffer - Aug	DAUG	0.85	134.0	8.01	-	-
Invesco FTSE RAFI US 1000	PRF	0.39	4,347.9	7.83	7.85	11.29
Innovator S&P 500 Power Buffer - January	PJAN	0.79	231.4	7.68	-	-
JPMorgan Diversified Return US Equity	JPUS	0.18	607.7	7.47	8.19	11.15
SPDR SSGA US Large Cap Low Volatility	LGLV	0.12	597.0	7.46	12.14	13.10
O?Shares US Quality Dividend	OUSA	0.48	609.4	6.97	9.02	11.57
LeaderShares AlphaFactor US Core Equity	LSAF	0.75	124.0	6.91	-	-
SPDR Russell 1000 Low Volatility Focus	ONEV	0.20	461.1	6.70	9.71	12.38
Hartford Multifactor US Equity	ROUS	0.19	255.1	6.58	6.11	10.30
First Trust Horizon Managed Vol Domestic	HUSV	0.70	183.4	5.36	9.48	-
Innovator S&P 500 Power Buffer - April	PAPR	0.79	167.5	4.62	-	-

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
WisdomTree US LargeCap Dividend	DLN	0.28	2,589.7	4.57	8.29	11.64
SPDR Russell 1000 Yield Focus	ONEY	0.20	461.0	2.26	5.98	10.94
Invesco Dow Jones Industrial Average Div	DJD	0.07	125.5	0.94	7.20	11.62
ALPS Sector Dividend Dogs	SDOG	0.40	1,013.4	-0.35	3.06	8.60
Global X S&P 500 Covered Call	XYLD	0.60	127.3	-0.50	4.29	7.29
Pacer Trendpilot US Large Cap	PTLC	0.60	1,906.7	-1.14	5.66	8.37
Timothy Plan High Dividend Stock	TPHD	0.52	121.9	-1.28	-	-
Invesco S&P 500 Low Volatility	SPLV	0.25	8,118.3	-1.37	7.98	10.21
Invesco S&P 500 BuyWrite	PBP	0.49	166.7	-3.28	1.70	4.62
VictoryShares US LrgCap High Div Vol Wtd	CDL	0.35	184.5	-4.54	4.33	9.73
WisdomTree US Dividend ex-Financials	DTN	0.38	513.9	-5.85	1.95	7.33
Invesco S&P 500 High Dividend Low Vol	SPHD	0.30	2,517.1	-9.94	0.55	6.83
SPDR Portfolio S&P 500 High Dividend	SPYD	0.07	2,367.7	-11.54	0.66	7.43
Invesco NASDAQ Next Gen 100	QQQJ	0.15	579.0	-	-	-
FT Cboe Vest US Equity Deep Buffer - Feb	DFEB	0.85	449.8	-	-	-
Invesco NASDAQ 100	QQQM	0.15	304.6	-	-	-
FT Cboe Vest US Equity Buffer - February	FFEB	0.85	221.8	-	-	-
6 Meridian Hdgd Equity-Index Option Strat	SIXH	0.81	201.8	-	-	-
JPMorgan Equity Premium Income	JEPI	0.35	168.6	-	-	-
BNY Mellon US Large Cap Core Equity	BKLC	0.00	163.0	-	-	-
LeaderShares AlphaFactor Tactical Focus	LSAT	0.99	150.4	-	-	-
Day Hagan/NDR Smart Sector	SSUS	0.79	137.1	-	-	-
6 Meridian Mega Cap Equity	SIXA	0.82	120.8	-	-	-
U.S. EQUITY: LARGE CAP GROWTH						
Vanguard Mega Cap Growth	MGK	0.07	9,914.5	40.99	23.44	21.01
Vanguard Growth	VUG	0.04	68,197.7	40.22	22.94	20.32
Nuveen ESG Large-Cap Growth	NULG	0.35	428.9	39.53	24.82	-
Schwab US Large-Cap Growth	SCHG	0.04	13,446.0	39.14	23.13	20.62
iShares Russell Top 200 Growth	IWY	0.20	3,413.7	39.01	23.42	21.47
iShares Mstar Large-Cap Growth	JKE	0.25	1,878.6	38.55	23.51	20.10
Vanguard Russell 1000 Growth	VONG	0.08	5,447.0	38.27	22.81	20.86
iShares Russell 1000 Growth	IWF	0.20	64,300.0	38.25	22.70	20.77
SPDR Portfolio S&P 500 Growth	SPYG	0.04	9,597.7	33.47	20.38	18.85
Vanguard S&P 500 Growth	VOOG	0.10	4,854.0	33.32	20.32	18.80
First Trust Large Cap Growth AlphaDEX	FTC	0.60	1,101.0	33.32	17.07	15.58
iShares S&P 500 Growth	IVW	0.18	32,205.1	33.19	20.24	18.76
Invesco Dynamic Large Cap Growth	PWB	0.56	759.6	31.89	18.39	17.41
Invesco S&P 500 Pure Growth	RPG	0.35	2,724.6	29.35	16.59	15.78
SoFi Select 500	SFY	0.00	143.4	24.51	-	-
Invesco S&P 500 GARP	SPGP	0.34	301.4	15.96	17.95	17.18
U.S. EQUITY: LARGE CAP VALUE						
Fidelity Value Factor	FVAL	0.29	263.3	9.12	9.43	-
iShares Russell 1000 Value	IWD	0.20	43,568.2	2.73	5.87	9.56
Schwab US Large-Cap Value	SCHV	0.04	7,979.3	2.67	6.22	10.23
Vanguard Russell 1000 Value	VONV	0.08	3,350.6	2.65	5.93	9.59
Vanguard Mega Cap Value	MGV	0.07	3,473.3	2.44	7.24	10.97
Vanguard Value	VTV	0.04	60,967.8	2.26	6.71	10.76
Nuveen ESG Large-Cap Value	NULV	0.35	670.0	1.86	7.17	-
iShares Russell Top 200 Value	IWX	0.20	909.8	1.46	6.08	9.45
SPDR Portfolio S&P 500 Value	SPYV	0.04	7,527.8	1.44	6.74	10.56
iShares S&P 500 Value	IVE	0.18	18,452.8	1.21	6.55	10.34
Vanguard S&P 500 Value	VOOV	0.10	1,591.4	1.20	6.62	10.37
First Trust Large Cap Value AlphaDEX	FTA	0.60	750.3	0.06	2.54	9.64
iShares Mstar Large-Cap Value	JKF	0.25	539.6	-0.83	5.21	9.69
Invesco Dynamic Large Cap Value	PWV	0.56	661.4	-3.72	2.40	8.34
Invesco S&P 500 Pure Value	RPV	0.35	1,073.3	-8.60	0.01	6.96
American Century Focused Lrg Cap Value	FLV	0.42	170.2	-	-	-
U.S. EQUITY: MID CAP						
Invesco S&P Midcap Momentum	XMMO	0.34	852.1	28.86	23.21	21.55
Vanguard Mid-Cap	VO	0.04	41,413.7	18.06	11.97	13.25
iShares Russell Mid-Cap	IWR	0.20	24,756.6	16.92	11.45	13.23
John Hancock Multifactor Mid Cap	JHMM	0.42	1,912.5	16.21	10.97	13.21
First Trust Mid Cap Core AlphaDEX	FNX	0.60	727.3	16.03	9.36	12.80
Schwab US Mid-Cap	SCHM	0.04	8,033.2	15.25	10.25	12.91
Vanguard S&P Mid-Cap 400	IVOO	0.10	1,094.6	13.59	8.32	12.22
iShares Core S&P Mid-Cap	IJH	0.07	53,682.1	13.58	8.36	12.30

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
SPDR S&P Midcap 400 Trust	MDY	0.23	17,665.4	13.53	8.21	12.09
SPDR Portfolio S&P 400 Mid Cap	SPMD	0.05	3,400.6	13.48	8.41	11.64
iShares Mstar Mid-Cap	JKG	0.25	792.3	13.34	9.66	12.07
Invesco S&P MidCap 400 Revenue	RWK	0.39	257.9	10.80	6.62	10.67
JPMorgan Diversified Return US Mid Cap	JPME	0.24	261.5	8.40	7.52	-
ProShares S&P MidCap 400 Div Aristocrats	REGL	0.41	828.4	7.51	7.30	12.05
Pacer Trendpilot US Mid Cap	PTMC	0.60	433.7	6.58	2.51	7.94
WisdomTree US MidCap	EZM	0.38	616.5	5.48	4.80	10.11
Invesco Zacks Mid-Cap	CZA	0.69	226.8	0.36	6.56	11.26
WisdomTree US MidCap Dividend	DON	0.38	2,685.5	-5.45	2.28	8.14
Invesco S&P MidCap Low Volatility	XMLV	0.25	1,746.4	-8.37	4.24	9.38
JPMorgan BetaBuilders US Mid Cap Equity	BBMC	0.07	1,353.1	-	-	-
U.S. EQUITY: MID CAP GROWTH						
iShares Mstar Mid-Cap Growth	JKH	0.30	1,549.5	45.64	23.93	20.30
Nuveen ESG Mid-Cap Growth	NUMG	0.40	256.6	45.63	22.67	-
First Trust Mid Cap Growth AlphaDEX	FNY	0.70	473.3	36.97	18.85	18.13
iShares Russell Mid-Cap Growth	IWP	0.25	15,280.5	35.24	20.22	18.41
Vanguard Mid-Cap Growth	VOT	0.07	10,126.2	34.48	19.33	17.20
Invesco S&P MidCap 400 Pure Growth	RFG	0.35	374.9	32.86	10.20	10.83
Vanguard S&P Mid-Cap 400 Growth	IVOG	0.15	816.6	22.59	11.41	13.65
SPDR S&P 400 Mid Cap Growth	MDYG	0.15	2,039.8	22.58	11.45	13.63
iShares S&P Mid-Cap 400 Growth	IJK	0.25	7,878.7	22.44	11.34	13.60
U.S. EQUITY: MID CAP VALUE						
iShares Russell Mid-Cap Value	IWS	0.25	11,672.9	4.80	5.17	9.54
SPDR S&P 400 Mid Cap Value	MDYV	0.15	1,545.8	3.74	4.77	10.25
Vanguard S&P Mid-Cap 400 Value	IVOV	0.15	529.0	3.70	4.69	10.21
iShares S&P Mid-Cap 400 Value	IJJ	0.25	5,487.0	3.53	4.60	10.10
Vanguard Mid-Cap Value	VOE	0.07	10,971.0	2.59	4.72	9.18
Nuveen ESG Mid-Cap Value	NUMV	0.40	151.0	0.91	4.83	-
iShares Mstar Mid-Cap Value	JKI	0.30	380.9	-4.13	2.13	8.33
U.S. EQUITY: SMALL CAP						
Invesco DWA SmallCap Momentum	DWAS	0.60	507.7	32.32	15.80	15.18
Nuveen ESG Small-Cap	NUSC	0.40	534.5	23.68	12.44	-
Invesco S&P SmallCap Momentum	XSMO	0.39	129.9	21.65	14.68	14.66
Invesco S&P SmallCap 600 Revenue	RWJ	0.39	290.3	20.84	6.47	10.65
Vanguard Russell 2000	VTWO	0.10	3,258.8	20.20	10.35	13.34
iShares Russell 2000	IWM	0.20	58,757.4	20.03	10.19	13.27
iShares ESG Aware MSCI USA Small-Cap	ESML	0.17	510.7	19.56	-	-
First Trust Small Cap Core AlphaDEX	FYX	0.63	619.3	19.47	9.01	12.76
Schwab US Small-Cap	SCHA	0.04	12,935.3	19.35	10.03	12.93
Vanguard Small-Cap	VB	0.05	37,410.5	19.16	11.22	13.63
Goldman Sachs ActiveBeta US SmCap Eq	GSSC	0.20	241.4	15.44	8.77	-
Principal US Small-Cap Multi-Factor	PSC	0.38	859.2	13.34	6.10	-
JPMorgan Diversified Return US Small Cap	JPSE	0.29	173.3	12.43	8.11	-
John Hancock Multifactor Small Cap	JHSC	0.42	552.4	11.59	6.71	-
VictoryShares MSCI USA SmCap Val Mom	USVM	0.24	283.5	11.54	6.88	-
Vanguard S&P Small-Cap 600	VIOO	0.10	1,203.0	11.47	7.71	12.38
SPDR Portfolio S&P 600 Small Cap	SPSM	0.05	3,276.8	11.46	7.62	11.55
SPDR S&P 600 Small Cap	SLY	0.15	1,330.9	11.45	7.70	12.32
iShares Core S&P Small-Cap	IJR	0.07	56,064.8	11.28	7.74	12.37
Schwab Fundamental US Small Company	FNDA	0.25	3,709.1	8.46	5.83	10.53
iShares MSCI USA Small-Cap Multifactor	SMLF	0.30	658.0	8.37	6.46	10.40
IQ Chaikin US Small Cap	CSML	0.35	168.8	8.08	2.51	-
WisdomTree US Smallcap Qual Div Growth	DGRS	0.38	138.6	7.84	6.14	10.94
O'Shares US Small-Cap Quality Dividend	OUSM	0.48	125.4	7.65	7.20	-
iShares Mstar Small-Cap	JKJ	0.25	217.0	6.28	5.80	10.59
WisdomTree US SmallCap	EES	0.38	473.3	3.00	4.06	10.54
SPDR SSGA US Small Cap Low Volatility	SMLV	0.12	213.2	-1.49	4.52	9.29
iShares MSCI USA SmCap Min Vol Factor	SMMV	0.20	884.6	-2.88	6.86	-
WisdomTree US SmallCap Dividend	DES	0.38	1,553.4	-4.26	0.12	7.45
ProShares Russell 2000 Dividend Growers	SMDV	0.41	671.4	-4.72	3.55	9.52
Invesco S&P SmallCap Low Volatility	XSLV	0.25	1,494.1	-17.33	-1.45	6.43
U.S. EQUITY: SMALL CAP GROWTH						
MFAM Small-Cap Growth	MFMS	0.85	160.7	58.55	-	-
iShares Mstar Small-Cap Growth	JKK	0.30	703.1	43.41	19.45	18.25

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
Vanguard Small-Cap Growth	VBK	0.07	14,453.8	35.43	19.24	18.03
Vanguard Russell 2000 Growth	VTWG	0.15	550.4	34.70	16.24	16.23
iShares Russell 2000 Growth	IWO	0.24	11,842.8	34.68	16.16	16.43
First Trust Small Cap Growth AlphaDEX	FYC	0.70	235.4	32.34	13.45	15.37
Vanguard S&P Small-Cap 600 Growth	VIOG	0.16	408.5	19.67	11.43	14.01
SPDR S&P 600 Small Cap Growth	SLYG	0.15	1,946.0	19.48	11.47	14.15
iShares S&P Small-Cap 600 Growth	IJT	0.25	5,250.2	19.22	11.31	14.02
Invesco S&P SmallCap 600 Pure Growth	RZG	0.35	122.1	17.77	7.10	12.00
U.S. EQUITY: SMALL CAP VALUE						
First Trust Small Cap Value AlphaDEX	FYT	0.72	124.1	9.81	5.61	10.43
Avantis US Small Cap Value	AVUV	0.25	558.4	6.39	-	-
Vanguard Small-Cap Value	VBR	0.07	17,789.2	5.87	4.48	9.75
Vanguard Russell 2000 Value	VTWV	0.15	535.8	4.86	3.63	9.61
iShares Russell 2000 Value	IWN	0.24	11,756.2	4.66	3.57	9.57
Vanguard S&P Small-Cap 600 Value	VIOV	0.15	727.7	2.79	3.69	10.09
SPDR S&P 600 Small Cap Value	SLYV	0.15	2,756.1	2.71	3.65	11.27
iShares S&P Small-Cap 600 Value	IJS	0.25	6,353.9	2.63	3.55	10.17
iShares Mstar Small Cap Value	JKL	0.30	323.9	0.83	-0.14	6.69
Invesco S&P SmallCap 600 Pure Value	RZV	0.35	164.4	-3.86	-1.88	5.08
U.S. EQUITY: MICRO CAP						
iShares Micro-Cap	IWC	0.60	995.2	20.88	8.67	11.80
First Trust Dow Jones Select MicroCap	FDM	0.60	122.6	-4.08	1.87	9.33
U.S. EQUITY: BASIC MATERIALS						
Invesco S&P 500 Equal Weight Materials	RTM	0.40	441.5	22.85	9.43	14.79
First Trust Materials AlphaDEX	FXZ	0.67	182.3	22.48	4.82	12.97
Materials Select Sector SPDR	XLB	0.13	5,166.1	20.52	8.40	13.03
Fidelity MSCI Materials	FMAT	0.08	247.6	19.62	6.82	12.76
Vanguard Materials	VAW	0.10	2,254.4	19.40	6.77	12.85
iShares US Basic Materials	IYM	0.44	893.5	17.86	5.43	11.87
SPDR S&P Metals & Mining	XME	0.35	893.5	15.97	-0.87	19.45
U.S. EQUITY: CONSUMER CYCLICALS						
Amplify Online Retail	IBUY	0.65	1,460.1	123.80	41.28	-
ProShares Online Retail	ONLN	0.58	915.2	111.87	-	-
ProShares Long Online/Short Stores	CLIX	0.65	252.0	90.95	33.56	-
Global X E-commerce	EBIZ	0.50	134.6	74.37	-	-
Fidelity MSCI Consumer Discretionary	FDIS	0.08	1,287.7	49.53	23.62	19.88
Vanguard Consumer Discretionary	VCR	0.10	4,763.1	48.34	22.69	19.34
SPDR S&P Retail	XRT	0.35	668.5	41.94	14.21	9.91
VanEck Vectors Retail	RTH	0.35	199.7	31.62	20.85	16.49
Consumer Discr Select Sector SPDR	XLY	0.13	18,358.0	29.63	19.13	17.09
SPDR S&P Homebuilders	XHB	0.35	1,311.0	27.99	10.34	12.04
iShares US Home Construction	ITB	0.44	2,022.5	26.38	9.09	16.12
iShares US Consumer Services	IYC	0.44	1,243.9	24.58	17.32	15.37
First Trust Consumer Discr AlphaDEX	FXD	0.63	1,333.2	12.96	7.45	9.35
Invesco S&P 500 Equal Wt Consumer Discr	RCD	0.40	317.4	11.46	8.57	9.23
Invesco Dynamic Leisure/Entertainment	PEJ	0.63	681.4	-10.29	-2.53	2.47
U.S. EQUITY: CONSUMER NON-CYCLICALS						
iShares US Consumer Goods	IYK	0.44	732.6	32.64	13.56	12.33
Invesco DWA Cons Staples Momentum	PSL	0.60	128.7	17.86	10.74	9.78
Fidelity MSCI Consumer Staples	FSTA	0.08	902.2	11.02	8.82	8.94
Vanguard Consumer Staples	VDC	0.10	5,696.6	10.84	8.82	8.91
Consumer Staples Select Sector SPDR	XLP	0.13	13,204.7	10.15	8.87	8.88
Invesco S&P 500 Eq Wt Consumer Staples	RHS	0.40	491.2	6.24	6.68	7.74
First Trust Consumer Staples AlphaDEX	FXG	0.63	251.3	4.82	3.83	4.79
U.S. EQUITY: ENERGY						
First Trust North Amer Energy Infrastr	EMLP	0.96	1,699.9	-13.43	-0.82	5.08
First Trust Energy AlphaDEX	FXN	0.64	140.7	-19.96	-17.50	-8.46
Global X MLP & Energy Infrastructure	MLPX	0.45	566.9	-20.26	-7.05	0.87
Tortoise North American Pipeline	TPYP	0.40	364.9	-20.98	-4.69	4.28
Barclays ETN+ Select MLP ETN	ATMP	0.95	146.9	-28.66	-11.53	-2.81
JPMorgan Alerian MLP ETN	AMJ	0.85	1,643.9	-29.41	-13.35	-6.67
ETRACS Alerian MLP Infrastr ETN Ser B	MLPB	0.85	168.0	-30.86	-13.59	-6.16
Alerian MLP	AMLP	0.87	4,146.5	-32.19	-14.37	-7.86
Energy Select Sector SPDR	XLE	0.13	13,693.3	-32.51	-14.88	-4.79
iShares US Oil & Gas Expl/Production	IEO	0.44	173.9	-32.73	-15.93	-5.72

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
Vanguard Energy	VDE	0.10	3,358.4	-33.06	-16.34	-5.91
Fidelity MSCI Energy	FENY	0.08	594.2	-33.15	-16.44	-6.24
iShares US Energy	IYE	0.44	503.1	-33.47	-16.13	-6.16
Global X MLP	MLPA	0.46	634.1	-33.79	-14.48	-7.11
SPDR S&P Oil & Gas Expl/Production	XOP	0.35	2,316.6	-36.31	-25.43	-12.29
SPDR S&P Oil & Gas Equip/Services	XES	0.35	131.1	-43.35	-35.11	-22.82
InfraCap MLP	AMZA	2.41	145.5	-50.37	-27.14	-14.81
U.S. EQUITY: FINANCIALS						
iShares US Broker-Dealers/Securities Exch	IAI	0.44	161.2	18.59	10.10	15.85
First Trust Financials AlphaDEX	FXO	0.62	673.4	5.86	5.69	10.49
Invesco S&P 500 Equal Weight Financials	RYF	0.40	171.0	5.57	5.35	11.92
iShares US Financial Services	IYG	0.44	1,202.6	0.97	6.72	12.65
iShares US Financials	IYF	0.44	1,418.0	-1.02	5.76	10.60
Financial Select Sector SPDR	XLF	0.13	24,408.4	-1.67	4.08	11.02
Invesco KBW Property & Casualty Ins	KBWP	0.35	264.2	-2.00	7.05	9.60
Vanguard Financials	VFH	0.10	7,125.2	-2.00	3.70	10.81
Fidelity MSCI Financials	FNCL	0.08	873.5	-2.14	3.69	10.81
SPDR S&P Insurance	KIE	0.35	344.6	-3.00	5.07	9.70
VanEck Vectors BDC Income	BIZD	10.24	282.3	-6.84	4.32	7.30
SPDR S&P Regional Banking	KRE	0.35	1,935.5	-7.30	-1.46	6.78
iShares US Regional Banks	IAT	0.44	289.8	-7.59	0.09	7.94
SPDR S&P Bank	KBE	0.35	2,568.9	-8.66	-1.60	6.60
Invesco KBW Bank	KBWB	0.35	1,325.2	-11.06	-0.41	8.37
Invesco KBW High Dividend Yld Financial	KBWD	1.24	290.5	-16.16	-2.60	4.52
U.S. EQUITY: HEALTH CARE						
Invesco DWA Healthcare Momentum	PTH	0.60	948.6	67.26	30.47	23.77
Principal Healthcare Innovators	BTEC	0.42	157.8	52.91	23.28	-
SPDR S&P Biotech	XBI	0.35	7,210.6	48.33	18.55	15.16
SPDR S&P Health Care Services	XHS	0.35	135.6	33.66	17.42	11.79
SPDR S&P Health Care Equipment	XHE	0.35	708.8	32.91	20.97	20.90
Invesco S&P SmallCap Health Care	PSCH	0.29	480.9	31.47	19.92	18.78
First Trust Health Care AlphaDEX	FXH	0.61	1,430.0	28.00	15.58	12.26
iShares NASDAQ Biotechnology	IBB	0.47	10,442.2	26.01	12.59	6.31
Invesco Dynamic Biotech/Genome	PBE	0.58	265.8	25.66	14.17	7.01
iShares US Medical Devices	IHI	0.44	9,124.0	24.17	23.93	22.17
ALPS Medical Breakthroughs	SBIO	0.50	263.1	21.17	17.15	11.06
Invesco S&P 500 Equal Weight Health Care	RYH	0.40	762.9	18.71	13.95	11.82
Vanguard Health Care	VHT	0.10	13,103.4	18.27	15.02	12.67
Fidelity MSCI Health Care	FHLC	0.08	2,438.1	18.16	14.99	12.62
iShares US Healthcare Providers	IHF	0.44	1,114.3	17.67	16.41	14.86
iShares US Healthcare	IYH	0.44	2,483.4	15.56	13.88	11.94
SPDR S&P Pharmaceuticals	XPH	0.35	279.4	14.68	6.85	0.98
iShares US Pharmaceuticals	IHE	0.44	356.5	13.66	6.58	3.41
Health Care Select Sector SPDR	XLV	0.13	25,391.8	13.34	13.21	11.43
First Trust NYSE Arca Biotechnology	FBT	0.55	2,056.0	12.96	10.48	8.25
Invesco Dynamic Pharmaceuticals	PJP	0.56	346.9	11.31	4.59	1.28
U.S. EQUITY: INDUSTRIALS						
Invesco DWA Industrials Momentum	PRN	0.60	206.0	36.39	15.43	16.31
Invesco Dynamic Building & Construction	PKB	0.59	175.7	24.50	6.33	11.98
Invesco S&P 500 Equal Weight Industrials	RGI	0.40	413.0	18.12	10.93	15.31
iShares US Industrials	IYJ	0.44	1,249.6	17.35	11.10	15.11
First Trust Nasdaq Transportation	FTXR	0.60	808.4	15.02	3.83	-
iShares Transportation Average	IYT	0.44	1,538.8	14.19	6.13	11.66
Fidelity MSCI Industrials	FIDU	0.08	560.9	13.76	8.60	13.54
First Trust Industrials/Prod Dur AlphaDEX	FXR	0.64	354.6	12.77	8.50	14.98
Vanguard Industrials	VIS	0.10	3,829.8	12.31	7.90	12.93
SPDR S&P Transportation	XTN	0.35	438.9	12.11	4.17	11.77
Industrial Select Sector SPDR	XLI	0.13	16,078.4	10.96	7.51	13.08
SPDR S&P Aerospace & Defense	XAR	0.35	1,262.4	6.19	12.18	17.88
Invesco Aerospace & Defense	PPA	0.59	718.8	0.48	9.08	15.03
iShares US Aerospace & Defense	ITA	0.44	2,915.2	-13.62	1.52	11.22
U.S. EQUITY: TECHNOLOGY						
WisdomTree Cloud Computing	WCLD	0.45	1,262.9	109.71	-	-
SPDR FactSet Innovative Technology	XITK	0.45	417.9	90.22	41.01	-
Invesco DWA Technology Momentum	PTF	0.60	471.6	82.06	38.76	28.89
SPDR S&P NYSE Technology	XNTK	0.35	672.4	73.90	31.12	29.00
SPDR S&P Semiconductor	XSD	0.35	810.0	61.94	35.67	32.25
Invesco NASDAQ Internet	PNQI	0.60	1,020.4	61.36	25.41	23.26
First Trust Cloud Computing	SKYY	0.60	6,124.8	57.77	28.20	26.50
Invesco Dynamic Semiconductors	PSI	0.57	372.4	56.74	28.35	33.69
VanEck Vectors Semiconductor	SMH	0.35	3,857.3	55.54	32.51	34.28
Invesco Dynamic Software	PSJ	0.56	643.6	54.30	34.36	29.52
First Trust Technology AlphaDEX	FXL	0.61	2,602.3	54.19	29.98	28.04
iShares Expanded Tech-Software Sector	IGV	0.48	5,937.5	52.87	32.17	28.27
iShares PHLX Semiconductor	SOXX	0.48	4,836.7	52.73	32.38	35.02
First Trust Dow Jones Internet	FDN	0.52	11,097.1	52.55	24.54	23.25
SPDR S&P Software & Services	XSW	0.35	361.4	52.40	30.83	25.46
iShares US Technology	IYW	0.44	6,763.4	47.46	28.92	27.19
Vanguard Information Technology	VGT	0.10	41,493.1	46.00	30.51	28.23
Fidelity MSCI Information Technology	FTEC	0.08	5,249.9	45.87	29.35	27.53
iShares Expanded Tech Sector	IGM	0.48	3,158.2	45.11	28.15	26.67
Technology Select Sector SPDR	XLK	0.13	38,140.9	43.61	28.39	26.72
HCM Defender 100	QQH	1.14	152.6	41.71	-	-
First Trust NASDAQ-100 Technology	QTEC	0.57	3,345.0	38.73	25.17	27.64
Invesco S&P 500 Equal Weight Technology	RYT	0.40	2,343.6	30.22	22.51	23.84
Invesco S&P SmallCap Information Tech	PSCT	0.29	385.1	27.79	17.32	18.84
Direxion Work From Home	WFH	0.45	174.0	-	-	-
U.S. EQUITY: TELECOMMUNICATIONS						
Vanguard Communication Services	VOX	0.10	3,250.5	29.11	11.22	9.81
Fidelity MSCI Communication Services	FCOM	0.08	673.1	28.35	15.46	14.44
Communication Svcs Select Sector SPDR	XLC	0.13	12,098.5	26.91	-	-
iShares US Telecommunications	IYZ	0.44	418.4	4.15	3.41	3.66
U.S. EQUITY: UTILITIES						
First Trust Utilities AlphaDEX	FXU	0.62	191.5	1.47	6.11	8.15
Utilities Select Sector SPDR	XLU	0.13	11,747.8	0.57	9.59	11.34
Fidelity MSCI Utilities	FUTY	0.08	1,114.5	-0.67	8.98	11.27
Vanguard Utilities	VPU	0.10	4,294.2	-0.76	8.95	11.33
iShares US Utilities	IDU	0.44	765.1	-1.08	8.49	10.73
Invesco S&P 500 Equal Weight Utilities	RYU	0.40	217.7	-2.64	8.57	9.99
U.S. EQUITY: REAL ESTATE						
Pacer Benchmark Industrial Real Estate	INDS	0.60	138.6	12.65	-	-
Pacer Benchmark Data & Infrastr Real Est	SRVR	0.60	1,081.9	12.04	-	-
Real Estate Select Sector SPDR	XLRE	0.13	2,194.5	-2.11	7.14	6.94
Vanguard Real Estate	VNQ	0.12	30,682.8	-4.68	4.90	5.63
Fidelity MSCI Real Estate	FREL	0.09	1,185.1	-4.87	5.37	6.55
iShares US Real Estate	IYR	0.44	5,401.2	-5.27	5.14	6.34
iShares Cohen & Steers REIT	ICF	0.34	1,936.5	-5.44	4.97	4.89
iShares Residential/Multisector Real Est	REZ	0.48	403.4	-6.65	6.49	5.30
JPMorgan BetaBuilders MSCI US REIT	BBRE	0.11	984.2	-7.61	-	-
iShares Core US REIT	USRT	0.08	1,589.8	-8.11	3.35	4.50
SPDR Dow Jones REIT	RWR	0.25	1,355.3	-11.34	1.33	2.75
Schwab US REIT	SCHH	0.07	4,582.4	-14.79	0.10	2.05
iShares Mortgage Real Estate	REM	0.48	1,300.8	-20.66	-2.24	5.77
VanEck Vectors Mortgage REIT Income	MORT	0.41	242.0	-21.96	-3.30	5.54
Invesco KBW Premium Yield Equity REIT	KBWY	0.35	199.8	-25.79	-9.17	0.10
U.S. EQUITY: HIGH DIVIDEND YIELD						
Schwab US Dividend Equity	SCHD	0.06	16,190.6	15.08	11.42	14.25
SPDR S&P Dividend	SDY	0.35	17,031.6	1.79	6.87	11.19
Vanguard High Dividend Yield	VYM	0.06	31,035.2	1.14	5.69	9.98
First Trust Value Line Dividend	FVD	0.70	10,062.7	-0.07	6.88	10.49
Invesco High Yield Equity Div Achievers	PEY	0.52	730.2	-4.21	3.41	9.59
First Trust Mstar Dividend Leaders	FDL	0.45	1,384.5	-4.40	3.80	8.62
iShares Select Dividend	DVY	0.39	14,508.8	-4.91	2.99	8.82
WisdomTree US High Dividend	DHS	0.38	756.3	-5.68	2.31	7.10
iShares Core High Dividend	HDV	0.08	5,786.1	-6.47	2.95	7.47
Invesco S&P Ultra Dividend Revenue	RDIV	0.39	612.2	-9.16	1.97	8.71
Global X SuperDividend US	DIV	0.46	493.1	-22.87	-6.43	-0.08
GLOBAL EQUITY						
ARK Innovation	ARKK	0.75	18,048.4	152.82	52.34	45.36
ProShares Pet Care	PAWZ	0.50	212.2	61.70	-	-

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
AdvisorShares DW FSM All Cap World	DWAW	1.24	135.2	48.64	-	-
iShares MSCI Global Impact	SDG	0.49	307.6	44.34	18.38	-
ClearBridge All Cap Growth	CACG	0.54	201.3	28.44	17.23	-
First Trust Dorsey Wright Focus 5	FV	0.87	2,362.6	28.35	13.97	12.05
Davis Select Worldwide	DWLD	0.63	338.0	22.73	7.72	-
iShares Global 100	IOO	0.40	2,823.2	18.61	13.08	14.13
iShares MSCI ACWI Low Carbon Target	CRBN	0.20	617.8	16.82	10.67	12.23
Vanguard Total World Stock	VT	0.08	16,882.0	16.61	10.09	12.51
iShares MSCI ACWI	ACWI	0.31	14,229.1	16.33	10.20	12.52
SPDR Portfolio MSCI Global Stock Market	SPGM	0.09	501.1	15.27	9.46	11.91
First Trust Dorsey Wright Dynamic Focus 5	FVC	0.71	219.3	12.70	7.11	-
Principal Active Global Dividend Income	GDVD	0.58	157.8	9.89	8.01	-
iShares MSCI Global Min Vol Factor	ACWV	0.32	5,843.7	3.04	7.13	9.40
Goldman Sachs Innovate Equity	GINN	0.50	340.0	-	-	-
GLOBAL EQUITY EX-U.S.						
First Trust Intl Equity Opportunities	FPXI	0.70	698.8	71.50	25.86	21.74
Davis Select International	DINT	0.68	279.2	22.78	-	-
WisdomTree Global ex-US Qual Div Gr	DNL	0.58	298.5	18.18	11.13	13.41
American Century Quality Diversified Intl	QINT	0.39	133.4	17.92	-	-
Vanguard Intl Dividend Appreciation	VIGI	0.20	3,036.3	14.67	8.97	-
Vanguard ESG International Stock	VSGX	0.17	1,586.0	13.01	-	-
Vanguard FTSE All-World ex-US Small-Cap	VSS	0.11	5,796.7	11.84	3.43	8.54
Vanguard FTSE All-World ex-US	VEU	0.08	29,604.2	11.12	5.12	9.20
iShares Core MSCI Total Intl Stock	IXUS	0.11	25,364.3	10.80	4.89	9.14
Vanguard Total International Stock	VXUS	0.08	38,568.2	10.69	4.86	9.02
iShares MSCI ACWI ex US	ACWX	0.32	3,760.2	10.29	4.73	8.85
SPDR MSCI ACWI ex-US	CWI	0.30	1,443.3	9.81	4.88	8.94
iShares International Dividend Growth	IGRO	0.15	138.9	7.70	4.97	-
First Trust Dorsey Wright Intl Focus 5	IFV	1.06	266.9	6.14	2.18	6.35
Avantis International Small Cap Value	AVDV	0.36	396.3	4.99	-	-
FlexShares International Quality Dividend	IQDF	0.47	535.6	3.38	1.10	6.83
Vident International Equity	VIDI	0.59	476.5	1.15	-1.18	7.05
Invesco International Dividend Achievers	PID	0.53	529.4	-6.46	1.40	6.49
INTERNATIONAL EQUITY: BLENDED DEVELOPMENT						
iShares Asia 50	AIA	0.50	2,650.3	33.74	11.91	17.87
ClearBridge Large Cap Growth ESG	LRGE	0.59	132.2	31.89	20.58	-
iShares MSCI All Country Asia ex Japan	AAXJ	0.70	5,837.6	23.36	7.32	12.90
Fidelity Blue Chip Growth	FBCG	0.59	196.1	-	-	-
INTERNATIONAL EQUITY: DEVELOPED						
BlueStar Israel Technology	ITEQ	0.75	176.1	59.93	29.94	23.78
iShares MSCI Denmark	EDEN	0.53	168.0	42.55	14.91	13.67
iShares MSCI Netherlands	EWN	0.51	268.0	23.23	11.37	13.98
iShares MSCI Sweden	EWD	0.51	399.0	22.26	9.10	10.13
iShares MSCI Intl Momentum Factor	IMTM	0.30	697.3	22.16	9.24	10.44
iShares MSCI New Zealand	ENZL	0.51	212.5	20.04	16.16	16.64
Invesco DWA Dev Markets Momentum	PIZ	0.81	199.1	17.97	8.05	8.77
iShares MSCI EAFE Growth	EFG	0.40	10,042.0	17.84	9.37	10.32
FlexShares STOXX Global ESG Impact	ESGG	0.42	130.6	17.34	11.53	-
Knowledge Leaders Developed World	KLDW	0.75	174.1	16.78	9.07	12.13
Vanguard FTSE Pacific	VPL	0.08	4,520.4	16.67	5.68	9.89
WisdomTree Intl Qual Dividend Growth	IQDG	0.42	156.1	16.54	8.03	-
Franklin FTSE Japan	FLJP	0.09	604.9	15.80	5.81	-
iShares MSCI World	URTH	0.24	1,146.6	15.78	10.70	12.35
JPMorgan BetaBuilders Japan	BBJP	0.19	6,258.4	15.42	-	-
iShares MSCI Japan	EWJ	0.51	13,452.3	15.41	5.76	8.61
iShares MSCI Kokusai	TOK	0.25	175.9	15.05	11.31	12.67
SPDR S&P International Small Cap	GWX	0.40	789.8	13.40	2.79	8.43
iShares MSCI Europe Small-Cap	IEUS	0.40	163.3	12.97	5.37	9.39
iShares MSCI Intl Quality Factor	IQLT	0.30	2,653.9	12.47	8.76	9.78
iShares Core MSCI Pacific	IPAC	0.10	1,110.7	12.39	5.40	9.16
iShares MSCI Israel	EIS	0.62	121.9	12.01	8.84	6.90
iShares MSCI Switzerland	EWL	0.51	1,774.3	11.79	10.13	9.95
iShares MSCI EAFE Small-Cap	SCZ	0.40	11,271.1	11.69	4.68	9.33
Invesco FTSE RAFI DM ex-US Small-Mid	PDN	0.49	371.5	10.68	2.50	8.43
iShares MSCI Germany	EWG	0.51	2,598.4	10.56	1.18	6.46

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
Xtrackers MSCI Japan Hedged Equity	DBJP	0.45	205.9	10.56	4.41	6.44
WisdomTree Intl Hedged Qual Div Growth	IHDG	0.58	860.0	10.50	9.05	9.96
Schwab International Small-Cap Equity	SCHC	0.11	3,036.4	10.47	3.42	8.07
IQ Candriam ESG International Equity	IQSI	0.15	133.4	10.36	-	-
iShares Currency Hedged MSCI Japan	HEWJ	0.51	334.1	10.28	4.36	6.45
SPDR Portfolio Developed World ex-US	SPDW	0.04	9,271.2	9.90	4.89	8.38
Vanguard FTSE Developed Markets	VEA	0.05	87,850.0	9.74	4.68	8.29
SPDR MSCI EAFE Fossil Fuel Reserves Free	EFAX	0.20	172.1	9.55	4.86	-
Schwab International Equity	SCHF	0.06	23,434.5	9.50	4.67	8.28
First Trust RiverFront Dyn Developed Intl	RFDI	0.83	149.8	9.13	2.43	-
ProShares MSCI EAFE Dividend Growers	EFAD	0.51	132.5	8.76	6.18	6.08
Fidelity Dividend for Rising Rates	FDRR	0.29	308.6	8.33	9.83	-
iShares Core MSCI Intl Developed Markets	IDEV	0.07	4,504.6	8.31	4.64	-
iShares MSCI Australia	EWA	0.51	1,787.9	8.27	5.25	9.21
Avantis International Equity	AVDE	0.23	501.4	8.25	-	-
iShares ESG Aware MSCI EAFE	ESGD	0.20	4,012.2	8.20	4.91	-
iShares Core MSCI EAFE	IEFA	0.08	84,586.7	8.17	4.43	7.93
JPMorgan BetaBuilders Intl Equity	BBIN	0.07	3,086.9	7.89	-	-
JPMorgan BetaBuilders Dev Asia ex-Japan	BBAX	0.19	1,788.9	7.89	-	-
iShares MSCI Intl Small-Cap Multifactor	ISCF	0.40	157.1	7.63	3.37	8.54
iShares MSCI Eurozone	EZU	0.51	5,144.9	7.60	3.36	7.55
iShares MSCI EAFE	EFA	0.32	53,053.5	7.59	4.21	7.49
John Hancock Multifactor Developed Intl	JHMD	0.39	482.6	7.24	3.18	-
Goldman Sachs ActiveBeta International	GSIE	0.25	2,171.5	7.12	4.36	7.99
Nationwide Risk-Based International	RBIN	0.42	120.2	6.88	3.97	-
IQ 50 Percent Hedged FTSE International	HFXI	0.20	291.2	6.88	4.90	7.89
SPDR MSCI EAFE StrategicFactors	QEFA	0.30	524.9	6.74	5.25	7.60
Schwab Fundamental Intl Small Company	FNDC	0.39	2,169.6	6.59	1.29	7.87
SPDR Portfolio Europe	SPEU	0.09	173.9	6.37	4.99	6.90
Invesco RAFI Strategic Developed ex-US	ISDX	0.23	284.1	6.25	-	-
JPMorgan BetaBuilders Canada	BBCA	0.19	4,312.5	6.09	-	-
iShares MSCI Pacific ex-Japan	EPP	0.49	2,089.0	6.03	3.82	8.63
iShares MSCI Canada	EWC	0.51	2,690.9	5.52	3.70	9.83
Vanguard FTSE Europe	VGK	0.08	14,507.5	5.45	3.86	7.23
Franklin FTSE Europe	FLEE	0.09	243.3	5.38	2.90	-
iShares Core MSCI Europe	IEUR	0.10	3,965.7	5.29	3.86	7.13
IQ 500 International	IQIN	0.25	243.1	5.02	-	-
JPMorgan BetaBuilders Europe	BBEU	0.09	3,407.9	4.90	-	-
SPDR Euro STOXX 50	FEZ	0.29	1,905.2	4.85	3.60	6.91
JPMorgan Diversified Return Intl Equity	JPIN	0.37	954.5	4.83	1.87	5.98
First Trust Dev Markets ex-US AlphaDEX	FDT	0.80	361.6	4.28	-0.85	6.18
FlexShares Mstar DM ex-US Factor Tilt	TLTD	0.39	587.0	4.23	1.39	6.74
iShares MSCI Hong Kong	EWH	0.51	1,458.1	4.19	1.73	7.81
First Trust Europe AlphaDEX	FEP	0.80	446.1	4.07	1.73	7.64
iShares Europe	IEV	0.60	1,626.5	4.06	3.27	6.53
WisdomTree Japan Hedged Equity	DXJ	0.48	1,602.4	3.95	-0.26	4.26
Schwab Fundamental Intl Large Company	FNDF	0.25	5,387.7	3.63	1.71	7.08
Fidelity High Dividend	FDVV	0.29	650.7	2.89	8.02	-
iShares MSCI France	EWQ	0.51	902.5	2.85	4.31	8.98
iShares MSCI Intl Multifactor	INTF	0.30	939.8	2.82	0.82	5.52
iShares MSCI Saudi Arabia	KSA	0.74	637.3	2.63	8.24	7.70
Invesco FTSE RAFI Dev Markets ex-US	PXF	0.45	1,064.0	2.61	0.89	6.52
iShares Currency Hedged MSCI EAFE	HEFA	0.35	2,368.0	2.09	4.94	7.49
WisdomTree Europe SmallCap Dividend	DFE	0.58	296.4	2.07	0.75	6.62
Xtrackers MSCI EAFE Hedged Equity	DBEF	0.35	3,693.2	2.05	4.88	7.43
iShares MSCI Italy	EWI	0.51	190.1	1.67	2.25	4.70
WisdomTree Japan SmallCap Dividend	DFJ	0.58	184.6	1.29	-1.16	7.31
iShares Currency Hedged MSCI Eurozone	HEZU	0.54	501.4	0.50	5.31	7.33
VictoryShares MSCI Intl Value Momentum	UIVM	0.35	422.5	0.01	-1.62	-
iShares MSCI EAFE Min Vol Factor	EFAV	0.32	10,707.4	-0.07	3.20	5.66
WisdomTree Intl MidCap Dividend	DIM	0.58	163.8	-0.42	0.36	5.86
Pacer Trendpilot International	PTIN	0.66	130.1	-0.55	-	-
Hartford Multifactor Dev Markets (ex-US)	RODM	0.29	2,074.2	-0.65	1.58	6.39
WisdomTree International SmallCap Div	DLS	0.58	1,388.3	-1.33	-0.75	6.60
WisdomTree Intl Dividend ex-Financials	DOO	0.58	138.9	-1.34	1.73	5.34

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
Xtrackers MSCI Europe Hedged Equity	DBEU	0.45	450.3	-1.40	4.73	7.36
ALPS International Sector Dividend Dogs	IDOG	0.50	155.1	-1.77	1.20	6.40
WisdomTree International Equity	DWM	0.48	614.4	-2.37	0.16	5.15
iShares MSCI EAFE Value	EFV	0.40	7,270.5	-2.97	-1.39	4.08
WisdomTree Intl LargeCap Dividend	DOL	0.48	352.6	-3.26	0.22	4.83
WisdomTree Europe Hedged Equity	HEDJ	0.58	1,946.0	-3.36	3.80	6.89
iShares MSCI Spain	EWP	0.51	543.5	-3.96	-3.09	2.56
Pacer Global Cash Cows Dividend	GCOW	0.60	128.1	-4.25	1.26	-
iShares MSCI Intl Value Factor	IVLU	0.30	570.8	-4.50	-2.14	3.52
WisdomTree Dyn Currency Hedged Intl	DDWM	0.40	148.0	-4.57	0.77	-
iShares MSCI Singapore	EWS	0.51	659.4	-8.49	-2.42	4.09
Franklin FTSE United Kingdom	FLGB	0.09	122.4	-9.37	-0.29	-
Invesco S&P Intl Developed Low Volatility	IDLV	0.25	819.3	-10.39	-0.33	4.54
iShares MSCI United Kingdom	EWU	0.51	2,895.4	-11.80	-2.86	1.94
Global X MSCI Greece	GREK	0.57	167.7	-13.91	-3.84	3.65
Xtrackers MSCI Kokusai Equity	KOKU	0.09	841.9	-	-	-
Goldman Sachs MarketBeta International	GSID	0.20	315.7	-	-	-

INTERNATIONAL EQUITY: EMERGING

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
WisdomTree China ex-SOE	CXSE	0.32	694.3	59.38	16.26	23.08
KraneShares CSI China Internet	KWEB	0.76	3,587.2	58.21	10.77	16.11
Invesco Golden Dragon China	PGJ	0.70	244.9	54.24	12.85	15.31
First Trust Chindia	FNI	0.60	257.4	49.22	15.04	17.05
KraneShares Bosera MSCI China A Share	KBA	0.60	861.5	41.62	12.23	8.15
iShares MSCI China A	CNYA	0.60	589.8	41.52	12.21	-
iShares MSCI South Korea	EWY	0.62	7,298.0	39.44	6.22	13.51
Xtrackers Harvest CSI 300 China A-Shares	ASHR	0.65	2,297.9	36.30	10.01	8.45
iShares MSCI Taiwan	EWT	0.59	5,467.3	31.50	16.46	18.17
Invesco BLDRS Emerging Markets 50 ADR	ADRE	0.18	187.0	28.96	11.11	16.06
WisdomTree Emerging Markets ex-SOE	XSOE	0.32	3,415.4	28.61	9.33	15.67
SPDR S&P China	GXC	0.59	1,847.0	28.31	8.38	14.09
iShares MSCI China	MCHI	0.62	6,526.7	27.78	8.24	14.35
iShares MSCI Emerging Markets Asia	EEMA	0.49	701.6	25.18	7.73	13.65
SPDR S&P Emerging Asia Pacific	GMF	0.49	697.9	24.96	8.72	13.77
Invesco DWA Emerging Mkts Momentum	PIE	0.90	213.9	21.24	5.89	10.98
iShares MSCI India Small Cap	SMIN	0.81	229.5	19.58	-5.49	6.61
SPDR MSCI EM Fossil Fuel Reserves Free	EEMX	0.30	138.7	19.55	5.67	-
iShares MSCI Emerging Markets Small-Cap	EEMS	0.71	242.9	19.47	2.49	8.04
iShares ESG Aware MSCI EM	ESGE	0.25	6,115.1	18.61	6.56	-
WisdomTree India Earnings	EPI	0.84	729.9	18.56	2.75	9.18
iShares Currency Hedged MSCI EM	HEEM	0.68	192.4	17.93	7.51	11.37
iShares Core MSCI Emerging Markets	IEMG	0.11	68,609.3	17.88	5.71	12.35
iShares MSCI Emerging Markets	EEM	0.70	28,254.3	17.03	5.42	12.26
iShares MSCI BRIC	BKF	0.70	178.2	16.54	7.28	14.21
Vanguard FTSE Emerging Markets	VWO	0.10	71,282.5	15.19	5.84	11.83
SPDR S&P Emerging Markets Small Cap	EWX	0.65	592.2	14.86	2.56	9.32
iShares MSCI India	INDA	0.68	4,671.5	14.83	4.49	8.84
SPDR Portfolio Emerging Markets	SPEM	0.11	5,187.8	14.55	5.58	12.13
Schwab Emerging Markets Equity	SCHE	0.11	8,384.7	14.47	5.97	12.29
Avantis Emerging Markets Equity	AVEM	0.33	440.7	14.38	-	-
Goldman Sachs ActiveBeta EM	GEM	0.45	1,822.6	13.24	4.39	11.05
iShares MSCI Emerging Markets ex China	EMXC	0.25	164.6	12.77	4.35	-
FlexShares Mstar EM Factor Tilt	TLTE	0.59	272.9	12.11	1.96	9.69
John Hancock Multifactor EM	JHEM	0.49	741.7	11.50	-	-
PIMCO RAFI Dynamic Multi-Factor EM	MFEM	0.49	790.3	11.33	3.70	-
iShares MSCI Emrg Markets Multifactor	EMGF	0.50	660.1	10.27	2.30	10.51
iShares India 50	INDY	0.93	665.8	10.01	5.02	9.76
SPDR MSCI Emerging Mkts StrategicFactors	QEMM	0.30	143.5	9.94	3.21	9.30
First Trust EM Small Cap AlphaDEX	FEMS	0.80	152.0	7.81	2.46	12.81
iShares MSCI EM Min Vol Factor	EEMV	0.25	4,172.5	6.90	2.78	7.38
WisdomTree EM SmallCap Dividend	DGS	0.63	1,728.3	4.08	1.10	10.38
VictoryShares MSCI EM Value Momentum	UEVM	0.45	279.7	3.74	-1.57	-
iShares MSCI Malaysia	EWM	0.51	411.0	3.17	-1.58	1.71
VanEck Vectors Russia	RSX	0.67	1,637.8	0.01	9.37	14.97
JPMorgan Diversified Return EM Equity	JPEM	0.44	242.4	-0.49	1.14	8.91
iShares MSCI Turkey	TUR	0.62	343.2	-1.20	-12.86	-3.60

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
First Trust Emerging Markets AlphaDEX	FEM	0.80	437.5	-1.68	0.06	10.31
Invesco FTSE RAFI Emerging Markets	PXH	0.50	1,211.6	-1.89	1.52	11.99
iShares Emerging Markets Dividend	DVYE	0.49	661.7	-2.49	2.07	10.19
Schwab Fundamental EM Large Company	FNDE	0.39	3,609.8	-2.79	1.42	11.88
iShares MSCI Mexico	EWW	0.51	1,317.4	-3.05	-2.30	-0.86
Invesco S&P Emerging Markets Low Vol	EELV	0.29	288.1	-3.85	-0.30	5.44
iShares MSCI Philippines	EPHE	0.62	155.5	-3.94	-4.91	-0.01
iShares MSCI Peru	EPU	0.62	171.1	-4.31	-3.38	13.92
iShares MSCI South Africa	EZA	0.62	439.1	-5.19	-8.06	4.30
WisdomTree Emerging Markets High Div	DEM	0.63	1,738.7	-5.82	1.39	10.01
iShares MSCI Chile	ECH	0.62	497.5	-7.11	-14.78	0.95
iShares MSCI Indonesia	EIDO	0.62	376.6	-7.14	-4.49	4.01
iShares MSCI Poland	EPOL	0.59	293.5	-8.37	-9.49	2.98
iShares MSCI Russia	ERUS	0.59	472.1	-8.68	9.44	15.52
iShares MSCI Thailand	THD	0.62	439.3	-9.87	-3.59	8.28
SPDR S&P Emerging Markets Dividend	EDIV	0.49	287.9	-9.92	-1.86	7.25
iShares Latin America 40	ILF	0.49	1,572.3	-11.68	-2.19	9.37
Franklin FTSE Brazil	FLBR	0.19	119.6	-20.01	0.16	-
iShares MSCI Brazil	EWZ	0.62	6,572.6	-20.33	-0.30	15.05
iShares ESG MSCI EM Leaders	LDEM	0.16	832.8	-	-	-

INTERNATIONAL EQUITY: FRONTIER

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
VanEck Vectors Vietnam	VNM	0.66	454.0	9.84	-0.07	4.55
iShares MSCI Frontier 100	FM	0.79	418.1	-3.41	-1.70	5.70

GLOBAL EQUITY: SECTOR

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
Invesco Solar	TAN	0.69	3,609.1	233.95	60.50	29.37
Invesco WilderHill Clean Energy	PBW	0.70	2,198.7	204.83	62.07	36.53
First Trust NASDAQ CE Green Energy	QCLN	0.60	1,993.6	183.98	52.54	35.52
ARK Genomic Revolution	ARKG	0.75	7,885.9	180.56	59.23	36.73
ARK Next Generation Internet	ARKW	0.79	5,308.5	157.46	53.85	49.18
Invesco Global Clean Energy	PBD	0.75	302.1	145.43	40.49	27.10
iShares Global Clean Energy	ICLN	0.48	4,704.3	141.80	46.98	26.23
ALPS Clean Energy	ACES	0.55	781.6	140.24	-	-
SPDR S&P Kensho Clean Power	CNRG	0.45	218.0	138.41	-	-
Global X Lithium & Battery Tech	LIT	0.75	1,968.0	127.85	18.86	27.86
VanEck Vectors Low Carbon Energy	SMOG	0.62	268.5	118.39	39.66	25.74
ARK Fintech Innovation	ARKF	0.75	1,965.1	108.03	-	-
O'Shares Global Internet Giants	OGIG	0.48	713.3	107.92	-	-
ARK Autonomous Technology & Robotics	ARKQ	0.75	1,705.3	107.22	33.96	33.19
Global X Video Games & Esports	HERO	0.50	581.8	91.00	-	-
Amplify Transformational Data Sharing	BLOK	0.70	362.4	90.15	-	-
VanEck Vectors Video Gaming and eSports	ESPO	0.55	722.0	83.95	-	-
WedbushMG Video Game Tech	GAMR	0.75	150.8	78.63	19.65	-
Global X Social Media	SOCL	0.65	298.1	78.35	23.31	25.88
Global X Cloud Computing	CLOU	0.68	1,555.0	77.18	-	-
Global X Cybersecurity	BUG	0.50	197.1	70.83	-	-
ROBO Global Healthcare Tech/Innovation	HTEC	0.68	125.1	65.01	-	-
VanEck Vectors Rare Earth/Strat Metals	REMX	0.60	315.1	64.77	-5.70	14.68
Global X Autonomous & Electric Vehicles	DRIV	0.68	236.5	62.75	-	-
First Trust Global Wind Energy	FAN	0.62	402.7	61.18	23.29	18.97
iShares Self-Driving EV and Tech	IDRV	0.47	150.5	59.45	-	-
Siren Nasdaq NexGen Economy	BLCN	0.68	186.9	59.32	-	-
iShares MSCI Global Silver/Metals Miners	SLVP	0.39	240.5	56.53	18.85	27.32
iShares Gen Immunology/Healthcare	IDNA	0.47	241.8	54.29	-	-
Global X FinTech	FINX	0.68	1,031.8	53.76	28.70	-
Global X Artificial Intelligence & Tech	AIQ	0.68	146.5	52.88	-	-
Global X Robotics & Artificial Intelligence	BOTZ	0.68	2,380.7	51.91	12.78	-
Global X Copper Miners	COPX	0.65	220.1	51.62	5.42	22.62
iShares Cybersecurity and Tech	IHAK	0.47	243.6	51.21	-	-
Invesco Cleantech	PZD	0.65	466.7	51.02	21.72	21.49
First Trust NASDAQ Cybersecurity	CIBR	0.60	3,106.2	50.41	25.18	20.87
iShares Robotics/AI Multisector	IRBO	0.47	295.2	48.85	-	-
First Trust NASDAQ CE Smart Grid Infrastr	GRID	0.70	137.1	48.82	18.00	20.77
Sprott Junior Gold Miners	SGDJ	0.50	122.9	47.83	14.63	21.84
First Trust Nasdaq AI/Robotics	ROBT	0.65	185.6	46.17	-	-
ROBO Global Robotics and Automation	ROBO	0.95	1,694.6	45.26	14.16	20.55

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
AdvisorShares Pure Cannabis	YOLO	0.75	159.6	44.79	-	-
ALPS Disruptive Technologies	DTEC	0.50	177.9	44.11	22.87	-
iShares Global Tech	IXN	0.48	5,005.6	43.62	26.16	26.43
ETFMG Prime Cyber Security	HACK	0.60	2,016.5	41.33	22.96	18.12
Global X Uranium	URA	0.71	243.4	41.31	2.02	4.59
Global X Silver Miners	SIL	0.66	1,176.8	40.21	13.60	21.73
3D Printing	PRNT	0.66	132.5	40.18	9.21	-
iShares Exponential Technologies	XT	0.47	3,105.3	35.09	18.87	19.70
Global X Internet of Things	SNSR	0.68	332.2	35.05	18.04	-
ETFMG Prime Mobile Payments	IPAY	0.75	1,047.7	34.22	24.30	22.33
ETFMG Prime Junior Silver Miners	SILJ	0.69	673.6	33.04	14.59	27.76
VanEck Vectors Junior Gold Miners	GDXJ	0.53	6,373.4	30.37	17.65	24.97
Defiance Next Gen Connectivity	FIVG	0.30	884.1	29.75	-	-
First Trust Indxx NextG	NXTG	0.70	809.3	27.56	11.01	15.13
iShares MSCI Global Metals/Mining Prod	PICK	0.39	542.2	27.48	6.50	20.75
iShares MSCI Global Gold Miners	RING	0.39	493.5	24.98	17.62	22.92
iShares Global Consumer Discretionary	RXI	0.48	387.9	24.46	13.92	13.38
VanEck Vectors Gold Miners	GDX	0.52	16,747.1	23.66	16.39	21.97
iShares Global Materials	MXI	0.48	584.7	22.31	7.86	15.11
iShares Global Comm Services	IXP	0.48	325.4	22.16	9.70	8.24
Sprott Gold Miners	SGDM	0.50	263.8	21.84	14.25	19.54
First Trust Water	FIW	0.55	684.5	21.13	14.74	20.00
Invesco Water Resources	PHO	0.60	1,302.9	20.84	15.88	17.00
iShares Global Timber & Forestry	WOOD	0.51	302.5	20.35	5.84	12.75
Global X US Infrastructure Development	PAVE	0.47	778.5	19.71	8.85	-
First Trust NASDAQ Technology Dividend	TDIV	0.50	1,356.5	17.49	14.88	17.31
Invesco S&P Global Water	CGW	0.59	826.1	15.42	11.49	13.42
VanEck Vectors Agribusiness	MOO	0.56	790.3	14.59	9.64	12.60
Invesco Global Water	PIO	0.75	236.0	14.23	11.83	12.27
iShares Global Healthcare	IXJ	0.48	2,459.1	12.75	12.62	10.09
Invesco Global Listed Private Equity	PSP	1.58	188.4	12.62	9.07	12.15
iShares Global Industrials	EXI	0.48	389.2	11.33	6.60	11.47
iShares Global Consumer Staples	KXI	0.48	609.8	7.69	5.87	7.15
VanEck Vectors Pharmaceutical	PPH	0.36	250.0	5.51	5.85	2.35
iShares Global Utilities	JXI	0.48	146.1	5.18	10.07	10.23
FlexShares STOXX Global Broad Infrastr	NFRA	0.47	2,120.8	2.28	6.02	8.40
SPDR S&P North American Natural Res	NANR	0.35	440.8	1.02	0.01	8.63
FlexShares Mstar Glb Upstr Nat Resources	GUNR	0.46	3,514.0	0.51	2.54	10.94
SPDR S&P Global Natural Resources	GNR	0.40	1,282.5	-0.05	0.35	10.15
iShares Global Financials	IXG	0.48	340.2	-2.99	0.38	6.94
Davis Select Financial	DFNL	0.64	153.7	-4.97	2.24	-
iShares Global Infrastructure	IGF	0.48	3,138.4	-6.50	1.94	7.18
SPDR S&P Global Infrastructure	GII	0.40	367.8	-6.82	1.91	7.08
FlexShares Global Quality Real Estate	GQRE	0.45	286.8	-9.13	0.30	3.43
ProShares DJ Brookfield Global Infrastr	TOLZ	0.47	142.7	-9.45	1.88	6.07
SPDR Dow Jones Global Real Estate	RWO	0.50	1,571.6	-10.40	0.69	2.71
iShares Global REIT	REET	0.14	2,443.5	-10.55	1.77	3.59
ETFMG Alternative Harvest	MJ	0.75	962.7	-11.63	-20.94	-4.78
iShares North American Natural Resources	IGE	0.48	324.0	-19.56	-9.60	-0.63
US Global Jets	JETS	0.60	2,937.7	-28.93	-11.19	-1.76
iShares Global Energy	IXC	0.48	1,004.2	-30.94	-12.83	-2.22
Global X SuperDividend REIT	SRET	0.59	383.2	-36.61	-9.96	1.14
VanEck Vectors Oil Services	OIH	0.35	726.9	-41.17	-32.16	-20.35
Global X Telemedicine & Digital Health	EDOC	0.68	591.9	-	-	-
AdvisorShares Pure US Cannabis	MSOS	0.74	223.5	-	-	-
Roundhill Sports Betting & iGaming	BETZ	0.75	209.0	-	-	-
GLOBAL EX-U.S. EQUITY: SECTOR						
VanEck Vectors Biotech	BBH	0.35	479.4	22.13	11.28	6.41
Xtrackers International Real Estate	HAUZ	0.10	330.5	-6.19	0.73	6.72
Vanguard Global ex-U.S. Real Estate	VNQI	0.12	4,977.5	-7.21	0.73	5.76
iShares International Dev Real Estate	IFGL	0.48	252.2	-7.67	1.40	4.88
SPDR Dow Jones International Real Estate	RWX	0.59	929.8	-9.00	0.04	3.01
INTERNATIONAL EQUITY: DEVELOPED SECTOR						
iShares MSCI Europe Financials	EUFN	0.48	1,046.1	-8.55	-5.33	0.94

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
INTERNATIONAL EQUITY: EMERGING SECTOR						
Global X MSCI China Consumer Discr	CHIQ	0.65	572.3	92.61	25.60	25.45
Emerging Markets Internet & Ecommerce	EMQQ	0.86	1,506.9	80.45	19.24	22.51
KraneShares MSCI All China Health Care	KURE	0.65	165.2	68.97	-	-
Invesco China Technology	CQQQ	0.70	1,359.4	57.34	11.09	18.94
Columbia Emerging Markets Consumer	ECON	0.59	184.3	20.83	1.18	6.74
KraneShares CICC China 5G/Semicond	KFVG	0.65	123.0	-	-	-
GLOBAL EQUITY: HIGH DIVIDEND YIELD						
First Trust DJ Global Select Dividend	FGD	0.59	383.0	-5.43	-0.04	5.67
SPDR S&P Global Dividend	WDIV	0.40	196.1	-10.08	-0.49	5.86
Global X SuperDividend	SDIV	0.59	769.3	-20.92	-9.00	-0.90
GLOBAL EX-U.S. EQUITY: HIGH DIVIDEND YIELD						
Vanguard Intl High Dividend Yield	VYMI	0.27	1,712.4	-1.05	0.78	-
SPDR S&P International Dividend	DWX	0.45	597.8	-5.06	0.50	6.60
INTERNATIONAL EQUITY: HIGH DIVIDEND YIELD						
Xtrackers MSCI EAFE High Div Yield Equity	HDEF	0.20	546.7	-1.85	1.72	4.03
First Trust Stoxx European Select Dividend	FDD	0.58	221.6	-3.86	2.73	5.70
iShares International Select Dividend	IDV	0.50	3,776.0	-6.10	1.33	6.11
WisdomTree International High Dividend	DTH	0.58	167.4	-7.11	-1.38	4.11
U.S. FIXED INCOME: BROAD MARKET - BROAD MATURITIES						
Fidelity Corporate Bond	FCOR	0.36	261.7	11.35	7.44	7.20
iShares Core Total USD Bond Market	IUSB	0.07	6,012.4	7.62	5.41	4.81
iShares Yield Optimized Bond	BYLD	0.20	209.1	4.25	5.02	5.14
iShares Edge US Fixed Inc Balanced Risk	FIBR	0.25	122.9	3.31	4.04	4.19
iShares ESG Advanced Total USD Bond	EUSB	0.12	146.7	-	-	-
U.S. FIXED INCOME: BROAD MARKET - LONG-TERM						
iShares Core 10+ Year USD Bond	ILTB	0.06	448.8	16.10	9.64	9.59
U.S. FIXED INCOME: BROAD MARKET - SHORT-TERM						
iShares Core 1-5 Year USD Bond	ISTB	0.06	4,707.7	4.75	3.77	3.14
VictoryShares USAA Core Short-Term Bond	USTB	0.34	248.3	4.69	3.61	-
First Trust Low Duration Strategic Focus	LDSF	0.77	145.2	2.27	-	-
First Trust Enhanced Short Maturity	FTSM	0.40	5,126.1	1.12	1.96	1.71
U.S. FIXED INCOME: GOVERNMENT/CREDIT - INTERMEDIATE						
VictoryShares Core Intermediate Bond	UITB	0.38	645.3	9.30	6.31	-
iShares Core 5-10 Year USD Bond	IMTB	0.06	125.5	6.25	4.73	-
Vident Core US Bond Strategy	VBND	0.39	395.6	5.38	4.55	3.80
U.S. FIXED INCOME: GOVERNMENT/CREDIT - LONG-TERM						
SPDR Portfolio Long Term Corporate	SPLB	0.07	1,014.0	13.47	9.09	10.05
iShares 10+ Year Inv Grade Corporate Bond	IGLB	0.20	2,576.7	13.31	9.13	9.88
Vanguard Long-Term Corporate Bond	VCLT	0.05	5,914.1	13.28	9.27	10.05
iShares iBonds Dec 2028 Term Corporate	IBDT	0.10	220.9	9.62	-	-
Invesco BulletShares 2027 Corporate Bond	BSCR	0.10	271.4	9.44	7.07	-
iShares Int Rate Hedged Long-Term Corp	IGBH	0.54	613.5	1.08	2.05	4.49
ProShares Inv Grade-Interest Rate Hedged	IGHG	0.30	461.7	-0.28	2.58	4.01
U.S. FIXED INCOME: GOVERNMENT						
Invesco 1-30 Laddered Treasury	PLW	0.25	119.4	12.56	7.28	5.46
iShares US Treasury Bond	GOVT	0.15	14,577.1	7.29	4.91	3.54
WisdomTree Floating Rate Treasury	USFR	0.15	1,210.0	0.56	1.53	1.16
iShares Treasury Floating Rate Bond	TFLO	0.15	382.1	0.44	1.41	1.03
Franklin Liberty US Treasury Bond	FLGV	0.09	422.1	-	-	-
U.S. FIXED INCOME: TREASURY - SHORT TERM						
SPDR Portfolio Short Term Treasury	SPTS	0.06	2,995.0	3.23	2.61	1.84
Franklin Liberty Short Duration US Govt	FTSD	0.25	540.8	3.13	2.38	1.69
Schwab Short-Term US Treasury	SCHO	0.05	7,803.6	3.11	2.71	1.84
Vanguard Short-Term Treasury	VGSH	0.05	9,830.6	3.04	2.70	1.84
iShares 1-3 Year Treasury Bond	SHY	0.15	19,640.4	3.03	2.62	1.78
Invesco Treasury Collateral	CLTL	0.08	841.2	0.90	1.70	-
iShares Short Treasury Bond	SHV	0.15	17,832.0	0.81	1.63	1.19
Goldman Sachs Access Treasury 0-1 Year	GBIL	0.12	2,587.4	0.48	1.52	-
SPDR Bloomberg Barclays 1-3 Month T-Bill	BIL	0.14	12,766.0	0.40	1.39	0.99
iShares 0-3 Month Treasury Bond	SGOV	0.03	870.1	-	-	-
U.S. FIXED INCOME: TREASURY - INTERMEDIATE						
iShares 7-10 Year Treasury Bond	IEF	0.15	14,833.8	10.01	6.27	4.45
Schwab Intermediate-Term US Treasury	SCHR	0.05	4,000.6	7.72	5.08	3.54
Vanguard Intermediate-Term Treasury	VGIT	0.05	6,808.4	7.71	5.05	3.52

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
SPDR Portfolio Intermediate Term Treasury	SPTI	0.06	2,511.6	7.70	5.30	3.43
iShares 3-7 Year Treasury Bond	IEI	0.15	11,283.1	6.95	4.64	3.26
U.S. FIXED INCOME: TREASURY - LONG-TERM						
PIMCO 25+ Year Zero Coupon US Treasury	ZROZ	0.15	403.2	24.56	12.94	11.03
Vanguard Extended Duration Treasury	EDV	0.07	1,331.9	23.62	12.33	10.42
iShares 20+ Year Treasury Bond	TLT	0.15	18,900.1	18.15	9.88	7.94
SPDR Portfolio Long Term Treasury	SPTL	0.06	2,848.9	18.07	9.75	7.78
Vanguard Long-Term Treasury	VGLT	0.05	2,400.2	17.57	9.79	7.79
iShares 10-20 Year Treasury Bond	TLH	0.15	1,461.5	13.79	7.94	5.74
U.S. FIXED INCOME: AGENCIES						
iShares Agency Bond	AGZ	0.20	919.7	5.78	4.18	3.11
U.S. FIXED INCOME: AGENCY MBS						
Janus Henderson MBS	JMBS	0.32	626.1	5.80	-	-
SPDR Portfolio Mortgage Backed Bond	SPMB	0.06	2,883.8	4.19	3.76	2.86
iShares MBS	MBB	0.12	25,290.6	4.08	3.67	2.95
Vanguard Mortgage-Backed Securities	VMBS	0.05	13,071.9	3.76	3.60	2.90
iShares GNMA Bond	GNMA	0.20	506.9	3.51	3.38	2.57
First Trust Low Duration Opportunities	LMBS	0.67	6,566.6	1.44	2.38	3.05
U.S. FIXED INCOME: TIPS						
PIMCO 15+ Year US TIPS	LTPZ	0.20	759.9	24.87	10.91	10.18
Quadratic Int Rate Vol/Inflation Hedge	IVOL	0.99	965.8	14.24	-	-
SPDR Portfolio TIPS	SPIP	0.12	2,147.0	11.41	6.07	5.22
PIMCO Broad US TIPS	TIPZ	0.20	122.8	10.97	5.91	5.18
Schwab US TIPS	SCHP	0.05	14,035.2	10.86	5.85	5.03
iShares TIPS Bond	TIP	0.20	26,307.9	10.84	5.79	4.99
FlexShares iBoxx 5-Year Target Dur TIPS	TDTF	0.18	599.2	9.98	5.61	4.63
SPDR Bloomberg Barclays 1-10 Year TIPS	TIPX	0.15	517.1	8.51	4.86	3.80
FlexShares iBoxx 3 Year Target Dur TIPS	TDTT	0.18	1,326.2	6.84	4.24	3.26
PIMCO 1-5 Year US TIPS	STPZ	0.20	664.3	5.44	3.46	2.75
iShares 0-5 Year TIPS Bond	STIP	0.05	2,930.3	5.18	3.51	2.80
Vanguard Short-Term Infl-Prot Securities	VTIP	0.05	10,042.8	4.95	3.44	2.71
U.S. FIXED INCOME: MUNICIPAL - BROAD MARKET						
Invesco Taxable Municipal Bond	BAB	0.28	2,339.3	9.07	6.86	6.98
VanEck Vectors CEF Municipal Income	XMPT	1.86	157.1	7.70	6.86	5.94
IQ MacKay Municipal Insured	MMIN	0.31	289.2	7.30	-	-
SPDR Nuveen Bloomberg Barclays Muni	TFI	0.23	3,356.6	5.96	4.59	3.74
Vanguard Tax-Exempt Bond	VTEB	0.06	10,334.4	5.19	4.50	3.69
iShares National Muni Bond	MUB	0.25	20,430.1	5.12	4.34	3.50
Invesco National AMT-Free Muni	PZA	0.35	2,198.1	5.06	4.59	4.29
Invesco California AMT-Free Muni	PWZ	0.28	464.9	4.90	4.59	4.22
iShares California Muni Bond	CMF	0.25	1,675.3	4.50	4.11	3.35
First Trust Managed Municipal	FMB	0.50	1,855.2	4.25	4.42	4.33
iShares New York Muni Bond	NYF	0.25	494.2	4.18	3.75	3.16
First Trust Municipal High Income	FMHI	0.55	139.5	3.80	5.49	-
Hartford Municipal Opportunities	HMOP	0.29	133.6	2.53	3.79	-
U.S. FIXED INCOME: MUNICIPAL - SHORT-TERM						
VanEck Vectors AMT-Free Short Municipal	SMB	0.20	236.6	3.33	3.23	2.06
PIMCO Short Term Muni Bond Active	SMMU	0.35	285.6	2.86	2.67	1.92
SPDR Nuveen Bloomberg Short Term Muni	SHM	0.20	4,390.2	2.65	2.62	1.64
iShares Short-Term National Muni Bond	SUB	0.25	4,010.2	2.51	2.43	1.58
JPMorgan Ultra-Short Municipal Income	JMST	0.18	1,147.5	2.00	-	-
BlackRock Short Maturity Municipal Bond	MEAR	0.25	278.7	1.18	1.57	1.21
U.S. FIXED INCOME: MUNICIPAL - INTERMEDIATE						
VanEck Vectors AMT-Free Intermdt Muni	ITM	0.24	1,751.8	5.87	5.01	3.98
iShares iBonds Dec 2025 Term Muni Bond	IBMN	0.18	133.7	4.84	-	-
PIMCO Intermediate Muni Active	MUNI	0.35	581.6	4.83	4.29	3.39
iShares iBonds Dec 2024 Term Muni Bond	IBMM	0.18	196.2	3.75	-	-
iShares iBonds Dec 2023 Term Muni Bond	IBML	0.18	290.5	2.87	2.89	-
iShares iBonds Dec 2022 Term Muni Bond	IBMK	0.18	367.7	2.16	2.39	1.96
iShares iBonds Dec 2021 Term Muni Bond	IBMJ	0.18	315.6	1.44	1.87	1.49
U.S. FIXED INCOME: MUNICIPAL - LONG-TERM						
Xtrackers Muni Infrastructure Rev Bond	RVNU	0.15	119.3	6.29	5.20	4.84
VanEck Vectors AMT-Free Long Municipal	MLN	0.24	232.6	6.22	5.24	4.79
U.S. FIXED INCOME: MUNICIPAL - HIGH YIELD						
SPDR Nuveen Bloomberg HiYld Muni	HYMB	0.35	1,362.2	3.74	6.03	4.66

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
VanEck Vectors Short HiYld Municipal	SHYD	0.35	240.4	1.57	4.09	3.38
VanEck Vectors High-Yield Municipal	HYD	0.35	3,101.6	0.18	3.83	4.29
U.S. FIXED INCOME: CORPORATE - INVESTMENT GRADE - BROAD MATURITIES						
Vanguard Long-Term Bond	BLV	0.05	5,783.0	15.81	10.53	10.95
iShares Edge Inv Grade Enhanced Bond	IGEB	0.18	162.5	11.24	7.64	-
iShares iBoxx USD Inv Grade Corporate	LQD	0.15	55,074.5	10.97	7.81	7.34
Principal Inv Grade Corporate Active	IG	0.26	331.8	10.79	-	-
SPDR Portfolio Corporate Bond	SPBO	0.06	312.5	10.30	7.50	6.58
Franklin Liberty Inv Grade Corporate	FLCO	0.35	1,059.2	10.00	6.98	-
PIMCO Investment Grade Corporate Bond	CORP	0.20	828.3	9.71	6.91	6.73
Goldman Sachs Access Inv Gr Corporate	GIGB	0.14	724.2	9.64	6.95	-
iShares Aaa-A Rated Corporate Bond	QLTA	0.15	1,396.5	9.62	6.43	5.85
iShares ESG Aware USD Corporate Bond	SUSC	0.18	721.8	9.57	6.70	-
iShares Broad USD Inv Grade Corporate	USIG	0.15	5,948.7	9.44	6.85	6.37
Overlay Shares Core Bond	OVB	0.80	126.5	9.40	-	-
Vanguard Total Corporate Bond	VTC	0.05	712.3	9.31	6.88	-
iShares Government/Credit Bond	GBF	0.20	175.8	8.76	5.80	4.76
Vanguard Total Bond Market	BND	0.04	68,065.5	7.71	5.40	4.45
Franklin Liberty US Core Bond	FLCB	0.15	1,558.7	7.66	-	-
iShares Core US Aggregate Bond	AGG	0.06	85,132.9	7.48	5.28	4.35
Schwab US Aggregate Bond	SCHZ	0.04	8,713.6	7.46	5.28	4.31
iShares ESG Aware US Aggregate Bond	EAGG	0.10	739.2	7.40	-	-
SPDR Portfolio Aggregate Bond	SPAB	0.04	5,549.9	7.39	5.22	4.34
Nuveen ESG US Aggregate Bond	NUBD	0.20	190.2	7.17	5.09	-
JPMorgan US Aggregate Bond	JAGG	0.07	841.3	7.14	-	-
WisdomTree Yield Enh US Aggregate Bond	AGGY	0.12	1,195.9	5.87	5.17	5.02
Hartford Schroders Tax-Aware Bond	HTAB	0.40	118.6	5.41	-	-
Fidelity Low Duration Bond Factor	FLDR	0.15	244.7	2.00	-	-
iShares Interest Rate Hedged Corporate	LQDH	0.24	457.9	1.68	2.88	3.94
Goldman Sachs Access US Aggregate Bond	GCOR	0.14	132.6	-	-	-
U.S. FIXED INCOME: CORPORATE - INVESTMENT GRADE - SHORT-TERM						
iShares 1-5 Year Inv Gr Corporate Bond	IGSB	0.20	22,284.0	5.37	4.55	3.33
Schwab 1-5 Year Corporate Bond	SCHJ	0.05	118.1	5.30	-	-
Vanguard Short-Term Corporate Bond	VCSH	0.05	36,185.9	5.13	4.33	3.55
iShares ESG Aware 1-5 Yr USD Corporate	SUSB	0.12	511.0	4.96	4.14	-
iShares 0-5 Yr Investment Grade Corporate	SLQD	0.06	2,096.8	4.76	3.96	3.14
Vanguard Short-Term Bond	BSV	0.05	29,574.4	4.70	3.66	2.70
WisdomTree Yld Enh US Sh-Tm Aggregate	SHAG	0.12	149.0	4.70	3.74	-
SPDR Portfolio Short Term Corporate Bond	SPSB	0.07	7,252.6	3.83	3.49	2.82
JPMorgan Ultra-Short Income	JPST	0.18	15,578.2	2.18	2.58	-
PIMCO Enh Short Maturity Active ESG	EMNT	0.27	158.1	2.08	-	-
Goldman Sachs Access Ultra Short Bond	GSST	0.16	208.1	1.69	-	-
PIMCO Enhanced Short Maturity Active	MINT	0.37	14,314.4	1.62	2.22	2.12
BlackRock Ultra Short-Term Bond	ICSH	0.08	5,232.7	1.61	2.34	1.99
PGIM Ultra Short Bond	PULS	0.15	1,221.3	1.46	-	-
SPDR SSgA Ultra Short Term Bond	ULST	0.20	314.4	1.45	2.24	1.92
ClearShares Ultra-Short Maturity	OPER	0.20	125.1	0.65	-	-
U.S. FIXED INCOME: CORPORATE - INVESTMENT GRADE - INTERMEDIATE						
Invesco BulletShares 2028 Corporate Bond	BSCS	0.10	166.1	9.93	-	-
Schwab 5-10 Year Corporate Bond	SCHI	0.05	190.4	9.75	-	-
iShares 5-10 Year Inv Gr Corporate Bond	IGIB	0.20	11,099.9	9.64	7.65	5.93
Vanguard Intermediate-Term Corporate	VCIT	0.05	42,470.5	9.46	7.07	6.35
Invesco BulletShares 2026 Corporate Bond	BSCQ	0.10	354.6	9.18	6.77	-
iShares iBonds Dec 2027 Term Corporate	IBDS	0.10	412.4	8.95	6.83	-
iShares iBonds Dec 2026 Term Corporate	IBDR	0.10	596.2	8.88	6.71	-
FlexShares Credit-Scored US Corporate	SKOR	0.22	268.2	8.84	5.96	4.98
iShares iBonds Dec 2025 Term Corporate	IBDQ	0.10	953.7	8.27	6.28	6.02
Invesco BulletShares 2025 Corporate Bond	BSCP	0.10	870.4	7.89	6.07	5.96
SPDR Portfolio Intermediate Corporate	SPIB	0.07	6,042.2	7.69	5.71	5.00
American Century Diversified Corporate	KORP	0.29	129.7	6.99	-	-
Invesco BulletShares 2024 Corporate Bond	BSCO	0.10	1,250.2	6.73	5.32	5.58
iShares iBonds Dec 2024 Term Corporate	IBDP	0.10	1,150.8	6.14	5.13	5.26
iShares iBonds Dec 2023 Term Corporate	IBDO	0.10	1,385.2	5.37	4.53	4.68
Inspire Corporate Bond Impact	IBD	0.50	172.5	5.15	3.86	-
Invesco BulletShares 2023 Corporate Bond	BSCN	0.10	1,547.7	5.10	4.48	4.86

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
Invesco BulletShares 2022 Corporate Bond	BSCM	0.10	2,203.3	3.64	3.63	4.11
iShares iBonds Dec 2022 Term Corporate	IBDN	0.10	1,424.0	3.48	3.54	3.79
Invesco BulletShares 2021 Corporate Bond	BSCL	0.10	2,091.9	2.12	2.63	3.18
iShares iBonds Dec 2021 Term Corporate	IBDM	0.10	1,568.1	2.12	2.72	3.03
U.S. FIXED INCOME: CORPORATE - INVESTMENT GRADE - FLOATING RATE						
Invesco Variable Rate Investment Grade	VRIG	0.30	453.6	1.75	2.26	-
VanEck Vectors Inv Grade Floating Rate	FLTR	0.14	447.5	1.44	2.45	2.54
iShares Floating Rate Bond	FLOT	0.20	5,376.6	0.87	2.10	1.90
SPDR Bloomberg Inv Grade Floating Rate	FLRN	0.15	2,347.1	0.77	2.05	1.94
U.S. FIXED INCOME: CORPORATE - HIGH YIELD - BROAD MATURITIES						
iShares Fallen Angels USD Bond	FALN	0.25	409.8	14.86	8.62	-
VanEck Vectors Fallen Angel High Yield	ANGL	0.35	4,072.3	13.20	7.96	11.66
Pacer Trendpilot US Bond	PTBD	0.60	437.3	10.61	-	-
FlexShares High Yield Value-Scored Bond	HYGV	0.37	193.6	8.02	-	-
SPDR Portfolio High Yield Bond	SPHY	0.15	181.9	6.65	5.27	7.04
iShares Broad USD High Yield Corporate	USHY	0.15	7,427.5	6.18	5.79	-
Goldman Sachs Access HiYld Corporate	GHYB	0.34	168.1	5.98	5.82	-
JPMorgan High Yield Research Enhanced	JPHY	0.24	490.8	5.36	5.51	-
SPDR Bloomberg Barclays High Yield Bond	JNK	0.40	12,493.2	4.95	5.26	7.28
Xtrackers USD High Yield Corporate Bond	HYLB	0.15	7,466.6	4.56	5.41	-
iShares iBoxx USD HiYld Corporate Bond	HYG	0.49	25,719.3	4.48	5.31	7.03
Invesco Senior Loan	BKLN	0.65	4,816.1	1.07	3.15	4.13
U.S. FIXED INCOME: CORPORATE - HIGH YIELD - SHORT-TERM						
SPDR Bloomberg Short Term High Yield	SJNK	0.40	3,588.2	5.82	4.94	6.80
PIMCO 0-5 Year High Yield Corporate Bond	HYS	0.56	1,848.6	3.27	4.16	6.56
iShares 0-5 Yr High Yield Corporate Bond	SHYG	0.30	5,755.0	3.16	4.29	6.05
U.S. FIXED INCOME: CORPORATE - HIGH YIELD - INTERMEDIATE						
Vanguard Intermediate-Term Bond	BIV	0.05	15,443.8	9.67	6.50	5.21
iShares Intermediate Govt/Credit Bond	GVI	0.20	2,325.6	6.38	4.53	3.47
Invesco Fundamental HiYld Corporate	PHB	0.50	785.4	5.21	5.16	6.67
Invesco BulletShares 2025 HiYld Corp Bond	BSJP	0.42	180.8	3.75	4.96	-
Invesco BulletShares 2024 HiYld Corp Bond	BSJO	0.42	223.8	2.09	4.16	-
Invesco BulletShares 2023 HiYld Corp Bond	BSJN	0.42	468.6	1.56	3.90	6.33
Invesco BulletShares 2022 HiYld Corp Bond	BSJM	0.42	750.7	-0.62	2.68	5.83
Invesco BulletShares 2021 HiYld Corp Bond	BSJL	0.42	943.0	-2.80	2.02	5.11
U.S. FIXED INCOME: CORPORATE - ASSET-BACKED						
iShares CMBS	CMBS	0.25	469.0	7.86	5.47	4.48
U.S. FIXED INCOME: CORPORATE - CONVERTIBLES						
iShares Convertible Bond	ICVT	0.20	1,364.0	61.01	25.02	20.07
SPDR Bloomberg Convertible Securities	CWB	0.40	6,667.9	53.39	22.55	18.68
U.S. FIXED INCOME: CORPORATE - PREFERRED STOCK						
Global X US Preferred	PFFD	0.23	1,054.3	8.88	6.93	-
iShares Preferred and Income Securities	PFF	0.47	19,373.1	7.91	6.06	5.59
VanEck Vectors Preferred Sec ex Financial	PFXF	0.41	823.3	7.60	7.51	7.41
Innovator S&P Inv Grade Preferred	EPRF	0.47	170.1	7.38	6.76	-
Invesco Financial Preferred	PGF	0.61	1,793.1	7.27	6.09	5.97
Invesco Preferred	PGX	0.52	7,053.1	7.12	6.56	6.15
SPDR Wells Fargo Preferred Stock	PSK	0.45	1,422.3	6.38	6.09	5.55
Invesco Variable Rate Preferred	VRP	0.50	1,522.9	5.12	5.43	6.45
GLOBAL FIXED INCOME						
First Trust SSI Strategic Convertible Sec	FCVT	0.95	291.7	50.86	21.77	17.04
SPDR Dorsey Wright Fixed Income Alloc	DWFI	0.60	122.1	15.24	4.82	-
SPDR Bloomberg Barclays Intl Corporate	IBND	0.50	261.5	11.50	3.00	4.70
Invesco Total Return Bond	GTO	0.50	544.2	10.71	7.23	-
Western Asset Total Return	WBND	0.47	140.8	10.01	-	-
SPDR Bloomberg Intl Treasury Bond	BWX	0.35	1,012.5	9.50	4.30	4.65
Fidelity Total Bond	FBND	0.36	1,663.5	9.42	6.11	5.71
JPMorgan Core Plus Bond	JCPB	0.40	133.0	9.19	-	-
Columbia Diversified Fixed Income Alloc	DIAL	0.28	811.6	9.08	6.72	-
Hartford Total Return Bond	HTRB	0.29	844.3	8.87	5.72	-
First Trust TCW Opportunistic Fixed Inc	FIXD	0.56	4,695.5	8.70	5.91	-
SPDR FTSE Intl Govt Inflation-Protected	WIP	0.50	380.6	8.36	3.44	5.47
PIMCO Active Bond	BOND	0.57	4,122.8	7.80	5.50	4.80
JPMorgan Intl Bond Opportunities	JPIB	0.50	221.4	7.14	5.10	-
iShares Global Green Bond	BGRN	0.20	156.5	6.86	-	-

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
SPDR Bloomberg Short Term Intl Treasury	BWZ	0.35	213.8	6.48	1.29	2.44
First Trust TCW Unconstrained Plus Bond	UCON	0.76	242.2	6.22	-	-
Vanguard Total World Bond	BNDW	0.06	500.9	6.22	-	-
First Trust Preferred Securities & Income	FPE	0.85	5,901.4	5.58	5.83	7.00
Fidelity Limited Term Bond	FLTB	0.36	221.6	5.57	4.14	3.32
Vanguard Total International Bond	BNDX	0.08	37,194.5	4.65	5.09	4.45
iShares Core International Aggregate Bond	IAGG	0.08	3,344.3	4.63	5.32	4.62
PIMCO Enhanced Low Duration Active	LDUR	0.56	760.9	4.49	3.39	2.96
SPDR DoubleLine Total Return Tactical	TOTL	0.55	3,269.8	3.56	3.72	3.50
Invesco Global Short Term High Yield Bond	PGHY	0.35	206.5	3.05	3.08	5.10
Janus Henderson Short Duration Income	VNLA	0.26	2,921.8	3.01	2.92	-
SPDR DL Short Dur Total Ret Tactical	STOT	0.45	147.3	2.43	2.58	-
FlexShares Ready Access Variable Income	RAVI	0.25	448.1	2.06	2.40	1.97
Invesco Ultra Short Duration	GSY	0.23	3,028.4	1.82	2.46	2.21
BlackRock Short Maturity Bond	NEAR	0.25	4,558.1	1.39	2.21	1.89
Franklin Liberty Intl Aggregate Bond	FLIA	0.25	228.5	1.37	-	-
IQ Ultra Short Duration	ULTR	0.25	235.4	0.75	-	-
Aware Ultra-Short Duration Enh Income	AWTM	0.23	224.3	0.46	-	-
FormulaFolios Tactical Income	FFTI	1.04	221.7	-0.15	2.17	-
Hartford Core Bond	HCRB	0.29	125.9	-	-	-
Janus Henderson AAA CLO	JAAA	-	120.7	-	-	-
INTERNATIONAL FIXED INCOME: DEVELOPED						
Invesco International Corporate Bond	PICB	0.50	134.1	12.65	4.22	4.63
iShares International Treasury Bond	IGOV	0.35	1,166.5	10.88	3.87	4.71
iShares US & Intl High Yield Corp Bond	GHYG	0.40	186.9	6.67	5.21	7.64
INTERNATIONAL FIXED INCOME: EMERGING						
iShares China Large-Cap	FXI	0.74	4,082.2	8.93	2.77	8.36
VanEck Vectors EM High Yield Bond	HYEM	0.40	443.8	6.88	5.23	7.83
iShares JP Morgan EM Corporate Bond	CEMB	0.50	247.8	6.77	5.82	7.34
Vanguard Emerging Markets Govt Bond	VWOB	0.25	2,645.8	5.66	5.49	6.93
iShares JP Morgan USD Emerging Markets	EMB	0.39	19,209.1	5.42	4.79	6.76
SPDR Bloomberg Barclays EM Local Bond	EBND	0.30	1,008.2	4.49	2.55	5.85
iShares JP Morgan EM High Yield Bond	EMHY	0.50	325.1	3.83	3.60	6.83
iShares JPM EM Local Currency Bond	LEMB	0.50	532.2	3.10	0.49	3.94
VanEck Vectors JPM EM Local Currency	EMLC	0.30	3,602.2	3.08	1.51	5.35
First Trust EM Local Currency Bond	FEMB	0.85	232.0	2.68	2.04	4.99
Invesco Emerging Markets Sovereign Debt	PCY	0.50	2,861.0	2.28	4.14	6.18
WisdomTree Emerging Markets Local Debt	ELD	0.55	128.6	1.78	2.04	5.57
GLOBAL FIXED INCOME: CORPORATE - PREFERRED STOCK						
Principal Spectrum Preferred Sec Active	PREF	0.55	245.9	7.52	6.05	-
Global X SuperIncome Preferred	SPFF	0.58	198.5	6.90	5.42	4.44
First Trust Institutl Pref Securities/Income	FPEI	0.85	300.4	6.49	5.69	-
GLOBAL FIXED INCOME: HIGH YIELD						
Fidelity High Yield Factor	FDHY	0.45	174.1	10.70	-	-
Franklin Liberty High Yield Corporate	FLHY	0.40	227.4	7.77	-	-
First Trust Tactical High Yield	HYLS	1.23	2,212.2	4.84	5.45	6.22
SPDR Blackstone / GSO Senior Loan	SRLN	0.70	2,222.8	3.14	4.08	4.54
First Trust Senior Loan	FTSL	0.86	1,316.0	2.68	3.72	4.25
COMMODITIES: BROAD MARKET						
Teucrium Corn	CORN	3.71	138.4	5.27	-2.42	-5.99
First Trust Global Tactical Commodity	FTGC	0.95	237.0	2.17	-1.75	-0.42
Aberdeen Std All Commodity K-1 Free	BCI	0.25	335.4	-2.77	-2.59	-
iPath Bloomberg Commodity ETN	DJP	0.70	503.8	-4.12	-3.55	0.40
Invesco DB Commodity Tracking	DBC	0.89	1,339.2	-7.84	-3.06	2.52
Invesco Opt Yld Divrsfd Commodity No K-1	PDBC	0.59	2,737.8	-7.85	-3.60	2.11
iShares Commodities Select Strategy	COMT	0.48	215.7	-18.66	-5.57	2.66
iShares S&P GSCI Commodityed Trust	GSG	0.75	835.1	-23.94	-8.85	-2.83
COMMODITIES: AGRICULTURE						
Invesco DB Agriculture	DBA	0.89	642.0	-2.54	-4.05	-4.27
COMMODITIES: ENERGY						
Invesco DB Oil	DBO	0.78	432.7	-20.99	-4.97	-0.76
United States 12 Month Oil	USL	0.88	196.2	-25.23	-6.34	0.20
United States Brent Oil	BNO	0.88	346.8	-38.23	-10.72	1.02
United States Natural Gas	UNG	1.28	395.5	-45.43	-26.66	-23.31

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
United States Oil	USO	0.79	3,617.9	-67.79	-29.96	-17.81
COMMODITIES: INDUSTRIAL METALS						
Invesco DB Base Metals	DBB	0.80	175.7	15.53	-2.76	8.48
COMMODITIES: PRECIOUS METALS						
Aberdeen Standard Physical Silver	SIVR	0.30	857.8	47.52	15.65	13.51
iShares Silver Trust	SLV	0.50	14,693.2	47.30	15.39	13.25
Aberdeen Standard Phys Precious Metals	GLTR	0.60	840.3	29.52	15.03	13.61
Invesco DB Precious Metals	DBP	0.78	142.0	26.80	12.02	10.95
Aberdeen Standard Physical Palladium	PALL	0.60	356.2	25.27	31.24	33.48
SPDR Gold MiniShares Trust	GLDM	0.18	4,008.3	25.10	-	-
iShares Gold Trust	IAU	0.25	31,868.1	25.03	13.17	12.13
Aberdeen Standard Physical Gold	SGOL	0.17	2,652.5	25.03	13.17	12.05
GraniteShares Gold Trust	BAR	0.17	1,109.8	25.02	13.18	-
SPDR Gold Trust	GLD	0.40	71,026.8	24.81	12.99	11.94
VanEck Merk Gold	OUNZ	0.25	441.0	24.71	12.96	11.98
Aberdeen Standard Physical Platinum	PPLT	0.60	1,329.6	10.78	4.42	3.25
Goldman Sachs Physical Gold	AAAU	0.18	510.0	-	-	-
CURRENCY: DEVELOPED						
Invesco CurrencyShares Australian Dollar	FXA	0.40	157.0	9.52	-0.07	1.69
Invesco CurrencyShares Swiss Franc	FXF	0.40	294.2	8.18	2.07	1.33
Invesco CurrencyShares Euro	FXE	0.40	329.3	7.94	-0.25	1.52
Invesco CurrencyShares Japanese Yen	FXY	0.40	246.9	4.61	2.42	2.55
Invesco CurrencyShares British Pound	FXB	0.40	144.7	2.87	0.23	-1.75
Invesco CurrencyShares Canadian Dollar	FXC	0.40	150.3	1.92	-0.07	1.80
ASSET ALLOCATION						
WisdomTree 90/60 US Balanced	NTSX	0.20	403.6	24.85	-	-
Amplify BlackSwan Growth/Treasury Core	SWAN	0.49	761.2	16.17	-	-
Aptus Defined Risk	DRSK	0.78	532.0	13.81	-	-
iShares Core Aggressive Allocation	AOA	0.33	1,183.5	12.81	8.42	10.51
Strategy Shares NASDAQ 7 HANDL	HNDL	1.17	180.1	12.62	-	-
ClearShares OCIO	OCIO	0.62	118.6	11.55	6.60	-
iShares Core Growth Allocation	AOR	0.33	1,600.0	11.41	7.65	9.04
iShares Core Moderate Allocation	AOM	0.34	1,468.1	10.02	6.92	7.60
iShares Core Conservative Allocation	AOK	0.34	842.1	9.33	6.47	6.82
SPDR SSgA Global Allocation	GAL	0.35	258.9	9.29	6.46	8.06
Cambria Tail Risk	TAIL	0.59	364.1	6.92	-1.94	-
DeltaShares S&P 500 Managed Risk	DMRL	0.35	384.5	5.46	7.18	-
Invesco CEF Income Composite	PCEF	2.34	792.5	4.02	5.56	8.90
SPDR SSGA Income Allocation	INKM	0.50	127.1	3.08	4.56	6.76
Principal Active Income	YLD	0.49	231.5	1.50	3.83	6.86
Amplify High Income	YYY	2.28	264.2	-0.85	2.76	7.40
iShares Mstar Multi-Asset Income	IYLD	0.60	270.4	-1.18	2.90	5.79
DeltaShares S&P Intl Managed Risk	DMRI	0.50	186.0	-4.60	-0.46	-
Invesco Zacks Multi-Asset Income	CVY	0.94	120.7	-10.46	0.22	6.29
Multi-Asset Diversified Income	MDIV	0.73	459.6	-15.13	-1.76	2.18
Cabana Target Drawdown 10	TDSC	0.69	552.4	-	-	-
Cabana Target Drawdown 7	TDSB	0.68	369.0	-	-	-
Cabana Target Drawdown 13	TDSD	0.68	165.6	-	-	-
ALTERNATIVES: ABSOLUTE RETURN						
RPAR Risk Parity	RPAR	0.50	975.8	19.40	-	-
IQ Hedge Multi-Strategy Tracker	QAI	0.78	804.7	5.72	3.57	3.51
Core Alternative	CCOR	1.09	138.3	4.05	4.86	-
IQ Merger Arbitrage	MNA	0.77	736.7	2.71	3.17	4.01
First Trust Long/Short Equity	FTLS	1.60	311.7	2.56	4.28	6.69
AGFiQ US Market Neutral Anti-Beta	BTAL	2.11	131.9	-13.86	0.07	-1.35
ALTERNATIVES: TACTICAL TOOLS						
iPath Ser B S&P 500 VIX Short Futures ETN	VXX	0.89	924.9	11.04	-	-
ProShares VIX Short-Term Futures	VIXY	0.87	293.7	10.54	-15.96	-44.74
LEVERAGED						
MicroSectors FANG+ 3X Leveraged ETN	FNGU	0.95	1,293.4	379.33	-	-
MicroSectors FANG+ 2X Leveraged ETN	FNGO	0.95	186.9	238.00	-	-
ProShares UltraPro QQQ	TQQQ	0.95	9,536.4	110.05	57.93	57.09
ProShares Ultra QQQ	QLD	0.95	3,911.6	88.90	46.54	42.64
ProShares Ultra Technology	ROM	0.95	736.0	80.42	48.66	49.01

FUND NAME	TICKER	EXP RATIO %	AUM ($M)	2020 %	3YR %	5YR %
Direxion Daily S&P Biotech Bull 3X	LABU	1.04	369.0	74.66	9.13	3.73
Direxion Daily CSI 300 China A Sh Bull 2X	CHAU	1.21	138.2	71.93	12.71	12.87
Direxion Daily Semiconductor Bull 3X	SOXL	0.96	1,981.7	69.99	50.92	79.33
Direxion Daily Technology Bull 3X	TECL	1.08	2,017.1	69.37	54.32	62.48
ProShares Ultra Semiconductors	USD	0.95	169.3	68.18	37.26	49.17
UBS AG FI Enh Large Cap Growth ETN	FBGX	1.29	143.1	65.79	34.48	34.79
Credit Suisse FI Large Cap Growth Enh ETN	FLGE	1.52	295.9	64.27	33.89	34.48
ProShares Ultra Silver	AGQ	0.93	754.5	62.02	14.85	13.62
DB Gold Double Long ETN	DGP	0.75	124.1	45.29	21.14	19.62
ProShares Ultra NASDAQ Biotechnology	BIB	0.95	244.7	39.79	15.47	3.84
ProShares Ultra Gold	UGL	0.95	263.1	39.04	18.81	18.06
Direxion Daily 20+ Year Treasury Bull 3X	TMF	1.05	265.9	38.96	18.55	14.79
ProShares Ultra S&P 500	SSO	0.91	3,166.5	21.53	19.25	24.37
ProShares Ultra Health Care	RXL	0.95	118.9	19.23	20.05	18.33
ProShares Ultra Russell2000	UWM	0.95	617.3	16.57	8.67	18.14
ProShares UltraPro S&P500	UPRO	0.93	1,794.9	10.08	18.57	30.16
Direxion Daily S&P 500 Bull 3X	SPXL	1.01	1,694.9	9.64	18.52	29.93
ProShares Ultra MidCap400	MVV	0.95	160.4	6.17	5.77	16.65
Direxion Daily MSCI Emerging Mkts Bull 3x	EDC	1.33	218.3	6.13	-8.52	15.96
Direxion Daily Healthcare Bull 3x	CURE	1.08	138.2	4.92	18.86	18.60
ProShares Ultra Dow30	DDM	0.95	407.9	2.12	9.35	22.38
ProShares UltraPro Russell2000	URTY	0.95	332.7	-7.72	-1.34	16.38
Direxion Daily FTSE China Bull 3X	YINN	1.37	283.8	-7.82	-15.07	3.52
Direxion Daily Small Cap Bull 3x	TNA	1.12	1,557.1	-7.83	-1.62	16.11
Virtus InfraCap US Preferred Stock	PFFA	2.01	222.0	-7.85	-	-
ProShares UltraPro Dow30	UDOW	0.95	731.2	-17.16	3.38	26.55
ProShares Ultra VIX Short-Term Futures	UVXY	0.95	1,358.2	-17.38	-40.69	-76.28
ProShares Ultra Financials	UYG	0.95	595.8	-20.34	0.79	13.38
Direxion Daily Homebldrs/Supp Bull 3X	NAIL	0.99	354.3	-32.09	-20.45	10.25
Direxion Daily Financial Bull 3x	FAS	0.99	2,108.4	-35.20	-2.97	16.56
Direxion Daily Gold Miners Bull 2X	NUGT	1.17	1,183.6	-60.16	-23.74	-6.26
Direxion Daily Aerospace/Defense Bull 3X	DFEN	0.99	301.8	-70.33	-27.03	-
ProShares Ultra Oil & Gas	DIG	0.95	123.1	-70.33	-41.55	-22.86
Credit Suisse Mo 2xLev Mort REIT ETN	REML	1.30	164.3	-72.44	-29.80	-
ProShares Ultra Bloomberg Natural Gas	BOIL	0.95	156.4	-74.74	-59.83	-53.05
Direxion Daily Regional Banks Bull 3X	DPST	0.99	169.4	-76.70	-44.38	-17.47
Direxion Daily Junior Gold Miners Bull 2X	JNUG	1.12	793.3	-85.53	-48.45	-27.78
Direxion Daily MSCI Brazil Bull 2X	BRZU	1.29	240.6	-91.35	-55.99	-21.52
Direxion Daily Energy Bull 2x	ERX	1.06	428.9	-91.68	-64.98	-42.17
ProShares Ultra Bloomberg Crude Oil	UCO	0.95	900.1	-92.91	-60.44	-43.45
MicroSectors US Big Oil 3X Leveraged ETN	NRGU	0.95	221.6	-93.67	-	-
Direxion Daily S&P Oil/Gas Expl/Pr Bull 2X	GUSH	1.17	497.7	-97.38	-85.29	-68.69
INVERSE						
Invesco DB US Dollar Bullish	UUP	0.79	365.2	-6.66	1.32	-0.50
ProShares Short 20+ Year Treasury	TBF	0.94	264.2	-19.35	-9.49	-8.10
ProShares Short Dow30	DOG	0.95	316.4	-20.45	-12.41	-14.97
Direxion Daily S&P 500 Bear 1X	SPDN	0.50	148.3	-24.56	-14.70	-
ProShares Short S&P500	SH	0.90	1,777.6	-25.08	-15.09	-15.03
ProShares Short Russell2000	RWM	0.95	254.2	-31.04	-14.87	-15.93
Direxion Daily CSI 300 China A Sh Bear 1X	CHAD	0.85	155.3	-35.40	-16.05	-15.25
ProShares Short VIX Short-Term Futures	SVXY	1.38	409.2	-36.47	-56.77	-16.30
ProShares UltraShort 20+ Year Treasury	TBT	0.92	511.4	-37.94	-20.51	-17.38
ProShares Short QQQ	PSQ	0.95	517.7	-41.23	-25.33	-22.27
ProShares UltraShort Dow30	DXD	0.95	136.5	-44.56	-28.24	-30.73
ProShares UltraShort S&P500	SDS	0.91	736.4	-50.08	-32.21	-30.64
Direxion Daily 20+ Year Treasury Bear 3x	TMV	1.04	118.0	-54.14	-31.99	-27.65
ProShares UltraPro Short Dow30	SDOW	0.95	509.1	-66.48	-44.74	-45.88
ProShares UltraShort QQQ	QID	0.95	222.9	-69.71	-48.36	-42.64
ProShares UltraPro Short S&P500	SPXU	0.93	641.7	-70.39	-48.74	-45.44
Direxion Daily S&P 500 Bear 3X	SPXS	1.07	538.9	-70.46	-48.93	-45.71
Direxion Daily Financial Bear 3X	FAZ	1.07	201.1	-73.89	-49.84	-48.62
Direxion Daily Small Cap Bear 3X	TZA	1.07	389.3	-80.41	-51.44	-50.01
ProShares UltraPro Short QQQ	SQQQ	0.95	1,357.6	-86.40	-66.76	-59.72
Direxion Daily S&P Biotech Bear 3X	LABD	1.06	151.3	-89.74	-69.60	-66.59

THE LAST WORD

RISKY BUSINESS

BY HEATHER BELL
Editor

Inverse and leveraged ETFs have been the perceived bogeyman lurking in the ETF universe for a long time. But they really don't deserve that reputation. Time after time, they do what they're designed to do. It's the investor that's behind the undoing.

There are plenty of warning signs for the uninitiated. The trading platforms that *do* allow you to trade them generally have plenty of alerts that pop up letting you know what you're getting into when you try to make a trade in this type of product—sort of like a roller-coaster warning, which is what it can be.

Investors Who Enjoy Investing

I'm not the target audience for these products. I'm perfectly content with my plodding retirement portfolio that holds boring index funds that simply track the market. I have neither the attention span nor the desire to do the work geared ETFs require to increase the likelihood of a positive outcome. If I look at my 401(k) more than once a quarter, I feel like I've gone above and beyond when it comes to "adulting."

I may simply be a buy-and-hold investor because I'm lazy. And you absolutely cannot be a lazy investor if you're going to add these products to your portfolio. That's like putting on a blindfold and going for a drive in the mountains. It's just not going to end well.

These are products for traders—and to an extent, confident, disciplined and engaged investors—with specific goals and plans. These products are almost like a job unto themselves, requiring daily attention to the markets and the forces that move them. On top of that is the daily reset math one must understand before investing in them.

Accepting Risk

Certainly, they're higher risk than a good chunk of the ETF universe—but that risk is limited to how much money you invest.

With a leveraged or inverse ETF, you're not going to lose more than your initial investment like you could by, say, shorting a stock or employing margin.

Two things seem to be key when driving the leveraged/inverse route: 1) know (and respect) your risk tolerance; and 2) know when to bail out.

If you accept the reality that you could lose a significant portion of your investment, the next step is to know exactly when you want to get out of the market. When the ETF hits either your pain point or your end goal, exit your position. And for heaven's sake, pay attention! Certainly, "if you snooze, you will lose" with these products.

Once you're out of the fund, if you believe in the product's goals and like the opportunities it offers, you can just wait for another reentry point. The leveraged and inverse tides change rapidly.

In the end—beyond understanding simply how leveraged and inverse ETFs work—it's all about being disciplined enough to stick to the parameters you set for yourself in advance, and stay on top of the information that'll come your way about the markets you've sought exposure to. Above all, know what you can bear to lose long before you buy the product, and stick to that limit. ●

Heather Bell is editor of ETF Report.
She can be reached at hbell@etf.com.

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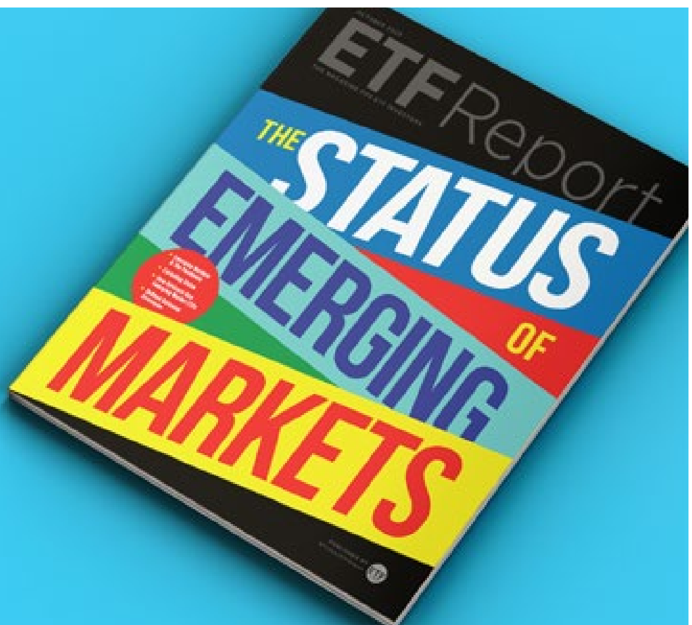

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