

Exchange-Traded Funds

NORTH AMERICA

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US ETF Weekly Update

- **Weekly Flows: \$267 Million Net Inflows**
- **Eleventh Consecutive Week of Net Inflows**
- **High-conviction ETF Recommendations: Add EUFN**
- **ETF Assets Stand at \$2.8 Trillion, up 10% YTD**
- **Five ETF Launches Last Week**

As with any investment, ETFs have risks. These include the general risks associated with investing in the underlying assets, potential tracking error, and the possibility that particular indices may lag other market segments or active managers. In addition, ETFs investing in international markets may include currency and geopolitical risks, while fixed income ETF risks also include credit and interest rate risk. Leveraged, Inverse, and Leveraged Inverse ETFs have unique risks, which are reviewed on slide 10.

We define exchange-traded funds as encompassing passively and actively managed exchange-traded funds. This report is focused on U.S.-listed exchange-traded funds. These funds are registered with the SEC and trade as a single stock under SEC exemptions.

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US-Listed ETFs: High-conviction ETF Recommendations

Below are our highest-conviction ETF recommendations, drawing on published strategy from Morgan Stanley Wealth Management's Global Investment Committee and Morgan Stanley & Co.'s Institutional Research group

Ticker	Name	Fund Focus	Investment Rationale
VOO	Vanguard S&P 500 ETF	US Equity-Large-Cap	May benefit from a rebound in global growth, but with lower volatility and more defensive characteristics than other equities.
IJR	iShares Core S&P Small-Cap ETF	US Equity-Small-Cap	May benefit from low energy costs, a better labor market, pick-up in consumer spending, and increased M&A.
XLF	Financials Select Sector SPDR	US Equity-Sector	Growth in shareholder return and better relative estimate achievability may drive sector higher.
XLV	Health Care Select Sector SPDR	US Equity-Sector	Valuations attractive following recent pullback and EPS growth could be above average.
XBI	SPDR S&P Biotech ETF	US Equity-Sector	Industry is supported by sales and margin growth, less stretched valuations, along with M&A potential.
VGK	Vanguard FTSE Europe ETF	International Equity-Europe	Long-term value persists amid growth and political headwinds.
DBEU	Deutsche X-Tracker MSCI Europe Hedged Equity Fund	International Equity-Europe	Long-term value persists amid growth and political headwinds; hedge from potential currency weakening.
EZU	iShares MSCI EMU ETF	International Equity-Europe	Long-term value persists amid growth and political headwinds.
*EUFN	iShares MSCI Europe Financials ETF	International Equity-Sector	Room for further upside based on potential reflationary, regulatory, and restructuring tailwinds.
DXJ	WisdomTree Japan Hedged Equity Fund	International Equity-Japan	Positive bias amid political and structural changes taking place; we anticipate Yen to weaken.
IEMG	iShares Core MSCI Emerging Markets ETF	International Equity-EM	Valuations are attractive and with currency depreciation behind us, EM equities appear positioned to perform well.
GXC	SPDR S&P China ETF	International Equity-China	Signs of renewed growth, policy measures should continue to help, and government has additional tools.
INDA	iShares MSCI India ETF	International Equity-India	Anticipate monetary stimulus, lower inflation, positive longer view based on demographics, globalization, and political reforms.
FPE	First Trust Preferred Securities and Income ETF	Fixed Income-Preferred	Actively managed fund offers favorable yield and financials exposure along with duration partially mitigated by fixed to float emphasis.
BKLN	PowerShares Senior Loan Portfolio	Fixed Income-Senior Loan	Appealing sector given floating rate exposure, long-term risk adjusted return history, and slow US recovery.
SRLN	SPDR Blackstone/GSO Senior Loan ETF	Fixed Income-Senior Loan	Actively managed fund providing exposure to floating rate senior loan sector.

* Added 4/10/17.

Source: Morgan Stanley Wealth Management ETF Research.

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US-Listed ETFs: Estimated Flows by Market Segment

- **ETFs posted net inflows of \$267 mln last week, the eleventh consecutive week of net inflows, totaling \$118.6 bln**
 - YTD, ETFs have generated net inflows of \$135.3 bln, a record start to the year
 - Last week's net inflows were led by International - Developed ETFs at \$3.8 bln; conversely, US Large-Cap ETFs posted net outflows of \$4.5 bln, the most of any category that we measure
 - Eight of the 15 categories that we measure posted net inflows last week
 - ETF assets stand at \$2.8 tln, up 10% YTD
- **13-week flows remain positive among most asset classes; combined \$121.2 billion**
 - Over the last 13 weeks, equity ETFs have posted net inflows of \$82.8 bln vs. \$33.9 bln for the Fixed Income ETF category
 - International - Developed and International - Emerging ETFs had a combined \$36.9 bln in net inflows over the last 13 weeks
 - The Currency ETF segment was the lone area to exhibit net outflows over the last 13 weeks, at \$103 mln

Investment Objective	Funds	Net Cash Flow (\$ Mil)			Mkt Cap (\$ Mil)	Market Share (%)
		1-Week	4-Week	13-Week		
US Broad-Market	19	324	1,346	4,667	105,723	4
US Large-Cap	68	(4,485)	(1,665)	18,467	718,138	26
US Mid-Cap	34	(843)	(255)	5,553	151,899	5
US Small- & Micro-Cap	41	(2,598)	(375)	3,240	142,826	5
US Sector & Industry	199	(1,565)	(2,510)	5,584	296,838	11
US Custom	162	(29)	592	2,155	70,239	3
US Dividend Income	34	82	385	1,290	106,319	4
Leveraged/Inverse	190	(50)	312	1,459	33,287	1
International - Developed	266	3,781	9,678	23,657	350,983	13
International - Emerging	157	1,809	6,242	13,201	167,405	6
Global	184	372	1,616	5,010	73,208	3
Fixed Income	225	3,096	12,102	33,909	467,107	17
Commodity	36	(85)	335	471	60,116	2
Currency	16	68	1	(103)	2,332	0
Active	171	390	1,216	2,631	33,152	1
Total	1,802	267	29,019	121,192	2,779,574	100

Source: Bloomberg, Morgan Stanley Wealth Management ETF Research. Flow data estimated as of 4/7/17 based on daily change in share counts and daily NAVs.

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US-Listed ETFs: Estimated Largest Flows by Individual ETF

- **Vanguard FTSE Emerging Markets ETF (VWO) had net inflows of \$873 mln last week, leading all ETFs**
 - In addition to VWO, the iShares Core MSCI Emerging Markets ETF (IEMG) had a big week, with \$346 mln in net inflows; notably, as we've mentioned in prior weeklies, VWO and IEMG are typically owned by retail accounts seeking broad access to emerging markets
 - While emerging markets equities have garnered flows and attention over the last 13 weeks, the iShares J.P. Morgan USD Emerging Markets Bond ETF (EMB), an emerging market sovereign debt fund, has also been a standout; over the last 13 weeks, EMB has posted \$1.9 bln in net inflows, which accounts for 18% of its current market cap
 - Over the last 13 weeks, the iShares Core S&P 500 ETF (IVV) generated net inflows of \$6.9 bln, the most of any ETF
 - Conversely, the SPDR S&P 500 ETF (SPY) had net outflows of \$5.6 bln last week, the most of any ETF; SPY's large net outflows follow two weeks when the fund had a combined \$4.3 bln in net inflows
 - The Financials Select Sector SPDR (XLF) exhibited \$582 mln in net outflows last week; despite strong inflows immediately post election, XLF flows have struggled the last 13 weeks, at \$501 mln in net outflows

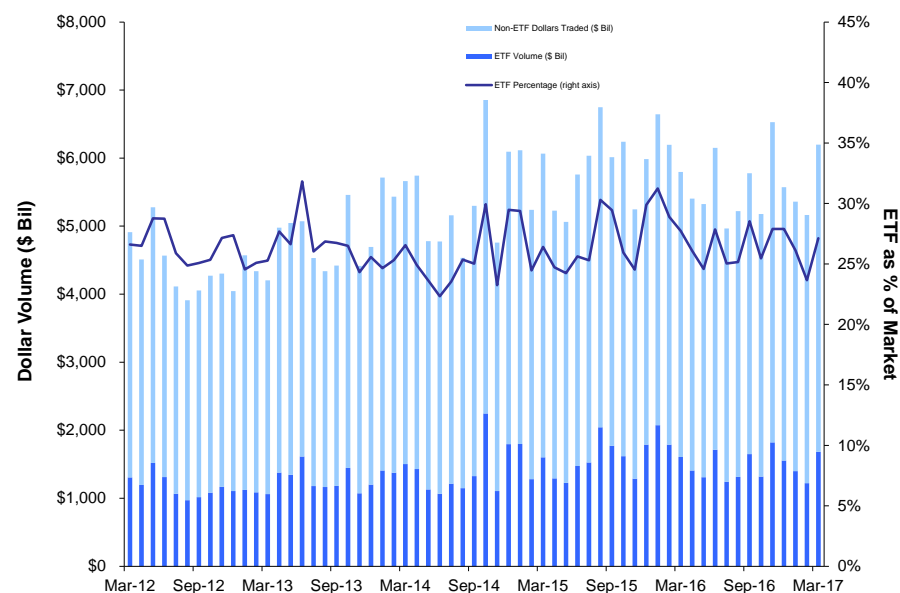
	ETF Name	Symbol	Net Cash Flow (\$ Mil)			Mkt Cap (\$ Mil)
			1-Week	4-Week	13-Week	
Net Inflows	Vanguard FTSE Emerging Markets ETF	VWO	873	1,680	2,975	52,315
	iShares Core MSCI EAFE ETF	IEFA	748	1,235	4,385	21,784
	iShares Core S&P 500 ETF	IVV	723	2,196	6,933	102,317
	Vanguard FTSE Developed Markets ETF	VEA	585	2,140	4,389	47,896
	iShares Core MSCI Emerging Markets ETF	IEMG	346	2,301	6,636	27,251
	iShares S&P 500 Growth ETF	IVW	322	690	593	16,818
	iShares J.P. Morgan USD Emerging Markets Bond ETF	EMB	305	1,004	1,861	10,274
	iShares MSCI EAFE ETF	EFA	297	1,757	3,268	67,248
	iShares 20+ Year Treasury Bond ETF	TLT	291	284	702	5,975
	PowerShares Senior Loan Portfolio	BKLN	235	135	1,065	9,193
Net Outflows	SPDR S&P 500 ETF	SPY	(5,550)	(6,906)	(1,282)	233,937
	iShares Russell 2000 ETF	IWM	(1,447)	434	(2,913)	36,042
	PowerShares QQQ	QQQ	(616)	(35)	1,560	46,856
	Financials Select Sector SPDR	XLF	(582)	(1,086)	(501)	22,957
	iShares Core S&P Small-Cap ETF	IJR	(428)	(286)	2,388	28,941
	iShares S&P Mid-Cap 400 Value ETF	IJJ	(302)	(345)	(41)	5,884
	iShares iBoxx \$ Investment Grade Corporate Bond ETF	LQD	(283)	473	3,274	30,446
	Vanguard Extended Market ETF	VXF	(255)	(99)	83	4,611
	Energy Select Sector SPDR	XLE	(246)	273	581	17,177
	Consumer Staples Select Sector SPDR	XLP	(215)	(252)	(284)	8,696

Source: Bloomberg, Morgan Stanley Wealth Management ETF Research. Flow data estimated as of 4/7/17 based on daily change in share counts and daily NAVs.

US-Listed ETFs: ETF Dollar Volume

- **ETF monthly \$ volume as a % of listed trading volume was up in March to 27% compared to February's 24% reading; over the last five years, ETF monthly \$ volume as a % of listed trading volume averaged 26%**
- **Over the last five years, volume as a % of listed trading volume peaked at 32% in June 2013**
- **ETF \$ volume was up \$34 bln last week compared to the prior week and is 8% above its 13-week average**
- **Global ETFs accounted for 4% of ETF \$ volume last week relative to the category's 6% 13-week average**
- **Over the last 13 weeks, US Large-Cap ETFs made up 33% of all ETF trading**

Monthly ETF Dollar Volume as a % of Listed Trading



Weekly Dollar Volume by ETF Market Segment

Investment Objective	Funds	1-Week ETF Vol (\$ Mil)	1-Week ETF Vol Shr (%)	13-Week ETF Avg Vol (\$ Mil)	13-Week ETF Avg Vol Shr (%)	Market Cap Shr (%)
US Broad-Market	19	2,583	0.7	2,203	0.6	3.8
US Large-Cap	68	138,063	34.8	123,105	33.4	25.8
US Mid-Cap	34	7,320	1.8	5,666	1.5	5.5
US Small- & Micro-Cap	41	31,611	8.0	25,732	7.0	5.1
US Sector & Industry	199	64,124	16.2	60,114	16.3	10.7
US Custom	162	2,900	0.7	3,057	0.8	2.5
US Dividend Income	34	2,429	0.6	2,471	0.7	3.8
Leveraged/Inverse	190	27,285	6.9	27,022	7.3	1.2
International - Developed	266	29,173	7.3	23,305	6.3	12.6
International - Emerging	157	28,764	7.2	29,183	7.9	6.0
Global	184	14,381	3.6	21,031	5.7	2.6
Fixed Income	225	37,389	9.4	35,132	9.5	16.8
Commodity	36	8,406	2.1	8,307	2.3	2.2
Currency	16	1,082	0.3	943	0.3	0.1
Active	171	1,537	0.4	1,458	0.4	1.2
Total	1,802	397,047	100.0	368,730	100.0	100.0

Source: Bloomberg, Morgan Stanley Wealth Management ETF Research, NYSE Arcavision. Monthly data as of 3/31/17; weekly data as of 4/7/17. Non-ETF Dollars Traded + ETF Volume=Total Listed Volume.

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US-Listed ETFs: Short Interest

Data Unchanged: Based on data as of 3/15/17

- **iShares iBoxx \$ High Yield Corporate Bond ETF (HYG) had the largest increase in short interest, at \$1.5 bln**
 - HYG shares short, at 55 mln, are at their highest level since 11/30/16
 - The iShares iBoxx \$ Investment Grade Corporate Bond ETF (LQD) also had a big jump in short interest, at \$969 mln; LQD's shares short are at their highest level ever
 - On the other hand, after four consecutive periods of short interest increases, the SPDR S&P 500 ETF (SPY) had a decline in short interest last period of \$3.3 bln
 - 703 ETFs exhibited short interest increases, while 784 experienced short interest declines over the last period
 - Aggregate ETF USD short interest decreased by \$2.4 bln over the period ended 3/15/17
- **The average shares short/shares outstanding for ETFs is currently 2.7%, flat from last period**
 - The ProShares Short VIX Short-Term Futures ETF (SVXY), for the third straight period, was the most heavily shorted ETF as a % of shares outstanding, at 324%
 - Based on multiple borrowings and the ability to continuously create new shares, shares short as a % of shares outstanding can exceed 100% (only five ETFs exhibited shares short as a % of shares outstanding greater than or equal to 100%)

Change in Short Interest

ETF Name	Symbol	Last Change in USD Amount Held Short
iShares iBoxx \$ High Yield Corporate Bond ETF	HYG	1,500,641,517
iShares iBoxx \$ Investment Grade Corporate Bond ETF	LQD	969,090,210
Utilities Select Sector SPDR	XLU	775,306,912
iShares MSCI EAFE ETF	EFA	482,363,289
SPDR Gold Trust	GLD	419,513,003
SPDR S&P 500 ETF	SPY	(3,253,851,207)
iShares Russell 2000 ETF	IWM	(1,315,007,751)
PowerShares QQQ	QQQ	(522,558,142)
Industrials Select Sector SPDR	XLI	(486,307,529)
Vanguard FTSE Developed Markets ETF	VEA	(458,842,861)

Shares Short as % of Shares Outstanding

ETF Name	Symbol	Shares Short / Shrs Out (%)
ProShares Short VIX Short-Term Futures ETF	SVXY	324.4
VanEck Vectors Semiconductor ETF	SMH	196.9
SPDR Retail ETF	XRT	173.3
Franklin LibertyQ International Equity Hedged ETF	FLQH	143.5
CurrencyShares Euro Trust	FXE	107.6
SPDR Oil & Gas Exploration & Production ETF	XOP	99.3
CurrencyShares Japanese Yen Trust	FXJ	71.8
iShares North American Tech-Software ETF	IGV	71.2
VanEck Vectors Oil Services ETF	OIH	63.9
Direxion Daily Gold Miners Bear 3x Shares	DUST	55.8

Source: Bloomberg, Morgan Stanley Wealth Management ETF Research. Short Interest data are only reported bi-monthly with a lag. Data compares short interest from 3/15/17 vs. 2/28/17.

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US-Listed ETFs: Most Successful Recent Launches by Assets

- **\$6.0 bln in total market cap of ETFs less than 1-year old**
 - In 2017, 48 ETFs have come to market and 20 have liquidated
 - Over the last year, Active ETFs experienced 58 launches, the most of any ETF category and outpacing US Custom ETFs, which had 39 new offerings over the same time period
 - New US Sector & Industry ETFs generated net inflows of \$941 mln over the last 13 weeks, the most of any segment
 - US Broad-Market, US Mid-Cap, US Small- & Micro-Cap, and Currency were the only ETF categories to not have a launch over the last year
- **The top 10 most successful launches make up 46% of the market cap of ETFs launched over the past year**
 - Nine ETF sponsors and two asset classes (equity and fixed income) were represented in the top 10 most successful launches
 - The First Trust Nasdaq Bank ETF (FTXO) had another big week of net inflows, at \$59 mln, the most of any ETF; over the last four weeks, FTXO has generated \$918 mln in net inflows

Estimated Flows for ETF Launches Over Past Year

Investment Objective	Funds	Net Cash Flow (\$ Mil)			Mkt Cap (\$ Mil)	Market Share (%)
		1-Week	4-Week	13-Week		
US Broad-Market	0	0	0	0	0	0
US Large-Cap	1	0	0	0	4	0
US Mid-Cap	0	0	0	0	0	0
US Small- & Micro-Cap	0	0	0	0	0	0
US Sector & Industry	32	59	920	941	1,055	18
US Custom	39	8	28	167	973	16
US Dividend Income	4	5	24	79	177	3
Leveraged/Inverse	15	3	1	4	81	1
International - Developed	13	4	8	32	287	5
International - Emerging	10	1	7	71	451	7
Global	33	3	42	281	494	8
Fixed Income	26	9	83	525	1,263	21
Commodity	1	0	0	12	28	0
Currency	0	0	0	0	0	0
Active	58	51	130	237	1,206	20
Total	232	143	1,245	2,351	6,019	100

Top 10 Successful Launches Over Past Year

Symbol	Fund Name	Mkt Cap (\$ Mil)	1-Week Flows (\$ Mil)	4-Week Flows (\$ Mil)
FTXO	First Trust Nasdaq Bank ETF	958	59	918
CLTL	PowerShares Treasury Collateral Portfolio	371	0	0
FLQE	Franklin LibertyQ Emerging Markets ETF	329	0	0
PSC	Principal U.S. Small Cap Index ETF	252	0	0
AGGP	IQ Enhanced Core Plus Bond U.S. ETF	227	9	7
HYLB	Deutsche X-Tracker USD High Yield Corporate Bond ETF	158	0	20
BLHY	Virtus Newfleet Dynamic Credit ETF	133	0	(3)
LVHB	Elkhorn Lunt Low Vol/High Beta Tactical ETF	121	0	7
ESGD	iShares MSCI EAFE ESG Optimized ETF	119	0	0
RFDI	First Trust RiverFront Dynamic Developed International ETF	115	6	19
Total		2,782	74	970

Source: Bloomberg, Morgan Stanley Wealth Management ETF Research. Data estimated as of 4/7/17 based on daily change in share counts and daily NAVs.

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US-Listed ETFs: New Listings for the Week

Symbol	Fund Name	Launch Date	Expense Ratio (%)
JPGB	JPMorgan Global Bond Opportunities ETF <i>Actively managed ETF composed of global debt and currencies across the credit spectrum without benchmark constraints.</i>	4/7/2017	0.55
SPVM	PowerShares S&P 500 Value With Momentum Portfolio <i>Tracks an index of US large-cap stocks that have the highest value and momentum score.</i>	4/6/2017	0.30
XSHQ	PowerShares S&P SmallCap Quality Portfolio <i>Tracks an index of US small-cap stocks that have the highest quality score, as measured by return on equity, accruals ratio, and financial leverage ratio.</i>	4/6/2017	0.29
TAIL	Cambria Tail Risk ETF <i>Actively managed ETF that utilizes a put option strategy to manage the risk of a significant negative movement in the value of US equities.</i>	4/6/2017	0.59
NUSA	NuShares Enhanced Yield 1-5 Year U.S. Aggregate Bond ETF <i>Tracks an index of US investment grade government, corporate, residential and commercial MBS, and ABS debt with remaining maturities or average lives less than five years.</i>	4/3/2017	0.20

Source: Bloomberg, ETF Issuers, Morgan Stanley Wealth Management ETF Research.

US-Listed ETFs: News Highlights

No news items last week.

Source: Morgan Stanley Wealth Management ETF Research.

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Recent Reports

- **2016 ETF Tracking Error Review: Uptick Within a Downtrend**
- March 17, 2017
- **4Q16 ETF Fund Flows-\$128.5 Billion Net Inflows; Record Year For ETF Flows Amid Second-Half Surge**
- January 19, 2017
- **Introduction to ETFs: Market Strategies & Applications**
- January 9, 2017
- **ETF Semi-Annual Review: \$2.4 Trillion in 1,755 ETFs**
- November 29, 2016
- **2016 Year-End ETF and CEF Tax Strategies**
- November 8, 2016
- **Investment Primer: ETFs**
- July 5, 2016

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Leveraged, Inverse & Leveraged Inverse Conclusions and Risks

1) Leveraged, Inverse, and Leveraged Inverse (L&LI) ETFs generally capture a high percentage of their expected *daily* returns, particularly on a net asset value basis. L&LI ETFs are not appropriate for all investors. However, we believe they can be appropriate tools for some investors looking to make short-term tactical trades if they perceive a high likelihood of a strong market move occurring in a relatively short time period. In strong trending markets, being on the right side of the “trade” with L or LI ETFs can lead to very strong returns. Investors should not expect these ETFs to deliver total returns linked to their benchmarks over any period other than daily. The effects of compounding and the daily re-leveraging or de-leveraging that occurs with L&LI ETFs can lead to unexpected results over the long term. As a result, we believe longer-term investors should consider regularly rebalancing positions. 4) Trendless markets, particularly those with a high level of volatility, can lead to substantial relative underperformance of L&LI ETFs.

2) Leveraged and Leveraged Inverse (L&LI) ETFs typically utilize futures and equity swap agreements. The use of these derivative instruments increases risk and enhances the possibility of tracking error. Relative to traditional ETFs, leveraged, inverse and leveraged inverse ETFs typically have higher costs and lower tax efficiency.

3) The effects of compounding can lead to significant deviations from traditional benchmarks over longer time periods. For example, if \$100,000 is invested in an index that increases in value by 10% on day one and then decreases in value by 10% on day two, the investment will be worth \$110,000 at the end of day one and \$99,000 after day two. However, the value of a security that doubles the daily performance of the index would be worth \$120,000 on day one and \$96,000 after day two. Thus, the index is down 1% after two days, a doubling of which would be down 2%. However, the security attempting to double the return of the index is down 4%. Investors should consider carefully the potential impact over longer periods.

MLP and MLP ETF Risks

Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk.

For tax purposes, MLP ETFs are taxed as C corporations and will be obligated to pay federal and state corporate income taxes on their taxable income, unlike traditional ETFs, which are structured as registered investment companies. These ETFs are likely to exhibit tracking error relative to their index as a result of accounting for deferred tax assets or liabilities (see funds' prospectuses).

The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value.

MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV; and, as a result, the MLP fund's after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

Commodity ETF Risks

Commodity ETFs may be subject to greater volatility than traditional ETFs and can be affected by increased volatility of commodities prices or indexes as well as changes in supply-and-demand relationships, interest rates, monetary and other governmental policies, or factors affecting a particular sector or commodity.

Currency ETF Risks

Investing in foreign markets entails greater risks than those normally associated with domestic markets, such as political, currency, economic and market risks. Investing in currency involves additional special risks such as credit, interest rate fluctuations, derivative investment risk, and domestic and foreign inflation rates, which can be volatile and may be less liquid than other securities and more sensitive to the effect of varied economic conditions. In addition, international investing entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economies.

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China ETF, SPDR S&P Dividend ETF, SPDR S&P Emerging Asia Pacific ETF, SPDR S&P Emerging Markets Small Cap ETF, SPDR S&P Homebuilders ETF, SPDR S&P International Dividend ETF, SPDR S&P International Small Cap ETF, SPDR S&P Metals & Mining ETF, SPDR S&P MidCap 400 ETF, SPDR S&P Pharmaceuticals ETF, SPDR S&P Regional Banking ETF, Technology Select Sector SPDR, Utilities Select Sector SPDR, VanEck Vectors Coal ETF, VanEck Vectors Egypt Index ETF, VanEck Vectors Morningstar Wide Moat ETF, VanEck Vectors Pre-Refunded Municipal Index ETF, Vanguard 500 Index Fund, Vanguard Consumer Discretionary ETF, Vanguard Consumer Staples ETF, Vanguard Dividend Appreciation ETF, Vanguard Energy ETF, Vanguard Extended Market ETF, Vanguard Financials ETF, Vanguard FTSE All World ex-US Small-Cap, Vanguard FTSE All-World ex-US ETF, Vanguard FTSE Developed Markets ETF, Vanguard FTSE Emerging Markets ETF, Vanguard FTSE Europe ETF, Vanguard FTSE Pacific ETF, Vanguard Growth ETF, Vanguard Health Care ETF, Vanguard High Dividend Yield ETF, Vanguard Industrials ETF, Vanguard Information Technology ETF, Vanguard Intermediate-Term Bond ETF, Vanguard Intermediate-Term Corporate Bond ETF, Vanguard Large-Cap ETF, Vanguard Long-Term Bond ETF, Vanguard Long-Term Corporate Bond ETF, Vanguard Materials ETF, Vanguard Mid-Cap ETF, Vanguard Mid-Cap Growth ETF, Vanguard Mid-Cap Value ETF, Vanguard REIT ETF, Vanguard Short-Term Bond ETF, Vanguard Short-Term Corporate Bond ETF, Vanguard Small-Cap ETF, Vanguard Small-Cap Growth ETF, Vanguard Small-Cap Value ETF, Vanguard Telecom Services ETF, Vanguard Total Bond Market ETF, Vanguard Total International Bond ETF, Vanguard Total Stock Market ETF, Vanguard Total World Stock Index Fund, Vanguard Utilities ETF, Vanguard Value ETF, VictoryShares US 500 Enhanced Volatility Wtd ETF, WisdomTree Asia Local Debt Fund, WisdomTree Bloomberg US Dollar Bullish Fund, WisdomTree Dreyfus Brazilian Real Fund, WisdomTree Dreyfus China Yuan Fund, WisdomTree Dreyfus Emerging CCY Fund, WisdomTree International Hedged Quality Dividend Growth Fund, WisdomTree Managed Futures Strategy Fund.

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WilderHill Clean Energy, SPDR Barclays 1-3 Month T-Bill ETF, SPDR Barclays Intl Treasury Bond ETF, Technology Select Sector SPDR, Utilities Select Sector SPDR, VanEck Vectors Coal ETF, VanEck Vectors Egypt Index ETF, VanEck Vectors Morningstar Wide Moat ETF, VanEck Vectors Pre-Refunded Municipal Index ETF, Vanguard 500 Index Fund, Vanguard Consumer Discretionary ETF, Vanguard Consumer Staples ETF, Vanguard Dividend Appreciation ETF, Vanguard Energy ETF, Vanguard Extended Market ETF, Vanguard Financials ETF, Vanguard FTSE All World ex-US Small-Cap, Vanguard FTSE All-World ex-US ETF, Vanguard FTSE Developed Markets ETF, Vanguard FTSE Emerging Markets ETF, Vanguard FTSE Europe ETF, Vanguard FTSE Pacific ETF, Vanguard Growth ETF, Vanguard Health Care ETF, Vanguard High Dividend Yield ETF, Vanguard Industrials ETF, Vanguard Information Technology ETF, Vanguard Intermediate-Term Bond ETF, Vanguard Intermediate-Term Corporate Bond ETF, Vanguard Large-Cap ETF, Vanguard Long-Term Bond ETF, Vanguard Long-Term Corporate Bond ETF, Vanguard Materials ETF, Vanguard Mid-Cap ETF, Vanguard Mid-Cap Growth ETF, Vanguard Mid-Cap Value ETF, Vanguard REIT ETF, Vanguard Short-Term Bond ETF, Vanguard Short-Term Corporate Bond ETF, Vanguard Small-Cap ETF, Vanguard Small-Cap Growth ETF, Vanguard Small-Cap Value ETF, Vanguard Telecom Services ETF, Vanguard Total Bond Market ETF, Vanguard Total International Bond ETF, Vanguard Total Stock Market ETF, Vanguard Total World Stock Index Fund, Vanguard Utilities ETF, Vanguard Value ETF, VictoryShares US 500 Enhanced Volatility Wtd ETF.

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Morgan USD Emerging Mkts, iShares Latin America 40 ETF, iShares MBS ETF, iShares Micro-Cap ETF, iShares Morningstar Large-Cap Growth ETF, iShares Morningstar Large-Cap Value ETF, iShares Morningstar Mid-Cap Growth ETF, iShares Morningstar Mid-Cap Value ETF, iShares MSCI ACWI ETF, iShares MSCI ACWI ex U.S. ETF, iShares MSCI All Country Asia ex Japan ETF, iShares MSCI All Peru Capped ETF, iShares MSCI Australia ETF, iShares MSCI Brazil Capped ETF, iShares MSCI BRIC ETF, iShares MSCI Canada ETF, iShares MSCI Chile Capped ETF, iShares MSCI China ETF, iShares MSCI EAFE ETF, iShares MSCI EAFE Growth ETF, iShares MSCI EAFE Small-Cap ETF, iShares MSCI EAFE Value ETF, iShares MSCI Emerging Markets ETF, iShares MSCI Emerging Mkts Min Vol, iShares MSCI EMU ETF, iShares MSCI Europe Financials ETF, iShares MSCI France ETF, iShares MSCI Frontier 100 ETF, iShares MSCI Germany ETF, iShares MSCI Hong Kong ETF, iShares MSCI India ETF, iShares MSCI Indonesia ETF, iShares MSCI Israel Capped ETF, iShares MSCI Italy Capped ETF, iShares MSCI Japan ETF, iShares MSCI KLD 400 Social ETF, iShares MSCI Malaysia ETF, iShares MSCI Mexico Capped ETF, iShares MSCI Pacific ex Japan ETF, iShares MSCI Philippines ETF, iShares MSCI Poland Capped ETF, iShares MSCI Russia Capped ETF, iShares MSCI Singapore ETF, iShares MSCI South Africa ETF, iShares MSCI South Korea Capped ETF, iShares MSCI Spain Capped ETF, iShares MSCI Sweden ETF, iShares MSCI Switzerland Capped ETF, iShares MSCI Taiwan ETF, iShares MSCI Thailand Capped ETF, iShares MSCI Turkey ETF, iShares MSCI United Kingdom ETF, iShares Nasdaq Biotechnology ETF, iShares National AMT-Free Muni Bond ETF, iShares North American Natural Resources, iShares North American Tech ETF, iShares North American Tech-Software ETF, iShares PHLX Semiconductor ETF, iShares Residential Real Estate Capped ETF, iShares Russell 1000 ETF, iShares Russell 1000 Growth ETF, iShares Russell 1000 Value ETF, iShares Russell 2000 ETF, iShares Russell 2000 Growth ETF, iShares Russell 2000 Value ETF, iShares Russell 3000 ETF, iShares Russell Mid-Cap ETF, iShares Russell Mid-Cap Growth ETF, iShares Russell Mid-Cap Value ETF, iShares S&P 100 ETF, iShares S&P 500 Growth ETF, iShares S&P 500 Value ETF, iShares S&P GSCI Commodity-Indexed Trust, iShares S&P Mid-Cap 400 Growth ETF, iShares S&P Mid-Cap 400 Value ETF, iShares S&P Small-Cap 600 Growth ETF, iShares S&P Small-Cap 600 Value ETF, iShares Select Dividend ETF, iShares Short Maturity Bond ETF, iShares Short Treasury Bond ETF, iShares Short-Term Natl AMT-Free Muni, iShares Silver Trust, iShares TIPS Bond ETF, iShares Transportation Average ETF, iShares U.S. Aerospace & Defense ETF, iShares U.S. Basic Materials ETF, iShares U.S. Broker-Dealers ETF, iShares U.S. Consumer Goods ETF, iShares U.S. Consumer Services ETF, iShares U.S. Energy ETF, iShares U.S. Financial Services ETF, iShares U.S. Financials ETF, iShares U.S. Healthcare ETF, iShares U.S. Home Construction ETF, iShares U.S. Industrials ETF, iShares U.S. Medical Devices ETF, iShares U.S. Oil & Gas Exp & Prod ETF, iShares U.S. Oil Equip & Services ETF, iShares U.S. Preferred Stock ETF, iShares U.S. Real Estate ETF, iShares U.S. Technology ETF, iShares U.S. Telecommunications ETF, iShares U.S. Utilities ETF, Market Vectors Agribusiness

ETF, Market Vectors Brazil Small-Cap ETF, Market Vectors Emerging Mkts Local CCY, Market Vectors Global Alternative Energy, Market Vectors Gold Miners ETF, Market Vectors Hard Assets Producers ETF, Market Vectors High Yield Muni Index ETF, Market Vectors Indonesia Index ETF, Market Vectors Intermediate Muni Index, Market Vectors Junior Gold Miners ETF, Market Vectors Oil Services ETF, Market Vectors Pharmaceutical ETF, Market Vectors Russia ETF, Market Vectors Semiconductor ETF, Market Vectors Vietnam ETF, Materials Select Sector SPDR, Peritus High Yield ETF, PIMCO 0-5 Year High Yield Corporate Bond Index Fund, PIMCO 1-5 Year U.S. TIPS Index Fund, PIMCO Enhanced Short Maturity Strat Fund, PIMCO Intermediate Muni Bond Strat Fund, PIMCO Low Duration Active ETF, PIMCO Short Term Municipal Bond Strategy, PIMCO Total Return Active ETF, PowerShares Build America Bond Portfolio, PowerShares BuyBack Achievers Portfolio, PowerShares DB Agriculture Fund, PowerShares DB Base Metals Fund, PowerShares DB Commodity Index Tracking, PowerShares DB Oil Fund, PowerShares DWA Emerging Markets Technical Leaders Portfolio, PowerShares Dynamic Large Cap Value, PowerShares Dynamic Large-Cap Growth, PowerShares Dynamic Market Portfolio, PowerShares Emerging Markets Sovereign Debt Portfolio, PowerShares Financial Pref Portfolio, PowerShares FTSE RAFI US 1000 Portfolio, PowerShares FTSE RAFI US 1500 Small-Mid Portfolio, PowerShares Gbl Clean Energy Portfolio, PowerShares Global Listed Private Equity Portfolio, PowerShares Global Water Portfolio, PowerShares International Dividend Achievers Portfolio, PowerShares Multi-Strategy Alternative Portfolio, PowerShares Preferred Portfolio, PowerShares QQQ, PowerShares S&P 500 BuyWrite Portfolio, PowerShares S&P 500 High Dividend Low Volatility Portfolio, PowerShares S&P 500 Low Volatility Portf, PowerShares Senior Loan Portfolio, PowerShares VRDO Tax-Free Wkly Portfolio, PowerShares Water Resources Portfolio, PowerShares WilderHill Clean Energy, SPDR Barclays 1-3 Month T-Bill ETF, SPDR Barclays Intl Treasury Bond ETF, Technology Select Sector SPDR, Utilities Select Sector SPDR, VanEck Vectors Coal ETF, VanEck Vectors Egypt Index ETF, VanEck Vectors Morningstar Wide Moat ETF, VanEck Vectors Pre-Refunded Municipal Index ETF, Vanguard 500 Index Fund, Vanguard Consumer Discretionary ETF, Vanguard Consumer Staples ETF, Vanguard Dividend Appreciation ETF, Vanguard Energy ETF, Vanguard Extended Market ETF, Vanguard Financials ETF, Vanguard FTSE All World ex-US Small-Cap, Vanguard FTSE All-World ex-US ETF, Vanguard FTSE Developed Markets ETF, Vanguard FTSE Emerging Markets ETF, Vanguard FTSE Europe ETF, Vanguard FTSE Pacific ETF, Vanguard Growth ETF, Vanguard Health Care ETF, Vanguard High Dividend Yield ETF, Vanguard Industrials ETF, Vanguard Information Technology ETF, Vanguard Intermediate-Term Bond ETF, Vanguard Intermediate-Term Corporate Bond ETF, Vanguard Large-Cap ETF, Vanguard Long-Term Bond ETF, Vanguard Long-Term Corporate Bond ETF, Vanguard Materials ETF, Vanguard Mid-Cap ETF, Vanguard Mid-Cap Growth ETF, Vanguard Mid-Cap Value ETF, Vanguard REIT ETF, Vanguard Short-Term Bond ETF, Vanguard Short-Term Corporate Bond ETF, Vanguard Small-Cap ETF, Vanguard Small-Cap Growth ETF, Vanguard Small-Cap Value ETF, Vanguard Telecom Services ETF, Vanguard Total Bond Market ETF, Vanguard Total International Bond ETF, Vanguard Total Stock Market ETF, Vanguard Total World Stock Index Fund, Vanguard Utilities ETF, Vanguard Value ETF, VictoryShares US 500 Enhanced Volatility Wtd ETF.

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(as of date **March 31, 2017**)

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Closed-End Fund (CEF) Rating Category	CEF Coverage Universe		Investment Banking Clients (IBC)		
	Count	% of Total	Count	% of Total IBC	% of Rating Category
Overweight/Buy	33	34.4%	15	44.1%	45.5%
Equal-weight/Hold	45	46.9%	13	38.2%	28.9%
Underweight/Sell	18	18.8%	6	17.7%	33.3%
Total	96	100.0%	34	100.0%	

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