

Exchange-Traded Funds

NORTH AMERICA

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US ETF Weekly Update

- **Weekly Flows: \$9.8 Billion Net Inflows**
- **Seventh Consecutive Week of Net Inflows**
- **YTD Net Inflows of \$106.3 Billion**
- **High-conviction ETF Recommendations: No Changes**
- **ETF Assets Stand at \$2.7 Trillion, up 8% YTD**
- **Two ETF Launches Last Week**
- **PIMCO to Make Changes to Two Actively Managed ETFs**

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. |
| 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. |

Source: Morgan Stanley Wealth Management ETF Research.

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US-Listed ETFs: Estimated Flows by Market Segment

- **ETFs posted net inflows of \$9.8 bln last week, the seventh consecutive week totaling \$89.6 bln**
 - YTD ETFs have generated net inflows of \$106.3 bln
 - Last week's net inflows were led by US Large-Cap ETFs at \$8.2 bln; conversely, Fixed Income ETFs posted net outflows of \$1.5 bln, the most of any category that we measure
 - Eleven of the 15 categories that we measure posted net inflows last week
 - ETF assets stand at \$2.7 tln, up 8% YTD
- **13-week flows remain positive among most asset classes; combined \$146.5 bln in net inflows**
 - Over the last 13 weeks, equity ETFs have posted net inflows of \$116.4 bln vs. \$28.5 bln for the Fixed Income ETF category
 - US Large-Cap ETFs have generated \$38.7 bln in net inflows over the last 13 weeks, the most of any segment; US Large-Cap ETFs have 26% market share, up one percentage point over the last year
 - Commodity ETFs, with net outflows of \$1.8 bln, is one of two segments to have exhibited net outflows over the last 13 weeks

| Investment Objective | Funds | Net Cash Flow (\$ Mil) | | | Mkt Cap (\$ Mil) | Market Share (%) |
|---------------------------|--------------|------------------------|---------------|----------------|------------------|------------------|
| | | 1-Week | 4-Week | 13-Week | | |
| US Broad-Market | 19 | 231 | 1,522 | 5,257 | 105,353 | 4 |
| US Large-Cap | 68 | 8,229 | 23,334 | 38,687 | 726,429 | 26 |
| US Mid-Cap | 34 | 304 | 2,125 | 9,297 | 152,703 | 6 |
| US Small- & Micro-Cap | 41 | (520) | 571 | 8,763 | 143,702 | 5 |
| US Sector & Industry | 199 | 456 | 4,661 | 14,737 | 300,545 | 11 |
| US Custom | 161 | 232 | 1,106 | 2,966 | 69,820 | 3 |
| US Dividend Income | 35 | 51 | 607 | 2,280 | 106,967 | 4 |
| Leveraged/Inverse | 191 | 573 | 1,413 | 721 | 32,889 | 1 |
| International - Developed | 268 | 1,810 | 5,917 | 22,401 | 337,389 | 12 |
| International - Emerging | 158 | 296 | 2,291 | 7,277 | 155,547 | 6 |
| Global | 184 | 231 | 1,704 | 4,729 | 69,635 | 3 |
| Fixed Income | 225 | (1,518) | 6,032 | 28,475 | 450,089 | 16 |
| Commodity | 36 | (730) | (762) | (1,794) | 57,330 | 2 |
| Currency | 17 | (26) | 1 | (49) | 2,327 | 0 |
| Active | 162 | 143 | 851 | 2,733 | 31,734 | 1 |
| Total | 1,798 | 9,762 | 51,375 | 146,478 | 2,742,459 | 100 |

Source: Bloomberg, Morgan Stanley Wealth Management ETF Research. Flow data estimated as of 3/10/17 based on daily change in share counts and daily NAVs.

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US-Listed ETFs: Estimated Largest Flows by Individual ETF

- **SPDR S&P 500 ETF (SPY) had net inflows of \$3.3 bln last week, leading all ETFs**
 - The three ETFs that mirror the S&P 500 Index, SPY, iShares Core S&P 500 ETF (IVV), and Vanguard S&P 500 ETF (VOO) had a combined \$6.5 bln in net inflows last week
 - The Vanguard FTSE Developed Markets ETF (VEA) and iShares Core MSCI EAFE ETF (IEFA) had a combined \$894 mln in net inflows last week as investors place money into international developed markets again
 - The iShares Core MSCI Emerging Markets ETF (IEMG) posted its fourteenth consecutive week of net inflows totaling \$5.6 bln
 - The iShares iBoxx \$ High Yield Corporate Bond ETF (HYG) and SPDR Bloomberg Barclays High Yield Bond ETF (JNK), the two largest high yield bond ETFs, had a combined \$2.5 bln in net outflows last week; over the last two weeks, HYG and JNK have exhibited a combined \$3.2 bln in net outflows
 - The SPDR Retail ETF (XRT) had its fourth consecutive week of net outflows totaling \$416 mln; notably, XRT has a current market capitalization of only \$413 mln

| ETF Name | Symbol | Net Cash Flow (\$ Mil) | | | Mkt Cap (\$ Mil) | |
|--------------|--------------------------------------------------------|------------------------|---------|---------|------------------|---------|
| | | 1-Week | 4-Week | 13-Week | | |
| Net Inflows | SPDR S&P 500 ETF | SPY | 3,333 | 13,695 | 12,912 | 243,307 |
| | iShares Core S&P 500 ETF | IVV | 2,660 | 4,096 | 6,012 | 101,172 |
| | Vanguard FTSE Developed Markets ETF | VEA | 558 | 1,135 | 4,304 | 45,304 |
| | Vanguard S&P 500 ETF | VOO | 516 | 1,668 | 4,406 | 64,306 |
| | iShares 20+ Year Treasury Bond ETF | TLT | 378 | 49 | 322 | 5,511 |
| | iShares Core MSCI EAFE ETF | IEFA | 336 | 1,409 | 4,418 | 20,281 |
| | SPDR Dow Jones Industrial Average ETF | DIA | 293 | (1,490) | 1,846 | 16,668 |
| | iShares Core US Aggregate Bond ETF | AGG | 290 | 582 | 1,381 | 42,298 |
| | iShares Core MSCI Emerging Markets ETF | IEMG | 278 | 1,812 | 5,178 | 24,063 |
| | Vanguard Total Bond Market ETF | BND | 265 | 483 | 1,097 | 32,206 |
| Net Outflows | iShares iBoxx \$ High Yield Corporate Bond ETF | HYG | (1,405) | (1,495) | (1,658) | 16,242 |
| | SPDR Bloomberg Barclays High Yield Bond ETF | JNK | (1,116) | (784) | (323) | 11,227 |
| | iShares iBoxx \$ Investment Grade Corporate Bond ETF | LQD | (1,048) | 531 | 1,757 | 29,513 |
| | iShares Russell 2000 ETF | IWM | (616) | (1,262) | (1,386) | 35,737 |
| | SPDR Gold Trust | GLD | (588) | (436) | (1,102) | 31,961 |
| | SPDR Bloomberg Barclays Short Term High Yield Bond ETF | SJNK | (334) | (283) | (134) | 3,525 |
| | iShares Nasdaq Biotechnology ETF | IBB | (327) | (247) | (125) | 8,342 |
| | SPDR S&P MidCap 400 ETF | MDY | (305) | 160 | 602 | 20,301 |
| | SPDR Retail ETF | XRT | (255) | (416) | (284) | 413 |
| | Energy Select Sector SPDR | XLE | (199) | (39) | 999 | 16,815 |

Source: Bloomberg, Morgan Stanley Wealth Management ETF Research. Flow data estimated as of 3/10/17 based on daily change in share counts and daily NAVs.

US-Listed ETFs: Short Interest

Data Updated: Based on data as of 2/28/17

- **SPDR S&P 500 ETF (SPY) had the largest increase in short interest, for the fourth straight period, at \$1.8 bln**
 - SPY shares short, over the last four periods, are coming off lows not seen since 2007
 - The Financials Select Sector SPDR (XLF) also had a big jump in short interest, at \$486 mln; XLF's shares short are at their highest level since 2/29/16
 - On the other hand, the Consumer Staples Select Sector SPDR (XLP) had a large decline in short interest last period, at \$450 mln; XLP's shares short are at their lowest level since 4/15/16
 - 722 ETFs exhibited short interest increases, while 771 experienced short interest declines over the last period
 - Aggregate ETF USD short interest increased by \$2.3 bln over the period ended 2/28/17
- **The average shares short/shares outstanding for ETFs is currently 2.7%, down from last period's 2.8%**
 - The ProShares Short VIX Short-Term Futures ETF (SVXY), for the second straight period, was the most heavily shorted ETF as a % of shares outstanding, at 250%
 - Based on multiple borrowings and the ability to continuously create new shares, shares short as a % of shares outstanding can exceed 100% (only six 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 |
|------------------------------------------------------|--------|--------------------------------------------|
| SPDR S&P 500 ETF | SPY | 1,834,047,841 |
| iShares MSCI Emerging Markets ETF | EEM | 578,212,739 |
| iShares Russell 2000 ETF | IWM | 568,221,140 |
| PowerShares QQQ | QQQ | 514,469,507 |
| Financials Select Sector SPDR | XLF | 485,944,148 |
| Consumer Staples Select Sector SPDR | XLP | (450,136,585) |
| VanEck Vectors Junior Gold Miners ETF | GDXJ | (302,698,924) |
| iShares iBoxx \$ Investment Grade Corporate Bond ETF | LQD | (280,357,034) |
| iShares MSCI Brazil Capped ETF | EWZ | (277,278,110) |
| iShares Core MSCI Emerging Markets ETF | IEMG | (255,831,922) |

Shares Short as % of Shares Outstanding

| ETF Name | Symbol | Shares Short / Shrs Out (%) |
|--------------------------------------------------------------|--------|-----------------------------------|
| ProShares Short VIX Short-Term Futures ETF | SVXY | 250.0 |
| VanEck Vectors Semiconductor ETF | SMH | 180.2 |
| Franklin LibertyQ International Equity Hedged ETF | FLQH | 143.5 |
| SPDR Retail ETF | XRT | 124.9 |
| SPDR Oil & Gas Exploration & Production ETF | XOP | 118.7 |
| CurrencyShares Euro Trust | FXE | 113.5 |
| CurrencyShares Japanese Yen Trust | FXJ | 77.1 |
| iShares North American Tech-Software ETF | IGV | 68.7 |
| VanEck Vectors Oil Services ETF | OIH | 60.0 |
| PowerShares DWA Momentum & Low Volatility Rotation Portfolio | DWLW | 55.1 |

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

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US-Listed ETFs: Most Successful Recent Launches by Assets

- **\$5.2 bln in total market cap of ETFs less than 1-year old**
 - In 2017, 29 ETFs have come to market
 - Over the last year, Active ETFs experienced 48 launches, the most of any ETF category and outpacing US Custom ETFs, which had 41 new offerings over the same time period
 - We classify many domestic smart beta offerings as US Custom and the category currently accounts for 24% of recently launched market share
 - Fixed Income ETFs generated net inflows of \$453 mln over the last 13 weeks, the most of any segment
- **The top 10 most successful launches make up 39% 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
 - With net inflows of \$14 mln last week, the IQ Enhanced Core Plus Bond US ETF (AGGP) had more net inflows than any other recently launched ETF; AGGP is an ETF of ETFs that provides exposure to US Treasury, investment grade corporate, MBS, high yield, and USD-denominated emerging market debt sectors
 - The Elkhorn Lunt Low Vol/High Beta Tactical ETF (LVHB) cracked the top 10 most successful launches list last week; LVHB owns US companies and rotates between low volatility and high beta stocks

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 | 37 | 7 | 15 | 22 | 210 | 4 |
| US Custom | 41 | 18 | 68 | 255 | 1,231 | 24 |
| US Dividend Income | 4 | 7 | 26 | 80 | 154 | 3 |
| Leveraged/Inverse | 13 | 0 | 1 | 3 | 67 | 1 |
| International - Developed | 13 | 8 | 18 | 152 | 308 | 6 |
| International - Emerging | 11 | 6 | 6 | 105 | 458 | 9 |
| Global | 34 | 8 | 52 | 256 | 562 | 11 |
| Fixed Income | 25 | 24 | 62 | 453 | 1,140 | 22 |
| Commodity | 1 | 0 | 12 | 12 | 27 | 1 |
| Currency | 0 | 0 | 0 | 0 | 0 | 0 |
| Active | 48 | 7 | 67 | 257 | 1,047 | 20 |
| Total | 228 | 85 | 326 | 1,596 | 5,208 | 100 |

Top 10 Successful Launches Over Past Year

| Symbol | Fund Name | Mkt Cap (\$ Mil) | 1-Week Flows (\$ Mil) | 4-Week Flows (\$ Mil) |
|--------------|-------------------------------------------------------|---------------------|-----------------------------|-----------------------------|
| CLTL | PowerShares Treasury Collateral Portfolio | 371 | 0 | 0 |
| FLQE | Franklin LibertyQ Emerging Markets ETF | 317 | 0 | 0 |
| FVC | First Trust Dorsey Wright Dynamic Focus 5 ETF | 278 | 1 | 3 |
| PSC | Principal U.S. Small Cap Index ETF | 246 | 0 | 0 |
| AGGP | IQ Enhanced Core Plus Bond U.S. ETF | 217 | 14 | 18 |
| HLYB | Deutsche X-Tracker USD High Yield Corporate Bond ETF | 136 | 0 | 0 |
| BLHY | Virtus Newfleet Dynamic Credit ETF | 135 | 0 | (3) |
| ESGD | iShares MSCI EAFE ESG Optimized ETF | 118 | 0 | 6 |
| DWIN | PowerShares DWA Tactical Multi-Asset Income Portfolio | 115 | 0 | 1 |
| LVHB | Elkhorn Lunt Low Vol/High Beta Tactical ETF | 115 | 0 | 2 |
| Total | | 2,048 | 15 | 27 |

Source: Bloomberg, Morgan Stanley Wealth Management ETF Research. Data estimated as of 3/10/17 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 (%) |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------|
| PAVE | Global X US Infrastructure Development ETF <i>Tracks an index of US stocks that stand to benefit from a potential increase in infrastructure activity in the US.</i> | 3/8/2017 | 0.47 |
| GRNB | VanEck Vectors Green Bond ETF <i>Tracks an index of corporate, sovereign, and supranational global bonds that are issued to finance environmentally friendly projects.</i> | 3/6/2017 | 0.40 |

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

US-Listed ETFs: News Highlights

■ PIMCO to Make Changes to Two Actively Managed ETFs

- In a recent announcement, PIMCO highlighted changes to the PIMCO Total Return Active ETF (BOND) and PIMCO Low Duration Active ETF (LDUR) effective May 2017. PIMCO expects BOND changes to become effective in May or when applicable regulatory relief approval is received.
- BOND's name will change to the PIMCO Active Bond ETF and management will seek to boost distribution rates, manage year-end capital gains (if any), and will focus less on foreign exchange transactions.
- LDUR's name will change to the PIMCO Enhanced Low Duration Active ETF and management will seek to boost distribution rates, manage year-end capital gains (if any), focus less on foreign exchange transactions, and increase its emphasis on corporate credit.
- David Braun, Jerome Schneider, and Dan Hyman will co-manage BOND, while Braun, Schneider, and Hozef Arif will co-manage LDUR.

Source: Morgan Stanley Wealth Management ETF Research, PIMCO.

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Recent Reports

- **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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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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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, 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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 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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 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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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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 February 28, 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% | 14 | 48.3% | 42.4% |
| Equal-weight/Hold | 43 | 44.8% | 8 | 27.6% | 18.6% |
| Underweight/Sell | 20 | 20.8% | 7 | 24.1% | 35.0% |
| Total | 96 | 100.0% | 29 | 100.0% | |

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