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The Month in Closed-End Funds: November 2017

PERFORMANCE

For the third consecutive month equity CEFs on average witnessed a plus-side return on a NAV basis, posting a 0.78% return for November. However, for the second month in a row on a market basis equity CEFs on average suffered a loss (-0.16%). For the second month in three their fixed income CEF counterparts, losing 0.18%, were in the red on a NAV basis, and for the second consecutive month they posted a downside return on a market basis, declining 0.82%. While the market had a great start to the month, concerns about the tax-reform delay and fresh concerns about Russian meddling in the 2016 presidential election caused the major indices to sag mid-month. However, strengthening oil prices, the House of Representatives' passing a sweeping tax reform bill, and Thanksgiving sales beating expectations pushed the broad-based indices to close at record highs at month-end. The Dow Jones Industrial Average Price Only Index posted the strongest return (+3.83%) of the domestic indices, while the NASDAQ Composite Price Only Index was the relative laggard, returning 2.17% for the month.

Investors pushed the Dow and the S&P 500 to new highs at the beginning of November despite learning that October nonfarm payrolls came in below analyst forecasts (261,000 versus an expected 325,000). However, the unemployment rate had dropped to 4.1% from 4.2%. Most pundits attributed the miss to the lingering effects of Hurricanes Harvey and Irma. Investors cheered Apple's Q3 earnings, which handily beat estimates, and news that the October ISM nonmanufacturing index rose to 60.1, its strongest reading since August 2005.

Mid-month the markets witnessed two consecutive weeks of slight market declines as investors expressed concern about delays in the promised corporate tax cuts; the declines broke the eight-week record-setting run by both the Dow and the S&P 500. Investors appeared to be losing faith that the Republican Congress could pass a bill before the holidays. Then, despite the House of Representatives' passing a sweeping bill to overhaul the tax code and with October housing starts soaring 13.7%, new questions over Special Counsel Robert Mueller's investigation into possible collusion with Russia's election meddling placed a pall over the markets.

Despite another ballistic missile test by North Korea and a meltdown in large-cap technology shares late in the month, investors remained upbeat during the Thanksgiving-shortened trading week. Stocks rallied to record highs after forecasts from Adobe showed Black Friday sales online hit a record $5.0 billion and as the Senate Budget Committee voted 12-11 to advance the Republican tax bill, moving the proposed bill a step closer to a Senate vote. U.S. stocks rallied on the last day of the month, pushing the Dow above 24,000 for the first time in history, with the Dow logging its first eight-month winning streak since 1995 as investors grew more confident about the prospects of tax reform.

For the month of November Treasury yields rose along all maturities of the curve, except the 20- and 30-year yields, which declined 1 bp and 5 bps, respectively. According to the CME Group, the probability of a

The Month in Closed-End Funds: November 2017

- For the third month in a row equity closed-end funds (CEFs) witnessed a plus-side return on average, rising 0.78% on a net-asset-value (NAV) basis for November, while for the second month in three their fixed income CEF counterparts posted a return in the red, losing 0.18%.
- For November only 16% of all CEFs traded at a premium to their NAV, with 13% of equity CEFs and 18% of fixed income CEFs trading in premium territory. Thomson Reuters Lipper's single-state municipal debt CEFs macro-group witnessed the largest narrowing of discounts for the month—54 basis points (bps) to 6.16%.
- Utility CEFs (+2.50%) and Core CEFs (+2.42%) posted the strongest returns in the equity universe, propping up the domestic equity CEFs (+0.94%) macro-group. • A relatively strong return from Emerging Markets Debt CEFs (+0.24%) and Global Income CEFs (+0.14%) pushed the world income CEFs macro-group (+0.17%) to the head of the fixed income class.
- None of Lipper's municipal debt CEF classifications posted returns in the black for November, with High Yield Municipal Debt CEFs (-0.09%) mitigating losses better than the other classifications in the group.

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December interest rate hike remained above 90%. The one-year yield witnessed the largest increase, rising 19 bps to 1.62% at month-end.

For November the dollar weakened against the euro (-2.14%), the pound (-1.69%), and the yen (-1.17%). Commodities prices were up for the month, with near-month gold prices increasing 0.49% to close November at $1,273.20/ounce and with front-month crude oil prices rising 5.55% to close the month at $57.40/barrel.

For the month 48% of all CEFs posted NAV-based returns in the black, with 71% of equity CEFs and only 30% of fixed income CEFs chalking up returns in the plus column. For the second month in three Lipper's domestic equity CEFs macro-group (+0.94%) outpaced its two equity-based brethren: mixed-asset CEFs (+0.72%) and world equity CEFs (+0.41%).

Perhaps as a result of a more subdued view of 2018 interest rate hikes after the release of the FOMC's October/November meeting minutes, interest rate-sensitive securities got a little bump for November, with the Utility CEFs classification (+2.50%) jumping to the top of the equity charts for the first month in nine. It was followed by Core CEFs (+2.42%), Value CEFs (+2.18%), and Developed Markets CEFs (+1.87%). At the bottom of the equity universe Energy MLP CEFs (-1.71%), Emerging Markets CEFs (-1.03%), and Natural Resources CEFs (-0.45%) witnessed the only negative returns. For the remaining equity classifications returns ranged from positive 0.68% (Income & Preferred Stock CEFs) to 1.51% (Options Arbitrage/Options Strategies CEFs).

Eight of the ten top-performing individual equity CEFs were housed in Lipper's domestic equity CEFs macro-group. At the top of the chart was **Foxby Corp (FXBY,** housed in the Core CEFs classification), rising 6.51% on a NAV basis and traded at a 29.26% discount on November 30. FXBY was followed by **Dividend & Income Fund (DNI,** warehoused in the Income & Preferred Stock CEFs classification), gaining 5.19% and traded at an 18.59% discount at month-end; **NexPoint Real Estate Strategies Fund Class Z (NRSZX,** an interval hybrid CEF housed in the Real Estate CEFs classification), rising 5.00%; **NexPoint Real Estate Strategies Fund Class C (NRSCX,** also an interval hybrid CEF warehoused in the Real Estate CEFs classification), gaining 4.92%; and **New Germany Fund, Inc. (GF,** housed in the Developed Markets CEFs classification), posting a 4.33% return and traded at a 10.08% discount on November 30.

For the month the dispersion of performance in individual equity CEFs—ranging from minus 10.07% to positive 6.51%—was wider than October's spread but slightly less skewed to the minus side. The 20 top-performing equity

CLOSED-END FUNDS LAB

TABLE 1 CURRENT-MONTH PERFORMANCE, P&D, P&D SHIFTS (% OF UNIVERSE)

	NAV RETURNS	PREMIUM/DISCOUNT		NOW TRADING AT	
	POSITIVE	BETTER	WORSE	PREMIUM	DISCOUNT
Equity Funds	71	25	73	13	85
Bond Funds	30	40	56	18	81
ALL CEFs	**48**	**34**	**63**	**16**	**83**

TABLE 2 AVERAGE NAV RETURNS, SELECTED PERIODS (%)

	NOVEMBER	YTD	3-MONTH	CALENDAR-2016
Equity Funds	0.78	12.54	2.23	11.72
Bond Funds	-0.18	6.98	0.12	6.66
ALL CEFs	**0.24**	**9.43**	**1.04**	**8.90**

TABLE 3 NUMBER OF IPOs, SELECTED 12-MONTH PERIODS

	NOVEMBER 2017	CALENDAR-2016
ALL CEFs	33	18

TABLE 4 AVERAGE SIZE OF IPOs, SELECTED PERIODS, $MIL

3 MONTHS THROUGH 10/31/2017	112
COMPARABLE YEAR-EARLIER 3 MONTHS	349
CALENDAR 2016 AVERAGE	348

Source: Thomson Reuters Lipper

CEFs posted returns at or above 3.27%, while the 20 lagging equity CEFs were at or below minus 1.79%.

For the month 75 CEFs in the equity universe posted negative returns. The worst performing fund was housed in the Emerging Markets CEFs classification: **Aberdeen Chile Fund, Inc. (CH)** shed 10.07% of its October-closing NAV price and traded at an 8.69% discount on November 30. **RENN Fund, Inc. (RCG,** housed in the Global CEFs classification) posted the next poorest return in the equity universe, declining 8.02%. RCG traded at a 9.40% discount at month-end.

With expectations of a December interest rate hike remaining high but on restrained core inflation expectations for 2018, the ten-year Treasury yield hovered between 2.32% and 2.40% for most of November but closed the month up 4 bps to 2.42%. Treasury yields between one month and five years all witnessed increases in excess of 12 bps, with the one-(+19 bps to 1.62%) and two-year (+18 bps to 1.78%) yields rising the most. The two and ten-year spread dropped to 0.58%, the lowest this year. For the twelfth month in a row domestic taxable bond CEFs (+0.06%) posted a plus-side return on average, outpacing municipal bond CEFs (-0.45%) but underperforming world income CEFs (+0.17%). The Emerging Markets Debt CEFs (+0.24%) and Global Income CEFs (+0.14%) classifications helped propel the world income macro-group to the top of the podium.

Investors continued their search for yield but appeared to be a little more restrained than in prior months. At the top of the domestic taxable bond CEFs universe was High Yield CEFs (+0.68%), followed by Corporate Debt BBB-Rated CEFs (Leveraged) (+0.16%) and U.S. Mortgage CEFs (+0.10%). Corporate Debt BBB-Rated CEFs (-0.15%) and High Yield CEFs (Leveraged) (also -0.15%) were the relative laggards of the domestic taxable bond CEFs macro-group.

For the second month in three the municipal debt CEFs macro-group (-0.45%) posted a return in the red for November. None of the classifications in the group witnessed plus-side returns. The High Yield Municipal Debt CEFs (-0.09%) and New Jersey Municipal Debt CEFs (-0.25%) classifications mitigated losses better than the other classifications in the group, while New York Municipal Debt CEFs (-0.84%) and Intermediate Municipal Debt CEFs (-0.80%) posted the worst returns. National municipal debt CEFs (-0.40%) mitigated losses better than their single-state municipal debt CEF counterparts (-0.51%).

At the top of the fixed income universe chart was **Forefront Income Trust (BFITX,** an interval hybrid CEF housed in the High Yield CEFs classification), returning 7.90%. Following BFITX were **NexPoint Credit Strategies Fund (NHF,** warehoused in the High Yield CEFs [Leveraged] classification), returning 3.00% and traded at a 9.05% discount at month-end; **Nuveen Build America Bond Opportunity Fund (NBD,** housed in the General Bond CEFs classification), posting a 1.86% return and traded at a 3.60% discount on November 30; **Morgan Stanley Emerging Markets Domestic Debt Fund, Inc. (EDD),** warehoused in the Emerging Markets Debt CEFs classification, tacking 1.72% onto its October month-end value and traded at a 13.53% discount at month end; **Nuveen Build America Bond Fund (NBB,** housed in the General Bond CEFs classification), returning 1.23% and traded at a 2.86% discount at month-end; and **Franklin Universal Trust (FT,** warehoused in the High Yield CEFs [Leveraged] classification), also returning 1.23% and traded at a 13.04% discount on November 30.

For the remaining funds in the fixed income CEFs universe monthly NAV-basis performance ranged from minus 5.07% for **KKR Income Opportunities Fund (KIO,** housed in Lipper's General Bond CEFs classification and traded at a 9.06% discount on November 30) to 1.07% for **BlackRock Taxable Municipal Bond Trust (BBN,** also housed in Lipper's General Bond CEFs classification and traded at a 3.03% discount at month-end). The 20 top-performing fixed income CEFs posted returns at or above 0.51%, while the 20 lagging CEFs were at or below minus 0.94%. A total of 235 fixed income CEFs witnessed negative NAV-based performance for November.

PREMIUM AND DISCOUNT BEHAVIOR

For November the median discount of all CEFs widened 77 bps to 6.11%—worse than the 12-month moving average discount (5.58%). Equity CEFs' median discount widened 111 bps to 6.58%, while fixed income CEFs' median discount widened 64 bps to 5.69%. Single-state municipal debt CEFs' median discount witnessed the largest narrowing in the CEFs universe, 54 bps to 6.16%, while the high-yield bond CEFs macro-group witnessed the largest widening of discounts—183 bps to 8.08%.

For the month 34% of all funds' discounts or premiums improved, while 63% worsened. In particular, 25% of equity funds and 40% of fixed income funds saw their individual discounts narrow, premiums widen, or premiums replace discounts. The number of funds traded at premiums on November 30 (83) was 20 less than the number on October 31.

CEF EVENTS AND CORPORATE ACTIONS

IPOs

SharesPost 100 Fund, Class I Shares (PIIVX) is a Delaware statutory trust registered under the Investment Company Act of 1940, as amended, as a nondiversified, closed-end management investment company operated as an interval fund. The shares are offered on a continuous basis at the fund's NAV per share of the relevant class next calculated after receipt of the purchase in good order. Class I shares are not subject to a sales load. The fund conducts quarterly repurchase offers for 5% of the fund's outstanding shares at NAV. Even though the fund makes quarterly repurchase offers, investors should consider the fund's shares to be illiquid. **SharesPost 100 Fund** focuses on late-stage, venture-backed private companies. Compared to startups and earlier-stage venture companies, these companies have more established product lines and customer bases and typically have revenue traction. **SharesPost 100 Fund's** strategy is to participate in the potential appreciation of dynamic pre-IPO companies. Each I share class investor must initially purchase a minimum of $1,000,000 of shares in the fund. There is no minimum investment for subsequent investments. The fund reserves the right to waive the investment minimum. PIIVX began trading on November 17, 2017.

Highland Capital Management Fund Advisors, L.P. announced that shareholders of High**land Floating Rate Opportunities Fund (HFRAX, HFRCX, and HFRZX)** approved at a special meeting of shareholders on November 3, 2017, a proposal authorizing the board of trustees of the fund to convert the fund from an open-end fund to a CEF. The board took action to convert the fund to a CEF effective shortly after 4:00 p.m. EDT on November 3, 2017. As of the close of business on November 2, 2017, the fund had total assets of approximately $1.09 billion. Originally announced by Highland on September 25, 2017, the proposal sought to protect the interests of shareholders in the event the fund's previously disclosed judgment against Credit Suisse Group AG was upheld on appeal by a Dallas County District Court. The judgment stemmed from a case Highland brought against Credit Suisse in 2013 on behalf of the fund and other Highland accounts. In 2015 the case culminated in a $287.5-million breach of contract and fraud judgment against Credit Suisse. If upheld, Highland expected approximately $279 million of the judgment would be allocated to the fund, which would be reduced by attorneys' fees and other litigation-related expenses. In such an event the judgment was expected to be recorded as an asset of the fund upon exhaustion of the appeals process. Shareholders were told that the conversion would protect them from a surge of investments, which could dilute their position following the court's decision.

The fund listed its shares for trading on the NYSE on November 6, 2017, under the ticker symbol "HFRO" at an initial listing price of $15.00. The fund expected to seek a dividend yield of 6.0%-6.5%, subject to board approval and market conditions. As part of the conversion the fund effected a reverse stock split of Class A, Class C, and Class Z shares of the fund, with exchange ratios of 2.0626 for one for Class A shares, 2.0636 for one for Class C shares, and 2.0645 for one for Class Z shares, and combined such shares into a single class of common shares under the CUSIP 43010E404. Although the number of shares owned by each shareholder decreased in the conversion, each shareholder held the same percentage of the fund's outstanding shares immediately following the reverse stock split as such shareholder held immediately prior to the reverse stock split, subject to adjustments for fractional shares. Shareholders would not receive fractional shares as a result of the conversion or the reverse stock split and would instead receive a number of common shares rounded down to a whole number. Shareholders would receive a cash-in-lieu check related to the fractional portion of their fund shares, if any, promptly after the conversion.

RIGHTS, REPURCHASES, TENDER OFFERS

The board of directors of **The Gabelli Equity Trust Inc. (GAB)** previously announced a transferable rights offering that allowed the fund's record-date common shareholders to acquire additional common shares. The rights traded "when issued" on the NYSE on November 2, 2017, and the fund's common shares were expected to trade "ex-rights" on the NYSE beginning on November 3, 2017. The rights began trading for normal settlement on the NYSE (GAB RT) on November 9, 2017. Each shareholder would receive one transferable right for each common share held on the record date—November 6, 2017. Seven rights plus $5.50 (the "subscription price") were required to purchase one additional common share. Record-date shareholders who fully exercised their primary subscription rights were eligible for an oversubscription privilege entitling these shareholders to subscribe, subject to certain limitations and a pro rata allotment, for any additional common shares not purchased pursuant to the primary subscription. Rights acquired in the secondary market could not participate in the oversubscription privilege. The offering was to expire at 5:00 PM Eastern Time on Tuesday, December 12, 2017.

The Taiwan Fund, Inc. (TWN) announced that on November 3 and 28, 2017, the fund repurchased 2,159 and 1,788 shares, respectively, under the fund's discount management policy.

RiverNorth Opportunities Fund Inc. (RIV) announced that it would issue a total of 1,564,710 new common shares as a result of the fund's rights offering that expired on November 9, 2017. In response to high investor demand the board of directors of the fund elected to exercise the fund's oversubscription privilege in full, thereby increasing the common shares available for subscription by 25% over the primary offering. The total new common shares to be issued would consist of 1,251,768 shares issued related to the fund's primary subscription of shares and 312,942 shares issued related to the fund's secondary oversubscription of shares. The secondary oversubscription shares would be allocated pro rata among record-date shareholders who submitted oversubscription requests based on the number of rights originally issued to them by the fund. The subscription price of $19.54 per share was established on the expiration date, which represented 95% of the market price per common share, based on the average of the last reported sales price of a common share on the NYSE for the five trading days preceding the expiration date. The common shares to be issued in connection with the rights offering were entitled to participate in the fund's November 2017 announced distribution.

Three CEFs advised by Wells Fargo Funds Management extended share repurchase programs. The following three Wells Fargo CEFs announced on November 10, 2017, that they would extend their open-market share repurchase programs: **Wells Fargo Income Opportunities Fund (EAD), Wells Fargo Utilities and High Income Fund (ERH), and Wells Fargo Global Dividend Opportunity Fund (EOD).** In addition, the following CEF adopted a new open-market share repurchase program: **Wells Fargo Multi-Sector Income Fund (NYSE American: ERC).** The funds' boards of trustees authorized the repurchase of an aggregate of up to 10% of each fund's outstanding shares in open-market transactions during the period beginning January 1, 2018, and ending December 31, 2018. The funds' boards of trustees again delegated to Wells Fargo Funds Management, LLC the discretion to determine the amount and timing of repurchases of shares of each fund in accordance with the best interests of the fund and subject to applicable legal limitations. The funds' boards of trustees were to continue to receive periodic reports on repurchase activity as part of their ongoing oversight of the programs, including deciding whether to renew or discontinue the programs at the end of their terms. The funds' boards of trustees previously authorized the repurchase during the period from December 17, 2016, through December 31, 2017, of an aggregate of up to 10% of the outstanding shares of EAD, ERH, and EOD. Through October 31, 2017, EAD repurchased 545,608 shares (or 0.77% of outstanding shares). ERH and EOD did not repurchase any shares through October 31, 2017.

Firsthand Technology Value Fund, Inc. (SVVC), a publicly traded venture capital fund that invests in technology and clean-tech companies, disclosed that its board of directors approved a discretionary share repurchase plan. Pursuant to the plan, the fund could purchase in the open market up to $2 million worth of its common shares. The plan allowed the fund to acquire its own shares at certain thresholds below its NAV per share, in accordance with the guidelines specified in Rule 10b-18 of the Securities Act of 1934, as amended. The intent of the plan was to increase the NAV per share and thereby enhance shareholder value. Executing the plan could also moderate the discount at which the fund's shares trade. Based on the closing price of $8.05 per share for the fund's common shares as of November 10, 2017, on the NASDAQ Global Market, the fund was authorized to repurchase approximately 3.3% of its outstanding shares. The fund expected the plan would be in effect until March 30, 2018, or until the approved dollar amount was used to repurchase shares.

Clough Global Dividend and Income Fund (GLV), Clough Global Equity Fund (GLQ), and Clough Global Opportunities Fund (GLO) announced that each fund's tender offer was oversubscribed; as a result GLQ and GLO would each purchase 37.5% of its respective outstanding common shares of beneficial interest and GLV would purchase 32.5% of its outstanding common shares of beneficial interest, with appropriate adjustment to avoid purchase of fractional shares. The offer expired on November 10, 2017. A total of 4,998,066, 10,052,547, and 31,646,419 shares for GLV, GLQ, and GLO, respectively, were properly tendered and not withdrawn. The funds accepted 3,373,469, 6,615,414, and 19,334,647 shares for GLV, GLQ, and GLO, respectively, for cash payment at a purchase price of $14.65, $14.39, and $11.99 per common share for GLV, GLQ, and GLO, respectively, which was 98.5% of the NAV per common share determined as of the close of the regular trading session of the NYSE on November 13, 2017. Accordingly, on a pro rata basis GLV, GLQ, and GLO accepted approximately 67%, 66%, and 61%, respectively, of the shares properly tendered.

KKR Income Opportunities Fund (KIO) announced the results of its transferable rights offering. The offer commenced on October 19, 2017, and expired on November 17, 2017. The offer entitled the rights holders to subscribe for up to an aggregate of 5,085,079 common shares of beneficial interest of the fund. The subscription price was $14.87 per common share, equal to 82% of the fund's NAV at the close of trading on the NYSE on the expiration date, which was greater than the formula of 90% of the average of the last reported sales price of a common share on the NYSE on the expiration date and each of the four immediately preceding trading days. The offer was oversubscribed. Common shares were to be issued promptly after completion and receipt of all shareholder payments and the pro rata allocation of common shares in respect of the oversubscription privilege.

BlackRock Enhanced Government Fund, Inc. (EGF) announced the expiration of the fund's annual repurchase offer for its common shares. The repurchase offer and withdrawal rights expired on November 21, 2017. The fund offered to repurchase up to 10% of its issued and outstanding common shares for cash at a price equal to the NAV of the shares as of the close of regular trading on the NYSE on November 27, 2017, subject to a repurchase fee of 2% of the value of the shares repurchased, which would be deducted from the repurchase price. As of Tuesday, November 21, 2017, 6,495,180 shares of the fund were outstanding. A repurchase amount of 10% of the shares outstanding as of November 21, 2017, represented approximately 649,518 shares. The preliminary count by Computershare Trust Company, N.A., the fund's depositary agent, indicated that approximately 4,639,800 shares (approximately 71% of the fund's shares outstanding as of November 21, 2017) were validly tendered and not withdrawn prior to the expiration of the fund's repurchase offer. This determination was subject to final confirmation and the proper delivery of all shares tendered and not withdrawn.

Because the aggregate number of shares tendered and not withdrawn exceeded the total number of shares the fund offered to repurchase, the fund would repurchase any shares tendered on a pro rata basis. However, the fund would accept all shares tendered by shareholders who owned, beneficially or of record, an aggregate of not more than 99 shares and who tendered all of their shares, before pro rating shares tendered by other shareholders. Consequently, approximately 14% of shares validly submitted for tender were accepted for repurchase. On November 27, 2017, and subject to pro ration as applicable, validly tendered shares were repurchased by the fund at $13.99 per share, the fund's NAV per share determined as of 4:00 p.m. EST, Monday, November 27, 2017 (subject to the repurchase fee). Shares validly tendered and accepted were not entitled to receive any fund dividend or distribution with a record date on or after November 29, 2017.

MERGERS AND REORGANIZATIONS

Mergers and Liquidations

Federated Investment Management Company announced that the reorganization of **Federated Premier Intermediate Municipal Income Fund (FPT) with and into Federated Premier Municipal Income Fund (FMN)** was completed. In the reorganization holders of FPT common shares and preferred shares received a number of FMN common shares and preferred shares based on the relative NAV per common share and the relative liquidation preference per preferred share, respectively, determined as of the close of business on Friday, November 17, 2017. The relative NAV per common share generated an exchange ratio that resulted in former FPT common shareholders receiving 0.950059289 common shares for each FPT common share they previously held. Former FPT common shareholders generally would receive cash payments in lieu of fractional FMN common shares. The relative liquidation preference per preferred share resulted in former FPT preferred shareholders receiving the same number of FMN preferred shares as the FPT preferred shares they held immediately prior to the reorganization.

The Turkish Investment Fund, Inc. (TKF) announced that its shareholders, at the fund's special meeting of shareholders held on November 16, 2017, approved the plan of liquidation and dissolution recommended by the board of directors. In accordance with the plan the fund's investment adviser, Morgan Stanley Investment Management Inc., would commence the orderly liquidation of the fund's assets. The fund would make one or more liquidating distributions to the fund's shareholders, which would be paid in cash. It was anticipated that by the end of fourth quarter 2017 the liquidation would be completed and the fund's common shares would cease to trade on the NYSE.

OTHER

Eagle Growth and Income Opportunities Fund (EGIF) announced that the board of trustees of EGIF, at the recommendation of the fund's management team, approved the following changes to the fund's investment strategy: Increase the maximum portion of the fund's portfolio that may be invested in equity securities, which may include common and preferred shares, convertible securities, warrants, depository receipts, ETFs that do not primarily invest in debt instruments, MLPs, and real estate investment trusts, from 75% to 85% of its managed assets. Decrease the minimum portion of the fund's portfolio that may be invested in debt securities, which may include below-investment-grade securities, notes, bonds, convertible bonds, bank loans, mortgage-backed securities, ETFs that primarily invest in debt instruments, and other types of debt instruments, from 25% to 15% of its managed assets. Increase the maximum portion of the fund's portfolio that may be invested in preferred equity securities from 25% to 40%. Increase the amount of leverage the fund may use for investment purposes from 25% of managed assets to 33-1/3%, the maximum permitted by the Investment Company Act of 1940. Suspend the fund's strategy of writing (selling) covered options on broad-based indices of securities. Fund management believed these changes would allow the most effective management of the fund assets, consistent with the fund's investment objective, in the current market environment.

Avenue Income Credit Strategies Fund (ACP) announced that fund shareholders approved a new advisory agreement with Aberdeen Asset Managers Limited (AAML) as well as a subadvisory agreement with Aberdeen Asset Management Inc. (AAMI) and the election of three new trustees at the special meeting of shareholders of the fund held on November 16, 2017. Effective December 1, 2017, AAML and AAMI would be the investment advisor and subadvisor, respectively, of the fund and would assume responsibility for the design and implementation of the fund's investment program, and AAMI would be the administrator. Upon the transition the fund's name was to be changed to **Aberdeen Income Credit Strategies Fund.** Effective shortly prior to the transition and following the resignation by Joel Citron, Julie Dien Ledoux, and Darren Thompson—three of the fund's trustees, the three new elected trustees would take office.

BlackRock Advisors, LLC announced that **BlackRock Utility and Infrastructure Trust (BUI)** would be renamed **BlackRock Utilities, Infrastructure & Power Opportunities Trust.** The fund would continue to trade on the NYSE under its ticker symbol BUI. This change was made in accordance with certain changes to the fund's nonfundamental investment policies previously announced on September 6, 2017, which became effective on November 27, 2017. The fund would begin to expand its investment focus to include securities issued by companies in the "power opportunities" business segment in accordance with these changes to the fund's nonfundamental investment policies. This was a correction to a press release issued on September 6, 2017, which stated the new name of BUI would be BlackRock Utility, Infrastructure & Power Opportunities Trust.

CEF Performance Statistics

LIPPER

Lipper Category	Average of 1Mo Nav	Average of 1 Mo Mkt	Average of Nov P/D	Average of Oct P/D	Average of 1 Mo P/D chg	Average of YTD NAV Change	Average of YTD Mkt Change	Average of YTD P/D Change (%)
California Municipal Debt Funds	-0.92%	-0.62%	-1.02%	-1.31%	0.29%	1.28%	2.40%	1.02%
Convertible Securities Funds	0.24%	-0.42%	-3.89%	-3.20%	-0.69%	5.52%	12.56%	6.05%
Core Funds	0.40%	-0.36%	-9.02%	-8.23%	-0.71%	9.99%	13.02%	1.85%
Corporate BBB-Rated Debt Funds(Leveraged)	-0.15%	-0.64%	-7.64%	-7.16%	-0.49%	3.49%	3.63%	0.14%
Corporate Debt Funds BBB-Rated	-0.53%	-0.97%	-2.47%	-2.04%	-0.43%	1.21%	2.26%	1.48%
Developed Market Funds	1.66%	0.90%	-9.56%	-8.88%	-0.68%	24.07%	29.06%	3.51%
Emerging Markets Funds	-1.03%	-1.89%	-10.48%	-9.89%	-0.59%	22.54%	27.04%	2.96%
Emerging Mrkts Hard Currency Debt Funds	-0.22%	-3.84%	-6.99%	-3.27%	-3.71%	5.59%	6.35%	0.68%
Energy MLP Funds	-3.19%	-3.89%	-4.92%	-4.45%	-0.47%	-19.79%	-18.23%	2.70%
General & Insured Muni Debt Funds (Leveraged)	-0.81%	0.01%	-3.65%	-4.45%	0.80%	1.53%	1.93%	0.36%
General & Insured Muni Fds (Unleveraged)	-0.63%	-0.74%	-2.16%	-2.01%	-0.14%	1.71%	3.45%	1.60%
General Bond Funds	-0.38%	-2.09%	-3.23%	-1.78%	-1.45%	3.13%	2.88%	-0.01%
Global Funds	0.53%	-0.69%	-6.97%	-5.77%	-1.20%	12.42%	17.33%	3.66%
Global Income Funds	-0.48%	-1.88%	-4.20%	-2.85%	-1.35%	5.04%	6.64%	1.37%
Growth Funds	-0.13%	-3.21%	-3.20%	0.20%	-3.40%	20.09%	29.67%	9.70%
High Yield Funds	0.20%	-2.07%	-4.81%	-3.37%	-1.44%	1.63%	3.96%	2.85%
High Yield Funds (Leveraged)	-0.70%	-2.58%	-6.86%	-5.12%	-1.73%	1.45%	1.45%	-0.49%
High Yield Municipal Debt Funds	-0.51%	-0.45%	-2.12%	-2.19%	0.07%	2.09%	4.35%	2.09%
Income & Preferred Stock Funds	0.20%	-0.81%	-2.94%	-2.38%	-0.93%	5.25%	7.66%	1.36%
Intermediate Municipal Debt Funds	-1.08%	-1.27%	-6.11%	-5.92%	-0.19%	1.48%	-1.53%	-3.00%
Loan Participation Funds	-0.45%	-2.59%	-7.12%	-4.48%	-1.93%	-0.64%	-4.35%	-4.23%
Natural Resources Funds	-1.55%	-1.64%	-6.21%	-6.14%	-0.07%	-11.83%	-8.58%	3.15%
New Jersey Municipal Debt Funds	-0.91%	-1.34%	-8.09%	-7.69%	-0.40%	1.93%	-0.48%	-2.44%
New York Municipal Debt Funds	-1.24%	-0.98%	-3.78%	-4.03%	0.25%	0.99%	1.72%	0.65%
Options Arbitrage/Opt Strategies Funds	1.08%	0.09%	-1.85%	-0.79%	-1.06%	9.46%	14.31%	3.94%
Other States Municipal Debt Funds	-0.75%	-1.03%	-5.43%	-4.98%	-0.45%	0.98%	0.97%	-0.01%
Pacific Ex Japan Funds	0.74%	0.21%	-6.85%	-6.35%	-0.50%	30.90%	42.54%	7.60%
Pennsylvania Municipal Debt Funds	-0.98%	-0.87%	-9.48%	-9.53%	0.05%	0.46%	-2.10%	-2.78%
Real Estate Funds	1.11%	-0.19%	-7.31%	-5.79%	-1.52%	1.69%	5.44%	2.12%
Sector Equity Funds	0.09%	-1.64%	-5.51%	-3.29%	-2.23%	6.34%	9.06%	1.65%
U.S. Mortgage Funds	-0.39%	-0.12%	-2.77%	-3.18%	0.42%	2.55%	3.45%	0.90%
Utility Funds	1.86%	0.75%	-3.17%	-2.04%	-1.14%	9.31%	12.86%	3.08%
Value Funds	1.79%	0.75%	-8.30%	-6.77%	-1.53%	7.17%	15.11%	2.68%

Top 5 Performing CEFs

LIPPER

Fund Name	Category	Ticker Symbol	1-Month NAV Change	Rank
Forefront Income Trust	High Yield Funds	BFITX	7.9%	1
Foxby Corp	Core Funds	XFXBX	6.5%	2
Dividend & Income	Income & Preferred Stock Funds	XDNIX	5.2%	3
NexPoint Rl Est Strat;C	Real Estate Funds	NRSCX	4.4%	4
NexPoint Rl Est Strat;Z	Real Estate Funds	NRSZX	4.4%	5

Fund Name	Category	Ticker Symbol	Year-to-Date NAV Change	Rank
New Germany Fund	Developed Market Funds	XGFNX	46.5%	1
BlackRock Sci&Tech Trust	Sector Equity Funds	XBSTX	39.0%	2
Templeton Emerging Mkts	Emerging Markets Funds	XEMFX	38.4%	3
Morg Stan India Inv	Emerging Markets Funds	XIIFX	37.8%	4
Korea Fund	Pacific Ex Japan Funds	XKFDX	36.6%	5

Fund Name	Category	Ticker Symbol	1-Month Market Change	Rank
Foxby Corp	Core Funds	XFXBX	10.0%	1
Firsthand Technology Val	Sector Equity Funds	XSVCX	7.2%	2
Japan Small Cap	Developed Market Funds		6.4%	3
Eaton Vance Natl Mun Opp	General & Insured Muni Debt Funds (Leveraged)	XEOTX	6.1%	4
Gabelli Glbl Util & Inc	Utility Funds	XGLUX	4.6%	5

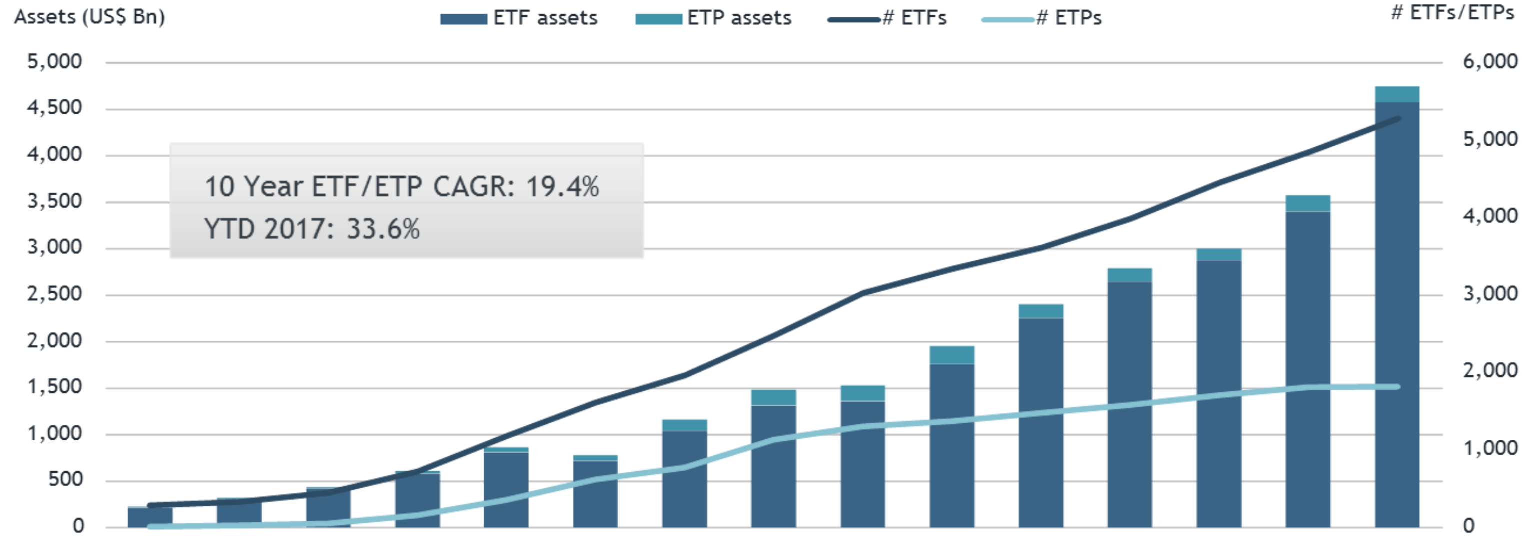
Fund Name	Category	Ticker Symbol	Year-to-Date Market Change	Rank
Asia Pacific Fund	Pacific Ex Japan Funds	XAPBX	52.1%	1
New Germany Fund	Developed Market Funds	XGFNX	50.9%	2
BlackRock Sci&Tech Trust	Sector Equity Funds	XBSTX	47.8%	3
Thai Fund	Pacific Ex Japan Funds	XTTFX	45.5%	4
Aberdeen Singapore Fund	Developed Market Funds	XSGFX	45.2%	5

Fund Name	Category	Ticker Symbol	1-Month P/D Change	Rank
Tortoise Energy Inf Corp	Energy MLP Funds	XTYGX	9.7%	1
Eaton Vance Natl Mun Opp	General & Insured Muni Debt Funds (Leveraged)	XEOTX	6.3%	2
RENN Fund	Global Funds		6.0%	3
Delaware Inv CO Muni Inc	Other States Municipal Debt Funds	XVCFX	4.4%	4
Nuveen CA Muni Value 2	California Municipal Debt Funds	XNCBX	4.4%	5

Fund Name	Category	Ticker Symbol	Year-to-Date P/D Change	Rank
Virtus Glbl MSec Inc	Global Income Funds	XVGIX	15.4%	1
Calamos Glbl Tot Rtn	Global Funds	XCGOX	15.2%	2
MFS Special Value Trust	High Yield Funds	XMFVX	15.1%	3
Gabelli Conv & Inc Secs	Convertible Securities Funds	XGCVX	13.6%	4
Turkish Investment Fund	Emerging Markets Funds	XTKFX	13.0%	5

Global ETF and ETP asset growth as at end of November 2017

At the end of November 2017, the Global ETF industry had 5,287 ETFs, with 10,962 listings, assets of US$4,569 Bn, from 314 providers on 68 exchanges. At the end of November 2017, the Global ETF/ETP industry had 7,118 ETFs/ETPs, with 13,471 listings, assets of US$4,742 Bn, from 346 providers on 70 exchanges.



Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Nov-17
# ETFs	292	338	454	728	1,188	1,621	1,971	2,484	3,034	3,346	3,619	3,994	4,462	4,854	5,287
# ETFs/ETPs	307	368	510	891	1,549	2,246	2,750	3,626	4,348	4,730	5,109	5,586	6,182	6,676	7,118
ETF assets	212	310	417	580	807	716	1,041	1,313	1,355	1,754	2,254	2,643	2,870	3,397	4,569
ETF/ETP assets	218	319	426	603	857	774	1,158	1,478	1,526	1,949	2,398	2,784	2,994	3,548	4,742

Summary for ETFs/ETPs: Global

ETFGI, a leading independent research and consultancy firm on trends in the global ETF/ETP ecosystem, reported today global ETFs and ETPs have gathered 600 billion US dollars in net new assets in the first 11 months of 2017.

According to ETFGI's November 2017 Global ETF and ETP industry insights report, an annual paid-for research subscription service, assets invested in ETFs and ETPs grew by 33.6% year-to-date, the greatest annual increase since 2009 when markets recovered following the 2008 financial crisis, and an increase of 3.1% on the previous record of US$4.600 Tn set in October 2017.

Year-to-date, through end of November 2017, ETFs and ETPs listed globally saw record net inflows of US$600.15 Bn; 53.6% more than net inflows for the whole of 2016, and almost double that of the previous YTD record for the same period of US$325.74 Bn set in November 2016. November 2017 also marked the 46th consecutive month of net inflows into ETFs/ETPs, with US$61.47 Bn gathered during the month.

The majority of these flows can be attributed to the top 20 ETFs by net new assets, which collectively gathered US$215.58 Bn during 2017. The iShares Core S&P 500 ETF (IVV US) on its own accounted for net inflows of US$29.94 Bn.

Similarly, the top 10 ETPs by net new assets collectively gathered US$10.44 Bn year-to-date during 2017.

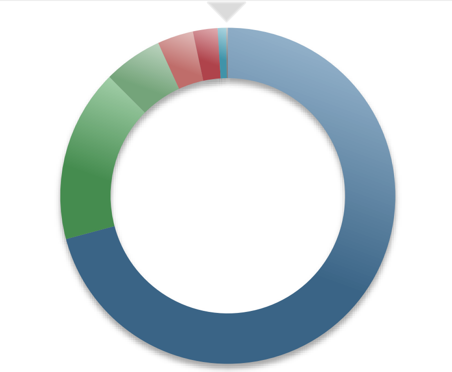
Equity ETFs/ETPs saw net inflows of $47.55 Bn in November, bringing year-to-date net inflows to $423.04 Bn, which is greater than the net inflows of $170.06 Bn over the same period last year. Fixed income ETFs and ETPs experienced net inflows of $8.59 Bn in November, growing year-to-date net inflows to $136.44 Bn, which is greater than the same period last year which saw net inflows of $104.94 Bn. Commodity ETFs/ETPs accumulated net inflows of $414.00 Mn in October.

Source: ETFGI data sourced from ETF/ETP sponsors, exchanges, regulatory filings, Thomson Reuters/Lipper, Bloomberg, publicly available sources, and data generated by our in-house team.
Note: "ETFs" are typically open-end index funds that provide daily portfolio transparency, are listed and traded on exchanges like stocks on a secondary basis as well as utilising a unique creation and redemption process for primary transactions. "ETPs" refers to other products that have similarities to ETFs in the way they trade and settle but they do not use a mutual fund structure. The use of other structures including grantor trusts, partnerships, notes and depositary receipts by ETPs can create different tax and regulatory implications for investors when compared to ETFs which are funds.

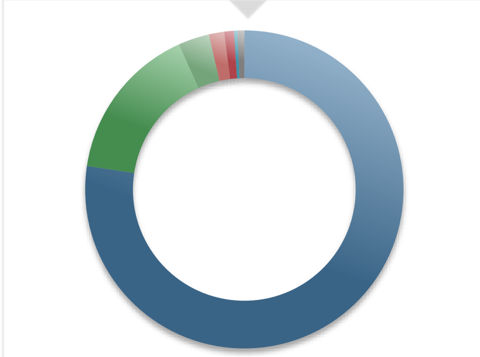
Global ETF/ETP Assets Summary

etfgi.com

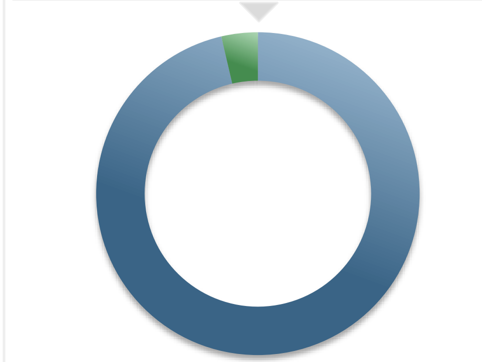
ETF/ETP assets by region listed



ETF/ETP assets by asset class



ETF/ETP assets by product structure



Region	# ETFs/ ETPs	Assets (US$ Bn)	% total
US	2,097	$3,359.4	70.8%
Europe	2,233	$789.7	16.7%
Japan	203	$269.3	5.7%
Asia Pacific (ex-Japan)	1,171	$164.4	3.5%
Canada	559	$112.9	2.4%
Middle East and Africa	808	$39.2	0.8%
Latin America	47	$6.9	0.1%
Total	**7,118**	**$4,741.8**	**100.0%**

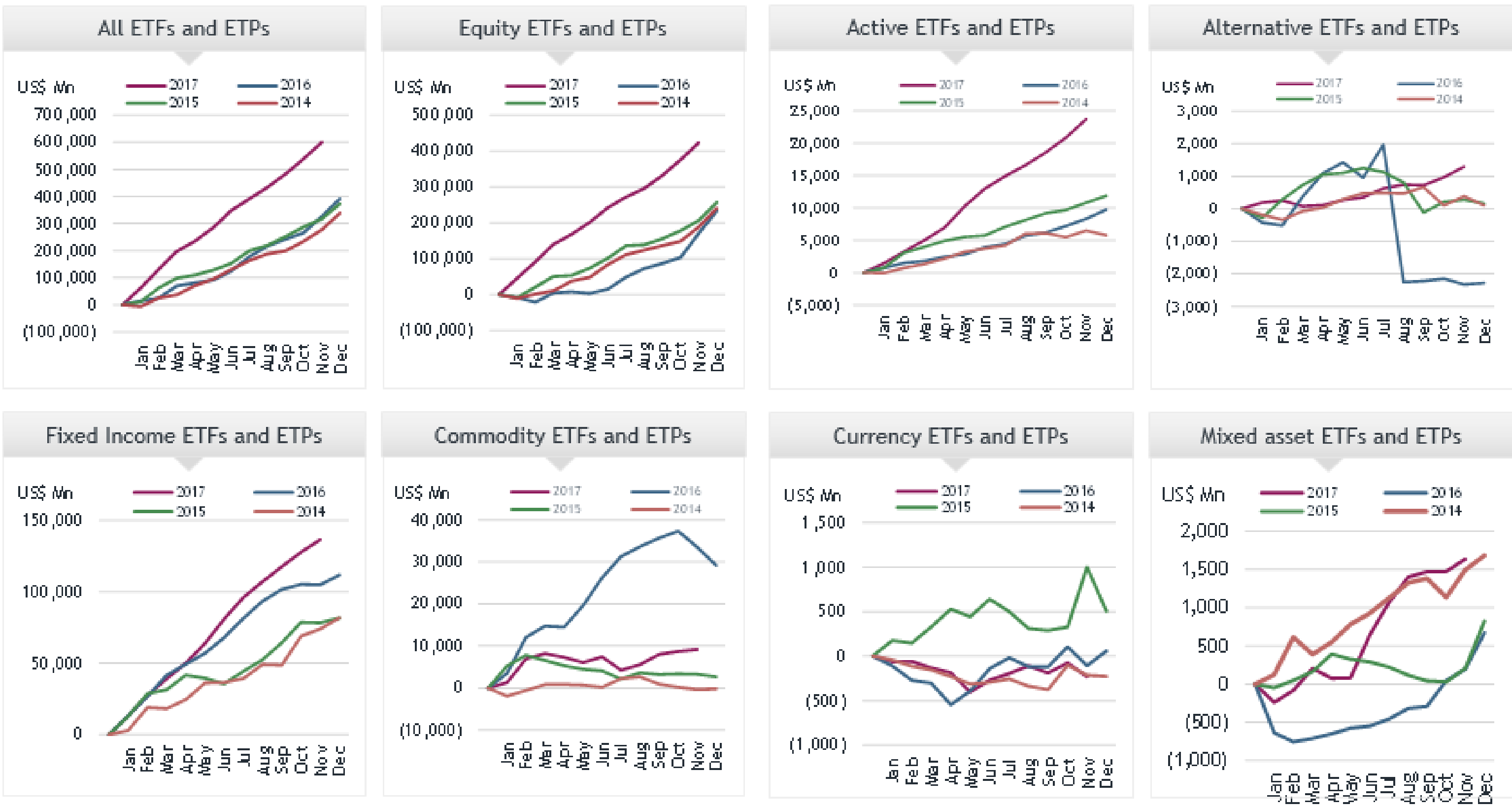
Asset class	# ETFs/ ETPs	Assets (US$ Bn)	% total
Equity	3,899	$3,668.2	77.4%
Fixed Income	1,021	$754.5	15.9%
Commodities	639	$149.7	3.2%
Active	420	$73.5	1.5%
Leveraged	425	$47.0	1.0%
Inverse	231	$16.3	0.3%
Others	483	$32.7	0.7%
Total	**7,118**	**$4,741.8**	**100.0%**

Asset class	# ETFs/ ETPs	Assets (US$ Bn)	% total
ETF	5,287	$4,569.5	96.4%
ETP	1,831	$172.3	3.6%
Total	**7,118**	**$4,741.8**	**100.0%**

Source: ETFGI data sourced from ETF/ETP sponsors, exchanges, regulatory filings, Thomson Reuters/Lipper, Bloomberg, publicly available sources, and data generated by our in-house team.

Source: ETFGI data sourced from ETF/ETP sponsors, exchanges, regulatory filings, Thomson Reuters/Lipper, Bloomberg, publicly available sources, and data generated by our in-house team. Note: This report is based on the most recent data available at the time of publication. Asset and flow data may change slightly as additional month-end data becomes available.

YTD 2017 vs 2016, 2015, 2014 ETF and ETP net new assets by asset class: Global



ETFs and ETPs listed globally gathered net inflows of $61,467 Mn in November. Year to date, net inflows stand at $600,151 Mn. At this point last year there were net inflows of $325,736 Mn.

Equity ETFs/ETPs saw net inflows of $47,548 Mn in November, bringing year to date net inflows to $423,042 Mn, which is greater than the net inflows of $170,062 Mn over the same period last year.

Fixed income ETFs and ETPs experienced net inflows of $8,590 Mn in November, growing year to date net inflows to $136,442 Mn, which is greater than the same period last year which saw net inflows of $104,943 Mn.

Commodity ETFs/ETPs accumulated net inflows of $414 Mn in November. Year to date, net inflows are at $9,138 Mn, compared to net inflows of $33,548 Mn over the same period last year.

Actively managed products saw net inflows of $2,867 Mn in November, bringing year to date net inflows to $23,692 Mn, which is greater than the net inflows of $8,307 Mn over the same period last year.

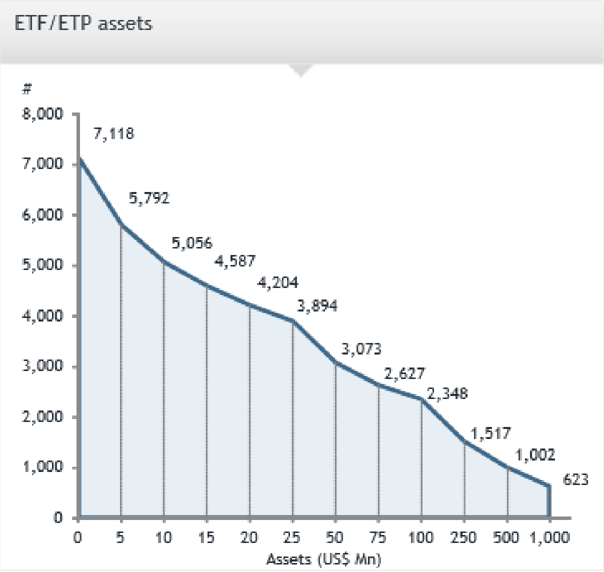
Products tracking alternative indices experienced net inflows of $328 Mn in November, growing year to date net inflows to $1,291 Mn, which is greater than the same period last year which saw net outflows of $2,322 Mn.

Currency products saw net outflows of $156 Mn in November. Year to date, net outflows are at $230 Mn, compared to net outflows of $106 Mn over the same period last year.

Products holding more than one asset class saw net inflows of $163 Mn in November, bringing year to date net inflows to $1,639 Mn, which is greater than the net inflows of $195 Mn over the same period last year.

Source: ETFGI data sourced from ETF/ETP sponsors, exchanges, regulatory filings, Thomson Reuters/Lipper, Bloomberg, publicly available sources, and data generated by our in-house team.
Note: This report is based on the most recent data available at the time of publication. Asset and flow data may change slightly as additional month-end data becomes available.

Distribution of ETFs/ETPs by size



Assets greater than (US$ Mn)	# ETFs/ ETPs	% total	Total assets (US$ Bn)	% total
0	7,118	100.0%	4,734	100.0%
5	5,792	81.4%	4,731	99.9%
10	5,056	71.0%	4,726	99.8%
15	4,587	64.4%	4,720	99.7%
20	4,204	59.1%	4,713	99.6%
25	3,894	54.7%	4,706	99.4%
50	3,073	43.2%	4,677	98.8%
75	2,627	36.9%	4,649	98.2%
100	2,348	33.0%	4,625	97.7%
250	1,517	21.3%	4,492	94.9%
500	1,002	14.1%	4,307	91.0%
1,000	623	8.8%	4,037	85.3%

623 ETFs/ETPs have greater than US$1 Bn in assets, while 2,348 have greater than US$100 Mn in assets and 3,073 have greater than US$50 Mn in assets. The 623 ETFs/ETPs with greater than US$1 Bn in assets hold a combined total of US$4,037 Bn, or 85.3%, of Global ETF/ETP assets.

ETF/ETP underlying benchmarks: developed equity

Top 20 by assets

Name	Assets (US$ Mn) Nov-17	NNA (US$ Mn) Nov-17	NNA (US$ Mn) YTD 2017
S&P 500 Index	567,445	4,411	43,945
TOPIX Index	124,884	3,902	34,449
Nikkei 225 Index	113,602	204	10,782
MSCI EAFE Index	97,424	329	9,095
CRSP US Total Market Index	90,534	713	7,679
FTSE Developed All Cap ex US Transition Index	66,713	422	16,239
S&P Mid Cap 400 Index	65,252	413	3,009
NASDAQ 100 Index	63,673	510	4,622
Russell 2000 Index	50,060	1,595	2,658
EURO STOXX 50 NR Index	46,981	418	4,866
Russell 1000 Growth Index	41,224	84	(704)
MSCI EAFE IMI Index USD	41,097	1,102	20,084
Russell 1000 Value Index	40,737	572	1,547
S&P US 600 Small Cap Index	37,055	790	6,742
CRSP US Large Cap Value Index	35,551	(76)	4,467
MSCI World Index	35,416	1,025	4,120
MSCI US REIT Index	35,303	389	1,867
MSCI Japan Index	32,976	916	(246)
S&P Financial Select Sector Index	32,099	1,477	5,149
CRSP US Large Cap Growth Index	31,201	91	2,065

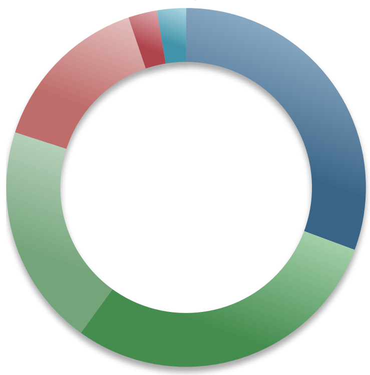
Top 20 by monthly net inflows

Name	Assets (US$ Mn) Nov-17	NNA (US$ Mn) Nov-17	NNA (US$ Mn) YTD 2017
S&P 500 Index	567,445	4,411	43,945
TOPIX Index	124,884	3,902	34,449
Russell 2000 Index	50,060	1,595	2,658
S&P Financial Select Sector Index	32,099	1,477	5,149
MSCI USA Minimum Volatility Index	15,910	1,257	1,514
MSCI USA Momentum Index	5,877	1,186	3,068
MSCI EAFE IMI Index USD	41,097	1,102	20,084
MSCI World Index	35,416	1,025	4,120
StrataQuant Technology Index	1,677	948	886
MSCI Japan Index	32,976	916	(246)
MSCI EMU index	26,369	793	8,727
S&P US 600 Small Cap Index	37,055	790	6,742
S&P Consumer Discretionary Select Sector Index	12,949	724	(51)
CRSP US Total Market Index	90,534	713	7,679
S&P/TSX 60 Index	10,374	649	(651)
S&P Regional Banks Select Industry Index	4,718	606	919
Russell 1000 Value Index	40,737	572	1,547
NASDAQ 100 Index	63,673	510	4,622
FTSE Developed Europe Index	20,092	502	5,584
MSCI EAFE Small Cap Index	10,464	481	2,289

Year to Date ETF / ETP Product Launches

2017 ETF/ETP product launches

ETFs/ETPs by region listed



ETFs/ETPs by asset class

ETFs/ETPs by product structure

Region	# ETFs/ETPs	% total
US	248	30.7%
Asia Pacific (ex-Japan)	237	29.3%
Europe	162	20.0%
Canada	120	14.8%
Middle East and Africa	21	2.6%
Japan	21	2.6%
Total	**809**	**100.0%**

Asset class	# ETFs/ETPs	% total
Equity	362	44.7%
Active	132	16.3%
Fixed income	110	13.6%
Leveraged	53	6.6%
Commodities	50	6.2%
Mixed	45	5.6%
Others	57	7.0%
Total	**809**	**100.0%**

Structure	# ETFs/ETPs	% total
ETF	687	84.9%
ETP	122	15.1%
Total	**809**	**100.0%**

Source: ETFGI, Bloomberg, ETF/ETP providers.

Please visit www. Etfgi.com and contact deborah.fuhr@etfgi.com if you would like to subscribe to ETFGI's full monthly Global ETF and ETP industry insights reports containing over 300 pages of charts and analysis, ETFGI's Institutional Users of ETFs and ETPs report or a custom analysis.

Rating Actions

To access the complete rating action, please click on the links below.

- **Fitch Assigns ST Rating to VRDP Shares Issued by Nuveen Fund; Affirms LT Rating – October 19**
- **Fitch Rates MFP Shares of Nuveen California AMT-Free Quality Municipal Income Fund – October 30**
- **Fitch Affirms Gabelli Multimedia Trust Inc. ARPS at 'AA'; Withdraws Rating – October 30**
- **Fitch Rates VMTP Shares of Invesco Municipal Income Opportunities Trust 'AAA' – November 1**
- **Fitch Withdraws Nuveen Municipal Credit Income Fund S-T Ratings for Two Series of VRDP Shares – November 9**
- **Fitch Affirms ClearBridge Funds' Notes at 'AAA' & MRPS at 'AA' – November 13**
- **Fitch Withdraws S-T Rtg of One Series of Nuveen California Quality Muni Income Fund – November 16**
- **Fitch Affirms Notes & MRPS Issued by Three Tortoise Closed-End Funds – November 20**
- **Fitch Affirms 4 Kayne Anderson Managed Funds' MRPS at 'A' / Senior Note Ratings at 'AAA' – November 20**
- **Fitch Affirms Preferred Shares Issued by Federated Premier Municipal Income Fund at 'AAA' – November 20**
- **Fitch Affirms iMTP Shares Issued by 16 Eaton Vance Closed-End Municipal Bond Funds 'AAA' – November 20**
- **Fitch Rates MRPS Issued by Kayne Anderson Managed Closed-End Fund – November 29**
- **Fitch Assigns New Ratings to Notes & MRPS Issued by Tortoise MLP Fund, Inc. – December 13**

Actively Managed Fixed Income ETFs Gain Marketshare

November 2017

Authored by:
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Senior Vice President
Exchange Traded Fund Strategist
First Trust

Summary of Q3 2017 ETF Flows and Trends1

» Estimated net inflows for US-listed ETFs totaled $87 billion in Q3 2017, bringing total ETF assets to $3.17 trillion.

» Taxable Bond ETFs received the greatest level of estimated net inflows, totaling $31.5 billion in Q3, slightly less than the previous quarter. Estimated net inflows for Municipal Bond ETFs totaled $1.4 billion in Q3, nearly matching flows from Q2.

» International Equity ETFs received $24.7 billion in estimated net inflows in Q3, as flows decelerated from $57.0 billion in Q2. Year-to-date, the International Equity ETF category has received the greatest level of estimated net inflows, totaling $115 billion.

» US Equity ETFs received $22.6 billion in estimated net inflows in Q3, accelerating from $15.3 billion in Q2, while sector equity ETFs received $5.5 billion in estimated net inflows, accelerating from $0.8 billion in Q2.

» Commodities ETFs (+$0.6 billion), Allocation ETFs (+0.5 billion), and Alternatives ETFs (+$0.4 billion) each received positive estimated net inflows in Q3, although estimated net inflows for each were weaker than Q2.

Since the launch of the first fixed income ETFs over 15 years ago, assets under management in these funds have exploded to over $558 billion, as of 9/30/17. While passive ETFs have accounted for the vast majority of this growth, actively managed fixed income ETFs have recently gained market share. Over the past five years, assets under management for actively managed fixed income ETFs have grown at a 33% annual rate, compared to 18% for passive fixed income ETFs, increasing market share to 5.6%, as of 9/30/17.[2] So far in 2017, approximately 7.6% of fixed income ETF net inflows have gone to actively managed funds.[2]

We believe the success of actively managed fixed income ETFs has been driven by two key factors. First, over the past decade, passive fixed income index ETFs have tended to underperform actively-managed peers. And second, many investors are coming to realize—correctly in our opinion—that actively managed fixed income ETFs are better equipped to manage risk than passive fixed income ETFs.

Historical Performance

Historical performance may be the simplest reason that passive fixed income ETFs have lost market share to actively managed fixed income ETFs. Over the past decade, the average passive fixed income ETF ranked in the bottom half of its Morningstar category (See Chart 1).[3] Passive fixed income ETFs fared especially poorly in certain narrower categories, such as Ultrashort Bonds and Preferred Stocks, in which the average passive ETF ranked in the bottom 10% of its peer group, as well as High Yield Bonds, in which the average passive ETF ranked in the bottom third of its peer group. However, passive ETFs have also suffered relative underperformance in certain "core" bond categories, such as Intermediate-Term Bonds, in which, the average passive ETF ranked worse than 58% of its peers.

US Category Group	Total US-Listed ETF Assets (9/30/17)	Q3 2017 Estimated Net Asset Flows	Previous Quarter Estimated Net Asset Flows (Q2 2017)
Taxable Bond	$530,389,559,334	$31,477,449,245	$33,766,751,063
International Equity	$669,721,898,539	$24,693,237,872	$57,006,450,264
US Equity	$1,416,145,725,841	$22,563,159,355	$15,341,718,611
Sector Equity	$400,971,876,819	$5,531,194,817	$807,643,466
Municipal Bond	$27,899,854,846	$1,419,817,270	$1,456,905,230
Commodities	$66,534,117,930	$570,071,984	$860,495,615
Allocation	$12,182,654,739	$527,124,188	$625,748,078
Alternative	$47,952,644,899	$397,588,282	$1,728,256,326
Total	**$3,171,798,332,947**	**$87,179,643,013**	**$111,593,968,653**

Source: Morningstar, as of 9/30/17. Includes all US-listed exchange-traded funds, exchange-traded notes and other exchange-traded products.
All net inflow and outflow numbers are estimates based on information provided by Morningstar.

Risk-management is Paramount

In our opinion, one crucial factor that has contributed to the relative underperformance of many passive fixed income ETFs is their inability to manage certain types of risk, such as credit risk and interest rate risk, among others.

Credit Risk

Credit risk refers to the possibility that a bond issuer may be unable to make timely payments of interest and principal over the life of a bond. Passive ETFs address credit risk indirectly, relying on the analysis of credit rating agencies, whose ratings help determine if a bond is eligible for a fund's underlying index. In this way, investors can select either investment grade or below investment grade credit exposure. Indices generally assign weightings in proportion to the market value of constituent bonds, meaning more indebted companies have a greater representation in the index. Since the objective of a passive ETF is to track its underlying index as closely as possible, it is generally not the task of a passive fund manager to decide which index securities to own or avoid on the basis of credit risk.

In contrast, actively managed ETFs may independently assess the creditworthiness of a bond by rigorously analyzing the fundamentals and collateral of its issuer, to determine if the bond offers adequate potential return compensation for risk, or whether it may be too risky for a given strategy. Because credit fundamentals may evolve more quickly than bond ratings, active managers are incentivized to be proactive in managing credit risk, rather than waiting for bond rating agencies to change their assessment of a bond's credit quality.

The significance of credit risk is most readily apparent for ETFs that invest in below investment grade securities, such as high-yield bonds or senior loans, but its importance extends to funds that invest in higher quality securities as well. Credit fundamentals are not static, and often change over the life of a bond. Hence, today's investment grade bond may be tomorrow's junk bond, and vice versa. We believe that one of the most important ways that actively managed ETFs can add value versus passive ETFs is by managing credit risk.

Interest Rate Risk

Interest rate risk is another important consideration for fixed income investors, since the price of fixed-coupon securities generally moves in the opposite direction as interest rates, sending prices either lower when rates rise or higher when rates fall. For better or worse, passive fixed income ETFs generally reflect the interest rate risk characteristics of their underlying indices. Importantly, interest rate risk within an index can change over time. For example, in a period of persistently low interest rates, many companies opt to refinance their debt to lock in a lower interest rate. A bond's interest rate risk is a function of both its interest rate (yield) and maturity. Therefore, as interest rates fall, an index's interest rate risk generally increases.

On the other hand, actively managed fixed income ETFs may employ various measures to manage interest rate risk. For example, to protect against rising interest rates, an active manager may choose to invest in securities with shorter maturities, or floating-rate coupons, in order to decrease a portfolio's sensitivity to interest rate movements. Or, if interest rates are expected to shift higher or lower for bonds of different maturities, an active manager may choose to tailor a portfolio's exposure to certain key rates.

Credit risk and interest rate risk are two significant risk factors for fixed income investments, but there are many others that investors should consider. While active managers differ in process, skill, and experience, we believe that the ability to navigate multiple dimensions of risk is a worthwhile feature of actively managed fixed income ETFs, which has played a critical role in their success.

The vital question today is how important risk management will be going forward. While the future remains unknown, considering today's narrow credit spreads, low interest rates, onerous, evolving regulatory environment, and extraordinary central bank policies around the world, we believe that active management is more important than ever.

Click here for complete reading

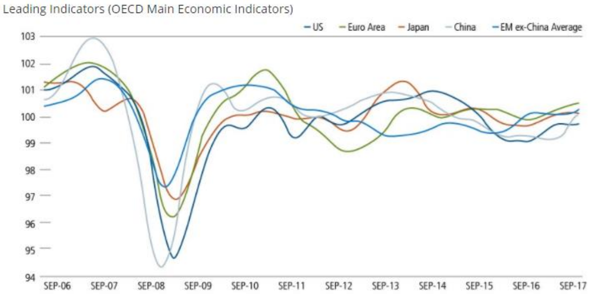
Heading into 2018, International Assets Are Positioned for Outperformance

December 8, 2017

Heading into 2018, we remain positive on global equities and believe the outperformance of international risk assets can continue, despite the strong year-to-date returns in global markets.

In the years following the Global Financial Crisis, uneven global growth created headwinds for risk assets outside the US. Typically, one or two regions would show improvement, while other regions decelerated. Over this period, the US economy was the relative leader, and the dollar strengthened. However, since early 2016, global growth has begun to accelerate fairly uniformly against a backdrop of still-highly accommodative central bank policies and recently implemented economic reforms (Figure 1). With non-US economies in earlier-stage recoveries, we expect supportive conditions for international risk assets to remain in place.

FIGURE 1. SYNCHRONIZED GLOBAL GROWTH SUPPORTS OVERSEAS ASSETS
Leading Indicators (OECD Main Economic Indicators)



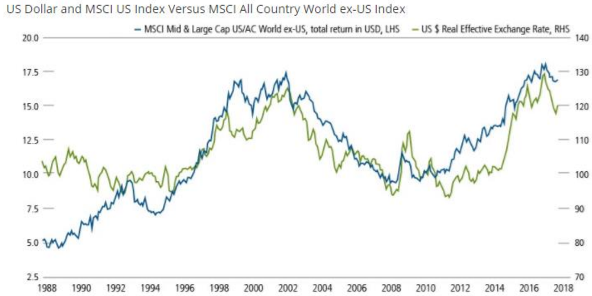
Source: Macrobond, using OECD, Composite Leading Indicators, seasonally adjusted.

Dollar Weakness Provides a Tailwind to International Risk Assets

In addition to improving global growth and attractive relative valuations, non-US equities are positioned to benefit from a US dollar that is at least 20% overvalued and appears to be entering a period of prolonged weakness. We may be seeing the earlier stages of this trend, as the dollar is on track for the worst year since 2003, down approximately 7% year to date.

The path of the dollar will continue to be a key variable for overseas markets. As Figure 2 shows, the returns of non-US equities have been highly correlated. Historically, as the dollar has weakened, we've seen an outperformance of foreign equities greater than the currency return differential. We believe the dollar is likely to weaken further versus the trade-weighted basket, which would support continued outperformance in foreign equities. Figure 2 also illustrates that regime changes (strong-dollar-to-weak-dollar) have historically been multi-year phases.

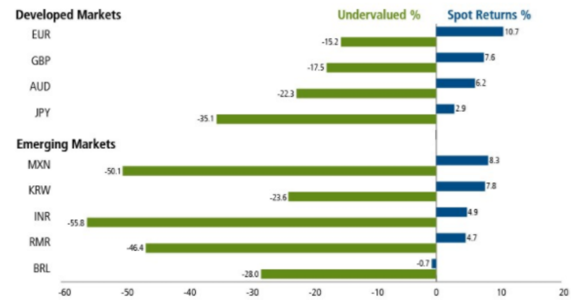
FIGURE 2. US DOLLAR DEPRECIATION AND NON-US EQUITY OUTPERFORMANCE HAVE BEEN CORRELATED
US Dollar and MSCI US Index Versus MSCI All Country World ex-US Index



Past performance is no guarantee of future results. Source: Macrobond.

Despite the strong year-to-date performance of many developed market and emerging market currencies, they remain 15% to 30% undervalued (Figure 3). Currencies can remain over/undervalued for prolonged periods, but are ultimately mean-reverting. Given the recent improvement in growth and technical trends, we expect these valuations to converge over the next several years and support higher total return potential in international equities.

FIGURE 3. BROAD UNDERVALUATION IN NON-US CURRENCIES
Purchasing Power Parity

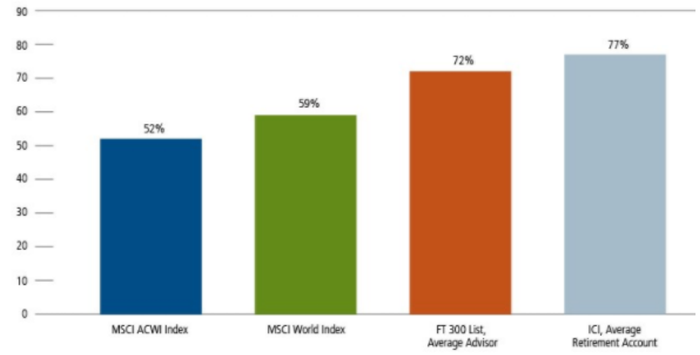


Source: Bloomberg. Data from 12/30/16 through 10/31/17

For many US investors, there's still been no place like home. Almost half the global equity market resides outside the US, yet the average financial advisor and individual retirement account allocate 72 to 77% of equities inside the US. We expect that over the next several years, investors will take profits in US equities and allocate overseas, where they can take advantage of attractive growth, valuations, and secular tailwinds. Thus, this current underinvestment can provide additional support for an extended outperformance cycle.

Authored by:
Nick Niziolek, CFA
Co-CIO, Head of International and Global Strategies, Senior Co-Portfolio Manager
Calamos Investments

FIGURE 4. US INVESTORS HAVE OVERLOOKED NON-US OPPORTUNITIES
% Invested in US Equities, Index Weights Versus Investor Allocations



Source: Financial Times, June 22, 2017, FT 300 Advisor Study June 2017, MSCI Inc. Oct 2017, ICI Factbook 2017

Coming out of the Global Financial Crisis, emerging market equities led the initial recovery, but after a period of consolidation, US equities significantly outperformed other regions, which has contributed to the overweight bias many investors have in their portfolios. Despite the year-to-date rally in non-U.S. assets, a significant divergence in returns remains. We expect these returns to mean-revert over time.

FIGURE 5. US EXCEPTIONALISM IN PERSPECTIVE
US Versus Rest of World, Equity Returns Over Seven Years

Past performance is no guarantee of future results. Source: Bloomberg.

Global Equity Returns

Past performance is no guarantee of future results. Source: Gavekal Research, "London Seminar," Anatole Kaletsky, Chen Long, Cedric Gemehl and Charles Gave, October 2017 using GaveKal Data/Macrobond (in USD terms)

Valuations Enhance the Appeal of International Assets

Relative valuations further the case for investing outside the U.S. As Figure 6 shows, Japan, Europe and emerging markets offer better prospects for growth and lower P/E multiples.

FIGURE 6. GLOBAL VALUATIONS, AS OF 10/31/17

	Forward P/Ex	Trailing P/Ex	EPS CAGR 2016-2018
U.S.	18.4	22.2	17.1%
Japan	14.8	16.0	22.9%
Europe	15.7	21.4	40.1%
EM	14.1	16.2	24.4%

Past performance is no guarantee of future results. Source: Bloomberg. Data in USD terms.

Conclusion

A combination of factors provide a highly supportive backdrop for non-U.S. risk assets going into 2018. In our view, the strong performance of international equities in 2017 can be sustained in an environment of synchronized global growth, earlier-stage recoveries in key overseas economies, an overvalued dollar and the likelihood for an extended period of dollar weakness, lower levels of US investment exposure to international stocks, and attractive valuations. However, country, industry and company selection will still be important differentiators. Fundamental research and risk management matter as much as ever in an environment of heightened geopolitical uncertainty.

Click here for complete reading

Emerging Market Local Currency Review – 3Q2017

November 6, 2017

Authored by:
Leonardo Da Costa, CFA
Director, Portfolio Manager
First Trust

The most widely followed emerging market local currency benchmark, the JP Morgan GBI-EM Global Diversified Index (the "Index") returned 3.55% for the 3rd quarter of 2017 bringing the year-to-date return to 14.28%. The yield on the Index fell 16 basis points (bps) to 5.99% at the end of the quarter while the yield on 5-year maturity U.S. Treasury bonds rose 5bps to 1.94%.

Of the Index's 14.18% year to date return, more than half or 8.02% has come from the domestic Treasury bonds, comprising yield earned as well as the decline in the bond yield of the Index. The remainder of the Index's return came from strengthening emerging market currencies versus the U.S. Dollar (USD) over the period. Broadly though, both domestic bonds as well as emerging market currencies have enjoyed positive momentum since the start of the year.

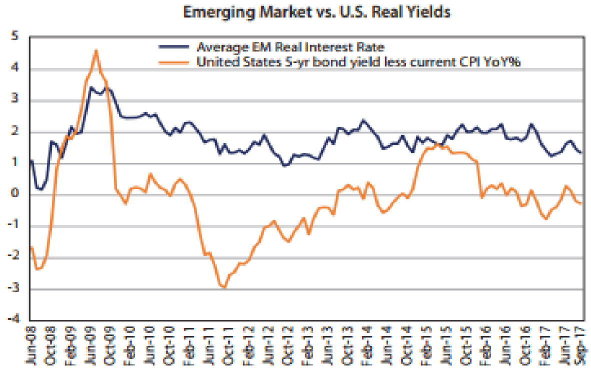
These strong returns have led some investors to question whether the best days for the asset class are over and that we should expect lack lustre performance going forward.We disagree and believe that we will continue to see steadily improving fundamentals across emerging markets and the attractive valuations on offer will continue to attract investors.

One measure of relative valuations is to compare real interest rates between countries. Real interest rates are defined as the difference between a country's nominal bond yield and its inflation rate. It gives an indication of the attractiveness of the yield available in a market after accounting for the differences in inflation. The measure can also be used as a relative value indicator and we utilize real yields as a factor in our investment process to compare the relative real yields across countries.

In Chart 1,we show the weighted average real yield for 18 emerging market treasury curves vs the real yield for U.S.5-year maturity U.S. Treasuries using the current consumer price index (CPI). What we can see from the chart is the relative stable band that emerging market real interest rates have traded within over the last 10 years.That is not necessarily surprising given that the average is diversified across 18 different emerging market government yield curves. It is quite evident in the chart that U.S.real yields have been significantly more volatile than the real yield across a basket of emerging market countries over this period.

Notable as well isthat real yields on offer in emerging markets are currently very attractive relative to U.S. real yields. During 2015, emerging market bond and U.S. real yields were relatively comparable, as U.S. inflation fell dramatically. Currently, however, we can see that the spread is relatively attractive and more in line with the average over the last 10 years.

Chart 1: **Emerging Market Real Interest Rates**



Source: Bloomberg, 6/30/2008-9/30/2017.

Below follows a brief look at the performance of the emerging market asset class over the quarter.

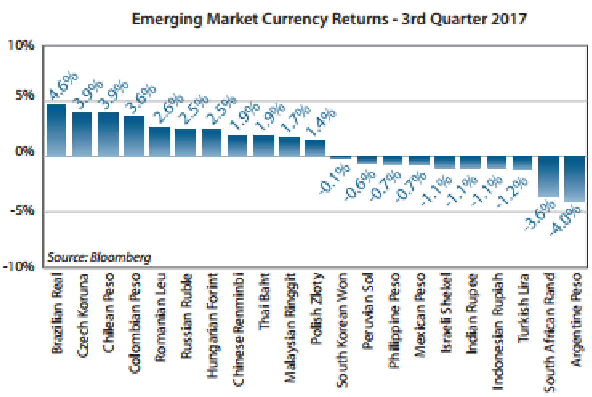
Box 1: **Snapshot of Emerging Market 10-yr bonds moves over the quarter**

Outperformers:
Brazil -80 bps, Hungary -51bps, Philippines -45bps, Indonesia -33bps and Israel -32bps.

Underperformers:
Turkey +44bps, Chile +28bps, Czech Republic +25bps, Romania +17bps and Korea +16bps.

As a reference, the 10-yr U.S.Treasury yield rose 3bps over the quarter.

Chart 2: **Snapshot Emerging Market currency moves over the quarter**



Asia:

The Chinese Renminbi appreciated 1.9% versus the U.S. dollar over the quarter. A pull back in the USD versus many global currencies helped as well as a pick-up in global trade and economic activity. We have begun to see currency reserves rising again in China to $3.1 trillion.

Indonesian bonds enjoyed a positive quarter with yields on the 10-year maturity bonds falling 33bps. CPI remains subdued, with year-on-year CPI falling from 4.37% as of June 30, 2017 to 3.72% as of September 30, 2017.

Latin America:

Towards the end of the second quarter there was a sharp spike in volatility in Brazil as a political crisis unfolded. We saw Brazilian assets rally this quarter as this political noise abated. President Temer has managed to stay in power although some of his more aggressive reforms like the pension reform have been delayed. Regardless, the Brazilian Real rose by 4.58% versus the U.S. dollar and Brazilian 10-year treasuries fell an impressive 80bps in yield as inflation continued to fall.

Some of the Andean countries performed well especially Chile and Colombia as commodity prices were generally supportive. Crude oil and Copper Futures prices rose 12.2% and 9.5% respectively over the quarter In Mexico we await more details on the NAFTA renegotiations which may have an impact on volatility in Mexican assets in the near term.

Central and Eastern Europe and Africa:

We again saw increased political noise in South Africa ahead of the African National Congress' (ANC) end of year leadership vote. The ANC is the largest political party in South Africa. The current president, Jacob Zuma has raised a number of controversies with regard to corruption allegations and state capture. More recently, a cabinet reshuffle caused some unease which we expect to continue until we get more clarity on the political dynamics in South Africa towards the end of the year.

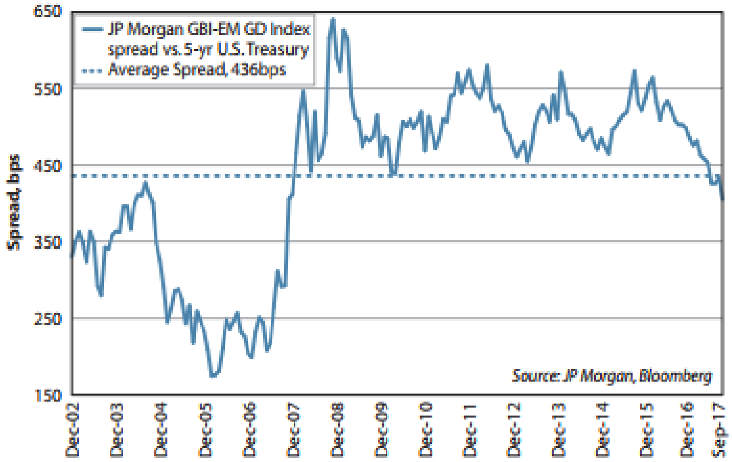
As the Euro strengthened versus the USD over the period, we saw the Central and Eastern European currencies perform well. The improving growth outlook for the Euro-area indicated by stronger Purchasing Managers Index (PMI) surveys appear to be supporting growth in the region.

Outlook:

The spread between the yield on the JP Morgan GBI-EM Global Diversified Index and similar duration 5-year maturity U.S. Treasuries stood at 405bps at the end of the third quarter (Chart 3).Thisis below the long-term average spread of 436bps since the index inception

Chart 3: **Average Emerging Market Debt Spreads**

JP Morgan GBI-EM Local Currency Global Diversified Index
Spread over 5-yr U.S. Treasury: 12/31/2002 - 9/30/2017



Given that valuations remain attractive, especially for emerging market currencies on a historical basis, we maintain a bullish bias. The more hawkish stance recently indicated by the U.S. Federal Reserve (the "Fed") is raising concern that we may see another period of emerging market weakness similar to the “taper tantrum” period of 2013.In our view, however any knee-jerk weakness in emerging market assets related to hawkish Fed actions should be temporary. The underlying fundamentals in emerging countries are in a much better state now as compared to the period in 2013, when many were experiencing a cyclical slowdown.

We now have a stronger outlook for emerging markets based on improving PMI surveys, healthy export growth numbers, increasing foreign exchange reserves and continued gross domestic product (GDP) growth in the emerging market bellwethers, China, India, Brazil and Russia. In their October 2017 World Economic Outlook, the International Monetary Fund (IMF) upgraded their GDP growth forecast for emerging economies to 4.6% in 2017 and 4.9% in 2018. As these fundamentals reassert themselves, we may find that the concerns of tightening U.S. interest rates start to dissipate.

Click here for complete reading

Tortoise QuickTake Special Year-End Podcast

December 18, 2017

Welcome to the Tortoise QuickTake podcast. Thank you for joining us. Today, senior members of Tortoise provide a timely update on trending topics in the market.

Ed Russell: Hello, I'm Ed Russell, Senior Managing Director at Tortoise. Thank you for joining us for our year-end 2017 Outlook Quick Take Podcast. I'm joined today by Tortoise portfolio managers Brian Kessens, James Mick, Matt Sallee and Rob Thummel. We're going to discuss key topics of interest and provide our energy sector outlook for 2018. Let's get started. Matt, we'll start with you. OPEC announced an extension of their production cuts. Can you walk us through some of those decisions?

Matt Sallee: You bet. So as widely expected, leading up to the late November meeting, the production cap was extended to the end of 2018. I guess some key highlights I'd hit, this was a joint agreement, including both OPEC and Russia who want to see significant inventory reductions. Saudi Arabia thinks this is likely to take all of 2018, after which an exit discussion can begin. We expect a strategy to ensure that they'll put in a strategy to ensure we don't go right back to a market share strategy. Related to this, post 2018, we wouldn't be surprised to see continued cooperation between Russia and Saudi Arabia.

One outcome from the meeting that caused the market some pause was the June review clause for the agreement which we think is extremely unlikely to change mid-year, but it did spook the market a bit. We really think this language was just included to bring Russia along in agreeing to the 2018 extension.

Ed Russell: Thank you, Matt. Brian, given that backdrop, where do we stand in terms of the status oil prices, production and inventory levels?

Brian Kessens: Sure. To set the stage, let's quickly hit on the current production levels. OPEC produces about 40% of all liquids, which would include crude oil and natural gas liquids, such as propane and butane. The U.S. produces about 13% of the world total; Russia produces about 11%, and the remaining 35% is produced by all other countries, notably Canada, China and Brazil. Total production then is approximately 98 million barrels per day. We are constructive on the crude oil price of 2018, expecting the price to marginally move higher, exceeding 2017 levels. That's due to, one, as Matt just touched on, the willingness of OPEC and Russia to cooperate and continue to hold production at 32.5 million barrels per day through the course of 2018 as inventory levels remain above the five year average. Two, strong global demand, again reaching 1.5 million barrels per day as demand grows led by emerging markets like India and other countries such as China where populations are buying cars as they move from lower to middle class income levels. Then three, increased capital discipline from larger oil companies. They are indicating 2018 capital expenditure levels no higher than 2017 levels and in many cases lower. Many have pledged to spend within their cash flow including the payment of dividends.

Ed Russell: So, James, over to you. As we turn to 2018 and beyond, what are the forecasts for growth in the oil sector?

James Mick: Yes, great question. As Brian alluded to with the different groups that we'll talk about, in terms of growth for 2018, we anticipate OPEC to be up about 550,000 barrels per day. That's primarily because Libya and Nigeria increased production throughout 2017. So assuming they hold production at current levels, it would result in an increase for 2018 of about 400,000 barrels per day for those two countries. In general, we feel this is conservative and doesn't account for any supply disruptions. Let's come back to the U.S. in a moment, but for Russia we anticipate it will be about flat for 2018. Of course the remaining 35% of production that Brian alluded to from various countries across the world will be mixed, with some higher such as Canada and Brazil, and some lower such as China and Mexico. In total, we anticipate about 350,000 barrels per day of growth from this group. So if you're following along on your spreadsheet, so far we have OPEC growing 550,000 barrels per day, Russia flat and the rest of the world ex-U.S. growing 350,000 barrels per day. Let's shift gears now to the U.S. This is probably one of the biggest areas of concern for oil markets in 2018, i.e., will the U.S. flood the market with crude and drive up inventories putting a damper on the price recovery? Aggregating a variety of independent third party sources, we come up with growth in U.S. production of about 800,000 barrels per day in crude oil. Additionally, we anticipate 400,000 barrels per day of growth in natural gas liquids or NGL's during 2018 for a total U.S. production growth of about 1.2 million barrels per day. Of course this would be an outstanding number and represent very strong growth. The range of estimates is pretty diverse; some showing as low as 700,000 barrels per day and some as high as 950,000 barrels per day just on the crude side. Our view is that we will likely come in on the lower side of those numbers. A couple factors that could impact the U.S. growth numbers from a positive perspective, increased access to capital for producers; better hedge positions; and then overall higher crude oil price due to disruptions elsewhere in the world. Some factors that could impact from a negative perspective, oil field service bottlenecks, notably lack of personnel; shift in focus to returns as opposed to pure production growth; and then producers spending within cash flow. In summary, we're bullish on U.S. production for 2018, but probably a bit below consensus and not fearful that it exceeds a number so high that it impairs the global recover for crude oil inventories. And from a worldwide perspective, all the numbers in total lead to a draw of approximately 400,000 barrels per day for 2018. And assuming that happens, we will hit the five year average for inventories in 2018.

Ed Russell: Thanks James. Rob, as evidenced by your frequency CNBC interviews, the natural gas story is always being overshadowed by the oil market. Why should investors be paying attention to the natural gas space?

Click here for complete reading

Opposite Thinking for Investors

December 6, 2017

In an iconic Seinfeld episode, George Costanza seizes on a brilliant idea: What he's been doing hasn't been working, maybe he should do the opposite.

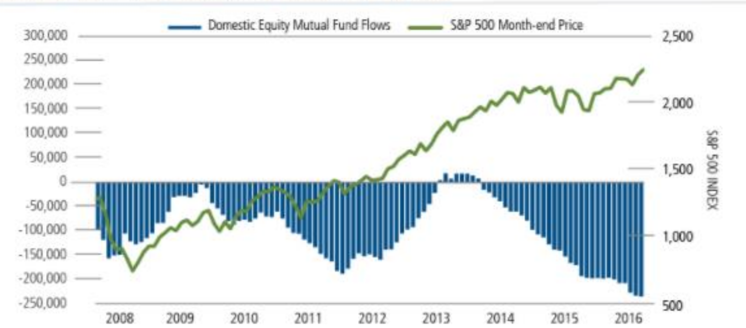
We're invoking the memory of George at this point, deep into the eighth year of a bull market.

If he were an investor with exposure to U.S. equities, George's instinct may be to head for the exits, expecting a pullback.

Or perhaps he would have been on the sidelines because the market had been "too high"—if so, today's levels might further convince him that he's better off waiting for a buying opportunity.

If this was his position, he hasn't been alone, as shown by the chart below. Many investors have been absent from the post-2008 rally. See the negative domestic equity mutual fund flows as the Standard & Poor's 500 continued to climb.

INVESTOR BEHAVIOR ACROSS MARKET CYCLES



Source: Data for Domestic Equity Mutual Fund Flows is from Investment Company Institute. S&P 500 Index month-end values from YahooFinance.com. Performance data quoted represents past performance, which is no guarantee of future results.

Opposite George

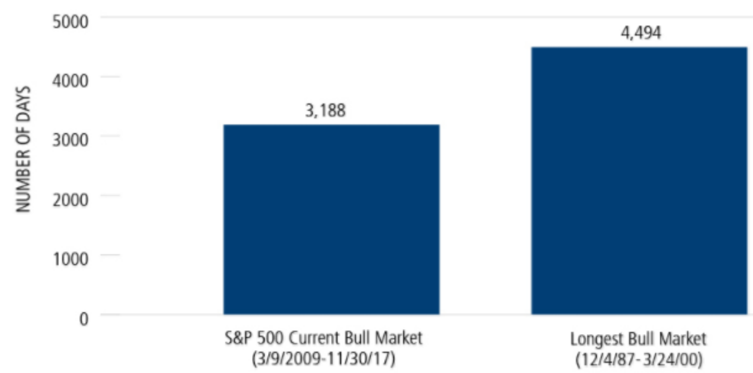
What if George (nudged no doubt by his patient financial advisor) decided to adopt an opposite tack? What could happen if he countered what comes naturally to him and decided to remain in the market, if he was invested? Or, instead of avoiding it, bought in at these levels?

We don't know whether George would be headed to a happy ending as opposed to the tortured existence he mastered in TV Land.

But with the help of S&P data compiled by Bespoke Investment Group, we can take stock of where this market is in relation to other bull markets:

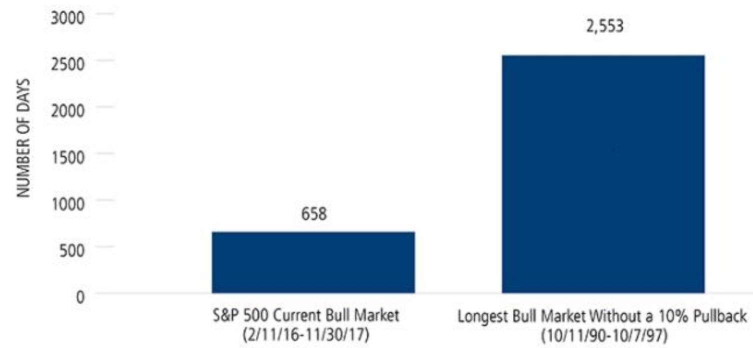
- It's a special rally, no doubt. But while it's the second longest, it's three years from being the longest bull market.
- No U.S. bull market has gone this long without a 3% correction—this market has established a new record.
- However, many other markets have lasted much longer before correcting further.

3 YEARS FROM THE LONGEST BULL MARKET



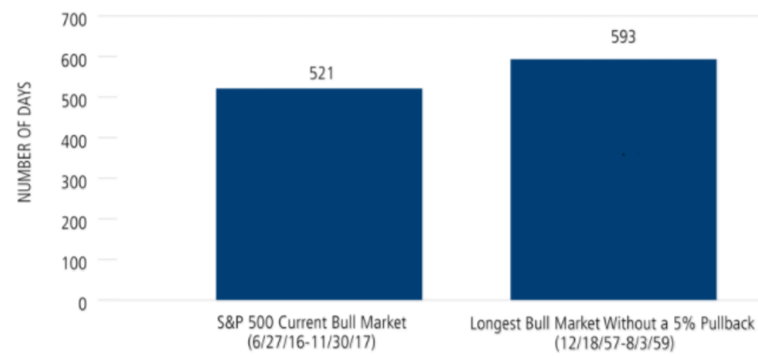
Source: Bespoke Investment Group

5 YEARS FROM THE LONGEST BULL MARKET WITHOUT A 10% PULLBACK



Source: Bespoke Investment Group

CLOSING IN ON THE LONGEST BULL MARKET WITHOUT A 5% PULLBACK



Source: Bespoke Investment Group

If George could be persuaded to suspend his disbelief, he could see that there could be more to come in this bull market. This is what Calamos believes, even as we allow for the possibility of a pause or even correction (see our outlook).

An opposite-leaning George also might see that there's a risk of being out of the market and that it can be quantified, as John P. Calamos, Sr., Founder, Chairman and Global Chief Investment Officer has blogged about previously.

TIMING THE MARKET COULD BE COSTLY

Source: Morningstar. Data ranges from 1/1/1996 through 12/31/2016. Past performance is no guarantee of future results.

Pursue the Upside While Protecting Against the Downside

Equities are a favored asset class for pursuing long-term wealth. Most investors understand that investment returns are predicated on taking risk, of course. The irony is that the risk can seem to be magnified in an ever-climbing market such as we've experienced.

World markets have enjoyed a strong 2017, with global economies demonstrating fundamentals that suggest the good times could continue well into 2018. Few markets go straight up, however (and see last week's EM Snapshot for a review of the five corrections that were part of emerging markets' memorable 2002-2007 run-up).

Our actively managed funds, providing exposure to U.S., international and emerging markets, are risk-managed to enable your clients to remain invested across full market cycles.

Financial advisors, whether you recognize George among your clients or whether even you too have reservations about the market at this level, talk to a Calamos Investment Consultant at 888-571-2567 or caminfo@calamos.com about our solutions for pursuing the upside while protecting against the downside.

Click here for complete reading

Disruptive themes behind future commodity demand

November 2017

Authored by:
Maxwell Gold
Director – Investment Strategy
ETF Securities

Summary

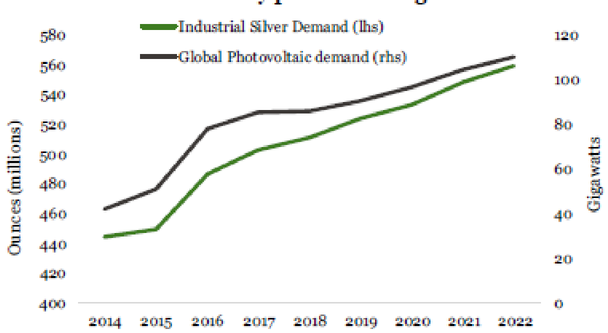
- As energy efficiency drives renewable energy and battery technology demand, silver and nickel usage may see boost.
- Automation and technology integration may benefit copper.
- Climate change may continue to impact global agriculture.

If you trace the evolution of commodities over time, the economically dominant commodity sector tends to follow structural shifts in technology and growth. Until the 18th century, agriculture made up the bulk of the commodity market moving in sync with trade and population. The industrial revolution of the 19th century brought the rise of mass production of steel and coal into the limelight. This momentum then cascaded into the 20th century where oil and petroleum reigned supreme. We now stand at a tipping point for a new generation of commodities driven by intertwining technologies among the themes of energy efficiency, automation, and climate change likely to be central for demand.

Energy efficiency

The rise of renewable energy has caught much attention in recent years as a way to meet growing energy demand– the most commercially and economically viable of which being solar. Global photovoltaic (PV) panel installations continue to beat expectations with global PV demand expected to exceed 100 gigawatts (GW) for 2017 according to an EnergyTrend report. China, the global leader in solar energy, installed 34 gigawatts of solar panel installations in 2016 and over 17 gigawatts in the first half of 2017. This increasing demand for PV panels may provide a *boon* for key materials most notably silver (see Exhibit 1). Industrial demand for silver may further increase through 2022 in line with global PV demand.

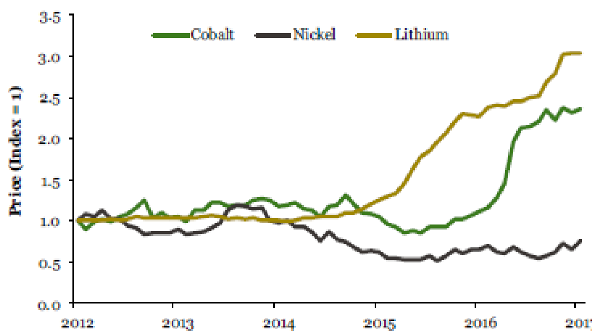
Exhibit 1: Solar's rise may push silver higher.



Source: GTM Research, Metals Focus, ETF Securities. Data as of 10/31/17.

Technology advancements in energy storage have helped improve renewables' economic viability, particularly with battery technology. Lithium-ion battery growth is expected to see rapid demand increase through electronics, power cells, and most notably further adoption of battery electric vehicles globally. Looking beyond lithium, however, current battery technology is also reliant on other commonly traded metals particularly cobalt and nickel. Cobalt, whose supply primarily comes from the Democratic Republic of Congo, has experienced a commensurate rise in price along with lithium, due to supply disruptions and anticipated battery demand. Nickel, on the other hand, has global production that is more geographically diverse and has yet to see a rapid spike in prices (see Exhibit 2).

Exhibit 2: Nickel's key role in lithium-ion batteries may push prices higher along with other battery materials.



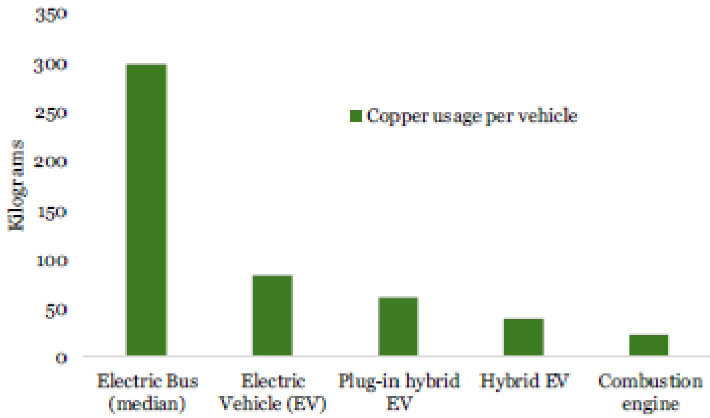
Source: Bloomberg, ETF Securities. Data from 10/31/12 to 10/31/17.

A more likely scenario will be nickel prices gradually benefiting from new battery demand in coming years. Currently nickel has seen supply deficits widen, a trend expected to persist into 2018. Higher anticipated demand has pushed nickel prices upward in recent months, not supply side factors such as production costs.

Automation & technology integration

Another persistent theme that may benefit commodities is that of rising automation and technology integration. The increasing focus of autonomous or self-driving vehicles is an exciting example. An overlooked impact from a rise in utility of these types of vehicles is actually increased metal demand. Copper, silver, and gold are great conductors of electricity and used in countless electronics and electrical components for these vehicles. As future vehicle fleets become more technologically dependent and autonomous, a commensurate increase of conductors across aggregate systems may follow. Usage of copper in electric vehicles (EVs) is also larger than those of gasoline engines; particularly for mass transit vehicles such as buses (see Exhibit 3). Electric buses may also benefit from a quicker implementation than individual EVs driven by local legislation not consumer preferences.

Exhibit 3: Expansion of global autonomous and electric vehicles may see marked rise in copper consumption

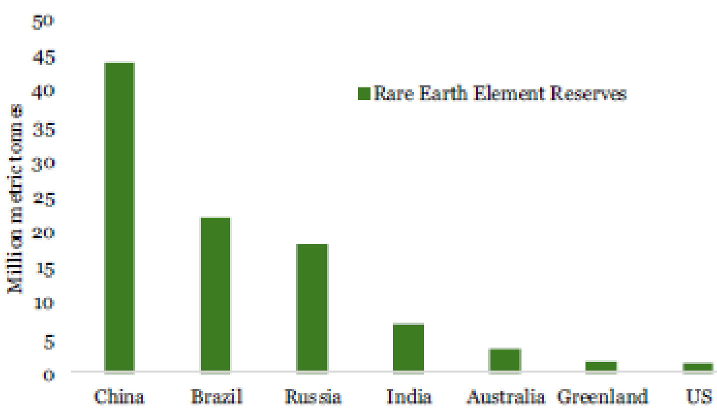


Source: International Copper Association, ETF Securities. Data as of 4/30/17.

Perhaps the most interesting of this new generation of commodities is the least familiar, the rare earth elements. Despite their unfamiliarity to most, this group has become integral to produce modern technologies across many industries including medicine, defense, transportation, and energy generation as well as linchpins of our daily lives such as electronics and mobile devices. With a growing global middle class coupled with the rise of automation, a litany of materials you'd be hard pressed to pronounce (like yttrium and praseodymium) will continue to cement their central role in our modern standards of living.

As with any natural resource, supply and reserve concentrations are an important factor. Given a high degree of geographic concentration for many rare earth elements within emerging markets, geopolitics and supply chain stability may play an increasing role (see Exhibit 4). Additionally, challenges in mining and refining of these materials remain. This could leave rare earths subject to similar historical supply disruptions as their usage increases over time along with technological advancements.

Exhibit 4: Concentration of rare earth elements in emerging markets may become central to geopolitics



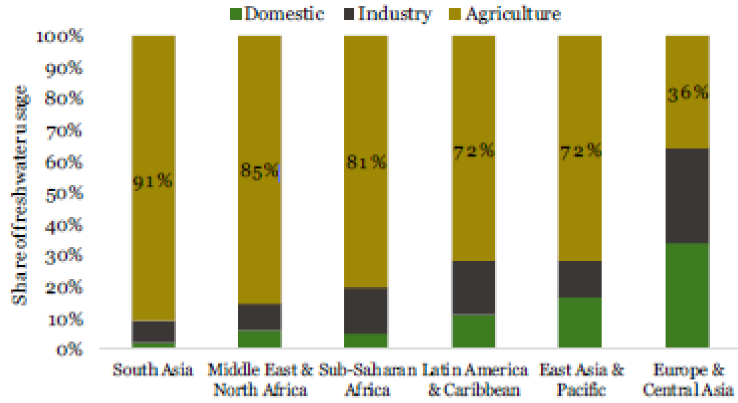
Source: US Geological Survey, ETF Securities. Data as of 12/31/16.

Climate change

The continued disruptive theme of global climate change may be another catalyst for shifting dominance among individual commodities. This has already spurred tighter emission standards for vehicles globally, a boost for platinum and palladium demand for catalytic converters, which help reduce pollution.

Water is an often-discounted natural resource compared to commonly tradable commodities, but its role for global agriculture will likely only grow amid rising populations and demand. Among most geographic regions, the biggest use of water by a wide margin is agriculture (see Exhibit 5). Sourcing fresh and usable water to combat the effects of ongoing droughts and record setting storms may spur more agricultural efficiencies and technologies related to water.

Exhibit 5: Water may emerge as a key commodity in demand in order to meet growing agriculture needs



Source: World Bank, ETF Securities. Data as of 12/31/2014.

Concurrently, the global middle class continues to grow at an unprecedented rate, with emerging economies expected to grow at 6% driven by China, India, and Southeast Asia compared to 0.5% for developed economies according to The Brookings Institution. This has important implications for commodity demand globally, which may see a commensurate rise along with growing populations, incomes, and quality of life.

By 2025, consumption of agricultural commodities such as soy, corn, and wheat are expected to grow 29%, 14%, and 12% in emerging markets, according to the Organisation for Economic Cooperation and Development (OECD), far outpacing demand growth in developed markets. As gross domestic product per capita increases, consumer preferences move further up the consumption ladder. The most common good immediately substituted is grains for meat. This not only increases demand for livestock but also grains to feed a higher number of animals.

Outlook

As these themes and technologies continue to become central to future economic growth, focus and demand for the next generation of commodities at the heart of these advancements will likely move in tandem. This may provide investment opportunities by capturing new sources of demand for current commodities as well as from the next generation of commodities.

Click here for complete reading

Why Preferreds and High Yield Make a Great Pair

December 2017

With many investors turning to risky bonds for yield, being diversified may be more important than ever. For a more balanced portfolio, consider pairing high yield bonds with preferred securities, which offer attractive tax-advantaged income and have distinct characteristics that may complement traditional fixed income holdings.

Different Sources of Income

Preferreds are issued mostly by companies with high credit ratings, yet offer yields similar to bonds several notches lower in quality. With high yield, the extra income is driven by higher credit risk. With preferreds, investors are paid extra for subordination (having a lower claim on company assets in the event of liquidation), the possibility that payments may be omitted or deferred (historically rare in practice), and the general complexity of preferred securities. These characteristics help to diversify an investor's exposure to various risks.

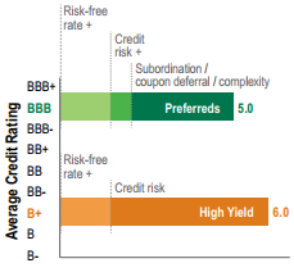
Different Sectors

Preferreds are typically offered by companies in highly regulated industries such as financial services and utilities, and by hard-asset, high-cash-flow companies such as REITs, with stability of cash flows providing a level of confidence that coupons will be paid. By contrast, the high yield market is more concentrated in cyclical sectors such as energy and basic materials, historically leading to higher volatility, as experienced recently amid weakness in oil prices. By combining preferreds with high yield, investors may be less vulnerable to stress in any one area of the market.

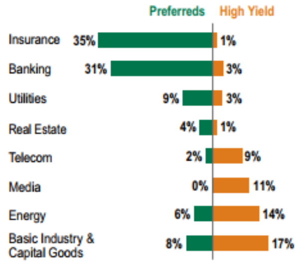
Different Behaviors

Preferreds have historically had diversifying correlations with equities and other fixed income investments. This is partly because companies that issue preferreds are generally less represented in traditional bond markets, including high yield. As well, preferred securities are structured differently than normal bonds, resulting in distinct characteristics. Low correlations indicate the potential of preferreds to serve as an effective portfolio diversifier.

Yield Components



Top Sector Weights



Five-Year Correlations

Pfd Preferred Securities; HY High Yield; Agg U.S. Bonds; Tsy U.S. Treasuries; Muni Municipal Bonds; S&P U.S. Stocks

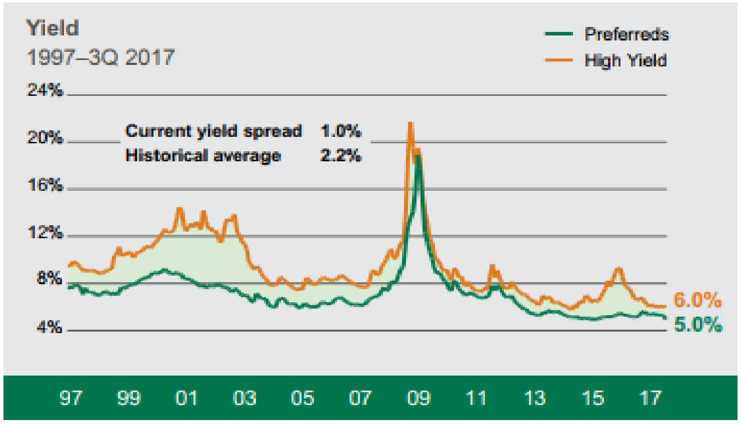
	Pfd	HY	Agg	Tsy	Muni	S&P
Pfd	1.00					
HY	0.63	1.00				
Agg	0.66	0.30	1.00			
Tsy	0.50	0.07	0.96	1.00		
Muni	0.65	0.20	0.82	0.79	1.00	
S&P	0.34	0.65	-0.06	-0.23	-0.07	1.00

At September 30, 2017. Source: Morningstar, Bloomberg, Cohen & Steers.

Data quoted represents past performance, which is no guarantee of future results. The information presented above does not reflect the performance of any fund or other account managed or serviced by Cohen & Steers, and there is no guarantee that investors will experience the type of performance reflected above. Yield breakdowns are approximations for illustrative purposes. Yields shown on a yield-to-maturity basis. Correlation is a statistical measure of how two data series move in relation to each other, with 1 indicating perfect synchronization and 0 indicating perfect randomness. See below and back page for index associations, definitions and additional disclosures.

Attractive Relative Value

High yield bonds have historically provided a 2.2% average income premium above investment-grade preferred securities. Today, that premium is just 1.0%, meaning that high yield investors are getting relatively little in return for taking on more credit risk. We believe this represents an opportunity to allocate to preferred securities at attractive relative values.



At September 30, 2017. Source: Morningstar, Bloomberg, Cohen & Steers.

Better Together

Over the past five years, a 50/50 mix of high yield and preferreds would have delivered the same return as high yield alone, but with much less volatility. And unlike high yield, many preferreds pay qualified dividend income (QDI) rather than interest, which is taxed at a lower rate. This means that after taxes, a 50/50 mix generated comparable income to high yield bonds.

Investors who own high yield bonds should consider adding preferred securities to potentially reduce volatility while maintaining income and total-return objectives.

Performance Characteristics
9/30/2012–9/30/2017

	High Yield	50/50 Mix	Preferreds
Annualized Return	6.4%	6.4%	6.4%
Standard Deviation	5.3%	4.2%	3.9%
Sharpe Ratio	1.16	1.47	1.55
Average Yield	6.8%	6.1%	5.3%
After-Tax Yield[a]	4.2%	4.0%	3.8%

Click here for complete reading

The $150B Backlog Supporting Listed Infrastructure Valuations

December 2017

Demand for infrastructure investment seems to have overwhelmed the private market's ability to find suitable opportunities, with increased competition for assets pushing transaction multiples higher and creating a record backlog of capital waiting to be deployed. While this may be a challenge for private fund managers, we see it as a boon for listed infrastructure companies, serving as a rising floor of support for valuations and a potential driver of future returns.

Unprecedented Demand, Limited Targets

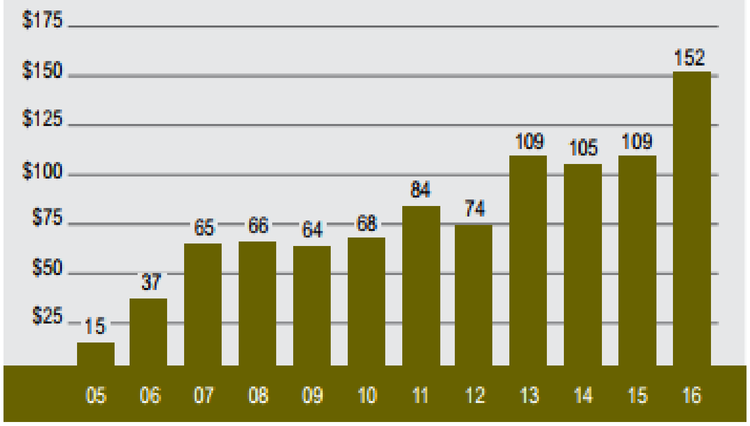
Infrastructure as an asset class has seen enormous inflows in recent years, attracting investors with the prospect of predictable income, attractive risk-adjusted returns and the inflation-fighting characteristics of tangible assets. The asset class has also gained attention amid growing government support for private ownership of infrastructure assets, seen as a way to fulfill the massive need for increased investment at a lower cost and risk to the public.

The story has been an easy sell for managers of private infrastructure funds, who have raised record levels of capital from institutions and wealthy families. Yet many of these managers are finding it easier to raise money for an idea than to put it to work.

According to market intelligence firm Preqin, uninvested capital in private infrastructure funds hit a record $152 billion at the end of 2016 (Exhibit 1). And estimates through September suggest even more dry power is now ready for placement. The reason for this high and rising backlog is that despite the immense need for capital over the coming decades, there are a limited number of investable opportunities at any point in time, given the many political, regulatory and financing considerations in such deals. In an increasingly competitive market, private fund managers have had difficulty securing suitable investments offering sufficient expected returns.

Exhibit 1: Private Infrastructure Dry Powder

$Billions of Uninvested Capital Commitments



At September 30, 2017. Source: Preqin.

There is no guarantee that any historical trend illustrated above will be repeated in the future, and there is no way to predict precisely when such a trend will begin. Uninvested capital commitments are the amount of capital that has been committed to private equity funds minus the amount that have been called by the general partner for investment.

Private Assets Commanding High Premiums

Exhibit 2 shows a representative list of private transactions based on available data. When private investments have been made, transactions have generally occurred at significant premiums to the market-implied cash flow multiples of listed infrastructure companies.

In other words, investors are typically able to access the cash flows of infrastructure assets at much lower multiples by investing in listed infrastructure equities, rather than buying assets directly. The premiums for private transactions are somewhat justified, in that private deals often give the buyer direct ownership of an asset. However, we believe the recent multiples paid far exceed the return potential for this advantage.

For example, Allianz Capital Partners and Canada Pension Plan Investment Board's recently announced agreement to secure a 20% interest in Gas Natural Fenosa's gas distribution business in Spain for an EV/EBITDA of 15.7—more than 36% above the average for listed stocks in the gas sector.

Exhibit 2: Recent Select Private Transactions vs. Listed Valuations

Asset	Country	Buyer	Year	EV/ EBITDA	EV/EBITDA 5-Year Range
Airports					
AIX	Australia	Future Fund	2013	15.3	
OHL Mexico	Mexico	IFM Investors	2017	13.0	
Toulouse airport	France	Chinese Consortium	2014	19.5	
Vienna airport	Austria	IFM Investors	2014	9.5	
Listed airport average				13.8	9.4–14.3
Gas Distribution					
Gas Natural Fenosa's Gas Distribution Assets	Spain	Allianz, CPPIB	2017	15.7	
U.K. Gas Distribution Network	U.K.	Consortium	2016	12.0	
Listed gas distribution average				11.5	7.2–11.5
Toll Roads					
A6 Autoroute	France	APRR	2016	26.8	
Chicago Skyway	U.S.	Calumet Concession Partners	2015	31.0	
Indiana Toll	U.S.	IFM Investors	2015	32.0	
La Serena-Vallenar Highway	Chile	Toesca Infraestructura	2017	19.0	
Listed toll road average				11.0	9.9–11.8
Private equity average				19.4	
Global listed infrastructure average				11.3	9.3–11.5

At September 30, 2017. Source: Preqin, Goldman Sachs, Bloomberg and Cohen & Steers.

There is no guarantee that any historical trend illustrated above will be repeated in the future, and there is no way to predict precisely when such a trend will begin. The mention of specific sectors is not a recommendation or solicitation to buy, sell or hold any particular security and should not be relied upon as investment advice. EV/EBITDA refers to the ratio of enterprise value to earnings before interest, taxes, depreciation, and amortization using current fiscal year estimates. The information above does not reflect information about any fund or account managed or serviced by Cohen & Steers, and there is no guarantee investors will experience the type of performance reflected above. See below for additional disclosures.

Why Does This Matter for Listed Infrastructure?

Competition among private equity managers looking to deploy the accumulated $150+ billion in dry powder puts increasing pressure on return expectations for private infrastructure. As a result, we have observed more institutions looking to listed infrastructure strategies as a complement to private investments. Indeed, a leading private equity firm recently announced that investing in listed companies was a top priority for its new $100 billion infrastructure business.

Even as earnings and cash flow multiples for listed infrastructure are generally above their historical averages, we see the backlog of capital and private transaction pricing benefiting listed valuations in two ways:

• As private funds pay premium prices for assets—whether in the private market or from listed companies—the higher valuations for those investments may provide an uplift to listed company assets.

• Listed companies have also been highlighted as potential take-out targets, creating the prospect for additional value to be realized.

Listed infrastructure companies own and operate the same types of long-lived assets as those held in private investments. And unlike in the private market, investors can implement an allocation immediately due to the liquidity of public markets, with over 200 companies in the FTSE Global Core Infrastructure 50/50 Index, representing a total market capitalization of more than $2.4 trillion.

We believe a listed infrastructure allocation can offer a liquid alternative or complement to private investments at more attractive valuations, allowing investors to maintain their long-term return objectives while reducing volatility relative to equities and adding downside resilience to a diversified portfolio.

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Emma Wall of Morningstar:
Why the Same Fund Holds 2 Different Analyst Ratings

November 25, 2017
Christine Benz of Morningstar:
Passive Investors Aren't That Passive

November 29, 2017
Ben Johnson of Morningstar:
Shattering Myths About Emerging-Markets Investing

November 18, 2017
Jack Otter of Barron's: *How ETFs Help You Make Money*

Our Alternative Funds Work

December 4, 2017

Alternative funds have taken their lumps recently as commentators have criticized the performance of some funds launched in the aftermath of the 2008 financial crisis as a non-correlated antidote to traditional stock and bond funds.

This post isn't about that criticism or funds that have disappointed.

Rather, we offer our income and equity alternative funds as examples of how liquid alt funds can and do work.

Here's a quick look at why and how our funds defy some of the broad generalizations being made about alternative mutual funds.

Calamos' Bona Fides as an Alternative Manager

At the core of our funds' effectiveness is our heritage: John P. Calamos, Sr. founded Calamos Investments 40 years ago to provide innovative strategies for managing risk and enhancing investment returns. John pioneered the use of convertible securities when they were essentially an alternative asset class.

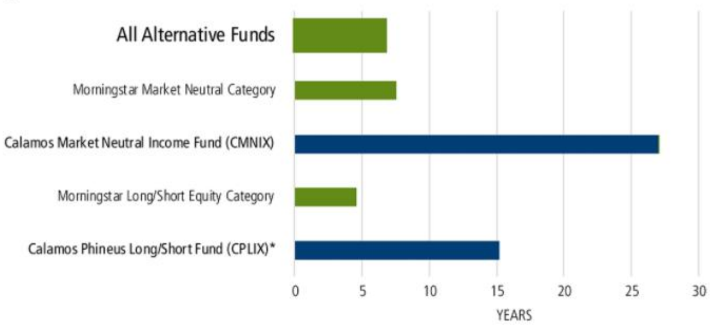
Surviving the Test of Time

Calamos Market Neutral Income Fund (CMNIX) debuted in 1990, making the 27-year-old fund one of the first liquid alternatives. The rich history of Calamos Phineus Long/Short Fund (CPLIX) dates back to 2002 (see post).

By contrast, the average alternative fund tracked by Morningstar is less than seven years old—so have yet to be tested by ugly markets.

CALAMOS ALTS ARE SEASONED

Shown below are the average ages of funds in each Morningstar category, tracking the inception dates of the funds' oldest share class, and the age of the Calamos funds. As of 10/31/17.



*Calamos Phineus Long/Short Fund has been in the Morningstar category since 4/6/16 but the fund has an inception date of May 1, 2002.
Source: Morningstar

In Pursuit of Consistent Strategies

Long track records, of course, enable financial advisors to evaluate funds' performance over multiple market cycles. Equally important: The funds' performance results were achieved using essentially the same strategies employed today.

CPLIX has been managed by the same portfolio manager, Michael Grant, since its 2002 inception, and the strategy components of CMNIX have been relatively consistent for almost three decades.

Investment Results

See this post for more on CMNIX's performance consistency and this post for CPLIX's consistent performance.

CMNIX has earned a ★★★★★ overall rating in the Morningstar Market Neutral funds category of 112 funds based on risk-adjusted returns as of 9/30/17.

Calamos ranks CPLIX in the 1st percentile within the Morningstar U.S. Funds Long/Short Category and has outperformed both the Standard & Poor's 500 Index and MSCI World Index since its May 2002 inception for the period ended 9/30/17.[1]

Steering Clear of Blow-ups

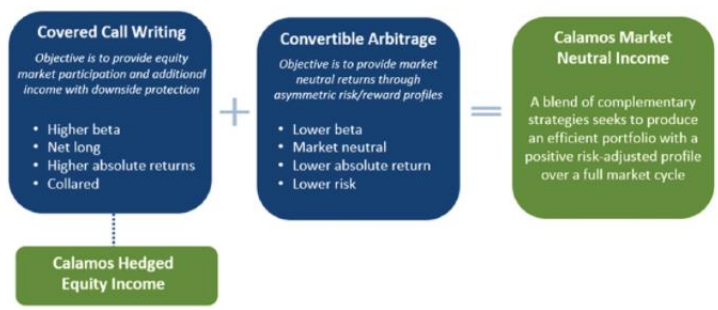
An alternative fund can serve as a portfolio ballast in bear markets. But at all times, our alts are focused on the risks inherent in any market.

With our income alternative CMNIX, the goal is to "take advantage of the opportunities the market presents," says Senior Co-Portfolio Manager Eli Pars.

Its blend of covered call writing and convertible arbitrage strategies has led to a lower risk profile and attractive returns due to the strategies' differing responses to volatility.

CMNIX COMPLEMENTARY STRATEGIES SEEK TO PROVIDE LOWER-RISK PROFILE, ATTRACTIVE RETURNS

As complementary strategies, convertible arbitrage and covered call writing together strive to provide a lower-risk profile and attractive returns due to their differing responses to volatility. By combining these strategies, the Fund seeks to deliver more consistent returns over a full market cycle.



Source: Calamos Investments. There can be no assurance the fund will achieve its investment objective.

As an equity alternative, CPLIX benefits from being able to go long or short.

Investors need to take risk, insists Grant. "[Investors] are paid to take risk. Equities are a favorable asset class because when you take risk, you get more return. A lot of investors lose sight of that and they over-diversify and then they stop taking risk and they wonder why there's no return."

"The advantage of the long/short model and the ability to short," Grant continues, "is to take off some equity tails, volatile, downside moments when it becomes very hard to believe in the long-term story for equities. The long/short model gives us the flexibility to implement that." (For more, see The Long/Short Model video.)

Over the 15 years since the fund's inception, the fund has achieved its returns with an average net exposure of approximately 27%. (For more, see Using ETFs to Manage Long and Short Exposure.)

CPLIX NET EXPOSURE-STRATEGY RANGE

The portfolio is actively managed. Holdings subject to change daily.
Source: Portfolio Manager

Mindful of Expenses

Our alternative funds offer nontraditional strategies without the hedge fund pricing.

In fact, CMNIX—the largest fund in Morningstar's Market Neutral category—has one of the lowest expense ratios in its Morningstar category or across all alternatives tracked by Morningstar (data as of 9/30/17). For more, see Not Every Alternative Fund Is Pricey.

CPLIX has an expense cap in place. See our CPLIX expenses explainer for more.

A Growing Alts Manager

We started 2017 as the #10 manager of assets in the Alternatives category tracked by Morningstar. By the end of the third quarter, we were the 8th manager by AUM (Morningstar, 9/30).

We attribute this growth to broadening platform availability, growing advisor support and the funds' continued performance as expected. We are committed to demonstrating the contribution that can be made by allocating up to 20% of clients' portfolios to alternatives (for one idea, see this post).

Advisors, for more information on how our alternatives work, please talk to your Calamos Investment Consultant at 888-571-2567 or caminfo@calamos.com.

AVERAGE ANNUAL RETURNS AS OF 9/30/17	1 YEAR	3 YEAR	5 YEAR	10 YEAR	SINCE A SHARE INCEPTION	SINCE I SHARE INCEPTION
Calamos Market Neutral Income Fund						
I shares—at NAV (Inception – 5/10/00)	4.76%	3.47%	3.52%	3.25%	N/A	4.58%
A Shares—at NAV (Inception – 9/4/90)	4.50	3.19	3.25	2.99	6.33%	N/A
A Shares—Load adjusted	-0.43	1.53	2.25	2.49	6.14	N/A
BBgBarc U.S. Government/Credit Index	-0.01	2.83	2.10	4.34	6.19	5.32
Citigroup Treasury Bill – 30 Days	0.60	0.26	0.17	0.34	2.54	1.51
Morningstar Market Neutral Category	3.04	0.46	0.91	1.03	3.96	1.93

Performance data quoted represents past performance, which is no guarantee of future results. Current performance may be lower or higher than the performance quoted. The principal value and return of an investment will fluctuate so that your shares, when redeemed, may be worth more or less than their original cost. Performance reflected at NAV does not include the Fund's maximum front-end sales load of 2.25%. Had it been included, the Fund's return would have been lower. For the most recent month-end fund performance information visit www.calamos.com.

AVERAGE ANNUAL RETURNS AS OF 9/30/17	1 YEAR	3 YEAR	5 YEAR	10 YEAR	SINCE INCEPTION (5/1/02)
Calamos Phineus Long/Short Fund					
I shares	18.48%	8.14%	9.82%	9.26%	11.73%
A Shares at NAV	18.23	7.86	9.53	8.99	11.44
A Shares, Load adjusted	12.58	6.11	8.48	8.46	11.08
MSCI World Index	18.83	8.30	11.62	4.81	7.49
S&P 500 Index	18.61	10.81	14.23	7.44	7.85
HFRI Equity Hedge Index	10.98	4.60	6.29	2.90	5.25
Morningstar Funds Long/Short Equity Category	9.24	3.57	5.71	4.12	2.66

Performance data quoted represents past performance, which is no guarantee of future results. Current performance may be lower or higher than the performance quoted. The principal value and return of an investment will fluctuate so that your shares, when redeemed, may be worth more or less than their original cost. Performance reflected at NAV does not include the Fund's maximum front-end sales load of 4.75%. Had it been included, the Fund's return would have been lower. For the most recent month end performance information click on the performance tab.

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Fund Updates

- Aberdeen Income Credit Strategies Fund Announces Monthly Distribution – December 1
- Adams Diversified Equity Fund Declares Year-End Distribution; Exceeds Its Annual 6% Minimum Distribution Rate Commitment – November 9
- Distribution Dates and Amounts Announced for Certain BlackRock Closed-End Funds – November 1
- Blackstone / GSO Closed-End Funds Declare Monthly Distributions – November 14
- BMO Asset Management Inc. Announces Cash Distributions for BMO Exchange Traded Funds – November 21
- Cushing® Energy Income Fund Announces Monthly Distribution – November 1
- Cushing® Renaissance Fund Announces Monthly Distribution – November 1
- Dreyfus Closed-End Funds Declare Distributions – November 29
- Distribution Dates And Amounts Announced For Eaton Vance Closed-End Funds – December 1
- Federated Investors' Closed-End Municipal Funds Declare Dividends – November 9
- First Trust/Aberdeen Global Opportunity Income Fund Declares its Monthly Common Share Distribution of $0.075 Per Share for December – November 20
- First Trust Specialty Finance and Financial Opportunities Fund Declares its Quarterly Distribution of $0.175 Per Share – November 9
- Guggenheim Investments Exchange Traded Funds Declare Monthly Distributions - December 1
- The Herzfeld Caribbean Basin Fund, Inc. Declares $0.118 Per Share Year-End Distribution Payable in Cash – November 22
- Invesco Closed-End Funds Declare Dividends – November 1
- Legg Mason Partners Fund Advisor, LLC Announces Distributions for the Months of December 2017, January and February 2018 – November 15
- MFS Releases Closed-End Fund Income Distribution Sources for Certain Funds – November 27
- The New Ireland Fund, Inc. – Change to Managed Distribution Policy and Update to Quarterly Distribution – December 12
- Nuveen Closed-End Funds Declare Distributions – December 1
- Several Nuveen Closed-End Funds Declare Capital Gains – December 1
- Questrade Wealth Management Inc. Announces Final Cash Distributions for Questrade ETFs In Connection with Merger – November 15
- Tekla World Healthcare Fund Paid Distribution – October 31
- THL Credit Senior Loan Fund Declares Monthly Distribution of $0.096 Per Share and Announces Investor Call – November 10
- Voya Equity Closed End Funds Declare Distributions – November 15

Leverage Trends and Utilization by U.S. Closed-End Funds

Tuesday, October 24, 2017 | 11:00 AM ET

Greg:
Thanks. Thanks, Nicolas. This is actually Greg. Thank you very much everybody for joining Brian and myself for the presentation today, and thank you to Capital Link for hosting us again for their webinar series. As a reminder, we update our data on leverage trends in equivalent fund market on a semiannual basis to correspond with the reporting periods. So our next update will be presenting that at the Capital Link Conference in May as Nicolas mentioned.

Our role here at Fitch Ratings, we work in the funds and asset management group. Our responsibilities include assigning ratings to debt and preferred shares issued by closed-end funds primarily as well as writing research on trends in the industry and interfacing with investors and other market participants. So to that extent, if anybody has follow-up questions after the webinar, feel free to reach out to either Brian or myself. We're happy to continue the discussion.

So as Nicolas mentioned, the slides or self-controlled, so let's go over to the next life which is just a quick overview of Fitch Ratings in the closed-end fund sector. We rate just over $30 billion worth of debt and preferred shares issued by a little more than 200 closed-end funds. You can see from the table here at the chart that most of the ratings are fairly high, at the AAA or AA categories. This reflects the very strong performance of closed-end fund debt and preferred shares the strong structural features as well as the historical performance including through the financial crisis and the historical default and transition of parameters of these securities which are essentially nonexistent in default.

So at Fitch, we're very comfortable with the ratings we assign in this sector. We've rated close in funds through the crisis, before the crisis and during crisis where the securities we rate performed fine. We've updated our methodology post-crisis with some of the lessons learned and since then have been rating closed-end funds on a stable basis on that methodology.

A side note, you can see in the chart that in a few cases, there are short-term ratings assigned, and so we looked at the structure protections in a portfolio in the management company of the manager of the closed-end fund to assign the long-term rating, and then the short-term ratings are assigned in some cases where preferred shares benefit from a liquidity facility, from a bank. Primarily, these are VRDPs which are sold to money funds.

So with that, I'll turn over to the next slide and we're going through the meat of the presentation. The first one is an overview of closed-end fund leverage ratios. This reflects data from a little more than 400 leverage closed-end funds where we pulled the data from their financials. The leverage ratio in the center, total leverage of the funds divided by the total assets. The leverage ratios are restricted by a number of factors: one, regulation, covenant in debt or preferred shares document and, of course, risk management parameters of the managers. And you can see here that municipal leverage ratios tend to cluster a little bit higher than taxable leverage ratios just given the historical kind of greater stability in the municipal sector and more variability in taxable.

So with that overview, I'll turn it to Brian to talk about some of the changes in the leverage ratios from last year.

Featured Presenters

Greg Fayvilevich
Senior Director
Fitch Ratings

Brian Knudsen
Associate Director, Fund & Asset Manager
Fitch Ratings

FitchRatings

Brian:
Yes, if they don't look at this chart compared to our webinar last year, there have been some changes on the municipal side. Leverage ratios have trimmed a bit higher especially following the election due to overall asset value declines in the municipal sector. On the taxable side, we've seen the opposite of that. Ratios have actually tried to lower due to riding asset values. In addition to that, some managers in certain sectors such as MLPs have been hesitant to add additional leverage just to be a little more conservative given the amount of volatility that we've seen over the past two years.

Greg:
Thanks, Brian. So now we'll turn over to the next slide, taxable closed-end fund leverage profile. This is a historical view of nominal leverage in taxable closed-end funds, funds by type of leverage. You can see how it evolved over the last couple of years. And then over the last three semiannual period, we've seen an increase in the nominal leverage falling at a decline that's really based off the MLP sector performance that Brian mentioned.

So Brian, can you walk us through some of the key trends here?

Brian:
Yes. Thinking of what compared to the first half of 2016, we have seen a pretty large increase in leverage of 2.7 billion or about 5.8%. This was led by high yield and loan funds which accounted for 1.1 billion of the increase. We kind of think about where we were in the first half of 2016; this make sense as kind of oil and high yield were selling off, leading up until February. There's been a recovery since. Since that recovery, managers have been adding additional leverage primarily in the form of bank debt.

MLP funds have also added leverage, not to the same extent as before the selloff in energy. They've increased by about 450 million since the first half of 2016. As stated on the last slide, managers have been managing a little more conservatively, and that's given volatility that we've seen over the past few years. We've also seen some small decreases in [0:09:15] [Indiscernible] which we will talk about later in the presentation.

Greg:
Okay. And then a couple times recently we've noted the continued decrease in ABCP or leverage provided by ABCP Conduits. Can talk about what's driving that?

Brian:
Yes. Over the past few years, it seems like the ABCP Conduits have a decreased appetite for winding to closed-end funds or have increased the cost of closed-end funds. This has been an observable trend over the past few years, and we've seen ABCP balances decline pretty significantly. This has caused a shift to new preferred shares being issued which are term-preferred shares which we'll touch on later in the presentation as well to replace VRTP shares which historically have been placed with ABC Conduits. Additionally, we do expect this decline to continue as the outstanding facilities reach their termination day and aren't renewed.

Greg:
Okay, now let's turn to the next slide, an overview of the municipal closed-end fund leverage profile. So much more stable here in terms of nominal leverage. We've seen an increase between the first and second half of 2016 but are more stable recently. Brian, again can just walk through the main observations here?

Brian:
Yes. We did see over 5% increase in nominal leverage employed between the first half of 2017 and first half of 2016. This is really done in the form of VMTP and VRDP issuance which accounted for about 1.5 billion of this at the strong performance municipal bonds as an asset class in 2016 or early 2016, drove leverage ratios lower and managers who were refinancing in 2016 took that opportunity to issue additional VMTP and VRDP shares, which is where this increase is coming from.

VMTPs do remain popular as they give the managers some certainty into the cost as negotiated transaction with the bank versus kind of a market-dictated rate which we've seen with iMTPs, which tends to have more variability in the spreads. Overall, we've seen a small decrease in ARPS similar to the taxable sector.

Greg:
Okay, thank you. Let's turn to the next slide, municipal closed-end fund leverage issuance. So quite a big contrast here between 2016 and 2017. You see 2016 was a really strong year, and 2017 so far is turning out to be one of the weaker years in terms of new issuance since really over the last couple of years. So maybe first, Brian, can you recap 2016, why the large volumes there?

Brian:
Yeah, 2016 was issuance in recent years well over to 8.8 billion in preferreds issued. This was primarily driven by a merger and associated refinancings, which in this case, the acquiring fund, if there's an issue for like security, for the target fund, the preferred shares outstanding. So the majority of the 8.8 billion in 2016 was refinancing, and the majority is well worth VRDP and VMTP shares. Now we did see some iMTP issuance earlier in the year, and this was actually to refinance some auction rate preferred shares. We haven't seen any issuance since.

Greg:
I think also earlier in the year as you mentioned, when we're refinancing fund managers, in some cases, also took the opportunity to upsize their leverage to match where asset prices or evaluations of the portfolios were. Okay, so now turning to 2017, which is quite a stark contrast. Can you talk about that?

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