## Quarterly Closed-End Fund \& BDC Review and Outlook

## Closed-End Fund

3rd Quarter 2018 Review \& 4th Quarter 2018 Outlook

Intermediate/Advanced CEF Skill Level

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Closed-End Fund Advisors is a SEC Registered Investment Advisory Firm Specializing in Closed-End Fund \& BDC Research, Trading and Management Founded in 1989.

## What Is CEF Advisors?

- Investment Management, Research \& Data
- Independent, Fee Only \& Family Owned
- "Scott Letter: Closed-End Fund Report"
- Discretionary Portfolio Management (SMA), Unit Investment Trust (UIT) \& Model Portfolios

- CEF \& BDC News/SEC Alert \& "CEFA’s Closed-End Fund Universe" Report (w/ BDCs).
- Consulting with Institutional Investors and CEF Fund Sponsors
- CEFData.com: CEF/BDC /iCEF Web Modules Daily Data


Specializing in CEF/BDC/iCEF Research, Trading \& Portfolio Management

## What is a Closed-End Fund (CEF) / Business Development Company (BDC) ?

o 1940 Act Investment Company with Fixed-Capital, Active Management, and Daily Liquidity
o CEFs have traded on The NYSE since 1893
o Tax-advantaged and earnings are passed through to investors in the form of dividends and distributions (similar to REITs and MLPs)
0 CEFs can have debt and preferred shares as leverage

o BDCs Limited to 200\% (*150\%) asset coverage = tota assets / total debt or "one turn" of leverage, excludirı SBIC facilities (BDCs). Higher fee structure w/ carry
o The closed-end structure is not an asset class but an investment vehicle "wrapper"
o BDCs were created by Congress in 1980 to provide an opportunity for individual nonaccredited investors to participate in private investments
o BDCs are closed-end funds that provide small, growing companies access to capital o BDCs are Domestically focused. Required to offer companies 'managerial assistance'

## ABOUT THE INDEX

The seven most liquid funds by 90 -day average trading dollar $\$$ liquidity in each of the 12 major groupings of funds: Business Development Companies (BDCs), Convertible Bonds, Covered Call Funds, Global Equity, High Yield Bonds, Investment Grade Bonds, Master Limited Partnership (MLP), Municipal Bonds, Preferred Equity, REITs/Real Assets, Senior Loans, and US Equity. Combine leverage and non-leverage groupings into one grouping when calculating the seven funds. The funds will be equal weight in the index. If there are less than seven available funds in a specific grouping, then equal weight the grouping with the smaller number of funds available. Each group will be $1 / 12$ of the indexes over-all weighting. The index constituents will be rebalanced each quarter.

## Index Performance

|  | Current(\$) | Previous Day(\%) | 1 Week(\%) | 1 Month(\%) | 3 Month(\%) | 6 Month(\%) | 1 Year(\%) | 3 Year(\%) | 5 Year(\%) | MTD(\%) | QTD(\%) | YTD(\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Price | 1,170.91 | 1.51 | -0.06 | -1.24 | 2.19 | 5.32 | 4.75 | 11.71 | 7.12 | -1.24 | 2.19 | 2.83 |
| NAV | 1,151.83 | 0.48 | 0.06 | -0.43 | 2.74 | 5.26 | 6.54 | 8.65 | 6.47 | -0.43 | 2.74 | 3.31 |
| Difference |  | -1.03 | 0.12 | 0.81 | 0.55 | -0.06 | 1.78 | -3.05 | -0.65 | 0.81 | 0.55 | 0.48 |
| *Periods greater than 1 Year are annualized. **On Inception Date (12/30/16), Index Price was \$1,000 and NAV was \$1,000 |  |  |  |  |  |  |  |  |  |  |  |  |

2018 - Monthly Performance (\%)
Show Previous Years



## CHARACTERISTICS

## PORTFOLIO

| PORTFOLIO <br> Weighted Average Data |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Discount $-3.82 \%$ | $\begin{gathered} \text { 1Yr Disc } \\ -3.13 \% \end{gathered}$ | $\begin{gathered} 3 Y r \text { Disc } \\ -4.32 \% \end{gathered}$ | $\begin{aligned} & \text { 5Yr Disc } \\ & -4.76 \% \end{aligned}$ | $\begin{gathered} \text { Rel Disc Range (3yr) } \\ 51.48 \% \end{gathered}$ |
| Mkt Yield 8.20\% | Lev Adj NAV Yield 6.56\% | $\begin{gathered} \text { After Tax Yield* } \\ 6.88 \% \end{gathered}$ | $\begin{gathered} \text { Est Tax Friction* } \\ 1.32 \% \end{gathered}$ | 3Yr NAV Volatiliy $10.28$ |
| $\begin{aligned} & 1 \text { Yr RoC } \\ & 21.89 \% \end{aligned}$ | $\begin{gathered} 3 \text { Yr Dest RoC } \\ 3.11 \% \end{gathered}$ | Leverage $23.30 \%$ | Non Lev Exp Ratio 1.60\% | $\begin{gathered} \text { Beta }(2 y r) \\ 0.49 \end{gathered}$ |
| Equity Exposure 40.66\% | $\begin{gathered} \text { Bond Exposure } \\ 57.84 \% \end{gathered}$ | \# Holdings | Cash Weighted Duration 2.67 |  |
| $\begin{gathered} \text { Comp NAV TR } \\ 1.19 \% \end{gathered}$ | $\begin{gathered} \text { Comp Discount } \\ 2.08 \% \end{gathered}$ | $\begin{gathered} \text { Net Assets (M) } \\ 1,195 \end{gathered}$ | $\begin{gathered} \text { Liquidity - 90d (K) } \\ 3,114 \end{gathered}$ |  |

## Closed-End Fund Advisors

## Asset Class Annual Returns (NAV) 2008-2018

| 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 YTD | 2008-2017 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { BDC } \\ -19.35 \% \end{gathered}$ | $\begin{gathered} \text { Senior Loan } \\ 69.91 \% \end{gathered}$ | $\begin{gathered} \text { MLP } \\ \mathbf{2 4 . 3 5 \%} \end{gathered}$ | $\begin{aligned} & \text { Muni Bond } \\ & \text { 9.73\% } \end{aligned}$ | $\begin{aligned} & \text { REIT } \\ & \mathbf{2 5 . 5 6 \%} \end{aligned}$ | $\begin{gathered} \text { MLP } \\ \mathbf{2 8 . 7 1} \% \end{gathered}$ | $\begin{aligned} & \text { REIT } \\ & 24.47 \% \end{aligned}$ | $\begin{gathered} \text { Preferred } \\ 6.37 \% \end{gathered}$ | $\begin{gathered} \text { MLP } \\ 33.64 \% \end{gathered}$ | World Stock 25.80\% | $\begin{aligned} & \text { MLP } \\ & 9.59 \% \end{aligned}$ | $\begin{gathered} \text { Preferred } \\ 8.13 \% \end{gathered}$ |
| Investment Grade -23.36\% | World Stock 54.35\% | $\begin{aligned} & \text { REIT } \\ & 19.63 \% \end{aligned}$ | $\begin{aligned} & \text { MLP } \\ & \mathbf{4 . 1 4 \%} \end{aligned}$ | Preferred 23.75\% | $\begin{aligned} & \text { us Stock } \\ & \text { 25.62\% } \end{aligned}$ | Muni Bond 19.70\% | $\begin{gathered} \text { Muni Bond } \\ 5.53 \% \end{gathered}$ | HY Bond 18.43\% | $\begin{aligned} & \text { us Stock } \\ & \text { 19.79\% } \end{aligned}$ | $\begin{gathered} \text { US Stock } \\ 7.86 \% \end{gathered}$ | $\begin{aligned} & \text { REIT } \\ & 6.61 \% \end{aligned}$ |
| Muni Bond -27.04\% | HY Bond 52.35\% | World Stock 14.57\% | $\begin{gathered} \text { BDC } \\ -0.05 \% \end{gathered}$ | HY Bond 20.49\% | Convertible 20.89\% | Preferred $17.57 \%$ | $\begin{gathered} \text { BDC } \\ 3.90 \% \end{gathered}$ | $\begin{gathered} \text { Senior Loan } \\ \text { 14.91\% } \end{gathered}$ | Covered Call 17.59\% | $\begin{gathered} \text { BDC } \\ 6.94 \% \end{gathered}$ | $\begin{gathered} \text { Senior Loan } \\ 5.91 \% \end{gathered}$ |
| Covered Call $-34.67$ | Convertible 51.37\% | Preferred 13.01\% | Investment Grade $-0.21 \%$ | World Stock 18.27\% | Covered Call 16.31\% | US Stock 11.20\% | Covered Call 1.35\% | Convertible 12.06\% | Preferred 14.19\% | $\begin{gathered} \text { Convertible } \\ 5.93 \% \end{gathered}$ | HY Bond $5.86 \%$ |
| $\begin{aligned} & \text { us stock } \\ & -39.26 \% \end{aligned}$ | $\begin{gathered} \text { MLP } \\ 50.62 \% \end{gathered}$ | $\begin{aligned} & \text { Senior Loan } \\ & 7.40 \% \end{aligned}$ | Preferred $-2.15 \%$ | $\begin{aligned} & \text { Convertible } \\ & 16.40 \% \end{aligned}$ | $\begin{gathered} \text { BDC } \\ 13.36 \% \end{gathered}$ | $\begin{gathered} \text { BDC } \\ 8.10 \% \end{gathered}$ | $\begin{aligned} & \text { REIT } \\ & 0.95 \% \end{aligned}$ | $\begin{gathered} \text { BDC } \\ 10.09 \% \end{gathered}$ | Convertible $12.57 \%$ | $\begin{gathered} \text { Covered Call } \\ 5.48 \% \end{gathered}$ | $\begin{gathered} \text { us Stock } \\ \text { 5.09\% } \end{gathered}$ |
| $\begin{aligned} & \text { Preferred } \\ & -42.86 \% \end{aligned}$ | Preferred 42.35\% | HY Bond 7.25\% | Senior Loan $-2.94 \%$ | $\begin{aligned} & \text { Muni Bond } \\ & \text { 15.38\% } \end{aligned}$ | $\begin{aligned} & \text { HY Bond } \\ & \text { 10.02\% } \end{aligned}$ | Investment Grade 7.73\% | $\begin{gathered} \text { US Stock } \\ 0.42 \% \end{gathered}$ | Investment Grade 8.74\% | $\begin{aligned} & \text { REIT } \\ & \text { 12.42\% } \end{aligned}$ | $\begin{gathered} \text { Senior Loan } \\ 5.37 \% \end{gathered}$ | $\begin{gathered} \text { Muni Bond } \\ 4.75 \% \end{gathered}$ |
| HY Bond -47.59\% | $\begin{aligned} & \text { REIT } \\ & 40.91 \% \end{aligned}$ | $\begin{aligned} & \text { Convertible } \\ & 5.91 \% \end{aligned}$ | $\begin{aligned} & \text { REIT } \\ & -5.08 \% \end{aligned}$ | $\left\lvert\, \begin{gathered} \text { Investment Grade } \\ 15.38 \% \end{gathered}\right.$ | $\begin{aligned} & \text { Senior Loan } \\ & \mathbf{8 . 4 9 \%} \end{aligned}$ | Covered Call 4.86\% | Investment Grade $-2.38 \%$ | Covered Call 8.67\% | Investment Grade 10.77\% | HY Bond 3.04\% | $\begin{aligned} & \text { MLP } \\ & \mathbf{4 . 3 7 \%} \end{aligned}$ |
| $\begin{gathered} \text { MLP } \\ -53.03 \% \end{gathered}$ | Muni Bond 26.64\% | Investment Grade 5.78\% | $\begin{aligned} & \text { US Stock } \\ & -6.53 \% \end{aligned}$ | US Stock 13.52\% | $\begin{aligned} & \text { REIT } \\ & 3.65 \% \end{aligned}$ | $\begin{gathered} \text { MLP } \\ 3.45 \% \end{gathered}$ | $\begin{gathered} \text { Senior Loan } \\ -2.66 \% \end{gathered}$ | $\begin{gathered} \text { World Stock } \\ 8.45 \% \end{gathered}$ | $\begin{gathered} \text { BDC } \\ 8.83 \% \end{gathered}$ | $\begin{aligned} & \text { Preferred } \\ & -1.05 \% \end{aligned}$ | Investment Grade 4.30\% |
| $\begin{gathered} \text { Senior Loan } \\ -54.72 \% \end{gathered}$ | Investment Grade 22.04\% | $\begin{aligned} & \text { us Stock } \\ & 4.76 \% \end{aligned}$ | $\begin{aligned} & \text { HY Bond } \\ & -7.49 \% \end{aligned}$ | $\begin{gathered} \text { BDC } \\ 13.13 \% \end{gathered}$ | World Stock $3.34 \%$ | $\begin{gathered} \text { HY Bond } \\ \text { 1.59\% } \end{gathered}$ | HY Bond -4.99\% | $\begin{gathered} \text { us Stock } \\ 7.65 \% \end{gathered}$ | $\begin{aligned} & \text { HY Bond } \\ & 8.50 \% \end{aligned}$ | $\begin{aligned} & \text { REIT } \\ & -1.48 \% \end{aligned}$ | $\begin{aligned} & \text { Convertible } \\ & \text { 4.28\% } \end{aligned}$ |
| $\begin{aligned} & \text { Convertible } \\ & -55.22 \% \end{aligned}$ | $\begin{aligned} & \text { us Stock } \\ & \text { 13.73\% } \end{aligned}$ | $\begin{gathered} \text { BDC } \\ 2.87 \% \end{gathered}$ | $\begin{gathered} \text { Covered Call } \\ -8.92 \% \end{gathered}$ | $\begin{gathered} \text { Senior Loan } \\ 12.6 \% \end{gathered}$ | Preferred 2.15\% | $\begin{gathered} \text { Senior Loan } \\ \text { 1.32\% } \end{gathered}$ | World Stock $-6.55 \%$ | $\begin{gathered} \text { Preferred } \\ 6.89 \% \end{gathered}$ | $\begin{aligned} & \text { Muni Bond } \\ & \text { 8.41\% } \end{aligned}$ | Muni Bond -1.37\% | World Stock $3.85 \%$ |
| World Stock -57.57\% | Covered Call 7.25\% | Covered Call -2.35\% | Convertible -14.09\% | Covered Call 9.47\% | Investment Grade $-1.5 \%$ | $\begin{gathered} \text { Convertible } \\ 0.12 \% \end{gathered}$ | Convertible -7.25\% | $\begin{aligned} & \text { REIT } \\ & 6.84 \% \end{aligned}$ | $\begin{gathered} \text { Senior Loan } \\ \text { 4.82\% } \end{gathered}$ | Investment Grade $-1.56 \%$ | $\begin{gathered} \text { BDC } \\ 3.58 \% \end{gathered}$ |
| $\begin{aligned} & \text { REIT } \\ & -63.22 \% \end{aligned}$ | $\begin{gathered} \text { BDC } \\ -5.10 \% \end{gathered}$ | $\begin{gathered} \text { Muni Bond } \\ -4.08 \% \end{gathered}$ | World Stock $-21.93 \%$ | $\begin{gathered} \text { MLP } \\ 1.85 \% \end{gathered}$ | $\begin{aligned} & \text { Muni Bond } \\ & -7.35 \% \end{aligned}$ | World Stock -0.26\% | $\begin{gathered} \text { MLP } \\ -44.23 \% \end{gathered}$ | $\begin{gathered} \text { Muni Bond } \\ 0.61 \% \end{gathered}$ | $\begin{aligned} & \text { MLP } \\ & -5.77 \end{aligned}$ | World Stock -9.02\% | Covered Call 1.96\% |




 2015 was determined using index constituents as of 12/31/2014.
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## Closed-End Fund Advisors

Closed-End Fund Discount / Premium 2008-2018

| 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 YTD | 2008-2017 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { MLP } \\ -4.22 \% \end{gathered}$ | $\begin{gathered} \text { MLP } \\ \text { 10.99\% } \end{gathered}$ | $\begin{gathered} \text { MLP } \\ 7.93 \% \end{gathered}$ | $\begin{gathered} \text { HY Bond } \\ \text { 4.81\% } \end{gathered}$ | HY Bond 8.27\% | $\begin{gathered} \text { BDC } \\ 8.03 \% \end{gathered}$ | $\begin{gathered} \text { BDC } \\ \mathbf{1 . 6 9 \%} \end{gathered}$ | $\begin{gathered} \text { MLP } \\ -6.10 \% \end{gathered}$ | $\begin{aligned} & \text { Preferred } \\ & -0.77 \% \end{aligned}$ | Preferred 0.03\% | $\begin{gathered} \text { Convertible } \\ -0.47 \% \end{gathered}$ | $\begin{gathered} \text { MLP } \\ 0.60 \% \end{gathered}$ |
| $\begin{gathered} \text { REIT } \\ -4.29 \% \end{gathered}$ | $\left\|\begin{array}{c} \text { Investment Grade } \\ 0.49 \% \end{array}\right\|$ | $\begin{aligned} & \text { HY Bond } \\ & \mathbf{2 . 9 9 \%} \end{aligned}$ | $\begin{gathered} \text { MLP } \\ 3.36 \% \end{gathered}$ | $\begin{gathered} \text { MLP } \\ 4.82 \% \end{gathered}$ | $\begin{gathered} \text { MLP } \\ \text { 1.95\% } \end{gathered}$ | $\begin{gathered} \text { Convertible } \\ -3.17 \% \end{gathered}$ | $\begin{gathered} \text { Muni Bond } \\ -6.44 \% \end{gathered}$ | $\begin{gathered} \text { Muni Bond } \\ -1.88 \% \end{gathered}$ | $\left\lvert\, \begin{gathered} \text { Investment Grade } \\ -2.09 \% \end{gathered}\right.$ | $\begin{gathered} \text { Covered Call } \\ -1.84 \% \end{gathered}$ | $\begin{aligned} & \text { HY Bond } \\ & -1.99 \% \end{aligned}$ |
| $\begin{array}{\|c\|} \hline \text { Investment Grade } \\ \hline-5.75 \% \end{array}$ | $\begin{aligned} & \text { HY Bond } \\ & -2.97 \% \end{aligned}$ | $\begin{gathered} \text { Muni Bond } \\ 0.57 \% \end{gathered}$ | $\begin{array}{\|c\|} \text { Investment Grade } \\ 0.14 \% \end{array}$ | $\begin{array}{\|c\|} \hline \text { Investment Grade } \\ 4.32 \% \end{array}$ | $\begin{gathered} \text { Senior Loan } \\ -0.12 \% \end{gathered}$ | $\begin{gathered} \text { HY Bond } \\ -3.48 \% \end{gathered}$ | $\left\lvert\, \begin{gathered} \text { Investment Grade } \\ -6.81 \% \end{gathered}\right.$ | $\begin{array}{\|c} \mid \text { Investment Grade } \\ -3.74 \% \end{array}$ | $\begin{gathered} \text { MLP } \\ -\mathbf{- 3 . 1 1 \%} \end{gathered}$ | $\begin{array}{\|c\|} \text { Investment Grade } \\ -2.04 \% \end{array}$ | Investment Grade $-2.11 \%$ |
| $\begin{aligned} & \text { Muni Bond } \\ & -6.20 \% \end{aligned}$ | $\begin{aligned} & \text { Muni Bond } \\ & -3.31 \% \end{aligned}$ | $\begin{array}{\|c\|} \text { Investment Grade } \\ 0.23 \% \end{array}$ | $\begin{aligned} & \text { Muni Bond } \\ & -0.53 \% \end{aligned}$ | $\begin{aligned} & \text { Preferred } \\ & \mathbf{2 . 8 7 \%} \end{aligned}$ | $\begin{aligned} & \text { HY Bond } \\ & -0.63 \% \end{aligned}$ | $\begin{gathered} \text { MLP } \\ -4.54 \% \end{gathered}$ | $\begin{aligned} & \text { Preferred } \\ & -6.89 \% \end{aligned}$ | $\begin{aligned} & \text { HY Bond } \\ & -4.84 \% \end{aligned}$ | $\begin{gathered} \text { Muni Bond } \\ -3.32 \% \end{gathered}$ | $\begin{aligned} & \text { Preferred } \\ & -2.50 \% \end{aligned}$ | $\begin{aligned} & \text { Muni Bond } \\ & -2.92 \% \end{aligned}$ |
| $\begin{aligned} & \text { Preferred } \\ & -8.28 \% \end{aligned}$ | $\begin{gathered} \text { Preferred } \\ -4.24 \% \end{gathered}$ | $\begin{aligned} & \text { Senior Loan } \\ & -0.02 \% \end{aligned}$ | $\begin{gathered} \text { Senior Loan } \\ -1.27 \% \end{gathered}$ | $\begin{gathered} \text { Muni Bond } \\ 1.99 \% \end{gathered}$ | $\left\|\begin{array}{c} \text { Investment Grade } \\ -2.92 \% \end{array}\right\|$ | $\begin{array}{\|c\|} \hline \text { Investment Grade } \\ -4.93 \% \end{array}$ | $\begin{aligned} & \text { Convertible } \\ & -7.98 \% \end{aligned}$ | $\begin{gathered} \text { MLP } \\ -5.05 \% \end{gathered}$ | $\begin{aligned} & \text { Convertible } \\ & -4.00 \% \end{aligned}$ | $\begin{gathered} \text { MLP } \\ -3.27 \% \end{gathered}$ | $\begin{gathered} \text { Preferred } \\ -3.20 \% \end{gathered}$ |
| $\begin{gathered} \text { Convertible } \\ -8.66 \% \end{gathered}$ | $\begin{gathered} \text { World Stock } \\ -5.31 \% \end{gathered}$ | $\begin{gathered} \text { Covered Call } \\ -1.97 \% \end{gathered}$ | $\begin{aligned} & \text { Preferred } \\ & -1.61 \% \end{aligned}$ | $\begin{gathered} \text { BDC } \\ 0.81 \% \end{gathered}$ | $\begin{aligned} & \text { Muni Bond } \\ & -3.65 \% \end{aligned}$ | $\begin{aligned} & \text { Muni Bond } \\ & -6.40 \% \end{aligned}$ | $\begin{gathered} \text { BDC } \\ -8.61 \% \end{gathered}$ | $\begin{gathered} \text { Covered Call } \\ -7.39 \% \end{gathered}$ | $\begin{aligned} & \text { Covered Call } \\ & -4.25 \% \end{aligned}$ | $\begin{gathered} \text { Senior Loan } \\ -6.65 \% \end{gathered}$ | $\begin{gathered} \text { Senior Loan } \\ -5.01 \% \end{gathered}$ |
| $\begin{gathered} \text { World Stock } \\ -8.85 \% \end{gathered}$ | $\begin{aligned} & \text { Convertible } \\ & -6.25 \% \end{aligned}$ | $\begin{gathered} \text { Convertible } \\ -2.09 \% \end{gathered}$ | $\begin{gathered} \text { Converfible } \\ -2.40 \% \end{gathered}$ | $\begin{gathered} \text { Senior Loan } \\ -0.37 \% \end{gathered}$ | $\begin{aligned} & \text { Preferred } \\ & -3.83 \% \end{aligned}$ | $\begin{gathered} \text { Senior Loan } \\ -6.49 \% \end{gathered}$ | $\begin{gathered} \text { Covered Call } \\ -8.11 \% \end{gathered}$ | $\begin{gathered} \text { Senior Loan } \\ -8.75 \% \end{gathered}$ | $\begin{gathered} \text { Senior Loan } \\ -4.32 \% \end{gathered}$ | US Stock $-7.29 \%$ | $\begin{aligned} & \text { Convertible } \\ & -5.41 \% \end{aligned}$ |
| US Stock $-8.86 \%$ | $\begin{aligned} & \text { Covered Call } \\ & -7.30 \% \end{aligned}$ | $\begin{aligned} & \text { Preferred } \\ & -2.55 \% \end{aligned}$ | $\begin{gathered} \text { BDC } \\ -2.92 \% \end{gathered}$ | $\begin{aligned} & \text { Convertible } \\ & -3.25 \% \end{aligned}$ | $\begin{gathered} \text { REIT } \\ -5.65 \% \end{gathered}$ | $\begin{aligned} & \text { Covered Call } \\ & -6.62 \% \end{aligned}$ | HY Bond $-8.41 \%$ | $\begin{aligned} & \text { Convertible } \\ & -10.08 \% \end{aligned}$ | $\begin{gathered} \text { BDC } \\ -4.48 \% \end{gathered}$ | HY Bond $-7.35 \%$ | $\begin{gathered} \text { BDC } \\ -6.98 \% \end{gathered}$ |
| $\begin{aligned} & \text { HY Bond } \\ & -10.47 \% \end{aligned}$ | $\begin{gathered} \text { Senior Loan } \\ -8.43 \% \end{gathered}$ | $\begin{gathered} \text { BDC } \\ -3.37 \% \end{gathered}$ | $\begin{gathered} \text { REIT } \\ -4.48 \% \end{gathered}$ | $\begin{gathered} \text { REIT } \\ -5.20 \% \end{gathered}$ | $\begin{aligned} & \text { Convertible } \\ & -6.22 \% \end{aligned}$ | $\begin{aligned} & \text { Preferred } \\ & -6.73 \% \end{aligned}$ | $\begin{gathered} \text { Senior Loan } \\ -\mathbf{8 . 7 0 \%} \end{gathered}$ | $\begin{gathered} \text { BDC } \\ -10.98 \% \end{gathered}$ | $\begin{aligned} & \text { HY Bond } \\ & -5.19 \% \end{aligned}$ | $\begin{gathered} \text { Muni Bond } \\ -7.97 \% \end{gathered}$ | $\begin{aligned} & \text { Covered Call } \\ & -7.15 \% \end{aligned}$ |
| $\begin{aligned} & \text { Covered Call } \\ & -11.45 \% \end{aligned}$ | $\begin{aligned} & \text { REIT } \\ & -9.66 \% \end{aligned}$ | $\begin{aligned} & \text { World Stock } \\ & \text {-4.03\% } \end{aligned}$ | $\begin{gathered} \text { World Stock } \\ -5.69 \% \end{gathered}$ | $\begin{gathered} \text { World Stock } \\ -7.47 \% \end{gathered}$ | $\begin{gathered} \text { Covered Call } \\ \mathbf{- 8 . 1 3 \%} \end{gathered}$ | $\begin{aligned} & \text { World Stock } \\ & -9.04 \% \end{aligned}$ | World Stock -11.00\% | us stock $-11.47 \%$ | $\begin{gathered} \text { REIT } \\ -9.18 \% \end{gathered}$ | $\begin{aligned} & \text { REIT } \\ & -8.82 \% \end{aligned}$ | $\begin{gathered} \text { World Stock } \\ -8.15 \% \end{gathered}$ |
| $\begin{gathered} \text { Senior Loan } \\ -11.64 \% \end{gathered}$ | $\begin{aligned} & \text { US Stock } \\ & -10.56 \% \end{aligned}$ | US Stock $-7.34 \%$ | $\begin{gathered} \text { Covered Call } \\ -7.41 \% \end{gathered}$ | $\begin{gathered} \text { Covered Call } \\ -\mathbf{- 8 . 8 3 \%} \end{gathered}$ | $\begin{gathered} \text { World Stock } \\ -8.15 \% \end{gathered}$ | US Stock $-9.63 \%$ | us Stock $-11.00 \%$ | $\begin{aligned} & \text { REIT } \\ & -11.62 \% \end{aligned}$ | US Stock $-9.44 \%$ | $\begin{gathered} \text { BDC } \\ -9.06 \% \end{gathered}$ | $\begin{gathered} \text { REIT } \\ -8.20 \% \end{gathered}$ |
| $\begin{gathered} \text { BDC } \\ -18.23 \% \end{gathered}$ | $\begin{gathered} \text { BDC } \\ -31.78 \% \end{gathered}$ | $\begin{aligned} & \text { REIT } \\ & -9.10 \% \end{aligned}$ | US Stock $-8.27 \%$ | US Stock $-9.66 \%$ | US Stock $-9.32 \%$ | $\begin{aligned} & \text { REIT } \\ & -10.63 \% \end{aligned}$ | $\begin{aligned} & \text { REIT } \\ & -\mathbf{- 1 2 . 2 1 \%} \end{aligned}$ | World Stock $-12.44 \%$ | $\begin{gathered} \text { World Stock } \\ -9.50 \% \end{gathered}$ | $\begin{aligned} & \text { World Stock } \\ & -9.07 \% \end{aligned}$ | US Stock -9.56\% |

Historical Premium / Discount expressed as average value over each year. 2018 YTD Premium / Discount average value as of September 30, 2018. "2008-2017" column shows yearly average for each sector. Data sourced from Closed-End Fund Advisors 'CEFU Report' and CEFData.com. Past performance is not an indication of future results

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## Closed-End Fund Advisors

## Closed-End Funds - NAV Total Return Correlation (10 Year)

|  | MLP | BDC | Convertible | HY Bond | Muni Bond | Senior Loan | Preferred | World Stock | Cov Call | US Stock | REIT | Investment Grade |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MLP | 100\% | 38.1\% | 74.2\% | 72.5\% | 31.0\% | 67.1\% | 37.6\% | 57.2\% | 64.0\% | 63.7\% | 51.9\% | 53.3\% |
| BDC | 38.1\% | 100\% | 34.3\% | 34.4\% | -0.9\% | 32.1\% | 3.6\% | 24.8\% | 33.1\% | 35.6\% | 30.8\% | 15.5\% |
| Convertible | 74.2\% | $34.3 \%$ | 100\% | 96.0\% | 42.1\% | 90.3\% | 69.3\% | 92.4\% | 90.4\% | 92.3\% | 84.7\% | 82.3\% |
| HY Bond | 72.5\% | 34.4\% | 96.0\% | 100\% | 51.0\% | 95.7\% | 74.0\% | 87.5\% | 80.1\% | 83.0\% | 85.7\% | 88.3\% |
| Muni Bond | 31.0\% | -0.9\% | 42.1\% | 51.0\% | 100\% | 53.3\% | 37.0\% | 32.5\% | 23.2\% | 23.0\% | 46.9\% | 48.8\% |
| Senior Loan | 67.1\% | 32.1\% | 90.3\% | 95.7\% | 53.3\% | 100\% | 62.7\% | 76.5\% | 69.9\% | 73.0\% | 77.8\% | 77.1\% |
| Preferred | 37.6\% | 3.6\% | 69.3\% | 74.0\% | 37.0\% | 62.7\% | 100\% | 77.5\% | 65.4\% | 69.7\% | 86.5\% | 94.8\% |
| World Stock | 57.2\% | 24.8\% | 92.4\% | 87.5\% | 32.5\% | 76.5\% | 77.5\% | 100\% | 92.4\% | 93.5\% | 84.4\% | 85.3\% |
| Cov Call | 64.0\% | 33.1\% | 90.4\% | 80.1\% | 23.2\% | 69.9\% | 65.4\% | 92.4\% | 100\% | 98.3\% | 81.5\% | 71.7\% |
| US Stock | 63.7\% | 35.6\% | 92.3\% | 83.0\% | 23.0\% | 73.0\% | 69.7\% | 93.5\% | 98.3\% | 100\% | 86.3\% | 76.0\% |
| REIT | 51.9\% | 30.8\% | 84.7\% | 85.7\% | 46.9\% | 77.8\% | 86.5\% | 84.4\% | 81.5\% | 86.3\% | 100\% | 89.0\% |
| Investment Grade | 53.3\% | 15.5\% | 82.3\% | 88.3\% | 48.8\% | 77.1\% | 94.8\% | 85.3\% | 71.7\% | 76.0\% | 89.0\% | 100\% |

Correlation of 3 Month NAV Total Return values between 9/30/2008 and 9/30/2018.
Data sourced from Closed-End Fund Advisors 'CEFU Report' and cefadata.com. Past performance is not an indication of future results


Back-tested results also do not account for those Funds that were previously recommended by the Adviser and which are no longer included as an alternative in a client's asset allocation strategy. Thus, the back-tested performance results shown above may overestimate the potential returns a client could expect to generate due to the effect of recommended manager survivor bias.

Trad CEF - Average Discount / Premium
September 30, 2008 - September 30, 2018


# BDC Debt - Total Return <br> September 30, 2008 - September 30, 2018 



Back-tested results also do not account for those Funds that were previously recommended by the Adviser and which are no longer included as an
alternative in a client's asset allocation strategy. Thus, the back-tested performance results shown above may overestimate the potential returns a client

BDC Debt - Average Discount / Premium
September 30, 2008 -September 30, 2018


## Types of Loans Held By BDCs

1. First Lien Loans: 55\%
2. Second Lien Loans: 20\%
3. Unsecured Loans: 8\%
4. Equity/Other: 17\%

$>$ Avg Portfolio Turnover: 36.7\%
$>$ Avg Variable Loans: 79\% / Fixed: 21\%
$>$ Libor Floors: 43\% at 1\% Avg Level
$>$ Avg Loan Size: \$9.6M
> $73 \%$ of Loans Under $\$ 25 \mathrm{MM}$
$>$ Average Maturity 4.2 with a range of 2 Years to 6 years
$>$ Avg No of Loans: 149 from 113 Companies

## Municipal Bonds - Total Return <br> September 30, 2008 - September 30, 2018



Back-tested results also do not account for those Funds that were previously recommended by the Adviser and which are no longer included as an

Municipal Bonds - Average Discount / Premium
September 30, 2008 - September 30, 2018


## Municipal Bond Closed-End Fund Universe

|  | National <br> Muni Funds | Single State <br> Muni Funds | Total |
| :--- | :---: | :---: | :---: |
| Number of Funds | 88 | 79 | 167 |
| Net Assets (Total) | $\$ 45,586$ | $\$ 18,780$ | $\$ 64,366$ |
| Net Assets | $\$ 518$ | $\$ 238$ | $\$ 385$ |
| Earnings Coverage Ratio \% | 106.8 | 119.9 | 113.0 |
| Premium / Discount \% | -7.93 | -10.47 | -9.13 |
| Total Mkt Yield \% | 5.02 | 4.39 | 4.72 |
| Leverage Adj NAV Yield \% | 3.50 | 2.90 | 3.22 |
| NAV Volatility | 3.13 | 3.00 | 3.07 |
| Leverage \% | 31.8 | 34.7 | 33.2 |
| Leverage Cost \% | 0.94 | 1.16 | 1.05 |
| Duration | 8.47 | 9.60 | 9.01 |
| Insured \% | 11.1 | 12.7 | 11.9 |
| Investment Grade \% | 83 | 91 | 87 |
| Credit Quality | A | A | A |





Note: Volatility is a one year rolling calculation

# Tax Equivalent Yield Comparison Married Couple with W-2 Income of \$1MM+ 



[^0]
# MLP - Total Return <br> September 30, 2008 - September 30, 2018 



Back-tested results also do not account for those Funds that were previously recommended by the Adviser and which are no longer included as an alternative in a client's asset allocation strategy. Thus, the back-tested performance results shown above may overestimate the potential returns a client could expect to generate due to the effect of recommended manager survivor bias.

## MLP - Average Discount / Premium

September 30, 2008 - September 30, 2018


## CEF Advisors' Senior Loan Index Data as of 09/28/2018 *

About the Inodx
 fund for the index. The index constituents will be rebalanced each quarter.

Index Performance

|  | Current(\$) | Previous Day(\%) | 1 Week(\%) | 1 Month(\%) | 3 Month(\%) | 6 Month(\%) | 1 Year(\%) | 3 Year(\%) | 5 Year(\%) | MTD(\%) | QTD(\%) | YTD(\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Price | 1,053.51 | 1.82 | 0.29 | 0.64 | 1.03 | 0.04 | 3.25 | 8.93 | 4.55 | 0.64 | 1.03 | 3.82 |
| NAV | 1,104.06 | -0.09 | 0.59 | 0.92 | 2.48 | 3.30 | 6.73 | 6.94 | 5.14 | 0.92 | 2.48 | 5.25 |
| Difference |  | -1.91 | 0.30 | 0.28 | 1.44 | 3.26 | 3.48 | -1.99 | 0.59 | 0.28 | 1.44 | 1.43 |


|  | 2018 - Monthly Performance (\%) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Show Previous Years |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Jan | Feb | Mar | Q1 | Apr | May | Jun | Q2 | 1H | Jul | Aug | Sep | Q3 | Oct | Nov | Dec | Q4 | 2 H | 2018 |
| Price | 0.84 | 1.12 | 1.76 | 3.77 | 0.50 | -0.33 | -1.15 | -0.99 | 2.78 | 0.09 | 0.31 | 0.64 | 1.03 | - | - | - | - | - | 3.82 |
| NAV | 1.62 | 0.12 | 0.22 | 1.97 | 0.58 | 0.21 | 0.02 | 0.80 | 2.77 | 1.06 | 0.47 | 0.92 | 2.48 | - | - | - | - | - | 5.25 |
| Difference | 0.78 | -1.00 | -1.54 | -1.80 | 0.08 | 0.54 | 1.16 | 1.79 | -0.01 | 0.98 | 0.16 | 0.28 | 1.44 | - | - | - | - | - | 1.43 |

## Performance Chart

Price \& NAV Peformance


## Broad Investable Universe

Assets of Closed-End Funds/BDCs*
by type, as of September 30, 2018

|  | \# of Funds | Total Net Assets | Premium / <br> Discount | Market <br> Yield | Beta | Duration | Leverage | Non Lev <br> Expense <br> Ratio | Average <br> Net Assets |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Equity Funds | 202 | \$113,170 | -5.89\% | $7.51 \%$ | 0.72 |  | $14.77 \%$ | 1.42 | \$ 560 |
| Taxable Bond | 146 | \$65,012 | -4.63\% | $7.58 \%$ | 0.17 | 3.7 | $25.80 \%$ | 1.38 | \$445 |
| Municipal Bond | 167 | \$ 64,366 | -9.13\% | 4.72\% | -0.01 | 9.0 | $33.20 \%$ | 1.00 | \$385 |
| BDCs | 49 | \$35,735 | -10.50\% | 8.65 \% | 0.50 |  | 39.20 \% | 6.37 | \$729 |
| Total CEFs | 564 | \$278,283 | -6.92\% | $6.80 \%$ | 0.34 | 6.6 | $25.20 \%$ | 1.72 | \$ 493 |
| National Muni Bond | 88 | \$45,586 | -7.93\% | 5.02\% | -0.01 | 8.5 | 31.84\% | 0.94 | \$518 |
| Debt Focused BDC | 44 | \$35,022 | -7.58\% | 9.50\% | 0.51 |  | 41.52\% | 6.32 | \$796 |
| Covered Call | 28 | \$20,871 | -1.65\% | 7.86\% | 0.75 |  | 2.62\% | 1.09 | \$745 |
| US Stock | 29 | \$22,214 | -7.46\% | 6.92\% | 0.84 |  | 11.29\% | 1.41 | \$766 |
| MLP Funds | 25 | \$13,343 | -6.35\% | 9.72\% | 1.09 |  | 28.10\% | 1.82 | \$534 |
| High Yield Bond | 33 | \$12,313 | -7.45\% | 7.39\% | 0.18 | 3.4 | 22.95\% | 1.20 | \$373 |
| World Stock | 47 | \$12,431 | -9.71\% | 6.27\% | 0.70 |  | 8.05\% | 1.48 | \$264 |
| Senior Loan | 28 | \$12,901 | -8.46\% | 6.54\% | 0.08 | 1.4 | 33.22\% | 1.62 | \$461 |
| Preferred Equity | 16 | \$10,291 | -2.50\% | 7.50\% | 0.19 | 4.7 | 32.47\% | 1.22 | \$643 |
| REIT Funds | 11 | \$5,855 | -10.23\% | 8.15\% | 0.49 |  | 21.42\% | 1.40 | \$532 |
| Convertible Bond | 10 | \$4,386 | 1.29\% | 8.66\% | 0.72 | 3.5 | 29.92\% | 1.37 | \$439 |
| Investment Grade Bond | 12 | \$3,867 | -1.77\% | 5.94\% | 0.10 | 5.1 | 19.01\% | 0.90 | \$322 |

## CEF Universe Update

| Fund Grouping | Discount / Premium |  | Last Q NAV TR |  | Last Q Price TR |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Discount | Premium | Positive | Negative | Positive | Negative |
| Equity Traditional CEFs | $\begin{gathered} 155 \\ (77 \%) \end{gathered}$ | $\begin{gathered} 47 \\ (23 \%) \end{gathered}$ | $\begin{gathered} 169 \\ (84 \%) \end{gathered}$ | $\begin{gathered} 31 \\ (15 \%) \end{gathered}$ | $\begin{gathered} 134 \\ (66 \%) \end{gathered}$ | $\begin{gathered} 66 \\ (33 \%) \end{gathered}$ |
| Taxable Bond Traditional CEFs | $\begin{gathered} 112 \\ (77 \%) \end{gathered}$ | $\begin{gathered} 34 \\ (23 \%) \end{gathered}$ | $\begin{gathered} 131 \\ (90 \%) \end{gathered}$ | $\begin{gathered} 15 \\ (10 \%) \end{gathered}$ | $\begin{gathered} 112 \\ (77 \%) \end{gathered}$ | $\begin{gathered} 33 \\ (23 \%) \end{gathered}$ |
| Municipal Bond Traditional CEFs | $\begin{gathered} 152 \\ (91 \%) \end{gathered}$ | $\begin{gathered} 15 \\ (9 \%) \end{gathered}$ | $\begin{gathered} 25 \\ (15 \%) \end{gathered}$ | $\begin{gathered} 140 \\ (84 \%) \end{gathered}$ | $\begin{gathered} 44 \\ (26 \%) \end{gathered}$ | $\begin{gathered} 123 \\ (74 \%) \end{gathered}$ |
| BDCs | $\begin{gathered} 37 \\ (76 \%) \end{gathered}$ | $\begin{gathered} 12 \\ (24 \%) \end{gathered}$ | $\begin{gathered} 43 \\ (88 \%) \end{gathered}$ | $\begin{gathered} 6 \\ (12 \%) \end{gathered}$ | $\begin{gathered} 40 \\ (82 \%) \end{gathered}$ | $\begin{gathered} 9 \\ (18 \%) \end{gathered}$ |
| ALL CEFs | $\begin{gathered} 456 \\ (81 \%) \end{gathered}$ | $\begin{gathered} 108 \\ (19 \%) \end{gathered}$ | $\begin{gathered} 368 \\ (65 \%) \end{gathered}$ | $\begin{gathered} 192 \\ (34 \%) \end{gathered}$ | $\begin{gathered} 330 \\ (59 \%) \end{gathered}$ | $\begin{gathered} 231 \\ (41 \%) \end{gathered}$ |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  | 21 |
| Lomotevi fund For BDC funds, we show | www.CEFadvisors.com |  |  |  |  |  |

## Current Closed-End Discounts

12 Major Sectors Discount as of September 28, 2018


## Discount Trends \& Tax Loss Selling

## 12 Major Sectors CEFs (Nov - Feb)



Average Bounce: 2.5\%

## Discount Trends \& Tax Loss Selling

## CEFs \& BDCs with 1YR Price Return -5\% or lower (Nov - Feb)



Average Bounce: 2.9\%

## Discount Trends \& Tax Loss Selling

## BOND CEFs



## Discount Trends \& Tax Loss Selling

## EQUITY CEFs



## CEF Volume Trends - 3Q 2018

|  | Fund Grouping | Avg Vol <br> Last Q | Avg Vol Prev Q | Volum Trend |
| :---: | :---: | :---: | :---: | :---: |
|  | BDC Debt | 236,466 | 232,613 | 2\% |
|  | Convertible | 109,493 | 111,248 | -2\% |
|  | Covered Call | 137,466 | 146,557 | -6\% |
|  | High Yield Bond | 92,416 | 100,380 | -8\% |
|  | Investment Grade | 52,175 | 66,063 | -21\% |
|  | MLP | 134,990 | 129,871 | 4\% |
|  | Municipal Bond | 50,888 | 52,424 | -3\% |
|  | Preferred Stock | 95,433 | 89,370 | 7\% |
|  | Real Estate / REIT | 118,210 | 127,550 | -7\% |
|  | Senior Loan | 124,400 | 114,714 | 8\% |
|  | US Stock | 130,493 | 138,650 | -6\% |
|  | World Stock | 60,069 | 56,310 | 7\% |
|  | Ave Traditional Equity CEF | 109,622 | 111,300 | -2\% |
|  | Ave Traditional Bond CEF | 77,436 | 79,520 | -3\% |
|  | Average BDC | 215,177 | 214,761 | 0\% |
|  | Average For ALL CEFs | 100,930 | 102,995 | -2\% |
|  | Data as of September 30, 2018 | Source: CEFAData.com |  |  |

## CEF/BDC Yield Comparison



Data as of 9/30/2018.
MLP Index: Alerian MLP Index; REIT Index: Wilshire US REIT Index; Corporate Debt Index: S\&P 500 Bond Index US High Yield Indices : BofA Merrill Lynch US High Yield (BB Rated, B Rated, CCC and Lower Rated)

# Relative UNII for Traditional CEF Municipal Bond Funds 

Nat Muni Bond - Relative UNII<br>May 11, 2012 - September 28, 2018



## Return of Capital (90 Day) For CEFs

Main Peer Groups - Historical ROC May 11, 2012 - September 28, 2018


Source: CEFData.com

# Destructive Return of Capital (1YR DRoC) 

(Traditional)

| Fund Grouping | \# Funds with Destructive RoC | \% Funds with Destructive RoC | Average Destructive RoC \% | 1 Yr NAV TR vs NAV Yield | 3Yr NAV TR vs NAV Yield |
| :---: | :---: | :---: | :---: | :---: | :---: |
| US Equity Funds | 6 | 21\% | 17\% | 74\% | 95\% |
| Non-US Equity Funds | 17 | 36\% | 44\% | -83\% | 77\% |
| Specialty Equity Funds | 56 | 50\% | 36\% | -67\% | 22\% |
| Equity CEF | 88 | 44\% | 36\% | -27\% | 41\% |
| Taxable Bond Funds | 61 | 42\% | 18\% | -55\% | 5\% |
| National Muni Bond Funds | 8 | 9\% | 1\% | -85\% | -21\% |
| State Muni Bond Funds | 6 | 8\% | 4\% | -110\% | -30\% |
| Bond CEF | 75 | 24\% | 15\% | -72\% | -9\% |
| Average CEF | 163 | 32\% | 26\% | -52\% | 14\% |

## Closed-End Fund Market Price volatility vs. NAV volatility (1 vear)



## CEF Press Release SEC Filings Summary (2248 CEF PRs in 3Q18)

| Announcement Type | 3Q 2018 | 2017 | 2016 | 2015 | Avg per Q since 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\longrightarrow$ Rights Issue / Offering | 8 | 16 | 9 | 6 | 3 |
| Secondary Offering (Trad CEF) | 0 | 1 | 6 | 2 | 1 |
| Secondary Offering (BDCs) | 2 | 17 | 4 | 16 | 3 |
| Tender Offer | 6 | 46 | 17 | 15 | 6 |
| Distribution Policy Change(Trad CEF) | 1 | 12 | 6 | 11 | 2 |
| Distribution Policy Change (BDCs) | 0 | 1 | 0 | 1 | 0 |
| $\square 13$ Filings (Trad CEF) | 57 | 700 | 897 | 906 | 176 |
| New N-2 Filings | 11 | 133 | 97 | 52 | 22 |
| Updated N-2 Filings | 47 | 221 | 120 | 104 | 45 |
| Investment Manager / Advisor Change | 6 | 18 | 35 | 5 | 9 |
| Portfolio Manager Change | 7 | 52 | 39 | 45 | 12 |
| Leverage Amount / Type Change | 31 | 118 | 105 | 52 | 26 |
| Nox | www.CEFadvisors.com |  | Source: Fund Press Releases / SEC Filings. |  |  |

## CEF \& BDC

## Dividend Increases vs. Decreases

| Dividend | 3Q 2018 <br> Number of <br> Announcements | 3Q 2018 <br> Average <br> Change | 3Q '17-2Q '18 <br> Number of <br> Announcements | 3Q '17-2Q '18 <br> Average <br> Change |
| :---: | :---: | :---: | :---: | :---: |
| Dividend Maintains | $\mathbf{1 1 8 2 ( 8 8 . 6 \% )}$ | N/A | $4723(88.2 \%)$ | N/A |
| Dividend Increases | $54(4.0 \%)$ | $+8.57 \%$ | $161(3.0 \%)$ | $+8.67 \%$ |
| Dividend Decreases | $98(7.3 \%)$ | $-7.29 \%$ | $468(8.7 \%)$ | $-7.97 \%$ |
|  |  |  |  |  |
| Under 5\% Increase | $31(57 \%)$ | $+1.94 \%$ | $106(66 \%)$ | $+1.82 \%$ |
| Over 5\% Increase | $23(43 \%)$ | $+17.5 \%$ | $55(34 \%)$ | $+21.9 \%$ |
| Under 5\% Decrease | $40(41 \%)$ | $-1.34 \%$ | $196(42 \%)$ | $-1.98 \%$ |
| Over 5\% Decrease | $58(59 \%)$ | $-11.39 \%$ | $272(58 \%)$ | $-12.29 \%$ |

# 3Q 2018 Closed-End Fund Dividend Increases vs. Decreases 

Major CEF Groups: Number of dividend decreases / increases
Last Quarter \& Previous 1 Year Rolling
■ Last Q Decreases $\quad$ Previous 1 Yr Rolling Decreases $\quad$ Last Q Increases $\quad$ Previous 1 Yr Rolling Increases


# CEF Recent Dividend Changes (Policies NOT Promises) 

## 3 Year Dividend Growth

- 306 Funds (59\%) had negative 3 year growth averaging -22.7\%
- 54 Funds ( $10 \%$ ) had positive 3 year growth averaging $+15.4 \%$
 (65\% of funds)
- 263 Cut (79\%) an average of $-12 \%$ while 71 ( $21 \%$ ) increased an average of $+11 \%$
- 175 of these funds have "level" or "managed distributions"
- 128 of those were cut an average $-12 \%$
- 47 were increased an average of $+12.5 \%$


## 1 Year Lookback

- 104 increase vs. 259 decreases. 56 Funds had BOTH increases and decreases in the past year.


## CEF \& BDC Historical IPOs (3Q 18)

|  | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of <br> IPOs | 1 | 13 | 8 | 9 | 15 | 29 | 28 | 26 | 22 | 14 | 3 |
| Average <br> Assets <br> In \$ millions | $\$ 80$ | $\$ 646$ | $\$ 225$ | $\$ 272$ | $\$ 511$ | $\$ 511$ | $\$ 442$ | $\$ 258$ | $\$ 371$ | $\$ 192$ | $\$ 134$ |
| Total New <br> CEF IPO <br> Assets in \$ <br> Billions | $\$ .1 \mathrm{~B}$ | $\$ 8.4 \mathrm{~B}$ | $\$ 1.8 \mathrm{~B}$ | $\$ 2.4 \mathrm{~B}$ | $\$ 7.7 \mathrm{~B}$ | $\$ 14.8 \mathrm{~B}$ | $\$ 12.4 \mathrm{~B}$ | $\$ 6.7 \mathrm{~B}$ | $\$ 8.2 \mathrm{~B}$ | $\$ 2.7 \mathrm{~B}$ | $\$ .4 \mathrm{~B}$ |

10 Year Average: 17 Funds per year, \$356MM Ave Fund, \$6.6 Billion Per Year

## CEF \& BDC Historical IPOs (30 18)



Source: September 30, 2018 - CEFData.com

## CEF\&BDC IPOs: By Investment Focus

## October 1, 2017 - September 30, 2018



Note: Inception Assets in millions ; data as of 9/30/2018, cefdata.com

## 2Q 2018 IPO Details

(No IPOs in 1Q/3Q 2018)

## Vivaldi Opportunities Fund (VAM) - Hybrid / Balanced Funds -

 IPOed on May 10, 2018IPO Price: \$14.66
Price as of 9/28/18: $\$ 14.83$

IPO Assets: \$80M
Disc/Prm as of $9 / 28 / 18:+0.88 \%$

## 4Q 2017 IPO Details

## DA Glbl Cr Incm 2024 Tgt Trm (DCF) - Taxable Bond Funds -

IPOed on October 27, 2017

IPO Price: $\$ 10.00$
Price as of 9/28/18: \$9.00

IPO Assets: \$140M
Disc/Prm as of 9/28/18: -6.54\%

## Highland Flt Rt Opp Fd (HFRO) - Taxable Bond Funds -

IPOed on November 6, 2017
IPO Price: $\$ 15.50$
Price as of $9 / 28 / 18: \$ 15.42$
IPO Assets: $\$ 1080 \mathrm{M}$
Disc/Prm as of $9 / 28 / 18:+1.65 \%$

## Corporate Capital $\operatorname{Tr}$ (CCT) - Debt Focused BDCs-

IPOed on November 14, 2017

IPO Price: $\$ 17.60$
Price as of $9 / 28 / 18$ : $\$ 15.26$

IPO Assets: $\$ 4400 \mathrm{M}$
Disc/Prm as of 9/28/18: - $22.06 \%$

## Invsc Hi Incm 2023 Tgt Trm Fd (IHIT) - Taxable Bond Funds -

IPOed on November 27, 2017

IPO Price: $\$ 10.00$
Price as of 9/28/18: \$9.91
Source: Fund Press Releases

IPO Assets: \$80M
Disc/Prm as of 9/28/18:-2.36\%
www.CEFadvisors.com

# IPOs during 4Q 2017-2Q 2018 Current Discount / Premium 

| IPO Date | Ticker | Current Disc/Prm | Current Price | IPO Price | Curr vs IPO |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4 Q 2017 | DCF | $-6.54 \%$ | $\$ 9.00$ | $\$ 10.00$ | $90.00 \%$ |
|  | HFRO | $1.65 \%$ | $\$ 15.42$ | $\$ 15.50$ | $99.48 \%$ |
|  | CCT | $-22.06 \%$ | $\$ 15.26$ | $\$ 17.60$ | $86.70 \%$ |
|  | IHIT | $-2.36 \%$ | $\$ 9.91$ | $\$ 10.00$ | $99.10 \%$ |
| 2Q 2018 | VAM | $0.88 \%$ | $\$ 14.83$ | $\$ 14.66$ | $101.16 \%$ |

## Closed-End Fund Mergers

Closed-End Funds Merged into Other Closed-End Funds (September 2018)


1. Reduce expense ratio
2. Increase liquidity
3. Reduce bid/ask spread

Avg. - 19 per year
4. Improve cost of future leverage

27 Last 5 Yrs, 15 previous 9 Yrs

## Closed-End Fund Deaths

CEF Funds Open-Ended, Liquidated or Converted to ETF


Source: Fund Press Releases

Causes: Open-ending, liquidation \& conversion. (9 per year on average)

# Traditional Closed-End Fund 90 Day NAV - Market Price Correlation 

Trad CEFs Groups - 90 Day NAV/Price Correlation June 22, 2012 - September 28, 2018


## Traditional Closed-End Fund NAV - Market Price Correlation

| Fund Grouping | Correlation 3Q 18 | Correlation 2Q 18 | Correlation Trend |
| :---: | :---: | :---: | :---: |
| US Equity Funds | 70.98\% | 70.99\% | -0.01\% |
| Non-US Equity Funds | 77.07\% | 79.86\% | -2.79\% |
| Specialty Equity Funds | 69.99\% | 74.60\% | -4.61\% |
| Ave Equity CEF | 70.31\% | 74.31\% | -4.00\% |
| Taxable Bond Funds | 37.08\% | 52.84\% | -15.76\% |
| National Muni Bond Funds | 64.27\% | 55.40\% | 8.87\% |
| State Muni Bond Funds | 59.76\% | 46.74\% | 13.02\% |
| Ave Bond CEF | 50.45\% | 52.03\% | -1.58\% |
| Average CEF | 58.24\% | 60.79\% | -2.55\% |

## CEF / BDC Index Performance

| Index | 3Q 2018 <br> NAV | 3Q 2018 <br> Mkt Pr | 1 Year <br> NAV | 1 Year <br> Mkt Pr | 5 Year <br> NAV | 5 Year <br> Mkt Pr |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 Major Sectors Index | $2.74 \%$ | $2.19 \%$ | $5.90 \%$ | $3.89 \%$ | $6.43 \%$ | $7.11 \%$ |
| High Income Index | $3.45 \%$ | $3.23 \%$ | $6.61 \%$ | $4.60 \%$ | $5.66 \%$ | $6.11 \%$ |
| Tax-Sensitive Income Index | $3.68 \%$ | $2.39 \%$ | $5.41 \%$ | $1.99 \%$ | $4.20 \%$ | $4.30 \%$ |
| 60/40 Balanced Index | $3.07 \%$ | $2.83 \%$ | $5.69 \%$ | $4.54 \%$ | $7.04 \%$ | $7.83 \%$ |
| Global Equity Index | $3.45 \%$ | $3.40 \%$ | $5.94 \%$ | $6.14 \%$ | $7.41 \%$ | $8.78 \%$ |
| Equity Income Index | $3.80 \%$ | $3.15 \%$ | $5.93 \%$ | $5.16 \%$ | $5.93 \%$ | $7.12 \%$ |
| Taxable Bond and BDC | $1.78 \%$ | $2.03 \%$ | $3.20 \%$ | $1.92 \%$ | $5.66 \%$ | $6.26 \%$ |
| National Municipal Bond | $-0.43 \%$ | $-0.96 \%$ | $0.56 \%$ | $-5.04 \%$ | $6.58 \%$ | $6.18 \%$ |
| Preferred Equity Index | $1.26 \%$ | $0.51 \%$ | $1.31 \%$ | $-1.29 \%$ | $9.21 \%$ | $10.58 \%$ |
| Convertible Bond Index | $4.50 \%$ | $5.77 \%$ | $10.25 \%$ | $13.60 \%$ | $6.10 \%$ | $8.19 \%$ |
| High Yield Bond Index | $2.52 \%$ | $2.28 \%$ | $3.55 \%$ | $-0.02 \%$ | $5.78 \%$ | $5.09 \%$ |
| Sr. Loan Index | $2.48 \%$ | $1.03 \%$ | $6.39 \%$ | $2.70 \%$ | $5.10 \%$ | $4.44 \%$ |
| MLP Index | $6.15 \%$ | $3.22 \%$ | $6.58 \%$ | $1.38 \%$ | $-4.34 \%$ | $-5.25 \%$ |
| REIT / Real Asset Index | $0.79 \%$ | $0.14 \%$ | $2.75 \%$ | $0.49 \%$ | $8.81 \%$ | $9.63 \%$ |
| Debt-BDCs Index | $2.75 \%$ | $4.65 \%$ | $9.33 \%$ | $2.56 \%$ | $8.12 \%$ | $4.54 \%$ |

# CEF Institutional Holdings (3Q 18) 

## Institutional Holdings Trends <br> Increase: 290 funds Decrease: 263 funds

Main Peer Groups - \% Shares Owned by Institutions
January 18, 2013 - September 28, 2018


# CEF / BDC Institutional Investors (3Q 18) 

| 1 | MORGAN STANLEY | \$5,526,127,482 | 21 | Raymond James Financial Services Advisors Inc | \$472,491,114 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | WELLS FARGO COMPANY MN | \$3,307,720,524 | 22 | COHEN STEERS INC | \$460,602,249 |
| 3 | UBS Group AG | \$2,660,322,237 | 23 | Muzinich Co Inc | \$456,943,826 |
| 4 | BANK OF AMERICA CORP DE | \$2,346,189,299 | 24 | AMERIPRISE FINANCIAL INC | \$446,054,106 |
| 5 | Invesco Ltd | \$1,318,116,773 | 25 | JPMORGAN CHASE CO | \$433,778,531 |
| 6 | GUGGENHEIM CAPITAL LLC | \$1,279,727,139 | 26 | COMMONWEALTH EQUITY SERVICES LLC | \$433,146,579 |
| 7 | Karpus Management Inc | \$1,151,629,921 | 27 | STIFEL FINANCIAL CORP | \$415,882,995 |
| 8 | SIT INVESTMENT ASSOCIATES INC | \$1,135,233,107 | 28 | LPL Financial LLC | \$396,303,942 |
| 9 | CITY OF LONDON INVESTMENT MANAGEMENT CO LTD | \$1,133,912,762 | 29 | McGowan Group Asset Management Inc | \$374,157,333 |
| 10 | RIVERNORTH CAPITAL MANAGEMENT LLC | \$1,043,573,497 | 30 | LADENBURG THALMANN FINANCIAL SERVICES INC | \$329,183,495 |
| 11 | ROYAL BANK OF CANADA | \$936,392,830 | 31 | ROBINSON CAPITAL MANAGEMENT LLC | \$323,496,954 |
| 12 | RAYMOND JAMES ASSOCIATES | \$857,961,689 | 32 | VAN ECK ASSOCIATES CORP | \$290,330,588 |
| 13 | 1607 Capital Partners LLC | \$824,085,981 | 33 | BANK OF MONTREAL CAN | \$277,381,946 |
| 14 | LAZARD ASSET MANAGEMENT LLC | \$763,205,107 | 34 | ARES MANAGEMENT LLC | \$256,714,866 |
| 15 | Advisors Asset Management Inc | \$699,510,329 | 35 | Oxbow Advisors LLC | \$247,151,409 |
| 16 | PARAMETRIC PORTFOLIO ASSOCIATES LLC | \$650,073,997 | 36 | RMB Capital Management LLC | \$226,445,946 |
| 17 | Saba Capital Management LP | \$543,722,189 | 37 | GOLDMAN SACHS GROUP INC | \$224,298,469 |
| 18 | Arnhold LLC | \$480,668,724 | 38 | HighTower Advisors LLC | \$220,251,119 |
| 19 | Relative Value Partners Group LLC | \$479,877,062 | 39 | Cambridge Investment Research Advisors Inc | \$214,236,101 |
| 20 | THORNBURG INVESTMENT MANAGEMENT INC | \$479,515,329 | 40 | Laurion Capital Management LP | \$209,552,681 |

Source: CEFData.com
All 13 Filings $=\$ 52$ billion. Top $40=\$ 34$ Billion

## CEF/BDC <br> Primary Activist / Institutional Investors

## Activist:

1. Ancora Advisors
2. Bull Dog Investors
3. Special Opportunities Fund (SPE -- Bulldog)
4. City of London
5. Ironsides Partners
6. Karpus Investment Management
7. Western Investment
8. Saba Capital Management
9. Elliott Associates (BDCs)
10. Wynnefield Capital (BDCs)

## Followers:

1. Punch \& Associates Investment Management
2. Relative Value Partners
3. 1607 Capital Partners LLC
4. Rivernorth Capital Management
5. SIT Investment Associates
6. DG Capital Management (BDCs)
7. Sims Capital Management (BDCs)

Total Assets at work 9/30/18-\$2.0 Billion Activist // \$18.5 Billion Followers \& Activist

# Closed-End Fund Corporate Actions / Activist Update 3Q 2018 

| Month Filed | Filing | Closed-End Fund/BDC | Investor/Who | Notes |
| :---: | :---: | :---: | :---: | :---: |
| Sept | 13D/A | MVC Capital (MVC) | West Family | 6.4\% (Inc) <br> Director Nominee and Repurchase Program (approved) |
| Sept | Proxy | CM Finance (CMFN) | Public | Proposal to sell up to 25\% shares below NAV |
| Sept | 13G | Latin Amrc Disc Fd (LDF) | City of London | 32.5\% (Dec) |
| Sept | Proxy | Abd Tot Dyn Div Fd (AOD) | Saba | Proposal proposal to declassify the Board |
| Sept | Proxy | Asia Pacific Fd (APB) | Public | Liquidation Proposal |
| Sept | Rights Offering | FrkTmp Ltd Dur Incm $\operatorname{Tr}$ (FTF) | Public | One for one (approved) |

## Closed-End Fund Corporate Actions / Activist Update

| Month <br> Filed | Filing | Closed-End Fund/BDC | Investor/Who | Notes |
| :---: | :---: | :---: | :---: | :---: |
| Aug | 13G/A | BR Incm Tr (BKT) | Karpus | 13.5\% (Dec) |
| August | Proxy | Miller/Howard Hi Incm Eq Fd (HIE) | Public | New Invstmnt <br> Advisory Agrmnt |
| August | 13G/A | Cornerstone Tot Rtn Fd (CRF) | SIT Investment | $14.9 \%$ (Inc) |
| August | 13D | Mgd Dur Inv Grd Muni Fd (BPK) | Karpus | 31.6\% (Inc) |
| July | Announ <br> cement | Stellus Cap Inv Corp (SCM) | Public | Offering up to 25\% shares <br> below NAV (approved) |
| July | 13D/A | Alcentra Capital Corp(ABDC) | Stilwell | 7.3\% (Dec) |

## Activist \＆Follower Ownership （13D／13G）by Investment Focus



日Taxable Bond
目Specialty Equity
日Non U．S．Equity
aBDC
－U．S．Equity
－National Muni Bond
aHybrid／Balanced

Note：millions of dollars，data as of 9／30／2018，cefdata．com

## CEF Activist Ownership i \＄21，094

| Top 5 Peer Groups |  |
| :--- | :---: |
| BDC Debt | $\$ 2,683$ |
| Loan Participation | $\$ 1,757$ |
| Asian Equity | $\$ 1,728$ |
| High Yield Bond | $\$ 1,495$ |
| General Equity | $\$ 1,462$ |

## Interval Closed-Ended Fund (iCEFs)

Interval funds (iCEFs) are growing in popularity as an alternative investment vehicle. Many interval funds can be seen as the best of both worlds. ICEFs had a slow start, the second iCEF wasn't created until 2001 and the third fund formed in 2005. The structure is a small ( $0.1 \%$ ) portion of the overall multitrillion dollar fund industry. However, iCEFs are growing assets quickly, in the $50 \%$ range annually with 42 current funds with a combined $\$ 28.52 \mathrm{~B}$ in AUM as of August 31, 2018. This compares to CEF/BDC listed AUM of $\$ 280$ billion in 564 funds according to CEFData.com.

## Whitepaper / Overview on: www.CEF-Blog.com

## Interval Fund Sector Breakdown

| - Equity | - Real Estate | - Structured Credit | - Real Estate Debt |
| :--- | :--- | :--- | :--- |
| - Reinsurance | - Global Credit | - VC/PE | - Option Writing |

Interval Funds By Year


## Non-Listed Closed-End Funds

## 42 funds. Total Assets: $\$ 28.68 \mathrm{~B}$



## PIMCO Flexible Credit Income Fund

Bond-Global Credit

## Fund Info

Website Sponsor Custodian Transfer Agent Fiscal Year Redemption Details
https://www.pimco.com/.. Pacific Investment Management Company State Street Bank and Trust Company DST Systems, Inc June

Objective: The Fund seeks to provide attractive risk-adjusted returns and current income.

| Fundamental Data (Reported: June 30, 2018) |  |  |
| :---: | :---: | :---: |
| Total Assets | \$825M |  |
| Net Assets | \$539M |  |
| Leverage (\%) | 28.9\% |  |
| Leverage Expense (\%) | 0.00\% |  |
| Leverage Type | Borrowings \& Other |  |
| Portfolio Turnover | 14.00\% |  |
| Latest Repurchase Offer |  |  |
| Sta |  |  |
| Start |  |  |
| End |  |  |
| Shares (\%) to |  |  |
| Tender Results |  |  |
| Last | 8,2018 | 1.83 |
|  |  | 2.34 |
| Top Holdings (\%) |  |  |
| Freddie Mac Mortgage-Backed Securities |  | 2.2\% |
| Ballyrock CLO Ltd. |  | 2.2\% |
| Ardonagh Midco PLC |  | 1.9\% |
| VMC Finance LLC |  | 1.7\% |
| GSMSC Resecuritization Trust |  | 1.7\% |
| Countrywide Home Loan Mortgage Pass-Through Trust |  | 1.5\% |
| Wells Fargo Mortgage Backed Securities Trust |  | 1.4\% |
| Nationwide Building Society |  | 1.4\% |
| Intrepid Aviation Group Holdings LLC |  | 1.4\% |
| Cedar Funding VI CLO, Ltd. |  | 1.4\% |

Indicated Yeld


# Newly Launched iFunds (3Q 2018) 

| Funds | Major Group | SEC Effective <br> Date |
| :---: | :---: | :---: |
| Flat Rock Opportunity Fund | Bond | $2018-07-02$ |
| PIMCO Flexible Municipal Income Fund | Bond | $2018-07-19$ |
| Variant Alternative Income Fund | Bond | $2018-08-30$ |
| Pioneer ILS Bridge Fund | Bond | $2018-09-11$ |
| American Beacon Apollo Total Return Fund | Bond | $2018-09-12$ |

## Recent Active iFunds

## (launched 3Q'17-2Q'18)

| Fund Name | Structure | Major Group | Sub-Group | Sponsor | Inception | Min Investment | v(\%) | Total Assets(M) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tortoise Tax-Advantaged Social Infrastructure | Interval | Bond | Loans / <br> Structured Credit | Tortoise | 3/26/18 | 2,500 | 0.0 | 0.8 |
| Blackstone / GSO Floating Rate Enhanced Income Fund | Interval | Bond | Loans / <br> Structured Credit | Blackstone | 1/18/18 | 10,000 | 19.7 | 203.1 |
| Angel Oak Strategic Credit Fund | Interval | Bond | Global Credit | Angel Oak | 12/26/17 | 1,000 | 0.0 | 6.5 |
| FS Credit Income Fund | Interval | Bond | Global Credit | FS Credit | 11/1/17 | 2,500 | 9.2 | 24.8 |
| USQ Core Real Estate Fund | Interval | Equity | Real Estate / Real Asset | Union Square | 9/27/17 | 2,500 | 0.0 | 26.9 |
| Versus Capital Real Assets Fund | Interval | Equity | Real Estate / Real Asset | Versus Capital | 9/18/17 | 10,000 | 0.0 | 807.3 |
| City National Rochdale Select Strategies Fund | Interval | Bond | Reinsurance / Insurance Linked Securities | City National | 7/27/17 | 1,000,000 | 0.0 | 46.1 |

## CEFA's Outlook for 4Q and 2019

- US Equity Funds
- Non-US Equity Funds
- Specialty Equity (Sector) Funds
- Taxable Bond Funds

- National Municipal Bond (Tax-Free) Funds
- State Specific Municipal Bond (Tax-Free) Funds
- Debt-Focused Business Development Companies (BDCs)
- Equity-Focused Business Development Companies (BDCs)
- Sustainable CEF Portfolio Distribution Yields, Beta, Correlations, Duration and After-Tax Income, Gross Asset Exposure, Leverage


# Closed-End Funds \& BDCs in a Rising Rate Environment 

(March 2004 to September 2007)

| Group/Sector | $\stackrel{\#}{\text { CEFs }}$ | Avg Total Return on Mkt Pr. | \% Funds w/ Neg TR Perf | $\begin{gathered} \hline \text { Avg } \\ \text { Yield } \\ \text { Change } \\ \% \\ \hline \end{gathered}$ | $\begin{aligned} & \hline \text { \% CEFs } \\ & \text { with } \\ & \text { Dividend } \\ & \text { Changes } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { US Equity } \\ & \text { Funds } \end{aligned}$ | 30 | +37.7\% | 3.3\% | +100.2\%* | 63.3\% |
| Non US Equity Funds | 39 | +133.0\% | 2.6\% | +681.2\%* | 46.2\% |
| Specialty Equity Funds | 34 | +30.6\% | 11.8\% | +5.65\% | 79.4\% |
| Taxable Bond Funds | 95 | +19.3\% | 4.2\% | -2.06\% | 81.1\% |
| National Municipal Bond Funds | 89 | +17.1\% | 2.3\% | -18.91\% | 96.7\% |
| State Focused Muni Bond Funds | 93 | +12.92\% | 12.4\% | -15.70\% | 100\% |
| Debt-Focused BDC Funds | 5 | +31.94\% | 0.0\% | +4.42\% | 100\% |
| Average Traditional CEF | 361 | +28.48\% | 6.4\% | -2.50\% | 97.2\% |
| S\&P 500 TR |  | +42.33\% TR |  |  |  |
| Barclays Global Agg. Bond Index |  | +16.96\% TR |  |  |  |
| Barclays Municipal Bond Index |  | +13.26\% TR |  |  |  |

Full article on our blog: www.CEF-Blog.com

Avg. Yield change is expressed in percentage terms. If the yield went from $8 \%$ to $7 \%$ the calculation would be $-12.5 \%$, not $-1 \%$. Also the column that shows the percentages of funds with dividend changes includes funds with increases, and is meant to help show which areas of the CEF universe are likely to have a higher number of funds that change their distribution policies.

Index Data from Thompson Reuters. CEF data from CEF Universe Data and Yahoo Finance.

* Over the 43 month period, US CEFs went from yields of $6.1 \%$ yields to $8.1 \%$ and Non-US CEFs went from yields of $4.9 \%$ to $6.1 \%$. Many of the dividends came as semi-annual or annual dividends and were driven by pass through capital gains vs. income to maintain the tax-beneficial status for the fund itself.


## CEF Advisors Links

- CEF Advisors' Website: www.CEFadvisors.com
- CEF/BDC Index Data: www.CEFdata.com/cefaindex
- CEFA's Blog: www.CEF-Blog.com / CEF/BDC Research Sites: www.BDCUniverse.net -- www.CEFdata.com
- Published Articles
- Seeking Alpha: http://seekingalpha.com/author/john-cole-scott/articles
- WealthManagement.com: http://wealthmanagement.com/author/john-scott
- Vimeo Channel: https://vimeo.com/johncolescott/videos
- Weekly CEF Data (14 Day Trial), Daily News Alerts (10 Day Trial), www.CEFUniverse.com
- CEF Universe Data Definitions: http://www.cefadvisors.com/Download/CEFUDataDefinitions.pdf
- CEFA's Form ADV Part 2A and 2B http://www.cefadvisors.com/Download/ADV-II-Form.pdf


## For Your Information CEF Resources

CEF/BDC Fund Profiles: www.cefdata.com
The Closed-End Fund Association: www.Closed-EndFunds.com
CEF Connect (Nuveen Sponsored): www.CEFconnect.com
Morningtar's CEF Site:
http://www.morningstar.com/Cover/CEF-Closed-End-Funds.aspx


Investment Company Institute: http://www.ici.org/research\#fact books
CEFNetwork (Pristine Advisers): www.CEFnetwork.com
CEF Insight (Activist Info from AST Fund Solutions): www.CEFinsight.com
Capital Link's CEF Portal: http://cef.capitallink.com/
Morningstar Discussion Board:
http://socialize.morningstar.com/NewSocialize/forums/1000000006.aspx
Yahoo CEF Discussion Board: https://groups.yahoo.com/neo/groups/closedendfunds2/info
The CEF Network on LinkedIN: www.CEF-Network.com
Seeking Alpha: http://seekingalpha.com/articles?filters=closed-end-funds

More Useful Links at: www.cefadvisors.com/investRes.html

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## CEF Advisors' Model Portfolio Offerings



## DISCLOSURES




NOTES: Distribution type sourced from CEFdata.com. For specific information about a fund's distribution sources, visit the fund sponsor's website.
俍 companies frequently trade at a discount to their net asset value. NAV returns are net of fund expenses, and assume reinvestment of distributions.


## Current CEFA Portfolio Modes

CEFA Portfolio Models' Investment Objectives. Diversified models typically hold 20-40 positions and sector models hold 5-15. All CEFA models start with our asset allocation and market outlook. Then, we select funds that meet or exceed our Trifecta analysis for discount direction, dividend sustainability and manager or NAV performance, blending our fundamental and data driven investment resources.

1. International Opportunity: Diversified portfolio of non-US and global sector of closed-end funds. We seek to blend our global market outlook with the ability to buy funds, often at significant discounts to NAV while having the opportunity for discount narrowing over time. Yield is a byproduct of the model as many CEFs pay at least annual or semi-annual distributions. We expect the model to be $60 \%-80 \%$ Equity exposure and $55 \%$ to $85 \%$ Non US holdings at the fund level. We seek duration of the portfolio on a "cash weighted" basis under 2 and a Beta to the S\&P 500 between 0.75 and 0.90 .
2. Diversified Equity: Diversified portfolio seeking primarily equity exposure. The Beta to the $S \& P 500$ is expected to be 0.85 to 1.15 . This model is a good candidate for adding SpiderRock's option overlay, as you could outperform in an option-overlaid portfolio when the holdings are more volatile by nature. This portfolio is expected to have little to no duration exposure.
3. Diversified Growth: Diversified portfolio focusing on the sectors and funds where we see the best risk-adjusted growth potential. Yield is a byproduct of the model as many CEFs pay at least annual or semi-annual distributions. We expect the model to be $65 \%$ to $90 \%$ equity exposure based on the fund's reported holdings and seeking to have duration of the portfolio on a "cash weighted" basis around 1 and a Beta to the S\&P 500 between 0.70 and 1.0 .
4. Hybrid (High) Income: Diversified portfolio seeking $50 / 50$ allocation to equity and debt at the fund level; focusing on the highest sustainable dividend levels possible in the current environment with at least $75 \%$ of funds paying monthly. Historically $8 \%-9 \%$ is our target income level. We seek to have duration of the portfolio on a "cash weighted" basis under 2 and a Beta to the $S \& P 500$ between 0.75 and 0.95 . We offer a $100 \%$ monthly paying version of this model for investors that seek this feature to their investment needs. A SpiderRock overlay can be a nice addition to this model.
5. Discount Opportunity: Diversified portfolio seeking $50 / 50$ allocations to equity and debt at the fund level. Researching funds that both have a larger that average absolute discount to NAV as well as wider than normal Comp Discount (vs. peer-group average) without a significantly worse NAV total return performance vs. their peer funds. This model can work well for contrarian investors. A SpiderRock overlay can be a nice addition to this model.
6. Alternative Income: Diversified portfolio seeking $50 / 50$ allocation to equity and debt at the fund level; focusing on less "plain vanilla" or core sectors and managers that could offer a more "hedge fund" like experience and a diversifier to traditional equity and bond allocations. We seek $2 \%$ a quarter in distributions at roughly half the Beta o the S\&P 500 with "cash weighted" duration under 2. A SpiderRock overlay can be a nice addition to this model.
7. Foundation/Balanced: Diversified model based on a $60 \%$ equity / $40 \%$ debt allocation at the fund level. We believe this model is a "medium risk portfolio" for a typical retired investor. Historically $7 \%-8 \%$ is our target income level. We seek to have duration of the portfolio on a "cash weighted" basis under 2.5 and a Beta to the S\&P 500 between 0.60 and 0.85 . This model is a good candidate for adding SpiderRock's option overlay, as you could outperform in an option-overlaid portfolio at these Beta levels. We offer a "Tax Advantaged" version of this model, that could reduce the after tax friction by $65 \%-75 \%$ for a typical investor in a taxable environment. We also offer more conservative portfolio (Conservative Diversified), comprised of $2 / 3$ the F/B model and $1 / 3$ invested in non-traditional asset classes using ETFs and open-end funds to reduce the expected volatility over time.

## Closed-End Fund Advisors

## 7204Glen Forest Drive, Suite \#105 Richmond, Virginia 23226 USA • Toll-Free: (800) 356-3508/Local: (804) 288-2482 * www.CEFadvisors.com • Contact@CEFadvisors.com

8. Taxable Bond and BDC: Diversified portfolio focused on the taxable bond and debt-focused business development company (BDC) sectors. This income focused model historically targets a $7 \%-8 \%$ income level. It seeks "cash weighted" duration under 4 and a Beta to the S\&P 500 from $0.35-0.50$.
9. Dividend Confidence Model: Diversified portfolio of roughly $50 \%$ equity and bond funds where we see above average dividend coverage as the primary factor after our Trifecta analysis. Historically $6.25 \%-7.5 \%$ is our target income level and we expect durations under 2.5 and a beta under 0.80 .
10.Diversified Low Beta: Diversified portfolio seeking $50 / 50$ allocations to equity and debt at the fund level focusing on a lower Beta for to the $S \& P 500$ in the sector when selecting funds. We seek to have duration of the portfolio on a "cash weighted" basis under 1.75 and a Beta to the $S \& P 500$ between 0.40 and 0.60 . This model is a good candidate for adding SpiderRock's option overlay, as you could potentially lower the Beta to 0.25 to 0.40 levels.
11.Low Correlation: Diversified portfolio seeking roughly $50 / 50$ allocations to equity and debt at the fund level. Focusing on exposure to the CEF sectors we find have the lowest long-term NAV correlations to each other. Historically $6 \%-7 \%$ is our target income level. We seek to have duration of the portfolio on a "cash weighted" basis under 3.25 and a Beta to the S\&P 500 between 0.50 and 0.70 . We offer an "IRA" version of this model that replaces Build America Bond (BABs) exposure for the municipal bond exposure. A SpiderRock overlay can be a nice addition to this model.
10. Diversified Tax-Sensitive Income: Designed to maximize after-tax yield for high income investors seeking little-to-no tax friction. Equal weight exposure to three CEF sectors who historically have low correlation: municipal bonds, master limited partnerships and tax-advantage equity funds. Muni's, the most common tax-avoidance sector for many investors has a $39 \% 10$ Year NAV correlation to MLPs and 33\% correlation to Covered Call Funds. Covered Call funds have only a $70 \%$ correlation to MLP funds. We seek a Beta to the S\&P 500 of 0.55 to 0.70 and an after-tax yield of $6 \%$ to $7 \%$. Duration is expected to be under 4. We offer a Municipal bond overweight version of this model where $50 \%$ of the portfolio is Muni bond CEFs.
13.Business Development Company Select: Diversified portfolio of BDCs with strong fundamental research on each BDC's portfolio and management. Seeking BDCs exposure with above average dividend sustainability, NAV performance, variable and senior secured loan exposure as well as low nonaccruals (defaults). We look for sector and geographic diversity. We expect a Beta to the S\&P 500 of 0.6 to 0.8 and historically yield levels of $8.5 \%$ to $9.5 \%$ are common. BDCs have low 10-year correlation to most asset classes; including $15 \%$ to municipal bond, $13 \%$ to preferred equity and $27 \%$ to REITs and only a $40 \%-43 \%$ correlation to high yield and Sr. loans. We offer a " $100 \%$ monthly paying only", "low Beta" and Premium BDC version of this model.
11. Municipal Bond Select: A focused portfolio managed for $100 \%$ tax-free municipal bond exposure. We seek to build and manage the portfolio for better than average: discount to NAV, NAV total return performance, distribution levels, duration exposure, dividend coverage and other criteria we believe can give investors a better experience when looking to allocate funds into this sector. We also offer this model with lower duration (and yield) exposure.

SpiderRock's Custom Option Overlay for CEFA's diversified portfolios in taxable accounts. This generally reduces Beta by $40 \%-50 \%$ and increases the income on the portfolio by $2 \%-3 \%$ in many but not all market conditions. Learn more at www.SpiderRockadvisors.com

## CEFA Portfolio Model Summary Performance

## CEFA Composite Performance (Net)* <br> As of June 30, 2018

| Investment Portfolio Model | QTD | YTD | 1 Year | 3 Year | 5 Year | 10 Year | Since Inception | Inception Date | Benchmarks | QTD | YTD | 1 Year | 3 Year | 5 Year | 10 Yea | Since Inception | Inception Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conservative Diversified | 2.86\% | 0.17\% | 5.09\% | 4.30\% | 4.19\% | N/A | 5.90\% | 5/1/2009 | CEF Advisors 12 Major CEF Sectors (MKT) | 3.07\% | 0.64\% | 5.10\% | N/A | N/A | N/A | 10.06\% | 1/1/2017 |
| Diversified Low Beta | 2.89\% | -1.17\% | 1.98\% | N/A | N/A | N/A | 3.97\% | 4/1/2017 | $\text { S\&P } 500$ | 3.43\% | 2.65\% | 14.37\% | 11.93\% | 13.42\% | 10.17\% | 6.15\% | 1/31/1999 |
| Low Correlation | 3.68\% | -0.93\% | 3.73\% | N/A | N/A | N/A | 4.52\% | 3/1/2017 |  |  |  |  |  |  |  |  |  |
| Foundation/Balanced | 3.45\% | -0.72\% | 3.39\% | 4.12\% | 4.75\% | N/A | 6.85\% | 9/1/2009 | Barclays Capital Global Aggregate | -2.79\% | -1.46\% | 1.36\% | 2.58\% | 1.50\% | 2.58\% | 3.93\% | 1/31/1999 |
| Foundation/Balanced Tax-Advantage | 3.47\% | 0.36\% | 6.94\% | N/A | N/A | N/A | 11.48\% | 1/1/2017 | MSCI World (Ex-US) | -3.59\% | -5.28\% | 4.58\% | 2.37\% | 3.31\% | -0.18\% | 2.50\% | 1/31/1999 |
| Global Growth \& Income | 2.37\% | -0.67\% | 2.41\% | 3.18\% | 4.07\% | 2.49\% | 4.18\% | 1/31/1999 | Barclays Municipal Bond | 0.87\% | -0.25\% | 1.56\% | 2.85\% | N/A | N/A | 2.90\% | 8/1/2014 |
| Globally Diversified |  |  |  |  |  |  |  |  | Thomson Taxable Fixed Inc CEF TR | -0.31\% | -0.18\% | 1.74\% | 4.18\% | 3.22\% | 5.80\% | 4.56\% | 12/1/2006 |
| Growth | 1. | -0.90\% | 4.6 | 6.32\% | 6.35 |  | 5.89\% | 1/31/1999 | Thomson All Equity | 2.35\% | 1.39\% | 11.08\% | 6.06 | 5.91\% | 5.14\% | 4.46\% | 12/1/2006 |
| Hybrid Income | 3.94\% | 1.13\% | 2.63\% | 6.20\% | 6.54\% | 7.40\% | 5.55\% | 12/1/2006 |  |  |  |  |  |  |  |  |  |
| International Equity | -1.74\% | -3.98\% | 2.55\% | 1.65\% | 3.38\% | 2.52\% | 8.13\% | 11/1/2002 | Focused BDC (MKT) | 6.59\% | 2.41\% | -0.32\% | N/A | N/A | N/A | 2.79\% | 1/1/2017 |
| Managed Municipal Bond CEFs | 2.61\% | -5.72\% | -4.61\% | 3.22\% | N/A | N/A | 3.63\% | 8/1/2014 | $60 / 40 \mathrm{~S} \mathrm{\& P}$ <br> 500/Barclays Bond | 0.94\% | 1.01\% | 9.17\% | 8.19\% | 8.65\% | 7.13\% | 5.26\% | 1/31/1999 |
| Special Opportunities | 0.00\% | 1.92\% | 5.65\% | 8.50\% | 9.22\% | N/A | 8.47\% | 6/1/2013 | CEF Advisors 60/40 <br> Balanced (w/ BDCs) | 2.12\% | 0.50\% | 6.19\% | N/A | N/A | N/A | 13.15\% | 1/1/2017 |

Growth of \$1,000,000 Invested CEFA's Globally Diversified Growth model on January 31, 1999*

| Globally Diversified Growth | $\$ 3,039,883$ |
| :--- | :--- |
| S\&P 500 Total Return | $\$ 3,188,272$ |
| Barclays Capital Global Agg Bond Total Return | $\$ 2,114,402$ |
| $60 / 40$ S\&P 500/Barclays Bond | $\$ 2,707,035$ |

## Speaker's Biography



## John Cole Scott, CFS

EXPERIENCE
CIO of Registered Investment
Advisor Focused Exclusively on CEFs
\& BDCs since 2001

EDUCATION
College of William \& Mary Bachelor of Science in Psychology 2000

## John Cole Scott, cFs

Chief Investment Officer of Closed-End Fund Advisors
Mr. Scott has worked at Closed-End Fund Advisors since 2001. He holds the FINRA 66 License and the Certified Fund Specialist designation (CFS). He is a graduate of The College of William and Mary and has been quoted and interviewed widely in the financial press and presented at conferences and for investment groups on more than 50 occasions.

In 2008 John founded CEFA's Closed-End Fund Universe, a data service covering all US listed closed-end funds and BDCs. Currently supported by an internal 10 member analyst team with a data manager/ programmer covering the 600+ ticker universe of CEFs/BDCs/iCEFs. They regularly do consulting and projects for CEF/BDC Sponsors, Hedge Funds and Institutional Investors.

Portfolio Consultant with over a quarter billion deposits into a fund focused on BDCs with a fund sponsor partner. He developed 35 CEF/BDC based indexes; 9 diversified portfolio objective, 9 Equity and 15 Bond sector. John is a past board member of The Richmond Association for Business Economics (RABE), and serves as Assistant Treasurer and on the Investment Committee for The New York State Society of The Cincinnati. Board member and Finance \& Investment Committees for The William \& Mary National Alumni Board.

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## Closed-End Fund Advisors

## Thank You For Attending

## Questions?



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[^0]:    Sources: CEFA's Universe Data as of 9/30/2018 and tax rates from IRS and NY State.

