# Quarterly Investment Performance Analysis

Commissioners of the Land Office,
State of Oklahoma

Period Ended: December 31, 2020



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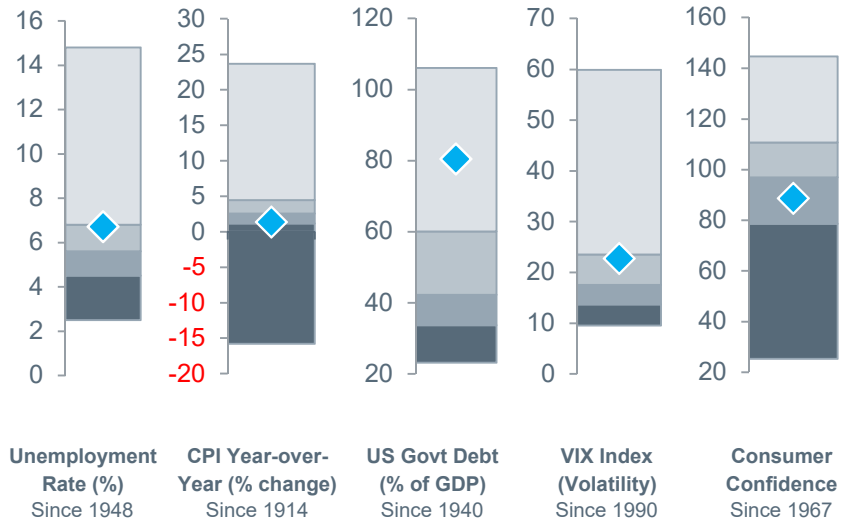
# Capital Markets Review



## Fourth Quarter Economic Environment

In Q4, multiple fundamental developments reinforced market sentiment and kept many investors positioned to add incremental risk despite the relatively weak economic environment and worsening global pandemic. Importantly, two closely watched coronavirus vaccine trials from Pfizer/BioNTech and Moderna released promising efficacy results leading to emergency use authorizations from the FDA, allowing market participants to pull forward expectations for normalized economic activity for much of the developed world in 2021. Investors also reacted favorably to completed negotiations around new fiscal stimulus following the November US elections, which culminated in a $900B package being signed into law under a larger omnibus spending bill. The package included new supplemental unemployment benefits of $300 per week for the 6.7% of unemployed Americans, as well as another one-time round of stimulus checks in the amount of $600 for most individuals. The Fed reiterated its commitment to maintain monthly asset purchases, currently at $120B, and zero interest rates until the economy makes significant progress toward its goal of full employment. Given the backdrop of supportive monetary and fiscal policies, risk assets posted another quarter of stellar returns. Though financial markets have rebounded from the sharp drawdown in early 2020, global economic activity remains well off its pre-pandemic peak.

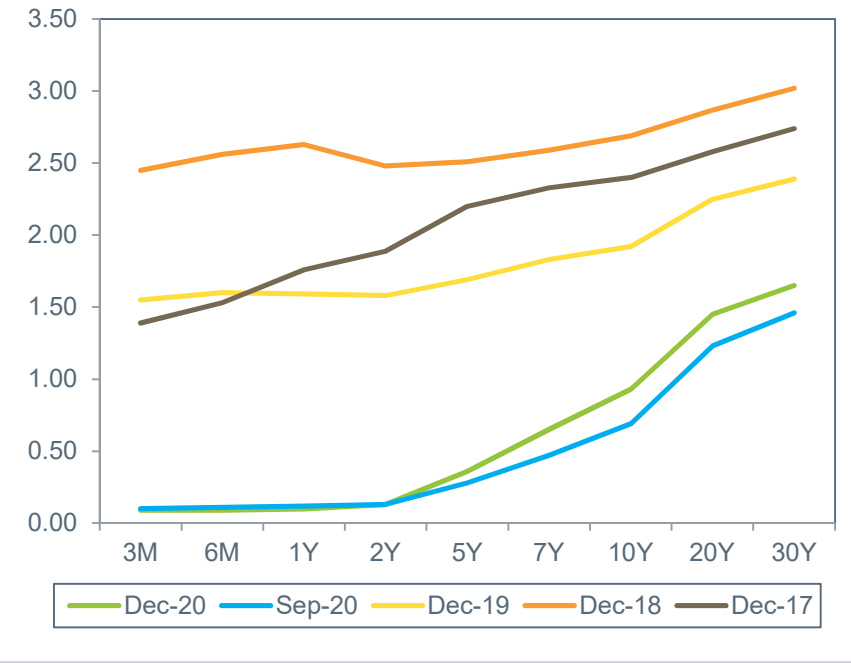
## Key Economic Indicators




| Economic Indicators | Dec-20 | | Sep-20 | Dec-19 | Dec-17 | 20 Yr |
|---|---|---|---|---|---|---|
| Federal Funds Rate (%) | 0.09 | — | 0.09 | 1.55 | 1.33 | 1.49 |
| Breakeven Infl. - 5 Yr (%) | 1.97 | ▲ | 1.49 | 1.70 | 1.88 | 1.82 |
| Breakeven Infl. - 10 Yr (%) | 1.99 | ▲ | 1.63 | 1.79 | 1.98 | 2.01 |
| CPI YoY (Headline) (%) | 1.4 | — | 1.4 | 2.3 | 2.1 | 2.1 |
| Unemployment Rate (%) | 6.7 | ▼ | 7.8 | 3.6 | 4.1 | 6.1 |
| Real GDP YoY (%) | N/A | | -2.8 | 2.3 | 2.7 | 1.8 |
| PMI - Manufacturing | 60.7 | ▲ | 55.4 | 47.8 | 59.1 | 52.6 |
| USD Total Wtd Idx | 111.65 | ▼ | 117.35 | 114.72 | 110.07 | 103.24 |
| WTI Crude Oil per Barrel ($) | 48.5 | ▲ | 40.2 | 61.1 | 60.4 | 62.4 |
| Gold Spot per Oz ($) | 1,898 | ▲ | 1,886 | 1,517 | 1,303 | 1,009 |

| Market Performance (%) | QTD | CYTD | 1 Yr | 5 Yr | 10 Yr |
|---|---|---|---|---|---|
| S&P 500 (Cap Wtd) | 12.15 | 18.40 | 18.40 | 15.22 | 13.88 |
| Russell 2000 | 31.37 | 19.96 | 19.96 | 13.26 | 11.20 |
| MSCI EAFE (Net) | 16.05 | 7.82 | 7.82 | 7.45 | 5.51 |
| MSCI EAFE SC (Net) | 17.27 | 12.34 | 12.34 | 9.40 | 7.85 |
| MSCI Emg Mkts (Net) | 19.70 | 18.31 | 18.31 | 12.81 | 3.63 |
| Bloomberg US Agg Bond | 0.67 | 7.51 | 7.51 | 4.44 | 3.84 |
| ICE BofAML 3 Mo US T-Bill | 0.03 | 0.67 | 0.67 | 1.20 | 0.63 |
| NCREIF ODCE (Gross) | 1.30 | 1.19 | 1.19 | 6.21 | 9.88 |
| FTSE NAREIT Eq REIT (TR) | 11.57 | -8.00 | -8.00 | 4.77 | 8.31 |
| HFRI FOF Comp | 7.59 | 10.34 | 10.34 | 4.46 | 3.27 |
| Bloomberg Cmdty (TR) | 10.19 | -3.12 | -3.12 | 1.03 | -6.50 |

## Treasury Yield Curve (%)




Treasury data courtesy of the US Department of the Treasury. Economic data courtesy of Bloomberg Professional Service.

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## Fourth Quarter Review

### Broad Market

US equity markets finished strong in Q4 following a period of heightened volatility earlier in the quarter. Negotiations around another US fiscal stimulus package stalled in October and spikes in coronavirus infections contributed to the S&P 500 Index returning -2.7% for the month. In the latter half of the quarter, optimism around vaccine authorization, the announcement of additional stimulus in December, and the prospect of further fiscal support drove positive investor sentiment.

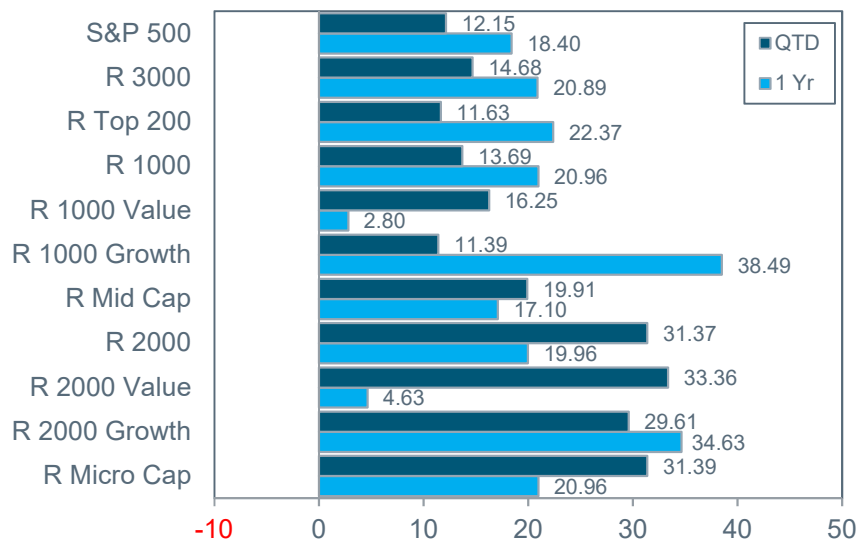
### Market Cap

Additionally, small-cap stocks fared best in Q4, a reversal of what was seen in Q3. The prospect of lockdowns easing in 2021 also contributed to strong performance for small-cap stocks, with the Russell 2000 Index up 31.4% relative to the S&P 500 Index returning 12.1%.

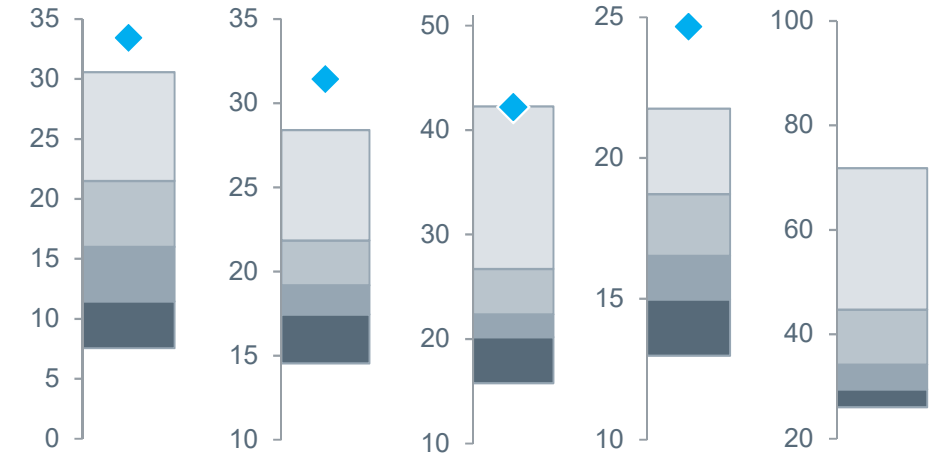
### Style and Sector

This quarter marked the end of a consistent string of growth-led quarters, with value stocks outperforming their growth counterparts.

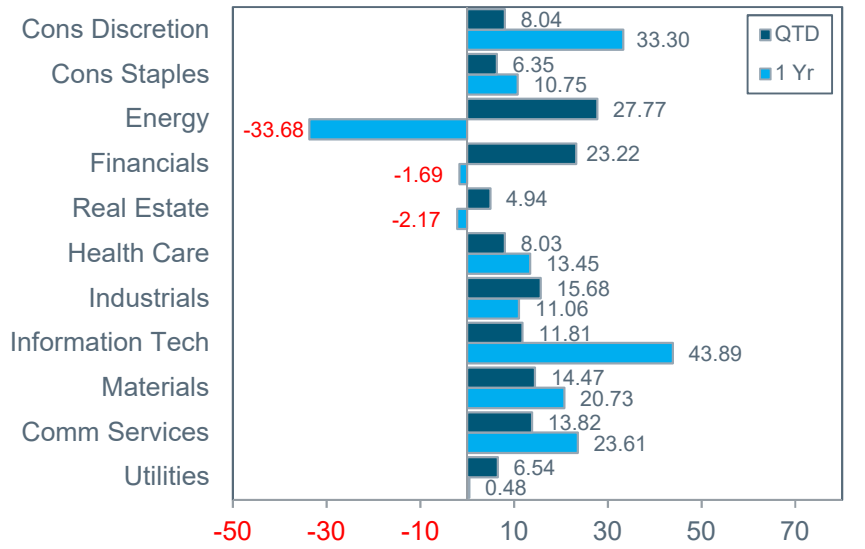
## Style and Capitalization Market Performance (%)




## Valuations




## S&P 500 Index Sector Performance (%)




Valuation data courtesy of Bloomberg Professional Service and Robert J. Shiller, Irrational Exuberance, Second Edition. P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers. Current R2000 P/E is unavailable due to negative earnings per share as of 12/31/2020.

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## Fourth Quarter Review

### Developed Markets

Developed international markets had another strong quarter of returns. Value stocks outperformed growth, while small stocks beat their larger counterparts. Nearly all developed market countries saw double digit positive returns for the quarter. Active management saw split results during the quarter, with a majority of small-cap developed international equity managers beating their benchmarks while the majority of large-cap managers underperformed.

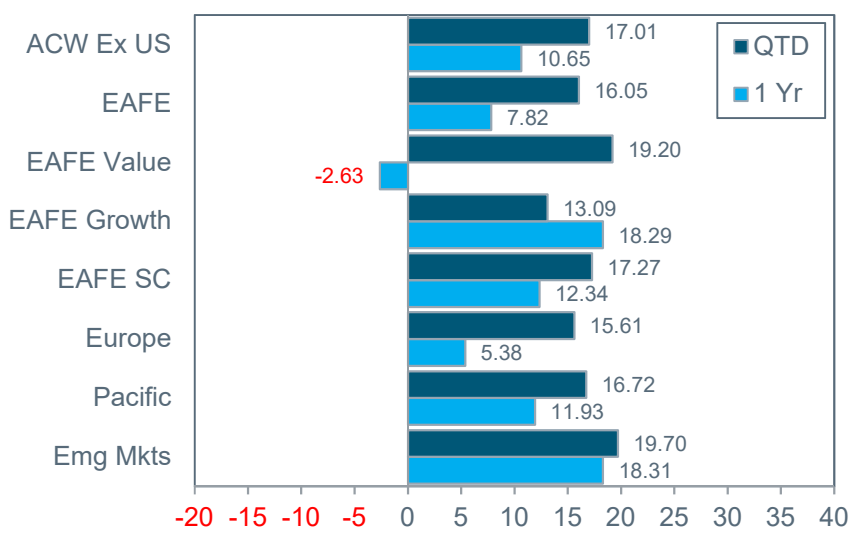
### Emerging Markets

Emerging markets outpaced developed during the quarter continuing the trend for the third quarter in a row. Emerging market value stocks outperformed growth, while small stocks continued their outperformance of large since Q2. All sectors posted positive performance for the quarter led by technology, but more value-oriented sectors were not far behind.

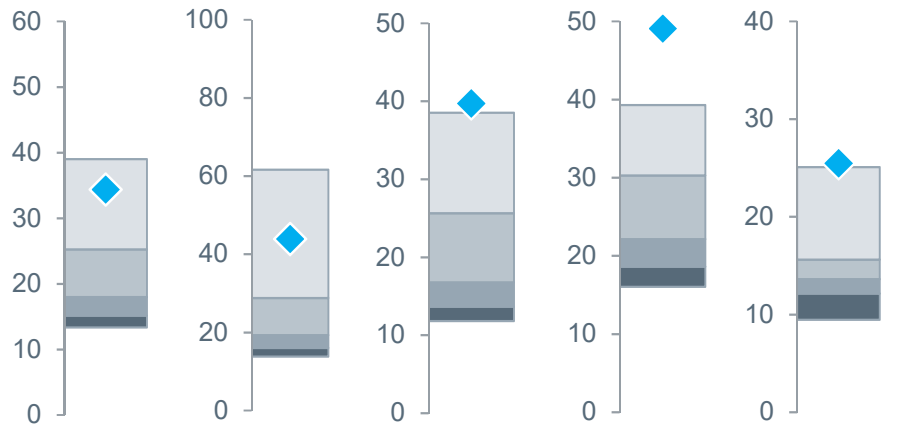
### Market Cap & Style

In both developed international markets and emerging markets, value stocks outperformed growth, while small-cap stocks outperformed large-cap.

## MSCI Style and Capitalization Market Performance (%)

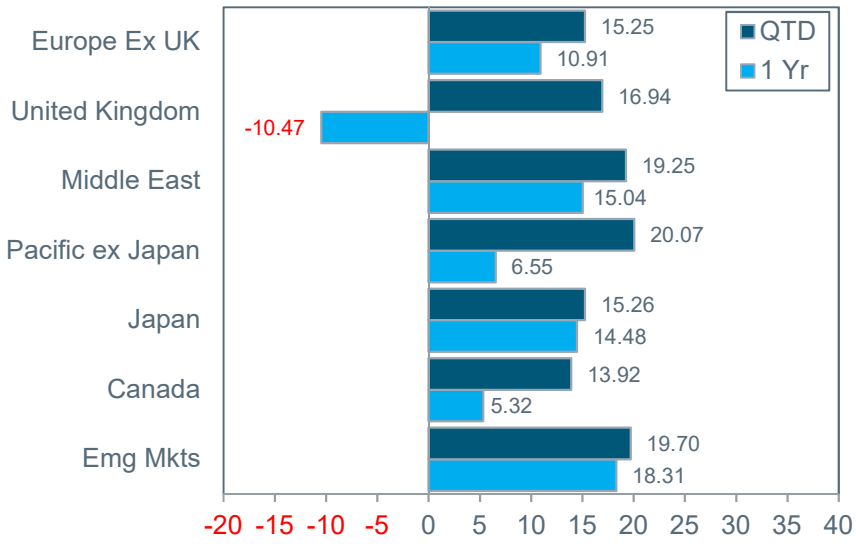



## Valuations




| Intl Equity | Developed Intl Equity | Developed Intl Value Equity | Developed Intl Growth Equity | Emerging Markets Equity |
|---|---|---|---|---|
| MSCI ACW x US | MSCI EAFE | MSCI EAFE Val | MSCI EAFE Grth | MSCI EM |
| 12M P/E | 12M P/E | 12M P/E | 12M P/E | 12M P/E |
| Since 1995 | Since 1995 | Since 1995 | Since 1995 | Since 1995 |

## MSCI Region Performance (%)




Valuation data courtesy of Bloomberg Professional Service.
P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.
All returns are shown net of foreign taxes on dividends.

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## Fourth Quarter Review

### Broad Market

The Bloomberg US Aggregate Index returned a modest 0.7% in Q4, capping off a 7.5% YTD return and an overall strong year for US fixed income, supported by record fiscal and monetary stimulus. In Q4, the Treasury yield curve steepened as front end rates remained anchored near zero, a sign of the Federal Reserve's continued support, while yields for intermediate- and long-dated maturities increased over Q4.

### Credit Market

The Bloomberg US Credit Index returned 2.8% for Q4 2020, outperforming the broader fixed income market. Despite record-setting new issuance, credit spreads continued to tighten, compressing to 92 bps.

### Emerging Market Debt

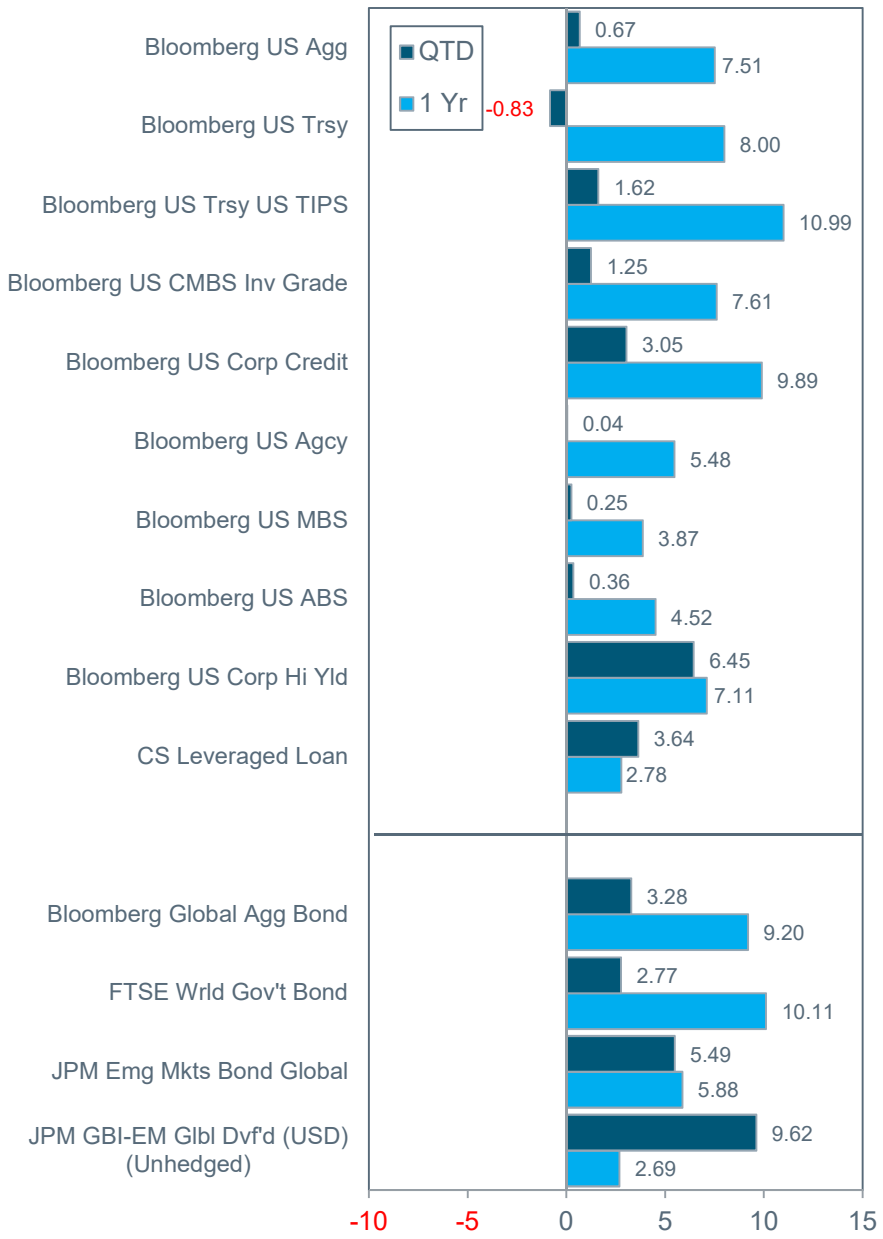
Emerging market debt also ended the year on a high note, with the JPM EMBI Global Diversified Index returning 5.8% for the quarter. However, the hard currency index was overshadowed by its local currency counterpart.

## Valuations




| US Treasury Bonds | US Aggregate Bonds | US Corporate Bonds | US Credit Bonds | US High-Yield Bonds |
|---|---|---|---|---|
| 10-Yr US Treasury Yields Since 1953 | Bloomberg US Agg Spreads Since 2000 | Bloomberg US Corp Spreads Since 1989 | Bloomberg US Credit Spreads Since 2000 | Bloomberg US Corp:HY Spreads Since 2000 |

## Fixed Income Performance (%)




Valuation data courtesy of Bloomberg Professional Service.
Valuations shown represent the 5th through 95th percentiles to minimize the effect of outliers.

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## Fourth Quarter Review - Absolute Return

### General Market - Hedge Funds

The hedge fund industry posted double digit gains in back to back years for the first time since 2009-2010 as the HFRI Fund Weighted Composite Index returned 10.7% in Q4, bringing YTD returns to 11.6%. Equity Long/Short ("ELS") managers led the way, reporting a Q4 return of 14.5% and a full-year return of 17.5% in one of the best alpha-generating years for fundamental equity managers in recent memory.

### General Market - Global Tactical Asset Allocation (GTAA)

Performance across GTAA strategies RVK follows closely generated positive absolute returns during the quarter ranging from mid-single digits to low double-digits. Long-biased strategies reported mixed performance versus a static and less diversified blend of 60% US equity and 40% US fixed income. Broadly speaking, strategies that have kept higher levels of risk and equity exposure have tended to outperform peers that opted to keep equity allocations relatively muted.

## Fourth Quarter Review - Real Assets

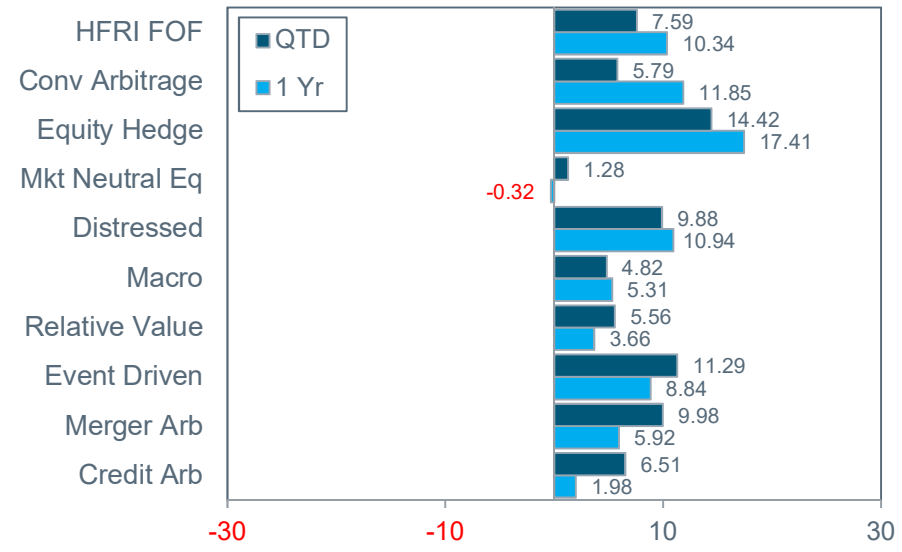
### General Market - Diversified Inflation Strategies (DIS)

Performance for DIS managers that RVK follows closely largely generated positive absolute performance during Q4, while producing mix results for the full year. For the quarter, most traditionally inflation-sensitive asset classes were drivers of positive returns. In Q4, strategies with relatively larger allocations to segments with higher historical volatility, such as REITs, listed infrastructure and global natural resources, generated stronger relative returns versus peers.

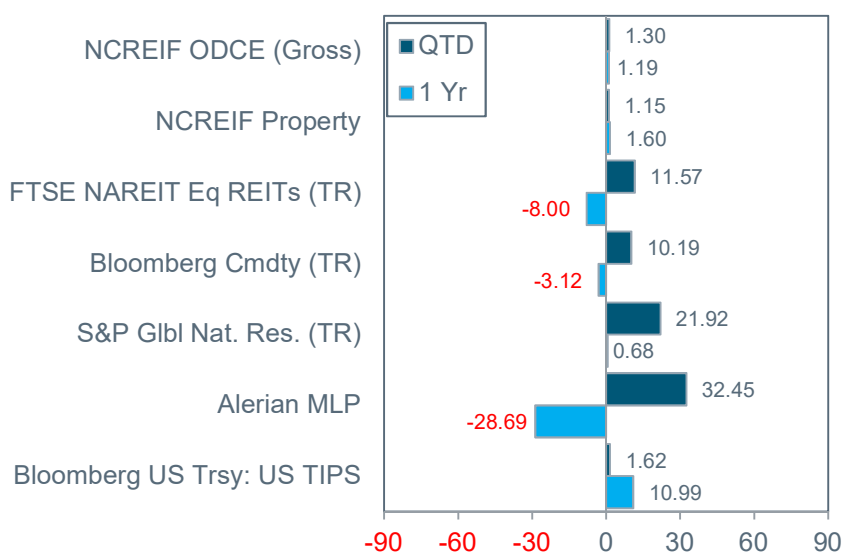
### General Market - Real Estate

Core private real estate returned 1.3% in Q4, as reported by the NFI-ODCE Index, with the total return comprised of 0.9% income and 0.4% price appreciation. While the income component remained relatively healthy and in-line with historical levels, price appreciation rebounded meaningfully from a negative return in Q3. Investors in publicly traded real estate outperformed their private market counterparts by a meaningful margin.

## HFRI Hedge Fund Performance (%)

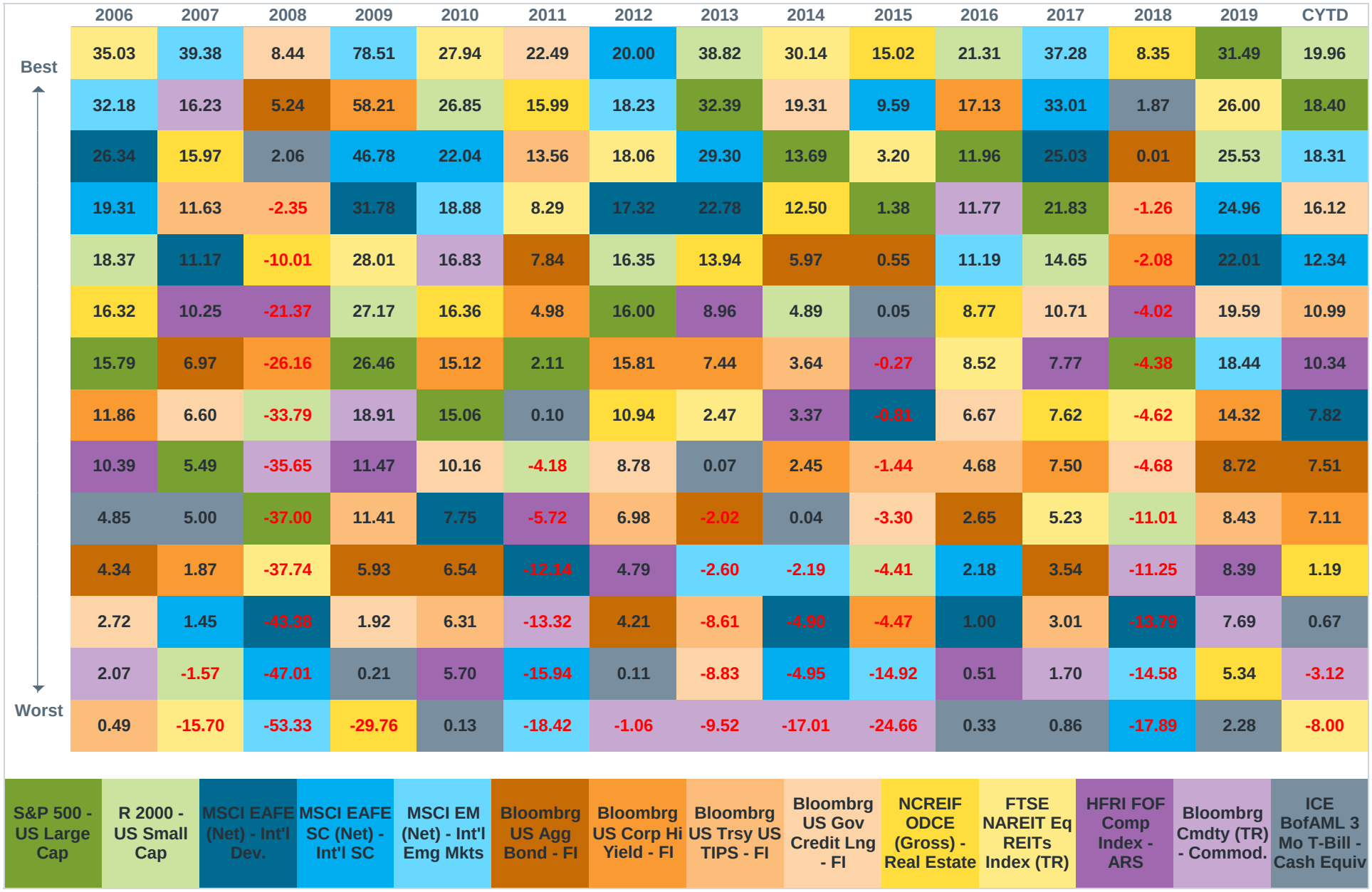



## Real Asset Performance (%)



## Annual Asset Class Performance

As of December 31, 2020



| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | CYTD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Best | 35.03 | 39.38 | 8.44 | 78.51 | 27.94 | 22.49 | 20.00 | 38.82 | 30.14 | 15.02 | 21.31 | 37.28 | 8.35 | 31.49 | 19.96 |
| | 32.18 | 16.23 | 5.24 | 58.21 | 26.85 | 15.99 | 18.23 | 32.39 | 19.31 | 9.59 | 17.13 | 33.01 | 1.87 | 26.00 | 18.40 |
| | 26.34 | 15.97 | 2.06 | 46.78 | 22.04 | 13.56 | 18.06 | 29.30 | 13.69 | 3.20 | 11.96 | 25.03 | 0.01 | 25.53 | 18.31 |
| | 19.31 | 11.63 | -2.35 | 31.78 | 18.88 | 8.29 | 17.32 | 22.78 | 12.50 | 1.38 | 11.77 | 21.83 | -1.26 | 24.96 | 16.12 |
| | 18.37 | 11.17 | -10.01 | 28.01 | 16.83 | 7.84 | 16.35 | 13.94 | 5.97 | 0.55 | 11.19 | 14.65 | -2.08 | 22.01 | 12.34 |
| | 16.32 | 10.25 | -21.37 | 27.17 | 16.36 | 4.98 | 16.00 | 8.96 | 4.89 | 0.05 | 8.77 | 10.71 | -4.02 | 19.59 | 10.99 |
| | 15.79 | 6.97 | -26.16 | 26.46 | 15.12 | 2.11 | 15.81 | 7.44 | 3.64 | -0.27 | 8.52 | 7.77 | -4.38 | 18.44 | 10.34 |
| | 11.86 | 6.60 | -33.79 | 18.91 | 15.06 | 0.10 | 10.94 | 2.47 | 3.37 | -0.81 | 6.67 | 7.62 | -4.62 | 14.32 | 7.82 |
| | 10.39 | 5.49 | -35.65 | 11.47 | 10.16 | -4.18 | 8.78 | 0.07 | 2.45 | -1.44 | 4.68 | 7.50 | -4.68 | 8.72 | 7.51 |
| | 4.85 | 5.00 | -37.00 | 11.41 | 7.75 | -5.72 | 6.98 | -2.02 | 0.04 | -3.30 | 2.65 | 5.23 | -11.01 | 8.43 | 7.11 |
| | 4.34 | 1.87 | -37.74 | 5.93 | 6.54 | -12.14 | 4.79 | -2.60 | -2.19 | -4.41 | 2.18 | 3.54 | -11.25 | 8.39 | 1.19 |
| | 2.72 | 1.45 | -43.38 | 1.92 | 6.31 | -13.32 | 4.21 | -8.61 | -4.90 | -4.47 | 1.00 | 3.01 | -13.79 | 7.69 | 0.67 |
| | 2.07 | -1.57 | -47.01 | 0.21 | 5.70 | -15.94 | 0.11 | -8.83 | -4.95 | -14.92 | 0.51 | 1.70 | -14.58 | 5.34 | -3.12 |
| Worst | 0.49 | -15.70 | -53.33 | -29.76 | 0.13 | -18.42 | -1.06 | -9.52 | -17.01 | -24.66 | 0.33 | 0.86 | -17.89 | 2.28 | -8.00 |
| | S&P 500 - US Large Cap | R 2000 - US Small Cap | MSCI EAFE (Net) - Int'l Dev. | MSCI EAFE SC (Net) - Int'l SC | MSCI EM (Net) - Int'l Emg Mkts | Bloomberg US Agg Bond - FI | Bloomberg US Corp Hi Yield - FI | Bloomberg US Trsy US TIPS - FI | Bloomberg US Gov Credit Lng - FI | NCREIF ODCE (Gross) - Real Estate | FTSE NAREIT Eq REITs Index (TR) | HFRI FOF Comp Index - ARS | Bloomberg Cmdty (TR) - Commod. | ICE BofAML 3 Mo T-Bill - Cash Equiv | |

NCREIF ODCE (Gross) performance is reported quarterly; performance is shown N/A in interim-quarter months.

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# Total Fund



**Commissioners of the Land Office, State of Oklahoma**
**Asset Allocation, Performance & Schedule of Investable Assets**

**As of December 31, 2020**

## Asset Allocation & Performance

| | Allocation | | Perf. (%) |
|---|---|---|---|
| | Market Value ($) | % | QTD |
| **Total Fund** | **2,534,542,651** | **100.00** | **9.31** |
| **Domestic Equity** | **577,740,851** | **22.79** | **18.54** |
| Robeco BPAM Premium Eq (SA) | 102,582,272 | 4.05 | 20.34 |
| Vanguard Hi Dv Yld;Adm (VHYAX) | 200,017,368 | 7.89 | 14.09 |
| BlackRock R 1000 Index Fund (CF) | 134,966,392 | 5.33 | 13.65 |
| Silvercrest Small Cap Value (SA) | 140,174,819 | 5.53 | 29.70 |
| **MLPs** | **138,548,559** | **5.47** | **22.85** |
| Harvest Fund Advisors MLP (SA) | 138,548,559 | 5.47 | 22.85 |
| **International Equity** | **263,842,131** | **10.41** | **17.75** |
| Vanguard I HD Y;Adm (VIHAX) | 125,413,285 | 4.95 | 18.63 |
| Vanguard Tot I S;Ins + (VTPSX) | 138,428,845 | 5.46 | 16.92 |

## Asset Allocation & Performance

| | Allocation | | Perf. (%) |
|---|---|---|---|
| | Market Value ($) | % | QTD |
| **Fixed Income** | **1,479,056,199** | **58.36** | **3.64** |
| Dodge & Cox Fixed Income (SA) | 226,205,951 | 8.92 | 2.47 |
| Cutwater Core Plus Select Income (SA) | 237,691,681 | 9.38 | 4.58 |
| Guggenheim (BBB) (SA) | 118,547,877 | 4.68 | 3.69 |
| JPMorgan MBS (SA) | 221,465,497 | 8.74 | 0.57 |
| Guggenheim CMBS (SA) | 106,814,175 | 4.21 | 0.68 |
| Allianz Global Investors US High Yield (SA) | 138,041,010 | 5.45 | 5.83 |
| Fort Washington High Yield (SA) | 138,024,029 | 5.45 | 5.95 |
| Cohen & Steers Preferreds (SA) | 273,372,919 | 10.79 | 5.54 |
| Oklahoma Treasurer's Cash Pool | 18,808,189 | 0.74 | 0.43 |
| Bank of Oklahoma Cash | 84,872 | 0.00 | 0.05 |
| **REITs** | **75,354,910** | **2.97** | **11.99** |
| CenterSquare US REIT Total Return Comp (SA) | 75,354,910 | 2.97 | 11.99 |

## Schedule of Investable Assets

| Periods Ending | Beginning Market Value ($) | Net Cash Flow ($) | Gain/Loss ($) | Ending Market Value ($) | % Return | Unit Value |
|---|---|---|---|---|---|---|
| **CYTD** | **2,517,915,642** | **-106,855,752** | **123,482,761** | **2,534,542,651** | **5.27** | **105.27** |

Allocations shown may not sum up to 100% exactly due to rounding. Performance shown is gross of fees.

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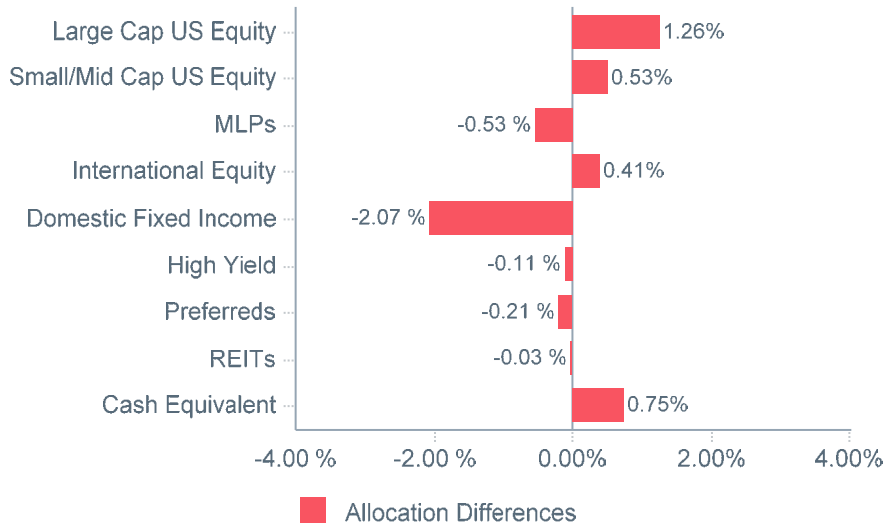
**Commissioners of the Land Office, State of Oklahoma**
**Total Fund vs. All Master Trust - Total Fund**
**Asset Allocation vs. Target and Plan Sponsor Peer Group**

**As of December 31, 2020**

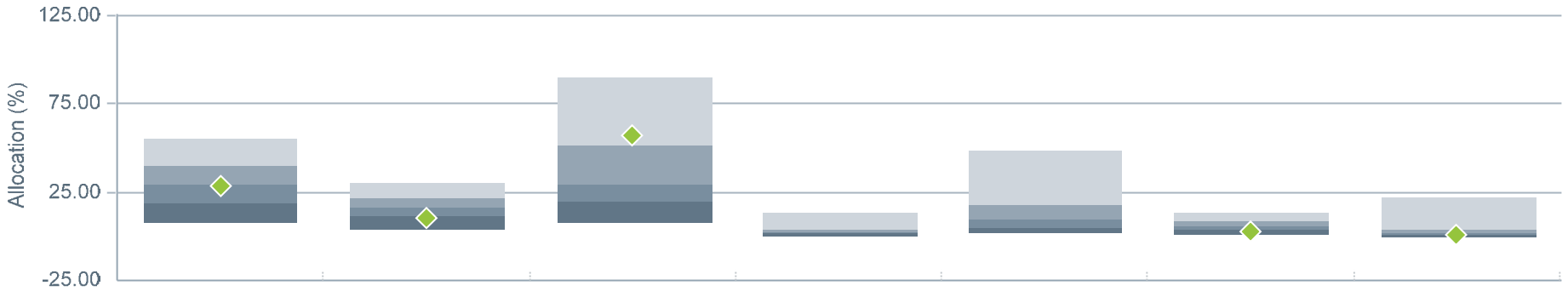
## Asset Allocation vs. Target Allocation

| | Market Value ($) | Allocation (%) | Target (%) |
|---|---|---|---|
| Large Cap US Equity | 437,566,032 | 17.26 | 16.00 |
| Small/Mid Cap US Equity | 140,174,819 | 5.53 | 5.00 |
| MLPs | 138,548,559 | 5.47 | 6.00 |
| International Equity | 263,842,131 | 10.41 | 10.00 |
| Domestic Fixed Income | 910,725,180 | 35.93 | 38.00 |
| High Yield | 276,065,039 | 10.89 | 11.00 |
| Preferreds | 273,372,919 | 10.79 | 11.00 |
| REITs | 75,354,910 | 2.97 | 3.00 |
| Cash Equivalent | 18,893,061 | 0.75 | 0.00 |
| Total Fund | 2,534,542,651 | 100.00 | 100.00 |

## Asset Allocation vs. Target Allocation Differences




## Asset Allocation vs. All Master Trust - Total Fund




| | US Equity | Global ex-US Equity | US Fixed | Global ex-US Fixed | Alternatives | Total Real Estate | Cash & Equivalents |
|---|---|---|---|---|---|---|---|
| Total Fund | 28.26 (54) | 10.41 (78) | 57.61 (22) | N/A | N/A | 2.97 (80) | 0.75 (69) |
| Median | 29.74 | 16.33 | 29.81 | 2.43 | 9.48 | 5.35 | 1.41 |
| Population | 2,429 | 2,137 | 2,157 | 395 | 1,084 | 917 | 1,185 |

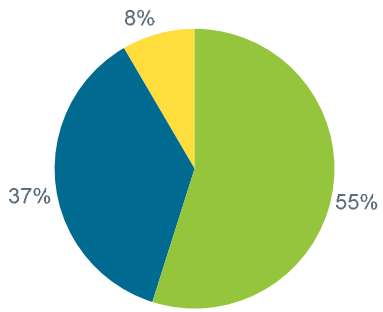
Allocations shown may not sum up to 100% exactly due to rounding. Robeco Boston Partners Premium Equity (SA) is included in the Large Cap US Equity market value. Domestic Fixed Income consists of Dodge & Cox Fixed Income (SA), Cutwater Core Plus Select Income (SA), Guggenheim (BBB) (SA), JPMorgan MBS (SA), and Guggenheim CMBS (SA). MLPs are included in the US Equity segment allocation.

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**Commissioners of the Land Office, State of Oklahoma**
**Total Fund - Thematic and Liquidity Analysis**

**As of December 31, 2020**

## Asset Allocation by Theme



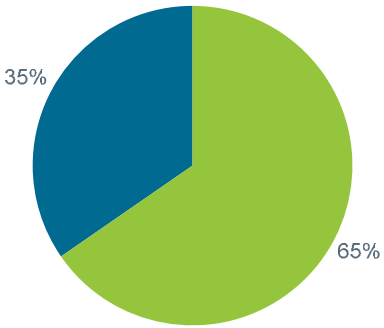

Capital Appreciation
Capital Preservation
Inflation

## Thematic Analysis - July 1, 1999 to December 31, 2020




Total Fund
Target Allocation Index
Fixed Income

## Asset Allocation by Liquidity




Liquid
Less Liquid

| | |
|---|---|
| **RVK Liquidity Rating** | **75** |

## Correlation Matrix - 10 Years

| | A | B | C | D |
|---|---|---|---|---|
| A | 1.00 | | | |
| B | 0.71 | 1.00 | | |
| C | -0.26 | -0.39 | 1.00 | |
| D | 0.61 | 0.79 | -0.10 | 1.00 |

| | | |
|---|---|---|
| A | = | HFRI EH: Equity Market Neutral Index (Alpha) |
| B | = | MSCI ACW Index (USD) (Gross) (Capital Appreciation) |
| C | = | Bloomberg US Gov't Bond Index (Capital Preservation) |
| D | = | Real Return Custom Index (Inflation) |

Asset Allocation by Theme is based on dedicated manager allocations; as such, thematic allocations are approximations. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating. Please see the Glossary for additional information regarding liquidity, thematic, and custom index descriptions.

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## Commissioners of the Land Office, State of Oklahoma
## Total Fund Yield - Trailing Periods

As of November 30, 2020

| | Yield % | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MTD | CYTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | Since Inception | Inception Date |
| Total Fund Yield | 0.31 | 3.64 | 4.10 | 4.08 | 4.09 | 4.06 | 4.11 | 4.13 | 4.10 | 4.01 | 3.18 | 01/01/2008 |
| Total Fund Yield ($) | $7,218,800 | $85,059,193 | $96,302,774 | $96,596,543 | $94,963,200 | $93,352,005 | $89,594,338 | $99,117,382 | $97,089,967 | $93,496,051 | | |

The Total Fund Yield is calculated by dividing the total manager income distributed by the average period market value.
Yield is arithmetically annualized for periods greater than one year. Yield shown is on a trailing basis as of the end of the prior month.

RVK

**Commissioners of the Land Office, State of Oklahoma**
**Comparative Performance (Net of Fees) - Trailing Periods**

**As of December 31, 2020**

| | QTD | CYTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | Since Incep. | Inception Date |
|---|---|---|---|---|---|---|---|---|---|
| **Total Fund** | **9.25** | **5.00** | **5.00** | **4.88** | **6.77** | **5.10** | **5.99** | **6.78** | **12/01/1995** |
| Target Allocation Index | 8.63 | 8.93 | 8.93 | 6.70 | 7.73 | 5.81 | 6.40 | 6.92 | |
| Difference | 0.62 | -3.93 | -3.93 | -1.82 | -0.96 | -0.71 | -0.41 | -0.14 | |
| Actual Allocation Index | 9.18 | 4.24 | 4.24 | 4.68 | 6.49 | 4.86 | 5.72 | N/A | |
| Difference | 0.07 | 0.76 | 0.76 | 0.20 | 0.28 | 0.24 | 0.27 | N/A | |
| | | | | | | | | | |
| **Domestic Equity** | **18.47** | **7.28** | **7.28** | **6.98** | **11.18** | **8.81** | **10.80** | **8.89** | **12/01/1995** |
| Russell 3000 Index | 14.68 | 20.89 | 20.89 | 14.49 | 15.43 | 12.76 | 13.79 | 9.71 | |
| Difference | 3.79 | -13.61 | -13.61 | -7.51 | -4.25 | -3.95 | -2.99 | -0.82 | |
| | | | | | | | | | |
| **MLPs** | **22.64** | **-24.76** | **-24.76** | **-10.10** | **-4.10** | **N/A** | **N/A** | **-6.40** | **03/01/2014** |
| MLP Custom Index | 29.23 | -28.75 | -28.75 | -11.76 | -4.50 | -7.72 | -1.17 | -8.02 | |
| Difference | -6.59 | 3.99 | 3.99 | 1.66 | 0.40 | N/A | N/A | 1.62 | |
| | | | | | | | | | |
| **International Equity** | **17.71** | **6.41** | **6.41** | **3.43** | **8.13** | **4.23** | **4.31** | **3.50** | **05/01/2007** |
| Vanguard Spl Tot Int'l Stock Index | 17.21 | 11.24 | 11.24 | 4.98 | 9.07 | 5.21 | 5.18 | 3.01 | |
| Difference | 0.50 | -4.83 | -4.83 | -1.55 | -0.94 | -0.98 | -0.87 | 0.49 | |
| | | | | | | | | | |
| **Fixed Income** | **3.58** | **8.53** | **8.53** | **6.32** | **6.33** | **5.43** | **5.67** | **6.69** | **07/01/1999** |
| Bloomberg US Unv Bond Index | 1.29 | 7.58 | 7.58 | 5.45 | 4.87 | 4.32 | 4.16 | 5.30 | |
| Difference | 2.29 | 0.95 | 0.95 | 0.87 | 1.46 | 1.11 | 1.51 | 1.39 | |
| | | | | | | | | | |
| **REITs** | **11.85** | **-3.91** | **-3.91** | **4.91** | **5.83** | **9.10** | **9.29** | **8.50** | **08/01/2008** |
| FTSE NAREIT Eq REITs Index (TR) | 11.57 | -8.00 | -8.00 | 3.40 | 4.77 | 7.83 | 8.31 | 6.83 | |
| Difference | 0.28 | 4.09 | 4.09 | 1.51 | 1.06 | 1.27 | 0.98 | 1.67 | |

RVK began monitoring the assets of Commissioners of the Land Office, State of Oklahoma as of 07/01/2005. Prior historical data was provided by the previous consultant. Performance shown is net of fees. Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark. Please see the Addendum for custom index definitions.

RVK

**Commissioners of the Land Office, State of Oklahoma**
**Comparative Performance (Net of Fees) - Calendar Years**

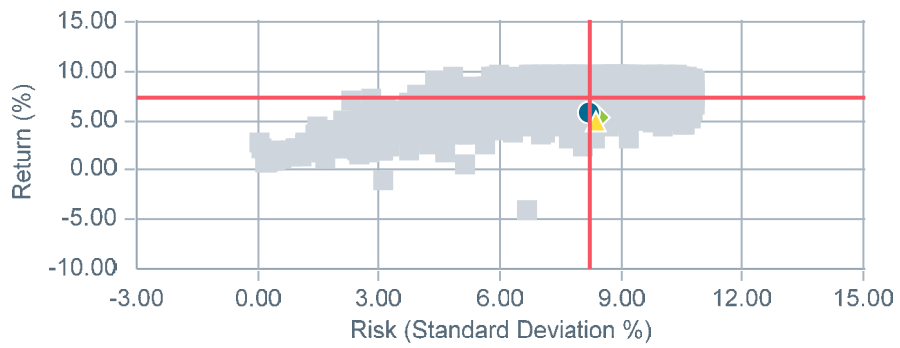
**As of December 31, 2020**

| | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Total Fund** | **16.28** | **-5.50** | **9.56** | **9.79** | **-3.72** | **6.04** | **10.19** | **12.30** | **2.00** | **13.86** |
| Target Allocation Index | 16.71 | -4.45 | 9.25 | 9.35 | -4.01 | 6.60 | 9.07 | 11.64 | 2.88 | 12.58 |
| Difference | -0.43 | -1.05 | 0.31 | 0.44 | 0.29 | -0.56 | 1.12 | 0.66 | -0.88 | 1.28 |
| Actual Allocation Index | 16.12 | -5.23 | 8.44 | 10.10 | -4.57 | 6.63 | 9.81 | 11.51 | 2.17 | 12.42 |
| Difference | 0.16 | -0.27 | 1.12 | -0.31 | 0.85 | -0.59 | 0.38 | 0.79 | -0.17 | 1.44 |
| **Domestic Equity** | **26.40** | **-9.72** | **16.66** | **18.93** | **-2.33** | **8.86** | **35.67** | **16.04** | **-1.96** | **17.42** |
| Russell 3000 Index | 31.02 | -5.24 | 21.13 | 12.74 | 0.48 | 12.56 | 33.55 | 16.42 | 1.03 | 16.93 |
| Difference | -4.62 | -4.48 | -4.47 | 6.19 | -2.81 | -3.70 | 2.12 | -0.38 | -2.99 | 0.49 |
| **MLPs** | **10.99** | **-12.99** | **-4.51** | **16.90** | **-28.45** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** |
| MLP Custom Index | 10.29 | -12.56 | -5.79 | 22.73 | -33.50 | 7.89 | 29.96 | 5.19 | 14.10 | 36.44 |
| Difference | 0.70 | -0.43 | 1.28 | -5.83 | 5.05 | N/A | N/A | N/A | N/A | N/A |
| **International Equity** | **21.50** | **-14.42** | **27.52** | **4.78** | **-4.16** | **-5.66** | **21.30** | **14.93** | **-18.14** | **15.56** |
| Vanguard Spl Tot Int'l Stock Index | 21.80 | -14.61 | 27.41 | 4.72 | -4.29 | -3.39 | 15.76 | 17.04 | -14.31 | 10.69 |
| Difference | -0.30 | 0.19 | 0.11 | 0.06 | 0.13 | -2.27 | 5.54 | -2.11 | -3.83 | 4.87 |
| **Fixed Income** | **11.86** | **-1.01** | **6.45** | **6.27** | **0.38** | **6.11** | **2.62** | **10.55** | **5.66** | **11.92** |
| Bloomberg US Unv Bond Index | 9.29 | -0.25 | 4.09 | 3.91 | 0.43 | 5.56 | -1.35 | 5.53 | 7.40 | 7.16 |
| Difference | 2.57 | -0.76 | 2.36 | 2.36 | -0.05 | 0.55 | 3.97 | 5.02 | -1.74 | 4.76 |
| **REITs** | **26.76** | **-5.20** | **6.27** | **8.20** | **4.96** | **31.98** | **3.20** | **17.11** | **9.36** | **29.81** |
| FTSE NAREIT Eq REITs Index (TR) | 26.00 | -4.62 | 5.23 | 8.52 | 3.20 | 30.14 | 2.47 | 18.06 | 8.29 | 27.94 |
| Difference | 0.76 | -0.58 | 1.04 | -0.32 | 1.76 | 1.84 | 0.73 | -0.95 | 1.07 | 1.87 |

RVK began monitoring the assets of Commissioners of the Land Office, State of Oklahoma as of 07/01/2005. Prior historical data was provided by the previous consultant. Performance shown is net of fees. Please see the Addendum for custom index definitions.

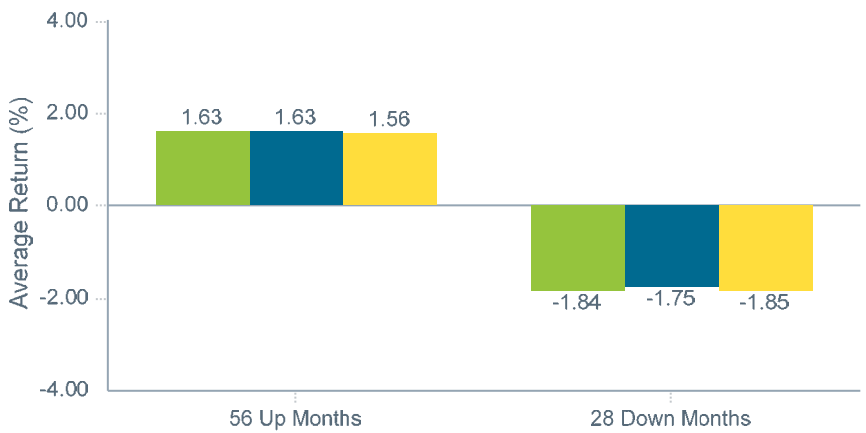
RVK

## Plan Sponsor Scattergram - 7 Years




| | Return | Standard Deviation |
|---|---|---|
| Total Fund | 5.42 | 8.43 |
| Target Allocation Index | 5.81 | 8.23 |
| Actual Allocation Index | 4.86 | 8.36 |
| Median | 7.41 | 8.23 |

## Up/Down Markets - 7 Years




## Plan Sponsor Peer Group Analysis - Multi Statistics (Beta vs. S&P 500)




| | 7 Years | 7 Years | 7 Years | 7 Years | 7 Years |
|---|---|---|---|---|---|
| Total Fund | 8.43 (46) | 0.56 (95) | 4.79 (84) | 5.92 (29) | 0.55 (50) |
| Target Allocation Index | 8.23 (50) | 0.62 (90) | 5.14 (81) | 5.41 (46) | 0.53 (53) |
| Actual Allocation Index | 8.36 (48) | 0.50 (98) | 4.24 (89) | 5.86 (31) | 0.54 (52) |
| Median | 8.23 | 0.82 | 6.70 | 5.24 | 0.55 |
| Population | 2,712 | 2,712 | 2,712 | 2,712 | 2,712 |

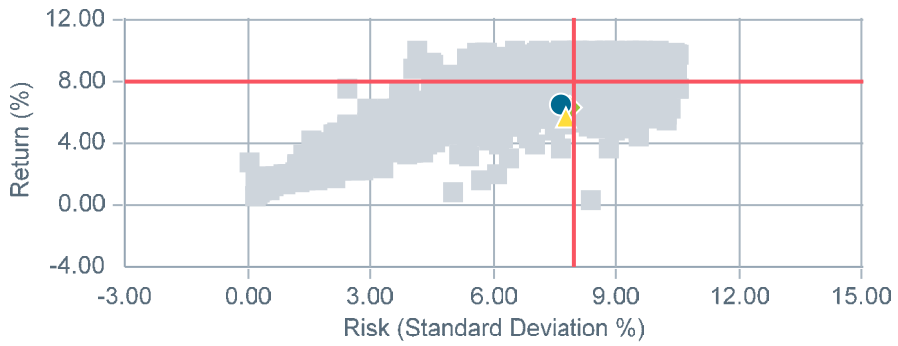
Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

RVK

**Commissioners of the Land Office, State of Oklahoma**
**Total Fund vs. All Master Trust - Total Fund**

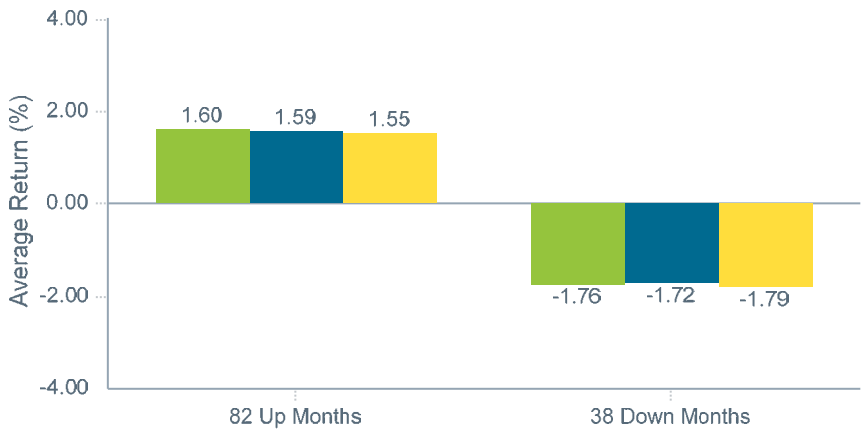
**As of December 31, 2020**

## Plan Sponsor Scattergram - 10 Years




| | Return | Standard Deviation |
|---|---|---|
| Total Fund | 6.33 | 7.85 |
| Target Allocation Index | 6.40 | 7.71 |
| Actual Allocation Index | 5.72 | 7.80 |
| Median | 7.94 | 7.99 |

## Up/Down Markets - 10 Years




## Plan Sponsor Peer Group Analysis - Multi Statistics (Beta vs. S&P 500)




| | 10 Years | 10 Years | 10 Years | 10 Years | 10 Years |
|---|---|---|---|---|---|
| Total Fund | 7.85 (54) | 0.74 (88) | 5.83 (79) | 5.35 (41) | 0.53 (55) |
| Target Allocation Index | 7.71 (57) | 0.76 (85) | 5.89 (79) | 4.95 (52) | 0.52 (57) |
| Actual Allocation Index | 7.80 (55) | 0.67 (94) | 5.25 (85) | 5.31 (42) | 0.53 (56) |
| Median | 7.99 | 0.93 | 7.37 | 5.01 | 0.55 |
| Population | 2,349 | 2,349 | 2,349 | 2,349 | 2,349 |

Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

RVK

**Commissioners of the Land Office, State of Oklahoma**
**Comparative Performance (Gross of Fees) - Trailing Periods**

**As of December 31, 2020**

| | QTD | CYTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | Since Incep. | Inception Date |
|---|---|---|---|---|---|---|---|---|---|
| **Total Fund** | **9.31** | **5.27** | **5.27** | **5.16** | **7.07** | **5.42** | **6.33** | **7.01** | **12/01/1995** |
| Target Allocation Index | 8.63 | 8.93 | 8.93 | 6.70 | 7.73 | 5.81 | 6.40 | 6.92 | |
| Difference | 0.68 | -3.66 | -3.66 | -1.54 | -0.66 | -0.39 | -0.07 | 0.09 | |
| Actual Allocation Index | 9.18 | 4.24 | 4.24 | 4.68 | 6.49 | 4.86 | 5.72 | N/A | |
| Difference | 0.13 | 1.03 | 1.03 | 0.48 | 0.58 | 0.56 | 0.61 | N/A | |
| All Master Trust - Total Fund Median | 9.36 | 12.13 | 12.13 | 8.29 | 9.41 | 7.41 | 7.94 | 7.64 | |
| Rank | 51 | 94 | 94 | 91 | 84 | 85 | 79 | 76 | |
| | | | | | | | | | |
| **Domestic Equity** | **18.54** | **7.55** | **7.55** | **7.27** | **11.51** | **9.16** | **11.20** | **9.16** | **12/01/1995** |
| Russell 3000 Index | 14.68 | 20.89 | 20.89 | 14.49 | 15.43 | 12.76 | 13.79 | 9.71 | |
| Difference | 3.86 | -13.34 | -13.34 | -7.22 | -3.92 | -3.60 | -2.59 | -0.55 | |
| All Master Trust-US Equity Segment Median | 15.05 | 18.13 | 18.13 | 12.57 | 14.29 | 11.60 | 12.72 | 9.53 | |
| Rank | 15 | 96 | 96 | 96 | 86 | 85 | 77 | 64 | |
| | | | | | | | | | |
| **MLPs** | **22.85** | **-24.20** | **-24.20** | **-9.46** | **-3.43** | **N/A** | **N/A** | **-5.75** | **03/01/2014** |
| MLP Custom Index | 29.23 | -28.75 | -28.75 | -11.76 | -4.50 | -7.72 | -1.17 | -8.02 | |
| Difference | -6.38 | 4.55 | 4.55 | 2.30 | 1.07 | N/A | N/A | 2.27 | |
| | | | | | | | | | |
| **International Equity** | **17.75** | **6.56** | **6.56** | **3.53** | **8.22** | **4.41** | **4.61** | **3.87** | **05/01/2007** |
| Vanguard Spl Tot Int'l Stock Index | 17.21 | 11.24 | 11.24 | 4.98 | 9.07 | 5.21 | 5.18 | 3.01 | |
| Difference | 0.54 | -4.68 | -4.68 | -1.45 | -0.85 | -0.80 | -0.57 | 0.86 | |
| All Master Trust-Intl. Equity Segment Median | 17.03 | 11.70 | 11.70 | 5.92 | 9.78 | 5.95 | 6.40 | 4.09 | |
| Rank | 36 | 89 | 89 | 89 | 84 | 92 | 97 | 59 | |
| | | | | | | | | | |
| **Fixed Income** | **3.64** | **8.76** | **8.76** | **6.56** | **6.59** | **5.68** | **5.93** | **6.88** | **07/01/1999** |
| Bloomberg US Unv Bond Index | 1.29 | 7.58 | 7.58 | 5.45 | 4.87 | 4.32 | 4.16 | 5.30 | |
| Difference | 2.35 | 1.18 | 1.18 | 1.11 | 1.72 | 1.36 | 1.77 | 1.58 | |
| All Master Trust-US Fixed Income Segment Median | 1.62 | 8.58 | 8.58 | 5.77 | 5.36 | 4.67 | 4.69 | 5.82 | |
| Rank | 12 | 48 | 48 | 30 | 29 | 31 | 26 | 31 | |
| | | | | | | | | | |
| **REITs** | **11.99** | **-3.42** | **-3.42** | **5.44** | **6.38** | **9.66** | **9.87** | **9.06** | **08/01/2008** |
| FTSE NAREIT Eq REITs Index (TR) | 11.57 | -8.00 | -8.00 | 3.40 | 4.77 | 7.83 | 8.31 | 6.83 | |
| Difference | 0.42 | 4.58 | 4.58 | 2.04 | 1.61 | 1.83 | 1.56 | 2.23 | |

RVK began monitoring the assets of Commissioners of the Land Office, State of Oklahoma as of 07/01/2005. Prior historical data was provided by the previous consultant. Performance shown is gross of fees. Please see the Addendum for custom index definitions.

RVK

**Commissioners of the Land Office, State of Oklahoma**
**Comparative Performance (Gross of Fees) - Calendar Years**

**As of December 31, 2020**

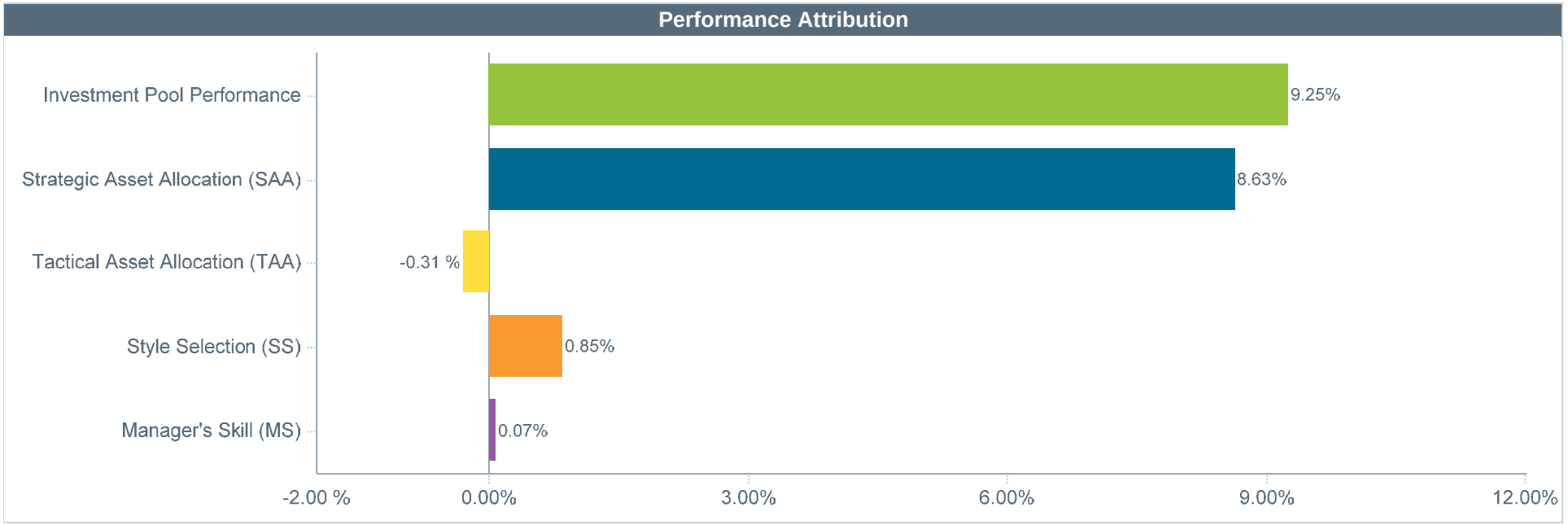
| | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Total Fund** | **16.58** | **-5.23** | **9.88** | **10.12** | **-3.38** | **6.44** | **10.57** | **12.73** | **2.38** | **14.24** |
| Target Allocation Index | 16.71 | -4.45 | 9.25 | 9.35 | -4.01 | 6.60 | 9.07 | 11.64 | 2.88 | 12.58 |
| Difference | -0.13 | -0.78 | 0.63 | 0.77 | 0.63 | -0.16 | 1.50 | 1.09 | -0.50 | 1.66 |
| Actual Allocation Index | 16.12 | -5.23 | 8.44 | 10.10 | -4.57 | 6.63 | 9.81 | 11.51 | 2.17 | 12.42 |
| Difference | 0.46 | 0.00 | 1.44 | 0.02 | 1.19 | -0.19 | 0.76 | 1.22 | 0.21 | 1.82 |
| All Master Trust - Total Fund Median | 18.28 | -4.22 | 14.75 | 7.47 | -0.71 | 6.17 | 14.11 | 12.43 | 0.79 | 12.57 |
| Rank | 67 | 69 | 86 | 7 | 89 | 47 | 71 | 45 | 31 | 20 |
| | | | | | | | | | | |
| **Domestic Equity** | **26.72** | **-9.44** | **17.05** | **19.35** | **-1.97** | **9.26** | **36.12** | **16.64** | **-1.44** | **18.05** |
| Russell 3000 Index | 31.02 | -5.24 | 21.13 | 12.74 | 0.48 | 12.56 | 33.55 | 16.42 | 1.03 | 16.93 |
| Difference | -4.30 | -4.20 | -4.08 | 6.61 | -2.45 | -3.30 | 2.57 | 0.22 | -2.47 | 1.12 |
| All Master Trust-US Equity Segment Median | 28.73 | -5.79 | 20.72 | 12.45 | 0.27 | 11.08 | 33.34 | 16.63 | 0.11 | 17.64 |
| Rank | 67 | 95 | 90 | 2 | 83 | 78 | 19 | 50 | 75 | 44 |
| | | | | | | | | | | |
| **MLPs** | **11.75** | **-12.39** | **-3.85** | **17.70** | **-27.94** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** |
| MLP Custom Index | 10.29 | -12.56 | -5.79 | 22.73 | -33.50 | 7.89 | 29.96 | 5.19 | 14.10 | 36.44 |
| Difference | 1.46 | 0.17 | 1.94 | -5.03 | 5.56 | N/A | N/A | N/A | N/A | N/A |
| | | | | | | | | | | |
| **International Equity** | **21.58** | **-14.36** | **27.61** | **4.85** | **-3.91** | **-5.16** | **21.95** | **15.46** | **-17.65** | **16.23** |
| Vanguard Spl Tot Int'l Stock Index | 21.80 | -14.61 | 27.41 | 4.72 | -4.29 | -3.39 | 15.76 | 17.04 | -14.31 | 10.69 |
| Difference | -0.22 | 0.25 | 0.20 | 0.13 | 0.38 | -1.77 | 6.19 | -1.58 | -3.34 | 5.54 |
| All Master Trust-Intl. Equity Segment Median | 22.67 | -13.69 | 28.24 | 4.37 | -2.94 | -2.23 | 18.68 | 18.39 | -12.55 | 12.80 |
| Rank | 75 | 64 | 57 | 42 | 63 | 95 | 26 | 91 | 100 | 16 |
| | | | | | | | | | | |
| **Fixed Income** | **12.13** | **-0.76** | **6.71** | **6.53** | **0.63** | **6.38** | **2.89** | **10.83** | **5.94** | **12.20** |
| Bloomberg US Unv Bond Index | 9.29 | -0.25 | 4.09 | 3.91 | 0.43 | 5.56 | -1.35 | 5.53 | 7.40 | 7.16 |
| Difference | 2.84 | -0.51 | 2.62 | 2.62 | 0.20 | 0.82 | 4.24 | 5.30 | -1.46 | 5.04 |
| All Master Trust-US Fixed Income Segment Median | 9.09 | -0.39 | 4.78 | 4.24 | -0.01 | 6.01 | -1.82 | 7.78 | 7.78 | 8.81 |
| Rank | 28 | 59 | 28 | 28 | 30 | 42 | 4 | 12 | 77 | 9 |
| | | | | | | | | | | |
| **REITs** | **27.39** | **-4.71** | **6.84** | **8.78** | **5.52** | **32.68** | **3.76** | **17.72** | **10.04** | **30.45** |
| FTSE NAREIT Eq REITs Index (TR) | 26.00 | -4.62 | 5.23 | 8.52 | 3.20 | 30.14 | 2.47 | 18.06 | 8.29 | 27.94 |
| Difference | 1.39 | -0.09 | 1.61 | 0.26 | 2.32 | 2.54 | 1.29 | -0.34 | 1.75 | 2.51 |

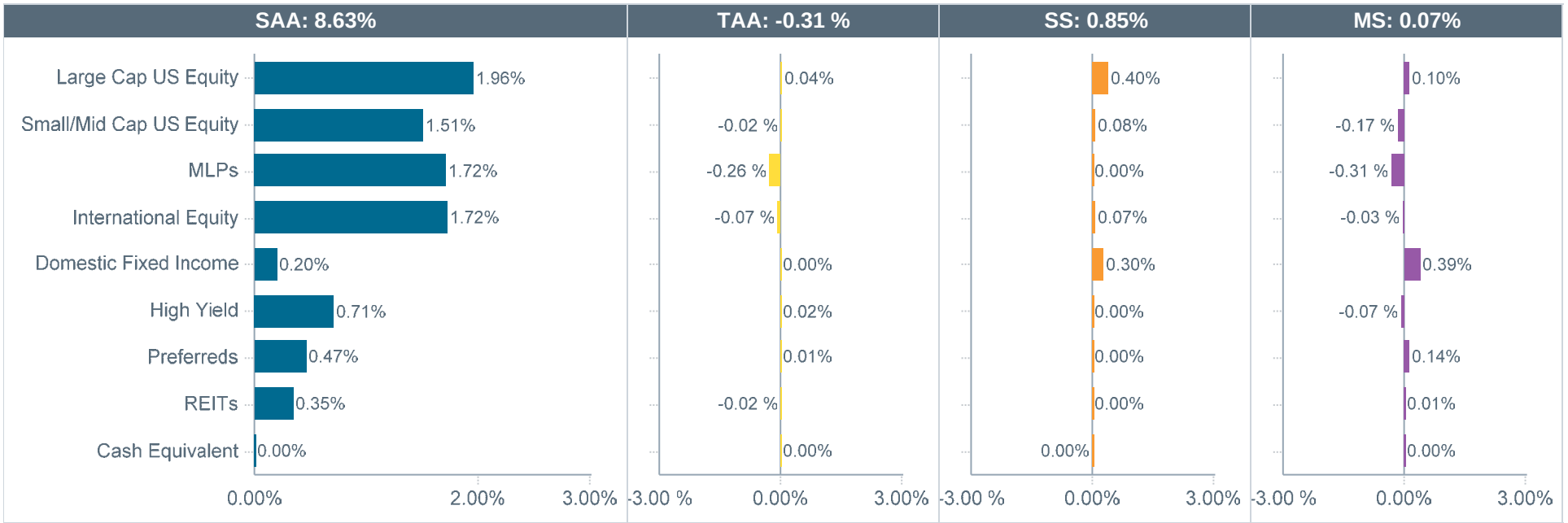
RVK began monitoring the assets of Commissioners of the Land Office, State of Oklahoma as of 07/01/2005. Prior historical data was provided by the previous consultant. Performance shown is gross of fees. Please see the Addendum for custom index definitions.

RVK

**Commissioners of the Land Office, State of Oklahoma**
**Total Fund Attribution - IDP**

**Quarter To Date Ending December 31, 2020**



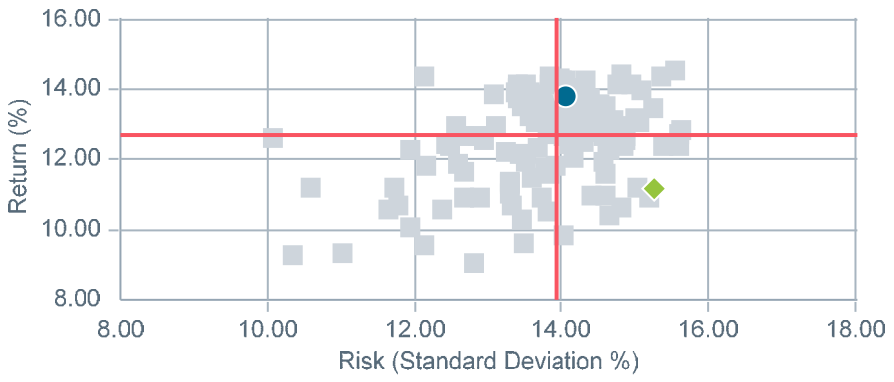

Performance shown is net of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.

RVK

**Commissioners of the Land Office, State of Oklahoma**
**Domestic Equity vs. All Master Trust-US Equity Segment**

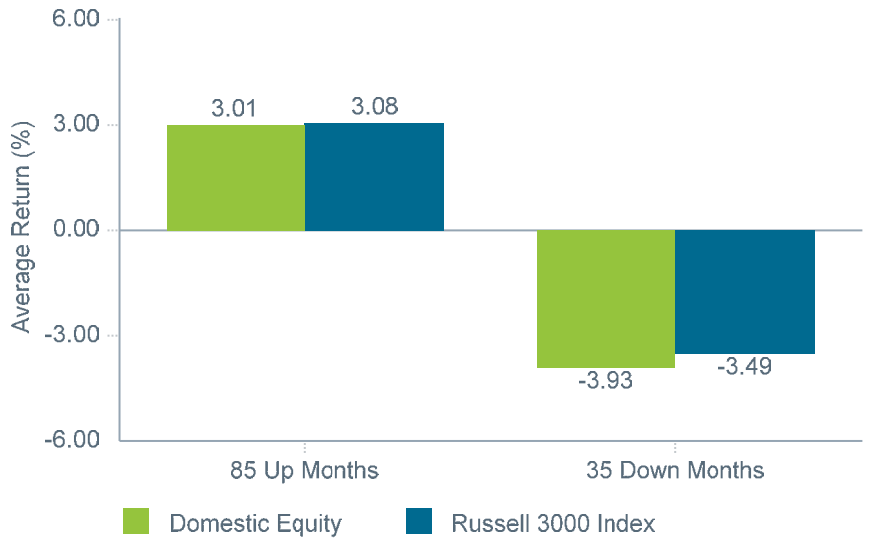
**As of December 31, 2020**

## Plan Sponsor Scattergram - 10 Years




| | Return | Standard Deviation |
|---|---|---|
| Domestic Equity | 11.20 | 15.26 |
| Russell 3000 Index | 13.79 | 14.08 |
| Median | 12.72 | 13.95 |

## Up/Down Markets - 10 Years




## Plan Sponsor Peer Group Analysis - Multi Statistics (Beta vs. S&P 500)




| | 10 Years | 10 Years | 10 Years | 10 Years | 10 Years |
|---|---|---|---|---|---|
| Domestic Equity | 15.26 (10) | 0.73 (93) | 11.20 (74) | 9.91 (8) | 1.09 (9) |
| Russell 3000 Index | 14.08 (44) | 0.95 (28) | 13.35 (23) | 8.67 (53) | 1.04 (33) |
| Median | 13.95 | 0.89 | 12.44 | 8.72 | 1.01 |
| Population | 159 | 159 | 159 | 159 | 159 |

Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

RVK

**Commissioners of the Land Office, State of Oklahoma**
**Domestic Equity vs. Russell 3000 Index**
**Portfolio Characteristics**

**As of December 31, 2020**

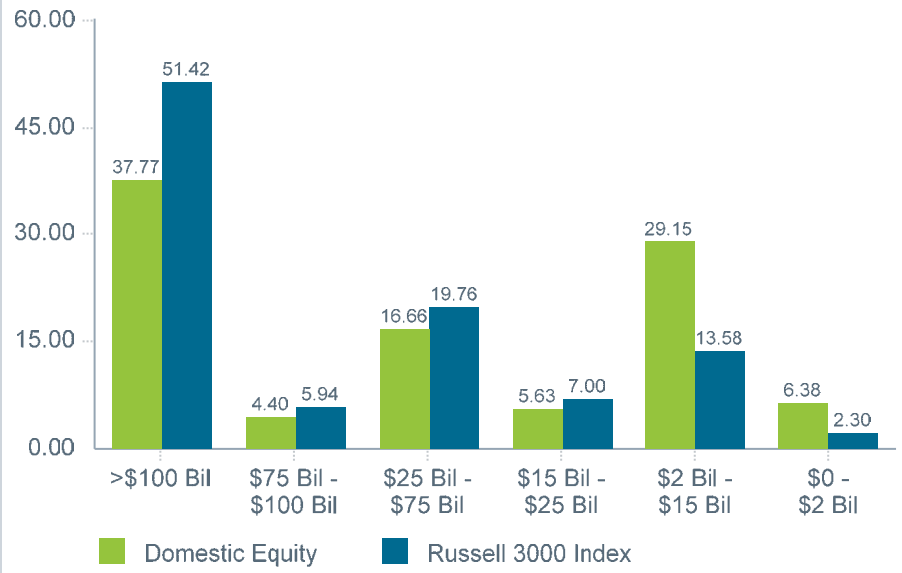
## Top Ten Equity Holdings

| | Portfolio Weight (%) | Benchmark Weight (%) | Active Weight (%) | Quarterly Return (%) |
|---|---|---|---|---|
| Johnson & Johnson | 2.07 | 1.10 | 0.97 | 6.45 |
| JPMorgan Chase & Co | 1.82 | 1.02 | 0.80 | 33.19 |
| Apple Inc | 1.41 | 5.68 | -4.27 | 14.77 |
| Procter & Gamble Co (The) | 1.29 | 0.90 | 0.39 | 0.67 |
| Bank of America Corp | 1.25 | 0.62 | 0.63 | 26.60 |
| Microsoft Corp | 1.10 | 4.41 | -3.31 | 6.03 |
| Pfizer Inc | 1.07 | 0.54 | 0.53 | 6.72 |
| Merck & Co Inc | 0.96 | 0.55 | 0.41 | -0.59 |
| Verizon Communications Inc | 0.92 | 0.65 | 0.27 | -0.20 |
| Amazon.com Inc | 0.91 | 3.66 | -2.75 | 3.44 |
| % of Portfolio | 12.80 | 19.13 | -6.33 | |

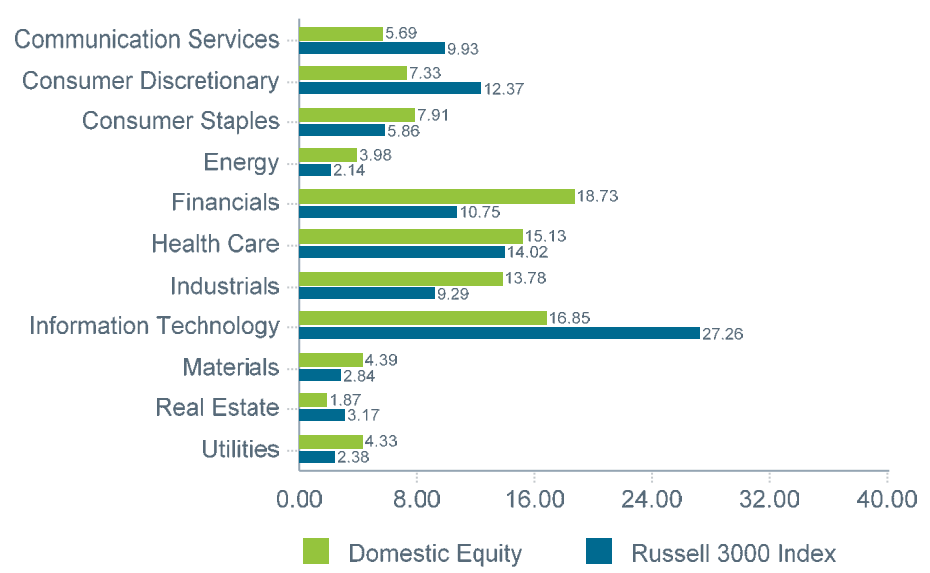
## Portfolio Characteristics

| | Portfolio | Benchmark |
|---|---|---|
| Wtd. Avg. Mkt. Cap ($M) | 169,650 | 406,840 |
| Median Mkt. Cap ($M) | 9,757 | 1,989 |
| Price/Earnings Ratio | 23.16 | 28.99 |
| Price/Book Ratio | 2.81 | 4.42 |
| 5 Yr. EPS Growth Rate (%) | 8.85 | 17.61 |
| Current Yield (%) | 2.05 | 1.42 |
| Beta (5 Years, Monthly) | 1.04 | 1.00 |
| Number of Securities | 1,235 | 3,060 |

## Distribution of Market Capitalization (%)




## Sector Weights (%)




RVK

**Commissioners of the Land Office, State of Oklahoma**
**MLPs vs. S&P MLP Index (TR)**
**Portfolio Characteristics**

**As of December 31, 2020**

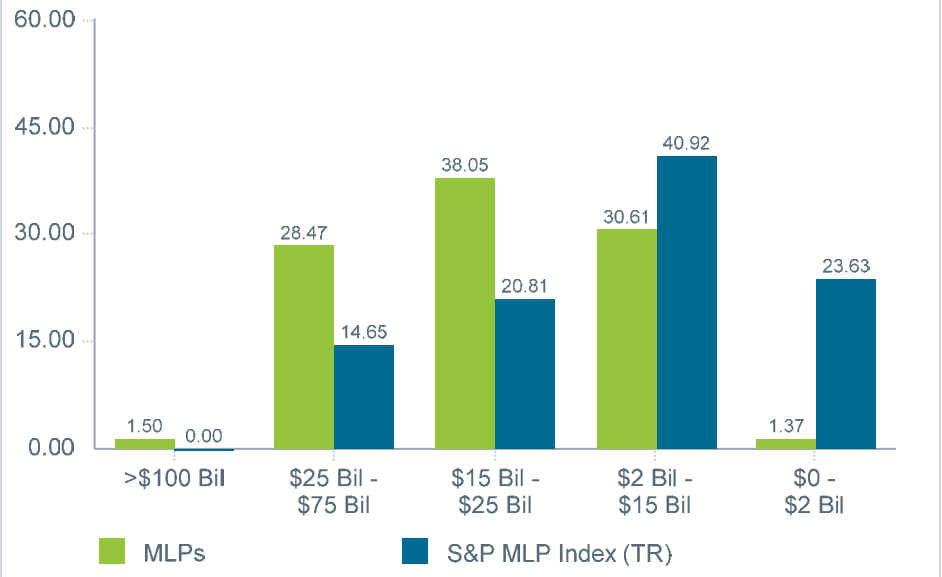
## Top Ten Equity Holdings

| | Portfolio Weight (%) | Benchmark Weight (%) | Active Weight (%) | Quarterly Return (%) |
|---|---|---|---|---|
| Enterprise Products Partners LP | 13.77 | 14.65 | -0.88 | 27.35 |
| MPLX LP | 12.30 | 6.53 | 5.77 | 42.76 |
| Cheniere Energy Inc. | 9.00 | 0.00 | 9.00 | 29.74 |
| Williams Cos Inc. (The) | 7.60 | 0.00 | 7.60 | 3.89 |
| Enbridge Inc | 7.18 | 0.00 | 7.18 | 11.89 |
| Magellan Midstream Partners LP | 6.22 | 8.00 | -1.78 | 27.67 |
| Pembina Pipeline Corp | 5.78 | 0.00 | 5.78 | 13.73 |
| Targa Resources Corp | 5.19 | 0.00 | 5.19 | 89.20 |
| ONEOK Inc | 4.74 | 0.00 | 4.74 | 52.49 |
| Plains All American Pipeline LP | 4.66 | 4.64 | 0.02 | 41.83 |
| % of Portfolio | 76.44 | 33.82 | 42.62 | |

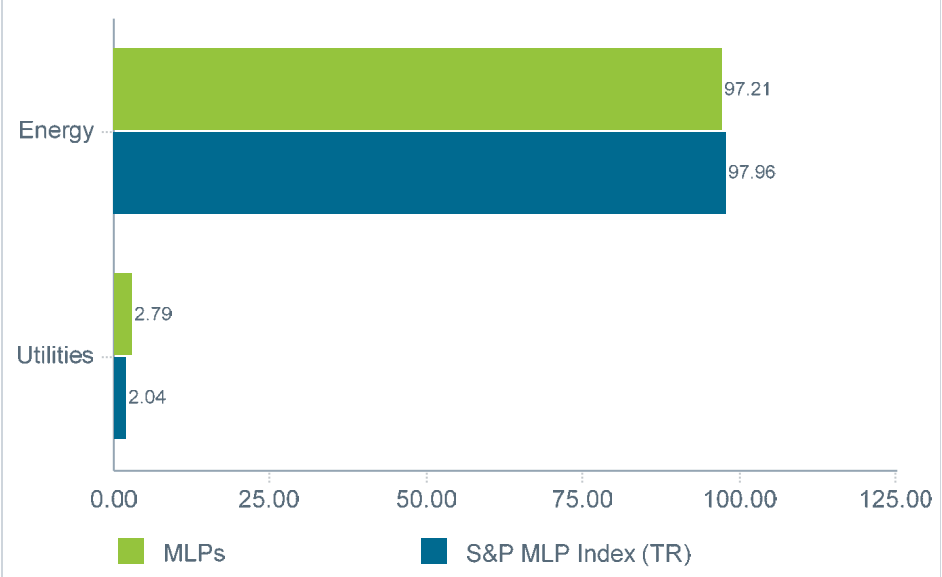
## Portfolio Characteristics

| | Portfolio | Benchmark |
|---|---|---|
| Wtd. Avg. Mkt. Cap ($M) | 25,372 | 12,521 |
| Median Mkt. Cap ($M) | 7,768 | 1,983 |
| Price/Earnings Ratio | 15.84 | 9.92 |
| Price/Book Ratio | 1.87 | 2.20 |
| 5 Yr. EPS Growth Rate (%) | 0.07 | 4.08 |
| Current Yield (%) | 7.98 | 9.94 |
| Beta (5 Years, Monthly) | 0.82 | 1.00 |
| Number of Securities | 24 | 30 |

## Distribution of Market Capitalization (%)




## Sector Weights (%)

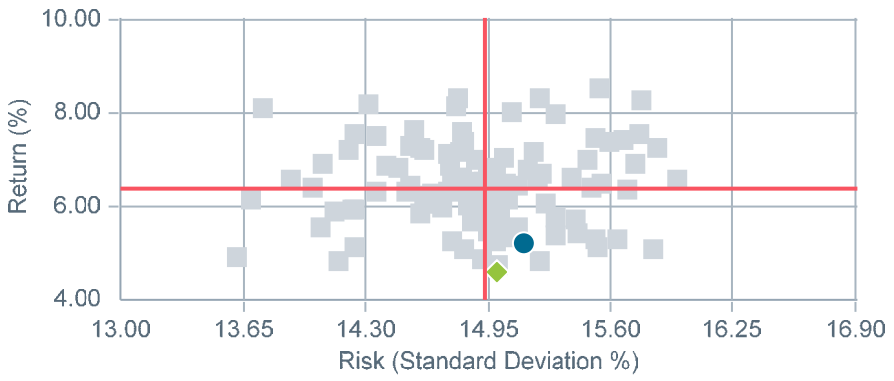



RVK

**Commissioners of the Land Office, State of Oklahoma**
**International Equity vs. All Master Trust-Intl. Equity Segment**

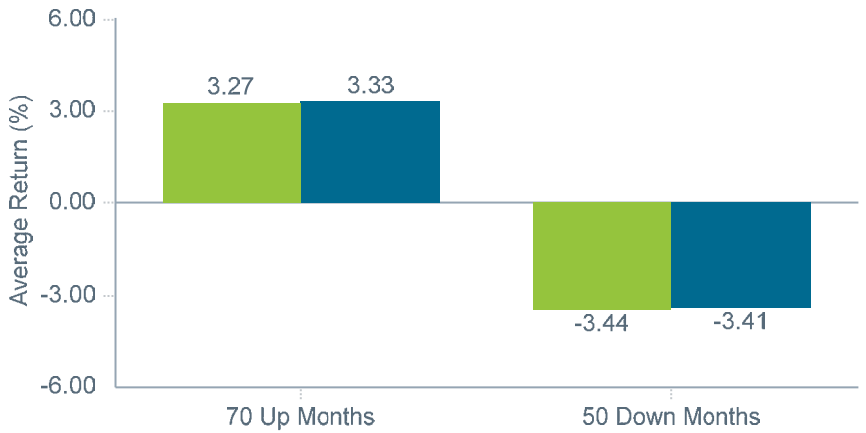
**As of December 31, 2020**

## Plan Sponsor Scattergram - 10 Years




| | Return | Standard Deviation |
|---|---|---|
| International Equity | 4.61 | 15.00 |
| Vanguard Spl Tot Int'l Stock Index | 5.18 | 15.14 |
| Median | 6.40 | 14.93 |

## Up/Down Markets - 10 Years




## Plan Sponsor Peer Group Analysis - Multi Statistics (Beta vs. S&P 500)




| | 10 Years | 10 Years | 10 Years | 10 Years | 10 Years |
|---|---|---|---|---|---|
| International Equity | 15.00 (43) | 0.33 (96) | 5.02 (97) | 10.45 (25) | 0.97 (56) |
| Vanguard Spl Tot Int'l Stock Index | 15.14 (32) | 0.37 (89) | 5.59 (89) | 10.39 (27) | 0.98 (37) |
| Median | 14.93 | 0.45 | 6.73 | 10.06 | 0.97 |
| Population | 133 | 133 | 133 | 133 | 133 |

Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

RVK

**Commissioners of the Land Office, State of Oklahoma**
**International Equity vs. Vanguard Spl Tot Int'l Stock Index**
**Portfolio Characteristics**

**As of December 31, 2020**

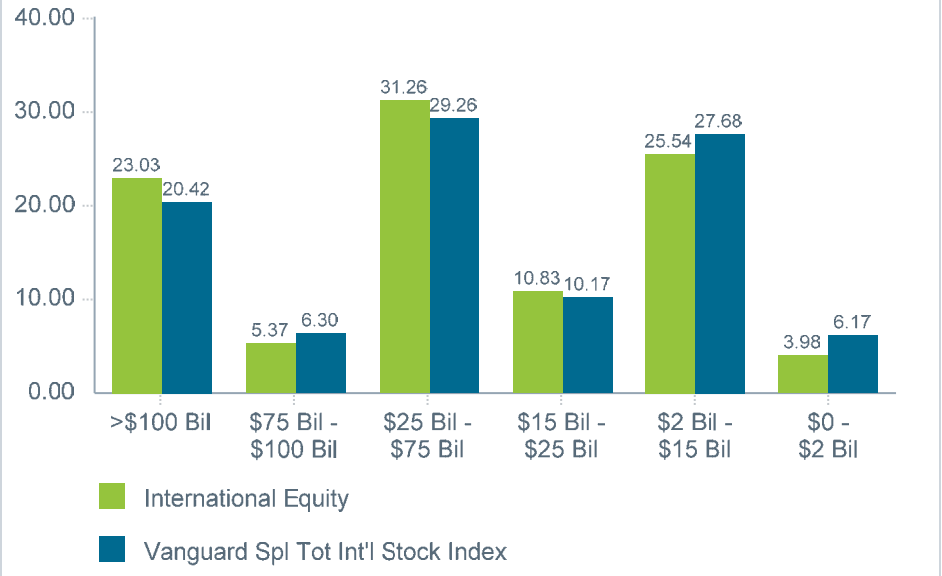
## Top Ten Equity Holdings

| | Portfolio Weight (%) | Benchmark Weight (%) | Active Weight (%) | Quarterly Return (%) |
|---|---|---|---|---|
| Taiwan Semiconductor Mfg | 2.94 | 1.57 | 1.37 | 26.77 |
| Novartis AG | 1.32 | 0.70 | 0.62 | 8.53 |
| Toyota Motor Corp | 1.26 | 0.66 | 0.60 | 19.05 |
| Unilever PLC | 0.99 | 0.53 | 0.46 | -2.10 |
| Tencent Holdings LTD | 0.76 | 1.44 | -0.68 | 10.21 |
| Royal Bank of Canada | 0.76 | 0.40 | 0.36 | 18.31 |
| Alibaba Group Holding Ltd | 0.75 | 1.42 | -0.67 | -20.83 |
| Commonwealth Bank of Australia | 0.73 | 0.39 | 0.34 | 38.92 |
| Siemens AG | 0.71 | 0.38 | 0.33 | 13.48 |
| Sanofi | 0.68 | 0.36 | 0.32 | -3.92 |
| % of Portfolio | 10.90 | 7.85 | 3.05 | |

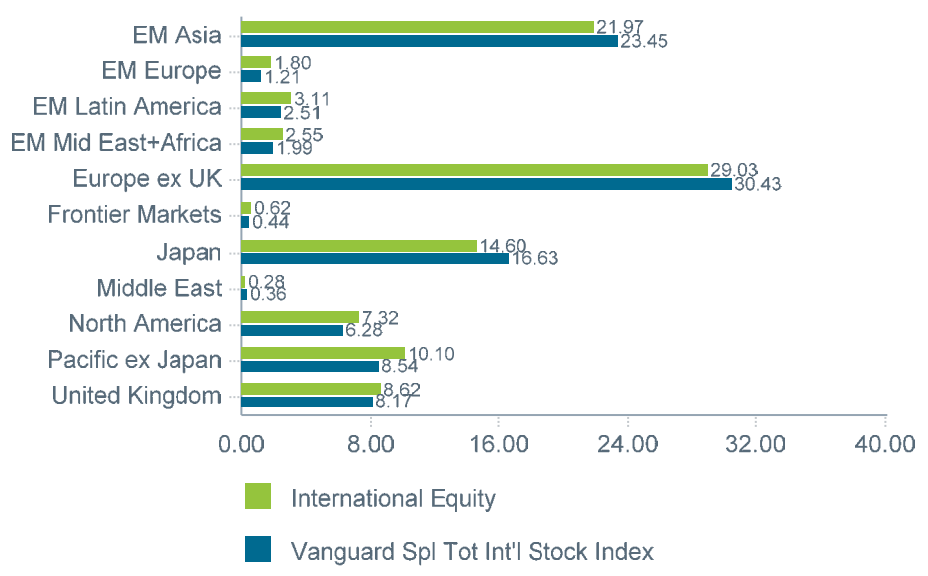
## Portfolio Characteristics

| | Portfolio | Benchmark |
|---|---|---|
| Wtd. Avg. Mkt. Cap ($M) | 93,763 | 84,262 |
| Median Mkt. Cap ($M) | 2,068 | 1,846 |
| Price/Earnings Ratio | 16.23 | 20.10 |
| Price/Book Ratio | 2.27 | 2.66 |
| 5 Yr. EPS Growth Rate (%) | 4.60 | 5.87 |
| Current Yield (%) | 2.90 | 2.27 |
| Beta (5 Years, Monthly) | 1.01 | 1.00 |
| Number of Securities | 7,254 | 7,206 |

## Distribution of Market Capitalization (%)




## Region Weights (%)

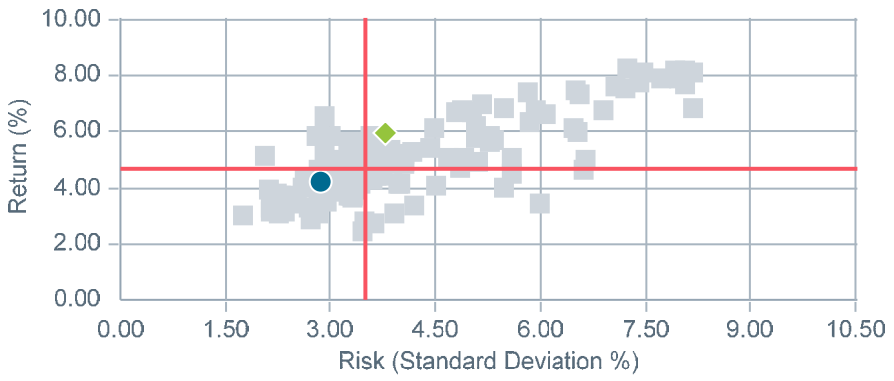



RVK

**Commissioners of the Land Office, State of Oklahoma**
**Fixed Income vs. All Master Trust-US Fixed Income Segment**

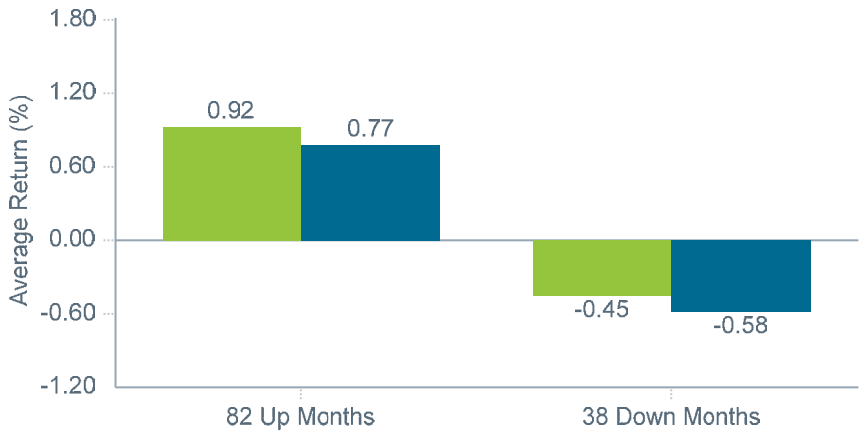
**As of December 31, 2020**

## Plan Sponsor Scattergram - 10 Years




| | Return | Standard Deviation |
|---|---|---|
| Fixed Income | 5.93 | 3.77 |
| Bloomberg US Unv Bond Index | 4.16 | 2.88 |
| Median | 4.69 | 3.51 |

## Up/Down Markets - 10 Years




## Plan Sponsor Peer Group Analysis - Multi Statistics (Beta vs. S&P 500)




| | 10 Years | 10 Years | 10 Years | 10 Years | 10 Years |
|---|---|---|---|---|---|
| Fixed Income | 3.77 (43) | 1.36 (8) | 5.21 (26) | 2.37 (39) | 0.17 (6) |
| Bloomberg US Unv Bond Index | 2.88 (77) | 1.21 (30) | 3.49 (67) | 1.53 (79) | 0.03 (62) |
| Median | 3.51 | 1.04 | 4.07 | 2.03 | 0.05 |
| Population | 158 | 158 | 158 | 158 | 158 |

Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

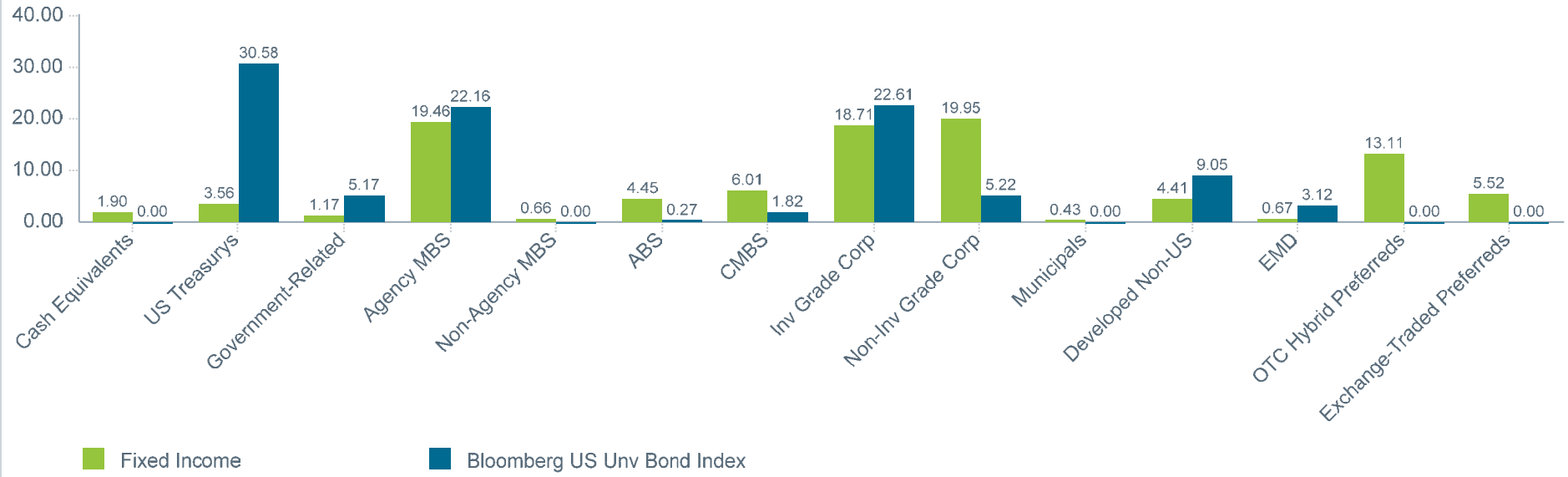
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**Commissioners of the Land Office, State of Oklahoma**
**Fixed Income vs. Bloomberg US Unv Bond Index**
**Portfolio Characteristics**

**As of December 31, 2020**

| Portfolio Characteristics | | |
|---|---|---|
| | **Portfolio** | **Benchmark** |
| Avg. Maturity | 11.25 | 8.22 |
| Avg. Quality | Baa1 | N/A |
| Yield To Maturity (%) | 3.12 | 1.54 |
| Yield To Worst (%) | 2.18 | 1.48 |
| Coupon Rate (%) | 4.50 | 3.10 |
| Current Yield (%) | 4.07 | 0.17 |

## Sector Distribution (%)



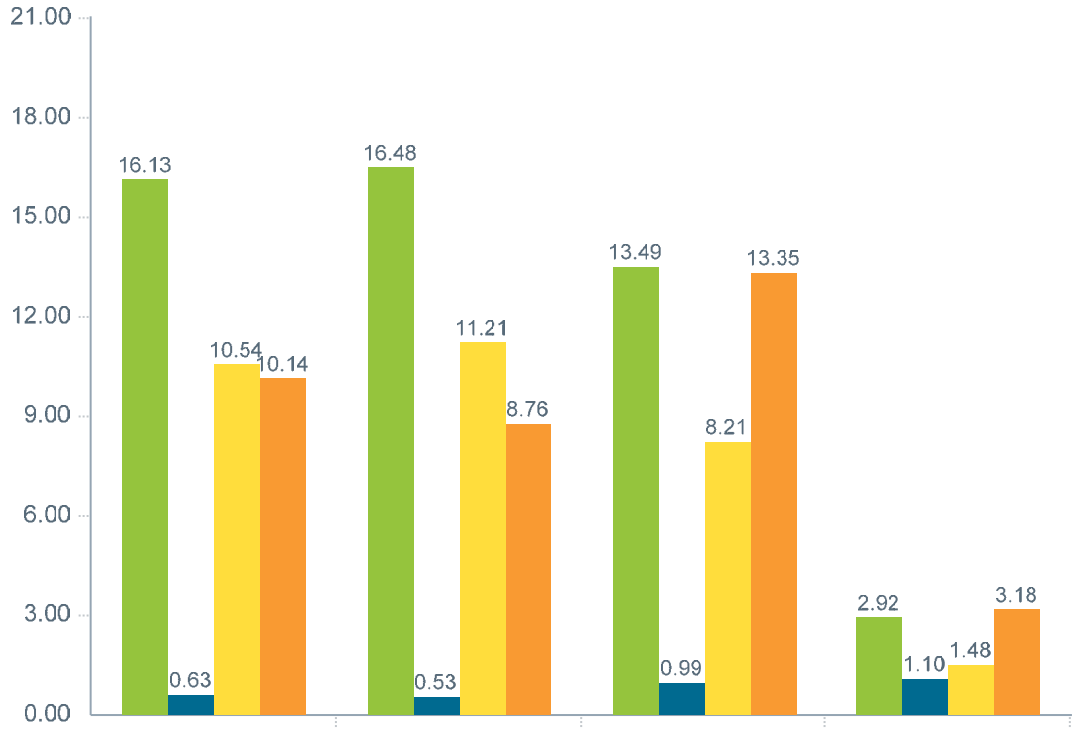

Total Fixed Income sector allocations reflect the market value weighted average of the underlying manager allocations excluding the Bank of Oklahoma Cash and Oklahoma Treasurer's Cash Pool.

RVK

## Comparative Performance

| | QTD | CYTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | Since Incep. | Inception Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **REITs** | **11.99** | **-3.42** | **-3.42** | **5.44** | **6.38** | **9.66** | **9.87** | **27.39** | **-4.71** | **6.84** | **8.78** | **9.06** | **08/01/2008** |
| FTSE NAREIT Eq REITs Index (TR) | 11.57 | -8.00 | -8.00 | 3.40 | 4.77 | 7.83 | 8.31 | 26.00 | -4.62 | 5.23 | 8.52 | 6.83 | |
| Difference | 0.42 | 4.58 | 4.58 | 2.04 | 1.61 | 1.83 | 1.56 | 1.39 | -0.09 | 1.61 | 0.26 | 2.23 | |

## Historical Statistics - 10 Years




| | REITs | FTSE NAREIT Eq REITs Index (TR) | S&P 500 Index (Cap Wtd) | Bloomberg US Agg Bond Index |
|---|---|---|---|---|
| Standard Deviation | 16.13 | 16.48 | 13.49 | 2.92 |
| Sharpe Ratio | 0.63 | 0.53 | 0.99 | 1.10 |
| Downside Risk | 10.54 | 11.21 | 8.21 | 1.48 |
| Excess Return | 10.14 | 8.76 | 13.35 | 3.18 |

## Actual Correlation - 10 Years

| | Actual Correlation |
|---|---|
| FTSE NAREIT Eq REITs Index (TR) | 1.00 |
| S&P 500 Index (Cap Wtd) | 0.67 |
| Russell 2000 Index | 0.66 |
| MSCI EAFE Index (USD) (Net) | 0.61 |
| MSCI Emg Mkts Index (USD) (Net) | 0.55 |
| Bloomberg US Agg Bond Index | 0.38 |
| Bloomberg US Trsy US TIPS Index | 0.46 |
| Wilshire US REIT Index | 1.00 |
| HFN FOF Multi-Strat Index (Net) | 0.55 |
| Bloomberg Cmdty Index (TR) | 0.35 |
| ICE BofAML 3 Mo US T-Bill Index | -0.14 |
| Cons Price Index (Unadjusted) | -0.04 |

Performance shown is gross of fees. Calculation is based on monthly periodicity.

RVK

**Commissioners of the Land Office, State of Oklahoma**
**Comparative Performance (Net of Fees) - Trailing Periods**

**As of December 31, 2020**

| | QTD | CYTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | Since Incep. | Inception Date |
|---|---|---|---|---|---|---|---|---|---|
| **Robeco BPAM Premium Eq (SA)** | **20.20** | **4.66** | **4.66** | **5.88** | **10.11** | **9.07** | **11.34** | **11.47** | **01/01/1996** |
| Russell 3000 Val Custom Index | 17.21 | 2.87 | 2.87 | 5.89 | 9.74 | 8.05 | 10.36 | 9.92 | |
| Difference | 2.99 | 1.79 | 1.79 | -0.01 | 0.37 | 1.02 | 0.98 | 1.55 | |
| **Vanguard Hi Dv Yld;Adm (VHYAX)** | **14.07** | **1.15** | **1.15** | **5.69** | **N/A** | **N/A** | **N/A** | **9.19** | **10/01/2016** |
| FTSE Hi Div Yld Index | 14.08 | 1.16 | 1.16 | 5.77 | 10.03 | 9.09 | 11.57 | 9.29 | |
| Difference | -0.01 | -0.01 | -0.01 | -0.08 | N/A | N/A | N/A | -0.10 | |
| **BlackRock R 1000 Index Fund (CF)** | **13.64** | **20.94** | **20.94** | **14.76** | **15.52** | **12.97** | **N/A** | **14.29** | **04/01/2013** |
| Russell 1000 Index | 13.69 | 20.96 | 20.96 | 14.82 | 15.60 | 13.04 | 14.01 | 14.36 | |
| Difference | -0.05 | -0.02 | -0.02 | -0.06 | -0.08 | -0.07 | N/A | -0.07 | |
| **Silvercrest Small Cap Value (SA)** | **29.54** | **6.20** | **6.20** | **3.76** | **10.01** | **7.36** | **10.08** | **10.21** | **06/01/2002** |
| Russell 2000 Val Index | 33.36 | 4.63 | 4.63 | 3.72 | 9.65 | 6.25 | 8.66 | 7.91 | |
| Difference | -3.82 | 1.57 | 1.57 | 0.04 | 0.36 | 1.11 | 1.42 | 2.30 | |
| **Harvest Fund Advisors MLP (SA)** | **22.64** | **-24.25** | **-24.25** | **-9.06** | **-3.25** | **N/A** | **N/A** | **-5.76** | **03/01/2014** |
| S&P MLP Index (TR) | 29.23 | -28.75 | -28.75 | -11.60 | -4.47 | -8.04 | -1.42 | -8.33 | |
| Difference | -6.59 | 4.50 | 4.50 | 2.54 | 1.22 | N/A | N/A | 2.57 | |
| **Vanguard I HD Y;Adm (VIHAX)** | **18.56** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **38.44** | **04/01/2020** |
| FTSE All Wrld Ex US Hi Div Yld Index | 18.88 | -0.65 | -0.65 | 1.06 | 6.52 | 2.55 | 4.01 | 37.78 | |
| Difference | -0.32 | N/A | N/A | N/A | N/A | N/A | N/A | 0.66 | |
| **Vanguard Tot I S;Ins + (VTPSX)** | **16.89** | **11.28** | **11.28** | **5.02** | **9.12** | **N/A** | **N/A** | **5.51** | **05/01/2015** |
| Vanguard Spl Tot Int'l Stock Index | 17.21 | 11.24 | 11.24 | 4.98 | 9.07 | 5.21 | 5.18 | 5.51 | |
| Difference | -0.32 | 0.04 | 0.04 | 0.04 | 0.05 | N/A | N/A | 0.00 | |
| **Dodge & Cox Fixed Income (SA)** | **2.43** | **9.53** | **9.53** | **6.31** | **5.56** | **4.80** | **4.70** | **6.24** | **08/01/1996** |
| Bloomberg US Agg Bond Index | 0.67 | 7.51 | 7.51 | 5.34 | 4.44 | 4.09 | 3.84 | 5.32 | |
| Difference | 1.76 | 2.02 | 2.02 | 0.97 | 1.12 | 0.71 | 0.86 | 0.92 | |
| **Cutwater Core Plus Select Income (SA)** | **4.53** | **11.33** | **11.33** | **7.77** | **7.72** | **6.40** | **N/A** | **6.32** | **12/01/2013** |
| Bloomberg US Crdt Index | 2.79 | 9.35 | 9.35 | 6.80 | 6.44 | 5.53 | 5.40 | 5.43 | |
| Difference | 1.74 | 1.98 | 1.98 | 0.97 | 1.28 | 0.87 | N/A | 0.89 | |
| **Guggenheim (BBB) (SA)** | **3.62** | **15.32** | **15.32** | **7.37** | **N/A** | **N/A** | **N/A** | **6.96** | **05/01/2016** |
| Bloomberg US Corp Inv Grade Index | 3.05 | 9.89 | 9.89 | 7.06 | 6.74 | 5.75 | 5.63 | 6.04 | |
| Difference | 0.57 | 5.43 | 5.43 | 0.31 | N/A | N/A | N/A | 0.92 | |

RVK began monitoring the assets of Commissioners of the Land Office, State of Oklahoma as of 07/01/2005. Prior historical data was provided by the previous consultant. Performance shown is net of fees. Please see the Addendum for custom index definitions.

RVK

**Commissioners of the Land Office, State of Oklahoma**
**Comparative Performance (Net of Fees) - Trailing Periods**

**As of December 31, 2020**

| | QTD | CYTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | Since Incep. | Inception Date |
|---|---|---|---|---|---|---|---|---|---|
| **JPMorgan MBS (SA)** | **0.52** | **5.45** | **5.45** | **4.57** | **3.68** | **3.64** | **3.63** | **3.73** | **07/01/2010** |
| Bloomberg US MBS Index (Unhgd) | 0.25 | 3.87 | 3.87 | 3.71 | 3.05 | 3.26 | 3.01 | 2.95 | |
| Difference | 0.27 | 1.58 | 1.58 | 0.86 | 0.63 | 0.38 | 0.62 | 0.78 | |
| **Guggenheim CMBS (SA)** | **0.60** | **6.11** | **6.11** | **4.86** | **4.74** | **4.45** | **4.95** | **5.49** | **07/01/2010** |
| Bloomberg US CMBS Inv Grade Aaa Index | 0.73 | 8.33 | 8.33 | 5.62 | 4.67 | 4.12 | 4.10 | 4.34 | |
| Difference | -0.13 | -2.22 | -2.22 | -0.76 | 0.07 | 0.33 | 0.85 | 1.15 | |
| **Allianz Global Investors US High Yield (SA)** | **5.77** | **5.93** | **5.93** | **5.93** | **7.29** | **4.51** | **5.83** | **7.25** | **07/01/2001** |
| ICE BofAML US Hi Yld Master II Index | 6.48 | 6.17 | 6.17 | 5.88 | 8.43 | 5.61 | 6.62 | 7.63 | |
| Difference | -0.71 | -0.24 | -0.24 | 0.05 | -1.14 | -1.10 | -0.79 | -0.38 | |
| ICE BofAML US Hi Yld BB-B Cnst Index | 5.70 | 6.28 | 6.28 | 6.22 | 8.02 | 5.76 | 6.63 | 7.28 | |
| Difference | 0.07 | -0.35 | -0.35 | -0.29 | -0.73 | -1.25 | -0.80 | -0.03 | |
| **Fort Washington High Yield (SA)** | **5.95** | **4.64** | **4.64** | **5.55** | **7.30** | **N/A** | **N/A** | **5.36** | **07/01/2015** |
| ICE BofAML US Cash Pay Hi Yld Index | 6.45 | 6.21 | 6.21 | 5.90 | 8.41 | 5.60 | 6.61 | 6.24 | |
| Difference | -0.50 | -1.57 | -1.57 | -0.35 | -1.11 | N/A | N/A | -0.88 | |
| ICE BofAML US Hi Yld BB-B Cnst Index | 5.70 | 6.28 | 6.28 | 6.22 | 8.02 | 5.76 | 6.63 | 6.20 | |
| Difference | 0.25 | -1.64 | -1.64 | -0.67 | -0.72 | N/A | N/A | -0.84 | |
| **Cohen & Steers Preferreds (SA)** | **5.47** | **8.64** | **8.64** | **7.62** | **7.94** | **8.61** | **8.87** | **7.91** | **04/01/2007** |
| 50% ICE BofAML All Cap/50% ICE BofAML Fxd Pref Idx | 4.27 | 7.92 | 7.92 | 6.87 | 6.88 | 7.22 | 7.01 | 5.20 | |
| Difference | 1.20 | 0.72 | 0.72 | 0.75 | 1.06 | 1.39 | 1.86 | 2.71 | |
| **CenterSquare US REIT Total Return (SA)** | **11.85** | **-4.29** | **-4.29** | **4.75** | **5.75** | **9.04** | **9.22** | **8.43** | **08/01/2008** |
| FTSE NAREIT Eq REITs Index (TR) | 11.57 | -8.00 | -8.00 | 3.40 | 4.77 | 7.83 | 8.31 | 6.83 | |
| Difference | 0.28 | 3.71 | 3.71 | 1.35 | 0.98 | 1.21 | 0.91 | 1.60 | |
| **Oklahoma Treasurer's Cash Pool** | **0.43** | **2.18** | **2.18** | **2.29** | **2.07** | **1.99** | **2.10** | **2.11** | **12/01/2010** |
| ICE BofAML 3 Mo US T-Bill Index | 0.03 | 0.67 | 0.67 | 1.61 | 1.20 | 0.87 | 0.63 | 0.63 | |
| Difference | 0.40 | 1.51 | 1.51 | 0.68 | 0.87 | 1.12 | 1.47 | 1.48 | |
| **Bank of Oklahoma Cash** | **0.00** | **0.38** | **0.38** | **2.20** | **1.55** | **1.12** | **0.80** | **1.43** | **07/01/2002** |
| ICE BofAML 3 Mo US T-Bill Index | 0.03 | 0.67 | 0.67 | 1.61 | 1.20 | 0.87 | 0.63 | 1.34 | |
| Difference | -0.03 | -0.29 | -0.29 | 0.59 | 0.35 | 0.25 | 0.17 | 0.09 | |

RVK began monitoring the assets of Commissioners of the Land Office, State of Oklahoma as of 07/01/2005. Prior historical data was provided by the previous consultant. Performance shown is net of fees. Please see the Addendum for custom index definitions.

RVK

**Commissioners of the Land Office, State of Oklahoma**
**Comparative Performance (Net of Fees) - Calendar Years**

**As of December 31, 2020**

| | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Robeco BPAM Premium Eq (SA)** | **28.31** | **-11.60** | **18.44** | **15.11** | **0.87** | **12.47** | **40.01** | **15.87** | **-1.73** | **14.31** |
| Russell 3000 Val Custom Index | 26.26 | -8.58 | 13.19 | 18.40 | -4.13 | 12.70 | 32.69 | 17.55 | -0.10 | 16.23 |
| Difference | 2.05 | -3.02 | 5.25 | -3.29 | 5.00 | -0.23 | 7.32 | -1.68 | -1.63 | -1.92 |
| **Vanguard Hi Dv Yld;Adm (VHYAX)** | **24.11** | **-5.96** | **16.37** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** |
| FTSE Hi Div Yld Index | 24.24 | -5.85 | 16.51 | 16.96 | 0.39 | 13.58 | 30.34 | 12.75 | 10.65 | 14.36 |
| Difference | -0.13 | -0.11 | -0.14 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **BlackRock R 1000 Index Fund (CF)** | **31.25** | **-4.79** | **21.57** | **11.99** | **0.88** | **13.14** | **N/A** | **N/A** | **N/A** | **N/A** |
| Russell 1000 Index | 31.43 | -4.78 | 21.69 | 12.05 | 0.92 | 13.24 | 33.11 | 16.42 | 1.50 | 16.10 |
| Difference | -0.18 | -0.01 | -0.12 | -0.06 | -0.04 | -0.10 | N/A | N/A | N/A | N/A |
| **Silvercrest Small Cap Value (SA)** | **25.34** | **-16.08** | **11.60** | **29.26** | **-2.82** | **5.01** | **37.79** | **15.14** | **0.15** | **25.34** |
| Russell 2000 Val Index | 22.39 | -12.86 | 7.84 | 31.74 | -7.47 | 4.22 | 34.52 | 18.05 | -5.50 | 24.50 |
| Difference | 2.95 | -3.22 | 3.76 | -2.48 | 4.65 | 0.79 | 3.27 | -2.91 | 5.65 | 0.84 |
| **Harvest Fund Advisors MLP (SA)** | **14.03** | **-12.91** | **-5.49** | **19.22** | **-30.04** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** |
| S&P MLP Index (TR) | 9.78 | -11.67 | -5.58 | 21.95 | -35.07 | 7.66 | 29.75 | 4.95 | 14.47 | 35.17 |
| Difference | 4.25 | -1.24 | 0.09 | -2.73 | 5.03 | N/A | N/A | N/A | N/A | N/A |
| **Vanguard I HD Y;Adm (VIHAX)** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** |
| FTSE All Wrld Ex US Hi Div Yld Index | 18.63 | -12.43 | 22.55 | 8.41 | -9.44 | -3.94 | 16.27 | 16.54 | -8.32 | 4.92 |
| Difference | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **Vanguard Tot I S;Ins + (VTPSX)** | **21.56** | **-14.38** | **27.57** | **4.72** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** |
| Vanguard Spl Tot Int'l Stock Index | 21.80 | -14.61 | 27.41 | 4.72 | -4.29 | -3.39 | 15.76 | 17.04 | -14.31 | 10.69 |
| Difference | -0.24 | 0.23 | 0.16 | 0.00 | N/A | N/A | N/A | N/A | N/A | N/A |
| **Dodge & Cox Fixed Income (SA)** | **9.40** | **0.26** | **4.23** | **4.67** | **-0.03** | **5.95** | **0.64** | **7.85** | **5.08** | **7.47** |
| Bloomberg US Agg Bond Index | 8.72 | 0.01 | 3.54 | 2.65 | 0.55 | 5.97 | -2.02 | 4.21 | 7.84 | 6.54 |
| Difference | 0.68 | 0.25 | 0.69 | 2.02 | -0.58 | -0.02 | 2.66 | 3.64 | -2.76 | 0.93 |
| **Cutwater Core Plus Select Income (SA)** | **15.22** | **-2.41** | **7.72** | **7.54** | **-1.62** | **8.18** | **N/A** | **N/A** | **N/A** | **N/A** |
| Bloomberg US Crdt Index | 13.80 | -2.11 | 6.18 | 5.63 | -0.77 | 7.53 | -2.01 | 9.37 | 8.35 | 8.47 |
| Difference | 1.42 | -0.30 | 1.54 | 1.91 | -0.85 | 0.65 | N/A | N/A | N/A | N/A |
| **Guggenheim (BBB) (SA)** | **9.68** | **-2.14** | **8.26** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** |
| Bloomberg US Corp Inv Grade Index | 14.54 | -2.51 | 6.42 | 6.11 | -0.68 | 7.46 | -1.53 | 9.82 | 8.15 | 9.00 |
| Difference | -4.86 | 0.37 | 1.84 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

RVK began monitoring the assets of Commissioners of the Land Office, State of Oklahoma as of 07/01/2005. Prior historical data was provided by the previous consultant. Performance shown is net of fees. Please see the Addendum for custom index definitions.

RVK

**Commissioners of the Land Office, State of Oklahoma**
**Comparative Performance (Net of Fees) - Calendar Years**

**As of December 31, 2020**

| | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| **JPMorgan MBS (SA)** | **6.51** | **1.80** | **2.67** | **2.06** | **1.75** | **5.32** | **-0.64** | **5.95** | **5.64** | **N/A** |
| Bloomberg US MBS Index (Unhgd) | 6.35 | 0.99 | 2.47 | 1.67 | 1.51 | 6.08 | -1.41 | 2.59 | 6.23 | 5.37 |
| Difference | 0.16 | 0.81 | 0.20 | 0.39 | 0.24 | -0.76 | 0.77 | 3.36 | -0.59 | N/A |
| **Guggenheim CMBS (SA)** | **6.06** | **2.43** | **5.30** | **3.85** | **1.80** | **5.72** | **0.70** | **10.93** | **6.95** | **N/A** |
| Bloomberg US CMBS Inv Grade Aaa Index | 7.88 | 0.83 | 3.11 | 3.40 | 1.22 | 4.29 | -0.56 | 6.85 | 6.02 | 14.62 |
| Difference | -1.82 | 1.60 | 2.19 | 0.45 | 0.58 | 1.43 | 1.26 | 4.08 | 0.93 | N/A |
| **Allianz Global Investors US High Yield (SA)** | **15.90** | **-3.17** | **5.94** | **12.86** | **-4.61** | **0.43** | **8.03** | **12.55** | **6.40** | **14.09** |
| ICE BofAML US Hi Yld Master II Index | 14.41 | -2.27 | 7.48 | 17.49 | -4.64 | 2.50 | 7.42 | 15.58 | 4.38 | 15.19 |
| Difference | 1.49 | -0.90 | -1.54 | -4.63 | 0.03 | -2.07 | 0.61 | -3.03 | 2.02 | -1.10 |
| ICE BofAML US Hi Yld BB-B Cnst Index | 15.11 | -2.04 | 6.98 | 14.72 | -2.79 | 3.49 | 6.31 | 14.58 | 5.40 | 14.26 |
| Difference | 0.79 | -1.13 | -1.04 | -1.86 | -1.82 | -3.06 | 1.72 | -2.03 | 1.00 | -0.17 |
| **Fort Washington High Yield (SA)** | **15.16** | **-2.42** | **7.33** | **12.72** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** | **N/A** |
| ICE BofAML US Cash Pay Hi Yld Index | 14.40 | -2.26 | 7.48 | 17.34 | -4.55 | 2.44 | 7.38 | 15.44 | 4.50 | 15.24 |
| Difference | 0.76 | -0.16 | -0.15 | -4.62 | N/A | N/A | N/A | N/A | N/A | N/A |
| ICE BofAML US Hi Yld BB-B Cnst Index | 15.11 | -2.04 | 6.98 | 14.72 | -2.79 | 3.49 | 6.31 | 14.58 | 5.40 | 14.26 |
| Difference | 0.05 | -0.38 | 0.35 | -2.00 | N/A | N/A | N/A | N/A | N/A | N/A |
| **Cohen & Steers Preferreds (SA)** | **19.00** | **-3.60** | **11.76** | **5.20** | **7.05** | **13.61** | **2.88** | **22.69** | **3.96** | **17.11** |
| 50% ICE BofAML All Cap/50% ICE BofAML Fxd Pref Idx | 17.76 | -3.94 | 10.10 | 3.76 | 4.18 | 12.15 | 0.58 | 17.47 | 2.27 | 15.64 |
| Difference | 1.24 | 0.34 | 1.66 | 1.44 | 2.87 | 1.46 | 2.30 | 5.22 | 1.69 | 1.47 |
| **CenterSquare US REIT Total Return (SA)** | **26.80** | **-5.29** | **6.34** | **8.20** | **4.96** | **31.98** | **3.20** | **17.11** | **9.07** | **30.12** |
| FTSE NAREIT Eq REITs Index (TR) | 26.00 | -4.62 | 5.23 | 8.52 | 3.20 | 30.14 | 2.47 | 18.06 | 8.29 | 27.94 |
| Difference | 0.80 | -0.67 | 1.11 | -0.32 | 1.76 | 1.84 | 0.73 | -0.95 | 0.78 | 2.18 |
| **Oklahoma Treasurer's Cash Pool** | **2.59** | **2.09** | **1.73** | **1.77** | **1.77** | **1.82** | **2.01** | **2.32** | **2.73** | **N/A** |
| ICE BofAML 3 Mo US T-Bill Index | 2.28 | 1.87 | 0.86 | 0.33 | 0.05 | 0.04 | 0.07 | 0.11 | 0.10 | 0.13 |
| Difference | 0.31 | 0.22 | 0.87 | 1.44 | 1.72 | 1.78 | 1.94 | 2.21 | 2.63 | N/A |
| **Bank of Oklahoma Cash** | **3.89** | **2.37** | **0.83** | **0.31** | **0.12** | **0.03** | **0.05** | **0.08** | **0.04** | **0.10** |
| ICE BofAML 3 Mo US T-Bill Index | 2.28 | 1.87 | 0.86 | 0.33 | 0.05 | 0.04 | 0.07 | 0.11 | 0.10 | 0.13 |
| Difference | 1.61 | 0.50 | -0.03 | -0.02 | 0.07 | -0.01 | -0.02 | -0.03 | -0.06 | -0.03 |

RVK began monitoring the assets of Commissioners of the Land Office, State of Oklahoma as of 07/01/2005. Prior historical data was provided by the previous consultant. Performance shown is net of fees. Please see the Addendum for custom index definitions.

RVK

# Investment Manager Profiles



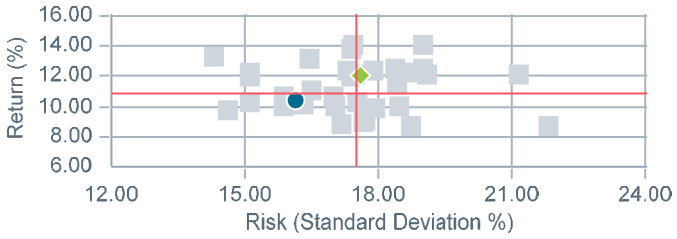
**Manager:** Robeco BPAM Premium Eq (SA)
**Benchmark:** Russell 3000 Val Custom Index
**Peer Group:** IM U.S. All Cap Value Equity (SA+CF)

**As of December 31, 2020**

## Performance

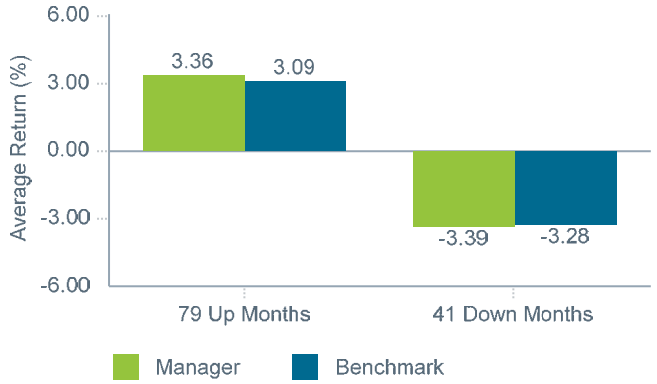
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **20.34** | **5.22** | **6.48** | **10.74** | **9.70** | **12.01** | **29.03** | **-11.08** | **19.12** | **15.79** | **1.47** |
| Benchmark | 17.21 | 2.87 | 5.89 | 9.74 | 8.05 | 10.36 | 26.26 | -8.58 | 13.19 | 18.40 | -4.13 |
| Difference | 3.13 | 2.35 | 0.59 | 1.00 | 1.65 | 1.65 | 2.77 | -2.50 | 5.93 | -2.61 | 5.60 |
| Peer Group Median | 18.40 | 7.92 | 8.34 | 11.32 | 8.94 | 10.83 | 27.45 | -9.97 | 16.71 | 16.69 | -3.31 |
| Rank | 31 | 61 | 63 | 60 | 37 | 36 | 34 | 68 | 25 | 57 | 10 |
| Population | 57 | 56 | 54 | 52 | 49 | 43 | 67 | 69 | 71 | 75 | 75 |

## Peer Group Scattergram - 10 Years

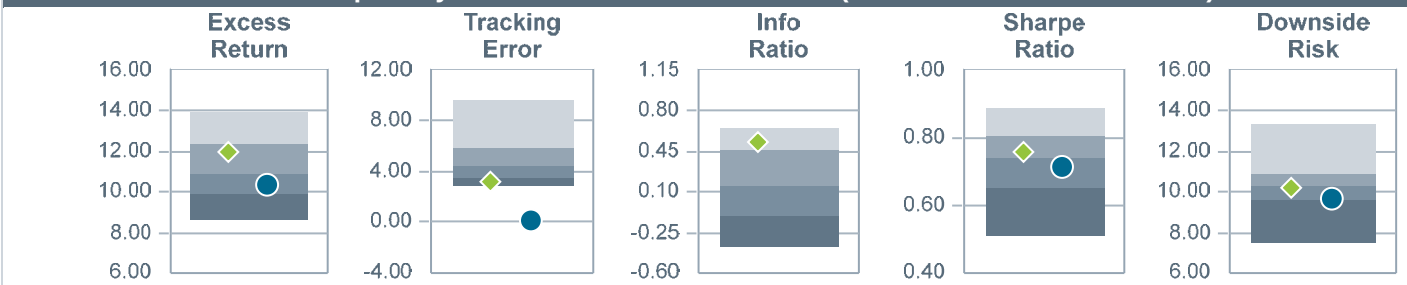



| | Return | Standard Deviation |
|---|---|---|
| Manager | 12.01 | 17.58 |
| Benchmark | 10.36 | 16.17 |
| Median | 10.83 | 17.52 |

## Up/Down Markets - 10 Years



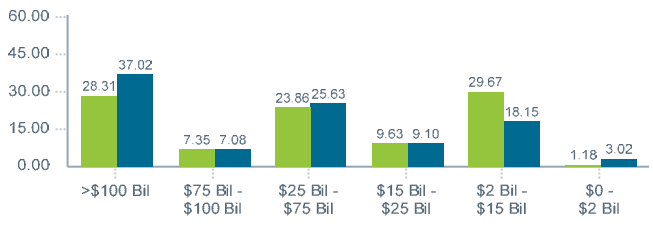

## Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)



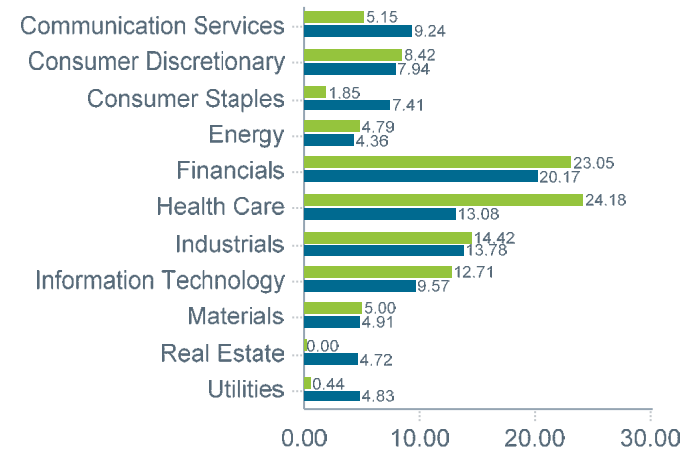

| | Excess Return | | Tracking Error | | Info Ratio | | Sharpe Ratio | | Downside Risk | |
|---|---|---|---|---|---|---|---|---|---|---|
| Manager | 12.01 | (36) | 3.17 | (88) | 0.53 | (13) | 0.76 | (41) | 10.17 | (55) |
| Benchmark | 10.32 | (61) | 0.00 | (100) | N/A | | 0.71 | (57) | 9.58 | (77) |
| Median | 10.91 | | 4.41 | | 0.16 | | 0.74 | | 10.34 | |

## Portfolio Characteristics and Dist. of Market Cap (%)

| | Portfolio | Benchmark |
|---|---|---|
| Wtd. Avg. Mkt. Cap ($M) | 97,744 | 125,454 |
| Median Mkt. Cap ($M) | 20,313 | 1,956 |
| Price/Earnings Ratio | 20.19 | 22.00 |
| Price/Book Ratio | 2.50 | 2.57 |
| 5 Yr. EPS Growth Rate (%) | 8.15 | 5.74 |
| Current Yield (%) | 1.74 | 2.14 |
| Beta (5 Years, Monthly) | 1.07 | 1.00 |
| Number of Securities | 148 | 2,341 |
| Active Share | 75.12 | N/A |




## Sector Weights (%)




Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index defintions.

RVK

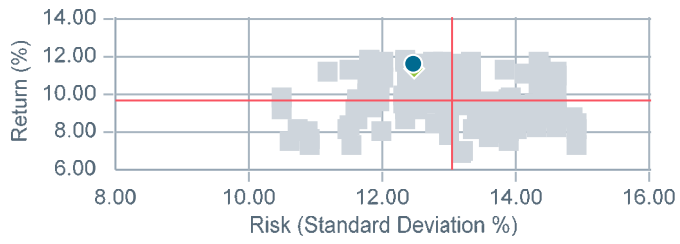
**Manager:** Vanguard Hi Dv Yld;Adm (VHYAX)
**Benchmark:** FTSE Hi Div Yld Index
**Peer Group:** IM Equity Income (MF)

**As of December 31, 2020**

## Performance

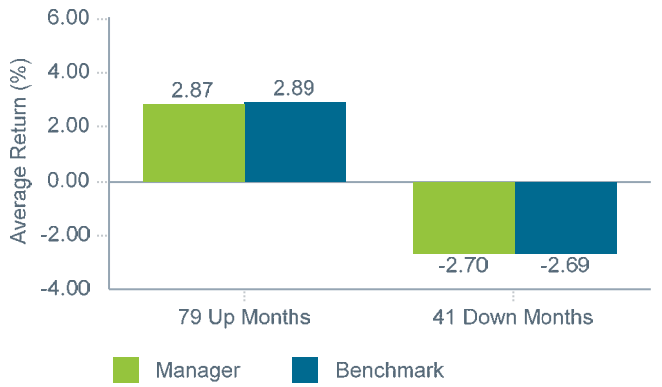
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **14.07** | **1.14** | **5.69** | **9.91** | **8.97** | **11.42** | **24.13** | **-5.96** | **16.37** | **16.75** | **0.30** |
| Benchmark | 14.08 | 1.16 | 5.77 | 10.03 | 9.09 | 11.57 | 24.24 | -5.85 | 16.51 | 16.96 | 0.39 |
| Difference | -0.01 | -0.02 | -0.08 | -0.12 | -0.12 | -0.15 | -0.11 | -0.11 | -0.14 | -0.21 | -0.09 |
| Peer Group Median | 12.93 | 4.52 | 6.70 | 9.86 | 8.04 | 9.73 | 25.28 | -7.25 | 16.15 | 14.07 | -3.07 |
| Rank | 40 | 69 | 61 | 49 | 34 | 14 | 66 | 37 | 47 | 25 | 13 |
| Population | 508 | 498 | 469 | 408 | 354 | 243 | 530 | 539 | 515 | 480 | 441 |

## Peer Group Scattergram - 10 Years

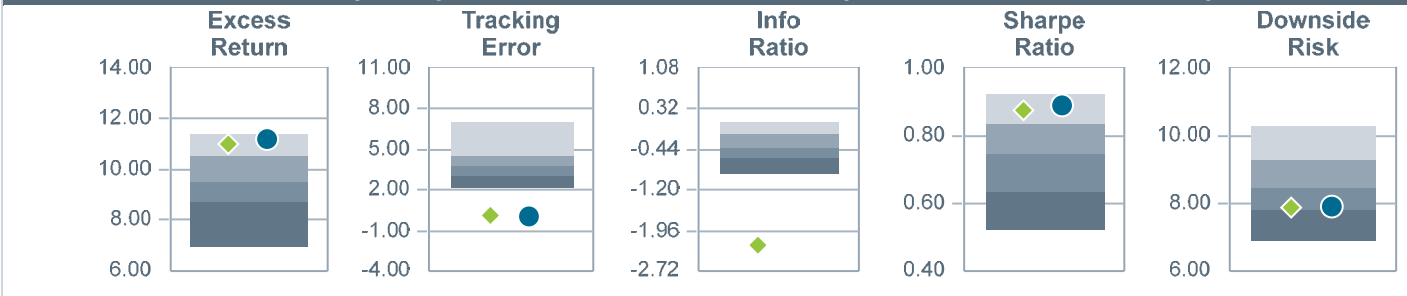



| | Return | Standard Deviation |
|---|---|---|
| Manager | 11.42 | 12.49 |
| Benchmark | 11.57 | 12.49 |
| Median | 9.73 | 13.04 |

## Up/Down Markets - 10 Years



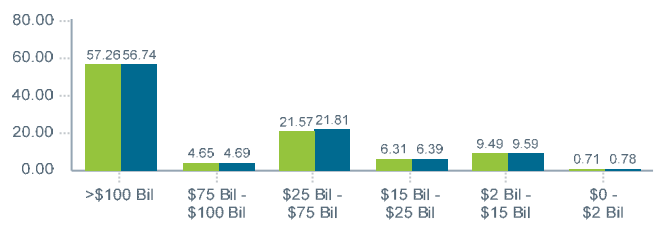

## Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)



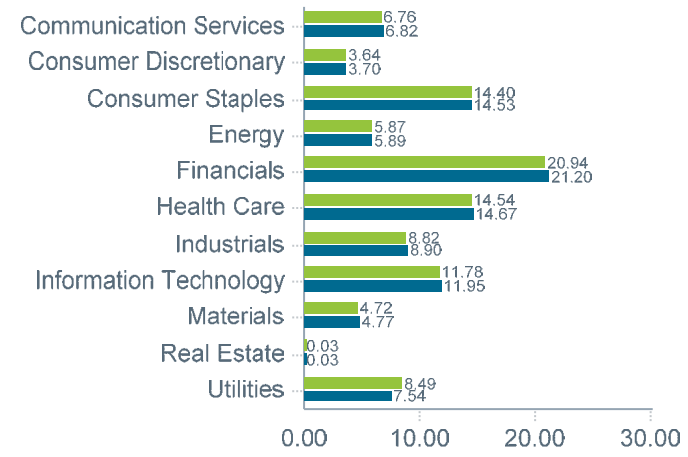

| | Excess Return | | Tracking Error | | Info Ratio | | Sharpe Ratio | | Downside Risk | |
|---|---|---|---|---|---|---|---|---|---|---|
| Manager | 11.01 | (16) | 0.06 | (100) | -2.24 | (100) | 0.88 | (13) | 7.91 | (69) |
| Benchmark | 11.15 | (13) | 0.00 | (100) | N/A | | 0.89 | (11) | 7.90 | (69) |
| Median | 9.53 | | 3.78 | | -0.41 | | 0.74 | | 8.45 | |

## Portfolio Characteristics and Dist. of Market Cap (%)

| | Portfolio | Benchmark |
|---|---|---|
| Wtd. Avg. Mkt. Cap ($M) | 144,905 | 144,549 |
| Median Mkt. Cap ($M) | 6,044 | 5,851 |
| Price/Earnings Ratio | 20.54 | 20.44 |
| Price/Book Ratio | 2.86 | 2.86 |
| 5 Yr. EPS Growth Rate (%) | 4.89 | 4.88 |
| Current Yield (%) | 3.24 | 3.25 |
| Beta (5 Years, Monthly) | 1.00 | 1.00 |
| Number of Securities | 410 | 424 |
| Active Share | 1.23 | N/A |




## Sector Weights (%)




Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

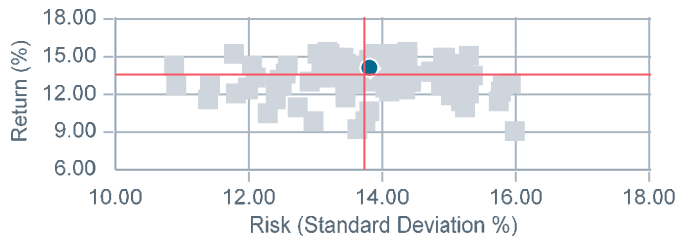
RVK

**Manager:** BlackRock Russell 1000 Index NL (CF) **As of December 31, 2020**
**Benchmark:** Russell 1000 Index
**Peer Group:** IM U.S. Large Cap Core Equity (SA+CF)

## Performance

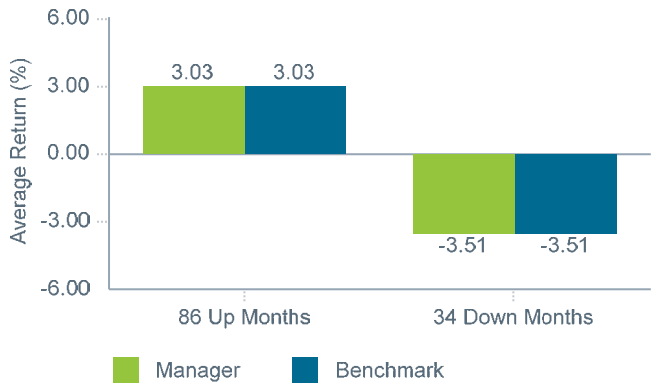
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **13.69** | **20.96** | **14.82** | **15.59** | **13.04** | **14.00** | **31.44** | **-4.78** | **21.65** | **12.04** | **0.93** |
| Benchmark | 13.69 | 20.96 | 14.82 | 15.60 | 13.04 | 14.01 | 31.43 | -4.78 | 21.69 | 12.05 | 0.92 |
| Difference | 0.00 | 0.00 | 0.00 | -0.01 | 0.00 | -0.01 | 0.01 | 0.00 | -0.04 | -0.01 | 0.01 |
| Peer Group Median | 12.15 | 16.00 | 12.94 | 14.26 | 12.33 | 13.58 | 30.00 | -5.15 | 21.84 | 10.54 | 1.43 |
| Rank | 28 | 26 | 25 | 25 | 29 | 32 | 36 | 43 | 53 | 32 | 57 |
| Population | 178 | 178 | 176 | 170 | 165 | 147 | 245 | 274 | 297 | 317 | 333 |

## Peer Group Scattergram - 10 Years

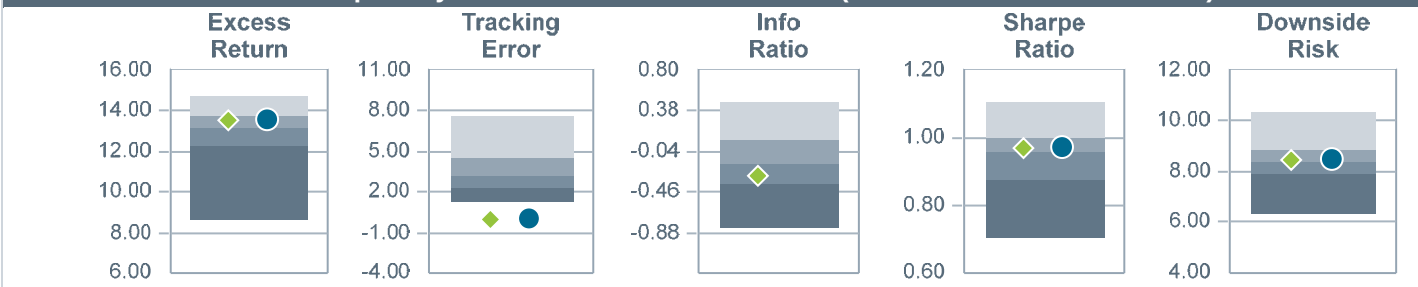



| | Return | Standard Deviation |
|---|---|---|
| Manager | 14.00 | 13.82 |
| Benchmark | 14.01 | 13.83 |
| Median | 13.57 | 13.73 |

## Up/Down Markets - 10 Years



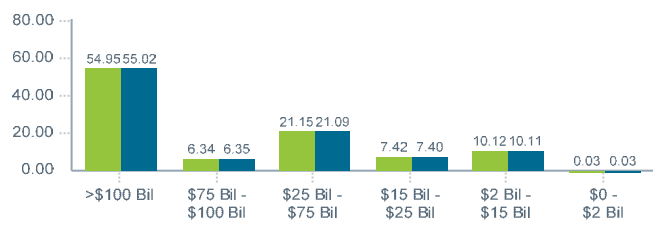

## Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)



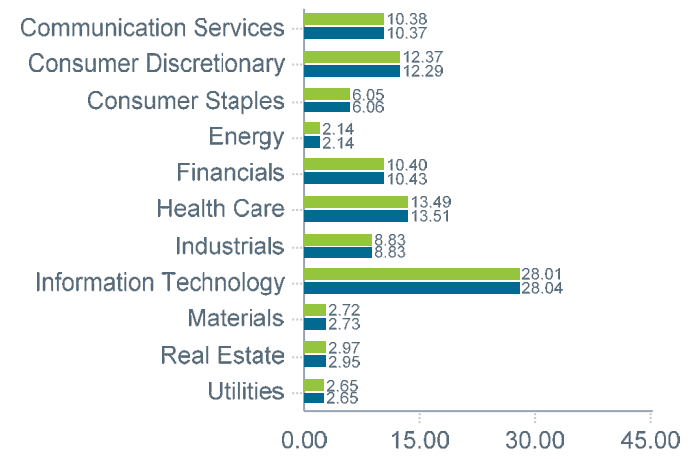

| | Excess Return | | Tracking Error | | Info Ratio | | Sharpe Ratio | | Downside Risk | |
|---|---|---|---|---|---|---|---|---|---|---|
| Manager | 13.50 | (30) | 0.02 | (100) | -0.30 | (70) | 0.97 | (44) | 8.44 | (46) |
| Benchmark | 13.51 | (30) | 0.00 | (100) | N/A | | 0.97 | (44) | 8.44 | (46) |
| Median | 13.13 | | 3.17 | | -0.16 | | 0.96 | | 8.41 | |

## Portfolio Characteristics and Dist. of Market Cap (%)

| | Portfolio | Benchmark |
|---|---|---|
| Wtd. Avg. Mkt. Cap ($M) | 432,145 | 432,897 |
| Median Mkt. Cap ($M) | 12,844 | 12,818 |
| Price/Earnings Ratio | 29.56 | 29.49 |
| Price/Book Ratio | 4.56 | 4.55 |
| 5 Yr. EPS Growth Rate (%) | 17.87 | 17.87 |
| Current Yield (%) | 1.45 | 1.45 |
| Beta (5 Years, Monthly) | 1.00 | 1.00 |
| Number of Securities | 1,024 | 1,018 |
| Active Share | 0.29 | N/A |




## Sector Weights (%)




Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

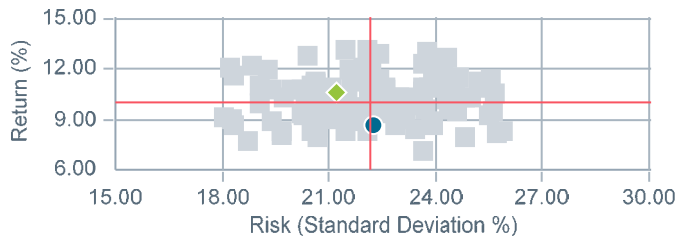
RVK

**Manager: Silvercrest Small Cap Value (SA)** **As of December 31, 2020**
**Benchmark:** Russell 2000 Val Index
**Peer Group:** IM U.S. Small Cap Value Equity (SA+CF)

## Performance

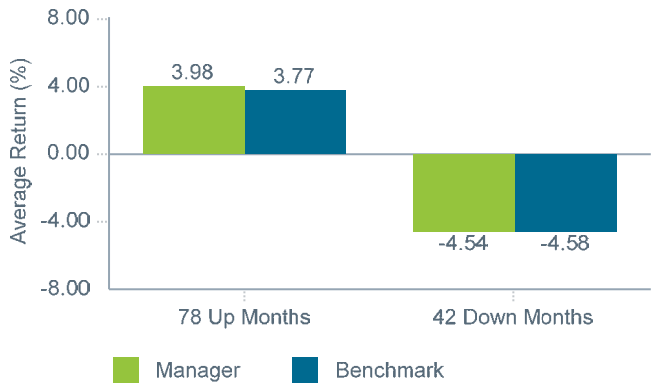
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **29.70** | **6.77** | **4.31** | **10.59** | **7.94** | **10.66** | **25.98** | **-15.63** | **12.18** | **29.95** | **-2.29** |
| Benchmark | 33.36 | 4.63 | 3.72 | 9.65 | 6.25 | 8.66 | 22.39 | -12.86 | 7.84 | 31.74 | -7.47 |
| Difference | -3.66 | 2.14 | 0.59 | 0.94 | 1.69 | 2.00 | 3.59 | -2.77 | 4.34 | -1.79 | 5.18 |
| Peer Group Median | 29.84 | 5.20 | 4.47 | 9.67 | 6.95 | 9.97 | 25.07 | -14.16 | 11.61 | 26.80 | -4.30 |
| Rank | 53 | 45 | 52 | 38 | 31 | 35 | 37 | 66 | 46 | 29 | 31 |
| Population | 175 | 175 | 169 | 166 | 163 | 151 | 200 | 220 | 229 | 235 | 245 |

## Peer Group Scattergram - 10 Years

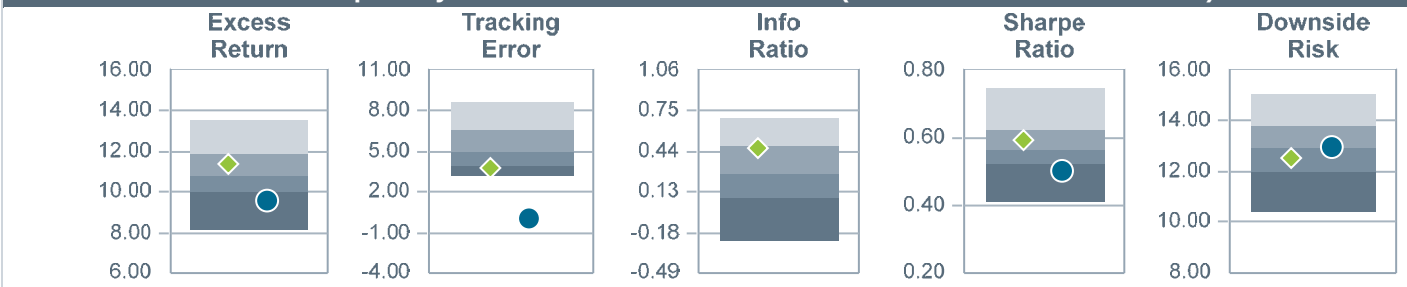



| | Return | Standard Deviation |
|---|---|---|
| Manager | 10.66 | 21.23 |
| Benchmark | 8.66 | 22.26 |
| Median | 9.97 | 22.19 |

## Up/Down Markets - 10 Years



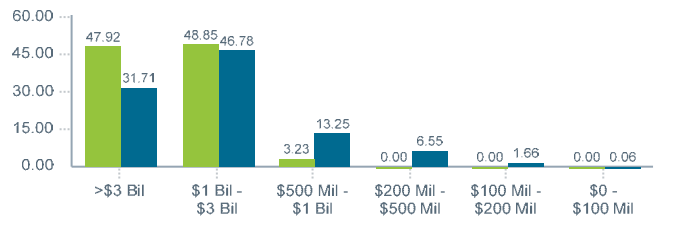

## Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)



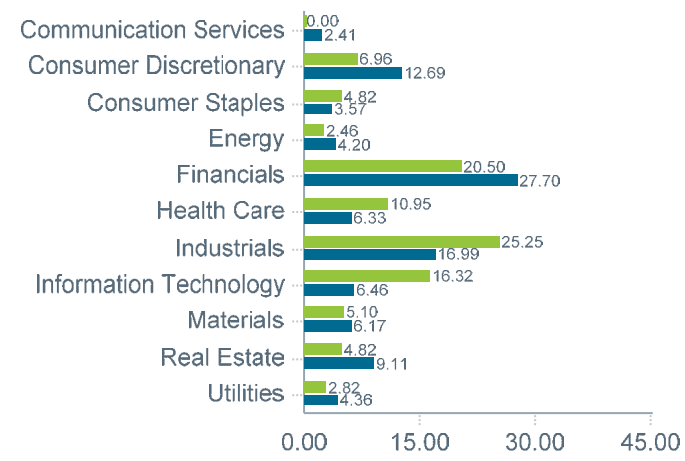

| | Excess Return | Tracking Error | Info Ratio | Sharpe Ratio | Downside Risk |
|---|---|---|---|---|---|
| Manager | 11.37 (38) | 3.85 (76) | 0.47 (26) | 0.60 (32) | 12.55 (59) |
| Benchmark | 9.55 (84) | 0.00 (100) | N/A | 0.50 (82) | 12.91 (51) |
| Median | 10.85 | 5.03 | 0.27 | 0.56 | 12.93 |

## Portfolio Characteristics and Dist. of Market Cap (%)

| | Portfolio | Benchmark |
|---|---|---|
| Wtd. Avg. Mkt. Cap ($M) | 3,127 | 2,484 |
| Median Mkt. Cap ($M) | 2,684 | 765 |
| Price/Earnings Ratio | 25.40 | 15.89 |
| Price/Book Ratio | 2.16 | 1.88 |
| 5 Yr. EPS Growth Rate (%) | 6.08 | 6.37 |
| Current Yield (%) | 1.16 | 1.70 |
| Beta (5 Years, Monthly) | 0.97 | 1.00 |
| Number of Securities | 61 | 1,485 |
| Active Share | 92.61 | N/A |




## Sector Weights (%)




Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

RVK

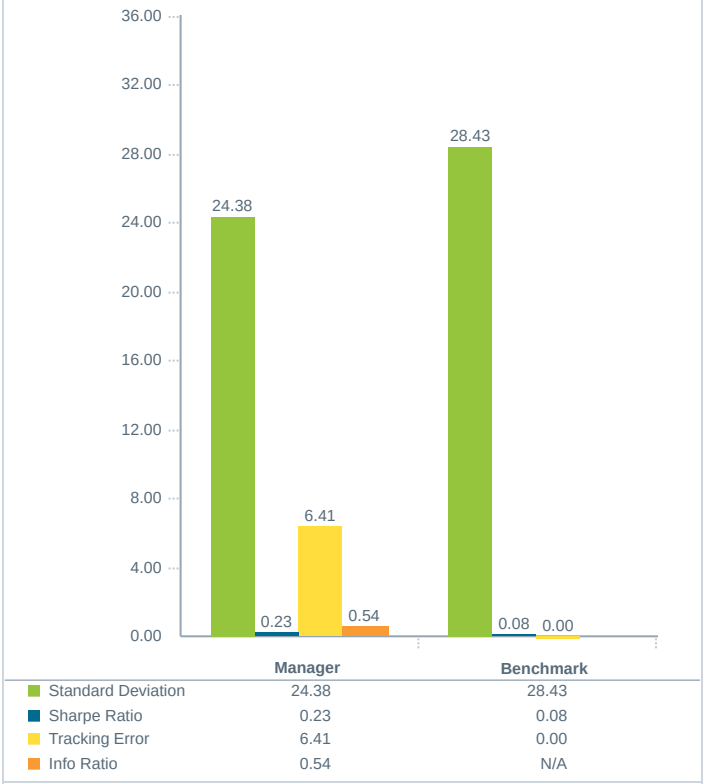
**Manager: Harvest Fund Advisors MLP (SA)** **As of December 31, 2020**

**Benchmark:** S&P MLP Index (TR)

## Performance

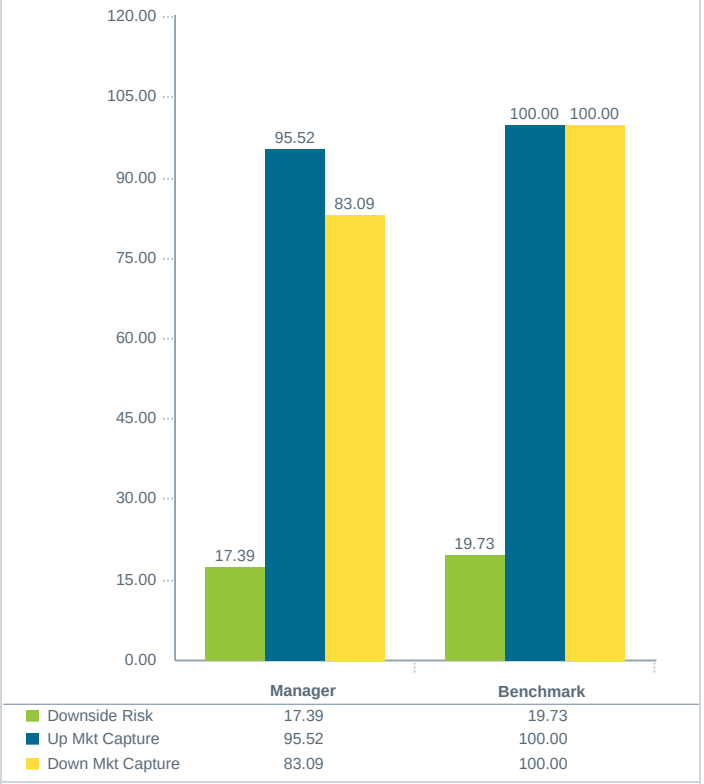
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **22.85** | **-23.68** | **-8.37** | **-2.53** | **-4.47** | **3.17** | **14.87** | **-12.25** | **-4.78** | **20.10** | **-29.50** |
| Benchmark | 29.23 | -28.75 | -11.60 | -4.47 | -8.04 | -1.42 | 9.78 | -11.67 | -5.58 | 21.95 | -35.07 |
| Difference | -6.38 | 5.07 | 3.23 | 1.94 | 3.57 | 4.59 | 5.09 | -0.58 | 0.80 | -1.85 | 5.57 |

## Historical Statistics - 10 Years




| | Manager | Benchmark |
|---|---|---|
| Standard Deviation | 24.38 | 28.43 |
| Sharpe Ratio | 0.23 | 0.08 |
| Tracking Error | 6.41 | 0.00 |
| Info Ratio | 0.54 | N/A |

## Historical Statistics - 10 Years

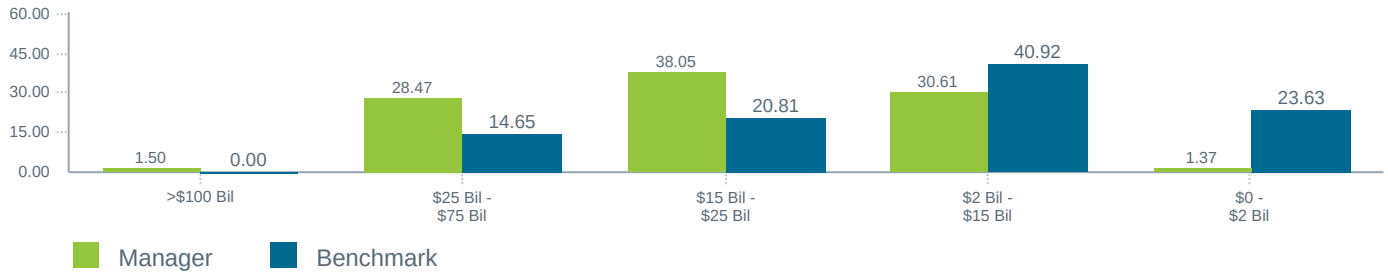



| | Manager | Benchmark |
|---|---|---|
| Downside Risk | 17.39 | 19.73 |
| Up Mkt Capture | 95.52 | 100.00 |
| Down Mkt Capture | 83.09 | 100.00 |

## Portfolio Characteristics

| | Portfolio | Benchmark |
|---|---|---|
| Wtd. Avg. Mkt. Cap ($M) | 25,372 | 12,521 |
| Median Mkt. Cap ($M) | 7,768 | 1,983 |
| Price/Earnings Ratio | 15.84 | 9.92 |
| Price/Book Ratio | 1.87 | 2.20 |
| 5 Yr. EPS Growth Rate (%) | 0.07 | 4.08 |
| Current Yield (%) | 7.98 | 9.94 |
| Beta (5 Years, Monthly) | 0.84 | 1.00 |
| Number of Securities | 24 | 30 |

## Distribution of Market Capitalization (%)




Performance shown is gross of fees and is product specific manager performance prior to 03/01/2014. Calculations are based on monthly periodicity.

RVK

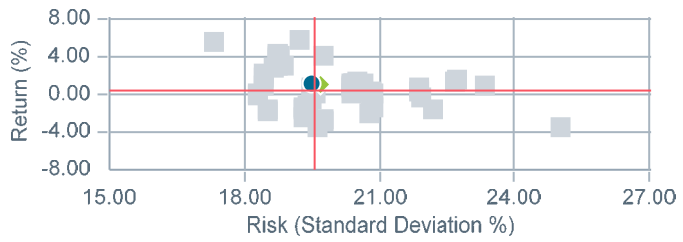
**Manager:** Vanguard I HD Y;Adm (VIHAX)
**Benchmark:** FTSE All Wrld Ex US Hi Div Yld Index
**Peer Group:** IM ACWI Ex US Value (MF)

**As of December 31, 2020**

## Performance

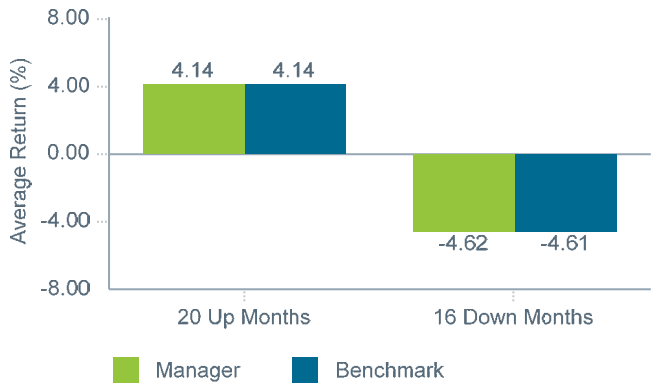
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **18.56** | **-0.71** | **0.96** | **N/A** | **N/A** | **N/A** | **18.27** | **-12.36** | **22.40** | **N/A** | **N/A** |
| Benchmark | 18.88 | -0.65 | 1.06 | 6.52 | 2.55 | 4.01 | 18.63 | -12.43 | 22.55 | 8.41 | -9.44 |
| Difference | -0.32 | -0.06 | -0.10 | N/A | N/A | N/A | -0.36 | 0.07 | -0.15 | N/A | N/A |
| Peer Group Median | 18.58 | 3.69 | 0.50 | 5.21 | 1.25 | 3.04 | 17.89 | -16.03 | 22.88 | 2.79 | -7.13 |
| Rank | 51 | 86 | 39 | N/A | N/A | N/A | 45 | 4 | 58 | N/A | N/A |
| Population | 67 | 67 | 67 | 62 | 53 | 44 | 68 | 68 | 72 | 66 | 58 |

## Peer Group Scattergram - 3 Years

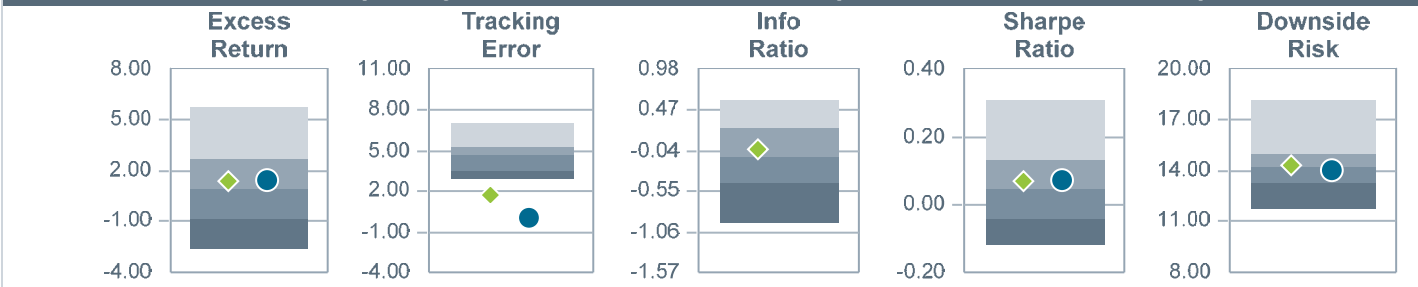



| | Return | Standard Deviation |
|---|---|---|
| Manager | 0.96 | 19.70 |
| Benchmark | 1.06 | 19.53 |
| Median | 0.50 | 19.54 |

## Up/Down Markets - 3 Years



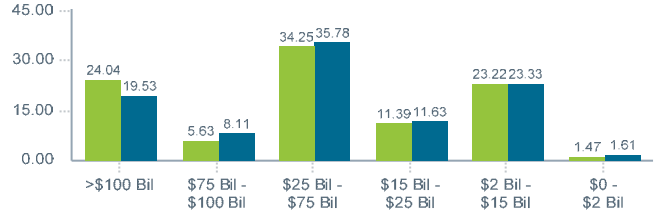

## Peer Group Analysis - Multi Statistics - 3 Years (Excess Return vs. Risk Free)



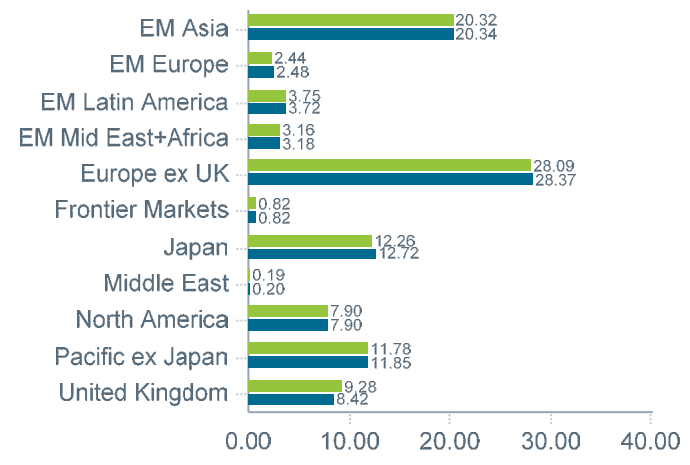

| | Excess Return | Tracking Error | Info Ratio | Sharpe Ratio | Downside Risk |
|---|---|---|---|---|---|
| Manager | 1.36 (44) | 1.75 (100) | -0.03 (45) | 0.07 (41) | 14.38 (48) |
| Benchmark | 1.41 (41) | 0.00 (100) | N/A | 0.07 (41) | 14.03 (64) |
| Median | 0.90 | 4.67 | -0.13 | 0.05 | 14.27 |

## Portfolio Characteristics and Dist. of Market Cap (%)

| | Portfolio | Benchmark |
|---|---|---|
| Wtd. Avg. Mkt. Cap ($M) | 90,378 | 78,832 |
| Median Mkt. Cap ($M) | 6,184 | 6,005 |
| Price/Earnings Ratio | 13.73 | 14.50 |
| Price/Book Ratio | 1.92 | 1.90 |
| 5 Yr. EPS Growth Rate (%) | 3.05 | 3.15 |
| Current Yield (%) | 3.78 | 4.10 |
| Beta (3 Years, Monthly) | 1.00 | 1.00 |
| Number of Securities | 1,197 | 1,180 |
| Active Share | 20.86 | N/A |




## Region Weights (%)




Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

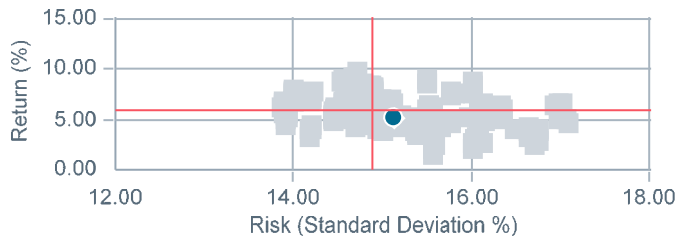
RVK

**Manager: Vanguard Tot I S;Ins + (VTPSX)** **As of December 31, 2020**
**Benchmark:** Vanguard Spl Tot Int'l Stock Index
**Peer Group:** IM All ACWI Ex US (MF)

## Performance

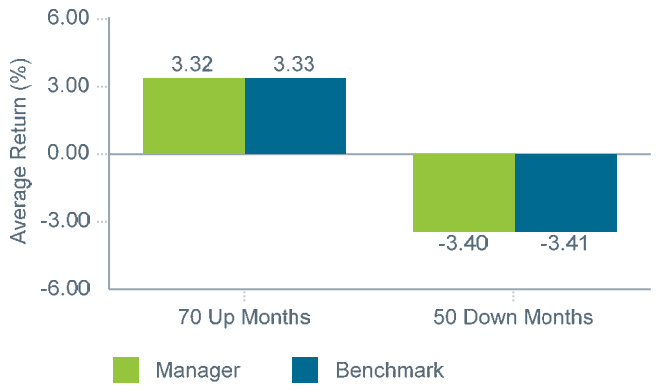
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **16.90** | **11.30** | **5.02** | **9.13** | **5.15** | **5.17** | **21.56** | **-14.38** | **27.57** | **4.73** | **-4.22** |
| Benchmark | 17.21 | 11.24 | 4.98 | 9.07 | 5.21 | 5.18 | 21.80 | -14.61 | 27.41 | 4.72 | -4.29 |
| Difference | -0.31 | 0.06 | 0.04 | 0.06 | -0.06 | -0.01 | -0.24 | 0.23 | 0.16 | 0.01 | 0.07 |
| Peer Group Median | 16.49 | 15.42 | 7.09 | 9.25 | 5.68 | 5.95 | 25.65 | -15.50 | 28.32 | 1.01 | -1.19 |
| Rank | 43 | 67 | 67 | 53 | 57 | 64 | 72 | 33 | 56 | 18 | 68 |
| Population | 422 | 422 | 422 | 395 | 320 | 276 | 435 | 442 | 469 | 438 | 373 |

## Peer Group Scattergram - 10 Years

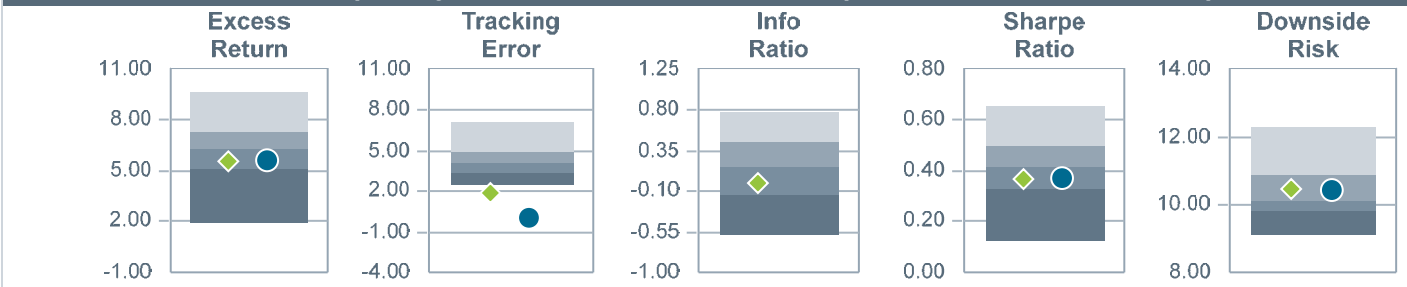



| | Return | Standard Deviation |
|---|---|---|
| Manager | 5.17 | 15.14 |
| Benchmark | 5.18 | 15.14 |
| Median | 5.95 | 14.90 |

## Up/Down Markets - 10 Years



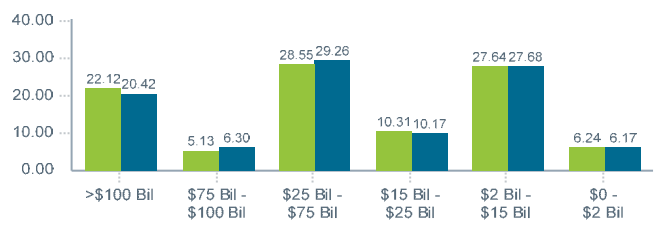

## Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)



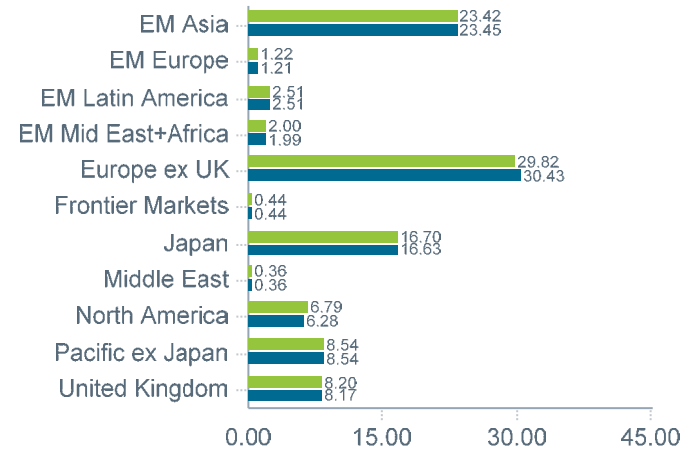

| | Excess Return | Tracking Error | Info Ratio | Sharpe Ratio | Downside Risk |
|---|---|---|---|---|---|
| Manager | 5.58 (66) | 1.81 (99) | 0.00 (66) | 0.37 (66) | 10.45 (38) |
| Benchmark | 5.59 (65) | 0.00 (100) | N/A | 0.37 (65) | 10.39 (39) |
| Median | 6.29 | 4.15 | 0.17 | 0.41 | 10.14 |

## Portfolio Characteristics and Dist. of Market Cap (%)

| | Portfolio | Benchmark |
|---|---|---|
| Wtd. Avg. Mkt. Cap ($M) | 96,828 | 84,262 |
| Median Mkt. Cap ($M) | 2,067 | 1,846 |
| Price/Earnings Ratio | 19.55 | 20.10 |
| Price/Book Ratio | 2.67 | 2.66 |
| 5 Yr. EPS Growth Rate (%) | 6.08 | 5.87 |
| Current Yield (%) | 2.10 | 2.27 |
| Beta (5 Years, Monthly) | 0.99 | 1.00 |
| Number of Securities | 7,244 | 7,206 |
| Active Share | 18.41 | N/A |




## Region Weights (%)




Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Benchmark consists of Tot Int'l Comp Idx (an asset-weighted blend of stocks in the MSCI Eur Idx (USD) (Net), MSCI Pac Idx (USD) (Net), and MSCI Emg Mkts Idx (USD) (Net)) through 08/31/06; MSCI EAFE + Emg Mkts Idx (USD) (Net) through 12/15/10; MSCI ACW Ex US IM Idx (USD) (Net) through 06/02/13; and FTSE Gbl All Cap Ex US Idx (USD) (Net) thereafter.

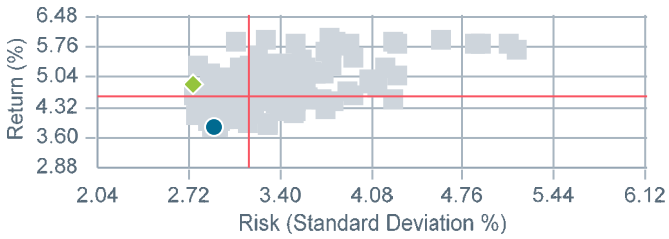
RVK

**Manager:** Dodge & Cox Fixed Income (SA) **As of December 31, 2020**
**Benchmark:** Bloomberg US Agg Bond Index
**Peer Group:** IM U.S. Broad Market Fixed Income (SA+CF)

## Performance

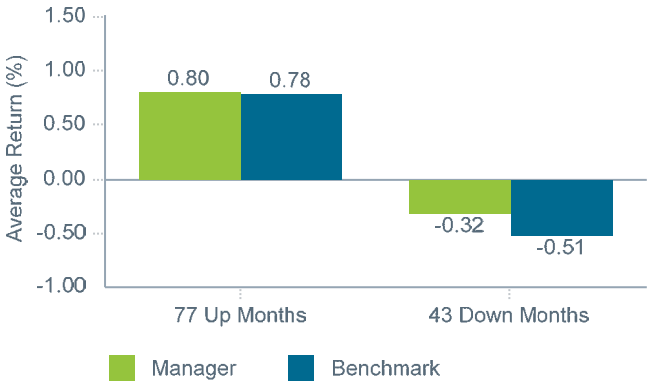
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **2.47** | **9.71** | **6.48** | **5.73** | **4.97** | **4.87** | **9.57** | **0.42** | **4.40** | **4.84** | **0.13** |
| Benchmark | 0.67 | 7.51 | 5.34 | 4.44 | 4.09 | 3.84 | 8.72 | 0.01 | 3.54 | 2.65 | 0.55 |
| Difference | 1.80 | 2.20 | 1.14 | 1.29 | 0.88 | 1.03 | 0.85 | 0.41 | 0.86 | 2.19 | -0.42 |
| Peer Group Median | 1.40 | 8.80 | 6.05 | 5.21 | 4.71 | 4.59 | 9.47 | 0.00 | 4.30 | 3.73 | 0.63 |
| Rank | 18 | 23 | 22 | 26 | 31 | 33 | 46 | 18 | 47 | 26 | 76 |
| Population | 290 | 289 | 283 | 277 | 271 | 258 | 332 | 349 | 359 | 370 | 386 |

## Peer Group Scattergram - 10 Years

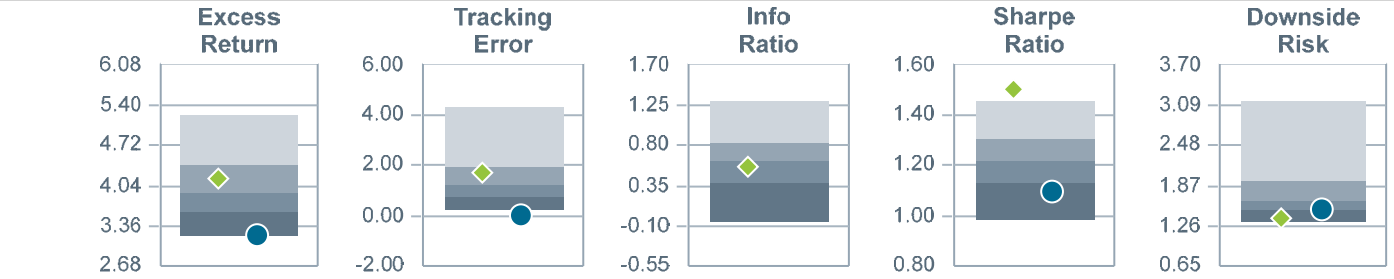



| | Return | Standard Deviation |
|---|---|---|
| Manager | 4.87 | 2.75 |
| Benchmark | 3.84 | 2.92 |
| Median | 4.59 | 3.16 |

## Up/Down Markets - 10 Years




## Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)

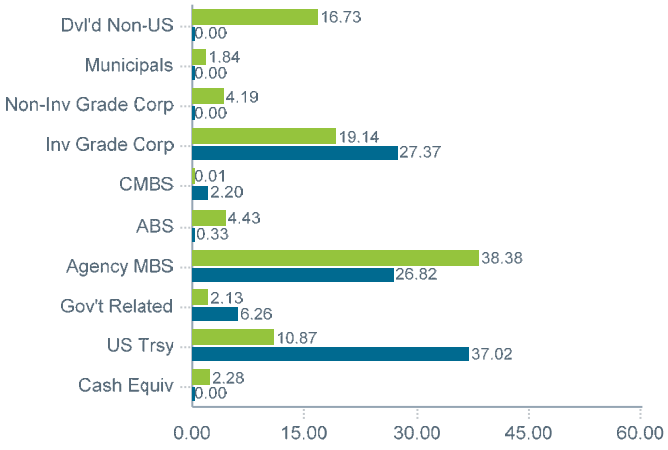



| | Excess Return | | Tracking Error | | Info Ratio | Sharpe Ratio | | Downside Risk | |
|---|---|---|---|---|---|---|---|---|---|
| Manager | 4.17 | (34) | 1.75 | (30) | 0.56 (61) | 1.50 | (3) | 1.37 | (93) |
| Benchmark | 3.18 | (94) | 0.00 | (100) | N/A | 1.10 | (82) | 1.48 | (77) |
| Median | 3.91 | | 1.22 | | 0.63 | 1.22 | | 1.65 | |

## Portfolio Characteristics

| | Portfolio | Benchmark |
|---|---|---|
| Effective Duration | 4.96 | 6.22 |
| Spread Duration | 6.16 | 6.44 |
| Avg. Maturity | 9.27 | 8.28 |
| Avg. Quality | Aa3 | Aa1/Aa2 |
| Yield To Maturity (%) | 1.54 | 1.14 |
| Coupon Rate (%) | 3.55 | 2.76 |
| Current Yield (%) | 2.99 | N/A |
| Holdings Count | 283 | 11,984 |

## Sector Distribution (%)




Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

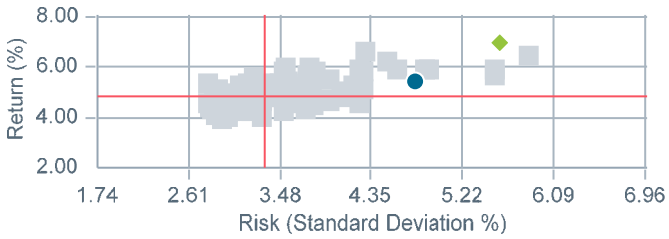
RVK

**Manager: Cutwater Core Plus Select Income (SA)** **As of December 31, 2020**
**Benchmark:** Bloomberg US Crdt Index
**Peer Group:** IM U.S. Broad Market Core+ Fixed Income (SA+CF)

## Performance

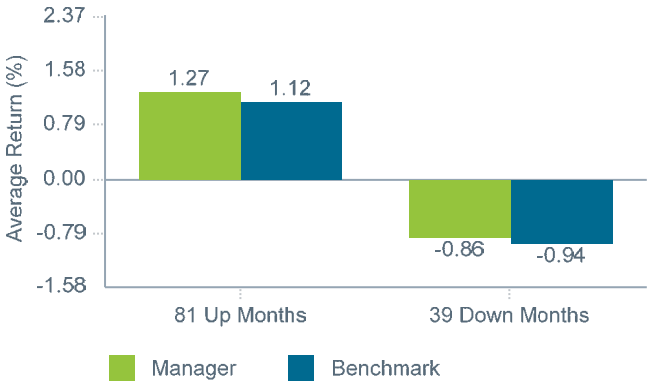
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **4.58** | **11.56** | **8.00** | **7.95** | **6.63** | **6.97** | **15.46** | **-2.19** | **7.96** | **7.78** | **-1.40** |
| Benchmark | 2.79 | 9.35 | 6.80 | 6.44 | 5.53 | 5.40 | 13.80 | -2.11 | 6.18 | 5.63 | -0.77 |
| Difference | 1.79 | 2.21 | 1.20 | 1.51 | 1.10 | 1.57 | 1.66 | -0.08 | 1.78 | 2.15 | -0.63 |
| Peer Group Median | 2.05 | 8.97 | 6.19 | 5.66 | 4.88 | 4.86 | 9.83 | -0.28 | 4.81 | 4.68 | 0.31 |
| Rank | 7 | 6 | 3 | 4 | 1 | 3 | 1 | 94 | 5 | 13 | 87 |
| Population | 134 | 133 | 130 | 127 | 124 | 118 | 156 | 163 | 168 | 171 | 178 |

## Peer Group Scattergram - 10 Years

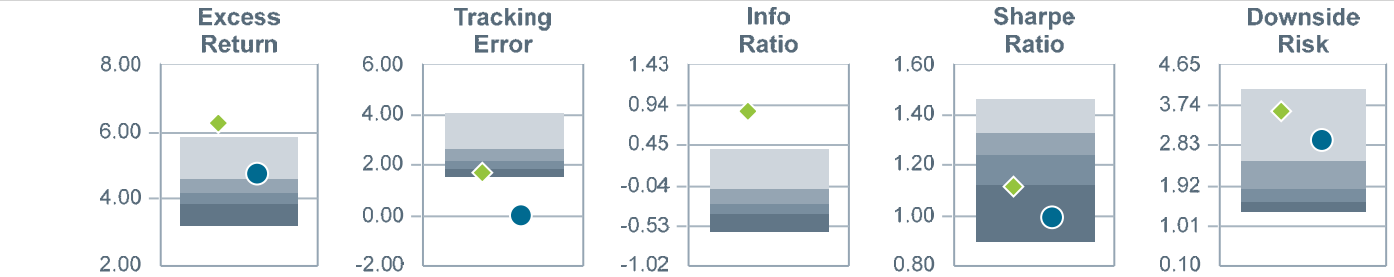



| | Return | Standard Deviation |
|---|---|---|
| Manager | 6.97 | 5.58 |
| Benchmark | 5.40 | 4.78 |
| Median | 4.86 | 3.34 |

## Up/Down Markets - 10 Years




## Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)

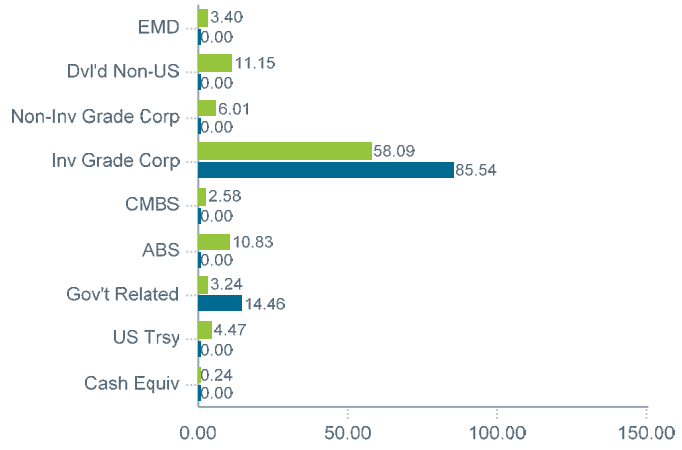



| | Excess Return | Tracking Error | Info Ratio | Sharpe Ratio | Downside Risk |
|---|---|---|---|---|---|
| Manager | 6.28 (2) | 1.74 (86) | 0.87 (1) | 1.12 (76) | 3.62 (8) |
| Benchmark | 4.76 (23) | 0.00 (100) | N/A | 0.99 (89) | 2.96 (14) |
| Median | 4.19 | 2.20 | -0.27 | 1.24 | 1.86 |

## Portfolio Characteristics

| | Portfolio | Benchmark |
|---|---|---|
| Effective Duration | 8.60 | 8.55 |
| Spread Duration | 8.95 | 8.32 |
| Avg. Maturity | 14.96 | 12.04 |
| Avg. Quality | Baa1 | A2/A3 |
| Yield To Maturity (%) | 2.88 | 1.72 |
| Coupon Rate (%) | 4.45 | 3.66 |
| Current Yield (%) | 3.64 | N/A |
| Holdings Count | 293 | 7,432 |

## Sector Distribution (%)




Performance shown is gross of fees and is product specific manager performance prior to 12/01/2013. Calculation is based on monthly periodicity.
Parenthesis contain percentile ranks.

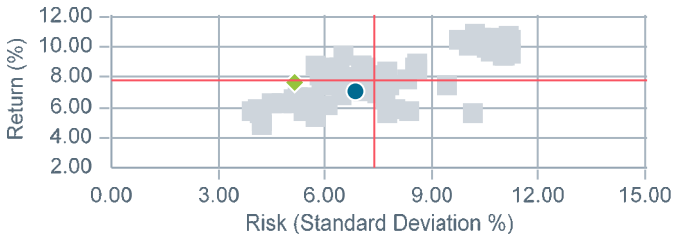
RVK

**Manager:** Guggenheim (BBB) (SA) **As of December 31, 2020**
**Benchmark:** Bloomberg US Corp Inv Grade Index
**Peer Group:** IM U.S. Corporate Bonds (SA+CF)

## Performance

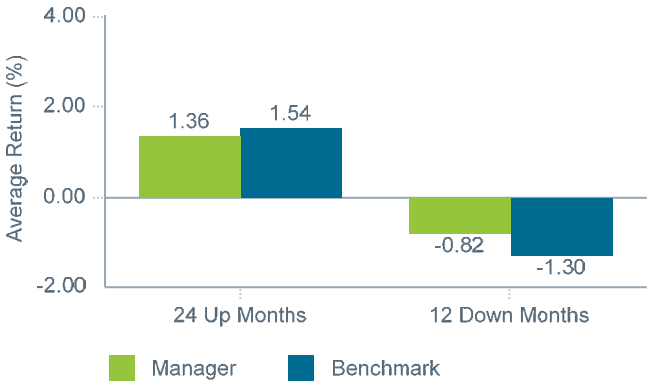
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **3.69** | **15.66** | **7.68** | **N/A** | **N/A** | **N/A** | **10.00** | **-1.86** | **8.57** | **N/A** | **N/A** |
| Benchmark | 3.05 | 9.89 | 7.06 | 6.74 | 5.75 | 5.63 | 14.54 | -2.51 | 6.42 | 6.11 | -0.68 |
| Difference | 0.64 | 5.77 | 0.62 | N/A | N/A | N/A | -4.54 | 0.65 | 2.15 | N/A | N/A |
| Peer Group Median | 3.55 | 11.51 | 7.84 | 7.57 | 6.53 | 6.51 | 15.08 | -2.33 | 7.23 | 7.29 | -0.81 |
| Rank | 44 | 20 | 57 | N/A | N/A | N/A | 86 | 36 | 34 | N/A | N/A |
| Population | 113 | 111 | 107 | 101 | 97 | 92 | 124 | 129 | 127 | 129 | 129 |

## Peer Group Scattergram - 3 Years

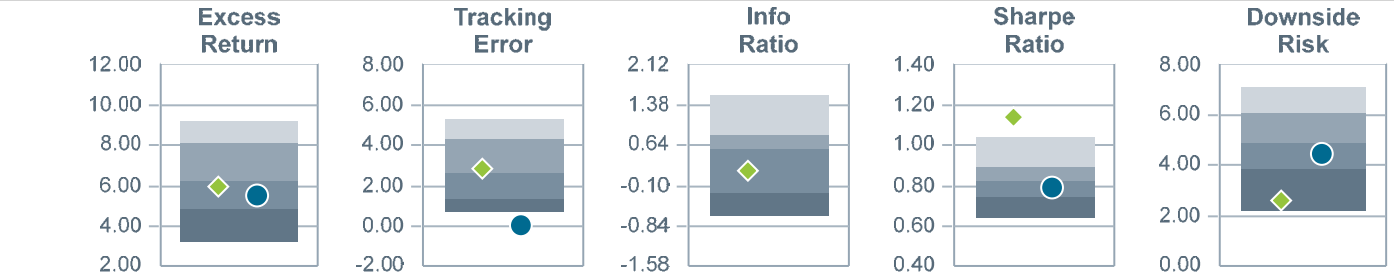



| | Return | Standard Deviation |
|---|---|---|
| Manager | 7.68 | 5.14 |
| Benchmark | 7.06 | 6.86 |
| Median | 7.84 | 7.37 |

## Up/Down Markets - 3 Years




## Peer Group Analysis - Multi Statistics - 3 Years (Excess Return vs. Risk Free)

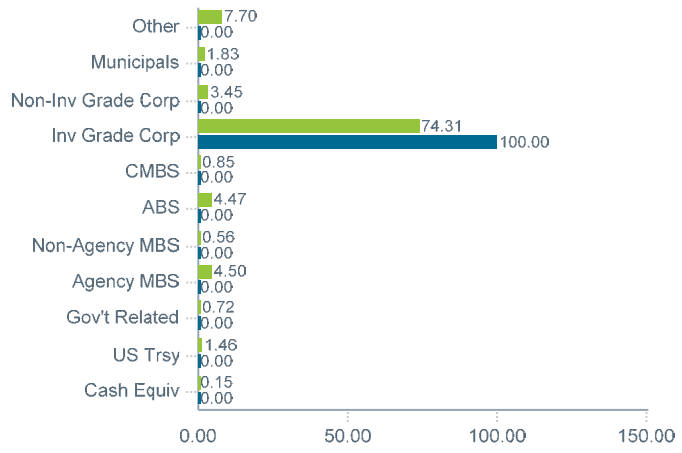



| | Excess Return | | Tracking Error | | Info Ratio | Sharpe Ratio | | Downside Risk | |
|---|---|---|---|---|---|---|---|---|---|
| Manager | 5.96 | (61) | 2.83 | (49) | 0.17 (64) | 1.14 | (2) | 2.60 | (94) |
| Benchmark | 5.48 | (69) | 0.00 | (100) | N/A | 0.79 | (62) | 4.46 | (58) |
| Median | 6.24 | | 2.66 | | 0.57 | 0.83 | | 4.92 | |

## Portfolio Characteristics

| | Portfolio | Benchmark |
|---|---|---|
| Effective Duration | 9.41 | 8.84 |
| Spread Duration | 9.10 | 8.60 |
| Avg. Maturity | 17.35 | 12.34 |
| Avg. Quality | A3 | A3/Baa1 |
| Yield To Maturity (%) | 2.48 | 1.79 |
| Coupon Rate (%) | 3.81 | 3.76 |
| Current Yield (%) | 2.39 | N/A |
| Holdings Count | 243 | 6,647 |

## Sector Distribution (%)




Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks. Allocation to "Other" consists of Preferred Securities.

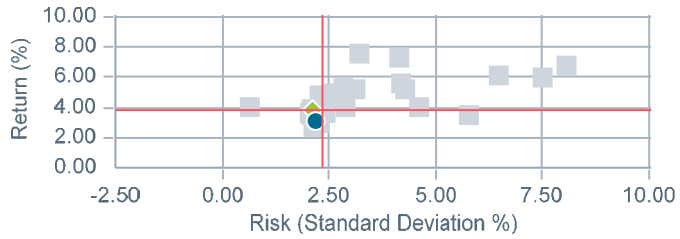
RVK

**Manager: JPMorgan MBS (SA)** **As of December 31, 2020**
**Benchmark:** Bloomberg US MBS Index (Unhgd)
**Peer Group:** IM U.S. Mortgage Backed Bonds (SA+CF)

## Performance

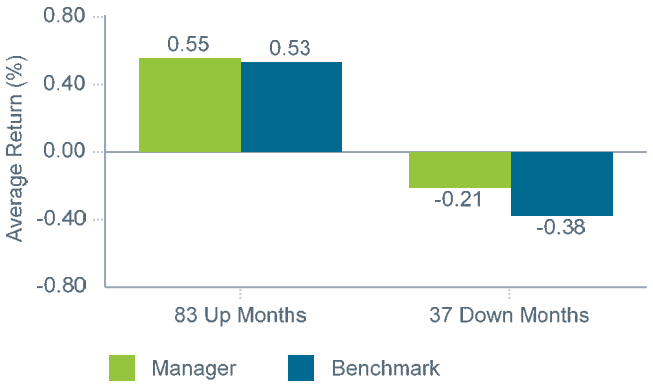
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **0.57** | **5.65** | **4.77** | **3.88** | **3.83** | **3.82** | **6.71** | **2.00** | **2.86** | **2.26** | **1.94** |
| Benchmark | 0.25 | 3.87 | 3.71 | 3.05 | 3.26 | 3.01 | 6.35 | 0.99 | 2.47 | 1.67 | 1.51 |
| Difference | 0.32 | 1.78 | 1.06 | 0.83 | 0.57 | 0.81 | 0.36 | 1.01 | 0.39 | 0.59 | 0.43 |
| Peer Group Median | 0.56 | 4.24 | 3.95 | 3.48 | 3.73 | 3.83 | 6.56 | 1.33 | 3.59 | 2.38 | 1.71 |
| Rank | 50 | 15 | 18 | 39 | 46 | 51 | 38 | 44 | 61 | 54 | 42 |
| Population | 39 | 39 | 39 | 38 | 37 | 36 | 51 | 52 | 55 | 58 | 59 |

## Peer Group Scattergram - 10 Years

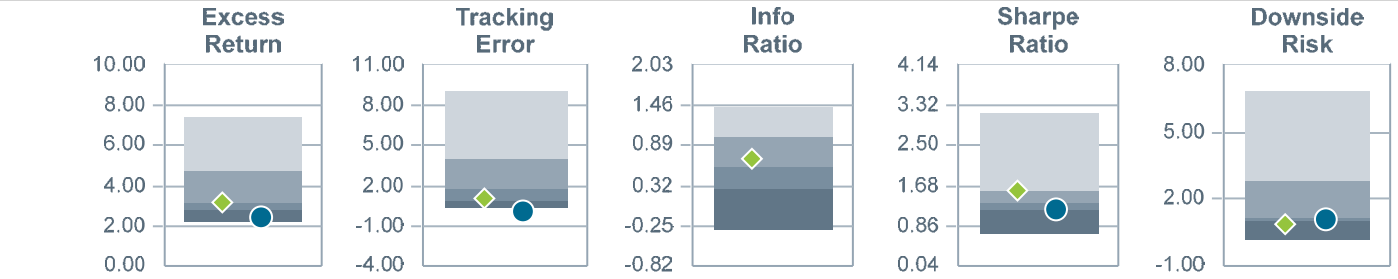



| | Return | Standard Deviation |
|---|---|---|
| Manager | 3.82 | 2.10 |
| Benchmark | 3.01 | 2.21 |
| Median | 3.83 | 2.33 |

## Up/Down Markets - 10 Years




## Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)

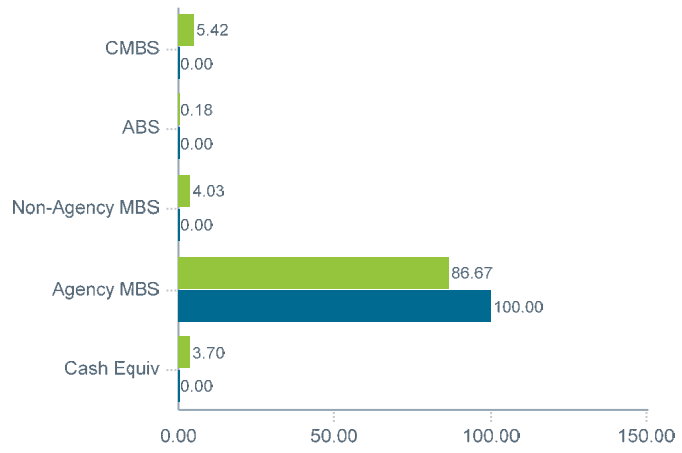



| | Excess Return | Tracking Error | Info Ratio | Sharpe Ratio | Downside Risk |
|---|---|---|---|---|---|
| Manager | 3.14 (54) | 1.12 (66) | 0.70 (39) | 1.58 (28) | 0.88 (89) |
| Benchmark | 2.35 (89) | 0.00 (100) | N/A | 1.17 (76) | 1.07 (68) |
| Median | 3.20 | 1.84 | 0.60 | 1.35 | 1.14 |

## Portfolio Characteristics

| | Portfolio | Benchmark |
|---|---|---|
| Effective Duration | 2.02 | 2.34 |
| Spread Duration | 3.50 | 3.72 |
| Avg. Maturity | 3.81 | 4.05 |
| Avg. Quality | Aa1 | Aaa |
| Yield To Maturity (%) | 1.12 | 1.25 |
| Coupon Rate (%) | 3.13 | 3.10 |
| Current Yield (%) | 4.13 | N/A |
| Holdings Count | 600 | 443 |

## Sector Distribution (%)




Performance shown is gross of fees and is product specific manager performance prior to 07/01/2010. Calculation is based on monthly periodicity.
Parenthesis contain percentile ranks.

RVK

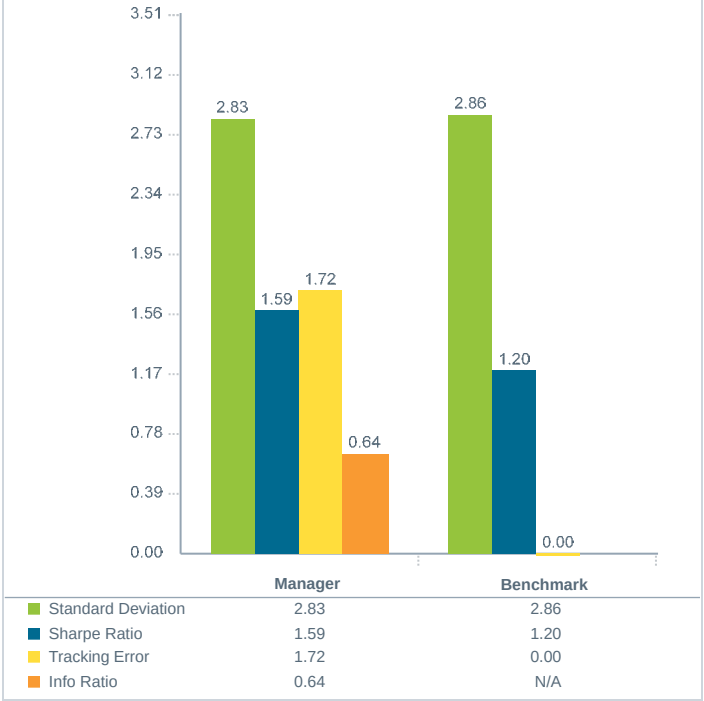
**Manager:** Guggenheim CMBS (SA) **As of December 31, 2020**

**Benchmark:** Bloomberg US CMBS Inv Grade: Aaa Index

## Performance

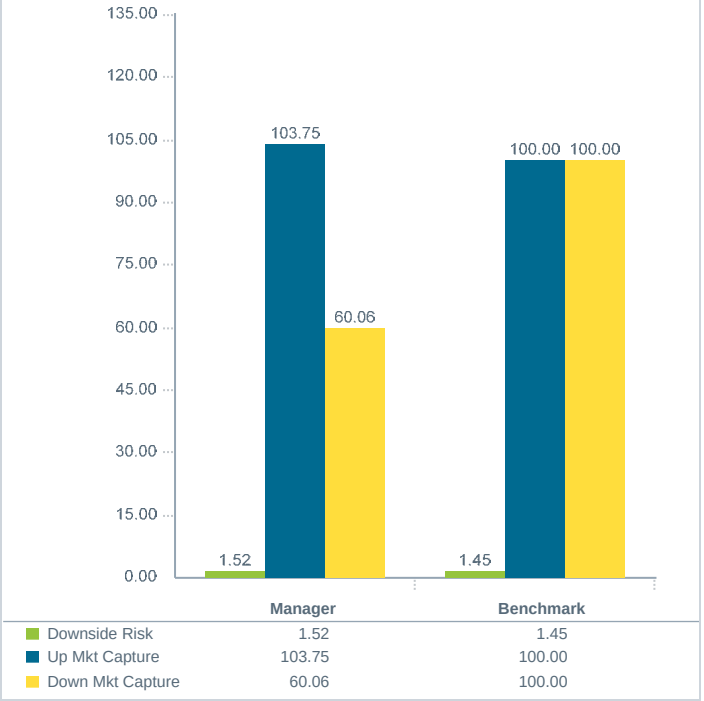
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **0.68** | **6.43** | **5.17** | **5.05** | **4.77** | **5.25** | **6.38** | **2.74** | **5.61** | **4.16** | **2.11** |
| Benchmark | 0.73 | 8.33 | 5.62 | 4.67 | 4.12 | 4.10 | 7.88 | 0.83 | 3.11 | 3.40 | 1.22 |
| Difference | -0.05 | -1.90 | -0.45 | 0.38 | 0.65 | 1.15 | -1.50 | 1.91 | 2.50 | 0.76 | 0.89 |

## Historical Statistics - 10 Years




| | Manager | Benchmark |
|---|---|---|
| Standard Deviation | 2.83 | 2.86 |
| Sharpe Ratio | 1.59 | 1.20 |
| Tracking Error | 1.72 | 0.00 |
| Info Ratio | 0.64 | N/A |

## Historical Statistics - 10 Years

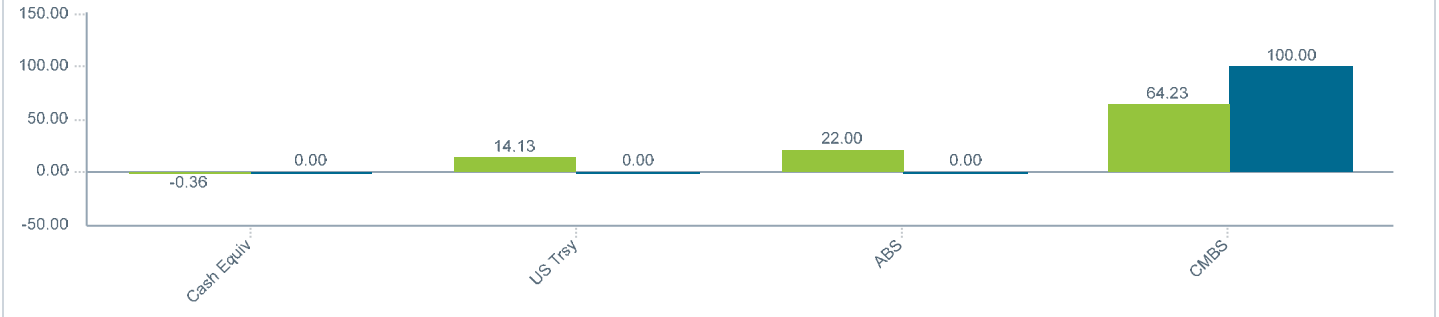



| | Manager | Benchmark |
|---|---|---|
| Downside Risk | 1.52 | 1.45 |
| Up Mkt Capture | 103.75 | 100.00 |
| Down Mkt Capture | 60.06 | 100.00 |

## Portfolio Characteristics

| | Portfolio | Benchmark |
|---|---|---|
| Effective Duration | 5.44 | 5.28 |
| Modified Duration | 5.98 | 5.20 |
| Spread Duration | 4.63 | 5.28 |
| Convexity | 1.08 | 0.38 |
| Avg. Maturity | 17.59 | 5.74 |
| Avg. Quality | Aa1 | Aaa |
| Yield To Maturity (%) | 2.17 | 1.11 |
| Coupon Rate (%) | 2.50 | 3.08 |
| Yield To Worst (%) | 2.11 | 1.11 |
| Current Yield (%) | 2.17 | N/A |
| Holdings Count | 88 | 2,279 |

## Sector Distribution (%)




Performance shown is gross of fees and is product specific manager performance prior to 07/01/2010. Calculations are based on monthly periodicity.

RVK

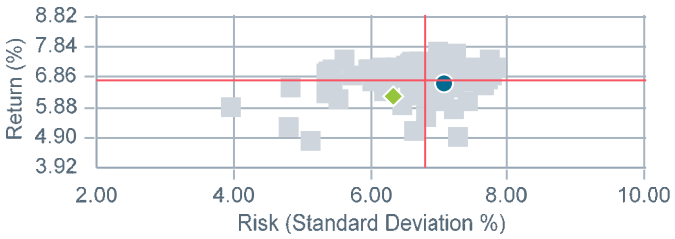
**Manager:** Allianz Global Investors US High Yield (SA)
**Benchmark:** ICE BofAML US Hi Yld Master II Index
**Peer Group:** IM U.S. High Yield Bonds (SA+CF)

**As of December 31, 2020**

## Performance

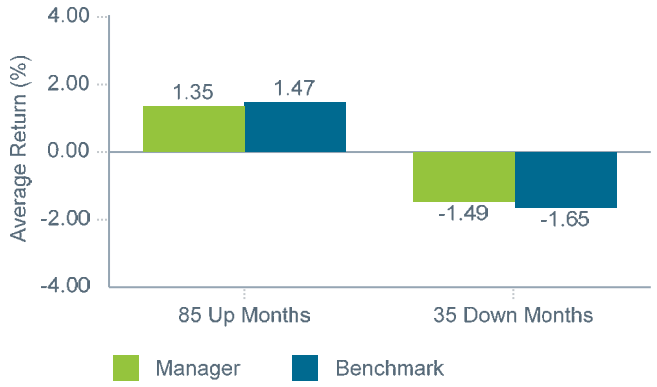
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **5.83** | **6.14** | **6.25** | **7.66** | **4.90** | **6.24** | **16.26** | **-2.79** | **6.38** | **13.35** | **-4.20** |
| Benchmark | 6.48 | 6.17 | 5.88 | 8.43 | 5.61 | 6.62 | 14.41 | -2.27 | 7.48 | 17.49 | -4.64 |
| Difference | -0.65 | -0.03 | 0.37 | -0.77 | -0.71 | -0.38 | 1.85 | -0.52 | -1.10 | -4.14 | 0.44 |
| Peer Group Median | 5.95 | 6.54 | 5.89 | 8.03 | 5.64 | 6.74 | 14.17 | -1.66 | 7.49 | 14.07 | -2.11 |
| Rank | 54 | 58 | 40 | 61 | 79 | 76 | 12 | 82 | 78 | 60 | 79 |
| Population | 146 | 146 | 142 | 133 | 122 | 102 | 183 | 192 | 197 | 203 | 207 |

## Peer Group Scattergram - 10 Years

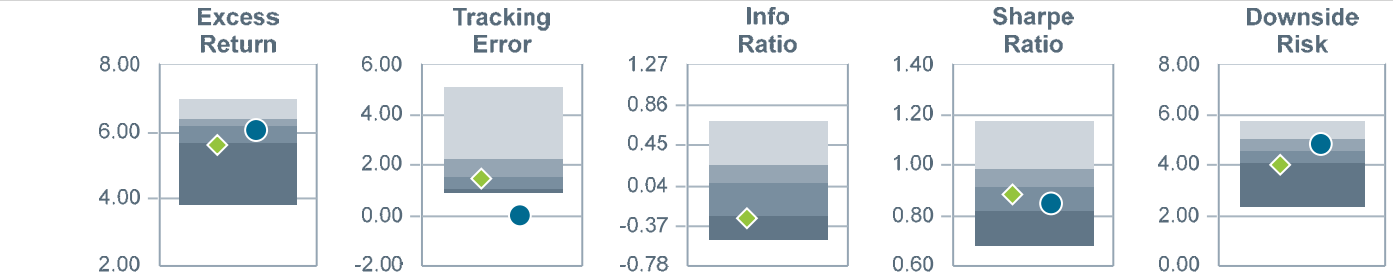



| | Return | Standard Deviation |
|---|---|---|
| Manager | 6.24 | 6.32 |
| Benchmark | 6.62 | 7.10 |
| Median | 6.76 | 6.81 |

## Up/Down Markets - 10 Years




## Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)

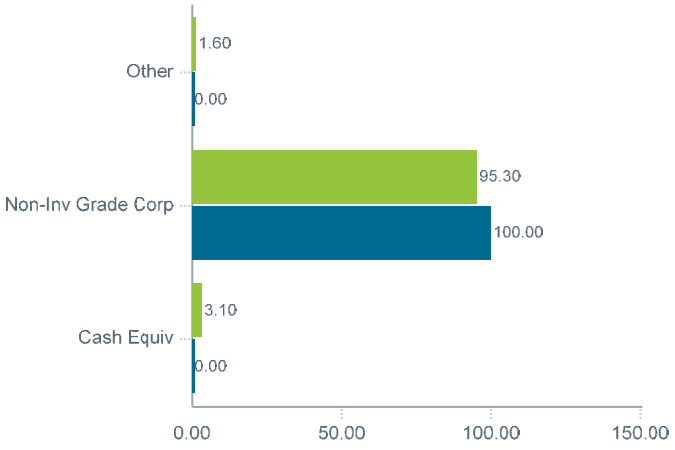



| | Excess Return | Tracking Error | Info Ratio | Sharpe Ratio | Downside Risk |
|---|---|---|---|---|---|
| Manager | 5.64 (77) | 1.46 (54) | -0.29 (79) | 0.88 (54) | 4.06 (77) |
| Benchmark | 6.05 (59) | 0.00 (100) | N/A | 0.85 (65) | 4.83 (35) |
| Median | 6.20 | 1.54 | 0.07 | 0.92 | 4.58 |

## Portfolio Characteristics

| | Portfolio | Benchmark |
|---|---|---|
| Effective Duration | 2.90 | 3.67 |
| Spread Duration | N/A | 3.53 |
| Avg. Maturity | 6.50 | 6.56 |
| Avg. Quality | B1 | B1 |
| Yield To Maturity (%) | 4.80 | 4.98 |
| Coupon Rate (%) | 6.30 | 5.99 |
| Current Yield (%) | 5.81 | 6.01 |
| Holdings Count | 151 | 2,030 |

## Sector Distribution (%)




Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

RVK

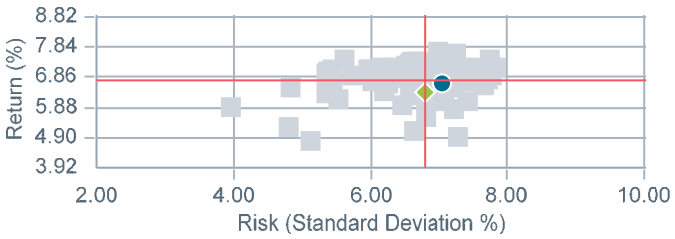
**Manager:** Fort Washington High Yield (SA)
**Benchmark:** ICE BofAML US Cash Pay Hi Yld Index
**Peer Group:** IM U.S. High Yield Bonds (SA+CF)

**As of December 31, 2020**

## Performance

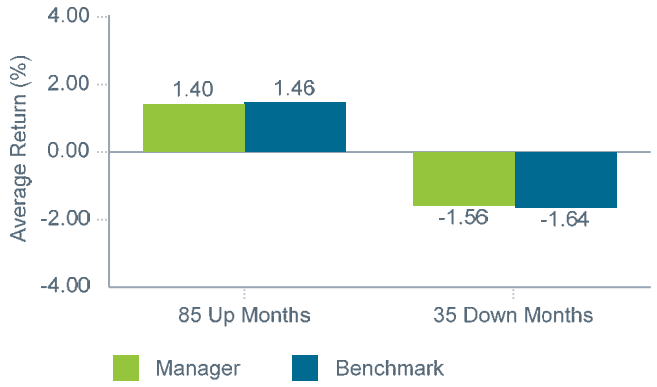
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **5.95** | **4.79** | **5.81** | **7.59** | **5.27** | **6.36** | **15.51** | **-2.13** | **7.64** | **13.05** | **-3.05** |
| Benchmark | 6.45 | 6.21 | 5.90 | 8.41 | 5.60 | 6.61 | 14.40 | -2.26 | 7.48 | 17.34 | -4.55 |
| Difference | -0.50 | -1.42 | -0.09 | -0.82 | -0.33 | -0.25 | 1.11 | 0.13 | 0.16 | -4.29 | 1.50 |
| Peer Group Median | 5.95 | 6.54 | 5.89 | 8.03 | 5.64 | 6.74 | 14.17 | -1.66 | 7.49 | 14.07 | -2.11 |
| Rank | 51 | 77 | 55 | 62 | 64 | 70 | 25 | 65 | 44 | 63 | 59 |
| Population | 146 | 146 | 142 | 133 | 122 | 102 | 183 | 192 | 197 | 203 | 207 |

## Peer Group Scattergram - 10 Years

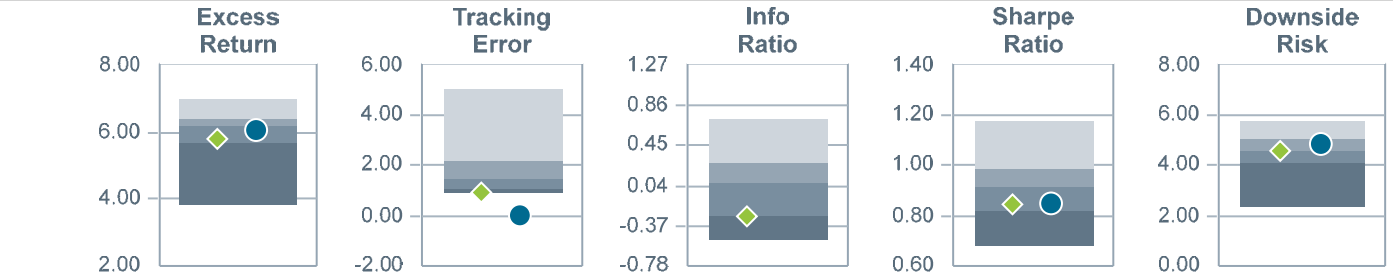



| | Return | Standard Deviation |
|---|---|---|
| Manager | 6.36 | 6.79 |
| Benchmark | 6.61 | 7.06 |
| Median | 6.76 | 6.81 |

## Up/Down Markets - 10 Years




## Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)

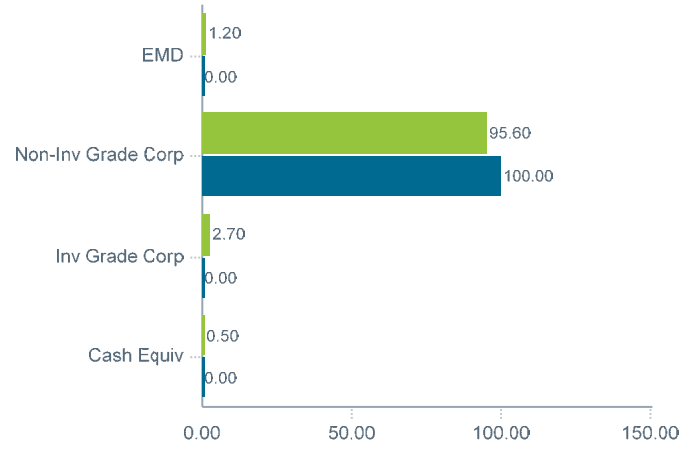



| | Excess Return | | Tracking Error | | Info Ratio | Sharpe Ratio | | Downside Risk | |
|---|---|---|---|---|---|---|---|---|---|
| Manager | 5.78 | (66) | 0.96 | (88) | -0.27 | (75) | 0.84 | (67) | 4.58 | (50) |
| Benchmark | 6.04 | (60) | 0.00 | (100) | N/A | | 0.85 | (64) | 4.79 | (38) |
| Median | 6.20 | | 1.52 | | 0.08 | | 0.92 | | 4.58 | |

## Portfolio Characteristics

| | Portfolio | Benchmark |
|---|---|---|
| Effective Duration | 3.80 | 3.68 |
| Spread Duration | 3.78 | 3.54 |
| Avg. Maturity | 4.26 | 6.57 |
| Avg. Quality | Ba3 | B1 |
| Yield To Maturity (%) | 4.77 | 4.91 |
| Coupon Rate (%) | 5.75 | 5.97 |
| Current Yield (%) | 5.44 | 5.99 |
| Holdings Count | 338 | 2,016 |

## Sector Distribution (%)




Performance shown is gross of fees and is product specific manager performance prior to 07/01/2015. Calculation is based on monthly periodicity.
Parenthesis contain percentile ranks. Allocation to "Other" consists of Preferred Securities.

RVK

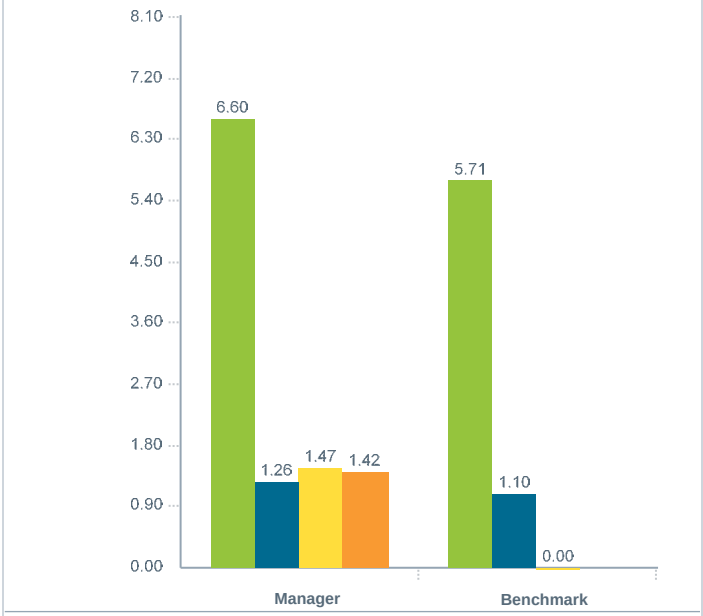
**Manager: Cohen & Steers Preferreds (SA)** **As of December 31, 2020**

**Benchmark:** 50% ICE BofAML All Cap/50% ICE BofAML Fxd Pref Idx

## Performance

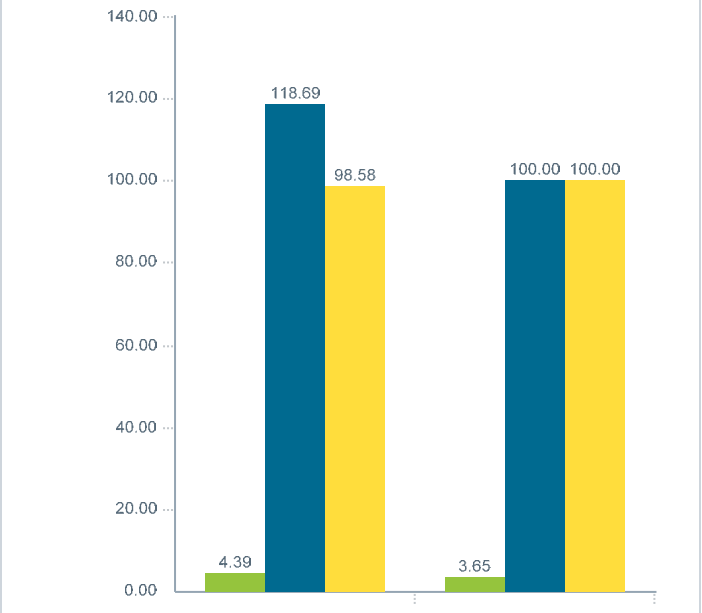
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **5.54** | **8.94** | **7.92** | **8.24** | **8.91** | **9.18** | **19.33** | **-3.32** | **12.08** | **5.50** | **7.36** |
| Benchmark | 4.27 | 7.92 | 6.87 | 6.88 | 7.22 | 7.01 | 17.76 | -3.94 | 10.10 | 3.76 | 4.18 |
| Difference | 1.27 | 1.02 | 1.05 | 1.36 | 1.69 | 2.17 | 1.57 | 0.62 | 1.98 | 1.74 | 3.18 |

## Historical Statistics - 10 Years




| | Manager | Benchmark |
|---|---|---|
| Standard Deviation | 6.60 | 5.71 |
| Sharpe Ratio | 1.26 | 1.10 |
| Tracking Error | 1.47 | 0.00 |
| Info Ratio | 1.42 | N/A |

## Historical Statistics - 10 Years

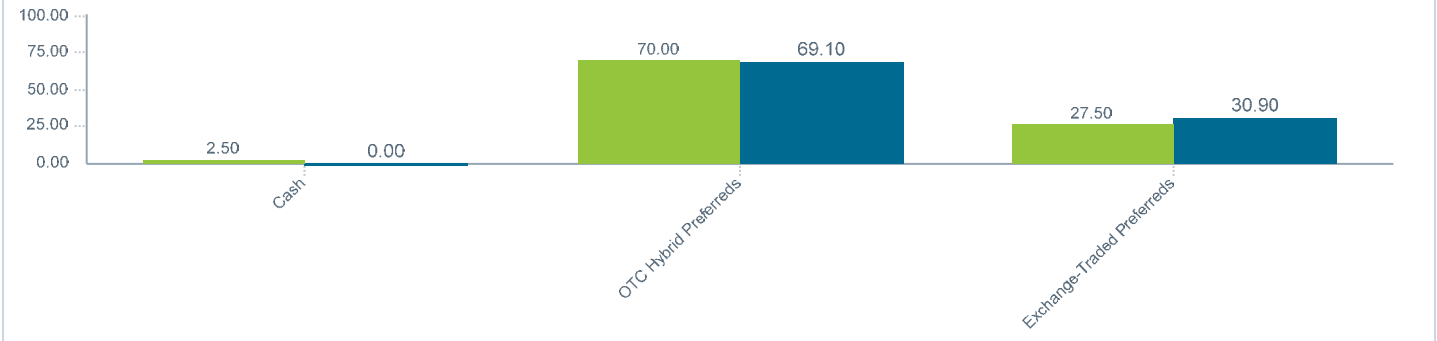



| | Manager | Benchmark |
|---|---|---|
| Downside Risk | 4.39 | 3.65 |
| Up Mkt Capture | 118.69 | 100.00 |
| Down Mkt Capture | 98.58 | 100.00 |

## Portfolio Characteristics

| | Portfolio | Benchmark |
|---|---|---|
| Modified Duration | 5.00 | 4.30 |
| Avg. Maturity | 16.50 | 18.70 |
| Avg. Quality | Baa3 | Baa2 |
| Yield To Maturity (%) | 5.20 | 4.80 |
| Coupon Rate (%) | 6.00 | 5.60 |
| Current Yield (%) | 5.20 | 5.00 |
| Holdings Count | 220 | 321 |

## Sector Distribution (%)




Performance shown is gross of fees and client specific. Calculations are based on monthly periodicity. Benchmark portfolio characteristics and sector distribution are provided by the manager.

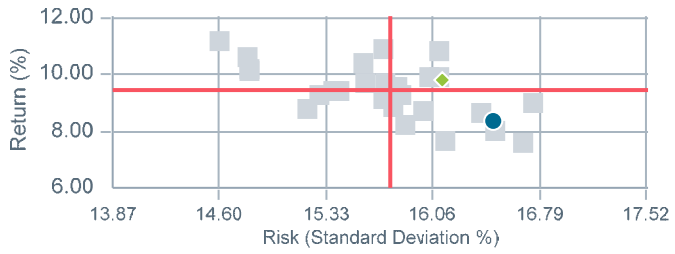
RVK

**Manager:** CenterSquare US REIT Total Return (SA) **As of December 31, 2020**
**Benchmark:** FTSE NAREIT Eq REITs TR Index
**Peer Group:** IM U.S. REIT (SA+CF)

## Performance

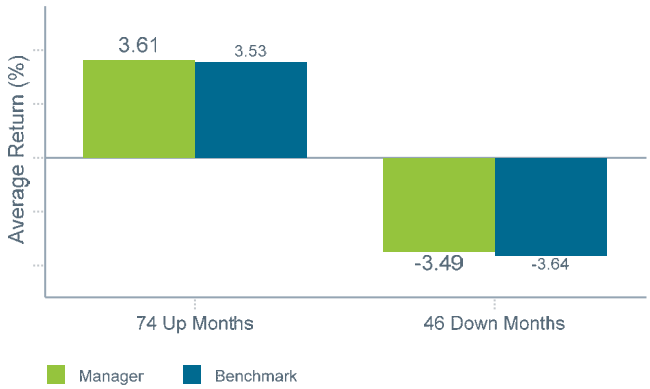
| | QTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Manager** | **11.99** | **-3.81** | **5.28** | **6.30** | **9.60** | **9.79** | **27.42** | **-4.80** | **6.91** | **8.78** | **5.52** |
| Benchmark | 11.57 | -8.00 | 3.40 | 4.77 | 7.83 | 8.31 | 26.00 | -4.62 | 5.23 | 8.52 | 3.20 |
| Difference | 0.42 | 4.19 | 1.88 | 1.53 | 1.77 | 1.48 | 1.42 | -0.18 | 1.68 | 0.26 | 2.32 |
| Peer Group Median | 9.81 | -4.42 | 5.63 | 6.35 | 9.16 | 9.45 | 28.17 | -4.14 | 6.38 | 7.04 | 4.70 |
| Rank | 28 | 44 | 61 | 52 | 36 | 35 | 58 | 69 | 41 | 34 | 33 |
| Population | 38 | 38 | 37 | 36 | 35 | 34 | 51 | 55 | 55 | 58 | 60 |

## Peer Group Scattergram - 10 Years

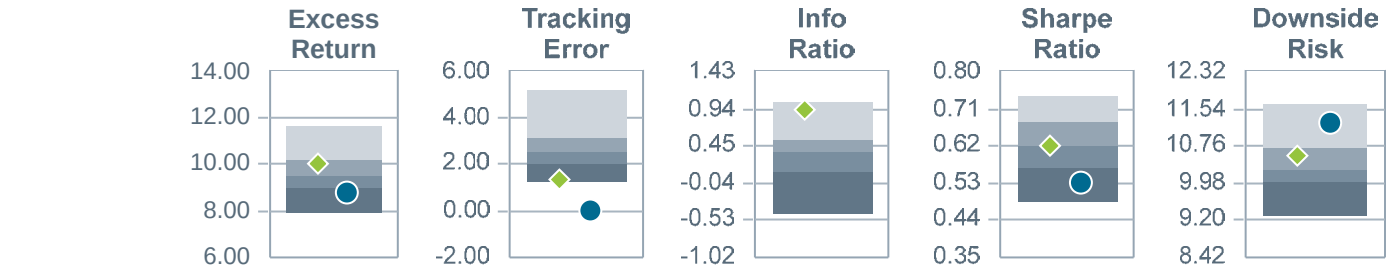



| | Return | Standard Deviation |
|---|---|---|
| Manager | 9.79 | 16.12 |
| Primary Benchmark | 8.31 | 16.48 |
| Median | 9.45 | 15.77 |

## Up/Down Markets - 10 Years



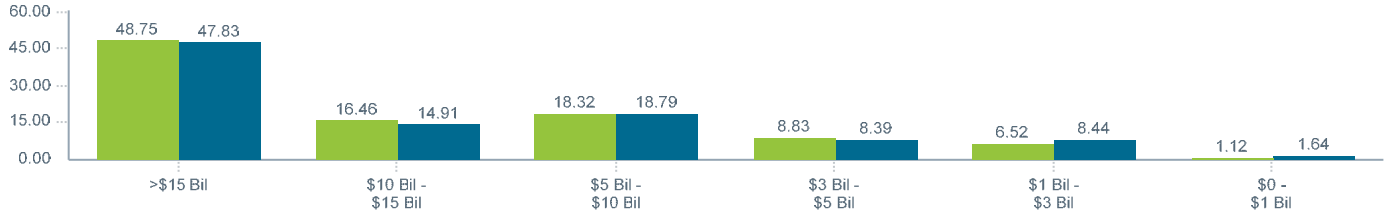

## Peer Group Analysis - Multi Statistics - 10 Years




| | Excess Return | Tracking Error | Info Ratio | Sharpe Ratio | Downside Risk |
|---|---|---|---|---|---|
| Manager | 10.06 (35) | 1.39 (91) | 0.94 (9) | 0.62 (48) | 10.55 (28) |
| Primary Benchmark | 8.76 (81) | 0.00 (100) | N/A | 0.53 (86) | 11.21 (14) |
| Median | 9.57 | 2.56 | 0.37 | 0.62 | 10.28 |

## Portfolio Characteristics and Dist. of Market Cap

| | Portfolio | Benchmark |
|---|---|---|
| Wtd. Avg. Mkt. Cap ($M) | 23,689 | 22,981 |
| Median Mkt. Cap ($M) | 8,726 | 2,812 |
| Price/Earnings Ratio | 41.52 | 35.54 |
| Price/Book Ratio | 2.21 | 2.38 |
| 5 Yr. EPS Growth Rate (%) | 4.48 | 5.44 |
| Current Yield (%) | 3.13 | 3.46 |
| Beta (5 Years, Monthly) | 0.95 | 1.00 |
| Number of Securities | 55 | 153 |




Performance shown is gross of fees and is client specific. Calculations are based on monthly periodicity. Parenthesis contain percentile ranks.

RVK

# Addendum & Glossary



**Performance Related Comments:**

- RVK began monitoring the assets of Commissioners of the Land Office, State of Oklahoma as of 07/1/2005. Prior historical data was provided by the previous consultant.
- Performance may differ from manager-reported performance due to differences in pricing, as well as differences in calculation methodology.
- Performance for composites and investment managers uses different methodologies. For additional information, please see the Glossary.
- The inception dates shown represent the first full month of client-specific performance.
- Performance shown prior to client inception date is product-specific manager performance, and is illustrative of the strategies' long-term performance.
- Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark.
- Beginning in 01/2008, manager performance is used for periods when the differences in pricing methodologies between the manager and custodian lead to a considerable variance in client performance. Prior to this time period, custodian pricing was used for performance calculations where manager and custodian pricing differed.
- In 09/2008, the Robeco Boston Partners Mid Cap Value (SA) portfolio changed to the Premium Equity Product (PEP), an All Cap Value strategy. Thus, performance shown prior to September 2008 is reflective of the Mid Cap Value (SA) product.
- Vanguard Tot I Stk;Ins + (VTPSX) performance may deviate from the benchmark due to the fund's use of fair-value pricing.
- Performance shown for Vanguard Hi Dv Yld;Adm (VHYAX) is represented by Vanguard Hi Dv Yld;Inv (VHDYX) through 02/2019.

**Custom Index Comments:**

- The passive **Target Allocation Index** is calculated monthly and currently consists of 16% S&P 500 Index (Cap Wtd), 5% Russell 2000 Index, 10% MLP Custom Index, 10% Vanguard Spl Tot Int'l Stock Index, 36% Bloomberg US Agg Bond Index, 11% High Yield Custom Index, 9% 50% ICE BofAML All Cap/50% ICE BofAML Fxd Pref Idx, and 3% FTSE NAREIT Eq REITs Index (TR).
- The active **Actual Allocation Index** is calculated monthly using beginning of month investment weights applied to each corresponding primary benchmark return.
- The passive **Russell 3000 Val Custom Index** is calculated monthly and consists of 100% Russell Mid Cap Value Index from inception to 08/31/2008 and 100% Russell 3000 Val Index thereafter.
- The passive **MLP Custom Index i**s calculated monthly and consists of 50% S&P MLP Index (TR) and 50% Tortoise MLP Index (TR) through 12/31/2019, and 100% S&P MLP Index (TR) thereafter.
- The **Vanguard Spl Tot Int'l Stock Index** consists of Tot Int'l Comp Index (an asset-weighted blend of stocks in the MSCI Eur Index (USD) (Net), MSCI Pac Index (USD) (Net), and MSCI Emg Mkts Index (USD) (Net)) through 08/31/2006; MSCI EAFE + Emg Mkts Index (USD) (Net) through 12/15/2010; MSCI ACW Ex US IM Index (USD) (Net) through 06/02/2013; and FTSE Gbl All Cap Ex US Index (USD) (Net) thereafter.
- The passive **High Yield Custom Index** is calculated monthly and consists of 50% ICE BofAML US Hi Yld Master II Index and 50% ICE BofAML US Cash Pay Hi Yld Index.

**Miscellaneous Comments:**

- Robeco Boston Partners Premium Equity (SA) is included in the Large Cap Equity market value.
- Domestic Fixed Income consists of Dodge & Cox Fixed Income (SA), Cutwater Core Plus Select Income (SA), Guggenheim (BBB) (SA), JPMorgan MBS (SA), and Guggenheim CMBS (SA).
- Guggenheim (BBB) (SA) began active management in 04/2016. Prior performance is representative of assets transferred in kind from Atlantic Asset (BBB).

**Commissioners of the Land Office, State of Oklahoma** **As of December 31, 2020**
**Fee Schedule**

| | Fee Schedule | Market Value As of 12/31/2020 ($) | Estimated Annual Fee ($) | Estimated Annual Fee (%) |
|---|---|---|---|---|
| **Total Fund** | | **2,534,542,651** | **6,480,627** | **0.26** |
| **Domestic Equity** | | | | |
| Robeco BPAM Premium Eq (SA) | 0.60 % of First $25 M<br>0.50 % of Next $50 M<br>0.40 % Thereafter | 102,582,272 | 510,329 | 0.50 |
| Vanguard Hi Dv Yld;Adm (VHYAX) | 0.08 % of Assets | 200,017,368 | 160,014 | 0.08 |
| BlackRock R 1000 Index Fund (CF) | 0.03 % of Assets | 134,966,392 | 40,490 | 0.03 |
| Silvercrest Small Cap Value (SA) | 0.66 % of First $25 M<br>0.60 % of Next $25 M<br>0.50 % of Next $25 M<br>0.45 % of Next $25 M<br>0.40 % of Next $100 M<br>0.30 % Thereafter | 140,174,819 | 711,949 | 0.51 |
| **MLPs** | | | | |
| Harvest Fund Advisors MLP (SA) | 0.75 % of First $100 M<br>0.70 % of Next $50 M<br>0.65 % of Next $50 M<br>0.60 % of Next $50 M<br>0.55 % of Next $50 M<br>0.50 % Thereafter | 138,548,559 | 1,019,840 | 0.74 |
| **International Equity** | | | | |
| Vanguard I HD Y;Adm (VIHAX) | 0.27 % of Assets | 125,413,285 | 338,616 | 0.27 |
| Vanguard Tot I S;Ins + (VTPSX) | 0.07 % of Assets | 138,428,845 | 96,900 | 0.07 |
| **Fixed Income** | | | | |
| Dodge & Cox Fixed Income (SA) | 0.40 % of First $10 M<br>0.30 % of Next $25 M<br>0.20 % of Next $25 M<br>0.15 % of Next $65 M<br>0.10 % of Next $375 M<br>0.08 % Thereafter | 226,205,951 | 363,706 | 0.16 |
| Cutwater Core Plus Select Income (SA) | 0.25 % of First $50 M<br>0.20 % Thereafter | 237,691,681 | 500,383 | 0.21 |
| Guggenheim (BBB) (SA) | 0.30 % of First $100 M<br>0.25 % Thereafter | 118,547,877 | 346,370 | 0.29 |
| JPMorgan MBS (SA) | 0.19 % of First $250 M<br>0.15 % Thereafter | 221,465,497 | 420,784 | 0.19 |
| Guggenheim CMBS (SA) | 0.30 % of Assets | 106,814,175 | 320,443 | 0.30 |
| Cohen & Steers Preferreds (SA) | 0.35 % of First $50 M<br>0.30 % of Next $50 M<br>0.25 % of Next $100 M<br>0.20 % Thereafter | 273,372,919 | 721,746 | 0.26 |

*Fees for Allianz Global Investors US High Yield (SA) and Fort Washington High Yield (SA) are variable and based on performance. Estimated Annual Fee is representative of total assets managed as of 12/31/2020. Actual fees paid may vary depending upon market value experience, calculation methodology, and whether the fee is charged at the account or relations level. Mutual Fund fees are sourced from Morningstar and/or the investment manager.



## Glossary

**Active Return** - The difference between the investment manager/composite performance relative to the performance of an appropriate market benchmark.

**Active Share** - Measures the degree to which the holdings of a fund differ from the holdings of the benchmark. Active share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the fund versus the weight of each holding in the benchmark and dividing by two.

**Alpha** - A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. It is a measure of the portfolio's historical performance not explained by movements of the market or a portfolio's non-systematic return.

**Alpha Ratio** - A measure of a portfolio's non-systematic return per unit of downside risk. It is measured by dividing the alpha of a portfolio by the downside risk. The non-systematic return is a measure of a portfolio's historical performance not explained by movements of the market.

**Average Quality** - Bond quality ratings are reported using the investment managers' and the index providers' preferred rating agency. *Average Quality for managers unable to provide this statistic is instead provided by Morningstar; if unavailable on Morningstar, it has been estimated using a credit quality distribution provided by the manager.* There are two primary rating agencies in the US. *Moody's* assigns ratings on a system that employs up to four symbols (consisting of letters and numbers), such as, Aaa, Aa2, etc., with Aaa being the highest or safest rating. *Standard & Poor's (S&P)* employs a system that uses + and - along with letters, such as AAA, AA+, etc. The two rating agencies' systems are summarized below:

| S&P | Moody's | Explanation | S&P | Moody's | Explanation |
|---|---|---|---|---|---|
| **Higher Credit Quality – Investment Grade** | | | **Lower Credit Quality – Below Investment Grade** | | |
| AAA | Aaa | Prime/Highest credit quality | BB+ | Ba1 | Speculative/Low credit quality |
| AA+ | Aa1 | High credit quality | BB | Ba2 | |
| AA | Aa2 | | BB- | Ba3 | |
| AA- | Aa3 | | B+ | B1 | Highly speculative |
| A+ | A1 | Upper-medium credit quality | B | B2 | |
| A | A2 | | B- | B3 | |
| A- | A3 | | CCC+ | Caa1 | Substantial credit/default risk |
| BBB+ | Baa1 | Lower-medium credit quality | CCC | Caa2 | Extremely speculative |
| BBB | Baa2 | | CCC- | Caa3 | |
| BBB- | Baa3 | | CC | Ca | Vulnerable to default |
| | | | C | Ca | |
| | | | D | C | In default |

**Benchmark Effect** - The difference between the blended return of each respective managers' benchmark within a composite and the composite's benchmark return.

**Beta** - A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk.

**Box Plots** - A graphical representation of the distribution of observations. From top to bottom, the four boxes represent the spread between the maximum value and the minimum value in each quartile. A quartile represents the values that divide the observations into four quarters (i.e., 1st quartile, 2nd quartile, 3rd quartile, and 4th quartile). The median observation is where the 2nd quartile and 3rd quartile meet.

**Buy and Hold Attribution** - At the beginning of the time period under analysis, the manager and benchmark portfolios are broken down into segments (i.e., styles, sectors, countries, and regions) based on the desired type of attribution. The formula assumes zero turn-over to the manager and benchmark portfolios throughout the period and calculates the segment returns ("buy and hold returns") to arrive at performance attribution. Due to portfolio turnover, buy and hold attribution may not accurately represent quarterly performance relative to the benchmark. Country, region, sector, and style allocations are as of the date one quarter prior to the reporting date, and the returns shown are for those segments throughout the quarter reported. Due to disclosure guidelines set by each investment manager, equity characteristics shown are as of the most recent date available. The following is the methodology for segment classification:

**Sector** - Attribution is calculated using the Global Industry Classification Standard (GICS), which is a detailed and comprehensive structure for sector and industry analysis. Stocks are classified by their primary sector as defined by S&P Capital IQ data.

**Country/Region** - Attribution is calculated using the Morgan Stanley Capital International (MSCI) region standards. Stocks are classified by their domicile country/region, as defined by S&P Capital IQ data, and thus may differ from the classification of the investment manager and/or index provider.

**Style** - Stocks are classified into the following style boxes: large/mid/small vs. growth/neutral/value. Stocks are classified along large/mid/small categories at the time of the Russell index rebalancing, using the index market cap boundaries as cutoff points. Stocks are classified along growth/neutral/value categories at the time of the Russell index rebalancing, using the price/book ratio as supplied by S&P Capital IQ. Stocks in the Russell 3000 Index portfolio are sorted by price/book ratio; names with the highest price/book ratio that make up 1/3 of the total market capitalization are assigned to the growth category, and names that make up the subsequent 1/3 of the total market capitalization are assigned to the neutral category, while the balance of the names are assigned to the value category. Stocks are unclassified when there is not enough data to determine a size and style metric.

Portfolio Characteristics and Buy and Hold Attribution reports utilize product-specific data for all mutual funds and commingled funds.

**Capital Markets Review** -

**Breakeven Inflation** - Measures the expected inflation rate at each stated maturity by taking the difference between the real yield of the inflation-linked maturity curve and the yield of the closest nominal Treasury maturity.

**Consumer Confidence** - Measures domestic consumer confidence as defined by the degree of optimism on the state of the economy that consumers express through saving and spending.

**Consumer Price Index (CPI)** - Measures the change in the price level of consumer goods and services.

## Glossary

**Federal Funds Rate** - The interest rate at which a depository institution lends funds maintained at the Federal Reserve to another depository institution overnight. It is one of the most influential interest rates in the US economy, since it affects monetary and financial conditions, which in turn have a bearing on key aspects of the broad economy including employment, growth and inflation.
**Option-Adjusted Spread** - Measures the flat spread of an index or bond to the Treasury yield curve after removing the effect of any embedded options.
**Purchasing Managers Index (PMI)** - Measures economic activity by surveying purchasing managers on a monthly basis as to whether business conditions have improved, worsened, or stayed the same.
**Real Gross Domestic Product (Real GDP)** - An inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year.
**Unemployment Rate** - The percentage of the total labor force that is unemployed but actively seeking employment.
**US Dollar Total Weighted Index** - Measures the value of the US Dollar relative to a basket of other world currencies. It is calculated as the weighted geometric mean of the dollar's value versus the EUR, GBP, CAD, SEK, CHF, and JPY.
**VIX** - Measures the implied volatility of S&P 500 Index options by looking at the market's expectation of the S&P 500 Index volatility over the next 30 day period. Commonly referred to as the "fear index" or the "fear gauge."

**Cash Flow Effect** – The composite's active return minus the sum of each managers' active return minus the benchmark effect.

**Consistency** - The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.

**Convexity** - A measure of the shape of the curve that describes the relationship between bond prices and bond yields.

**Correlation** - A statistical measure of the relationship between asset class returns. A value of 1.00 is a perfect correlation; that is, the asset classes always move in the same direction. A value of -1.00 indicates a perfect negative correlation, in which the asset classes always move in opposite directions of each other. A value of 0 indicates there is no relationship between the direction of returns of the two asset classes. Correlation calculations only consider the direction of changes relative to two variables and not the magnitude of those changes.

**Coupon Rate** - The percentage rate of interest paid on a bond or fixed income security; it is typically paid twice per year.

**Current Yield** - The annual income of a security divided by the security's current price.

**Down Market Capture** - Down market by definition is negative benchmark return and down market capture represents the ratio in % terms of the average portfolios return over the benchmark during the down market period. The lower the value of the down market capture the better the product's performance.

**Downside Risk** - A measure similar to standard deviation that focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative returns for the selected periodicity. The higher the factor, the riskier the product.

**Earnings Per Share** - It is backward looking, calculated using the one year current EPS divided by the one year EPS five years ago.

**Effective Duration** - The approximate percentage change in a bond's price for a 100 basis point change in yield.

**Excess Return vs. Market** - Average of the monthly arithmetic difference between the manager's return and the benchmark return over a specified time period, shown on an annualized basis.

**Excess Return vs. Risk Free** - Average of the monthly arithmetic difference between the manager's return and the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) over a specified time period, shown on an annualized basis.

**Excess Risk** - A measure of the standard deviation of a portfolio's performance relative to the risk-free return.

**Expense Ratios** - Morningstar is the source for mutual fund expense ratios.

**Gain/Loss** - The net increase or decrease in the market value of a portfolio excluding its Net Cash Flow for a given period.

**Indices** - All indices and related information are considered intellectual property and are licensed by each index provider. The indices may not be copied, used, or distributed without the index provider's prior written approval. Index providers make no warranties and bear no liability with respect to the indices, any related data, their quality, accuracy, suitability, and/or completeness.

**Information Ratio** - Measured by dividing the active rate of return by the tracking error. The higher the information ratio, the more value-added contribution by the manager.

**Liability Driven Investing (LDI)** - A method to optimally structure asset investments relative to liabilities. The change in liabilities is estimated by the Ryan Labs Generic PPA Index of appropriate duration for that Plan. This benchmark is based on generic data and is therefore an approximation. RVK is not an actuarial firm, and does not have actuarial expertise.
**Estimated Funded Status** - The estimated ratio of a Plan's assets relative to its future liabilities. This is calculated by dividing the Plan's asset market value by the estimated present value of its liabilities. The higher the estimated funded status, the better the Plan's ability to cover its projected benefit obligations. An estimated funded status of 100% indicates a Plan that is fully funded.
**Estimated PV of Liabilities** - An estimate of a Plan's future liabilities in present value terms. The beginning of the period liability is provided by the Plan's actuary. The period-end present value liability estimate provided in this report is derived by applying the estimated percentage change generated using the Ryan Labs Generic PPA Index with duration similar to that reported on the most recent actuarial valuation report.
**Duration of Liabilities** - The sensitivity of the value of a Plan's liabilities to changes in interest rates, as calculated by the Plan's actuary.
**Duration of Assets** - The dollar-weighted average duration of all the individual Plan assets.
**Estimated Plan Hedge Ratio** - The estimate of how well a Plan's investment portfolio is hedged against changes in interest rates - a primary driver of funded status movements. This is calculated by dividing the dollar-weighted values of both the Plan asset duration by the liability duration and

multiplying by the estimated funded status. An estimated plan hedge ratio of zero indicates that the Plan's liabilities have not been hedged, whereas a value of one indicates fully hedged.

**Modified Duration** - The approximate percentage change in a bond's price for a 100 basis point change in yield, assuming the bonds' expected cash flows do not change.

**Mutual Fund Performance** - Whenever possible, manager performance is extended for any share class that does not have 10 years of history. Using Morningstar's methodology, a single ticker within the same fund family (often the oldest share class) is chosen to append historical performance.

**Net Cash Flow** - The sum, in dollars, of a portfolio's contributions and withdrawals. This includes all management fees and expenses only when performance shown is gross of fees.

**Peer Groups** -

**Plan Sponsor Peer Groups** - RVK utilizes the Mellon Analytical Solutions Trust Universe along with the Investment Metrics Plan Sponsor Universe. The combined Mellon Analytical Solutions Trust Universe and Investment Metrics Plan Sponsor Universe is used for comparison of total fund composite results and utilizes actual client performance compiled from consultant and custodian data. The Plan Sponsor Peer Group database includes performance and other quantitative data for over 2,100 plans which include corporate, endowment, foundation, public, and Taft Hartley plans. Plan Sponsor Peer Groups are gross of fees.

**Investment Manager Peer Groups** - RVK utilizes Investment Metrics' Peer Groups for investment manager peer comparison and ranking. The Investment Metrics Peer Group database includes performance and other quantitative data for over 840 investment management firms and 29,000 investments products, across more than 160 standard peer groups. Mutual Fund Peer Groups are net of fees.

**Percentile Rankings** - Percentile rank compares an individual fund's performance with those of other funds within a defined peer group of managers possessing a similar investment style. Percentile rank identifies the percentage of a fund's peer group that has a higher return (or other comparative measurement) than the fund being ranked. Conversely, 100 minus the individual fund's ranking will identify the percentage of funds within the peer group that have a lower return than the fund being ranked.

1 - Highest Statistical Value 100 - Lowest Statistical Value

*Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 4$^{th}$ percentile within the IM US Equity Large-Cap Growth Funds (MF) Peer Group for the Sharpe Ratio. Within the IM US Equity Large-Cap Growth Funds peer group, 4% of the other funds performed better than American Funds AMCP;R-4 (RAFEX), while 96% of the funds performed worse.*

**Performance Methodology** - RVK calculates performance for investment managers and composites using different methodologies.

**Investment Managers** - Performance is calculated for interim periods between all large external cash flows for a given month and geometrically linked to calculate period returns. An external cash flow is defined as cash, securities, or assets that enter or exit a portfolio. RVK defines a "large cash flow" as a net aggregate cash flow of ≥10% of the beginning-period portfolio market value or any cash flow that causes RVK calculated performance to deviate from manager/custodian reported performance in excess of 5 basis points for a given month.

**Composites** - The Modified Dietz methodology is utilized to calculate asset class, sub-asset class, and total fund composite performance. The Modified Dietz method calculates a time-weighted total rate of return that considers the timing of external cash flows; however, it does not utilize interim period performance to mitigate the impact of significant cash in- and outflows to the composite.

RVK calculates performance beginning with the first full month following inception. Since inception performance may vary from manager reported performance due to RVK using the first full month of returns as the inception date. Performance for both managers and composites is annualized for periods greater than one year.

**Portfolio Characteristics** - Due to disclosure guidelines set by each investment manager, portfolio characteristics shown are as of the most recent date available.

**Price to Earnings Ratio** - The ratio valuing a company's current share price relative to its trailing 12-month per-share earnings (EPS).

**Private Equity Quartile Ranks** - Private Equity quartile ranks are generated using vintage year peer group data provided by Thomson Reuters, and are based on each fund's annualized, since inception internal rate of return (IRR). Three Private Equity peer groups are available via Thomson Reuters: Buyout, Venture, and All Private Equity. Ranks are available quarterly, at a one-quarter lag.

**R-Squared** - The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

**Return** - Compounded rate of return for the period.

**% Return** - The time-weighted rate of return of a portfolio for a given period.

**Risk Free Benchmark** – ICE BofAML 3 Mo US T-Bill Index unless specified otherwise.

## Glossary

**RVK Liquidity Rating** - A qualitative method for determining the relative amount of liquidity in a portfolio. The characteristics considered when determining relative liquidity include trading volume, gates for redemption, leverage, nature of transactions, and pricing mechanisms. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating.

| Asset Class | RVK Liquidity Rating |
|---|---|
| **Liquid Investments** | |
| T-Bills and Treasurys | 100 |
| Cash Equivalents | 98 |
| TIPS | 95 |
| US Large Cap Equity | 95 |
| Diversified Real Return | 93 |
| Stable Value (Participant Directed) | 91 |
| Global Equity | 90 |
| Non-US Large Cap Equity | 90 |
| Global Tactical Asset Allocation | 88 |
| MLPs | 85 |
| US Mid Cap Equity | 85 |
| US SMid Cap Equity | 85 |
| US Small Cap Equity | 85 |
| REITs | 85 |
| Non-US Small Cap Equity | 85 |
| Emerging Markets Equity | 85 |
| Core Fixed Income | 85 |
| Core Plus Fixed Income | 80 |

| Asset Class | RVK Liquidity Rating |
|---|---|
| **Less Liquid Investments** | |
| Fixed Income Plus Sector | 50 |
| Stable Value (Plan Sponsor Directed) | 50 |
| Hedge Funds of Funds | 35 |
| **Not Liquid Investments** | |
| Core Real Estate | 25 |
| Core Plus Real Estate | 15 |
| Non-Core Real Estate | 5 |
| Private Equity Funds of Funds | 5 |

**Sector Allocation** - Negative fixed income sector allocation reflects manager's use of derivatives, short selling, or interest rate swaps.

**Sharpe Ratio** - Represents the excess rate of return over the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise), divided by the standard deviation of the excess return to the risk free asset. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance.

**Simple Alpha** - The difference between the manager's return and the benchmark's return.

**Spread Duration** - The approximate percentage change in a bond's price for a 100 basis point change in its spread over a Treasury of the same maturity.

**Standard Deviation** - A statistical measure of the range of a portfolio's performance. The variability of a return around its average return over a specified time period.

**Thematic Classification** - Represents dedicated manager allocations; as such, thematic allocations are approximations. RVK categorizes the following asset classes as Alpha, Capital Appreciation, Capital Preservation, and Inflation:

| Alpha | Capital Appreciation | Capital Preservation | Inflation |
|---|---|---|---|
| Absolute Return Strategies | Public Equity | Core Fixed Income | TIPS |
| Currency Overlay | Private Equity | CMBS Fixed Income | Bank Loans |
| | Preferred Securities | Asset Backed Fixed Income | Core Real Estate |
| | High Yield | Domestic Core Plus Fixed Income | Real Return |
| | Convertible Fixed Income | Mortgage Backed Fixed Income | Inflation Hedges |
| | TALF Funds | International Developed Fixed Income | REITs |
| | Distressed Debt | Cash Equivalents | Commodities |
| | Emerging Market Fixed Income | Stable Value | |
| | Value Added Real Estate | | |
| | Opportunistic Real Estate | | |

**Time Period Abbreviations** - **QTD** - Quarter-to-Date. **CYTD** - Calendar Year-to-Date. **FYTD** - Fiscal Year-to-Date. **YOY** - Year Over Year.

**Total Fund Attribution** – The Investment Decision Process (IDP) model provides an approach to evaluating investment performance that applies to all asset classes and investment styles. The IDP model is based on a top-down hierarchy framework of investment decisions, with each decision contributing to the overall profit or loss. The IDP approach starts from the strategic asset allocation and follows the flow of the investments down to the manager's skill.

**Strategic Asset Allocation (SAA)** – The percentage return gained or lost from the long-term strategic asset allocation decision, the most significant determinant of long-term performance. SAA is the product of the target asset allocation multiplied by the corresponding benchmark returns.

**Tactical Asset Allocation (TAA)** – The percentage return gained or lost from not having been precisely allocated at the target asset allocation mix, whether by deviations that are tactical in nature or a by-product of moving towards the target mix. TAA is the product of the actual asset allocation multiplied by the broad asset class benchmarks, less the SAA.

**Style Selection (SS)** – The percentage return gained or lost from intentional style biases within each asset class (e.g. value rather than core or overweight to emerging markets relative to benchmark). SS is the product of the actual manager allocation within each asset class multiplied by their specific benchmark, less TAA.

**Manager's Skill (MS)** – The percentage return gained or lost from manager value added relative to their specific benchmark. MS is the product of the actual manager allocation multiplied by their achieved excess return.

**Total Fund Beta** - Total Fund Beta is calculated using the S&P 500 as the benchmark. It represents a measure of the sensitivity of the total fund to movements in the S&P 500 and is a measure of the Total Fund's non-diversifiable or systematic risk.

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## Glossary

**Tracking Error** - A measure of the standard deviation of a portfolio's performance relative to the performance of an appropriate market benchmark.

**Treynor Ratio** - Similar to Sharpe ratio, but focuses on beta rather than excess risk (standard deviation). Treynor ratio represents the excess rate of return over the risk-free rate (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) divided by the beta. The result is the absolute rate of return per unit of risk. The higher the value, the better historical risk-adjusted performance.

**Unit Value** - The dollar value of a portfolio, assuming an initial nominal investment of $100, growing at the compounded rate of %Return for a given period.

**Up Market Capture** - Up market by definition is positive benchmark return and up market capture represents the ratio in % terms of the average portfolio's return over the benchmark during the up market period. The higher the value of the up market capture the better the product's performance.

**Yield to Maturity** - The rate of return achieved on a bond or other fixed income security assuming the security is bought and held to maturity and that the coupon interest paid over the life of the bond will be reinvested at the same rate of return. The 30-Day SEC Yield is similar to the Yield to Maturity and is reported for mutual funds.

**Yield to Worst** - The bond yield calculated by using the worst possible yield taking into consideration all call, put, and optional sink dates.




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