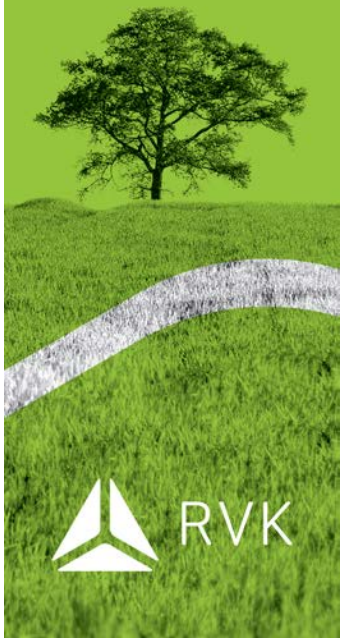
Quarterly Investment Performance Analysis

Commissioners of the Land Office,
State of Oklahoma

Period Ended: December 31, 2018

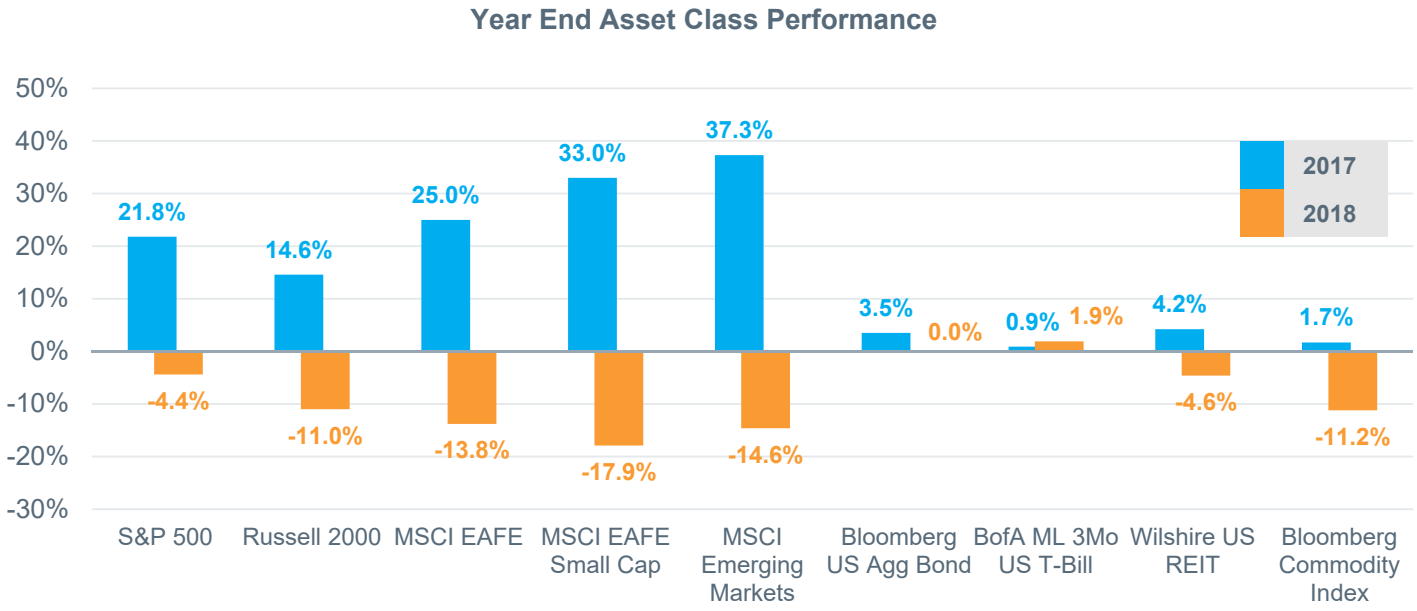


2018 Year in Review



Executive Summary

Preface: 2017	• 2017 was a picturesque year for markets, characterized by low volatility and strong returns. • Many asset classes were bolstered by synchronized global growth, strong corporate profits, and prolonged accommodative monetary policy.
2018	• A year later and there is a stark contrast. So what happened?
Objective	• The following presentation provides a holistic review of 2018, distilling major capital market themes that occurred throughout the year. • Specifically, we review broad economic conditions, market volatility, and take a deep-dive into the fourth quarter. We also highlight key themes for 2019.



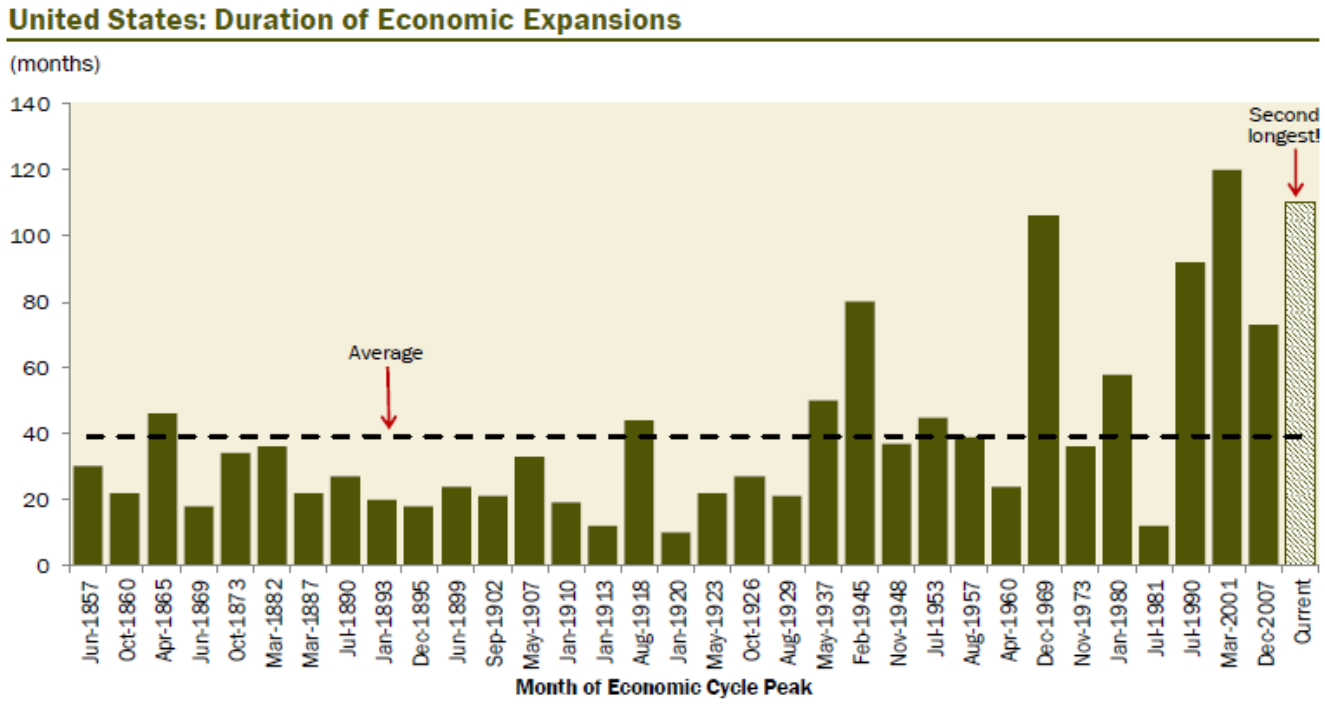
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Macroeconomic Conditions

Economic Cycles

Current Cycle

- The general consensus is that the US economy (along with other developed nations) is finally decelerating, with growth expectations tapering off throughout the transition.



Source: Gluskin Sheff + Associates Inc., based off of National Bureau of Economic Research data. As of November 30, 2018.

Key Takeaways

- A mature economy, combined with liquidity tightening as the Fed removes monetary stimulus, can lead to even slower growth and increase downside risk potential.
- Cyclical changes in the economy can create short-term friction for investors, but they should not take precedent over longer-term secular themes when focusing on portfolio construction.

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2018 High Level Review

2018 – Overview

Notable Statistics: Year in Review

- Solid global GDP growth at 3.7%.
- Earning growth, propped up by the tax stimulus, was a key driver for US equity markets.
- First trillion dollar company (Apple).
- Federal Reserve: 4 rate hikes throughout the year.

Market Movements: Year in Review

- Aside from a hiccup in February, most markets were able to regain ground throughout the second and third quarters.
- US equity markets did well leading up to the fourth quarter. The rest of the world did not keep pace with the US, but international developed countries were able to post modest gains over the summer, while emerging countries felt more pressure from trade war tensions and unfavorable exchange rates.

Market Performance (%)

		Monthly		|----------Monthly Returns----------|		
	Dec 31 2017 YTD	Feb 2018	**Sep 30 2018 YTD**	Oct 2018	Nov 2018	Dec 2018	**Dec 31 2018 YTD**
S&P 500 (cap weighted)	21.8	-3.7	10.6	-6.8	2.0	-9.0	-4.4
Russell 2000	14.6	-3.9	11.5	-10.9	1.6	-11.9	-11.0
MSCI EAFE	25.0	-4.5	-1.4	-8.0	-0.1	-4.9	-13.8
MSCI Emerging Markets	37.3	-4.6	-7.7	-8.7	4.1	-2.7	-14.6
Bloomberg US Agg Bond	3.5	-0.9	-1.6	-0.8	0.6	1.8	0.0
US 30 Yr Treasury	2.7	3.1	3.2	3.4	3.3	3.0	3.0
Bloomberg Commodity Index	1.7	-1.7	-2.0	-2.2	-0.6	-6.9	-11.2

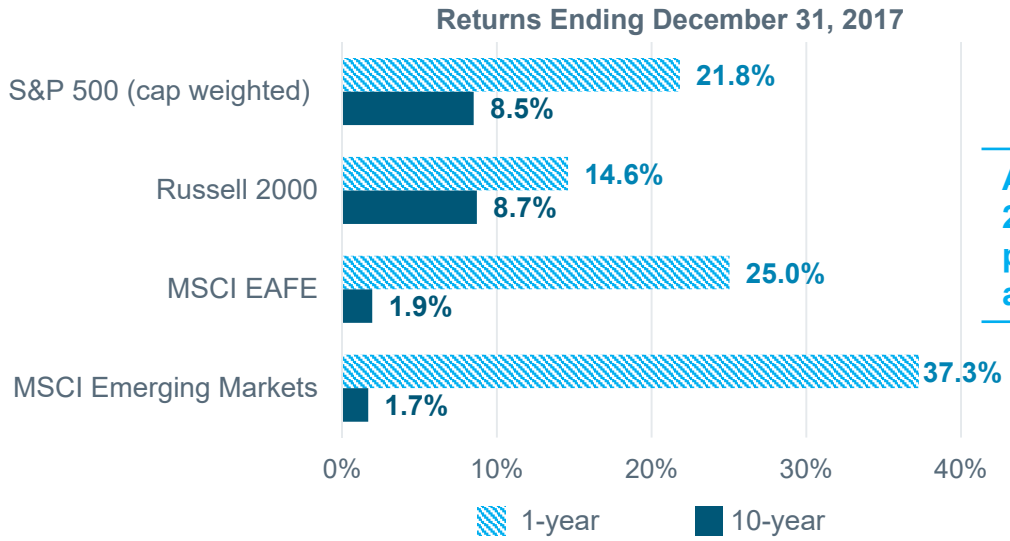
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2018 High Level Review

2018 – A Year of Mean Reversion

Equity Markets: Long-Term Perspective

- For equity markets in particular, 2018 could be viewed as a year of mean reversion.
- 2017 market returns were well above historical norms. Even without headline events, the sustainability of this growth was bound to come under pressure.



Against this backdrop, 2018 year-end market performance may not seem a severe.

Economic Data: Can Good get Better?

- A healthy economy, strong job market, high corporate earnings, and relatively low interest rates may appear inconsistent with the negative stock market performance, particularly during the fourth quarter.
- However, economic data tends to be backward looking while capital markets are forward-looking.

Economic Indicators:

- The unemployment rate is at its lowest since 1969
- 115 consecutive months of manufacturing expansion

Concern for Future Outlook:

Is there still room for meaningful improvement?

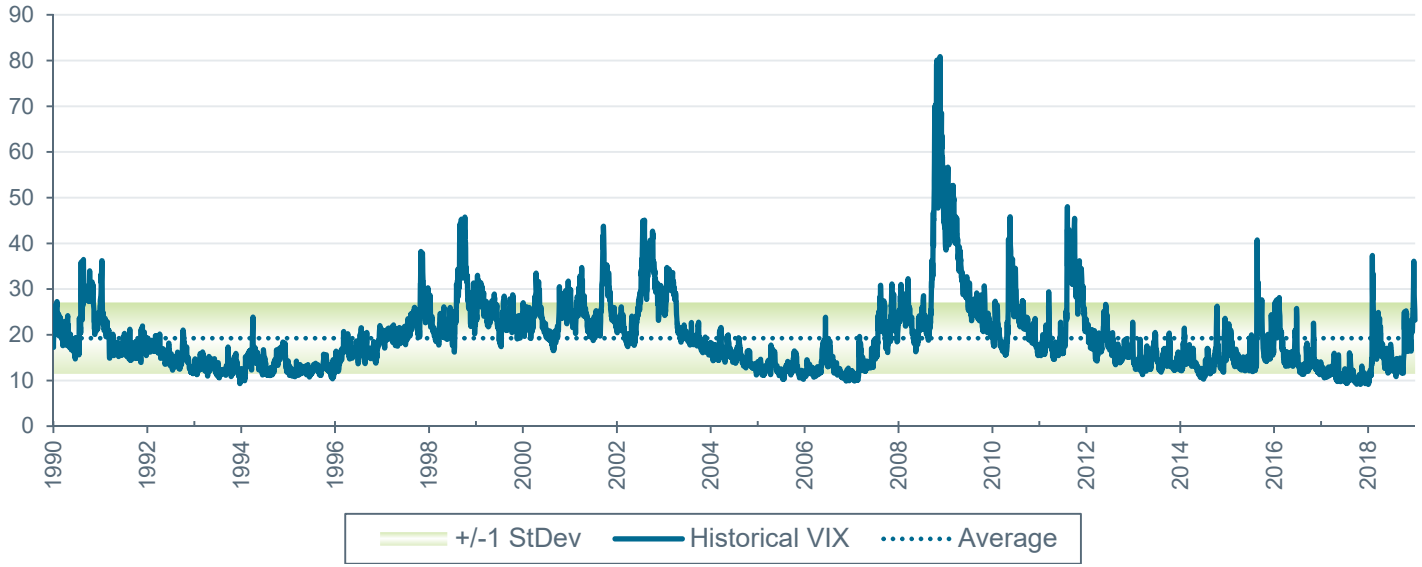
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Market Volatility

Historical Context

Long-Term Average of the VIX Index

- Volatility has been subdued since the Financial Crisis due to accommodative monetary policy.
- Prior to 2018, there were long periods of very low volatility compared to historical standards, with a handful of episodic occurrences largely influenced by macro events (e.g. China growth worries in 2015 and Brexit in 2016).



Volatility in Post-Crisis Bull Market

- While volatility was often lower than historical norms since 2009, price changes were not completely absent from the market.

	2013	2014	2015	2016	2017	2018
Number of S&P 500 Price Changes Greater than 1%	38	38	72	48	8	64

- From a historical volatility perspective, 2017 was more of an outlier than 2018.

Source: RVK calculations based on CBOE and Standard & Poor's data.

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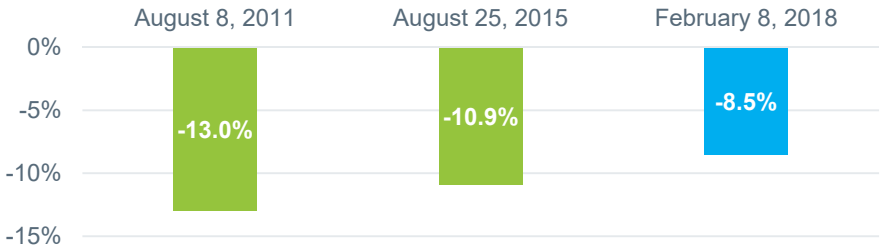
Market Volatility

February Deep Dive

February Market Volatility

- After a strong 2017, markets exhibited fragility in February 2018, with the S&P 500 Index dropping 10.2% by the close of February 8th.
- We noted in our memo that this was the largest 5-day market correction since 2015, coming after over 400 days without a 5% or greater correction.

Three Largest 5-day Corrections for the S&P 500 Index since market bottom in 2009



Note:

While the S&P 500 returned -3.7% for the month of February, it was up 2.7% year-to-date through June 30, 2018.

Source: RVK calculations based on Standard & Poor's data.

Drivers Behind Volatility

- At the beginning of the month, the Labor Department's job's report sparked concerns about wages and inflation, which was received poorly by the markets.
- The drawdown was further exacerbated by the trading mechanics of short volatility products.

  Short Volatility Refresh: Our February memo also discussed how short volatility strategies were another contributing factor to the correction. Short volatility products are inverse bets on market volatility, i.e. they profit when a volatility index, such as the VIX, goes down. In a low volatility environment, they can provide consistent positive returns.

  However, they are very susceptible to volatility spikes and when the VIX increased 116% on February 5th, these strategies plummeted. Many of the available products were also concentrated in US equity volatility indices, further adding to the downward pressure during the month.

- With short volatility strategies, the market correction transitioned from an information-based trade surrounding economic data to a liquidity trade unrelated to asset or economic fundamentals.

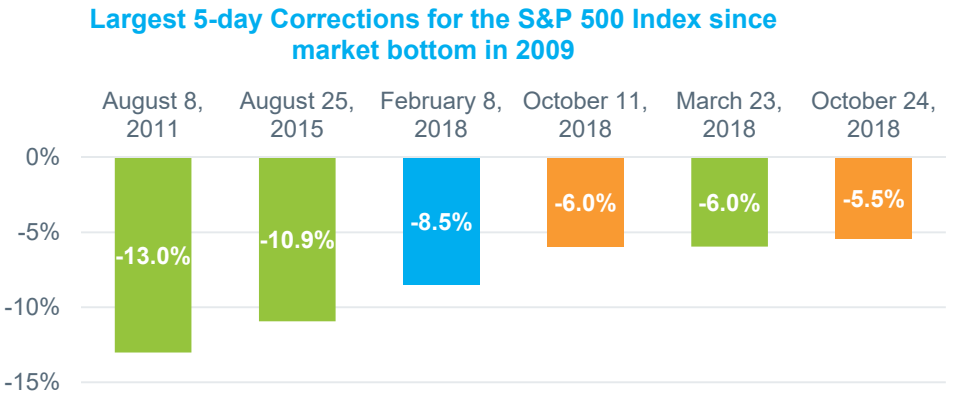
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Market Volatility

October Deep Dive

October Market Volatility

- From a high on September 20th through October 26th, the S&P 500 index declined by more than 9%, and finished the month of October down -6.8% after enduring two large drawdowns about a week apart.



Source: RVK calculations based on Standard & Poor's data.

Well Cited Drivers

- The US-China trade war is the most often cited source of negative pressure on the stock market.
  - As these are the two largest economies in the world, any disruption can have a ripple effect throughout the world.
- The yield curve has also been another source of dismay, with its continued flattening and anticipation of inversion.
  - Historically, recessions have been preceded by an inverted yield curve, although inversion does not guarantee a recession.

Key Takeaways

- China trade talks may have been the catalyst for the October market downturn.
- However, this then prompted the market to reprice future expectations of many factors that were already percolating:
  - Higher interest rates
  - Lower earning expectations for 2019
  - Maturing economies around the globe

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Market Volatility

Summary – 2018

February vs October

	Feb	Oct
Reason(s):	• Immediate inflation concerns	• Trade War, Fed, lower growth expectations
Execution:	• More of a ***liquidity event*** than true price correction	• Started with news but transitioned to ***repricing event***
Outcome:	• Acute event	• Adjusting to lower growth world

Key Takeaways

Historical Context:

- 2018 market volatility events were not abnormal.

Present:

- Decelerating growth can make the market more susceptible to adverse news.
    - For example, after the unexpected Brexit vote in June 2016, the market sell-off lasted only two days. At that time, however, there was greater upside potential for markets.

The equity market is susceptible to drawdowns but over the long-run has trended upward.

S&P 500 Index since 1927



Source: Macrotrends LLC. Based off of monthly returns, adjusted for inflation using headline CPI. As of 12/31/2018.

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Fourth Quarter Highlights

2018 Q4 – The Fed

Central Bank Influence: Mixed Messages

- Against a backdrop of tweets and trade wars, it was the Federal Reserve that seemed to have an inordinate influence on the markets during the fourth quarter of 2018.
- While rate hikes were anticipated, the inconsistent messaging seemed to amplify other concerns that were already on the periphery.

	Oct[1]	Nov	Dec
Tone	Hawkish	Dovish	???
FOMC Meeting Highlights	"…we may go **way past neutral**. But **we are a long way from neutral at this point**" – Chairman Powell Oct 3rd	"**Interest rates…remain just below** the broad range of estimates of the level that would be **neutral** for the economy — that is, neither speeding up nor slowing down growth" – Chairman Powell Nov 28th	1. Fed lowered expected rate hikes in 2019 from 3 (announced in September 2018) down to 2 2. Balance Sheet woes: "It will be substantially smaller than it is now" – Chairman Powell Dec 19th
Federal Funds Rate (Target)	2.25% (↑ 0.25%)	2.25% (no change)	2.50% (↑ 0.25%)
Market Reaction	Negative	Favorable	Negative

- Growth concerns were a strong undercurrent throughout the fourth quarter, but the Fed also played a crucial role. Sequential FOMC meetings with somewhat contrasting messages spurred negative sentiment as the market struggled to interpret the Fed's direction. Renewed interest in the balance sheet also gave the impression that the Fed was going to be less accommodative going forward.

Notes: "FOMC" stands for Federal Open Market Committee.
[1] Actual FOMC meeting was occurred between September 25-26.

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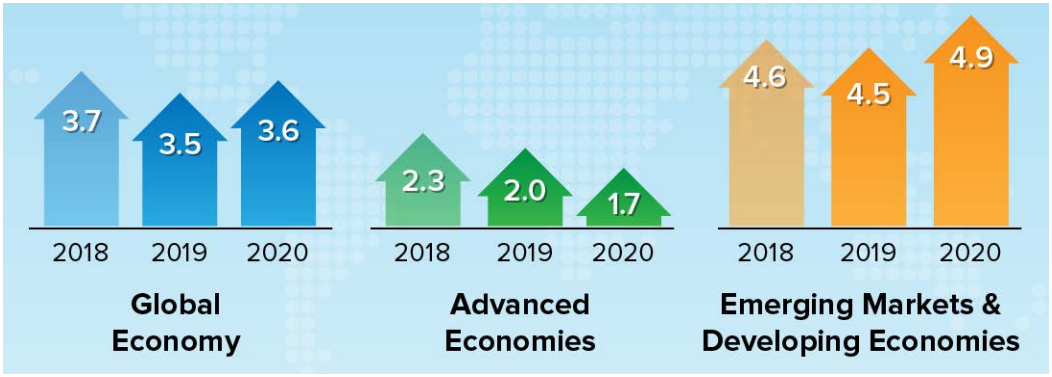
2019 Market Outlook

Potential Themes

Global Growth Projections

- Global growth is expected to slow:

IMF Growth Expectations



Notes from the International Monetary Fund's ("IMF") most recent Economic Outlook:

- Global growth forecasts were modestly reduced from the October Outlook due to "carry over from softer momentum in the second half of 2018."
- The report also indicated that "escalation of trade tensions beyond those already incorporated in the forecast remains a key source of risk."
- Other global risks on the horizon include: "no-deal" withdrawal of the United Kingdom from the European Union and a larger than expected slowdown in China's economy.

Source: IMF, World Economic Outlook Update, January 21, 2019.

Corporate Earnings (US)

- The corporate tax cut that helped lift stocks in 2018 will not be a significant contributor going forward. Corporate earnings will instead have to rely on profit margins and organic company growth, potentially making companies even more susceptible in an environment of uncertainty.

Recession Probability

- A recent Reuters poll of economists showed that the median predicted probability of a recession within the next year is 20%, while the probability of a recession within the next two years rose above 40%.

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2019 Market Outlook

Potential Themes

The Fed: Major Factor for Markets in 2019

- The main concern is how the Fed will handle a two variable experiment involving short-term interest rates and balance sheet reduction.

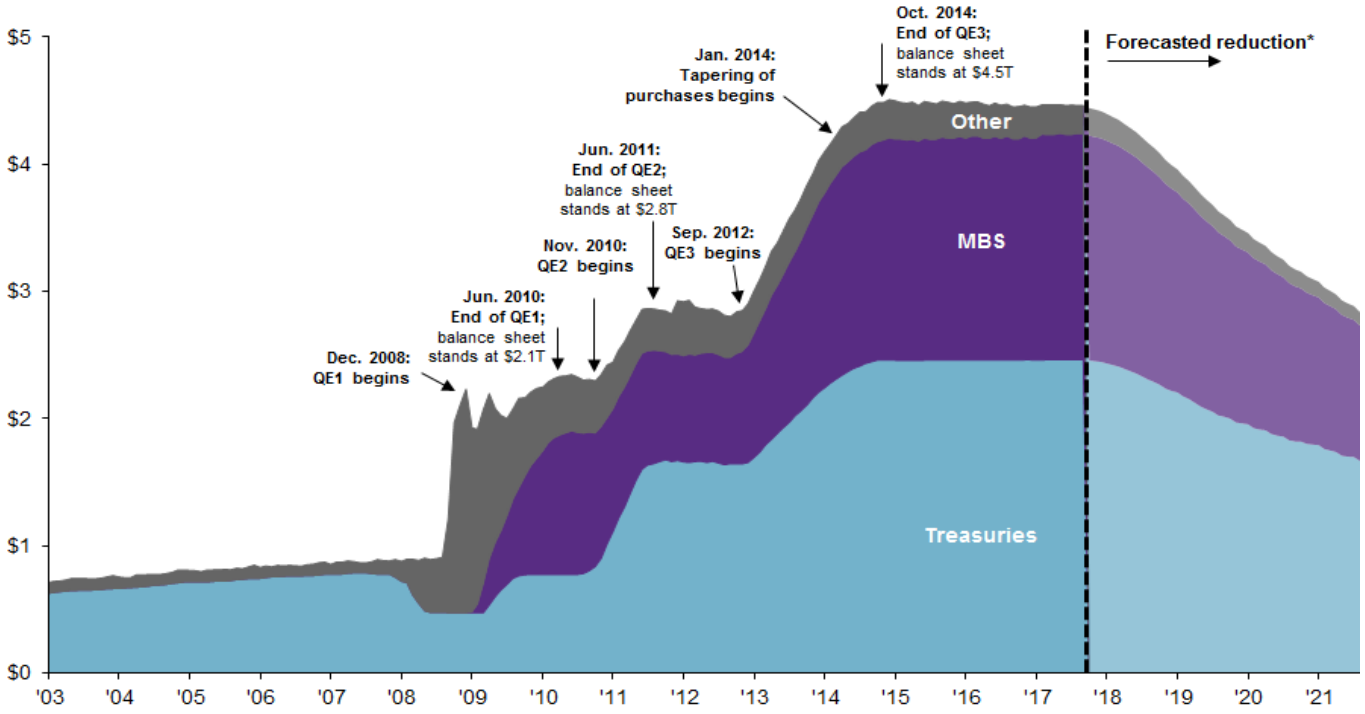
Quantitative Tightening Refresh:

Since the Financial Crisis, the Fed accumulated approximately $4.5 trillion in assets, mainly composed of US Treasuries and mortgage-backed securities ("MBS"), from their large-scale asset purchasing program, Quantitative Easing.

In October 2017, the Fed began Quantitative Tightening to reduce the size of their balance sheet. Maturing securities were no longer being replaced to remain on the balance sheet, resulting in an "auto-pilot" roll-off of $50 billion per month.

- Quantitative Easing was unprecedented monetary policy, and the unwinding of that policy, Quantitative Tightening, will be unprecedented as well.

Federal Reserve Balance Sheet



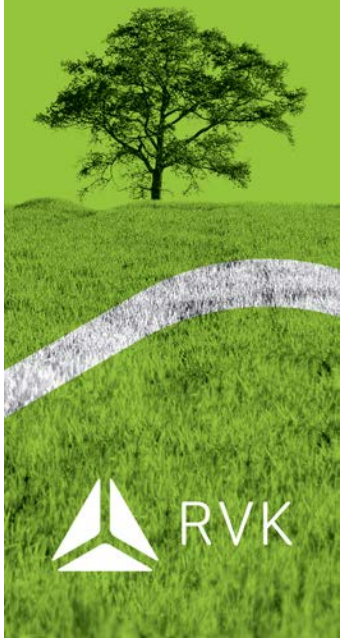
Source: JP Morgan *Guide to the Markets* 3Q 2017.

Federal Funds Rate Expectations[1]		
	2019	2020
FOMC Yr-End Est.	2.88%	3.13%
Market Expectations[1]	2.53%	2.39%
Federal Funds Rate (12/31/2018)		**2.40%**
FOMC Long-Run Projection		**2.75%**

[1]Per JP Morgan, data as of 12/19/18.
Source: JP Morgan *Guide to the Markets* 1Q 2019.

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Total Fund



Asset Allocation & Performance

	Allocation		Perf. (%)
	Market Value ($)	%	QTD
Total Fund	**2,220,993,014**	**100.00**	**-6.79**
Domestic Equity Composite	**477,794,265**	**21.51**	**-14.49**
Robeco BPAM Premium Eq (SA)	78,968,647	3.56	-16.03
AJO Large Cap Value (SA)	70,013,879	3.15	-14.47
Vanguard Hi Dv Yld;Inv (VHDYX)	101,276,467	4.56	-9.61
BlackRock R 1000 Index Fund (CF)	120,182,534	5.41	-13.76
Silvercrest Small Cap Value (SA)	107,352,739	4.83	-18.34
MLPs	**158,852,433**	**7.15**	**-18.13**
Harvest Fund Advisors MLP (SA)	78,578,359	3.54	-20.03
Tortoise Capital Advisors MLP (SA)	80,274,074	3.61	-16.17
International Equity	**219,125,113**	**9.87**	**-11.64**
Vanguard Tot I S;Ins + (VTPSX)	219,125,113	9.87	-11.65

Asset Allocation & Performance

	Allocation		Perf. (%)
	Market Value ($)	%	QTD
Total Fixed Income Composite	**1,298,960,134**	**58.49**	**-0.86**
Dodge & Cox Fixed Income (SA)	220,558,785	9.93	0.55
Cutwater Core Plus Select Income (SA)	142,892,060	6.43	-1.07
Guggenheim (BBB) (SA)	124,579,924	5.61	0.09
JPMorgan MBS (SA)	218,100,729	9.82	2.26
Guggenheim CMBS (SA)	99,845,544	4.50	1.39
Allianz Global Investors US High Yield (SA)	119,286,043	5.37	-4.56
Fort Washington High Yield (SA)	121,743,637	5.48	-3.98
Cohen & Steers Preferreds (SA)	203,792,308	9.18	-3.15
Oklahoma Treasurer's Cash Pool	48,083,712	2.16	0.60
Bank of Oklahoma Cash	77,392	0.00	0.61
REITs Composite	**66,261,069**	**2.98**	**-7.08**
CenterSquare US REIT Total Return Comp (SA)	66,261,069	2.98	-7.08

Schedule of Investable Assets

Periods Ending	Beginning Market Value ($)	Net Cash Flow ($)	Gain/Loss ($)	Ending Market Value ($)	% Return	Unit Value
CYTD	**2,402,513,307**	**-58,645,795**	**-122,874,499**	**2,220,993,014**	**-5.23**	**94.77**

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

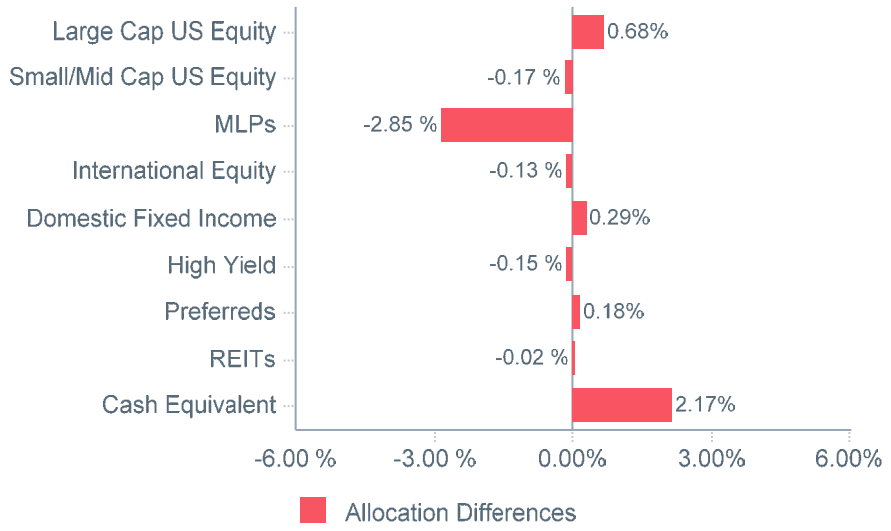
Commissioners of the Land Office, State of Oklahoma
Total Fund vs. All Master Trust - Total Fund
Asset Allocation vs. Target and Plan Sponsor Peer Group

As of December 31, 2018

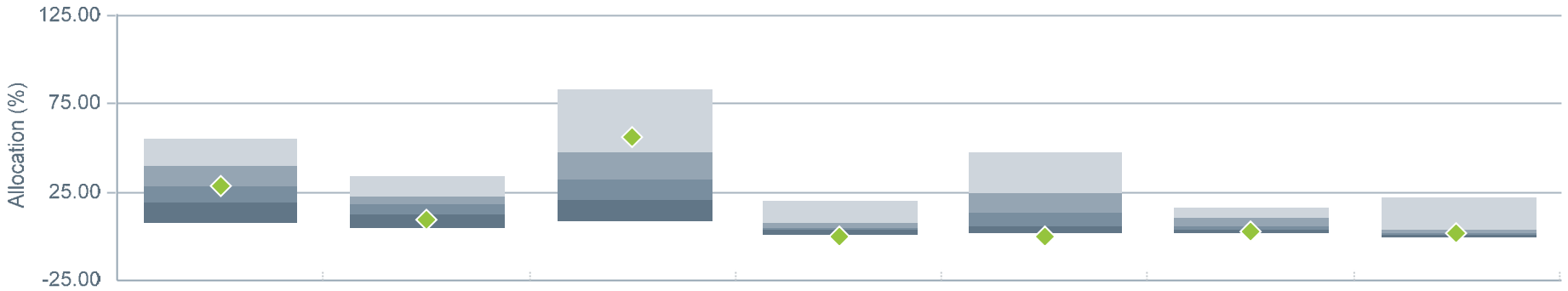
Asset Allocation vs. Target Allocation

	Market Value ($)	Allocation (%)	Target (%)
Large Cap US Equity	370,441,527	16.68	16.00
Small/Mid Cap US Equity	107,352,739	4.83	5.00
MLPs	158,852,433	7.15	10.00
International Equity	219,125,113	9.87	10.00
Domestic Fixed Income	805,977,042	36.29	36.00
High Yield	241,029,680	10.85	11.00
Preferreds	203,792,308	9.18	9.00
REITs	66,261,069	2.98	3.00
Cash Equivalent	48,161,104	2.17	0.00
Total Fund	2,220,993,014	100.00	100.00

Asset Allocation vs. Target Allocation Differences



Asset Allocation vs. All Master Trust - Total Fund

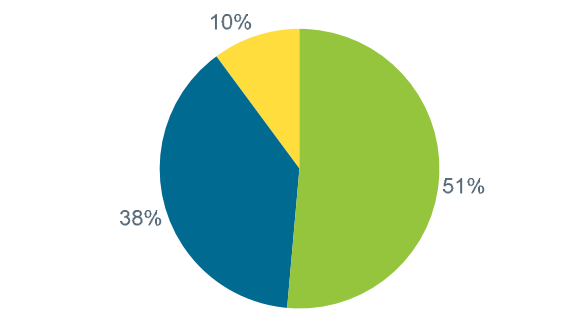


	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
Total Fund	28.66 (51)	9.87 (82)	56.32 (19)	0.00	0.00	2.98 (84)	2.17 (38)
Median	28.79	17.73	32.08	5.08	12.83	5.44	1.50
Population	3,860	3,535	3,584	1,131	1,729	1,322	2,540

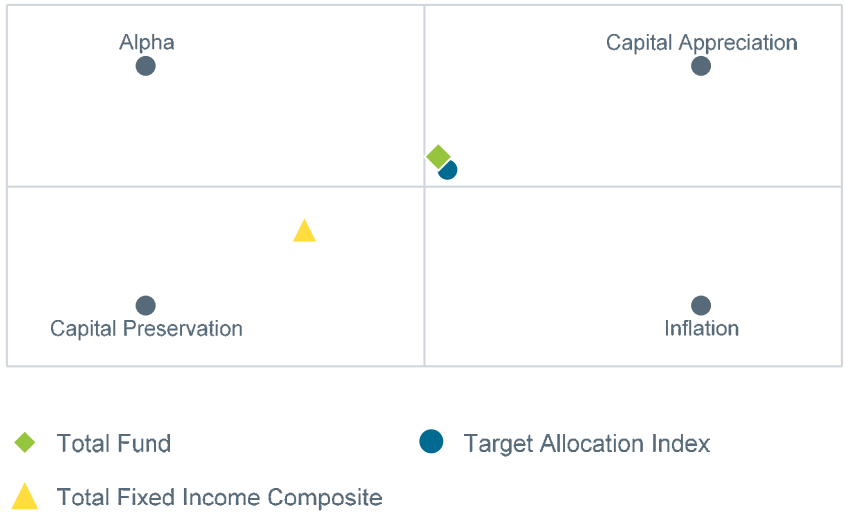
Allocations shown may not sum up to 100% exactly due to rounding. Robeco Boston Partners Premium Equity (SA) is included in the Large Cap US Equity composite market value. Domestic Fixed Income consists of Dodge & Cox Fixed Income (SA), Cutwater Core Plus Select Income (SA), Guggenheim (BBB) (SA), JPMorgan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

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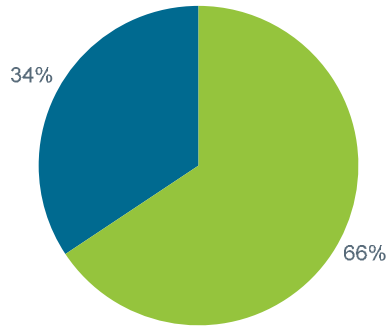
Asset Allocation by Theme



Thematic Analysis - July 1, 1999 to December 31, 2018



Asset Allocation by Liquidity



RVK Liquidity Rating	**76**

Correlation Matrix - 10 Years

	A	B	C	D
A	1.00			
B	0.61	1.00		
C	-0.29	-0.26	1.00	
D	0.48	0.83	0.02	1.00

A	=	HFRI EH: Eq Mkt Neut 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.

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

As of November 30, 2018

	Yield %											
	MTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	Since Inception	Inception Date
Total Fund Composite Yield	0.35	3.67	4.02	4.09	4.04	4.07	4.30	4.01	4.23	3.96	3.94	01/01/2008
Total Fund Composite Yield ($)	$7,973,755	$87,015,724	$95,538,811	$93,521,727	$91,842,643	$88,818,005	$86,280,447	$93,496,051	$91,765,916	$89,220,342		

The Total Fund Composite 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.

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

As of December 31, 2018

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Total Fund	**-6.86**	**-5.50**	**-5.50**	**4.36**	**3.02**	**5.31**	**7.97**	**6.47**	**12/01/1995**
Target Allocation Index	-6.64	-4.45	-4.45	4.51	3.16	5.16	7.53	6.43	
Difference	-0.22	-1.05	-1.05	-0.15	-0.14	0.15	0.44	0.04	
Actual Allocation Index	-6.42	-5.23	-5.23	4.20	2.86	5.03	7.41	N/A	
Difference	-0.44	-0.27	-0.27	0.16	0.16	0.28	0.56	N/A	
Domestic Equity Composite	**-14.56**	**-9.72**	**-9.72**	**7.80**	**5.90**	**11.16**	**12.17**	**8.26**	**12/01/1995**
Russell 3000 Index	-14.30	-5.24	-5.24	8.97	7.91	12.46	13.18	8.41	
Difference	-0.26	-4.48	-4.48	-1.17	-2.01	-1.30	-1.01	-0.15	
MLPs	**-18.28**	**-12.99**	**-12.99**	**-0.97**	**N/A**	**N/A**	**N/A**	**-5.47**	**03/01/2014**
MLP Custom Index	-17.26	-12.56	-12.56	0.37	-6.22	-0.12	10.66	-6.60	
Difference	-1.02	-0.43	-0.43	-1.34	N/A	N/A	N/A	1.13	
International Equity	**-11.66**	**-14.42**	**-14.42**	**4.57**	**0.67**	**5.36**	**6.05**	**1.84**	**05/01/2007**
Vanguard Spl Tot Int'l Stock Index	-11.79	-14.61	-14.61	4.44	1.05	5.21	6.64	0.87	
Difference	0.13	0.19	0.19	0.13	-0.38	0.15	-0.59	0.97	
Total Fixed Income Composite	**-0.92**	**-1.01**	**-1.01**	**3.84**	**3.59**	**4.42**	**7.44**	**6.34**	**07/01/1999**
Bloomberg US Unv Bond Index	1.17	-0.25	-0.25	2.56	2.72	2.53	4.06	4.99	
Difference	-2.09	-0.76	-0.76	1.28	0.87	1.89	3.38	1.35	
REITs	**-7.21**	**-5.22**	**-5.22**	**2.91**	**8.59**	**8.97**	**13.52**	**8.15**	**08/01/2008**
FTSE NAREIT Eq REITs Index (TR)	-6.73	-4.62	-4.62	2.89	7.90	8.49	12.12	6.67	
Difference	-0.48	-0.60	-0.60	0.02	0.69	0.48	1.40	1.48	

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

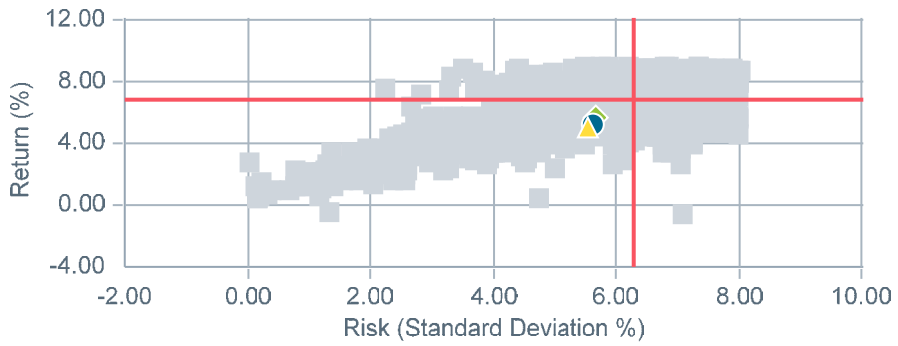
Commissioners of the Land Office, State of Oklahoma **As of December 31, 2018**
Comparative Performance (Net of Fees) - Calendar Years

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Total Fund	**9.56**	**9.79**	**-3.72**	**6.04**	**10.19**	**12.30**	**2.00**	**13.86**	**29.12**	**-20.54**
Target Allocation Index	9.25	9.35	-4.01	6.60	9.07	11.64	2.88	12.58	25.41	-20.81
Difference	0.31	0.44	0.29	-0.56	1.12	0.66	-0.88	1.28	3.71	0.27
Actual Allocation Index	8.44	10.10	-4.57	6.63	9.81	11.51	2.17	12.42	26.18	-21.58
Difference	1.12	-0.31	0.85	-0.59	0.38	0.79	-0.17	1.44	2.94	1.04
Domestic Equity Composite	**16.66**	**18.93**	**-2.33**	**8.86**	**35.67**	**16.04**	**-1.96**	**17.42**	**30.69**	**-36.91**
Russell 3000 Index	21.13	12.74	0.48	12.56	33.55	16.42	1.03	16.93	28.34	-37.31
Difference	-4.47	6.19	-2.81	-3.70	2.12	-0.38	-2.99	0.49	2.35	0.40
MLPs	**-4.51**	**16.90**	**-28.45**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
MLP Custom Index	-5.79	22.73	-33.50	7.89	29.96	5.19	14.10	36.44	78.35	-38.03
Difference	1.28	-5.83	5.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A
International Equity	**27.52**	**4.78**	**-4.16**	**-5.66**	**21.30**	**14.93**	**-18.14**	**15.56**	**31.93**	**-36.31**
Vanguard Spl Tot Int'l Stock Index	27.41	4.72	-4.29	-3.39	15.76	17.04	-14.31	10.69	40.44	-45.52
Difference	0.11	0.06	0.13	-2.27	5.54	-2.11	-3.83	4.87	-8.51	9.21
Total Fixed Income Composite	**6.45**	**6.27**	**0.38**	**6.11**	**2.62**	**10.55**	**5.66**	**11.92**	**28.10**	**-10.42**
Bloomberg US Unv Bond Index	4.09	3.91	0.43	5.56	-1.35	5.53	7.40	7.16	8.60	2.38
Difference	2.36	2.36	-0.05	0.55	3.97	5.02	-1.74	4.76	19.50	-12.80
REITs	**6.27**	**8.20**	**4.96**	**31.98**	**3.20**	**17.11**	**9.36**	**29.81**	**37.24**	**N/A**
FTSE NAREIT Eq REITs Index (TR)	5.23	8.52	3.20	30.14	2.47	18.06	8.29	27.94	28.01	-37.74
Difference	1.04	-0.32	1.76	1.84	0.73	-0.95	1.07	1.87	9.23	N/A

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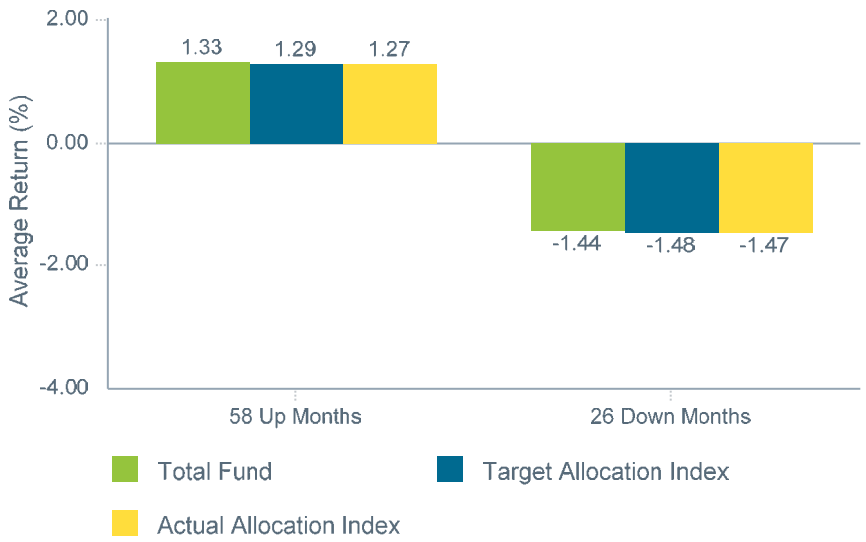
RVK

Plan Sponsor Scattergram - 7 Years



	Return	Standard Deviation
Total Fund	5.66	5.69
Target Allocation Index	5.16	5.65
Actual Allocation Index	5.03	5.55
Median	6.83	6.28

Up/Down Markets - 7 Years



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

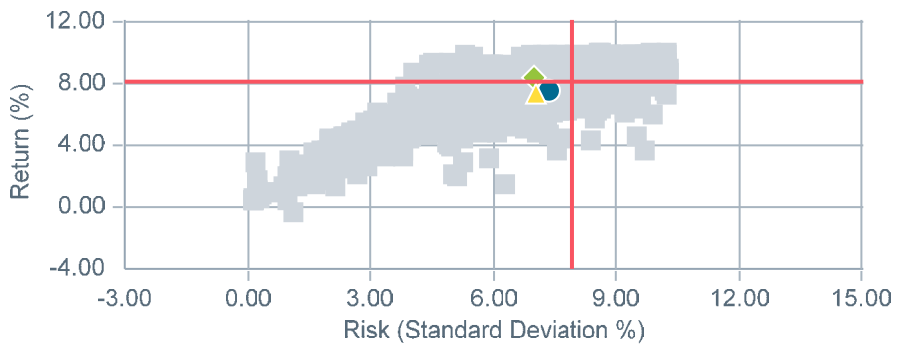


	7 Years	7 Years	7 Years	7 Years	7 Years
Total Fund	5.69 (67)	0.91 (73)	5.20 (74)	3.66 (60)	0.48 (61)
Target Allocation Index	5.65 (68)	0.83 (83)	4.73 (80)	3.64 (61)	0.47 (63)
Actual Allocation Index	5.55 (69)	0.82 (84)	4.60 (81)	3.58 (63)	0.46 (64)
Median	6.28	1.02	6.35	3.89	0.52
Population	1,800	1,800	1,800	1,800	1,800

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

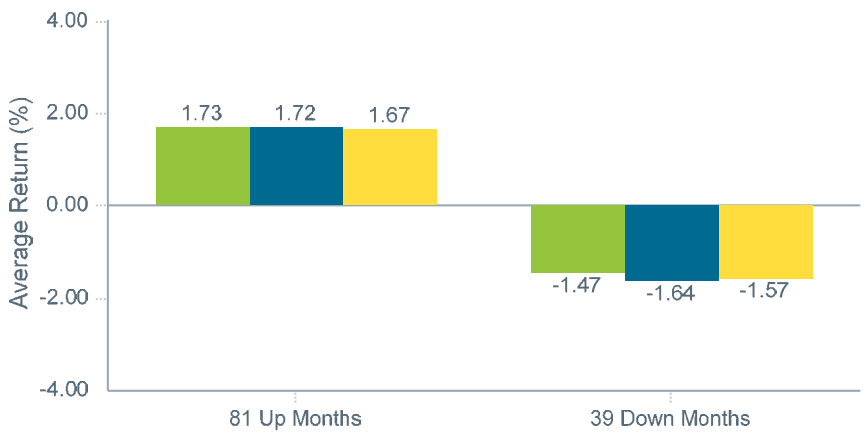
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Plan Sponsor Scattergram - 10 Years



	Return	Standard Deviation
Total Fund	8.33	7.02
Target Allocation Index	7.53	7.38
Actual Allocation Index	7.41	7.07
Median	8.12	7.92

Up/Down Markets - 10 Years



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



	Standard Deviation 10 Years	Sharpe Ratio 10 Years	Excess Return 10 Years	Downside Risk 10 Years	Beta 10 Years
Total Fund	7.02 (68)	1.12 (24)	7.90 (48)	3.97 (72)	0.47 (66)
Target Allocation Index	7.38 (61)	0.97 (56)	7.17 (67)	4.25 (65)	0.50 (60)
Actual Allocation Index	7.07 (67)	0.99 (51)	7.04 (70)	4.07 (71)	0.47 (65)
Median	7.92	0.99	7.78	4.73	0.54
Population	1,425	1,425	1,425	1,425	1,425

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

Commissioners of the Land Office, State of Oklahoma **As of December 31, 2018**
Comparative Performance (Gross of Fees) - Trailing Periods

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Total Fund	**-6.79**	**-5.23**	**-5.23**	**4.67**	**3.35**	**5.66**	**8.33**	**6.68**	**12/01/1995**
Target Allocation Index	-6.64	-4.45	-4.45	4.51	3.16	5.16	7.53	6.43	
Difference	-0.15	-0.78	-0.78	0.16	0.19	0.50	0.80	0.25	
Actual Allocation Index	-6.42	-5.23	-5.23	4.20	2.86	5.03	7.41	N/A	
Difference	-0.37	0.00	0.00	0.47	0.49	0.63	0.92	N/A	
All Master Trust - Total Fund Median	-6.66	-4.29	-4.29	5.55	4.36	6.83	8.12	7.04	
Rank	53	67	67	74	76	74	45	68	
Domestic Equity Composite	**-14.49**	**-9.44**	**-9.44**	**8.15**	**6.27**	**11.57**	**12.64**	**8.53**	**12/01/1995**
Russell 3000 Index	-14.30	-5.24	-5.24	8.97	7.91	12.46	13.18	8.41	
Difference	-0.19	-4.20	-4.20	-0.82	-1.64	-0.89	-0.54	0.12	
All Master Trust-US Equity Segment Median	-13.98	-5.78	-5.78	8.70	7.38	12.02	12.93	8.41	
Rank	66	94	94	64	75	60	61	44	
MLPs	**-18.13**	**-12.39**	**-12.39**	**-0.28**	**N/A**	**N/A**	**N/A**	**-4.82**	**03/01/2014**
MLP Custom Index	-17.26	-12.56	-12.56	0.37	-6.22	-0.12	10.66	-6.60	
Difference	-0.87	0.17	0.17	-0.65	N/A	N/A	N/A	1.78	
International Equity	**-11.64**	**-14.36**	**-14.36**	**4.64**	**0.87**	**5.66**	**6.45**	**2.25**	**05/01/2007**
Vanguard Spl Tot Int'l Stock Index	-11.79	-14.61	-14.61	4.44	1.05	5.21	6.64	0.87	
Difference	0.15	0.25	0.25	0.20	-0.18	0.45	-0.19	1.38	
All Master Trust-Intl. Equity Segment Median	-11.69	-13.77	-13.77	4.79	1.65	6.28	7.64	1.95	
Rank	49	64	64	57	85	73	90	38	
Total Fixed Income Composite	**-0.86**	**-0.76**	**-0.76**	**4.10**	**3.84**	**4.68**	**7.71**	**6.53**	**07/01/1999**
Bloomberg US Unv Bond Index	1.17	-0.25	-0.25	2.56	2.72	2.53	4.06	4.99	
Difference	-2.03	-0.51	-0.51	1.54	1.12	2.15	3.65	1.54	
All Master Trust-US Fixed Income Segment Median	0.62	-0.39	-0.39	2.96	3.01	3.01	4.98	5.25	
Rank	87	58	58	24	30	10	5	11	
REITs	**-7.08**	**-4.71**	**-4.71**	**3.46**	**9.17**	**9.55**	**14.12**	**8.71**	**08/01/2008**
FTSE NAREIT Eq REITs Index (TR)	-6.73	-4.62	-4.62	2.89	7.90	8.49	12.12	6.67	
Difference	-0.35	-0.09	-0.09	0.57	1.27	1.06	2.00	2.04	

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

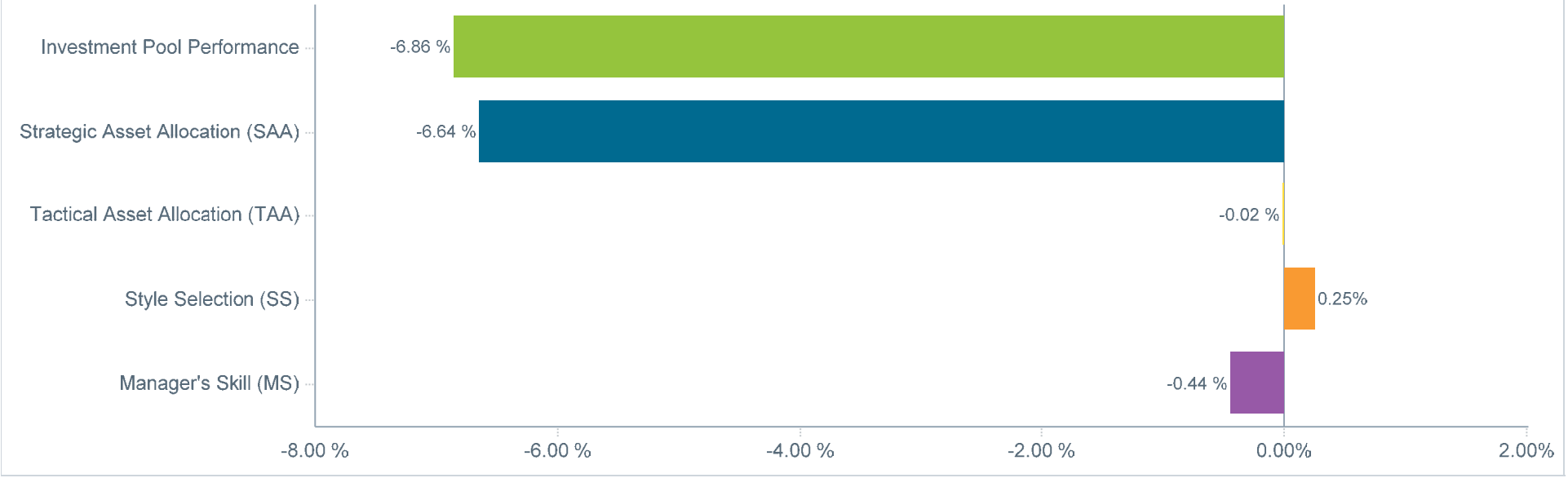
Commissioners of the Land Office, State of Oklahoma **As of December 31, 2018**
Comparative Performance (Gross of Fees) - Calendar Years

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Total Fund	**9.88**	**10.12**	**-3.38**	**6.44**	**10.57**	**12.73**	**2.38**	**14.24**	**29.49**	**-20.23**
Target Allocation Index	9.25	9.35	-4.01	6.60	9.07	11.64	2.88	12.58	25.41	-20.81
Difference	0.63	0.77	0.63	-0.16	1.50	1.09	-0.50	1.66	4.08	0.58
Actual Allocation Index	8.44	10.10	-4.57	6.63	9.81	11.51	2.17	12.42	26.18	-21.58
Difference	1.44	0.02	1.19	-0.19	0.76	1.22	0.21	1.82	3.31	1.35
All Master Trust - Total Fund Median	14.77	7.43	-0.74	6.11	13.92	12.40	0.81	12.49	19.45	-24.30
Rank	85	7	88	45	71	45	31	19	4	27
Domestic Equity Composite	**17.05**	**19.35**	**-1.97**	**9.26**	**36.12**	**16.64**	**-1.44**	**18.05**	**31.32**	**-36.53**
Russell 3000 Index	21.13	12.74	0.48	12.56	33.55	16.42	1.03	16.93	28.34	-37.31
Difference	-4.08	6.61	-2.45	-3.30	2.57	0.22	-2.47	1.12	2.98	0.78
All Master Trust-US Equity Segment Median	20.65	12.45	0.27	10.89	33.35	16.60	-0.14	18.05	29.20	-37.79
Rank	89	1	83	78	17	48	70	50	30	31
MLPs	**-3.85**	**17.70**	**-27.94**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
MLP Custom Index	-5.79	22.73	-33.50	7.89	29.96	5.19	14.10	36.44	78.35	-38.03
Difference	1.94	-5.03	5.56	N/A	N/A	N/A	N/A	N/A	N/A	N/A
International Equity	**27.61**	**4.85**	**-3.91**	**-5.16**	**21.95**	**15.46**	**-17.65**	**16.23**	**32.67**	**-35.88**
Vanguard Spl Tot Int'l Stock Index	27.41	4.72	-4.29	-3.39	15.76	17.04	-14.31	10.69	40.44	-45.52
Difference	0.20	0.13	0.38	-1.77	6.19	-1.58	-3.34	5.54	-7.77	9.64
All Master Trust-Intl. Equity Segment Median	28.18	4.40	-2.90	-2.13	19.02	18.33	-12.31	12.90	36.67	-43.62
Rank	57	43	65	97	25	93	100	17	69	7
Total Fixed Income Composite	**6.71**	**6.53**	**0.63**	**6.38**	**2.89**	**10.83**	**5.94**	**12.20**	**28.45**	**-10.17**
Bloomberg US Unv Bond Index	4.09	3.91	0.43	5.56	-1.35	5.53	7.40	7.16	8.60	2.38
Difference	2.62	2.62	0.20	0.82	4.24	5.30	-1.46	5.04	19.85	-12.55
All Master Trust-US Fixed Income Segment Median	4.79	4.60	-0.04	5.76	-1.48	7.74	7.52	8.91	12.53	-3.18
Rank	28	28	32	38	5	11	73	7	1	94
REITs	**6.84**	**8.78**	**5.52**	**32.68**	**3.76**	**17.72**	**10.04**	**30.45**	**37.75**	**N/A**
FTSE NAREIT Eq REITs Index (TR)	5.23	8.52	3.20	30.14	2.47	18.06	8.29	27.94	28.01	-37.74
Difference	1.61	0.26	2.32	2.54	1.29	-0.34	1.75	2.51	9.74	N/A

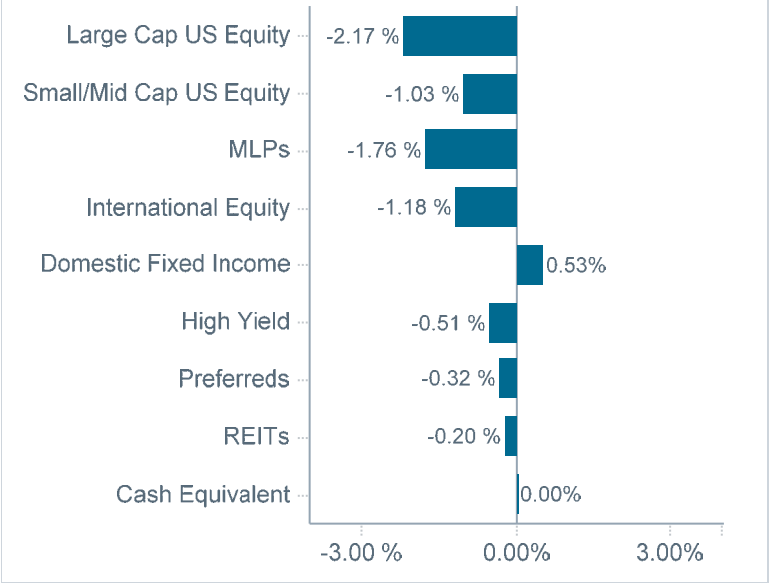
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RVK

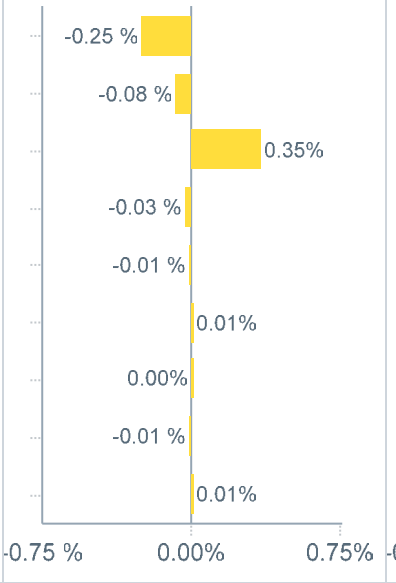
Performance Attribution



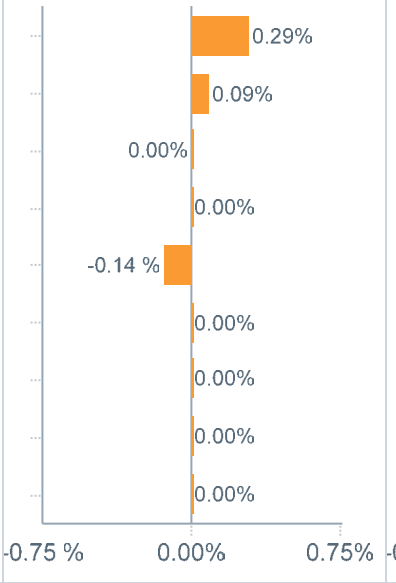
SAA: -6.64 %



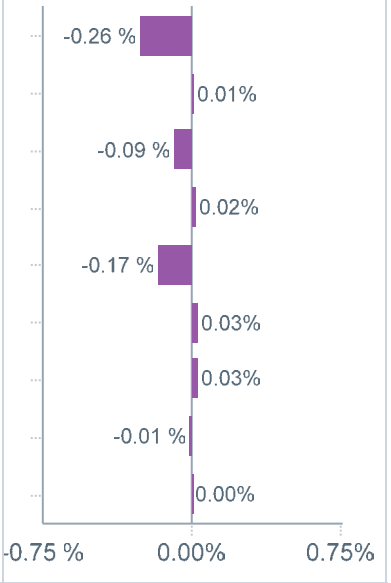
TAA: -0.02 %



SS: 0.25%

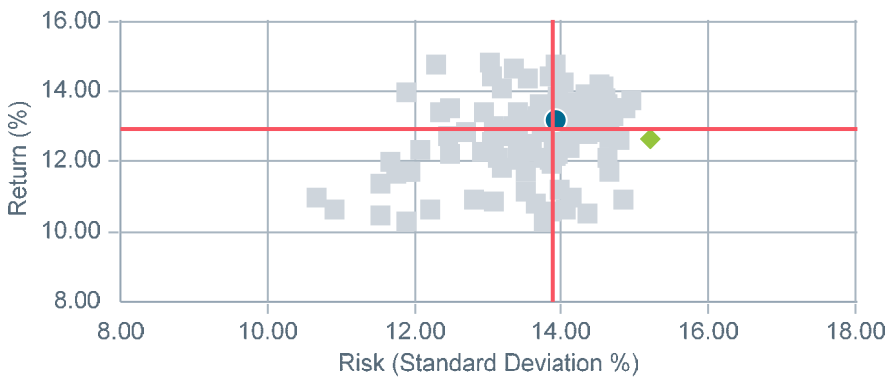


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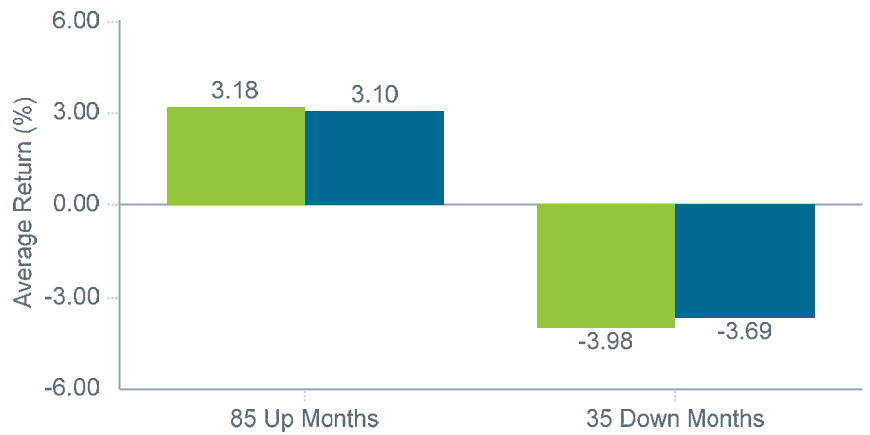
Performance shown is net of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.

Plan Sponsor Scattergram - 10 Years

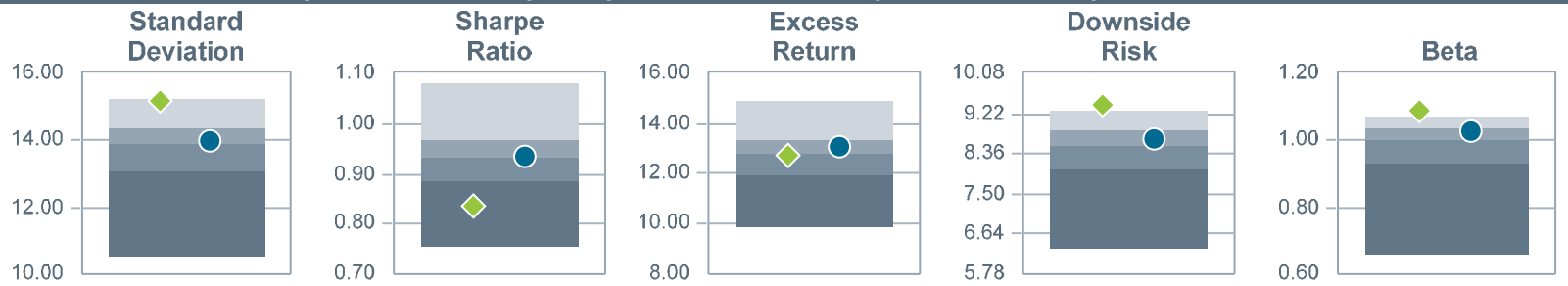


	Return	Standard Deviation
Domestic Equity Composite	12.64	15.21
Russell 3000 Index	13.18	13.95
Median	12.93	13.89

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 Composite	15.21 (6)	0.84 (88)	12.74 (56)	9.43 (4)	1.09 (3)
Russell 3000 Index	13.95 (46)	0.93 (51)	13.05 (44)	8.65 (38)	1.03 (33)
Median	13.89	0.93	12.82	8.52	1.00
Population	143	143	143	143	143

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

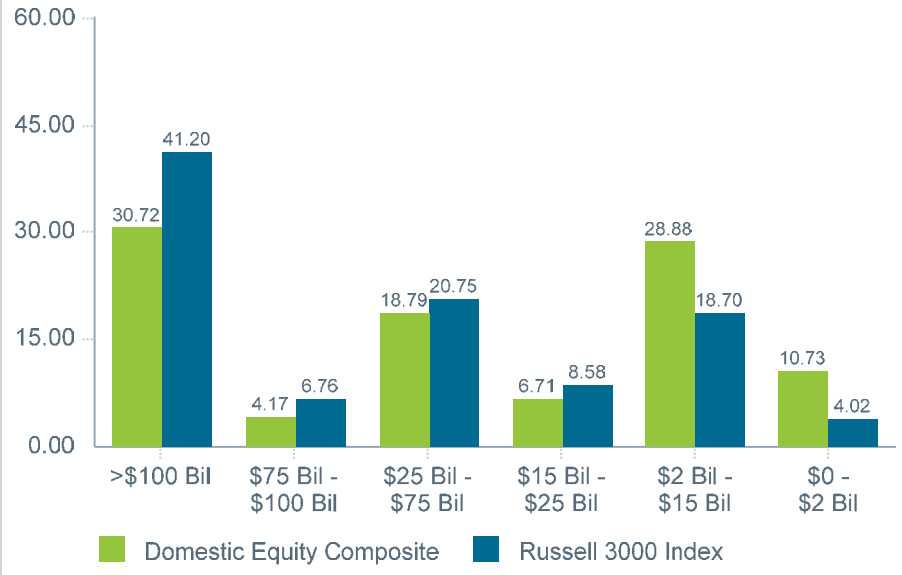
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Johnson & Johnson	1.86	1.38	0.48	-6.01
Pfizer Inc	1.61	1.01	0.60	-0.19
JPMorgan Chase & Co	1.58	1.29	0.29	-12.89
Merck & Co Inc.	1.51	0.79	0.72	8.49
Verizon Communications Inc	1.25	0.93	0.32	6.46
Microsoft Corp	1.12	3.06	-1.94	-10.80
Cisco Systems Inc	1.11	0.78	0.33	-10.33
Exxon Mobil Corp	1.08	1.15	-0.07	-18.98
Bank of America Corp	1.06	0.90	0.16	-15.88
PepsiCo Inc	1.01	0.62	0.39	-0.40
% of Portfolio	13.19	11.91	1.28	

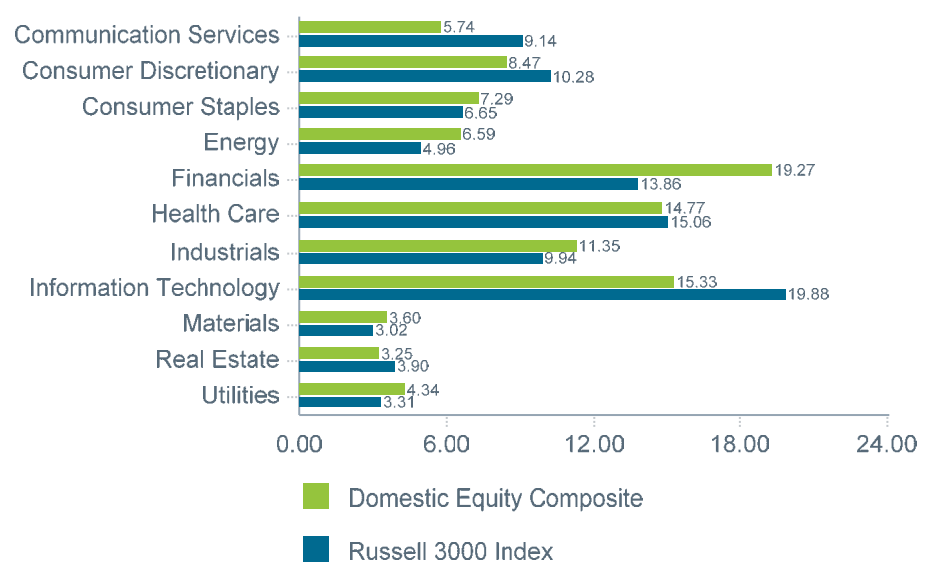
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	100,441	167,103
Median Mkt. Cap ($M)	6,817	1,418
Price/Earnings Ratio	15.02	16.99
Price/Book Ratio	2.40	3.04
5 Yr. EPS Growth Rate (%)	11.46	15.88
Current Yield (%)	2.42	2.14
Beta (5 Years, Monthly)	1.05	1.00
Number of Securities	1,220	3,015

Distribution of Market Capitalization (%)



Sector Weights (%)



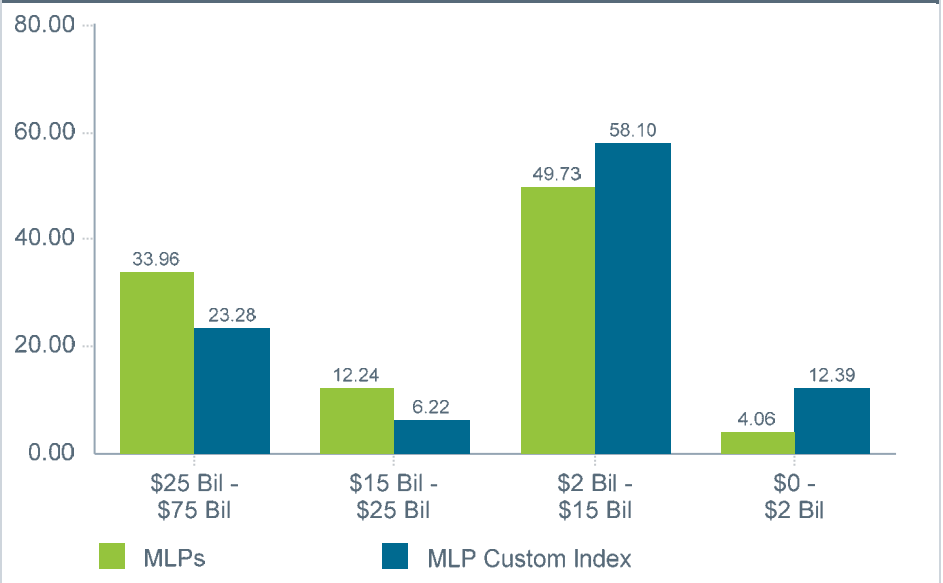
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Enterprise Products Partners LP	12.12	12.08	0.04	-13.01
Energy Transfer LP	10.26	11.20	-0.94	-22.76
Plains All American Pipeline LP	9.85	6.74	3.11	-18.76
Williams Cos Inc. (The)	7.29	0.00	7.29	-17.75
Magellan Midstream Partners LP	7.28	8.70	-1.42	-14.42
MPLX LP	6.17	6.22	-0.05	-10.94
Andeavor Logistics LP	4.21	2.57	1.64	-31.36
ONEOK Inc.	4.10	0.00	4.10	-19.33
Western Gas Partners Lp	3.61	3.84	-0.23	-1.03
Targa Resources Corp	3.60	0.00	3.60	-34.87
% of Portfolio	68.49	51.35	17.14	

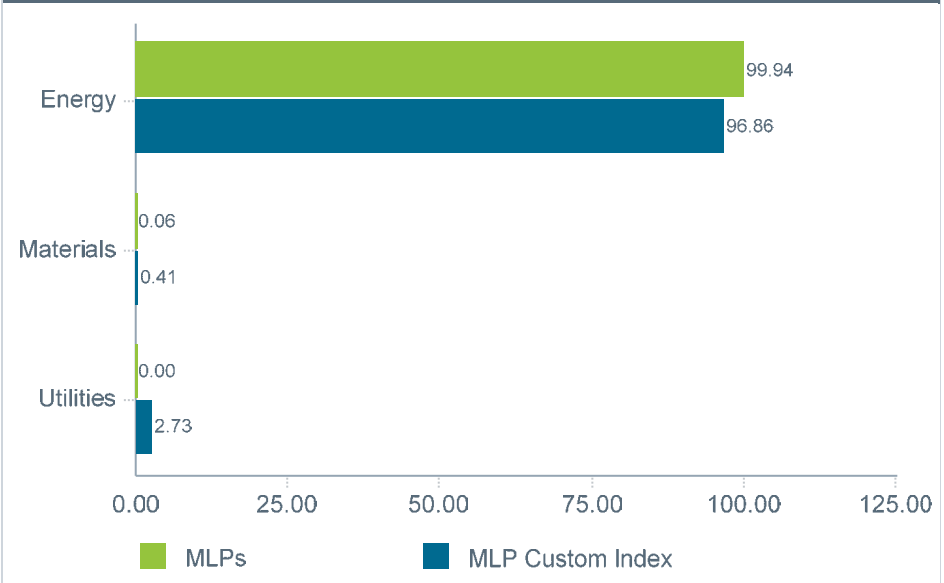
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	21,038	16,021
Median Mkt. Cap ($M)	4,146	1,653
Price/Earnings Ratio	13.77	12.95
Price/Book Ratio	2.00	2.22
5 Yr. EPS Growth Rate (%)	10.14	9.75
Current Yield (%)	8.05	9.22
Beta (3 Years, Monthly)	0.95	1.00
Number of Securities	38	66

Distribution of Market Capitalization (%)

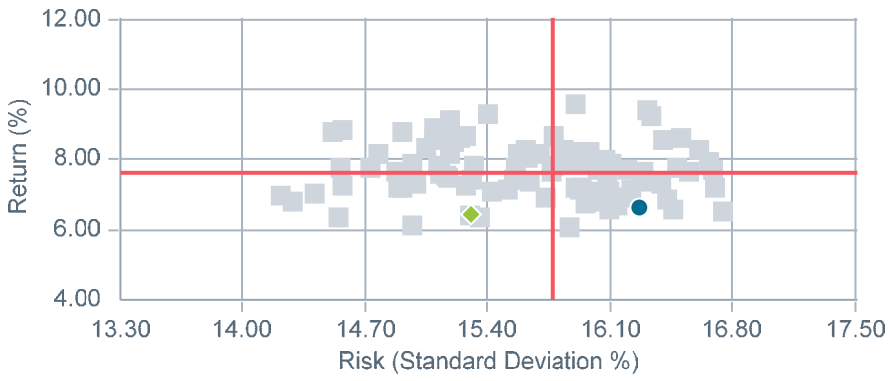


Sector Weights (%)



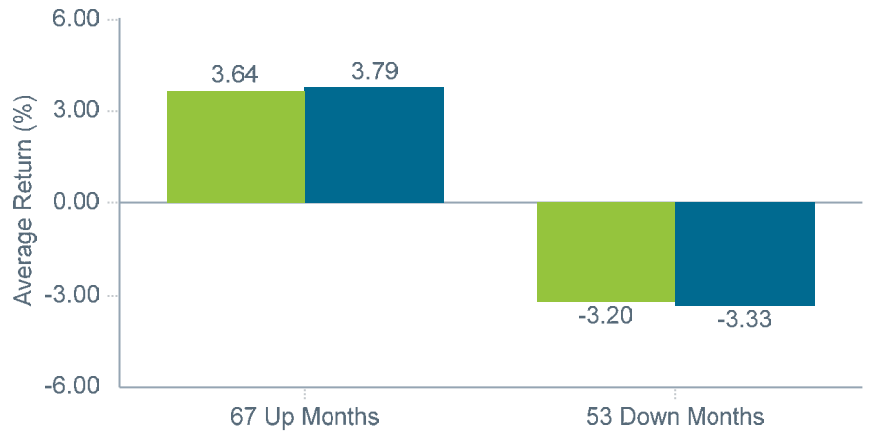
The MLP Custom Index consists of 50% S&P MLP Index (TR) and 50% Tortoise MLP Index (TR).

Peer Group Scattergram - 10 Years

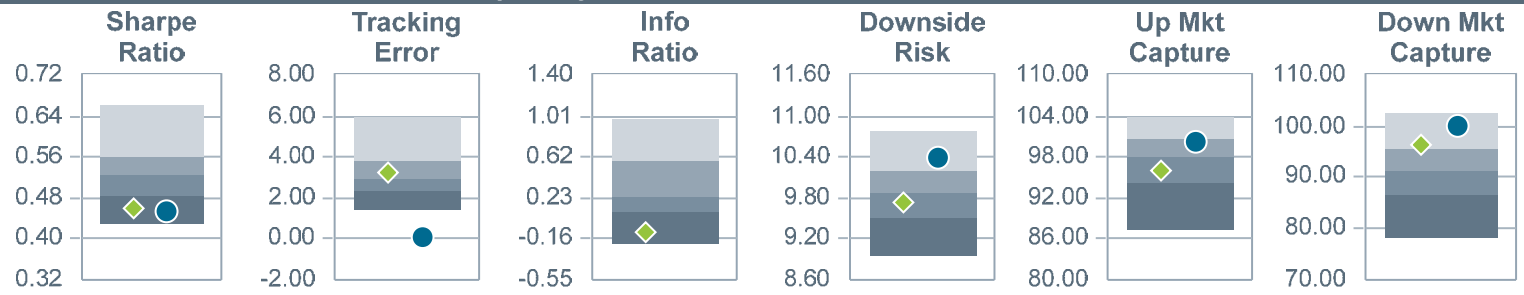


	Return	Standard Deviation
International Equity	6.45	15.31
Vanguard Spl Tot Int'l Stock Index	6.64	16.28
Median	7.64	15.77

Up/Down Markets - 10 Years



Peer Group Analysis - Multi Statistics



	10 Years	10 Years	10 Years	10 Years	10 Years	10 Years
International Equity	0.46 (87)	3.22 (44)	-0.10 (92)	9.75 (59)	96.15 (67)	96.33 (24)
Vanguard Spl Tot Int'l Stock Index	0.45 (91)	0.00 (100)	N/A	10.38 (15)	100.00 (32)	100.00 (11)
Median	0.53	2.97	0.25	9.90	98.01	91.49
Population	122	122	122	122	122	122

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

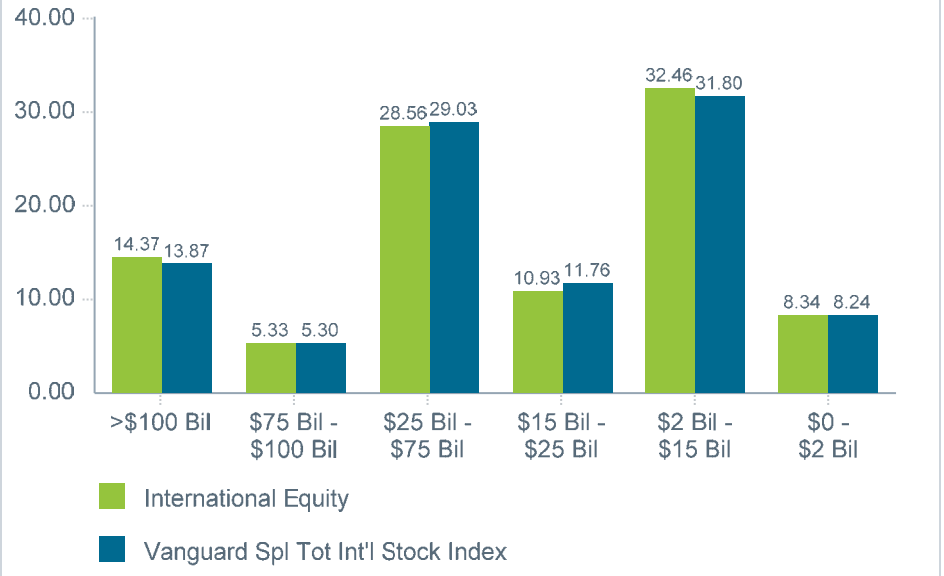
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Nestle SA, Cham Und Vevey	1.16	1.15	0.01	-3.25
Tencent Holdings LTD	1.08	1.07	0.01	-2.93
NOVARTIS AG	0.87	0.00	0.87	-0.41
Taiwan Semiconductor Mfg	0.83	0.83	0.00	-14.43
Roche Holding AG	0.82	0.81	0.01	1.55
HSBC Holdings PLC	0.79	0.78	0.01	-4.51
Alibaba Group Holding Ltd	0.78	0.78	0.00	-16.81
Toyota Motor Corp	0.70	0.69	0.01	-6.61
Royal Dutch Shell PLC	0.65	0.63	0.02	-13.21
Total SA	0.63	0.62	0.01	-17.40
% of Portfolio	8.31	7.36	0.95	

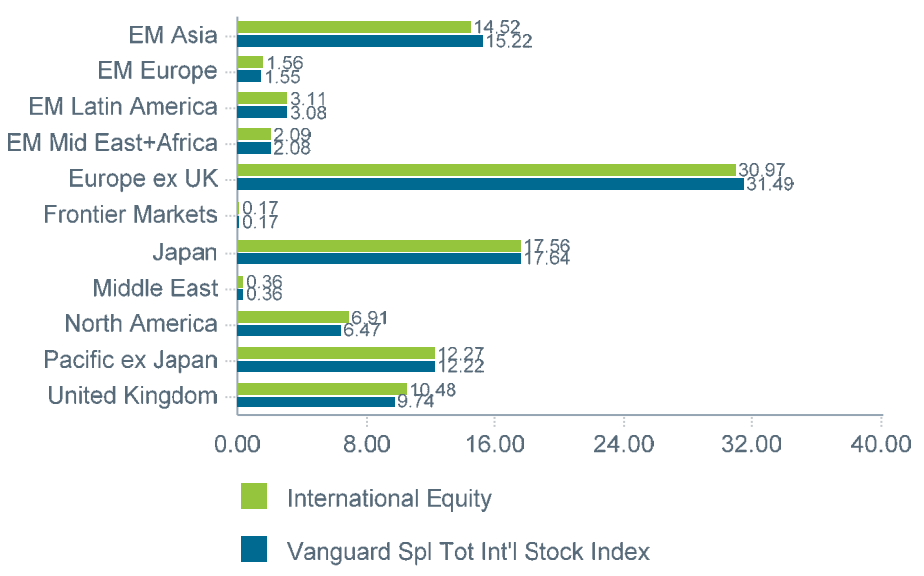
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	49,350	50,322
Median Mkt. Cap ($M)	1,463	1,465
Price/Earnings Ratio	12.13	12.07
Price/Book Ratio	2.11	2.12
5 Yr. EPS Growth Rate (%)	10.80	10.69
Current Yield (%)	3.20	3.47
Beta (5 Years, Monthly)	0.94	1.00
Number of Securities	6,212	6,002

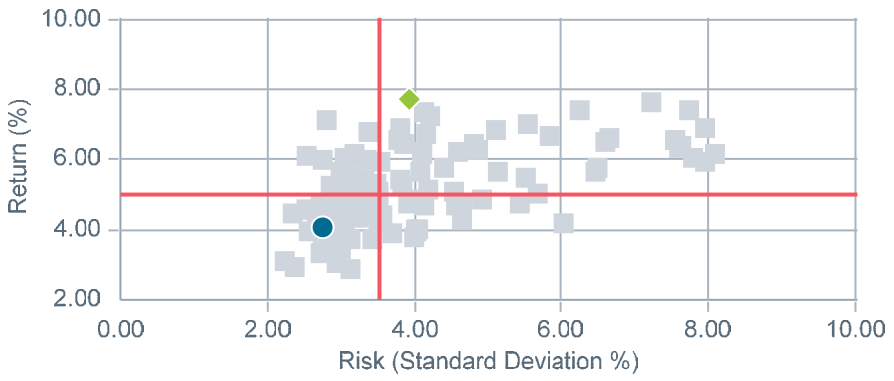
Distribution of Market Capitalization (%)



Region Weights (%)

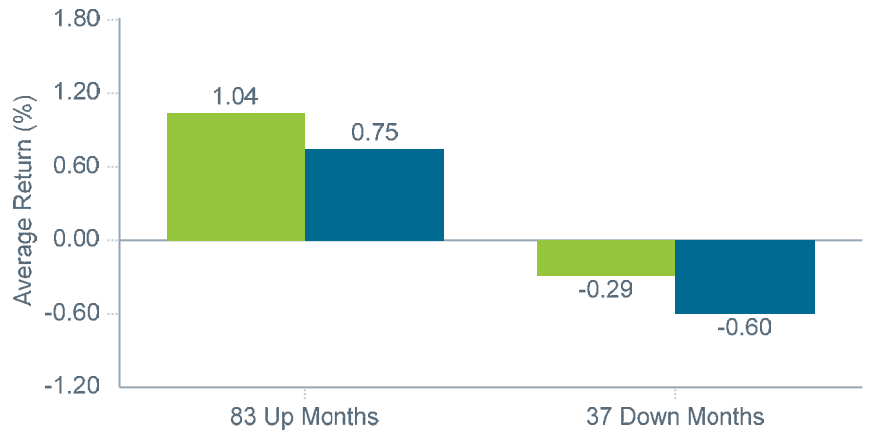


Plan Sponsor Scattergram - 10 Years

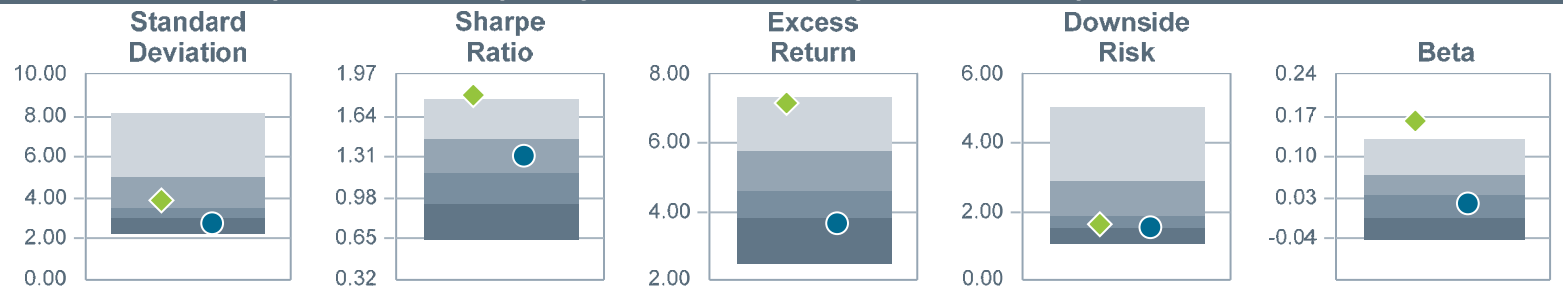


	Return	Standard Deviation
Total Fixed Income Composite	7.71	3.92
Bloomberg US Unv Bond Index	4.06	2.75
Median	4.98	3.53

Up/Down Markets - 10 Years



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

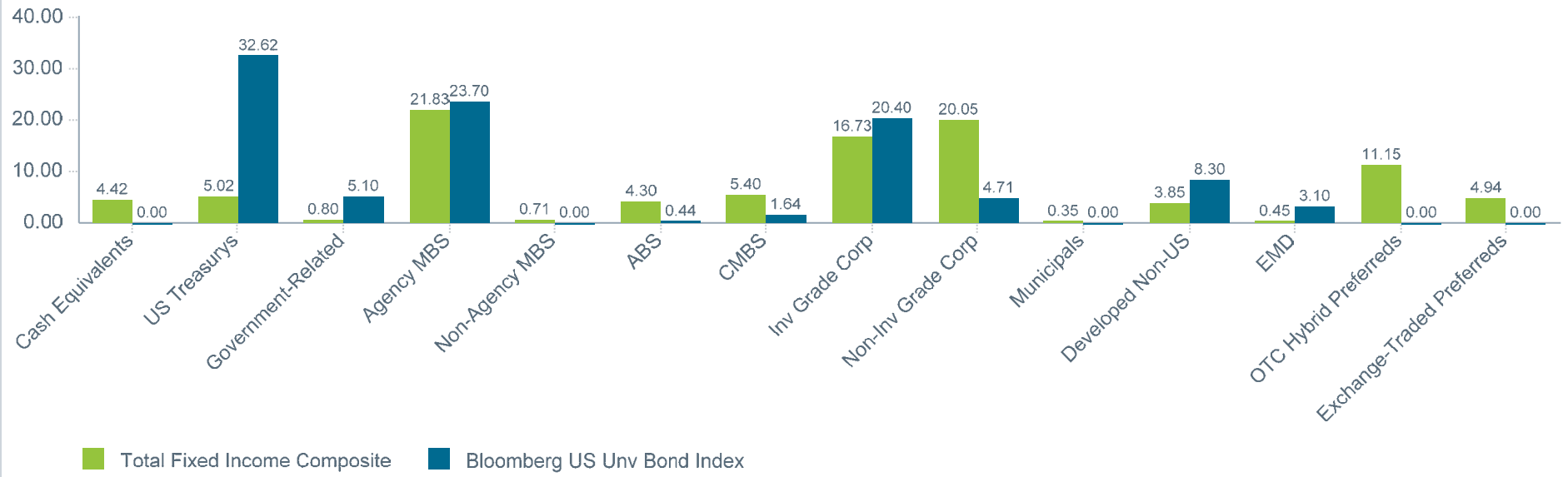


	10 Years	10 Years	10 Years	10 Years	10 Years
Total Fixed Income Composite	3.92 (44)	1.81 (4)	7.16 (7)	1.61 (70)	0.16 (2)
Bloomberg US Unv Bond Index	2.75 (88)	1.32 (35)	3.65 (78)	1.49 (76)	0.02 (62)
Median	3.53	1.19	4.60	1.88	0.03
Population	138	138	138	138	138

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

Portfolio Characteristics		
	Portfolio	Benchmark
Avg. Maturity	9.37	8.01
Avg. Quality	A3	Aaa
Yield To Maturity (%)	5.03	3.73
Yield To Worst (%)	4.75	3.73
Coupon Rate (%)	4.92	3.53
Current Yield (%)	4.94	0.21

Sector Distribution (%)

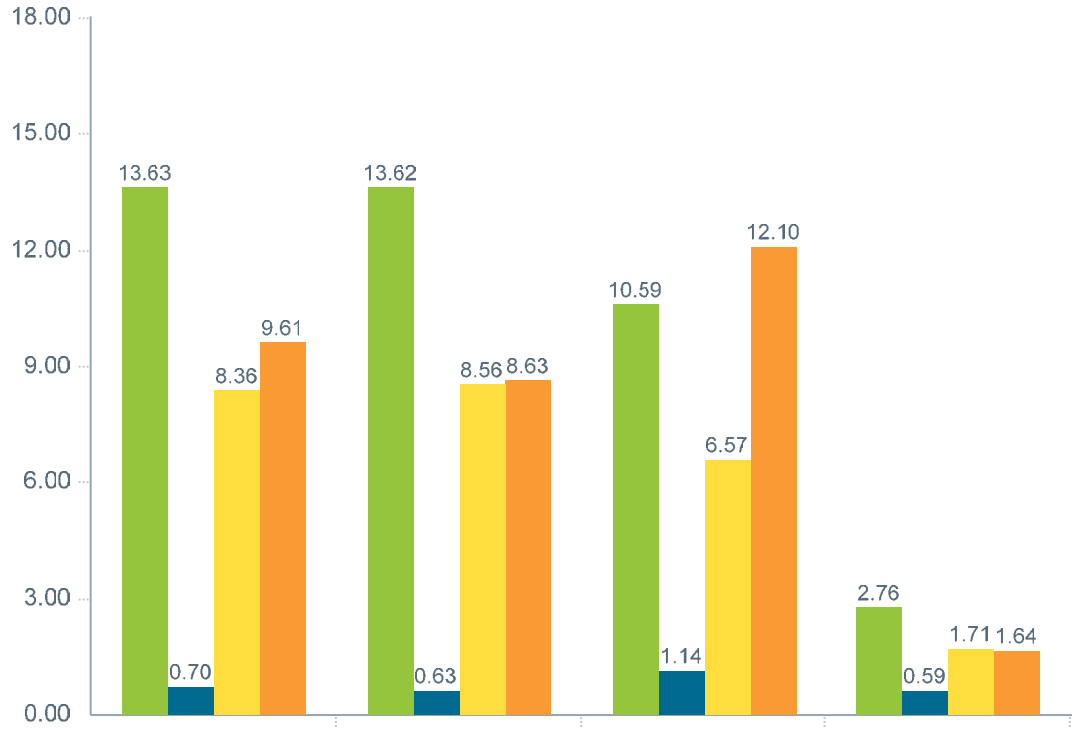


Total Fixed Income Composite sector allocations reflect the market value weighted average of the composite's underlying manager allocations excluding the Bank of Oklahoma Cash and Oklahoma Treasurer's Cash Pool.

Comparative Performance

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	2017	2016	2015	2014	Since Incep.	Inception Date
REITs	**-7.08**	**-4.71**	**-4.71**	**3.46**	**9.17**	**9.55**	**6.84**	**8.78**	**5.52**	**32.68**	**8.71**	**08/01/2008**
FTSE NAREIT Eq REITs Index (TR)	-6.73	-4.62	-4.62	2.89	7.90	8.49	5.23	8.52	3.20	30.14	6.67	
Difference	-0.35	-0.09	-0.09	0.57	1.27	1.06	1.61	0.26	2.32	2.54	2.04	

Historical Statistics - 7 Years



	REITs	FTSE NAREIT Eq REITs Index (TR)	S&P 500 Index (Cap Wtd)	Bloomberg US Agg Bond Index
Standard Deviation	13.63	13.62	10.59	2.76
Sharpe Ratio	0.70	0.63	1.14	0.59
Downside Risk	8.36	8.56	6.57	1.71
Excess Return	9.61	8.63	12.10	1.64

Actual Correlation - 7 Years

	Actual Correlation
FTSE NAREIT Eq REITs Index (TR)	1.00
S&P 500 Index (Cap Wtd)	0.48
Russell 2000 Index	0.45
MSCI EAFE Index (USD) (Net)	0.38
MSCI Emg Mkts Index (USD) (Net)	0.34
Bloomberg US Agg Bond Index	0.48
Bloomberg US Trsy US TIPS Index	0.47
Wilshire US REIT Index	1.00
HFN FOF Multi-Strat Index (Net)	0.26
Bloomberg Cmdty Index (TR)	0.05
ICE BofAML 3 Mo US T-Bill Index	-0.08
Consumer Price Index	-0.08

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

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

As of December 31, 2018

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Robeco BPAM Premium Eq (SA)	**-16.16**	**-11.60**	**-11.60**	**6.42**	**6.46**	**12.05**	**12.68**	**11.09**	**01/01/1996**
Russell 3000 Val Custom Index	-12.24	-8.58	-8.58	7.01	5.77	10.91	11.12	9.58	
Difference	-3.92	-3.02	-3.02	-0.59	0.69	1.14	1.56	1.51	
AJO Large Cap Value (SA)	**-14.54**	**-11.21**	**-11.21**	**4.06**	**4.27**	**10.37**	**10.50**	**6.15**	**10/01/2000**
Russell 1000 Val Custom Index	-11.72	-8.27	-8.27	6.95	5.95	11.02	11.18	5.11	
Difference	-2.82	-2.94	-2.94	-2.89	-1.68	-0.65	-0.68	1.04	
Vanguard Hi Dv Yld;Inv (VHDYX)	**-9.64**	**-5.96**	**-5.96**	**N/A**	**N/A**	**N/A**	**N/A**	**6.71**	**10/01/2016**
FTSE Hi Div Yld Index	-9.63	-5.85	-5.85	8.66	7.91	11.55	12.34	6.85	
Difference	-0.01	-0.11	-0.11	N/A	N/A	N/A	N/A	-0.14	
BlackRock R 1000 Index Fund (CF)	**-13.77**	**-4.79**	**-4.79**	**9.03**	**8.15**	**N/A**	**N/A**	**10.48**	**04/01/2013**
Russell 1000 Index	-13.82	-4.78	-4.78	9.09	8.21	12.63	13.28	10.55	
Difference	0.05	-0.01	-0.01	-0.06	-0.06	N/A	N/A	-0.07	
Silvercrest Small Cap Value (SA)	**-18.45**	**-16.08**	**-16.08**	**6.58**	**4.32**	**10.09**	**11.70**	**9.60**	**06/01/2002**
Russell 2000 Val Index	-18.67	-12.86	-12.86	7.37	3.61	9.57	10.40	7.29	
Difference	0.22	-3.22	-3.22	-0.79	0.71	0.52	1.30	2.31	
Harvest Fund Advisors MLP (SA)	**-20.20**	**-12.91**	**-12.91**	**-0.63**	**N/A**	**N/A**	**N/A**	**-5.21**	**03/01/2014**
S&P MLP Index (TR)	-17.80	-11.67	-11.67	0.57	-6.59	-0.46	10.35	-6.96	
Difference	-2.40	-1.24	-1.24	-1.20	N/A	N/A	N/A	1.75	
Tortoise Capital Advisors MLP (SA)	**-16.31**	**-13.08**	**-13.08**	**-1.23**	**N/A**	**N/A**	**N/A**	**-6.62**	**05/01/2014**
Tortoise MLP Index (TR)	-16.71	-13.44	-13.44	0.16	-5.85	0.22	10.96	-7.63	
Difference	0.40	0.36	0.36	-1.39	N/A	N/A	N/A	1.01	
Vanguard Tot I S;Ins + (VTPSX)	**-11.66**	**-14.38**	**-14.38**	**4.58**	**N/A**	**N/A**	**N/A**	**0.05**	**05/01/2015**
Vanguard Spl Tot Int'l Stock Index	-11.79	-14.61	-14.61	4.44	1.05	5.21	6.64	0.00	
Difference	0.13	0.23	0.23	0.14	N/A	N/A	N/A	0.05	
Dodge & Cox Fixed Income (SA)	**0.51**	**0.26**	**0.26**	**3.04**	**2.99**	**3.33**	**5.00**	**5.96**	**08/01/1996**
Bloomberg US Agg Bond Index	1.64	0.01	0.01	2.06	2.52	2.10	3.48	5.08	
Difference	-1.13	0.25	0.25	0.98	0.47	1.23	1.52	0.88	
Cutwater Core Plus Select Income (SA)	**-1.12**	**-2.41**	**-2.41**	**4.18**	**3.77**	**N/A**	**N/A**	**3.71**	**12/01/2013**
Bloomberg US Crdt Index	0.01	-2.11	-2.11	3.16	3.22	3.30	5.52	3.11	
Difference	-1.13	-0.30	-0.30	1.02	0.55	N/A	N/A	0.60	

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, 2018

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Guggenheim (BBB) (SA)	**0.01**	**-2.14**	**-2.14**	**N/A**	**N/A**	**N/A**	**N/A**	**3.01**	**05/01/2016**
Bloomberg US Corp Inv Grade Index	-0.18	-2.51	-2.51	3.26	3.28	3.48	5.92	1.65	
Difference	0.19	0.37	0.37	N/A	N/A	N/A	N/A	1.36	
JPMorgan MBS (SA)	**2.21**	**1.80**	**1.80**	**2.18**	**2.71**	**2.68**	**N/A**	**3.21**	**07/01/2010**
Bloomberg US MBS Index	2.08	0.99	0.99	1.71	2.53	1.97	3.11	2.45	
Difference	0.13	0.81	0.81	0.47	0.18	0.71	N/A	0.76	
Guggenheim CMBS (SA)	**1.31**	**2.43**	**2.43**	**3.85**	**3.81**	**4.34**	**N/A**	**5.35**	**07/01/2010**
Bloomberg US CMBS Inv Grade Aaa Index	1.86	0.83	0.83	2.44	2.56	2.71	6.42	3.47	
Difference	-0.55	1.60	1.60	1.41	1.25	1.63	N/A	1.88	
Allianz Global Investors US High Yield (SA)	**-4.65**	**-3.17**	**-3.17**	**5.00**	**2.09**	**4.37**	**9.05**	**6.85**	**07/01/2001**
ICE BofAML US Hi Yld Master II Index	-4.67	-2.27	-2.27	7.27	3.82	5.94	10.99	7.34	
Difference	0.02	-0.90	-0.90	-2.27	-1.73	-1.57	-1.94	-0.49	
ICE BofAML US Hi Yld BB-B Cnst Index	-3.87	-2.04	-2.04	6.33	3.88	5.69	9.99	6.91	
Difference	-0.78	-1.13	-1.13	-1.33	-1.79	-1.32	-0.94	-0.06	
Fort Washington High Yield (SA)	**-4.05**	**-2.42**	**-2.42**	**5.69**	**N/A**	**N/A**	**N/A**	**2.92**	**07/01/2015**
ICE BofAML US Cash Pay Hi Yld Index	-4.64	-2.26	-2.26	7.22	3.81	5.90	10.89	4.02	
Difference	0.59	-0.16	-0.16	-1.53	N/A	N/A	N/A	-1.10	
ICE BofAML US Hi Yld BB-B Cnst Index	-3.87	-2.04	-2.04	6.33	3.88	5.69	9.99	3.76	
Difference	-0.18	-0.38	-0.38	-0.64	N/A	N/A	N/A	-0.84	
Cohen & Steers Preferreds (SA)	**-3.22**	**-3.60**	**-3.60**	**4.27**	**6.63**	**8.24**	**12.04**	**6.96**	**04/01/2007**
50% ICE BofAML All Cap/50% ICE BofAML Fxd Pref Idx	-3.56	-3.94	-3.94	3.15	5.10	6.11	9.09	3.97	
Difference	0.34	0.34	0.34	1.12	1.53	2.13	2.95	2.99	
CenterSquare US REIT Total Return Composite (SA)	**-7.21**	**-5.31**	**-5.31**	**2.90**	**8.58**	**8.97**	**13.48**	**8.09**	**08/01/2008**
FTSE NAREIT Eq REITs Index (TR)	-6.73	-4.62	-4.62	2.89	7.90	8.49	12.12	6.67	
Difference	-0.48	-0.69	-0.69	0.01	0.68	0.48	1.36	1.42	
Oklahoma Treasurer's Cash Pool	**0.60**	**2.09**	**2.09**	**1.86**	**1.84**	**1.93**	**N/A**	**2.04**	**12/01/2010**
ICE BofAML 3 Mo US T-Bill Index	0.56	1.87	1.87	1.02	0.63	0.47	0.37	0.42	
Difference	0.04	0.22	0.22	0.84	1.21	1.46	N/A	1.62	
Bank of Oklahoma Cash	**0.57**	**2.37**	**2.37**	**1.16**	**0.73**	**0.54**	**0.40**	**1.34**	**07/01/2002**
ICE BofAML 3 Mo US T-Bill Index	0.56	1.87	1.87	1.02	0.63	0.47	0.37	1.33	
Difference	0.01	0.50	0.50	0.14	0.10	0.07	0.03	0.01	

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 **As of December 31, 2018**
Comparative Performance (Net of Fees) - Calendar Years

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Robeco BPAM Premium Eq (SA)	**18.44**	**15.11**	**0.87**	**12.47**	**40.01**	**15.87**	**-1.73**	**14.31**	**32.45**	**-23.93**
Russell 3000 Val Custom Index	13.19	18.40	-4.13	12.70	32.69	17.55	-0.10	16.23	19.76	-33.02
Difference	5.25	-3.29	5.00	-0.23	7.32	-1.68	-1.63	-1.92	12.69	9.09
AJO Large Cap Value (SA)	**15.78**	**9.62**	**-0.47**	**9.89**	**38.00**	**17.26**	**2.15**	**15.17**	**15.68**	**-33.86**
Russell 1000 Val Custom Index	13.66	17.34	-3.83	13.45	32.53	17.51	0.39	15.51	19.69	-36.85
Difference	2.12	-7.72	3.36	-3.56	5.47	-0.25	1.76	-0.34	-4.01	2.99
Vanguard Hi Dv Yld;Inv (VHDYX)	**16.37**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
FTSE Hi Div Yld Index	16.51	16.96	0.39	13.58	30.34	12.75	10.65	14.36	17.74	-32.32
Difference	-0.14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BlackRock R 1000 Index Fund (CF)	**21.57**	**11.99**	**0.88**	**13.14**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
Russell 1000 Index	21.69	12.05	0.92	13.24	33.11	16.42	1.50	16.10	28.43	-37.60
Difference	-0.12	-0.06	-0.04	-0.10	N/A	N/A	N/A	N/A	N/A	N/A
Silvercrest Small Cap Value (SA)	**11.60**	**29.26**	**-2.82**	**5.01**	**37.79**	**15.14**	**0.15**	**25.34**	**22.90**	**-15.26**
Russell 2000 Val Index	7.84	31.74	-7.47	4.22	34.52	18.05	-5.50	24.50	20.58	-28.92
Difference	3.76	-2.48	4.65	0.79	3.27	-2.91	5.65	0.84	2.32	13.66
Harvest Fund Advisors MLP (SA)	**-5.49**	**19.22**	**-30.04**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
S&P MLP Index (TR)	-5.58	21.95	-35.07	7.66	29.75	4.95	14.47	35.17	78.79	-37.46
Difference	0.09	-2.73	5.03	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tortoise Capital Advisors MLP (SA)	**-3.30**	**14.65**	**-25.97**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
Tortoise MLP Index (TR)	-6.00	23.50	-31.90	8.12	30.16	5.43	13.73	37.71	77.91	-38.61
Difference	2.70	-8.85	5.93	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vanguard Tot I S;Ins + (VTPSX)	**27.57**	**4.72**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
Vanguard Spl Tot Int'l Stock Index	27.41	4.72	-4.29	-3.39	15.76	17.04	-14.31	10.69	40.44	-45.52
Difference	0.16	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dodge & Cox Fixed Income (SA)	**4.23**	**4.67**	**-0.03**	**5.95**	**0.64**	**7.85**	**5.08**	**7.47**	**14.68**	**1.41**
Bloomberg US Agg Bond Index	3.54	2.65	0.55	5.97	-2.02	4.21	7.84	6.54	5.93	5.24
Difference	0.69	2.02	-0.58	-0.02	2.66	3.64	-2.76	0.93	8.75	-3.83
Cutwater Core Plus Select Income (SA)	**7.72**	**7.54**	**-1.62**	**8.18**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
Bloomberg US Crdt Index	6.18	5.63	-0.77	7.53	-2.01	9.37	8.35	8.47	16.04	-3.08
Difference	1.54	1.91	-0.85	0.65	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

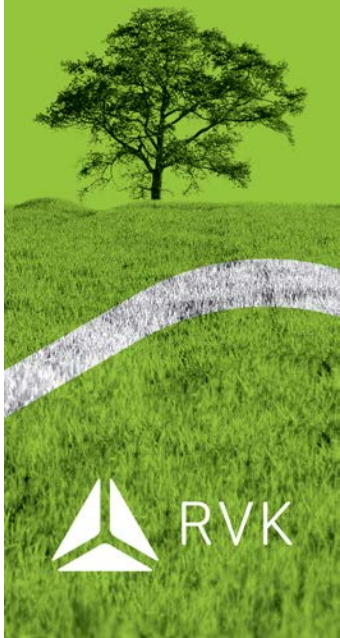
As of December 31, 2018

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Guggenheim (BBB) (SA)	**8.26**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
Bloomberg US Corp Inv Grade Index	6.42	6.11	-0.68	7.46	-1.53	9.82	8.15	9.00	18.68	-4.94
Difference	1.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
JPMorgan MBS (SA)	**2.67**	**2.06**	**1.75**	**5.32**	**-0.64**	**5.95**	**5.64**	**N/A**	**N/A**	**N/A**
Bloomberg US MBS Index	2.47	1.67	1.51	6.08	-1.41	2.59	6.23	5.37	5.89	8.34
Difference	0.20	0.39	0.24	-0.76	0.77	3.36	-0.59	N/A	N/A	N/A
Guggenheim CMBS (SA)	**5.30**	**3.85**	**1.80**	**5.72**	**0.70**	**10.93**	**6.95**	**N/A**	**N/A**	**N/A**
Bloomberg US CMBS Inv Grade Aaa Index	3.11	3.40	1.22	4.29	-0.56	6.85	6.02	14.62	27.17	-18.71
Difference	2.19	0.45	0.58	1.43	1.26	4.08	0.93	N/A	N/A	N/A
Allianz Global Investors US High Yield (SA)	**5.94**	**12.86**	**-4.61**	**0.43**	**8.03**	**12.55**	**6.40**	**14.09**	**45.30**	**-19.71**
ICE BofAML US Hi Yld Master II Index	7.48	17.49	-4.64	2.50	7.42	15.58	4.38	15.19	57.51	-26.39
Difference	-1.54	-4.63	0.03	-2.07	0.61	-3.03	2.02	-1.10	-12.21	6.68
ICE BofAML US Hi Yld BB-B Cnst Index	6.98	14.72	-2.79	3.49	6.31	14.58	5.40	14.26	46.06	-23.31
Difference	-1.04	-1.86	-1.82	-3.06	1.72	-2.03	1.00	-0.17	-0.76	3.60
Fort Washington High Yield (SA)	**7.33**	**12.72**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
ICE BofAML US Cash Pay Hi Yld Index	7.48	17.34	-4.55	2.44	7.38	15.44	4.50	15.24	56.28	-26.21
Difference	-0.15	-4.62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICE BofAML US Hi Yld BB-B Cnst Index	6.98	14.72	-2.79	3.49	6.31	14.58	5.40	14.26	46.06	-23.31
Difference	0.35	-2.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cohen & Steers Preferreds (SA)	**11.76**	**5.20**	**7.05**	**13.61**	**2.88**	**22.69**	**3.96**	**17.11**	**47.06**	**-24.70**
50% ICE BofAML All Cap/50% ICE BofAML Fxd Pref Idx	10.10	3.76	4.18	12.15	0.58	17.47	2.27	15.64	33.20	-28.01
Difference	1.66	1.44	2.87	1.46	2.30	5.22	1.69	1.47	13.86	3.31
CenterSquare US REIT Total Return Composite (SA)	**6.34**	**8.20**	**4.96**	**31.98**	**3.20**	**17.11**	**9.07**	**30.12**	**36.78**	**N/A**
FTSE NAREIT Eq REITs Index (TR)	5.23	8.52	3.20	30.14	2.47	18.06	8.29	27.94	28.01	-37.74
Difference	1.11	-0.32	1.76	1.84	0.73	-0.95	0.78	2.18	8.77	N/A
Oklahoma Treasurer's Cash Pool	**1.73**	**1.77**	**1.77**	**1.82**	**2.01**	**2.32**	**2.73**	**N/A**	**N/A**	**N/A**
ICE BofAML 3 Mo US T-Bill Index	0.86	0.33	0.05	0.04	0.07	0.11	0.10	0.13	0.21	2.06
Difference	0.87	1.44	1.72	1.78	1.94	2.21	2.63	N/A	N/A	N/A
Bank of Oklahoma Cash	**0.83**	**0.31**	**0.12**	**0.03**	**0.05**	**0.08**	**0.04**	**0.10**	**0.13**	**2.47**
ICE BofAML 3 Mo US T-Bill Index	0.86	0.33	0.05	0.04	0.07	0.11	0.10	0.13	0.21	2.06
Difference	-0.03	-0.02	0.07	-0.01	-0.02	-0.03	-0.06	-0.03	-0.08	0.41

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

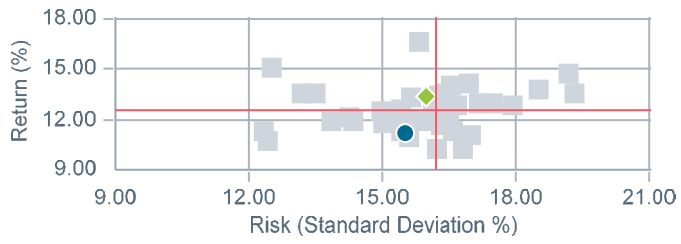


Manager: Robeco BPAM Premium Eq (SA) **As of December 31, 2018**
Benchmark: Russell 3000 Val Custom Index
Peer Group: IM U.S. All Cap Value Equity (SA+CF)

Performance

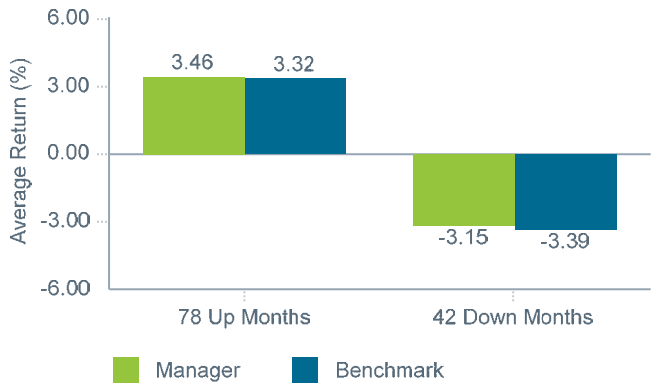
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**-16.03**	**-11.08**	**7.04**	**7.09**	**12.73**	**13.39**	**19.12**	**15.79**	**1.47**	**13.15**	**40.90**
Benchmark	-12.24	-8.58	7.01	5.77	10.91	11.12	13.19	18.40	-4.13	12.70	32.69
Difference	-3.79	-2.50	0.03	1.32	1.82	2.27	5.93	-2.61	5.60	0.45	8.21
Peer Group Median	-14.56	-9.97	7.02	5.78	10.82	12.53	16.71	16.69	-3.30	9.60	34.69
Rank	77	68	50	19	11	28	24	56	10	16	13
Population	65	65	64	61	59	48	71	75	76	79	78

Peer Group Scattergram - 10 Years

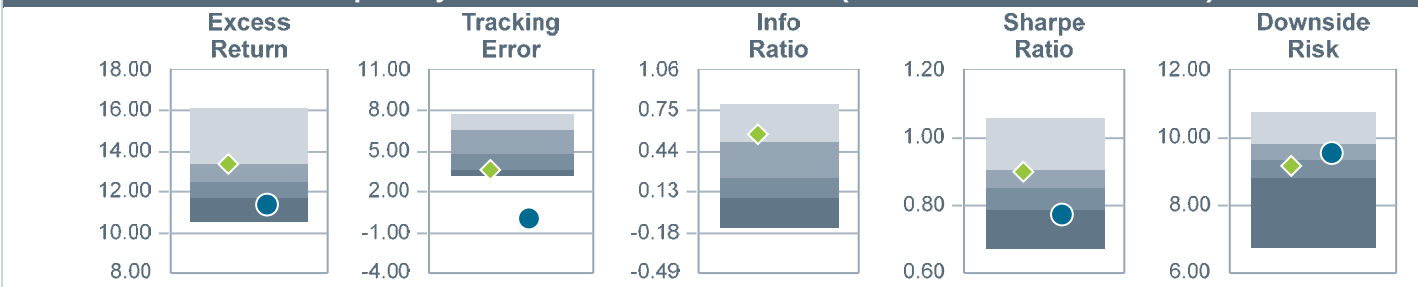


	Return	Standard Deviation
Manager	13.39	15.97
Benchmark	11.12	15.53
Median	12.53	16.21

Up/Down Markets - 10 Years



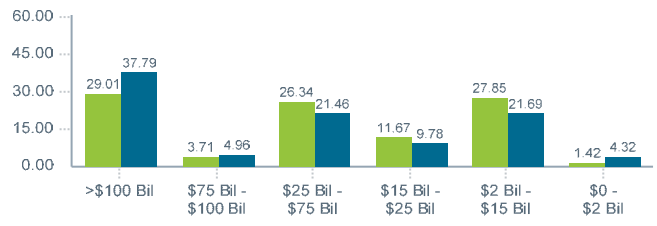
Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)



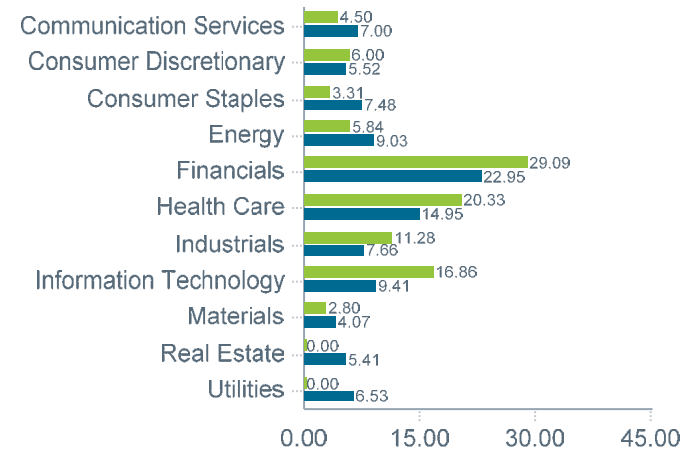
	Excess Return	Tracking Error	Info Ratio	Sharpe Ratio	Downside Risk
Manager	13.36 (26)	3.58 (84)	0.57 (17)	0.90 (28)	9.17 (60)
Benchmark	11.30 (86)	0.00 (100)	N/A	0.77 (82)	9.53 (37)
Median	12.50	4.84	0.24	0.85	9.36

Portfolio Characteristics and Dist. of Market Cap (%)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	89,589	111,114
Median Mkt. Cap ($M)	21,475	1,346
Price/Earnings Ratio	13.08	13.64
Price/Book Ratio	2.15	2.02
5 Yr. EPS Growth Rate (%)	7.36	8.58
Current Yield (%)	2.34	2.86
Beta (5 Years, Monthly)	1.09	1.00
Number of Securities	132	2,112
Active Share	72.48	N/A



Sector Weights (%)



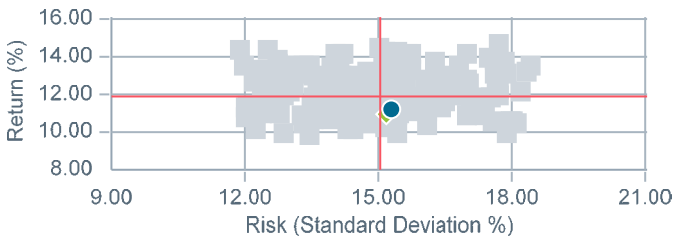
Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index defintions.

Manager: AJO Large Cap Value (SA) **As of December 31, 2018**
Benchmark: Russell 1000 Val Custom Index
Peer Group: IM U.S. Large Cap Value Equity (SA+CF)

Performance

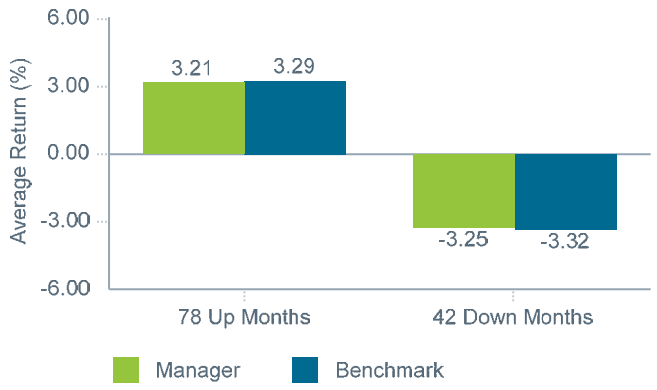
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**-14.47**	**-10.94**	**4.38**	**4.58**	**10.70**	**10.90**	**16.12**	**9.95**	**-0.17**	**10.22**	**38.42**
Benchmark	-11.72	-8.27	6.95	5.95	11.02	11.18	13.66	17.34	-3.83	13.45	32.53
Difference	-2.75	-2.67	-2.57	-1.37	-0.32	-0.28	2.46	-7.39	3.66	-3.23	5.89
Peer Group Median	-13.57	-8.39	7.27	6.23	11.40	11.94	17.22	14.47	-2.27	12.22	34.27
Rank	66	72	92	85	68	81	66	84	30	76	23
Population	311	311	306	299	283	261	342	371	388	412	412

Peer Group Scattergram - 10 Years

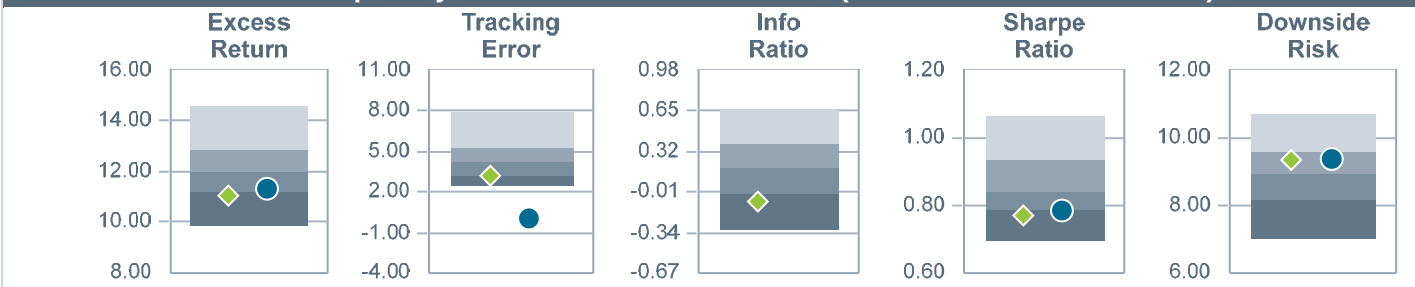


	Return	Standard Deviation
Manager	10.90	15.19
Benchmark	11.18	15.29
Median	11.94	15.06

Up/Down Markets - 10 Years



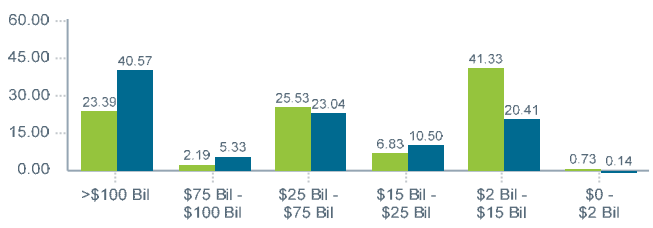
Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)



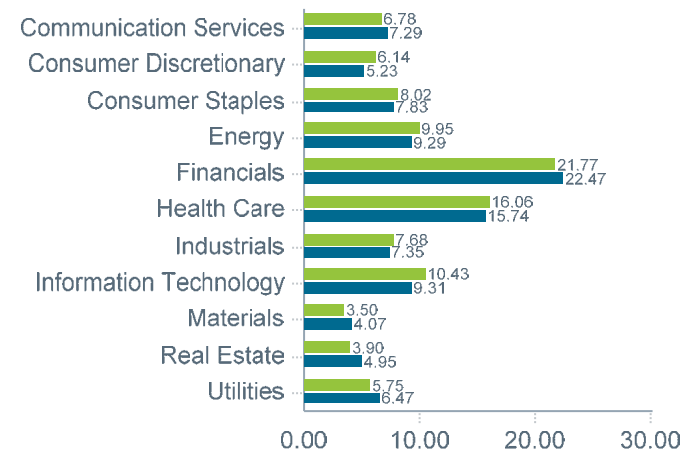
	Excess Return	Tracking Error	Info Ratio	Sharpe Ratio	Downside Risk
Manager	11.05 (80)	3.27 (75)	-0.08 (83)	0.77 (81)	9.37 (33)
Benchmark	11.32 (73)	0.00 (100)	N/A	0.78 (77)	9.37 (33)
Median	12.04	4.26	0.18	0.84	8.95

Portfolio Characteristics and Dist. of Market Cap (%)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	78,929	119,166
Median Mkt. Cap ($M)	8,490	8,313
Price/Earnings Ratio	12.70	13.70
Price/Book Ratio	2.39	2.06
5 Yr. EPS Growth Rate (%)	11.55	8.60
Current Yield (%)	2.39	2.89
Beta (5 Years, Monthly)	1.07	1.00
Number of Securities	136	725
Active Share	76.36	N/A



Sector Weights (%)



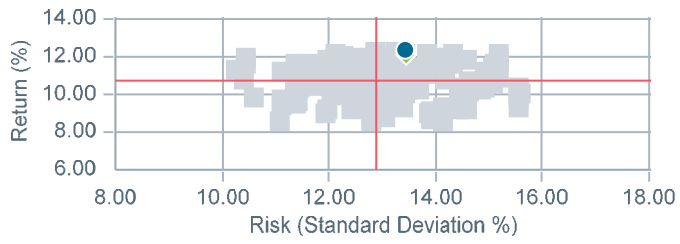
Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Please see the Addendum for custom index defintions.

Manager: Vanguard Hi Dv Yld;Inv (VHDYX) **As of December 31, 2018**
Benchmark: FTSE Hi Div Yld Index
Peer Group: IM Equity Income (MF)

Performance

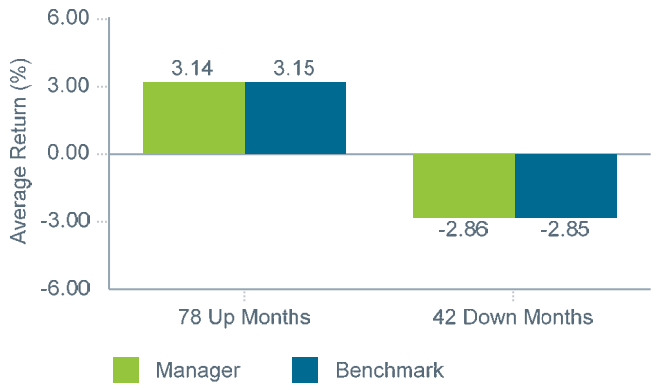
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**-9.64**	**-5.96**	**8.51**	**7.76**	**11.40**	**12.15**	**16.37**	**16.75**	**0.30**	**13.38**	**30.13**
Benchmark	-9.63	-5.85	8.66	7.91	11.55	12.34	16.51	16.96	0.39	13.58	30.34
Difference	-0.01	-0.11	-0.15	-0.15	-0.15	-0.19	-0.14	-0.21	-0.09	-0.20	-0.21
Peer Group Median	-11.46	-7.25	7.10	5.61	9.69	10.75	16.16	14.10	-3.10	10.15	28.83
Rank	26	37	23	7	6	7	47	25	13	10	32
Population	554	540	467	403	300	247	516	481	442	501	434

Peer Group Scattergram - 10 Years

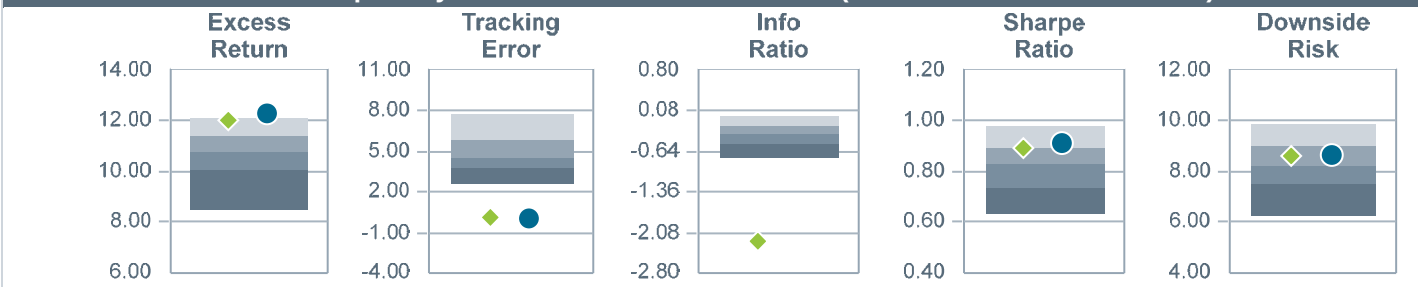


	Return	Standard Deviation
Manager	12.15	13.45
Benchmark	12.34	13.46
Median	10.75	12.89

Up/Down Markets - 10 Years



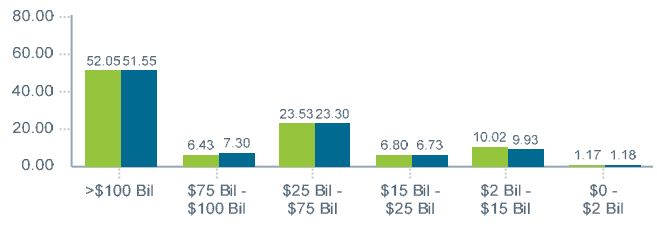
Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)



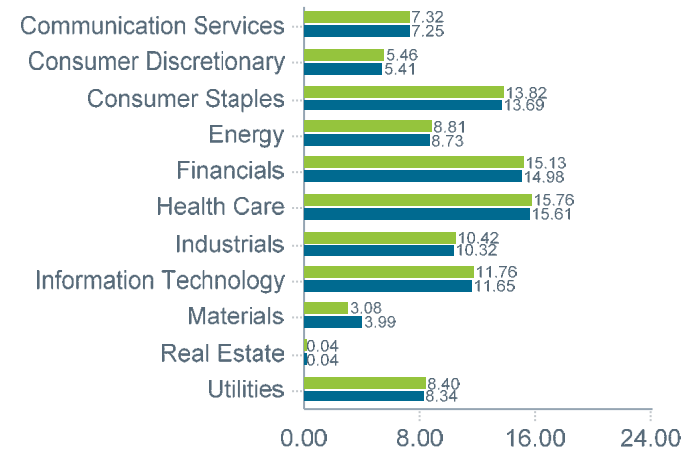
	Excess Return		Tracking Error		Info Ratio		Sharpe Ratio		Downside Risk	
Manager	12.06	(8)	0.08	(100)	-2.22	(100)	0.90	(24)	8.64	(35)
Benchmark	12.24	(4)	0.00	(100)	N/A		0.91	(23)	8.62	(35)
Median	10.76		4.53		-0.34		0.83		8.26	

Portfolio Characteristics and Dist. of Market Cap (%)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	130,200	129,765
Median Mkt. Cap ($M)	4,790	4,858
Price/Earnings Ratio	14.46	14.54
Price/Book Ratio	2.44	2.46
5 Yr. EPS Growth Rate (%)	5.99	5.91
Current Yield (%)	3.64	3.63
Beta (5 Years, Monthly)	1.00	1.00
Number of Securities	393	394
Active Share	0.95	N/A



Sector Weights (%)



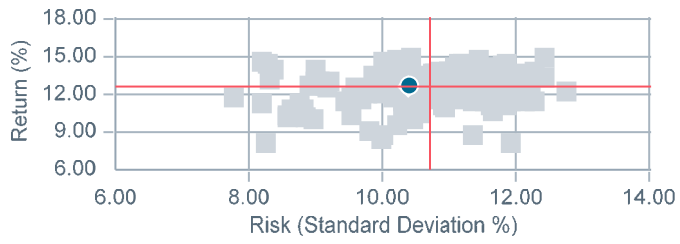
Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Manager: BlackRock Russell 1000 Index NL (CF) **As of December 31, 2018**
Benchmark: Russell 1000 Index
Peer Group: IM U.S. Large Cap Core Equity (SA+CF)

Performance

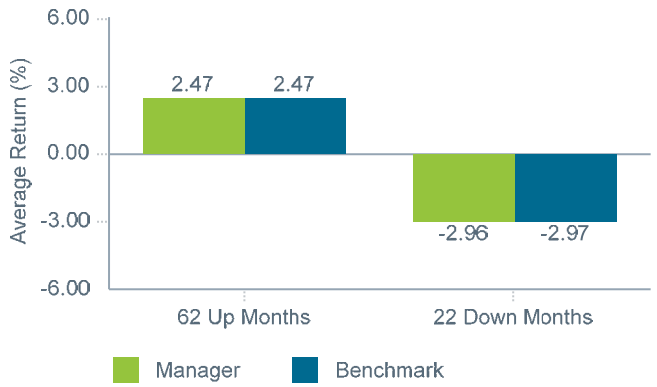
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**-13.81**	**-4.79**	**9.08**	**8.20**	**12.62**	**N/A**	**21.65**	**12.04**	**0.93**	**13.23**	**33.09**
Benchmark	-13.82	-4.78	9.09	8.21	12.63	13.28	21.69	12.05	0.92	13.24	33.11
Difference	0.01	-0.01	-0.01	-0.01	-0.01	N/A	-0.04	-0.01	0.01	-0.01	-0.02
Peer Group Median	-13.83	-5.20	8.47	8.15	12.63	13.05	21.83	10.52	1.43	13.42	32.98
Rank	50	43	37	50	51	N/A	53	32	58	53	50
Population	242	242	236	229	214	192	284	308	326	345	363

Peer Group Scattergram - 7 Years

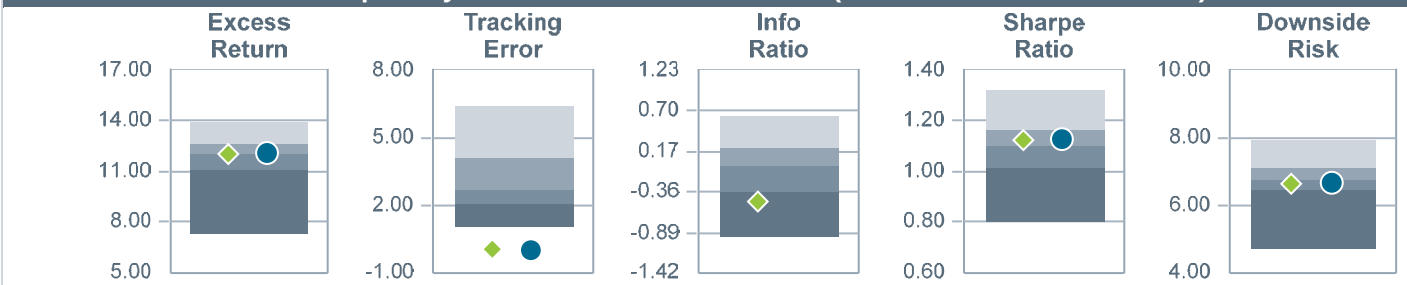


	Return	Standard Deviation
Manager	12.62	10.40
Benchmark	12.63	10.41
Median	12.63	10.73

Up/Down Markets - 7 Years



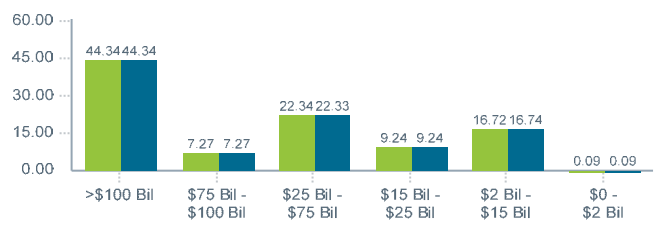
Peer Group Analysis - Multi Statistics - 7 Years (Excess Return vs. Risk Free)



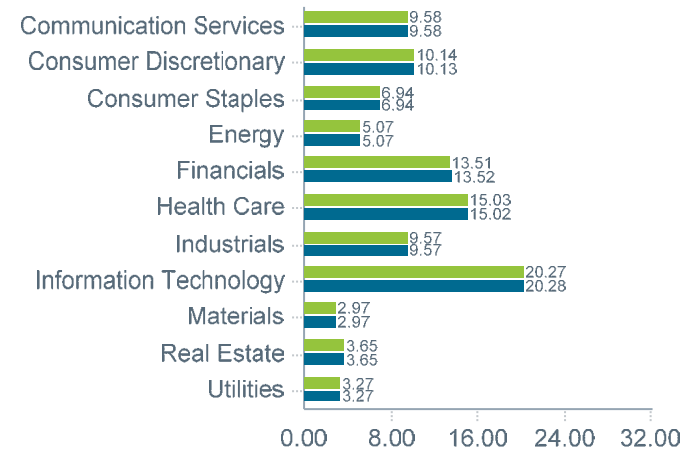
	Excess Return		Tracking Error		Info Ratio		Sharpe Ratio		Downside Risk	
Manager	12.05	(50)	0.02	(100)	-0.49	(84)	1.13	(41)	6.65	(59)
Benchmark	12.05	(50)	0.00	(100)	N/A		1.13	(41)	6.66	(59)
Median	12.02		2.67		-0.02		1.10		6.75	

Portfolio Characteristics and Dist. of Market Cap (%)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	179,689	179,677
Median Mkt. Cap ($M)	9,111	9,074
Price/Earnings Ratio	17.12	17.12
Price/Book Ratio	3.12	3.12
5 Yr. EPS Growth Rate (%)	16.09	16.09
Current Yield (%)	2.18	2.18
Beta (5 Years, Monthly)	1.00	1.00
Number of Securities	982	983
Active Share	0.07	N/A



Sector Weights (%)



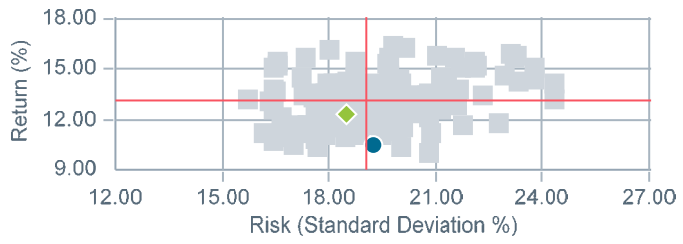
Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Manager: Silvercrest Small Cap Value (SA) **As of December 31, 2018**
Benchmark: Russell 2000 Val Index
Peer Group: IM U.S. Small Cap Value Equity (SA+CF)

Performance

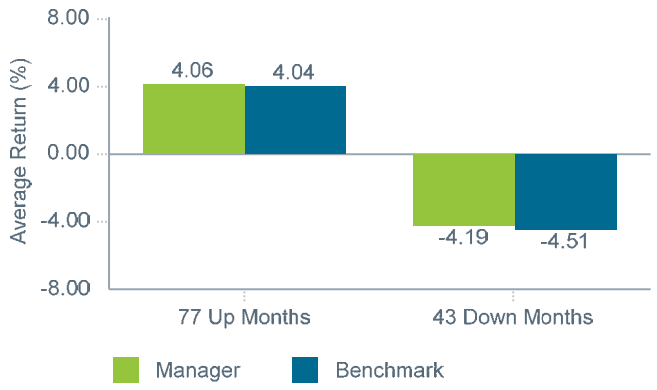
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**-18.34**	**-15.63**	**7.14**	**4.88**	**10.68**	**12.31**	**12.18**	**29.95**	**-2.29**	**5.59**	**38.53**
Benchmark	-18.67	-12.86	7.37	3.61	9.57	10.40	7.84	31.74	-7.47	4.22	34.52
Difference	0.33	-2.77	-0.23	1.27	1.11	1.91	4.34	-1.79	5.18	1.37	4.01
Peer Group Median	-19.21	-14.36	6.34	4.10	10.47	13.10	11.61	26.17	-4.28	5.66	38.07
Rank	36	65	39	34	45	64	46	28	31	51	48
Population	202	201	198	192	180	167	225	233	243	254	256

Peer Group Scattergram - 10 Years

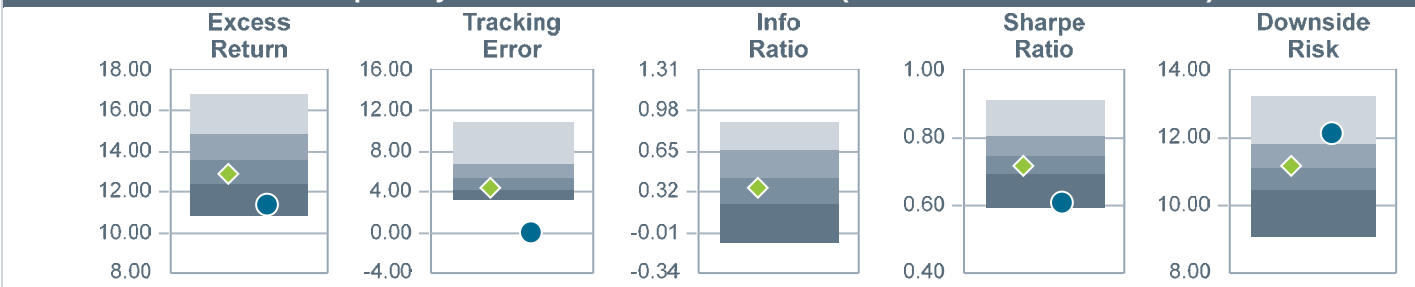


	Return	Standard Deviation
Manager	12.31	18.51
Benchmark	10.40	19.29
Median	13.10	19.08

Up/Down Markets - 10 Years



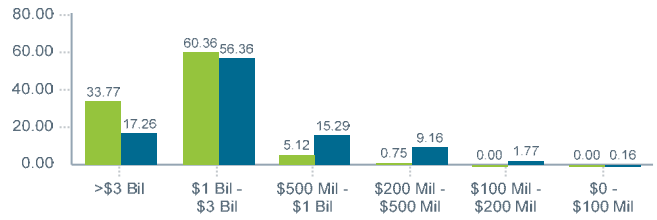
Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)



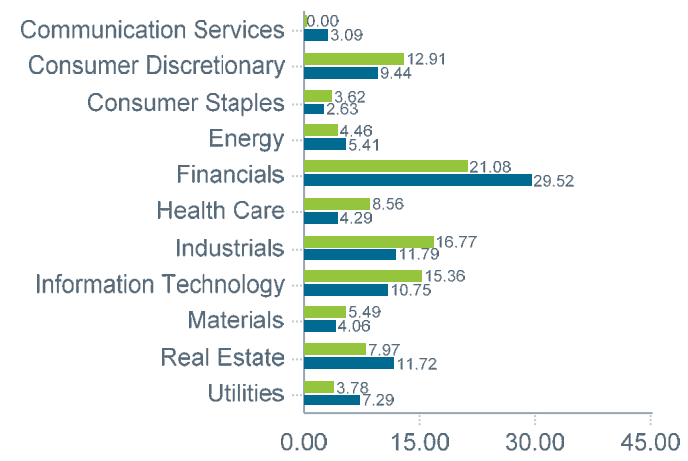
	Excess Return	Tracking Error	Info Ratio	Sharpe Ratio	Downside Risk
Manager	12.91 (66)	4.43 (72)	0.36 (59)	0.72 (61)	11.16 (50)
Benchmark	11.30 (93)	0.00 (100)	N/A	0.61 (95)	12.09 (17)
Median	13.57	5.37	0.44	0.74	11.15

Portfolio Characteristics and Dist. of Market Cap (%)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	2,473	1,837
Median Mkt. Cap ($M)	1,988	632
Price/Earnings Ratio	17.21	12.68
Price/Book Ratio	2.01	1.54
5 Yr. EPS Growth Rate (%)	15.14	8.28
Current Yield (%)	1.57	2.51
Beta (5 Years, Monthly)	1.02	1.00
Number of Securities	61	1,387
Active Share	93.14	N/A



Sector Weights (%)



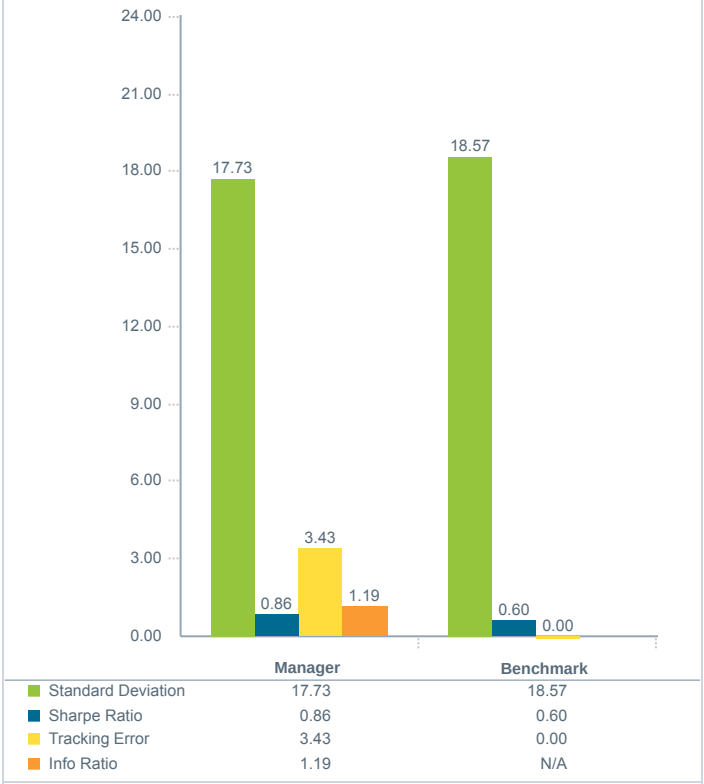
Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Manager: Harvest Fund Advisors MLP (SA) **As of December 31, 2018**
Benchmark: S&P MLP Index (TR)

Performance

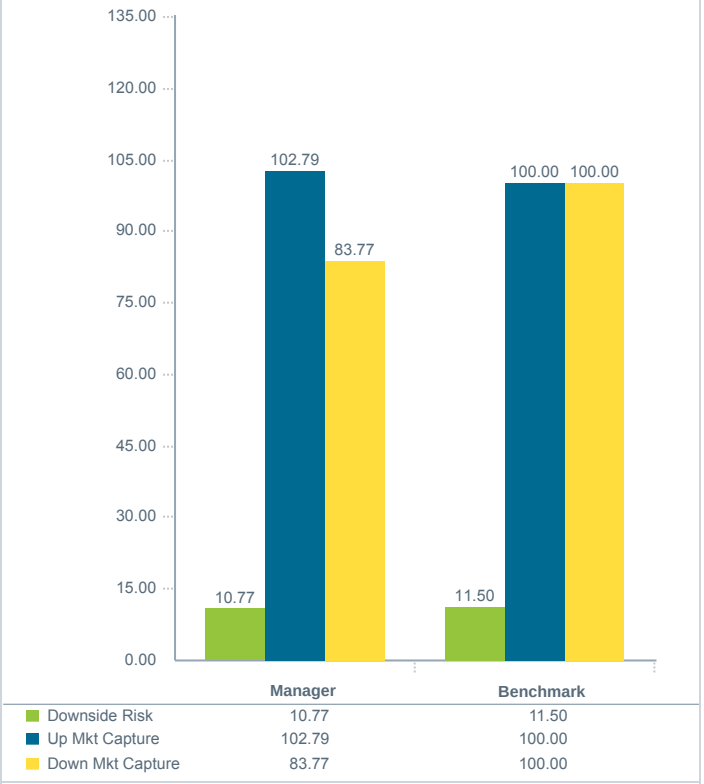
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**-20.03**	**-12.25**	**0.12**	**-3.70**	**3.46**	**15.06**	**-4.78**	**20.10**	**-29.50**	**17.04**	**36.03**
Benchmark	-17.80	-11.67	0.57	-6.59	-0.46	10.35	-5.58	21.95	-35.07	7.66	29.75
Difference	-2.23	-0.58	-0.45	2.89	3.92	4.71	0.80	-1.85	5.57	9.38	6.28

Historical Statistics - 10 Years



	Manager	Benchmark
Standard Deviation	17.73	18.57
Sharpe Ratio	0.86	0.60
Tracking Error	3.43	0.00
Info Ratio	1.19	N/A

Historical Statistics - 10 Years

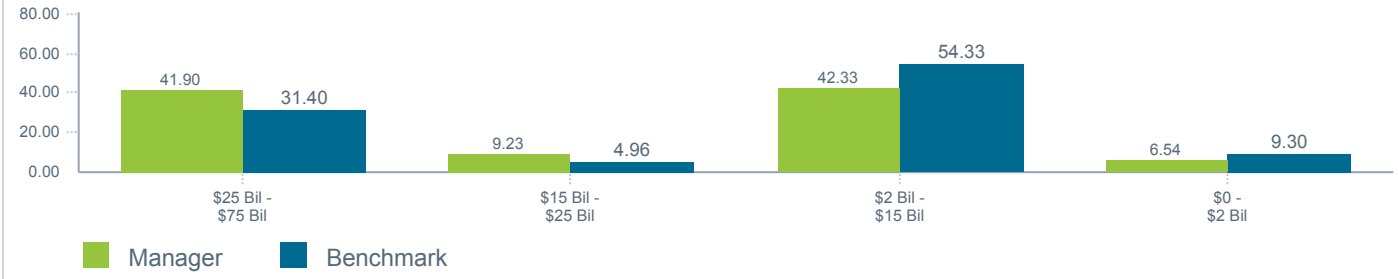


	Manager	Benchmark
Downside Risk	10.77	11.50
Up Mkt Capture	102.79	100.00
Down Mkt Capture	83.77	100.00

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	23,547	19,170
Median Mkt. Cap ($M)	4,146	2,290
Price/Earnings Ratio	14.27	12.80
Price/Book Ratio	1.86	2.28
5 Yr. EPS Growth Rate (%)	6.89	10.55
Current Yield (%)	8.03	8.91
Beta (3 Years, Monthly)	0.98	1.00
Number of Securities	34	49

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.

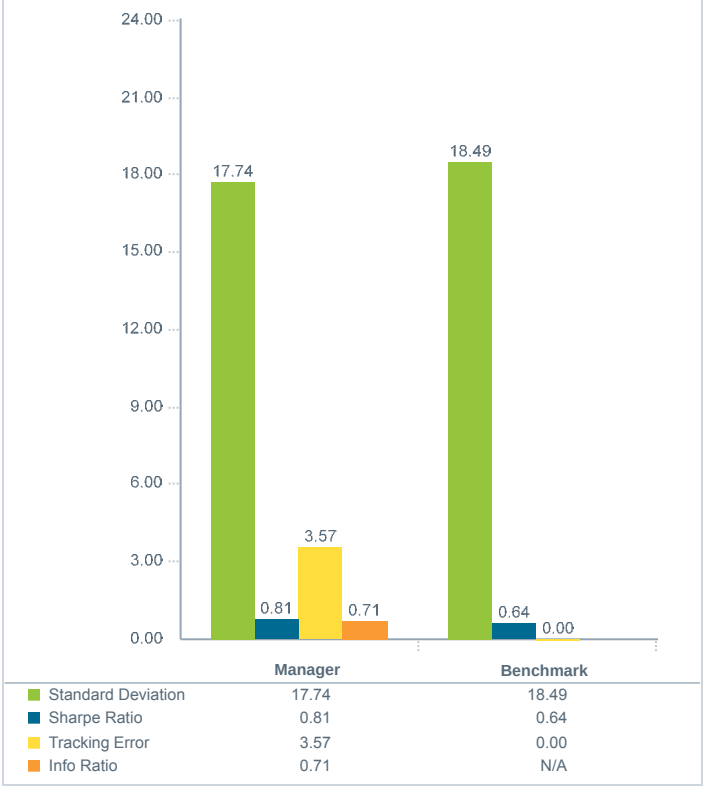
RVK

Manager: Tortoise Capital Advisors MLP (SA) **As of December 31, 2018**
Benchmark: Tortoise MLP Index (TR)

Performance

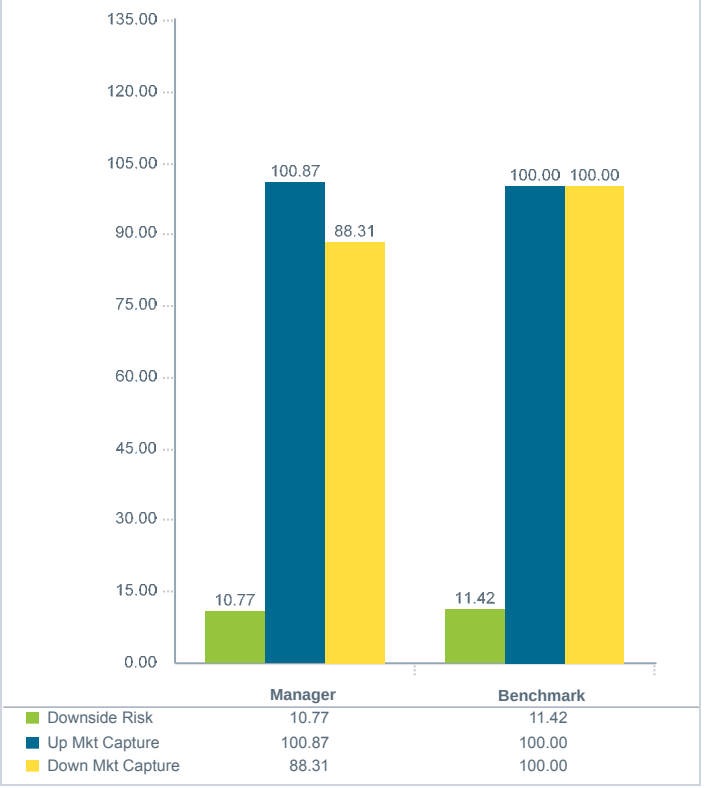
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**-16.17**	**-12.52**	**-0.61**	**-3.39**	**3.19**	**13.92**	**-2.69**	**15.36**	**-25.49**	**15.03**	**37.48**
Benchmark	-16.71	-13.44	0.16	-5.85	0.22	10.96	-6.00	23.50	-31.90	8.12	30.16
Difference	0.54	0.92	-0.77	2.46	2.97	2.96	3.31	-8.14	6.41	6.91	7.32

Historical Statistics - 10 Years



	Manager	Benchmark
Standard Deviation	17.74	18.49
Sharpe Ratio	0.81	0.64
Tracking Error	3.57	0.00
Info Ratio	0.71	N/A

Historical Statistics - 10 Years

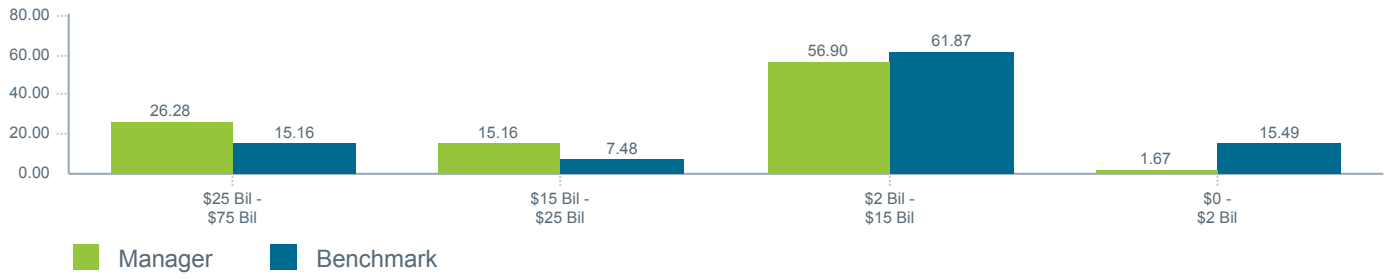


	Manager	Benchmark
Downside Risk	10.77	11.42
Up Mkt Capture	100.87	100.00
Down Mkt Capture	88.31	100.00

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	18,609	12,873
Median Mkt. Cap ($M)	6,071	1,653
Price/Earnings Ratio	13.33	13.10
Price/Book Ratio	2.14	2.18
5 Yr. EPS Growth Rate (%)	13.23	8.91
Current Yield (%)	8.06	9.53
Beta (3 Years, Monthly)	0.92	1.00
Number of Securities	23	58

Distribution of Market Capitalization (%)



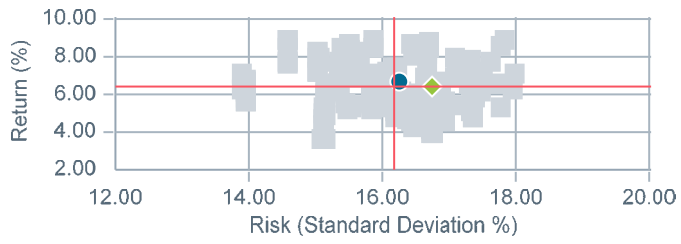
Performance shown is gross of fees and is product specific manager performance prior to 05/01/2014. Calculations are based on monthly periodicity.

Manager: Vanguard Tot I S;Ins + (VTPSX) **As of December 31, 2018**
Benchmark: Vanguard Spl Tot Int'l Stock Index
Peer Group: IM All ACWI Ex US (MF)

Performance

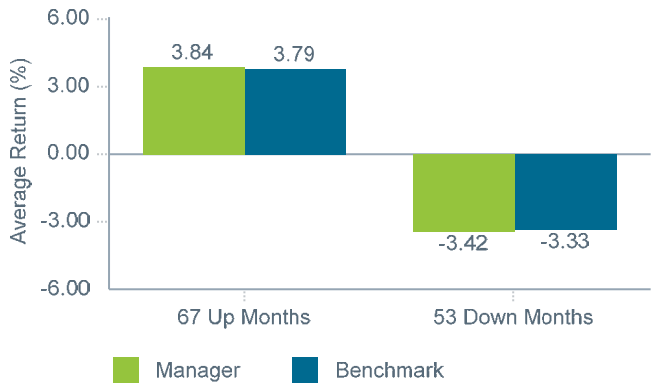
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**-11.66**	**-14.38**	**4.58**	**0.99**	**5.26**	**6.40**	**27.57**	**4.73**	**-4.22**	**-4.13**	**15.19**
Benchmark	-11.79	-14.61	4.44	1.05	5.21	6.64	27.41	4.72	-4.29	-3.39	15.76
Difference	0.13	0.23	0.14	-0.06	0.05	-0.24	0.16	0.01	0.07	-0.74	-0.57
Peer Group Median	-12.97	-15.50	3.24	0.36	5.13	6.38	28.32	1.01	-1.19	-4.55	17.74
Rank	23	33	23	33	46	50	56	18	68	44	65
Population	442	442	414	335	308	261	469	438	373	396	375

Peer Group Scattergram - 10 Years

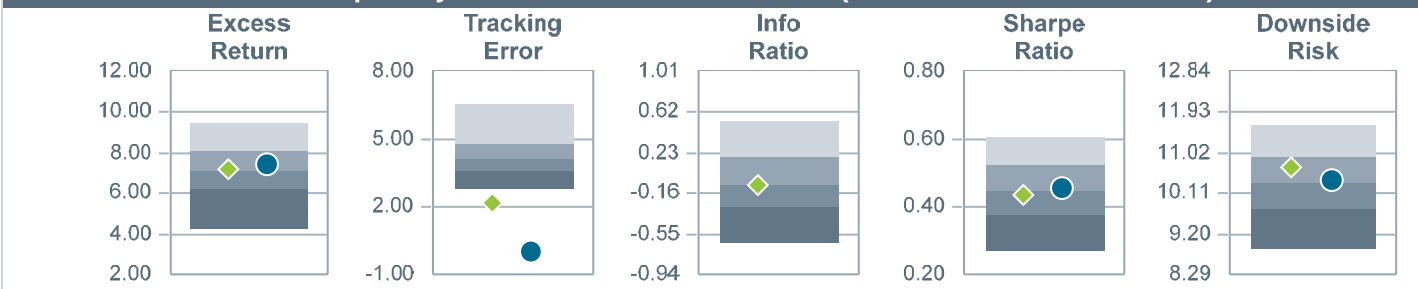


	Return	Standard Deviation
Manager	6.40	16.73
Benchmark	6.64	16.28
Median	6.38	16.19

Up/Down Markets - 10 Years



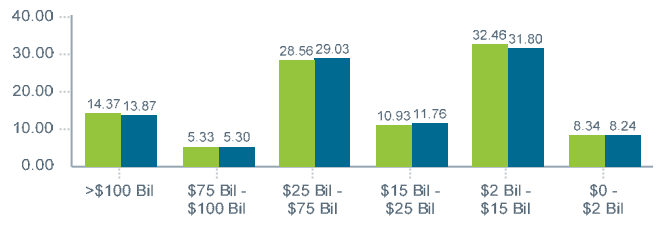
Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)



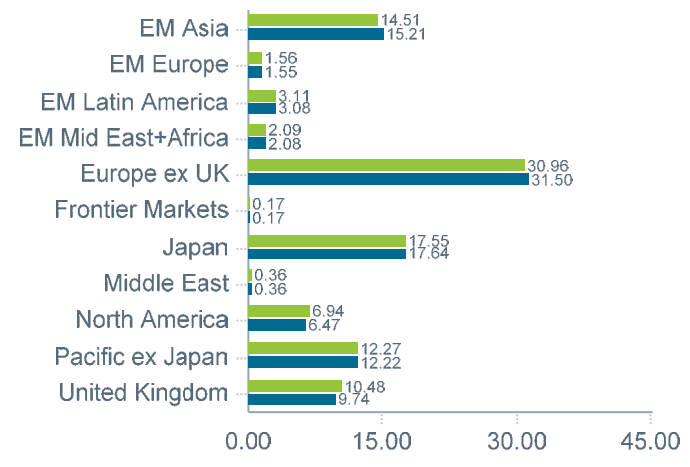
	Excess Return	Tracking Error	Info Ratio	Sharpe Ratio	Downside Risk
Manager	7.24 (45)	2.13 (100)	-0.07 (47)	0.43 (57)	10.72 (36)
Benchmark	7.39 (43)	0.00 (100)	N/A	0.45 (49)	10.38 (48)
Median	7.06	4.15	-0.09	0.45	10.35

Portfolio Characteristics and Dist. of Market Cap (%)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	49,350	50,322
Median Mkt. Cap ($M)	1,463	1,465
Price/Earnings Ratio	12.13	12.07
Price/Book Ratio	2.11	2.12
5 Yr. EPS Growth Rate (%)	10.80	10.69
Current Yield (%)	3.20	3.47
Beta (5 Years, Monthly)	0.97	1.00
Number of Securities	6,212	6,002
Active Share	17.34	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 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.

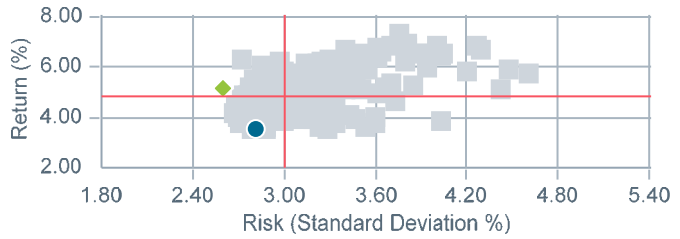
RVK

Manager: Dodge & Cox Fixed Income (SA) **As of December 31, 2018**
Benchmark: Bloomberg US Agg Bond Index
Peer Group: IM U.S. Broad Market Fixed Income (SA+CF)

Performance

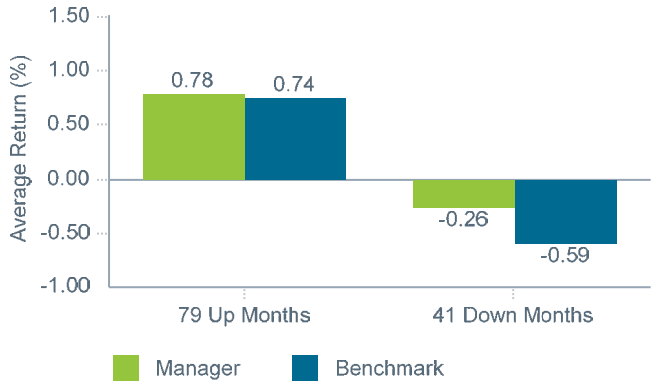
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**0.55**	**0.42**	**3.20**	**3.15**	**3.49**	**5.16**	**4.40**	**4.84**	**0.13**	**6.12**	**0.80**
Benchmark	1.64	0.01	2.06	2.52	2.10	3.48	3.54	2.65	0.55	5.97	-2.02
Difference	-1.09	0.41	1.14	0.63	1.39	1.68	0.86	2.19	-0.42	0.15	2.82
Peer Group Median	1.16	-0.03	2.72	2.95	2.93	4.82	4.30	3.72	0.63	6.17	-1.14
Rank	75	18	24	36	24	38	47	26	75	54	13
Population	305	304	299	290	284	264	339	354	369	392	410

Peer Group Scattergram - 10 Years

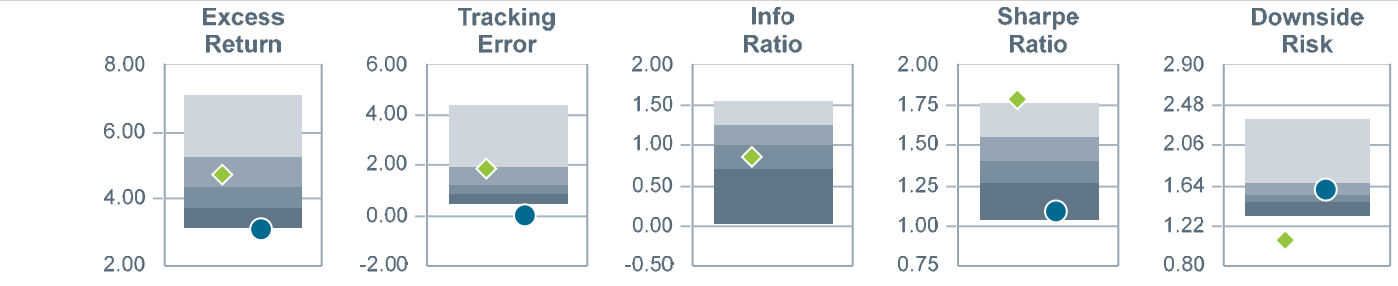


	Return	Standard Deviation
Manager	5.16	2.60
Benchmark	3.48	2.83
Median	4.82	3.01

Up/Down Markets - 10 Years



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

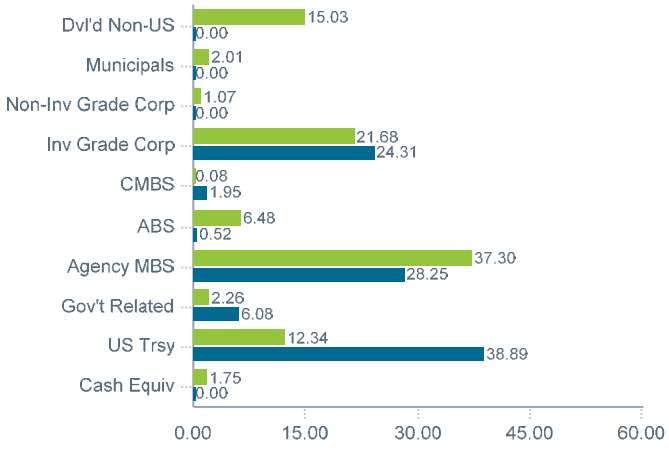


	Excess Return	Tracking Error	Info Ratio	Sharpe Ratio	Downside Risk
Manager	4.70 (39)	1.86 (30)	0.87 (67)	1.79 (4)	1.07 (100)
Benchmark	3.09 (96)	0.00 (100)	N/A	1.09 (91)	1.59 (37)
Median	4.38	1.22	1.00	1.40	1.54

Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	4.27	5.87
Spread Duration	5.55	6.00
Avg. Maturity	7.67	8.22
Avg. Quality	Aa3	Aa1/Aa2
Yield To Maturity (%)	3.92	3.28
Coupon Rate (%)	4.27	3.20
Current Yield (%)	4.07	N/A
Holdings Count	278	10,252

Sector Distribution (%)



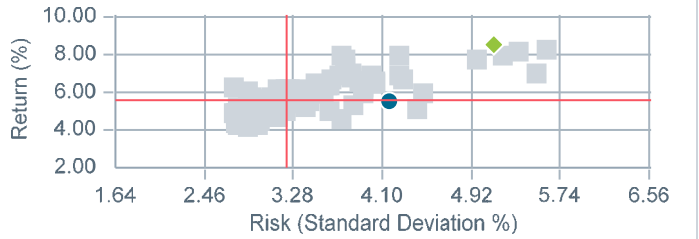
Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

Manager: Cutwater Core Plus Select Income (SA) **As of December 31, 2018**
Benchmark: Bloomberg US Crdt Index
Peer Group: IM U.S. Broad Market Core+ Fixed Income (SA+CF)

Performance

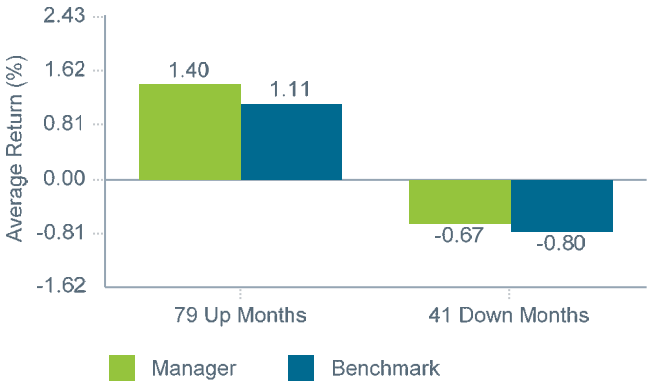
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**-1.07**	**-2.19**	**4.40**	**4.00**	**4.99**	**8.52**	**7.96**	**7.78**	**-1.40**	**8.42**	**1.14**
Benchmark	0.01	-2.11	3.16	3.22	3.30	5.52	6.18	5.63	-0.77	7.53	-2.01
Difference	-1.08	-0.08	1.24	0.78	1.69	3.00	1.78	2.15	-0.63	0.89	3.15
Peer Group Median	0.66	-0.43	3.04	3.06	3.23	5.61	4.79	4.67	0.29	6.19	-0.49
Rank	90	93	13	6	6	4	5	13	87	3	19
Population	143	143	140	137	135	121	160	164	170	178	184

Peer Group Scattergram - 10 Years

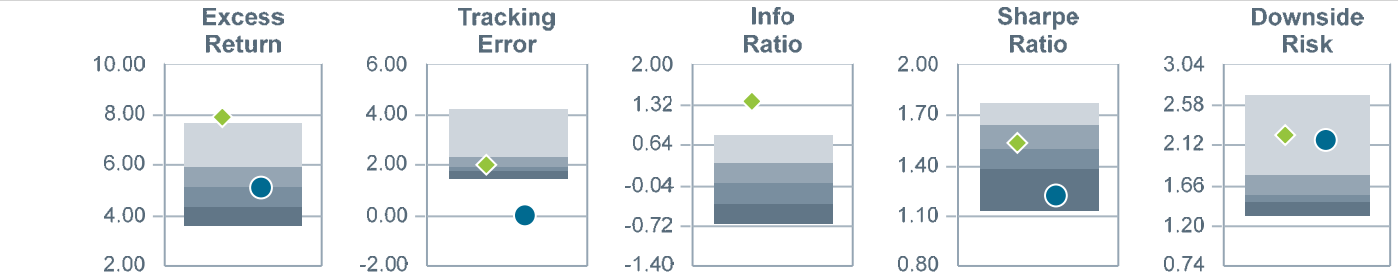


	Return	Standard Deviation
Manager	8.52	5.13
Benchmark	5.52	4.18
Median	5.61	3.22

Up/Down Markets - 10 Years



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

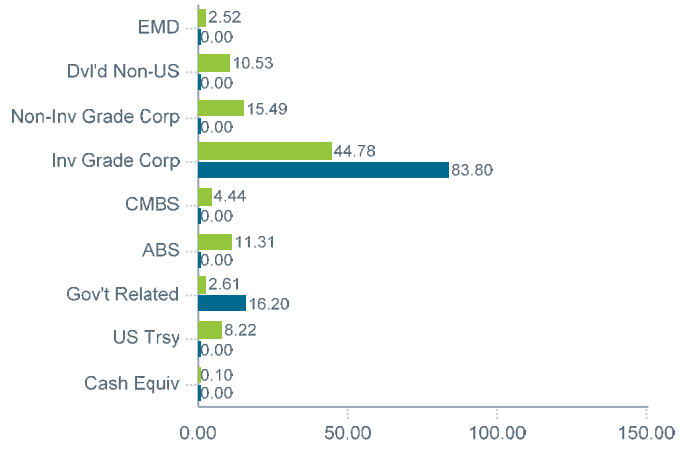


	Excess Return	Tracking Error	Info Ratio	Sharpe Ratio	Downside Risk
Manager	7.96 (4)	2.06 (40)	1.39 (1)	1.54 (39)	2.24 (13)
Benchmark	5.10 (52)	0.00 (100)	N/A	1.22 (92)	2.18 (14)
Median	5.14	1.95	0.02	1.51	1.55

Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	6.65	6.87
Spread Duration	7.22	6.84
Avg. Maturity	11.86	10.42
Avg. Quality	Baa1	A2/A3
Yield To Maturity (%)	5.32	4.10
Coupon Rate (%)	5.03	3.94
Current Yield (%)	5.04	N/A
Holdings Count	192	6,540

Sector Distribution (%)



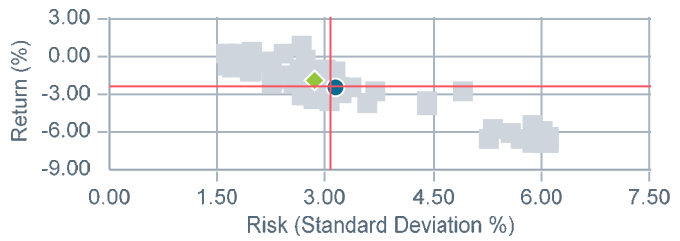
Performance shown is gross of fees and is product specific manager performance prior to 12/01/2013. Calculation is based on monthly periodicity.
Parenthesis contain percentile ranks.

Manager: Guggenheim (BBB) (SA) **As of December 31, 2018**
Benchmark: Bloomberg US Corp Inv Grade Index
Peer Group: IM U.S. Corporate Bonds (SA+CF)

Performance

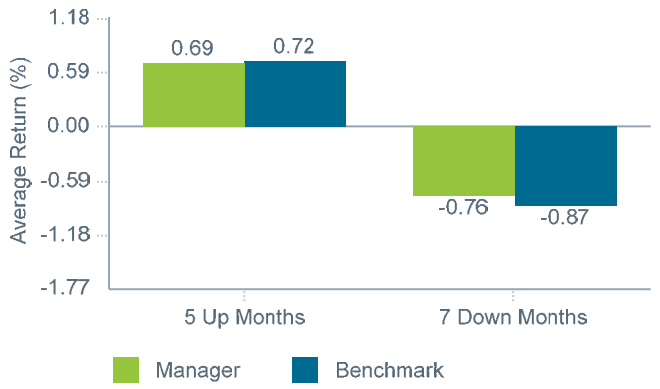
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**0.09**	**-1.86**	**N/A**	**N/A**	**N/A**	**N/A**	**8.57**	**N/A**	**N/A**	**N/A**	**N/A**
Benchmark	-0.18	-2.51	3.26	3.28	3.48	5.92	6.42	6.11	-0.68	7.46	-1.53
Difference	0.27	0.65	N/A	N/A	N/A	N/A	2.15	N/A	N/A	N/A	N/A
Peer Group Median	-0.57	-2.41	3.97	3.97	4.40	7.22	7.23	7.34	-0.90	8.27	-1.11
Rank	23	34	N/A	N/A	N/A	N/A	35	N/A	N/A	N/A	N/A
Population	109	109	103	100	97	59	118	122	125	123	127

Peer Group Scattergram - 1 Year

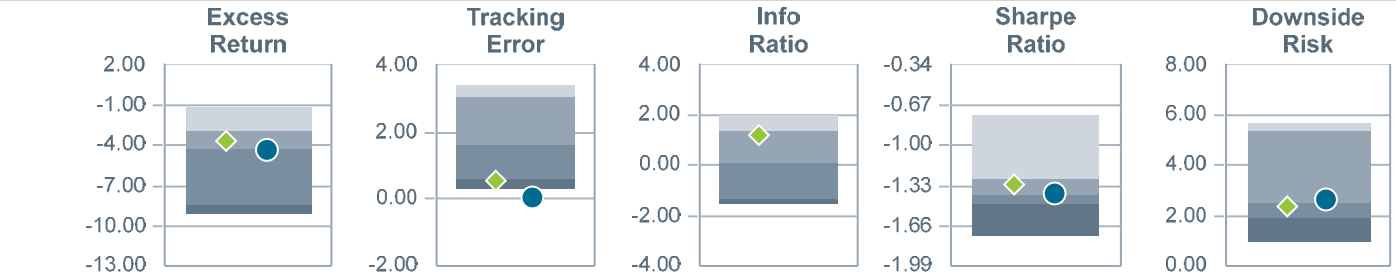


	Return	Standard Deviation
Manager	-1.86	2.84
Benchmark	-2.51	3.16
Median	-2.41	3.07

Up/Down Markets - 1 Year



Peer Group Analysis - Multi Statistics - 1 Year (Excess Return vs. Risk Free)

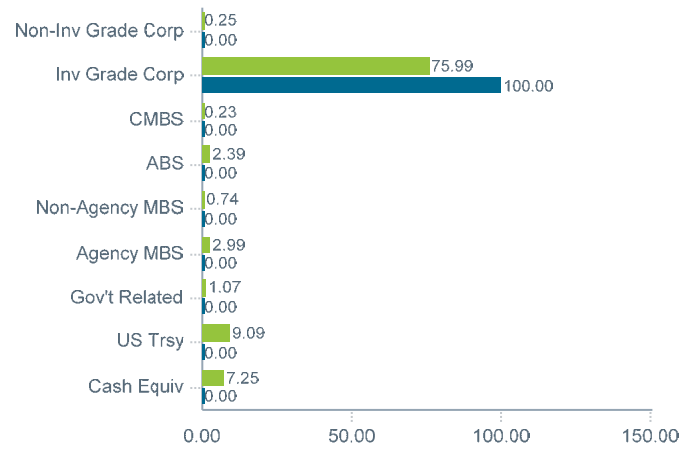


	Excess Return		Tracking Error		Info Ratio	Sharpe Ratio		Downside Risk	
Manager	-3.69	(34)	0.55	(80)	1.19	(26)	-1.33	(38)	2.35	(66)
Benchmark	-4.35	(54)	0.00	(100)	N/A		-1.40	(49)	2.65	(45)
Median	-4.26		1.62		0.15		-1.41		2.56	

Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	6.35	7.10
Spread Duration	4.99	7.07
Avg. Maturity	9.91	10.71
Avg. Quality	A2	A3/Baa1
Yield To Maturity (%)	4.12	4.21
Coupon Rate (%)	4.13	4.01
Current Yield (%)	4.11	N/A
Holdings Count	149	5,831

Sector Distribution (%)



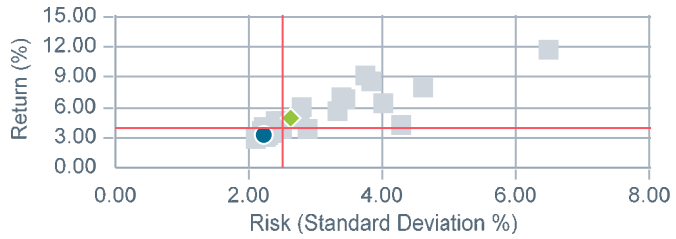
Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

Manager: JPMorgan MBS (SA) **As of December 31, 2018**
Benchmark: Bloomberg US MBS Index
Peer Group: IM U.S. Mortgage Backed Bonds (SA+CF)

Performance

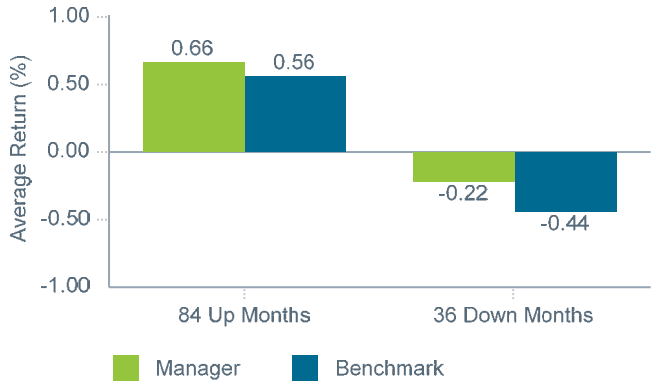
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**2.26**	**2.00**	**2.37**	**2.91**	**2.88**	**4.85**	**2.86**	**2.26**	**1.94**	**5.52**	**-0.45**
Benchmark	2.08	0.99	1.71	2.53	1.97	3.11	2.47	1.67	1.51	6.08	-1.41
Difference	0.18	1.01	0.66	0.38	0.91	1.74	0.39	0.59	0.43	-0.56	0.96
Peer Group Median	1.85	1.57	2.43	3.05	3.07	3.97	3.59	2.38	1.71	6.46	-0.75
Rank	7	45	51	58	52	36	61	53	42	71	46
Population	49	49	49	48	47	35	55	58	59	59	63

Peer Group Scattergram - 10 Years

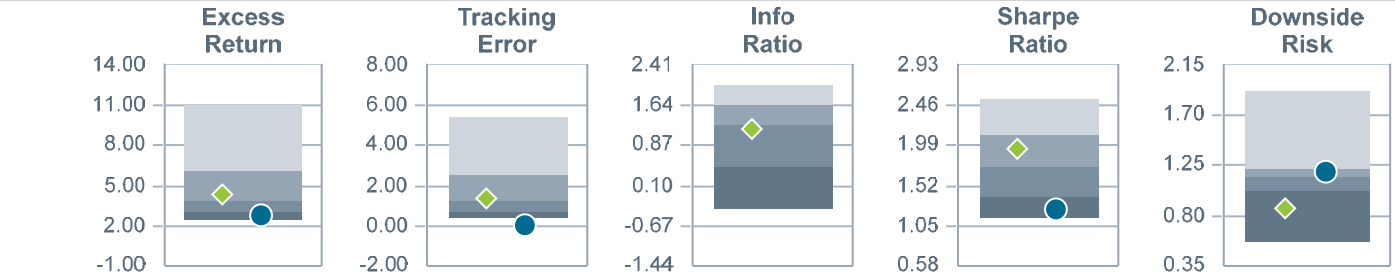


	Return	Standard Deviation
Manager	4.85	2.64
Benchmark	3.11	2.23
Median	3.97	2.51

Up/Down Markets - 10 Years



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

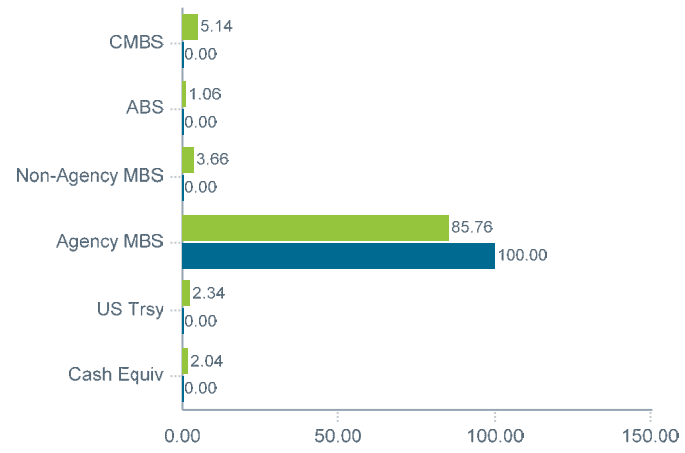


	Excess Return	Tracking Error	Info Ratio	Sharpe Ratio	Downside Risk
Manager	4.40 (38)	1.41 (46)	1.20 (58)	1.96 (31)	0.87 (88)
Benchmark	2.72 (92)	0.00 (100)	N/A	1.24 (91)	1.18 (40)
Median	3.86	1.23	1.28	1.74	1.15

Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	4.51	4.73
Spread Duration	4.70	5.35
Avg. Maturity	6.00	7.16
Avg. Quality	Aa1	Aaa
Yield To Maturity (%)	3.32	3.39
Coupon Rate (%)	3.71	3.60
Current Yield (%)	3.69	N/A
Holdings Count	548	322

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.

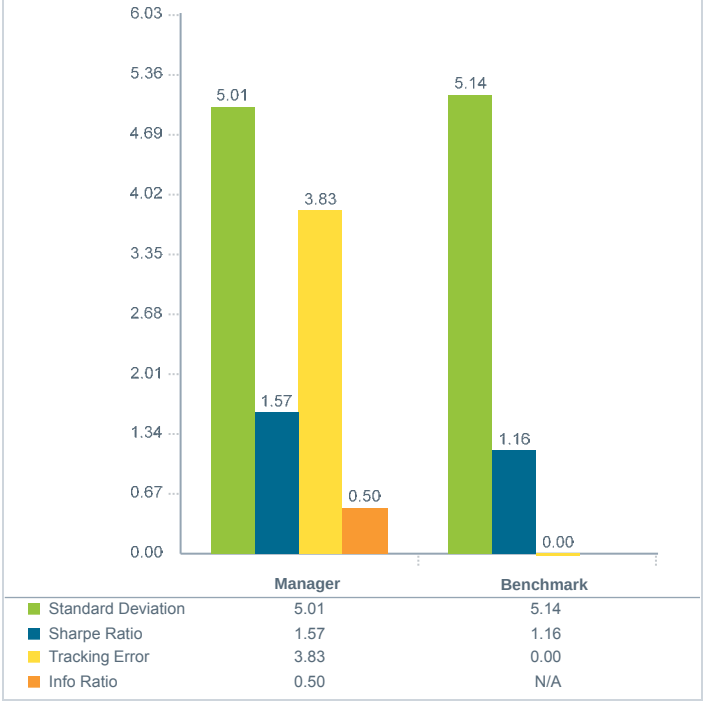
Manager: Guggenheim CMBS (SA) **As of December 31, 2018**

Benchmark: Bloomberg US CMBS Inv Grade: Aaa Index

Performance

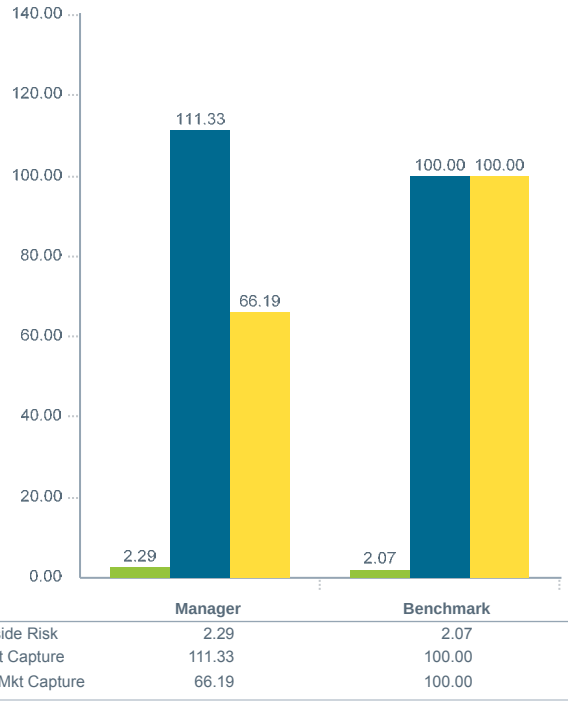
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**1.39**	**2.74**	**4.16**	**4.12**	**4.65**	**8.49**	**5.61**	**4.16**	**2.11**	**6.03**	**1.00**
Benchmark	1.86	0.83	2.44	2.56	2.71	6.42	3.11	3.40	1.22	4.29	-0.56
Difference	-0.47	1.91	1.72	1.56	1.94	2.07	2.50	0.76	0.89	1.74	1.56

Historical Statistics - 10 Years



	Manager	Benchmark
Standard Deviation	5.01	5.14
Sharpe Ratio	1.57	1.16
Tracking Error	3.83	0.00
Info Ratio	0.50	N/A

Historical Statistics - 10 Years

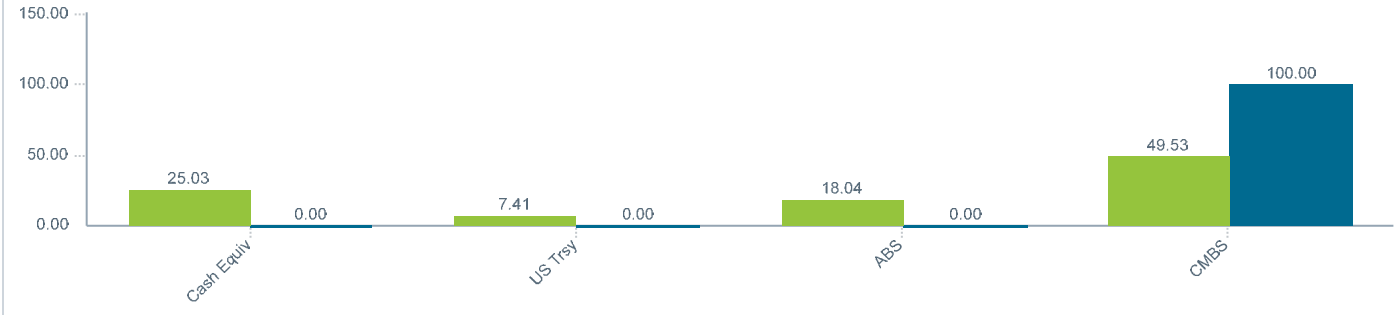


	Manager	Benchmark
Downside Risk	2.29	2.07
Up Mkt Capture	111.33	100.00
Down Mkt Capture	66.19	100.00

Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	3.59	5.12
Modified Duration	4.34	5.02
Spread Duration	3.74	5.12
Convexity	0.36	0.35
Avg. Maturity	12.18	5.78
Avg. Quality	Aa1	Aaa
Yield To Maturity (%)	3.55	3.33
Coupon Rate (%)	3.48	3.34
Yield To Worst (%)	3.55	3.33
Current Yield (%)	3.55	N/A
Holdings Count	58	1,938

Sector Distribution (%)



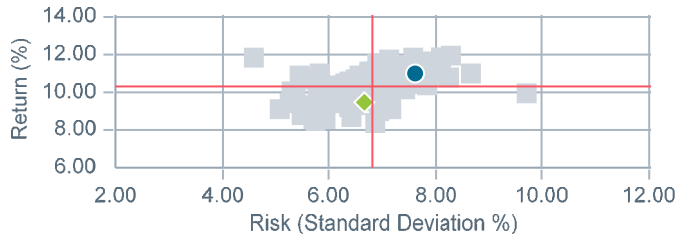
Performance shown is gross of fees and is product specific manager performance prior to 07/01/2010. Calculations are based on monthly periodicity.

Manager: Allianz Global Investors US High Yield (SA) **As of December 31, 2018**
Benchmark: ICE BofAML US Hi Yld Master II Index
Peer Group: IM U.S. High Yield Bonds (SA+CF)

Performance

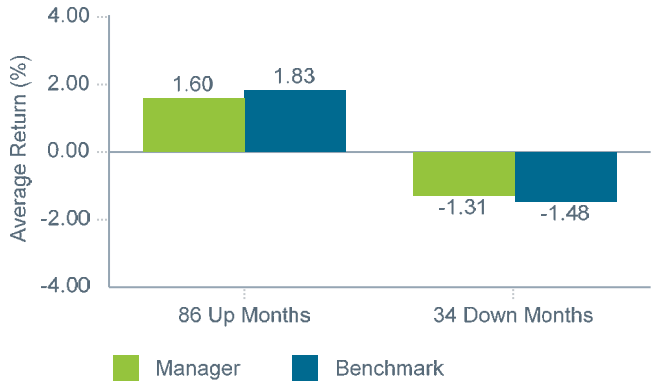
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**-4.56**	**-2.79**	**5.44**	**2.52**	**4.81**	**9.52**	**6.38**	**13.35**	**-4.20**	**0.87**	**8.51**
Benchmark	-4.67	-2.27	7.27	3.82	5.94	10.99	7.48	17.49	-4.64	2.50	7.42
Difference	0.11	-0.52	-1.83	-1.30	-1.13	-1.47	-1.10	-4.14	0.44	-1.63	1.09
Peer Group Median	-4.12	-1.69	6.39	3.73	5.81	10.33	7.54	14.07	-2.13	2.72	7.52
Rank	65	81	77	92	88	73	77	61	79	85	29
Population	170	170	161	148	129	107	187	197	202	206	202

Peer Group Scattergram - 10 Years

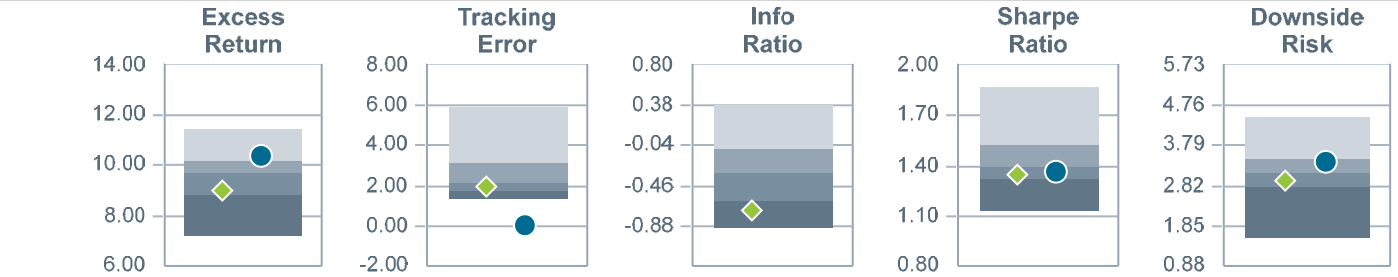


	Return	Standard Deviation
Manager	9.52	6.65
Benchmark	10.99	7.62
Median	10.33	6.82

Up/Down Markets - 10 Years



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

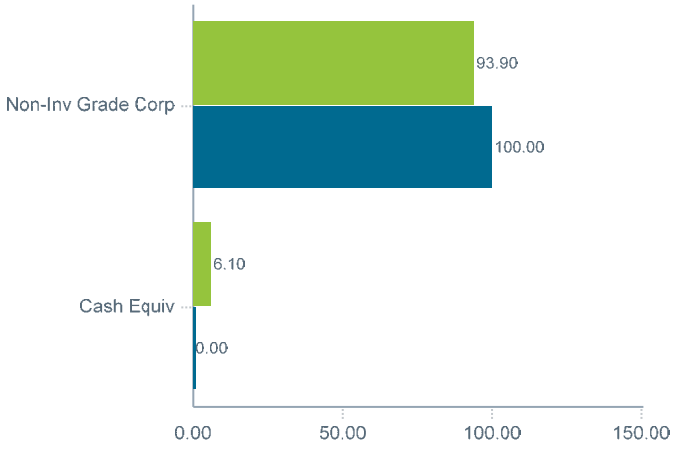


	Excess Return		Tracking Error		Info Ratio		Sharpe Ratio		Downside Risk	
Manager	8.97	(73)	1.95	(64)	-0.72	(88)	1.34	(68)	2.96	(65)
Benchmark	10.38	(19)	0.00	(100)	N/A		1.36	(65)	3.40	(32)
Median	9.72		2.20		-0.33		1.39		3.14	

Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	4.40	4.20
Spread Duration	N/A	4.10
Avg. Maturity	5.80	5.84
Avg. Quality	B1	B1
Yield To Maturity (%)	7.20	8.01
Coupon Rate (%)	6.30	6.35
Current Yield (%)	6.53	6.34
Holdings Count	150	1,838

Sector Distribution (%)



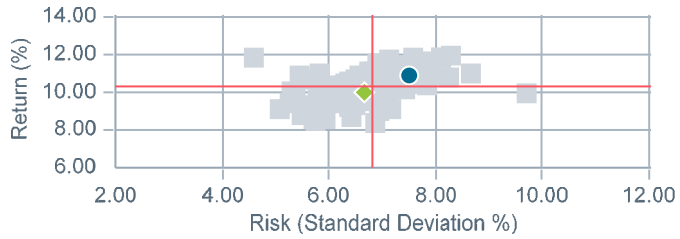
Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

Manager: Fort Washington High Yield (SA) **As of December 31, 2018**
Benchmark: ICE BofAML US Cash Pay Hi Yld Index
Peer Group: IM U.S. High Yield Bonds (SA+CF)

Performance

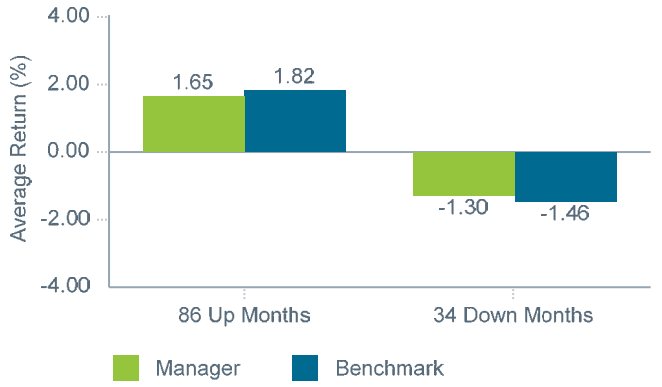
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**-3.98**	**-2.13**	**6.00**	**3.43**	**5.29**	**9.99**	**7.64**	**13.05**	**-3.05**	**2.50**	**6.26**
Benchmark	-4.64	-2.26	7.22	3.81	5.90	10.89	7.48	17.34	-4.55	2.44	7.38
Difference	0.66	0.13	-1.22	-0.38	-0.61	-0.90	0.16	-4.29	1.50	0.06	-1.12
Peer Group Median	-4.12	-1.69	6.39	3.73	5.81	10.33	7.54	14.07	-2.13	2.72	7.52
Rank	45	63	63	69	80	60	46	63	59	53	81
Population	170	170	161	148	129	107	187	197	202	206	202

Peer Group Scattergram - 10 Years

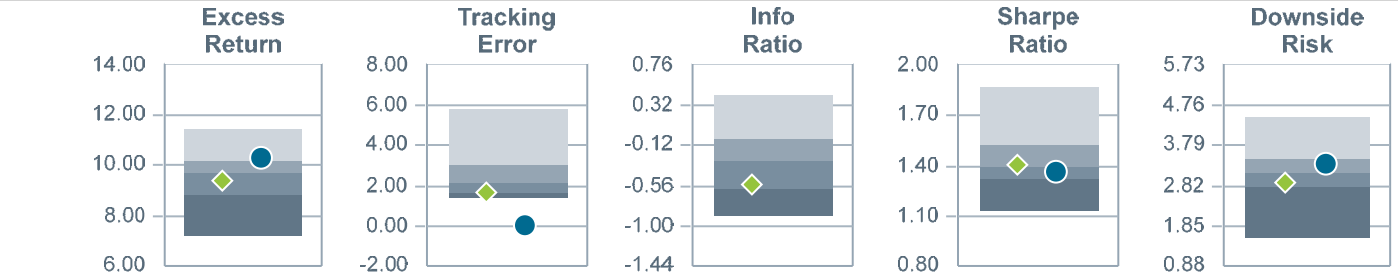


	Return	Standard Deviation
Manager	9.99	6.66
Benchmark	10.89	7.51
Median	10.33	6.82

Up/Down Markets - 10 Years



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

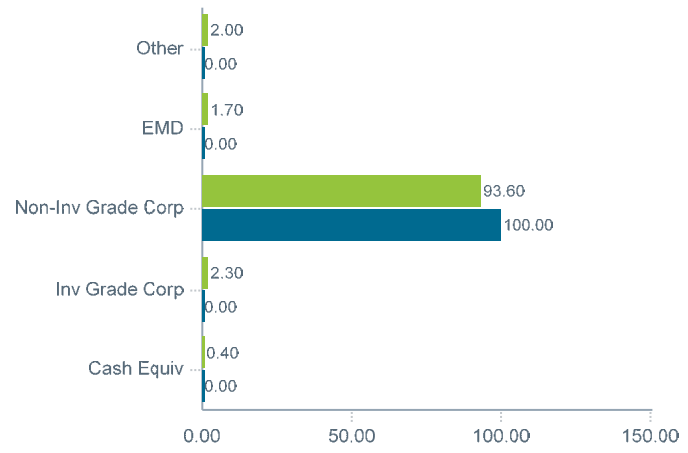


	Excess Return	Tracking Error	Info Ratio	Sharpe Ratio	Downside Risk
Manager	9.40 (59)	1.63 (80)	-0.54 (74)	1.41 (45)	2.91 (69)
Benchmark	10.28 (22)	0.00 (100)	N/A	1.36 (65)	3.35 (34)
Median	9.72	2.16	-0.29	1.39	3.14

Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	4.37	4.20
Spread Duration	4.48	4.11
Avg. Maturity	6.26	5.86
Avg. Quality	Ba3	B1
Yield To Maturity (%)	7.36	7.98
Coupon Rate (%)	6.00	6.34
Current Yield (%)	6.41	6.33
Holdings Count	312	1,819

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.

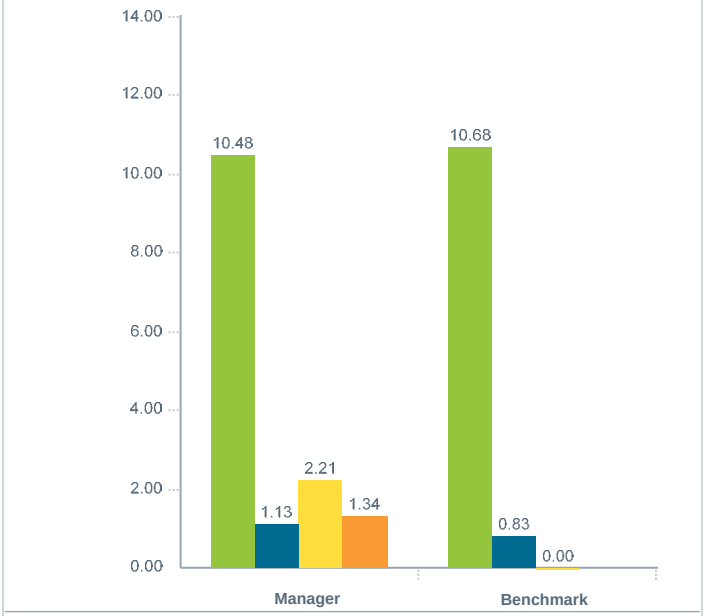
Manager: Cohen & Steers Preferreds (SA) **As of December 31, 2018**

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

Performance

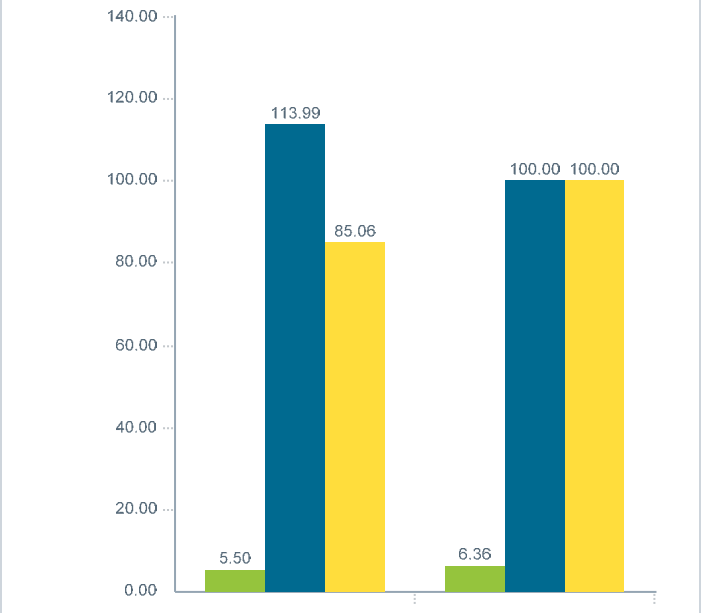
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**-3.15**	**-3.32**	**4.56**	**6.94**	**8.55**	**12.37**	**12.08**	**5.50**	**7.36**	**13.95**	**3.19**
Benchmark	-3.56	-3.94	3.15	5.10	6.11	9.09	10.10	3.76	4.18	12.15	0.58
Difference	0.41	0.62	1.41	1.84	2.44	3.28	1.98	1.74	3.18	1.80	2.61

Historical Statistics - 10 Years



	Manager	Benchmark
Standard Deviation	10.48	10.68
Sharpe Ratio	1.13	0.83
Tracking Error	2.21	0.00
Info Ratio	1.34	N/A

Historical Statistics - 10 Years

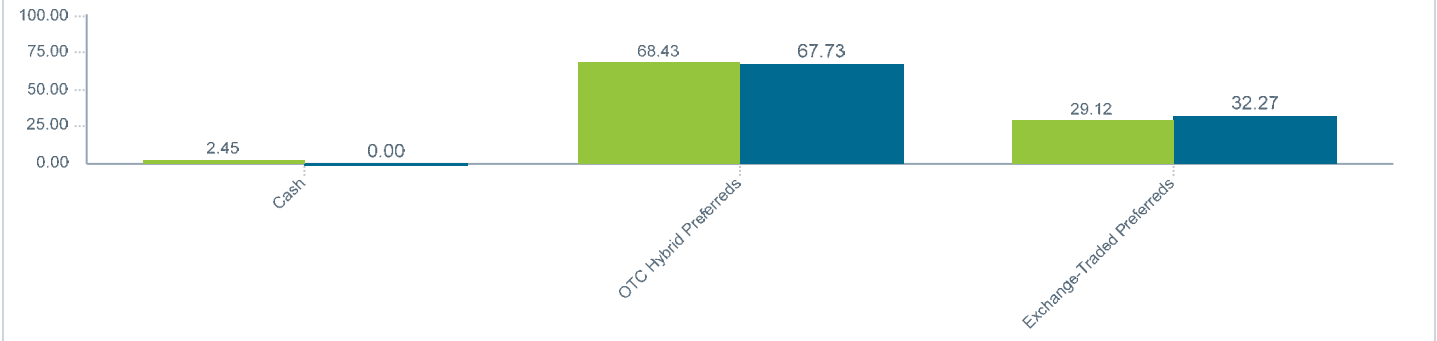


	Manager	Benchmark
Downside Risk	5.50	6.36
Up Mkt Capture	113.99	100.00
Down Mkt Capture	85.06	100.00

Portfolio Characteristics

	Portfolio	Benchmark
Modified Duration	6.08	6.57
Avg. Maturity	15.30	18.18
Avg. Quality	Baa3	Baa3
Yield To Maturity (%)	6.50	5.96
Coupon Rate (%)	6.57	5.96
Current Yield (%)	6.52	6.02
Holdings Count	178	294

Sector Distribution (%)



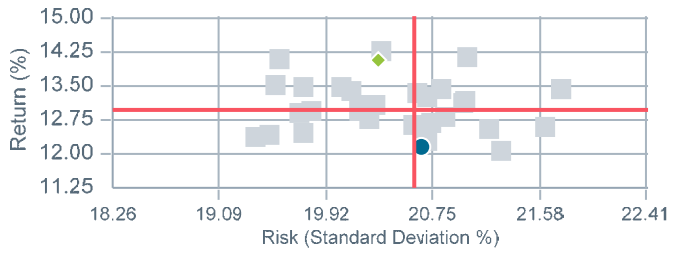
Performance shown is gross of fees and client specific. Calculations are based on monthly periodicity. Benchmark portfolio characteristics and sector distribution are provided by the manager.

Manager: CenterSquare US REIT Total Return Composite (SA) **As of December 31, 2018**
Benchmark: FTSE NAREIT Eq REITs TR Index
Peer Group: IM U.S. REIT (SA+CF)

Performance

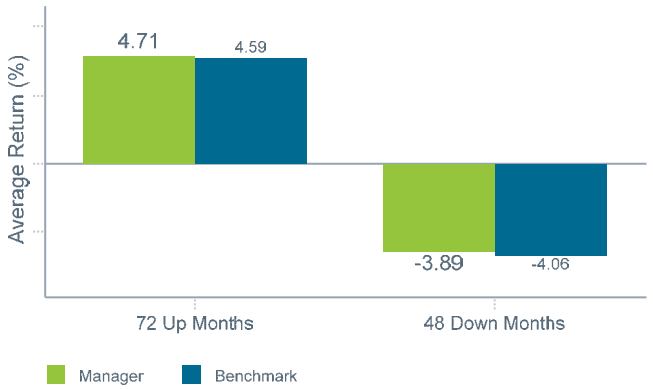
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	**-7.08**	**-4.80**	**3.45**	**9.16**	**9.55**	**14.07**	**6.91**	**8.78**	**5.52**	**32.68**	**3.76**
Benchmark	-6.73	-4.62	2.89	7.90	8.49	12.12	5.23	8.52	3.20	30.14	2.47
Difference	-0.35	-0.18	0.56	1.26	1.06	1.95	1.68	0.26	2.32	2.54	1.29
Peer Group Median	-6.32	-4.15	3.17	8.49	8.93	12.96	6.33	7.01	4.70	31.57	2.62
Rank	76	71	41	26	25	13	39	35	32	31	25
Population	49	49	48	46	45	43	53	56	58	57	57

Peer Group Scattergram - 10 Years

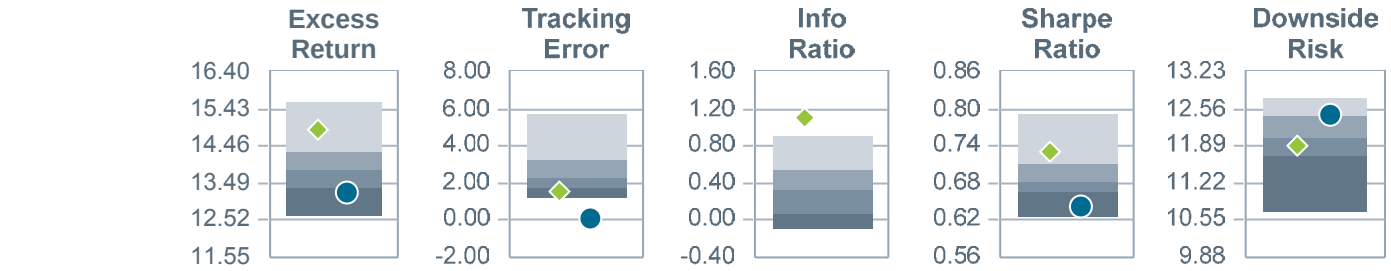


	Return	Standard Deviation
Manager	14.07	20.33
Primary Benchmark	12.12	20.67
Median	12.96	20.60

Up/Down Markets - 10 Years



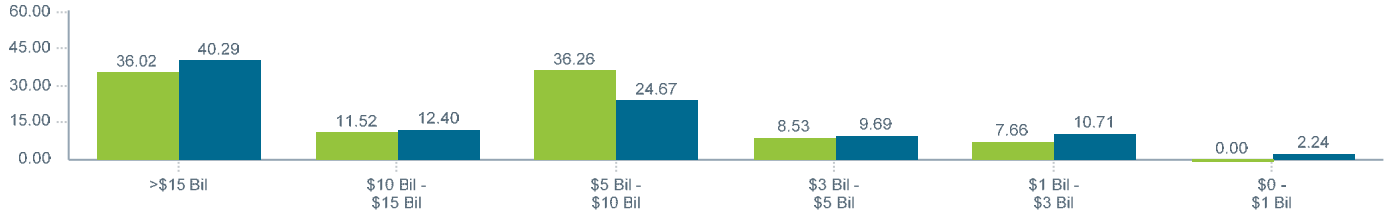
Peer Group Analysis - Multi Statistics - 10 Years



	Excess Return	Tracking Error	Info Ratio	Sharpe Ratio	Downside Risk
Manager	14.89 (14)	1.51 (92)	1.11 (4)	0.73 (16)	11.91 (62)
Primary Benchmark	13.22 (87)	0.00 (100)	N/A	0.64 (91)	12.44 (25)
Median	13.87	2.27	0.34	0.68	12.03

Portfolio Characteristics and Dist. of Market Cap

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	15,585	16,293
Median Mkt. Cap ($M)	6,644	2,518
Price/Earnings Ratio	30.33	26.81
Price/Book Ratio	2.20	2.28
5 Yr. EPS Growth Rate (%)	15.57	19.75
Current Yield (%)	4.51	4.74
Beta (5 Years, Monthly)	1.00	1.00
Number of Securities	51	161



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