



**RVK**

# North Dakota Board of University and School Lands

## Investment Performance Analysis

Period Ended: March 31, 2016



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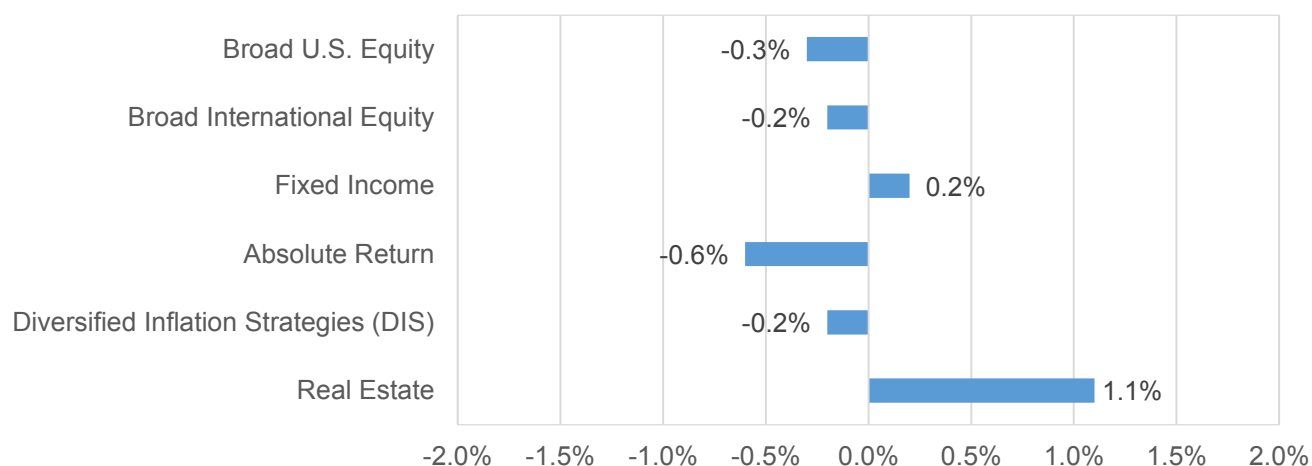
# Board Executive Summary



# Board Executive Summary

	Market Value (\$) as of 3/31/16	Allocation (%)	Long-Term Asset Allocation	Interim Target Allocation <sup>1</sup>
Broad U.S. Equity	619,519,847	17.4%	17.0%	17.7%
Broad International Equity	547,097,440	15.4%	15.0%	15.6%
Fixed Income	906,726,368	25.5%	23.0%	25.3%
Absolute Return	724,127,854	20.4%	20.0%	21.0%
Diversified Inflation Strategies (DIS)	361,289,002	10.2%	10.0%	10.4%
Real Estate	395,596,563	11.1%	15.0%	10.0%
Total Fund	3,554,357,073	100.0%	100.0%	100.0%

## Asset Allocation vs. Interim Target Allocation Differences



- The Land Board's assets totaled \$3.6 billion as of March 31, 2016, up approximately \$66 million from the previous quarter. The Total Fund remained in line with interim target allocations, which reflect the gradual allocation to real estate as real estate commitments continue to be called. The interim target allocations will progress towards the long-term target as real estate mandates become fully funded.
- The Total Fund increased its real estate allocation from 10.1% at the end of 2015 to 11.1% as of March 31, as Jamestown Premier Property Fund called \$40 million during the first quarter.
- There were no additional significant changes to the Total Fund during the first quarter.

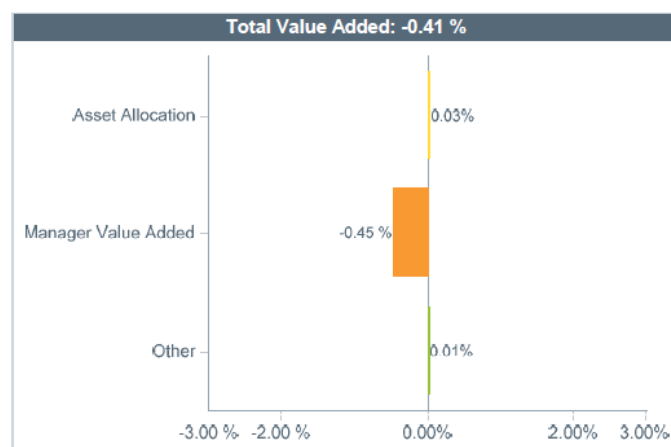
<sup>1</sup> The Interim Target Allocation targets reflect real estate mandates not being fully funded. These targets will change on a quarterly basis to account for real estate commitments called.

## Total Fund Performance

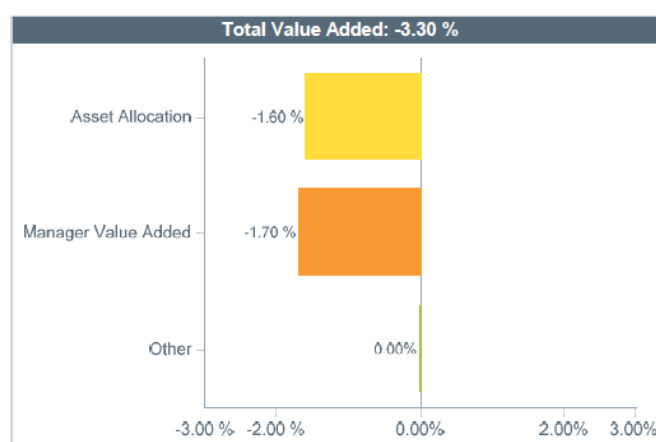
	QTD	1 Year	3 Years	5 Years	7 Years	2015	2014	2013	Since Incep.	Inception Date
<b>Total Fund (Net)</b>	<b>1.8</b>	<b>-4.5</b>	<b>3.2</b>	<b>4.8</b>	<b>9.2</b>	<b>-4.6</b>	<b>4.8</b>	<b>13.2</b>	<b>6.5</b>	<b>08/01/1995</b>
Long-Term Target Allocation Index	2.3	-0.8	4.6	5.9	N/A	-1.5	5.5	13.1	N/A	
Interim Target Allocation Index	2.4	-2.6	N/A	N/A	N/A	-3.7	N/A	N/A	N/A	
<b>Total Fund (Gross)</b>	<b>1.9</b>	<b>-4.1</b>	<b>3.5</b>	<b>5.1</b>	<b>N/A</b>	<b>-4.2</b>	<b>5.1</b>	<b>13.4</b>	<b>8.4</b>	<b>07/01/2009</b>
Long-Term Target Allocation Index	2.3	-0.8	4.6	5.9	N/A	-1.5	5.5	13.1	9.3	

- The Total Fund returned 1.8% (net of fees) during the quarter, underperforming its long-term target allocation index by approximately 50 basis points.
- The Total Fund underperformed its interim allocation index during the quarter by 58 basis points. Underperformance was driven by below-benchmark results from the fixed income composite. While the composite returned 3.2% during the quarter, only one manager outperformed the Barclays Global Aggregate Bond Index, which returned 5.9% over the same period. Underperformance from some active managers within the absolute return and DIS composites also detracted from relative performance. RVK believes managers should be evaluated over a full market cycle.
- Most active managers within the broad U.S. and international equity composites outperformed their respective benchmarks in the first quarter and both composites outperformed their respective benchmarks, gross of fees.
- Please note, the Total Fund's long-term performance does not reflect its current long-term asset allocation which was approved in 2014 and is still being implemented.

**Total Fund QTD Attribution  
(versus Long Term Target)**



**Total Fund Trailing 1-Year Attribution  
(versus Long Term Target)**



## Broad U.S. Equity<sup>2</sup>

	QTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
<b>Broad U.S. Equity</b>	<b>1.2</b>	<b>0.1</b>	<b>9.8</b>	<b>9.6</b>	<b>0.2</b>	<b>12.4</b>	<b>28.3</b>	<b>14.5</b>	<b>07/01/2009</b>
Russell 3000 Index	1.0	-0.3	11.1	11.0	0.5	12.6	33.6	15.1	
Difference	0.2	0.5	-1.4	-1.4	-0.3	-0.2	-5.3	-0.6	
IM U.S. Equity (SA+CF) Median	0.4	-3.2	10.2	10.1	-0.6	9.9	35.8	15.2	
Rank	38	25	55	59	44	33	91	64	

- Despite a sharp uptick in volatility, the U.S equity market finished the first quarter in positive territory, as strong gains in March erased heavy losses incurred during January's sell-off. The Russell 3000 Index was led by defensive sectors, which benefitted from expectations of a continued low interest rate environment and general economic uncertainty. In a reversal from 2015, value outperformed growth across all market caps.
- The Total Fund's U.S. equity composite returned 1.2% during the quarter, outperforming the Russell 3000 Index and ranking in the 38<sup>th</sup> percentile relative to broad U.S. equity peers. The composite benefitted from strong outperformance by the NT Small Cap Core Fund, which beat its benchmark by 156 basis points as small cap was the worst performing market cap.
- The NT Fund, which invests in four concentrated small cap managers, benefitted mostly from the growth managers' selection in the health care sector and stock selection in the industrials sector. The Fund's underweight to bank and biotech stocks also helped with performance. Only one of the four underlying managers trailed its benchmark.
- Since the U.S. equity composite was restructured in 2014, it has closely tracked the performance of its benchmark as expected, given its high allocation to passive strategies.

## Broad International Equity

	QTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
<b>Broad International Equity</b>	<b>-0.1</b>	<b>-8.3</b>	<b>2.8</b>	<b>1.9</b>	<b>-5.1</b>	<b>-4.9</b>	<b>26.5</b>	<b>6.2</b>	<b>07/01/2009</b>
MSCI ACW Ex U.S. Index (Net)	-0.4	-9.2	0.3	0.3	-5.7	-3.9	15.3	5.7	
Difference	0.3	0.9	2.5	1.6	0.6	-1.1	11.2	0.6	
IM International Large Cap Equity (SA+CF) Median	-2.1	-6.2	3.5	3.4	0.3	-3.7	22.6	8.0	
Rank	25	73	62	78	89	64	24	87	

- Developed international markets had a strong rebound in March, but remained negative for the quarter. Japan was one of the largest performance detractors for the quarter. Performance from emerging markets diverged positively for the quarter following a year of significantly better returns from developed markets. The rebound in March pushed emerging market equity returns well into positive territory for the quarter.
- The Total Fund's international equity composite returned -0.1% during the quarter, outperforming its benchmark by 28 basis points. Both DFA Emerging Market Core Equity and Harding Loevner Emerging Market had strong relative performance as they outperformed their benchmarks by 155 and 86 basis points, respectively.

<sup>2</sup> Throughout the Board summary, the Total Fund's composite asset class performance shown is gross of fees. Specific manager performance referenced is net of fees.

- Harding Loevner outperformed the MSCI Emerging Markets Index during the quarter, net of fees. The Fund's selection in financials and information technology contributed the most to its outperformance. Underweight to and stock selection in China aided outperformance, while stock selection in Latin America and India hurt relative performance.
- DFA returned 7.3%, net of fees, outperforming its benchmark by 1.6%. The Fund's focus on value stocks contributed to the relative performance as value outperformed growth. In addition, performance benefitted from a below-benchmark allocation to China as it was one of the weaker performing countries during the quarter.
- The international equity composite portfolio has added value relative to the MSCI All Country World ex-U.S. Index over all trailing periods shown. Both DFA and Harding Loevner have outperformed their benchmark since being added to the Land Board portfolio in July 2014.

## Fixed Income

	QTD	1 Year	3 Years	5 Years	2015	2014	2013	Since Incep.	Inception Date
<b>Fixed Income</b>	<b>3.2</b>	<b>1.7</b>	<b>2.4</b>	<b>4.1</b>	<b>0.1</b>	<b>5.0</b>	<b>-0.4</b>	<b>5.4</b>	<b>07/01/2009</b>
Barclays Gbl Agg Bond Index	5.9	4.6	0.9	1.8	-3.2	0.6	-2.6	3.1	
Difference	-2.7	-2.9	1.5	2.3	3.2	4.4	2.2	2.3	
IM Global Fixed Income (SA+CF) Median	3.7	0.7	1.3	3.4	-2.6	2.5	-0.2	5.0	
Rank	58	35	35	36	25	28	53	47	

- The Fed's shift toward a more accommodative monetary policy forecast for 2016 led to a decline in Treasury yields, while the rebound in energy prices had a positive impact on credit and market volatility stabilized after increasing in December and January. High yield bonds rebounded in the first quarter, returning 3.2%, and bank loans benefitted from improvement in the credit markets.
- While the fixed income composite returned a strong 3.2% in the first quarter, it trailed the Barclays Global Aggregate Bond Index by 2.7%. The composite ranked in the 58th percentile relative to peers for the quarter, but has outperformed the median performance of its peers for all longer-term trailing time periods. Recent underperformance can be attributed to strong results from the non-US fixed income components in the Barclays Global Aggregate Bond Index. The Index represents the broader opportunity set for investing in fixed income and does not 100% represent the composite's underlying investments.
- The fixed income composite is comprised of approximately 72% U.S. fixed income and 28% non-U.S. fixed income, while the Barclays Global Aggregate Bond Index is comprised of approximately 40% U.S. fixed income and 60% non-U.S. fixed income. The composite outperformed the Barclays U.S. Aggregate Index during the quarter and ranked in the 24th percentile in a comparable U.S. fixed income peer universe.
- The composite's active managers produced mixed relative performance, with Brandywine outperforming its benchmark and the rest of the active fixed income managers trailing their respective benchmarks by a range of 5 to 56 basis points.
- The Payden & Rygel U.S. aggregate bond strategy returned 2.5% during the quarter, underperforming the Barclays U.S. Aggregate Bond Index by 50 basis points.
- Brandywine had a strong quarter on both an absolute and relative basis, returning 8.7% versus 7.1% for its benchmark. The strategy gained positive absolute performance from German and Japanese 10-year bonds moving towards a zero interest rate. Outperformance was the result of weakness in the U.S. dollar against several emerging market currencies. In addition to currency, long-term bonds in Brazil, Chile, Australia, Indonesia, Malaysia, and Mexico helped drive performance.

- Lazard High Yield returned 2.6% during the quarter, underperforming its benchmark by 56 basis points. The portfolio's conservative positioning and focus on high-quality bonds drove relative performance. An underweight to lower quality bonds detracted from relative performance as credit spreads tightened late in the second half of the quarter. The Fund was also underweight to energy and metal & mining securities, which had a significant price increase.

## Absolute Return

	QTD	1 Year	Since Incep.	Inception Date
<b>Absolute Return</b>	<b>2.4</b>	<b>-3.9</b>	<b>-3.5</b>	<b>07/01/2014</b>
Absolute Return Custom Index <sup>3</sup>	1.5	-1.6	0.0	
Difference	0.9	-2.3	-3.5	
Consumer Price Index + 5%	1.9	5.9	5.0	
Difference	0.5	-9.8	-8.4	

- There was dispersion among returns for strategies with exposures beyond U.S. fixed income and U.S. equity. Managers positioned for rate hikes were hurt by the Fed's accommodative stance. Macro-oriented, fundamental value-based approaches fared better, especially those underweight to U.S. equities relative to emerging markets.
- The Land Board's absolute return composite gained 2.4% during the first quarter, outperforming both of its benchmarks. Two of the three managers underperformed their respective benchmarks but the composite was lifted by strong performance from PIMCO All Asset All Authority.
- GMO returned 0.2% during the quarter, trailing its benchmark by 240 basis points. The portfolio was hurt by its broad exposure in Europe and Japan and select U.S. equity holdings. Performance was also hampered by the Fund's relative value interest rates and foreign currency strategy.
- PIMCO All Asset All Authority performed well on an absolute and relative basis, partially recovering from its underperformance in 2015. The Fund returned 5.6% during the first quarter, beating the All Asset Custom Index by 317. The majority of outperformance was attributed to emerging market equity and fixed income exposure, as emerging market valuations improved during the quarter.
- During the fourth quarter, Westwood returned 1.1%, underperforming its custom benchmark return of 3.1%. Two of the fund's holdings, Williams Partners and Energy Transfer Equity, both performed poorly due to uncertainty around the latter's merger agreement with Williams Partners' parent company. The strategy was additionally hurt when Boeing Company provided lackluster guidance for 2016. Positive contributors were convertible, REIT, common stock, fixed income, and preferred stock holdings.
- It is important to note that the GTAA funds have only been in the Total Fund for a short time period. GTAA managers are expected to outperform their respective benchmarks during a full market cycle. Periods of underperformance are expected to occur.

<sup>3</sup> The Absolute Return Custom Index consists of 60% MSCI ACW Investable Mkt Index (Net) and 40% Barclays U.S. Aggregate Bond Index.



## Diversified Inflation Strategies (DIS)

	QTD	1 Year	Since Incep.	Inception Date
<b>Diversified Inflation Strategies (DIS)</b>	<b>1.9</b>	<b>-25.1</b>	<b>-6.7</b>	<b>04/01/2014</b>
DIS Custom Index	2.3	-19.2	-6.0	
Difference	-0.4	-5.9	-0.8	

- Some measures of inflation increased over the quarter, driving strong relative performance. However, market expectations for inflation in 10 year Treasuries remain muted at around 1.6%, nearly unchanged from the start of the quarter. Managers with holdings in natural resource equity, REITs, precious metals and non-U.S. dollar denominated emerging markets equity provided the strongest performance.
- The DIS portfolio returned 1.9% during the quarter and trailed its custom index by approximately 42 basis points. Both Harvest MLP and Van Eck outperformed their respective benchmarks, while Gresham underperformed its benchmark.
- Van Eck had a strong first quarter, providing double-digit returns and outpacing its benchmark by nearly 2.5%. Adding most to the strategy's outstanding performance, were five companies from the diversified metals and mining and gold sectors. The companies benefitted from strong operational performance and ongoing debt reduction programs.
- Harvest MLP struggled in January, returning -12.0% for the month, but recovered some losses in March when it gained 8.0%. The strategy finished the quarter with a return of -5.9%, outperforming its benchmark by 45 basis points. The poor performance in January was due to oil price volatility continued from the previous year. While the short-term correlation between MLPs and WTI crude prices was approximately 73%, long-term trends suggest the actual correlation is less than 30%.
- Gresham Commodities returned 0.8% for the quarter but trailed the Bloomberg Commodity Ex-Energy Index by 3.7%. The Gresham mandate was designed to provide broad commodity exposure while strategically excluding allocations to natural gas and crude oil given the Land Board's indirect exposure to oil and natural gas through oil revenues. The strategy was hurt by a significant underweight to silver and gold, as uncertainty in equity markets and negative real rates in the U.S. resulted in considerable inflows to gold exchange trade products. Additionally the strategies' overweight position to certain livestock further hindered relative performance.
- Historical performance includes the Land Board's prior allocation to Delaware REITs, which has since been liquidated.

## Real Estate

	QTD	Since Incep.	Inception Date
<b>Real Estate</b>	<b>1.9</b>	<b>9.4</b>	<b>07/01/2015</b>
NCREIF ODCE Index (Gross) (AWA)	2.2	9.5	
Difference	-0.3	-0.1	

- Real Estate was also affected by the broad uncertainty in global markets during the first quarter, as Core U.S. real estate returned 2.2%. However, this marks the 25<sup>th</sup> consecutive quarter of positive performance for the asset class. Overall, real estate fundamentals remain strong, but recent performance suggests that the unsustainable appreciation levels experienced in recent years may finally be reverting closer to long-term levels.

- The Land Board committed approximately \$562.5 million to private real estate, representing 15% of the Total Fund's assets. Real estate allocations will be split among two core real estate managers (\$300 million) and three non-core real estate managers (\$262.5 million).
- The Land Board's real estate composite returned 1.9% for the quarter, 30 basis points below the NCREIF-ODCE Index. Three of the five real estate mandates have been funded to-date. The Total Fund increased its real estate allocation from 10.1% at the end of last year to 11.1% as of March 31, as Jamestown Premier Property Fund called \$40 million during the first quarter. All core real estate managers were fully funded as of March 31.
- Morgan Stanley Prime Property Fund (core) returned 1.9% during the first quarter, falling slightly below the NCREIF-ODCE Index.
- UBS Trumbull Property Fund (core) returned 1.8% during the quarter, underperforming the Index by 15 basis points.
- Jamestown Premier Property Fund (non-core) returned 0.8% for the quarter, underperforming its benchmark by 113 basis points.
- As of March 31, 2016, the Land Board's real estate assets approximated \$396 million.
  - Prologis U.S. Targeted Logistics was fully funded in April 2016. JP Morgan is expected to call the full committed capital by the end of 2016. \$450 million of the Land Board's approximate \$562.5 million real estate commitment was called as of April 30, 2016.

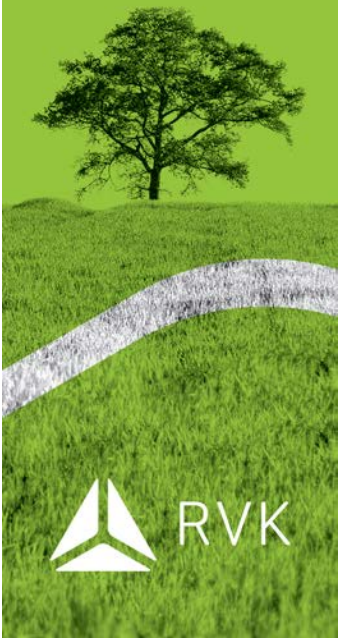
Real Estate Manager	Real Estate Mandate	Capital Committed	Approximate Capital Called (as of 3/31)
Morgan Stanley Prime Property	Core	\$150 M	\$150 M
UBS Trumbull Property	Core	\$150 M	\$150 M
Jamestown Premier Property	Core-plus	\$75 M	\$75 M
Prologis U.S. Targeted Logistics	Core-plus	\$75 M	--
JP Morgan Income and Growth	Core-plus	\$112.5 M	--

Asset Allocation							
Asset Class	Market Value	Within LT Target Range?		Current (%)	LT Targets		
		Yes	No		Min.	Target	Max.
Broad US Equity	\$ 619,519,847	✓		17.43%	12%	17%	22%
Broad International Equity	\$ 547,097,440	✓		15.39%	10%	15%	20%
Fixed Income	\$ 906,726,368	✓		25.51%	18%	23%	28%
Absolute Return	\$ 724,127,854	✓		20.37%	15%	20%	25%
Diversified Inflation Strategies (DIS)	\$ 361,289,002	✓		10.16%	5%	10%	15%
Real Estate	\$ 395,596,563	✓		11.13%	10%	15%	20%
Total Fund	\$ 3,554,357,073			100%			

Monitoring Guideline (Over a Full Market Cycle of 5 Years)			Explanation
<b>Total Fund (Gross)</b>	<b>Yes</b>	<b>No</b>	
Total Fund returns exceed the Long-Term Target Allocation Index over a 5-year period.		✓	The Total Fund Composite returned 5.07% vs. 5.88% for the index.
<b>Broad US Equity Composite</b>	<b>Yes</b>	<b>No</b>	
The composite returns exceed the Russell 3000 Index over a 5 year period.		✓	The composite returned 9.45% vs. 11.01% for the index. Includes managers which are no longer in the portfolio.
Rank above the IM U.S. Equity Median.		✓	The composite has a ranking of 59 (gross of fees). Includes managers which are no longer in the portfolio.
<b>SSgA S&amp;P 500 Index</b>	<b>Yes</b>	<b>No</b>	
The fund returns are in line with the S&P 500 Index (Cap Wtd) over a 5 year period.	✓		The fund returned 11.56% vs. 11.58% for the index.
Rank above the IM U.S. Large Cap Equity Median.	✓		The fund has a ranking of 38 (gross of fees).
<b>NT Small/Smid Composite</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the Small/Smid Blended Index over a 5 year period.		✓	The fund returned 6.37% vs. 8.07% for the index. Mandate was altered June 2014 to a more concentrated small cap strategy; continue to monitor.
Rank above the IM US Smid Cap Core Equity Median.		✓	The fund has a ranking of 96 (gross of fees). Mandate was altered June 2014 to a more concentrated small cap strategy; continue to monitor.
<b>Broad International Equity Composite</b>	<b>Yes</b>	<b>No</b>	
The composite returns exceed the MSCI ACW Ex US Index (Net) over a 5 year period.	✓		The composite returned 1.37% vs. 0.31% for the index. Includes managers which are no longer in the portfolio. Current managers added July 2014.
Rank above the IM International Large Cap Equity Median.		✓	The composite has a ranking of 78 (gross of fees). Includes managers which are no longer in the portfolio. Current managers added July 2014.
<b>SSgA World Ex US Index</b>	<b>Yes</b>	<b>No</b>	
The fund returns are in line with the MSCI World Ex US Index (Net) over a 5 year period.			5 year data is unavailable.
Rank above the IM International Large Cap Equity Median.			5 year data is unavailable.
<b>DFA Emg Mkts Core Eq;I</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the MSCI Emg Mkts Index (Net) over a 5 year period.			5 year data is unavailable.
Rank above the IM Emerging Markets Equity Median.			5 year data is unavailable.
<b>Harding Loevner:LEM;II</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the MSCI Emg Mkts Index (Net) over a 5 year period.			5 year data is unavailable.
Rank above the IM Emerging Markets Equity Median.			5 year data is unavailable.
<b>Fixed Income Composite</b>	<b>Yes</b>	<b>No</b>	
The composite returns exceed the Barclays Gbl Agg Bond Index over a 5 year period.	✓		The composite returned 3.89% vs. 1.81% for the index.
Rank above the IM Global Fixed Income Median.	✓		The composite has a ranking of 36 (gross of fees).
<b>Payden &amp; Rygel Long Term</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the Barclays US Agg Bond Index over a 5 year period.	✓		The fund returned 4.01% vs. 3.78% for the index.
Rank above the IM U.S. Broad Market Core Fixed Income Median.	✓		The fund has a ranking of 47 (gross of fees).
<b>JP Morgan FI Intermediate Bond</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the Barclays US Gov't/Credit: Int Trm Bond Index over a 5 year period.			5 year data is unavailable.
Rank above the IM U.S. Intermediate Duration Fixed Income Median.			5 year data is unavailable.
<b>FIA International Fixed Income</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the Barclays Gbl Agg Ex USD Index (Hedged) over a 5 year period.	✓		The fund returned 5.58% vs. 5.16% for the index.
Rank above the IM International Fixed Income Median.	✓		The fund has a ranking of 20 (gross of fees).
<b>Brandywine Gbl Opp FI</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the Citi Wrld Gov't Bond Index over a 5 year period.			5 year data is unavailable.
Rank above the IM Global Fixed Income Median.			5 year data is unavailable.
<b>Lazard High Yield</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the BofA ML US Hi Yld BB-B Rated Index over a 5 year period.		✓	The fund returned 5.16% vs. 5.16% for the index.
Rank above the IM U.S. High Yield Bonds Median.	✓		The fund has a ranking of 42 (gross of fees).

<b>Payden:Low Dur;Inv</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the Barclays US Trsy: 1-3 Yr Index over a 5 year period.	✓		The fund returned 2.30% vs. 0.88% for the index.
Rank above the IM U.S. Short Duration Fixed Income Median.	✓		The fund has a ranking of 4 (gross of fees).
<b>Payden &amp; Rygel Cash</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the BofA ML 3 Mo US T-Bill Index over a 5 year period.		✓	The fund returned 0.01% vs. 0.08% for the index.
<b>Absolute Return Composite</b>	<b>Yes</b>	<b>No</b>	
The composite returns exceed the Absolute Return Custom Index over a 5 year period.			5 year data is unavailable.
<b>GMO:Bchmk-Fr All;IV</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the 60% MSCI ACW Index (Net)/40% B Gbl Agg Bond Index over a 5 year period.			5 year data is unavailable.
<b>PIMCO:All Ast Ath;Inst</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the All Asset Custom Index over a 5 year period.			5 year data is unavailable.
<b>Westwood Income Opportunity</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the Westwood Custom Index over a 5 year period.			5 year data is unavailable.
<b>Diversified Inflation Strategies (DIS) Composite</b>	<b>Yes</b>	<b>No</b>	
The composite returns exceed the DIS Custom Index Index over a 5 year period.			5 year data is unavailable.
<b>NT Common TIPS Index</b>	<b>Yes</b>	<b>No</b>	
The fund returns are in line with the Barclays US Trsy: US TIPS Index over a 5 year period.	✓		The fund returned 3.05% vs. 3.02% for the index.
Rank above the IM U.S. TIPS Median.	✓		The fund has a ranking of 36 (gross of fees).
<b>Gresham Commodities</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the Bbrg Cmnty Ex-Energy Index (TR) over a 5 year period.			5 year data is unavailable.
<b>Harvest MLP</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the S&P MLP Index Index over a 5 year period.			5 year data is unavailable.
<b>Van Eck NR Equities</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the S&P Gbl Natural Res Index (TR) Index over a 5 year period.			5 year data is unavailable.
<b>Real Estate Composite</b>	<b>Yes</b>	<b>No</b>	
The composite returns exceed the NCREIF ODCE Index (Net) over a 5 year period.			5 year data is unavailable.
<b>Morgan Stanley Prime Property Fund</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the NCREIF ODCE Index (Net) over a 5 year period.			5 year data is unavailable.
<b>UBS Trumbull Property Fund</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the NCREIF ODCE Index (Net) over a 5 year period.			5 year data is unavailable.
<b>Jamestown Premier Property Fund</b>	<b>Yes</b>	<b>No</b>	
The fund returns exceed the NCREIF ODCE Index (Net) over a 5 year period.			5 year data is unavailable.

# Capital Markets Review



First Quarter Economic Environment

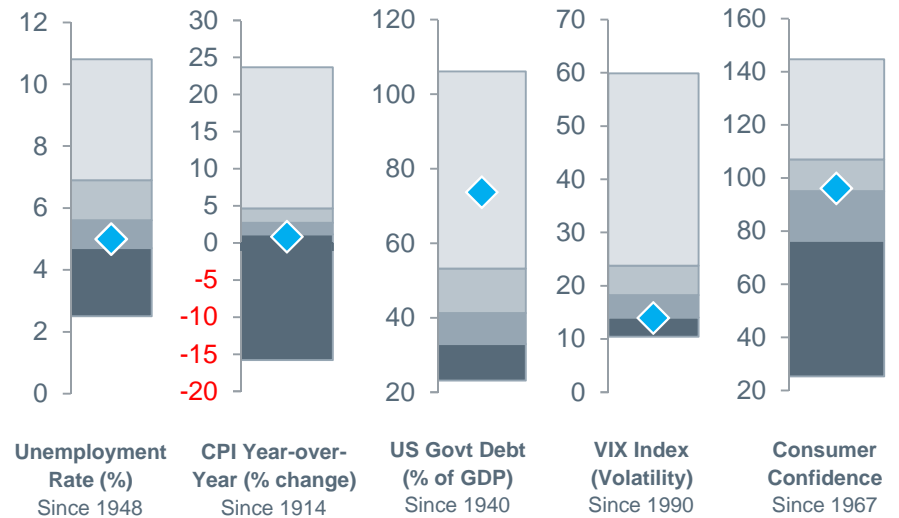
Key Economic Indicators

Negative investor sentiment and heightened volatility drove sharp declines in equity and commodity markets during the first two months of 2016. However, this trend reversed dramatically in March due to renewed optimism. By the quarter's end, global equities had sufficiently rallied to produce marginal overall gains for investors. Global fixed income appreciated as concern over disinflationary pressure and weak global growth led several developed market central banks to intensify accommodative monetary policies. In some cases, this included further experimentation with negative interest rates. In the US, investors reacted positively toward a perceived shift by the Federal Reserve toward a less aggressive monetary policy forecast. The US dollar reacted accordingly, reversing a prolonged strengthening trend over the past several years. The weakening dollar provided price support to dollar-based commodities, and also served as a tailwind for emerging market equity and debt assets.

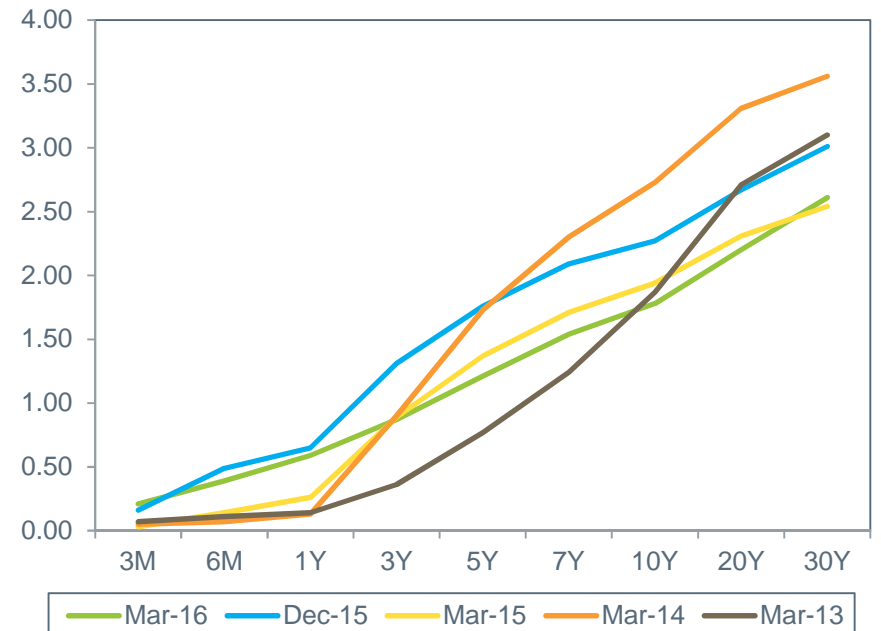
Economic Indicators	Mar-16	Dec-15	Mar-15	Mar-13	20 Yr
Federal Funds Rate (%)	0.25 ▲	0.20	0.06	0.13	2.54
Breakeven Infl. - 1 Yr (%)	2.10 ▲	0.85	1.46	2.32	N/A
Breakeven Infl. - 10 Yr (%)	1.63 ▲	1.58	1.78	2.52	N/A
CPI YoY (Headline) (%)	0.9 ▲	0.7	-0.1	1.5	2.2
Unemployment Rate (%)	5.0 —	5.0	5.5	7.5	6.0
Real GDP YoY (%)	1.9 ▼	2.0	2.9	1.1	2.4
PMI - Manufacturing	51.80 ▲	48.00	52.30	52.50	52.10
USD Total Wtd Idx	89.84 ▼	94.46	92.14	76.20	86.73
WTI Crude Oil per Barrel (\$)	38 ▲	37	48	97	55
Gold Spot per Oz (\$)	1,233 ▲	1,061	1,184	1,597	751

Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	1.35	1.35	1.78	11.58	7.01
Russell 2000	-1.52	-1.52	-9.76	7.20	5.26
MSCI EAFE (Net)	-3.01	-3.01	-8.27	2.29	1.80
MSCI EAFE SC (Net)	-0.60	-0.60	3.20	5.58	3.44
MSCI Emg Mkts (Net)	5.71	5.71	-12.03	-4.13	3.02
Barclays US Agg Bond	3.03	3.03	1.96	3.78	4.90
BofA ML 3 Mo US T-Bill	0.07	0.07	0.12	0.08	1.15
NCREIF ODCE (Gross)	2.21	2.21	13.70	13.26	6.36
Wilshire US REIT	5.20	5.20	4.76	12.11	6.29
HFN FOF Multi-Strat	-3.18	-3.18	-6.75	1.10	1.12
Bloomberg Comdty (TR)	0.42	0.42	-19.56	-14.15	-6.16

Key Economic Indicators



Treasury Yield Curve (%)



Treasury data courtesy of the US Department of the Treasury. Economic data courtesy of Bloomberg Professional Service. Breakeven Inflation does not have 20 years of history; therefore, its 20-year average is shown as N/A.

# Total Fund

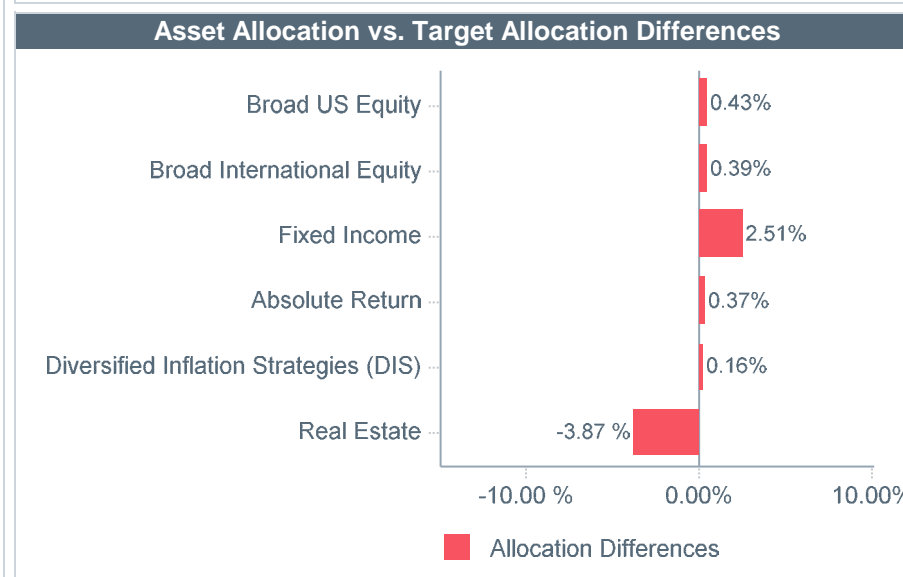


North Dakota Board of University and School Lands  
AA by Manager, AA vs. Target, and Schedule of Investable Assets

As of March 31, 2016

Asset Allocation by Manager		
	Market Value (\$)	Allocation (%)
<b>Broad US Equity</b>		
SSgA S&P 500 Index (US Large Cap)	487,601,341	13.72
NT Small Cap Core (US Small Cap)	131,918,505	3.71
<b>Broad International Equity</b>		
SSgA World Ex US Index (International Equity)	433,806,144	12.20
DFA Emg Mkts Core Eq;I (Emerging Markets Equity)	56,884,001	1.60
Harding Loevner:IEM;II (Emerging Markets Equity)	56,407,295	1.59
<b>Fixed Income</b>		
Payden & Rygel Long Term (Investment Grade US FI)	237,709,905	6.69
JP Morgan FI Intermediate Bond (Investment Grade US FI)	237,110,953	6.67
FIA International Fixed Income (International FI)	125,063,409	3.52
Brandywine Gbl Opp FI (Global FI)	92,636,502	2.61
Lazard High Yield (High Yield FI)	111,070,193	3.12
Payden:Low Dur;Inv (Low Duration FI)	37,973,539	1.07
Payden & Rygel Cash (Cash)	52,806,147	1.49
FLP Bank Loan (Loans)	11,041,882	0.31
ECLP Bank Loan (Loans)	1,313,838	0.04
<b>Absolute Return</b>		
GMO:Bchmk-Fr All;IV (GTAA)	241,195,703	6.79
PIMCO:All Ast Ath;Inst (GTAA)	241,671,311	6.80
Westwood Income Opportunity (GTAA)	241,260,839	6.79
<b>Diversified Inflation Strategies (DIS)</b>		
NT Common TIPS Index (TIPS)	72,682,158	2.04
Gresham Commodities (Commodities)	103,180,420	2.90
Harvest MLP (MLPs)	111,958,541	3.15
Van Eck NR Equities (Natural Resources)	73,467,883	2.07
<b>Real Estate</b>		
Morgan Stanley Prime Property Fund (Core Real Estate)	161,777,590	4.55
UBS Trumbull Property Fund, L.P. (Core Real Estate)	157,762,139	4.44
Jamestown Premier Property Fund (Core Plus Real Estate)	76,056,835	2.14

Asset Allocation vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
Broad US Equity	619,519,847	17.43	17.00
Broad International Equity	547,097,440	15.39	15.00
Fixed Income	906,726,368	25.51	23.00
Absolute Return	724,127,854	20.37	20.00
Diversified Inflation Strategies (DIS)	361,289,002	10.16	10.00
Real Estate	395,596,563	11.13	15.00
Total Fund	3,554,357,073	100.00	100.00



Schedule of Investable Assets						
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return	Unit Value
QTD	3,488,724,641	-1,416,137	67,048,569	3,554,357,073	1.94	101.94

Allocations shown may not sum up to 100% exactly due to rounding. Performance shown is gross of fees. The portfolio is in the process of transitioning to its new target allocations, resulting in significant variation between actual and target allocations. Interim target allocations are found in the Addendum.



North Dakota Board of University and School Lands  
Comparative Performance - Gross

As of March 31, 2016

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2015	2014	2013	Since Incep.	Inception Date
<b>Total Fund (Net)</b>	<b>1.82</b>	<b>1.82</b>	<b>-4.54</b>	<b>3.16</b>	<b>4.77</b>	<b>9.19</b>	<b>4.54</b>	<b>-4.55</b>	<b>4.78</b>	<b>13.15</b>	<b>6.54</b>	<b>08/01/1995</b>
Long-Term Target Allocation Index	2.35	2.35	-0.84	4.58	5.88	N/A	N/A	-1.53	5.50	13.12	N/A	
Difference	-0.53	-0.53	-3.70	-1.42	-1.11	N/A	N/A	-3.02	-0.72	0.03	N/A	
Interim Target Allocation Index	2.41	2.41	-2.60	N/A	N/A	N/A	N/A	-3.69	N/A	N/A	N/A	
Difference	-0.59	-0.59	-1.94	N/A	N/A	N/A	N/A	-0.86	N/A	N/A	N/A	
<b>Total Fund</b>	<b>1.94</b>	<b>1.94</b>	<b>-4.14</b>	<b>3.50</b>	<b>5.07</b>	<b>N/A</b>	<b>N/A</b>	<b>-4.19</b>	<b>5.10</b>	<b>13.44</b>	<b>8.35</b>	<b>07/01/2009</b>
Long-Term Target Allocation Index	2.35	2.35	-0.84	4.58	5.88	N/A	N/A	-1.53	5.50	13.12	9.32	
Difference	-0.41	-0.41	-3.30	-1.08	-0.81	N/A	N/A	-2.66	-0.40	0.32	-0.97	
<b>Broad US Equity</b>	<b>1.16</b>	<b>1.16</b>	<b>0.14</b>	<b>9.79</b>	<b>9.59</b>	<b>N/A</b>	<b>N/A</b>	<b>0.22</b>	<b>12.43</b>	<b>28.28</b>	<b>14.48</b>	<b>07/01/2009</b>
Russell 3000 Index	0.97	0.97	-0.34	11.14	11.01	17.09	6.90	0.48	12.55	33.55	15.10	
Difference	0.19	0.19	0.48	-1.35	-1.42	N/A	N/A	-0.26	-0.12	-5.27	-0.62	
IM U.S. Equity (SA+CF) Median	0.36	0.36	-3.25	10.19	10.07	17.23	7.25	-0.55	9.98	35.82	15.19	
Rank	38	38	25	55	59	N/A	N/A	44	33	91	64	
<b>Broad International Equity</b>	<b>-0.10</b>	<b>-0.10</b>	<b>-8.30</b>	<b>2.83</b>	<b>1.87</b>	<b>N/A</b>	<b>N/A</b>	<b>-5.06</b>	<b>-4.94</b>	<b>26.50</b>	<b>6.23</b>	<b>07/01/2009</b>
MSCI ACW Ex US Index (Net)	-0.38	-0.38	-9.19	0.32	0.31	9.18	1.94	-5.66	-3.87	15.29	5.65	
Difference	0.28	0.28	0.89	2.51	1.56	N/A	N/A	0.60	-1.07	11.21	0.58	
IM International Large Cap Equity (SA+CF) Median	-2.13	-2.13	-6.18	3.52	3.41	11.13	3.25	0.34	-3.74	22.56	8.04	
Rank	25	25	73	62	78	N/A	N/A	89	64	24	87	
<b>Fixed Income</b>	<b>3.18</b>	<b>3.18</b>	<b>1.68</b>	<b>2.38</b>	<b>4.12</b>	<b>N/A</b>	<b>N/A</b>	<b>0.07</b>	<b>4.97</b>	<b>-0.36</b>	<b>5.43</b>	<b>07/01/2009</b>
Barclays Gbl Agg Bond Index	5.90	5.90	4.57	0.87	1.81	3.73	4.35	-3.15	0.59	-2.60	3.13	
Difference	-2.72	-2.72	-2.89	1.51	2.31	N/A	N/A	3.22	4.38	2.24	2.30	
IM Global Fixed Income (SA+CF) Median	3.66	3.66	0.66	1.33	3.36	5.75	5.24	-2.58	2.47	-0.15	4.96	
Rank	58	58	35	35	36	N/A	N/A	25	28	53	47	
<b>Absolute Return</b>	<b>2.41</b>	<b>2.41</b>	<b>-3.93</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-5.52</b>	<b>N/A</b>	<b>N/A</b>	<b>-3.49</b>	<b>07/01/2014</b>
Absolute Return Custom Index	1.51	1.51	-1.60	4.52	4.91	9.86	4.90	-0.88	4.77	12.74	0.03	
Difference	0.90	0.90	-2.33	N/A	N/A	N/A	N/A	-4.64	N/A	N/A	-3.52	
Consumer Price Index + 5%	1.91	1.91	5.90	5.80	6.34	6.71	6.86	5.77	5.79	6.58	4.95	
Difference	0.50	0.50	-9.83	N/A	N/A	N/A	N/A	-11.29	N/A	N/A	-8.44	

Performance shown is gross of fees except where noted. Performance for plan sponsor peer groups are shown gross of fees. Composite inception dates are based on availability of data for each asset class. The portfolio is in the process of transitioning to its new target allocations, resulting in significant variation between actual and target allocations. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. RVK endorses GIPS and calculates performance for composites and investment managers using different methodologies. For additional information, please see the Glossary.

North Dakota Board of University and School Lands  
Comparative Performance - Gross

As of March 31, 2016

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2015	2014	2013	Since Incep.	Inception Date
<b>Diversified Inflation Strategies (DIS)</b>	<b>1.92</b>	<b>1.92</b>	<b>-25.14</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-23.87</b>	<b>N/A</b>	<b>N/A</b>	<b>-6.72</b>	<b>04/01/2014</b>
DIS Custom Index	2.34	2.34	-19.24	-4.70	1.20	7.96	2.77	-18.88	9.69	-2.19	-5.97	
Difference	-0.42	-0.42	-5.90	N/A	N/A	N/A	N/A	-4.99	N/A	N/A	-0.75	
<b>Real Estate</b>	<b>1.91</b>	<b>1.91</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.37</b>	<b>07/01/2015</b>
NCREIF ODCE Index (AWA) (Gross)	2.21	2.21	13.70	13.64	13.26	9.07	6.36	15.01	12.50	13.94	9.51	
Difference	-0.30	-0.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.14	

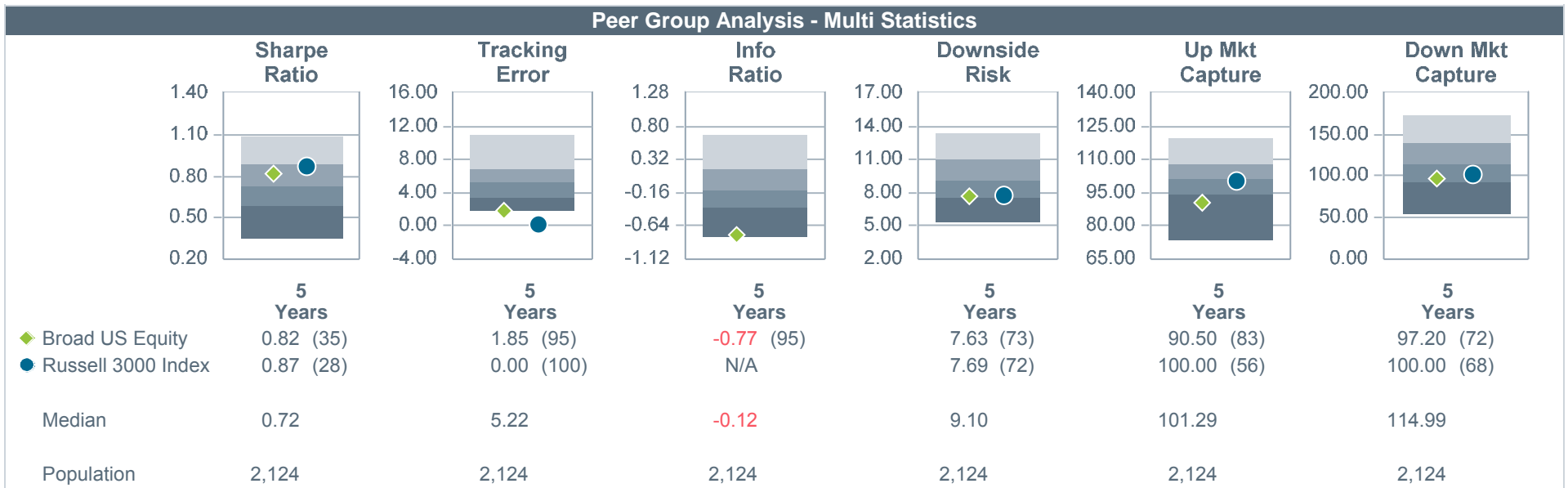
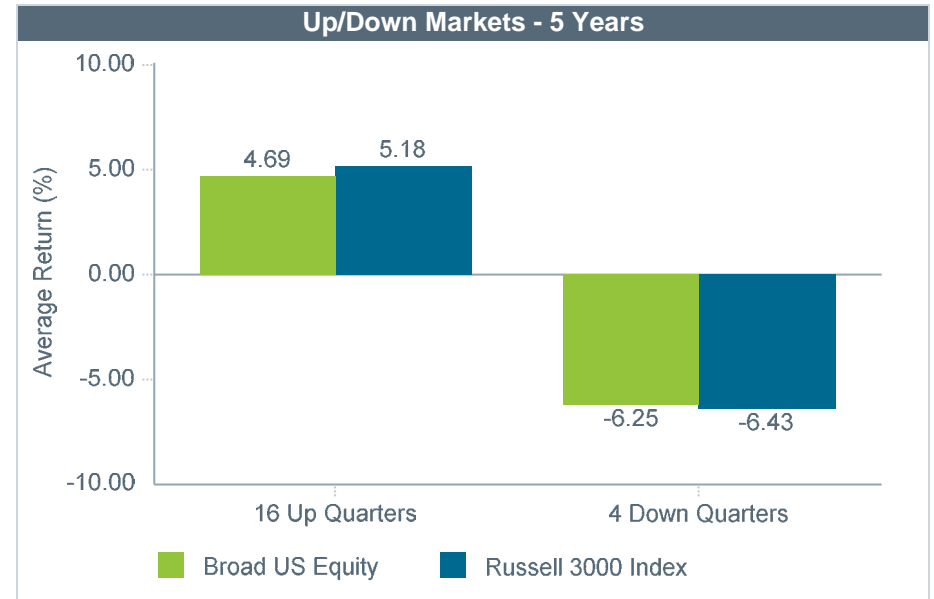
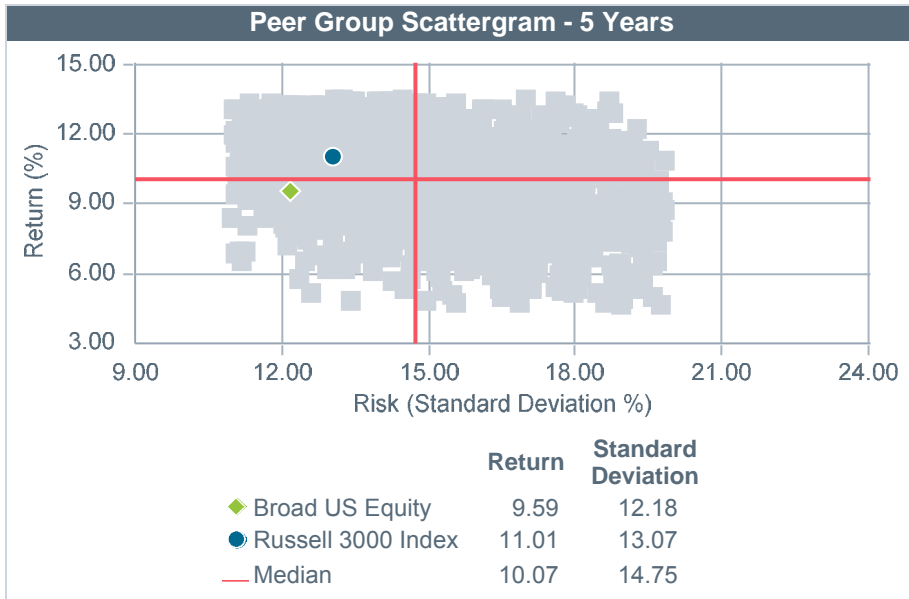
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Comparative Performance													
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2015	2014	2013	2012	2011	Since Incep.	Inception Date
<b>Broad US Equity</b>	1.16	1.16	0.14	9.79	9.59	N/A	0.22	12.43	28.28	14.66	0.22	14.48	07/01/2009
Russell 3000 Index	0.97	0.97	-0.34	11.14	11.01	6.90	0.48	12.55	33.55	16.42	1.03	15.10	
Difference	0.19	0.19	0.48	-1.35	-1.42	N/A	-0.26	-0.12	-5.27	-1.76	-0.81	-0.62	
<b>SSgA S&amp;P 500 Index (CF)</b>	1.37	1.37	1.85	11.84	11.58	N/A	1.41	13.69	32.38	15.98	2.12	8.05	04/01/2008
S&P 500 Index (Cap Wtd)	1.35	1.35	1.78	11.82	11.58	7.01	1.38	13.69	32.39	16.00	2.11	8.03	
Difference	0.02	0.02	0.07	0.02	0.00	N/A	0.03	0.00	-0.01	-0.02	0.01	0.02	
IM U.S. Large Cap Equity (SA+CF) Median	0.43	0.43	-0.68	11.44	11.10	7.20	0.95	12.89	33.55	15.87	1.19	8.19	
Rank	29	29	22	41	38	N/A	45	36	65	49	40	55	
<b>NT Small Cap Core (CF)</b>	0.22	0.22	-6.55	N/A	N/A	N/A	-5.35	N/A	N/A	N/A	N/A	-3.31	07/01/2014
Russell 2000 Index	-1.52	-1.52	-9.76	6.84	7.20	5.26	-4.41	4.89	38.82	16.34	-4.18	-2.49	
Difference	1.74	1.74	3.21	N/A	N/A	N/A	-0.94	N/A	N/A	N/A	N/A	-0.82	
IM U.S. Small Cap Core Equity (SA+CF) Median	0.02	0.02	-6.41	9.62	9.72	7.10	-1.39	6.57	41.01	16.81	-1.38	0.53	
Rank	47	47	52	N/A	N/A	N/A	87	N/A	N/A	N/A	N/A	92	
<b>NT Small/Smid Composite</b>	0.22	0.22	-6.55	6.49	7.13	5.36	-5.35	3.37	37.57	18.30	-4.56	9.80	03/01/1996
Small/Smid Blended Index	-1.52	-1.52	-9.76	7.30	8.07	6.21	-4.41	8.25	36.80	17.88	-2.51	9.18	
Difference	1.74	1.74	3.21	-0.81	-0.94	-0.85	-0.94	-4.88	0.77	0.42	-2.05	0.62	
IM U.S. SMID Cap Core Equity (SA+CF) Median	1.18	1.18	-4.29	10.66	10.13	8.06	0.10	7.63	37.62	18.08	-1.76	N/A	
Rank	74	74	70	99	96	99	97	87	51	47	79	N/A	

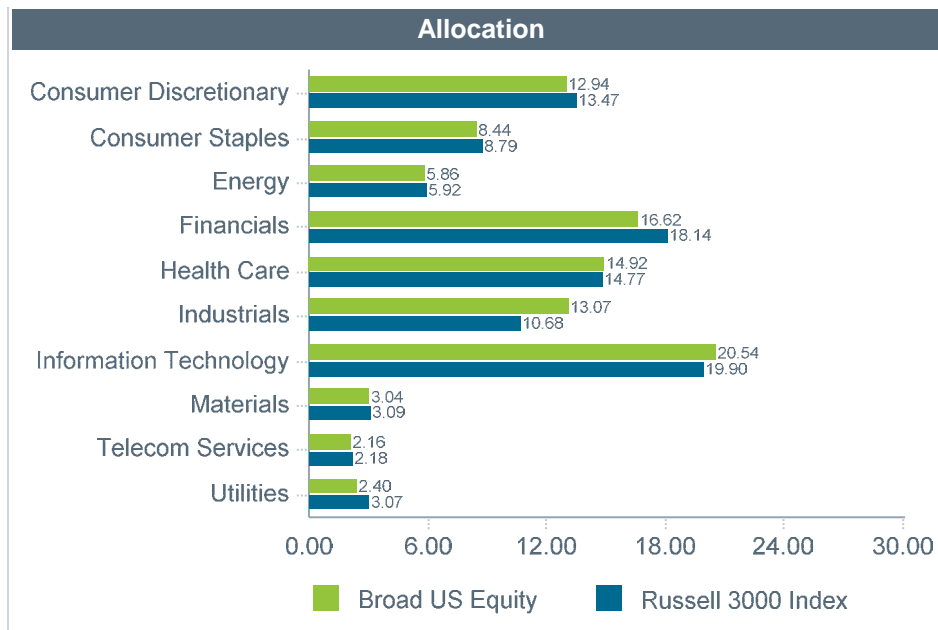
Asset Allocation by Manager



Performance shown is gross of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. RVK endorses GIPS and calculates performance for composites and investment managers using different methodologies.

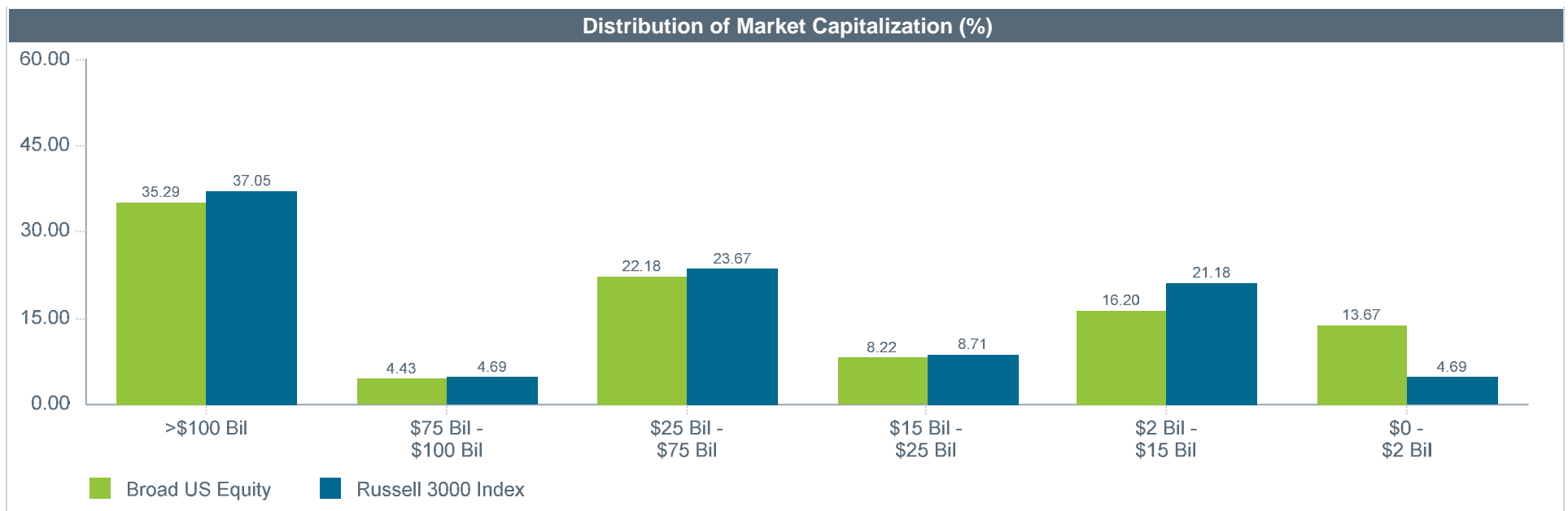


Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.



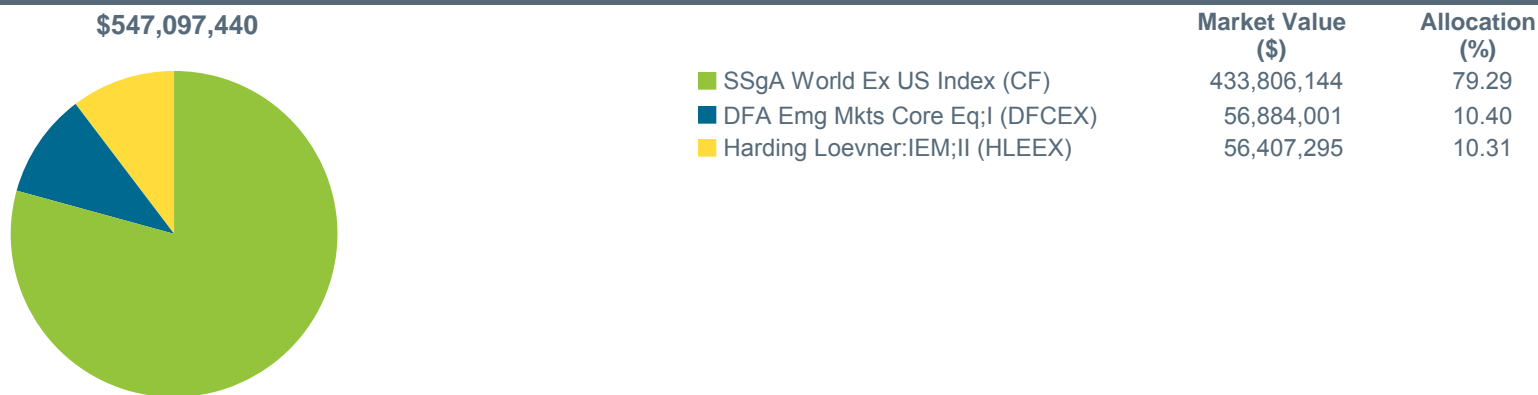
### Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	108,946	114,799
Median Mkt. Cap (\$M)	11,227	1,375
Price/Earnings Ratio	20.04	19.35
Price/Book Ratio	3.04	3.07
5 Yr. EPS Growth Rate (%)	7.78	7.87
Current Yield (%)	1.99	2.08
Beta (5 Years, Monthly)	0.97	1.00
Number of Securities	725	2,979

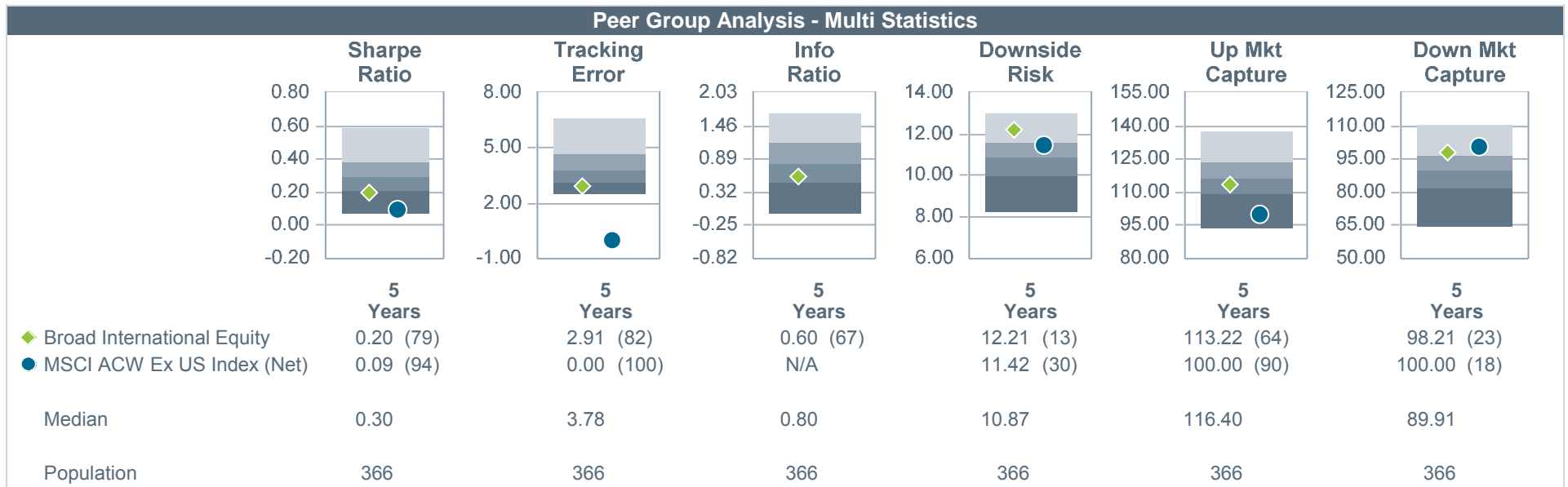
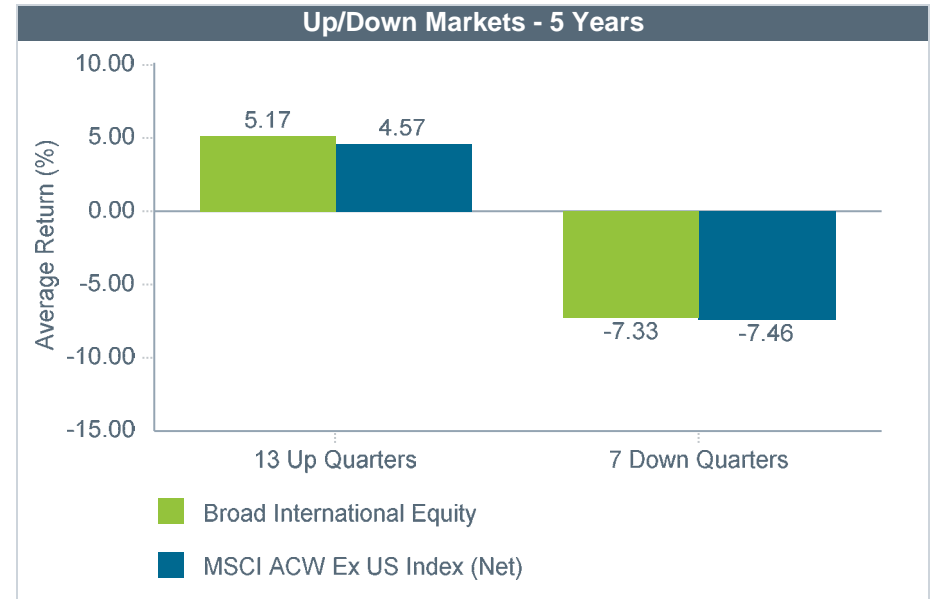
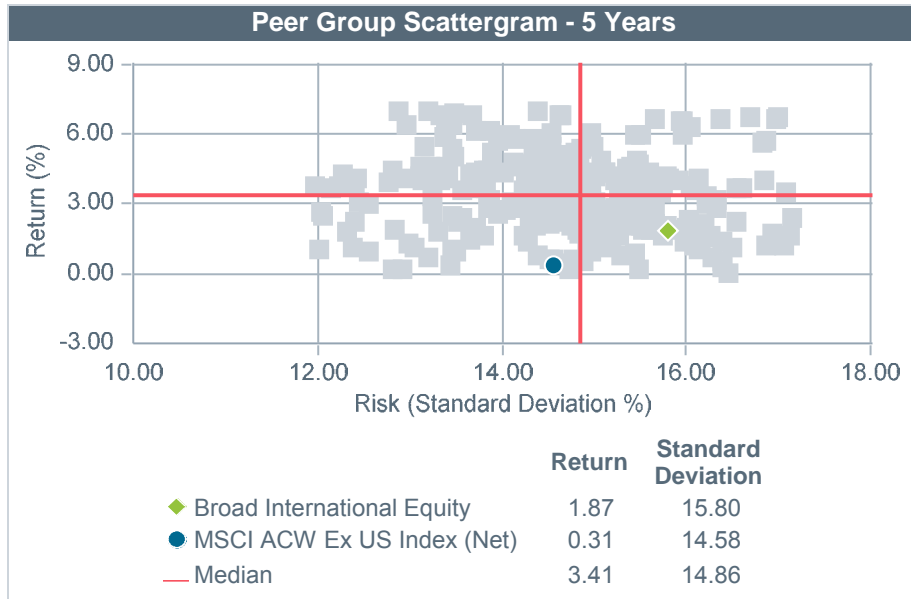


Comparative Performance													
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2015	2014	2013	2012	2011	Since Incep.	Inception Date
<b>Broad International Equity</b>	<b>-0.10</b>	<b>-0.10</b>	<b>-8.30</b>	<b>2.83</b>	<b>1.87</b>	<b>N/A</b>	<b>-5.06</b>	<b>-4.94</b>	<b>26.50</b>	<b>17.72</b>	<b>-14.73</b>	<b>6.23</b>	<b>07/01/2009</b>
MSCI ACW Ex US Index (Net)	-0.38	-0.38	-9.19	0.32	0.31	1.94	-5.66	-3.87	15.29	16.83	-13.71	5.65	
Difference	0.28	0.28	0.89	2.51	1.56	N/A	0.60	-1.07	11.21	0.89	-1.02	0.58	
<b>SSgA World Ex US Index (CF)</b>	<b>-1.99</b>	<b>-1.99</b>	<b>-8.51</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-3.10</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-8.13</b>	<b>07/01/2014</b>
MSCI Wrld Ex US Index (Net)	-1.95	-1.95	-8.44	1.69	1.62	1.80	-3.04	-4.32	21.02	16.41	-12.21	-8.07	
Difference	-0.04	-0.04	-0.07	N/A	N/A	N/A	-0.06	N/A	N/A	N/A	N/A	-0.06	
IM International Large Cap Equity (SA+CF) Median	-2.13	-2.13	-6.18	3.52	3.41	3.25	0.34	-3.74	22.56	19.08	-11.51	-5.50	
Rank	48	48	74	N/A	N/A	N/A	77	N/A	N/A	N/A	N/A	83	
<b>DFA Emg Mkts Core Eq;I (DFCEX)</b>	<b>7.43</b>	<b>7.43</b>	<b>-9.87</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-14.33</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-8.76</b>	<b>07/01/2014</b>
MSCI Emg Mkts Index (Net)	5.71	5.71	-12.03	-4.50	-4.13	3.02	-14.92	-2.19	-2.60	18.23	-18.42	-10.17	
Difference	1.72	1.72	2.16	N/A	N/A	N/A	0.59	N/A	N/A	N/A	N/A	1.41	
IM Emerging Markets Equity (SA+CF) Median	4.48	4.48	-9.90	-3.27	-2.37	4.31	-12.83	-0.21	0.77	20.49	-18.25	-8.98	
Rank	19	19	50	N/A	N/A	N/A	62	N/A	N/A	N/A	N/A	48	
<b>Harding Loevner:IEM;II (HLEEX)</b>	<b>6.87</b>	<b>6.87</b>	<b>-7.84</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-12.30</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-8.06</b>	<b>07/01/2014</b>
MSCI Emg Mkts Index (Net)	5.71	5.71	-12.03	-4.50	-4.13	3.02	-14.92	-2.19	-2.60	18.23	-18.42	-10.17	
Difference	1.16	1.16	4.19	N/A	N/A	N/A	2.62	N/A	N/A	N/A	N/A	2.11	
IM Emerging Markets Equity (SA+CF) Median	4.48	4.48	-9.90	-3.27	-2.37	4.31	-12.83	-0.21	0.77	20.49	-18.25	-8.98	
Rank	25	25	26	N/A	N/A	N/A	46	N/A	N/A	N/A	N/A	36	

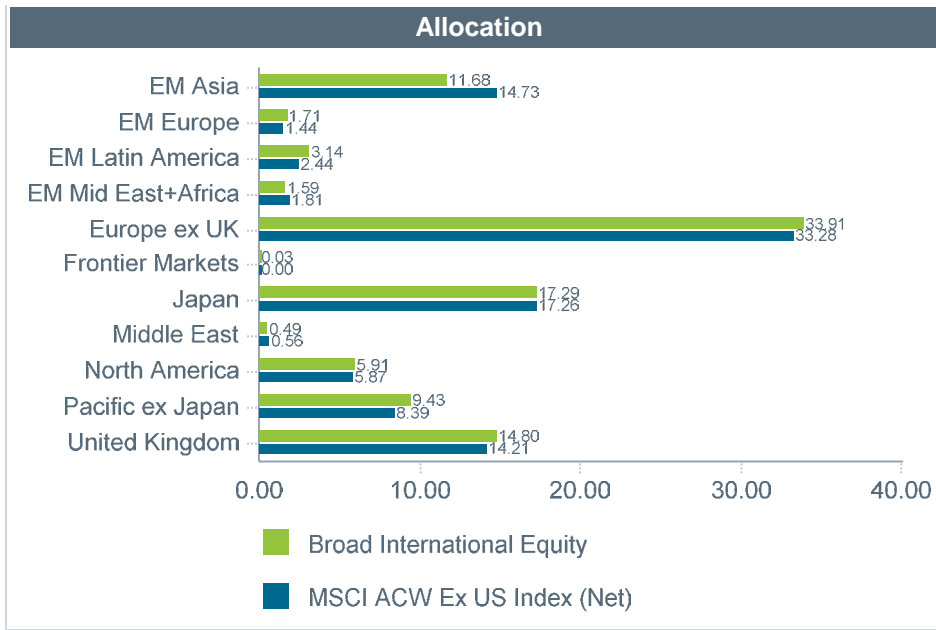
Asset Allocation by Manager



Performance shown is gross of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. RVK endorses GIPS and calculates performance for composites and investment managers using different methodologies.

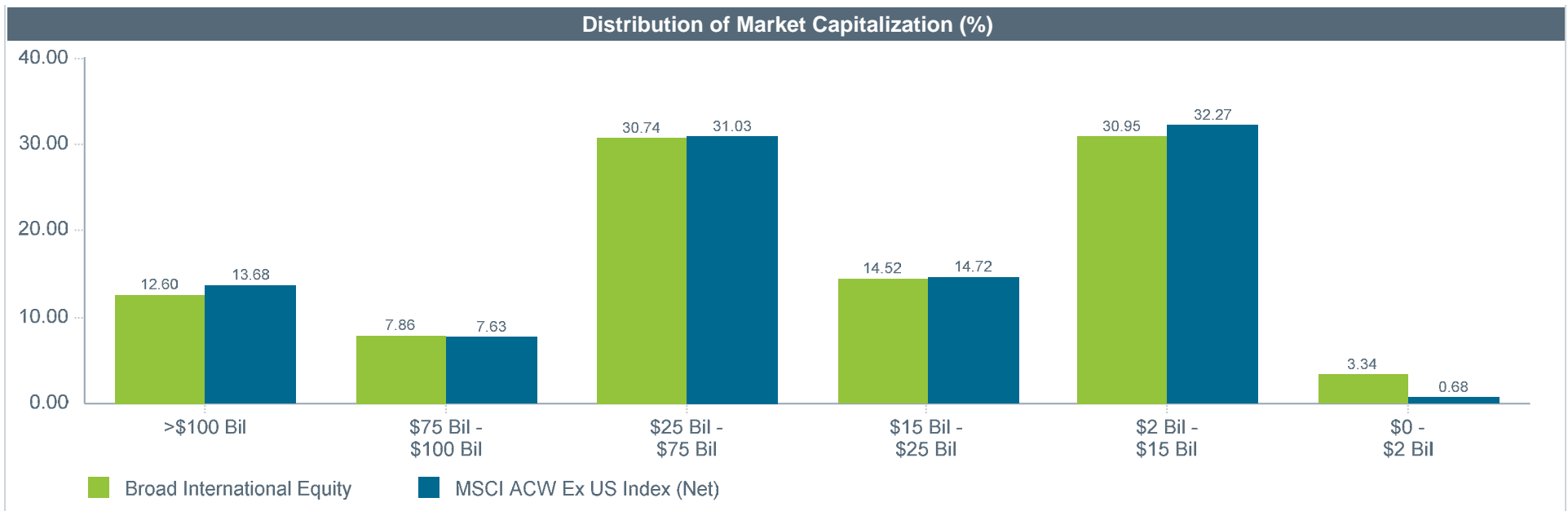


Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.



### Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	47,759	49,490
Median Mkt. Cap (\$M)	834	6,912
Price/Earnings Ratio	15.13	14.64
Price/Book Ratio	2.18	2.16
5 Yr. EPS Growth Rate (%)	6.36	6.50
Current Yield (%)	3.18	3.26
Beta (5 Years, Monthly)	1.03	1.00
Number of Securities	5,110	1,856





Comparative Performance													
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2015	2014	2013	2012	2011	Since Incep.	Inception Date
<b>Fixed Income</b>	<b>3.18</b>	<b>3.18</b>	<b>1.68</b>	<b>2.38</b>	<b>4.12</b>	<b>N/A</b>	<b>0.07</b>	<b>4.97</b>	<b>-0.36</b>	<b>7.36</b>	<b>7.07</b>	<b>5.43</b>	<b>07/01/2009</b>
Barclays Gbl Agg Bond Index	5.90	5.90	4.57	0.87	1.81	4.35	-3.15	0.59	-2.60	4.32	5.64	3.13	
Difference	-2.72	-2.72	-2.89	1.51	2.31	N/A	3.22	4.38	2.24	3.04	1.43	2.30	
<b>Payden &amp; Rygel Long Term (SA)</b>	<b>2.58</b>	<b>2.58</b>	<b>1.66</b>	<b>2.66</b>	<b>4.19</b>	<b>5.47</b>	<b>0.82</b>	<b>6.01</b>	<b>-1.25</b>	<b>9.04</b>	<b>5.48</b>	<b>6.30</b>	<b>08/01/1995</b>
Barclays US Agg Bond Index	3.03	3.03	1.96	2.50	3.78	4.90	0.55	5.97	-2.02	4.21	7.84	5.64	
Difference	-0.45	-0.45	-0.30	0.16	0.41	0.57	0.27	0.04	0.77	4.83	-2.36	0.66	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	3.04	3.04	2.06	2.71	4.14	5.30	0.81	6.14	-1.56	5.73	7.83	5.98	
Rank	93	93	83	59	47	35	49	63	33	4	97	17	
<b>JP Morgan FI Intermediate Bond (SA)</b>	<b>2.22</b>	<b>2.22</b>	<b>2.39</b>	<b>2.16</b>	<b>N/A</b>	<b>N/A</b>	<b>1.53</b>	<b>3.97</b>	<b>-0.91</b>	<b>N/A</b>	<b>N/A</b>	<b>2.13</b>	<b>08/01/2012</b>
Barclays US Gov't/Credit: Int Trm Bond Index	2.45	2.45	2.06	1.83	3.01	4.34	1.07	3.13	-0.86	3.89	5.80	1.78	
Difference	-0.23	-0.23	0.33	0.33	N/A	N/A	0.46	0.84	-0.05	N/A	N/A	0.35	
IM U.S. Intermediate Duration (SA+CF) Median	2.34	2.34	2.13	2.09	3.30	4.75	1.30	3.56	-0.52	4.95	5.88	2.06	
Rank	66	66	28	39	N/A	N/A	29	35	74	N/A	N/A	48	
<b>FIA International Fixed Income (SA)</b>	<b>3.53</b>	<b>3.53</b>	<b>1.25</b>	<b>4.72</b>	<b>5.84</b>	<b>5.44</b>	<b>-0.22</b>	<b>13.10</b>	<b>-0.80</b>	<b>7.81</b>	<b>5.11</b>	<b>5.42</b>	<b>05/01/2004</b>
Barclays Gbl Agg Ex USD Index (Hedged)	3.51	3.51	2.85	4.55	5.16	4.67	1.36	8.79	1.18	6.46	3.94	4.68	
Difference	0.02	0.02	-1.60	0.17	0.68	0.77	-1.58	4.31	-1.98	1.35	1.17	0.74	
IM International Fixed Income (SA+CF) Median	5.44	5.44	1.28	0.38	3.64	6.70	-2.98	1.64	-4.62	17.22	4.40	8.28	
Rank	82	82	51	7	20	69	33	2	28	83	42	79	

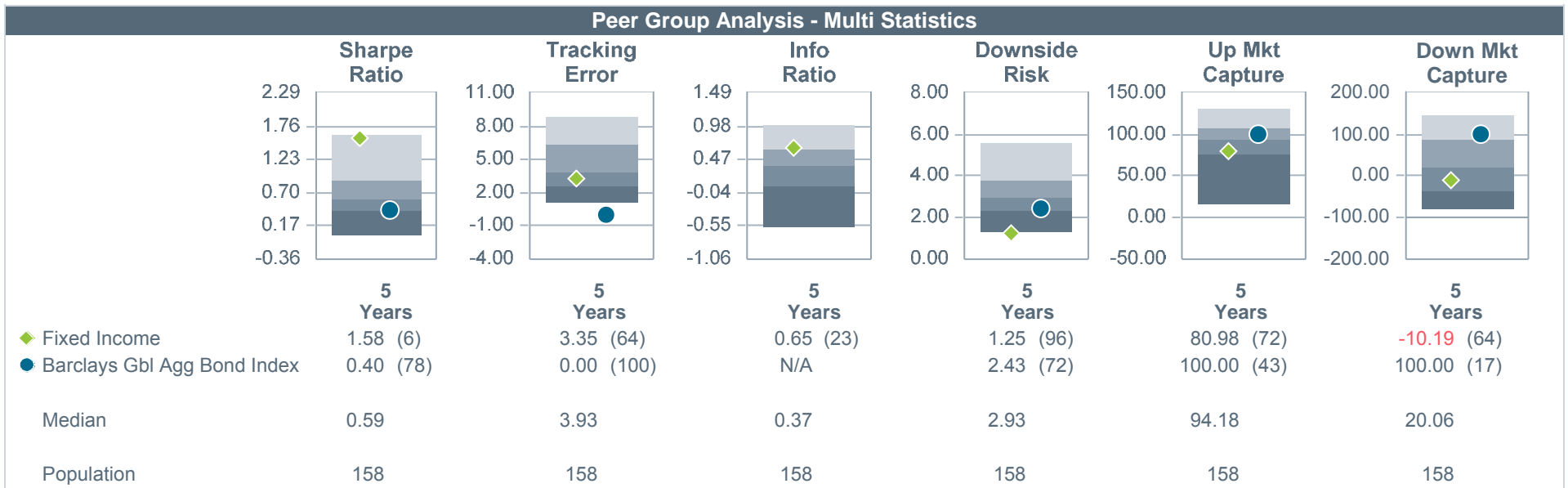
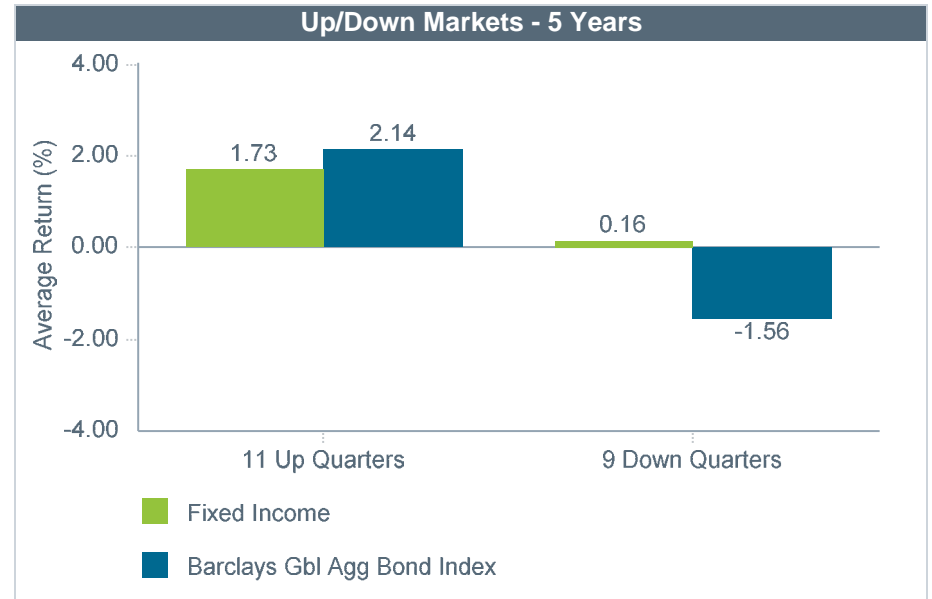
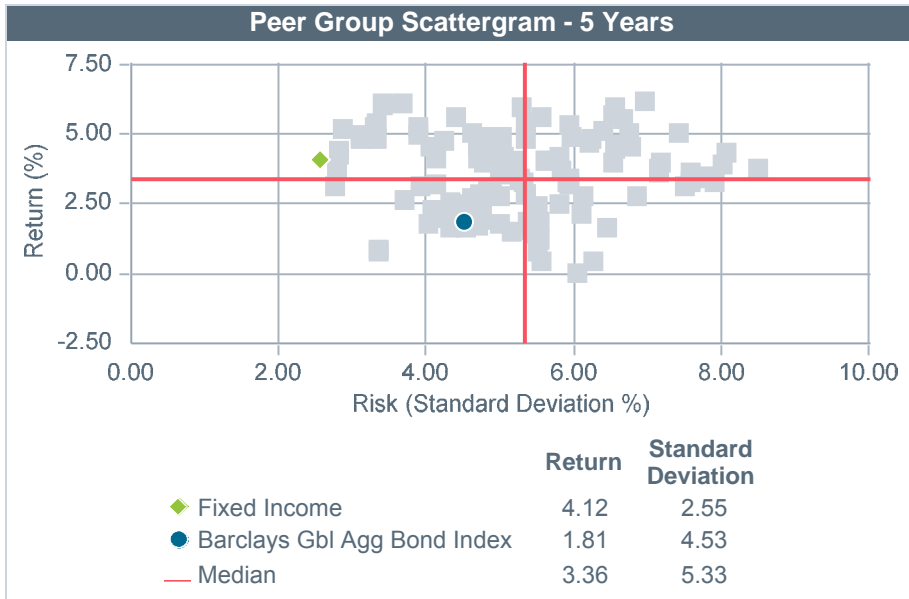
Asset Allocation by Manager



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Comparative Performance													
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2015	2014	2013	2012	2011	Since Incep.	Inception Date
<b>Brandywine Gbl Opp FI (CF)</b>	<b>8.75</b>	<b>8.75</b>	<b>0.33</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-7.98</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-0.76</b>	<b>11/01/2014</b>
Citi Wrld Gov't Bond Index	7.09	7.09	5.92	0.49	1.16	4.19	-3.58	-0.48	-4.00	1.65	6.35	1.39	
Difference	1.66	1.66	-5.59	N/A	N/A	N/A	-4.40	N/A	N/A	N/A	N/A	-2.15	
IM Global Fixed Income (SA+CF) Median	3.66	3.66	0.66	1.33	3.36	5.24	-2.58	2.47	-0.15	9.36	4.82	0.42	
Rank	4	4	57	N/A	N/A	N/A	93	N/A	N/A	N/A	N/A	67	
<b>Lazard High Yield (SA)</b>	<b>2.66</b>	<b>2.66</b>	<b>-0.13</b>	<b>3.50</b>	<b>5.47</b>	<b>6.60</b>	<b>-0.10</b>	<b>4.00</b>	<b>6.15</b>	<b>11.94</b>	<b>6.30</b>	<b>6.59</b>	<b>01/01/2004</b>
BofA ML US Hi Yld BB-B Rated Index	3.15	3.15	-2.42	2.48	5.16	6.54	-2.86	3.47	6.31	14.71	5.43	6.64	
Difference	-0.49	-0.49	2.29	1.02	0.31	0.06	2.76	0.53	-0.16	-2.77	0.87	-0.05	
IM U.S. High Yield Bonds (SA+CF) Median	2.50	2.50	-2.57	2.42	5.14	6.94	-2.27	2.72	7.63	15.37	5.26	7.07	
Rank	43	43	21	18	42	68	18	20	83	87	29	78	
<b>Payden:Low Dur;Inv (PYSBX)</b>	<b>0.92</b>	<b>0.92</b>	<b>1.03</b>	<b>1.16</b>	<b>2.81</b>	<b>4.29</b>	<b>0.91</b>	<b>1.21</b>	<b>0.99</b>	<b>5.03</b>	<b>5.86</b>	<b>4.31</b>	<b>04/01/2002</b>
Barclays US Trsy: 1-3 Yr Index	0.90	0.90	0.92	0.78	0.88	2.49	0.56	0.63	0.36	0.43	1.55	2.54	
Difference	0.02	0.02	0.11	0.38	1.93	1.80	0.35	0.58	0.63	4.60	4.31	1.77	
IM U.S. Short Duration Fixed Income (SA+CF) Median	1.02	1.02	1.26	1.20	1.71	3.16	0.94	1.25	0.67	2.43	2.09	3.12	
Rank	73	73	82	57	4	5	58	55	24	8	1	1	
<b>Payden &amp; Rygel Cash (SA)</b>	<b>0.12</b>	<b>0.12</b>	<b>0.18</b>	<b>0.10</b>	<b>0.11</b>	<b>1.29</b>	<b>0.08</b>	<b>0.05</b>	<b>0.06</b>	<b>0.14</b>	<b>0.13</b>	<b>2.84</b>	<b>08/01/1995</b>
BofA ML 3 Mo US T-Bill Index	0.07	0.07	0.12	0.07	0.08	1.15	0.05	0.04	0.07	0.11	0.10	2.58	
Difference	0.05	0.05	0.06	0.03	0.03	0.14	0.03	0.01	-0.01	0.03	0.03	0.26	
<b>FLP Bank Loan</b>	<b>1.47</b>	<b>1.47</b>	<b>6.11</b>	<b>5.90</b>	<b>5.93</b>	<b>6.55</b>	<b>6.09</b>	<b>5.85</b>	<b>5.52</b>	<b>5.89</b>	<b>6.36</b>	<b>7.39</b>	<b>08/01/1995</b>
<b>ECLP Bank Loan</b>	<b>1.24</b>	<b>1.24</b>	<b>5.13</b>	<b>5.06</b>	<b>5.32</b>	<b>N/A</b>	<b>5.13</b>	<b>5.03</b>	<b>5.16</b>	<b>5.58</b>	<b>5.97</b>	<b>5.39</b>	<b>11/01/2010</b>

Performance shown is gross of fees, except for FLP & ECLP Bank Loans which are shown net of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. RVK endorses GIPS and calculates performance for composites and investment managers using different methodologies.

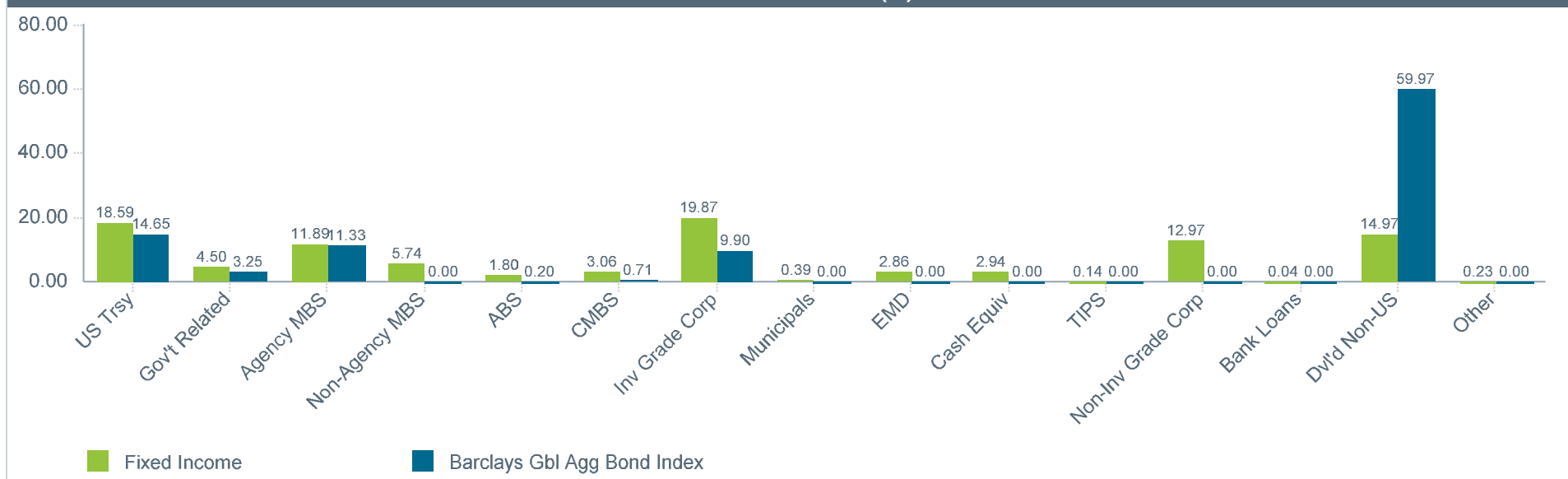


Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.

Portfolio Characteristics

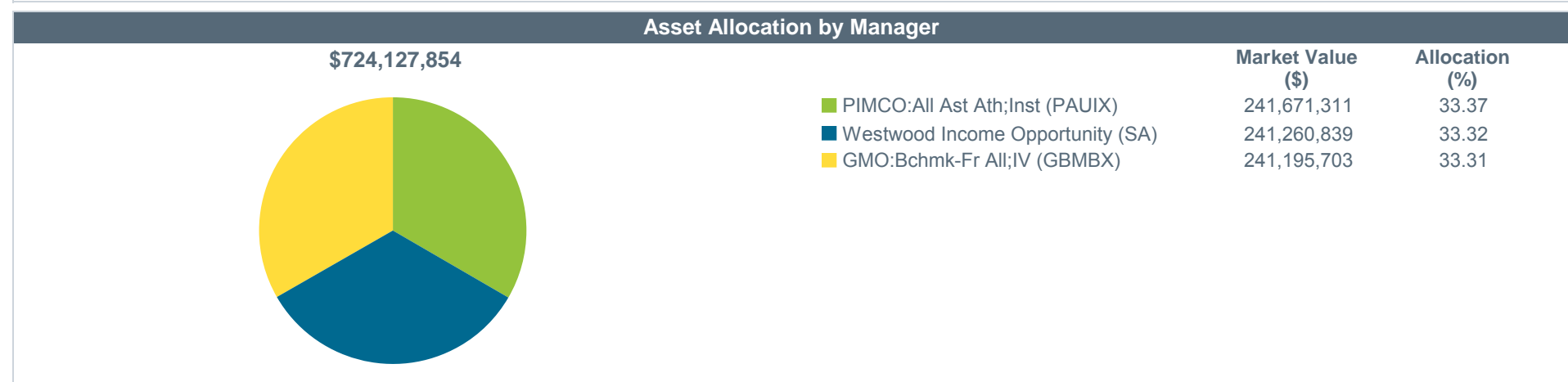
	Portfolio	Benchmark
Effective Duration	4.51	6.71
Modified Duration	4.67	6.16
Avg. Maturity	6.53	8.57
Avg. Quality	A1	N/A
Coupon Rate (%)	3.47	2.90
Yield To Worst (%)	2.29	1.39
Current Yield (%)	3.30	0.03

Sector Distribution (%)



Allocation to "Other" consists of non-corporate credit, municipal bonds, and derivatives. FLP Bank Loan and ECLP Bank Loan are excluded from portfolio characteristics and sector distribution. Negative sector allocation reflects manager's use of derivatives, short selling, or interest rate swaps.

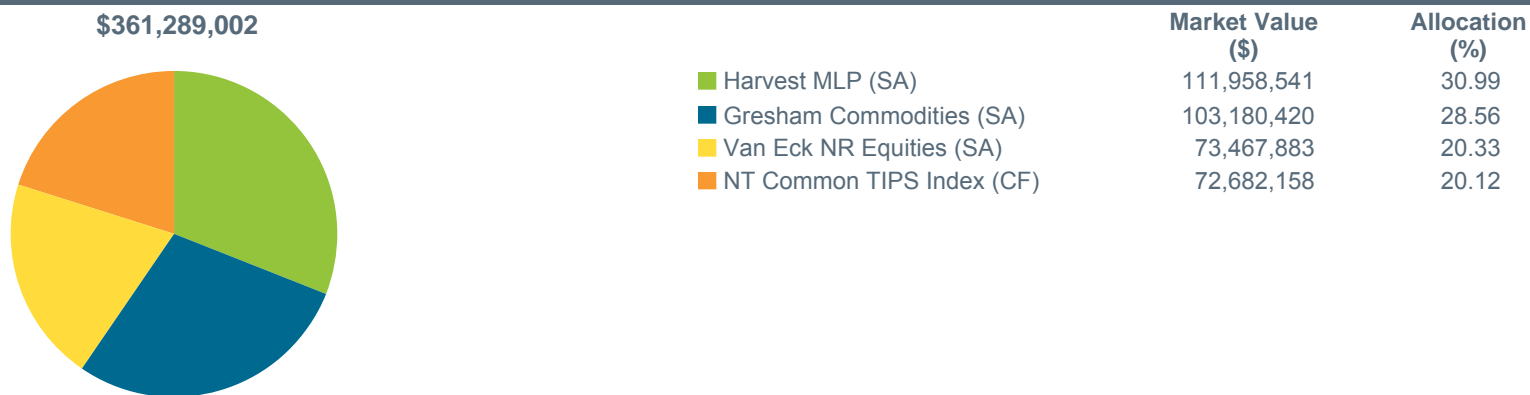
Comparative Performance													
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2015	2014	2013	2012	2011	Since Incep.	Inception Date
<b>Absolute Return</b>	2.41	2.41	-3.93	N/A	N/A	N/A	-5.52	N/A	N/A	N/A	N/A	-3.49	07/01/2014
Absolute Return Custom Index	1.51	1.51	-1.60	4.52	4.91	4.90	-0.88	4.77	12.74	11.63	-1.47	0.03	
Difference	0.90	0.90	-2.33	N/A	N/A	N/A	-4.64	N/A	N/A	N/A	N/A	-3.52	
<b>GMO:Bchmk-Fr All;IV (GBMBX)</b>	0.38	0.38	-4.61	N/A	N/A	N/A	-3.43	N/A	N/A	N/A	N/A	-3.38	07/01/2014
60% MSCI ACW (Net)/40% B Gbl Agg	2.56	2.56	-0.61	3.80	4.04	4.49	-2.47	2.78	12.05	11.45	-2.07	-1.59	
Difference	-2.18	-2.18	-4.00	N/A	N/A	N/A	-0.96	N/A	N/A	N/A	N/A	-1.79	
<b>PIMCO:All Ast Ath;Inst (PAUIX)</b>	5.80	5.80	-5.64	N/A	N/A	N/A	-10.89	N/A	N/A	N/A	N/A	-7.64	07/01/2014
All Asset Custom Index (EqI Wtd)	2.39	2.39	0.23	2.88	4.14	4.96	-1.07	3.73	6.10	8.92	3.48	0.36	
Difference	3.41	3.41	-5.87	N/A	N/A	N/A	-9.82	N/A	N/A	N/A	N/A	-8.00	
<b>Westwood Income Opportunity (SA)</b>	1.20	1.20	-1.52	N/A	N/A	N/A	-2.07	N/A	N/A	N/A	N/A	0.62	07/01/2014
Westwood Custom Index	3.13	3.13	2.73	6.30	7.50	5.87	1.61	12.88	6.15	9.97	7.32	5.72	
Difference	-1.93	-1.93	-4.25	N/A	N/A	N/A	-3.68	N/A	N/A	N/A	N/A	-5.10	



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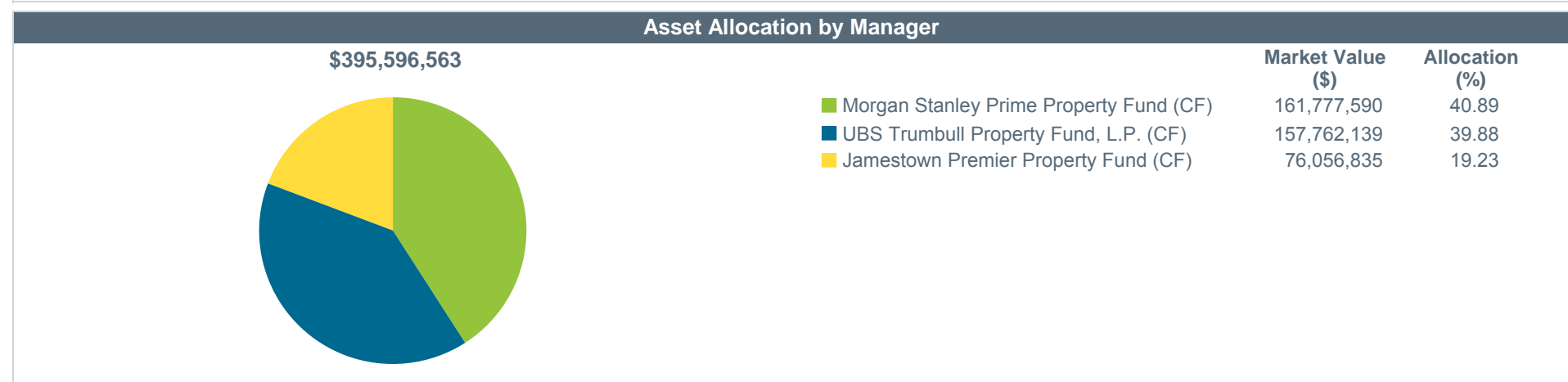
Comparative Performance													
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2015	2014	2013	2012	2011	Since Incep.	Inception Date
<b>Diversified Inflation Strategies (DIS)</b>	1.92	1.92	-25.14	N/A	N/A	N/A	-23.87	N/A	N/A	N/A	N/A	-6.72	04/01/2014
DIS Custom Index	2.34	2.34	-19.24	-4.70	1.20	2.77	-18.88	9.69	-2.19	17.59	3.94	-5.97	
Difference	-0.42	-0.42	-5.90	N/A	N/A	N/A	-4.99	N/A	N/A	N/A	N/A	-0.75	
<b>NT Common TIPS Index (CF)</b>	4.51	4.51	1.49	-0.66	3.09	4.72	-1.48	3.69	-8.58	6.94	13.91	4.60	06/01/2004
Barclays US Trsy: US TIPS Index	4.46	4.46	1.51	-0.71	3.02	4.62	-1.44	3.64	-8.61	6.98	13.56	4.49	
Difference	0.05	0.05	-0.02	0.05	0.07	0.10	-0.04	0.05	0.03	-0.04	0.35	0.11	
IM U.S. TIPS (SA+CF) Median	4.24	4.24	1.56	-0.69	2.97	4.68	-1.40	3.52	-8.24	7.02	13.50	4.58	
Rank	25	25	61	45	36	42	64	35	64	59	25	36	
<b>Gresham Commodities (SA)</b>	0.95	0.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-23.27	07/01/2015
Bbrg Cmnty Ex-Energy Index (TR)	4.54	4.54	-8.74	-10.98	-10.09	0.17	-17.74	-6.47	-16.76	2.85	-11.93	-10.08	
Difference	-3.59	-3.59	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-13.19	
<b>Harvest MLP (SA)</b>	-5.72	-5.72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-29.48	07/01/2015
S&P MLP Index (TR)	-6.33	-6.33	-37.21	-10.86	-0.87	7.24	-35.07	7.66	29.75	4.95	14.47	-33.79	
Difference	0.61	0.61	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.31	
<b>Van Eck NR Equities (SA)</b>	11.70	11.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-23.63	07/01/2015
S&P Gbl Natural Res Sect Index (TR)	9.27	9.27	-14.73	-8.21	-8.17	0.73	-24.00	-9.66	1.55	7.15	-14.86	-14.83	
Difference	2.43	2.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-8.80	

Asset Allocation by Manager



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Comparative Performance													
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2015	2014	2013	2012	2011	Since Incep.	Inception Date
<b>Real Estate</b>	<b>1.91</b>	<b>1.91</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.37</b>	<b>07/01/2015</b>
NCREIF ODCE Index (AWA) (Gross)	2.21	2.21	13.70	13.64	13.26	6.36	15.01	12.50	13.94	10.94	15.99	9.51	
Difference	-0.30	-0.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.14	
<b>Morgan Stanley Prime Property Fund (CF)</b>	<b>2.19</b>	<b>2.19</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.78</b>	<b>07/01/2015</b>
NCREIF ODCE Index (AWA) (Gross)	2.21	2.21	13.70	13.64	13.26	6.36	15.01	12.50	13.94	10.94	15.99	9.51	
Difference	-0.02	-0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.27	
<b>UBS Trumbull Property Fund, L.P. (CF)</b>	<b>2.08</b>	<b>2.08</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>8.76</b>	<b>07/01/2015</b>
NCREIF ODCE Index (AWA) (Gross)	2.21	2.21	13.70	13.64	13.26	6.36	15.01	12.50	13.94	10.94	15.99	9.51	
Difference	-0.13	-0.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.75	
<b>Jamestown Premier Property Fund (CF)</b>	<b>1.03</b>	<b>1.03</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.66</b>	<b>07/01/2015</b>
NCREIF ODCE Index (AWA) (Gross)	2.21	2.21	13.70	13.64	13.26	6.36	15.01	12.50	13.94	10.94	15.99	9.51	
Difference	-1.18	-1.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.15	



Performance shown is gross of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. RVK endorses GIPS and calculates performance for composites and investment managers using different methodologies.

North Dakota Board of University and School Lands  
Comparative Performance - Net

As of March 31, 2016

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2015	2014	2013	Since Incep.	Inception Date
<b>Total Fund</b>	<b>1.82</b>	<b>1.82</b>	<b>-4.54</b>	<b>3.16</b>	<b>4.77</b>	<b>9.19</b>	<b>4.54</b>	<b>-4.55</b>	<b>4.78</b>	<b>13.15</b>	<b>6.54</b>	<b>08/01/1995</b>
Long-Term Target Allocation Index	2.35	2.35	-0.84	4.58	5.88	N/A	N/A	-1.53	5.50	13.12	N/A	
Difference	-0.53	-0.53	-3.70	-1.42	-1.11	N/A	N/A	-3.02	-0.72	0.03	N/A	
Interim Target Allocation Index	2.41	2.41	-2.60	N/A	N/A	N/A	N/A	-3.69	N/A	N/A	N/A	
Difference	-0.59	-0.59	-1.94	N/A	N/A	N/A	N/A	-0.86	N/A	N/A	N/A	
<b>Broad US Equity</b>	<b>1.12</b>	<b>1.12</b>	<b>0.00</b>	<b>9.65</b>	<b>9.45</b>	<b>N/A</b>	<b>N/A</b>	<b>0.08</b>	<b>12.29</b>	<b>28.14</b>	<b>14.34</b>	<b>07/01/2009</b>
Russell 3000 Index	0.97	0.97	-0.34	11.14	11.01	17.09	6.90	0.48	12.55	33.55	15.10	
Difference	0.15	0.15	0.34	-1.49	-1.56	N/A	N/A	-0.40	-0.26	-5.41	-0.76	
<b>SSgA S&amp;P 500 Index (CF)</b>	<b>1.37</b>	<b>1.37</b>	<b>1.84</b>	<b>11.82</b>	<b>11.56</b>	<b>16.96</b>	<b>N/A</b>	<b>1.40</b>	<b>13.67</b>	<b>32.36</b>	<b>8.03</b>	<b>04/01/2008</b>
S&P 500 Index (Cap Wtd)	1.35	1.35	1.78	11.82	11.58	16.97	7.01	1.38	13.69	32.39	8.03	
Difference	0.02	0.02	0.06	0.00	-0.02	-0.01	N/A	0.02	-0.02	-0.03	0.00	
<b>NT Small Cap Core (CF)</b>	<b>0.04</b>	<b>0.04</b>	<b>-7.21</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-6.01</b>	<b>N/A</b>	<b>N/A</b>	<b>-3.99</b>	<b>07/01/2014</b>
Russell 2000 Index	-1.52	-1.52	-9.76	6.84	7.20	16.42	5.26	-4.41	4.89	38.82	-2.49	
Difference	1.56	1.56	2.55	N/A	N/A	N/A	N/A	-1.60	N/A	N/A	-1.50	
<b>NT Small/Smid Composite</b>	<b>0.04</b>	<b>0.04</b>	<b>-7.21</b>	<b>5.74</b>	<b>6.37</b>	<b>15.33</b>	<b>4.61</b>	<b>-6.01</b>	<b>2.65</b>	<b>36.61</b>	<b>9.01</b>	<b>03/01/1996</b>
Small/Smid Blended Index	-1.52	-1.52	-9.76	7.30	8.07	17.43	6.21	-4.41	8.25	36.80	9.18	
Difference	1.56	1.56	2.55	-1.56	-1.70	-2.10	-1.60	-1.60	-5.60	-0.19	-0.17	
<b>Broad International Equity</b>	<b>-0.15</b>	<b>-0.15</b>	<b>-8.48</b>	<b>2.41</b>	<b>1.37</b>	<b>N/A</b>	<b>N/A</b>	<b>-5.25</b>	<b>-5.28</b>	<b>25.44</b>	<b>5.68</b>	<b>07/01/2009</b>
MSCI ACW Ex US Index (Net)	-0.38	-0.38	-9.19	0.32	0.31	9.18	1.94	-5.66	-3.87	15.29	5.65	
Difference	0.23	0.23	0.71	2.09	1.06	N/A	N/A	0.41	-1.41	10.15	0.03	
<b>SSgA World Ex US Index (CF)</b>	<b>-1.99</b>	<b>-1.99</b>	<b>-8.53</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-3.12</b>	<b>N/A</b>	<b>N/A</b>	<b>-8.15</b>	<b>07/01/2014</b>
MSCI Wrld Ex US Index (Net)	-1.95	-1.95	-8.44	1.69	1.62	9.49	1.80	-3.04	-4.32	21.02	-8.07	
Difference	-0.04	-0.04	-0.09	N/A	N/A	N/A	N/A	-0.08	N/A	N/A	-0.08	
<b>DFA Emg Mkts Core Eq;I (DFCEX)</b>	<b>7.26</b>	<b>7.26</b>	<b>-10.43</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-14.86</b>	<b>N/A</b>	<b>N/A</b>	<b>-9.32</b>	<b>07/01/2014</b>
MSCI Emg Mkts Index (Net)	5.71	5.71	-12.03	-4.50	-4.13	8.21	3.02	-14.92	-2.19	-2.60	-10.17	
Difference	1.55	1.55	1.60	N/A	N/A	N/A	N/A	0.06	N/A	N/A	0.85	
<b>Harding Loevner:IEM;II (HLEEX)</b>	<b>6.57</b>	<b>6.57</b>	<b>-8.89</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-13.31</b>	<b>N/A</b>	<b>N/A</b>	<b>-9.11</b>	<b>07/01/2014</b>
MSCI Emg Mkts Index (Net)	5.71	5.71	-12.03	-4.50	-4.13	8.21	3.02	-14.92	-2.19	-2.60	-10.17	
Difference	0.86	0.86	3.14	N/A	N/A	N/A	N/A	1.61	N/A	N/A	1.06	

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North Dakota Board of University and School Lands  
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	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2015	2014	2013	Since Incep.	Inception Date
<b>Fixed Income</b>	<b>3.13</b>	<b>3.13</b>	<b>1.46</b>	<b>2.15</b>	<b>3.89</b>	<b>5.56</b>	<b>5.13</b>	<b>-0.15</b>	<b>4.72</b>	<b>-0.57</b>	<b>5.98</b>	<b>08/01/1995</b>
Barclays Gbl Agg Bond Index	5.90	5.90	4.57	0.87	1.81	3.73	4.35	-3.15	0.59	-2.60	4.91	
Difference	-2.77	-2.77	-3.11	1.28	2.08	1.83	0.78	3.00	4.13	2.03	1.07	
<b>Payden &amp; Rygel Long Term (SA)</b>	<b>2.53</b>	<b>2.53</b>	<b>1.46</b>	<b>2.46</b>	<b>4.01</b>	<b>5.99</b>	<b>5.33</b>	<b>0.62</b>	<b>5.80</b>	<b>-1.45</b>	<b>6.18</b>	<b>08/01/1995</b>
Barclays US Agg Bond Index	3.03	3.03	1.96	2.50	3.78	4.52	4.90	0.55	5.97	-2.02	5.64	
Difference	-0.50	-0.50	-0.50	-0.04	0.23	1.47	0.43	0.07	-0.17	0.57	0.54	
<b>JP Morgan FI Intermediate Bond (SA)</b>	<b>2.20</b>	<b>2.20</b>	<b>2.29</b>	<b>2.05</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>1.42</b>	<b>3.86</b>	<b>-1.01</b>	<b>2.03</b>	<b>08/01/2012</b>
Barclays US Gov't/Credit: Int Trm Bond Index	2.45	2.45	2.06	1.83	3.01	3.79	4.34	1.07	3.13	-0.86	1.78	
Difference	-0.25	-0.25	0.23	0.22	N/A	N/A	N/A	0.35	0.73	-0.15	0.25	
<b>FIA International Fixed Income (SA)</b>	<b>3.46</b>	<b>3.46</b>	<b>1.01</b>	<b>4.47</b>	<b>5.58</b>	<b>5.40</b>	<b>5.15</b>	<b>-0.46</b>	<b>12.84</b>	<b>-1.04</b>	<b>5.12</b>	<b>05/01/2004</b>
Barclays Gbl Agg Ex USD Index (Hedged)	3.51	3.51	2.85	4.55	5.16	4.70	4.67	1.36	8.79	1.18	4.68	
Difference	-0.05	-0.05	-1.84	-0.08	0.42	0.70	0.48	-1.82	4.05	-2.22	0.44	
<b>Brandywine Gbl Opp FI (CF)</b>	<b>8.65</b>	<b>8.65</b>	<b>-0.05</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-8.31</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.07</b>	<b>11/01/2014</b>
Citi Wrld Gov't Bond Index	7.09	7.09	5.92	0.49	1.16	2.74	4.19	-3.58	-0.48	-4.00	1.39	
Difference	1.56	1.56	-5.97	N/A	N/A	N/A	N/A	-4.73	N/A	N/A	-2.46	
<b>Lazard High Yield (SA)</b>	<b>2.59</b>	<b>2.59</b>	<b>-0.44</b>	<b>3.18</b>	<b>5.16</b>	<b>9.55</b>	<b>6.28</b>	<b>-0.41</b>	<b>3.69</b>	<b>5.83</b>	<b>6.27</b>	<b>01/01/2004</b>
BofA ML US Hi Yld BB-B Rated Index	3.15	3.15	-2.42	2.48	5.16	11.16	6.54	-2.86	3.47	6.31	6.64	
Difference	-0.56	-0.56	1.98	0.70	0.00	-1.61	-0.26	2.45	0.22	-0.48	-0.37	
<b>Payden:Low Dur;Inv (PYSBX)</b>	<b>0.80</b>	<b>0.80</b>	<b>0.56</b>	<b>0.66</b>	<b>2.30</b>	<b>3.10</b>	<b>3.78</b>	<b>0.44</b>	<b>0.70</b>	<b>0.48</b>	<b>3.80</b>	<b>04/01/2002</b>
Barclays US Trsy: 1-3 Yr Index	0.90	0.90	0.92	0.78	0.88	1.07	2.49	0.56	0.63	0.36	2.54	
Difference	-0.10	-0.10	-0.36	-0.12	1.42	2.03	1.29	-0.12	0.07	0.12	1.26	
<b>Payden &amp; Rygel Cash (SA)</b>	<b>0.09</b>	<b>0.09</b>	<b>0.09</b>	<b>0.00</b>	<b>0.01</b>	<b>0.06</b>	<b>1.19</b>	<b>-0.02</b>	<b>-0.04</b>	<b>-0.04</b>	<b>2.74</b>	<b>08/01/1995</b>
BofA ML 3 Mo US T-Bill Index	0.07	0.07	0.12	0.07	0.08	0.10	1.15	0.05	0.04	0.07	2.58	
Difference	0.02	0.02	-0.03	-0.07	-0.07	-0.04	0.04	-0.07	-0.08	-0.11	0.16	
<b>FLP Bank Loan</b>	<b>1.47</b>	<b>1.47</b>	<b>6.11</b>	<b>5.90</b>	<b>5.93</b>	<b>6.12</b>	<b>6.55</b>	<b>6.09</b>	<b>5.85</b>	<b>5.52</b>	<b>7.39</b>	<b>08/01/1995</b>
<b>ECLP Bank Loan</b>	<b>1.24</b>	<b>1.24</b>	<b>5.13</b>	<b>5.06</b>	<b>5.32</b>	<b>N/A</b>	<b>N/A</b>	<b>5.13</b>	<b>5.03</b>	<b>5.16</b>	<b>5.39</b>	<b>11/01/2010</b>

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North Dakota Board of University and School Lands  
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	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2015	2014	2013	Since Incep.	Inception Date
<b>Absolute Return</b>	<b>2.22</b>	<b>2.22</b>	<b>-4.67</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-6.25</b>	<b>N/A</b>	<b>N/A</b>	<b>-4.24</b>	<b>07/01/2014</b>
Absolute Return Custom Index	1.51	1.51	-1.60	4.52	4.91	9.86	4.90	-0.88	4.77	12.74	0.03	
Difference	0.71	0.71	-3.07	N/A	N/A	N/A	N/A	-5.37	N/A	N/A	-4.27	
<b>GMO:Bchmk-Fr All;IV (GBMBX)</b>	<b>0.16</b>	<b>0.16</b>	<b>-5.42</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-4.23</b>	<b>N/A</b>	<b>N/A</b>	<b>-4.18</b>	<b>07/01/2014</b>
60% MSCI ACW (Net)/40% B Gbl Agg	2.56	2.56	-0.61	3.80	4.04	9.18	4.49	-2.47	2.78	12.05	-1.59	
Difference	-2.40	-2.40	-4.81	N/A	N/A	N/A	N/A	-1.76	N/A	N/A	-2.59	
Consumer Price Index + 5%	1.91	1.91	5.90	5.80	6.34	6.71	6.86	5.77	5.79	6.58	4.95	
Difference	-1.75	-1.75	-11.32	N/A	N/A	N/A	N/A	-10.00	N/A	N/A	-9.13	
<b>PIMCO:All Ast Ath;Inst (PAUIX)</b>	<b>5.56</b>	<b>5.56</b>	<b>-6.53</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-11.73</b>	<b>N/A</b>	<b>N/A</b>	<b>-8.51</b>	<b>07/01/2014</b>
All Asset Custom Index (EqI Wtd)	2.39	2.39	0.23	2.88	4.14	7.39	4.96	-1.07	3.73	6.10	0.36	
Difference	3.17	3.17	-6.76	N/A	N/A	N/A	N/A	-10.66	N/A	N/A	-8.87	
Consumer Price Index + 5%	1.91	1.91	5.90	5.80	6.34	6.71	6.86	5.77	5.79	6.58	4.95	
Difference	3.65	3.65	-12.43	N/A	N/A	N/A	N/A	-17.50	N/A	N/A	-13.46	
<b>Westwood Income Opportunity (SA)</b>	<b>1.06</b>	<b>1.06</b>	<b>-2.06</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-2.61</b>	<b>N/A</b>	<b>N/A</b>	<b>0.08</b>	<b>07/01/2014</b>
Westwood Custom Index	3.13	3.13	2.73	6.30	7.50	11.39	5.87	1.61	12.88	6.15	5.72	
Difference	-2.07	-2.07	-4.79	N/A	N/A	N/A	N/A	-4.22	N/A	N/A	-5.64	
Consumer Price Index + 5%	1.91	1.91	5.90	5.80	6.34	6.71	6.86	5.77	5.79	6.58	4.95	
Difference	-0.85	-0.85	-7.96	N/A	N/A	N/A	N/A	-8.38	N/A	N/A	-4.87	
<b>Diversified Inflation Strategies (DIS)</b>	<b>1.78</b>	<b>1.78</b>	<b>-25.52</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-24.22</b>	<b>N/A</b>	<b>N/A</b>	<b>-7.11</b>	<b>04/01/2014</b>
DIS Custom Index	2.34	2.34	-19.24	-4.70	1.20	7.96	2.77	-18.88	9.69	-2.19	-5.97	
Difference	-0.56	-0.56	-6.28	N/A	N/A	N/A	N/A	-5.34	N/A	N/A	-1.14	
<b>NT Common TIPS Index (CF)</b>	<b>4.50</b>	<b>4.50</b>	<b>1.44</b>	<b>-0.70</b>	<b>3.05</b>	<b>4.29</b>	<b>4.67</b>	<b>-1.53</b>	<b>3.66</b>	<b>-8.61</b>	<b>4.55</b>	<b>06/01/2004</b>
Barclays US Trsy: US TIPS Index	4.46	4.46	1.51	-0.71	3.02	4.16	4.62	-1.44	3.64	-8.61	4.49	
Difference	0.04	0.04	-0.07	0.01	0.03	0.13	0.05	-0.09	0.02	0.00	0.06	
<b>Gresham Commodities (SA)</b>	<b>0.80</b>	<b>0.80</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-23.62</b>	<b>07/01/2015</b>
Bbrg Cmdty Ex-Energy Index (TR)	4.54	4.54	-8.74	-10.98	-10.09	0.71	0.17	-17.74	-6.47	-16.76	-10.08	
Difference	-3.74	-3.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-13.54	
<b>Harvest MLP (SA)</b>	<b>-5.88</b>	<b>-5.88</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-29.89</b>	<b>07/01/2015</b>
S&P MLP Index (TR)	-6.33	-6.33	-37.21	-10.86	-0.87	11.95	7.24	-35.07	7.66	29.75	-33.79	
Difference	0.45	0.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.90	

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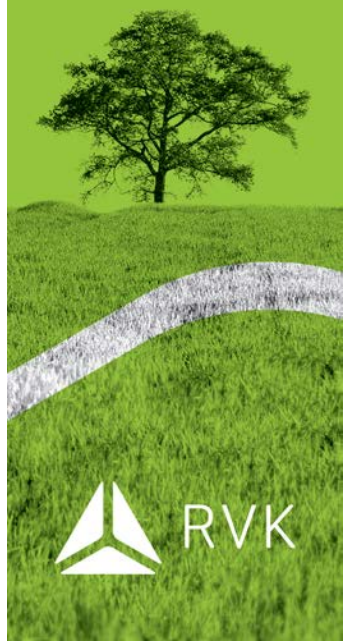
North Dakota Board of University and School Lands  
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As of March 31, 2016

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2015	2014	2013	Since Incep.	Inception Date
<b>Van Eck NR Equities (SA)</b>	<b>11.54</b>	<b>11.54</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-24.03</b>	<b>07/01/2015</b>
S&P Gbl Natural Res Sect Index (TR)	9.27	9.27	-14.73	-8.21	-8.17	1.39	0.73	-24.00	-9.66	1.55	-14.83	
Difference	2.27	2.27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-9.20	
<b>Real Estate</b>	<b>1.65</b>	<b>1.65</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>8.36</b>	<b>07/01/2015</b>
NCREIF ODCE Index (AWA) (Net)	1.97	1.97	12.66	12.60	12.20	8.05	5.38	13.96	11.46	12.90	8.76	
Difference	-0.32	-0.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.40	
<b>Morgan Stanley Prime Property Fund (CF)</b>	<b>1.88</b>	<b>1.88</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>8.79</b>	<b>07/01/2015</b>
NCREIF ODCE Index (AWA) (Net)	1.97	1.97	12.66	12.60	12.20	8.05	5.38	13.96	11.46	12.90	8.76	
Difference	-0.09	-0.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.03	
<b>UBS Trumbull Property Fund, L.P. (CF)</b>	<b>1.82</b>	<b>1.82</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>7.91</b>	<b>07/01/2015</b>
NCREIF ODCE Index (AWA) (Net)	1.97	1.97	12.66	12.60	12.20	8.05	5.38	13.96	11.46	12.90	8.76	
Difference	-0.15	-0.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.85	
<b>Jamestown Premier Property Fund (CF)</b>	<b>0.84</b>	<b>0.84</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>7.83</b>	<b>07/01/2015</b>
NCREIF ODCE Index (AWA) (Net)	1.97	1.97	12.66	12.60	12.20	8.05	5.38	13.96	11.46	12.90	8.76	
Difference	-1.13	-1.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.93	

Performance shown is net of fees. Manager inception dates shown represent the first full month following initial funding. Composite inception dates are based on availability of data for each asset class. The portfolio is in the process of transitioning to its new target allocations, resulting in significant variation between actual and target allocations. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. RVK endorses GIPS and calculates performance for composites and investment managers using different methodologies. For additional information, please see the Addendum and Glossary.

# Addendum & Glossary



**Fee Schedules**

- SSgA S&P 500 Index (CF): 0.012% on total market value
- NTGA Small Cap Core (CF): 0.70% on total market value
- SSgA World Ex US Index (CF): 0.025% on total market value
- DFA Emg Mkts Core Eq;I (DFCEX): 0.62% on total market value
- Harding Loevner:IEM;II (HLEEX): 1.14% on total market value
- Payden & Rygel Long Term (SA): 0.20% on total market value
- JP Morgan FI Intermediate Bond (SA): 0.20% on the first \$75M, 0.18% thereafter
- FIA International Fixed Income (SA): 0.35% on the first \$30M, 0.25% on the next \$20M, 0.20% over \$50M
- Brandywine Gbl Opp FI (CF): 0.45% on the first \$50M, 0.40% on the next \$50M, 0.35% thereafter
- Lazard High Yield (SA): 0.30% on total market value
- Payden:Low Dur;Inv (PYSBX): 0.47% on total market value
- Payden & Rygel Cash (SA): 0.10% on total market value
- Westwood Income Opportunity (SA): 0.80% on the first \$25M, 0.65% on the next \$25M, 0.50% thereafter
- GMO:Bchmk-Fr All;IV (GBMBX): 0.85% on total market value
- PIMCO:All Ast Ath;Inst (PAUIX): 0.94% on total market value
- NT Common TIPS Index (CF): 0.06% on the first \$50M, 0.03% thereafter
- Gresham Commodities (SA): 0.67% on the first \$75M, 0.50% on the next \$75M, 0.40% thereafter
- Harvest MLP (SA): 0.75% on the first \$100M, and a 0.05% discount on each \$50M thereafter until \$300M, where it's 0.50%
- Van Eck NR Equities (SA): 0.75% on the first \$50M, 0.50% on the next \$200M, 0.475% thereafter
- Morgan Stanley Prime Property Fund: 0.84% on total market value; Incentive fee: 5.0% \* NAV \* comparable property NOI growth (total capped at 0.35%)
- UBS Trumbull Property Fund, L.P.: 0.955% on the first \$10M, 0.825% on the next \$15M, 0.805% on the next \$25M, 0.79% on the next \$50M, 0.67% on the next \$150M, and 0.6% thereafter, and a 0.15% incentive fee
- Jamestown Premier Property Fund: 0.70% on Total Market Value, plus 20% of returns greater than 7% and 25% of returns greater than 10%

**Performance Related Comments**

- Manager inception dates shown represent the first full month following initial funding.
- RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Prior historical data was provided by North Dakota Board of University and School Lands.
- RVK endorses GIPS and calculates performance for composites and investment managers using differing methodologies. For additional information, please see the Glossary.
- Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark.
- Historical gross performance for composites was calculated by aggregating gross performance for each of the composites' underlying managers. Managers' gross performance was provided by North Dakota Board of University and School Lands. As of July 2014, composite and manager performance is provided and calculated by RVK.
- NT Small Cap Core (CF) changed mandate from small and mid cap to strictly small cap in June 2014. Performance for NT Small/Smid Composite consists of blended history from the previous mandate. From July 2014 through present, performance consists of only the small cap mandate.
- Payden:Low Dur;Inv (PYSBX) performance prior to August 2012 consists of blended Payden:Low Dur;Inv (PYSBX) and Payden:GNMA;Inv (PYGNX).

Index Comments

- The Long-Term Target Allocation Index is a static custom index that is calculated monthly and consists of:
  - From July 2014 through present: 17% Russell 3000 Index, 15% MSCI ACW Ex US Index (Net), 23% Barclays Gbl Agg Bond Index, 15% NCREIF ODCE Index (AWA) (Net), 20% Absolute Return Custom Index, and 10% DIS Custom Index.
  - From January 2013 through June 2014: 18.7% Russell 1000 Index, 12.4% Russell 2500 Index, 7.5% FTSE EPRA/NAREIT US Index (Net), 12.4% MSCI EAFE Index (Net), 33.3% Barclays US Agg Bond Index, 0.70% Credit Suisse Leveraged Loan Index, 10% Barclays US Corporate: High Yield Index, and 5% Barclays Gbl Agg Ex USD Index (Hedged).
  - From July 2009 through December 2013: 15% Russell 1000 Index, 10% Russell 2500 Index, 6% FTSE EPRA/NAREIT US Index (Net), 10% MSCI EAFE Index (Net), 32.3% Barclays US Aggregate Bond Index, 1.70% Credit Suisse Leveraged Loan Index, 10% Barclays US Corporate: High Yield Index, 5% Barclays Gbl Agg Ex USD Index (Hedged), and 10% BofA Merrill Lynch Convertible Bonds Index (All Qualities).
- The Interim Target Allocation Index is a custom index that is calculated monthly and consists of:
  - From January 2016 through present: 17.7% Russell 3000 Index, 15.6% MSCI ACW Ex US Index (Net), 25.3% Barclays Gbl Agg Bond Index, 10.0% NCREIF ODCE Index (AWA) (Net), 21.0% Absolute Return Custom Index, and 10.4% DIS Custom Index.
  - From October 2015 through present: 17.9% Russell 3000 Index, 15.9% MSCI ACW Ex US Index (Net), 25.5% Barclays Gbl Agg Bond Index, 9.0% NCREIF ODCE Index (AWA) (Net), 21.1% Absolute Return Custom Index, and 10.6% DIS Custom Index.
  - From July 2015 through September 2015: 19.5% Russell 3000 Index, 17.4% MSCI ACW Ex US Index (Net), 26.2% Barclays Gbl Agg Bond Index, 4.1% NCREIF ODCE Index (AWA) (Net), 22% Absolute Return Custom Index, and 10.8% DIS Custom Index.
  - From July 2014 through June 2015: The Index was calculated monthly using beginning of month asset class weights applied to each corresponding primary benchmark return.
- The Absolute Return Custom Index consists of 60% MSCI ACW Investable Mkt Index (Net) and 40% Barclays US Agg Bond Index.
- The DIS Custom Index consists of 50% Barclays US Trsy: US TIPS Index and 50% FTSE EPRA/NAREIT Developed Index (Gross) through June 2015. It consists of 20% Barclays US Trsy: US TIPS Index, 30% Bbrg Cndty Ex-Energy Index (TR), 30% S&P MLP Index (TR), and 20% S&P Gbl Natural Res Index (TR) thereafter.
- The Small/Smid Blended Index consists of 100% Russell 2500 Index until June 2014 and 100% Russell 2000 Index thereafter.
- The Westwood Custom Index consists of 25% S&P 500 Index (Cap Weighted), 25% FTSE NAREIT All Eq REITs TR Index, 25% Citi 3 Mo T-Bill Index, and 25% Citi 10 Yr Trsy Index.
- The All Asset Custom Index is an equal-weighted hybrid created independently by RVK specifically for PIMCO's All Asset strategies, and it consists of the following benchmarks:
  1. Short Term Strategies: BofA ML 1 Year T-Bill Index
  2. US Core and Long Maturity Bond Strategies: Barclays US Agg Bond Index
  3. EM and Global Bond Strategies: PIMCO GLADI Index\*
  4. Credit Strategies: BofA ML US Hi Yld Master II Index
  5. Inflation Related Strategies: Barclays US Trsy: US TIPS Index
  6. US Equity Strategies: Russell 3000 Index
  7. Global Equity Strategies: MSCI ACW Index (USD) (Net)
  8. Alternative Strategies: BofA ML 3 Mo US T-Bill Index + 3%

\* Performance for the PIMCO Gbl Advantage Bond Index (London Close) prior to January 2004 consists of the JPM EMBI Gbl Dvf'd TR Index.

## Glossary

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

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

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

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

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

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

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

**Country/Region** - Attribution is calculated using the Morgan Stanley Capital International (MSCI) region standards. Stocks are classified by their domicile country/region, as defined by S&P Capital IQ data.

**Style** - Stocks are classified into the following style boxes: large/mid/small vs. growth/neutral/value. Stocks are classified along large/mid/small categories at the time of the Russell index rebalancing, using the index market cap boundaries as cutoff points. Stocks are classified along growth/neutral/value categories at the time of the Russell index rebalancing, using the price/book ratio as supplied by S&P Capital IQ. Stocks in the Russell 3000 Index portfolio are sorted by price/book ratio; names with the highest price/book ratio that make up 1/3 of the total market capitalization are assigned to the growth category, names that make up the subsequent 1/3 of the total market capitalization are assigned to the neutral category, while the balance of the names are assigned to the value category.

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

## Glossary

### Capital Markets Review -

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

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

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

**Option-Adjusted Spread** - Measures the flat spread of an index or bond to the Treasury yield curve after removing the effect of any embedded options.

**Purchasing Managers Index (PMI)** - Measures economic activity by surveying purchasing managers on a monthly basis as to whether business conditions have improved, worsened, or stayed the same.

**US Dollar Total Weighted Index** - Measures the value of the US Dollar relative to a basket of other world currencies. It is calculated as the weighted geometric mean of the dollar's value versus the EUR, GBP, CAD, SEK, CHF, and JPY.

**VIX** - Measures the implied volatility of S&P 500 Index options by looking at the market's expectation of the S&P 500 Index volatility over the next 30 day period. Commonly referred to as the "fear index" or the "fear gauge."

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

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

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

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

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

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

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

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

**Effective Duration** - The weighted average duration of all the bonds in a given portfolio, weighted by their dollar values.

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

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

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

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

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

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

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



## Glossary

**Liability Driven Investing (LDI)** - A method to optimally structure asset investments relative to liabilities. The change in liabilities is estimated by the Ryan Labs Generic PPA Index of appropriate duration for that Plan. This benchmark is based on generic data and is therefore an approximation. RVK is not an actuarial firm, and does not have actuarial expertise.

**Estimated Funded Status** - The estimated ratio of a Plan's assets relative to its future liabilities. This is calculated by dividing the Plan's asset market value by the estimated present value of its liabilities. The higher the estimated funded status, the better the Plan's ability to cover its projected benefit obligations. An estimated funded status of 100% indicates a Plan that is fully funded.

**Estimated PV of Liabilities** - An estimate of a Plan's future liabilities in present value terms. The beginning of the period liability is provided by the Plan's actuary. The period-end present value liability estimate provided in this report is derived by applying the estimated percentage change generated using the Ryan Labs Generic PPA Index with duration similar to that reported on the most recent actuarial valuation report.

**Duration of Liabilities** - The sensitivity of the value of a Plan's liabilities to changes in interest rates, as calculated by the Plan's actuary.

**Duration of Assets** - The dollar-weighted average duration of all the individual Plan assets.

**Estimated Plan Hedge Ratio** - The estimate of how well a Plan's investment portfolio is hedged against changes in interest rates - a primary driver of funded status movements. This is calculated by dividing the dollar-weighted values of both the Plan asset duration by the liability duration and multiplying by the estimated funded status. An estimated plan hedge ratio of zero indicates that the Plan's liabilities have not been hedged, whereas a value of one indicates fully hedged.

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

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

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

### Peer Groups -

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

**Institutional Peer Groups (Separate Account and Commingled Fund)** - RVK utilizes the Investment Metrics Separate Account and Commingled Fund Manager Peer Groups for peer comparison and rankings. The Separate Account and Commingled Fund Peer Group database includes performance and other quantitative data for over 1,000 investment management firms, 6,400 investment products, across 100 standard peer groups. Separate Account and Commingled Fund Peer Groups are gross of fees.

**Mutual Fund (MF) Peer Groups** - RVK utilizes the Lipper Mutual Fund Manager Peer Groups for peer comparison and rankings. The Lipper Manager Peer Group database includes performance and other quantitative data for over 700 investment management firms and 24,500 investment products, across more than 140 standard peer groups. Mutual Fund Peer Groups are net of fees.

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

1 - Highest Statistical Value

100 - Lowest Statistical Value

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

**Performance Methodology** - RVK endorses the Global Investment Performance Standards (GIPS) and calculates performance for investment managers and composites using different methodologies. Investment manager performance is calculated by revaluing the portfolio on the date of all large external cash flows while composite performance is calculated using the Modified Dietz calculation methodology. According to the CFA Institute, "Only investment management firms that actually manage assets can claim compliance with the Standards. Plan Sponsors and consultants cannot make a claim of compliance unless they actually manage assets for which they are making a claim of compliance. They can claim to endorse the Standards and/or require that their investment managers comply with the Standards."

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

## Glossary

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

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

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

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

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

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

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

**Risk Free Benchmark** - BofA ML 3 Mo US T-Bill Index unless specified otherwise.

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

<u>Asset Class</u>	<u>RVK Liquidity Rating</u>	<u>Asset Class</u>	<u>RVK Liquidity Rating</u>
<u>Liquid Investments</u>		<u>Less Liquid Investments</u>	
T-Bills and Treasurys	100	Fixed Income Plus Sector	50
Cash Equivalents	98	Bank Loans	50
TIPS	95	Stable Value (Plan Sponsor Directed)	50
US Large Cap Equity	95	Absolute Return Strategies	35
Diversified Real Return	93		
Stable Value (Participant Directed)	91		
Non-US Large Cap Equity	90	<u>Not Liquid Investments</u>	
Global Tactical Asset Allocation	88	Core Real Estate	25
US Small Cap Equity	85	Core Plus Real Estate	15
REITS	85	Plus Only Real Estate	5
Non-US Small Cap Equity	85	Private Equity Funds of Funds	5
Emerging Markets Equity	85		
Core Fixed Income	85		
Core Plus Fixed Income	80		

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

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

**Spread Duration** - A measure of the price sensitivity of a bond to a 100 basis-point movement of the bond's spread relative to Treasurys.

## Glossary

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

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

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

### Alpha

Absolute Return Strategies  
Currency Overlay

### Capital Appreciation

Public Equity  
Private Equity  
Preferred Securities  
High Yield  
Convertible Fixed Income  
TALF Funds  
Distressed Debt  
Emerging Market Fixed Income  
Value Added Real Estate  
Opportunistic Real Estate

### Capital Preservation

Core Fixed Income  
CMBS Fixed Income  
Asset Backed Fixed Income  
Domestic Core Plus Fixed Income  
Mortgage Backed Fixed Income  
International Developed Fixed Income  
Cash Equivalents  
Stable Value

### Inflation

TIPS  
Bank Loans  
Core Real Estate  
Real Return  
Inflation Hedges  
REITS  
Commodities

**Total Fund Attribution** - A method for identifying the sources of a total fund's over- or underperformance relative to its benchmark. The calculation identifies the contributions of positive or negative total fund excess return caused by allocation differences relative to the total fund's custom benchmark, and performance differences of the investment managers relative to the benchmark components that represent them.

### **Total Fund Performance** -

**Total Fund** - The percentage return of the total fund for the specified time period.

**Total Fund Benchmark** - The percentage return of the total fund benchmark for the specified time period; calculated using the target asset allocation and the corresponding benchmark returns.

**Total Value Added** - The percentage of over- or underperformance of the total fund as compared to the total fund benchmark.

### **Total Value Added** -

**Asset Allocation** - Shows how the variance of the total fund's actual allocation from its target allocation added to or subtracted from fund performance.

**Manager Value Added** - The portion of the total value added attributable to the outperformance or underperformance of the fund's investment managers, relative to the individual benchmarks that represent them in the total fund benchmark.

**Market Timing/Other** - The contribution of other residual factors, including estimation error and transaction timing.

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

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

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

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

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

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

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

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