Quarterly Investment Performance Analysis North Dakota Board of University and School Lands

Period Ended: September 30, 2017

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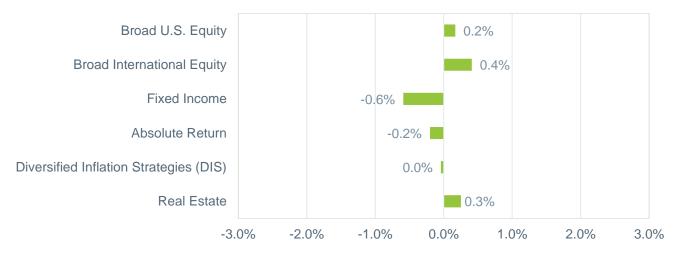
Board Executive Summary



Board Executive Summary

Asset Allocation vs. Target Allocation									
	Market Value (\$) as of 9/30/17	Allocation (%)	Target Asset Allocation						
Broad U.S. Equity	732,538,798	17.2%	17.0%						
Broad International Equity	657,447,148	15.4%	15.0%						
Fixed Income	956,391,627	22.4%	23.0%						
Absolute Return	844,979,518	19.8%	20.0%						
Diversified Inflation Strategies (DIS)	425,110,458	10.0%	10.0%						
Real Estate	650,965,590	15.3%	15.0%						
Total Fund	4,267,433,138	100.0%	100.0%						

Asset Allocation vs. Target Allocation Differences



- The Land Board's assets totaled \$4.3 billion as of September 30, 2017, an increase of approximately \$129 million from the previous quarter.
- The Total Fund is in line with its target allocation and will begin moving to its newly approved asset allocation targets in early 2018.



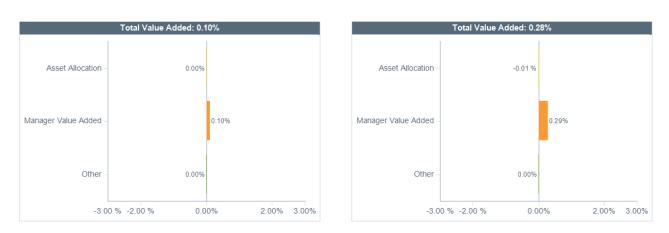
Total Fund Performance

Total Fund QTD Attribution¹

(versus Target Allocation)

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	2016	2015	2014	Since Incep.	Inception Date
Total Fund (Net)	3.1	9.0	9.5	4.7	6.4	6.9	8.6	-4.6	4.8	6.8	08/01/1995
Target Allocation Index	3.1	9.6	9.6	5.9	7.5	7.8	7.9	-0.9	6.5	N/A	
Total Fund (Gross)	3.2	9.4	10.1	5.2	6.8	7.3	9.2	-4.2	5.1	8.9	07/01/2009
Target Allocation Index (Gross)	3.1	9.7	9.8	6.1	7.6	7.9	8.0	-0.8	6.6	9.7	

- The Total Fund returned 3.1% (net of fees) during the quarter, in line with its target allocation index. Underperformance from the Absolute Return composite and to a lesser extent, international equity, was offset by outperformance within the Diversified Inflation Strategies and Real Estate composites.
- U.S. and international equity trailed their respective benchmarks by 0.1% and 0.2%, while fixed income performed in line with its custom benchmark. Absolute return underperformed its custom benchmark by 1.0% during the quarter, while real estate and diversified inflation strategies had the strongest relative performance, finishing the third quarter 1.0% and 1.9% ahead of their respective benchmarks.
- While both slightly trailed their respective benchmarks, the largest absolute gains belonged to U.S. and international equity, which returned 4.5% and 5.9%, respectively, for the quarter. DIS gained 3.4% for the quarter, followed by 2.9% for real estate and 2.5% for absolute return. Fixed income posted a return of 1.2%.



Total Fund Trailing 1-Year Attribution (versus Target Allocation)



¹ QTD and Trailing 1-Year Total Fund attribution is based on Total Fund returns gross of fees.

Broad U.S. Equity²

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	2016	2015	2014	Since Incep.	Inception Date
Broad U.S. Equity	4.5	14.1	19.2	11.1	13.7	13.1	13.5	0.2	12.4	15.1	07/01/2009
Russell 3000 Index	4.6	13.9	18.7	10.7	14.2	14.3	12.7	0.5	12.6	15.5	
Difference	-0.1	0.2	0.5	0.3	-0.6	-1.2	0.7	-0.3	-0.1	-0.4	

- Domestic equity markets were driven to record levels during the quarter. Fiscal stimulus, along with expectations for continued global growth, were cited as primary factors for U.S. equity appreciation. U.S. small cap stocks outperformed large cap stocks, with the Russell 2000 Index returning 5.7% versus 4.5% for the Russell 1000 Index.
- The Total Fund's U.S. equity composite slightly underperformed the Russell 3000 Index during the third quarter. The composite, now comprised of passive State Street large and mid cap funds and an active Northern Trust small cap fund, returned 4.5% for the quarter, 9 basis points behind the benchmark.
- The NT Fund, which invests in four concentrated small cap managers, returned 5.2% for the quarter versus 5.7% for the Russell 2000 Index. The underperformance was the result of Riverbridge, which trailed the Russell 2000 and Russell 2000 Growth indices by 4.3% and 4.9%, respectively. The fund's other growth manager, Summit Creek, outperformed the Russell 2000 by 51 basis points but slightly underperformed the small cap growth index. The fund's two value managers, Cardinal and Rutabaga, both outperformed the Russell 2000 and Russell 2000 Value indices, returning 5.8% and 8.8%, respectively.

Broad International Equity

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	2016	2015	2014	Since Incep.	Inception Date
Broad International Equity	5.9	21.0	19.5	5.1	9.4	6.5	5.0	-5.1	-4.9	8.2	07/01/2009
MSCI ACW Ex U.S. Index (Net)	6.2	21.1	19.6	4.7	7.0	5.2	4.5	-5.7	-3.9	7.7	
Difference	-0.2	-0.2	-0.1	0.4	2.5	1.2	0.5	0.6	-1.1	0.5	

- Expectations for continued global growth and U.S. fiscal policy were positive drivers for international equity markets, as the MSCI ACWI ex U.S. Index rose approximately 6.2%. European market returns heavily influenced broad international market exposure, as European Central Bank policy makers scaled back expectations for the removal of accommodative monetary policy.
- The Total Fund's international equity underperformed the MSCI All Country World ex U.S. Index by 22 basis points, posting a return of 5.9% for the quarter. While both of the composite's active managers trailed their emerging markets equity benchmark, each outperformed the MSCI ACWI ex U.S. Index with DFA gaining 6.5% and Harding Loevner returning 7.3%.
- DFA trailed the MSCI Emerging Markets Index by 135 basis points in the third quarter. DFA's relative underperformance was the result of an overweight allocation to developed Asia and security selection within emerging markets in Asia. Additionally, the relative performance was hurt by security selection within the consumer cyclical and technology sectors.
- Harding Loevner underperformed its benchmark in the third quarter by 62 basis points. Strong performance by holdings in the financial and industrials sectors was offset by poor security selection in consumer cyclical and technology, as well as an underweight to emerging markets in Asia.

² 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.



• The international equity composite portfolio has added value relative to the MSCI All Country World ex-U.S. Index over the longer 5- and 7-year trailing periods and is ahead by 49 basis points since its inception. Since their inception in July 2014, DFA and Harding Loevner have outperformed their benchmark by 14 and 116 basis points, respectively.

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	2016	2015	2014	Since Incep.	Inception Date
Fixed Income	1.2	4.6	2.2	3.3	2.9	4.0	4.1	0.1	5.0	5.1	07/01/2009
Gbl Fixed Income Custom Index	1.2	4.4	0.6	2.7	2.1	3.0	3.7	-0.5	4.3	4.2	
Difference	-0.0	0.2	1.6	0.6	0.8	0.9	0.5	0.6	0.7	0.9	
Bloomberg US Agg Bond Index	0.8	3.1	0.1	2.7	2.1	3.0	2.6	0.5	6.0	3.9	
Difference	0.4	1.5	2.1	0.6	0.8	1.0	1.5	-0.5	-1.0	1.2	

Fixed Income

• The yield curve flattened materially during the period on the increased likelihood of further rate hikes by the Federal Open Market Committee amidst a general lack of confidence in long-run economic growth prospects. Still, the Bloomberg Barclays U.S. Aggregate Bond Index returned 0.8% in the third quarter, as a slight increase in yields was not enough to keep bonds from posting positive returns.

- The portfolio's fixed income composite returned 1.2% in the third quarter, performing in line with its custom global fixed income benchmark. For the second straight quarter, all of the composite's fixed income managers outperformed their respective benchmarks with the exception of Lazard.
- The Payden & Rygel U.S. aggregate bond strategy gained 1.0%, outperforming the Bloomberg U.S. Aggregate Index by 18 basis points. The portfolio benefitted from its credit sector overweight as credit spreads continued to compress. Additionally, the portfolio benefitted from an underweight to U.S. treasuries and an overweight to MBS.
- Brandywine returned 3.3% for the quarter compared to its benchmark return of 1.8%. The contribution to the third quarter outperformance came from both bond market exposure and currency exposure. Holdings in Brazil added the most relative performance from bond markets, while the Brazilian real and Norwegian krone contributed the most of the fund's currency exposure. The Euro detracted significantly from relative performance but was offset by gains elsewhere in the portfolio.
- Lazard High Yield gained 1.7% for the quarter but trailed its benchmark by 27 basis points. The fund's higher quality holdings again detracted from performance as the CCC and lower rated index returned 2.7% during the quarter. Performance was additionally hurt by the portfolio's shorter maturity position relative to that of the benchmark as long maturity assets posted strong returns.



Absolute Return

	QTD	CYTD	1 Year	3 Year	2016	2015	Since Incep.	Inception Date
Absolute Return	2.5	9.7	9.4	3.7	8.5	-5.5	2.7	07/01/2014
Absolute Return Custom Index ³	3.5	11.4	10.9	5.8	6.2	-0.9	4.9	
Difference	-1.0	-1.7	-1.5	-2.2	2.2	-4.6	-2.1	
Consumer Price Index + 5%	2.0	6.0	7.3	6.3	7.2	5.8	6.1	
Difference	0.5	3.7	2.1	-2.6	1.3	-11.3	-3.4	

- Performance for GTAA managers continued to build on a strong year for most strategies. Quarterly returns varied widely given a diverse group of managers, but most core GTAA allocation managers outperformed a static U.S. 60/40 portfolio both during the quarter and yearto-date. Generally, those which ranked among the top of peers tended to rely on value oriented investment processes which have resulted in significant equity, fixed income, and currency exposure within emerging markets.
- The Land Board's absolute return composite returned 2.5% during the third quarter, underperforming its custom benchmark by 102 basis points. GMO trailed its 60/40 benchmark for the quarter while PIMCO outperformed its custom index. Westwood performed in line with its benchmark for the quarter.
- GMO gained 2.2% over the quarter, trailing its global 60/40 benchmark by 157 basis points. While emerging markets, in general, were a source of strong performance, GMO's selection in the space detracted from overall relative performance. Additionally, the fund's high-quality bias hurt performance in U.S. equity. A 20% allocation to cash also hurt performance as most asset classes had stronger returns.
- PIMCO All Asset All Authority gained 3.2% during the third quarter, 106 basis points above its custom benchmark. An emphasis on and security selection within emerging markets equity was a key contributor to the relative performance. Exposure to emerging markets bonds and currency also benefitted performance. Short exposure to U.S. equities was the largest detractor as stocks in the U.S. continued to post positive returns.
- During the third quarter, Westwood returned 1.5%, in line with its custom benchmark. Performance from stock holdings was the largest contributor, while the fund's allocation to MLPS was the main detractor.

	QTD	CYTD	1 Year	3 Year	2016	2015	Since Incep.	Inception Date
Diversified Inflation Strategies (DIS)	3.4	-1.4	0.6	-0.7	19.6	-23.9	0.2	04/01/2014
DIS Custom Index	1.5	2.0	3.4	0.1	16.5	-18.9	0.8	
Difference	1.9	-3.3	-2.8	-0.8	3.0	-5.0	-0.6	

Diversified Inflation Strategies (DIS)

• Diversified Inflation Strategies performed relatively well, with some even outperforming a static U.S. 60/40 portfolio despite a low-inflation environment. This occurred in a quarter where inflation levels remained low, but rose from 1.6% in June, to 2.2% based on the most recently available headline CPI released in September.

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



- The DIS composite returned 3.4% for the third quarter, 194 basis points ahead of its benchmark. The outperformance was mostly due to Gresham, which outperformed it benchmark by 7.2%. Northern Trust TIPS and Harvest MLP slightly outperformed their respective indices, while Van Eck trailed its benchmark by 2.3% for the quarter.
- Van Eck Natural Resources provided the portfolio's strongest absolute performance but also the weakest relative performance. The fund returned 8.5% during the quarter but underperformed the S&P Global Natural Resource Index by 2.3%. The fund's relative performance benefitted from its exposure to base metals but was hurt by its allocation to and selection within energy.
- Harvest MLP fell 2.2% during the third quarter, 23 basis points above its benchmark. While Hurricanes Harvey and Irma caused increased volatility during the quarter, disruptions to the portfolio were minimal.
- Gresham Commodities returned 6.9% for the quarter, well ahead of the benchmark return of 0.2%. Weak quarterly performance in agriculture and livestock was offset by stronger performance in energy and industrial metals.

	QTD	CYTD	1 Year	2016	Since Incep.	Inception Date
Real Estate	2.9	7.4	10.3	9.8	11.0	07/01/2015
NCREIF ODCE Index (Gross) (AWA)	1.9	5.4	7.7	8.8	9.6	
Difference	1.0	2.0	2.6	1.0	1.4	

- Real estate valuations remain healthy, supported by continued strength in the overall economy. The core private real estate index, NCREIF-ODCE returned 1.9%, on a preliminary basis, during the third quarter. Of the 1.9% return, 1.1% can be attributed to income and 0.8% to appreciation. Market participants characterized this as another quarter of normalizing returns reinforcing investor expectations of lower returns going forward as the market enters the later stages of the recovery.
- The Land Board's real estate composite returned 2.9% for the quarter, 98 basis points above the NCREIF-ODCE Index.
- Morgan Stanley Prime Property Fund (core) returned 2.2% during the quarter, outperforming the NCREIF-ODCE Index by 60 basis points.
- UBS Trumbull Property Fund (core) returned 1.3% during the quarter, underperforming the Index by 37 basis points.
- Jamestown Premier Property Fund (core-plus) returned 1.5% for the quarter, 16 basis points behind its benchmark.
- Prologis USLF returned 7.1%, outperforming the benchmark by 5.4%, while JP Morgan US Real Estate Income and Growth returned 1.9%, 27 basis points ahead of the benchmark.



North Dakota Board of University and School Lands Long-Term Monitoring Tool

			Asset	Alloca	tion				
							Targets		
Asset Class	ľ	Market Value	Yes	No	Current (%)	Min.	Target	Max.	
Broad US Equity	\$	732,538,798	 Image: A second s		17.17%	12%	17%	22%	
Broad International Equity	\$	657,447,148	 Image: A second s		15.41%	10%	15%	20%	
Fixed Income	\$	956,391,627	-		22.41%	18%	23%	28%	
Absolute Return	\$	844,979,518	 Image: A second s		19.80%	15%	20%	25%	
Diversified Inflation Strategies (DIS)	\$	425,110,458	-		9.96%	5%	10%	15%	
Real Estate	\$	650,965,590	-		15.25%	10%	15%	20%	
Total Fund	\$	4,267,433,138			100.00%				

Monitoring Guideline (Over a Full Market Cycle of 5 Years)			Explanation
Total Fund (Gross)	Yes	No	
Total Fund returns exceed the Target Allocation Index (Gross) over a 5-year period.		 Image: A second s	The Total Fund Composite returned 6.84% vs. 7.62% for the index.
Broad US Equity Composite	Yes	No	
The composite returns exceed the Russell 3000 Index over a 5 year period.		×	The composite returned 13.53% vs. 14.23% for the index. Includes managers which are no longer in the portfolio.
Rank above the IM U.S. Equity Median.		1	The composite has a ranking of 66 (gross of fees). Includes managers which are no longer in the portfolio.
State Street Russell 1000 Index SL (CF)	Yes	No	
The fund returns are in line with the Russell 1000 Index over a 5 year period.			5 year data is unavailable.
Rank above the IM U.S. Large Cap Equity Median.			5 year data is unavailable.
State Street Russell Mid Cap Index (SA)	Yes	No	
The fund returns are in line with the Russell Mid Cap Index over a 5 year period.			5 year data is unavailable.
Rank above the IM U.S. Mid Cap Equity Median.			5 year data is unavailable.
NT Small/Smid Composite	Yes	No	
The fund returns exceed the Small/Smid Blended Index over a 5 year period.		1	The fund returned 12.98% vs. 14.45% for the index. Mandate was altered
Rank above the IM US SMID Cap Core Equity Median.		· •	June 2014 to a more concentrated small cap strategy; continue to monitor. The fund has a ranking of 88 (gross of fees). Mandate was altered June 2014
			to a more concentrated small cap strategy; continue to monitor.
Broad International Equity Composite	Yes	No	
The composite returns exceed the MSCI ACW Ex US Index (USD) (Net) over a 5 year period.	 Image: A start of the start of		The composite returned 9.02% vs. 6.97% 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.	 Image: A start of the start of		The composite has a ranking of 49 (gross of fees). Includes managers which are no longer in the portfolio. Current managers added July 2014.
State Street World Ex US Index (CF)	Yes	No	
The fund returns are in line with the MSCI Wrld Ex US Index (USD) (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.
DFA Emg Mkts Core Eq;I (DFCEX)	Yes	No	
The fund returns exceed the MSCI Emg Mkts Index (USD) (Net) over a 5 year period.			5 year data is unavailable.
Rank above the IM Emerging Markets Equity Median.			5 year data is unavailable.
Harding Loevner:IEM;II (HLEEX)	Yes	No	
The fund returns exceed the MSCI Emg Mkts Index (USD) (Net) over a 5 year period.			5 year data is unavailable.
Rank above the IM Emerging Markets Equity Median.			5 year data is unavailable.
Fixed Income Composite	Yes	No	
The composite returns exceed the Global Fixed Income Custom Index over a 5 year period.	 Image: A second s		The composite returned 2.66% vs. 2.09% for the index.
Rank above the IM Global Fixed Income Median.		 Image: A second s	The composite has a ranking of 57 (gross of fees).
Payden & Rygel Long Term (SA)	Yes	No	
The fund returns exceed the Bloomberg US Agg Bond Index over a 5 year period.	 ✓ 		The fund returned 2.67% vs. 2.06% for the index.
Rank above the IM U.S. Broad Market Core Fixed Income Median.	 Image: A state of the state of		The fund has a ranking of 23 (gross of fees).
JP Morgan FI Intermediate Bond (SA)	Yes	No	
The fund returns exceed the Bloomberg US Gov't/Credit: Int Trm Bond Index over a 5 year period.	 Image: A start of the start of		The fund returned 1.81% vs. 1.61% for the index.
Rank above the IM U.S. Intermediate Duration Fixed Income Median.		 Image: A start of the start of	The fund has a ranking of 54 (gross of fees).
FIA International Fixed Income (SA)	Yes	No	
The fund returns exceed the Bloomberg Gbl Agg Ex USD Index (Hedged) over a 5 year period.	 ✓ 		The fund returned 3.78% vs. 3.74% for the index.
Rank above the IM International Fixed Income Median.	 Image: A state of the state of		The fund has a ranking of 29 (gross of fees).
Brandywine Glbl Opp FI (CF)	Yes	No	
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.

North Dakota Board of University and School Lands Long-Term Monitoring Tool

Lazard High Yield (SA)	Yes	No	
The fund returns exceed the BofA ML US Hi Yld BB-B Rated Index over a 5 year period.		1	The fund returned 5.17% vs. 6.15% for the index.
Rank above the IM U.S. High Yield Bonds Median.		1	The fund has a ranking of 81 (gross of fees).
Payden:Low Dur;Inv (PYSBX)	Yes	No	
The fund returns exceed the Bloomberg US Trsy: 1-3 Yr Index over a 5 year period.	 Image: A set of the set of the		The fund returned 1.09% vs. 0.64% for the index.
Rank above the IM U.S. Short Duration Fixed Income Median.	 Image: A set of the set of the		The fund has a ranking of 26 (gross of fees).
ND Land - PTF Cash (SA)	Yes	No	
The fund returns exceed the BofA ML 3 Mo US T-Bill Index over a 5 year period.			5 year data is unavailable.
Absolute Return Composite	Yes	No	
The composite returns exceed the Absolute Return Custom Index over a 5 year period.			5 year data is unavailable.
GMO:Bchmk-Fr All;IV (GBMBX)	Yes	No	
The fund returns exceed the 60% MSCI ACWI (Net)/40% B Gbl Agg ldx over a 5 year period.			5 year data is unavailable.
PIMCO:All Ast Ath;Inst (PAUIX)	Yes	No	
The fund returns exceed the All Asset Custom Index (Eql Wtd) over a 5 year period.			5 year data is unavailable.
Westwood Income Opportunity (SA)	Yes	No	
The fund returns exceed the Westwood Custom Index over a 5 year period.			5 year data is unavailable.
Diversified Inflation Strategies (DIS) Composite	Yes	No	
The composite returns exceed the DIS Custom Index over a 5 year period.			5 year data is unavailable.
NT Common TIPS Index (CF)	Yes	No	
The fund returns are in line with the Bloomberg US Trsy: US TIPS Index over a 5 year period.	1		The fund returned 0.03% vs. 0.02% for the index.
Rank above the IM U.S. TIPS Median.		√	The fund has a ranking of 69 (gross of fees).
Gresham Commodities (SA)	Yes	No	
The fund returns exceed the Bloomberg Cmdty Ex-Energy Index (TR) over a 5 year period.			5 year data is unavailable.
Harvest MLP (SA)	Yes	No	
The fund returns exceed the S&P MLP Index Index (TR) over a 5 year period.			5 year data is unavailable.
Van Eck NR Equities (SA)	Yes	No	
The fund returns exceed the S&P Gbl Natural Res Sect Index (TR) Index over a 5 year period.			5 year data is unavailable.
Real Estate Composite	Yes	No	
The composite returns exceed the NCREIF ODCE Index (AWA) (Net) over a 5 year period.			5 year data is unavailable.
Morgan Stanley Prime Property Fund (CF)	Yes	No	
The fund returns exceed the NCREIF ODCE Index (AWA) (Net) over a 5 year period.			5 year data is unavailable.
UBS Trumbull Property Fund, L.P. (CF)	Yes	No	
The fund returns exceed the NCREIF ODCE Index (AWA) (Net) over a 5 year period.			5 year data is unavailable.
Jamestown Premier Property Fund (CF)	Yes	No	
The fund returns exceed the NCREIF ODCE Index (AWA) (Net) over a 5 year period.			5 year data is unavailable.
Prologis USLF (CF)	Yes	No	
The fund returns exceed the NCREIF ODCE Index (AWA) (Net) over a 5 year period.			5 year data is unavailable.
JP Morgan US Real Estate Income and Growth, LP (CF)	Yes	No	
The fund returns exceed the NCREIF ODCE Index (AWA) (Net) over a 5 year period.			5 year data is unavailable.

Color Key

Performance:

Green: Manager outperformed benchmark.

Yellow: Manager underperformed benchmark by 100 basis points or less. Red: Manager underperformed benchmark by more than 100 basis points.

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Peer Group Ranks:

Green: Manager ranks in the top 50th percentile compared to its peers. Yellow: Manager ranks between the 51st and 64th percentile compared to its peers. Red: Manager ranks in the 65th percentile or lower compared to its peers.

Capital Markets Review



Capital Markets Review

As of September 30, 2017

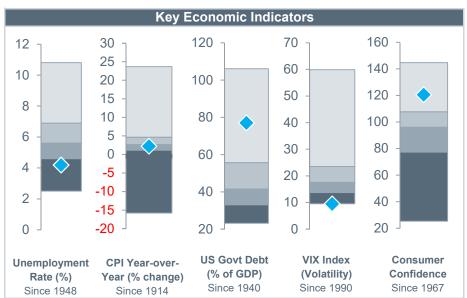
Third Quarter Economic Environment

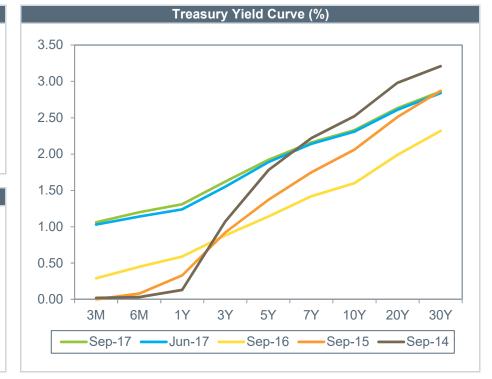
Key Economic Indicators

Expectations for continued global growth, as well as US fiscal policy stimulus, were again cited as the primary factors driving equity markets to record levels. Oil markets also traded higher during the period, albeit within recent ranges, with WTI crude reaching \$52 per barrel. While no material price action occurred on the announcement, market participants noted Standard & Poor's downgrade of China from AA to A+, suggesting deterioration of economic fundamentals for the world's second largest economy could be a risk to global growth going forward. Global monetary policy was also in focus, with the FOMC announcing its intent to start its balance sheet normalization strategy in October. The announcement elicited limited price action, as market participants suggested the policy change was well telegraphed through speeches by policy makers and FOMC meeting minutes. Finally, US interest rates reached 2017 lows for key maturities before rising late in the period on a renewed sense of optimism regarding the economic growth outlook.

Economic Indicators	Sep-17		Jun-17	Sep-16	Sep-14	20 Yr
Federal Funds Rate (%)	1.06	—	1.06	0.29	0.07	2.18
Breakeven Infl 1 Yr (%)	1.24		0.72	0.95	-0.19	N/A
Breakeven Infl 10 Yr (%)	1.85		1.74	1.61	1.97	N/A
CPI YoY (Headline) (%)	2.2		1.6	1.5	1.7	2.1
Unemployment Rate (%)	4.2		4.4	4.9	5.9	5.9
Real GDP YoY (%)	2.3		2.2	1.5	3.2	2.3
PMI - Manufacturing	60.80		57.80	51.70	55.90	52.28
USD Total Wtd Idx	88.11		90.54	90.01	81.08	86.81
WTI Crude Oil per Barrel (\$)	51.7		46.0	48.2	91.2	57.1
Gold Spot per Oz (\$)	1,280.2		1,241.6	1,315.8	1,208.2	818.4

Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	4.48	14.24	18.61	14.22	7.44
Russell 2000	5.67	10.94	20.74	13.79	7.85
MSCI EAFE (Net)	5.40	19.96	19.10	8.38	1.34
MSCI EAFE SC (Net)	7.46	25.42	21.84	12.85	4.63
MSCI Emg Mkts (Net)	7.89	27.78	22.46	3.99	1.32
Bloomberg US Agg Bond	0.85	3.14	0.07	2.06	4.27
BofA ML 3 Mo US T-Bill	0.27	0.57	0.65	0.22	0.47
NCREIF ODCE (Gross)	1.87	5.43	7.66	11.59	5.03
Wilshire US REIT	0.61	2.44	0.10	9.51	5.55
HFRI FOF Comp	2.31	5.60	6.51	3.85	1.07
Bloomberg Cmdty (TR)	2.52	-2.87	-0.29	-10.47	-6.83





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

Asset Allocation by Manag	er		Asset Allocation vs. Target Allocation						
	Market Value (\$)	Allocation (%)		Market Value (\$)	Allocation (%)	Target (%)			
Broad US Equity			Broad US Equity	732,538,798	17.17	17.00			
State Street Russell 1000 Index SL (US Large Cap)	574,836,748	13.47	Broad International Equity	657,447,148	15.41	15.00			
State Street Russell Mid Cap Index (US Mid Cap)	70,528,085	1.65	Fixed Income	956,391,627	22.41	23.00			
NT Small Cap Core (US Small Cap)	87,173,965	2.04							
Broad International Equity			Absolute Return	844,979,518	19.80	20.00			
State Street World Ex US Index (International Equity)	524,184,849	12.28	Diversified Inflation Strategies (DIS)	425,110,458	9.96	10.0			
DFA Emg Mkts Core Eq;I (Emerging Markets Equity)	66,537,947	1.56	Real Estate	650,965,590	15.25	15.0			
Harding Loevner:IEM;II (Emerging Markets Equity)	66,724,352	1.56	Total Fund	4,267,433,138	100.00	100.0			
Fixed Income									
Payden & Rygel Long Term (Investment Grade US FI)	285,257,554	6.68							
JP Morgan FI Intermediate Bond (Investment Grade US FI)	285,301,928	6.69							
FIA International Fixed Income (International FI)	143,246,881	3.36							
Brandywine Glbl Opp FI (Global FI)	98,537,583	2.31							
_azard High Yield (High Yield FI)	125,650,504	2.94							
FLP (Loans)	7,908,046	0.19	Asset Allocation vs. T	arget Allocation	Difforoncos				
ECLP (Loans)	1,201,686	0.03		arger Anocation	Differences				
Payden:Low Dur;Inv (Low Duration FI)	8,195,118	0.19			.				
ND Land - PTF Cash (Cash)	1,092,327	0.03	Broad US Equity		0.17%				
Absolute Return									
GMO:Bchmk-Fr All;IV (GTAA)	280,590,149	6.58	Broad International Equity		0.41%				
PIMCO:All Ast Ath;Inst (GTAA)	284,520,893	6.67							
Westwood Income Opportunity (GTAA)	279,868,475	6.56	Fixed Income	-0.59 %					
Diversified Inflation Strategies (DIS)									
NT Common TIPS Index (TIPS)	80,279,545	1.88	Absolute Deturn	0.00.0/					
Gresham Commodities (Commodities)	129,049,799	3.02	Absolute Return	-0.20 %					
Harvest MLP (MLPs)	125,404,531	2.94							
Van Eck NR Equities (Natural Resources)	90,376,583	2.12	Diversified Inflation Strategies (DIS)	-0.04 9	%				
Real Estate	00,010,0000								
Vorgan Stanley Prime Property Fund (Core Real Estate)	184,770,483	4.33	Real Estate		0.25%				
JBS Trumbull Property Fund, L.P. (Core Real Estate)	169,706,999	3.98							
Jamestown Premier Property Fund (Core Plus Real Estate)	77,572,537	1.82		-2.00 % 0	.00% 2	.00%			
Prologis USLH (CF) (Core Plus Real Estate)	96,587,320	2.26							
JP Morgan US RE Inc and Grth, LP (CF) (Core Plus Real Estate)	122,328,251	2.87		Allocation Diff	ferences				

Schedule of Investable Assets									
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return	Unit Value			
QTD	4,138,579,320	-4,132,960	132,986,778	4,267,433,138	3.21	103.21			

Allocations shown may not sum up to 100% exactly due to rounding. Performance shown is gross of fees. In 05/2017, a transition account was utilized to facilitate the liquidation and funding of several accounts. The transition account has no remaining funds as of 09/30/2017.

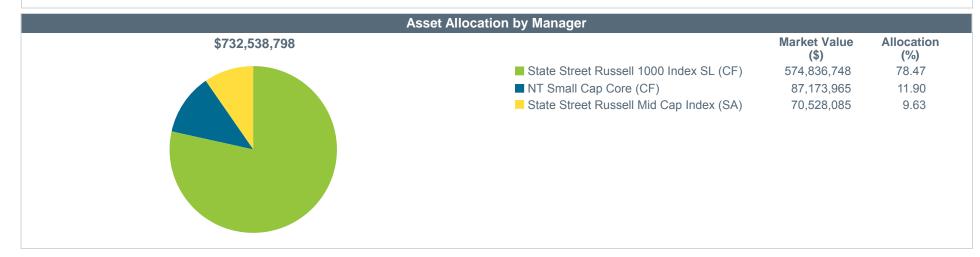


	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
Total Fund (Net)	3.08	8.96	9.50	4.69	6.44	6.92	4.75	8.65	-4.55	4.78	6.81	08/01/199
Target Allocation Index (Net)	3.08	9.61	9.64	5.94	7.52	7.82	N/A	7.85	-0.93	6.50	N/A	
Difference	0.00	-0.65	-0.14	-1.25	-1.08	-0.90	N/A	0.80	-3.62	-1.72	N/A	
Total Fund	3.21	9.38	10.07	5.16	6.84	7.28	N/A	9.17	-4.19	5.10	8.85	07/01/2009
Target Allocation Index (Gross)	3.11	9.72	9.78	6.09	7.62	7.89	N/A	8.00	-0.78	6.58	9.72	
Difference	0.10	-0.34	0.29	-0.93	-0.78	-0.61	N/A	1.17	-3.41	-1.48	-0.87	
Broad US Equity	4.48	14.06	19.20	11.08	13.67	13.13	N/A	13.47	0.22	12.43	15.09	07/01/2009
Russell 3000 Index	4.57	13.91	18.71	10.74	14.23	14.28	7.57	12.74	0.48	12.56	15.51	
Difference	-0.09	0.15	0.49	0.34	-0.56	-1.15	N/A	0.73	-0.26	-0.13	-0.42	
Broad International Equity	5.94	20.97	19.47	5.09	9.45	6.49	N/A	5.02	-5.06	-4.94	8.17	07/01/2009
MSCI ACW Ex US Index (USD) (Net)	6.16	21.13	19.61	4.70	6.97	5.25	1.28	4.50	-5.66	-3.87	7.68	
Difference	-0.22	-0.16	-0.14	0.39	2.48	1.24	N/A	0.52	0.60	-1.07	0.49	
Fixed Income	1.22	4.59	2.21	3.31	2.88	3.96	N/A	4.13	0.07	4.97	5.10	07/01/2009
Global Fixed Income Custom Index	1.23	4.38	0.59	2.73	2.09	3.03	4.31	3.66	-0.50	4.27	4.17	
Difference	-0.01	0.21	1.62	0.58	0.79	0.93	N/A	0.47	0.57	0.70	0.93	
Bloomberg US Agg Bond Index	0.85	3.14	0.07	2.71	2.06	2.95	4.27	2.65	0.55	5.97	3.94	
Difference	0.37	1.45	2.14	0.60	0.82	1.01	N/A	1.48	-0.48	-1.00	1.16	
Absolute Return	2.50	9.69	9.44	3.65	N/A	N/A	N/A	8.45	-5.52	N/A	2.73	07/01/2014
Absolute Return Custom Index	3.52	11.42	10.94	5.84	7.14	6.96	4.59	6.22	-0.88	4.77	4.85	
Difference	-1.02	-1.73	-1.50	-2.19	N/A	N/A	N/A	2.23	-4.64	N/A	-2.12	
Consumer Price Index+5%	2.00	6.04	7.34	6.28	6.36	6.85	6.79	7.18	5.77	5.79	6.14	
Difference	0.50	3.65	2.10	-2.63	N/A	N/A	N/A	1.27	-11.29	N/A	-3.41	
Diversified Inflation Strategies (DIS)	3.42	-1.36	0.61	-0.70	N/A	N/A	N/A	19.55	-23.87	N/A	0.19	04/01/2014
DIS Custom Index	1.48	1.98	3.39	0.08	1.32	3.81	2.49	16.53	-18.88	9.69	0.76	
Difference	1.94	-3.34	-2.78	-0.78	N/A	N/A	N/A	3.02	-4.99	N/A	-0.57	
Real Estate	2.87	7.42	10.30	N/A	N/A	N/A	N/A	9.77	N/A	N/A	11.03	07/01/201
NCREIF ODCE Index (AWA) (Gross)	1.87	5.43	7.66	10.85	11.59	12.52	5.03	8.77	15.02	12.50	9.59	
Difference	1.00	1.99	2.64	N/A	N/A	N/A	N/A	1.00	N/A	N/A	1.44	

Performance shown is gross of fees except where noted. Composite inception dates are based on availability of data for each asset class. Please see the Addendum for custom index definitions. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014.



Comparative Performance													
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Broad US Equity	4.48	14.06	19.20	11.08	13.67	N/A	13.47	0.22	12.43	28.28	14.66	15.09	07/01/2009
Russell 3000 Index	4.57	13.91	18.71	10.74	14.23	7.57	12.74	0.48	12.56	33.55	16.42	15.51	
Difference	-0.09	0.15	0.49	0.34	-0.56	N/A	0.73	-0.26	-0.13	-5.27	-1.76	-0.42	
State Street Russell 1000 Index SL (CF)	4.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.19	06/01/2017
Russell 1000 Index	4.48	14.17	18.54	10.63	14.27	7.55	12.05	0.92	13.24	33.11	16.42	5.21	
Difference	-0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.02	
IM U.S. Large Cap Equity (SA+CF) Median	4.58	14.08	18.85	10.48	14.27	7.77	10.99	0.94	12.91	33.51	15.80	5.52	
Rank	58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	59	
State Street Russell Mid Cap Index (SA)	3.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.53	06/01/2017
Russell Mid Cap Index	3.47	11.74	15.32	9.54	14.26	8.08	13.80	-2.44	13.22	34.76	17.28	4.50	
Difference	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.03	
IM U.S. Mid Cap Equity (SA+CF) Median	3.77	12.43	17.60	10.21	14.42	8.95	12.46	-1.19	9.76	36.37	16.47	5.26	
Rank	61	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	71	



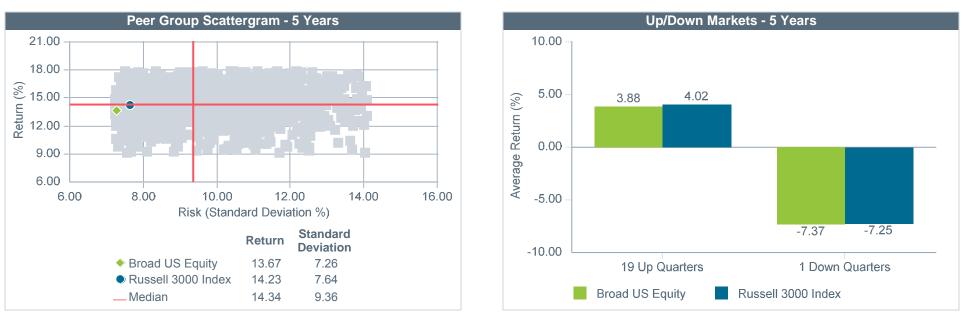
Performance shown is gross of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. In 05/2017, a transition account was utilized to facilitate the liquidation and funding of several accounts. The transition account has no remaining funds as of 09/30/2017.



Comparative Performance													
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
NT Small Cap Core (CF)	5.42	14.88	23.04	12.25	N/A	N/A	19.02	-5.35	N/A	N/A	N/A	8.05	07/01/2014
Russell 2000 Index	5.67	10.94	20.74	12.18	13.79	7.85	21.31	-4.41	4.89	38.82	16.35	8.60	
Difference	-0.25	3.94	2.30	0.07	N/A	N/A	-2.29	-0.94	N/A	N/A	N/A	-0.55	
IM U.S. Small Cap Core Equity (SA+CF) Median	5.58	10.88	20.91	13.00	15.53	8.96	20.64	-1.36	6.56	41.26	16.84	10.09	
Rank	54	16	29	67	N/A	N/A	73	86	N/A	N/A	N/A	80	
NT Small/Smid Composite	5.42	14.88	23.04	12.25	13.77	7.42	19.02	-5.35	3.37	37.57	18.30	10.67	03/01/1996
Small/Smid Blended Index	5.67	10.94	20.74	12.18	14.45	8.47	21.31	-4.41	8.25	36.80	17.88	10.09	
Difference	-0.25	3.94	2.30	0.07	-0.68	-1.05	-2.29	-0.94	-4.88	0.77	0.42	0.58	
IM U.S. SMID Cap Core Equity (SA+CF) Median	4.46	11.89	18.86	11.36	15.13	9.25	17.03	0.10	7.81	37.62	17.91	N/A	
Rank	23	14	4	42	88	86	15	95	88	51	43	N/A	

Performance shown is gross of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. In 05/2017, a transition account was utilized to facilitate the liquidation and funding of several accounts. The transition account has no remaining funds as of 09/30/2017.





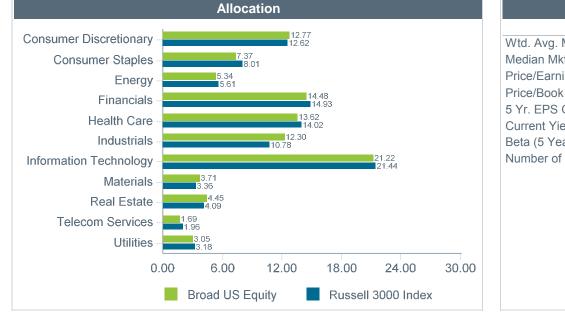


KVK

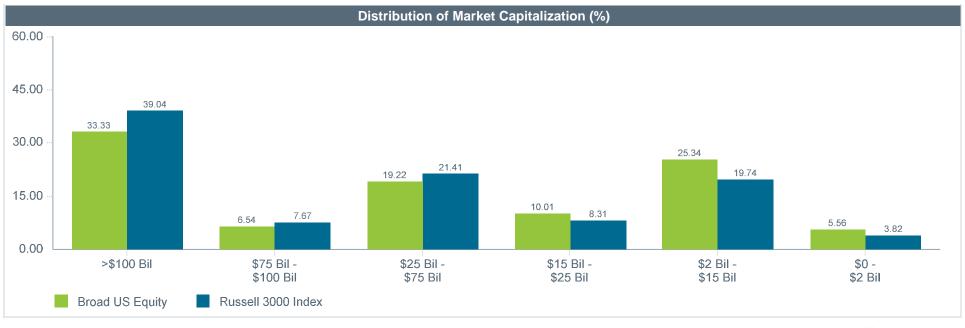
Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.

As of September 30, 2017

North Dakota Board of University and School Lands Broad US Equity vs. Russell 3000 Index Portfolio Characteristics



Median Mkt. Cap (\$M)7,901Price/Earnings Ratio23.08Price/Book Ratio3.165 Yr. EPS Growth Rate (%)10.25Current Yield (%)1.79Beta (5 Years, Monthly)0.99		Portfolio	Benchmark
Median Mkt. Cap (\$M)7,901Price/Earnings Ratio23.08Price/Book Ratio3.165 Yr. EPS Growth Rate (%)10.25Current Yield (%)1.79Beta (5 Years, Monthly)0.99	d. Avg. Mkt. Cap (\$M)	126,680	146,514
Price/Book Ratio3.165 Yr. EPS Growth Rate (%)10.25Current Yield (%)1.79Beta (5 Years, Monthly)0.99	edian Mkt. Cap (\$M)	7,901	1,673
5 Yr. EPS Growth Rate (%)10.25Current Yield (%)1.79Beta (5 Years, Monthly)0.99	ce/Earnings Ratio	23.08	22.34
Current Yield (%)1.79Beta (5 Years, Monthly)0.99	ce/Book Ratio	3.16	3.16
Beta (5 Years, Monthly) 0.99	r. EPS Growth Rate (%)	10.25	10.25
	irrent Yield (%)	1.79	1.88
Number of Securities 1,118	ta (5 Years, Monthly)	0.99	1.00
	imber of Securities	1,118	2,981

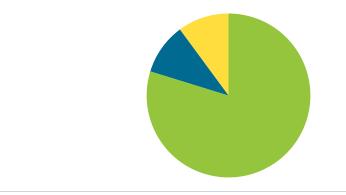




Comparative Performance													
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Broad International Equity	5.94	20.97	19.47	5.09	9.45	N/A	5.02	-5.06	-4.94	26.50	17.72	8.17	07/01/2009
MSCI ACW Ex US Index (USD) (Net)	6.16	21.13	19.61	4.70	6.97	1.28	4.50	-5.66	-3.87	15.29	16.83	7.68	
Difference	-0.22	-0.16	-0.14	0.39	2.48	N/A	0.52	0.60	-1.07	11.21	0.89	0.49	
State Street World Ex US Index (CF)	5.65	19.16	18.73	4.52	N/A	N/A	2.68	-3.10	N/A	N/A	N/A	2.29	07/01/2014
MSCI Wrld Ex US Index (USD) (Net)	5.62	19.17	18.73	4.57	7.81	1.28	2.75	-3.04	-4.32	21.02	16.41	2.33	
Difference	0.03	-0.01	0.00	-0.05	N/A	N/A	-0.07	-0.06	N/A	N/A	N/A	-0.04	
IM International Large Cap Equity (SA+CF) Median	5.93	21.90	20.08	6.61	9.42	2.90	1.54	0.33	-3.75	22.54	19.04	4.41	
Rank	60	81	64	86	N/A	N/A	39	76	N/A	N/A	N/A	89	
DFA Emg Mkts Core Eq;I (DFCEX)	6.70	27.35	21.05	5.60	N/A	N/A	13.05	-14.33	N/A	N/A	N/A	4.16	07/01/2014
MSCI Emg Mkts Index (USD) (Net)	7.89	27.78	22.46	4.90	3.99	1.32	11.19	-14.92	-2.19	-2.60	18.23	3.38	
Difference	-1.19	-0.43	-1.41	0.70	N/A	N/A	1.86	0.59	N/A	N/A	N/A	0.78	
IM Emerging Markets Equity (SA+CF) Median	7.56	28.21	22.66	5.85	5.73	2.74	10.07	-12.66	-0.18	0.89	20.53	4.47	
Rank	61	55	61	55	N/A	N/A	30	63	N/A	N/A	N/A	55	
Harding Loevner:IEM;II (HLEEX)	7.56	29.34	23.52	7.85	N/A	N/A	14.73	-12.30	N/A	N/A	N/A	5.73	07/01/2014
MSCI Emg Mkts Index (USD) (Net)	7.89	27.78	22.46	4.90	3.99	1.32	11.19	-14.92	-2.19	-2.60	18.23	3.38	
Difference	-0.33	1.56	1.06	2.95	N/A	N/A	3.54	2.62	N/A	N/A	N/A	2.35	
IM Emerging Markets Equity (SA+CF) Median	7.56	28.21	22.66	5.85	5.73	2.74	10.07	-12.66	-0.18	0.89	20.53	4.47	
Rank	51	44	44	23	N/A	N/A	20	48	N/A	N/A	N/A	32	

Asset Allocation by Manager

\$657	,447	,148
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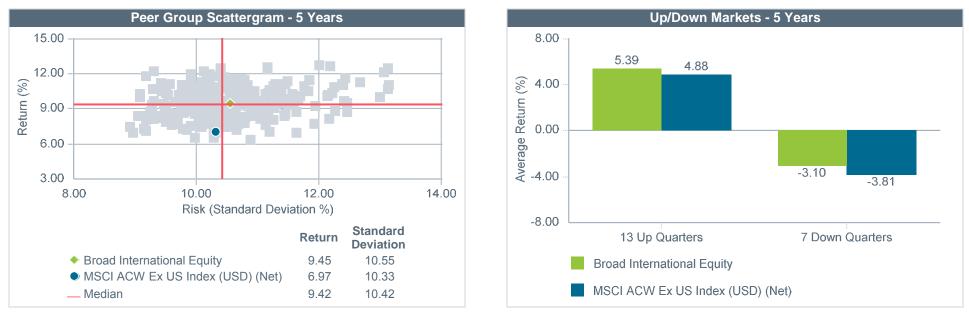


State Street World Ex US Index (CF)	
Harding Loevner:IEM;II (HLEEX)	
DFA Emg Mkts Core Eq;I (DFCEX)	

Market Value	Allocation
(\$)	(%)
524,184,849	79.73
66,724,352	10.15
66,537,947	10.12

Performance shown is gross of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014.



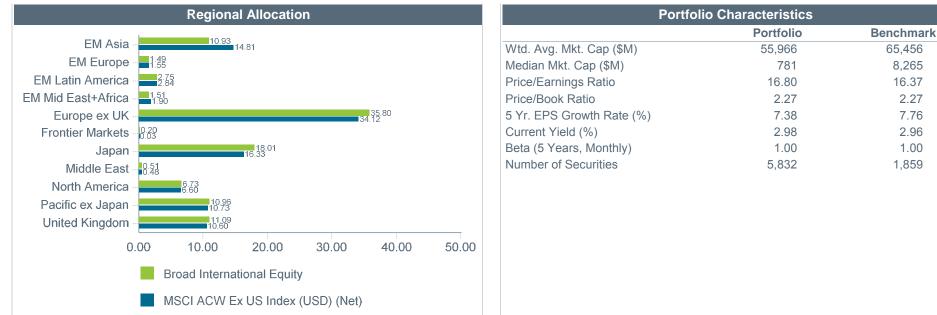


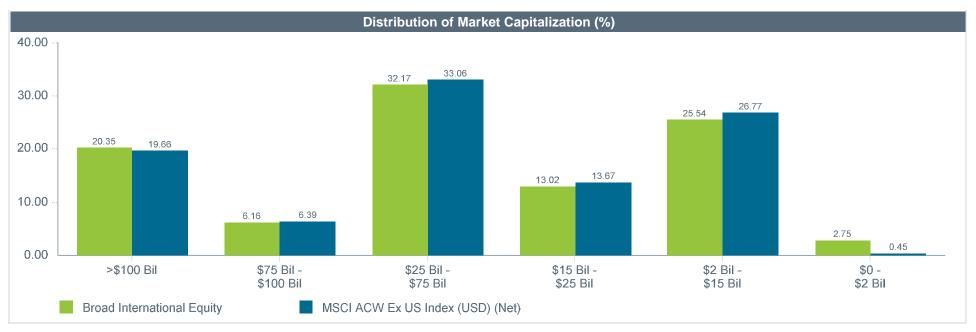
		Peer Group A	nalysis - Multi Stati	istics		
	Sharpe Ratio	Tracking Error	Info Ratio	Downside Risk	Up Mkt Capture	Down Mkt Capture
1.40	8.	00	1.76	9.00	160.00	140.00
1.20 -		00	1.28	8.00 -	140.00 -	120.00
1.00 -	5.	00	0.80	7.00	120.00 -	100.00
0.80 -	•	00	0.32	6.00 🔶	\diamond	80.00 🔶
0.60 -			-0.16	5.00	100.00	60.00
0.40	-1.	00	-0.64	4.00	80.00	40.00
	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years
 Broad International Equity 	0.90 (46)	2.53 (92)	0.93 (20)	5.94 (38)	110.62 (57)	81.19 (70)
 MSCI ACW Ex US Index (USD) (Net) 	0.69 (93)	0.00 (100)	N/A	6.37 (23)	100.00 (87)	100.00 (21)
Median	0.89	3.83	0.63	5.72	112.78	88.16
Population	356	356	356	356	356	356

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



North Dakota Board of University and School Lands Broad International Equity vs. MSCI ACW Ex US Index (USD) (Net) Portfolio Characteristics

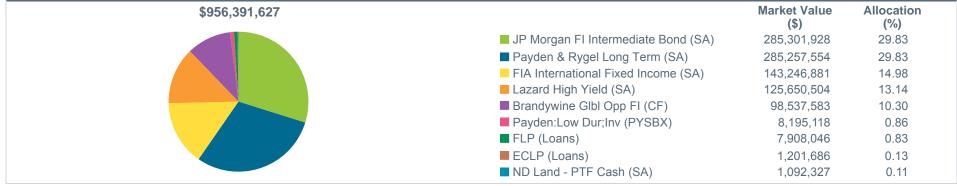






Comparative Performance													
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Fixed Income	1.22	4.59	2.21	3.31	2.88	N/A	4.13	0.07	4.97	-0.36	7.36	5.10	07/01/2009
Global Fixed Income Custom Index	1.23	4.38	0.59	2.73	2.09	4.31	3.66	-0.50	4.27	-1.55	5.37	4.17	
Difference	-0.01	0.21	1.62	0.58	0.79	N/A	0.47	0.57	0.70	1.19	1.99	0.93	
Bloomberg US Agg Bond Index	0.85	3.14	0.07	2.71	2.06	4.27	2.65	0.55	5.97	-2.02	4.21	3.94	
Difference	0.37	1.45	2.14	0.60	0.82	N/A	1.48	-0.48	-1.00	1.66	3.15	1.16	
Payden & Rygel Long Term (SA)	1.03	4.19	1.75	3.46	2.87	5.12	4.03	0.82	6.01	-1.25	9.04	6.13	08/01/1995
Bloomberg US Agg Bond Index	0.85	3.14	0.07	2.71	2.06	4.27	2.65	0.55	5.97	-2.02	4.21	5.37	
Difference	0.18	1.05	1.68	0.75	0.81	0.85	1.38	0.27	0.04	0.77	4.83	0.76	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.92	3.47	0.61	3.02	2.46	4.80	3.10	0.82	6.15	-1.56	5.85	5.75	
Rank	27	11	10	22	23	31	19	49	63	33	5	11	
JP Morgan FI Intermediate Bond (SA)	0.69	2.71	0.60	2.40	1.92	N/A	1.99	1.53	3.97	-0.91	N/A	1.99	08/01/2012
Bloomberg US Gov't Crdt Int Trm Bond Index	0.60	2.34	0.23	2.13	1.61	3.64	2.08	1.07	3.13	-0.86	3.89	1.65	
Difference	0.09	0.37	0.37	0.27	0.31	N/A	-0.09	0.46	0.84	-0.05	N/A	0.34	
IM U.S. Intermediate Duration (SA+CF) Median	0.73	2.56	0.70	2.42	1.96	4.17	2.40	1.30	3.57	-0.53	4.96	2.02	
Rank	61	34	63	51	54	N/A	77	31	36	74	N/A	55	
FIA International Fixed Income (SA)	0.76	3.16	-0.38	3.30	4.03	5.16	3.54	-0.22	13.10	-0.80	7.81	5.05	05/01/2004
Bloomberg Gbl Agg Ex USD Index (Hedged)	0.68	1.33	-0.55	3.40	3.74	4.29	4.90	1.36	8.79	1.18	6.46	4.35	
Difference	0.08	1.83	0.17	-0.10	0.29	0.87	-1.36	-1.58	4.31	-1.98	1.35	0.70	
IM International Fixed Income (SA+CF) Median	1.48	5.20	2.60	2.29	2.58	4.34	3.53	-1.37	2.80	-0.43	7.23	5.23	
Rank	82	65	69	37	29	36	50	49	5	53	49	58	

Asset Allocation by Manager



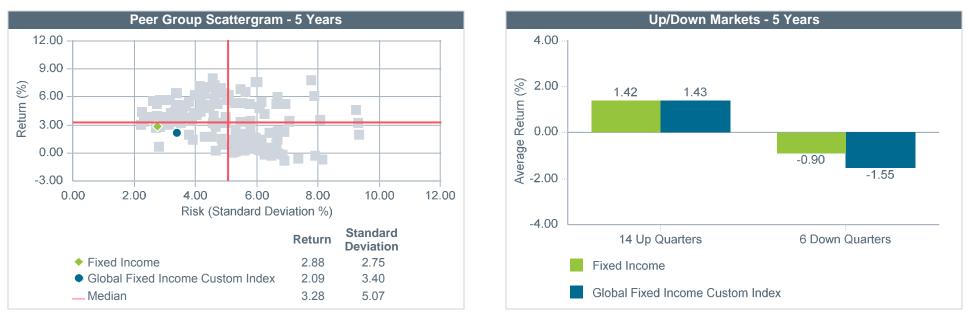
Performance shown is gross of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014.



Comparative Performance													
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Brandywine Glbl Opp FI (CF)	3.36	13.75	6.88	N/A	N/A	N/A	5.69	-7.98	N/A	N/A	N/A	3.12	11/01/2014
FTSE Wrld Gov't Bond Index	1.81	6.38	-2.69	0.88	-0.43	2.95	1.60	-3.57	-0.48	-4.00	1.65	0.99	
Difference	1.55	7.37	9.57	N/A	N/A	N/A	4.09	-4.41	N/A	N/A	N/A	2.13	
IM Global Fixed Income (SA+CF) Median	1.86	6.37	4.41	3.25	3.28	4.60	5.75	-2.32	2.47	-0.10	9.52	3.18	
Rank	9	4	34	N/A	N/A	N/A	52	93	N/A	N/A	N/A	52	
Lazard High Yield (SA)	1.74	5.10	6.07	5.26	5.49	6.68	9.91	-0.10	4.00	6.15	11.94	6.76	01/01/2004
BofA ML US Hi Yld BB-B Rated Index	1.94	6.59	7.95	5.78	6.15	7.20	14.75	-2.86	3.47	6.31	14.71	7.21	
Difference	-0.20	-1.49	-1.88	-0.52	-0.66	-0.52	-4.84	2.76	0.53	-0.16	-2.77	-0.45	
IM U.S. High Yield Bonds (SA+CF) Median	2.00	6.81	8.56	5.49	6.22	7.51	14.12	-2.16	2.60	7.58	15.33	7.64	
Rank	71	85	89	59	81	83	85	19	20	83	87	88	
Payden:Low Dur;Inv (PYSBX)	0.53	1.76	1.69	1.67	1.58	3.79	2.26	0.91	1.21	0.99	5.03	4.09	04/01/2002
Bloomberg US Trsy: 1-3 Yr Index	0.24	0.70	0.24	0.77	0.64	1.72	0.86	0.56	0.63	0.36	0.43	2.33	
Difference	0.29	1.06	1.45	0.90	0.94	2.07	1.40	0.35	0.58	0.63	4.60	1.76	
IM U.S. Short Duration Fixed Income (SA+CF) Median	0.47	1.49	1.06	1.48	1.27	2.48	1.59	0.93	1.25	0.67	2.43	2.98	
Rank	34	32	18	33	26	6	24	56	55	24	8	2	
ND Land - PTF Cash (SA)	0.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.40	07/01/2017
BofA ML 3 Mo US T-Bill Index	0.27	0.57	0.65	0.32	0.22	0.47	0.33	0.05	0.04	0.07	0.11	0.27	
Difference	0.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.13	
FLP (Loans)	1.54	4.51	6.12	6.07	5.91	6.30	6.12	6.09	5.85	5.52	5.89	7.30	08/01/1995
ECLP (Loans)	1.09	3.11	4.27	4.81	4.94	N/A	4.89	5.13	5.03	5.16	5.58	5.19	11/01/2010

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.





		Peer Group	o Analysis - Multi Sta	atistics		
2.05	Sharpe Ratio	Tracking Error	Info Ratio	Downside Risk	Up Mkt Capture	Down Mkt Capture
2.95 2.24 -		8.00 -	1.43 -	6.00	300.00	200.00
1.53 -		5.00	0.74	4.00	200.00 -	100.00
0.82 - 0.11 -	\bigcirc	2.00 -	0.05	2.00 - 0.00 -	100.00 - 🔷 🔿 -	-100.00 -
-0.60		-4.00	-1.33	-2.00	0.00	-200.00
	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years
 Fixed Income 	0.98 (40)	1.21 (100)	0.63 (35)	1.61 (82)	99.34 (76)	57.90 (53)
Global Fixed Income Custom Index	0.57 (58)	0.00 (100)	N/A	2.11 (68)	100.00 (75)	100.00 (44)
Median	0.76	3.73	0.33	3.14	122.33	68.29
Population	187	187	187	187	187	187

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



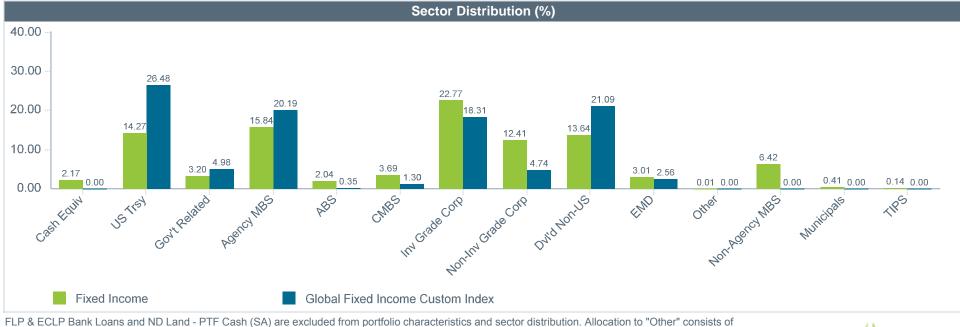
North Dakota Board of University and School Lands Fixed Income vs. Global Fixed Income Custom Index **Portfolio Characteristics**

Current Yield (%)

currency forwards.

Portfolio Characteristics	
Portfolio	Benchmark
4.87	6.01
4.60	5.93
7.18	8.19
A2	N/A
3.85	3.30
2.80	2.62
	Portfolio 4.87 4.60 7.18 A2 3.85

3.71



0.20

	Comparative Performance													
QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date		
2.50	9.69	9.44	3.65	N/A	N/A	8.45	-5.52	N/A	N/A	N/A	2.73	07/01/2014		
3.52	11.42	10.94	5.84	7.14	4.59	6.22	-0.88	4.77	12.74	11.63	4.85			
-1.02	-1.73	-1.50	-2.19	N/A	N/A	2.23	-4.64	N/A	N/A	N/A	-2.12			
2.46	10.78	9.78	3.53	N/A	N/A	4.35	-3.43	N/A	N/A	N/A	2.52	07/01/2014		
3.81	12.75	10.31	5.08	6.33	3.95	5.69	-2.47	2.78	12.05	11.45	3.82			
-1.35	-1.97	-0.53	-1.55	N/A	N/A	-1.34	-0.96	N/A	N/A	N/A	-1.30			
3.41	10.51	9.83	2.68	N/A	N/A	14.80	-10.89	N/A	N/A	N/A	1.32	07/01/2014		
2.11	6.76	6.31	4.16	4.60	4.66	6.47	-1.07	3.73	6.10	8.92	3.47			
1.30	3.75	3.52	-1.48	N/A	N/A	8.33	-9.82	N/A	N/A	N/A	-2.15			
1.64	7.81	8.72	4.68	N/A	N/A	6.47	-2.07	N/A	N/A	N/A	4.30	07/01/2014		
1.53	5.73	4.10	6.04	6.43	5.38	5.37	1.61	12.88	6.15	9.98	5.52			
0.11	2.08	4.62	-1.36	N/A	N/A	1.10	-3.68	N/A	N/A	N/A	-1.22			
	2.50 3.52 -1.02 2.46 3.81 -1.35 3.41 2.11 1.30 1.64 1.53	2.50 9.69 3.52 11.42 -1.02 -1.73 2.46 10.78 3.81 12.75 -1.35 -1.97 3.41 10.51 2.11 6.76 1.30 3.75 1.64 7.81 1.53 5.73	2.50 9.69 9.44 3.52 11.42 10.94 -1.02 -1.73 -1.50 2.46 10.78 9.78 3.81 12.75 10.31 -1.35 -1.97 -0.53 3.41 10.51 9.83 2.11 6.76 6.31 1.30 3.75 3.52 1.64 7.81 8.72 1.53 5.73 4.10	QTDCYTDYearYears2.509.699.443.653.5211.4210.945.84-1.02-1.73-1.50-2.192.4610.789.783.533.8112.7510.315.08-1.35-1.97-0.53-1.553.4110.519.832.682.116.766.314.161.303.753.52-1.481.647.818.724.681.535.734.106.04	QTD CYTD Year Years Years Years 2.50 9.69 9.44 3.65 N/A 3.52 11.42 10.94 5.84 7.14 -1.02 -1.73 -1.50 -2.19 N/A 2.46 10.78 9.78 3.53 N/A 3.81 12.75 10.31 5.08 6.33 -1.35 -1.97 -0.53 -1.55 N/A 3.41 10.51 9.83 2.68 N/A 2.11 6.76 6.31 4.16 4.60 1.30 3.75 3.52 -1.48 N/A 1.64 7.81 8.72 4.68 N/A 1.53 5.73 4.10 6.04 6.43	QTD CYTD Year Years Yea	QTDCYTDYearYearsYearsYearsYearsYears20162.509.699.443.65N/AN/A8.453.5211.4210.945.847.144.596.22-1.02-1.73-1.50-2.19N/AN/A2.232.4610.789.783.53N/AN/A4.353.8112.7510.315.086.333.955.69-1.35-1.97-0.53-1.55N/AN/A-1.343.4110.519.832.68N/AN/A14.802.116.766.314.164.604.666.471.303.753.52-1.48N/AN/A8.331.647.818.724.68N/AN/A6.471.535.734.106.046.435.385.37	QTDCYTDYearYearsYearsYearsYears201620152.509.699.443.65N/AN/AN/A8.45-5.523.5211.4210.945.847.144.596.22-0.88-1.02-1.73-1.50-2.19N/AN/A2.23-4.642.4610.789.783.53N/AN/A4.35-3.433.8112.7510.315.086.333.955.69-2.47-1.35-1.97-0.53-1.55N/AN/A-1.34-0.963.4110.519.832.68N/AN/A14.80-10.892.116.766.314.164.604.666.47-1.071.303.753.52-1.48N/AN/A8.33-9.821.647.818.724.68N/AN/A5.385.371.61	QTDCYTDYearYearsYearsYears2016201520142.509.699.443.65N/AN/A8.45-5.52N/A3.5211.4210.945.847.144.596.22-0.884.77-1.02-1.73-1.50-2.19N/AN/A2.23-4.64N/A2.4610.789.783.53N/AN/A4.35-3.43N/A3.8112.7510.315.086.333.955.69-2.472.78-1.35-1.97-0.53-1.55N/AN/A-1.34-0.96N/A3.4110.519.832.68N/AN/A14.80-10.89N/A2.116.766.314.164.604.666.47-1.073.731.303.753.52-1.48N/AN/A8.33-9.82N/A1.647.818.724.68N/AN/A6.47-2.07N/A1.535.734.106.046.435.385.371.6112.88	QTDCYTDYearsYearsYearsYearsYears20162015201420132.509.699.443.65N/AN/AN/A8.45-5.52N/AN/A3.5211.4210.945.847.144.596.22-0.884.7712.74-1.02-1.73-1.50-2.19N/AN/A2.23-4.64N/AN/A2.4610.789.783.53N/AN/A4.35-3.43N/AN/A3.8112.7510.315.086.333.955.69-2.472.7812.05-1.35-1.97-0.53-1.55N/AN/A-1.34-0.96N/AN/A3.4110.519.832.68N/AN/A14.80-10.89N/AN/A2.116.766.314.164.604.666.47-1.073.736.101.303.753.52-1.48N/AN/A8.33-9.82N/AN/A1.647.818.724.68N/AN/A6.47-2.07N/AN/A1.535.734.106.046.435.385.371.6112.886.15	QTDCYTDYearYearsYearsYears201620152014201320122.509.699.443.65N/AN/A8.45-5.52N/AN/AN/A3.5211.4210.945.847.144.596.22-0.884.7712.7411.63-1.02-1.73-1.50-2.19N/AN/A2.23-4.64N/AN/AN/A2.4610.789.783.53N/AN/A4.35-3.43N/AN/AN/A3.8112.7510.315.086.333.955.69-2.472.7812.0511.45-1.35-1.97-0.53-1.55N/AN/A-1.34-0.96N/AN/AN/A3.4110.519.832.68N/AN/A14.80-10.89N/AN/AN/A2.116.766.314.164.604.666.47-1.073.736.108.921.303.753.52-1.48N/AN/A8.33-9.82N/AN/AN/A1.647.818.724.68N/AN/A6.47-2.07N/AN/AN/A1.535.734.106.046.435.385.371.6112.886.159.98	QTDYearYearsYearsYearsYears20162015201420132012Incep.2.509.699.443.65N/AN/A8.45-5.52N/AN/AN/A2.733.5211.4210.945.847.144.596.22-0.884.7712.7411.634.85-1.02-1.73-1.50-2.19N/AN/A2.23-4.64N/AN/AN/A-2.122.4610.789.783.53N/AN/A4.35-3.43N/AN/AN/A2.523.8112.7510.315.086.333.955.69-2.472.7812.0511.453.82-1.35-1.97-0.53-1.55N/AN/A-1.34-0.96N/AN/AN/A-1.303.4110.519.832.68N/AN/A14.80-10.89N/AN/AN/A1.322.116.766.314.164.604.666.47-1.073.736.108.923.471.303.753.52-1.48N/AN/A8.33-9.82N/AN/AN/A-2.151.647.818.724.68N/AN/A5.385.371.6112.886.159.985.52		



Performance shown is gross of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014.



Comparative Performance													
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Diversified Inflation Strategies (DIS)	3.42	-1.36	0.61	-0.70	N/A	N/A	19.55	-23.87	N/A	N/A	N/A	0.19	04/01/2014
DIS Custom Index	1.48	1.98	3.39	0.08	1.32	2.49	16.53	-18.88	9.69	-2.19	17.59	0.76	
Difference	1.94	-3.34	-2.78	-0.78	N/A	N/A	3.02	-4.99	N/A	N/A	N/A	-0.57	
NT Common TIPS Index (CF)	0.91	1.85	-0.64	1.66	0.08	4.02	4.82	-1.48	3.69	-8.58	6.94	4.24	06/01/2004
Bloomberg US Trsy: US TIPS Index	0.86	1.72	-0.73	1.62	0.02	3.90	4.68	-1.44	3.64	-8.61	6.98	4.13	
Difference	0.05	0.13	0.09	0.04	0.06	0.12	0.14	-0.04	0.05	0.03	-0.04	0.11	
IM U.S. TIPS (SA+CF) Median	0.89	1.79	-0.49	1.63	0.13	3.97	4.65	-1.41	3.57	-8.41	6.96	4.21	
Rank	37	36	63	42	69	42	32	64	35	61	59	42	
Gresham Commodities (SA)	7.02	4.16	8.23	N/A	N/A	N/A	12.44	N/A	N/A	N/A	N/A	-5.04	07/01/2015
Bloomberg Cmdty Ex Energy Index (TR)	-0.21	2.39	0.65	-3.41	-8.01	-2.37	7.77	-17.74	-6.47	-16.76	2.85	-2.30	
Difference	7.23	1.77	7.58	N/A	N/A	N/A	4.67	N/A	N/A	N/A	N/A	-2.74	
Harvest MLP (SA)	-2.05	-4.57	-2.92	N/A	N/A	N/A	20.10	N/A	N/A	N/A	N/A	-6.62	07/01/2015
S&P MLP Index (TR)	-2.46	-5.31	-2.17	-12.95	0.26	6.98	21.95	-35.07	7.66	29.75	4.95	-8.63	
Difference	0.41	0.74	-0.75	N/A	N/A	N/A	-1.85	N/A	N/A	N/A	N/A	2.01	
Van Eck NR Equities (SA)	8.71	-8.50	-4.76	N/A	N/A	N/A	45.15	N/A	N/A	N/A	N/A	-4.20	07/01/2015
S&P Gbl Natural Res Sect Index (TR)	10.79	12.96	20.52	1.34	1.11	-0.70	32.28	-24.00	-9.66	1.55	7.15	7.01	
Difference	-2.08	-21.46	-25.28	N/A	N/A	N/A	12.87	N/A	N/A	N/A	N/A	-11.21	

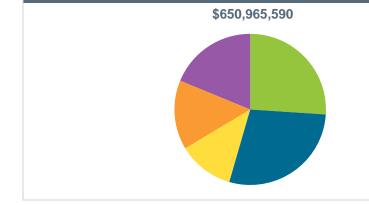


Performance shown is gross of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014.



Comparative Performance													
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2016	2015	2014	2013	2012	Since Incep.	Inception Date
Real Estate	2.87	7.42	10.30	N/A	N/A	N/A	9.77	N/A	N/A	N/A	N/A	11.03	07/01/2015
NCREIF ODCE Index (AWA) (Gross)	1.87	5.43	7.66	10.85	11.59	5.03	8.77	15.02	12.50	13.94	10.94	9.59	
Difference	1.00	1.99	2.64	N/A	N/A	N/A	1.00	N/A	N/A	N/A	N/A	1.44	
Morgan Stanley Prime Property Fund (CF)	2.48	7.37	10.25	N/A	N/A	N/A	10.43	N/A	N/A	N/A	N/A	11.35	07/01/2015
NCREIF ODCE Index (AWA) (Gross)	1.87	5.43	7.66	10.85	11.59	5.03	8.77	15.02	12.50	13.94	10.94	9.59	
Difference	0.61	1.94	2.59	N/A	N/A	N/A	1.66	N/A	N/A	N/A	N/A	1.76	
UBS Trumbull Property Fund, L.P. (CF)	1.48	3.86	5.38	N/A	N/A	N/A	7.21	N/A	N/A	N/A	N/A	7.89	07/01/2015
NCREIF ODCE Index (AWA) (Gross)	1.87	5.43	7.66	10.85	11.59	5.03	8.77	15.02	12.50	13.94	10.94	9.59	
Difference	-0.39	-1.57	-2.28	N/A	N/A	N/A	-1.56	N/A	N/A	N/A	N/A	-1.70	
Jamestown Premier Property Fund (CF)	1.68	6.64	6.62	N/A	N/A	N/A	6.58	N/A	N/A	N/A	N/A	9.79	07/01/2015
NCREIF ODCE Index (AWA) (Gross)	1.87	5.43	7.66	10.85	11.59	5.03	8.77	15.02	12.50	13.94	10.94	9.59	
Difference	-0.19	1.21	-1.04	N/A	N/A	N/A	-2.19	N/A	N/A	N/A	N/A	0.20	
Prologis USLF (CF)	8.19	18.05	25.71	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21.65	04/01/2016
NCREIF ODCE Index (AWA) (Gross)	1.87	5.43	7.66	10.85	11.59	5.03	8.77	15.02	12.50	13.94	10.94	8.00	
Difference	6.32	12.62	18.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13.65	
JP Morgan US Real Estate Income and Growth, LP (CF)	2.16	5.42	9.14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9.12	07/01/2016
NCREIF ODCE Index (AWA) (Gross)	1.87	5.43	7.66	10.85	11.59	5.03	8.77	15.02	12.50	13.94	10.94	7.83	
Difference	0.29	-0.01	1.48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.29	

Asset Allocation by Manager



	Market Value (\$)	Allocation (%)
Morgan Stanley Prime Property Fund (CF)	184,770,483	28.38
UBS Trumbull Property Fund, L.P. (CF)	169,706,999	26.07
JP Morgan US Real Estate Income and Growth, LP (CF)	122,328,251	18.79
Prologis USLF (CF)	96,587,320	14.84
Jamestown Premier Property Fund (CF)	77,572,537	11.92

Performance shown is gross of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Actual funding date for Prologis USLF (CF) was April 14, 2016.



	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
Total Fund	3.08	8.96	9.50	4.69	6.44	6.92	4.75	8.65	-4.55	4.78	6.81	08/01/1995
Target Allocation Index (Net)	3.08	9.61	9.64	5.94	7.52	7.82	N/A	7.85	-0.93	6.50	N/A	
Difference	0.00	-0.65	-0.14	-1.25	-1.08	-0.90	N/A	0.80	-3.62	-1.72	N/A	
Broad US Equity	4.46	13.95	19.05	10.93	13.53	12.99	N/A	13.29	0.08	12.29	14.94	07/01/2009
Russell 3000 Index	4.57	13.91	18.71	10.74	14.23	14.28	7.57	12.74	0.48	12.56	15.51	
Difference	-0.11	0.04	0.34	0.19	-0.70	-1.29	N/A	0.55	-0.40	-0.27	-0.57	
State Street Russell 1000 Index SL (CF)	4.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.19	06/01/2017
Russell 1000 Index	4.48	14.17	18.54	10.63	14.27	14.35	7.55	12.05	0.92	13.24	5.21	
Difference	-0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.02	
State Street Russell Mid Cap Index (SA)	3.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.53	06/01/2017
Russell Mid Cap Index	3.47	11.74	15.32	9.54	14.26	13.80	8.08	13.80	-2.44	13.22	4.50	
Difference	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.03	
NT Small Cap Core (CF)	5.24	14.29	22.19	11.47	N/A	N/A	N/A	18.20	-6.01	N/A	7.30	07/01/2014
Russell 2000 Index	5.67	10.94	20.74	12.18	13.79	13.51	7.85	21.31	-4.41	4.89	8.60	
Difference	-0.43	3.35	1.45	-0.71	N/A	N/A	N/A	-3.11	-1.60	N/A	-1.30	
NT Small/Smid Composite	5.24	14.29	22.19	11.47	12.98	12.57	6.66	18.20	-6.01	2.65	9.88	03/01/1996
Small/Smid Blended Index	5.67	10.94	20.74	12.18	14.45	14.08	8.47	21.31	-4.41	8.25	10.09	
Difference	-0.43	3.35	1.45	-0.71	-1.47	-1.51	-1.81	-3.11	-1.60	-5.60	-0.21	
Broad International Equity	5.89	20.81	19.25	4.89	9.02	6.03	N/A	4.82	-5.25	-5.28	7.68	07/01/2009
MSCI ACW Ex US Index (USD) (Net)	6.16	21.13	19.61	4.70	6.97	5.25	1.28	4.50	-5.66	-3.87	7.68	
Difference	-0.27	-0.32	-0.36	0.19	2.05	0.78	N/A	0.32	0.41	-1.41	0.00	
State Street World Ex US Index (CF)	5.64	19.15	18.71	4.50	N/A	N/A	N/A	2.66	-3.12	N/A	2.26	07/01/2014
MSCI Wrld Ex US Index (USD) (Net)	5.62	19.17	18.73	4.57	7.81	6.02	1.28	2.75	-3.04	-4.32	2.33	
Difference	0.02	-0.02	-0.02	-0.07	N/A	N/A	N/A	-0.09	-0.08	N/A	-0.07	
DFA Emg Mkts Core Eq;I (DFCEX)	6.54	26.78	20.32	4.95	N/A	N/A	N/A	12.35	-14.86	N/A	3.52	07/01/2014
MSCI Emg Mkts Index (USD) (Net)	7.89	27.78	22.46	4.90	3.99	2.54	1.32	11.19	-14.92	-2.19	3.38	
Difference	-1.35	-1.00	-2.14	0.05	N/A	N/A	N/A	1.16	0.06	N/A	0.14	
Harding Loevner:IEM;II (HLEEX)	7.27	28.27	22.14	6.63	N/A	N/A	N/A	13.44	-13.31	N/A	4.54	07/01/2014
MSCI Emg Mkts Index (USD) (Net)	7.89	27.78	22.46	4.90	3.99	2.54	1.32	11.19	-14.92	-2.19	3.38	
Difference	-0.62	0.49	-0.32	1.73	N/A	N/A	N/A	2.25	1.61	N/A	1.16	



·	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
Fixed Income	1.17	4.43	2.00	3.09	2.66	3.73	4.76	3.91	-0.15	4.72	5.81	08/01/1995
Global Fixed Income Custom Index	1.23	4.38	0.59	2.73	2.09	3.03	4.31	3.66	-0.50	4.27	N/A	
Difference	-0.06	0.05	1.41	0.36	0.57	0.70	0.45	0.25	0.35	0.45	N/A	
Bloomberg US Agg Bond Index	0.85	3.14	0.07	2.71	2.06	2.95	4.27	2.65	0.55	5.97	5.37	
Difference	0.32	1.29	1.93	0.38	0.60	0.78	0.49	1.26	-0.70	-1.25	0.44	
Payden & Rygel Long Term (SA)	0.98	4.04	1.55	3.26	2.67	3.77	4.96	3.83	0.62	5.80	6.00	08/01/1995
Bloomberg US Agg Bond Index	0.85	3.14	0.07	2.71	2.06	2.95	4.27	2.65	0.55	5.97	5.37	
Difference	0.13	0.90	1.48	0.55	0.61	0.82	0.69	1.18	0.07	-0.17	0.63	
JP Morgan FI Intermediate Bond (SA)	0.66	2.63	0.49	2.30	1.81	N/A	N/A	1.88	1.42	3.86	1.88	08/01/2012
Bloomberg US Gov't Crdt Int Trm Bond Index	0.60	2.34	0.23	2.13	1.61	2.26	3.64	2.08	1.07	3.13	1.65	
Difference	0.06	0.29	0.26	0.17	0.20	N/A	N/A	-0.20	0.35	0.73	0.23	
FIA International Fixed Income (SA)	0.70	2.98	-0.61	3.05	3.78	3.85	4.89	3.29	-0.46	12.84	4.75	05/01/2004
Bloomberg Gbl Agg Ex USD Index (Hedged)	0.68	1.33	-0.55	3.40	3.74	3.69	4.29	4.90	1.36	8.79	4.35	
Difference	0.02	1.65	-0.06	-0.35	0.04	0.16	0.60	-1.61	-1.82	4.05	0.40	
Brandywine Glbl Opp Fl (CF)	3.26	13.44	6.48	N/A	N/A	N/A	N/A	5.28	-8.31	N/A	2.76	11/01/2014
FTSE Wrld Gov't Bond Index	1.81	6.38	-2.69	0.88	-0.43	0.80	2.95	1.60	-3.57	-0.48	0.99	
Difference	1.45	7.06	9.17	N/A	N/A	N/A	N/A	3.68	-4.74	N/A	1.77	
Lazard High Yield (SA)	1.67	4.87	5.75	4.95	5.17	6.11	6.36	9.58	-0.41	3.69	6.44	01/01/2004
BofA ML US Hi Yld BB-B Rated Index	1.94	6.59	7.95	5.78	6.15	7.12	7.20	14.75	-2.86	3.47	7.21	
Difference	-0.27	-1.72	-2.20	-0.83	-0.98	-1.01	-0.84	-5.17	2.45	0.22	-0.77	
Payden:Low Dur;Inv (PYSBX)	0.42	1.42	1.23	1.18	1.09	2.07	3.28	1.74	0.44	0.70	3.58	04/01/2002
Bloomberg US Trsy: 1-3 Yr Index	0.24	0.70	0.24	0.77	0.64	0.71	1.72	0.86	0.56	0.63	2.33	
Difference	0.18	0.72	0.99	0.41	0.45	1.36	1.56	0.88	-0.12	0.07	1.25	
ND Land - PTF Cash (SA)	0.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.40	07/01/2017
BofA ML 3 Mo US T-Bill Index	0.27	0.57	0.65	0.32	0.22	0.19	0.47	0.33	0.05	0.04	0.27	
Difference	0.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.13	
FLP (Loans)	1.54	4.51	6.12	6.07	5.91	5.99	6.30	6.12	6.09	5.85	7.30	08/01/1995
ECLP (Loans)	1.09	3.11	4.27	4.81	4.94	N/A	N/A	4.89	5.13	5.03	5.19	11/01/2010



As of September 30, 2017

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
Absolute Return	2.30	9.05	8.59	2.85	N/A	N/A	N/A	7.61	-6.25	N/A	1.94	07/01/2014
Absolute Return Custom Index	3.52	11.42	10.94	5.84	7.14	6.96	4.59	6.22	-0.88	4.77	4.85	
Difference	-1.22	-2.37	-2.35	-2.99	N/A	N/A	N/A	1.39	-5.37	N/A	-2.91	
GMO:Bchmk-Fr All;IV (GBMBX)	2.24	10.05	8.82	2.65	N/A	N/A	N/A	3.45	-4.23	N/A	1.65	07/01/2014
60% MSCI ACW (Net)/40% Bbrg Gbl Agg Idx	3.81	12.75	10.31	5.08	6.33	6.25	3.95	5.69	-2.47	2.78	3.82	
Difference	-1.57	-2.70	-1.49	-2.43	N/A	N/A	N/A	-2.24	-1.76	N/A	-2.17	
Consumer Price Index+5%	2.00	6.04	7.34	6.28	6.36	6.85	6.79	7.18	5.77	5.79	6.14	
Difference	0.24	4.01	1.48	-3.63	N/A	N/A	N/A	-3.73	-10.00	N/A	-4.49	
PIMCO:All Ast Ath;Inst (PAUIX)	3.17	9.74	8.80	1.72	N/A	N/A	N/A	13.73	-11.73	N/A	0.37	07/01/2014
All Asset Custom Index (Eql Wtd)	2.11	6.76	6.31	4.16	4.60	5.26	4.66	6.47	-1.07	3.73	3.47	
Difference	1.06	2.98	2.49	-2.44	N/A	N/A	N/A	7.26	-10.66	N/A	-3.10	
Consumer Price Index+5%	2.00	6.04	7.34	6.28	6.36	6.85	6.79	7.18	5.77	5.79	6.14	
Difference	1.17	3.70	1.46	-4.56	N/A	N/A	N/A	6.55	-17.50	N/A	-5.77	
Westwood Income Opportunity (SA)	1.50	7.37	8.14	4.11	N/A	N/A	N/A	5.90	-2.61	N/A	3.74	07/01/2014
Westwood Custom Index	1.53	5.73	4.10	6.04	6.43	7.42	5.38	5.37	1.61	12.88	5.52	
Difference	-0.03	1.64	4.04	-1.93	N/A	N/A	N/A	0.53	-4.22	N/A	-1.78	
Consumer Price Index+5%	2.00	6.04	7.34	6.28	6.36	6.85	6.79	7.18	5.77	5.79	6.14	
Difference	-0.50	1.33	0.80	-2.17	N/A	N/A	N/A	-1.28	-8.38	N/A	-2.40	
Diversified Inflation Strategies (DIS)	3.28	-1.77	0.06	-1.20	N/A	N/A	N/A	18.91	-24.22	N/A	-0.28	04/01/2014
DIS Custom Index	1.48	1.98	3.39	0.08	1.32	3.81	2.49	16.53	-18.88	9.69	0.76	
Difference	1.80	-3.75	-3.33	-1.28	N/A	N/A	N/A	2.38	-5.34	N/A	-1.04	
NT Common TIPS Index (CF)	0.90	1.81	-0.69	1.61	0.03	2.65	3.97	4.77	-1.53	3.66	4.19	06/01/2004
Bloomberg US Trsy: US TIPS Index	0.86	1.72	-0.73	1.62	0.02	2.64	3.90	4.68	-1.44	3.64	4.13	
Difference	0.04	0.09	0.04	-0.01	0.01	0.01	0.07	0.09	-0.09	0.02	0.06	
Gresham Commodities (SA)	6.86	3.69	7.57	N/A	N/A	N/A	N/A	11.76	N/A	N/A	-5.62	07/01/2015
Bloomberg Cmdty Ex Energy Index (TR)	-0.21	2.39	0.65	-3.41	-8.01	-3.85	-2.37	7.77	-17.74	-6.47	-2.30	
Difference	7.07	1.30	6.92	N/A	N/A	N/A	N/A	3.99	N/A	N/A	-3.32	
Harvest MLP (SA)	-2.23	-5.09	-3.62	N/A	N/A	N/A	N/A	19.24	N/A	N/A	-7.31	07/01/2015
S&P MLP Index (TR)	-2.46	-5.31	-2.17	-12.95	0.26	4.59	6.98	21.95	-35.07	7.66	-8.63	
Difference	0.23	0.22	-1.45	N/A	N/A	N/A	N/A	-2.71	N/A	N/A	1.32	



	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
Van Eck NR Equities (SA)	8.54	-8.96	-5.40	N/A	N/A	N/A	N/A	44.23	N/A	N/A	-4.84	07/01/2015
S&P Gbl Natural Res Sect Index (TR)	10.79	12.96	20.52	1.34	1.11	1.44	-0.70	32.28	-24.00	-9.66	7.01	
Difference	-2.25	-21.92	-25.92	N/A	N/A	N/A	N/A	11.95	N/A	N/A	-11.85	
Real Estate	2.51	6.33	8.80	N/A	N/A	N/A	N/A	8.48	N/A	N/A	9.62	07/01/2015
NCREIF ODCE Index (AWA) (Net)	1.64	4.73	6.70	9.84	10.57	11.47	4.08	7.79	13.95	11.46	8.60	
Difference	0.87	1.60	2.10	N/A	N/A	N/A	N/A	0.69	N/A	N/A	1.02	
Morgan Stanley Prime Property Fund (CF)	2.24	6.53	9.09	N/A	N/A	N/A	N/A	9.23	N/A	N/A	10.13	07/01/2015
NCREIF ODCE Index (AWA) (Net)	1.64	4.73	6.70	9.84	10.57	11.47	4.08	7.79	13.95	11.46	8.60	
Difference	0.60	1.80	2.39	N/A	N/A	N/A	N/A	1.44	N/A	N/A	1.53	
UBS Trumbull Property Fund, L.P. (CF)	1.27	3.20	4.44	N/A	N/A	N/A	N/A	6.14	N/A	N/A	6.85	07/01/2015
NCREIF ODCE Index (AWA) (Net)	1.64	4.73	6.70	9.84	10.57	11.47	4.08	7.79	13.95	11.46	8.60	
Difference	-0.37	-1.53	-2.26	N/A	N/A	N/A	N/A	-1.65	N/A	N/A	-1.75	
Jamestown Premier Property Fund (CF)	1.48	5.49	5.22	N/A	N/A	N/A	N/A	5.26	N/A	N/A	7.93	07/01/2015
NCREIF ODCE Index (AWA) (Net)	1.64	4.73	6.70	9.84	10.57	11.47	4.08	7.79	13.95	11.46	8.60	
Difference	-0.16	0.76	-1.48	N/A	N/A	N/A	N/A	-2.53	N/A	N/A	-0.67	
Prologis USLF (CF)	7.06	15.07	21.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.37	04/01/2016
NCREIF ODCE Index (AWA) (Net)	1.64	4.73	6.70	9.84	10.57	11.47	4.08	7.79	13.95	11.46	7.03	
Difference	5.42	10.34	14.68	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11.34	
JP Morgan US Real Estate Income and Growth, LP (CF)	1.91	4.67	8.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8.02	07/01/2016
NCREIF ODCE Index (AWA) (Net)	1.64	4.73	6.70	9.84	10.57	11.47	4.08	7.79	13.95	11.46	6.87	
Difference	0.27	-0.06	1.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.15	

• Actual funding date for Prologis USLF (CF) was April 14, 2016.

• On 08/31/2017, the name of Citigroup World Government Bond Index was changed to FTSE World Government Bond Index due to the London Stock Exchange Group's acquisition of Citigroup's fixed income indices.



Addendum & Glossary



North Dakota Board of University and School Lands Addendum

Fee Schedules

- State Street Russell 1000 Index SL (CF):
- State Street Russell Mid Cap Index (SA):
- NT Small Cap Core (CF):
- State Street World Ex US Index (CF):
- DFA Emg Mkts Core Eq;I (DFCEX):
- Harding Loevner:IEM;II (HLEEX):
- Payden & Rygel Long Term (SA):
- JP Morgan FI Intermediate Bond (SA):
- FIA International Fixed Income (SA):
- Brandywine Glbl Opp FI (CF):
- Lazard High Yield (SA):
- Payden:Low Dur;Inv (PYSBX):
- ND Land PTF Cash (SA):
- GMO:Bchmk-Fr All;IV (GBMBX):
- PIMCO:All Ast Ath;Inst (PAUIX):
- Westwood Income Opportunity (SA):
- NT Common TIPS Index (CF):
- Gresham Commodities (SA):
- Harvest MLP (SA):
- Van Eck NR Equities (SA):
- Morgan Stanley Prime Property Fund (CF):
- UBS Trumbull Property Fund, L.P. (CF):
- Jamestown Premier Property Fund (CF):
- Prologis USLF (CF):

• JP Morgan US Real Estate Income and Growth, LP (CF)

0.20% on the first \$75M, 0.18% thereafter 0.35% on the first \$30M, 0.25% on the next \$20M, 0.20% over \$50M 0.45% on the first \$50M, 0.40% on the next \$50M, 0.35% thereafter 0.30% on total market value 0.45% on total market value 0.20% on total market value (based on underlying Govt MM fund) 0.89% on total market value 0.94% on total market value 0.80% on the first \$25M, 0.65% on the next \$25M, 0.50% thereafter 0.06% on the first \$50M, 0.03% thereafter 0.67% on the first \$75M, 0.50% on the next \$75M, 0.40% thereafter 0.75% on the first \$100M, and a 0.05% discount on each \$50M thereafter until \$300M, where it's 0.50% 0.75% on the first \$50M, 0.50% on the next \$200M, 0.475% thereafter 0.84% on total market value; Incentive fee: 5.0% * NAV * comparable property NOI growth (total capped at 0.35%) 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 0.70% on total market value, plus 20% of returns greater than 7% and 25% of returns greater than 10% Priority Distribution: 7.5% of net operating income; Acquisition Fee: 0.90% of total acquisition cost on fund acquisitions;

Renovation Fee: 0.70% per annum of the acquisition cost of the capital expenditures made with respect to renovation properties during the applicable renovation period * Fees are subject to a quarterly cap of 0.30% of the fund's NAV.

Incentive fee of 15% over a 9% net IRR and 20% over a 12% net IRR is payable at the end of each three-year incentive period (next period ends June 30, 2017)

1.25% on total market value

0.01% on total market value

0.03% on total market value

0.70% on total market value

0.02% on total market value

0.61% on total market value

1.13% on total market value

0.20% on total market value

* Beginning October 1st, 2016, a reduced fee schedule will be implemented as follows: 1.05% on the first \$50M, 0.90% on the next \$50M, 0.85% on the next \$50M, 0.80% on the next \$50M, and 0.75% thereafter

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.
- 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).



North Dakota Board of University and School Lands Addendum

Index Comments

- On 08/31/2017, the name of Citigroup World Government Bond Index was changed to FTSE World Government Bond Index due to the London Stock Exchange Group's acquisition of Citigroup's fixed income indices.
- The Target Allocation Index (Net) 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 (USD) (Net), 23% Global Fixed Income Custom 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, 12.4% MSCI EAFE Index (USD) (Net), 33.3% Bloomberg US Agg Bond Index, 0.70% Credit Suisse Leveraged Loan Index, 10% Bloomberg US Corporate: High Yield Index, and 5% Bloomberg Gbl Agg Ex USD Index (Hedged).
 - From July 2009 through December 2012: 15% Russell 1000 Index, 10% Russell 2500 Index, 6% FTSE EPRA/NAREIT US Index, 10% MSCI EAFE Index (USD) (Net), 32.3% Bloomberg US Aggregate Bond Index, 1.70% Credit Suisse Leveraged Loan Index, 10% Bloomberg US Corporate: High Yield Index, 5% Bloomberg Gbl Agg Ex USD Index (Hedged), and 10% BofA Merrill Lynch Convertible Bonds Index (All Qualities).
- The Target Allocation Index (Gross) 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 (USD) (Net), 23% Global Fixed Income Custom Index, 15% NCREIF ODCE Index (AWA) (Gross), 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, 12.4% MSCI EAFE Index (USD) (Net), 33.3% Bloomberg US Agg Bond Index, 0.70% Credit Suisse Leveraged Loan Index, 10% Bloomberg US Corporate: High Yield Index, and 5% Bloomberg GbI Agg Ex USD Index (Hedged).
 - From July 2009 through December 2012: 15% Russell 1000 Index, 10% Russell 2500 Index, 6% FTSE EPRANAREIT US Index, 10% MSCI EAFE Index (USD) (Net), 32.3% Bloomberg US Aggregate Bond Index, 1.70% Credit Suisse Leveraged Loan Index, 10% Bloomberg US Corporate: High Yield Index, 5% Bloomberg Gbl Agg Ex USD Index (Hedged), and 10% BofA Merrill Lynch Convertible Bonds Index (All Qualities).
- The Global Fixed Income Custom Index consists of 75% Bloomberg US Unv Bond Index and 25% Bloomberg Multiverse Index.
- The Absolute Return Custom Index consists of 60% MSCI ACW IM Index (USD) (Net) and 40% Bloomberg US Agg Bond Index.
- The DIS Custom Index consists of 50% Bloomberg US Trsy: US TIPS Index and 50% FTSE EPRA/NAREIT Developed Index (Gross) through June 2015. It consists of 20% Bloomberg US Trsy: US TIPS Index, 30% Bbrg Cmdty 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 through May 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 (Eql Wtd) 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: Bloomberg 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: Bloomberg 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 GbI Advantage Bond Index (London Close) prior to January 2004 consists of the JPM EMBI GbI Dvf'd TR Index.



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

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

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

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

S&P	Moody's	Explanation	S&P	Moody's	Explanation			
Higher Credit Quality – Investment Grade				Lower Credit Quality – Below Investment Grade				
AAA	Aaa	Prime/Highest credit quality	BB+	Ba1	Speculative/Low credit quality			
AA+	Aa1	High credit quality	BB	Ba2				
AA	Aa2	0	BB-	Ba3				
AA-	Aa3		B+	B1	Highly speculative			
A+	A1	Upper-medium credit quality	В	B2				
А	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			
			С	Ca				
			D	C	In default			

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

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

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

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

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

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

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.

Capital Markets Review -

Breakeven Inflation - Measures the expected inflation rate at each stated maturity by taking the difference between the real yield of the inflationlinked 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.

Federal Funds Rate - The interest rate at which a depository institution lends funds maintained at the Federal Reserve to another depository institution overnight. It is one of the most influential interest rates in the US economy, since it affects monetary and financial conditions, which in turn have a bearing on key aspects of the broad economy including employment, growth and inflation.

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

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



Real Gross Domestic Product (Real GDP) - An inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year.

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.

Unemployment Rate - The percentage of the total labor force that is unemployed but actively seeking employment.

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

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

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

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

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

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

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

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

Downside Risk - A measure similar to standard deviation, but focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative monthly 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 approximate percentage change in a bond's price for a 100 basis point change in yield.

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

Excess Return vs. Risk Free - Average of the monthly arithmetic difference between the manager's return and the risk-free return (i.e., 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.

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

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

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

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

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

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



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

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

Peer Groups -

Plan Sponsor Peer Groups - RVK utilizes the Mellon Analytical Solutions Trust Universe along with the Investment Metrics Plan Sponsor Universe. The combined Mellon Analytical Solutions Trust Universe and Investment Metrics Plan Sponsor Universe is used for comparison of total fund composite results and utilizes actual client 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 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.

For more information on Peer Groups, visit https://www.invmetrics.com/style-peer-groups.

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

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

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

Modified Dietz method calculates a time-weighted total rate of return that considers the timing of external cash flows; however, it does not utilize interim period performance to mitigate the impact of significant cash in- and outflows to the composite.

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

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

Price to Earnings Ratio - The ratio of a company's share price to its per-share earnings

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.

Asset Class	RVK Liquidity Rating	Asset Class	RVK Liquidity Rating
Liquid Investments		Less Liquid Investments	
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	0	
Stable Value (Participant Directed)	91		
Non-US Large Cap Equity	90	Not Liquid Investments	
Global Tactical Asset Allocation	88	Core Real Estate	25
US Small Cap Equity	85	Core Plus Real Estate	15
REITS	85	Non-Core 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		

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

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

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

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

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

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:

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

Strategic Asset Allocation (SAA) – The percentage return gained or lost from the long-term strategic asset allocation decision, the most significant determinant of long-term performance. SAA is the product of the target asset allocation multiplied by the corresponding benchmark returns. Tactical Asset Allocation (TAA) – The percentage return gained or lost from not having been precisely allocated at the target asset allocation mix, whether by deviations that are tactical in nature or a by-product of moving towards the target mix. TAA is the product of the actual asset allocation multiplied by the broad asset class benchmarks, less the SAA.

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

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

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

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. The 30-Day SEC Yield is similar to the Yield to Maturity and is reported for mutual funds.

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



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