

# **Board of Regents State of Iowa**

December 31, 2017

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# Market Environment

## Economic overview

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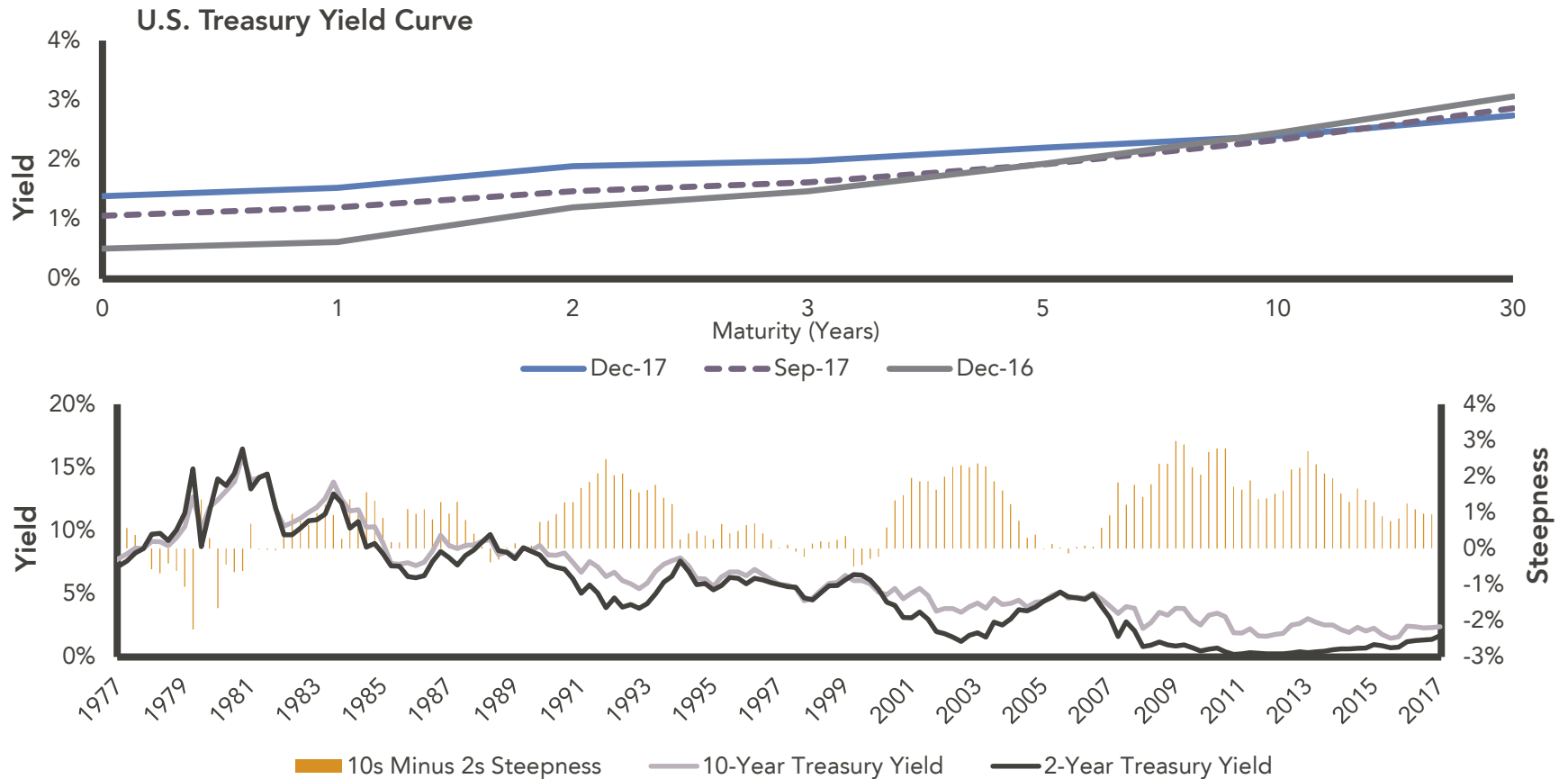
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U.S. GDP	2.6% (Est.) for 4Q17; 1Q18 Fed forecast of 4.2%
U.S. Unemployment Rate	4.1% as of December 2017
U.S. Core Inflation	1.8% as of December 2017
Fed Rate Expectations	78% probability of an increase in March 2018
Global Growth Expectations	IMF forecasting 3.9% for 2018

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Source: Federal Reserve Bank of Atlanta (as of 1/29/18), BLS, BEA, CME Group (as of 1/29/18), IMF (as of January 2018)

# Yield curve & steepness: further flattening



Source: Federal Reserve as of December 31, 2017

# Fixed Income returns

	Month (%)	3-Month (%)	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)
<b>Broad Market Indices</b>						
Blm BC Aggregate	0.5	0.4	3.5	2.2	2.1	4.0
<b>Intermediate Indices</b>						
Blm BC Int. Gov./Credit	0.1	-0.2	2.1	1.8	1.5	3.3
<b>Government Only Indices</b>						
Blm BC Long Gov.	1.7	2.3	8.5	2.9	3.5	6.5
Blm BC Int. Gov.	0.0	-0.4	1.1	1.1	0.9	2.7
Blm BC 1-3 Year Gov.	0.0	-0.3	0.4	0.6	0.6	1.5
Blm BC U.S. TIPS	0.9	1.3	3.0	2.1	0.1	3.5
<b>Credit Indices</b>						
Blm BC U.S. Long Credit	2.0	3.2	12.2	5.7	5.1	7.7
Blm BC High Yield	0.3	0.5	7.5	6.4	5.8	8.0
CS Leveraged Loan Index	0.4	1.2	4.2	4.5	4.3	4.6
<b>Securitized Bond Indices</b>						
Blm BC MBS	0.3	0.2	2.5	1.9	2.0	3.8
Blm BC ABS	0.0	0.0	1.6	1.6	1.3	3.0
Blm BC CMBS	0.3	0.4	3.5	2.6	2.5	4.7
<b>Non-US Indices</b>						
Blm BC Global Aggregate Hedged	0.2	0.8	3.0	2.7	3.1	4.2
JPM EMBI Global Diversified	0.7	1.2	10.3	7.1	4.6	7.3
JPM GBI-EM Global Diversified	1.1	0.8	8.9	7.1	5.8	8.3
<b>Municipal Indices</b>						
Blm BC Municipal	1.0	0.7	5.4	3.0	3.0	4.5
Blm BC HY Municipal	1.3	1.8	9.7	4.8	4.3	5.2

Source: Bloomberg Barclays, Credit Suisse, JPMorgan as of December 31, 2017

# U.S. Equity returns

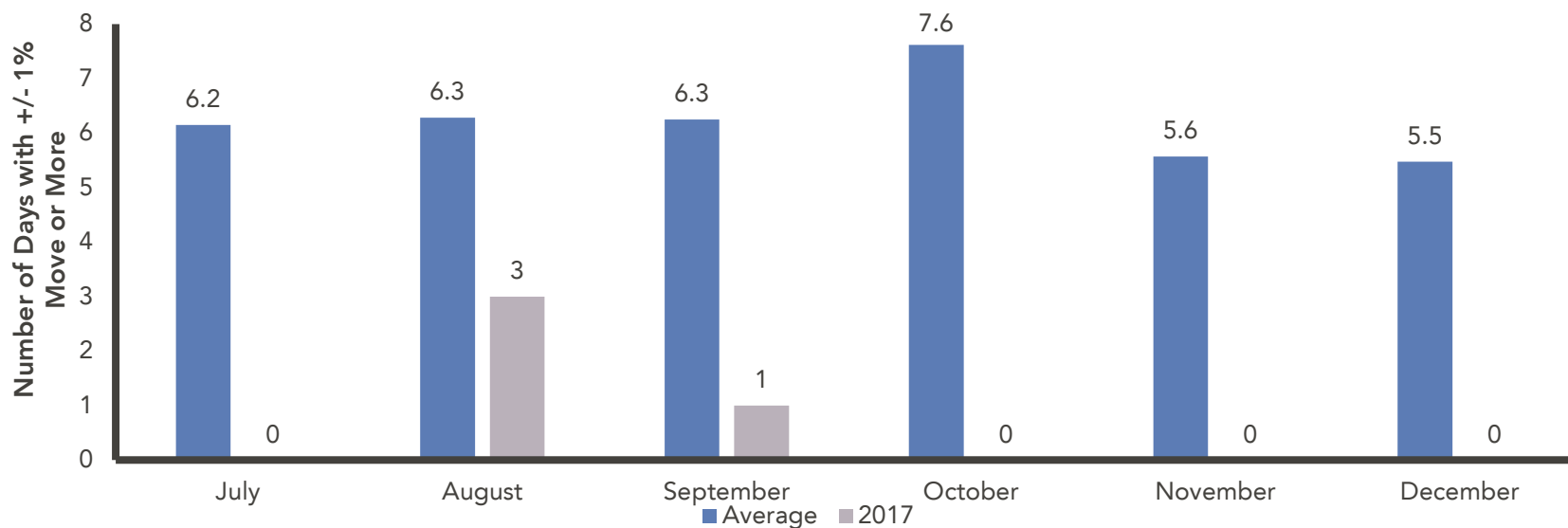
	Month (%)	3-Month (%)	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)
<b>Broad Market Indices</b>						
Dow Jones	1.9	11.0	28.1	14.4	16.4	9.3
Wilshire 5000	1.1	6.4	21.0	11.4	15.7	8.6
Russell 3000	1.0	6.3	21.1	11.1	15.6	8.6
<b>Large-Cap Market Indices</b>						
S&P 500	1.1	6.6	21.8	11.4	15.8	8.5
Russell 1000	1.1	6.6	21.7	11.2	15.7	8.6
Russell 1000 Value	1.5	5.3	13.7	8.7	14.0	7.1
Russell 1000 Growth	0.8	7.9	30.2	13.8	17.3	10.0
<b>Mid-Cap Market Indices</b>						
Russell MidCap	0.9	6.1	18.5	9.6	15.0	9.1
Russell MidCap Value	1.2	5.5	13.3	9.0	14.7	9.1
Russell MidCap Growth	0.5	6.8	25.3	10.3	15.3	9.1
<b>Small-Cap Market Indices</b>						
Russell 2000	-0.4	3.3	14.6	10.0	14.1	8.7
Russell 2000 Value	-1.0	2.0	7.8	9.5	13.0	8.2
Russell 2000 Growth	0.1	4.6	22.2	10.3	15.2	9.2

Source: Morningstar Direct as of December 31, 2017

# Complacency sets in

**Market moved by less than 1% every day during fourth quarter**

Number of +/-1% days in the S&P 500

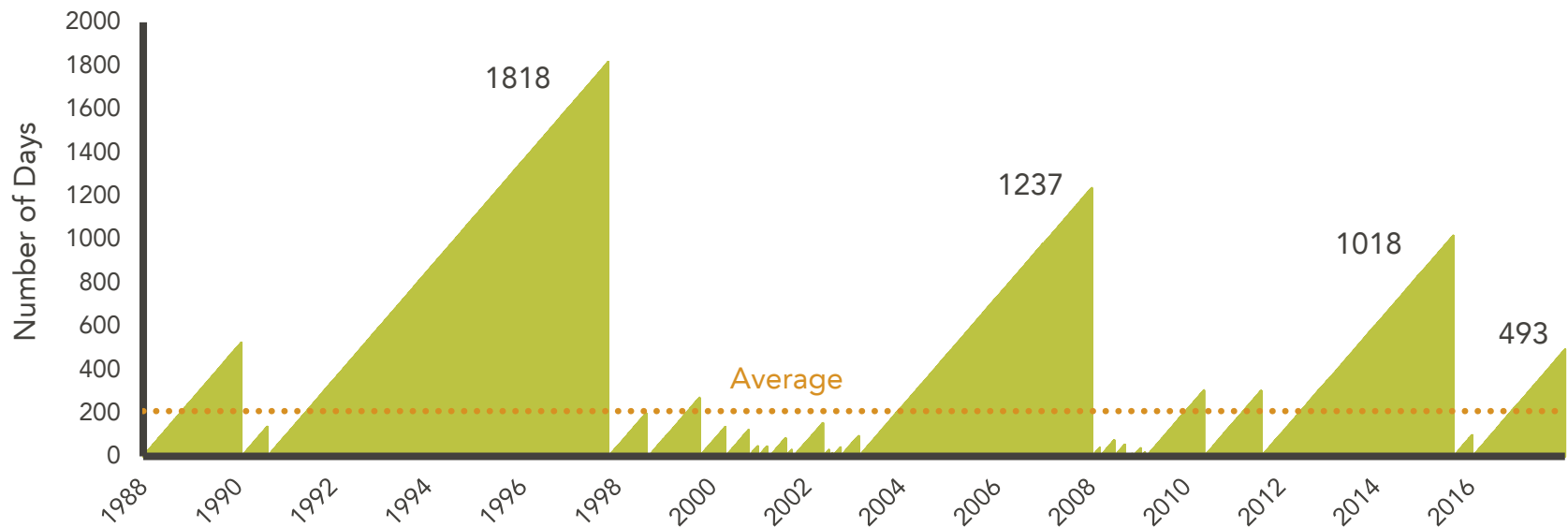


Source: Bloomberg as of December 31, 2017

# Correction withdrawal

**493 days have passed since the last major correction (>10%) for the S&P 500 index**

▣ Number of days since the last disruption (>10%)



Source: Mondrian, Bloomberg, as of December 31, 2017



# Non-U.S. Equities: a big year

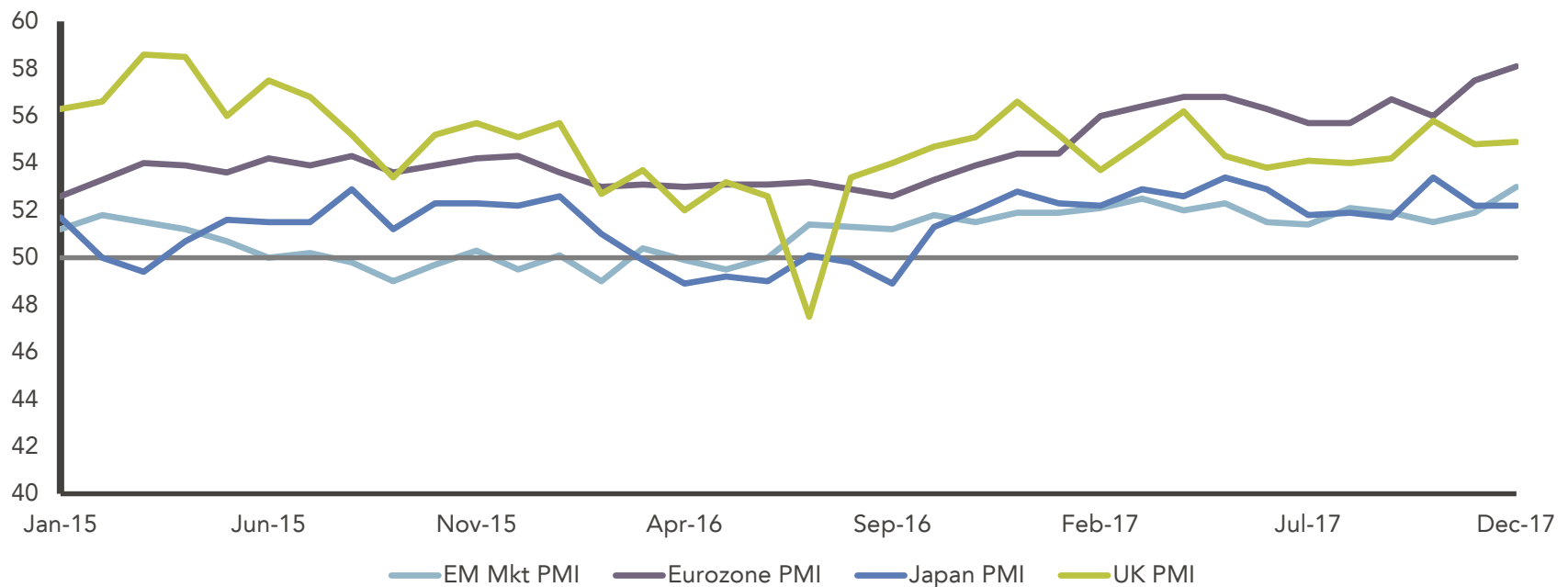
## Strong returns across all broad indices

	Month (%)	3-Month (%)	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)
MSCI ACWI ex. U.S.	2.2	5.0	27.2	7.8	6.8	1.8
MSCI EAFE	1.6	4.2	25.0	7.8	7.9	1.9
MSCI EAFE Local	1.2	3.7	15.2	8.5	11.4	3.3
MSCI Emerging Markets	3.6	7.4	37.3	9.1	4.4	1.7
MSCI EM Local	2.6	5.7	33.8	10.5	8.0	4.1
MSCI EAFE Small-Cap	2.7	6.1	33.0	14.2	12.9	5.8
MSCI EM Small-Cap	3.7	9.2	33.8	8.4	5.4	2.8
MSCI Frontier	3.1	5.6	31.9	5.0	9.3	-1.4

Source: Bloomberg. P/E is adjusted for negative earnings, percentiles are based on last 20-years except for FP/E which goes back to 2005. Data as of 4Q17

# Global economy continues momentum

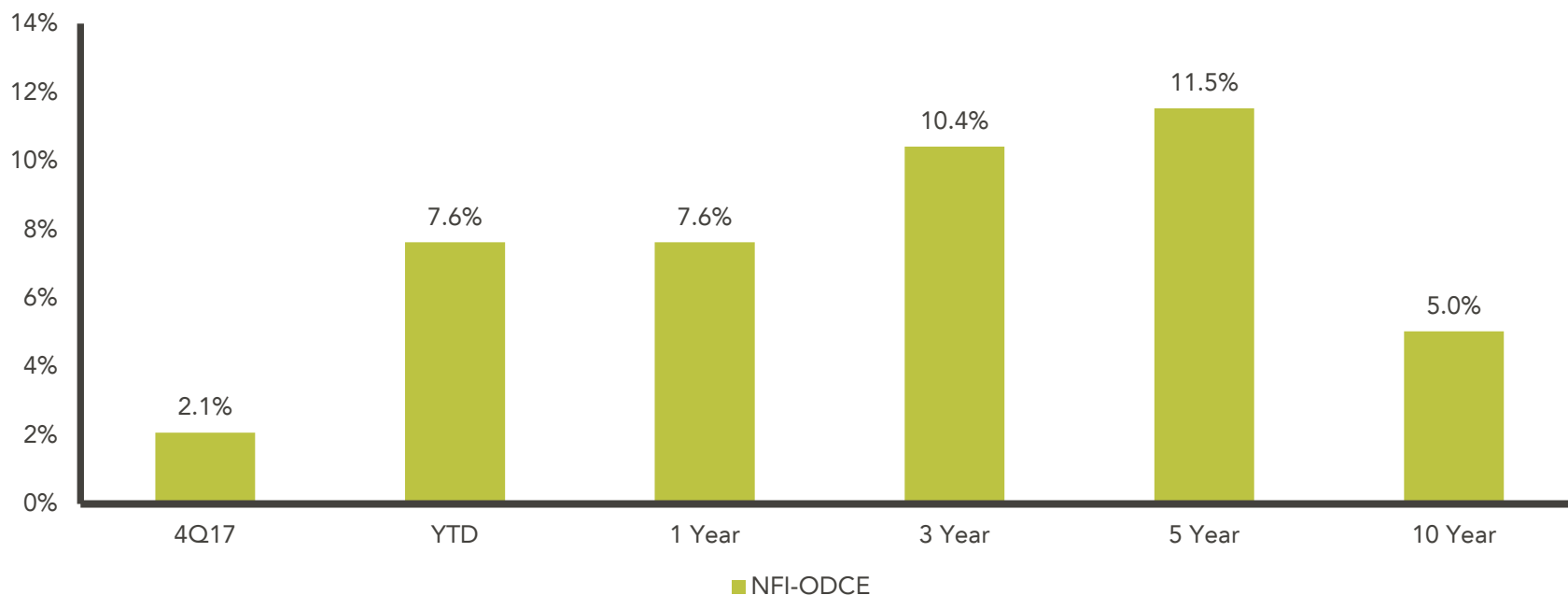
## PMI readings point to expansion



Source: Bloomberg as of December 31, 2017

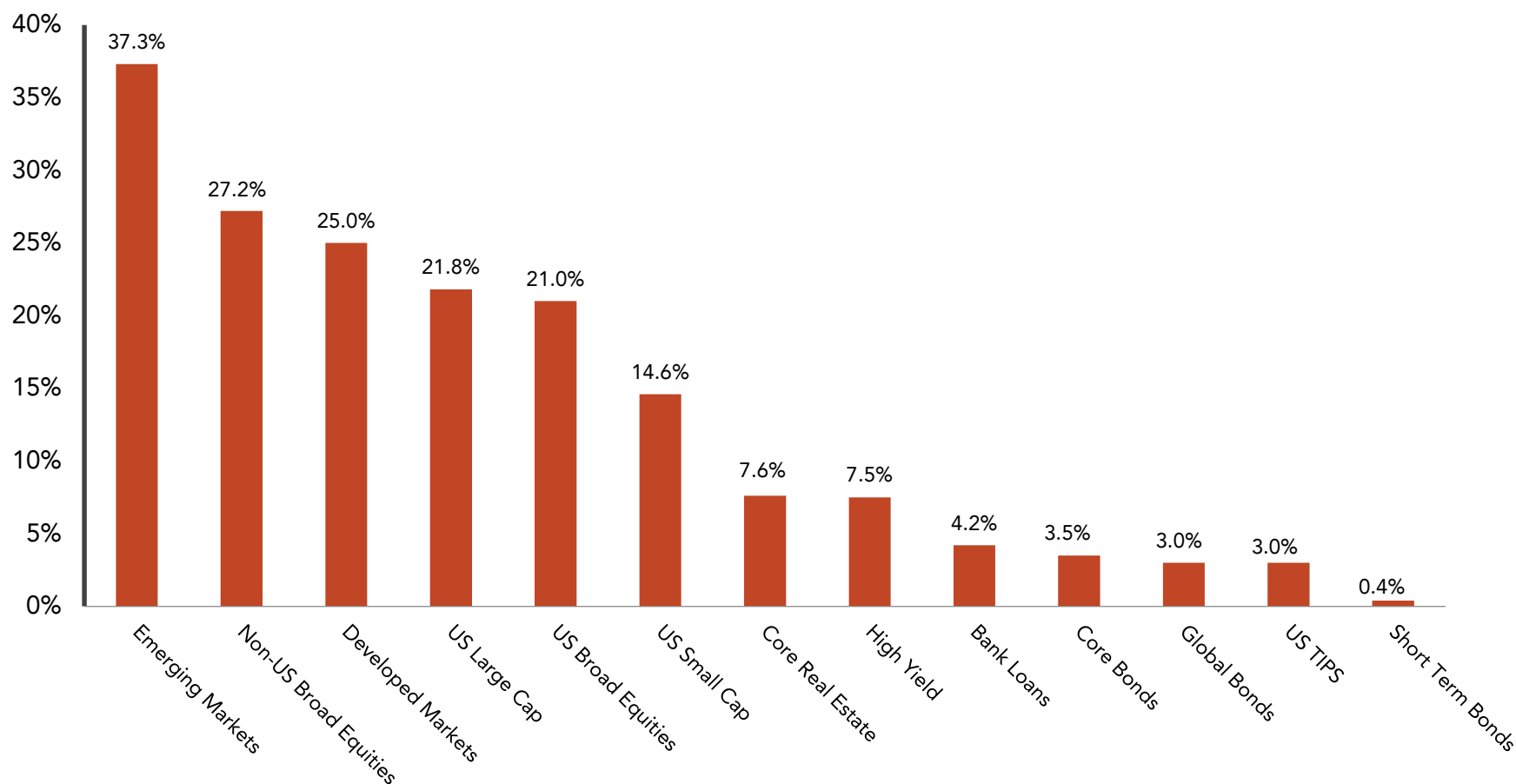
# Real Estate returns

**Another positive quarter and year for real estate (4Q estimated)**



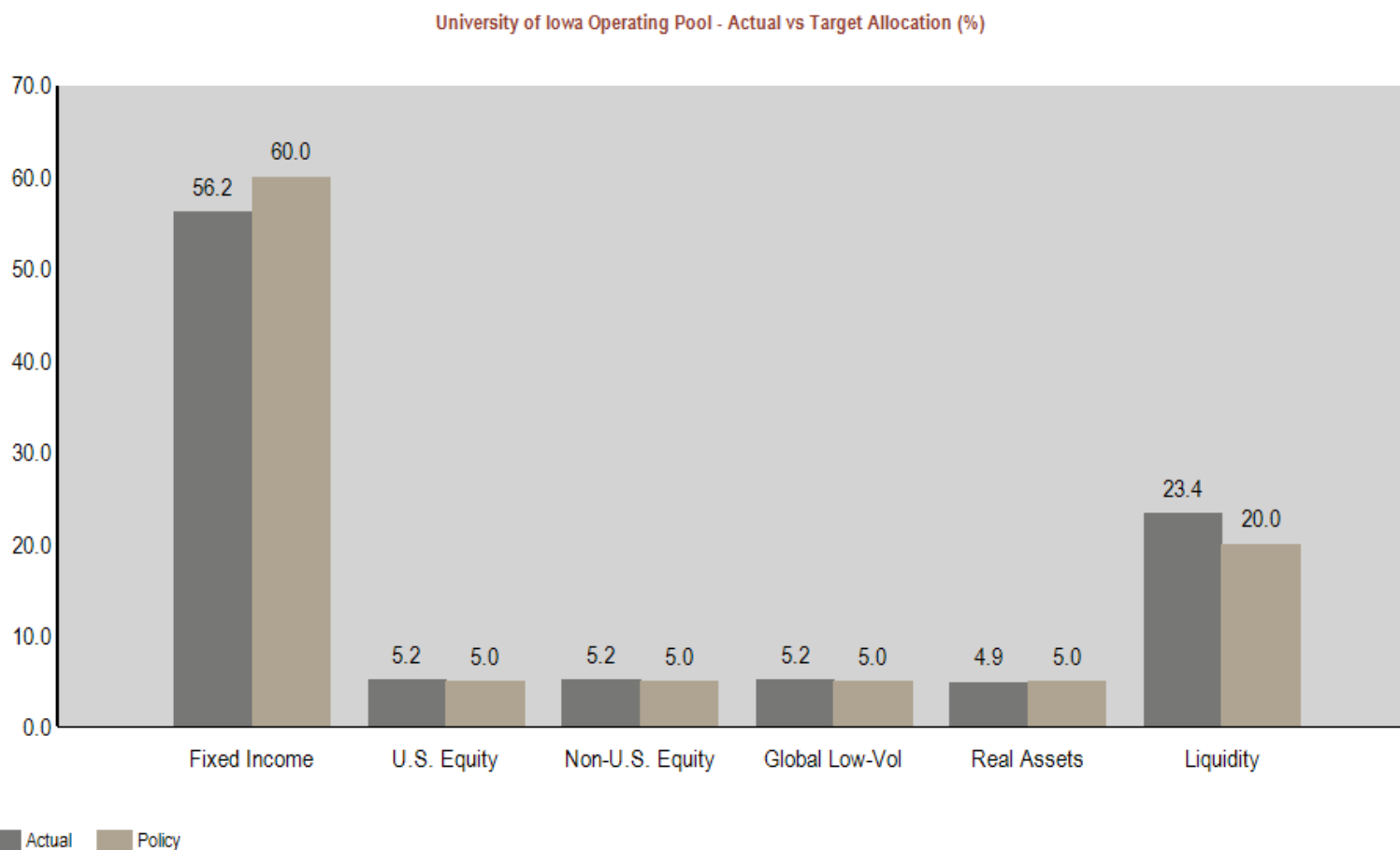
Source: Manager reported returns (estimated) as of December 31, 2017

## 2017 asset class returns



# Performance Review

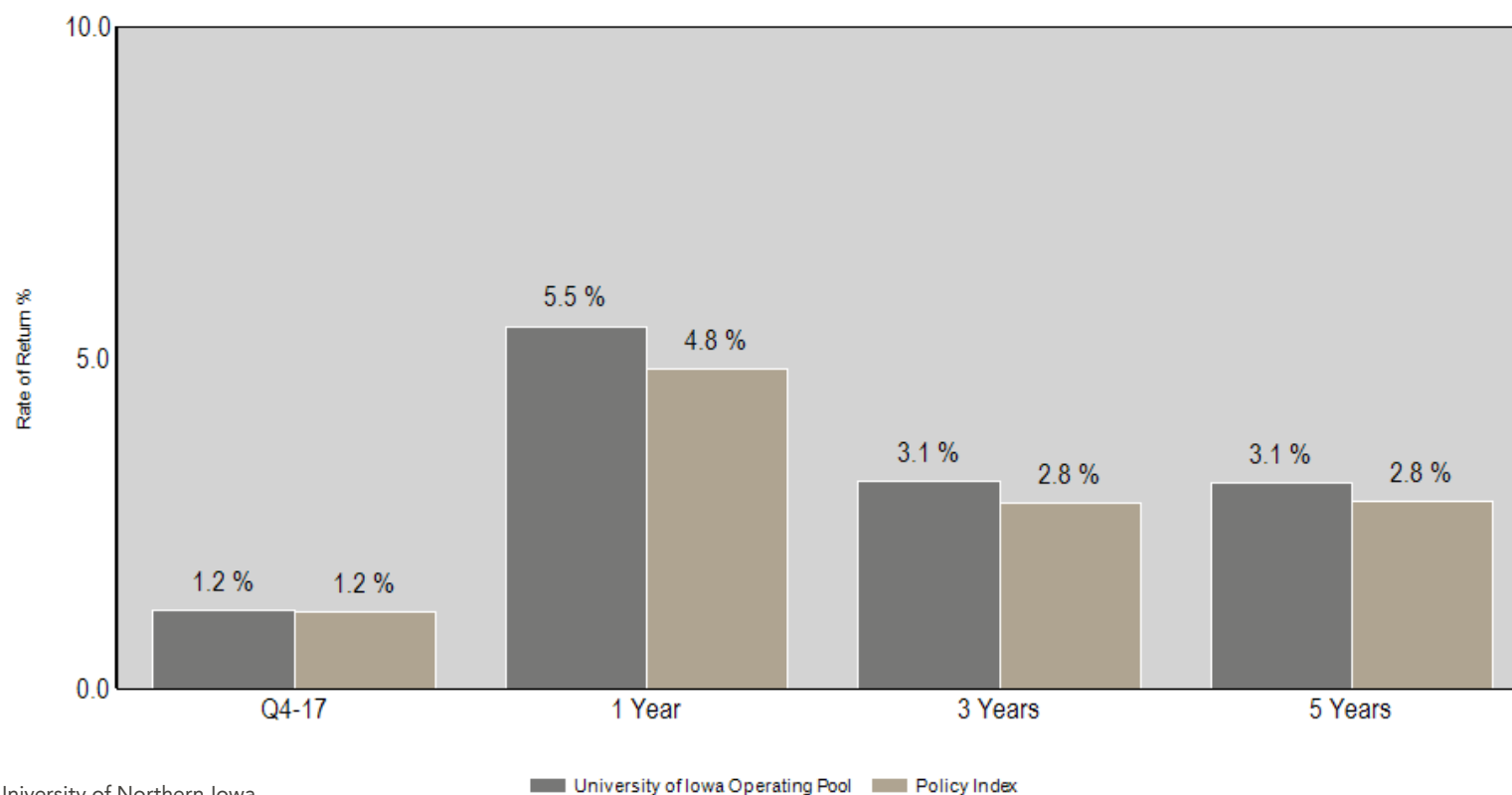
## University of Iowa Operating Portfolio – Asset Allocation\*



\*Includes University of Northern Iowa

## University of Iowa Operating Portfolio – Return Summary\*

Return Summary  
Ending December 31, 2017

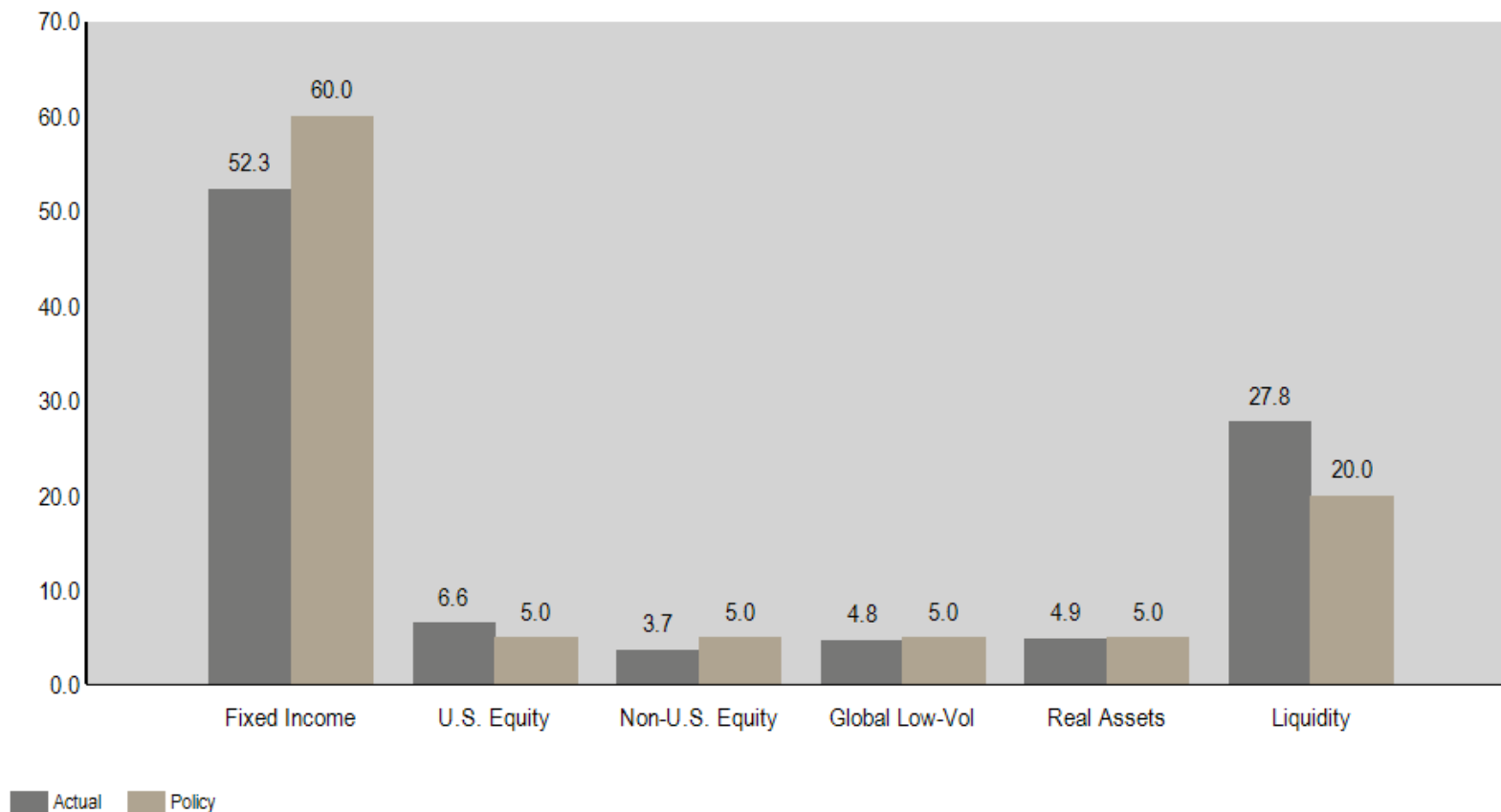


\*Includes University of Northern Iowa

\*\*See Appendix for Policy Index Definition

## Iowa State University Operating Portfolio – Asset Allocation

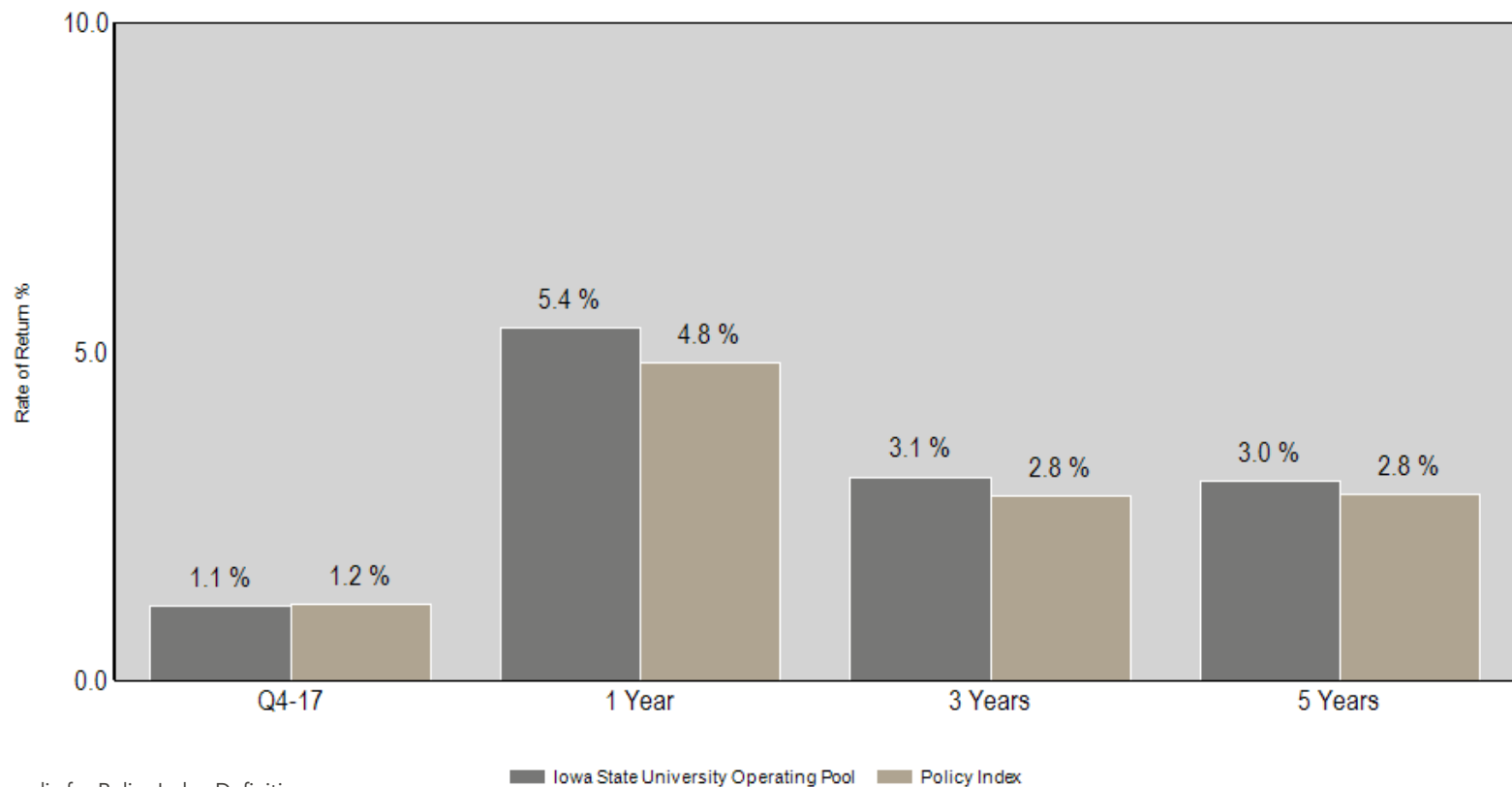
Iowa State University Operating Pool - Actual vs Target Allocation (%)





## Iowa State University Operating Portfolio – Return Summary

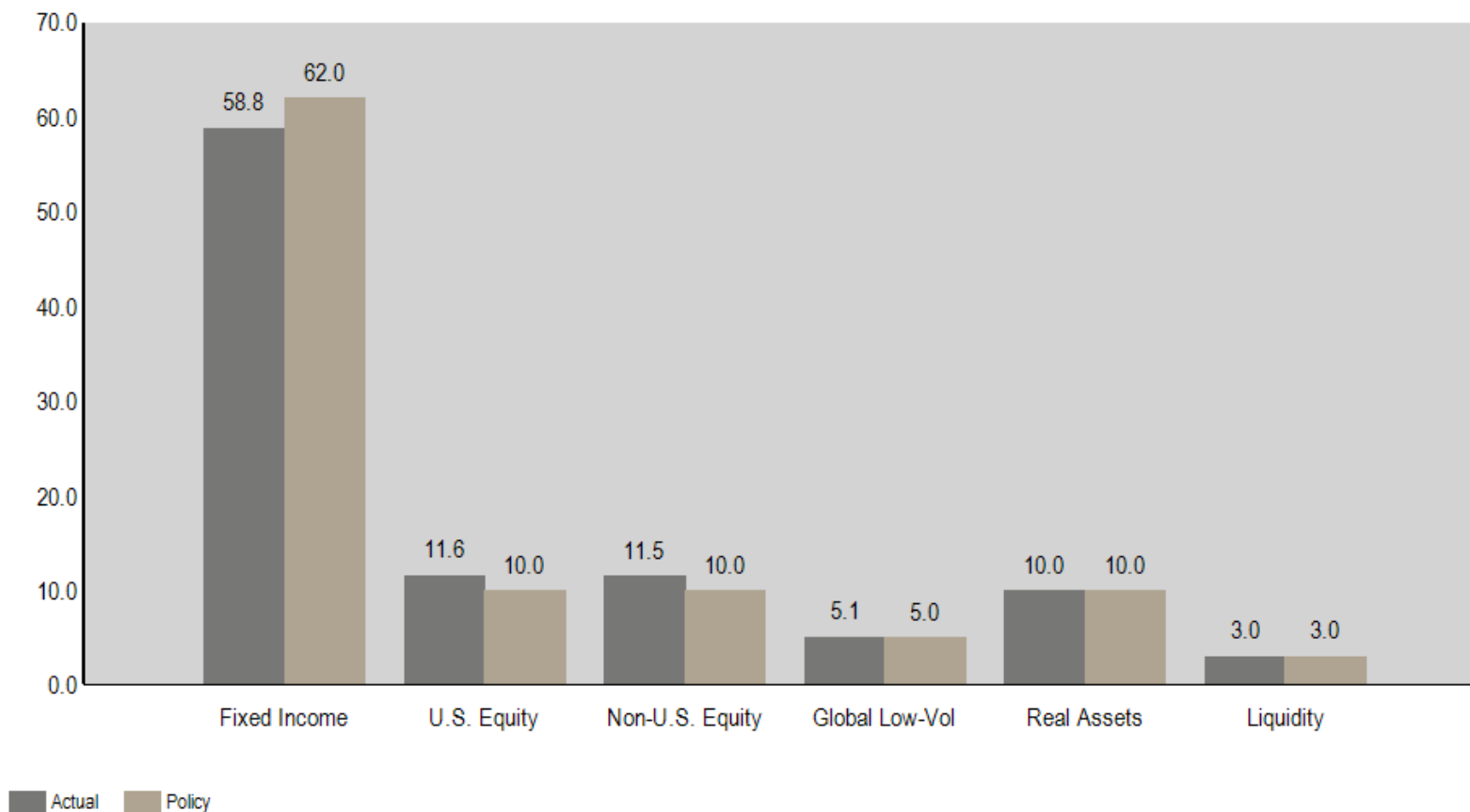
Return Summary  
Ending December 31, 2017



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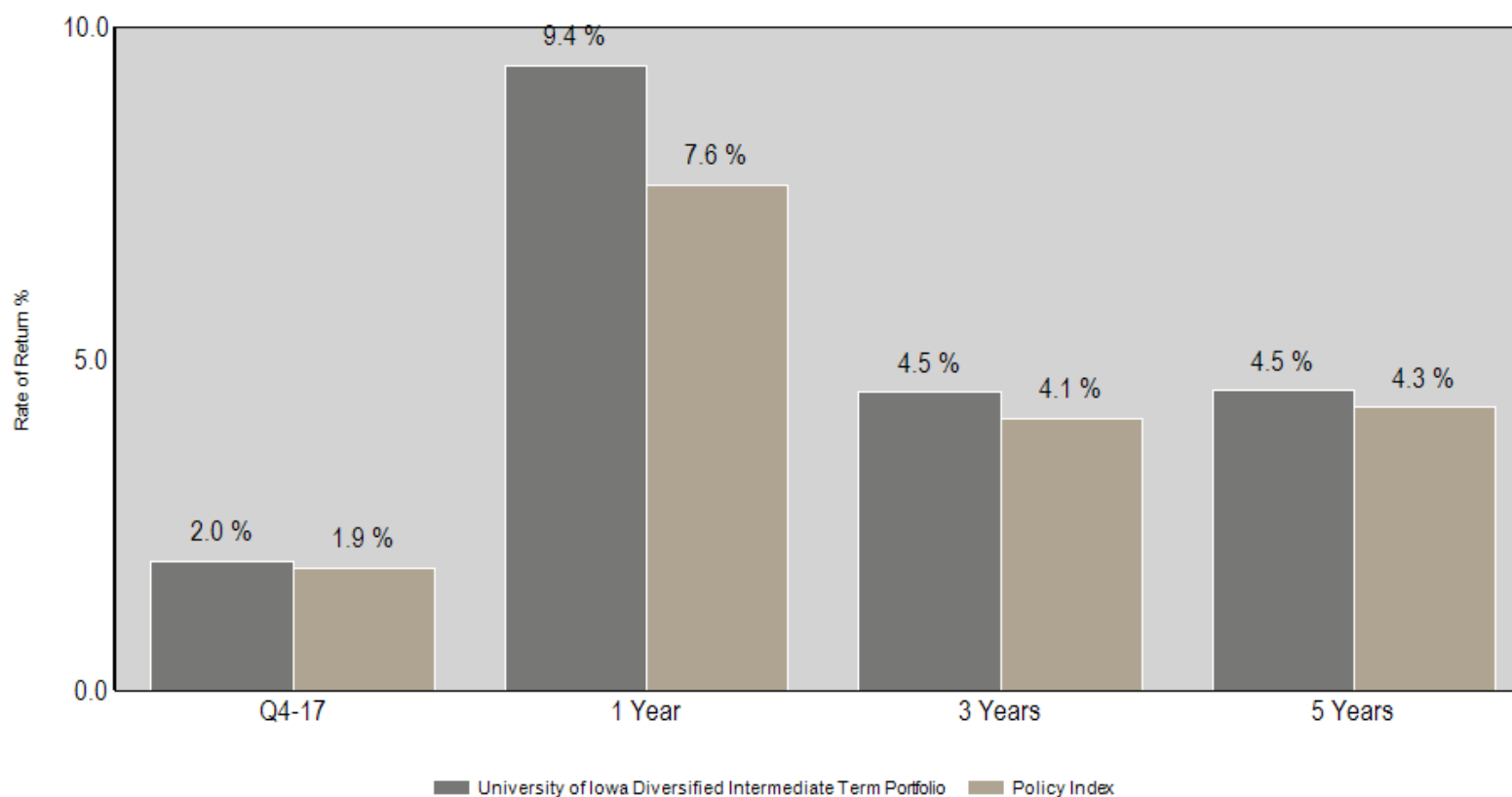
## University of Iowa Diversified Intermediate Term Portfolio – Asset Allocation

University of Iowa Diversified Intermediate Term Portfolio - Actual vs Target Allocation (%)



## University of Iowa Diversified Intermediate Term Portfolio – Return Summary

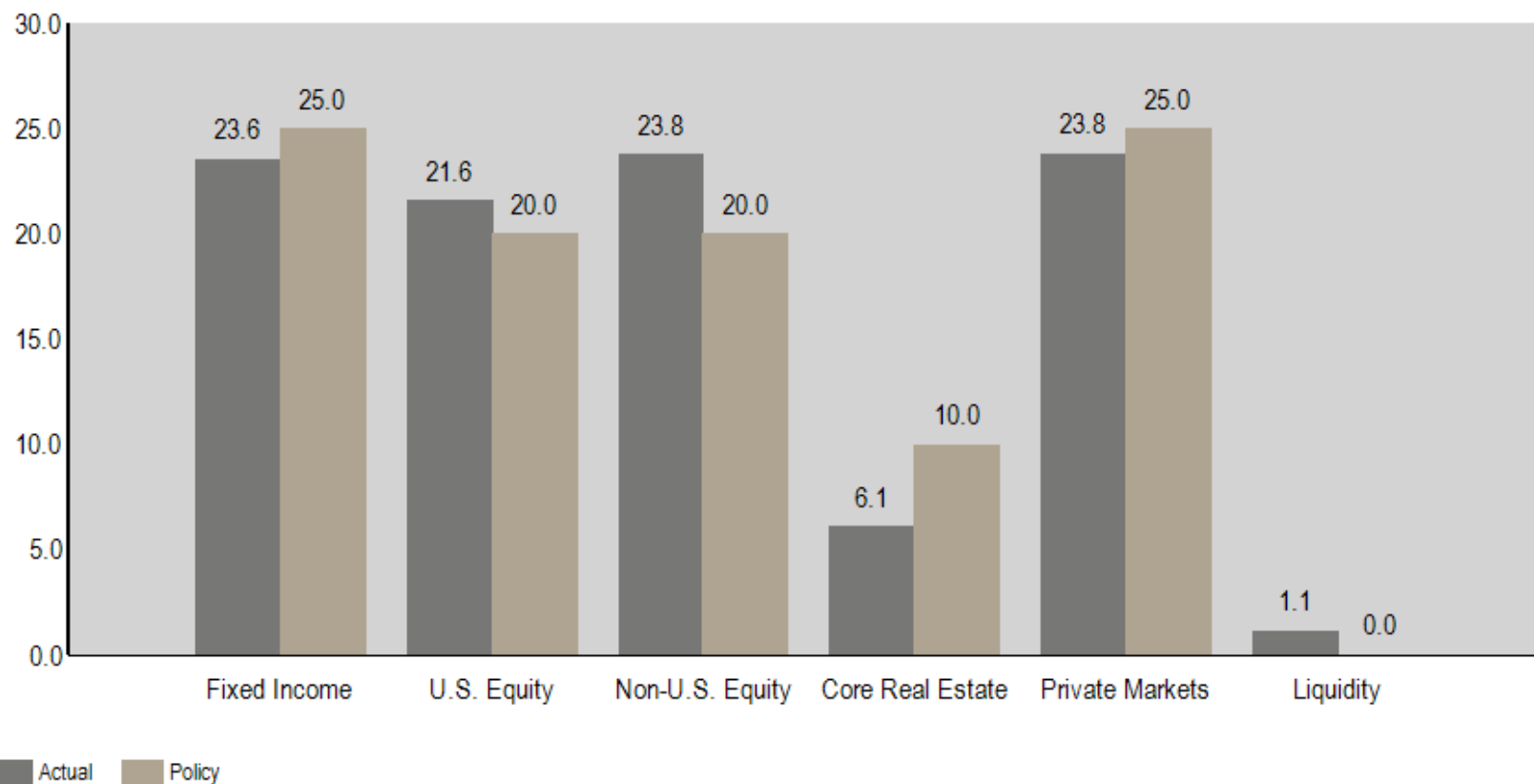
Return Summary  
Ending December 31, 2017



\* See Appendix for Policy Index Definition

## University of Iowa Endowment – Asset Allocation\*

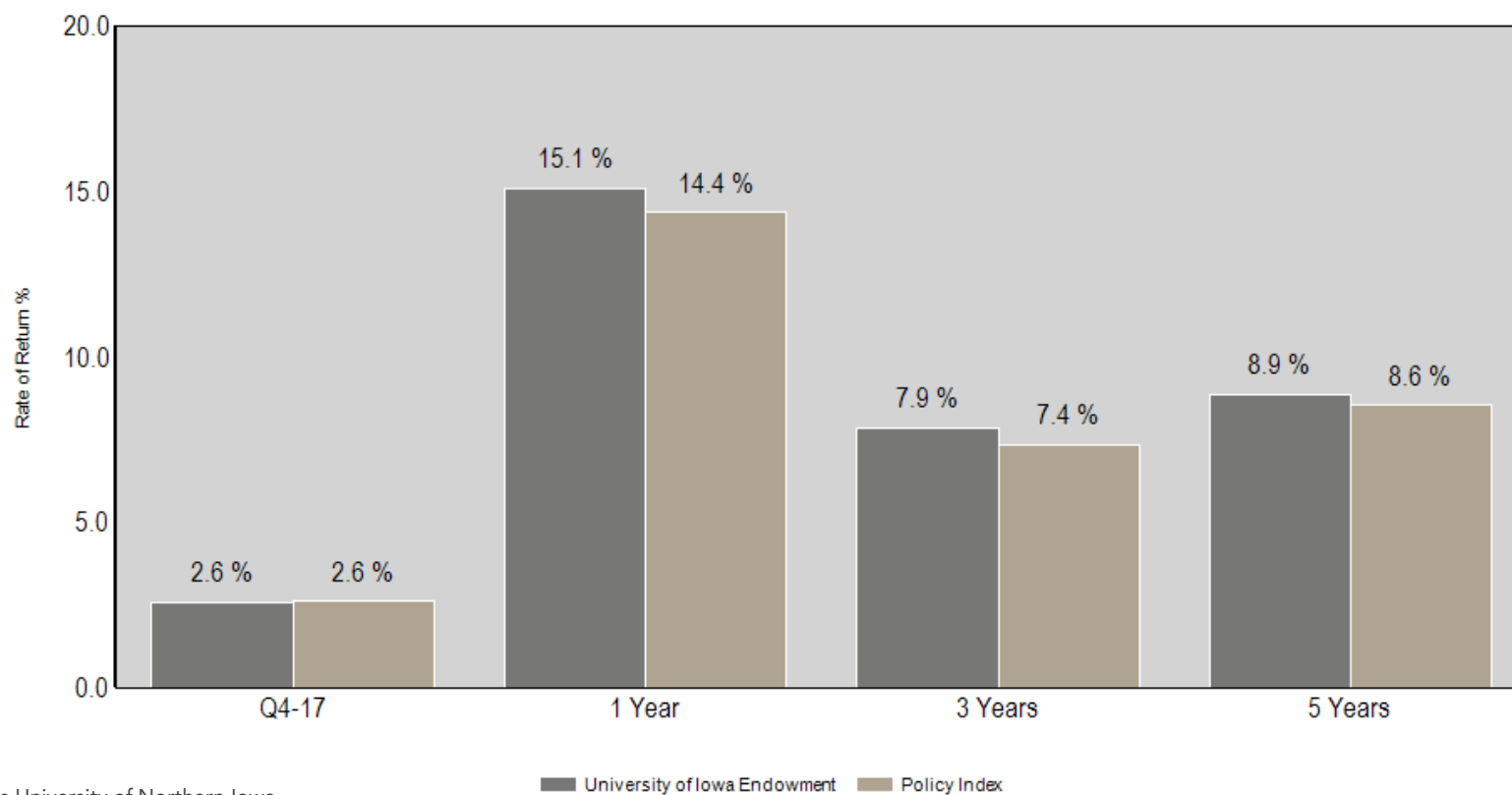
University of Iowa Endowment - Actual vs Target Allocation (%)



\*Includes University of Northern Iowa

## University of Iowa Endowment – Return Summary\*

Return Summary  
Ending December 31, 2017

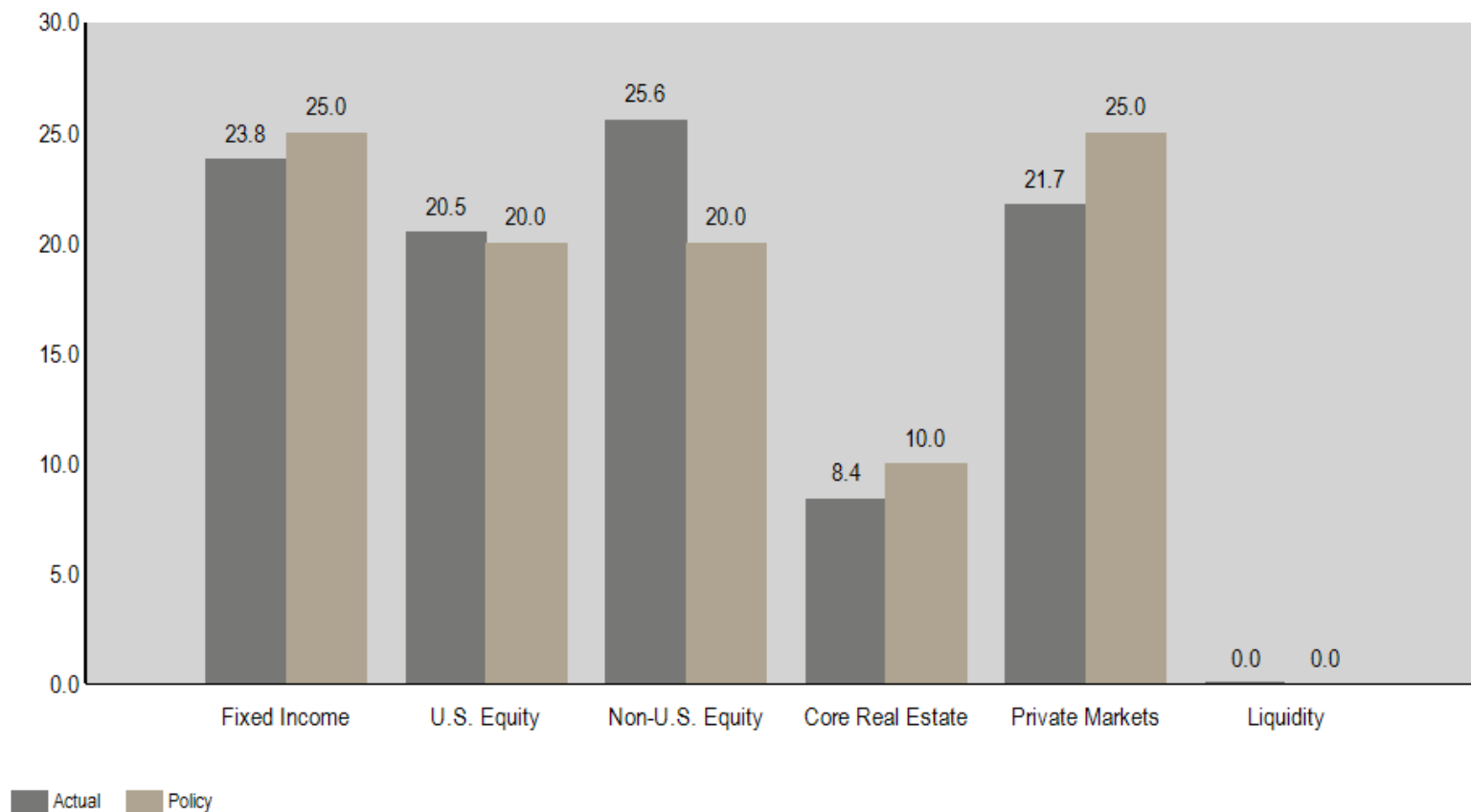


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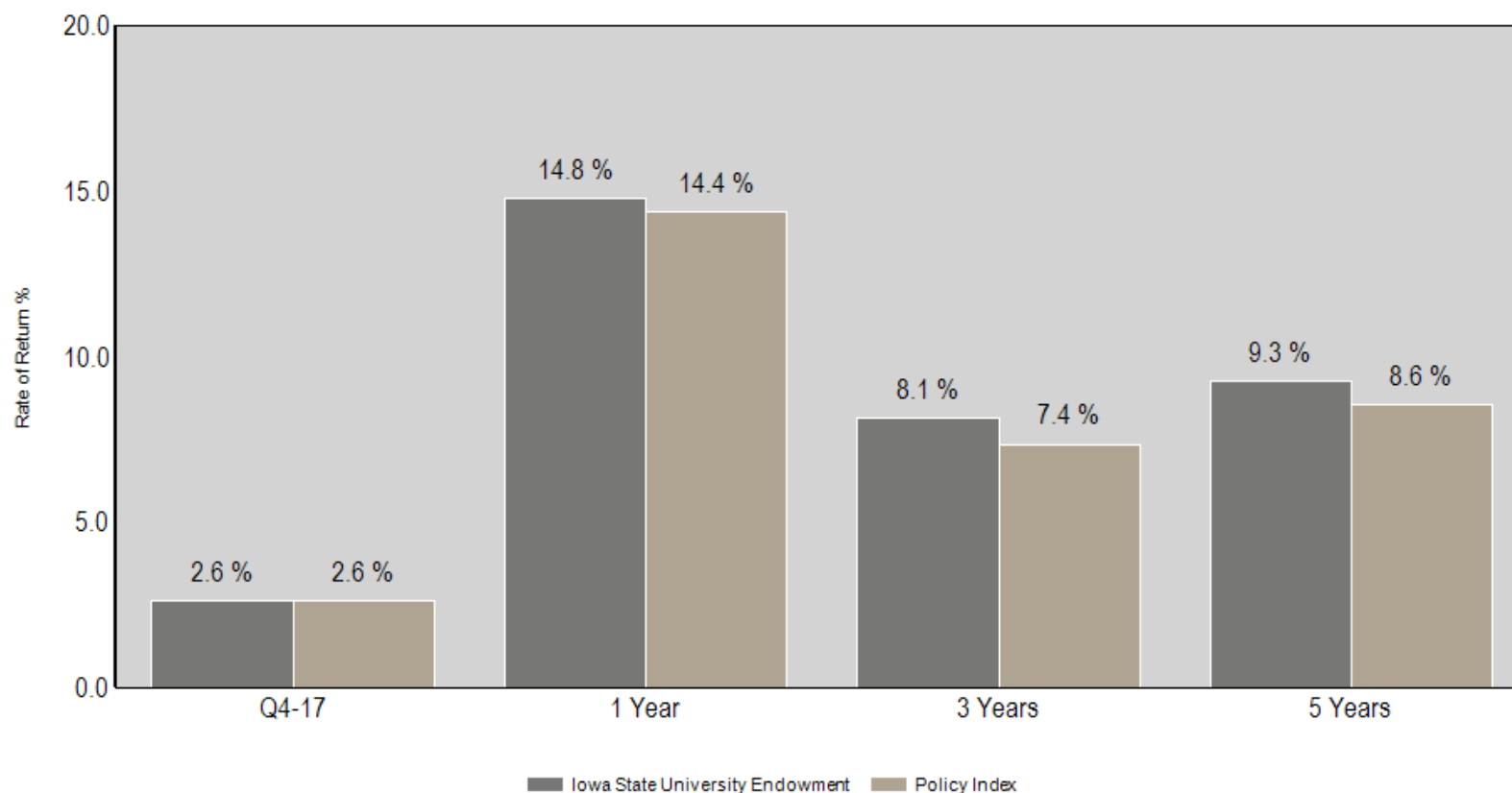
# Iowa State University Endowment – Asset Allocation

Iowa State University Endowment - Actual vs Target Allocation (%)



# Iowa State University Endowment – Return Summary

Return Summary  
Ending December 31, 2017



\* See Appendix for Policy Index Definition

# Appendix



## University of Iowa Operating Portfolio – Market Values\*

	Asset Class	Market Value	% of Portfolio	Policy %
<b>University of Iowa Operating Pool</b>		<b>\$926,331,159</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Total Fixed Income Composite</b>		<b>\$520,647,964</b>	<b>56.2%</b>	<b>60.0%</b>
AllianceBernstein Global Bond Fund	Global Fixed Income	\$41,035,425	4.4%	5.0%
<b>U.S. Fixed Income Composite</b>		<b>\$479,612,539</b>	<b>51.8%</b>	<b>55.0%</b>
Vanguard Total Bond Market Index Fund	Core Fixed Income	\$208,029,012	22.5%	25.0%
MacKay Shields Intermediate Bond Fund	Int. Fixed Income	\$179,271,450	19.4%	20.0%
Vanguard High-Yield Corporate Fund	High Yield Fixed Income	\$23,212,029	2.5%	2.5%
Neuberger Berman High Income	High Yield Fixed Income	\$23,471,388	2.5%	2.5%
Voya Senior Loan	Senior Secured Loans	\$23,324,942	2.5%	2.5%
Symphony Floating Rate Fund	Senior Secured Loans	\$22,303,717	2.4%	2.5%
<b>U.S. Equity Composite</b>		<b>\$47,962,790</b>	<b>5.2%</b>	<b>5.0%</b>
Vanguard Total Stock Market Index	All-Cap Core	\$47,962,790	5.2%	5.0%
<b>Non-U.S. Equity Composite</b>		<b>\$47,877,625</b>	<b>5.2%</b>	<b>5.0%</b>
Vanguard FTSE All-World ex US	Non-U.S. Large-Cap Core	\$47,877,625	5.2%	5.0%
<b>Global Low Volatility Composite</b>		<b>\$47,733,232</b>	<b>5.2%</b>	<b>5.0%</b>
Acadian Global Low Volatility	Global Low-Volatility	\$47,733,232	5.2%	5.0%
<b>Real Estate Composite</b>		<b>\$22,980,567</b>	<b>2.5%</b>	<b>5.0%</b>
UBS Trumbull Property Fund	Core Real Estate	\$22,980,567	2.5%	2.5%
Morgan Stanley PRIME Property Fund	Core Real Estate	\$0	0.0%	2.5%
<b>Real Assets Composite</b>		<b>\$22,799,614</b>	<b>2.5%</b>	<b>0.0%</b>
Vanguard US REIT Index	U.S. REIT	\$12,685,314	1.4%	0.0%
Vanguard Global ex-US REIT	Global REIT	\$10,114,299	1.1%	0.0%
<b>Liquidity Composite</b>		<b>\$216,329,368</b>	<b>23.4%</b>	<b>20.0%</b>

\*Includes University of Northern Iowa

## Iowa State University Operating Portfolio – Market Values

	Asset Class	Market Value	% of Portfolio	Policy %
<b>Iowa State University Operating Pool</b>		<b>\$312,574,578</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Total Fixed Income Composite</b>		<b>\$163,559,633</b>	<b>52.3%</b>	<b>60.0%</b>
AllianceBernstein Global Bond Fund	Global Fixed Income	\$14,338,472	4.6%	5.0%
<b>U.S. Fixed Income Composite</b>		<b>\$149,221,161</b>	<b>47.7%</b>	<b>55.0%</b>
Vanguard Total Bond Market Index Fund	Core Fixed Income	\$65,370,279	20.9%	25.0%
MacKay Shields Intermediate Bond Fund	Int. Fixed Income	\$54,777,387	17.5%	20.0%
Vanguard High-Yield Corporate Fund	High Yield Fixed Income	\$9,044,293	2.9%	2.5%
Neuberger Berman High Income	High Yield Fixed Income	\$5,835,927	1.9%	2.5%
Symphony Floating Rate Fund	Senior Secured Loans	\$14,193,275	4.5%	5.0%
<b>U.S. Equity Composite</b>		<b>\$20,521,147</b>	<b>6.6%</b>	<b>5.0%</b>
Vanguard Total Stock Market Index	All-Cap Core	\$20,521,147	6.6%	5.0%
<b>Non-U.S. Equity Composite</b>		<b>\$11,521,082</b>	<b>3.7%</b>	<b>5.0%</b>
Vanguard FTSE All-World ex US	Non-U.S. Large-Cap Core	\$11,521,082	3.7%	5.0%
<b>Global Low Volatility Composite</b>		<b>\$14,850,339</b>	<b>4.8%</b>	<b>5.0%</b>
Acadian Global Low Volatility	Global Low-Volatility	\$14,850,339	4.8%	5.0%
<b>Real Estate Composite</b>		<b>\$7,147,571</b>	<b>2.3%</b>	<b>5.0%</b>
UBS Trumbull Property Fund	Core Real Estate	\$7,147,571	2.3%	2.5%
Morgan Stanley PRIME Property Fund	Core Real Estate	\$0	0.0%	2.5%
<b>Real Assets Composite</b>		<b>\$8,163,979</b>	<b>2.6%</b>	<b>0.0%</b>
Vanguard US REIT Index	U.S. REIT	\$5,032,141	1.6%	0.0%
Vanguard Global ex-US REIT	Global REIT	\$3,131,837	1.0%	0.0%
<b>Liquidity Composite</b>		<b>\$86,810,828</b>	<b>27.8%</b>	<b>20.0%</b>

## University of Iowa Diversified Intermediate Term Portfolio

	Asset Class	Market Value	% of Portfolio	Policy %
<b>University of Iowa Diversified Intermediate Term Portfolio</b>		<b>\$437,819,788</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Fixed Income Composite</b>		<b>\$257,417,406</b>	<b>58.8%</b>	<b>62.0%</b>
SSgA U.S. Aggregate Bond Index	Core Fixed Income	\$50,944,101	11.6%	14.0%
Dodge & Cox Core Fixed Income	Core Fixed Income	\$56,985,494	13.0%	14.0%
MacKay Shields Intermediate Bond Fund	Int. Fixed Income	\$71,708,580	16.4%	17.0%
SSgA US High Yield Bond	High Yield Fixed Income	\$15,774,434	3.6%	2.5%
Neuberger Berman High Income	High Yield Fixed Income	\$11,505,328	2.6%	2.5%
Voya Senior Loan	Senior Secured Loans	\$10,812,140	2.5%	2.5%
Symphony Floating Rate Fund	Senior Secured Loans	\$10,644,956	2.4%	2.5%
Brandywine Global Opportunistic	Global Fixed Income	\$29,042,374	6.6%	7.0%
<b>U.S. Equity Composite</b>		<b>\$50,851,906</b>	<b>11.6%</b>	<b>10.0%</b>
SSgA U.S. Total Market Index	All-Cap Core	\$50,851,906	11.6%	10.0%
<b>Non-U.S. Equity Composite</b>		<b>\$50,487,046</b>	<b>11.5%</b>	<b>10.0%</b>
SSgA MSCI ACWI ex US	Non-U.S. Large-Cap Core	\$50,487,046	11.5%	10.0%
<b>Global Low Volatility Composite</b>		<b>\$22,275,508</b>	<b>5.1%</b>	<b>5.0%</b>
Acadian Global Low Volatility	Global Low-Volatility	\$22,275,508	5.1%	5.0%
<b>Real Estate Composite</b>		<b>\$21,448,529</b>	<b>4.9%</b>	<b>10.0%</b>
UBS Trumbull Property Fund	Core Real Estate	\$21,448,529	4.9%	5.0%
Morgan Stanley PRIME Property Fund	Core Real Estate	\$0	0.0%	5.0%
<b>Real Assets Composites</b>		<b>\$22,196,646</b>	<b>5.1%</b>	<b>0.0%</b>
SSgA U.S. REIT	U.S. REIT	\$11,516,335	2.6%	0.0%
Vanguard Global ex-US REIT	Global REIT	\$10,680,311	2.4%	0.0%
<b>Liquidity Composite</b>		<b>\$13,142,746</b>	<b>3.0%</b>	<b>3.0%</b>
Liquidity	Cash & Equivalents	\$13,142,746	3.0%	3.0%

## University of Iowa Endowment – Market Values\*

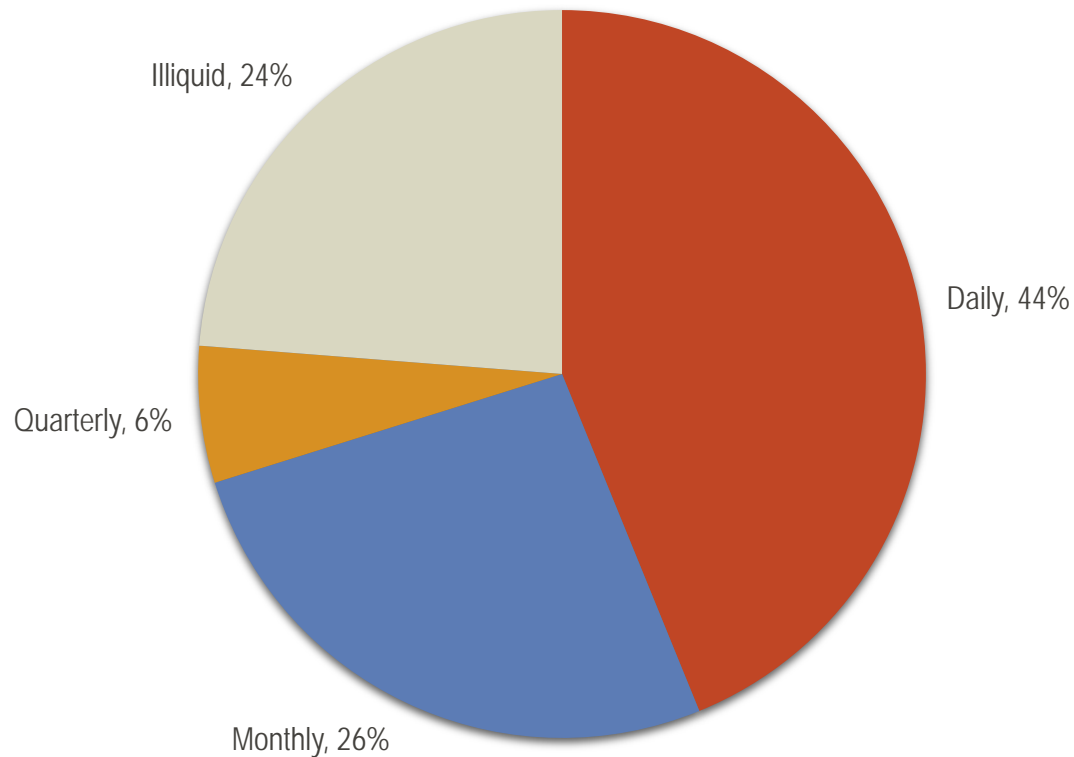
	Asset Class	Market Value	% of Portfolio	Policy %
<b>University of Iowa Endowment</b>		<b>\$415,355,467</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Fixed Income Composite</b>		<b>\$97,845,638</b>	<b>23.6%</b>	<b>25.0%</b>
MacKay Shields Core Fund	Core Fixed Income	\$40,470,027	9.7%	10.0%
Neuberger Berman High Income	High Yield Fixed Income	\$17,702,571	4.3%	5.0%
Voya Senior Loan	Senior Secured Loans	\$10,369,450	2.5%	2.5%
Symphony Floating Rate Fund	Senior Secured Loans	\$9,935,292	2.4%	2.5%
Brandywine Global Opportunistic	Global Fixed Income	\$19,368,298	4.7%	5.0%
<b>U.S. Equity Composite</b>		<b>\$89,777,780</b>	<b>21.6%</b>	<b>20.0%</b>
Vanguard Institutional Index	Large-Cap Core	\$63,962,131	15.4%	14.0%
Vanguard Mid Cap Index	Mid-Cap Core	\$12,698,696	3.1%	3.0%
Macquarie Small Cap Core	Small-Cap Core	\$13,116,954	3.2%	3.0%
<b>Non-U.S. Equity Composite</b>		<b>\$98,864,593</b>	<b>23.8%</b>	<b>20.0%</b>
SSgA MSCI ACWI ex US IMI Index	Non-U.S. Large-Cap Core	\$27,621,034	6.6%	6.7%
Arrowstreet International Equity	Non-U.S. Large-Cap Core	\$35,892,372	8.6%	6.7%
Earnest Partners International Large Cap	Non-U.S. Large-Cap Core	\$35,351,187	8.5%	6.7%
<b>Core Real Estate Composite</b>		<b>\$25,197,454</b>	<b>6.1%</b>	<b>10.0%</b>
Principal Enhanced Property	Core Plus Real Estate	\$25,197,454	6.1%	5.0%
UBS Trumbull Property Fund	Core Real Estate	\$0	0.0%	2.5%
Morgan Stanley PRIME Property Fund	Core Real Estate	\$0	0.0%	2.5%
<b>Private Markets Composite</b>		<b>\$98,982,895</b>	<b>23.8%</b>	<b>25.0%</b>
<b>Liquidity Composite</b>		<b>\$4,687,106</b>	<b>1.1%</b>	<b>0.0%</b>

\*Includes University of Northern Iowa

# Iowa State University Endowment – Market Values

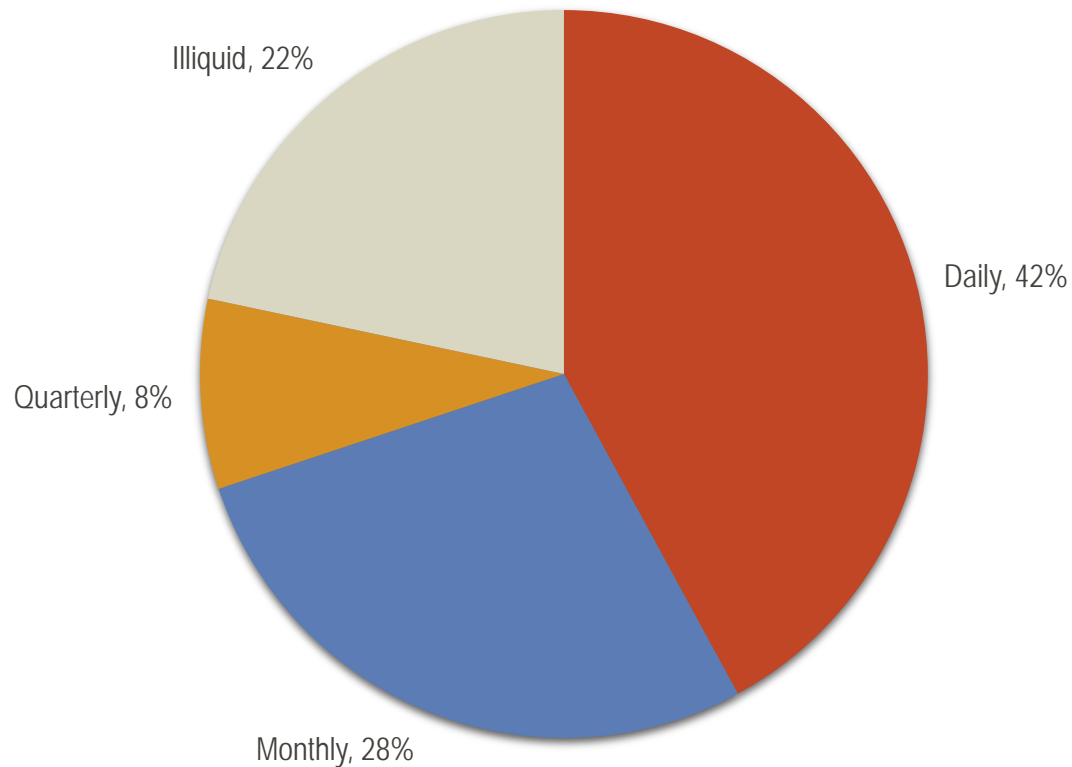
	Asset Class	Market Value	% of Portfolio	Policy %
<b>Iowa State University Endowment</b>		<b>\$180,416,574</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Fixed Income Composite</b>		<b>\$42,923,943</b>	<b>23.8%</b>	<b>25.0%</b>
MacKay Shields Core Fund	Core Fixed Income	\$17,538,403	9.7%	10.0%
Neuberger Berman High Income	High Yield Fixed Income	\$7,954,444	4.4%	5.0%
Symphony Floating Rate Fund	Senior Secured Loans	\$9,022,868	5.0%	5.0%
Brandywine Global Opportunistic	Global Fixed Income	\$8,349,485	4.6%	5.0%
<b>U.S. Equity Composite</b>		<b>\$36,929,037</b>	<b>20.5%</b>	<b>20.0%</b>
Vanguard Institutional Index	Large-Cap Core	\$22,495,939	12.5%	14.0%
Vanguard Mid Cap Index	Mid-Cap Core	\$5,942,877	3.3%	3.0%
Macquarie Small Cap Core	Small-Cap Core	\$8,490,221	4.7%	3.0%
<b>Non-U.S. Equity Composite</b>		<b>\$46,142,729</b>	<b>25.6%</b>	<b>20.0%</b>
SSgA MSCI ACWI ex US IMI Index	Non-U.S. Large-Cap Core	\$12,975,552	7.2%	6.7%
Arrowstreet International Equity	Non-U.S. Large-Cap Core	\$17,740,804	9.8%	6.7%
Earnest Partners International Large Cap	Non-U.S. Large-Cap Core	\$15,426,373	8.6%	6.7%
<b>Core Real Estate Composite</b>		<b>\$15,208,687</b>	<b>8.4%</b>	<b>10.0%</b>
Principal Enhanced Property	Core Plus Real Estate	\$15,208,687	8.4%	5.0%
UBS Trumbull Property Fund	Core Real Estate	\$0	0.0%	2.5%
Morgan Stanley PRIME Property Fund	Core Real Estate	\$0	0.0%	2.5%
<b>Private Markets Composite</b>		<b>\$39,212,145</b>	<b>21.7%</b>	<b>25.0%</b>
<b>Liquidity Composite</b>		<b>\$33</b>	<b>0.0%</b>	<b>0.0%</b>

## University of Iowa Endowment – Liquidity by Percent of Assets\*



\*Includes University of Northern Iowa

## Iowa State University Endowment – Liquidity by Percent of Assets



# University of Iowa Endowment – Private Markets

Since Inception Cash Flows  
Data as of September 30, 2017

Asset Class	Fund Company	Commitment	Capital Calls	Distributions	Ending Value	<sup>1</sup> Cash Multiple
Global Fund of Funds	Neuberger Berman Crossroads Fund XVIII	\$6,000,000	\$4,980,000	\$5,768,290	\$1,984,923	1.6
Fund of Funds	Commonfund Capital Venture Partners VIII	\$1,000,000	\$950,000	\$713,966	\$1,050,958	1.9
International Fund of Funds	Commonfund Capital International Partners VI	\$1,200,000	\$1,086,000	\$1,139,022	\$520,643	1.5
Venture Fund of Funds	Commonfund Private Equity Partners VII	\$2,400,000	\$2,158,800	\$1,993,775	\$1,841,601	1.8
Value Added	Commonfund NR Partners VIII	\$6,000,000	\$5,559,000	\$2,171,147	\$3,868,134	1.1
International Fund of Funds	Adams Street Non-US Developed 2010	\$1,470,000	\$1,225,245	\$601,585	\$1,074,906	1.4
Fund of Funds	Adams Street US Partnership 2010	\$2,440,000	\$2,077,660	\$1,062,391	\$2,067,200	1.5
International Fund of Funds	Adams Street Non-US Emerging 2010	\$490,000	\$395,920	\$68,167	\$493,784	1.4
Secondary Fund of Funds	Landmark Equity Partners XIV	\$4,400,000	\$4,221,119	\$3,883,068	\$1,678,431	1.3
Opportunistic	MREP Global III	\$5,000,000	\$4,501,582	\$3,799,940	\$2,339,360	1.4
International Fund of Funds	Adams Street Non-US Developed 2012	\$4,240,000	\$2,673,320	\$668,727	\$2,921,166	1.3
International Fund of Funds	Adams Street Non-US Emerging 2012	\$1,410,000	\$933,420	\$31,786	\$1,158,509	1.3
Fund of Funds	Adams Street US Partnership 2012	\$7,050,000	\$5,142,975	\$777,657	\$5,376,492	1.2
Opportunistic	Commonfund NR Partners IX	\$11,000,000	\$7,920,001	\$433,231	\$9,059,109	1.2
Value Added	MREP Global VI	\$9,000,000	\$7,385,454	\$3,556,419	\$5,673,606	1.2
International Fund of Funds	Adams Street Non-US Developed 2013	\$2,800,000	\$1,582,000	\$239,544	\$1,788,427	1.3
International Fund of Funds	Adams Street Non-US Emerging 2013	\$1,700,000	\$1,093,950	\$0	\$1,347,737	1.2
Fund of Funds	Adams Street US Partnership 2013	\$5,500,000	\$3,484,250	\$308,112	\$3,744,926	1.2
Secondary Fund of Funds	Landmark Equity Partners XV	\$5,000,000	\$2,631,092	\$1,261,028	\$1,936,199	1.2
Global Fund of Funds	Neuberger Berman Crossroads Fund XX	\$12,500,000	\$8,000,000	\$0	\$9,439,424	1.2
Value Added	Aberdeen Energy & Resources Partners III	\$9,000,000	\$6,300,000	\$1,426,111	\$6,455,898	1.3
Secondary Fund of Funds	Landmark Real Estate Fund VII	\$9,000,000	\$7,010,552	\$2,384,831	\$6,238,401	1.2
Separate Account	Neuberger Berman IPU Feeder	\$93,000,000	\$25,396,029	\$0	\$27,256,813	1.1
<b>Total Private Markets</b>		<b>\$201,600,000</b>	<b>\$106,708,369</b>	<b>\$32,288,798</b>	<b>\$99,316,647</b>	<b>1.2</b>

<sup>1</sup> Calculated as the sum of the distributions and ending value divided by the amount of all capital calls.



# University of Iowa Endowment – Private Markets

## Annualized Performance

Asset Class	Fund Company	Vintage Yr.	Perf. as of:	Net IRR	Rank as of:	Preqin Rank
Global Fund of Funds	Neuberger Berman Crossroads Fund XVIII	2006	9/30/2017	6.6%	6/30/2017	2nd
Fund of Funds	Commonfund Capital Venture Partners VIII	2007	9/30/2017	11.8%	6/30/2017	2nd
International Fund of Funds	Commonfund Capital International Partners VI	2007	9/30/2017	8.9%	6/30/2017	3rd
Venture Fund of Funds	Commonfund Private Equity Partners VII	2007	9/30/2017	13.0%	6/30/2017	2nd
Value Added	Commonfund NR Partners VIII	2008	9/30/2017	2.1%	6/30/2017	4th
International Fund of Funds	Adams Street Non-US Developed 2010	2010	9/30/2017	10.8%	3/31/2017	4th
Fund of Funds	Adams Street US Partnership 2010	2010	9/30/2017	13.6%	3/31/2017	2nd
International Fund of Funds	Adams Street Non-US Emerging 2010	2010	9/30/2017	10.6%	3/31/2017	3rd
Secondary Fund of Funds	Landmark Equity Partners XIV	2010	9/30/2017	11.1%	6/30/2017	4th
Opportunistic	MREP Global III	2010	9/30/2017	9.6%	---	---
International Fund of Funds	Adams Street Non-US Developed 2012	2012	9/30/2017	12.7%	3/31/2017	3rd
International Fund of Funds	Adams Street Non-US Emerging 2012	2012	9/30/2017	9.6%	3/31/2017	3rd
Fund of Funds	Adams Street US Partnership 2012	2012	9/30/2017	7.8%	3/31/2017	3rd
Opportunistic	Commonfund NR Partners IX	2012	9/30/2017	8.3%	6/30/2017	4th
Value Added	MREP Global VI	2012	9/30/2017	10.0%	---	---
International Fund of Funds	Adams Street Non-US Developed 2013	2013	9/30/2017	12.5%	3/31/2017	3rd
International Fund of Funds	Adams Street Non-US Emerging 2013	2013	9/30/2017	11.2%	3/31/2017	3rd
Fund of Funds	Adams Street US Partnership 2013	2013	9/30/2017	7.3%	3/31/2017	3rd
Secondary Fund of Funds	Landmark Equity Partners XV	2013	9/30/2017	12.4%	9/30/2017	3rd
Global Fund of Funds	Neuberger Berman Crossroads Fund XX	2013	9/30/2017	9.8%	12/31/2016	4th
Value Added	Aberdeen Energy & Resources Partners III	2014	9/30/2017	10.5%	---	---
Secondary Fund of Funds	Landmark Real Estate Fund VII	2014	9/30/2017	21.2%	6/30/2017	2nd
Separate Account	Neuberger Berman IPU Feeder	2015	9/30/2017	---	---	---
Separate Account	Neuberger Berman IPU Feeder	2015	9/30/2017	---	---	---
<b>Total Private Markets</b>			<b>9/30/2017</b>	<b>9.0%</b>		

# Iowa State University Endowment – Private Markets

## Since Inception Cash Flows Data as of September 30, 2017

Asset Class	Fund Company	Commitment	Capital Calls	Distributions	Ending Value	<sup>1</sup> Cash Multiple
Global Fund of Funds	Neuberger Berman Crossroads Fund XVIII	\$3,750,000	\$3,112,500	\$3,605,181	\$1,240,576	1.6
Fund of Funds	Commonfund Capital Venture Partners VIII	\$600,000	\$570,000	\$428,380	\$630,571	1.9
International Fund of Funds	Commonfund Capital International Partners VI	\$800,000	\$724,000	\$759,348	\$347,105	1.5
Venture Fund of Funds	Commonfund Private Equity Partners VII	\$1,600,000	\$1,439,200	\$1,329,185	\$1,227,728	1.8
Value Added	Commonfund NR Partners VIII	\$4,000,000	\$3,706,000	\$1,447,431	\$2,578,757	1.1
International Fund of Funds	Adams Street Non-US Developed 2010	\$869,000	\$724,315	\$355,632	\$635,441	1.4
Fund of Funds	Adams Street US Partnership 2010	\$1,442,000	\$1,227,863	\$628,175	\$1,221,681	1.5
International Fund of Funds	Adams Street Non-US Emerging 2010	\$289,000	\$233,512	\$40,205	\$291,233	1.4
Secondary Fund of Funds	Landmark Equity Partners XIV	\$2,600,000	\$2,494,304	\$2,294,570	\$991,791	1.3
Opportunistic	MREP Global III	\$3,000,000	\$2,700,949	\$2,279,964	\$1,403,616	1.4
International Fund of Funds	Adams Street Non-US Developed 2012	\$1,870,000	\$1,179,035	\$294,934	\$1,288,344	1.3
International Fund of Funds	Adams Street Non-US Emerging 2012	\$630,000	\$417,060	\$14,202	\$517,632	1.3
Fund of Funds	Adams Street US Partnership 2012	\$3,100,000	\$2,261,450	\$341,948	\$2,364,132	1.2
Opportunistic	Commonfund NR Partners IX	\$4,000,000	\$2,880,000	\$157,539	\$3,294,224	1.2
Value Added	MREP Global VI	\$4,000,000	\$3,282,424	\$1,580,631	\$2,521,602	1.2
International Fund of Funds	Adams Street Non-US Developed 2013	\$1,040,000	\$587,600	\$88,973	\$664,271	1.3
International Fund of Funds	Adams Street Non-US Emerging 2013	\$630,000	\$405,405	\$0	\$499,456	1.2
Fund of Funds	Adams Street US Partnership 2013	\$2,080,000	\$1,317,680	\$116,522	\$1,416,263	1.2
Secondary Fund of Funds	Landmark Equity Partners XV	\$1,875,000	\$986,661	\$472,884	\$726,063	1.2
Global Fund of Funds	Neuberger Berman Crossroads Fund XX	\$1,875,000	\$1,200,000	\$0	\$1,421,323	1.2
Value Added	Aberdeen Energy & Resources Partners III	\$3,000,000	\$2,100,000	\$475,370	\$2,151,966	1.3
Secondary Fund of Funds	Landmark Real Estate Fund VII	\$3,000,000	\$2,336,850	\$794,944	\$2,079,463	1.2
Separate Account	Neuberger Berman IPU Feeder	\$38,000,000	\$9,463,972	\$0	\$10,106,155	1.1
<b>Total Private Markets</b>		<b>\$84,050,000</b>	<b>\$45,350,780</b>	<b>\$17,506,018</b>	<b>\$39,619,393</b>	<b>1.3</b>

<sup>1</sup> Calculated as the sum of the distributions and ending value divided by the amount of all capital calls.

# Iowa State University Endowment – Private Markets

## Annualized Performance

Asset Class	Fund Company	Vintage Yr.	Perf. as of:	Net IRR	Rank as of:	Preqin Rank
Global Fund of Funds	Neuberger Berman Crossroads Fund XVIII	2006	9/30/2017	6.6%	6/30/2017	2nd
Fund of Funds	Commonfund Capital Venture Partners VIII	2007	9/30/2017	11.8%	6/30/2017	2nd
International Fund of Funds	Commonfund Capital International Partners VI	2007	9/30/2017	8.9%	6/30/2017	3rd
Venture Fund of Funds	Commonfund Private Equity Partners VII	2007	9/30/2017	13.0%	6/30/2017	2nd
Value Added	Commonfund NR Partners VIII	2008	9/30/2017	2.1%	6/30/2017	4th
International Fund of Funds	Adams Street Non-US Developed 2010	2010	9/30/2017	10.8%	3/31/2017	4th
Fund of Funds	Adams Street US Partnership 2010	2010	9/30/2017	13.6%	3/31/2017	2nd
International Fund of Funds	Adams Street Non-US Emerging 2010	2010	9/30/2017	10.6%	3/31/2017	3rd
Secondary Fund of Funds	Landmark Equity Partners XIV	2010	9/30/2017	11.1%	6/30/2017	4th
Opportunistic	MREP Global III	2010	9/30/2017	9.6%	---	---
International Fund of Funds	Adams Street Non-US Developed 2012	2012	9/30/2017	12.7%	3/31/2017	3rd
International Fund of Funds	Adams Street Non-US Emerging 2012	2012	9/30/2017	9.6%	3/31/2017	3rd
Fund of Funds	Adams Street US Partnership 2012	2012	9/30/2017	7.8%	3/31/2017	3rd
Opportunistic	Commonfund NR Partners IX	2012	9/30/2017	8.3%	6/30/2017	4th
Value Added	MREP Global VI	2012	9/30/2017	10.0%	---	---
International Fund of Funds	Adams Street Non-US Developed 2013	2013	9/30/2017	12.5%	3/31/2017	3rd
International Fund of Funds	Adams Street Non-US Emerging 2013	2013	9/30/2017	11.2%	3/31/2017	3rd
Fund of Funds	Adams Street US Partnership 2013	2013	9/30/2017	7.3%	3/31/2017	3rd
Secondary Fund of Funds	Landmark Equity Partners XV	2013	9/30/2017	12.4%	9/30/2017	3rd
Global Fund of Funds	Neuberger Berman Crossroads Fund XX	2013	9/30/2017	9.8%	12/31/2016	4th
Value Added	Aberdeen Energy & Resources Partners III	2014	9/30/2017	10.5%	---	---
Secondary Fund of Funds	Landmark Real Estate Fund VII	2014	9/30/2017	21.2%	6/30/2017	2nd
Separate Account	Neuberger Berman IPU Feeder	2015	9/30/2017	---	---	---
<b>Total Private Markets</b>			<b>9/30/2017</b>	<b>8.7%</b>		

# Policy Index Definitions

\*The **University of Iowa Operating Portfolio Policy Index** is currently 5% BBgBarc Global Aggregate (Hedged), 25% BBgBarc Aggregate, 20% BBgBarc Intermediate Gov't/Credit, 5% BBgBarc High Yield, 5% Credit Suisse Leveraged Loans, 5% Wilshire 5000, 5 MSCI ACWI ex USA, 5% MSCI ACWI Min Vol Index, 2.5% NFI, 2.5% FTSE Developed Property, 20% 91 Day T-Bill. Prior to October 1, 2017, 25% BBgBarc Aggregate, 5% BBgBarc High Yield, 5% S&P/LSTA Leveraged Loan, 7.5% BBgBarc US TIPS, 5% MSCI US Broad Market, 5% FTSE All World ex US, 7.5% FTSE Developed Property, 40% 91 Day T-Bill. Prior to January 1, 2014, 30% BBgBarc Aggregate, 5% BBgBarc High Yield, 10% BBgBarc US TIPS, 8% MSCI US Broad Market, 2% FTSE All World ex US, 5% MSCI US REIT, 40% 91 Day T-Bill.

\*The **Iowa State University Operating Portfolio Policy Index** is currently 5% BBgBarc Global Aggregate (Hedged), 25% BBgBarc Aggregate, 20% BBgBarc Intermediate Gov't/Credit, 5% BBgBarc High Yield, 5% Credit Suisse Leveraged Loans, 5% Wilshire 5000, 5 MSCI ACWI ex USA, 5% MSCI ACWI Min Vol Index, 2.5% NFI, 2.5% FTSE Developed Property, 20% 91 Day T-Bill. Prior to October 1, 2017, 25% BBgBarc Aggregate, 5% BBgBarc High Yield, 5% S&P/LSTA Leveraged Loan, 7.5% BBgBarc US TIPS, 5% MSCI US Broad Market, 5% FTSE All World ex US, 7.5% FTSE Developed Property, 40% 91 Day T-Bill. Prior to January 1, 2014, 30% BBgBarc Aggregate, 5% BBgBarc High Yield, 10% BBgBarc US TIPS, 8% MSCI US Broad Market, 2% FTSE All World ex US, 5% MSCI US REIT, 40% 91 Day T-Bill.

The **University of Iowa Diversified Intermediate Term Portfolio Policy Index** is currently 7% CITI WGBI, 28% BBgBarc Aggregate, 17% BBgBarc Intermediate Gov't/Credit, 5% BBgBarc High Yield, 5% Credit Suisse Leveraged Loans, 10% Wilshire 5000, 10% MSCI ACWI ex US, 5% MSCI ACWI Min Vol Index, 5% NFI, 5% FTSE Developed Property, 3% 91 Day T-Bill. Prior to October 1, 2017, 35% BBgBarc Aggregate, 10% BBgBarc US TIPS, 5% BBgBarc High Yield 2% Capped, 5% S&P/LSTA Leveraged Loan, 10% Wilshire 5000, 10% MSCI ACWI ex US, 10% FTSE Developed Property, 15% 91 Day T-Bill. Prior to January 1, 2014, 40% BBgBarc Aggregate, 10% BBgBarc US TIPS, 5% BBgBarc High Yield 2% Capped, 10% Wilshire 5000, 10% Wilshire REIT, and 15% 91 Day T-Bill. Prior to July 1, 2011, 100% BBgBarc Aggregate. Prior to July 1, 2001, BBgBarc Government Credit.

The **University of Iowa Endowment Policy Index** is currently 5% CITI WGBI, 10% BBgBarc Aggregate, 5% BBgBarc High Yield, 5% Credit Suisse Leveraged Loans, 20% Wilshire 5000, 20% MSCI ACWI ex US, 10% NFI, 25% Cambridge All PE. Prior to October 1, 2017, 15% Merrill Lynch US Corp & Gov 1-3 Years, 5% Merrill Lynch High Yield Master II Constrained, 5% S&P/LSTA Leveraged Loan, 35% Wilshire 5000, 25% MSCI ACWI ex US, 15% CPI+5%. Prior to January 1, 2014, 25% Merrill Lynch US Corp & Gov 1-3 Years, 5% Merrill Lynch High Yield Master II Constrained, 35% Wilshire 5000, 25% MSCI ACWI ex US, 10% CPI+5%. Prior to July 1, 2013, 25% BBgBarc Aggregate, 5% Merrill Lynch High Yield Master II Constrained, 35% Wilshire 5000, 25% MSCI EAFE, 10% CPI+5%. Prior to July 1, 2009, 30% BBgBarc Aggregate, 50% Wilshire 5000, 15% MSCI EAFE, 5% NCREIF. Prior to April 1, 2006, 30% BBgBarc Aggregate, 63% Wilshire 5000, 7% MSCI EAFE. Prior to April 1, 2002, 30% BBgBarc Aggregate, 63% S&P 500, 7% MSCI EAFE. Prior to July 1, 2001, 30% BBgBarc Govt/Credit, 63% S&P 500, 7% MSCI EAFE. Prior to July 1, 1999, 30% BBgBarc Govt/Credit, 60% S&P 500, 10% MSCI EAFE.

\*The **Iowa State University Endowment Policy Index** is currently 5% CITI WGBI, 10% BBgBarc Aggregate, 5% BBgBarc High Yield, 5% Credit Suisse Leveraged Loans, 20% Wilshire 5000, 20% MSCI ACWI ex US, 10% NFI, 25% Cambridge All PE. Prior to October 1, 2017, 15% Merrill Lynch US Corp & Gov 1-3 Years, 5% Merrill Lynch High Yield Master II Constrained, 5% S&P/LSTA Leveraged Loan, 35% Wilshire 5000, 25% MSCI ACWI ex US, 15% CPI+5%. Prior to January 1, 2014, 25% Merrill Lynch US Corp & Gov 1-3 Years, 5% Merrill Lynch High Yield Master II Constrained, 35% Wilshire 5000, 25% MSCI ACWI ex US, 10% CPI+5%. Prior to July 1, 2013, 25% BBgBarc Aggregate, 5% Merrill Lynch High Yield Master II Constrained, 35% Wilshire 5000, 25% MSCI EAFE, 10% CPI+5%. Prior to July 1, 2009, 30% BBgBarc Aggregate, 50% Wilshire 5000, 15% MSCI EAFE, 5% NCREIF. Prior to April 1, 2006, 30% BBgBarc Aggregate, 63% Wilshire 5000, 7% MSCI EAFE. Prior to April 1, 2002, 30% BBgBarc Aggregate, 63% S&P 500, 7% MSCI EAFE. Prior to July 1, 2001, 30% BBgBarc Govt/Credit, 63% S&P 500, 7% MSCI EAFE. Prior to July 1, 1999, 30% BBgBarc Govt/Credit, 60% S&P 500, 10% MSCI EAFE.

Purpose:

# Guide institutional investment programs

## **Mission**

Enable institutions to become more effective investment stewards

## **Vision**

Leading investment consultant of risk-adjusted returns & client services

## **Principles**

- ✓ Real-world pragmatism
- ✓ Independent expertise
- ✓ Focused client service
- ✓ Careful research

# Disclosures

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The sources of information used in this report are believed to be reliable. Marquette Associates, Inc. has not independently verified all of the information and its accuracy cannot be guaranteed. Opinions, estimates, projections and comments on financial market trends constitute our judgment and are subject to change without notice. References to specific securities are for illustrative purposes only and do not constitute recommendations. Past performance does not guarantee future results.