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# Board of Regents State of Iowa

# Market Environment

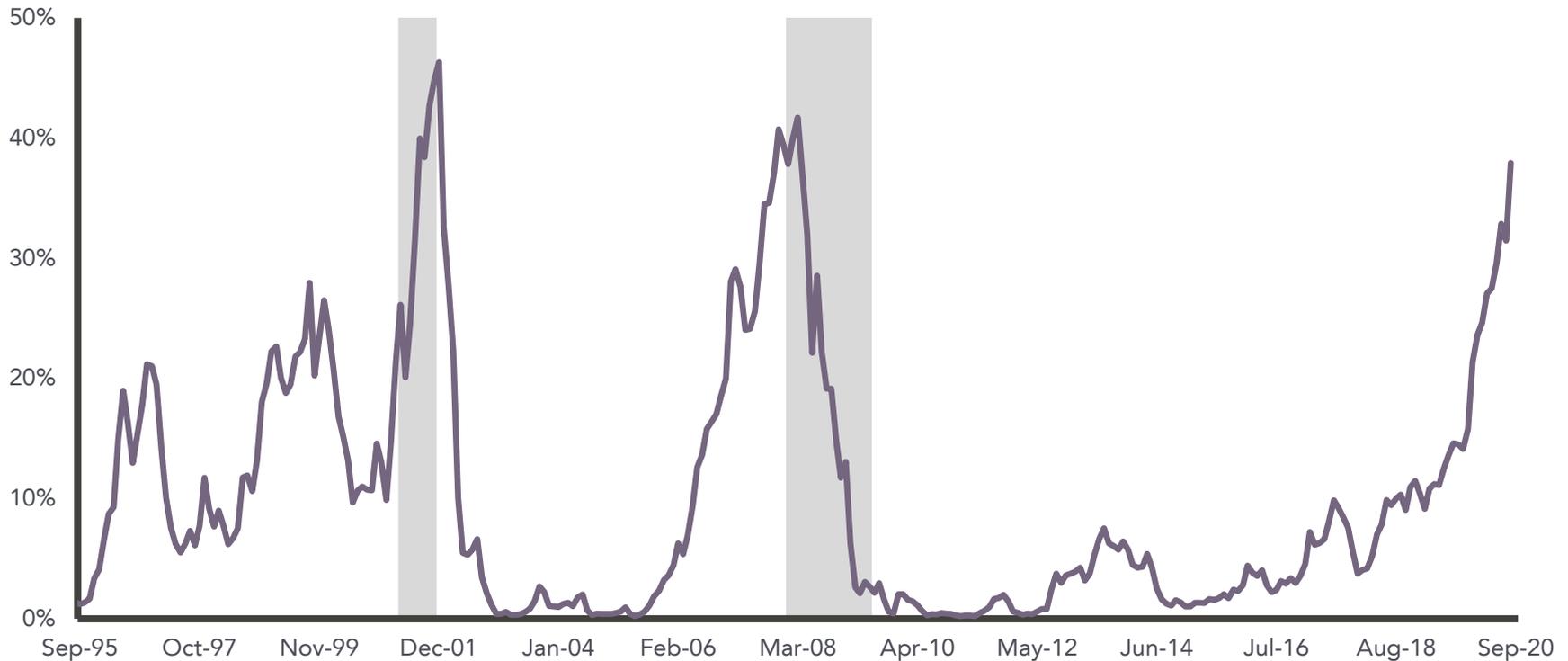
# U.S. economy overview

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- The Atlanta Fed's GDPNow metric is anticipating 1.8% growth for 3<sup>rd</sup> quarter GDP
- The unemployment rate declined to 3.5% with 136K new jobs added in September
- CPI increased 1.7% over the trailing 12 months with core CPI at 2.4%

# Odds of a recession spike

Based on the shape of the yield curve, the NY Fed is predicting nearly a 40% chance of a recession within the next 12 months

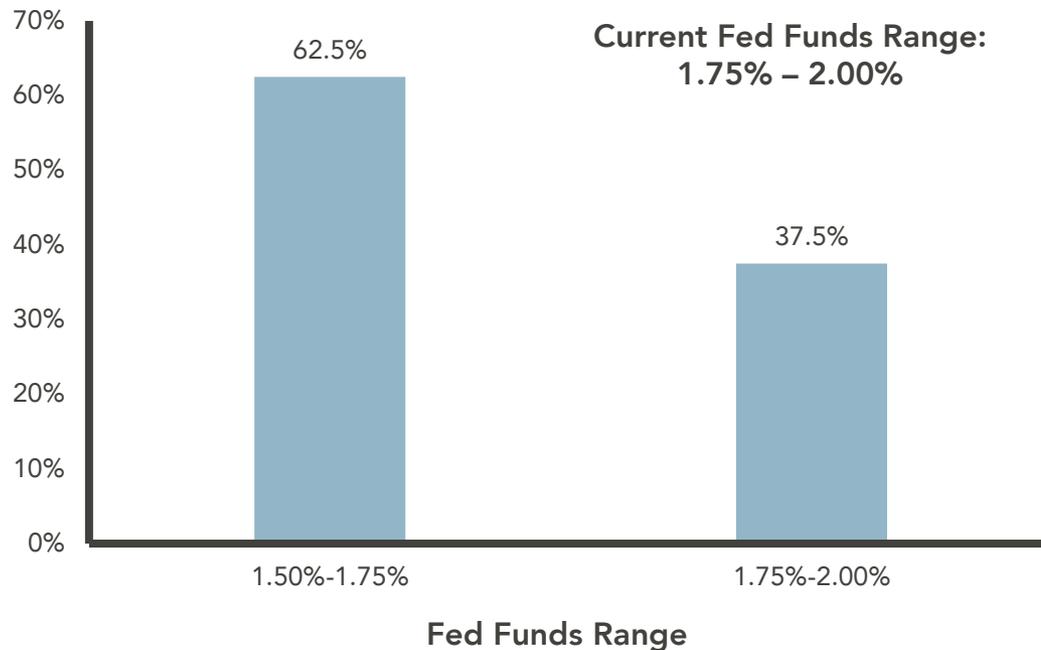


Source: NY Federal Reserve

# Market expects another rate cut in October

Tariff escalation has sent the markets hoping for more Fed stimulus

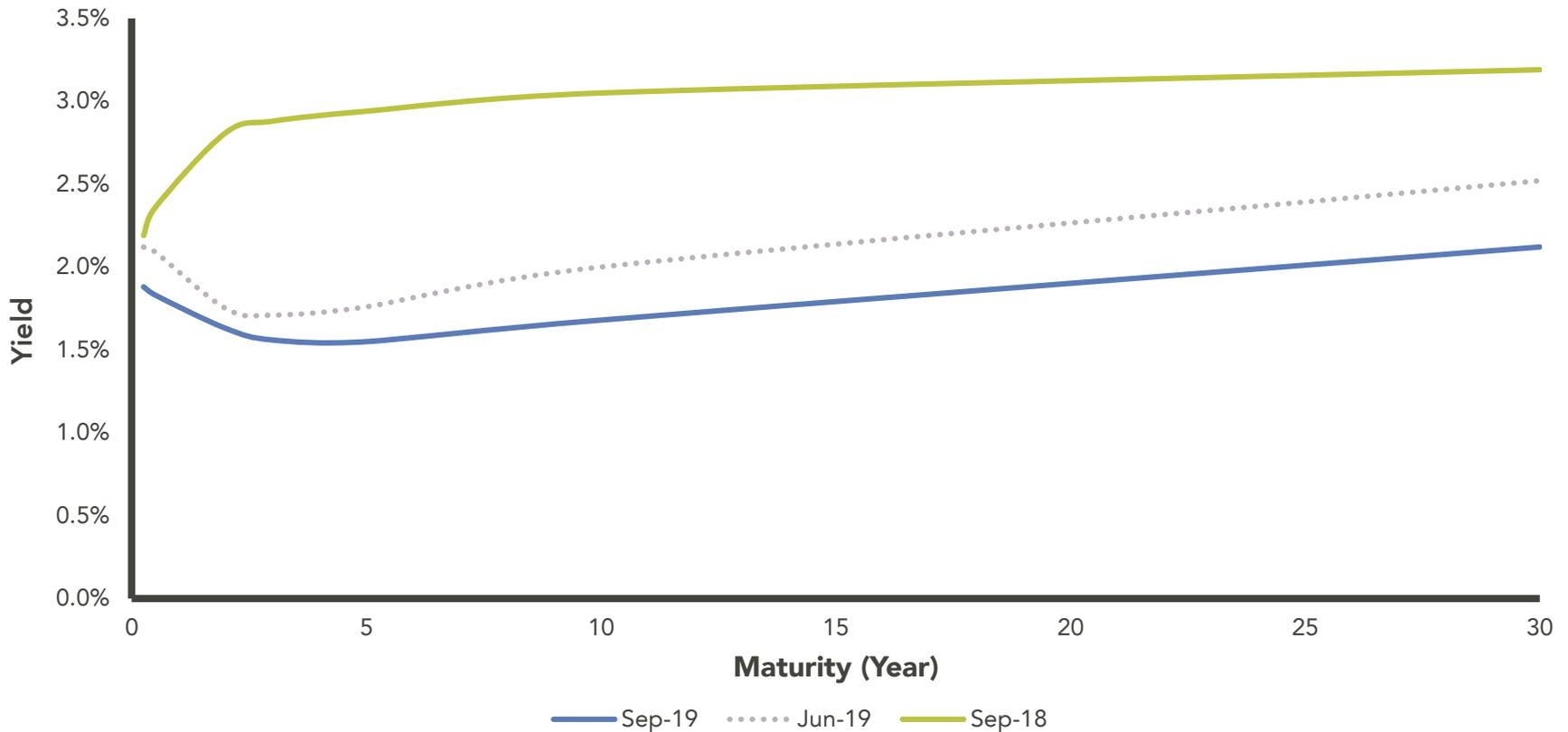
## ▣ Probability of Fed Funds Rate at October 30, 2019 Fed Meeting



Source: Bloomberg; latest data as of October 1, 2019

# Inversion persists on short end of yield curve

Yield Curve



Source: Federal Reserve as of September 30, 2019

# Fixed income: yield curve steepened in month

Driven by Fed cut and resuming trade talks, offset by Saudi attack and impeachment inquiry

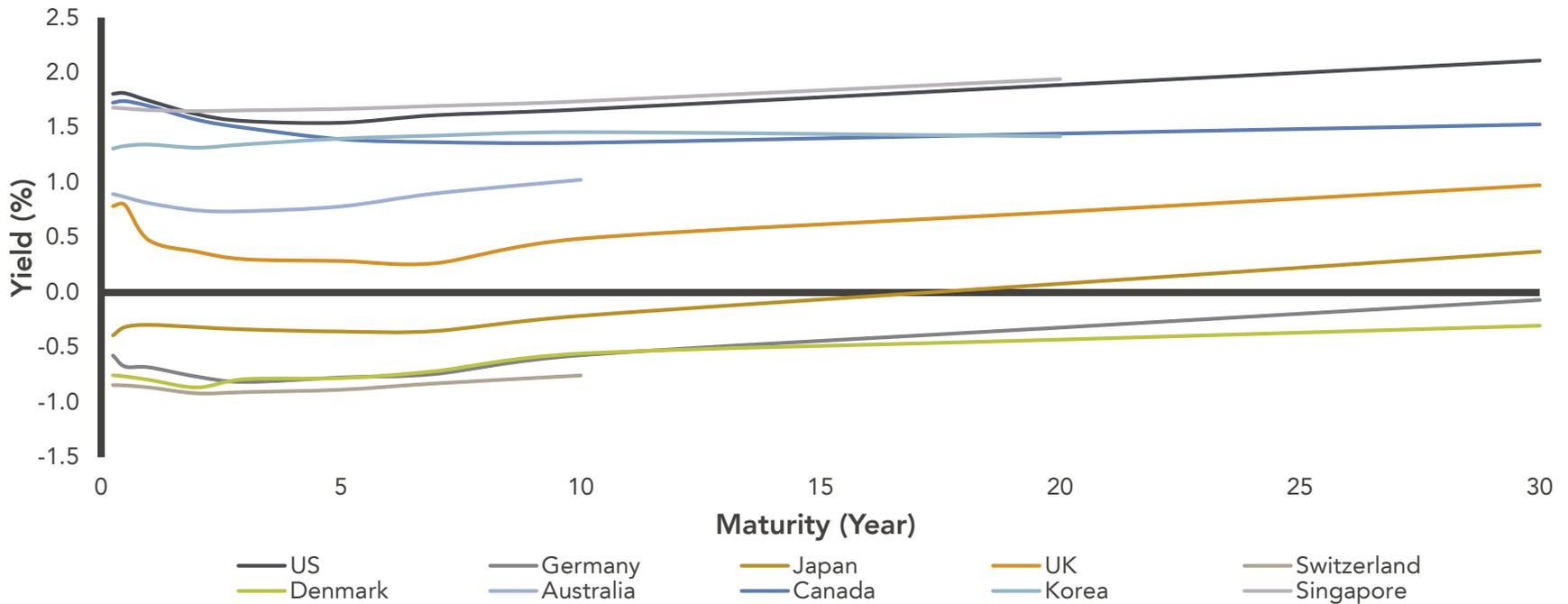
	Month (%)	Qtr (%)	YTD (%)	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)
<b>Broad Market Indices</b>							
Blm BC Aggregate	-0.5	2.3	8.5	10.3	2.9	3.4	3.7
<b>Intermediate Indices</b>							
Blm BC Int. Gov./Credit	-0.4	1.4	6.4	8.2	2.4	2.7	3.0
<b>Government Only Indices</b>							
Blm BC Long Gov.	-2.5	7.8	19.6	24.6	4.1	6.7	6.9
Blm BC Int. Gov.	-0.4	1.2	5.2	7.5	1.8	2.2	2.3
Blm BC 1-3 Year Gov.	-0.1	0.6	3.1	4.4	1.5	1.3	1.2
Blm BC U.S. TIPS	-1.4	1.3	7.6	7.1	2.2	2.4	3.5
<b>Credit Indices</b>							
Blm BC U.S. Long Credit	-1.5	5.6	21.9	19.9	6.5	6.9	7.8
Blm BC High Yield	0.4	1.3	11.4	6.4	6.1	5.4	7.9
CS Leveraged Loan Index	0.4	0.9	6.4	3.1	4.7	4.1	5.4
<b>Securitized Bond Indices</b>							
Blm BC MBS	0.1	1.4	5.6	7.8	2.3	2.8	3.1
Blm BC ABS	-0.1	0.9	4.1	5.4	2.2	2.3	2.8
Blm BC CMBS	-0.6	1.9	8.6	10.4	3.3	3.8	6.1

Source: Bloomberg Barclays, Credit Suisse, JPMorgan as of September 30, 2019

# Entire German yield curve remains negative

Tariff escalation has also sent front half of Japanese curve negative

Global yield curves (%)

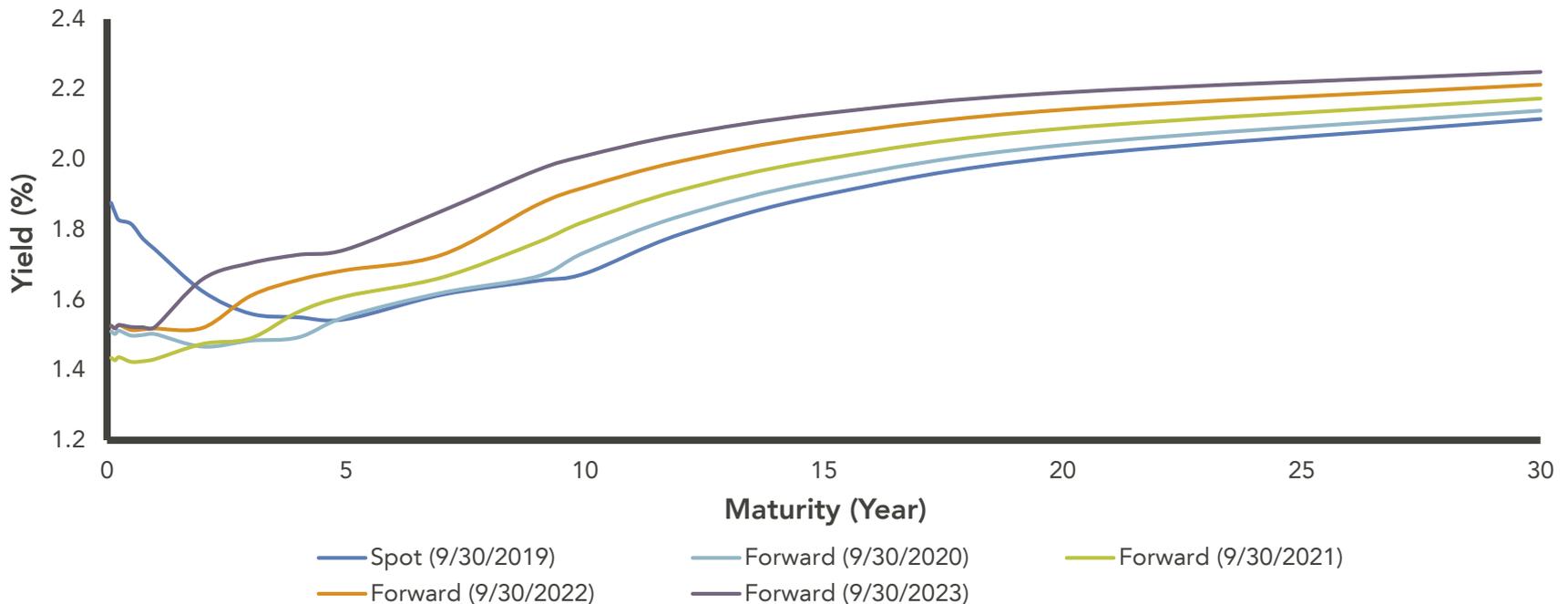


Source: Bloomberg as of September 30, 2019

# How will the shape of the yield curve evolve?

The market expects short end inversion to subside and rates to rise gradually over the next 4 years

## Treasury Forward Curve



Source: Bloomberg as of September 30, 2019

# U.S. equities: Markets reassess future growth

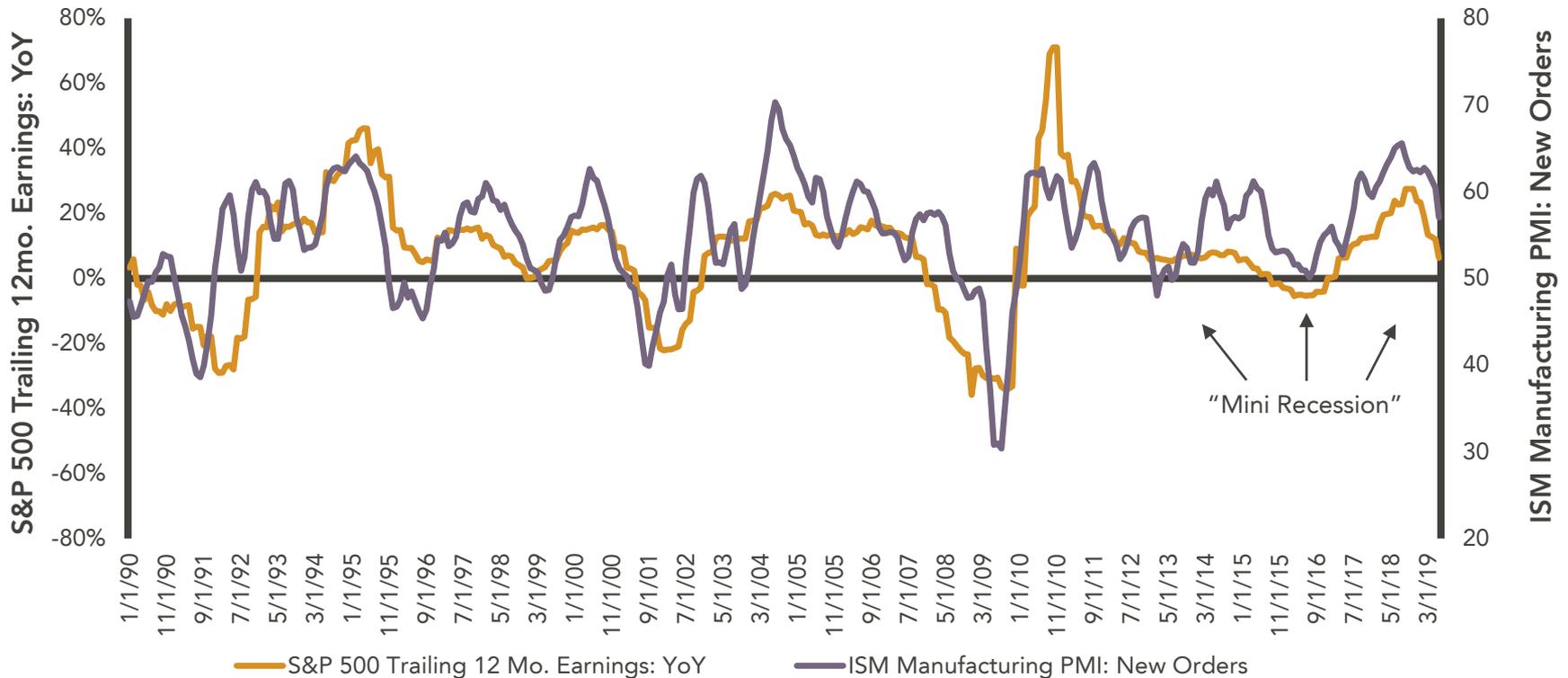
## U.S. equity index returns

	Month (%)	3-Month (%)	YTD (%)	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)
<b>Broad Market Indices</b>							
Dow Jones	2.1	1.8	17.5	4.2	16.4	12.3	13.6
Wilshire 5000	1.8	1.2	20.1	2.9	12.9	10.6	13.1
Russell 3000	1.8	1.2	20.1	2.9	12.8	10.4	13.1
<b>Large-Cap Market Indices</b>							
S&P 500	1.9	1.7	20.6	4.3	13.4	10.8	13.2
Russell 1000	1.7	1.4	20.5	3.9	13.2	10.6	13.2
Russell 1000 Value	3.6	1.4	17.8	4.0	9.4	7.8	11.5
Russell 1000 Growth	0.0	1.5	23.3	3.7	16.9	13.4	14.9
<b>Mid-Cap Market Indices</b>							
Russell MidCap	2.0	0.5	21.9	3.2	10.7	9.1	13.1
Russell MidCap Value	4.1	1.2	19.5	1.6	7.8	7.6	12.3
Russell MidCap Growth	-1.1	-0.7	25.2	5.2	14.5	11.1	14.1
<b>Small-Cap Market Indices</b>							
Russell 2000	2.1	-2.4	14.2	-8.9	8.2	8.2	11.2
Russell 2000 Value	5.1	-0.6	12.8	-8.2	6.5	7.2	10.1
Russell 2000 Growth	-0.8	-4.2	15.3	-9.6	9.8	9.1	12.2

Source: Morningstar Direct as of September 30, 2019

# Leading indicators also point to a slowing economy

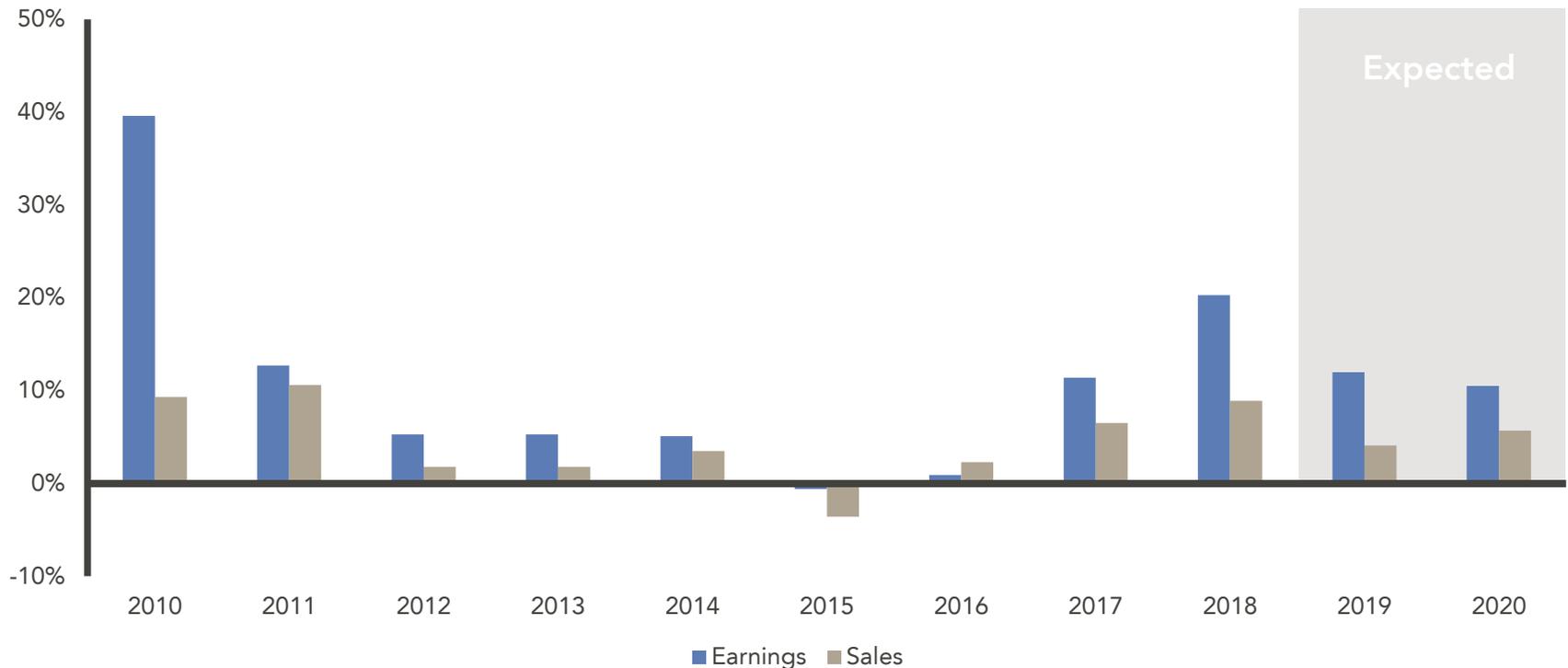
## Earnings growth vs. new manufacturing orders



Source: Strategas; data as of June 30, 2019

# Slowing earnings are a result of a slowing economy

## Calendar year earnings and revenue growth



Source: Factset as of September 30, 2019

# Equities can still move higher

Yield curve inversion doesn't signal immediate trouble for equities

Inversion Date	Recession Start	# of Months Until Recession	S&P 500 Return For the Period
12/27/2005	Dec. 2007	23	25.2%
5/26/1998	Mar. 2001	32	19.8%
12/13/1988	Jul. 1990	19	40.9%
9/12/1980	Jul. 1981	10	8.5%
8/18/1978	Jan. 1980	17	9.7%
	<b>Average</b>	<b>20.2</b>	<b>20.8%</b>

Source: Bloomberg, National Bureau of Economic Research

# Non-U.S. equities: September rebound

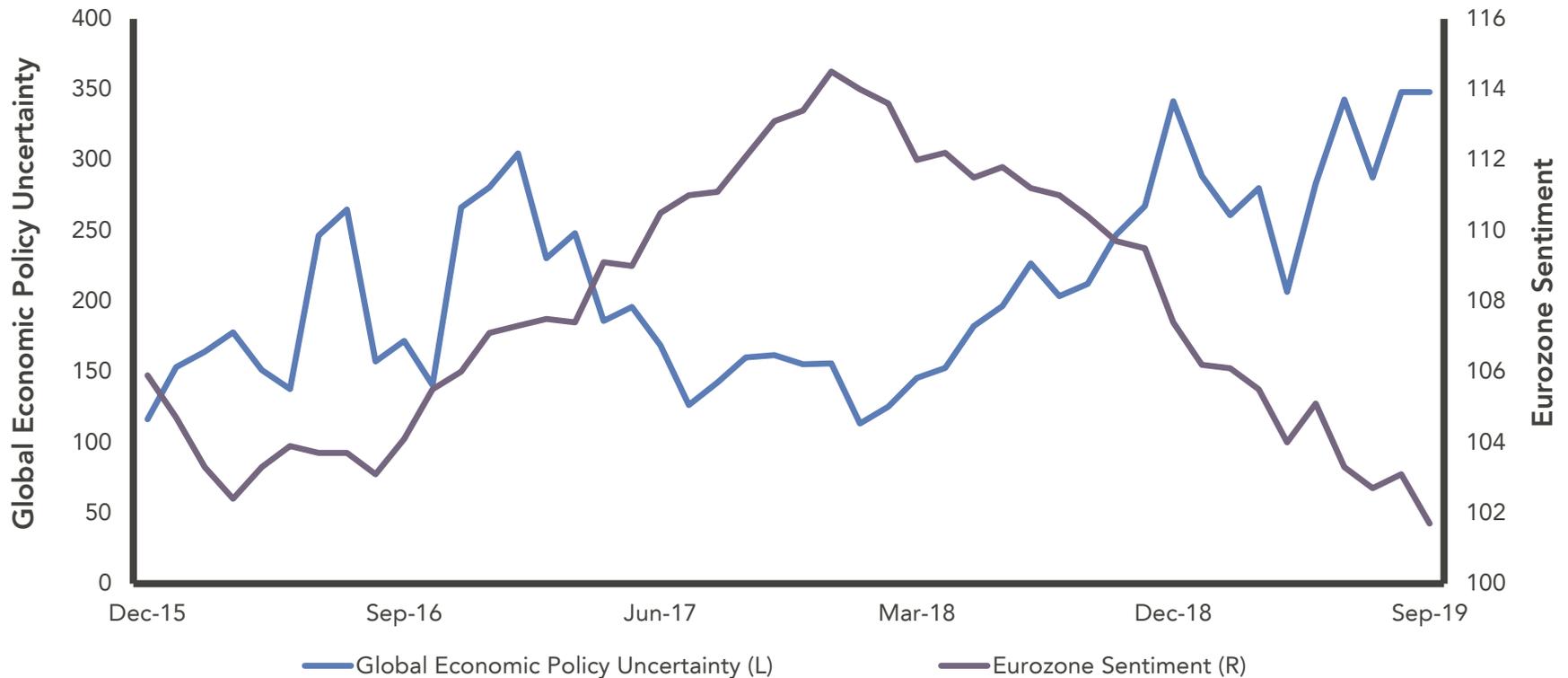
Gains seen in September across the majority of non-U.S. equity indices

	Month (%)	3-Month (%)	YTD (%)	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)
MSCI ACWI ex. U.S.	2.6	-1.8	11.6	-1.2	6.3	2.9	4.5
MSCI EAFE	2.9	-1.1	12.8	-1.3	6.5	3.3	4.9
MSCI EAFE Local	3.5	1.8	15.7	1.6	8.3	6.0	7.0
MSCI Emerging Markets	1.9	-4.3	5.9	-2.0	6.0	2.3	3.4
MSCI EM Local	1.5	-2.1	7.8	-0.2	7.6	5.5	5.9
MSCI EAFE Small-Cap	2.8	-0.4	12.1	-5.9	5.9	6.0	7.5
MSCI EM Small-Cap	2.0	-4.6	1.8	-5.5	1.3	-0.1	3.2
MSCI Frontier	-2.0	-1.1	10.7	5.9	7.0	-1.3	3.6

Source: Bloomberg as of September 30, 2019

# Global economic uncertainty remains elevated

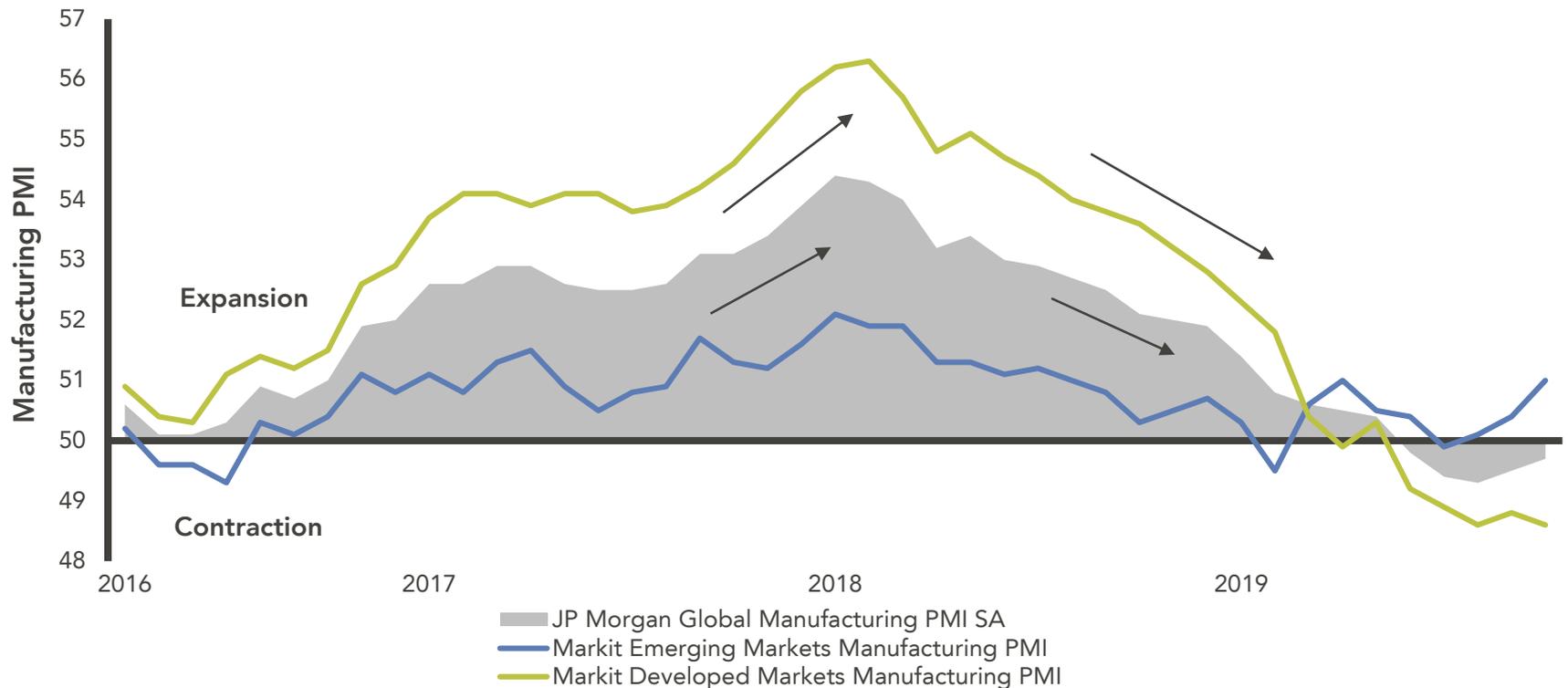
## Eurozone Sentiment falls further in September



Source: Bloomberg

# Manufacturing slowdown across globe

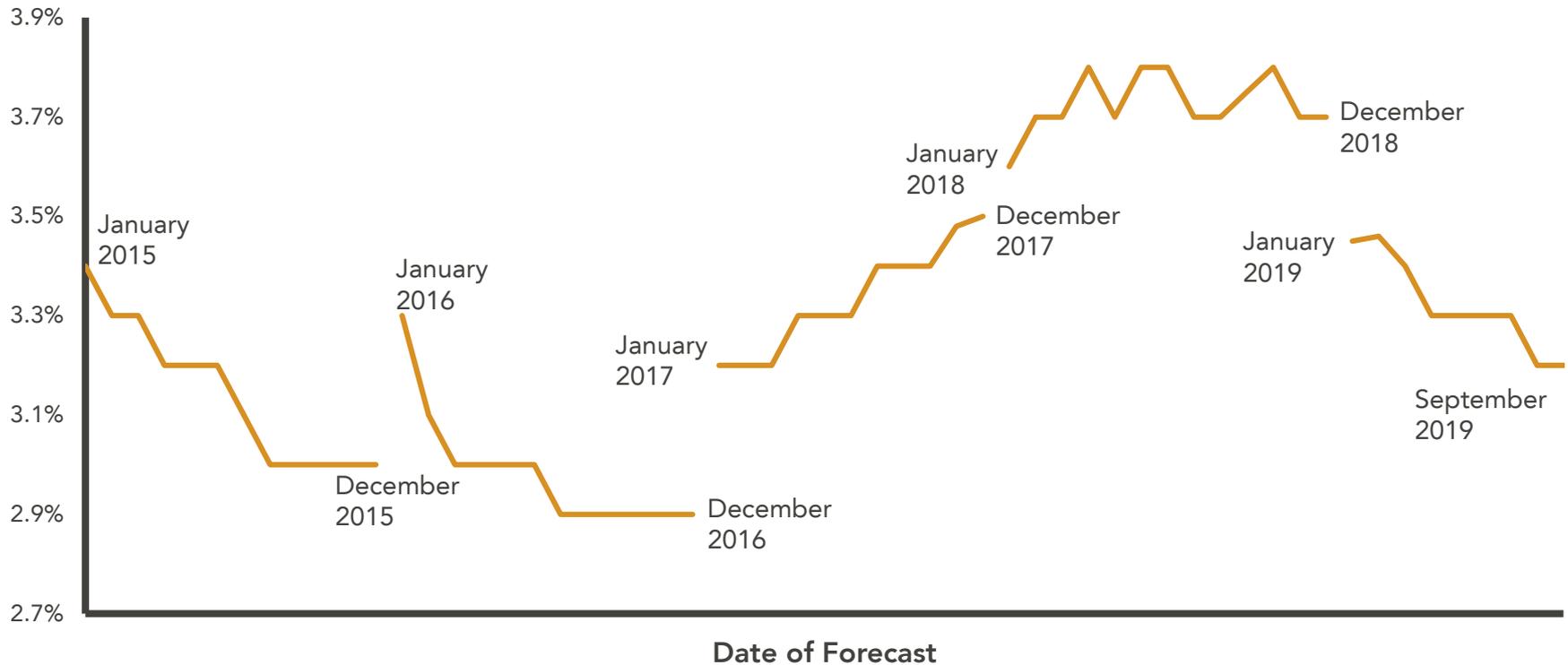
Developed Manufacturing PMIs remain in contraction territory, EM has slight rebound



Source: Bloomberg

# World GDP forecast by calendar year

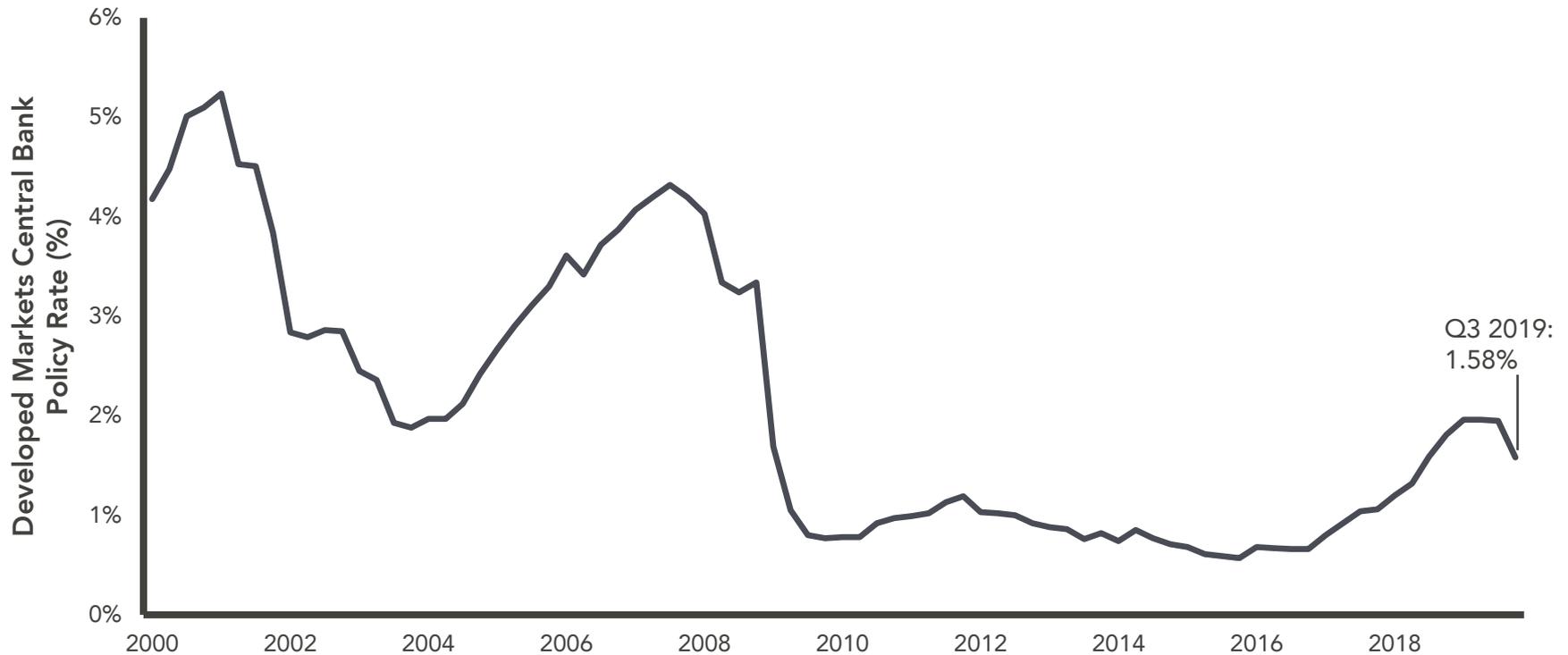
## Forecast continues to be revised downward



Source: Bloomberg, World GDP Economic Forecast (Annual YoY%) Survey Median

# Central banks become more accommodative

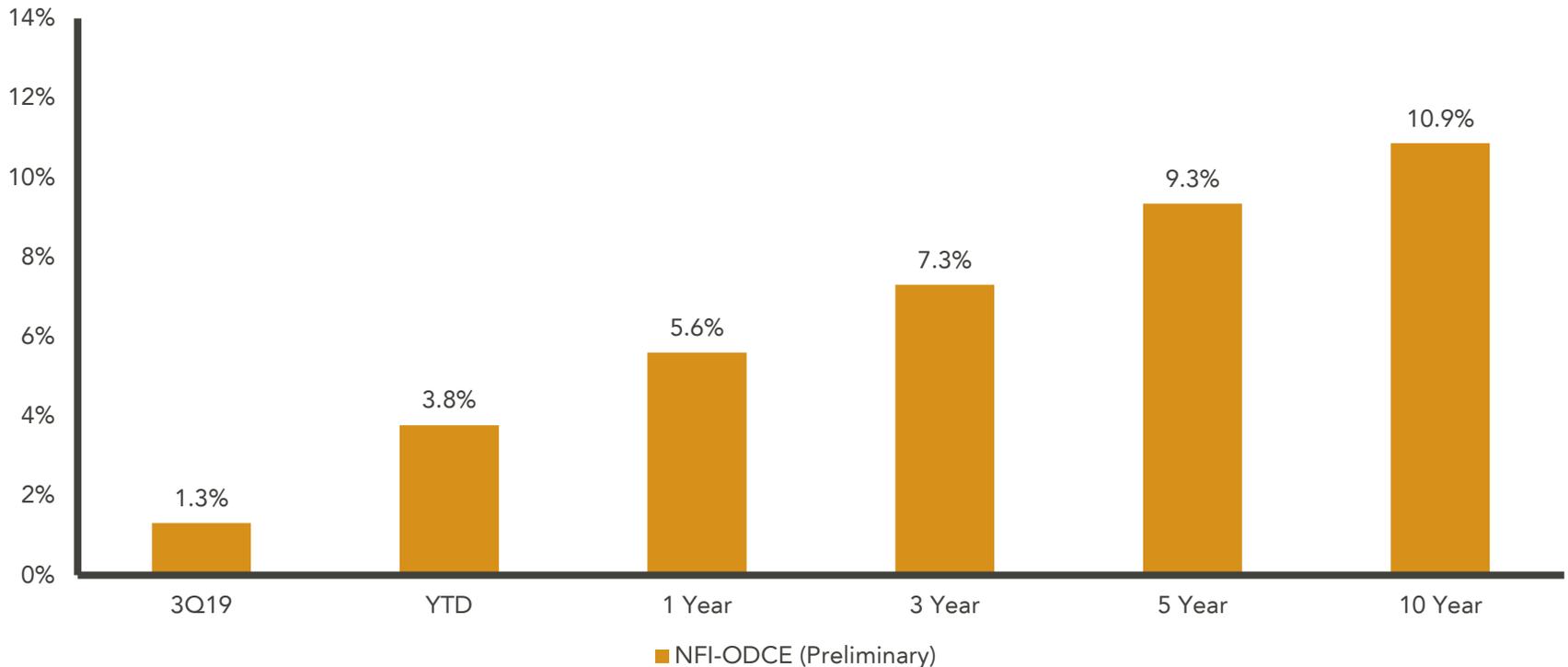
## Accommodative monetary policy continues in developed markets



Sources: Bloomberg; Developed Economies (OECD) Central Bank Rate (%)

# Preliminary 3Q19 real estate performance

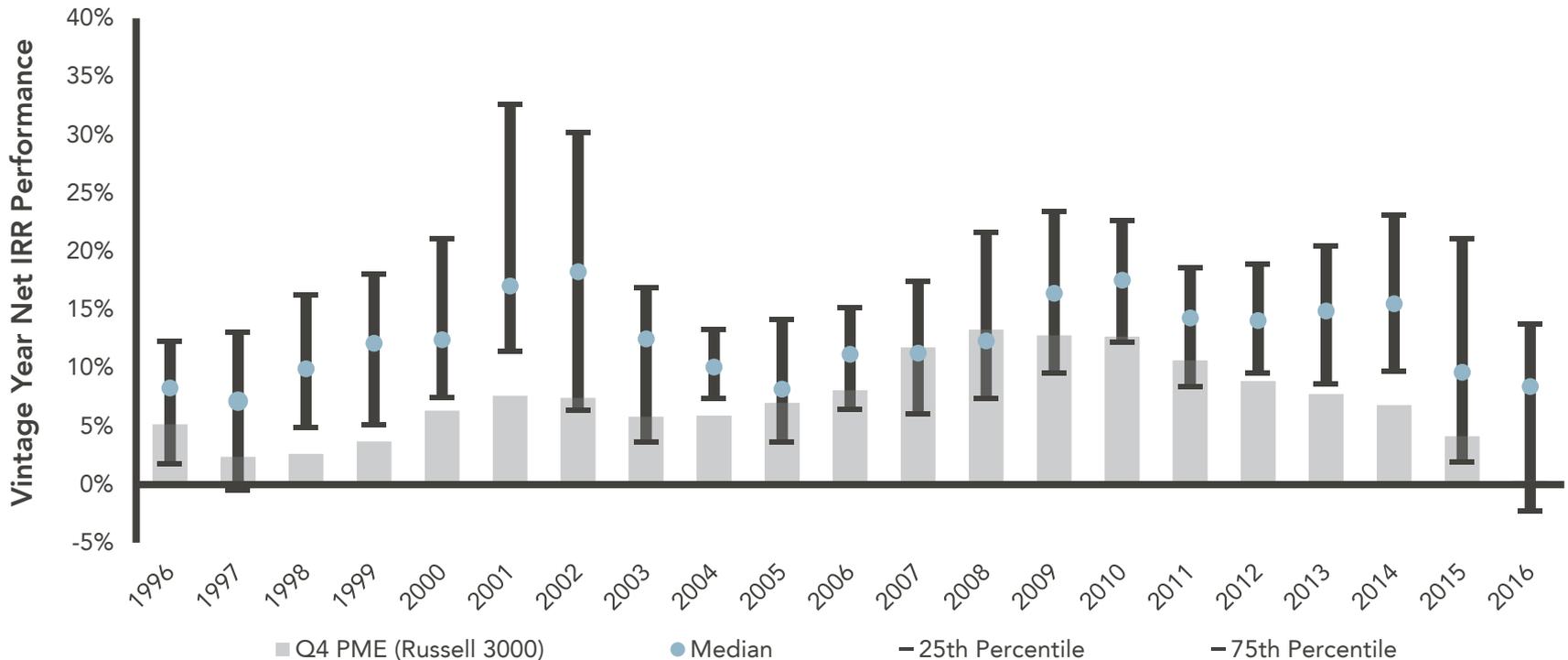
**Core real estate still positive, but returns continue to moderate through 3Q19**



Sources: Manager reported returns (preliminary) as of 3Q19

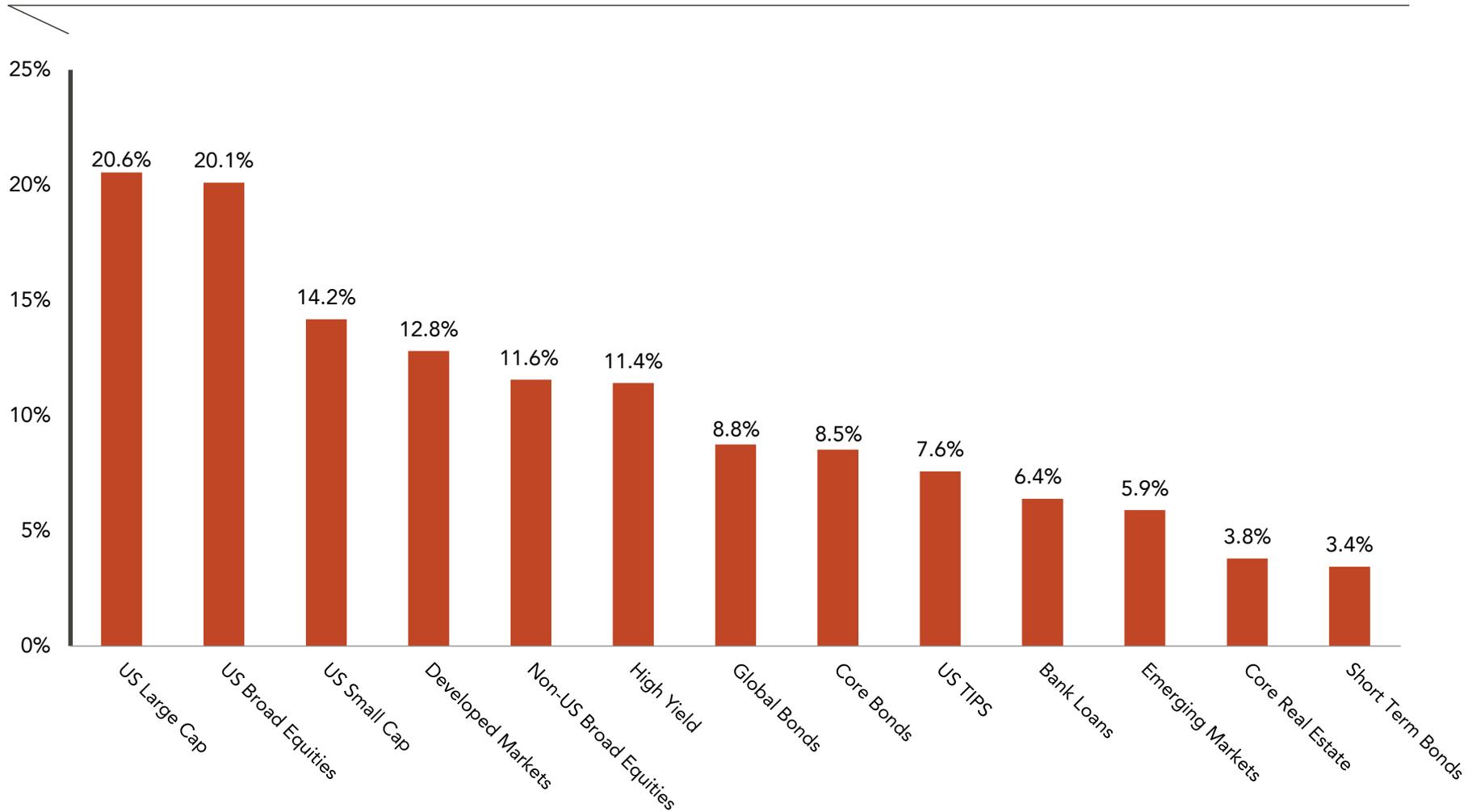
# U.S. private equity vintage performance

Vintage year benchmarks separated significantly from public market returns during the 4<sup>th</sup> quarter of 2018



Source: Cambridge Associates U.S. Private Equity Index and Russell 3000 as of March 31, 2019

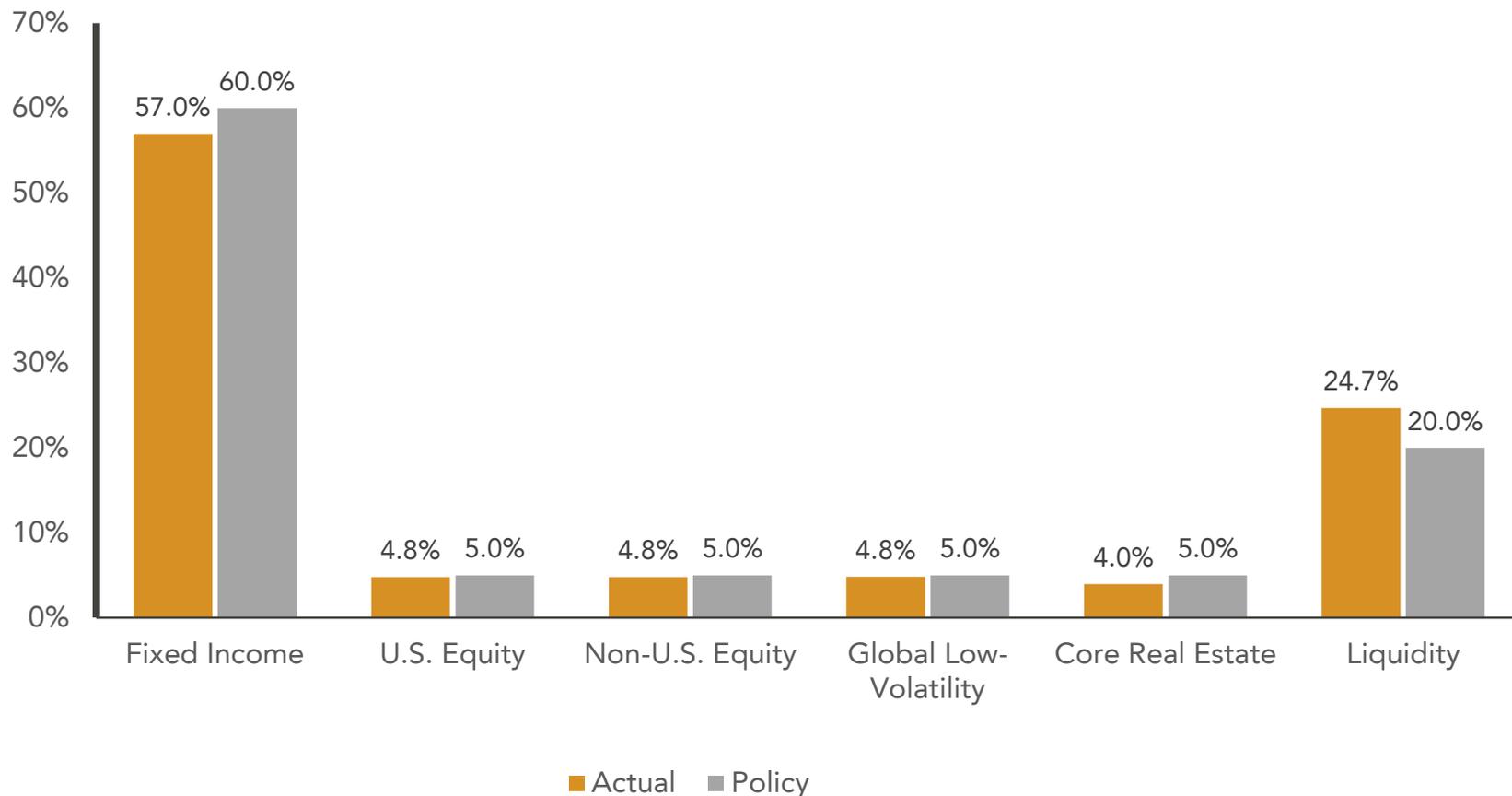
# YTD asset class returns



Source: Morningstar as of September 30, 2019

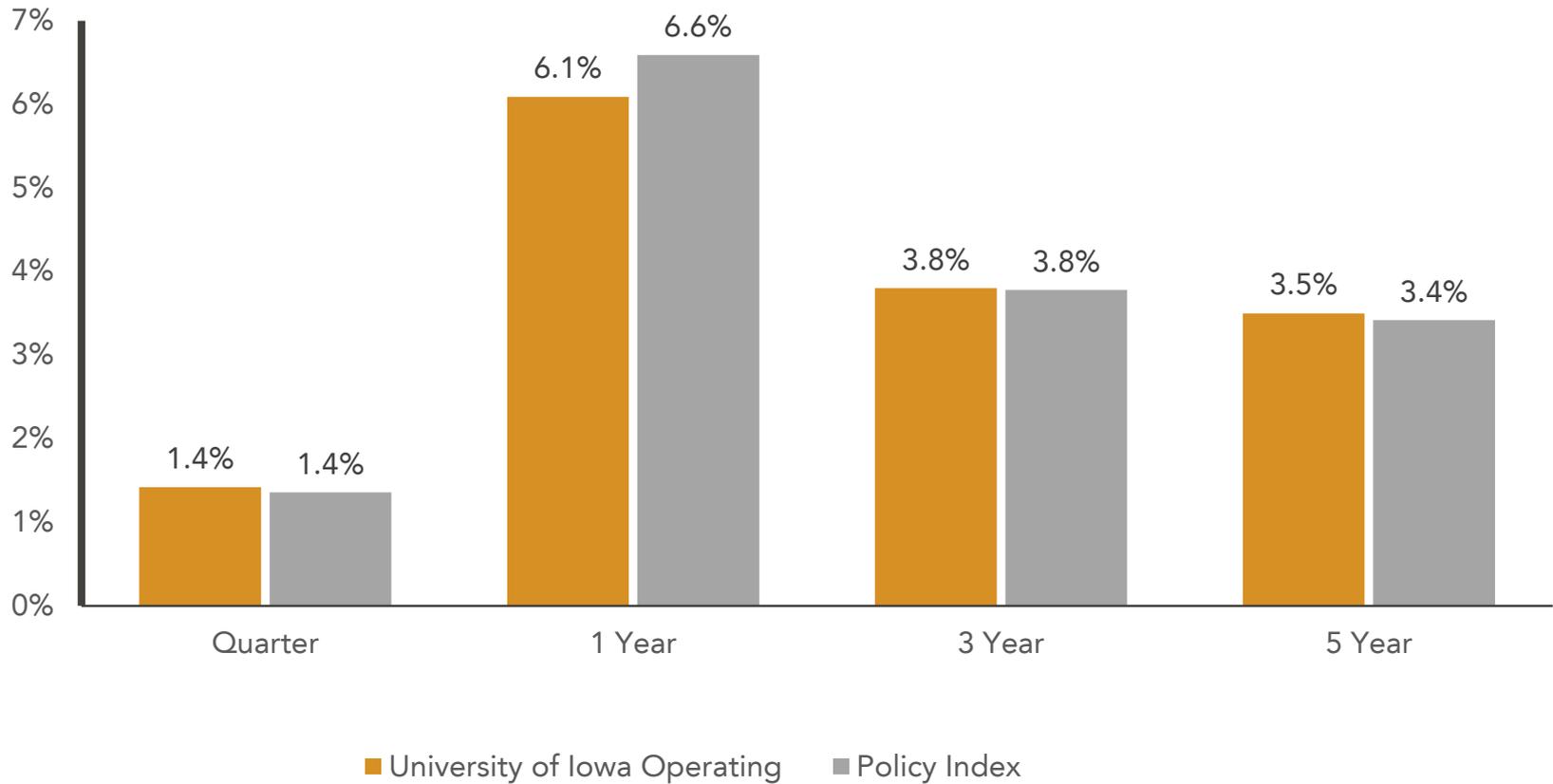
# Performance Review

# University of Iowa Operating Portfolio – Asset Allocation\*



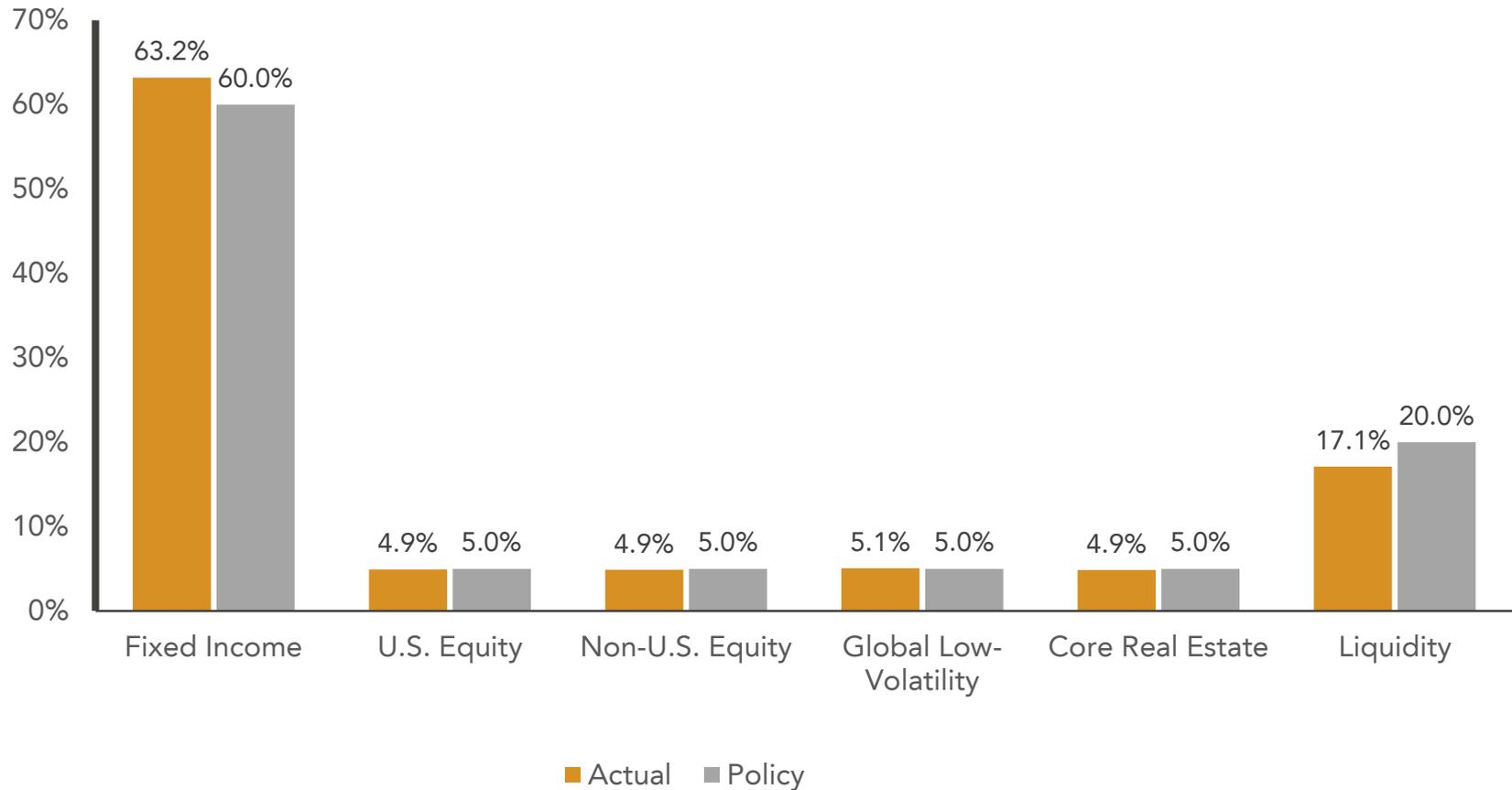
\*Includes University of Northern Iowa

# University of Iowa Operating Portfolio – Return Summary\*

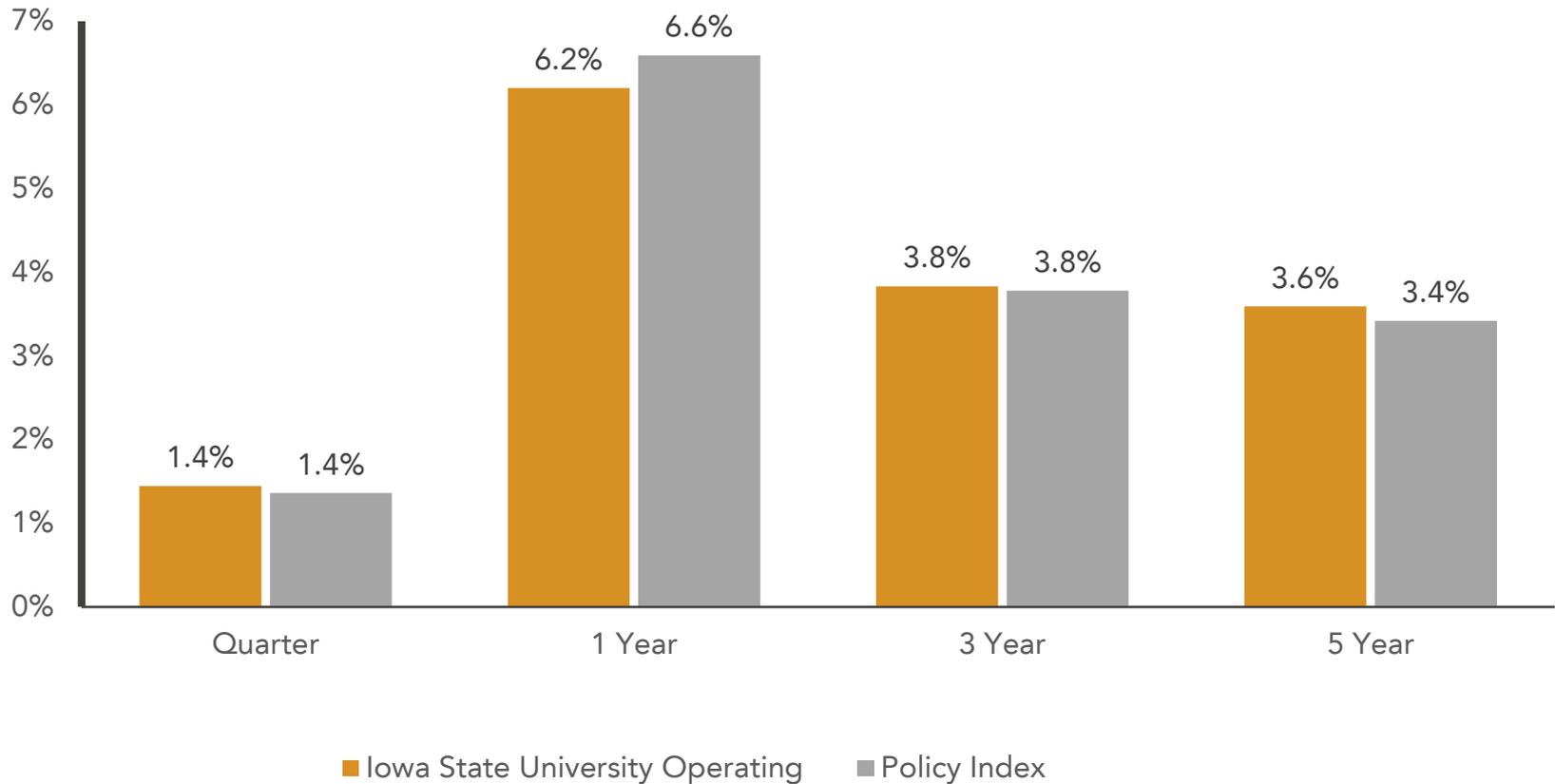


\*Includes University of Northern Iowa. Note: See appendix for Policy Index definition.

# Iowa State University Operating Portfolio – Asset Allocation

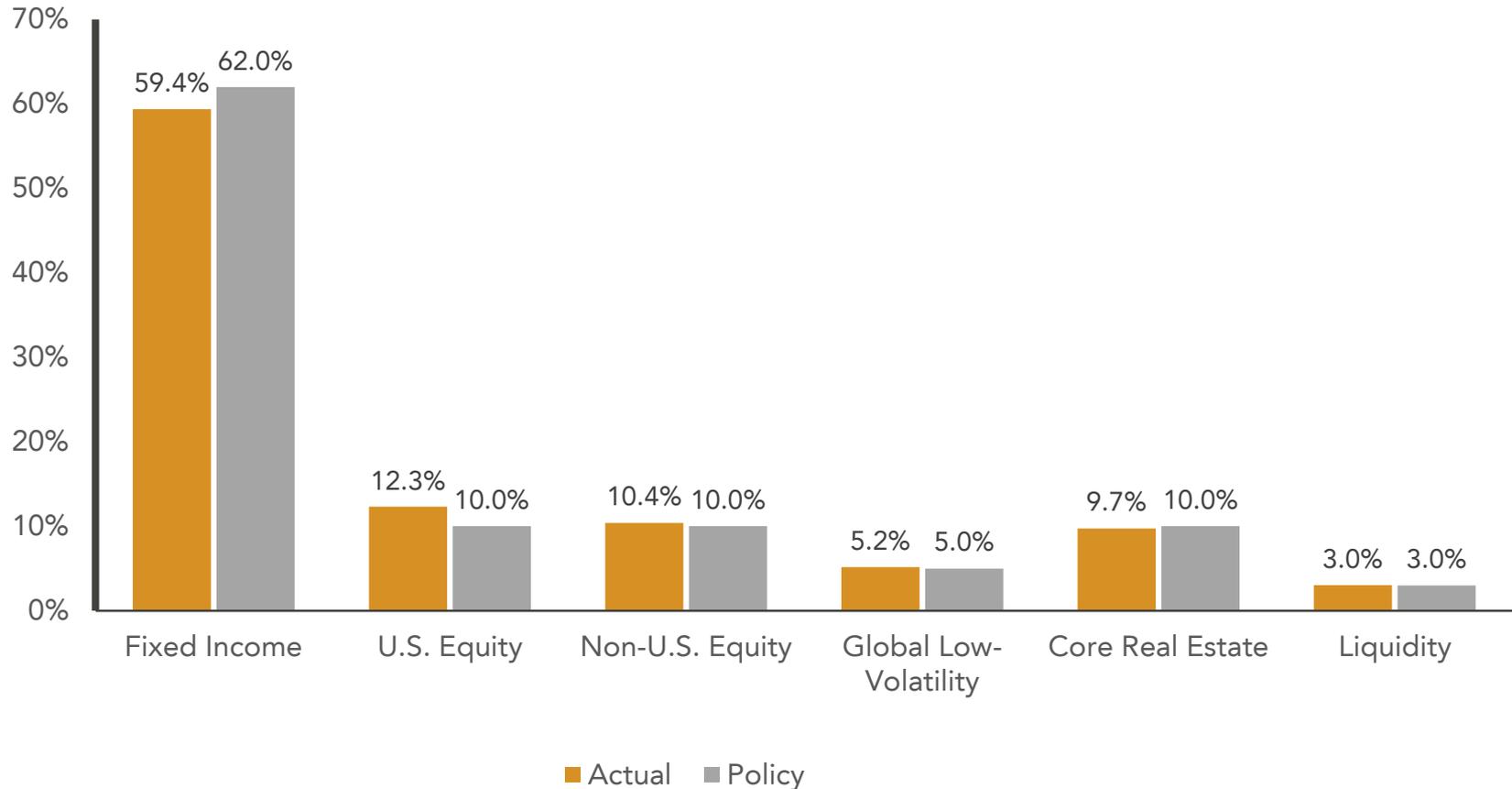


# Iowa State University Operating Portfolio – Return Summary

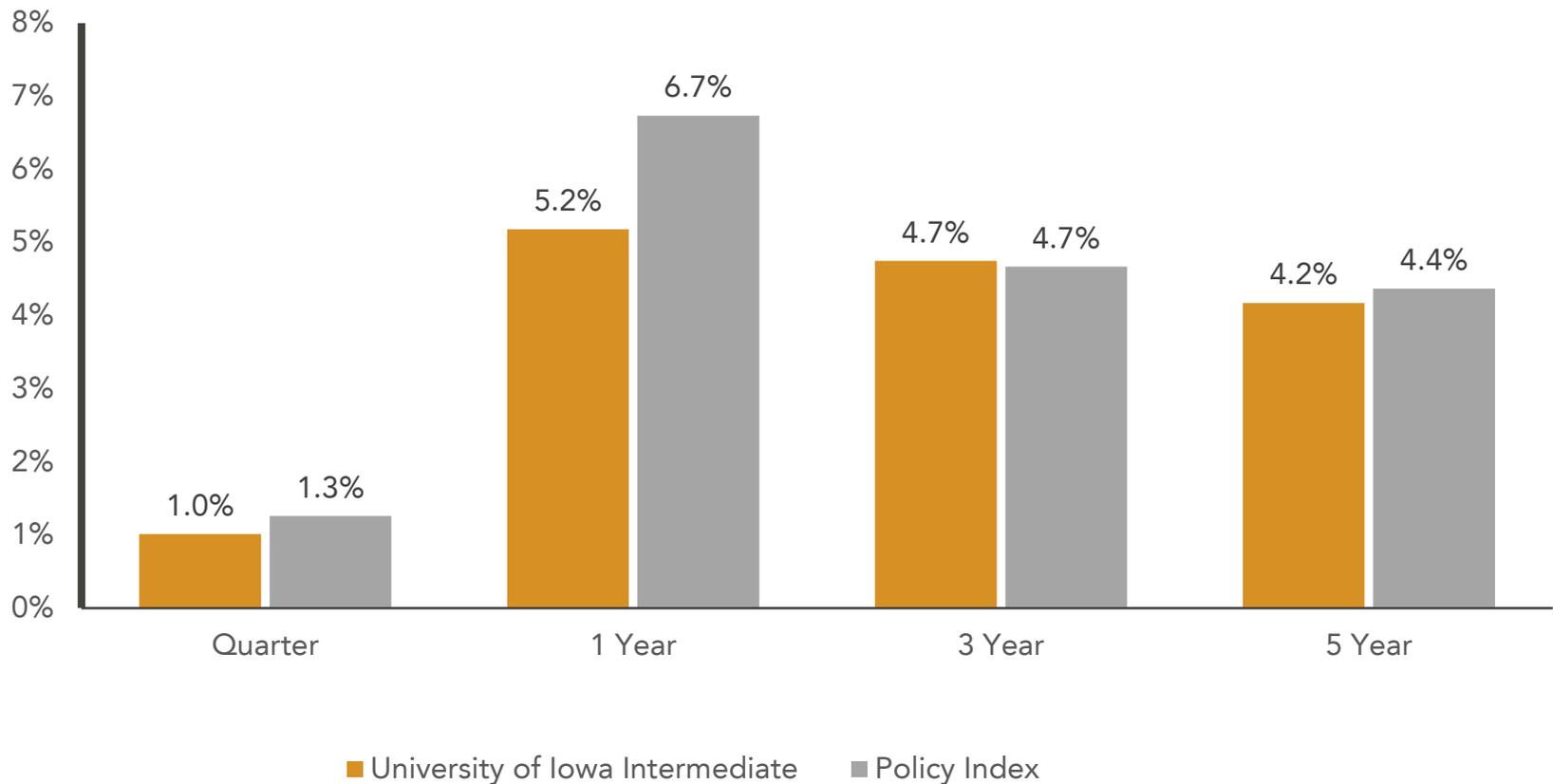


Note: See appendix for Policy Index definition.

# University of Iowa Diversified Intermediate Term Portfolio – Asset Allocation

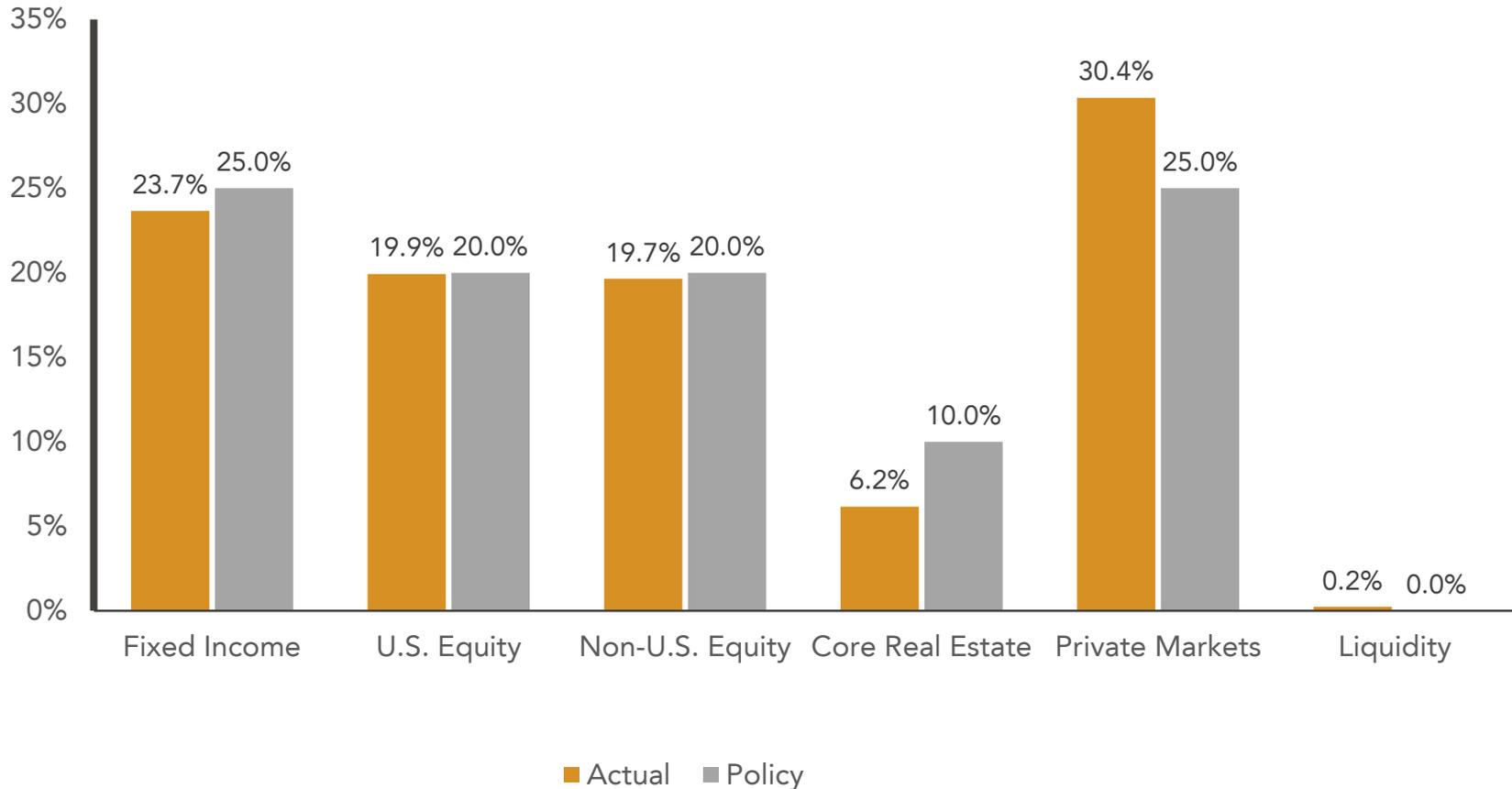


# University of Iowa Diversified Intermediate Term Portfolio – Return Summary



Note: See appendix for Policy Index definition.

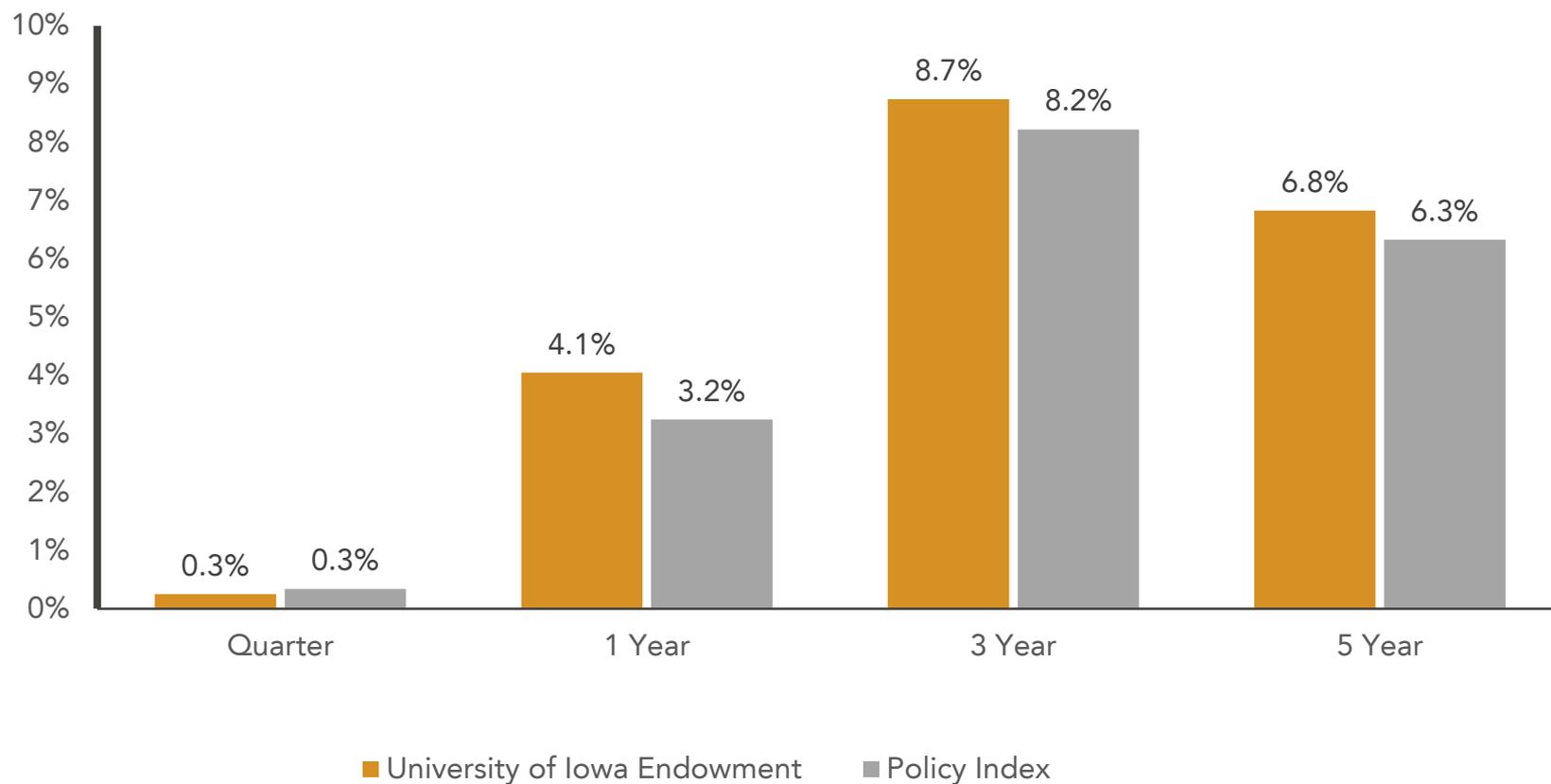
# University of Iowa Endowment – Asset Allocation\*



\*Includes University of Northern Iowa.

Note: Some private market valuations may be carried over from the previous quarter. Allocations are preliminary and subject to change.

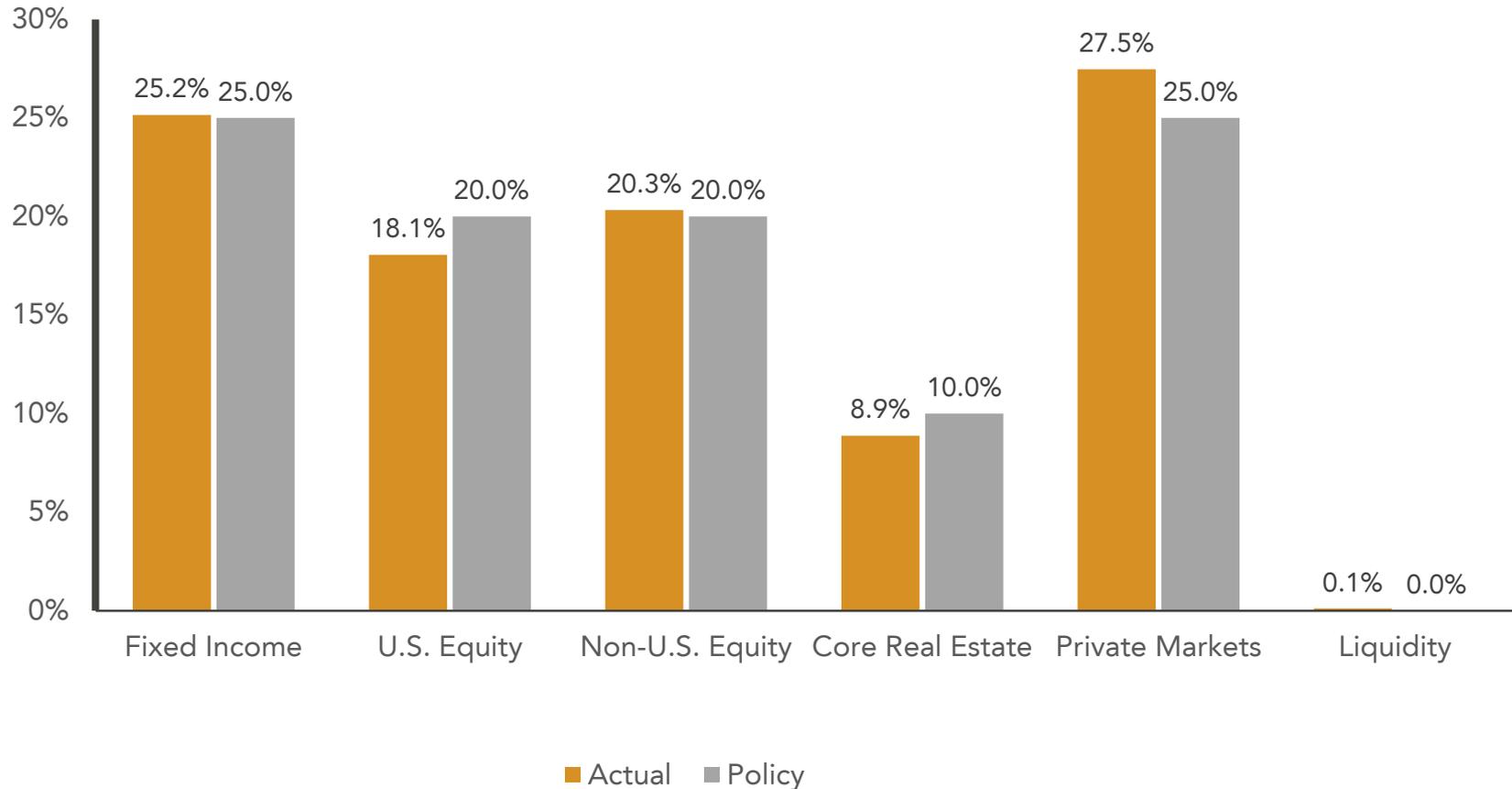
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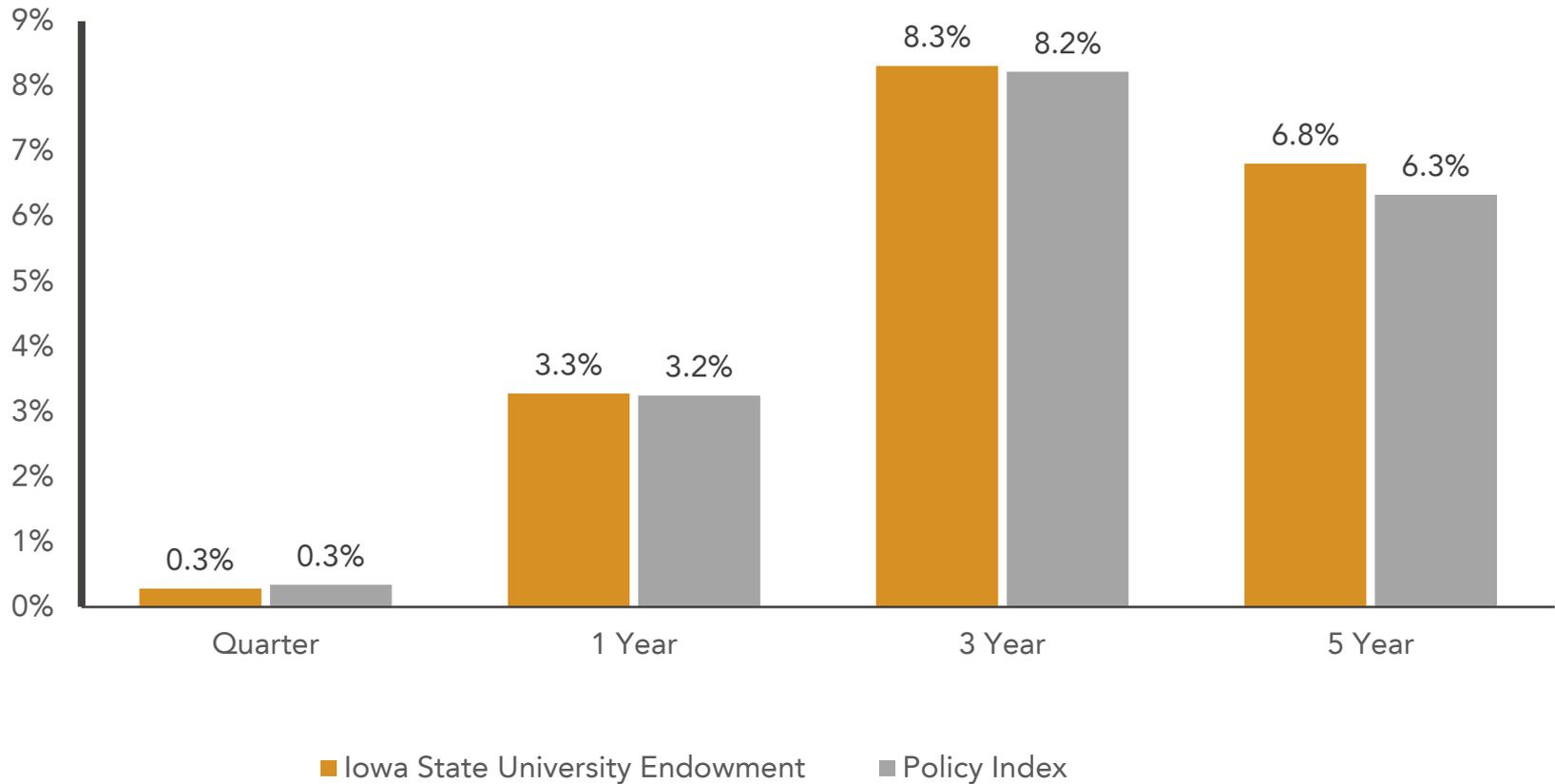
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# Iowa State University Endowment – Asset Allocation



Note: Some private market valuations may be carried over from the previous quarter. Allocations are preliminary and subject to change.

# Iowa State University Endowment – Return Summary



Note: See appendix for Policy Index definition. Some private market valuations may be carried over from the previous quarter. Returns are preliminary and subject to change.

# Appendix

# University of Iowa Operating Portfolio – Market Values\*

	Asset Class	Market Value	% of Portfolio	Policy %
<b>University of Iowa Operating Pool</b>		<b>\$1,318,927,908</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Total Fixed Income Composite</b>		<b>\$751,138,862</b>	<b>57.0%</b>	<b>60.0%</b>
AllianceBernstein Global Bond Fund	Global Fixed Income	\$62,586,352	4.7%	5.0%
<b>U.S. Fixed Income Composite</b>		<b>\$688,552,510</b>	<b>52.2%</b>	<b>55.0%</b>
Vanguard Total Bond Market Index Fund	Core Fixed Income	\$314,320,683	23.8%	25.0%
MacKay Shields Intermediate Bond Fund	Int. Fixed Income	\$251,839,689	19.1%	20.0%
Vanguard High-Yield Corporate Fund	High Yield Fixed Income	\$31,404,593	2.4%	2.5%
Neuberger Berman High Income	High Yield Fixed Income	\$31,746,636	2.4%	2.5%
Voya Senior Loan	Senior Secured Loans	\$31,432,977	2.4%	2.5%
Symphony BayCity Senior Loan Fund	Senior Secured Loans	\$27,807,932	2.1%	2.5%
<b>U.S. Equity Composite</b>		<b>\$63,036,897</b>	<b>4.8%</b>	<b>5.0%</b>
Vanguard Total Stock Market Index	All-Cap Core	\$63,036,897	4.8%	5.0%
<b>Non-U.S. Equity Composite</b>		<b>\$63,066,107</b>	<b>4.8%</b>	<b>5.0%</b>
Vanguard FTSE All-World ex US	Non-U.S. Large-Cap Core	\$63,066,107	4.8%	5.0%
<b>Global Low Volatility Composite</b>		<b>\$63,762,557</b>	<b>4.8%</b>	<b>5.0%</b>
Acadian Global Low Volatility	Global Low-Volatility	\$63,762,557	4.8%	5.0%
<b>Real Estate Composite</b>		<b>\$52,276,644</b>	<b>4.0%</b>	<b>5.0%</b>
UBS Trumbull Property Fund	Core Real Estate	\$25,692,087	1.9%	2.5%
Morgan Stanley PRIME Property Fund	Core Real Estate	\$26,584,557	2.0%	2.5%
<b>Liquidity Composite</b>		<b>\$325,646,841</b>	<b>24.7%</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>\$344,392,547</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Total Fixed Income Composite</b>		<b>\$217,645,840</b>	<b>63.2%</b>	<b>60.0%</b>
AllianceBernstein Global Bond Fund	Global Fixed Income	\$17,713,792	5.1%	5.0%
<b>U.S. Fixed Income Composite</b>		<b>\$199,932,047</b>	<b>58.1%</b>	<b>55.0%</b>
Vanguard Total Bond Market Index Fund	Core Fixed Income	\$92,703,238	26.9%	25.0%
MacKay Shields Intermediate Bond Fund	Int. Fixed Income	\$72,204,161	21.0%	20.0%
Vanguard High-Yield Corporate Fund	High Yield Fixed Income	\$9,931,387	2.9%	2.5%
Neuberger Berman High Income	High Yield Fixed Income	\$8,501,259	2.5%	2.5%
Symphony BayCity Senior Loan Fund	Senior Secured Loans	\$16,592,003	4.8%	5.0%
<b>U.S. Equity Composite</b>		<b>\$16,935,406</b>	<b>4.9%</b>	<b>5.0%</b>
Vanguard Total Stock Market Index	All-Cap Core	\$16,935,406	4.9%	5.0%
<b>Non-U.S. Equity Composite</b>		<b>\$16,784,252</b>	<b>4.9%</b>	<b>5.0%</b>
Vanguard FTSE All-World ex US	Non-U.S. Large-Cap Core	\$16,784,252	4.9%	5.0%
<b>Global Low Volatility Composite</b>		<b>\$17,406,347</b>	<b>5.1%</b>	<b>5.0%</b>
Acadian Global Low Volatility	Global Low-Volatility	\$17,406,347	5.1%	5.0%
<b>Real Estate Composite</b>		<b>\$16,722,591</b>	<b>4.9%</b>	<b>5.0%</b>
UBS Trumbull Property Fund	Core Real Estate	\$8,362,095	2.4%	2.5%
Morgan Stanley PRIME Property Fund	Core Real Estate	\$8,360,497	2.4%	2.5%
<b>Liquidity Composite</b>		<b>\$58,898,111</b>	<b>17.1%</b>	<b>20.0%</b>

# University of Iowa Diversified Intermediate Term Portfolio – Market Values

	Asset Class	Market Value	% of Portfolio	Policy %
<b>University of Iowa Diversified Intermediate Term Portfolio</b>		<b>\$463,648,411</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Fixed Income Composite</b>		<b>\$275,346,711</b>	<b>59.4%</b>	<b>62.0%</b>
SSgA U.S. Aggregate Bond Index	Core Fixed Income	\$55,279,877	11.9%	14.0%
Dodge & Cox Core Fixed Income	Core Fixed Income	\$61,816,721	13.3%	14.0%
MacKay Shields Intermediate Bond Fund	Int. Fixed Income	\$76,789,769	16.6%	17.0%
SSgA US High Yield Bond	High Yield Fixed Income	\$17,261,482	3.7%	2.5%
Neuberger Berman High Income	High Yield Fixed Income	\$12,503,506	2.7%	2.5%
Voya Senior Loan	Senior Secured Loans	\$11,513,964	2.5%	2.5%
Symphony BayCity Senior Loan Fund	Senior Secured Loans	\$11,294,005	2.4%	2.5%
Brandywine Global Opportunistic	Global Fixed Income	\$28,887,385	6.2%	7.0%
<b>U.S. Equity Composite</b>		<b>\$57,011,691</b>	<b>12.3%</b>	<b>10.0%</b>
SSgA U.S. Total Market Index	All-Cap Core	\$57,011,691	12.3%	10.0%
<b>Non-U.S. Equity Composite</b>		<b>\$48,229,294</b>	<b>10.4%</b>	<b>10.0%</b>
SSgA MSCI ACWI ex US	Non-U.S. Large-Cap Core	\$48,229,294	10.4%	10.0%
<b>Global Low Volatility Composite</b>		<b>\$23,984,736</b>	<b>5.2%</b>	<b>5.0%</b>
Acadian Global Low Volatility	Global Low-Volatility	\$23,984,736	5.2%	5.0%
<b>Real Estate Composite</b>		<b>\$45,101,596</b>	<b>9.7%</b>	<b>10.0%</b>
UBS Trumbull Property Fund	Core Real Estate	\$22,169,153	4.8%	5.0%
Morgan Stanley PRIME Property Fund	Core Real Estate	\$22,932,443	4.9%	5.0%
<b>Liquidity Composite</b>		<b>\$13,974,383</b>	<b>3.0%</b>	<b>3.0%</b>

# University of Iowa Endowment – Market Values\*

	Asset Class	Market Value	% of Portfolio	Policy %
<b>University of Iowa Endowment</b>		<b>\$439,092,459</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Fixed Income Composite</b>		<b>\$103,910,946</b>	<b>23.7%</b>	<b>25.0%</b>
MacKay Shields Core Fund	Core Fixed Income	\$43,823,989	10.0%	10.0%
Neuberger Berman High Income	High Yield Fixed Income	\$19,238,409	4.4%	5.0%
Voya Senior Loan	Senior Secured Loans	\$11,042,539	2.5%	2.5%
Symphony BayCity Senior Loan Fund	Senior Secured Loans	\$10,541,072	2.4%	2.5%
Brandywine Global Opportunistic	Global Fixed Income	\$19,264,937	4.4%	5.0%
<b>U.S. Equity Composite</b>		<b>\$87,512,703</b>	<b>19.9%</b>	<b>20.0%</b>
Vanguard Institutional Index	Large-Cap Core	\$61,430,197	14.0%	14.0%
Vanguard Mid Cap Index	Mid-Cap Core	\$13,014,072	3.0%	3.0%
Macquarie Small Cap Core	Small-Cap Core	\$13,068,434	3.0%	3.0%
<b>Non-U.S. Equity Composite</b>		<b>\$86,278,411</b>	<b>19.7%</b>	<b>20.0%</b>
Vanguard Total International Index	Non-U.S. Large-Cap Core	\$26,307,581	6.0%	6.7%
Arrowstreet International Equity	Non-U.S. Large-Cap Core	\$30,081,844	6.9%	6.7%
Earnest Partners International Large Cap	Non-U.S. Large-Cap Core	\$29,888,986	6.8%	6.7%
<b>Core Real Estate Composite</b>		<b>\$27,069,799</b>	<b>6.2%</b>	<b>10.0%</b>
Principal Enhanced Property	Core Plus Real Estate	\$21,755,717	5.0%	5.0%
UBS Trumbull Property Fund	Core Real Estate	\$2,583,995	0.6%	2.5%
Morgan Stanley PRIME Property Fund	Core Real Estate	\$2,730,087	0.6%	2.5%
<b>Private Markets Composite</b>		<b>\$133,308,581</b>	<b>30.4%</b>	<b>25.0%</b>
<b>Liquidity Composite</b>		<b>\$1,012,019</b>	<b>0.2%</b>	<b>0.0%</b>

\*Includes University of Northern Iowa.

Note: Some private market valuations may be carried over from the previous quarter. Allocations are preliminary and subject to change.

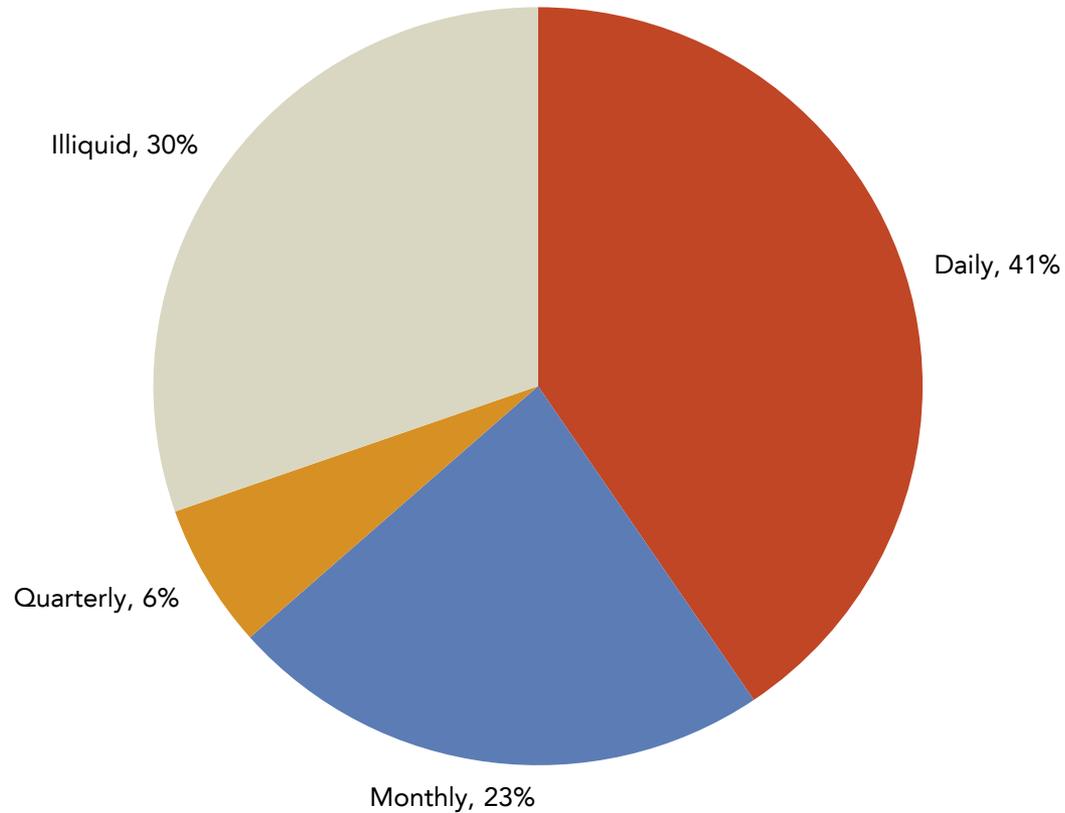
# Iowa State University Endowment – Market Values

	Asset Class	Market Value	% of Portfolio	Policy %
<b>Iowa State University Endowment</b>		<b>\$180,929,150</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Fixed Income Composite</b>		<b>\$45,512,957</b>	<b>25.2%</b>	<b>25.0%</b>
MacKay Shields Core Fund	Core Fixed Income	\$18,991,902	10.5%	10.0%
Neuberger Berman High Income	High Yield Fixed Income	\$8,643,115	4.8%	5.0%
Symphony BayCity Senior Loan Fund	Senior Secured Loans	\$9,573,014	5.3%	5.0%
Brandywine Global Opportunistic	Global Fixed Income	\$8,304,927	4.6%	5.0%
<b>U.S. Equity Composite</b>		<b>\$32,662,564</b>	<b>18.1%</b>	<b>20.0%</b>
Vanguard Institutional Index	Large-Cap Core	\$20,168,422	11.1%	14.0%
Vanguard Mid Cap Index	Mid-Cap Core	\$5,501,651	3.0%	3.0%
Macquarie Small Cap Core	Small-Cap Core	\$6,992,491	3.9%	3.0%
<b>Non-U.S. Equity Composite</b>		<b>\$36,785,530</b>	<b>20.3%</b>	<b>20.0%</b>
Vanguard Total International Index	Non-U.S. Large-Cap Core	\$12,261,645	6.8%	6.7%
Arrowstreet International Equity	Non-U.S. Large-Cap Core	\$12,127,056	6.7%	6.7%
Earnest Partners International Large Cap	Non-U.S. Large-Cap Core	\$12,396,829	6.9%	6.7%
<b>Core Real Estate Composite</b>		<b>\$16,075,655</b>	<b>8.9%</b>	<b>10.0%</b>
Principal Enhanced Property	Core Plus Real Estate	\$9,486,207	5.2%	5.0%
UBS Trumbull Property Fund	Core Real Estate	\$3,204,153	1.8%	2.5%
Morgan Stanley PRIME Property Fund	Core Real Estate	\$3,385,295	1.9%	2.5%
<b>Private Markets Composite</b>		<b>\$49,701,050</b>	<b>27.5%</b>	<b>25.0%</b>
<b>Liquidity Composite</b>		<b>\$191,394</b>	<b>0.1%</b>	<b>0.0%</b>

Note: Some private market valuations may be carried over from the previous quarter. Market values are preliminary and subject to change.

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

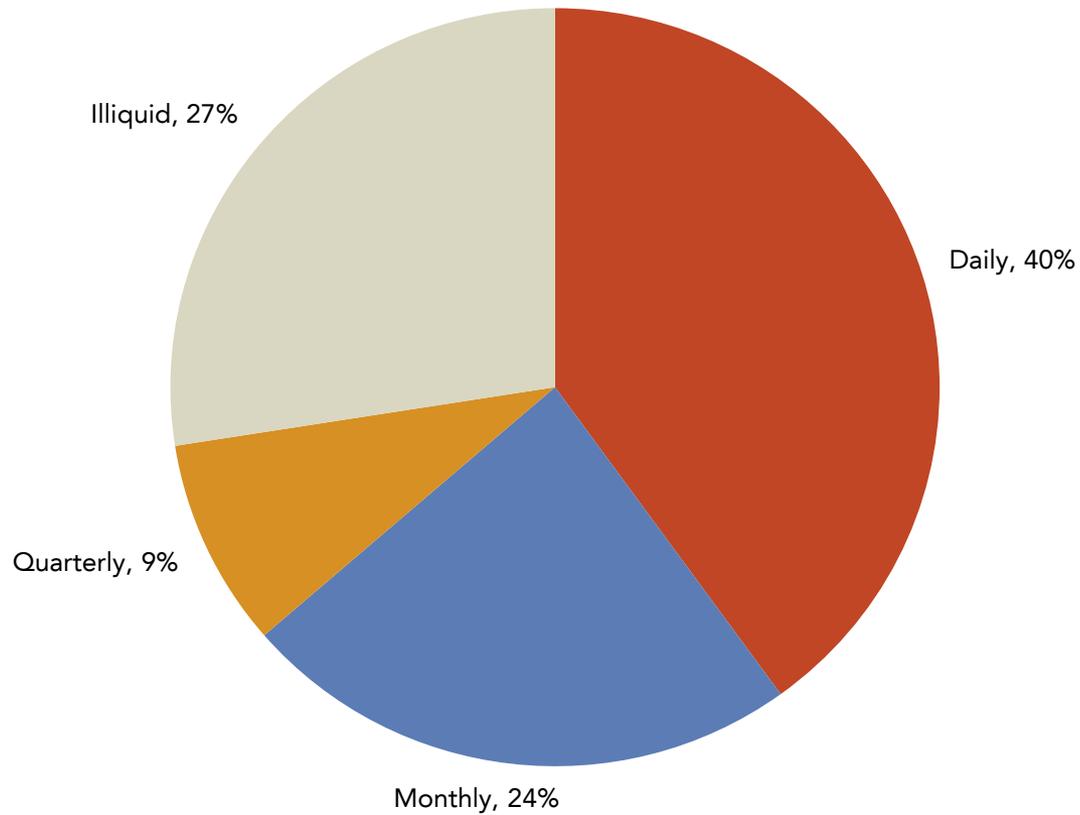
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\*Includes University of Northern Iowa

# Iowa State University Endowment – Liquidity by Percent of Assets

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# University of Iowa Endowment – Private Markets

## Since Inception Cash Flows Data as of June 30, 2019

Asset Class	Fund	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	\$6,653,290	\$1,237,005	1.6
Fund of Funds	Commonfund Capital Venture Partners VIII	\$1,000,000	\$965,000	\$1,131,269	\$897,699	2.1
International Fund of Funds	Commonfund Capital International Partners VI	\$1,200,000	\$1,119,000	\$1,477,875	\$288,425	1.6
Venture Fund of Funds	Commonfund Private Equity Partners VII	\$2,400,000	\$2,200,800	\$3,021,380	\$1,375,597	2.0
Value Added	Commonfund NR Partners VIII	\$6,000,000	\$5,790,000	\$2,917,234	\$2,685,221	1.0
Fund of Funds	Adams Street US Partnership 2010	\$2,440,000	\$2,149,640	\$1,582,817	\$2,293,423	1.8
International Fund of Funds	Adams Street Non-US Developed 2010	\$1,470,000	\$1,286,985	\$1,028,508	\$1,019,112	1.6
International Fund of Funds	Adams Street Non-US Emerging 2010	\$490,000	\$440,020	\$126,426	\$599,304	1.6
Secondary Fund of Funds	Landmark Equity Partners XIV	\$4,400,000	\$4,263,174	\$4,836,923	\$756,398	1.3
Opportunistic	MREP Global III	\$5,000,000	\$4,555,128	\$5,374,787	\$973,670	1.4
Fund of Funds	Adams Street US Partnership 2012	\$7,050,000	\$6,013,650	\$1,853,115	\$7,143,490	1.5
International Fund of Funds	Adams Street Non-US Developed 2012	\$4,240,000	\$3,207,560	\$1,605,652	\$3,177,382	1.5
International Fund of Funds	Adams Street Non-US Emerging 2012	\$1,410,000	\$1,309,890	\$297,259	\$1,832,239	1.6
Opportunistic	Commonfund NR Partners IX	\$11,000,000	\$9,531,501	\$1,954,218	\$9,976,918	1.3
Value Added	MREP Global VI	\$9,000,000	\$8,099,460	\$6,781,144	\$4,121,122	1.3
Fund of Funds	Adams Street US Partnership 2013	\$5,500,000	\$4,441,250	\$759,714	\$5,592,527	1.4
International Fund of Funds	Adams Street Non-US Developed 2013	\$2,800,000	\$2,011,800	\$714,438	\$2,242,033	1.5
International Fund of Funds	Adams Street Non-US Emerging 2013	\$1,700,000	\$1,518,100	\$127,956	\$2,551,663	1.8
Secondary Fund of Funds	Landmark Equity Partners XV	\$5,000,000	\$3,531,973	\$2,547,804	\$1,918,573	1.3
Global Fund of Funds	Neuberger Berman Crossroads Fund XX	\$12,500,000	\$8,875,000	\$673,362	\$12,496,250	1.5
Value Added	Aberdeen Energy & Resources Partners III	\$9,000,000	\$8,370,000	\$2,793,921	\$7,637,667	1.2
Secondary Fund of Funds	Landmark Real Estate Fund VII	\$9,000,000	\$8,117,739	\$5,315,305	\$4,586,714	1.2
Separate Account	Neuberger Berman IPU Feeder	\$93,000,000	\$42,324,221	\$0	\$56,199,962	1.3
<b>Total Private Markets</b>		<b>\$201,600,000</b>	<b>\$135,101,891</b>	<b>\$53,574,396</b>	<b>\$131,602,395</b>	<b>1.4</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	Vintage Yr.	Perf. as of:	Net IRR
Global Fund of Funds	Neuberger Berman Crossroads Fund XVIII	2006	6/30/2019	6.5%
Fund of Funds	Commonfund Capital Venture Partners VIII	2007	6/30/2019	12.2%
International Fund of Funds	Commonfund Capital International Partners VI	2007	6/30/2019	9.0%
Venture Fund of Funds	Commonfund Private Equity Partners VII	2007	6/30/2019	13.7%
Value Added	Commonfund NR Partners VIII	2008	6/30/2019	-0.7%
Fund of Funds	Adams Street US Partnership 2010	2010	6/30/2019	14.8%
International Fund of Funds	Adams Street Non-US Developed 2010	2010	6/30/2019	12.3%
International Fund of Funds	Adams Street Non-US Emerging 2010	2010	6/30/2019	11.4%
Secondary Fund of Funds	Landmark Equity Partners XIV	2010	6/30/2019	10.0%
Opportunistic	MREP Global III	2010	6/30/2019	9.2%
Fund of Funds	Adams Street US Partnership 2012	2012	6/30/2019	12.1%
International Fund of Funds	Adams Street Non-US Developed 2012	2012	6/30/2019	12.9%
International Fund of Funds	Adams Street Non-US Emerging 2012	2012	6/30/2019	15.1%
Opportunistic	Commonfund NR Partners IX	2012	6/30/2019	6.9%
Value Added	MREP Global VI	2012	6/30/2019	10.6%
Fund of Funds	Adams Street US Partnership 2013	2013	6/30/2019	11.8%
International Fund of Funds	Adams Street Non-US Developed 2013	2013	6/30/2019	13.6%
International Fund of Funds	Adams Street Non-US Emerging 2013	2013	6/30/2019	20.3%
Secondary Fund of Funds	Landmark Equity Partners XV	2013	6/30/2019	12.0%
Global Fund of Funds	Neuberger Berman Crossroads Fund XX	2013	6/30/2019	10.7%
Value Added	Aberdeen Energy & Resources Partners III	2014	6/30/2019	7.1%
Secondary Fund of Funds	Landmark Real Estate Fund VII	2014	6/30/2019	11.3%
Separate Account	Neuberger Berman IPU Feeder Fund	2015	6/30/2019	15.6%
<b>Total Private Markets</b>			<b>6/30/2019</b>	<b>10.3%</b>

# Iowa State University Endowment – Private Markets

## Since Inception Cash Flows Data as of June 30, 2019

Asset Class	Fund	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	\$4,158,306	\$773,125	1.6
Fund of Funds	Commonfund Capital Venture Partners VIII	\$600,000	\$579,000	\$678,762	\$538,616	2.1
International Fund of Funds	Commonfund Capital International Partners VI	\$800,000	\$746,000	\$985,250	\$192,289	1.6
Venture Fund of Funds	Commonfund Private Equity Partners VII	\$1,600,000	\$1,467,200	\$2,014,256	\$917,055	2.0
Value Added	Commonfund NR Partners VIII	\$4,000,000	\$3,860,000	\$1,944,823	\$1,790,146	1.0
Fund of Funds	Adams Street US Partnership 2010	\$1,442,000	\$1,270,402	\$935,420	\$1,355,375	1.8
International Fund of Funds	Adams Street Non-US Developed 2010	\$869,000	\$760,813	\$608,011	\$602,456	1.6
International Fund of Funds	Adams Street Non-US Emerging 2010	\$289,000	\$259,522	\$74,565	\$353,468	1.6
Secondary Fund of Funds	Landmark Equity Partners XIV	\$2,600,000	\$2,519,154	\$2,858,206	\$446,951	1.3
Opportunistic	MREP Global III	\$3,000,000	\$2,733,077	\$3,224,872	\$584,202	1.4
Fund of Funds	Adams Street US Partnership 2012	\$3,100,000	\$2,644,300	\$814,845	\$3,141,110	1.5
International Fund of Funds	Adams Street Non-US Developed 2012	\$1,870,000	\$1,414,655	\$708,153	\$1,401,344	1.5
International Fund of Funds	Adams Street Non-US Emerging 2012	\$630,000	\$585,270	\$132,818	\$818,659	1.6
Opportunistic	Commonfund NR Partners IX	\$4,000,000	\$3,466,000	\$710,626	\$3,627,973	1.3
Value Added	MREP Global VI	\$4,000,000	\$3,599,760	\$3,013,842	\$1,831,610	1.3
Fund of Funds	Adams Street US Partnership 2013	\$2,080,000	\$1,679,600	\$287,310	\$2,114,991	1.4
International Fund of Funds	Adams Street Non-US Developed 2013	\$1,040,000	\$747,240	\$265,362	\$832,753	1.5
International Fund of Funds	Adams Street Non-US Emerging 2013	\$630,000	\$562,590	\$47,419	\$945,618	1.8
Secondary Fund of Funds	Landmark Equity Partners XV	\$1,875,000	\$1,324,495	\$955,422	\$719,470	1.3
Global Fund of Funds	Neuberger Berman Crossroads Fund XX	\$1,875,000	\$1,331,250	\$106,414	\$1,874,438	1.5
Value Added	Aberdeen Energy & Resources Partners III	\$3,000,000	\$2,790,000	\$931,307	\$2,545,889	1.2
Secondary Fund of Funds	Landmark Real Estate Fund VII	\$3,000,000	\$2,705,913	\$1,771,768	\$1,528,905	1.2
Separate Account	Neuberger Berman IPU Feeder	\$38,000,000	\$15,535,779	\$0	\$20,436,258	1.3
<b>Total Private Markets</b>		<b>\$84,050,000</b>	<b>\$55,694,520</b>	<b>\$27,227,757</b>	<b>\$49,372,701</b>	<b>1.4</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	Vintage Yr.	Perf. as of:	Net IRR
Global Fund of Funds	Neuberger Berman Crossroads Fund XVIII	2006	6/30/2019	6.5%
Fund of Funds	Commonfund Capital Venture Partners VIII	2007	6/30/2019	12.2%
International Fund of Funds	Commonfund Capital International Partners VI	2007	6/30/2019	9.0%
Venture Fund of Funds	Commonfund Private Equity Partners VII	2007	6/30/2019	13.7%
Value Added	Commonfund NR Partners VIII	2008	6/30/2019	-0.7%
Fund of Funds	Adams Street US Partnership 2010	2010	6/30/2019	14.8%
International Fund of Funds	Adams Street Non-US Developed 2010	2010	6/30/2019	12.3%
International Fund of Funds	Adams Street Non-US Emerging 2010	2010	6/30/2019	11.4%
Secondary Fund of Funds	Landmark Equity Partners XIV	2010	6/30/2019	9.6%
Opportunistic	MREP Global III	2010	6/30/2019	9.2%
Fund of Funds	Adams Street US Partnership 2012	2012	6/30/2019	12.1%
International Fund of Funds	Adams Street Non-US Developed 2012	2012	6/30/2019	12.9%
International Fund of Funds	Adams Street Non-US Emerging 2012	2012	6/30/2019	15.1%
Opportunistic	Commonfund NR Partners IX	2012	6/30/2019	6.9%
Value Added	MREP Global VI	2012	6/30/2019	10.6%
Fund of Funds	Adams Street US Partnership 2013	2013	6/30/2019	11.8%
International Fund of Funds	Adams Street Non-US Developed 2013	2013	6/30/2019	13.6%
International Fund of Funds	Adams Street Non-US Emerging 2013	2013	6/30/2019	20.3%
Secondary Fund of Funds	Landmark Equity Partners XV	2013	6/30/2019	12.0%
Global Fund of Funds	Neuberger Berman Crossroads Fund XX	2013	6/30/2019	10.7%
Value Added	Aberdeen Energy & Resources Partners III	2014	6/30/2019	7.7%
Secondary Fund of Funds	Landmark Real Estate Fund VII	2014	6/30/2019	10.3%
Separate Account	Neuberger Berman IPU Feeder Fund	2015	6/30/2019	14.8%
<b>Total Private Markets</b>			<b>6/30/2019</b>	<b>9.7%</b>

# Policy Index Definitions

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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, 5% NFI, 20% 91 Day T-Bill. Prior to July 1, 2018, 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, 5% NFI, 20% 91 Day T-Bill. Prior to July 1, 2018, 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, 10% NFI, 3% 91 Day T-Bill. Prior to July 1, 2018, 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, 14% S&P 500, 3% Russell 2000, 3% CRSP US Mid Cap, 20% MSCI ACWI ex US, 10% NFI, 15% Cambridge All PE, 10% Cambridge Natural Resources. 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, 14% S&P 500, 3% Russell 2000, 3% CRSP US Mid Cap, 20% MSCI ACWI ex US, 10% NFI, 15% Cambridge All PE, 10% Cambridge Natural Resources. 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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