

FUND EVALUATION REPORT

Massachusetts Housing Finance Agency Retirement System

Meeting Material
June 11, 2019



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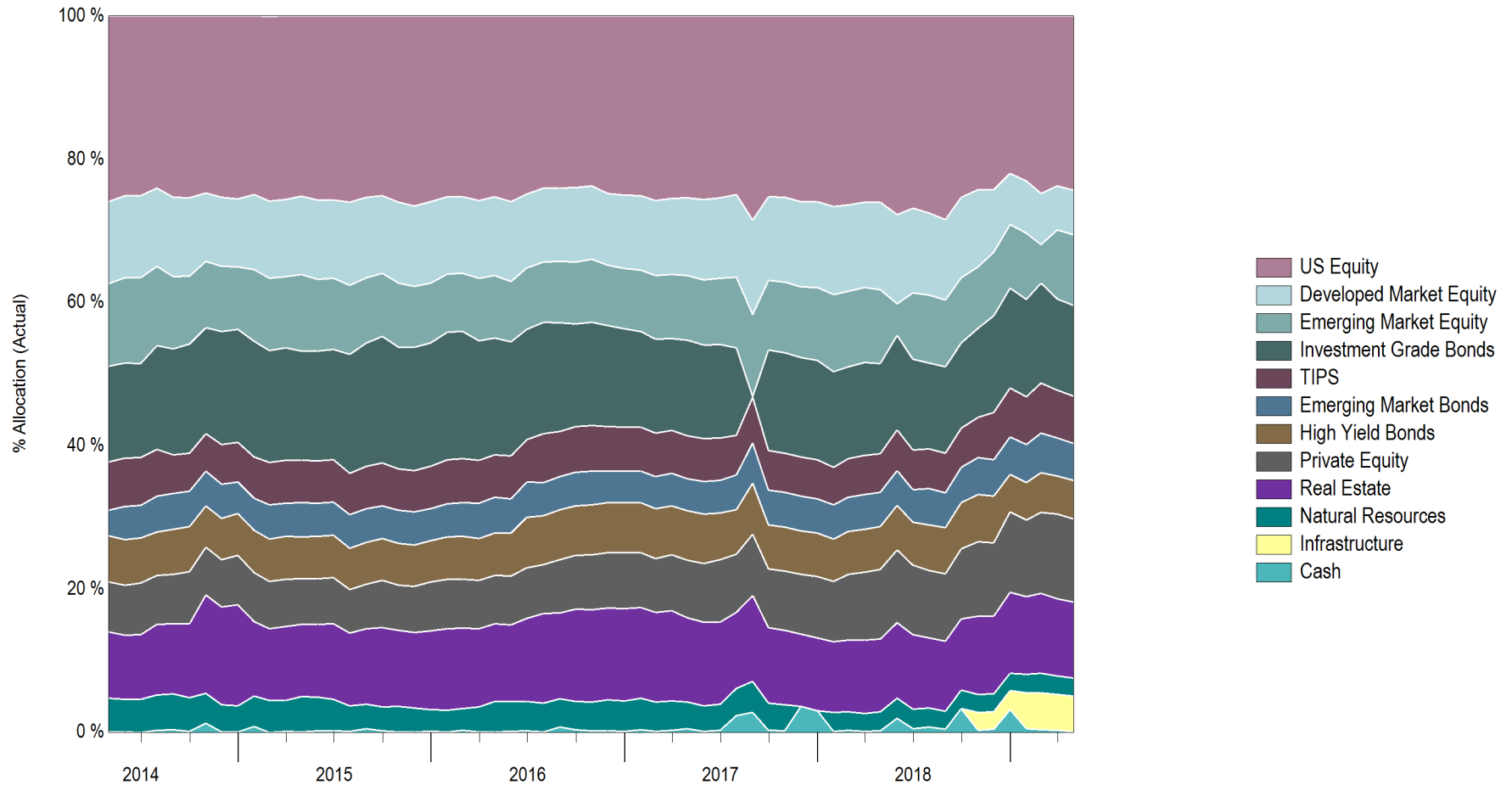
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Interim Update
As of April 30, 2019

Allocation vs. Targets and Policy

	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
US Equity	\$38,227,395	24%	25%	20% - 30%	Yes
Developed Market Equity	\$9,761,322	6%	10%	6% - 14%	Yes
Emerging Market Equity	\$15,540,108	10%	10%	6% - 14%	Yes
Investment Grade Bonds	\$19,807,227	13%	10%	6% - 14%	Yes
TIPS	\$10,369,979	7%	6%	4% - 8%	Yes
Emerging Market Bonds	\$8,161,710	5%	5%	3% - 7%	Yes
High Yield Bonds	\$8,381,275	5%	6%	3% - 9%	Yes
Private Equity	\$18,240,531	12%	10%	6% - 14%	Yes
Real Estate	\$16,659,904	11%	10%	7% - 13%	Yes
Natural Resources	\$3,989,713	3%	3%	1% - 5%	Yes
Infrastructure	\$7,812,977	5%	5%	0% - 8%	Yes
Cash	\$100,037	0%	0%	0% - 5%	Yes
Total	\$157,052,177	100%	100%		

Asset Allocation History
5 Years Ending April 30, 2019



As of April 30, 2019

Asset Class Performance Summary

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement System	157,052,177	100.0	1.7	8.5	5.0	8.1	5.4	8.6	5.5	Jul-01
60% ACWI / 40% Barclays Global Aggregate			1.9	10.2	3.6	7.2	4.6	8.0	5.8	Jul-01
Domestic Equity Assets	38,227,395	24.3	4.0	18.6	12.3	14.7	11.1	15.4	7.2	Jul-01
Russell 3000			4.0	18.6	12.7	14.7	11.2	15.3	7.4	Jul-01
Total International Developed Market Equity	9,761,322	6.2	2.9	13.4	-4.3	7.7	3.5	9.1	6.1	Jul-01
MSCI EAFE			2.8	13.1	-3.2	7.2	2.6	8.0	5.1	Jul-01
International Emerging Market Equity Assets	15,540,108	9.9	4.2	12.1	-8.3	8.7	1.5	6.3	1.0	Jul-07
MSCI Emerging Markets			2.1	12.2	-5.0	11.3	4.0	7.5	2.5	Jul-07
Investment Grade Bond Assets	19,807,227	12.6	0.2	3.1	5.0	1.9	2.7	4.0	4.5	Jul-01
BBgBarc US Aggregate TR			0.0	3.0	5.3	1.9	2.6	3.7	4.5	Jul-01
High Yield Bond Assets	8,381,275	5.3	1.5	9.7	7.5	6.4	4.9	9.1	6.5	Feb-05
CSFB High Yield Index			1.5	8.8	6.5	7.9	4.7	9.9	6.9	Feb-05
TIPS Assets	10,369,979	6.6	0.3	3.5	3.1	1.6	1.7	3.6	3.9	Jul-07
BBgBarc US TIPS TR			0.3	3.5	3.1	1.7	1.7	3.6	4.0	Jul-07
Emerging Market Debt Assets	8,161,710	5.2	0.2	6.8	1.4	2.9	-1.3	--	-2.8	Mar-13
50% JPM EMBI GD / 50% JPM GBI-EM			0.0	5.0	0.5	3.9	2.2	5.8	1.3	Mar-13
Real Estate Assets	16,659,904	10.6	0.0	1.8	8.5	8.6	10.4	7.4	6.0	Apr-05
NCREIF ODCE (net)			0.0	1.2	6.6	7.0	9.2	7.7	6.6	Apr-05
Private Equity Assets	18,240,531	11.6	0.0	1.3	11.9	10.9	8.0	9.0	5.7	Oct-03
Cambridge Associates US All PE (1 Qtr Lag)			0.0	-0.4	13.1	14.5	12.0	14.0	14.4	Oct-03
Natural Resources & Commodities Assets	3,989,713	2.5	-0.2	12.0	0.2	1.9	-8.3	--	-4.9	Jul-11
S&P Global Large MidCap Commodity and Resources NR USD			-0.2	12.1	-0.1	8.9	-0.4	--	-1.4	Jul-11
Infrastructure Assets	7,812,977	5.0	0.1	2.7	--	--	--	--	5.6	Oct-18
CPI+5%			0.7	2.5	7.0	7.2	6.5	6.8	4.0	Oct-18
Cash	100,037	0.1								

As of April 30, 2019

Trailing Gross Performance

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement System	157,052,177	100.0	--	1.7	8.5	5.0	8.1	5.4	8.6	5.5	Jul-01
60% ACWI / 40% Barclays Global Aggregate				1.9	10.2	3.6	7.2	4.6	8.0	5.8	Jul-01
Domestic Equity Assets	38,227,395	24.3	24.3	4.0	18.6	12.3	14.7	11.1	15.4	7.2	Jul-01
Russell 3000				4.0	18.6	12.7	14.7	11.2	15.3	7.4	Jul-01
SSgA Russell 1000 Value Index-NL	16,813,301	10.7	44.0	3.6	15.9	9.0	11.0	8.3	13.8	7.4	Jan-05
Russell 1000 Value				3.5	15.9	9.1	11.0	8.3	13.8	7.3	Jan-05
SSgA Russell 1000 Growth-NL	17,785,082	11.3	46.5	4.5	21.3	17.2	18.6	14.5	16.9	10.3	Jul-07
Russell 1000 Growth				4.5	21.3	17.4	18.6	14.5	17.0	10.3	Jul-07
SSgA Russell 2000 Index-NL	3,629,012	2.3	9.5	3.4	18.5	4.6	13.7	8.7	--	12.3	Aug-10
Russell 2000				3.4	18.5	4.6	13.6	8.6	14.1	12.3	Aug-10
Total International Developed Market Equity	9,761,322	6.2	6.2	2.9	13.4	-4.3	7.7	3.5	9.1	6.1	Jul-01
MSCI EAFE				2.8	13.1	-3.2	7.2	2.6	8.0	5.1	Jul-01
SSgA MSCI EAFE Index-NL	5,478,336	3.5	56.1	2.9	13.2	-3.0	7.6	2.9	--	6.3	Aug-10
MSCI EAFE				2.8	13.1	-3.2	7.2	2.6	8.0	6.0	Aug-10
SSgA MSCI EAFE Small Cap Index-NL	4,282,986	2.7	43.9	3.0	13.9	-7.8	8.0	5.5	--	9.1	Aug-10
MSCI EAFE Small Cap				3.0	14.0	-7.9	7.8	5.3	11.5	8.8	Aug-10
International Emerging Market Equity Assets	15,540,108	9.9	9.9	4.2	12.1	-8.3	8.7	1.5	6.3	1.0	Jul-07
MSCI Emerging Markets				2.1	12.2	-5.0	11.3	4.0	7.5	2.5	Jul-07
LMCG Emerging Markets (Net)	7,996,428	5.1	51.5	0.9	8.5	-12.6	7.0	--	--	3.7	Aug-15
MSCI Emerging Markets				2.1	12.2	-5.0	11.3	4.0	7.5	7.2	Aug-15

As of April 30, 2019

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
GQG Partners Emerging Markets	7,543,680	4.8	48.5	7.8	--	--	--	--	--	--	Feb-19
MSCI Emerging Markets				2.1	12.2	-5.0	11.3	4.0	7.5	3.2	Feb-19
Investment Grade Bond Assets	19,807,227	12.6	12.6	0.2	3.1	5.0	1.9	2.7	4.0	4.5	Jul-01
BBgBarc US Aggregate TR				0.0	3.0	5.3	1.9	2.6	3.7	4.5	Jul-01
Longfellow Investment Grade Bond	19,807,227	12.6	100.0	0.2	3.1	5.0	--	--	--	1.8	Sep-17
BBgBarc US Aggregate TR				0.0	3.0	5.3	1.9	2.6	3.7	1.7	Sep-17
High Yield Bond Assets	8,381,275	5.3	5.3	1.5	9.7	7.5	6.4	4.9	9.1	6.5	Feb-05
CSFB High Yield Index				1.5	8.8	6.5	7.9	4.7	9.9	6.9	Feb-05
Columbia Institutional High Yield	8,381,275	5.3	100.0	1.5	9.7	7.5	6.3	4.9	--	6.1	Mar-12
BBgBarc US High Yield TR				1.4	8.8	6.7	7.7	4.8	10.1	6.3	Mar-12
TIPS Assets	10,369,979	6.6	6.6	0.3	3.5	3.1	1.6	1.7	3.6	3.9	Jul-07
BBgBarc US TIPS TR				0.3	3.5	3.1	1.7	1.7	3.6	4.0	Jul-07
SSgA TIPS-NL	10,369,979	6.6	100.0	0.3	3.5	3.1	1.6	1.7	3.6	3.9	Jul-07
BBgBarc US TIPS TR				0.3	3.5	3.1	1.7	1.7	3.6	4.0	Jul-07
Emerging Market Debt Assets	8,161,710	5.2	5.2	0.2	6.8	1.4	2.9	-1.3	--	-2.8	Mar-13
50% JPM EMBI GD / 50% JPM GBI-EM				0.0	5.0	0.5	3.9	2.2	5.8	1.3	Mar-13
Logan Circle Emerging Markets Debt (Net)	3,947,471	2.5	48.4	0.2	5.9	0.1	--	--	--	4.1	Nov-16
Logan Circle Custom Benchmark				0.3	5.3	2.4	4.2	3.0	6.5	3.3	Nov-16
Aberdeen Emerging Markets Bond Fund	4,214,238	2.7	51.6	0.2	7.6	2.6	--	--	--	5.3	Dec-16
JP Morgan EMBI Global Diversified				0.2	7.2	6.0	5.3	5.2	8.0	5.8	Dec-16
JP Morgan GBI EM Global Diversified TR USD				-0.2	2.7	-4.9	2.3	-1.0	3.5	5.2	Dec-16

Logan Circle Custom Benchmark consists of 35% JP Morgan EMBI Global Diversified, 35% JP Morgan CEMBI Broad Diversified, and 30% JP Morgan GBI EM Global Diversified.



As of April 30, 2019

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Estate Assets	16,659,904	10.6	10.6	0.0	1.8	8.5	8.6	10.4	7.4	6.0	Apr-05
<i>NCREIF ODCE (net)</i>				<i>0.0</i>	<i>1.2</i>	<i>6.6</i>	<i>7.0</i>	<i>9.2</i>	<i>7.7</i>	<i>6.6</i>	<i>Apr-05</i>
TA Associates Realty Fund X	1,531,574	1.0	9.2								
Intercontinental U.S. REIF (Net)	7,170,589	4.6	43.0	0.0	2.0	9.8	10.0	--	--	10.2	Oct-14
<i>NCREIF ODCE (net)</i>				<i>0.0</i>	<i>1.2</i>	<i>6.6</i>	<i>7.0</i>	<i>9.2</i>	<i>7.7</i>	<i>8.7</i>	<i>Oct-14</i>
AEW Core Property Trust (Net)	7,957,462	5.1	47.8	0.0	1.5	6.7	6.8	--	--	8.3	Oct-14
<i>NCREIF ODCE (net)</i>				<i>0.0</i>	<i>1.2</i>	<i>6.6</i>	<i>7.0</i>	<i>9.2</i>	<i>7.7</i>	<i>8.7</i>	<i>Oct-14</i>
Private Equity Assets	18,240,531	11.6	11.6	0.0	1.3	11.9	10.9	8.0	9.0	5.7	Oct-03
<i>Cambridge Associates US All PE (1 Qtr Lag)</i>				<i>0.0</i>	<i>-0.4</i>	<i>13.1</i>	<i>14.5</i>	<i>12.0</i>	<i>14.0</i>	<i>14.4</i>	<i>Oct-03</i>
Ascent Venture Partners - Fund II	5,828	0.0	0.0								
Ascent Venture Partners - Fund III	71,593	0.0	0.4								
Ascent Venture Partners - Fund IV	25,091	0.0	0.1								
Ascent Venture Partners - Fund V	863,509	0.5	4.7								
Ascent Venture Partners - Fund VI	1,226,731	0.8	6.7								
Constitution Capital Partners Ironsides III	3,317,397	2.1	18.2								
Constitution Capital Partners Ironsides IV	1,289,370	0.8	7.1								
Constitution Capital Direct IV	2,902,424	1.8	15.9								
Constitution Capital Direct V	1,563,193	1.0	8.6								
Goldman Sachs PEP 2005	569,727	0.4	3.1								

Real Estate Assets: Based on December 31, 2018 fair market value, adjusted for subsequent cash flows.

Private Equity Assets: Based on December 31, 2018 fair market value, adjusted for subsequent cash flows, while Goldman Sachs PEP 2005 is reflecting as of September 30, 2018.

As of April 30, 2019

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
HarbourVest Partners VIII	742,019	0.5	4.1								
HarbourVest Partners IX	3,431,630	2.2	18.8								
HarbourVest X Buyout Fund	2,232,018	1.4	12.2								
Natural Resources & Commodities Assets	3,989,713	2.5	2.5	-0.2	12.0	0.2	1.9	-8.3	--	-4.9	Jul-11
<i>S&P Global Large MidCap Commodity and Resources NR USD</i>				<i>-0.2</i>	<i>12.1</i>	<i>-0.1</i>	<i>8.9</i>	<i>-0.4</i>	<i>--</i>	<i>-1.4</i>	<i>Jul-11</i>
SSgA S&P Global LargeMidCap Natural Resources Index	3,989,713	2.5	100.0	-0.2	12.0	0.2	--	--	--	-2.2	Feb-18
<i>S&P Global Large MidCap Commodity and Resources NR USD</i>				<i>-0.2</i>	<i>12.1</i>	<i>-0.1</i>	<i>8.9</i>	<i>-0.4</i>	<i>--</i>	<i>-2.5</i>	<i>Feb-18</i>
Infrastructure Assets	7,812,977	5.0	5.0	0.1	2.7	--	--	--	--	5.6	Oct-18
<i>CPI+5%</i>				<i>0.7</i>	<i>2.5</i>	<i>7.0</i>	<i>7.2</i>	<i>6.5</i>	<i>6.8</i>	<i>4.0</i>	<i>Oct-18</i>
IFM Global Infrastructure (U.S.), L.P.	7,812,977	5.0	100.0	0.1	2.7	--	--	--	--	5.6	Oct-18
<i>CPI+5%</i>				<i>0.7</i>	<i>2.5</i>	<i>7.0</i>	<i>7.2</i>	<i>6.5</i>	<i>6.8</i>	<i>4.0</i>	<i>Oct-18</i>
Cash	100,037	0.1	0.1								
Cash STIF	100,037	0.1	100.0								

As of April 30, 2019

Calendar Year Performance

	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
Total Retirement System	-3.0	14.5	9.6	-2.7	4.3	10.9	12.2	2.2	12.5	17.7
60% ACWI / 40% Barclays Global Aggregate	-6.0	17.1	5.7	-2.5	2.8	12.1	11.5	-2.1	10.2	23.3
Domestic Equity Assets	-5.5	21.0	13.1	0.4	12.4	33.5	16.3	1.0	17.5	30.8
Russell 3000	-5.2	21.1	12.7	0.5	12.6	33.6	16.4	1.0	16.9	28.3
SSgA Russell 1000 Value Index-NL	-8.3	13.8	17.3	-3.7	13.4	32.5	17.4	0.4	15.6	20.0
Russell 1000 Value	-8.3	13.7	17.3	-3.8	13.5	32.5	17.5	0.4	15.5	19.7
SSgA Russell 1000 Growth-NL	-1.7	30.2	7.2	5.6	13.1	33.5	15.4	2.6	16.7	37.2
Russell 1000 Growth	-1.5	30.2	7.1	5.7	13.0	33.5	15.3	2.6	16.7	37.2
SSgA Russell 2000 Index-NL	-11.0	14.7	21.5	-4.4	5.0	38.9	16.4	-4.1	--	--
Russell 2000	-11.0	14.6	21.3	-4.4	4.9	38.8	16.3	-4.2	26.9	27.2
Total International Developed Market Equity	-14.7	27.5	1.6	2.0	-4.7	24.4	18.1	-12.6	11.4	36.3
MSCI EAFE	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8	31.8
SSgA MSCI EAFE Index-NL	-13.5	25.5	1.4	-0.5	-4.6	23.1	17.7	-11.9	--	--
MSCI EAFE	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8	31.8
SSgA MSCI EAFE Small Cap Index-NL	-17.6	33.3	2.4	9.7	-4.7	29.5	20.1	-15.0	--	--
MSCI EAFE Small Cap	-17.9	33.0	2.2	9.6	-4.9	29.3	20.0	-15.9	22.0	46.8
International Emerging Market Equity Assets	-17.3	32.5	11.7	-18.1	-4.4	-3.8	18.8	-25.6	22.1	92.3
MSCI Emerging Markets	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4	18.9	78.5
LMCG Emerging Markets (Net)	-18.7	35.1	7.0	--	--	--	--	--	--	--
MSCI Emerging Markets	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4	18.9	78.5
GQG Partners Emerging Markets	--	--	--	--	--	--	--	--	--	--
MSCI Emerging Markets	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4	18.9	78.5

As of April 30, 2019

	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
Investment Grade Bond Assets	-0.1	3.5	2.7	0.8	6.1	-3.1	4.6	8.5	6.7	9.7
BBgBarc US Aggregate TR	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5	5.9
Longfellow Investment Grade Bond	-0.1	--	--	--	--	--	--	--	--	--
BBgBarc US Aggregate TR	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5	5.9
High Yield Bond Assets	-3.2	7.2	11.5	-0.2	4.1	6.0	13.6	6.2	12.9	43.2
CSFB High Yield Index	-2.4	7.0	18.3	-4.9	1.9	7.5	14.7	5.5	14.4	54.2
Columbia Institutional High Yield	-3.2	6.8	11.5	-0.2	4.1	6.0	--	--	--	--
BBgBarc US High Yield TR	-2.1	7.5	17.1	-4.5	2.5	7.4	15.8	5.0	15.1	58.2
TIPS Assets	-1.3	3.0	4.5	-1.4	3.6	-8.6	6.9	13.5	6.3	11.3
BBgBarc US TIPS TR	-1.3	3.0	4.7	-1.4	3.6	-8.6	7.0	13.6	6.3	11.4
SSgA TIPS-NL	-1.3	3.0	4.5	-1.4	3.6	-8.6	6.9	13.5	6.3	11.3
BBgBarc US TIPS TR	-1.3	3.0	4.7	-1.4	3.6	-8.6	7.0	13.6	6.3	11.4
Emerging Market Debt Assets	-6.9	13.3	10.0	-15.2	-8.5	--	--	--	--	--
50% JPM EMBI GD / 50% JPM GBI-EM	-5.2	12.7	10.2	-7.1	0.7	-7.1	17.2	2.8	13.8	26.0
Logan Circle Emerging Markets Debt (Net)	-6.6	13.4	--	--	--	--	--	--	--	--
Logan Circle Custom Benchmark	-4.0	10.6	10.0	-3.8	1.9	-4.4	17.9	2.0	12.6	27.9
Aberdeen Emerging Markets Bond Fund	-7.1	13.3	--	--	--	--	--	--	--	--
JP Morgan EMBI Global Diversified	-4.3	10.3	10.2	1.2	7.4	-5.3	17.4	7.3	12.2	29.8

Logan Circle Custom Benchmark consists of 35% JP Morgan EMBI Global Diversified, 35% JP Morgan CEMBI Broad Diversified, and 30% JP Morgan GBI EM Global Diversified.



As of April 30, 2019

	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
Real Estate Assets	8.8	8.5	9.0	13.8	12.8	10.1	12.5	16.7	12.7	-38.9
<i>NCREIF ODCE (net)</i>	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0	15.3	-30.4
TA Associates Realty Fund X										
Intercontinental U.S. REIF (Net)	10.5	7.5	10.9	12.5	--	--	--	--	--	--
<i>NCREIF ODCE (net)</i>	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0	15.3	-30.4
AEW Core Property Trust (Net)	6.6	6.6	7.6	12.8	--	--	--	--	--	--
<i>NCREIF ODCE (net)</i>	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0	15.3	-30.4
Private Equity Assets	14.0	11.8	6.3	0.8	13.5	9.5	9.2	7.9	19.9	-14.2
<i>Cambridge Associates US All PE (1 Qtr Lag)</i>	19.2	16.8	8.7	6.0	17.9	17.5	15.2	15.1	18.3	-10.3
Ascent Venture Partners - Fund II										
Ascent Venture Partners - Fund III										
Ascent Venture Partners - Fund IV										
Ascent Venture Partners - Fund V										
Ascent Venture Partners - Fund VI										
Constitution Capital Partners Ironsides III										
Constitution Capital Partners Ironsides IV										
Constitution Capital Direct IV										
Constitution Capital Direct V										
Goldman Sachs PEP 2005										
HarbourVest Partners VIII										

As of April 30, 2019

	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
HarbourVest Partners IX										
HarbourVest X Buyout Fund										
Natural Resources & Commodities Assets	-13.0	-0.9	53.7	-38.0	-22.6	-0.3	6.5	--	--	--
<i>S&P Global Large MidCap Commodity and Resources NR USD</i>	<i>-9.4</i>	<i>18.1</i>	<i>30.8</i>	<i>-27.5</i>	<i>-9.9</i>	<i>-2.9</i>	<i>7.0</i>	<i>-14.1</i>	<i>19.5</i>	<i>--</i>
SSgA S&P Global LargeMidCap Natural Resources Index	--	--	--	--	--	--	--	--	--	--
<i>S&P Global Large MidCap Commodity and Resources NR USD</i>	<i>-9.4</i>	<i>18.1</i>	<i>30.8</i>	<i>-27.5</i>	<i>-9.9</i>	<i>-2.9</i>	<i>7.0</i>	<i>-14.1</i>	<i>19.5</i>	<i>--</i>
Infrastructure Assets	--	--	--	--	--	--	--	--	--	--
<i>CPI+5%</i>	<i>6.9</i>	<i>7.1</i>	<i>7.1</i>	<i>5.7</i>	<i>5.7</i>	<i>6.5</i>	<i>6.8</i>	<i>8.1</i>	<i>6.4</i>	<i>7.8</i>
IFM Global Infrastructure (U.S.), L.P.	--	--	--	--	--	--	--	--	--	--
<i>CPI+5%</i>	<i>6.9</i>	<i>7.1</i>	<i>7.1</i>	<i>5.7</i>	<i>5.7</i>	<i>6.5</i>	<i>6.8</i>	<i>8.1</i>	<i>6.4</i>	<i>7.8</i>
Cash										
Cash STIF										

Statistics Summary
5 Years Ending April 30, 2019

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Total Retirement System	5.4%	6.1%	0.4	0.8	0.7	2.0%
60% ACWI / 40% Barclays Global Aggregate	4.6%	7.3%	--	1.0	0.5	0.0%
Total Equity	7.2%	11.4%	-1.0	0.9	0.6	3.8%
Russell 3000	11.2%	11.6%	--	1.0	0.9	0.0%
Domestic Equity Assets	11.1%	11.6%	-0.7	1.0	0.9	0.2%
Russell 3000	11.2%	11.6%	--	1.0	0.9	0.0%
SSgA Russell 1000 Value Index-NL	8.2%	11.1%	-0.6	1.0	0.7	0.1%
Russell 1000 Value	8.3%	11.1%	--	1.0	0.7	0.0%
SSgA Russell 1000 Growth-NL	14.4%	12.4%	-2.5	1.0	1.1	0.1%
Russell 1000 Growth	14.5%	12.4%	--	1.0	1.1	0.0%
SSgA Russell 2000 Index-NL	8.6%	16.1%	-0.3	1.0	0.5	0.1%
Russell 2000	8.6%	16.1%	--	1.0	0.5	0.0%
International Equity Assets	2.5%	12.8%	-0.4	1.0	0.1	2.6%
MSCI ACWI ex USA IMI Gross	3.4%	12.0%	--	1.0	0.2	0.0%
Total International Developed Market Equity	3.5%	11.8%	0.8	1.0	0.2	1.1%
MSCI EAFE	2.6%	11.8%	--	1.0	0.2	0.0%
SSgA MSCI EAFE Index-NL	2.8%	11.8%	1.8	1.0	0.2	0.1%
MSCI EAFE	2.6%	11.8%	--	1.0	0.2	0.0%
SSgA MSCI EAFE Small Cap Index-NL	5.2%	12.3%	-0.1	1.0	0.4	0.2%
MSCI EAFE Small Cap	5.3%	12.3%	--	1.0	0.4	0.0%

As of April 30, 2019

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
International Emerging Market Equity Assets	1.2%	15.7%	-1.1	1.0	0.0	2.6%
MSCI Emerging Markets	4.0%	15.3%	--	1.0	0.2	0.0%
LMCG Emerging Markets	--	--	--	--	--	--
MSCI Emerging Markets	4.0%	15.3%	--	1.0	0.2	0.0%
GQG Partners Emerging Markets	--	--	--	--	--	--
MSCI Emerging Markets	4.0%	15.3%	--	1.0	0.2	0.0%
Fixed Income Assets	2.3%	3.4%	-0.3	1.1	0.4	1.8%
BBgBarc US Universal TR	2.9%	2.7%	--	1.0	0.8	0.0%
Investment Grade Bond Assets	2.7%	2.8%	0.3	1.0	0.7	0.3%
BBgBarc US Aggregate TR	2.6%	2.8%	--	1.0	0.6	0.0%
Longfellow Investment Grade Bond	--	--	--	--	--	--
BBgBarc US Aggregate TR	2.6%	2.8%	--	1.0	0.6	0.0%
High Yield Bond Assets	4.7%	4.9%	0.0	0.8	0.8	2.1%
CSFB High Yield Index	4.7%	5.5%	--	1.0	0.7	0.0%
Columbia Insitutional High Yield	4.6%	4.9%	-0.1	0.9	0.8	1.9%
BBgBarc US High Yield TR	4.8%	5.4%	--	1.0	0.7	0.0%
TIPS Assets	1.7%	3.5%	-1.1	1.0	0.3	0.0%
BBgBarc US TIPS TR	1.7%	3.5%	--	1.0	0.3	0.0%
SSgA TIPS-NL	1.7%	3.5%	-1.3	1.0	0.2	0.1%
BBgBarc US TIPS TR	1.7%	3.5%	--	1.0	0.3	0.0%
Emerging Market Debt Assets	-1.4%	10.2%	-1.0	1.2	-0.2	3.7%
50% JPM EMBI GD / 50% JPM GBI-EM	2.2%	7.8%	--	1.0	0.2	0.0%
Logan Circle Emerging Markets Debt	--	--	--	--	--	--
Logan Circle Custom Benchmark	3.0%	6.2%	--	1.0	0.4	0.0%

As of April 30, 2019

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Aberdeen Emerging Markets Bond Fund	--	--	--	--	--	--
JP Morgan EMBI Global Diversified	5.2%	5.5%	--	1.0	0.8	0.0%
Real Estate Assets	10.4%	4.4%	1.1	1.1	2.2	1.1%
NCREIF ODCE (net)	9.2%	3.9%	--	1.0	2.1	0.0%
TA Associates Realty Fund IX	6.0%	10.7%	-0.3	1.1	0.5	9.8%
NCREIF ODCE (net)	9.2%	3.9%	--	1.0	2.1	0.0%
TA Associates Realty Fund X	13.0%	7.1%	0.7	1.2	1.7	5.3%
NCREIF ODCE (net)	9.2%	3.9%	--	1.0	2.1	0.0%
Intercontinental U.S. REIF	--	--	--	--	--	--
NCREIF ODCE (net)	9.2%	3.9%	--	1.0	2.1	0.0%
AEW Core Property Trust	--	--	--	--	--	--
NCREIF ODCE (net)	9.2%	3.9%	--	1.0	2.1	0.0%
Private Equity Assets	8.0%	4.8%	-1.1	0.6	1.5	3.7%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Ascent Venture Partners - Fund II	29.4%	33.8%	0.5	1.2	0.8	33.0%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Ascent Venture Partners - Fund III	-13.1%	13.7%	-1.6	-0.3	-1.0	15.7%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Ascent Venture Partners - Fund IV	-50.1%	50.0%	-1.2	-0.6	-1.0	50.9%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Ascent Venture Partners - Fund V	3.6%	7.2%	-1.0	0.2	0.4	8.5%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%

As of April 30, 2019

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Ascent Venture Partners - Fund VI	--	--	--	--	--	--
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Constitution Capital Partners Ironsides III	5.7%	15.2%	-0.4	0.2	0.3	16.0%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Constitution Capital Partners Ironsides IV	--	--	--	--	--	--
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Constitution Capital Direct IV	--	--	--	--	--	--
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Goldman Sachs PEP 2005	7.0%	9.9%	-0.5	0.6	0.6	9.7%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
HarbourVest Partners VIII	14.7%	7.4%	0.7	1.0	1.9	3.9%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
HarbourVest Partners IX	14.9%	7.5%	0.7	1.0	1.9	4.5%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
HarbourVest X Buyout Fund	--	--	--	--	--	--
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Natural Resources & Commodities Assets	-8.3%	24.9%	-0.6	1.3	-0.4	12.9%
S&P Global Large MidCap Commodity and Resources NR USD	-0.4%	16.9%	--	1.0	-0.1	0.0%
SSgA S&P Global LargeMidCap Natural Resources Index	--	--	--	--	--	--
S&P Global Large MidCap Commodity and Resources NR USD	-0.4%	16.9%	--	1.0	-0.1	0.0%

As of April 30, 2019

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Infrastructure Assets	--	--	--	--	--	--
CPI+5%	6.5%	0.7%	--	1.0	8.7	0.0%
IFM Global Infrastructure (U.S.), L.P.	--	--	--	--	--	--
CPI+5%	6.5%	0.7%	--	1.0	8.7	0.0%

2019Q1 Review

Retirement System Summary

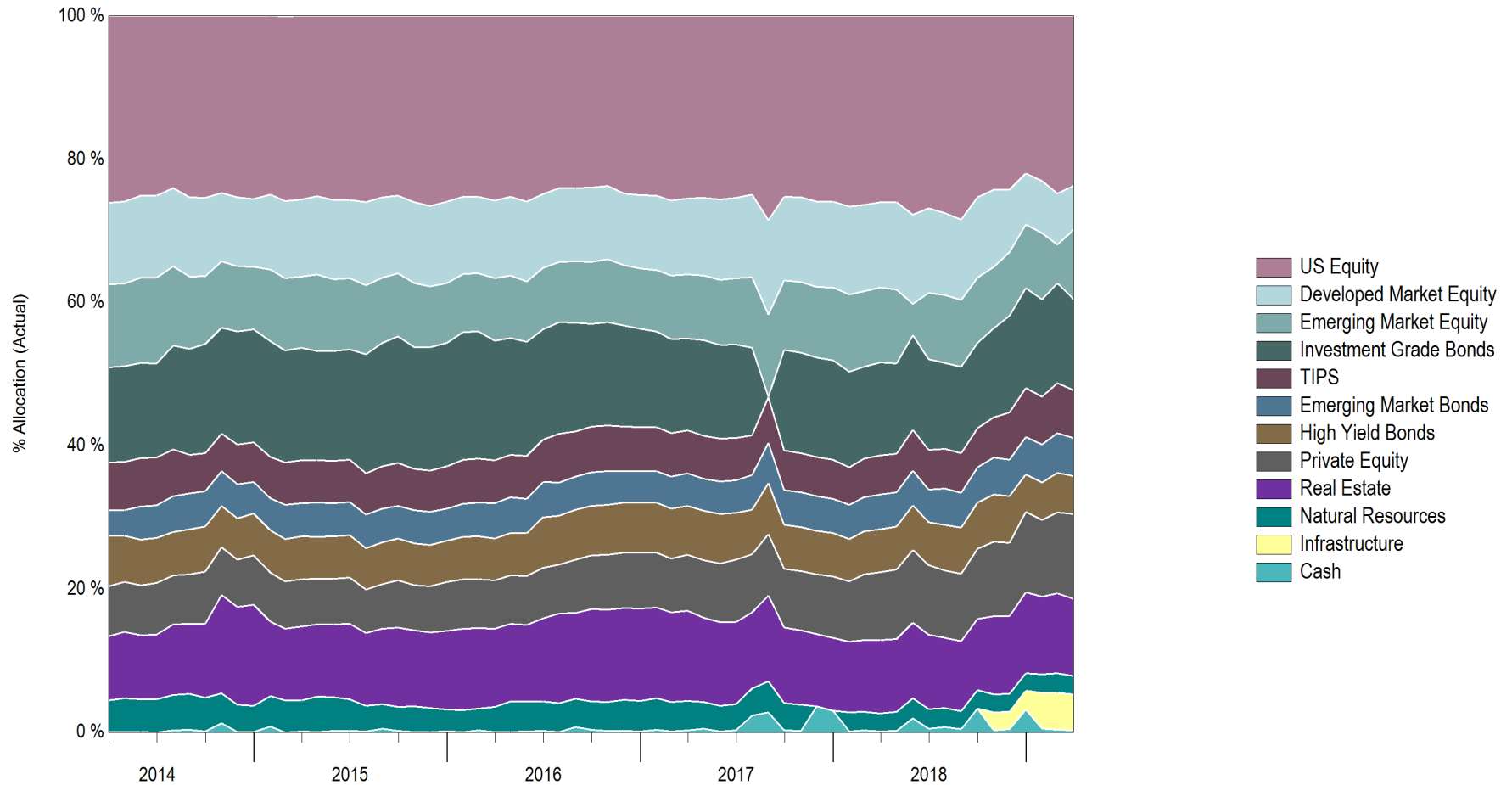
Retirement System Summary

As of March 31, 2019

Allocation vs. Targets and Policy

	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
US Equity	\$36,761,211	24%	25%	20% - 30%	Yes
Developed Market Equity	\$9,482,024	6%	10%	6% - 14%	Yes
Emerging Market Equity	\$14,923,880	10%	10%	6% - 14%	Yes
Investment Grade Bonds	\$19,774,937	13%	10%	6% - 14%	Yes
TIPS	\$10,336,472	7%	6%	4% - 8%	Yes
Emerging Market Bonds	\$8,142,979	5%	5%	3% - 7%	Yes
High Yield Bonds	\$8,256,492	5%	6%	3% - 9%	Yes
Private Equity	\$18,303,098	12%	10%	6% - 14%	Yes
Real Estate	\$16,659,904	11%	10%	7% - 13%	Yes
Natural Resources	\$3,997,951	3%	3%	1% - 5%	Yes
Infrastructure	\$7,807,004	5%	5%	0% - 8%	Yes
Cash	\$399,378	0%	0%	0% - 5%	Yes
Total	\$154,845,330	100%	100%		

Asset Allocation History
5 Years Ending March 31, 2019



Retirement System Summary

As of March 31, 2019

Asset Class Performance Summary

	Market Value (\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement System	154,845,330	100.0	6.7	3.6	8.1	5.2	9.0	5.5	Jul-01
60% ACWI / 40% Barclays Global Aggregate			8.1	1.6	7.0	4.4	8.5	5.7	Jul-01
InvestorForce All DB \$50mm-\$250mm Gross Median			8.2	4.1	8.2	6.1	10.0	6.2	Jul-01
Domestic Equity Assets	36,761,211	23.7	14.1	8.4	13.4	10.3	16.1	7.0	Jul-01
Russell 3000			14.0	8.8	13.5	10.4	16.0	7.2	Jul-01
eV US Large Cap Equity Gross Median			13.1	7.9	12.6	10.0	15.5	7.9	Jul-01
Total International Developed Market Equity	9,482,024	6.1	10.2	-5.0	7.6	3.1	10.2	6.0	Jul-01
MSCI EAFE			10.0	-3.7	7.3	2.3	9.0	5.0	Jul-01
eV EAFE Core Equity Gross Median			10.3	-5.3	7.5	3.6	10.7	6.6	Jul-01
International Emerging Market Equity Assets	14,923,880	9.6	7.6	-12.4	7.4	0.8	7.8	0.6	Jul-07
MSCI Emerging Markets			9.9	-7.4	10.7	3.7	8.9	2.4	Jul-07
eV Emg Mkts Equity Gross Median			10.3	-7.7	10.9	4.7	10.6	3.6	Jul-07
Investment Grade Bond Assets	19,774,937	12.8	3.0	4.2	2.0	2.8	4.1	4.6	Jul-01
BBgBarc US Aggregate TR			2.9	4.5	2.0	2.7	3.8	4.5	Jul-01
eV US Core Fixed Inc Gross Median			3.2	4.7	2.5	3.0	4.6	5.0	Jul-01
High Yield Bond Assets	8,256,492	5.3	8.0	6.5	6.6	4.7	9.9	6.4	Feb-05
CSFB High Yield Index			7.2	5.6	8.7	4.5	10.8	6.8	Feb-05
eV US High Yield Fixed Inc Gross Median			7.0	5.8	7.9	4.6	10.5	7.1	Feb-05
TIPS Assets	10,336,472	6.7	3.2	2.7	1.6	1.9	3.4	3.9	Jul-07
BBgBarc US TIPS TR			3.2	2.7	1.7	1.9	3.4	4.0	Jul-07
eV US TIPS / Inflation Fixed Inc Gross Median			3.3	2.8	1.9	2.1	3.6	4.1	Jul-07
Emerging Market Debt Assets	8,142,979	5.3	6.5	-0.5	3.9	-1.2	--	-2.9	Mar-13
50% JPM EMBI GD / 50% JPM GBI-EM			4.9	-1.8	4.6	2.4	6.5	1.3	Mar-13
eV Emg Mkt Fixed Inc Unhedged Gross Median			5.3	1.0	5.7	4.0	8.2	3.1	Mar-13
Real Estate Assets	16,659,904	10.8	1.8	8.5	8.6	10.4	7.4	6.1	Apr-05
NCREIF ODCE (net)			1.2	6.6	7.0	9.2	7.7	6.7	Apr-05
Private Equity Assets	18,303,098	11.8	1.3	11.9	10.9	8.0	9.0	5.7	Oct-03
Cambridge Associates US All PE (1 Qtr Lag)			-0.4	13.1	14.5	12.0	14.0	14.5	Oct-03

Retirement System Summary

As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Natural Resources & Commodities Assets	3,997,951	2.6	12.3	5.2	9.1	-7.1	--	-5.0	Jul-11
<i>S&P Global Large MidCap Commodity and Resources NR USD</i>			12.3	4.9	12.9	0.2	--	-1.4	Jul-11
Infrastructure Assets	7,807,004	5.0	2.6	--	--	--	--	5.6	Oct-18
<i>CPI+5%</i>			1.8	6.9	7.2	6.5	6.8	3.3	Oct-18
Cash	399,378	0.3							

Retirement System Summary

As of March 31, 2019

Trailing Gross Performance

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement System	154,845,330	100.0	--	6.7	3.6	8.1	5.2	9.0	5.5	Jul-01
60% ACWI / 40% Barclays Global Aggregate				8.1	1.6	7.0	4.4	8.5	5.7	Jul-01
InvestorForce All DB \$50mm-\$250mm Gross Median				8.2	4.1	8.2	6.1	10.0	6.2	Jul-01
Domestic Equity Assets	36,761,211	23.7	23.7	14.1	8.4	13.4	10.3	16.1	7.0	Jul-01
Russell 3000				14.0	8.8	13.5	10.4	16.0	7.2	Jul-01
eV US Large Cap Equity Gross Median				13.1	7.9	12.6	10.0	15.5	7.9	Jul-01
SSgA Russell 1000 Value Index-NL	16,236,409	10.5	44.2	11.9	5.6	10.5	7.8	14.6	7.2	Jan-05
Russell 1000 Value				11.9	5.7	10.5	7.7	14.5	7.1	Jan-05
eV US Large Cap Value Equity Gross Median				11.6	4.4	11.0	8.2	14.7	8.1	Jan-05
SSgA Russell 1000 Growth-NL	17,015,498	11.0	46.3	16.1	12.5	16.5	13.5	17.5	10.0	Jul-07
Russell 1000 Growth				16.1	12.7	16.5	13.5	17.5	10.0	Jul-07
eV US Large Cap Growth Equity Gross Median				16.1	12.4	16.4	12.9	17.0	9.8	Jul-07
SSgA Russell 2000 Index-NL	3,509,304	2.3	9.5	14.6	2.0	13.0	7.1	--	12.0	Aug-10
Russell 2000				14.6	2.0	12.9	7.1	15.4	12.0	Aug-10
eV US Small Cap Core Equity Gross Median				13.9	1.7	12.4	7.7	16.5	13.0	Aug-10
Total International Developed Market Equity	9,482,024	6.1	6.1	10.2	-5.0	7.6	3.1	10.2	6.0	Jul-01
MSCI EAFE				10.0	-3.7	7.3	2.3	9.0	5.0	Jul-01
eV EAFE Core Equity Gross Median				10.3	-5.3	7.5	3.6	10.7	6.6	Jul-01
SSgA MSCI EAFE Index-NL	5,324,695	3.4	56.2	10.0	-3.5	7.6	2.7	--	6.1	Aug-10
MSCI EAFE				10.0	-3.7	7.3	2.3	9.0	5.7	Aug-10
eV EAFE Core Equity Gross Median				10.3	-5.3	7.5	3.6	10.7	7.5	Aug-10
SSgA MSCI EAFE Small Cap Index-NL	4,157,329	2.7	43.8	10.6	-9.2	7.7	4.7	--	8.8	Aug-10
MSCI EAFE Small Cap				10.7	-9.4	7.5	4.5	12.8	8.5	Aug-10
eV EAFE Small Cap Core Gross Median				10.2	-11.0	7.9	4.9	14.2	10.3	Aug-10

Retirement System Summary

As of March 31, 2019

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
International Emerging Market Equity Assets	14,923,880	9.6	9.6	7.6	-12.4	7.4	0.8	7.8	0.6	Jul-07
MSCI Emerging Markets				9.9	-7.4	10.7	3.7	8.9	2.4	Jul-07
eV Emg Mkts Equity Gross Median				10.3	-7.7	10.9	4.7	10.6	3.6	Jul-07
LMCG Emerging Markets (Net)	7,923,880	5.1	53.1	7.5	-14.1	6.6	--	--	3.6	Aug-15
MSCI Emerging Markets				9.9	-7.4	10.7	3.7	8.9	6.8	Aug-15
eV Emg Mkts Equity Net Median				10.3	-8.6	9.9	3.7	9.8	6.2	Aug-15
GQG Partners Emerging Markets	7,000,000	4.5	46.9							
MSCI Emerging Markets				9.9	-7.4	10.7	3.7	8.9	1.1	Feb-19
eV Emg Mkts Equity Gross Median				10.3	-7.7	10.9	4.7	10.6	1.9	Feb-19
Investment Grade Bond Assets	19,774,937	12.8	12.8	3.0	4.2	2.0	2.8	4.1	4.6	Jul-01
BBgBarc US Aggregate TR				2.9	4.5	2.0	2.7	3.8	4.5	Jul-01
eV US Core Fixed Inc Gross Median				3.2	4.7	2.5	3.0	4.6	5.0	Jul-01
Longfellow Investment Grade Bond	19,774,937	12.8	100.0	3.0	4.2	--	--	--	1.8	Sep-17
BBgBarc US Aggregate TR				2.9	4.5	2.0	2.7	3.8	1.8	Sep-17
eV US Core Fixed Inc Gross Median				3.2	4.7	2.5	3.0	4.6	2.1	Sep-17
High Yield Bond Assets	8,256,492	5.3	5.3	8.0	6.5	6.6	4.7	9.9	6.4	Feb-05
CSFB High Yield Index				7.2	5.6	8.7	4.5	10.8	6.8	Feb-05
eV US High Yield Fixed Inc Gross Median				7.0	5.8	7.9	4.6	10.5	7.1	Feb-05
Columbia Institutional High Yield	8,256,492	5.3	100.0	8.0	6.5	6.5	4.7	--	5.9	Mar-12
BBgBarc US High Yield TR				7.3	5.9	8.6	4.7	11.3	6.2	Mar-12
eV US High Yield Fixed Inc Gross Median				7.0	5.8	7.9	4.6	10.5	6.1	Mar-12

Retirement System Summary

As of March 31, 2019

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
TIPS Assets	10,336,472	6.7	6.7	3.2	2.7	1.6	1.9	3.4	3.9	Jul-07
BBgBarc US TIPS TR				3.2	2.7	1.7	1.9	3.4	4.0	Jul-07
eV US TIPS / Inflation Fixed Inc Gross Median				3.3	2.8	1.9	2.1	3.6	4.1	Jul-07
SSgA TIPS-NL	10,336,472	6.7	100.0	3.2	2.7	1.6	1.9	3.4	3.9	Jul-07
BBgBarc US TIPS TR				3.2	2.7	1.7	1.9	3.4	4.0	Jul-07
eV US TIPS / Inflation Fixed Inc Gross Median				3.3	2.8	1.9	2.1	3.6	4.1	Jul-07
Emerging Market Debt Assets	8,142,979	5.3	5.3	6.5	-0.5	3.9	-1.2	--	-2.9	Mar-13
50% JPM EMBI GD / 50% JPM GBI-EM				4.9	-1.8	4.6	2.4	6.5	1.3	Mar-13
eV Emg Mkt Fixed Inc Unhedged Gross Median				5.3	1.0	5.7	4.0	8.2	3.1	Mar-13
Logan Circle Emerging Markets Debt (Net)	3,938,256	2.5	48.4	5.7	-1.8	--	--	--	4.2	Nov-16
Logan Circle Custom Benchmark				5.0	0.5	4.8	3.2	7.0	3.3	Nov-16
eV Emg Mkt Fixed Inc Unhedged Net Median				5.3	0.0	5.1	3.2	7.4	3.3	Nov-16
Aberdeen Emerging Markets Bond Fund	4,204,723	2.7	51.6	7.4	0.7	--	--	--	5.4	Dec-16
JP Morgan EMBI Global Diversified				7.0	4.2	5.8	5.4	8.5	5.9	Dec-16
JP Morgan GBI EM Global Diversified TR USD				2.9	-7.6	3.3	-0.8	4.3	5.5	Dec-16
eV Emg Mkt Fixed Inc Unhedged Gross Median				5.3	1.0	5.7	4.0	8.2	6.0	Dec-16
Real Estate Assets	16,659,904	10.8	10.8	1.8	8.5	8.6	10.4	7.4	6.1	Apr-05
NCREIF ODCE (net)				1.2	6.6	7.0	9.2	7.7	6.7	Apr-05
TA Associates Realty Fund X	1,531,574	1.0	9.2							
Intercontinental U.S. REIF (Net)	7,170,589	4.6	43.0	2.0	9.8	10.0	--	--	10.4	Oct-14
NCREIF ODCE (net)				1.2	6.6	7.0	9.2	7.7	8.9	Oct-14
AEW Core Property Trust (Net)	7,957,462	5.1	47.8	1.5	6.7	6.8	--	--	8.5	Oct-14
NCREIF ODCE (net)				1.2	6.6	7.0	9.2	7.7	8.9	Oct-14

Logan Circle Custom Benchmark consists of 35% JP Morgan EMBI Global Diversified, 35% JP Morgan CEMBI Broad Diversified, and 30% JP Morgan GBI EM Global Diversified.
TA Associates Realty Fund X is based on December 31, 2018 fair market value, adjusted for subsequent cash flows.



Retirement System Summary

As of March 31, 2019

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity Assets	18,303,098	11.8	11.8	1.3	11.9	10.9	8.0	9.0	5.7	Oct-03
<i>Cambridge Associates US All PE (1 Qtr Lag)</i>				-0.4	13.1	14.5	12.0	14.0	14.5	Oct-03
Ascent Venture Partners - Fund II	5,828	0.0	0.0							
Ascent Venture Partners - Fund III	71,593	0.0	0.4							
Ascent Venture Partners - Fund IV	25,091	0.0	0.1							
Ascent Venture Partners - Fund V	863,509	0.6	4.7							
Ascent Venture Partners - Fund VI	1,226,731	0.8	6.7							
Constitution Capital Partners Ironsides III	3,317,397	2.1	18.1							
Constitution Capital Partners Ironsides IV	1,289,370	0.8	7.0							
Constitution Capital Direct IV	2,902,424	1.9	15.9							
Constitution Capital Direct V	1,563,193	1.0	8.5							
Goldman Sachs PEP 2005	632,294	0.4	3.5							
HarbourVest Partners VIII	742,019	0.5	4.1							
HarbourVest Partners IX	3,431,630	2.2	18.7							
HarbourVest X Buyout Fund	2,232,018	1.4	12.2							
Natural Resources & Commodities Assets	3,997,951	2.6	2.6	12.3	5.2	9.1	-7.1	--	-5.0	Jul-11
<i>S&P Global Large MidCap Commodity and Resources NR USD</i>				12.3	4.9	12.9	0.2	--	-1.4	Jul-11
SSgA S&P Global LargeMidCap Natural Resources Index	3,997,951	2.6	100.0	12.3	5.2	--	--	--	-2.2	Feb-18
<i>S&P Global Large MidCap Commodity and Resources NR USD</i>				12.3	4.9	12.9	0.2	--	-2.6	Feb-18

Private Equity Assets are based on December 31, 2018 fair market value, adjusted for subsequent cash flows, while Goldman Sachs PEP 2005 is reflecting as of September 30, 2018.



Retirement System Summary

As of March 31, 2019

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Infrastructure Assets	7,807,004	5.0	5.0	2.6	--	--	--	--	5.6	Oct-18
<i>CPI+5%</i>				1.8	6.9	7.2	6.5	6.8	3.3	Oct-18
IFM Global Infrastructure (U.S.), L.P.	7,807,004	5.0	100.0	2.6	--	--	--	--	5.6	Oct-18
<i>CPI+5%</i>				1.8	6.9	7.2	6.5	6.8	3.3	Oct-18
Cash	399,378	0.3	0.3							
Cash STIF	399,378	0.3	100.0							

Retirement System Summary

As of March 31, 2019

Calendar Year Performance

	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
Total Retirement System	-3.0	14.5	9.6	-2.7	4.3	10.9	12.2	2.2	12.5	17.7
60% ACWI / 40% Barclays Global Aggregate	-6.0	17.1	5.7	-2.5	2.8	12.1	11.5	-2.1	10.2	23.3
Domestic Equity Assets	-5.5	21.0	13.1	0.4	12.4	33.5	16.3	1.0	17.5	30.8
Russell 3000	-5.2	21.1	12.7	0.5	12.6	33.6	16.4	1.0	16.9	28.3
SSgA Russell 1000 Value Index-NL	-8.3	13.8	17.3	-3.7	13.4	32.5	17.4	0.4	15.6	20.0
Russell 1000 Value	-8.3	13.7	17.3	-3.8	13.5	32.5	17.5	0.4	15.5	19.7
SSgA Russell 1000 Growth-NL	-1.7	30.2	7.2	5.6	13.1	33.5	15.4	2.6	16.7	37.2
Russell 1000 Growth	-1.5	30.2	7.1	5.7	13.0	33.5	15.3	2.6	16.7	37.2
SSgA Russell 2000 Index-NL	-11.0	14.7	21.5	-4.4	5.0	38.9	16.4	-4.1	--	--
Russell 2000	-11.0	14.6	21.3	-4.4	4.9	38.8	16.3	-4.2	26.9	27.2
Total International Developed Market Equity	-14.7	27.5	1.6	2.0	-4.7	24.4	18.1	-12.6	11.4	36.3
MSCI EAFE	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8	31.8
SSgA MSCI EAFE Index-NL	-13.5	25.5	1.4	-0.5	-4.6	23.1	17.7	-11.9	--	--
MSCI EAFE	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8	31.8
SSgA MSCI EAFE Small Cap Index-NL	-17.6	33.3	2.4	9.7	-4.7	29.5	20.1	-15.0	--	--
MSCI EAFE Small Cap	-17.9	33.0	2.2	9.6	-4.9	29.3	20.0	-15.9	22.0	46.8
International Emerging Market Equity Assets	-17.3	32.5	11.7	-18.1	-4.4	-3.8	18.8	-25.6	22.1	92.3
MSCI Emerging Markets	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4	18.9	78.5
LMCG Emerging Markets (Net)	-18.7	35.1	7.0	--	--	--	--	--	--	--
MSCI Emerging Markets	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4	18.9	78.5
GQG Partners Emerging Markets										
MSCI Emerging Markets	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4	18.9	78.5

Retirement System Summary

As of March 31, 2019

	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
Investment Grade Bond Assets	-0.1	3.5	2.7	0.8	6.1	-3.1	4.6	8.5	6.7	9.7
BBgBarc US Aggregate TR	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5	5.9
Longfellow Investment Grade Bond	-0.1	--	--	--	--	--	--	--	--	--
BBgBarc US Aggregate TR	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5	5.9
High Yield Bond Assets	-3.2	7.2	11.5	-0.2	4.1	6.0	13.6	6.2	12.9	43.2
CSFB High Yield Index	-2.4	7.0	18.3	-4.9	1.9	7.5	14.7	5.5	14.4	54.2
Columbia Institutional High Yield	-3.2	6.8	11.5	-0.2	4.1	6.0	--	--	--	--
BBgBarc US High Yield TR	-2.1	7.5	17.1	-4.5	2.5	7.4	15.8	5.0	15.1	58.2
TIPS Assets	-1.3	3.0	4.5	-1.4	3.6	-8.6	6.9	13.5	6.3	11.3
BBgBarc US TIPS TR	-1.3	3.0	4.7	-1.4	3.6	-8.6	7.0	13.6	6.3	11.4
SSgA TIPS-NL	-1.3	3.0	4.5	-1.4	3.6	-8.6	6.9	13.5	6.3	11.3
BBgBarc US TIPS TR	-1.3	3.0	4.7	-1.4	3.6	-8.6	7.0	13.6	6.3	11.4
Emerging Market Debt Assets	-6.9	13.3	10.0	-15.2	-8.5	--	--	--	--	--
50% JPM EMBI GD / 50% JPM GBI-EM	-5.2	12.7	10.2	-7.1	0.7	-7.1	17.2	2.8	13.8	26.0
Logan Circle Emerging Markets Debt (Net)	-6.6	13.4	--	--	--	--	--	--	--	--
Logan Circle Custom Benchmark	-4.0	10.6	10.0	-3.8	1.9	-4.4	17.9	2.0	12.6	27.9
Aberdeen Emerging Markets Bond Fund	-7.1	13.3	--	--	--	--	--	--	--	--
JP Morgan EMBI Global Diversified	-4.3	10.3	10.2	1.2	7.4	-5.3	17.4	7.3	12.2	29.8

Logan Circle Custom Benchmark consists of 35% JP Morgan EMBI Global Diversified, 35% JP Morgan CEMBI Broad Diversified, and 30% JP Morgan GBI EM Global Diversified.



Retirement System Summary

As of March 31, 2019

	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
Real Estate Assets	8.8	8.5	9.0	13.8	12.8	10.1	12.5	16.7	12.7	-38.9
NCREIF ODCE (net)	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0	15.3	-30.4
TA Associates Realty Fund X										
Intercontinental U.S. REIF (Net)	10.5	7.5	10.9	12.5	--	--	--	--	--	--
NCREIF ODCE (net)	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0	15.3	-30.4
AEW Core Property Trust (Net)	6.6	6.6	7.6	12.8	--	--	--	--	--	--
NCREIF ODCE (net)	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0	15.3	-30.4
Private Equity Assets	14.0	11.8	6.3	0.8	13.5	9.5	9.2	7.9	19.9	-14.2
Cambridge Associates US All PE (1 Qtr Lag)	19.2	16.8	8.7	6.0	17.9	17.5	15.2	15.1	18.3	-10.3
Ascent Venture Partners - Fund II										
Ascent Venture Partners - Fund III										
Ascent Venture Partners - Fund IV										
Ascent Venture Partners - Fund V										
Ascent Venture Partners - Fund VI										
Constitution Capital Partners Ironsides III										
Constitution Capital Partners Ironsides IV										
Constitution Capital Direct IV										
Constitution Capital Direct V										
Goldman Sachs PEP 2005										

Retirement System Summary

As of March 31, 2019

	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
HarbourVest Partners VIII										
HarbourVest Partners IX										
HarbourVest X Buyout Fund										
Natural Resources & Commodities Assets	-13.0	-0.9	53.7	-38.0	-22.6	-0.3	6.5	--	--	--
<i>S&P Global Large MidCap Commodity and Resources NR USD</i>	<i>-9.4</i>	<i>18.1</i>	<i>30.8</i>	<i>-27.5</i>	<i>-9.9</i>	<i>-2.9</i>	<i>7.0</i>	<i>-14.1</i>	<i>19.5</i>	<i>--</i>
SSgA S&P Global LargeMidCap Natural Resources Index	--	--	--	--	--	--	--	--	--	--
<i>S&P Global Large MidCap Commodity and Resources NR USD</i>	<i>-9.4</i>	<i>18.1</i>	<i>30.8</i>	<i>-27.5</i>	<i>-9.9</i>	<i>-2.9</i>	<i>7.0</i>	<i>-14.1</i>	<i>19.5</i>	<i>--</i>
Infrastructure Assets	--	--	--	--	--	--	--	--	--	--
CPI+5%	6.9	7.1	7.1	5.7	5.7	6.5	6.8	8.1	6.4	7.8
IFM Global Infrastructure (U.S.), L.P.	--	--	--	--	--	--	--	--	--	--
CPI+5%	6.9	7.1	7.1	5.7	5.7	6.5	6.8	8.1	6.4	7.8
Cash										
Cash STIF										

Retirement System Summary

As of March 31, 2019

Statistics Summary
5 Years Ending March 31, 2019

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Total Retirement System	5.2%	6.1%	0.4	0.8	0.7	2.0%
60% ACWI / 40% Barclays Global Aggregate	4.4%	7.3%	--	1.0	0.5	0.0%
Total Equity	6.5%	11.3%	-1.0	0.9	0.5	3.9%
Russell 3000	10.4%	11.5%	--	1.0	0.8	0.0%
Domestic Equity Assets	10.2%	11.6%	-0.7	1.0	0.8	0.2%
Russell 3000	10.4%	11.5%	--	1.0	0.8	0.0%
SSgA Russell 1000 Value Index-NL	7.7%	11.1%	-0.6	1.0	0.6	0.1%
Russell 1000 Value	7.7%	11.1%	--	1.0	0.6	0.0%
SSgA Russell 1000 Growth-NL	13.4%	12.3%	-2.5	1.0	1.0	0.1%
Russell 1000 Growth	13.5%	12.3%	--	1.0	1.0	0.0%
SSgA Russell 2000 Index-NL	7.0%	16.1%	-0.3	1.0	0.4	0.1%
Russell 2000	7.1%	16.2%	--	1.0	0.4	0.0%
International Equity Assets	1.9%	12.7%	-0.5	1.0	0.1	2.6%
MSCI ACWI ex USA IMI Gross	3.1%	12.0%	--	1.0	0.2	0.0%
Total International Developed Market Equity	3.0%	11.8%	0.6	1.0	0.2	1.1%
MSCI EAFE	2.3%	11.8%	--	1.0	0.1	0.0%
SSgA MSCI EAFE Index-NL	2.5%	11.8%	1.8	1.0	0.2	0.1%
MSCI EAFE	2.3%	11.8%	--	1.0	0.1	0.0%
SSgA MSCI EAFE Small Cap Index-NL	4.5%	12.2%	-0.1	1.0	0.3	0.2%
MSCI EAFE Small Cap	4.5%	12.3%	--	1.0	0.3	0.0%

Retirement System Summary

As of March 31, 2019

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
International Emerging Market Equity Assets	0.5%	15.6%	-1.3	1.0	0.0	2.4%
MSCI Emerging Markets	3.7%	15.3%	--	1.0	0.2	0.0%
LMCG Emerging Markets	--	--	--	--	--	--
MSCI Emerging Markets	3.7%	15.3%	--	1.0	0.2	0.0%
GQG Partners Emerging Markets	--	--	--	--	--	--
MSCI Emerging Markets	3.7%	15.3%	--	1.0	0.2	0.0%
Fixed Income Assets	2.4%	3.5%	-0.3	1.1	0.5	1.8%
BBgBarc US Universal TR	3.0%	2.7%	--	1.0	0.8	0.0%
Investment Grade Bond Assets	2.8%	2.8%	0.2	1.0	0.7	0.3%
BBgBarc US Aggregate TR	2.7%	2.9%	--	1.0	0.7	0.0%
Longfellow Investment Grade Bond	--	--	--	--	--	--
BBgBarc US Aggregate TR	2.7%	2.9%	--	1.0	0.7	0.0%
High Yield Bond Assets	4.5%	4.9%	0.0	0.8	0.8	2.1%
CSFB High Yield Index	4.5%	5.5%	--	1.0	0.7	0.0%
Columbia Insitutional High Yield	4.5%	4.9%	-0.1	0.8	0.8	1.8%
BBgBarc US High Yield TR	4.7%	5.4%	--	1.0	0.7	0.0%
TIPS Assets	1.9%	3.6%	-1.0	1.0	0.3	0.0%
BBgBarc US TIPS TR	1.9%	3.6%	--	1.0	0.3	0.0%
SSgA TIPS-NL	1.9%	3.6%	-1.2	1.0	0.3	0.1%
BBgBarc US TIPS TR	1.9%	3.6%	--	1.0	0.3	0.0%
Emerging Market Debt Assets	-1.3%	10.2%	-1.0	1.2	-0.2	3.7%
50% JPM EMBI GD / 50% JPM GBI-EM	2.4%	7.8%	--	1.0	0.2	0.0%
Logan Circle Emerging Markets Debt	--	--	--	--	--	--
Logan Circle Custom Benchmark	3.2%	6.2%	--	1.0	0.4	0.0%

Retirement System Summary

As of March 31, 2019

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Aberdeen Emerging Markets Bond Fund	--	--	--	--	--	--
JP Morgan EMBI Global Diversified	5.4%	5.5%	--	1.0	0.8	0.0%
Real Estate Assets	10.4%	4.4%	1.1	1.1	2.2	1.1%
NCREIF ODCE (net)	9.2%	3.9%	--	1.0	2.1	0.0%
AG Realty Fund IV	-1.5%	2.3%	-2.3	-0.1	-1.0	4.8%
NCREIF ODCE (net)	9.2%	3.9%	--	1.0	2.1	0.0%
TA Associates Realty Fund IX	6.0%	10.7%	-0.3	1.1	0.5	9.8%
NCREIF ODCE (net)	9.2%	3.9%	--	1.0	2.1	0.0%
TA Associates Realty Fund X	13.0%	7.1%	0.7	1.2	1.7	5.3%
NCREIF ODCE (net)	9.2%	3.9%	--	1.0	2.1	0.0%
Intercontinental U.S. REIF	--	--	--	--	--	--
NCREIF ODCE (net)	9.2%	3.9%	--	1.0	2.1	0.0%
AEW Core Property Trust	--	--	--	--	--	--
NCREIF ODCE (net)	9.2%	3.9%	--	1.0	2.1	0.0%
Private Equity Assets	8.0%	4.8%	-1.1	0.6	1.5	3.7%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Ascent Venture Partners - Fund II	29.4%	33.8%	0.5	1.2	0.8	33.0%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Ascent Venture Partners - Fund III	-13.1%	13.7%	-1.6	-0.3	-1.0	15.7%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Ascent Venture Partners - Fund IV	-50.1%	50.0%	-1.2	-0.6	-1.0	50.9%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Ascent Venture Partners - Fund V	3.6%	7.2%	-1.0	0.2	0.4	8.5%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%

Retirement System Summary

As of March 31, 2019

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Ascent Venture Partners - Fund VI	--	--	--	--	--	--
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Constitution Capital Partners Ironsides III	5.7%	15.2%	-0.4	0.2	0.3	16.0%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Constitution Capital Partners Ironsides IV	--	--	--	--	--	--
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Constitution Capital Direct IV	--	--	--	--	--	--
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Goldman Sachs PEP 2005	7.0%	9.9%	-0.5	0.6	0.6	9.7%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
HarbourVest Partners VIII	14.7%	7.4%	0.7	1.0	1.9	3.9%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
HarbourVest Partners IX	14.9%	7.5%	0.7	1.0	1.9	4.5%
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
HarbourVest X Buyout Fund	--	--	--	--	--	--
Cambridge Associates US All PE (1 Qtr Lag)	12.0%	6.2%	--	1.0	1.8	0.0%
Natural Resources & Commodities Assets	-7.1%	25.1%	-0.6	1.3	-0.3	13.1%
S&P Global Large MidCap Commodity and Resources NR USD	0.2%	16.9%	--	1.0	0.0	0.0%
SSgA S&P Global LargeMidCap Natural Resources Index	--	--	--	--	--	--
S&P Global Large MidCap Commodity and Resources NR USD	0.2%	16.9%	--	1.0	0.0	0.0%
Infrastructure Assets	--	--	--	--	--	--
CPI+5%	6.5%	0.7%	--	1.0	8.8	0.0%

Retirement System Summary

As of March 31, 2019

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
IFM Global Infrastructure (U.S.), L.P.	--	--	--	--	--	--
CPI+5%	6.5%	0.7%	--	1.0	8.8	0.0%

Retirement System Detail

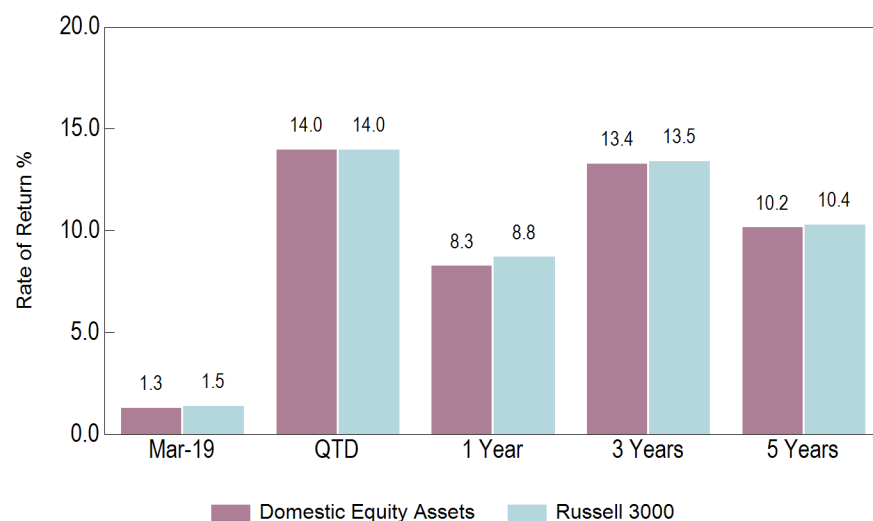
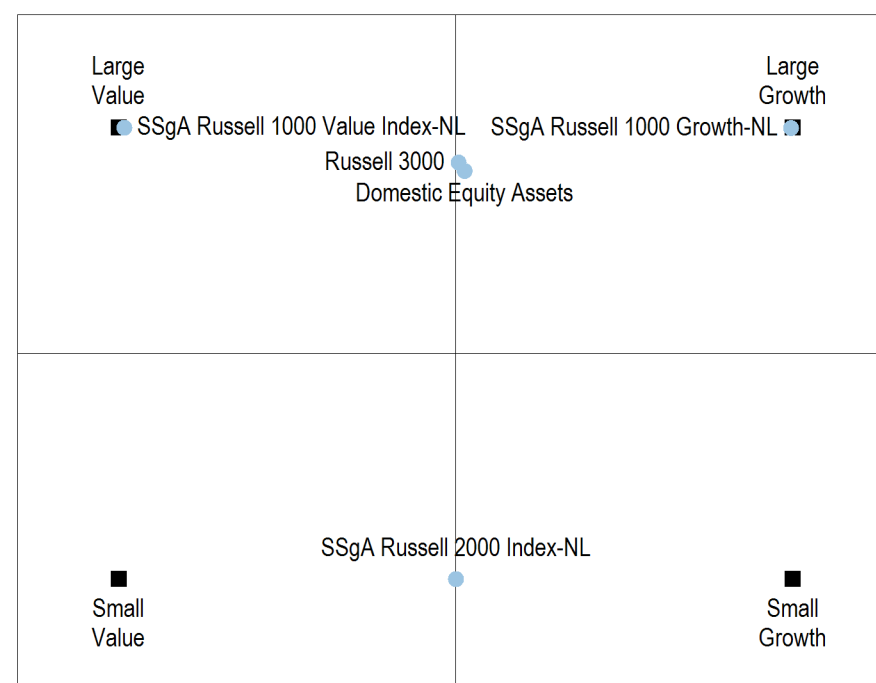
Domestic Equity Assets

Domestic Equity Assets

As of March 31, 2019

Asset Allocation on March 31, 2019

	Actual	Actual
SSgA Russell 1000 Growth-NL	\$17,015,498	46.3%
SSgA Russell 1000 Value Index-NL	\$16,236,409	44.2%
SSgA Russell 2000 Index-NL	\$3,509,304	9.5%
Total	\$36,761,211	100.0%

Return Summary
Ending March 31, 2019Domestic Equity Assets Style Map
3 Years Ending March 31, 2019

Domestic Equity Assets

As of March 31, 2019

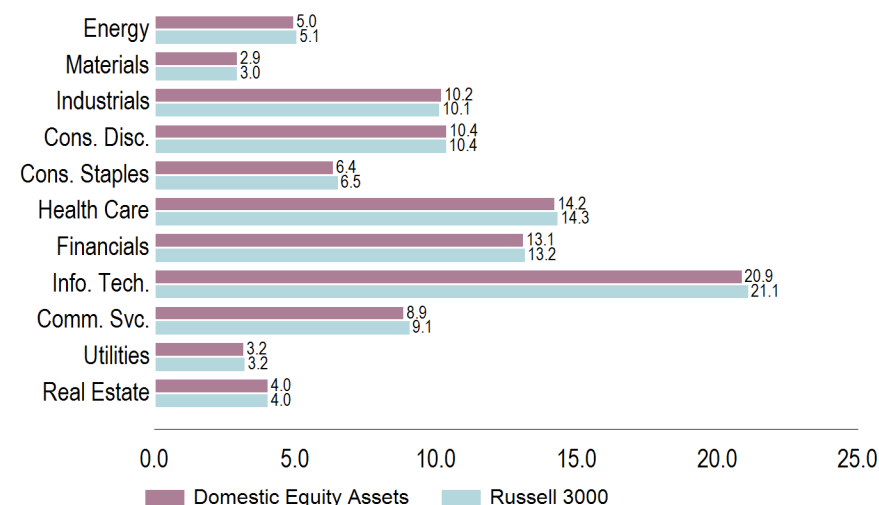
Domestic Equity Assets Characteristics

	Portfolio Q1-19	Index Q1-19	Portfolio Q4-18
Market Value			
Market Value (\$M)	36.8	--	32.2
Number Of Holdings	2973	2977	3005
Characteristics			
Weighted Avg. Market Cap. (\$B)	174.7	178.6	151.8
Median Market Cap (\$B)	2.0	1.6	1.7
P/E Ratio	20.2	20.2	22.0
Yield	1.9	1.9	2.1
EPS Growth - 5 Yrs.	12.5	12.5	8.3
Price to Book	3.3	3.3	5.6
Beta (holdings; domestic)	1.0	1.0	1.0

Top 10 Holdings

APPLE	3.1%
MICROSOFT	3.1%
AMAZON.COM	2.5%
FACEBOOK CLASS A	1.4%
BERKSHIRE HATHAWAY 'B'	1.3%
JOHNSON & JOHNSON	1.3%
ALPHABET 'C'	1.2%
ALPHABET A	1.2%
EXXON MOBIL	1.2%
JP MORGAN CHASE & CO.	1.1%
Total	17.3%

Sector Allocation (%) vs Russell 3000



	Portfolio Q1-19	Index Q1-19
Sector Performance		
Energy	16.78	16.68
Materials	12.25	11.63
Industrials	17.12	16.69
Consumer Discretionary	14.78	14.68
Consumer Staples	11.87	11.66
Health Care	8.10	8.19
Financials	8.92	8.84
Information Technology	21.13	20.78
Communication Services	14.09	13.97
Utilities	11.51	11.38
Real Estate	17.82	17.30

International Equity Assets

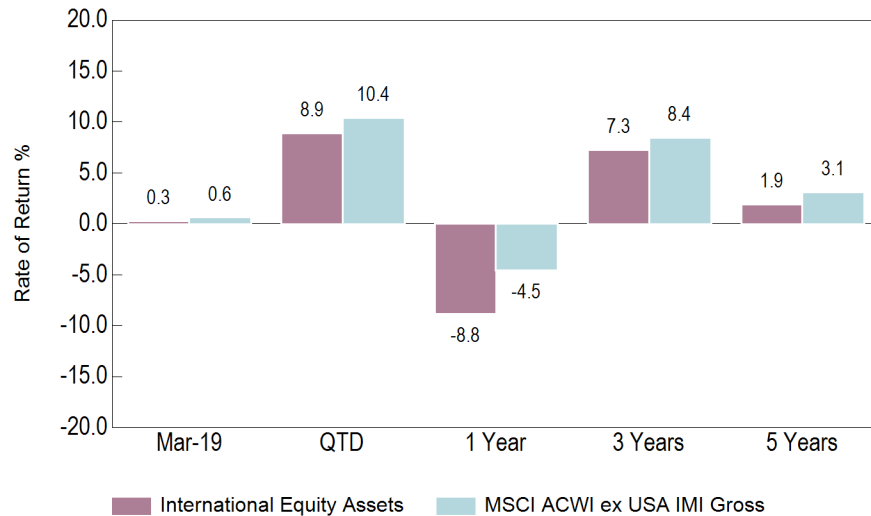
International Equity Assets

As of March 31, 2019

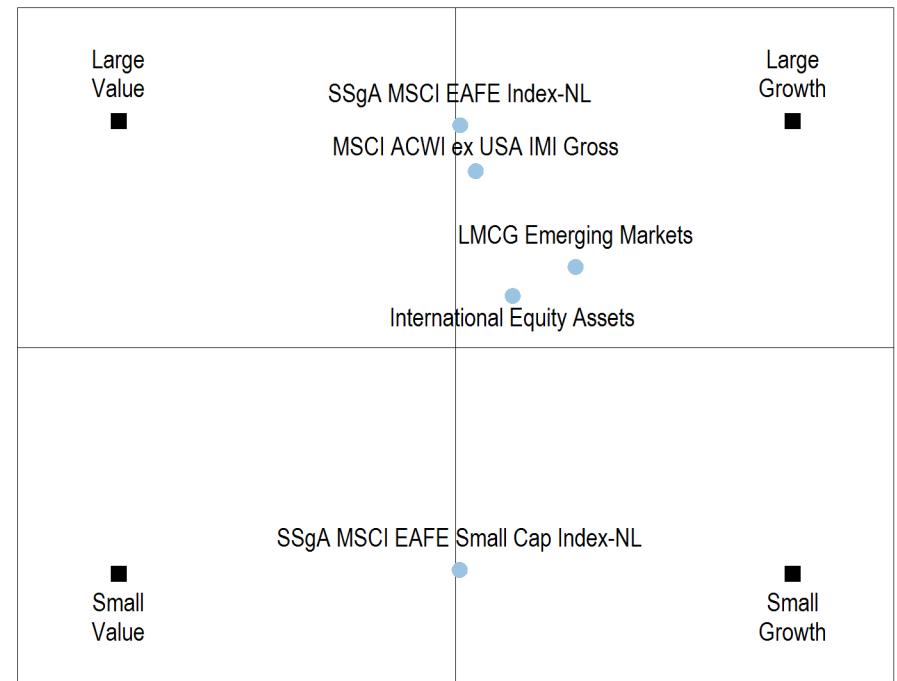
Asset Allocation on March 31, 2019

	Actual	Actual
GQG Partners Emerging Markets	\$7,000,000	28.7%
LMCG Emerging Markets	\$7,923,880	32.5%
SSgA MSCI EAFE Index-NL	\$5,324,695	21.8%
SSgA MSCI EAFE Small Cap Index-NL	\$4,157,329	17.0%
Total	\$24,405,904	100.0%

Return Summary
Ending March 31, 2019



International Equity Assets Style Map
3 Years Ending March 31, 2019



International Equity Assets

As of March 31, 2019

Total International Equity Characteristics

	Portfolio Q1-19	Index Q1-19	Portfolio Q4-18
Market Value			
Market Value (\$M)	24.4	--	23.4
Number Of Holdings	1132	2145	3416
Characteristics			
Weighted Avg. Market Cap. (\$B)	53.2	64.4	44.0
Median Market Cap (\$B)	9.8	7.7	1.6
P/E Ratio	13.9	14.6	16.1
Yield	3.1	3.2	3.6
EPS Growth - 5 Yrs.	11.6	10.8	10.1
Price to Book	2.5	2.2	2.6
Beta (holdings; domestic)	1.0	1.0	1.0

Top 10 Holdings

HOUSING DEVELOPMENT FINANCE CORPORATION	2.2%
TENCENT HOLDINGS	1.8%
HDFC BANK ADR 1:3	1.8%
AIA GROUP	1.7%
TAIWAN SEMICON.MNFG.	1.6%
BANK CENTRAL ASIA	1.5%
UNILEVER DUTCH CERT.	1.4%
ISHARES MSCI EMERGING MARKETS ETF	1.3%
KWEICHOW MOUTAI 'A'	1.2%
SAMSUNG ELECTRONICS	1.2%
Total	15.9%

Sector Allocation (%) vs MSCI ACWI ex USA Gross



	Portfolio Q1-19	Index Q1-19
Sector Performance		
Energy	12.77	12.49
Materials	8.89	11.41
Industrials	7.10	10.33
Consumer Discretionary	7.71	11.23
Consumer Staples	7.91	11.20
Health Care	8.83	11.37
Financials	5.82	7.78
Information Technology	13.55	14.57
Communication Services	9.07	7.02
Utilities	6.62	8.36
Real Estate	13.60	14.82

International Equity Assets

As of March 31, 2019

Total International Equity Region Allocation

vs MSCI ACWI ex USA Gross

Region	% of Total	% of Bench	% Diff
North America ex U.S.	0.0%	6.8%	-6.8%
United States	1.8%	0.0%	1.8%
Europe Ex U.K.	14.4%	30.8%	-16.4%
United Kingdom	5.0%	11.5%	-6.5%
Pacific Basin Ex Japan	17.1%	8.5%	8.6%
Japan	6.5%	16.1%	-9.7%
Emerging Markets	55.0%	25.6%	29.4%
Other	0.1%	0.6%	-0.5%
Total	100.0%	100.0%	0.0%

International Equity Assets

As of March 31, 2019

Total International Equity Country Allocation

vs MSCI ACWI ex USA Gross

Country	% of Total	% of Bench	% Diff
ARGENTINA	0.0%	0.0%	0.0%
AUSTRALIA	1.9%	4.7%	-2.8%
AUSTRIA	0.1%	0.2%	-0.1%
BAHRAIN	0.0%	0.0%	0.0%
BANGLADESH	0.0%	0.0%	0.0%
BELGIUM	0.3%	0.7%	-0.4%
BRAZIL	3.9%	1.8%	2.1%
BULGARIA	0.0%	0.0%	0.0%
CANADA	0.0%	6.8%	-6.8%
CHILE	0.0%	0.3%	-0.3%
CHINA	11.4%	8.5%	2.9%
COLOMBIA	0.0%	0.1%	-0.1%
CROATIA	0.0%	0.0%	0.0%
CZECH REPUBLIC	0.0%	0.0%	0.0%
DENMARK	0.5%	1.2%	-0.7%
EGYPT	0.0%	0.0%	0.0%
ESTONIA	0.0%	0.0%	0.0%
FINLAND	0.3%	0.7%	-0.4%
FRANCE	3.0%	7.5%	-4.6%
GERMANY	2.3%	5.7%	-3.5%
GREECE	0.0%	0.1%	-0.1%
HONG KONG	13.2%	2.8%	10.5%
HUNGARY	0.6%	0.1%	0.5%
INDIA	13.4%	2.4%	11.0%

International Equity Assets

As of March 31, 2019

Country	% of Total	% of Bench	% Diff
INDONESIA	3.2%	0.6%	2.7%
IRELAND	0.1%	0.4%	-0.3%
ISRAEL	0.1%	0.4%	-0.2%
ITALY	0.6%	1.6%	-1.0%
JAPAN	6.5%	16.1%	-9.7%
JORDAN	0.0%	0.0%	0.0%
KAZAKHSTAN	0.0%	0.0%	0.0%
KENYA	0.0%	0.0%	0.0%
KOREA	6.0%	3.4%	2.6%
KUWAIT	0.0%	0.0%	0.0%
LEBANON	0.0%	0.0%	0.0%
LITHUANIA	0.0%	0.0%	0.0%
LUXEMBOURG	0.0%	0.0%	0.0%
MALAYSIA	0.5%	0.6%	-0.1%
MAURITIUS	0.0%	0.0%	0.0%
MEXICO	1.5%	0.7%	0.8%
MOROCCO	0.0%	0.0%	0.0%
NETHERLANDS	3.2%	2.4%	0.8%
NEW ZEALAND	0.1%	0.2%	-0.1%
NIGERIA	0.0%	0.0%	0.0%
NORWAY	0.2%	0.5%	-0.3%
OMAN	0.0%	0.0%	0.0%
OTHER	0.0%	0.0%	0.0%
PAKISTAN	0.0%	0.0%	0.0%
PERU	0.0%	0.1%	-0.1%
PHILIPPINES	0.0%	0.3%	-0.3%
POLAND	0.2%	0.3%	-0.1%

International Equity Assets

As of March 31, 2019

Country	% of Total	% of Bench	% Diff
PORTUGAL	0.0%	0.1%	-0.1%
QATAR	0.0%	0.2%	-0.2%
ROMANIA	0.0%	0.0%	0.0%
RUSSIA	2.2%	1.0%	1.2%
SERBIA	0.0%	0.0%	0.0%
SINGAPORE	2.0%	0.9%	1.1%
SLOVENIA	0.0%	0.0%	0.0%
SOUTH AFRICA	2.2%	1.5%	0.7%
SPAIN	0.8%	2.0%	-1.2%
SRI LANKA	0.0%	0.0%	0.0%
SWEDEN	0.7%	1.8%	-1.1%
SWITZERLAND	2.4%	6.0%	-3.6%
TAIWAN	5.6%	2.9%	2.7%
THAILAND	2.9%	0.6%	2.2%
TUNISIA	0.0%	0.0%	0.0%
TURKEY	1.3%	0.1%	1.2%
UKRAINE	0.0%	0.0%	0.0%
UNITED ARAB EMIRATES	0.0%	0.2%	-0.2%
UNITED KINGDOM	5.0%	11.5%	-6.5%
UNITED STATES	1.8%	0.0%	1.8%
VIETNAM	0.0%	0.0%	0.0%
Total	100.0%	100.0%	0.0%

Fixed Income Assets

Fixed Income Assets

As of March 31, 2019

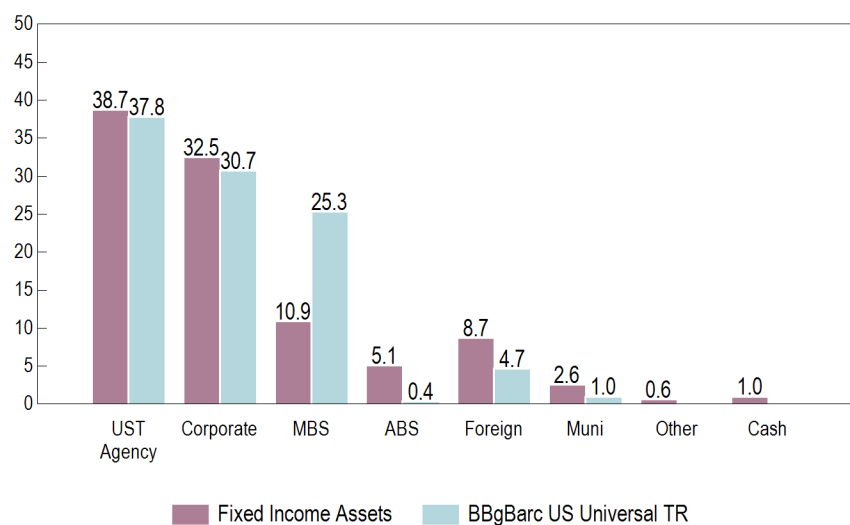
Asset Allocation on March 31, 2019

	Actual	Actual
Aberdeen Emerging Markets Bond Fund	\$4,204,723	9.0%
Columbia Institutional High Yield	\$8,256,492	17.8%
Logan Circle Emerging Markets Debt	\$3,938,256	8.5%
Longfellow Investment Grade Bond	\$19,774,937	42.5%
SSgA TIPS-NL	\$10,336,472	22.2%
Total	\$46,510,880	100.0%

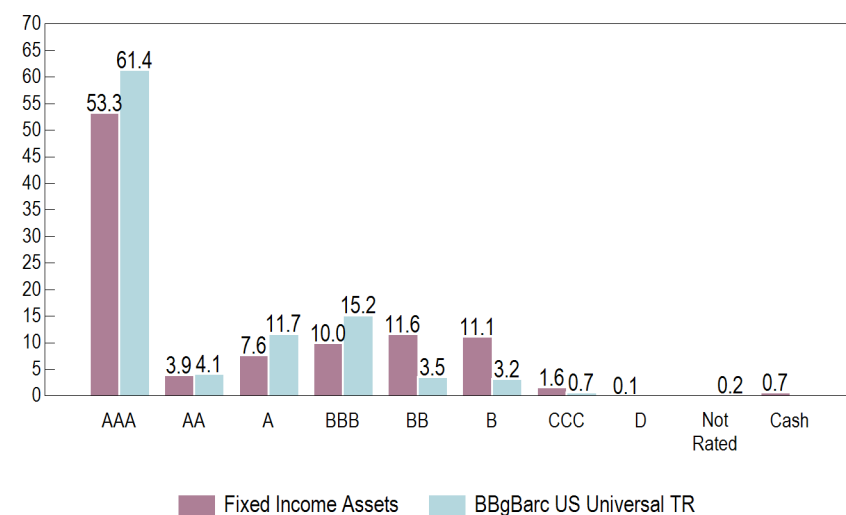
Total Fixed Income Fixed Income Characteristics
vs. BBgBarc US Universal TR

	Portfolio Q1-19	Index Q1-19	Portfolio Q4-18
Fixed Income Characteristics			
Yield to Maturity	3.90	3.39	4.34
Average Duration	5.11	5.63	5.19
Average Quality	A	AA	A
Weighted Average Maturity	7.57	12.04	7.53

Sector Allocation



Credit Quality Allocation



Portfolio Reviews

SSgA Russell 1000 Value Index-NL

As of March 31, 2019

Account Information

Account Name	SSgA Russell 1000 Value Index-NL
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	1/01/05
Account Type	Equity
Benchmark	Russell 1000 Value
Universe	eV US Large Cap Value Equity Gross

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
SSgA Russell 1000 Value Index-NL	11.9	5.6	10.5	7.8	7.2	Jan-05
Russell 1000 Value	11.9	5.7	10.5	7.7	7.1	Jan-05
eV US Large Cap Value Equity Gross Median	11.6	4.4	11.0	8.2	8.1	Jan-05
eV US Large Cap Value Equity Gross Rank	43	36	64	59	82	Jan-05

Top 10 Holdings

EXXON MOBIL	2.6%
BERKSHIRE HATHAWAY 'B'	2.6%
JP MORGAN CHASE & CO.	2.6%
JOHNSON & JOHNSON	2.4%
PROCTER & GAMBLE	2.0%
BANK OF AMERICA	1.9%
CISCO SYSTEMS	1.9%
VERIZON COMMUNICATIONS	1.9%
PFIZER	1.9%
INTEL	1.9%
Total	21.6%

SSgA Russell 1000 Value Index-NL Characteristics

	Portfolio Q1-19	Index Q1-19	Portfolio Q4-18
Market Value			
Market Value (\$M)	16.2	--	14.5
Number Of Holdings	717	722	722
Characteristics			
Weighted Avg. Market Cap. (\$B)	120.5	119.9	112.2
Median Market Cap (\$B)	9.0	8.9	8.3
P/E Ratio	17.4	17.3	17.8
Yield	2.6	2.6	2.9
EPS Growth - 5 Yrs.	5.5	5.5	5.6
Price to Book	2.2	2.2	2.6
Beta (holdings; domestic)	0.9	0.9	0.9
Sector Distribution			
Energy	9.7	9.7	9.3
Materials	4.0	4.0	4.1
Industrials	7.8	7.8	7.3
Consumer Discretionary	5.3	5.3	5.2
Consumer Staples	7.9	7.9	7.8
Health Care	15.3	15.3	15.7
Financials	21.7	21.7	22.6
Information Technology	9.8	9.8	9.3
Communication Services	6.9	6.9	7.3
Utilities	6.4	6.4	6.5
Real Estate	5.1	5.2	4.8

SSgA Russell 1000 Growth-NL

As of March 31, 2019

Account Information

Account Name	SSgA Russell 1000 Growth-NL
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	7/01/07
Account Type	Equity
Benchmark	Russell 1000 Growth
Universe	eV US Large Cap Growth Equity Gross

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
SSgA Russell 1000 Growth-NL	16.1	12.5	16.5	13.5	10.0	Jul-07
Russell 1000 Growth	16.1	12.7	16.5	13.5	10.0	Jul-07
eV US Large Cap Growth Equity Gross Median	16.1	12.4	16.4	12.9	9.8	Jul-07
eV US Large Cap Growth Equity Gross Rank	50	49	50	39	44	Jul-07

Top 10 Holdings

APPLE	6.6%
MICROSOFT	6.2%
AMAZON.COM	5.4%
FACEBOOK CLASS A	2.9%
ALPHABET 'C'	2.6%
ALPHABET A	2.6%
VISA 'A'	2.0%
CASH - USD	1.8%
UNITEDHEALTH GROUP	1.7%
HOME DEPOT	1.6%
Total	33.6%

SSgA Russell 1000 Growth-NL Characteristics

	Portfolio Q1-19	Index Q1-19	Portfolio Q4-18
Market Value			
Market Value (\$M)	17.0	--	14.7
Number Of Holdings	537	545	539
Characteristics			
Weighted Avg. Market Cap. (\$B)	262.2	262.3	222.8
Median Market Cap (\$B)	11.8	11.7	10.3
P/E Ratio	24.3	24.3	27.5
Yield	1.3	1.3	1.4
EPS Growth - 5 Yrs.	20.1	20.1	13.1
Price to Book	6.9	6.9	9.8
Beta (holdings; domestic)	1.1	1.1	1.1
Sector Distribution			
Energy	0.7	0.7	0.7
Materials	1.8	1.8	1.8
Industrials	11.6	11.8	11.6
Consumer Discretionary	14.8	15.1	14.8
Consumer Staples	5.6	5.7	5.9
Health Care	12.9	13.2	14.0
Financials	4.2	4.3	4.3
Information Technology	32.4	33.0	30.9
Communication Services	11.8	12.1	11.7
Utilities	0.0	0.0	0.0
Real Estate	2.3	2.4	2.3

SSgA Russell 2000 Index-NL

As of March 31, 2019

Account Information

Account Name	SSgA Russell 2000 Index-NL
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	8/01/10
Account Type	Equity
Benchmark	Russell 2000
Universe	eV US Small Cap Core Equity Gross

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
SSgA Russell 2000 Index-NL	14.6	2.0	13.0	7.1	12.0	Aug-10
Russell 2000	14.6	2.0	12.9	7.1	12.0	Aug-10
eV US Small Cap Core Equity Gross Median	13.9	1.7	12.4	7.7	13.0	Aug-10
eV US Small Cap Core Equity Gross Rank	41	47	37	65	79	Aug-10

Top 10 Holdings

ETSY	0.4%
FIVE BELOW	0.3%
TRADE DESK CL.A	0.3%
INTEGRATED DEVICE TECH.	0.3%
HUBSPOT	0.3%
PLANET FITNESS CL.A	0.3%
CREE	0.3%
CIENA	0.3%
PRIMERICA	0.3%
WOODWARD	0.3%
Total	3.0%

SSgA Russell 2000 Index-NL Characteristics

	Portfolio Q1-19	Index Q1-19	Portfolio Q4-18
Market Value			
Market Value (\$M)	3.5	--	3.1
Number Of Holdings	1993	1999	2019
Characteristics			
Weighted Avg. Market Cap. (\$B)	2.4	2.4	2.0
Median Market Cap (\$B)	0.8	0.8	0.7
P/E Ratio	18.4	18.4	14.7
Yield	1.4	1.4	1.6
EPS Growth - 5 Yrs.	10.1	10.1	7.1
Price to Book	2.4	2.4	3.6
Beta (holdings; domestic)	1.2	1.2	1.2
Sector Distribution			
Energy	3.7	3.6	3.5
Materials	3.9	3.8	3.7
Industrials	14.5	14.4	14.8
Consumer Discretionary	12.0	12.0	12.2
Consumer Staples	2.8	2.8	2.9
Health Care	15.8	16.0	15.5
Financials	17.1	17.1	18.2
Information Technology	15.6	15.6	14.7
Communication Services	3.3	3.3	3.3
Utilities	3.8	3.8	3.8
Real Estate	7.6	7.6	7.3

SSgA MSCI EAFE Index-NL

As of March 31, 2019

Account Information

Account Name	SSgA MSCI EAFE Index-NL
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	8/01/10
Account Type	Equity
Benchmark	MSCI EAFE
Universe	eV EAFE Core Equity Gross

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
SSgA MSCI EAFE Index-NL	10.0	-3.5	7.6	2.7	6.1	Aug-10
MSCI EAFE	10.0	-3.7	7.3	2.3	5.7	Aug-10
eV EAFE Core Equity Gross Median	10.3	-5.3	7.5	3.6	7.5	Aug-10
eV EAFE Core Equity Gross Rank	65	31	47	78	86	Aug-10

Top 10 Holdings

NESTLE 'R'	2.1%
NOVARTIS 'R'	1.5%
ROCHE HOLDING	1.4%
HSBC HOLDINGS	1.2%
BP	1.1%
ROYAL DUTCH SHELL A(LON)	1.0%
TOYOTA MOTOR	1.0%
TOTAL	1.0%
AIA GROUP	0.9%
ROYAL DUTCH SHELL B	0.9%
Total	12.0%

SSgA MSCI EAFE Index-NL Characteristics

	Portfolio Q1-19	Index Q1-19	Portfolio Q4-18
Market Value			
Market Value (\$M)	5.3	--	6.7
Number Of Holdings	942	920	956
Characteristics			
Weighted Avg. Market Cap. (\$B)	58.6	58.8	52.8
Median Market Cap (\$B)	10.1	10.1	9.0
P/E Ratio	15.1	15.1	17.1
Yield	3.4	3.4	3.6
EPS Growth - 5 Yrs.	9.4	9.3	7.4
Price to Book	2.2	2.2	2.7
Beta (holdings; domestic)	1.0	1.0	1.0
Sector Distribution			
Energy	5.8	5.8	5.7
Materials	7.4	7.4	7.2
Industrials	14.4	14.3	13.8
Consumer Discretionary	11.0	10.9	11.0
Consumer Staples	11.8	11.9	11.3
Health Care	11.2	11.3	11.4
Financials	18.9	18.9	19.0
Information Technology	6.4	6.3	5.8
Communication Services	5.4	5.4	5.6
Utilities	3.7	3.8	3.6
Real Estate	3.8	3.8	3.5

SSgA MSCI EAFE Small Cap Index-NL

As of March 31, 2019

Account Information

Account Name	SSgA MSCI EAFE Small Cap Index-NL
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	8/01/10
Account Type	Equity
Benchmark	MSCI EAFE Small Cap
Universe	eV EAFE Small Cap Core Gross

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
SSgA MSCI EAFE Small Cap Index-NL	10.6	-9.2	7.7	4.7	8.8	Aug-10
MSCI EAFE Small Cap	10.7	-9.4	7.5	4.5	8.5	Aug-10
eV EAFE Small Cap Core Gross Median	10.2	-11.0	7.9	4.9	10.3	Aug-10
eV EAFE Small Cap Core Gross Rank	41	29	53	54	78	Aug-10

Top 10 Holdings

INTERXION HOLDING	17.9%
CYBER ARK SOFTWARE	16.1%
WIENERBERGER	8.8%
SHIP HEALTHCARE HOLDINGS	6.9%
PANALPINA WELTTRANSPORT HOLDING	6.4%
MCUBS MIDCITY REIT	5.3%
KLA TENCOR	5.0%
SPAREBANK 1 SMN ORDS	4.5%
TELEKOM AUSTRIA	4.4%
CONSTELLIUM CL.A	3.6%
Total	79.0%

SSgA MSCI EAFE Small Cap Index-NL Characteristics

	Portfolio Q1-19	Index Q1-19	Portfolio Q4-18
Market Value			
Market Value (\$M)	4.2	--	3.8
Number Of Holdings	20	2326	2357
Characteristics			
Weighted Avg. Market Cap. (\$B)	3.6	2.6	2.3
Median Market Cap (\$B)	1.1	1.0	0.9
P/E Ratio	21.1	15.2	17.8
Yield	1.3	2.9	2.9
EPS Growth - 5 Yrs.	23.4	13.2	11.1
Price to Book	2.9	2.1	2.7
Beta (holdings; domestic)	1.1	0.9	0.9
Sector Distribution			
Energy	0.0	2.7	2.5
Materials	13.4	8.3	8.6
Industrials	10.5	21.3	21.4
Consumer Discretionary	3.6	12.9	13.2
Consumer Staples	0.0	6.5	6.8
Health Care	10.9	7.6	7.6
Financials	4.5	11.2	11.6
Information Technology	44.4	9.9	9.2
Communication Services	7.4	4.8	4.7
Utilities	0.0	2.4	2.4
Real Estate	5.3	12.5	12.1

LMCG Emerging Markets

As of March 31, 2019

Account Information

Account Name	LMCG Emerging Markets
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	8/01/15
Account Type	Equity
Benchmark	MSCI Emerging Markets
Universe	eV Emg Mkts Equity Net

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
LMCG Emerging Markets	7.7	-13.4	7.2	--	4.0	Aug-15
MSCI Emerging Markets	9.9	-7.4	10.7	3.7	6.8	Aug-15
eV Emg Mkts Equity Net Median	10.3	-8.6	9.9	3.7	6.2	Aug-15
eV Emg Mkts Equity Net Rank	84	90	85	--	85	Aug-15

Top 10 Holdings

TENCENT HOLDINGS	4.8%
TAIWAN SEMICON.MNFG.	3.4%
ISHARES MSCI EMERGING MARKETS ETF	3.3%
SAMSUNG ELECTRONICS	3.2%
58 COM CL.A ADR 1:2	2.2%
CHINA CON.BANK 'H'	1.3%
LUKOIL OAO SPN.ADR 1:1	1.2%
CNOOC	1.2%
INFOSYS	1.1%
OTP BANK	1.1%
Total	22.8%

LMCG Emerging Markets Characteristics

	Portfolio Q1-19	Index Q1-19	Portfolio Q4-18
Market Value			
Market Value (\$M)	7.9	--	12.9
Number Of Holdings	125	1133	121
Characteristics			
Weighted Avg. Market Cap. (\$B)	54.5	84.9	51.8
Median Market Cap (\$B)	5.9	5.8	7.4
P/E Ratio	10.6	13.3	15.1
Yield	3.6	2.7	3.8
EPS Growth - 5 Yrs.	11.6	14.3	11.0
Price to Book	2.2	2.4	2.2
Beta (holdings; domestic)	1.0	1.1	1.0
Sector Distribution			
Energy	6.2	8.1	6.6
Materials	7.3	7.4	7.6
Industrials	6.8	5.5	5.0
Consumer Discretionary	9.6	13.3	8.7
Consumer Staples	7.0	6.4	6.8
Health Care	2.5	2.6	3.4
Financials	21.2	24.3	23.0
Information Technology	15.8	14.6	15.8
Communication Services	13.0	12.1	14.4
Utilities	1.7	2.6	1.3
Real Estate	4.8	3.1	4.3

GQG Partners Emerging Markets

As of March 31, 2019

Account Information

Account Name	GQG Partners Emerging Markets
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	2/15/19
Account Type	Non-US Stock Emerging
Benchmark	MSCI Emerging Markets
Universe	eV Emg Mkts Equity Gross

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
GQG Partners Emerging Markets						
MSCI Emerging Markets	9.9	-7.4	10.7	3.7	1.1	Feb-19
eV Emg Mkts Equity Gross Median	10.3	-7.7	10.9	4.7	1.9	Feb-19
eV Emg Mkts Equity Gross Rank						

Top 10 Holdings

HOUSING DEVELOPMENT FINANCE CORPORATION	6.4%
HDFC BANK ADR 1:3	5.3%
BANK CENTRAL ASIA	4.4%
AIA GROUP	4.2%
KWEICHOW MOUTAI 'A'	3.6%
UNILEVER DUTCH CERT.	3.5%
LINK RL. EST. INV. TST.	3.3%
CHINA TOWER 'H'	3.1%
CASH - USD	2.7%
INFOSYS ADR 1:1	2.6%
Total	39.0%

GQG Partners Emerging Markets Characteristics

	Portfolio Q1-19	Index Q1-19
Market Value		
Market Value (\$M)	7.0	--
Number Of Holdings	63	1133
Characteristics		
Weighted Avg. Market Cap. (\$B)	47.4	84.9
Median Market Cap (\$B)	18.9	5.8
P/E Ratio	18.6	13.3
Yield	2.3	2.7
EPS Growth - 5 Yrs.	12.9	14.3
Price to Book	3.0	2.4
Beta (holdings; domestic)	0.8	1.1
Sector Distribution		
Energy	4.6	8.1
Materials	0.6	7.4
Industrials	7.1	5.5
Consumer Discretionary	3.6	13.3
Consumer Staples	16.3	6.4
Health Care	4.0	2.6
Financials	37.1	24.3
Information Technology	8.0	14.6
Communication Services	1.8	12.1
Utilities	9.8	2.6
Real Estate	4.5	3.1

Longfellow Investment Grade Bond

As of March 31, 2019

Account Information

Account Name	Longfellow Investment Grade Bond
Account Structure	Separate Account
Investment Style	Active
Inception Date	9/01/17
Account Type	Fixed
Benchmark	BBgBarc US Aggregate TR
Universe	eV US Core Fixed Inc Gross

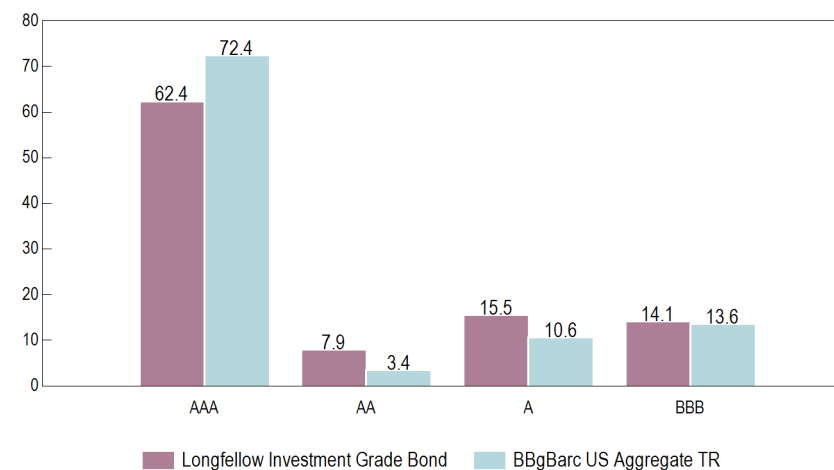
Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Longfellow Investment Grade Bond	3.0	4.2	--	--	1.8	Sep-17
BBgBarc US Aggregate TR	2.9	4.5	2.0	2.7	1.8	Sep-17
eV US Core Fixed Inc Gross Median	3.2	4.7	2.5	3.0	2.1	Sep-17
eV US Core Fixed Inc Gross Rank	77	91	--	--	91	Sep-17

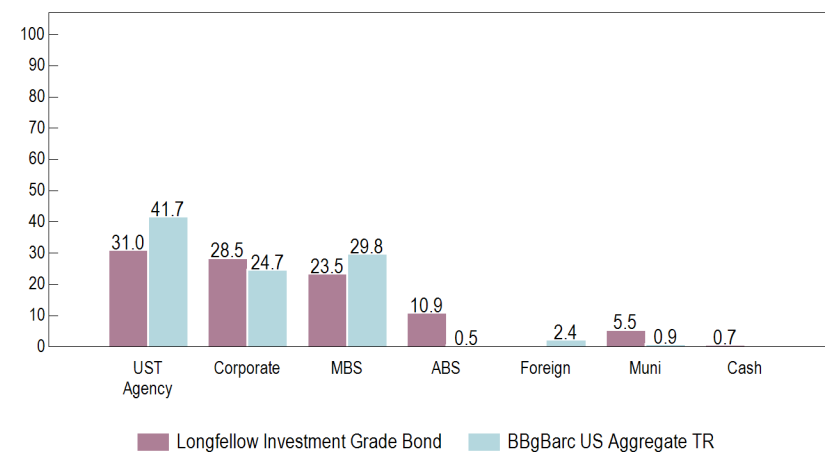
Longfellow Investment Grade Bond Characteristics
vs. BBgBarc US Aggregate TR

	Portfolio Q1-19	Index Q1-19	Portfolio Q4-18
Fixed Income Characteristics			
Yield to Maturity	3.2	2.9	3.5
Average Duration	5.5	5.8	5.4
Average Quality	AA	AA	AA
Weighted Average Maturity	7.4	13.0	7.4

Credit Quality Allocation



Sector Allocation



Columbia Insitutional High Yield

As of March 31, 2019

Account Information

Account Name	Columbia Insitutional High Yield
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	3/01/12
Account Type	Fixed
Benchmark	BBgBarc US High Yield TR
Universe	eV US High Yield Fixed Inc Gross

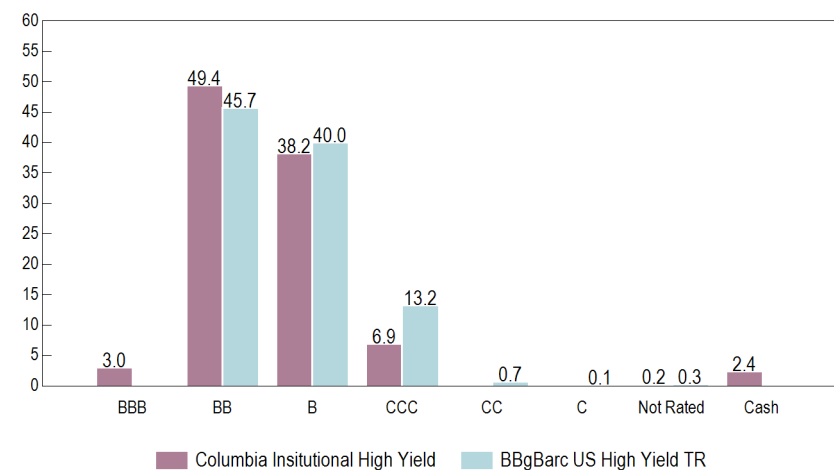
Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Columbia Insitutional High Yield	8.0	6.5	6.5	4.7	5.9	Mar-12
BBgBarc US High Yield TR	7.3	5.9	8.6	4.7	6.2	Mar-12
eV US High Yield Fixed Inc Gross Median	7.0	5.8	7.9	4.6	6.1	Mar-12
eV US High Yield Fixed Inc Gross Rank	6	19	83	44	62	Mar-12

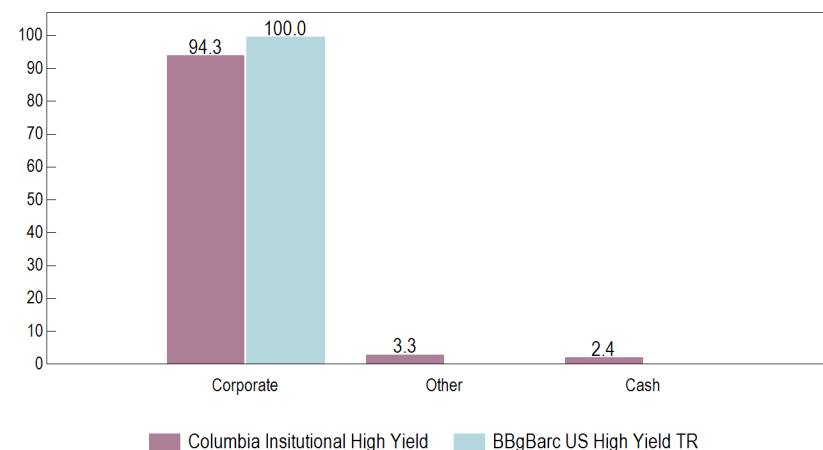
Columbia Insitutional High Yield Characteristics
vs. BBgBarc US High Yield TR

	Portfolio Q1-19	Index Q1-19	Portfolio Q4-18
Fixed Income Characteristics			
Yield to Maturity	5.8	6.8	7.2
Average Duration	3.5	3.4	4.2
Average Quality	BB	B	B
Weighted Average Maturity	6.0	5.8	6.4

Credit Quality Allocation



Sector Allocation



Account Information

Account Name	SSgA TIPS-NL
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	7/01/07
Account Type	Fixed
Benchmark	BBgBarc US TIPS TR
Universe	eV US TIPS / Inflation Fixed Inc Gross

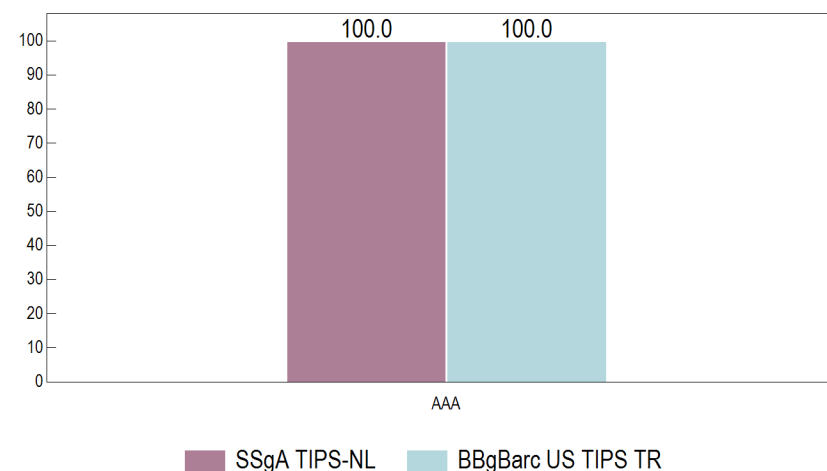
Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
SSgA TIPS-NL	3.2	2.7	1.6	1.9	3.9	Jul-07
BBgBarc US TIPS TR	3.2	2.7	1.7	1.9	4.0	Jul-07
eV US TIPS / Inflation Fixed Inc Gross Median	3.3	2.8	1.9	2.1	4.1	Jul-07
eV US TIPS / Inflation Fixed Inc Gross Rank	69	74	83	62	68	Jul-07

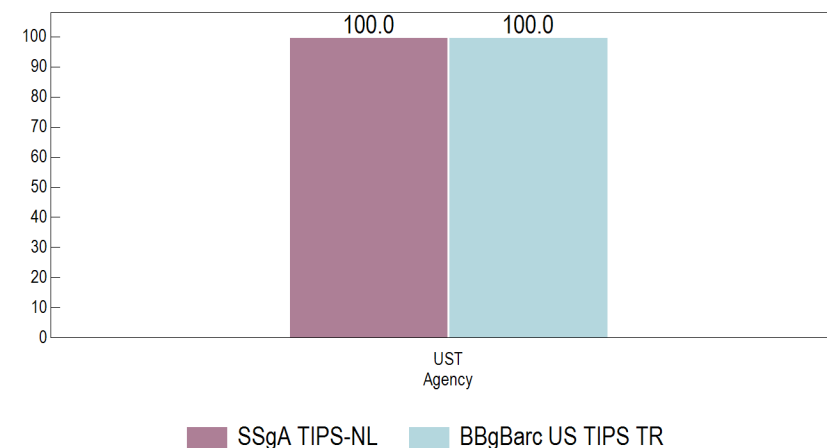
SSgA TIPS-NL Characteristics
vs. BBgBarc US TIPS TR

	Portfolio Q1-19	Index Q1-19	Portfolio Q4-18
Fixed Income Characteristics			
Yield to Maturity	2.6	0.5	2.5
Average Duration	5.2	5.2	5.3
Average Quality	AAA	AAA	AAA
Weighted Average Maturity	8.1	8.1	7.9

Credit Quality Allocation



Sector Allocation



Aberdeen Emerging Markets Bond Fund

As of March 31, 2019

Account Information

Account Name	Aberdeen Emerging Markets Bond Fund
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	12/01/16
Account Type	Fixed
Benchmark	JP Morgan EMBI Global Diversified
Universe	eV Emg Mkt Fixed Inc Unhedged Gross

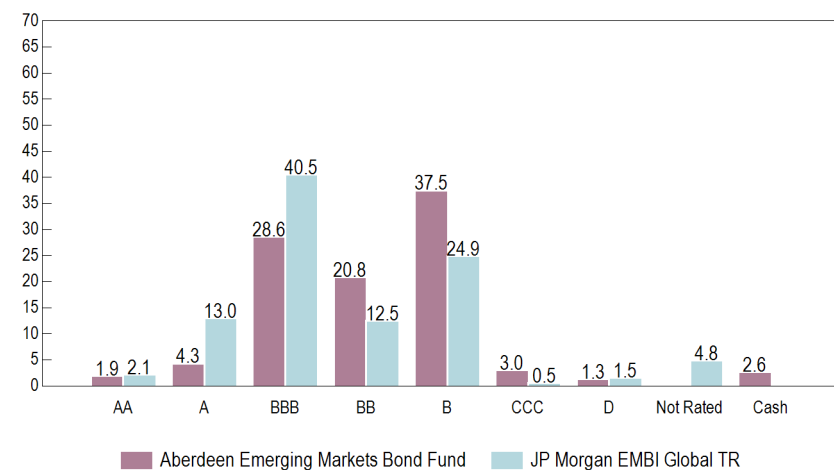
Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Aberdeen Emerging Markets Bond Fund	7.4	0.7	--	--	5.4	Dec-16
JP Morgan EMBI Global Diversified	7.0	4.2	5.8	5.4	5.9	Dec-16
JP Morgan GBI EM Global Diversified TR USD	2.9	-7.6	3.3	-0.8	5.5	Dec-16
eV Emg Mkt Fixed Inc Unhedged Gross Median	5.3	1.0	5.7	4.0	6.0	Dec-16
eV Emg Mkt Fixed Inc Unhedged Gross Rank	11	52	--	--	74	Dec-16

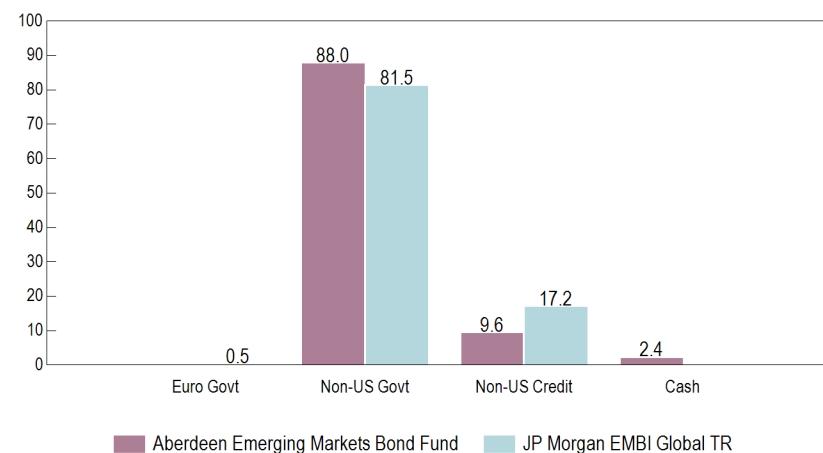
Aberdeen Emerging Markets Bond Fund Fixed Income Characteristics
vs. JP Morgan EMBI Global TR

	Portfolio Q1-19	Index Q1-19	Portfolio Q4-18
Fixed Income Characteristics			
Yield to Maturity	6.9	6.1	7.7
Average Duration	6.2	7.1	5.7
Average Quality	BB	BB	BB
Weighted Average Maturity	10.2	11.4	9.6

Credit Quality Allocation



Global Sector Allocation



As of March 31, 2019

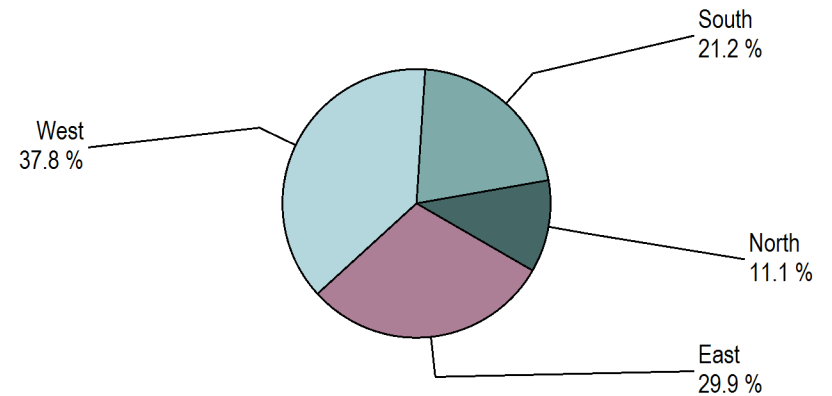
Account Information

Account Name	Intercontinental U.S. REIF
Account Structure	Other
Investment Style	Active
Inception Date	10/01/14
Account Type	Real Estate
Benchmark	NCREIF ODCE (net)
Universe	

Portfolio Performance Summary

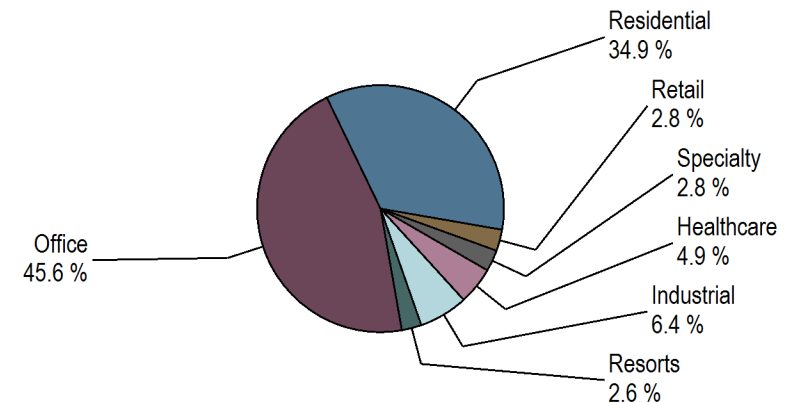
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Intercontinental U.S. REIF	2.0	9.8	10.7	--	11.6	Oct-14
NCREIF ODCE (net)	1.2	6.6	7.0	9.2	8.9	Oct-14

Geographic Diversification



North represents Midwest.

Property Type Allocation



Note: Number of investments is 122.



AEW Core Property Trust

As of March 31, 2019

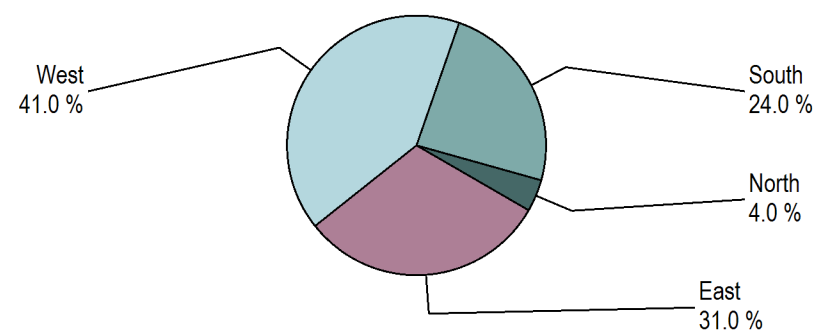
Account Information

Account Name	AEW Core Property Trust
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	10/01/14
Account Type	Real Estate
Benchmark	NCREIF ODCE (net)
Universe	

Portfolio Performance Summary

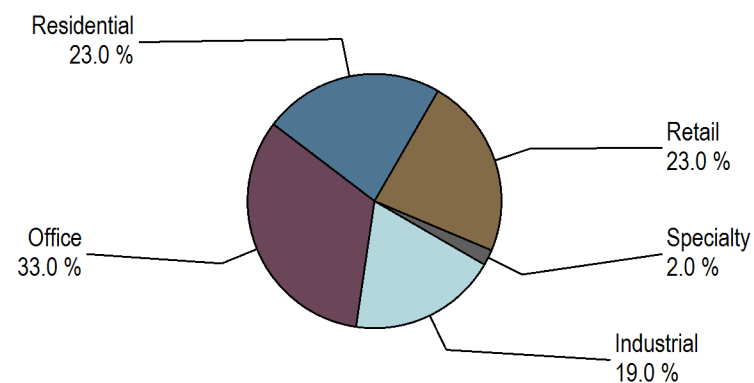
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
AEW Core Property Trust	1.5	6.7	7.2	—	9.0	Oct-14
NCREIF ODCE (net)	1.2	6.6	7.0	9.2	8.9	Oct-14

Geographic Diversification



North represents Midwest.

Property Type Allocation



Note: As of December 31, 2018, the number of investments is 72 and Net IRR is 8.83%.



TA Associates Realty Fund X

As of March 31, 2019

Account Information

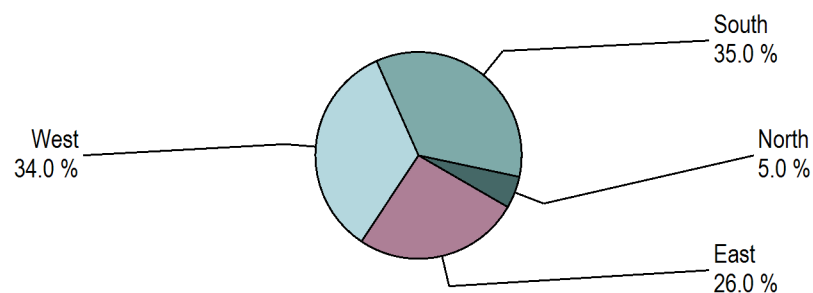
Account Name	TA Associates Realty Fund X
Account Structure	Other
Investment Style	Active
Inception Date	4/01/13
Account Type	Real Estate
Benchmark	NCREIF ODCE (net)
Universe	

Non-Marketable Securities Overview

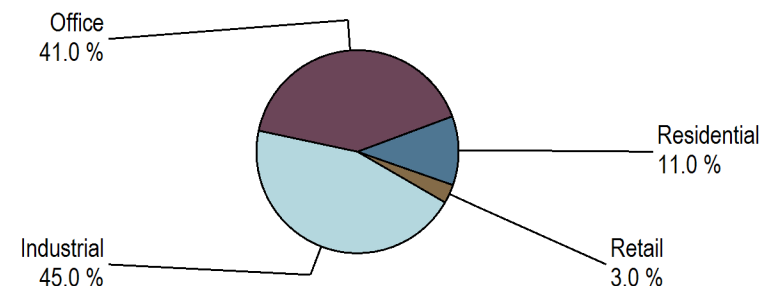
As of March 31, 2019

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Real Estate	TA Associates Realty Fund X	2013	\$3,000,000	\$3,005,227	\$3,051,107	\$1,531,574	\$4,582,681	-\$5,227
	Total Account		\$3,000,000	\$3,005,227	\$3,051,107	\$1,531,574	\$4,582,681	-\$5,227

Geographic Diversification



Property Type Allocation



Investment Strategy:

TA Associates Realty Fund X uses a value-added strategy to create a diversified portfolio of direct real estate investments. The strategy is anticipated to target under-leased office, industrial, multifamily, and retail assets that are expected to be well-located, functional buildings with strong net operating income (NOI) growth potential. Geographically, the fund will target over 35 U.S. markets with broad regional diversification targets of 25% to 40% in the west, 20% to 35% in the east, 20% to 30% in the south, and 10% to 20% in the Midwest. The fund will target 35% leverage, with a maximum of 50%. Most value-added improvements include redevelopment, repositioning, retenanting, or recapitalization.

Note: As of December 31, 2018, the number of investments is 61 and Net IRR is 12.42%.



Ascent Venture Partners - Fund II

As of March 31, 2019

Account Information

Account Name	Ascent Venture Partners - Fund II
Account Structure	Other
Investment Style	Active
Inception Date	9/01/01
Account Type	Private Equity
Benchmark	Cambridge Associates US All PE (1 Qtr Lag)
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Ascent Venture Partners - Fund II	1995	\$500,000	\$484,254	\$1,607,392	\$5,828	\$1,613,220	\$15,746
	Total Account		\$500,000	\$484,254	\$1,607,392	\$5,828	\$1,613,220	\$15,746

Investment Strategy:

Ascent Venture Partners seeks to build private equity portfolios that are balanced with respect to industry (high and low technology ventures), and diverse with respect to company growth stage (from seed through buyout and re capitalization). Ascent favors proven management teams and reasonable valuations. Ascent has shifted their focus to liquidating the remaining investments in the partnership.

Note: As of December 31, 2018, the Net IRR is 27%.



Ascent Venture Partners - Fund III

As of March 31, 2019

Account Information

Account Name	Ascent Venture Partners - Fund III
Account Structure	Other
Investment Style	Active
Inception Date	6/01/01
Account Type	Private Equity
Benchmark	Cambridge Associates US All PE (1 Qtr Lag)
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Ascent Venture Partners - Fund III	1999	\$1,500,000	\$1,395,000	\$1,697,063	\$71,593	\$1,768,656	\$105,000
	Total Account		\$1,500,000	\$1,395,000	\$1,697,063	\$71,593	\$1,768,656	\$105,000

Investment Strategy:

Ascent Venture Partners seeks to build private equity portfolios that are balanced with respect to industry (high and low technology ventures), and diverse with respects to company growth stage (from seed through buyout and re-capitalization). Ascent favors proven management teams and reasonable valuations. Ascent has shifted their focus to liquidating the remaining investments in the partnership.

Note: As of December 31, 2018, the Net IRR is 3.8%.



Ascent Venture Partners - Fund IV

As of March 31, 2019

Account Information

Account Name	Ascent Venture Partners - Fund IV
Account Structure	Other
Investment Style	Active
Inception Date	3/19/04
Account Type	Private Equity
Benchmark	Cambridge Associates US All PE (1 Qtr Lag)
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Ascent Venture Partners - Fund IV	2004	\$1,000,000	\$1,000,000	\$155,588	\$25,091	\$180,679	\$0
	Total Account		\$1,000,000	\$1,000,000	\$155,588	\$25,091	\$180,679	\$0

Investment Strategy:

Located in Boston, Ascent Venture Partners (formerly known as Pioneer Capital) was formed in 1999, after Landmark Partners purchased Pioneer's interest. Ascent focuses primarily on high growth companies in the information technology sector. Ascent is an active investor, typically taking a board seat in portfolio companies. As a result, Ascent has focused its investments in the Eastern United States.

Note: As of December 31, 2018, the Net IRR is -28.51%.



Ascent Venture Partners - Fund V

As of March 31, 2019

Account Information

Account Name	Ascent Venture Partners - Fund V
Account Structure	Other
Investment Style	Active
Inception Date	9/22/08
Account Type	Private Equity
Benchmark	Cambridge Associates US All PE (1 Qtr Lag)
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Ascent Venture Partners - Fund V	2011	\$1,000,000	\$890,000	\$649,106	\$863,509	\$1,512,615	\$110,000
	Total Account		\$1,000,000	\$890,000	\$649,106	\$863,509	\$1,512,615	\$110,000

Investment Strategy:

Ascent Venture Partners V is an early stage venture capital fund focused on making investments within the technology products and services industry. Specific areas of interest include next generation software (open source and Software-as-a-Service), data management and analysis, automated computing, security and compliance, financial services, and applications associated with the convergence of remote devices. The GP is located in Boston and will invest in the eastern United States and Canada. The Fund will target companies that have pre-money valuations of \$3 to \$15 million and have the potential for a \$100 million exit value.

Note: As of December 31, 2018, the Net IRR is 9.1%.



Ascent Venture Partners - Fund VI

As of March 31, 2019

Account Information

Account Name	Ascent Venture Partners - Fund VI
Account Structure	Other
Investment Style	Active
Inception Date	6/30/15
Account Type	Private Equity
Benchmark	Cambridge Associates US All PE (1 Qtr Lag)
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Ascent Venture Partners - Fund VI	2015	\$1,500,000	\$915,000	\$0	\$1,226,731	\$1,226,731	\$585,000
	Total Account		\$1,500,000	\$915,000	\$0	\$1,226,731	\$1,226,731	\$585,000

Note: As of December 31, 2018, the Net IRR is 10.29%.



As of March 31, 2019

Account Information

Account Name	Goldman Sachs PEP 2005
Account Structure	Other
Investment Style	Active
Inception Date	8/01/06
Account Type	Private Equity
Benchmark	Cambridge Associates US All PE (1 Qtr Lag)
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Goldman Sachs PEP 2005	2006	\$3,000,000	\$2,926,669	\$3,167,445	\$632,294	\$3,799,739	\$73,331
	Total Account		\$3,000,000	\$2,926,669	\$3,167,445	\$632,294	\$3,799,739	\$73,331

Investment Strategy:

Goldman Sachs Private Equity Partners 2005 is a fund of funds formed to create a diversified portfolio of 18 to 25 partnerships. The Fund will invest opportunistically in order to commit to the "very best managers." The Fund expects to commit approximately \$40 million to each partnership. Previous funds have invested approximately 30% outside the U.S.

As of December 31, 2018, the IRR is 4.6%

As of March 31, 2019

Account Information

Account Name	HarbourVest Partners VIII
Account Structure	Other
Investment Style	Active
Inception Date	12/20/07
Account Type	Private Equity
Benchmark	Cambridge Associates US All PE (1 Qtr Lag)
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	HarbourVest Partners VIII	2006	\$2,500,000	\$2,286,178	\$3,268,043	\$742,019	\$4,010,062	\$213,822
	Total Account		\$2,500,000	\$2,286,178	\$3,268,043	\$742,019	\$4,010,062	\$213,822

Investment Strategy:

HarbourVest Partners, known as Hancock Venture Partners until 1997, was founded in 1982 to invest in private equity partnerships. The HarbourVest Partners VIII Investment Program consists of three separate fund of funds, each dedicated to distinct private equity strategies: buyout, venture capital and mezzanine debt partnerships. Each vehicle will invest primarily in newly raised funds, but will also invest a portion of assets in secondary interest.

Note: As of December 31, 2018, the Net IRR is 10.5%.



As of March 31, 2019

Account Information

Account Name	HarbourVest Partners IX
Account Structure	Other
Investment Style	Active
Inception Date	10/22/13
Account Type	Private Equity
Benchmark	Cambridge Associates US All PE (1 Qtr Lag)
Universe	

Non-Marketable Securities Overview

As of March 31, 2019

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	HarbourVest Partners IX	2010	\$5,000,000	\$3,405,139	\$2,187,066	\$3,431,630	\$5,618,696	\$1,594,861
	Total Account		\$5,000,000	\$3,405,139	\$2,187,066	\$3,431,630	\$5,618,696	\$1,594,861

Investment Strategy:

HarbourVest Partners, known as Hancock Venture Partners until 1997, was founded in 1982 to invest in private equity partnerships. The HarbourVest Partners IX Fund consists of three separate fund of funds, each dedicated to distinct private equity strategies: buyout, venture capital, and mezzanine debt partnerships. Each vehicle will invest primarily in newly-raised funds, but will also invest a portion of assets in secondary interests.

Note: As of December 31, 2018, the Net IRR is 17.3%.



As of March 31, 2019

Account Information

Account Name	HarbourVest X Buyout Fund
Account Structure	Other
Investment Style	Active
Inception Date	4/06/16
Account Type	Private Equity
Benchmark	Cambridge Associates US All PE (1 Qtr Lag)
Universe	

As of March 31, 2019

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	HarbourVest X Buyout Fund	2016	\$6,500,000	\$1,810,366	\$56,544	\$2,232,018	\$2,288,562	\$4,689,634
	Total Account		\$6,500,000	\$1,810,366	\$56,544	\$2,232,018	\$2,288,562	\$4,689,634

Investment Strategy:

HarbourVest Partners, known as Hancock Venture Partners until 1997, was founded in 1982 to invest in private equity partnerships. The HarbourVest Partners IX Fund consists of three separate fund of funds, each dedicated to distinct private equity strategies: buyout, venture capital, and mezzanine debt partnerships. Each vehicle will invest primarily in newly-raised funds, but will also invest a portion of assets in secondary interests.

Note: As of September 30, 2018, the Net IRR is 28.8%.



Constitution Capital Partners Ironsides III

As of March 31, 2019

Account Information

Account Name	Constitution Capital Partners Ironsides III
Account Structure	Other
Investment Style	Active
Inception Date	1/29/14
Account Type	Private Equity
Benchmark	Cambridge Associates US All PE (1 Qtr Lag)
Universe	

Non-Marketable Securities Overview

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Constitution Capital Partners Ironsides III	2014	\$5,000,000	\$2,778,820	\$119,753	\$3,317,397	\$3,437,150	\$2,221,180
	Total Account		\$5,000,000	\$2,778,820	\$119,753	\$3,317,397	\$3,437,150	\$2,221,180

Investment Strategy:

Constitution Capital seeks investments in underlying private equity funds ranging in size from \$200 million to approximately \$1.0 billion, with a few larger potentially. Constitution has noted their preference to invest the majority of capital to funds of less than \$1 billion. Constitution has noted their preference to invest the majority of capital to funds of less than \$1 billion. Constitution targets a variety of fund types (domestic middle-market buyout, special situations, growth equity, distressed, and sector-specific) and will allocate amongst them opportunistically. The group will not invest in early-stage venture capital funds or mega buyout funds. The portfolio will have 12 to 15 underlying fund investments of approximately \$10 million to \$20 million each. For co-investments, it is anticipated that a total of 12-15 co-investments will each range from \$5 million to \$25 million. The enterprise values of the underlying companies are expected to range from \$100 million to \$1.5 billion.

Note: As of December 31, 2018, the Gross IRR is 15.6%.



Constitution Capital Partners Ironsides IV

As of March 31, 2019

Account Information

Account Name	Constitution Capital Partners Ironsides IV
Account Structure	Other
Investment Style	Active
Inception Date	6/01/16
Account Type	Private Equity
Benchmark	Cambridge Associates US All PE (1 Qtr Lag)

Non-Marketable Securities Overview

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Constitution Capital Partners Ironsides IV	2016	\$3,250,000	\$1,025,881	\$0	\$1,289,370	\$1,289,370	\$2,224,119
	Total Account		\$3,250,000	\$1,025,881	\$0	\$1,289,370	\$1,289,370	\$2,224,119

Investment Strategy:

Constitution Capital seeks investments in underlying private equity funds ranging in size from \$200 million to approximately \$1.0 billion, with a few larger potentially. Constitution has noted their preference to invest the majority of capital to funds of less than \$1 billion. Constitution has noted their preference to invest the majority of capital to funds of less than \$1 billion. Constitution targets a variety of fund types (domestic middle-market buyout, special situations, growth equity, distressed, and sector-specific) and will allocate amongst them opportunistically. The group will not invest in early-stage venture capital funds or mega buyout funds. The portfolio will have 12 to 15 underlying fund investments of approximately \$10 million to \$20 million each. For co-investments, it is anticipated that a total of 12-15 co-investments will each range from \$5 million to \$25 million. The enterprise values of the underlying companies are expected to range from \$100 million to \$1.5 billion.

Note: As of December 31, 2018, the Gross IRR is 21.7%.



Constitution Capital Direct IV

As of March 31, 2019

Account Information

Account Name	Constitution Capital Direct IV
Account Structure	Other
Investment Style	Active
Inception Date	6/30/16
Account Type	Private Equity
Benchmark	Cambridge Associates US All PE (1 Qtr Lag)
Universe	

Non-Marketable Securities Overview

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Constitution Capital Direct IV	2016	\$3,250,000	\$2,695,463	\$0	\$2,902,424	\$2,902,424	\$554,537
	Total Account		\$3,250,000	\$2,695,463	\$0	\$2,902,424	\$2,902,424	\$554,537

SSgA S&P Global LargeMidCap Natural Resources Index

As of March 31, 2019

Account Information

Account Name	SSgA S&P Global LargeMidCap Natural Resources Index
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	2/01/18
Account Type	Real Assets
Benchmark	S&P Global Large MidCap Commodity and Resources NR USD
Universe	

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
SSgA S&P Global LargeMidCap Natural Resources Index	12.3	5.2	--	--	-2.2	Feb-18
S&P Global Large MidCap Commodity and Resources NR USD	12.3	4.9	12.9	0.2	-2.6	Feb-18

Top 10 Holdings

NUTRIEN	6.7%
EXXON MOBIL	5.4%
ARCHER DANIELS MIDLAND	5.1%
BHP GROUP	4.6%
CHEVRON	3.7%
RIO TINTO	3.7%
BHP GROUP	2.9%
GLENCORE	2.9%
BP	2.3%
TOTAL	2.2%
Total	39.6%

SSgA S&P Global LargeMidCap Natural Resources Index Characteristics

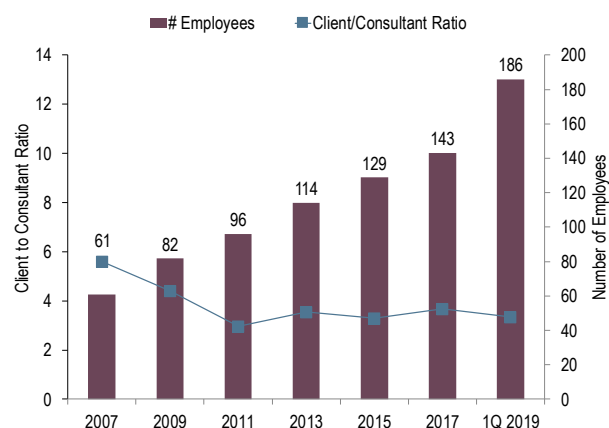
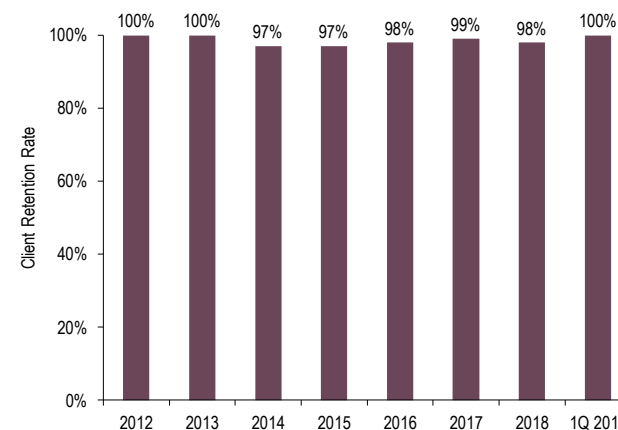
	Portfolio Q1-19	Portfolio Q4-18
Market Value		
Market Value (\$M)	4.0	3.6
Number Of Holdings	184	182
Characteristics		
Weighted Avg. Market Cap. (\$B)	64.0	55.2
Median Market Cap (\$B)	9.9	8.6
P/E Ratio	14.3	21.3
Yield	3.4	3.6
EPS Growth - 5 Yrs.	-1.7	-8.2
Price to Book	1.7	1.8
Beta (holdings; domestic)	1.2	1.2
Sector Distribution		
Energy	32.9	32.0
Materials	53.3	54.5
Industrials	0.0	0.0
Consumer Discretionary	0.0	0.0
Consumer Staples	12.9	13.3
Health Care	0.0	0.0
Financials	0.0	0.0
Information Technology	0.0	0.0
Communication Services	0.0	0.0
Utilities	0.0	0.0
Real Estate	0.0	0.0



Appendices

Meketa Investment Group Corporate Update

- Staff of 186, including 127 investment professionals and 39 CFA Charterholders
- 210 clients, with over 300 funds throughout the United States
- Significant investment in staff and resources
- Offices in Boston, Chicago, Miami, New York, Portland (OR), San Diego, and London
- We advise on \$1.4 trillion in client assets
 - Over \$100 billion in assets committed to alternative investments
 - Private Equity ▪ Infrastructure ▪ Natural Resources
 - Real Estate ▪ Hedge Funds ▪ Commodities

Client to Consultant Ratio¹**Client Retention Rate²**

Meketa Investment Group is proud to work for over 5 million American families everyday.

¹ On March 15, 2019, 31 employees joined the firm as part of the merger of Meketa Investment Group and Pension Consulting Alliance.

² Client Retention Rate is one minus the number of clients lost divided by the number of clients at prior year-end.



Asset Classes Followed Intensively by Meketa Investment Group

Domestic Equities	International Equities	Private Equity	Real Assets	Fixed Income	Hedge Funds
<ul style="list-style-type: none"> - Passive - Enhanced Index - Large Cap - Midcap - Small Cap - Microcap - 130/30 	<ul style="list-style-type: none"> - Large Cap Developed - Small Cap Developed - Emerging Markets - Frontier Markets 	<ul style="list-style-type: none"> - Buyouts - Venture Capital - Private Debt - Special Situations - Secondaries - Fund of Funds 	<ul style="list-style-type: none"> - Public REITs - Core Real Estate - Value Added Real Estate - Opportunistic Real Estate - Infrastructure - Timber - Natural Resources - Commodities 	<ul style="list-style-type: none"> - Short-Term - Core - Core Plus - TIPS - High Yield - Bank Loans - Distressed - Global - Emerging Markets 	<ul style="list-style-type: none"> - Long/Short Equity - Event Driven - Relative Value - Fixed Income Arbitrage - Multi Strategy - Market Neutral - Global Macro - Fund of Funds - Portable Alpha

Disclaimer, Glossary, and Notes

WE HAVE PREPARED THIS REPORT (THIS “REPORT”) FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE “RECIPIENT”).

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE “FORWARD - LOOKING STATEMENTS,” WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS “MAY,” “WILL,” “SHOULD,” “EXPECT,” “AIM,” “ANTICIPATE,” “TARGET,” “PROJECT,” “ESTIMATE,” “INTEND,” “CONTINUE” OR “BELIEVE,” OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security.)

Duration: Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

Information Ratio: This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. Portfolio Return- [Risk Free Rate+Beta*(market return-Risk Free Rate)].

Market Capitalization: For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

Market Weighted: Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

Prepayment Risk: The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

Price-Book Value (P/B) Ratio: The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.

Price-Earnings (P/E) Ratio: A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about its future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

Quality Rating: The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

Standard Deviation: A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

Style: The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Yield to Maturity: The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a “basis book.” For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

$$\frac{5\% \text{ (discount)}}{5 \text{ (yrs. to maturity)}} = 1\% \text{ pro rata, plus } 5.26\% \text{ (current yield)} = 6.26\% \text{ (yield to maturity)}$$

Sources: [Investment Terminology](#), International Foundation of Employee Benefit Plans, 1999.
[The Handbook of Fixed Income Securities](#), Fabozzi, Frank J., 1991.

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.