

Plymouth County Retirement Association

December 12, 2023

Meeting Materials

Agenda

1. Estimated Retirement Association Performance As of November 30, 2023
2. Performance Update As of October 31, 2023
3. Current Issue
 - Parametric Overlay
4. Appendices
 - Economic Market Update As of October 31, 2023
 - Corporate Update
 - Disclaimer, Glossary, and Notes

**Estimated Retirement Association Performance
As of November 30, 2023**

Estimated Aggregate Performance¹

	November ² (%)	QTD (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Total Retirement Association	4.1	2.3	6.7	5.5	7.1	8.0	6.6

Benchmark Returns

	November (%)	QTD (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Russell 3000	9.3	6.4	19.6	12.6	8.3	11.8	11.2
MSCI EAFE	9.3	4.9	12.3	12.4	3.8	6.0	3.9
MSCI Emerging Markets	8.0	3.8	5.7	4.2	-4.0	2.3	2.1
Bloomberg Aggregate	4.5	2.9	1.6	1.2	-4.5	0.7	1.4
Bloomberg TIPS	2.7	2.0	1.2	0.1	-1.5	2.7	2.0
Bloomberg High Yield	4.5	3.3	9.4	8.7	1.4	4.2	4.3
JPM EMBI Global Diversified (Hard Currency)	5.7	4.2	6.1	6.4	-4.4	1.0	2.8
S&P Global Natural Resources	4.9	-0.4	-0.4	-3.5	13.3	8.4	4.4

Estimated Total Assets

Estimated Total Retirement Assets As of November 30, 2023	\$1,424,740,167
Current Month Performance Estimate through December 7	3.3%

¹ The November performance estimates are calculated using index returns as of November 30, 2023 for each asset class. No performance estimate was included for private equity, real estate, infrastructure, and private natural resources asset classes.

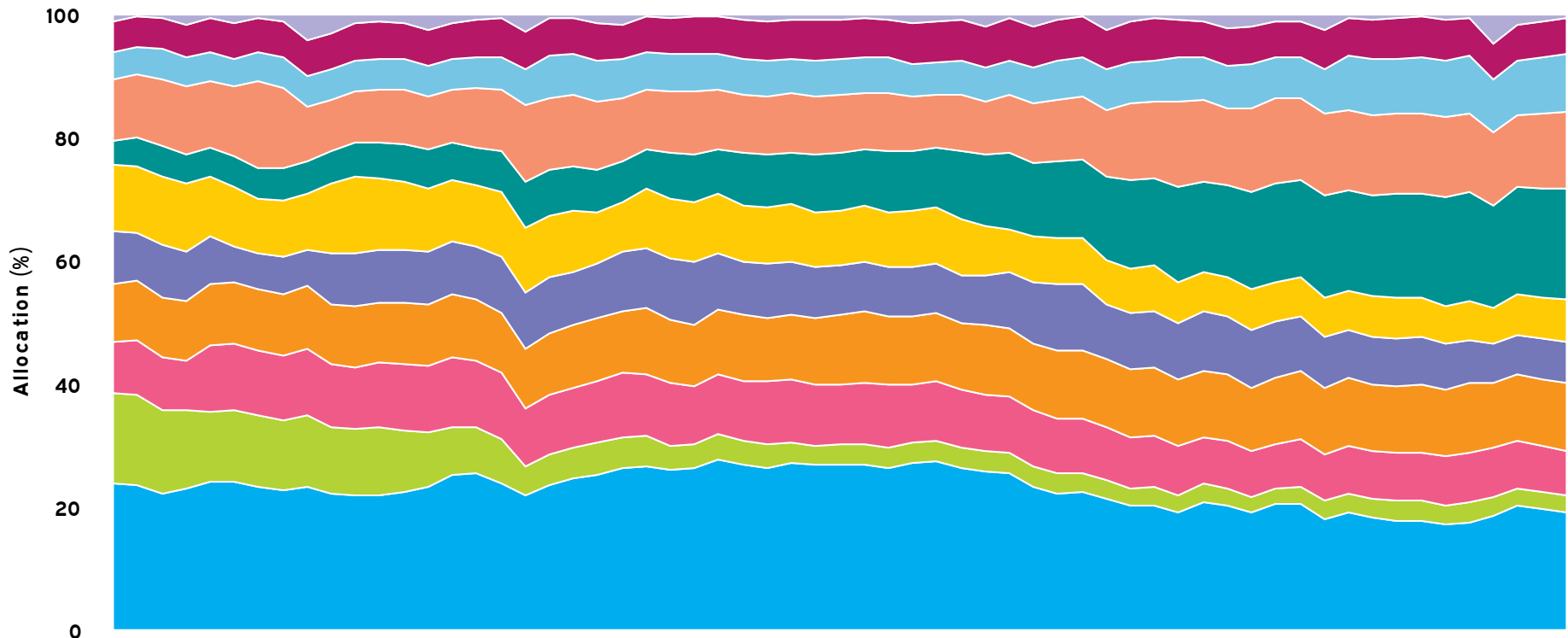
² As of November 30, 2023.

**Performance Update
As of October 31, 2023**

DRAFT

	Current Balance (\$)	Current Allocation (%)	Policy (%)	Policy Range (%)	Within IPS Range?
Total Equity	862,621,795	64	69	60 - 80	Yes
Domestic Equity	255,562,026	19	26	21 - 36	No
International Developed Market Equity	38,041,273	3	6	1 - 16	Yes
International Emerging Market Equity	99,648,047	7	10	5 - 20	Yes
Global Equity	146,743,527	11	10	5 - 20	Yes
Private Equity	244,322,914	18	13	4 - 18	No
Hedge Fund of Funds	78,304,009	6	4	2 - 8	Yes
Total Fixed Income	182,547,230	14	15	5 - 25	Yes
Core Bonds	90,742,981	7	9	4 - 14	Yes
Value-Added Fixed Income	91,804,248	7	6	2 - 12	Yes
Total Real Assets and Real Estate	292,323,289	22	16	7 - 25	Yes
Real Estate	166,247,122	12	10	5 - 15	Yes
Real Assets	126,076,168	9	6	2 - 10	Yes
Cash	8,546,777	1	0	0 - 3	Yes
Cash	8,546,777	1	0	0 - 3	Yes
Total	1,346,039,091	100	100		

Asset Allocation History 5 Years Ending October 31, 2023



- Domestic Equity
- Global Equity
- Private Equity
- Hedge Fund of Funds
- International Developed Market Equity
- Core Bonds
- Real Estate
- Cash
- International Emerging Market Equity
- Value-Added Fixed Income
- Real Assets

Asset Allocation & Performance | As of October 31, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement Association	1,346,039,091	100.0	-1.7	2.5	4.6	8.0	7.4	6.3	7.6	Nov-89
<i>Policy Benchmark (Net)</i>			<i>-1.9</i>	<i>5.5</i>	<i>6.7</i>	<i>5.2</i>	<i>6.1</i>	<i>6.0</i>	<i>--</i>	
<i>Actual Allocation (Net)</i>			<i>-1.4</i>	<i>5.9</i>	<i>6.1</i>	<i>5.5</i>	<i>5.9</i>	<i>--</i>	<i>--</i>	
Domestic Equity Assets	255,562,026	19.0	-5.2	2.3	1.9	6.7	8.5	--	10.1	Jan-16
<i>Russell 3000 Index</i>			<i>-2.7</i>	<i>9.4</i>	<i>8.4</i>	<i>9.2</i>	<i>10.2</i>	<i>10.5</i>	<i>11.1</i>	
International Developed Market Equity Assets	38,041,273	2.8	-3.0	2.2	12.4	1.4	0.5	--	1.8	Jan-16
<i>MSCI EAFE (Net)</i>			<i>-4.1</i>	<i>2.7</i>	<i>14.4</i>	<i>5.7</i>	<i>4.1</i>	<i>3.1</i>	<i>4.4</i>	
International Emerging Market Equity Assets	99,648,047	7.4	-4.1	0.6	7.5	-2.5	2.5	--	4.2	Jan-16
<i>MSCI Emerging Markets (Net)</i>			<i>-3.9</i>	<i>-2.1</i>	<i>10.8</i>	<i>-3.7</i>	<i>1.6</i>	<i>1.2</i>	<i>4.3</i>	
Global Equity Assets	146,743,527	10.9	-1.5	4.9	10.1	8.4	7.6	--	5.1	Feb-18
<i>MSCI AC World Index (Net)</i>			<i>-3.0</i>	<i>6.7</i>	<i>10.5</i>	<i>6.7</i>	<i>7.5</i>	<i>6.8</i>	<i>4.7</i>	
Core Fixed Income	90,742,981	6.7	-0.7	0.0	1.8	-2.6	1.3	--	1.5	Jan-16
<i>75% Bbg Aggregate/25% Bbg US TIPs 1-10 year</i>			<i>-1.2</i>	<i>-2.0</i>	<i>0.5</i>	<i>-4.2</i>	<i>0.7</i>	<i>1.1</i>	<i>0.9</i>	
Value Added Fixed Income	91,804,248	6.8	-0.6	4.9	7.6	1.6	2.6	--	4.2	Jan-16
<i>Custom Benchmark - Global Fixed Income</i>			<i>-0.9</i>	<i>2.9</i>	<i>7.1</i>	<i>-0.6</i>	<i>1.7</i>	<i>2.6</i>	<i>3.2</i>	
Hedge Funds	78,304,009	5.8	-1.3	0.7	6.6	1.9	0.6	2.4	3.2	Mar-10
<i>Custom Benchmark</i>			<i>-0.5</i>	<i>2.3</i>	<i>3.8</i>	<i>3.6</i>	<i>3.6</i>	<i>3.2</i>	<i>3.1</i>	
Real Estate	166,247,122	12.4	-0.1	-3.1	-5.8	14.4	11.0	--	8.5	Jan-16
<i>Custom Benchmark</i>			<i>0.0</i>	<i>-7.6</i>	<i>-12.1</i>	<i>7.1</i>	<i>5.8</i>	<i>--</i>	<i>5.8</i>	

Effective January 1, 2023, asset class and total plan performance is rolled up using a weighted average calculation.

The policy benchmark is comprised of 26% Russell 3000/ 6% MSCI EAFE/ 10% MSCI Emerging Markets/ 13% MSCI ACWI IMI (Lagged) + 2%/ 10% MSCI ACWI/ 4% Hedge Funds Custom Benchmark/ 9% (75/25 Barclays Aggregate and Barclays 10yr)/ 6% Value Added FI Custom Benchmark/ 10% (80/20 NCREIF ODCE and Wilshire REIT)/ 6% CPI+3%

The Custom Benchmark - Global Fixed Income is comprised of 25% BBgBarc/ US High Yield, 25% / Credit Suisse Leveraged Loans / 25% JP Morgan EMBI Global diversified / and 25% BBgBarc Multiverse TR

Real Estate, Private Equity, and Real Assets market values and performance are one quarter lagged. With the exception of JPM Strategic Property, IFM, and TA Realty.

Asset Allocation & Performance | As of October 31, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	244,322,914	18.2	0.0	5.4	8.1	25.2	17.6	--	13.0	Jan-16
<i>MSCI ACWI IMI (1Q Lagged)+2%</i>			<i>0.0</i>	<i>26.2</i>	<i>18.4</i>	<i>13.2</i>	<i>9.8</i>	<i>10.8</i>	<i>11.6</i>	
Real Assets	126,076,168	9.4	-0.1	7.0	9.0	14.0	9.1	--	4.7	Jan-16
<i>CPI +3% (Unadjusted)</i>			<i>0.2</i>	<i>6.2</i>	<i>6.3</i>	<i>8.9</i>	<i>7.1</i>	<i>5.9</i>	<i>6.5</i>	
Cash and Cash Equivalent	8,546,777	0.6								

Asset Allocation & Performance | As of October 31, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement Association	1,346,039,091	100.0	-1.7	2.5	4.6	8.0	7.4	6.3	7.6	Nov-89
<i>Policy Benchmark (Net)</i>			<i>-1.9</i>	<i>5.5</i>	<i>6.7</i>	<i>5.2</i>	<i>6.1</i>	<i>6.0</i>	<i>--</i>	
<i>Actual Allocation (Net)</i>			<i>-1.4</i>	<i>5.9</i>	<i>6.1</i>	<i>5.5</i>	<i>5.9</i>	<i>--</i>	<i>--</i>	
Domestic Equity Assets	255,562,026	19.0	-5.2	2.3	1.9	6.7	8.5	--	10.1	Jan-16
<i>Russell 3000 Index</i>			<i>-2.7</i>	<i>9.4</i>	<i>8.4</i>	<i>9.2</i>	<i>10.2</i>	<i>10.5</i>	<i>11.1</i>	
Rhumblin Russell 1000 Value	72,951,230	5.4	-3.5	-1.8	0.2	10.2	6.6	7.5	8.2	May-13
<i>Russell 1000 Value Index</i>			<i>-3.5</i>	<i>-1.8</i>	<i>0.1</i>	<i>10.2</i>	<i>6.6</i>	<i>7.6</i>	<i>8.2</i>	
Rhumblin Russell 1000 Growth	52,609,688	3.9	-1.4	23.2	18.9	8.7	14.2	13.8	14.9	Aug-09
<i>Russell 1000 Growth Index</i>			<i>-1.4</i>	<i>23.2</i>	<i>19.0</i>	<i>8.7</i>	<i>14.2</i>	<i>13.8</i>	<i>15.0</i>	
Fisher Midcap Value	47,587,035	3.5	-6.6	-1.0	2.9	9.8	10.3	9.3	8.1	May-07
<i>Russell Midcap Value Index</i>			<i>-5.0</i>	<i>-4.4</i>	<i>-3.6</i>	<i>8.8</i>	<i>5.7</i>	<i>6.9</i>	<i>6.3</i>	
Newton Small Cap Growth	40,428,331	3.0	-9.7	-6.9	-11.6	-5.5	6.2	9.0	11.7	Sep-09
<i>Russell 2000 Growth Index</i>			<i>-7.7</i>	<i>-2.9</i>	<i>-7.6</i>	<i>-1.8</i>	<i>2.7</i>	<i>5.7</i>	<i>9.7</i>	
Vulcan Partners Small Cap Value	13,625,635	1.0	-9.0	-2.9	-1.9	--	--	--	-20.5	Apr-22
<i>Russell 2000 Value Index</i>			<i>-6.0</i>	<i>-6.5</i>	<i>-9.9</i>	<i>9.7</i>	<i>3.3</i>	<i>5.2</i>	<i>-11.8</i>	
Systematic Small Cap Free Cash Flow	28,360,106	2.1	-5.1	0.6	0.3	--	--	--	-1.2	Apr-22
<i>Russell 2000 Value Index</i>			<i>-6.0</i>	<i>-6.5</i>	<i>-9.9</i>	<i>9.7</i>	<i>3.3</i>	<i>5.2</i>	<i>-11.8</i>	
International Developed Market Equity Assets	38,041,273	2.8	-3.0	2.2	12.4	1.4	0.5	--	1.8	Jan-16
<i>MSCI EAFE (Net)</i>			<i>-4.1</i>	<i>2.7</i>	<i>14.4</i>	<i>5.7</i>	<i>4.1</i>	<i>3.1</i>	<i>4.4</i>	
Aristotle International Equity	20,504,830	1.5	-3.4	3.4	12.4	--	--	--	-2.0	Mar-21
<i>MSCI EAFE (Net)</i>			<i>-4.1</i>	<i>2.7</i>	<i>14.4</i>	<i>5.7</i>	<i>4.1</i>	<i>3.1</i>	<i>-1.3</i>	
Walter Scott International Equity	17,536,443	1.3	-2.6	0.9	12.4	--	--	--	-4.0	Mar-21
<i>MSCI EAFE (Net)</i>			<i>-4.1</i>	<i>2.7</i>	<i>14.4</i>	<i>5.7</i>	<i>4.1</i>	<i>3.1</i>	<i>-1.3</i>	

Asset Allocation & Performance | As of October 31, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
International Emerging Market Equity Assets	99,648,047	7.4	-4.1	0.6	7.5	-2.5	2.5	--	4.2	Jan-16
<i>MSCI Emerging Markets (Net)</i>			<i>-3.9</i>	<i>-2.1</i>	<i>10.8</i>	<i>-3.7</i>	<i>1.6</i>	<i>1.2</i>	<i>4.3</i>	
ABS Emerging Markets	53,346,881	4.0	-4.6	1.3	11.2	-1.0	--	--	4.1	Dec-18
<i>MSCI Emerging Markets (Net)</i>			<i>-3.9</i>	<i>-2.1</i>	<i>10.8</i>	<i>-3.7</i>	<i>1.6</i>	<i>1.2</i>	<i>0.8</i>	
Driehaus Emerging Markets Growth	46,301,165	3.4	-3.5	-0.2	3.6	-4.0	--	--	2.6	Mar-19
<i>MSCI Emerging Markets (Net)</i>			<i>-3.9</i>	<i>-2.1</i>	<i>10.8</i>	<i>-3.7</i>	<i>1.6</i>	<i>1.2</i>	<i>-0.4</i>	
Global Equity Assets	146,743,527	10.9	-1.5	4.9	10.1	8.4	7.6	--	5.1	Feb-18
<i>MSCI AC World Index (Net)</i>			<i>-3.0</i>	<i>6.7</i>	<i>10.5</i>	<i>6.7</i>	<i>7.5</i>	<i>6.8</i>	<i>4.7</i>	
First Eagle Global Value Fund	24,682,960	1.8	-1.7	3.4	10.2	7.0	6.0	--	3.7	Feb-18
<i>MSCI AC World Index Value (Net)</i>			<i>-3.5</i>	<i>-1.1</i>	<i>4.1</i>	<i>9.3</i>	<i>4.4</i>	<i>4.4</i>	<i>2.0</i>	
Kopernik Global All Cap Fund	40,854,372	3.0	0.8	8.0	17.1	12.0	11.4	--	7.4	Feb-18
<i>MSCI AC World Index Value (Net)</i>			<i>-3.5</i>	<i>-1.1</i>	<i>4.1</i>	<i>9.3</i>	<i>4.4</i>	<i>4.4</i>	<i>2.0</i>	
Lee Munder Global Multi-Cap Strategy	37,607,793	2.8	-2.6	7.2	8.9	7.4	6.1	--	4.3	Mar-18
<i>MSCI AC World Index (Net)</i>			<i>-3.0</i>	<i>6.7</i>	<i>10.5</i>	<i>6.7</i>	<i>7.5</i>	<i>6.8</i>	<i>5.6</i>	
Wellington Durable Enterprises, L.P.	43,598,401	3.2	-2.5	0.6	5.4	7.4	7.3	--	6.8	Mar-18
<i>MSCI AC World Index (Net)</i>			<i>-3.0</i>	<i>6.7</i>	<i>10.5</i>	<i>6.7</i>	<i>7.5</i>	<i>6.8</i>	<i>5.6</i>	

Asset Allocation & Performance | As of October 31, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Fixed Income	90,742,981	6.7	-0.7	0.0	1.8	-2.6	1.3	--	1.5	Jan-16
<i>75% Bbg Aggregate/25% Bbg US TIPS 1-10 year</i>			<i>-1.2</i>	<i>-2.0</i>	<i>0.5</i>	<i>-4.2</i>	<i>0.7</i>	<i>1.1</i>	<i>0.9</i>	
Lord Abbett Short Duration Credit Trust II	38,983,923	2.9	0.2	2.8	4.4	0.1	--	--	0.9	Aug-19
<i>Blmbg. 1-3 Year Credit</i>			<i>0.2</i>	<i>2.5</i>	<i>4.0</i>	<i>-0.3</i>	<i>1.6</i>	<i>1.5</i>	<i>1.0</i>	
Lord Abbett Core Fixed Income Trust II	39,027,140	2.9	-1.5	-2.2	0.8	--	--	--	-8.2	Dec-21
<i>Blmbg. U.S. Aggregate Index</i>			<i>-1.6</i>	<i>-2.8</i>	<i>0.4</i>	<i>-5.6</i>	<i>-0.1</i>	<i>0.9</i>	<i>-8.5</i>	
Rhumblin TIPS Trust	12,731,919	0.9	-0.7	-1.5	-0.8	-2.0	--	--	-2.2	Sep-20
<i>Blmbg. U.S. TIPS</i>			<i>-0.7</i>	<i>-1.5</i>	<i>-0.7</i>	<i>-2.0</i>	<i>2.3</i>	<i>1.6</i>	<i>-2.2</i>	
Value Added Fixed Income	91,804,248	6.8	-0.6	4.9	7.6	1.6	2.6	--	4.2	Jan-16
<i>Custom Benchmark - Global Fixed Income</i>			<i>-0.9</i>	<i>2.9</i>	<i>7.1</i>	<i>-0.6</i>	<i>1.7</i>	<i>2.6</i>	<i>3.2</i>	
Eaton Vance High Yield	12,083,683	0.9	-1.2	3.9	5.4	1.4	3.0	3.8	5.7	May-06
<i>ICE BofA High Yield Master II</i>			<i>-1.2</i>	<i>4.7</i>	<i>5.8</i>	<i>1.2</i>	<i>2.9</i>	<i>3.8</i>	<i>5.9</i>	
First Eagle Bank Loan Select Fund	11,584,608	0.9	0.6	9.9	10.4	5.3	3.9	4.3	5.0	Oct-10
<i>Credit Suisse Leveraged Loan Index</i>			<i>0.0</i>	<i>9.9</i>	<i>11.6</i>	<i>5.9</i>	<i>4.3</i>	<i>4.3</i>	<i>4.7</i>	
Manulife Strategic Fixed Income	33,742,044	2.5	-1.2	0.4	3.1	-1.5	--	--	0.4	Aug-19
<i>Blmbg. Global Multiverse</i>			<i>-1.2</i>	<i>-3.1</i>	<i>2.1</i>	<i>-7.0</i>	<i>-1.5</i>	<i>-0.5</i>	<i>-3.5</i>	
Mesirow High Yield	15,512,169	1.2	-1.1	9.3	11.0	6.0	--	--	5.4	Aug-19
<i>Blmbg. U.S. Corp: High Yield Index</i>			<i>-1.2</i>	<i>4.6</i>	<i>6.2</i>	<i>1.2</i>	<i>3.1</i>	<i>3.9</i>	<i>1.9</i>	
Eaton Vance EMD Opportunities Fund	8,561,272	0.6	-0.5	5.9	14.8	1.5	--	--	1.9	Aug-20
<i>JPM EMBI Global Diversified</i>			<i>-1.4</i>	<i>0.4</i>	<i>8.4</i>	<i>-5.0</i>	<i>-0.2</i>	<i>2.1</i>	<i>-5.0</i>	
Schroder All ILS Fund LTD	10,320,471	0.8	1.6	--	--	--	--	--	3.2	Aug-23

Asset Allocation & Performance | As of October 31, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Hedge Funds	78,304,009	5.8	-1.3	0.7	6.6	1.9	0.6	2.4	3.2	Mar-10
<i>Custom Benchmark</i>			<i>-0.5</i>	<i>2.3</i>	<i>3.8</i>	<i>3.6</i>	<i>3.6</i>	<i>3.2</i>	<i>3.1</i>	
ABS Offshore SPC - Global Segregated Portfolio	30,152,500	2.2	-2.1	0.9	4.4	2.4	4.0	3.7	4.6	Sep-10
<i>HFRI Equity Hedge (Total) Index</i>			<i>-2.5</i>	<i>2.1</i>	<i>4.3</i>	<i>5.5</i>	<i>5.7</i>	<i>4.7</i>	<i>5.1</i>	
Entrust Special Opportunities Fund III, Ltd.	13,695,097	1.0	0.0	2.7	17.6	1.0	-3.2	--	2.6	Oct-16
<i>HFRI Fund of Funds Composite Index (QTR)</i>			<i>-1.1</i>	<i>1.7</i>	<i>3.0</i>	<i>3.3</i>	<i>3.8</i>	<i>3.0</i>	<i>3.6</i>	
Old Farm Partners Master Fund, L.P.	15,566,457	1.2	-2.5	1.6	0.8	3.9	4.3	--	3.5	Oct-18
<i>HFRI Fund of Funds Composite Index</i>			<i>-1.1</i>	<i>1.7</i>	<i>3.0</i>	<i>3.3</i>	<i>3.8</i>	<i>3.0</i>	<i>3.1</i>	
EnTrustPermal Special Opportunities Evergreen Fund, Ltd.	18,889,955	1.4	0.0	-1.8	8.2	-0.1	--	--	1.3	Jan-19
<i>HFRI Fund of Funds Composite Index (QTR)</i>			<i>-1.1</i>	<i>1.7</i>	<i>3.0</i>	<i>3.3</i>	<i>3.8</i>	<i>3.0</i>	<i>4.4</i>	
Real Estate	166,247,122	12.4	-0.1	-3.1	-5.8	14.4	11.0	--	8.5	Jan-16
<i>Custom Benchmark</i>			<i>0.0</i>	<i>-7.6</i>	<i>-12.1</i>	<i>7.1</i>	<i>5.8</i>	<i>--</i>	<i>5.8</i>	
Core Real Estate	105,133,662	7.8	-0.1	-3.9	-9.0	9.8	8.3	--	7.8	Jan-16
<i>NCREIF Fund Index-Open End Diversified Core Equity (VW) Monthly</i>			<i>0.0</i>	<i>-7.6</i>	<i>-12.1</i>	<i>7.1</i>	<i>5.7</i>	<i>8.2</i>	<i>6.5</i>	
TA Realty Core Property Fund, L.P.	74,558,902	5.5	0.0	-1.9	-7.3	12.7	10.9	--	10.5	Apr-18
<i>NCREIF Fund Index-Open End Diversified Core Equity (VW) Monthly</i>			<i>0.0</i>	<i>-7.6</i>	<i>-12.1</i>	<i>7.1</i>	<i>5.7</i>	<i>8.2</i>	<i>5.8</i>	
JPMorgan Strategic Property	30,574,760	2.3	-0.4	-8.6	-12.8	4.7	--	--	3.5	Apr-19
<i>NCREIF Fund Index-Open End Diversified Core Equity (VW) Monthly</i>			<i>0.0</i>	<i>-7.6</i>	<i>-12.1</i>	<i>7.1</i>	<i>5.7</i>	<i>8.2</i>	<i>5.5</i>	
Non-Core Real Estate	61,113,459	4.5	0.0	-1.7	0.5	23.2	16.3	--	8.4	Jan-16

Entrust Special Opportunities Fund III and Entrust Permal Special Opportunities Evergreen Fund: Data is based on June 30, 2023 fair market value, adjusted for subsequent cash flows.

Note: The data for JPMorgan Strategic Property is as of October 31, 2023.

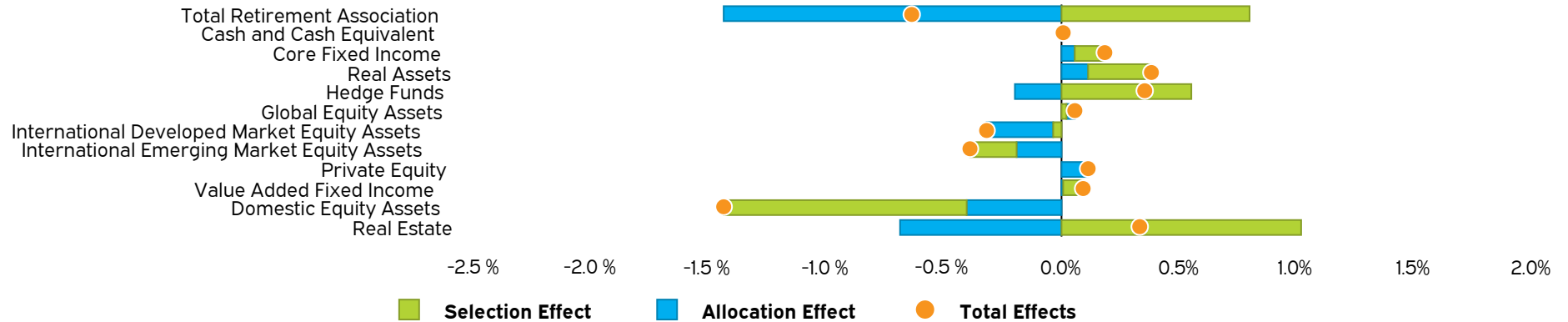
Asset Allocation & Performance | As of October 31, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	244,322,914	18.2	0.0	5.4	8.1	25.2	17.6	--	13.0	Jan-16
<i>MSCI ACWI IMI (1Q Lagged)+2%</i>			<i>0.0</i>	<i>26.2</i>	<i>18.4</i>	<i>13.2</i>	<i>9.8</i>	<i>10.8</i>	<i>11.6</i>	
Private Equity	227,841,548	16.9	0.0	5.6	8.6	25.6	18.3	--	12.7	Feb-16
Venture Capital	16,481,367	1.2	0.0	3.4	1.0	20.2	10.6	--	10.7	Feb-16
Real Assets	126,076,168	9.4	-0.1	7.0	9.0	14.0	9.1	--	4.7	Jan-16
<i>CPI +3% (Unadjusted)</i>			<i>0.2</i>	<i>6.2</i>	<i>6.3</i>	<i>8.9</i>	<i>7.1</i>	<i>5.9</i>	<i>6.5</i>	
Core Real Assets	74,960,819	5.6	-0.1	5.5	9.3	11.8	10.7	--	10.4	Oct-18
<i>CPI +3% (Unadjusted)</i>			<i>0.2</i>	<i>6.2</i>	<i>6.3</i>	<i>8.9</i>	<i>7.1</i>	<i>5.9</i>	<i>7.1</i>	
IFM Global Infrastructure	74,960,819	5.6	-0.1	5.5	9.3	11.8	10.7	--	10.4	Oct-18
<i>CPI +3% (Unadjusted)</i>			<i>0.2</i>	<i>6.2</i>	<i>6.3</i>	<i>8.9</i>	<i>7.1</i>	<i>5.9</i>	<i>7.1</i>	
Non-Core Real Assets	51,115,349	3.8	0.0	9.3	9.3	16.7	7.8	--	4.8	Jan-16
<i>CPI +3% (Unadjusted)</i>			<i>0.2</i>	<i>6.2</i>	<i>6.3</i>	<i>8.9</i>	<i>7.1</i>	<i>5.9</i>	<i>6.5</i>	
Cash and Cash Equivalent	8,546,777	0.6								
Cash	8,546,777	0.6								

Note: The data for Real Estate, Private Equity, and Real Assets is based on June 30, 2023 fair market value, adjusted for subsequent cash flows.

Note: The data for IFM Global Infrastructure is as of October 31, 2023.

Attribution Effects 1 Year Ending October 31, 2023



Attribution Summary 1 Year Ending October 31, 2023

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Total Effect (%)
Cash and Cash Equivalent	3.4	4.8	-1.4	0.0	0.0	0.0
Core Fixed Income	1.8	-0.2	2.0	0.1	0.1	0.2
Real Assets	9.0	5.6	3.4	0.3	0.1	0.4
Hedge Funds	6.6	-2.1	8.7	0.6	-0.2	0.4
Global Equity Assets	10.1	9.7	0.4	0.0	0.0	0.1
International Developed Market Equity Assets	12.4	13.6	-1.2	0.0	-0.3	-0.3
International Emerging Market Equity Assets	7.5	10.0	-2.5	-0.2	-0.2	-0.4
Private Equity	8.1	8.1	0.0	0.0	0.1	0.1
Value Added Fixed Income	7.6	6.3	1.3	0.1	0.0	0.1
Domestic Equity Assets	1.9	7.6	-5.7	-1.0	-0.4	-1.4
Real Estate	-5.8	-12.8	7.0	1.0	-0.7	0.3
Total Retirement Association	4.6	5.3	-0.6	0.8	-1.4	-0.6

Risk Return Statistics		
	3 Yrs	5 Yrs
	Total Retirement Association	Total Retirement Association
RETURN SUMMARY STATISTICS		
Maximum Return	6.9	6.9
Minimum Return	-4.0	-10.5
Return	8.0	7.4
Excess Return	6.3	5.9
Excess Performance	2.9	1.3
RISK SUMMARY STATISTICS		
Beta	0.8	0.9
Upside Risk	7.7	8.0
Downside Risk	4.7	6.8
RISK/RETURN SUMMARY STATISTICS		
Standard Deviation	8.7	10.2
Sortino Ratio	1.3	0.8
Alpha	3.9	1.9
Sharpe Ratio	0.7	0.6
Excess Risk	8.8	10.4
Tracking Error	4.1	3.8
Information Ratio	0.6	0.3
CORRELATION STATISTICS		
R-Squared	0.9	0.9
Actual Correlation	0.9	0.9

Annual Investment Expense Analysis				
	Fee Schedule	Market Value	Estimated Expense	Expense Ratio (%)
Domestic Equity Assets				
Rhumblin Russell 1000 Value	0.05 % of First \$25 M 0.04 % of Next \$25 M 0.03 % Thereafter	72,951,230	29,385	0.04
Rhumblin Russell 1000 Growth	0.05 % of First \$25 M 0.04 % of Next \$25 M 0.03 % Thereafter	52,609,688	23,283	0.04
Fisher Midcap Value	0.65 % of Assets	47,587,035	309,316	0.65
Newton Small Cap Growth	0.45 % of Assets	40,428,331	181,927	0.45
Vulcan Partners Small Cap Value	0.83 % of Assets	13,625,635	113,093	0.83
Systematic Small Cap Free Cash Flow	0.76 % of Assets	28,360,106	215,537	0.76
International Developed Market Equity Assets				
Aristotle International Equity	0.49 % of Assets	20,504,830	100,474	0.49
Walter Scott International Equity	0.75 % of Assets	17,536,443	131,523	0.75
International Emerging Market Equity Assets				
ABS Emerging Markets	Performance Based 0.35 and 0.10	53,346,881	186,714	0.35
Driehaus Emerging Markets Growth	0.55 % of Assets	46,301,165	254,656	0.55
Global Equity Assets				
First Eagle Global Value Fund	0.75 % of Assets	24,682,960	185,122	0.75
Kopernik Global All Cap Fund	0.80 % of First \$50 M 0.75 % of Next \$150 M 0.70 % of Next \$250 M 0.65 % of Next \$350 M 0.00 % Thereafter	40,854,372	326,835	0.80
Lee Munder Global Multi-Cap Strategy	0.45 % of Assets	37,607,793	169,235	0.45
Wellington Durable Enterprises, L.P.	0.60 % of Assets	43,598,401	261,590	0.60
Core Fixed Income				
Lord Abbett Short Duration Credit Trust II	0.17 % of Assets	38,983,923	66,273	0.17
Lord Abbett Core Fixed Income Trust II	0.15 % of Assets	39,027,140	58,541	0.15
Rhumblin TIPS Trust	0.04 % of First \$5 M 0.03 % Thereafter	12,731,919	4,320	0.03
Value Added Fixed Income				
Eaton Vance High Yield	0.42 % of Assets	12,083,683	50,751	0.42
First Eagle Bank Loan Select Fund	0.40 % of Assets	11,584,608	46,338	0.40
Manulife Strategic Fixed Income	0.35 % of Assets	33,742,044	118,097	0.35
Mesirow High Yield	0.40 % of Assets	15,512,169	62,049	0.40
Eaton Vance EMD Opportunities Fund	0.30 % of Assets	8,561,272	25,684	0.30
Total		712,221,631	2,920,744	

Eaton Vance EMD Opportunities Fund: Stated fee of 0.30% with other operating expenses capped at 0.15%.

Private Equity	Commitment	Total Contributions	Total Distributions	Value
Ascend Ventures II, L.P.	2,500,000	2,327,488	995,193	4,793
Ascent Venture Partners V, L.P.	5,000,000	5,004,731	4,494,116	3,184,982
Audax Mezzanine Fund IV, L.P.	10,000,000	9,003,599	7,751,969	3,277,132
Charlesbank Technology Opportunities Fund, L.P.	12,000,000	8,759,666	1,999,703	17,773,050
Ironsides Opportunities Fund II	20,000,000	6,269,024	127,791	6,397,452
Ironsides Co-Investment Fund VI, L.P.	13,000,000	11,749,689	440,844	13,754,542
DN Partners II, L.P.	5,000,000	2,375,841	23,571	2,602,713
Euro Choice V, L.P.	6,078,518	5,919,759	6,026,656	3,018,836
FS Equity Partners VIII, L.P.	12,000,000	9,724,864	324,324	15,343,879
Globespan Capital Partners V, L.P.	5,000,000	4,852,500	9,516,019	2,555,951
HarbourVest Partners Co-Investment Fund V, L.P.	12,000,000	9,300,000	2,373,256	14,397,177
HarbourVest Partners Co-Investment Fund VI, L.P.	13,000,000	6,500,000	0	6,810,931
Ironsides Direct Investment Fund V, L.P.	12,000,000	11,870,897	3,152,053	18,739,860
Kohlberg Investors IX	10,000,000	8,363,166	294,108	11,261,413
Landmark Equity Partners XIV, L.P.	6,000,000	5,843,572	7,446,442	408,687
Leeds Equity Partners V, L.P.	2,500,000	3,525,207	5,594,639	259,644
Lexington Capital Partners VII, L.P.	10,000,000	8,958,787	13,401,824	1,143,016
LLR Equity Partners V, L.P.	12,000,000	11,640,000	3,986,780	16,944,947
Mesirow Financial Capital Partners IX, L.P.	4,000,000	3,840,731	2,021,056	79,611
Ridgmont Equity Partners III, L.P.	12,000,000	12,910,739	7,072,051	16,752,593
Ridgmont Equity Partners IV, L.P.	13,000,000	1,008,678	0	1,092,995
Rimco Production Company, Inc	2,000,000	2,000,000	7,651,066	1
Searchlight Capital III, L.P.	12,000,000	9,246,689	3,969,713	10,951,931
Siguler Guff Distressed Opportunities Fund III, L.P.	6,000,000	5,820,000	9,239,704	415,671
Summit Partners Growth Equity Fund IX, L.P.	10,000,000	11,781,000	12,558,753	15,509,792
Summit Partners Venture Capital Fund V	10,000,000	5,548,562	444,178	5,245,832
Summit Partners Growth Equity Fund XI, L.P.	13,000,000	3,172,863	0	3,332,562
TRG Growth Partnership II, L.P.	7,500,000	7,366,152	8,989,845	543,251
Trilantic Capital Partners VI (North America), L.P.	12,000,000	11,854,436	1,192,424	15,119,481
Waud Capital Partners V, L.P.	10,000,000	10,036,521	52,149	15,122,664
Wellspring Capital Partners VI, L.P.	12,000,000	11,801,119	2,594,018	16,108,359
Kohlberg Investors X, L.P.	10,000,000	0	0	0

Waud Capital Partners VI	10,000,000	0	0	0
Trilantic Capital Partners VII	10,000,000	0	0	0
Total Plymouth County - PE	291,578,518	228,376,281	123,734,243	238,153,748
Real Assets	Commitment	Total Contributions	Total Distributions	Value
Basalt Infrastructure Partners II	10,000,000	9,416,866	5,845,746	7,375,110
BlackRock Global Renewable Power Infrastructure Fund III, L.P.	10,000,000	5,827,537	282,545	6,305,557
BTG Pactual Global Timberland Resources Fund, LLC	5,043,536	5,043,536	1,869,240	1,441,400
Climate Adaptive Infrastructure Fund I	10,000,000	4,921,629	584,326	5,271,387
Global Infrastructure Partners III, L.P.	10,000,000	10,281,798	4,885,650	10,389,781
Global Infrastructure Partners IV, L.P.	10,000,000	7,943,160	206,895	8,153,443
IFM Global Infrastructure (U.S.), L.P.	60,000,000	60,000,000	4,082,232	74,690,819
ISQ Global Infrastructure Fund III (USTE), L.P.	10,000,000	2,815,287	1,223	2,932,979
JPMorgan Global Maritime Investment	10,000,000	10,034,375	5,459,408	3,428,354
Domain Timbervest Partners III, L.P.	5,000,000	5,000,000	4,151,126	3,579,478
BlackRock Global Infrastructure Fund IV	10,000,000	1,871,975	0	1,794,988
Total Plymouth County - RA	140,043,536	113,739,297	21,522,645	117,988,186
Real Estate	Commitment	Total Contributions	Total Distributions	Value
1921 Realty, Inc.	5,000,000	5,378,294	0	544,736
AEW Partners IX, L.P.	10,000,000	7,201,646	141,499	7,658,914
AEW Partners Real Estate Fund VIII, L.P.	25,000,000	23,989,589	29,352,491	6,254,291
Berkshire Value Fund V, L.P.	9,000,000	6,283,181	1,058,371	5,782,165
Carlyle Realty Partners VIII, L.P.	18,000,000	15,404,133	11,476,769	9,959,998
DSF Capital Partners IV, L.P.	5,000,000	5,000,000	7,406,550	0
DSF Multi-Family Real Estate Fund III, L.P.	15,000,000	15,079,717	22,982,692	4,416,237
JPMorgan Strategic Property Fund	27,000,000	27,000,000	7,259,043	30,574,760
PCCP Equity IX, L.P.	10,000,000	6,719,943	0	6,939,010
Real Estate International Partnership Fund I, L.P.	15,000,000	12,677,141	11,372,161	591,899
Rockpoint Real Estate Fund VI, L.P.	9,000,000	7,292,898	1,091,059	7,653,917

Note: The value is based on June 30, 2023 FMV.

Note: The value for IFM Global Infrastructure and JPMorgan Strategic Property is as of October 31, 2023. The Value for TA Realty Core Property Fund is based on 6/30/2023 FMV as this fund is reported in real time.

Financial Reconciliation | 1 Month Ending October 31, 2023

	Beginning Market Value	Contributions	Distributions	Net Cash Flow	Ending Market Value
Rhumblin Russell 1000 Value	75,611,995	-	-	-	72,951,230
Rhumblin Russell 1000 Growth	53,369,785	-	-	-	52,609,688
Fisher Midcap Value	50,911,949	-	-	-	47,587,035
Newton Small Cap Growth	44,761,084	-	-	-	40,428,331
Vulcan Partners Small Cap Value	14,935,176	-	-	-	13,625,635
Systematic Small Cap Free Cash Flow	29,873,996	-	-	-	28,360,106
Aristotle International Equity	21,235,406	-	-	-	20,504,830
Walter Scott International Equity	17,983,965	-	-	-	17,536,443
ABS Emerging Markets	55,897,763	-	-	-	53,346,881
Driehaus Emerging Markets Growth	47,938,937	-	-	-	46,301,165
First Eagle Global Value Fund	25,097,783	-	-	-	24,682,960
Kopernik Global All Cap Fund	40,514,896	-	-	-	40,854,372
Lee Munder Global Multi-Cap Strategy	38,586,746	-	-	-	37,607,793
Wellington Durable Enterprises, L.P.	44,701,562	-	-	-	43,598,401
Lord Abbett Short Duration Credit Trust II	38,910,438	-	-	-	38,983,923
Lord Abbett Core Fixed Income Trust II	39,616,080	-	-	-	39,027,140
Rhumblin TIPS Trust	12,825,763	-	-	-	12,731,919
Eaton Vance High Yield	12,228,147	-	-	-	12,083,683
First Eagle Bank Loan Select Fund	11,512,085	-	-	-	11,584,608
Manulife Strategic Fixed Income	34,165,051	-	-30,592	-30,592	33,742,044
Mesirow High Yield	15,686,045	-	-	-	15,512,169
Eaton Vance EMD Opportunities Fund	8,600,235	-	-	-	8,561,272
Schroder All ILS Fund LTD	10,154,989	-	-	-	10,320,471
ABS Offshore SPC - Global Segregated Portfolio	30,791,402	-	-	-	30,152,500
Entrust Special Opportunities Fund III, Ltd.	13,695,097	-	-	-	13,695,097
Old Farm Partners Master Fund, L.P.	15,970,324	-	-	-	15,566,457
EnTrustPermal Special Opportunities Evergreen Fund, Ltd.	18,889,955	-	-	-	18,889,955
TA Realty Core Property Fund, L.P.	74,558,902	-	-	-	74,558,902
JPMorgan Strategic Property	30,925,970	-	-252,706	-252,706	30,574,760

Financial Reconciliation | 1 Month Ending October 31, 2023

	Beginning Market Value	Contributions	Distributions	Net Cash Flow	Ending Market Value
Mesirow Financial International Real Estate Fund I	591,899	-	-	-	591,899
DSF Multi-Family Real Estate Fund III	4,402,033	-	-7,891	-7,891	4,394,141
AEW Partners Real Estate VIII	6,254,291	-	-	-	6,254,291
1921 Realty, Inc	544,736	-	-	-	544,736
Carlyle Realty Partners VIII	9,573,459	-	-	-	9,573,459
Berkshire Value Fund V	5,782,165	251,018	-	251,018	6,033,183
Rockpoint Real Estate Fund VI, L.P.	8,084,662	-	-	-	8,084,662
TerraCap Partners V, L.P	10,630,682	-	-	-	10,630,682
AEW Partners Real Estate Fund IX, L.P.	7,567,396	-	-	-	7,567,396
PCCP Equity IX, L.P.	7,439,010	-	-	-	7,439,010
Euro Choice V Programme	3,018,836	-	-	-	3,018,836
Lexington Capital Partners VII	1,087,564	-	-20,272	-20,272	1,067,292
TRG Growth Partnership II	410,440	-	-	-	410,440
Landmark Equity Partners XIV	351,103	-	-	-	351,103
Summit Partners Growth Equity Fund IX	15,154,988	-	-	-	15,154,988
Leeds Equity Partners V	259,644	-	-	-	259,644
Audax Mezzanine Debt IV	3,231,773	49,213	-67,013	-17,800	3,213,973
Siguler Guff Distressed Opportunities Fund III, LP	415,671	-	-	-	415,671
Mesirow Financial Capital Partners IX, LP	79,611	-	-	-	79,611
DN Partners II, LP	2,553,293	-	-76,600	-76,600	2,476,693
LLR Equity Partners V, LP.	16,200,290	240,000	-	240,000	16,440,290
Wellspring Capital Partners VI	17,314,577	-	-	-	17,314,577
Trilantic Capital Partners VI, L.P.	15,472,435	105,227	-2,069,970	-1,964,743	13,507,692
HarbourVest Partners Co-Investment V	14,397,177	-	-	-	14,397,177
Ironsides Direct Investment Fund V, L.P.	19,891,350	299,701	-299,701	-	19,891,350
Ridgemont Equity Partners III, L.P.	16,752,593	-	-	-	16,752,593
FS Equity Partners VIII, L.P.	15,460,851	126,013	-11,020	114,993	15,575,844
Charlesbank Technology Opportunities Fund	20,164,223	159,384	-	159,384	20,323,607
Searchlight Capital III, L.P.	11,661,714	-	-	-	11,661,714

Financial Reconciliation | 1 Month Ending October 31, 2023

	Beginning Market Value	Contributions	Distributions	Net Cash Flow	Ending Market Value
Waud Capital Partners V	15,122,664	-	-	-	15,122,664
Summit Partners Venture Capital Fund V	5,325,618	38,260	-	38,260	5,363,878
Ironsides Co-Investment Fund VI, L.P.	13,754,542	-	-	-	13,754,542
HarbourVest Partners Co-Investment Fund VI, L.P.	7,460,931	-	-	-	7,460,931
Ridgemont Equity Partners IV, L.P.	3,969,163	-	-	-	3,969,163
Summit Partners Growth Equity Fund XI	3,478,171	-	-	-	3,478,171
Ironsides Opportunities Fund II, L.P.	5,172,886	-	-	-	5,172,886
Ascent Ventures V	3,184,982	-	-	-	3,184,982
Globespan Capital V	2,034,972	-	-	-	2,034,972
Kohlberg Investors IX	11,261,413	-	-	-	11,261,413
Waud Capital Partners VI	1,206,218	-	-	-	1,206,218
IFM Global Infrastructure	75,041,648	-	-	-	74,960,819
JP Morgan Global Maritime Investment	3,428,354	-	-2,939,048	-2,939,048	489,306
Timbervest Partners III, LP	3,469,478	-	-	-	3,469,478
BTG Pactual Global Timberland Resources	1,441,400	-	-	-	1,441,400
Global Infrastructure Partners III	10,327,651	-	-	-	10,327,651
Basalt Infrastructure Partners II	7,144,773	-	-	-	7,144,773
Global Infrastructure Partners IV, L.P.	8,911,423	33,991	-102,805	-68,814	8,842,609
ISQ Global Infrastructure Fund III (USTE), L.P.	2,932,979	1,098,066	-23,744	1,074,322	4,007,301
BlackRock Global Renewable Power Infrastructure Fund III, L.P.	6,769,418	600,946	-	600,946	7,370,364
Climate Adaptive Infrastructure Fund	5,191,340	-	-	-	5,191,340
BlackRock Global Infrastructure Fund IV, L.P.	2,872,396	-28,846	-12,423	-41,269	2,831,127
Cash	14,768,943	6,644,326	-12,866,492	-6,222,166	8,546,777
Total	1,378,971,351	9,617,300	-18,780,278	-9,162,978	1,346,039,091

Financial Reconciliation | Year To Date Ending October 31, 2023

	Beginning Market Value	Contributions	Distributions	Net Cash Flow	Ending Market Value
Rhumblin Russell 1000 Value	58,144,941	37,500,000	-19,500,000	18,000,000	72,951,230
Rhumblin Russell 1000 Growth	37,167,306	12,500,000	-5,000,000	7,500,000	52,609,688
Fisher Midcap Value	55,787,552	-	-8,000,000	-8,000,000	47,587,035
Newton Small Cap Growth	43,265,221	-	-	-	40,428,331
Vulcan Partners Small Cap Value	13,919,774	28,497	-28,497	-	13,625,635
Systematic Small Cap Free Cash Flow	28,203,474	-	-	-	28,360,106
Aristotle International Equity	19,839,194	-	-	-	20,504,830
Walter Scott International Equity	17,359,513	-	-103,148	-103,148	17,536,443
ABS Emerging Markets	52,685,835	-	-	-	53,346,881
Driehaus Emerging Markets Growth	46,198,805	-	-	-	46,301,165
First Eagle Global Value Fund	23,862,955	-	-	-	24,682,960
Kopernik Global All Cap Fund	34,061,261	4,000,000	-	4,000,000	40,854,372
Lee Munder Global Multi-Cap Strategy	38,740,800	-	-4,000,000	-4,000,000	37,607,793
Wellington Durable Enterprises, L.P.	43,333,556	-	-	-	43,598,401
Lord Abbett Short Duration Credit Trust II	52,709,058	-	-15,000,000	-15,000,000	38,983,923
Lord Abbett Core Fixed Income Trust II	39,851,657	-	-	-	39,027,140
Rhumblin TIPS Trust	16,828,767	-	-4,000,000	-4,000,000	12,731,919
Eaton Vance High Yield	11,632,494	-	-	-	12,083,683
First Eagle Bank Loan Select Fund	10,539,128	-	-	-	11,584,608
Manulife Strategic Fixed Income	40,372,490	-	-7,096,262	-7,096,262	33,742,044
Mesirow High Yield	14,195,684	-	-	-	15,512,169
Eaton Vance EMD Opportunities Fund	8,082,933	-	-	-	8,561,272
Schroder All ILS Fund LTD	-	10,000,000	-	10,000,000	10,320,471
ABS Offshore SPC - Global Segregated Portfolio	34,717,268	-	-5,000,000	-5,000,000	30,152,500
Entrust Special Opportunities Fund III, Ltd.	13,663,481	-	-335,366	-335,366	13,695,097
Old Farm Partners Master Fund, L.P.	15,330,488	-	-	-49,721	15,566,457
EnTrustPermal Special Opportunities Evergreen Fund, Ltd.	19,236,406	-	-	-	18,889,955
TA Realty Core Property Fund, L.P.	77,516,051	135,653	-1,672,984	-1,537,331	74,558,902
JPMorgan Strategic Property	34,892,370	576	-1,680,251	-1,679,675	30,574,760

Financial Reconciliation | Year To Date Ending October 31, 2023

	Beginning Market Value	Contributions	Distributions	Net Cash Flow	Ending Market Value
Mesirow Financial International Real Estate Fund I	699,983	-	-	-	591,899
DSF Multi-Family Real Estate Fund III	5,039,395	-	-926,452	-926,452	4,394,141
AEW Partners Real Estate VIII	6,278,348	-	-325,755	-325,755	6,254,291
1921 Realty, Inc	556,339	-	-	-	544,736
Carlyle Realty Partners VIII	11,664,172	190,670	-1,281,898	-1,091,228	9,573,459
Berkshire Value Fund V	7,101,747	251,018	-	251,018	6,033,183
Rockpoint Real Estate Fund VI, L.P.	7,854,027	474,966	-	474,966	8,084,662
TerraCap Partners V, L.P	10,005,097	-	-	-	10,630,682
AEW Partners Real Estate Fund IX, L.P.	6,567,145	681,657	-91,518	590,139	7,567,396
PCCP Equity IX, L.P.	5,326,020	2,100,000	-	2,100,000	7,439,010
Euro Choice V Programme	2,986,491	-	-368,783	-368,783	3,018,836
Lexington Capital Partners VII	1,390,888	-	-247,060	-247,060	1,067,292
TRG Growth Partnership II	1,313,508	-1,032,045	-132,811	-1,164,857	410,440
Landmark Equity Partners XIV	460,357	-	-105,955	-105,955	351,103
Summit Partners Growth Equity Fund IX	15,085,855	77,000	-354,804	-277,804	15,154,988
Leeds Equity Partners V	238,203	-	-	-	259,644
Audax Mezzanine Debt IV	2,935,145	302,868	-250,016	52,852	3,213,973
Siguler Guff Distressed Opportunities Fund III, LP	496,843	-	-47,344	-47,344	415,671
Mesirow Financial Capital Partners IX, LP	78,637	-	-	-	79,611
DN Partners II, LP	2,426,338	-	-177,113	-177,113	2,476,693
LLR Equity Partners V, LP.	16,200,112	240,000	-940,619	-700,619	16,440,290
Wellspring Capital Partners VI	15,590,471	1,311,451	-202,082	1,109,369	17,314,577
Trilantic Capital Partners VI, L.P.	13,480,292	1,767,934	-2,069,970	-302,037	13,507,692
HarbourVest Partners Co-Investment V	13,632,677	-	-460,488	-460,488	14,397,177
Ironsides Direct Investment Fund V, L.P.	18,327,411	1,451,191	-299,701	1,151,490	19,891,350
Ridgemont Equity Partners III, L.P.	18,009,648	952,259	-2,040,816	-1,088,558	16,752,593
FS Equity Partners VIII, L.P.	14,436,439	1,072,873	-11,020	1,061,853	15,575,844
Charlesbank Technology Opportunities Fund	14,960,556	2,734,424	-921,167	1,813,257	20,323,607
Searchlight Capital III, L.P.	9,317,120	1,943,984	-314,467	1,629,517	11,661,714

Financial Reconciliation | Year To Date Ending October 31, 2023

	Beginning Market Value	Contributions	Distributions	Net Cash Flow	Ending Market Value
Waud Capital Partners V	14,428,940	234,744	-61,818	172,926	15,122,664
Summit Partners Venture Capital Fund V	5,029,001	474,806	-444,178	30,628	5,363,878
Ironsides Co-Investment Fund VI, L.P.	14,255,911	-	-1,023,990	-1,023,990	13,754,542
HarbourVest Partners Co-Investment Fund VI, L.P.	3,001,949	3,900,000	-	3,900,000	7,460,931
Ridgemont Equity Partners IV, L.P.	-	3,884,846	-	3,884,846	3,969,163
Summit Partners Growth Equity Fund XI	1,367,501	1,718,889	-	1,718,889	3,478,171
Ironsides Opportunities Fund II, L.P.	1,633,210	6,604,346	-3,320,889	3,283,457	5,172,886
Ascent Ventures V	3,124,944	-	-	-	3,184,982
Globespan Capital V	3,557,979	-	-612,060	-612,060	2,034,972
Kohlberg Investors IX	7,899,628	1,942,118	-	1,942,118	11,261,413
Waud Capital Partners VI	-	1,206,218	-	1,206,218	1,206,218
IFM Global Infrastructure	47,130,351	25,000,000	-1,070,224	23,929,776	74,960,819
JP Morgan Global Maritime Investment	7,222,785	-	-6,155,229	-6,155,229	489,306
Timbervest Partners III, LP	3,611,063	110,000	-155,000	-45,000	3,469,478
BTG Pactual Global Timberland Resources	1,377,651	-	-	-	1,441,400
Global Infrastructure Partners III	9,922,547	96,330	-299,319	-202,989	10,327,651
Basalt Infrastructure Partners II	6,525,463	-	-230,337	-230,337	7,144,773
Global Infrastructure Partners IV, L.P.	7,987,674	805,326	-256,564	548,762	8,842,609
ISQ Global Infrastructure Fund III (USTE), L.P.	971,137	2,828,188	-23,744	2,804,444	4,007,301
BlackRock Global Renewable Power Infrastructure Fund III, L.P.	3,841,675	2,762,366	-	2,762,366	7,370,364
Climate Adaptive Infrastructure Fund	3,187,514	1,149,789	-80,047	1,069,742	5,191,340
BlackRock Global Infrastructure Fund IV, L.P.	656,206	2,264,331	-12,423	2,251,908	2,831,127
Cash	33,771,643	182,757,313	-207,981,432	-25,224,119	8,546,777
Total	1,305,102,500	316,424,584	-304,713,602	11,661,261	1,346,039,091

Current Issue

Parametric Overlay

Parametric Overlay – Funding

	Current Allocation				Rebalance		Post Rebalance Allocation			Adjusted Market Exposure	
	Estimated MV	Weight	Target Weights	O/U	(%)	(\$mm)	Ending MV	Post Rebal Weight	O/U	Adjusted Exposure (%)	Adj O/U
Global Equity	\$162,078,724	11%	10%	1.4%	-1.1%	(\$15.0)	\$147,078,724	10%	0.3%	10%	0.3%
Domestic Equity	\$292,581,440	21%	26%	-5.4%	-1.8%	(\$25.0)	\$267,581,440	19%	-7.2%	22%	-3.7%
Int'l Developed Equity	\$42,800,100	3%	6%	-3.0%			\$42,800,100	3%	-3.0%	3%	-3.0%
Int'l Emerging Market Equity	\$111,364,860	8%	10%	-2.2%			\$111,364,860	8%	-2.2%	8%	-2.2%
Core Fixed Income	\$93,258,826	7%	9%	-2.4%			\$93,258,826	7%	-2.4%	7%	-2.4%
Value Added Fixed Income	\$85,033,357	6%	6%	0.0%	-0.7%	(\$10.0)	\$75,033,357	5%	-0.7%	5%	-0.7%
Hedge Funds	\$80,362,416	6%	4%	1.7%			\$80,362,416	6%	1.7%	6%	1.7%
Real Estate	\$166,355,205	12%	10%	1.7%			\$166,355,205	12%	1.7%	12%	1.7%
Private Equity	\$245,849,693	17%	13%	4.3%			\$245,849,693	17%	4.3%	17%	4.3%
Real Assets	\$127,530,859	9%	6%	3.0%			\$127,530,859	9%	3.0%	9%	3.0%
Cash	\$14,826,541	1%	0%	1.0%		\$35.0	\$49,826,541	4%	3.5%	0%	0.0%
Portfolio Completion						\$15.0	\$15,000,000	1%	NA	1%	1.1%
Total	\$1,422,042,021	100%	100%		-3.5%	-	\$1,422,042,021	100%		100%	

→ Meketa proposes the Association raise \$50 million to fund the Parametric mandate and replenish cash.

- Funds will be raised from Global Equity (LMCG - \$15mm), Domestic Equity (Fisher - \$10mm, Newton - \$10mm, and Vulcan -\$5mm), as well as Fixed Income (Manulife - \$10mm).
- Parametric could be funded with \$15 million, which they will deploy to replicate \$50 million in domestic equity exposure, using futures and other market derivatives. The residual \$35 million will stay in cash to satisfy future needs.

Update to Target Policy

	Current Policy Target (%)	New Policy Target (%)	Delta	New Policy Range (%)
Domestic Equity	26	23	-3%	12 - 33
Int'l Developed Equity	6	6		1 - 16
Int'l Emerging Market Equity	10	10		5 - 20
Global Equity	10	10		5 - 20
Private Equity	13	13		3 - 23
Hedge Funds	4	4		2 - 8
Core Fixed Income	9	9		4 - 14
Value Added Fixed Income	6	6		2 - 12
Real Estate	10	10		5 - 15
Real Assets	6	6		2 - 10
Cash	0	2%	2%	0 - 4
Overlay / Portfolio Completion	N/A	1%	1%	0 - 1
Total	100%	100%		

To account for the addition of an overlay/portfolio competition strategy, Meketa recommends the Board consider adopting the New Policy, highlighted above.

- Importantly, the New Policy was constructed to allow the underlying asset class market values to remain in compliance with Policy ranges.
- Ultimately, this strategy will allow the fund office to carry a larger cash balance throughout the year without the portfolio experiencing the negative impact of those funds being out of the market.
- As the cash balance increases, the overlay strategy will adjust to provide the desired level of “synthetic” domestic equity exposure - effectively zeroing out the portfolio’s exposure to cash. Conversely, as cash is drawn down, the overlay strategy will pull back on the synthetic equity exposure.

Appendices

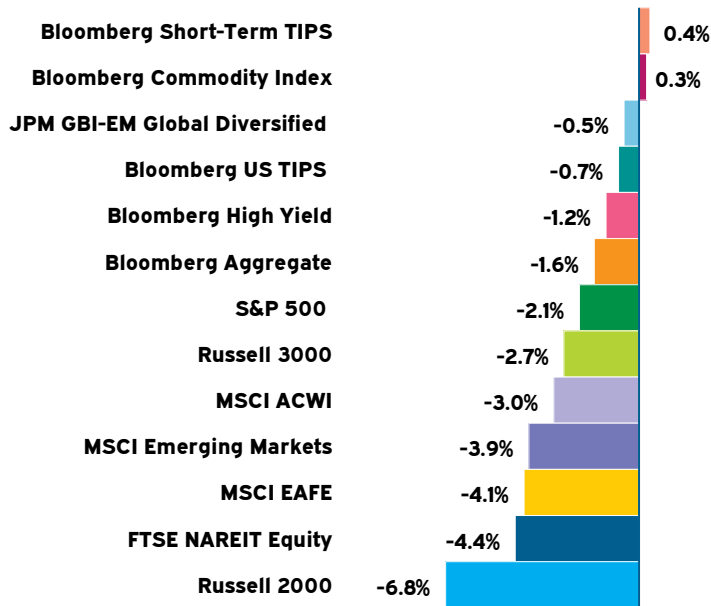
Economic and Market Update
Data As of October 31, 2023

Commentary

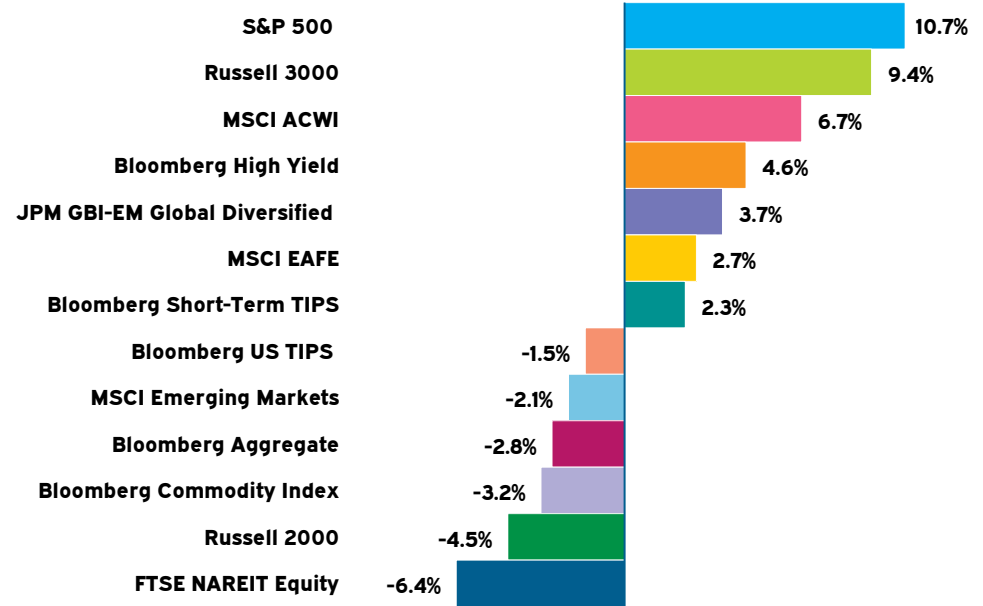
- Global markets continued to struggle in October, as expectations remained on the Fed keeping interest rates higher for longer due to resilient economic data.
- The Federal Open Markets Committee (FOMC), which increased policy rates in July by 0.25% to a range of 5.25% - 5.5%, has been on pause since. Markets are now largely expecting the FOMC to maintain interest rates at this level through the first half of next year with cuts to follow.
 - US equity markets (Russell 3000 index) fell in October (-2.7%), lowering the year-to-date gains to 9.4%. Most sectors except utilities struggled in October.
 - Non-US developed equity markets declined more than the US in October (MSCI EAFE -4.1%), with the strength of the US dollar weighing on returns. This widened the gap between US and international developed equities for the year (to 9.4% versus 2.7%).
 - Emerging market equities also fell in October (-3.9%), with negative results driven by China and the strong US dollar. Emerging markets continue to significantly trail developed market equities year-to-date, returning -2.1%, again driven by losses from China (-11.2%).
 - Interest rates generally rose in October, particularly for longer-dated maturities. The broad US bond market declined (-1.6%) in October falling further into negative territory (-2.8%) year-to-date, as higher income has offset a portion of the capital losses from rising rates.
- For the rest of this year and into 2024, the paths of inflation and monetary policy, slowing global growth, and the wars in Ukraine and Israel will all be key.

Index Returns¹

QTD



YTD



→ After a strong start to the year, the prospect of higher interest rates for longer given resilient economic data has weighed on markets from August through October.

¹ Source: Bloomberg. Data is as of October 31, 2023.

Domestic Equity Returns¹

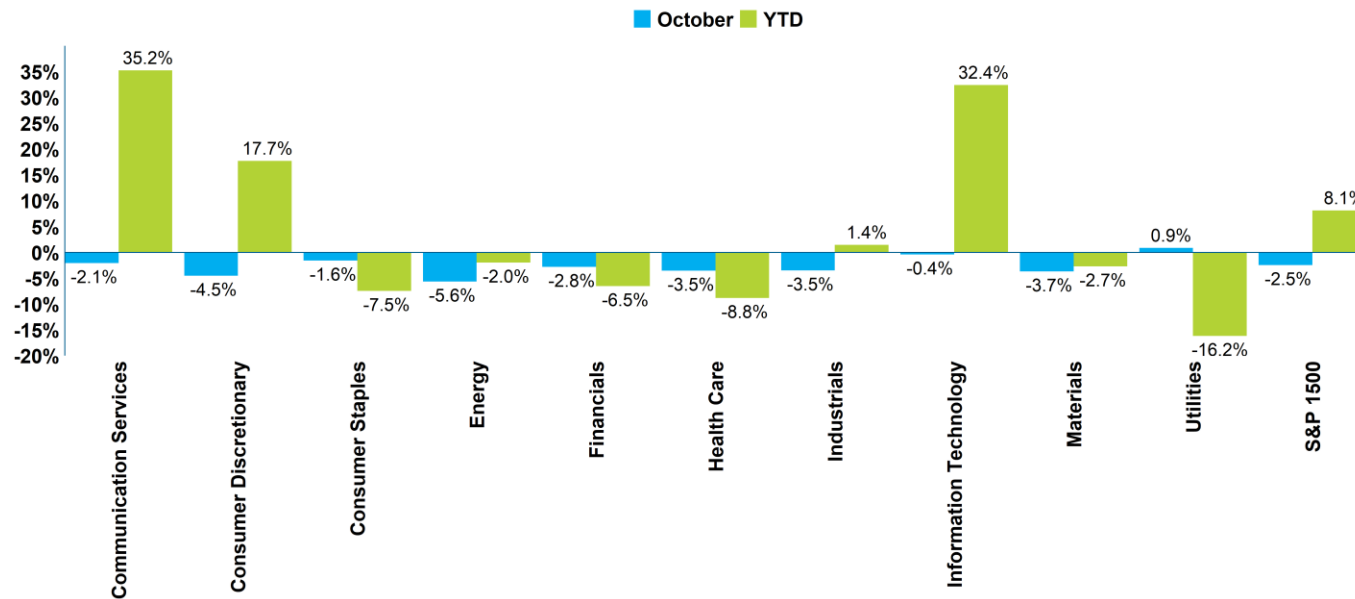
Domestic Equity	October (%)	Q3 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-2.1	-3.3	10.7	10.1	10.3	11.0	11.2
Russell 3000	-2.7	-3.3	9.4	8.4	9.2	10.2	10.5
Russell 1000	-2.4	-3.1	10.3	9.5	9.5	10.7	10.9
Russell 1000 Growth	-1.4	-3.1	23.2	19.0	8.7	14.2	13.8
Russell 1000 Value	-3.5	-3.2	-1.8	0.1	10.2	6.6	7.6
Russell MidCap	-5.0	-4.7	-1.3	-1.0	6.0	7.1	8.0
Russell MidCap Growth	-5.1	-5.2	4.3	3.3	0.8	8.1	9.1
Russell MidCap Value	-5.0	-4.5	-4.4	-3.6	8.8	5.7	6.9
Russell 2000	-6.8	-5.1	-4.5	-8.6	3.9	3.3	5.6
Russell 2000 Growth	-7.7	-7.3	-2.9	-7.6	-1.8	2.7	5.7
Russell 2000 Value	-6.0	-3.0	-6.5	-9.9	9.7	3.3	5.2

US Equities: The Russell 3000 Index fell 2.7% in October but is up 9.4% YTD.

- A surprisingly strong September jobs report and third quarter GDP reading reinforced investors' expectations that the Federal Reserve will keep interest rates higher for longer and broadly weighed on US equities.
- The utility sector was the only sector that posted a gain during October. Energy stocks experienced the steepest fall, followed by consumer discretionary stocks.
- Large cap stocks outperformed small cap stocks during October driven by the technology sector. Microsoft and Amazon, both of which reported stronger than expected third quarter results, were significant contributors to this dynamic.

¹ Source: Bloomberg. Data is as of October 31, 2023.

S&P 1500 Sector Returns¹



→ Except for utilities all sectors were down in October.

→ So far in 2023, the communication services (+35.2%) and technology (+32.4%) sectors had the best results, helped by artificial intelligence optimism. Given the continued strength in the US consumer the consumer discretionary sector followed (+17.7%), while more traditionally defensive sectors like utilities (-16.2%), health care (-8.8%), and consumer staples (-7.5%) have trailed.

¹ Source: Bloomberg. Data is as of October 31, 2023.

Foreign Equity Returns¹

Foreign Equity	October (%)	Q3 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-4.1	-3.8	1.0	12.1	3.0	3.5	2.5
MSCI EAFE	-4.1	-4.1	2.7	14.4	5.7	4.1	3.1
MSCI EAFE (Local Currency)	-3.4	-1.3	7.0	10.4	11.0	6.4	6.0
MSCI EAFE Small Cap	-5.9	-3.5	-4.2	6.5	0.3	1.6	3.4
MSCI Emerging Markets	-3.9	-2.9	-2.1	10.8	-3.7	1.6	1.2
MSCI Emerging Markets (Local Currency)	-3.6	-1.4	0.3	9.8	-1.1	3.6	4.2
MSCI China	-4.3	-1.9	-11.2	21.1	-16.9	-2.6	1.0

Foreign Equity: Developed international equities (MSCI EAFE) fell 4.1% in October, dropping the YTD gain to 2.7%. Emerging market equities (MSCI EM) fell 3.9% in the period and were down 2.1% YTD.

- Non-US equities fell for the third consecutive month with steeper declines compared to the US market. The continued strength of the US dollar contributed to losses, as well as the ongoing geopolitical crisis in the Middle East.
- European equities struggled due to slowing growth, falling PMI, and a contraction in household and business credit supply. The UK saw greater losses, with sticky inflation, and continued wage growth suggesting that rates will be high for some time. Japan remains the best performing market year-to-date, though the TOPIX lost momentum in October.
- Emerging market equity performance was slightly better than developed international equities, but the declines for the month brought year-to-date results into negative territory. While there were some positive data out of China on industrial production and retail sales, continued weakness in real estate and new US chip restrictions weighed on market sentiment.

¹ Source: Bloomberg. Data is as of October 31, 2023.

Fixed Income Returns¹

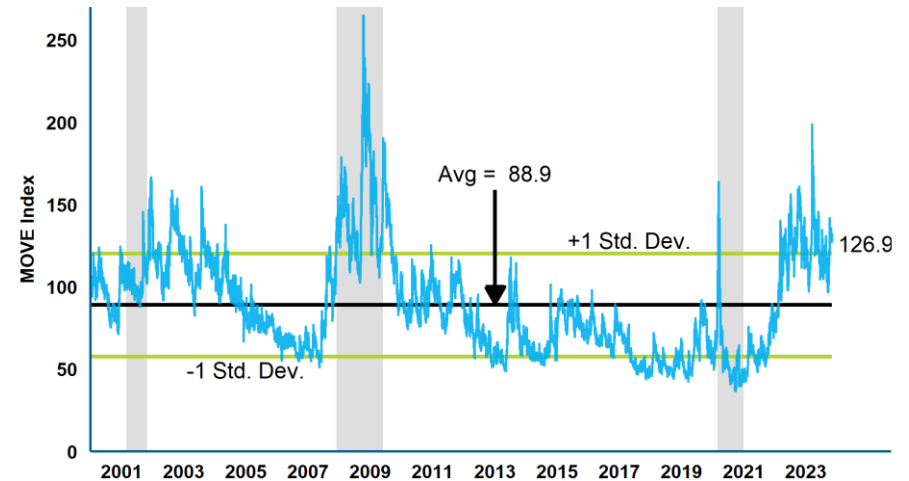
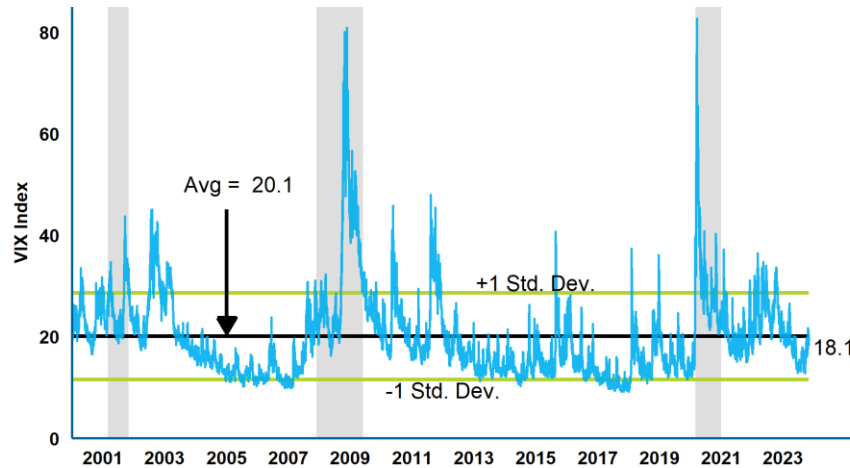
Fixed Income	October (%)	Q3 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-1.5	-2.9	-2.1	1.2	-5.0	0.2	1.2	6.0	5.9
Bloomberg Aggregate	-1.6	-3.2	-2.8	0.4	-5.6	-0.1	0.9	5.6	6.1
Bloomberg US TIPS	-0.7	-2.6	-1.5	-0.7	-2.0	2.3	1.6	5.2	6.6
Bloomberg Short-term TIPS	0.4	0.4	2.3	2.6	2.1	3.0	1.7	5.4	2.5
Bloomberg High Yield	-1.2	0.5	4.6	6.2	1.2	3.0	3.9	9.5	4.0
JPM GBI-EM Global Diversified (USD)	-0.5	-3.3	3.7	13.5	-3.0	0.3	-1.2	7.0	4.9

Fixed Income: The Bloomberg Universal index declined 1.5% in October and 2.1% YTD.

- Expectations for policy rates to remain higher for longer than previously expected continued to weigh on yields in October.
- The broad US bond market (Bloomberg Aggregate) fell 1.6% in the month, driving year-to-date performance further into negative territory. The broader TIPS index fell by 0.7%, while the less interest-rate-sensitive short-term TIPS index outperformed most sectors, up 0.4%.
- High yield bonds also weakened, declining 1.2%, and emerging market bonds fell 0.5%. Volatility in both asset classes is being driven by movement in broader interest rates, but also a modest deterioration in risk appetite.

¹ Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of October 31, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.

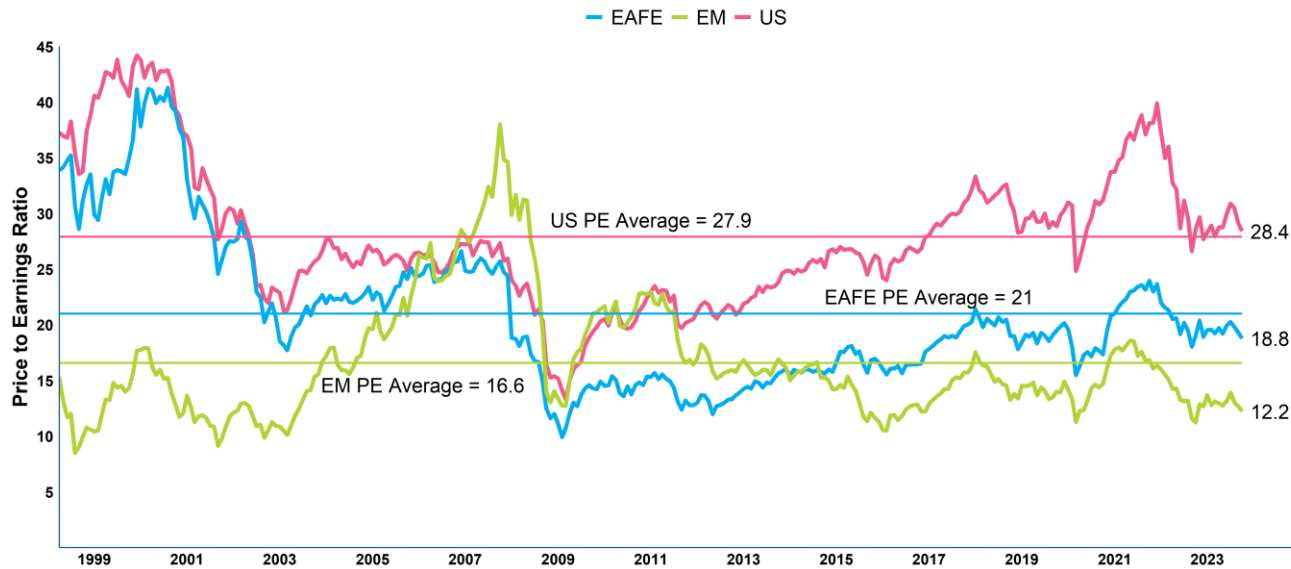
Equity and Fixed Income Volatility¹



- Volatility in equities (VIX) increased in October but finished at a level near the long-term average. The recent increase in equity volatility has largely been driven by investors coming to terms that interest rates might remain higher for a longer period.
- In comparison, volatility in the bond market (MOVE) remains well above its long-run average (88.9) after last year's historic losses and due to continued policy uncertainty. In October, fixed income volatility finished higher compared to where it started, like equities, driven by expectations for rates to stay higher for longer and increased concerns about future US debt issuance.

¹ Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of October 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and October 2023.

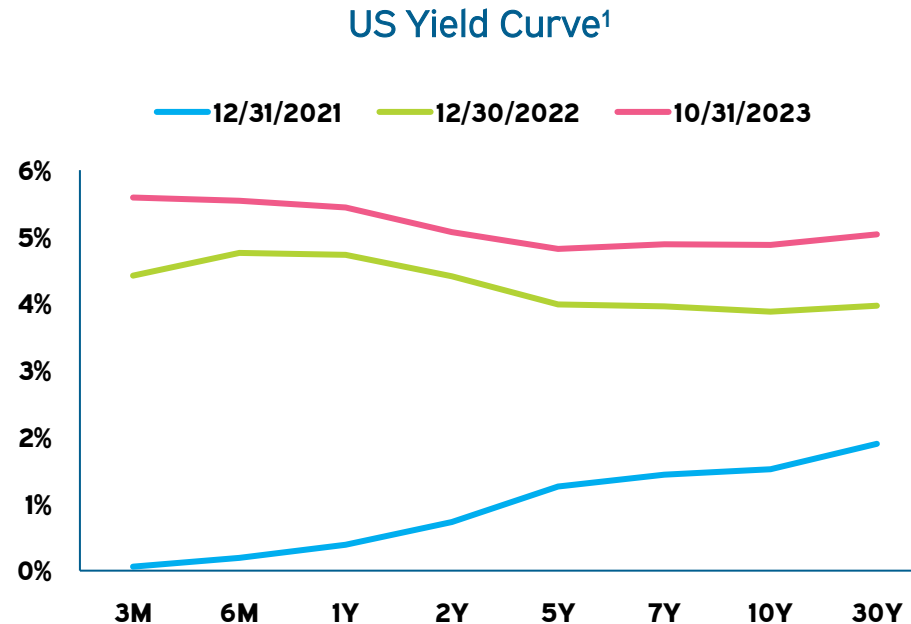
Equity Cyclically Adjusted P/E Ratios¹



→ Given the strong technology-driven rally this year, the US equity price-to-earnings ratio increased above its long-run (21st century) average. With the equity market decline in August through October, the P/E ratio fell from its recent peak.

→ International developed market valuations are below their own long-term average, with those for emerging markets the lowest and well under the long-term average (close to one standard deviation below).

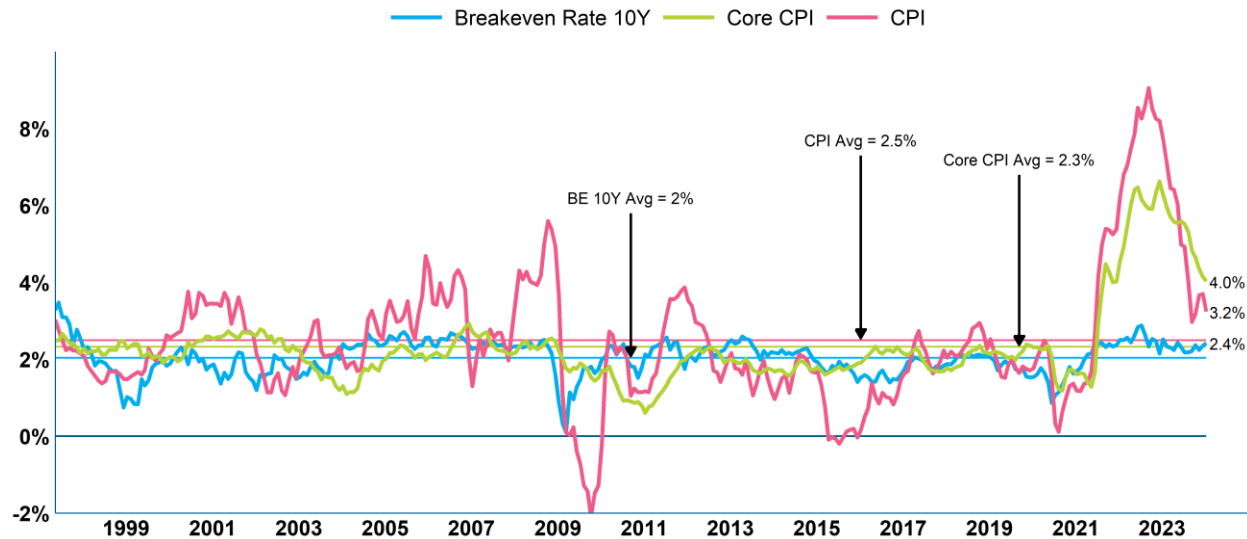
¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of October 2023. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end respectively.



- Overall rates continued to increase this year, particularly at the policy sensitive front-end of the yield curve, but at a much slower pace compared to last year.
- In October, very short-term interest rates (two years or less) increased only slightly as monetary policy has likely reached close to its terminal rate for this cycle. By contrast, longer-term rates continued their dramatic rise as investors come to terms with rates remaining higher for longer. The ten-year Treasury yield has experienced a significant increase from 3.9% to 4.9% since the beginning of the year.
- Because of the dynamic above, the yield curve's inversion decreased further with the spread between two-year and ten-year Treasuries at -0.15% at the end of October (it started the third quarter at -1.05%).

¹ Source: Bloomberg. Data is as of October 31, 2023.

Ten-Year Breakeven Inflation and CPI¹

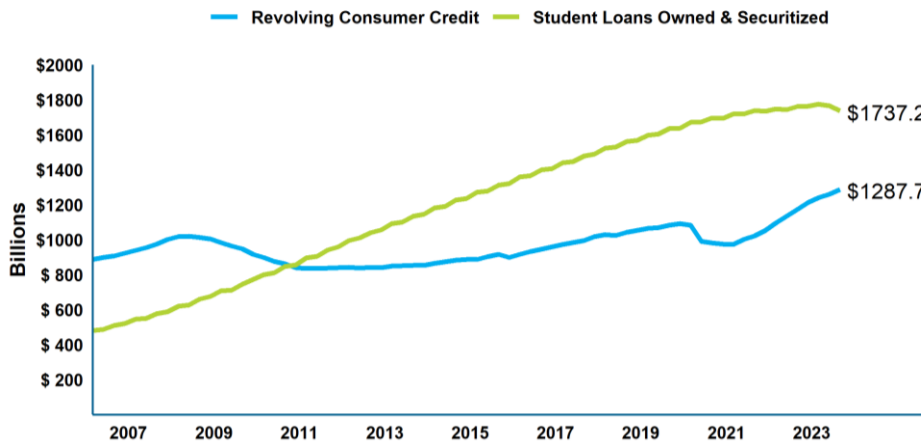


- Year-over-year headline inflation fell from 3.7% to 3.2%, coming in slightly below expectations. Declines were driven by energy, used cars and trucks, and medical services.
- Core inflation – excluding food and energy – fell slightly (4.1% to 4.0%) year-over-year. It remains stubbornly high, though, driven by shelter costs (+6.7%), particularly owners’ equivalent rent, and transportation services (+9.2%).
- Inflation expectations (breakevens) remain below current inflation as investors continue to expect inflation to track back toward the Fed’s 2% average target.

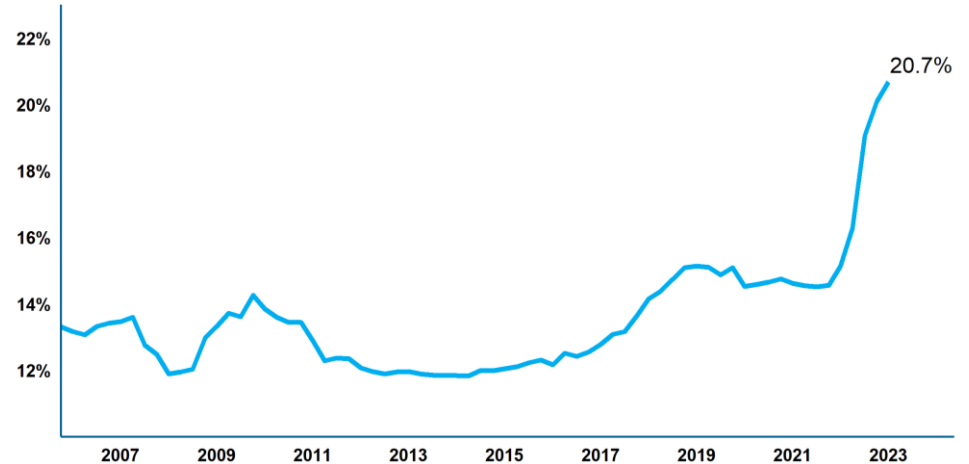
¹ Source: FRED. Data is as October 31, 2023. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

US Consumer Under Stress?¹

Revolving Consumer Credit & Student Loans (\$B)



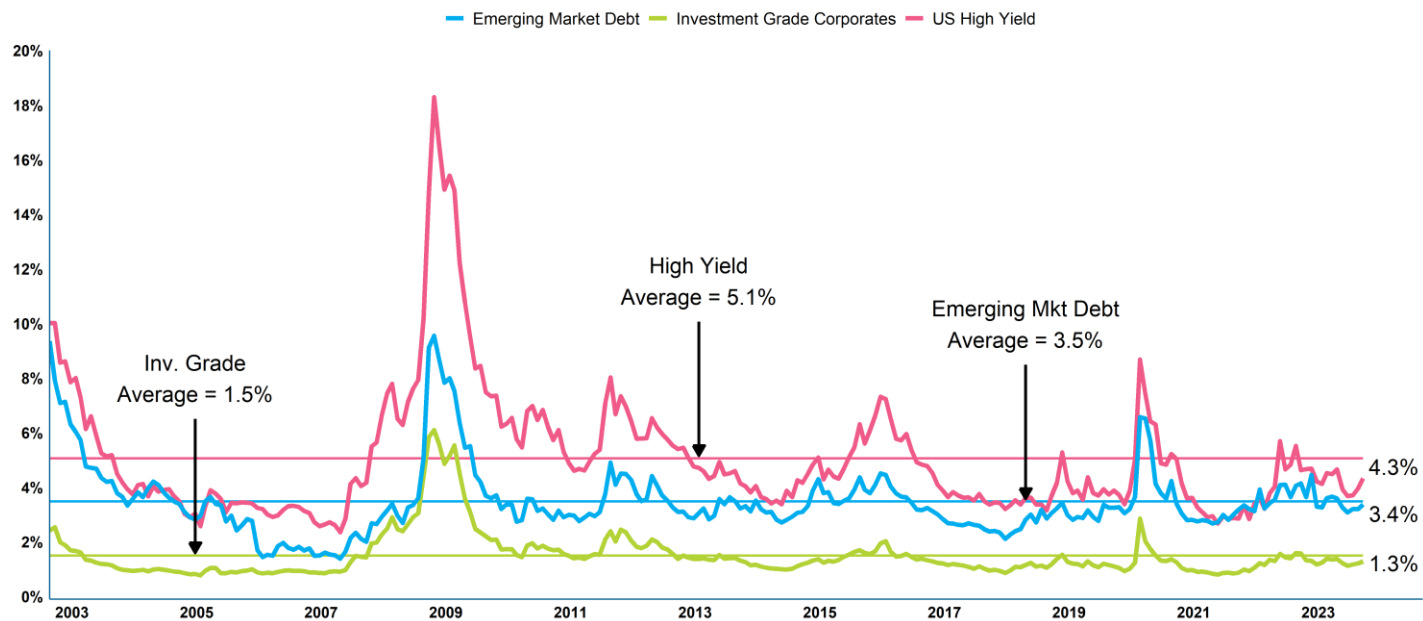
Consumer Credit Card Interest Rates (%)



- Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been an important driver of economic growth.
- Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s).
- The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially balanced by recently initiated repayment and forgiveness programs.
- As we look ahead, the strength of the US consumer will remain key as this sector makes up most of the domestic economy (GDP).

¹ Source: FRED. Revolving Consumer Credit and Student Loans data is as of September 30, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season. Consumer Credit Card Interest Rates data is as of June 30, 2023.

Credit Spreads vs. US Treasury Bonds¹

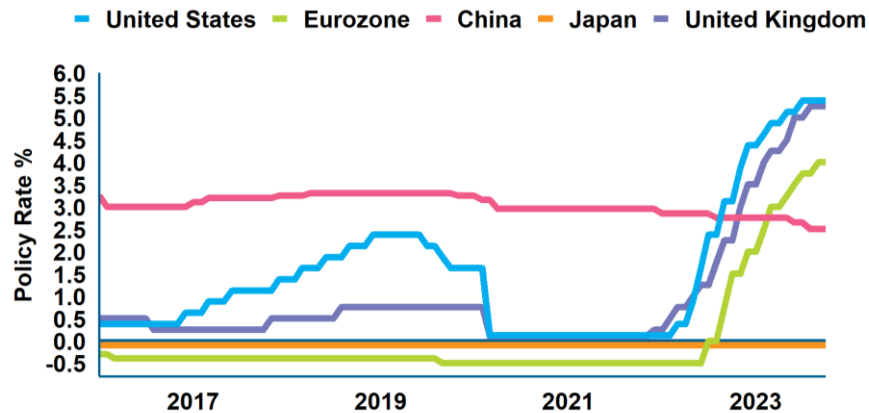


- Credit spreads (the added yield above a comparable maturity Treasury) increased in October but remained below their respective long run averages.
- High yield spreads continue to be the furthest below their long-term average given the overall risk appetite this year. Investment-grade and emerging market spreads are also below their respective long-term averages, but by smaller margins.

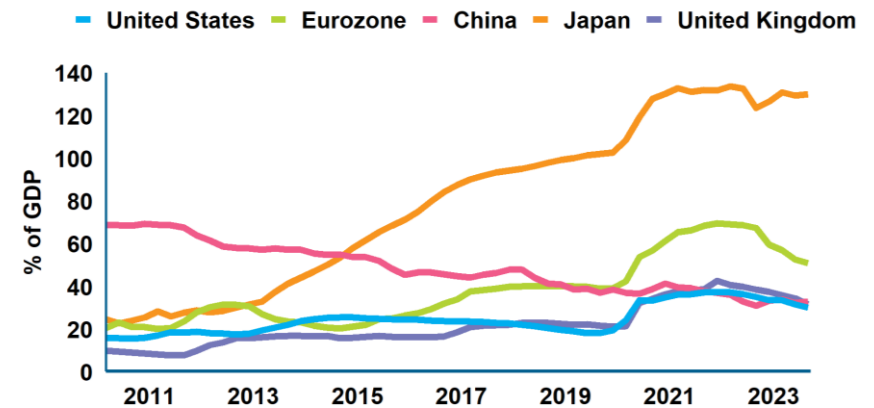
¹ Sources: Bloomberg. Data is as of October 31, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

Central Bank Response¹

Policy Rates



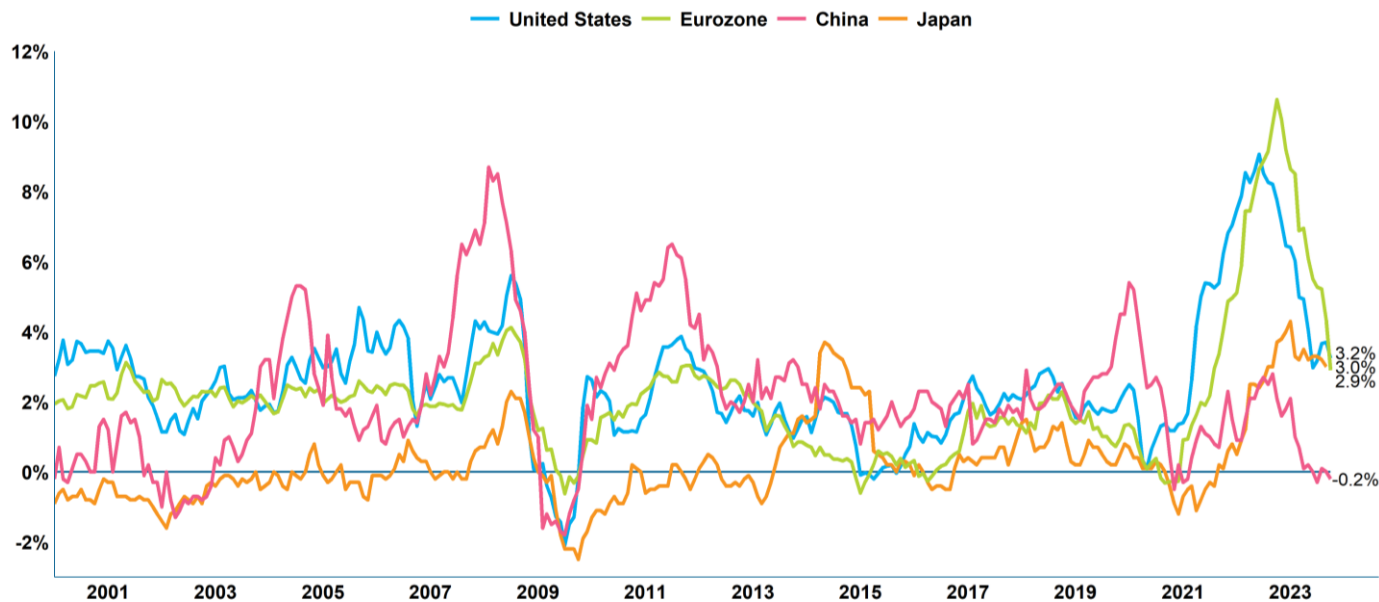
Balance Sheet as % of GDP



- Slowing inflation and growth have led to expectations for a reduction in the pace of aggressive policy tightening.
- In July, the Fed raised rates another 25 basis points to a range of 5.25% to 5.50% and then kept rates at this level at their September and October/November meetings. Markets are not expecting any additional rate hikes.
- The European Central Bank paused in October, with lower-than-expected inflation and weaker growth. In Japan, the BoJ has further relaxed its yield curve control on the 10-year bond, and expectations for further policy normalization are rising.
- The central bank in China has continued to cut interest rates and inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.
- Risks remain for a policy error as central banks attempt to balance bringing down inflation, maintaining financial stability, and supporting growth.

¹ Source: Bloomberg. Policy rate data is as of October 31, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of September 30, 2023.

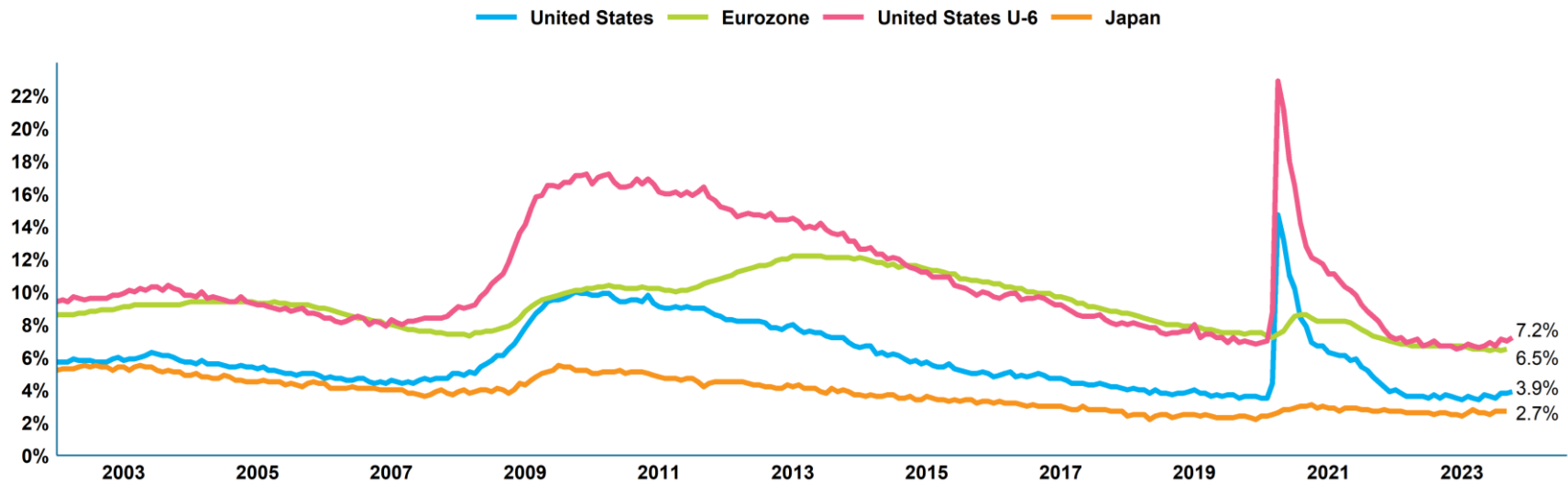
Inflation (CPI Trailing Twelve Months)¹



- The inflation picture remains mixed across the major economies.
- In the US, inflation fell from 3.7% to 3.2%, driven by falling energy prices. In the eurozone inflation experienced a dramatic decline in October (4.3% to 2.9%), to a level below the US, also driven by a decline in energy prices. Despite 2023's significant declines in the US and Europe, inflation levels remain elevated compared to central bank targets.
- Inflation in Japan, has increased to levels not seen in almost a decade, driven by food and home related items. In China, deflationary pressures returned in October, as consumption declined after the holiday earlier in the month.

¹ United States CPI and Eurozone CPI – Source: FRED. Japan CPI and China CPI - Source: Bloomberg. Data is as October 31, 2023. The most recent data for Japanese inflation is as of September 30, 2023.

Unemployment¹



- Overall, the US labor market remains healthy with the unemployment rate relatively low, wage growth now positive in real terms, and initial claims for unemployment staying subdued. The pace of wage growth has slowed though, and despite remaining elevated, the number of job openings has declined from recent highs.
- In October, US unemployment increased slightly (3.8% to 3.9%), with job gains of 150,000 coming in below expectations of 180,000. The labor force participation rate declined slightly over the month from 62.8% to 62.7%, well off the lows of the pandemic (60.1%) but not back to pre-pandemic levels (63.3%). Broader measures of unemployment (U-6) finished the quarter at 7.2%, up from the September reading of 7.0%.
- Unemployment in Europe (6.5%) remains higher than the US, while levels in Japan (2.7%) remained low through the pandemic given less layoffs.

¹ Eurozone Unemployment - Source: Bloomberg. Japan, United States, United States U-6 Unemployment – Source: FRED. Data is as October 31, 2023, for the US. The most recent data for Eurozone and Japan unemployment is as of September 30, 2023.

US Dollar versus Broad Currencies¹



- After a strong 2022, the US dollar declined late last year and into early this year as weaker economic data and lower inflation led to investors anticipating the end of FOMC tightening.
- Recently though, the dollar reversed course and appreciated against major currencies as relative growth remains strong and investors anticipate the FOMC keeping interest rates higher for longer.
- For the rest of this year, the track of inflation across economies and the corresponding monetary policies will likely be key drivers of currency moves.

¹ Source: Bloomberg. Data as of October 31, 2023.

Summary

Key Trends:

- The impact of inflation still above policy targets will remain key, with bond market volatility likely to stay high.
- Global monetary policies could diverge going forward. The risk of policy errors remains elevated as central banks try to reduce persistent inflation while not tipping their economies into recession.
- Growth is expected to slow globally this year, with many economies forecasted to tip into recession. However, optimism has been building that some economies could experience soft landings. Inflation, monetary policy, and the war will all be key.
- In the US, consumers could feel pressure as certain components of inflation (e.g., shelter), remain high, borrowing costs are elevated, and the job market may weaken.
- The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow. Also, the future paths of the large technology companies that have driven market gains will be important.
- Equity valuations remain lower in emerging and developed markets, but risks remain, including the potential for recent strength in the US dollar to persist, higher inflation weighing particularly on Europe, and China's sluggish economic reopening and on-going weakness in the real estate sector. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.
- Recent, heightened tensions in Israel could add to overall uncertainty and drive safe haven flows.

Corporate Update



7
Offices



240+
Employees



240+
Clients



\$1.8T
Assets Under Advisement



\$200B
Assets in Alternative Investments



99%
Client Retention Rate



5:1
Client | Consultant Ratio

Meketa Investment Group is proud to work for over 15 million American families everyday!

UPCOMING EVENTS



Q4 Investment Perspectives Webcast
January 2024



Mission Driven Investing Manager Research Day
December 2023

Client and employee counts as of September 30, 2023; assets as of June 30, 2023.
Client retention rate is one minus the number of clients lost divided by the number of clients at prior year-end.

THOUGHT LEADERSHIP



Read our July Connectives “Your Plan is 100% Funded, Now What?”

Continuing in our newest series of “Meketa Connectives”, our July issue covers the effect high interest rates are having on the funded status of plans. For well over a decade, low fixed income yields have suppressed discount rates and increased the value of liabilities on an accounting basis. As the Federal Reserve hikes interest rates to fight inflation, the corporate discount rate has started to rise. As a result, plans are finding that their funded status has improved on an accounting basis, which in turn broadens the range of options available to them.

Read more here:

<https://meketa.com/news/meketa-connectives-your-plan-is-100-funded-now-what/>



Read our recent white paper “Venture Capital Primer”

Venture capital has been an attention-grabbing, headline generating asset class from its very beginning. Many household names started out as (or still are) venture backed investments, including Apple, Microsoft, Google, Facebook, SpaceX, Uber, Airbnb, DoorDash, and Peloton. Recently, venture capital has become a dominating presence in the cryptocurrency and AI industries, driving innovation through investments in companies such as Coinbase and OpenAI.

The primary allure of venture capital is its risk/reward potential. Investors are drawn by possibly generating some of the highest returns of any asset class but should also be aware of the increased risks. This primer provides an overview of the venture capital asset class and contrasts it to other private markets strategies, particularly buyouts.

Read more here:

<https://meketa.com/leadership/venture-capital-primer/>



Watch our recent webinar “Navigating Investment Risks Through Modeling Climate Scenario Analysis”

Watch our fireside chat on using climate scenario analysis to navigate investment risks.

Moderated by research consultant, [Alison Adams](#), and accompanied by Meketa’s own climate scenario experts, [Stephen MacLellan](#), consultant, and [Zach Stevens](#), senior quantitative research analyst, the panel discussed how modeling climate scenarios to analyze the impact on portfolios may provide a deeper understanding of broad investment risks.

Read more here:

<https://meketa.com/leadership/navigating-investment-risks-through-modeling-climate-scenario-analysis/>

MEKETA VALUES COMMUNITY

Habitat Build Days

As part of Meketa's volunteer opportunities, each employee is given 8 hours to volunteer in their local communities. During the summer our Carlsbad office in San Diego and our Boston office in Westwood hosts Habitat for Humanity Build Days.

In Carlsbad, employees traveled to San Diego to help a homeowner with repairs and maintenance through a government program that pairs with Habitat for Humanity. In Boston, our employees traveled to Malden to help with the building of 3 homes for qualifying families.



MEKETA IN THE NEWS

Pensions&Investments

Investors cooling on China ahead of Biden executive order

By Brian Croce & Arleen Jacobius
August 11, 2023

While Washington legislators cheered President Joe Biden's executive order restricting new U.S. private equity and venture capital investments in certain Chinese technology companies, investor sentiment on the country had already been starting to cool.

On Aug. 9, the president signed an executive order barring U.S. investment including joint ventures in

Chinese companies focused on semiconductors and microelectronics, quantum information technologies and artificial intelligence. It also requires Americans to notify the Treasury Department of direct investments in those sectors.

"China is the second largest economy in the world and it is important to global supply chains and a major importer of commodities, which makes China an unavoidable presence in the global economy and global capital markets," said **Alison Adams**, Portland, Ore.-based managing principal and a research consultant on the capital markets research team at **Meketa Investment Group** in an emailed response to questions.

"But how U.S. investors think about how to allocate global capital appears to be changing," Ms. Adams said. Prior to the pandemic, investors were more willing to place a big bet on China and may have sought out direct investment, she said.

"Now the risk/return balance appears to be shifting to a more cautious approach where a big bet on direct China may be less likely" possibly due to the political risks of direct investment in China shifting inside China and in the U.S., Ms. Adams said.

Politics was less of a factor before the pandemic when China's GDP was growing 7% to 10% a year, and investors were interested in increasing their investment allocations to take advantage of China's rise, she said.

"Now that China's growth is only a couple of a percent above the U.S. — that risk/return analysis has shifted," Ms. Adams said.

Private Debt Investor

Yes, banks and private debt can co-exist

The maritime world is trying to figure out a new sustainable fuel mix, which ought to inspire elevator pitches to private debt managers.

By Christopher Faille | August 31, 2023

Private debt funds in the US have for years now made their case to potential investors with some version of the following narrative: "This fund relies upon strategy X. Strategy X is solid, but for various reasons (practical and/or regulatory) banks have largely withdrawn from the field of X lending. This has created an opportunity for private debt funds, which can step in and do the work the banks used to do."

Much the same risk spectrum is sometimes described as a distinction between "core" infrastructure and "non-core" or "core plus". As **Lisa Bacon**, of the private markets team at **Meketa Investment Group**, says: "Core includes low-risk assets that are operational and have predictable cashflows. Examples of non-core assets with higher risk-return profiles include those in the development, permitting, construction and early operations stages."

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. $\text{Portfolio Return} - [\text{Risk Free Rate} + \text{Beta} * (\text{market return} - \text{Risk Free Rate})]$.

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.

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.

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.

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.

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.

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%.

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

Yield to Worst: The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

NCREIF Property Index (NPI): Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE): Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: [Investment Terminology](#), International Foundation of Employee Benefit Plans, 1999.

[The Handbook of Fixed Income Securities](#), Fabozzi, Frank J., 1991

The Russell Indices®, TM, SM are trademarks/service marks of the Frank Russell Company.

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.