
Oklahoma Law Enforcement Retirement System
Market Update and Portfolio Review

November 30, 2022



2018 2019 2020 2021

We are proud to announce that ACG has again been named a Greenwich Associates Quality Leader – recognized as one of the top consultants in the industry.

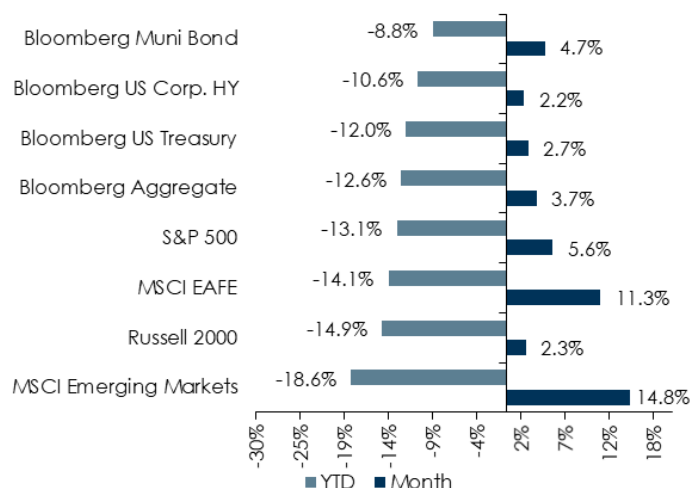
Methodology and Disclosure: Between July and October 2021, Coalition Greenwich (previously known as Greenwich Associates), conducted in-person and phone interviews and online surveys with 811 professionals at 661 of the largest tax-exempt funds in the United States, including corporate and union funds, public funds, endowments and foundations, insurance general accounts, and healthcare organizations, with either pension or investment pool assets greater than \$150 million. Study participants were asked to provide quantitative and qualitative evaluations of their asset managers and investment consultants, including qualitative assessments of those firms soliciting their business and detailed information on important market trends. ACG is one of four firms recognized in the mid-size investment consultant category. The ratings may not be representative of any one client's experience with ACG; rather they are representative of those clients that chose to participate in the survey. The results are not indicative of ACG's future performance. ACG does not pay to have its clients participate in the study.

Economic Overview

- The Fed hiked rates by another 75 bps, as expected, but provided messaging which opened the door to smaller hikes going forward
- US consumers showed resilience with sharply higher retail sales, and labor market growth eased but remained above pre-covid trends
- US inflation showed signs of moderating, with headline inflation, core inflation, and producer prices all surprising to the downside

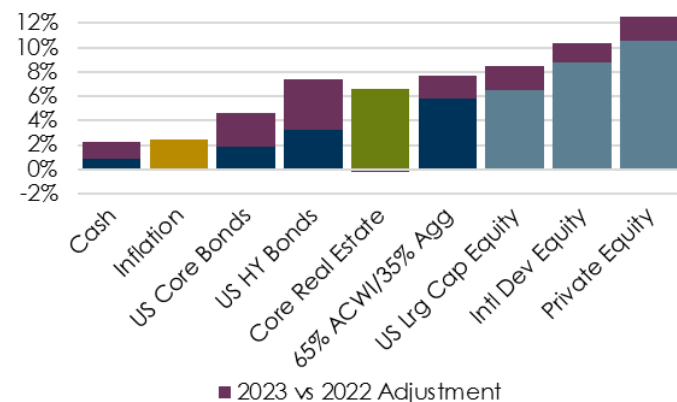
Market Returns

- Both stocks and bonds moved higher on Fed policy outlook
- Non-US assets outperformed, helped by a large fall in the USD



Source: Bloomberg, ACG Research (as of 11/30/2022)

Average Annual Return Assumptions (Next 10 Years)



■ 2023 vs 2022 Adjustment

Asset Class Valuations

- Equities appear fairly valued across markets
- Favor investment grade credit over high yield
- Cash yields remain attractive

	Current Fwd P/E	Historical Avg P/E	Current Avg Ratio
S&P 500	17.8	15.8	1.1
R2000	21.0	22.6	0.9
MSCI EAFE	12.3	13.4	0.9
MSCI EM	11.6	11.5	1.0

	Current Yield	Historical Avg Yield	Current Avg Spread
3-month T-Bill	4.3%	4.1%	+0.2%
10-year UST	3.6%	6.0%	-2.4%
Bloomberg Agg	4.6%	6.3%	-1.7%
High Yield	8.6%	9.6%	-1.0%

Core R.E.	3.7%	5.8%	-2.1%
Core Inflation	6.3%	3.7%	+2.6%

Undervalued

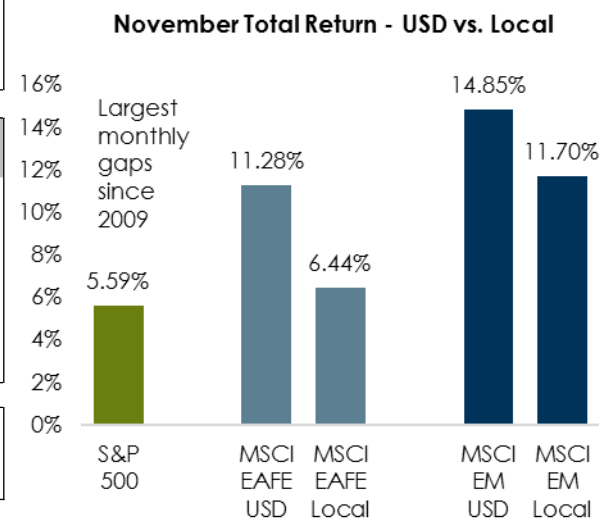
Fairly Valued

Overvalued

Key Risk Factors We Are Watching

- Inflation and labor market data
- Tightening financial conditions
- Downward revisions to corporate earnings
- Ongoing geopolitical tensions
- Regulatory policy shifts (US and China in particular)

Sharp Dollar Decline Helps Non-US Outperform



Source: Morningstar

Recent Articles (click on links below)

- [Restoring the Fixed Income Foundation \(Dec\)](#)
- [Mid-Term Elections \(October\)](#)
- [Real Estate in a Rising Rate Environment \(July\)](#)

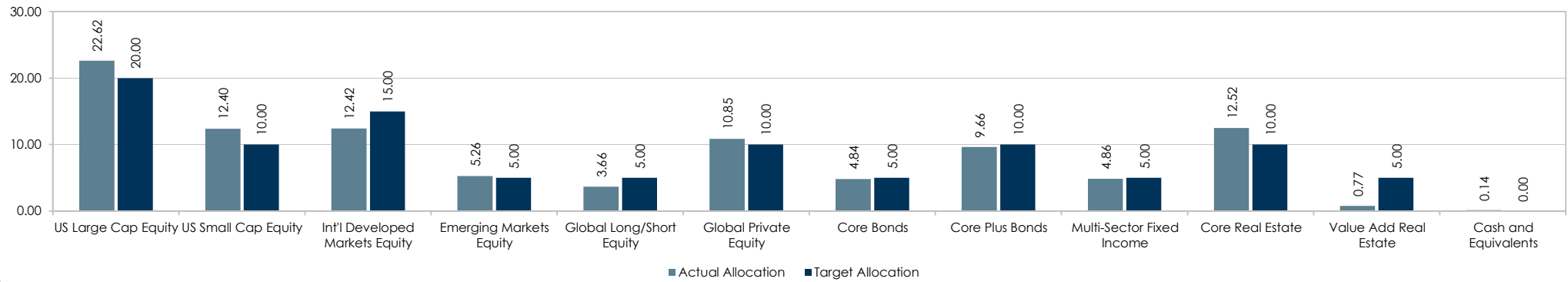
Upcoming Articles / Webcasts

- [Year in Review/Market Outlook \(Jan\)](#)

Oklahoma Law Enforcement Retirement System

For the Periods Ending November 30, 2022

Actual vs. Target Allocation (%)



Asset Class	Market Value (\$000s)	Actual Allocation (%)	Target Allocation (%)	Over/Under (%)	Range Min - Max (%)	
Total Portfolio	1,080,253	100.00	100.00			
Equity	725,997	67.21	65.00	2.21		
US Large Cap Equity	244,323	22.62	20.00	2.62	15.00	25.00
US Small Cap Equity	133,970	12.40	10.00	2.40	5.00	15.00
Int'l Developed Markets Equity	134,124	12.42	15.00	-2.58	10.00	20.00
Emerging Markets Equity	56,824	5.26	5.00	0.26	0.00	10.00
Global Long/Short Equity	39,542	3.66	5.00	-1.34	0.00	10.00
Global Private Equity	117,215	10.85	10.00	0.85	5.00	15.00
Fixed Income	209,137	19.36	20.00	-0.64		
Core Bonds	52,288	4.84	5.00	-0.16	0.00	10.00
Core Plus Bonds	104,320	9.66	10.00	-0.34	5.00	15.00
Multi-Sector Fixed Income	52,528	4.86	5.00	-0.14	0.00	10.00
Real Assets	143,604	13.29	15.00	-1.71		
Core Real Estate	135,301	12.52	10.00	2.52	5.00	15.00
Value Add Real Estate	8,303	0.77	5.00	-4.23	0.00	10.00
Cash and Equivalents	1,515	0.14	0.00	0.14		

Oklahoma Law Enforcement Retirement System

For the Periods Ending November 30, 2022

	Nov 2022 Market Value (\$000s)	Oct 2022 Market Value (\$000s)	Actual Allocation (%)	1 Month (%)	FYTD (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	10 Years (%)	Since Inception (%)
Total Portfolio (01/92)	1,080,253	1,044,732	100.00	3.85	2.71	-11.79	-8.92	5.38	5.43	7.22	7.57
<i>Policy Index ¹</i>				5.07	4.13	-10.70	-7.92	5.60	5.96	7.64	7.78
US Large Cap Equity (04/10)	244,323	232,606	22.62	5.04	8.33	-15.39	-11.97	9.98	10.76	13.67	12.61
<i>S&P 500</i>				5.59	8.56	-13.10	-9.21	10.91	10.98	13.34	12.57
US Small Cap Equity (11/09)	133,970	129,183	12.40	3.71	13.04	-14.69	-10.74	8.86	7.23	10.56	12.35
<i>Russell 2000</i>				2.34	11.12	-14.91	-13.01	6.44	5.45	10.13	11.17
Non-US Equity (04/94)	190,948	172,806	17.68	10.51	2.12	-17.91	-14.24	1.74	1.99	4.73	5.50
<i>MSCI ACWI ex US</i>				11.82	3.89	-14.97	-11.43	2.22	1.96	4.71	5.31
Global Long/Short Equity (04/10)	39,542	38,710	3.66	2.15	4.77	-16.47	-15.81	-1.45	0.43	4.18	3.96
<i>MSCI ACWI</i>				7.80	6.67	-14.64	-11.19	7.13	6.94	9.22	8.52
<i>HFRI FOF: Strategic</i>				1.06	-0.40	-12.83	-12.70	2.74	2.07	3.41	2.80
Global Private Equity (12/01) *	117,215	115,541	10.85	-0.19	-2.34	-3.21	3.05	18.70	15.54	12.24	6.28
Fixed Income (10/90)	209,137	201,820	19.36	3.67	-2.24	-12.93	-12.96	-3.10	-0.69	0.92	5.92
<i>Bloomberg US Aggregate</i>				3.68	-2.53	-12.62	-12.84	-2.59	0.21	1.09	5.13
Real Assets (06/99)	143,604	146,120	13.29	-1.71	-2.54	8.12	11.20	9.65	7.46	7.55	7.33
<i>Real Assets Blended Index ²</i>				0.00	0.35	12.40	21.01	11.39	8.15	7.20	6.73
Cash and Equivalents (06/11)	1,515	7,945	0.14	0.32	1.22	1.49	1.50	0.82	1.41	0.95	0.88

Fiscal YTD is June 30.

* Performance is reported net of fees.

¹ Policy Index: Effective October 2019, the index consists of 35.00% S&P 500, 10.00% Russell 2000, 15.00% MSCI ACWI ex US, 30.00% Bloomberg US Aggregate, 10.00% NFI ODCE Net.

² Real Assets Blended Index: Effective October 2019, the index consists of 100.0% NFI ODCE Net.

Oklahoma Law Enforcement Retirement System

For the Periods Ending November 30, 2022

	Nov 2022 Market Value (\$000s)	Oct 2022 Market Value (\$000s)	Actual Allocation (%)	1 Month (%)	FYTD (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	10 Years (%)	Since Inception (%)
Equity											
US Large Cap Equity											
Hotchkis and Wiley (30 bp) (05/90)	79,221	74,312	7.33	6.61	14.66	1.32	6.57	11.13	9.31	13.16	10.79
Russell 1000 Value				6.25	10.56	-3.65	2.42	8.40	7.86	10.97	9.96
NT S&P 500 Index Fund (1 bp) (08/08)	99,623	94,351	9.22	5.59	8.56	-13.10	-9.20	10.94	10.99	13.34	10.75
S&P 500				5.59	8.56	-13.10	-9.21	10.91	10.98	13.34	10.73
Polen (50 bp) (01/19)	65,479	63,944	6.06	2.40	1.27	-33.16	-31.52	4.80	--	--	11.99
Russell 1000 Growth				4.56	6.69	-23.26	-21.64	11.79	12.92	15.01	17.00
US Small Cap Equity											
Kennedy Capital (89 bp) (07/93)	68,344	65,591	6.33	4.20	15.75	-6.02	0.26	13.19	8.03	12.29	12.63
Russell 2000 Value				3.06	10.68	-8.48	-4.75	8.33	5.35	9.67	9.65
Wellington (80 bp) (09/16)	65,626	63,592	6.08	3.20	10.66	-23.04	-21.11	3.90	5.87	--	8.94
Russell 2000 Growth				1.63	11.54	-21.31	-20.96	3.68	4.91	10.24	8.13
International Developed Markets Equity											
Mondrian International (52 bp) (01/05)	70,263	63,104	6.50	11.34	0.25	-10.55	-5.96	0.18	0.70	4.65	4.44
MSCI EAFE				11.28	6.38	-14.11	-9.70	2.39	2.34	5.48	4.67
MSCI EAFE Value				11.01	6.22	-6.17	-0.57	2.04	0.84	4.38	3.79
Barings Focused EAFE Plus Equity (40 bp) (02/12)	63,860	58,021	5.91	10.06	4.99	-16.16	-11.73	1.13	1.59	4.93	4.86
MSCI ACWI ex US				11.82	3.89	-14.97	-11.43	2.22	1.96	4.71	4.93
Emerging Markets Equity											
William Blair EM Leaders (76 bp) (10/16)	40,512	36,938	3.75	9.67	-0.23	-23.10	-20.75	-0.25	1.10	--	4.92
MSCI Emerging Markets				14.85	-1.41	-18.64	-17.07	0.51	-0.04	2.44	3.98
Wasatch Advisors (110 bp) (07/12)	16,312	14,742	1.51	10.78	5.40	-35.18	-33.26	8.22	6.38	5.76	6.33
MSCI EM SC				9.45	3.88	-16.74	-13.19	8.08	2.44	4.18	4.86
Long/Short Equity											
Grosvenor (80 bp) (02/08)	304	310	0.03	-1.67	-6.81	-10.59	-8.31	1.69	2.34	5.16	3.42
MSCI ACWI				7.80	6.67	-14.64	-11.19	7.13	6.94	9.22	6.35
HFRI FOF: Strategic				1.06	-0.40	-12.83	-12.70	2.74	2.07	3.41	1.64
K2 Ascent (27 bp) (08/20)	39,238	38,400	3.63	2.18	4.87	-16.55	-15.91	--	--	--	-1.51
MSCI ACWI				7.80	6.67	-14.64	-11.19	7.13	6.94	9.22	8.08
HFRI FOF: Strategic				1.06	-0.40	-12.83	-12.70	2.74	2.07	3.41	2.27
Private Equity (12/01) *	117,215	115,541	10.85	-0.19	-2.34	-3.21	3.05	18.70	15.54	12.24	6.28

* Performance is reported net of fees.

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For the Periods Ending November 30, 2022

	Nov 2022 Market Value (\$000s)	Oct 2022 Market Value (\$000s)	Actual Allocation (%)	1 Month (%)	FYTD (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	10 Years (%)	Since Inception (%)
Fixed Income											
Core Bonds											
NT Aggregate Index Fund (2 bp) (04/04)	52,288	50,427	4.84	3.69	-2.41	-12.46	-12.70	-2.53	0.26	1.12	2.99
Bloomberg US Aggregate				3.68	-2.53	-12.62	-12.84	-2.59	0.21	1.09	2.98
Core Plus Bonds											
TCW Asset Management (34 bp) (10/93)	104,320	100,529	9.66	3.86	-2.97	-13.62	-13.84	-1.81	1.02	2.02	5.01
Bloomberg US Aggregate				3.68	-2.53	-12.62	-12.84	-2.59	0.21	1.09	4.37
Multi Sector Fixed Income											
Loomis Sayles (35 bp) (09/21)	52,528	50,865	4.86	3.27	-0.55	-12.13	-11.44	--	--	--	-10.31
Bloomberg Gov't/Credit				3.57	-2.38	-13.16	-13.44	-2.48	0.41	1.18	-11.31
Real Assets											
Real Estate											
JPM Strategic Property Fund (92 bp) (04/12)	111,597	114,050	10.33	-2.15	-3.85	7.24	10.05	9.96	8.43	9.97	10.11
NFI ODCE Net				0.00	0.35	12.40	21.01	11.39	9.27	9.92	9.76
UBS Trumbull Property Fund (68 bp) (01/13)	18,904	18,904	1.75	0.00	0.02	11.72	17.35	7.62	5.96	--	7.62
NFI ODCE Net				0.00	0.35	12.40	21.01	11.39	9.27	9.92	9.78
Colcord Center (11/07) ³	4,800	4,800	0.44	0.45	4.80	0.63	0.89	5.92	5.61	5.70	5.39
Value Add Real Estate (02/22)	8,303	8,367	0.77	-0.76	8.10	--	--	--	--	--	19.98
Cash and Equivalents (03/10)	1,515	7,945	0.14	0.32	1.22	1.49	1.50	0.82	1.41	0.95	0.83

³ Performance is based on monthly cash flows and an annual appraisal valuation.

Investment management fee estimates stated after the manager names are calculated based on March 31, 2021 market values and exclude performance based fees.

Global Private Equity

For the Period Ending November 30, 2022

Summary of Cash Flows for 1 Month

Cash Outflows	Cash Inflows	Net Cash Flows
-1,900,000	4,882	-1,895,118

Summary of Portfolio Inception to Date

	Inception Date	Committed	Drawn to Date	Remaining Commitment	Distributions to Date	Adjusted Ending Value	Total Value	Total Value to Paid-in
Total	Dec-01	200,185,000	131,198,011	72,735,243	71,602,695	117,214,786	188,817,481	1.44x
AMR I	Dec-01	8,000,000	8,352,692	-	9,400,696	-	9,400,696	1.13x
Knightsbridge VI	Dec-04	10,000,000	9,506,658	493,342	15,170,861	2,196,525	17,367,386	1.83x
AMR / APEP II	Dec-05	10,000,000	10,110,724	18,407	12,616,531	27,721	12,644,252	1.25x
Knightsbridge VII	Aug-08	7,500,000	6,247,505	1,252,495	12,607,622	6,445,105	19,052,727	3.05x
Apollo VIII	Feb-14	10,000,000	10,361,501	1,275,815	10,761,473	4,162,568	14,924,041	1.44x
Warburg Pincus XII	Dec-15	10,000,000	9,865,000	135,000	8,161,697	12,621,265	20,782,962	2.11x
Apollo IX	Mar-19	8,500,000	7,121,374	3,007,742	2,386,976	7,153,366	9,540,342	1.34x
Warburg Pincus Global Growth	Mar-19	40,000,000	35,180,000	4,820,000	290,000	46,728,430	47,018,430	1.34x
FirstMark Capital Opportunity Fund III	Jun-20	5,000,000	4,550,000	450,000	126,123	4,692,718	4,818,841	1.06x
CVI Credit Value Fund A V LP	Jul-20	15,000,000	9,000,000	6,000,000	-	9,034,824	9,034,824	1.00x
FirstMark Capital Fund V	Jul-20	5,000,000	3,000,000	2,000,000	54,877	4,098,942	4,153,820	1.38x
Oaktree Opportunities Fund XI	Aug-20	15,000,000	7,500,000	7,500,000	25,839	8,863,714	8,889,553	1.19x
Francisco Partners Agility II	Sep-20	4,050,000	1,970,325	2,079,675	-	2,180,797	2,180,797	1.11x
Francisco Partners VI	Jan-21	12,135,000	7,032,232	5,102,768	-	7,676,273	7,676,273	1.09x
Warburg Pincus Global Growth 14	Jun-22	10,000,000	1,400,000	8,600,000	-	1,332,537	1,332,537	0.95x
FirstMark Capital OF IV		5,000,000	-	5,000,000	-	-	-	-
FirstMark Capital VI		5,000,000	-	5,000,000	-	-	-	-
Francisco Partners Agility III		5,000,000	-	5,000,000	-	-	-	-
Francisco Partners VII		15,000,000	-	15,000,000	-	-	-	-

Cash Flow Activity for 1 Month

Fund Name	Date	Transaction Type	Cash Outflows	Cash Inflows	Net Cash Flows
Total			-1,900,000	4,882	-1,895,118
Warburg Pincus Global Growth 14	11/08/2022	Capital Call	-400,000	-	
CVI Credit Value Fund A V LP	11/14/2022	Capital Call	-1,500,000	-	
Oaktree Opportunities Fund XI	11/28/2022	Distribution	-	4,882	

Value Add Real Estate

For the Period Ending November 30, 2022

Summary of Cash Flows for 1 Month

Cash Outflows	Cash Inflows	Net Cash Flows
-	-	-

Summary of Portfolio Inception to Date

	Inception Date	Committed	Drawn to Date	Remaining Commitment	Distributions to Date	Adjusted Ending Value	Total Value	Total Value to Paid-in
Total	Jan-22	69,000,000	7,400,000	61,600,000	-	8,303,049	8,303,049	1.12x
Starwood Distressed Opp. Fund XII	Jan-22	30,000,000	6,000,000	24,000,000	-	6,903,049	6,903,049	1.15x
Angelo Gordon XI	Oct-22	20,000,000	1,400,000	18,600,000	-	1,400,000	1,400,000	1.00x
Blackstone Real Estate Partners X		19,000,000	-	19,000,000	-	-	-	-

Cash Flow Activity for 1 Month

Fund Name	Date	Transaction Type	Cash Outflows	Cash Inflows	Net Cash Flows
Total			-	-	-

Market Overview

For the Periods Ending November 30, 2022

	1 Month (%)	FYTD (%)	YTD (%)	1 Year (%)	3 Years (%)	5 Years (%)	10 Years (%)
Equity Markets - Core							
S&P 500	5.59	8.56	-13.10	-9.21	10.91	10.98	13.34
Russell 1000	5.41	8.62	-14.13	-10.66	10.56	10.69	13.17
Russell Mid Cap	6.01	11.45	-12.59	-9.02	8.68	8.50	11.83
Russell 2000	2.34	11.12	-14.91	-13.01	6.44	5.45	10.13
Equity Markets - Growth							
Russell 1000 Growth	4.56	6.69	-23.26	-21.64	11.79	12.92	15.01
Russell Mid Cap Growth	5.44	12.98	-22.04	-21.77	6.43	9.10	12.30
Russell 2000 Growth	1.63	11.54	-21.31	-20.96	3.68	4.91	10.24
Equity Markets - Value							
Russell 1000 Value	6.25	10.56	-3.65	2.42	8.40	7.86	10.97
Russell Mid Cap Value	6.32	10.63	-7.32	-1.50	8.76	7.09	10.97
Russell 2000 Value	3.06	10.68	-8.48	-4.75	8.33	5.35	9.67
International Markets							
MSCI EAFE	11.28	6.38	-14.11	-9.70	2.39	2.34	5.48
MSCI ACWI ex US	11.82	3.89	-14.97	-11.43	2.22	1.96	4.71
MSCI World	7.00	7.74	-14.12	-10.42	8.04	7.90	10.12
MSCI Emerging Markets	14.85	-1.41	-18.64	-17.07	0.51	-0.04	2.44
MSCI EM SC	9.45	3.88	-16.74	-13.19	8.08	2.44	4.18
Fixed Income							
ICE BofA ML 1-3 Yr Treasury	0.63	-1.04	-3.85	-4.08	-0.40	0.73	0.65
Bloomberg Intermediate Agg	2.80	-1.93	-9.27	-9.38	-1.79	0.40	1.02
Bloomberg Intermediate G/C	2.17	-1.39	-8.07	-8.19	-1.16	0.79	1.12
Bloomberg US Aggregate	3.68	-2.53	-12.62	-12.84	-2.59	0.21	1.09
Bloomberg Gov't/Credit	3.57	-2.38	-13.16	-13.44	-2.48	0.41	1.18
ICE BofA ML High Yield Master II	1.87	4.06	-10.54	-8.86	0.72	2.33	4.19
FTSE World Govt Bond	4.54	-3.92	-18.12	-18.63	-5.61	-2.48	-1.29
Bloomberg Multiverse	4.72	-2.91	-16.48	-16.51	-4.33	-1.61	-0.36

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