Callan

Executive Summary First Quarter 2022

Arkansas Judicial Retirement System

Brianne Weymouth, CAIA Senior Vice President

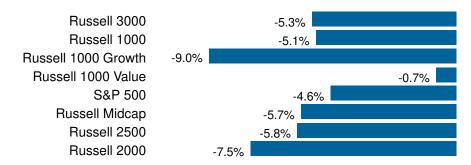
John Jackson, CFA Senior Vice President

U.S. Equity Performance: 1Q22

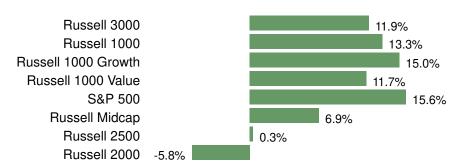
Returns take a step back given increased macro uncertainty

- -The S&P 500 Index fell 4.6% in 1Q, but was down more than 12% early in March before staging a rally into quarter-end.
- Value stocks sharply outpaced growth across capitalizations, with the spread exceeding 10% in both mid and small caps and just over 8% in large caps.
- Energy (+39%) was the best-performing sector given a 33% spike in WTI crude oil prices. Commodity-linked Basic Materials and Utilities sectors also performed well on a relative basis.
- Communication Services (-12%), Consumer Discretionary (-9%), and Information Technology (-8%) were the worstperforming sectors.
- Uncertainty over rates, inflation, and geopolitical tensions all contributed to a volatile and risk averse environment.
- Interestingly, the Russell Dynamic Index (-4.3%)
 outperformed the Russell Defensive Index (-5.9%) during the 1Q downturn.

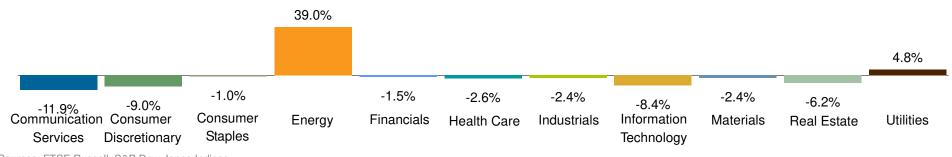
U.S. Equity: Quarterly Returns



U.S. Equity: One-Year Returns



Industry Sector Quarterly Performance (S&P 500)



Sources: FTSE Russell, S&P Dow Jones Indices



Global ex-U.S. Equity Performance: 1Q22

War in Ukraine stoked market volatility

- In the aftermath of invading Ukraine, Russia faced condemnation and sanctions that crippled its stocks, bonds, and currency and shocked the global markets.
- The fog of war exacerbated inflationary concerns and led energy prices to surge as Russia is the second-largest natural gas provider and the third-largest oil producer in the world.
- Energy exporters notably outperformed importers.

Fears of COVID-19

- A resurgence of COVID-19 cases in Europe and Asia, specifically in China, weighed on global recovery.
- China's zero-COVID policy has injected doubt into the 2022 GDP growth projection of 5.5%, already its lowest annual target in more than 25 years.

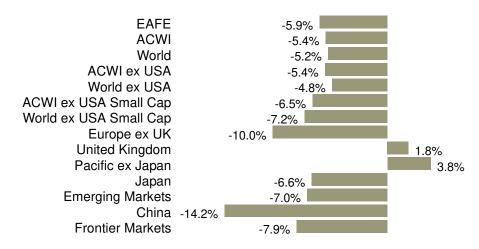
Growth vs. value

- Value sectors such as Energy, Materials, and Financials were in favor relative to growth sectors like Consumer Discretionary and Information Technology due to a combination of recession fears and tightening monetary cycle.
 - However, Energy was the worst performer within Emerging Markets due to the removal of Russia from indices.

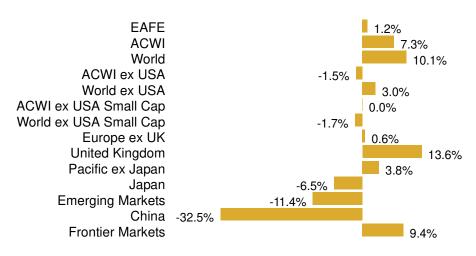
U.S. dollar vs. other currencies

 With the uncertainty of war, the U.S. dollar strengthened against other major currencies.

Global Equity: Quarterly Returns



Global Equity: One-Year Returns





U.S. Fixed Income Performance: 1Q22

Bonds hit hard as rates rose sharply

- -Bloomberg Aggregate worst quarterly return since 1980
- Curve flattened; as of 3/31 5-year UST yield 10 bps higher than 10-year UST yield (2.42% vs 2.32%)
- TIPS outperformed nominal Treasuries and 10-year breakeven spreads widened to 2.84% from 2.56% as of year-end.
- Fed raised rates by 25 bps with many more hikes expected this year.

Credit sectors underperformed

- Investment grade corporates underperformed durationmatched U.S. Treasuries by 145 bps; RMBS by 71 bps.
- High yield "benefited" from less interest rate sensitivity and relatively higher exposure to the energy sector; excess return vs. U.S. Treasuries was 92 bps.
- Defaults remain low (less than 1%) and yield breeched 6%.

Leveraged loans performed relatively well

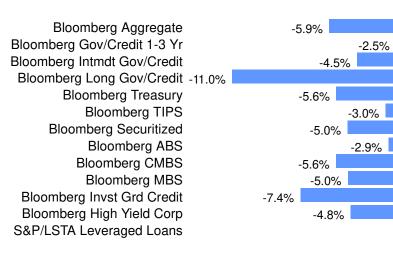
Helped by floating rate coupons / low duration

Securitized sectors performed relatively well

- Consumer ABS held up the best within the sector due to its shorter duration profile and solid consumer spending.
- Conduit CMBS traded in line as economy re-opens.
- Agency MBS saw duration extend by 0.4 year due to higher rates.

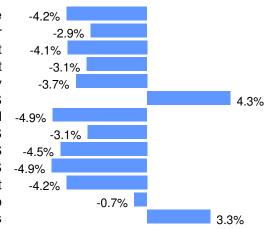
Sources: Bloomberg, S&P Dow Jones Indices

U.S. Fixed Income: Quarterly Returns



U.S. Fixed Income: One-Year Returns







-0.1%

Asset Allocation Review

Change in AJRS Market Value during the Quarter:

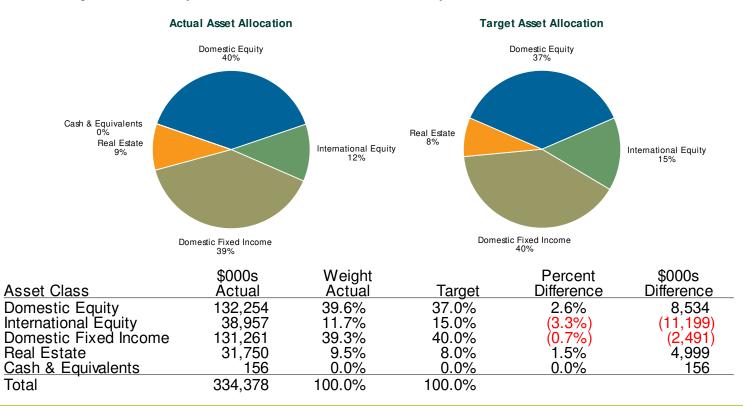
Beginning-of-Quarter Market Value: \$ 360,977,368

Net Increase in Market Value: \$ -26,599,658

End-of-Quarter Market Value: \$ 334,377,710

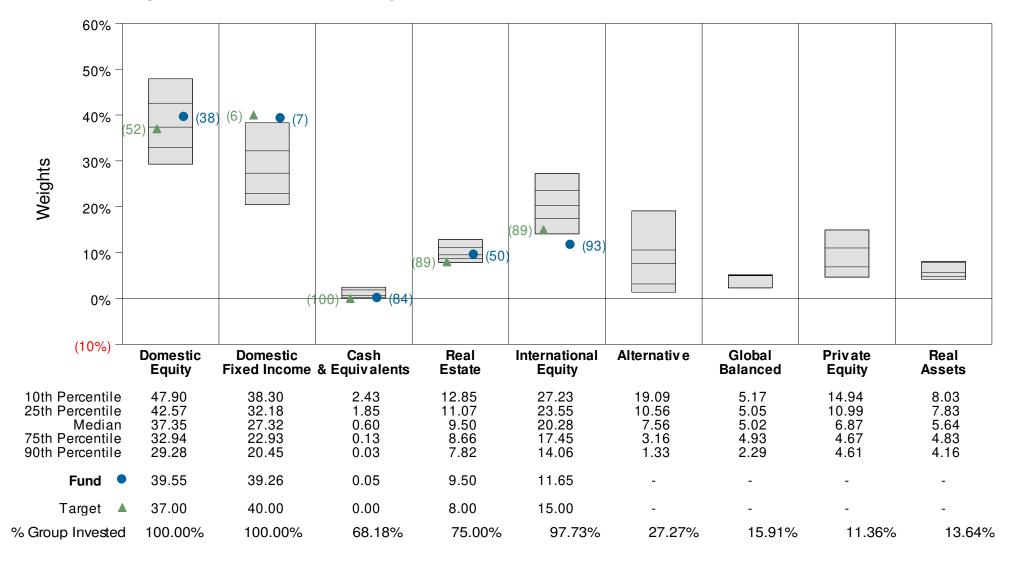
Asset Allocation of AJRS Assets at March 31, 2022

As of the quarter end, all asset classes are within the target allocation range established in the Investment Policy. The International Equity allocation was below its target weight by 3.3% and Domestic Fixed Income was below its target by 0.7%. The Domestic Equity allocation was above its target allocation by 2.6%, and Real Estate was over by 1.5%.



Asset Allocation Review

Asset Class Weights vs Callan Public Fund Spons- Mid (100M-1B)



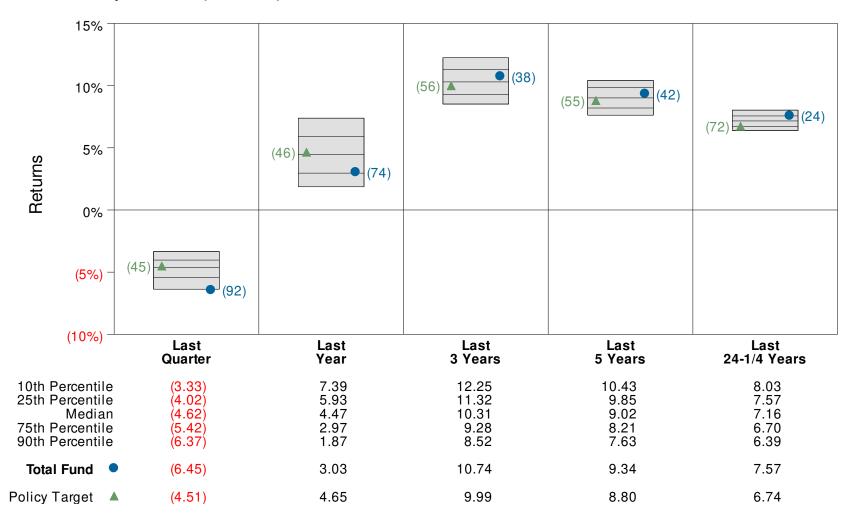
Asset Allocation Review

	March 31,	2022			December 3	1, 2021		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight		
Domestic Equity	\$132,254,011	39.55%	\$(3,319,625)	\$(6,787,946)	\$142,361,582	39.44%		
Mellon Russell 1000 Growth Index	56,635,646	16.94%	(3,205,886)	(6,090,511)	65,932,042	18.26%		
Boston Partners	56,856,075	17.00%	(74,040)	360,379	56,569,737	15.67%		
Aristotle Capital Boston	18,762,290	5.61%	(39,699)	(1,057,814)	19,859,802	5.50%		
International Equity	\$38,957,340	11.65%	\$0	\$(9,434,569)	\$48,391,908	13.41%		
Baillie Gifford Intl Choice Fd	38,957,340	11.65%	0	(9,434,569)	48,391,908	13.41%		
Domestic Fixed Income	\$131,260,565	39.26%	\$(104,637)	\$(8,991,073)	\$140,356,275	38.88%		
MacKay Shields LLC	131,260,565	39.26%	(104,637)	(8,991,073)	140,356,275	38.88%		
Real Estate	\$31,749,581	9.50%	\$(23,307)	\$1,951,391	\$29,821,497	8.26%		
Invesco Core Real Estate	31,749,581	9.50%	(23,307)	1,951,391	29,821,497	8.26%		
Cash & Equivalents	\$156,214	0.05%	\$110,055	\$53	\$46,106	0.01%		
AJRS General Fund	156,214	0.05%	110,055	53	46,106	0.01%		
Total Fund	\$334,377,710	100.0%	\$(3,337,514)	\$(23,262,143)	\$360,977,368	100.0%		



Total Fund Performance Review

Callan Public Fund Spons- Mid (100M-1B)



Policy Target consists of 40% BC Aggregate, 37% Russell 3000 Index, 15% MSCI EAFE and 8% NFI-ODCE Equal Weight Net.

Note: Numbers adjacent to return number represent the portfolio's rank relative to the corresponding peer group. 1 = Highest Ranking; 100 = Lowest Ranking.



Total Fund Performance Attribution

Relative Attribution Effects for Quarter ended March 31, 2022

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	39%	37%	(4.75%)	(5.28%)	0.21%	(0.02%)	0.19%
Domestic Fixed Income	39%	40%	(6.41%)	(5.93%)	(0.19%)	`0.01%´	(0.17%)
Real Estate	8%	8%	6.54%	7.77%	(0.10%)	0.04%	(0.07%)
International Equity	13%	15%	(19.50%)	(5.33%)	(1.91%)	0.01%	(1.90%)
Cash & Equivalents	0%	0%	0.01%	0.01%	0.00%	0.00%	`0.00%´_
Total			(6.45%) =	(4.51%) +	(1.99%) +	0.05%	(1.94%)

One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	38%	37%	12.87%	11.92%	0.35%	0.07%	0.42%
Domestic Fixed Income	39%	40%	(3.23%)	(4.15%)	0.37%	0.09%	0.46%
Real Estate	8%	8%	27.07%	28.69%	(0.13%)	0.01%	(0.12%)
International Equity	14%	15%	(17.79%)	(1.04%)	(2.43%)	0.07%	(2.36%)
Cash & Equivalents	0%	0%	0.02%	0.02%	0.00%	(0.01%)	(0.01%)
Total			3.03% =	4.65%	+ (1.85%) +	0.23%	(1.61%)

Total Fund Performance Attribution

Three Year Annualized Relative Attribution Effects

Asset Class Domestic Equity Domestic Fixed Income Real Estate International Equity Cash & Equivalents	Effective Actual Weight 38% 9 38% 15% 0%	Effective Target Weight 37% 40% 8% 15% 0%	Actual Return 18.30% 3.41% 10.20% 8.94% 0.72%	Target Return 18.24% 1.69% 11.11% 8.01% 0.72%	Manager Effect 0.07% 0.60% (0.08%) 0.31% 0.00%	Asset Allocation (0.10%) 0.04% (0.10%) 0.07% (0.05%)	Total Relative Return (0.03%) 0.64% (0.18%) 0.38% (0.05%)
Total			10.74% =	9.99%	+ 0.90% -	· (0.15%)	0.75%

Total 10.74% = 9.99% + 0.90% + (0.15%)	0.75%
--	-------

Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	39%	37%	15.29%	15.40%	(0.01%)	(0.06%)	(0.07%)
Domestic Fixed Income		40%	3.49%	2.14%	0.46%	0.04%	0.51%
Real Estate	9%	8%	9.35%	9.46%	(0.01%)	(0.07%)	(0.08%)
International Equity	15%	15%	7.84%	7.26%	`0.20%´	`0.03%´	0.23%
Cash & Equivalents	0%	0%	1.09%	1.09%	0.00%	(0.04%)	(0.04%)_
Total			9.34% =	8.80% -	+ 0.64% +	(0.11%)	0.54%



							Last		Last	
	Last		Fiscal		Last		3		5	
	Quarter		YTD		Year		Years		Years	
Domestic Equity	(4.75%)	37	4.32%	30	12.87%	13	18.30%	13	15.29%	27
Domestic Equity Benchmark	(5.28%)	60	3.40%	51	11.92%	34	18.24%	16	15.40%	21
Russell 3000 Index	(5.28%)	60	3.40%	51	11.92%	34	18.24%	16	15.40%	21
S&P 500 Index	(4.60%)	31	6.54%	6	15.65%	1	18.92%	5	15.99%	7
Med Public Fd - Dom Eqty	(5.14%)		3.51%		11.28%		17.38%		14.63%	
Mellon Russell 1000 Growth Index	(9.21%)	33	2.55%	23	14.84%	16	-		-	
Russell 1000 Growth Index	(9.04%)	33	2.72%	23	14.98%	15	23.60%	9	20.88%	17
Callan Large Cap Growth	(10.01%)		(1.64%)		9.25%		20.04%		19.42%	
Boston Partners	0.64%	46	8.80%	29	14.79%	35	15.64%	35	12.33%	31
Russell 1000 Value Index	(0.74%)	79	6.14%	76	11.67%	83	13.02%	78	10.29%	82
Callan Large Cap Value	0.45%		8.04%		14.04%		14.59%		11.56%	
Aristotle Capital Boston	(5.33%)	32	(2.60%)	52	1.21%	57	-		-	
Russell 2000 Index	(7.53%)	67	(9.66%)	96	(5.79%)	97	11.74%	73	9.74%	69
Callan Small Cap Core	(6.27%)		(2.33%)		1.85%		13.89%		10.68%	
International Equity	(19.50%)	96	(22.01%)	96	(17.79%)	96	8.94%	48	7.84%	45
International Equity Benchmark	(5.33%)	12	(6.33%)	21	(1.04%)	23	8.01%	77	7.26%	69
Med Public Fd - Int Eqty	(6.83%)		(8.79%)		(3.01%)		8.80%		7.70%	
Baillie Gifford Intl Choice Fd	(19.50%)	100	(22.01%)	99	(17.79%)	99	8.94%	50	-	
MSCI ACWIXUS Gross	(5.33%)	35	(6.33%)	54	(1.04%)	50	8.01%	63	7.26%	55
Callan NonUS Eq	(6.66%)		(5.68%)		(1.00%)		8.93%		7.72%	



	Last Quarter		Fiscal YTD		Last Year		Last 3 Years		Last 5 Years	
Domestic Fixed Income	(6.41%)	92	(5.91%)	82	(3.23%)	29	3.41%	5	3.49%	8
Domestic Fixed Income Benchmark	(5.93%)	77	(5.87%)	81	(4.15%)	91	1.69%	77	2.14%	70
Med Public Fd - Dom Fixed	(4.93%)		(5.09%)		(3.70%)		2.16%		2.45%	
MacKay Shields LLC	(6.41%)	89	(5.91%)	80	(3.23%)	44	3.41%	19	3.49%	18
Blmbg Aggregate Index	(5.93%)	58	(5.87%)	78	(4.15%)	89	1.69%	98	2.14%	99
Callan Core Plus FI	(5.83%)		(5.57%)		(3.29%)		2.83%		3.11%	
Real Estate	6.54%	42	21.27%	63	27.07%	53	10.20%	47	9.35%	42
Med Public Fd - Real Est	6.33%		22.94%		27.54%		10.01%		8.97%	
Invesco Core Real Estate	6.54%	13	21.27%	45	27.07%	34	10.20%	47	9.35%	38
NFI-ODCE Equal Weight Net**	7.77%	6	23.53%	25	28.69%	21	11.11%	27	9.46%	35
Callan OE Core Cmngld RE	5.00%		20.16%		25.56%		9.66%		8.55%	
Total Fund	(6.45%)	92	(2.34%)	82	3.03%	74	10.74%	38	9.34%	42
Callan Public Fd Mid DB	(4.62%)		(0.49%)		4.47%		10.31%		9.02%	
Total Fund ex Cash	(6.45%)	92	(2.32%)	81	3.06%	73	10.84%	37	9.40%	39
Target Benchmark*	(4.51%)	45	(0.30%)	45	4.65%	46	9.99%	56	8.80%	55
Callan Public Fd Mid DB	(4.62%)	10	(0.49%)	10	4.47%	10	10.31%	00	9.02%	00

^{*}Current Quarter Target = 40.0% Blmbg Aggregate, 37.0% Russell 3000 Index, 15.0% MSCI ACWI xUS Gross and 8.0% NCREIF NFI-ODCE Eq Wt Net. **The first quarter 2022 NFI-ODCE Equal Weight Idx return is based on preliminary data.



	Last	Last	Last 3	Last 5	Last 14-3/4
	Quarter	Year	Years	Years	Years
NET OF FEE RETURNS					
Domestic Equity					
Mellon Russell 1000 Growth Index	(9.22%)	14.80%	-	-	-
Russell 1000 Growth Index	(9.04%)	14.98%	23.60%	20.88%	12.64%
Boston Partners	0.50%	14.18%	15.02%	11.73%	8.50%
Russell 1000 Value Index	(0.74%)	11.67%	13.02%	10.29%	7.14%
Aristotle Capital Boston	(5.52%)	0.40%	-	-	-
Russell 2000 Index	(7.53%)	(5.79%)	11.74%	9.74%	7.81%
International Equity					
Baillie Gifford Intl Choice Fd	(19.60%)	(18.20%)	8.40%	-	-
MSCI ACWIxUS Gross	(5.33%)	(1.04%)	8.01%	7.26%	3.10%
Domestic Fixed Income					
MacKay Shields LLC	(6.48%)	(3.52%)	3.10%	3.18%	-
BImbg Aggregate Index	(5.93%)	(4.15%)	1.69%	2.14%	3.66%
Real Estate					
Invesco Core Real Estate	6.47%	26.72%	9.86%	8.84%	-
NFI-ODCE Equal Weight Net	7.77%	28.69%	11.11%	9.46%	5.89%
Total Fund	(6.53%)	2.68%	10.34%	8.88%	6.40%
Total Fund ex Cash	(6.53%)	2.71%	10.44%	8.95%	6.61%
Target Benchmark*	(4.51%)	4.65%	9.99%	8.80%	6.63%
raiget Denominant	(4.5170)	7.00/0	J.JJ/0	0.00 /6	0.00 /6

^{*}Current Quarter Target = 40.0% Blmbg Aggregate, 37.0% Russell 3000 Index, 15.0% MSCI ACWIxUS Gross and 8.0% NCREIF NFI-ODCE Eq Wt Net.



The Total Fund lost 6.45% in the first quarter return and trailed its benchmark which was down 4.51%. The Fund ranked at the 92nd percentile of its peer group. Over the trailing year, the Total Fund returned 3.03%, and trailed the benchmark return of 4.65% and ranked at the 74th percentile of its peers. The Total Fund led its benchmark and ranked in the top half of peers over the trailing three- and five-year periods. Over longer periods, the Fund has outperformed its benchmark and finished above the median of peers over the trailing ten-, fifteen- and twenty-year periods.

The AJRS Domestic Equity Composite ended the first quarter down 4.75%, and ranked in the top half of peers, and outperformed the broad U.S. equity market, as measured by the Russell 3000 Index.

- The **Mellon** Russell 1000 Growth Index Fund is passively invested in the Russell 1000 Growth Index. The Fund returned -9.21% in the quarter and finished at the 33rd percentile in the Callan Large Cap Growth peer universe. For the trailing year, the Fund returned 14.84% and ranked above the median of peers.
- In large cap value equity, **Boston Partners** beat the Russell 1000 Value Index and ranked at the 46th percentile of the Callan Large Cap Value peer group. For the trailing year, the Fund led its benchmark by 3.12% and ranked at the 35th percentile of its peer group. Stock selection added value in Technology, Health Care and Industrials. The Fund performance versus its benchmark and peer median over the trailing one-, three-, five-, and ten-year periods was positive.
- In small cap equity, **Aristotle Capital** returned -5.33%, which led the Russell 2000 Index, and ranked at the 32nd percentile of peers. Stock selection and sector allocation added value in the quarter. Over the trailing year, the Fund returned 1.21% and outperformed the -5.79% return of the benchmark.

The AJRS International Equity Composite returned -19.50% during the quarter, which trailed the -5.33% return of the MSCI ACWI ex US Index, and ranked at the 96th percentile of peers.

• **Baillie Gifford** underperformed the index by 14.17%, and ranked at the bottom of its peer group during the quarter. Active security selection detracted significantly as growth companies experienced significant losses. Despite challenging recent performance, for the three-year period the fund exceeded the benchmark by 0.94% annualized and appeared at the median of its peer universe.

The AJRS Domestic Fixed Income Composite's return of -6.41% trailed the Bloomberg Aggregate Index by 48 basis points during the quarter.

• **MacKay Shields**, the only manager in the fixed income composite, underperformed its benchmark and ranked at the 89th percentile of its peer group during the quarter. The Fund's overweight to corporate bonds and underweight to treasuries detracted in the first quarter. Over longer periods, the Fund leads its benchmark and ranks in the top half of peers over the trailing one-, three-, five- and ten-year periods.

The AJRS Real Estate Composite returned 6.54% during the quarter.

• The **Invesco Core Real Estate** fund's 6.54% return trailed its benchmark (+7.77%) but ranked in the top quartile of its peer group. Over the trailing five years, the fund underperformed its benchmark by 11 basis points, but ranked at the 38th percentile of peers.