

plan investment review | performance summary
the university of north carolina
For the period ending 3/31/2023

INVESTMENT NAME	PROVIDER	Q1'23	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*	Exp Ratio	
MONEY MARKET								
CREF Money Market R3	TIAA	1.08%	2.36%	0.79%	1.19%	0.68%	0.18	
Fidelity Government MMkt	Fidelity	1.01%	2.34%	0.78%	1.13%	0.65%	0.42	
Vanguard Federal Money Market Investor	TIAA	1.10%	2.66%	0.92%	1.34%	0.82%	0.11	
ICE BofA ML US Treasury Bill 3 Mon USD	Benchmark	1.07%	2.50%	0.89%	1.41%	0.87%		
STABLE VALUE								
Fidelity Managed Income II CL 1	Fidelity	0.39%	1.36%	1.33%	1.61%	1.48%	0.50	
Lincoln Stable Value Z68X	Fidelity	0.50%	1.75%	1.67%	1.82%	2.00%	0.35	
TIAA Traditional - Group Retirement Annuity	TIAA	Current Rate is 6.25%						
TIAA Traditional - Group Supplemental Retirement Annuity	TIAA	Current Rate is 5.50%						
Morningstar US Stable Value GR USD	Peer Group	0.64%	2.12%	1.98%	2.16%	1.98%		
ICE BofA ML US Treasury Bill 3 Mon USD	Benchmark	1.07%	2.50%	0.89%	1.41%	0.87%		
SHORT TERM BOND								
Vanguard Short-Term Bond Idx InstlPIs	Fidelity/TIAA	1.93%	-0.30%	-0.80%	1.30%	1.10%	0.04	
Short Term Bond Universe	Peer Group	1.69%	-0.46%	0.82%	1.27%	1.11%		
Bloomberg US Govt/Credit 1-3 Yr TR USD	Benchmark	1.51%	0.26%	-0.38%	1.26%	1.01%		
INTERMEDIATE TERM BOND								
JPMCB Core Bond Fund CF**	TIAA	3.57%	-3.95%	-1.51%	1.51%	1.74%	0.30	
JPMorgan Core Bond R5	Fidelity	3.51%	-4.06%	-1.71%	1.35%	1.60%	0.44	
JPMorgan Core Bond R6	TIAA	3.52%	-3.95%	-1.61%	1.45%	1.70%	0.34	
Vanguard Institutional Total Bond Market Index Trust- UNC	TIAA/Fidelity	3.17%	-	-	-	-	0.02	
Vanguard Total Bond Market Idx InstlPIs*	TIAA/Fidelity	3.17%	-4.69%	-2.76%	0.94%	1.35%	0.03	
Intermediate Core Bond Universe	Peer Group	3.12%	-5.19%	-2.16%	0.79%	1.24%		
Bloomberg US Agg Bond TR USD	Benchmark	2.96%	-4.78%	-2.77%	0.90%	1.36%		
INTERMEDIATE CORE-PLUS BOND								
TCW MetWest Total Return Bond Fund CIT (Class C)	TIAA/Fidelity	3.41%	-5.61%	-2.33%	1.17%	-	0.30	
Metropolitan West Total Return Bond Plan	Fidelity	3.54%	-5.79%	-2.30%	1.14%	1.61%	0.37	
Intermediate Core Plus Bond Universe	Peer Group	3.15%	-5.58%	-1.16%	0.93%	1.51%		
Bloomberg US Agg Bond TR USD	Benchmark	2.96%	-4.78%	-2.77%	0.90%	1.36%		
ALLOCATION--50% TO 70% EQUITY								
Fidelity Balanced K	Fidelity	7.55%	-7.40%	14.01%	8.80%	9.21%	0.43	
Allocation--50% to 70% Equity Universe	Peer Group	4.31%	-6.38%	9.68%	5.08%	6.12%		
60% S&P 500, 40% Bloomberg Agg	Benchmark	5.67%	-6.25%	9.90%	7.34%	8.03%		
WORLD ALLOCATION								
CREF Social Choice R3	TIAA	5.22%	-5.23%	9.42%	5.78%	6.46%	0.19	
Global Allocation Universe	Peer Group	4.04%	-6.27%	9.07%	3.46%	4.56%		
60% MSCI World 40% Bloomberg Agg Index	Benchmark	5.57%	-6.14%	8.02%	4.81%	5.57%		
ALLOCATION--85%+ EQUITY								
CREF Stock R3	TIAA	6.97%	-7.07%	16.38%	7.18%	8.98%	0.23	
Allocation--85%+ Equity Universe	Peer Group	5.86%	-8.27%	14.48%	6.27%	8.04%		
85% S&P 500, 15% Bloomberg Agg	Benchmark	6.81%	-7.13%	15.32%	9.79%	10.69%		
LARGE COMPANY VALUE								
JHancock Disciplined Value R6	TIAA/Fidelity	-0.38%	-5.22%	21.37%	7.41%	9.48%	0.65	
Large Value Universe	Peer Group	0.08%	-5.06%	18.55%	7.62%	9.02%		
Russell 1000 Value	Benchmark	1.01%	-5.91%	17.93%	7.50%	9.13%		
LARGE COMPANY BLEND								
Vanguard FTSE Social Index I	Fidelity	9.83%	-10.02%	17.69%	11.21%	12.76%	0.12	
Vanguard Institutional 500 Index Trust- UNC	TIAA/Fidelity	7.49%	-	-	-	-	0.01	
Vanguard Institutional Index Instl PI*	TIAA/Fidelity	7.49%	-7.75%	18.59%	11.18%	12.23%	0.02	
Large Blend Universe	Peer Group	6.45%	-7.59%	17.91%	9.96%	11.12%		
S&P 500 Index	Benchmark	7.50%	-7.73%	18.60%	11.19%	12.24%		
LARGE COMPANY GROWTH								
Fidelity Contrafund K	Fidelity	11.56%	-11.22%	15.24%	10.33%	12.74%	0.74	
T Rowe Price Lrg Cp Gr I	TIAA/Fidelity	14.18%	-14.69%	13.89%	10.19%	14.45%	0.55	
Large Growth Universe	Peer Group	12.69%	-12.49%	14.70%	10.37%	12.26%		
Russell 1000 Growth	Benchmark	14.37%	-10.90%	18.58%	13.66%	14.59%		
MEDIUM COMPANY VALUE								
MFS Mid Cap Value R4	Fidelity	0.55%	-5.83%	21.85%	8.14%	9.50%	0.74	
MFS Mid Cap Value R6	TIAA	0.60%	-5.70%	22.03%	8.30%	9.66%	0.62	
Mid Value Universe	Peer Group	1.27%	-6.36%	21.61%	6.46%	8.39%		
Russell Mid Cap Value	Benchmark	1.32%	-9.22%	20.69%	6.54%	8.80%		

Shading highlights performance at or above median for peer group if available, otherwise at or above benchmark.

*403(b) Plan only

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MEDIUM COMPANY BLEND							
Vanguard Extended Market Index InstlPlus*	TIAA/Fidelity	5.85%	-14.13%	17.16%	6.06%	8.94%	0.04
Vanguard Institutional Extended Market Index Trust- UNC	TIAA/Fidelity	5.87%	-	-	-	-	0.035
Mid Blend Universe	Peer Group	3.72%	-6.98%	19.36%	7.11%	8.98%	
Russell Mid Cap	Benchmark	4.06%	-8.78%	19.20%	8.05%	10.05%	
MEDIUM COMPANY GROWTH							
MassMutual Mid Cap Growth I	TIAA/Fidelity	7.33%	-8.02%	15.39%	7.92%	11.33%	0.66
Mid Growth Universe	Peer Group	7.67%	-11.27%	14.80%	8.34%	10.36%	
Russell Mid Cap Growth	Benchmark	9.14%	-8.52%	15.20%	9.07%	11.17%	
FOREIGN LARGE BLEND							
American Funds Europacific Growth R4	Fidelity	9.78%	-3.59%	11.75%	2.89%	5.62%	0.81
American Funds Europacific Growth R6	TIAA	9.87%	-3.26%	12.13%	3.25%	5.99%	0.46
MFS International Intrinsic Value Equity CIT Class 4	Fidelity	9.23%	-3.54%	9.16%	5.36%	8.18%	0.57
MFS International Intrinsic Value R6	TIAA	9.09%	-3.36%	9.02%	5.32%	8.16%	0.61
Vanguard Institutional Total International Stock Market Index Trust- UNC	TIAA/Fidelity	6.71%	-	-	-	-	0.059
Vanguard Total Intl Stock Idx InstlPls*	TIAA/Fidelity	6.66%	-4.58%	12.72%	2.54%	4.47%	0.07
Foreign Large Blend Universe	Peer Group	7.95%	-2.19%	12.80%	2.85%	4.67%	
MSCI EAFE	Benchmark	8.62%	-0.86%	13.52%	4.03%	5.50%	
FOREIGN SMALL/MID GROWTH							
T Rowe Price International Discovery	Fidelity	5.80%	-10.08%	11.60%	1.99%	7.36%	1.23
T Rowe Price International Discovery I	TIAA	5.86%	-9.93%	11.76%	2.13%	7.46%	1.08
Foreign Small/Mid Growth Universe	Peer Group	6.47%	-10.41%	10.22%	1.03%	5.23%	
MSCI World ex USA Smid Cap USD	Benchmark	6.40%	-8.41%	12.39%	1.55%	5.13%	
SMALL COMPANY VALUE							
Goldman Sachs Small Cap Value Inst	Fidelity	0.05%	-11.90%	19.96%	3.58%	7.42%	0.97
Goldman Sachs Small Cap Value R6	TIAA	0.07%	-11.88%	19.98%	3.59%	7.33%	0.96
Small Value Universe	Peer Group	1.28%	-7.13%	24.09%	5.43%	7.65%	
Russell 2000 Value	Benchmark	-0.66%	-12.96%	21.01%	4.55%	7.22%	
SMALL COMPANY GROWTH							
T Rowe Price QM US Small-Cap Gr Eq I	TIAA/Fidelity	7.19%	-5.82%	14.74%	6.94%	10.49%	0.64
Small Growth Universe	Peer Group	6.50%	-11.73%	15.15%	7.06%	9.52%	
Russell 2000 Growth	Benchmark	6.07%	-10.60%	13.36%	4.26%	8.49%	
SPECIALTY-REAL ESTATE							
Cohen & Steers Instl Realty Shares	TIAA	2.43%	-18.02%	11.50%	7.90%	7.43%	0.75
Cohen & Steers Realty Shares L	Fidelity	2.37%	-18.31%	11.29%	7.73%	7.21%	0.88
Specialty-Real Estate Universe	Peer Group	2.61%	-20.09%	10.17%	5.84%	5.84%	
Dow Jones US Select REIT	Benchmark	2.77%	-20.98%	11.32%	4.66%	5.31%	
SPECIALTY-PRIVATE REAL ESTATE							
TIAA Real Estate Account	TIAA	-2.41%	0.14%	7.22%	6.21%	6.95%	0.77
NCREIF Property Index	Benchmark	-1.81%	-1.63%	7.16%	6.71%	8.34%	
NCREIF ODCE Index	Peer Group	-3.17%	-3.09%	8.40%	7.51%	9.45%	

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TARGET DATE							
Vanguard Target Retire Income Select	TIAA/Fidelity	4.25%	-4.45%	3.89%	3.33%	3.87%	0.05
Retirement Income Moderate	Peer Group	4.01%	-4.92%	4.59%	3.09%	3.48%	
Morningstar Lifetime Moderate Income Index	Benchmark	3.56%	-5.19%	5.41%	3.75%	3.87%	
Vanguard Target Retire 2020 Select	TIAA/Fidelity	4.81%	-5.18%	6.97%	4.39%	5.87%	0.05
2020 Moderate	Peer Group	4.42%	-5.56%	6.98%	4.22%	5.31%	
Morningstar Lifetime Moderate 2020 Index	Benchmark	4.32%	-7.95%	6.01%	4.06%	5.08%	
Vanguard Target Retire 2025 Select	TIAA/Fidelity	5.34%	-5.75%	8.46%	4.91%	6.48%	0.05
2025 Moderate	Peer Group	4.72%	-5.95%	7.91%	4.45%	5.76%	
Morningstar Lifetime Moderate 2025 Index	Benchmark	4.58%	-8.37%	6.95%	4.31%	5.64%	
Vanguard Target Retire 2030 Select	TIAA/Fidelity	5.67%	-6.10%	9.78%	5.33%	7.00%	0.05
2030 Moderate	Peer Group	5.30%	-6.32%	9.66%	5.05%	6.47%	
Morningstar Lifetime Moderate 2030 Index	Benchmark	4.84%	-8.49%	8.54%	4.69%	6.30%	
Vanguard Target Retire 2035 Select	TIAA/Fidelity	5.95%	-6.27%	11.24%	5.80%	7.55%	0.05
2035 Moderate	Peer Group	5.73%	-6.71%	11.37%	5.58%	7.06%	
Morningstar Lifetime Moderate 2035 Index	Benchmark	5.10%	-8.22%	10.60%	5.18%	6.90%	
Vanguard Target Retire 2040 Select	TIAA/Fidelity	6.23%	-6.46%	12.68%	6.24%	8.02%	0.05
2040 Moderate	Peer Group	6.08%	-6.92%	12.88%	6.01%	7.50%	
Morningstar Lifetime Moderate 2040 Index	Benchmark	5.31%	-7.81%	12.51%	5.61%	7.31%	
Vanguard Target Retire 2045 Select	TIAA/Fidelity	6.51%	-6.65%	14.13%	6.68%	8.32%	0.05

2045 Moderate	Peer Group	6.37%	-7.09%	13.82%	6.31%	7.77%	
Morningstar Lifetime Moderate 2045 Index	Benchmark	5.46%	-7.50%	13.68%	5.86%	7.47%	
Vanguard Target Retire 2050 Select	TIAA/Fidelity	6.64%	-6.66%	14.27%	6.76%	8.36%	0.05
2050 Moderate	Peer Group	6.42%	-7.07%	14.14%	6.45%	7.89%	
Morningstar Lifetime Moderate 2050 Index	Benchmark	5.53%	-7.33%	14.11%	5.92%	7.47%	
Vanguard Target Retire 2055 Select	TIAA/Fidelity	6.63%	-6.67%	14.25%	6.76%	8.33%	0.05
2055 Moderate	Peer Group	6.48%	-7.11%	14.27%	6.46%	7.96%	
Morningstar Lifetime Moderate 2055 Index	Benchmark	5.55%	-7.33%	14.16%	5.86%	7.40%	
Vanguard Target Retire 2060 Select	TIAA/Fidelity	6.66%	-6.62%	14.29%	6.79%	8.37%	0.05
2060 Moderate	Peer Group	6.41%	-7.07%	14.31%	6.49%	7.84%	
Morningstar Lifetime Moderate 2060 Index	Benchmark	5.55%	-7.36%	14.13%	5.77%	7.31%	
Vanguard Target Retire 2065 Select	TIAA/Fidelity	6.65%	-6.61%	14.29%	6.79%	-	0.05
Vanguard Target Retire 2070 Select	TIAA/Fidelity	6.65%	-5.35%	-	-	-	0.05
2065+ Moderate	Peer Group	6.51%	-7.19%	14.48%	6.68%	-	
Morningstar Lifetime Moderate 2065 Index	Benchmark	5.55%	-7.37%	14.06%	5.63%	7.20%	

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