

PLAN INVESTMENT REVIEW | PERFORMANCE SUMMARY  
 THE UNIVERSITY OF NORTH CAROLINA  
 FOR THE PERIOD ENDING 12/31/2023

INVESTMENT NAME	PROVIDER	Q4'23	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*	Exp Ratio
<b>MONEY MARKET</b>							
<b>CREF Money Market R3</b>	<b>TIAA</b>	1.31%	4.97%	2.05%	1.71%	1.06%	0.18
<b>Fidelity Government MMkt</b>	<b>Fidelity</b>	1.28%	4.79%	2.02%	1.63%	1.02%	0.42
<b>Vanguard Federal Money Market Investor</b>	<b>TIAA</b>	1.34%	5.09%	2.20%	1.83%	1.21%	0.11
ICE BofA ML US Treasury Bill 3 Mon USD	Benchmark	1.37%	5.02%	2.15%	1.88%	1.25%	
<b>STABLE VALUE</b>							
<b>Fidelity Managed Income II CL 1</b>	<b>Fidelity</b>	0.49%	1.75%	1.35%	1.59%	1.53%	0.35
<b>Lincoln Stable Value Z68X</b>	<b>Fidelity</b>	0.52%	2.05%	1.72%	1.83%	1.99%	0.35
<b>TIAA Traditional - GRA and RA Annuities</b>	<b>TIAA</b>			Current Rate is 6.75%			
<b>TIAA Traditional - GSRA and SRA Annuities</b>	<b>TIAA</b>			Current Rate is 6.00%			
Morningstar US Stable Value GR USD	Peer Group	0.73%	2.85%	2.16%	2.25%	2.07%	
ICE BofA ML US Treasury Bill 3 Mon USD	Benchmark	1.37%	5.02%	2.15%	1.88%	1.25%	
<b>SHORT TERM BOND</b>							
<b>Vanguard Short-Term Bond Idx InstlPIs</b>	<b>Fidelity/TIAA</b>	3.40%	4.90%	-0.65%	1.50%	1.39%	0.04
Short Term Bond Universe	Peer Group	3.12%	5.47%	0.01%	1.76%	1.50%	
Bloomberg US Govt/Credit 1-3 Yr TR USD	Benchmark	2.69%	4.61%	0.09%	1.51%	1.27%	
<b>INTERMEDIATE TERM BOND</b>							
<b>JPMCB Core Bond Fund CF**</b>	<b>TIAA</b>	6.53%	6.07%	-2.66%	1.67%	2.18%	0.30
<b>JPMorgan Core Bond R5</b>	<b>Fidelity</b>	6.36%	5.76%	-2.79%	1.50%	2.00%	0.44
<b>JPMorgan Core Bond R6</b>	<b>TIAA</b>	6.37%	5.85%	-2.72%	1.60%	2.10%	0.34
<b>Vanguard Institutional Total Bond Market Index Trust- UNC</b>	<b>TIAA/Fidelity</b>	6.68%	-	-	-	-	0.02
<b>Vanguard Total Bond Market Idx InstlPIs*</b>	<b>TIAA/Fidelity</b>	6.70%	5.72%	-3.34%	1.14%	1.81%	0.03
Intermediate Core Bond Universe	Peer Group	6.69%	5.59%	-3.45%	1.06%	1.69%	
Bloomberg US Agg Bond TR USD	Benchmark	6.82%	5.53%	-3.32%	1.10%	1.81%	
<b>INTERMEDIATE CORE-PLUS BOND</b>							
<b>TCW MetWest Total Return Bond Fund CIT (Class C)</b>	<b>TIAA/Fidelity</b>	7.50%	5.77%	-3.63%	1.30%	-	0.30
<b>Metropolitan West Total Return Bond Plan</b>	<b>Fidelity</b>	7.54%	6.07%	-3.63%	1.31%	1.91%	0.36
Intermediate Core Plus Bond Universe	Peer Group	6.94%	6.20%	-3.28%	1.44%	1.93%	
Bloomberg US Agg Bond TR USD	Benchmark	6.82%	5.53%	-3.32%	1.10%	1.81%	
<b>ALLOCATION--50% TO 70% EQUITY</b>							
<b>Fidelity Balanced K</b>	<b>Fidelity</b>	9.86%	21.68%	5.67%	12.46%	9.14%	0.43
Moderate Allocation Universe	Peer Group	9.17%	13.64%	3.32%	8.06%	5.94%	
60% S&P 500, 40% Bloomberg Agg	Benchmark	9.74%	17.67%	4.71%	9.98%	8.09%	
<b>WORLD ALLOCATION</b>							
<b>CREF Social Choice R3</b>	<b>TIAA</b>	9.91%	14.82%	3.02%	8.44%	6.43%	0.21
Global Allocation Universe	Peer Group	9.03%	11.64%	2.44%	6.35%	4.33%	
60% MSCI World 40% Bloomberg Agg Index	Benchmark	9.36%	15.37%	2.21%	7.67%	5.68%	
<b>SPECIALTY-PRIVATE REAL ESTATE</b>							
<b>TIAA Real Estate Account</b>	<b>TIAA</b>	-4.88%	-13.62%	3.28%	2.88%	4.87%	0.87
NCREIF ODCE Index	Peer Group	-4.83%	-12.02%	4.92%	4.25%	7.28%	
NCREIF Property Index	Benchmark	-3.02%	-7.94%	4.57%	4.33%	6.80%	
<b>LARGE COMPANY VALUE</b>							
<b>JHancock Disciplined Value R6</b>	<b>TIAA/Fidelity</b>	8.80%	13.95%	12.40%	12.15%	8.74%	0.65
Large Value Universe	Peer Group	9.51%	11.15%	9.67%	11.26%	8.32%	
Russell 1000 Value	Benchmark	9.50%	11.46%	8.86%	10.91%	8.40%	
<b>LARGE COMPANY BLEND</b>							
<b>Vanguard FTSE Social Index I</b>	<b>Fidelity</b>	13.19%	31.78%	8.47%	15.97%	12.53%	0.12
<b>Vanguard Institutional 500 Index Trust- UNC</b>	<b>TIAA/Fidelity</b>	11.70%	-	-	-	-	0.01
<b>Vanguard Institutional Index Instl PI*</b>	<b>TIAA/Fidelity</b>	11.68%	26.26%	9.98%	15.67%	12.02%	0.02
Large Blend Universe	Peer Group	11.64%	24.39%	8.92%	14.44%	10.71%	
S&P 500 Index	Benchmark	11.69%	26.29%	10.00%	15.69%	12.03%	
<b>LARGE COMPANY GROWTH</b>							
<b>Fidelity Contrafund K</b>	<b>Fidelity</b>	11.48%	39.47%	7.59%	16.56%	12.92%	0.74
<b>T Rowe Price Lrg Cp Gr I</b>	<b>TIAA/Fidelity</b>	14.26%	46.21%	5.29%	15.92%	13.99%	0.55
Large Growth Universe	Peer Group	13.91%	38.50%	5.41%	15.92%	12.19%	
Russell 1000 Growth	Benchmark	14.16%	42.68%	8.86%	19.50%	14.86%	
<b>MEDIUM COMPANY VALUE</b>							
<b>MFS Mid Cap Value R4</b>	<b>Fidelity</b>	11.32%	12.78%	10.42%	12.93%	8.70%	0.74
<b>MFS Mid Cap Value R6</b>	<b>TIAA</b>	11.38%	12.92%	10.56%	13.09%	8.85%	0.62
Mid Value Universe	Peer Group	11.36%	12.29%	9.80%	11.30%	7.62%	
Russell Mid Cap Value	Benchmark	12.11%	12.71%	8.36%	11.16%	8.26%	

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

\*403(b) Plan only

\*\*457(b) Plan only (TIAA)

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<b>MEDIUM COMPANY BLEND</b>							
<b>Vanguard Extended Market Index InstiPlus*</b>	<b>TIAA/Fidelity</b>	15.13%	25.41%	1.23%	11.93%	8.57%	0.04
<b>Vanguard Institutional Extended Market Index Trust- UNC</b>	<b>TIAA/Fidelity</b>	15.12%	25.41%	-	-	-	0.035
Mid Blend Universe	Peer Group	11.57%	15.87%	6.86%	11.98%	8.09%	
Russell Mid Cap	Benchmark	12.82%	17.23%	5.92%	12.68%	9.42%	
<b>MEDIUM COMPANY GROWTH</b>							
<b>MassMutual Mid Cap Growth I</b>	<b>TIAA/Fidelity</b>	11.62%	19.61%	1.46%	11.75%	10.35%	0.66
Mid Growth Universe	Peer Group	12.15%	20.60%	-0.69%	12.65%	9.48%	
Russell Mid Cap Growth	Benchmark	14.55%	25.87%	1.31%	13.81%	10.57%	
<b>GLOBAL LARGE STOCK BLEND</b>							
<b>CREF Stock R3</b>	<b>TIAA</b>	11.42%	22.37%	5.87%	12.26%	8.64%	0.26
Global Large Stock Blend	Peer Group	10.74%	18.54%	5.51%	10.83%	7.39%	
MSCI ACWI NR USD	Benchmark	11.03%	22.20%	5.75%	11.72%	7.93%	
<b>FOREIGN LARGE BLEND</b>							
<b>American Funds Europacific Growth R4</b>	<b>Fidelity</b>	10.27%	15.64%	-3.00%	7.66%	4.53%	0.82
<b>American Funds Europacific Growth R6</b>	<b>TIAA</b>	10.37%	16.05%	-2.66%	8.04%	4.90%	0.47
<b>MFS International Intrinsic Value Equity CIT Class 4</b>	<b>Fidelity</b>	10.12%	18.25%	0.12%	8.96%	7.34%	0.57
<b>MFS International Intrinsic Value R6</b>	<b>TIAA</b>	10.10%	18.05%	0.21%	8.86%	7.22%	0.61
<b>Vanguard Institutional Total International Stock Market Index Trust- UNC</b>	<b>TIAA/Fidelity</b>	9.96%	15.61%	-	-	-	0.06
<b>Vanguard Total Intl Stock Idx InstiPls*</b>	<b>TIAA/Fidelity</b>	9.97%	15.53%	1.80%	7.38%	4.13%	0.07
Foreign Large Blend Universe	Peer Group	9.85%	16.13%	2.28%	7.79%	3.98%	
MSCI EAFE	Benchmark	10.47%	18.85%	4.53%	8.69%	4.78%	
<b>FOREIGN SMALL/MID GROWTH</b>							
<b>T Rowe Price International Discovery</b>	<b>Fidelity</b>	11.35%	13.14%	-5.40%	7.91%	6.37%	1.23
<b>T Rowe Price International Discovery I</b>	<b>TIAA</b>	11.42%	13.32%	-5.26%	8.06%	6.49%	1.08
Foreign Small/Mid Growth Universe	Peer Group	11.73%	12.02%	-4.18%	6.06%	4.32%	
MSCI World ex USA Smid Cap USD	Benchmark	10.28%	14.72%	0.07%	6.84%	4.36%	
<b>SMALL COMPANY BLEND</b>							
<b>T Rowe Price Small-Cap Stock</b>	<b>TIAA/Fidelity</b>	14.60%	17.43%	1.72%	11.96%	9.18%	0.91
Small Blend Universe	Peer Group	12.67%	16.18%	5.89%	10.80%	7.30%	
Russell 2000	Benchmark	14.03%	16.93%	2.22%	9.97%	7.16%	
<b>SPECIALTY-REAL ESTATE</b>							
<b>Cohen &amp; Steers Instl Realty Shares</b>	<b>TIAA</b>	17.01%	12.72%	6.52%	9.39%	8.89%	0.75
<b>Cohen &amp; Steers Realty Shares L</b>	<b>Fidelity</b>	17.10%	12.67%	6.43%	9.25%	8.71%	0.88
Specialty-Real Estate Universe	Peer Group	16.42%	11.93%	5.43%	7.40%	7.36%	
Dow Jones US Select REIT	Benchmark	16.35%	13.96%	7.18%	6.12%	7.00%	
<b>TARGET DATE</b>							
<b>Vanguard Target Retire Income Select</b>	<b>TIAA/Fidelity</b>	7.36%	10.74%	0.59%	4.89%	4.16%	0.045
<b>Vanguard Target Retirement Income Fund*</b>	<b>TIAA/Fidelity</b>	7.26%	10.65%	0.54%	4.82%	4.08%	0.08
Target Date Retirement Income	Peer Group	7.44%	10.43%	0.57%	4.87%	3.76%	
S&P Target Date Retirement Income Index	Benchmark	7.39%	10.35%	1.00%	4.90%	3.98%	
<b>Vanguard Target Retire 2020 Select</b>	<b>TIAA/Fidelity</b>	7.99%	12.57%	1.53%	6.68%	5.61%	0.045
<b>Vanguard Target Retirement 2020 Fund*</b>	<b>TIAA/Fidelity</b>	8.00%	12.51%	1.47%	6.61%	5.52%	0.08
Target Date 2020	Peer Group	8.08%	11.79%	1.57%	6.55%	5.18%	
S&P Target Date 2020 Index	Benchmark	8.04%	12.32%	2.12%	6.47%	5.28%	
<b>Vanguard Target Retire 2025 Select</b>	<b>TIAA/Fidelity</b>	8.90%	14.59%	2.13%	7.68%	6.22%	0.045
<b>Vanguard Target Retirement 2025 Fund*</b>	<b>TIAA/Fidelity</b>	8.87%	14.55%	2.03%	7.56%	6.10%	0.08
Target Date 2025	Peer Group	8.55%	12.56%	1.81%	7.01%	5.48%	
S&P Target Date 2025 Index	Benchmark	8.27%	12.99%	2.80%	7.42%	5.85%	
<b>Vanguard Target Retire 2030 Select</b>	<b>TIAA/Fidelity</b>	9.55%	16.08%	2.77%	8.49%	6.69%	0.045
<b>Vanguard Target Retirement 2030 Fund*</b>	<b>TIAA/Fidelity</b>	9.50%	15.99%	2.65%	8.37%	6.58%	0.08
Target Date 2030	Peer Group	9.37%	14.52%	2.49%	8.18%	6.20%	
S&P Target Date 2030 Index	Benchmark	9.02%	14.80%	3.61%	8.42%	6.44%	
<b>Vanguard Target Retire 2035 Select</b>	<b>TIAA/Fidelity</b>	9.89%	17.24%	3.45%	9.31%	7.18%	0.045
<b>Vanguard Target Retirement 2035 Fund*</b>	<b>TIAA/Fidelity</b>	9.87%	17.14%	3.33%	9.17%	7.06%	0.08
Target Date 2035	Peer Group	10.00%	16.42%	3.36%	9.11%	6.83%	
S&P Target Date 2035 Index	Benchmark	9.68%	16.63%	4.45%	9.44%	7.04%	
<b>Vanguard Target Retire 2040 Select</b>	<b>TIAA/Fidelity</b>	10.24%	18.42%	4.11%	10.10%	7.63%	0.045
<b>Vanguard Target Retirement 2040 Fund*</b>	<b>TIAA/Fidelity</b>	10.23%	18.34%	4.02%	9.99%	7.52%	0.08
Target Date 2040	Peer Group	10.46%	18.10%	4.24%	9.99%	7.31%	
S&P Target Date 2040 Index	Benchmark	10.19%	18.16%	5.16%	10.22%	7.49%	
<b>Vanguard Target Retire 2045 Select</b>	<b>TIAA/Fidelity</b>	10.57%	19.58%	4.78%	10.86%	8.01%	0.045
<b>Vanguard Target Retirement 2045 Fund*</b>	<b>TIAA/Fidelity</b>	10.57%	19.48%	4.68%	10.76%	7.91%	0.08
Target Date 2045	Peer Group	10.88%	19.41%	4.78%	10.56%	7.61%	
S&P Target Date 2045 Index	Benchmark	10.53%	19.14%	5.62%	10.68%	7.76%	

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<b>Vanguard Target Retire 2050 Select</b>	<b>TIAA/Fidelity</b>	10.82%	20.28%	5.02%	11.03%	8.09%	0.045
<b>Vanguard Target Retirement 2050 Fund*</b>	<b>TIAA/Fidelity</b>	10.79%	20.17%	4.91%	10.93%	7.99%	0.08
Target Date 2050	Peer Group	11.01%	19.90%	4.90%	10.76%	7.71%	
S&P Target Date 2050 Index	Benchmark	10.70%	19.59%	5.84%	10.92%	7.93%	
<b>Vanguard Target Retire 2055 Select</b>	<b>TIAA/Fidelity</b>	10.83%	20.25%	5.02%	11.03%	8.07%	0.045
<b>Vanguard Target Retirement 2055 Fund*</b>	<b>TIAA/Fidelity</b>	10.78%	20.16%	4.92%	10.92%	7.97%	0.08
Target Date 2055	Peer Group	11.13%	20.21%	4.99%	10.86%	7.85%	
S&P Target Date 2055 Index	Benchmark	10.71%	19.62%	5.91%	10.98%	7.99%	
<b>Vanguard Target Retire 2060 Select</b>	<b>TIAA/Fidelity</b>	10.83%	20.26%	5.03%	11.05%	8.09%	0.045
<b>Vanguard Target Retirement 2060 Fund*</b>	<b>TIAA/Fidelity</b>	10.79%	20.18%	4.92%	10.92%	7.97%	0.08
Target Date 2060	Peer Group	11.05%	19.99%	4.95%	10.91%	7.91%	
S&P Target Date 2060 Index	Benchmark	10.72%	19.74%	5.89%	11.04%	8.04%	
<b>Vanguard Target Retire 2065 Select</b>	<b>TIAA/Fidelity</b>	10.81%	20.23%	5.03%	11.05%	-	0.045
<b>Vanguard Target Retirement 2065 Fund*</b>	<b>TIAA/Fidelity</b>	10.79%	20.15%	4.95%	10.91%	-	0.08
<b>Vanguard Target Retire 2070 Select</b>	<b>TIAA/Fidelity</b>	10.85%	20.34%	-	-	-	0.045
<b>Vanguard Target Retirement 2070 Fund*</b>	<b>TIAA/Fidelity</b>	10.83%	20.24%	-	-	-	0.08
Target Date 2065+	Peer Group	11.14%	20.34%	4.77%	11.08%	-	
S&P Target Date 2065+ Index	Benchmark	10.81%	19.84%	5.98%	11.09%	-	

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