

PLAN INVESTMENT REVIEW | PERFORMANCE SUMMARY
 THE UNIVERSITY OF NORTH CAROLINA
 FOR THE PERIOD ENDING 03.31.2020

INVESTMENT NAME	PROVIDER	Q1'20	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*	Exp Ratio	
MONEY MARKET								
Fidelity Government Money Market	Fidelity	0.25%	1.58%	1.34%	0.82%	0.42%	0.42	
CREF Money Market R3	TIAA-CREF	0.32%	1.80%	1.41%	0.88%	0.44%	0.23	
Vanguard Federal Money Market	TIAA-CREF	0.34%	1.90%	1.65%	1.08%	0.55%	0.11	
BofA Merrill Lynch 3-month U.S. T-Bill	Benchmark	0.57%	2.25%	1.83%	1.19%	0.64%		
STABLE VALUE								
Fidelity Managed Income Portfolio	Fidelity	0.45%	1.91%	1.64%	1.47%	1.32%	0.77	
Lincoln Fixed Account*	Fidelity	0.50%	2.07%	2.03%	2.11%	2.32%	0.35	
TIAA Traditional Annuity - GRA	TIAA-CREF	Current Rate is 3.25%						
TIAA Traditional Annuity - GSRA	TIAA-CREF	Current Rate is 3.00%						
Hueler Stable Value Index (gross)	Peer Group	0.60%	2.52%	2.30%	2.09%	2.17%		
BofA Merrill Lynch 3-month U.S. T-Bill	Benchmark	0.57%	2.25%	1.83%	1.19%	0.64%		
SHORT TERM BOND								
Vanguard Short Term Bond Index In PI	Fidelity/TIAA-CREF	2.24%	5.50%	3.07%	2.23%	2.15%	0.05	
Short Term Bond Universe	Peer Group	-2.10%	0.68%	1.42%	1.33%	1.77%		
Barclays Government/Credit 1-3 Yr	Benchmark	1.69%	4.53%	2.58%	1.90%	1.62%		
INTERMEDIATE TERM BOND								
JPMorgan Core Bond R5	Fidelity	2.33%	7.88%	4.58%	3.27%	3.95%	0.45	
Vanguard Total Bond Mkt Index Inst PI	TIAA-CREF/Fidelity	3.28%	9.08%	4.85%	3.35%	3.87%	0.04	
JPMorgan Core Bond R6	TIAA-CREF	2.35%	7.97%	4.71%	3.36%	4.04%	0.35	
Intermediate Core Bond Universe	Peer Group	1.44%	6.56%	3.80%	2.69%	3.49%		
Barclays Aggregate Bond Index	Benchmark	3.15%	8.93%	4.82%	3.36%	3.88%		
INTERMEDIATE CORE-PLUS BOND								
MetWest Total Return Bond	TIAA-CREF/Fidelity	2.26%	8.29%	4.71%	3.29%	4.79%	0.37	
Intermediate Core Plus Bond Universe	Peer Group	-1.15%	4.23%	3.27%	2.53%	3.86%		
Barclays Aggregate Bond Index	Benchmark	3.15%	8.93%	4.82%	3.36%	3.88%		
ALLOCATION--50% TO 70% EQUITY								
Fidelity Balanced K	Fidelity	-13.82%	-3.10%	4.42%	4.82%	8.05%	0.46	
Allocation-50% to 70% Equity Universe	Peer Group	-14.40%	-6.45%	1.70%	2.57%	5.83%		
60% S&P 500 40% BC Agg	Benchmark	-10.88%	-0.39%	5.32%	5.63%	8.08%		
WORLD ALLOCATION								
CREF Social Choice Account R3	TIAA-CREF	-13.19%	-3.56%	3.38%	3.70%	6.39%	0.24	
World Allocation Universe	Peer Group	-17.07%	-10.54%	-1.05%	0.29%	3.73%		
60% MSCI World 40% BC Agg Index	Benchmark	-11.74%	-2.25%	3.73%	3.90%	6.12%		
ALLOCATION--85%+ EQUITY								
CREF Stock R3	TIAA-CREF	-22.41%	-12.65%	1.09%	3.07%	7.17%	0.30	
Allocation--85%+ Equity Universe	Peer Group	-22.15%	-13.42%	-0.27%	1.58%	6.29%		
85% S&P 500, 15% BBgBarc Agg	Benchmark	-16.39%	-4.48%	5.24%	6.36%	9.65%		
LARGE COMPANY VALUE								
JHancock Disciplined Value R6	TIAA-CREF/ Fidelity	-29.37%	-20.66%	-3.38%	0.39%	6.99%	0.71	
Large Value Universe	Peer Group	-26.69%	-17.61%	-2.25%	1.29%	6.81%		
Russell 1000 Value	Benchmark	-26.73%	-17.17%	-2.18%	1.90%	7.67%		
LARGE COMPANY BLEND								
Vanguard Instl Index PI Fund	TIAA-CREF/Fidelity	-19.59%	-6.98%	5.09%	6.72%	10.52%	0.02	
Large Blend Universe	Peer Group	-21.05%	-9.90%	2.77%	4.49%	8.83%		
S&P 500 Index	Benchmark	-19.60%	-6.98%	5.10%	6.73%	10.53%		
LARGE COMPANY GROWTH								
Vanguard FTSE Social Index I	Fidelity	-19.96%	-5.75%	6.30%	7.16%	11.05%	0.12	
Fidelity Contrafund K	Fidelity	-13.62%	-1.84%	9.79%	9.07%	12.02%	0.65	
T Rowe Price Instl Large Cap Gr	TIAA-CREF/Fidelity	-13.87%	-3.49%	12.85%	11.30%	13.89%	0.56	
Large Growth Universe	Peer Group	-15.07%	-3.28%	8.96%	7.82%	11.08%		
Russell 1000 Growth	Benchmark	-14.10%	0.91%	11.32%	10.36%	12.97%		
MEDIUM COMPANY VALUE								
MFS Mid Cap Value R4	Fidelity	-30.84%	-20.98%	-4.16%	-0.11%	7.73%	0.86	
MFS Mid Cap Value R6	TIAA-CREF	-30.83%	-20.89%	-4.04%	0.04%	7.74%	0.69	
Mid Value Universe	Peer Group	-32.57%	-25.08%	-7.06%	-1.83%	5.66%		
Russell MidCap Value	Benchmark	-31.71%	-24.13%	-5.97%	-0.76%	7.22%		

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 Ext Mkt Idx Instl Plus	TIAA-CREF/Fidelity	-27.99%	-20.49%	-1.89%	1.06%	8.26%	0.05
Mid Blend Universe	Peer Group	-28.43%	-20.63%	-3.93%	-0.85%	6.42%	
Russell MidCap	Benchmark	-27.07%	-18.31%	-0.81%	1.85%	8.77%	
MEDIUM COMPANY GROWTH							
MassMutual Sel Mid Cap Gr Eq II	TIAA-CREF/Fidelity	-23.01%	-13.22%	4.39%	5.31%	10.99%	0.71
Mid Growth Universe	Peer Group	-19.88%	-9.86%	5.69%	4.91%	9.81%	
Russell MidCap Growth	Benchmark	-20.04%	-9.45%	6.53%	5.61%	10.89%	
FOREIGN LARGE BLEND							
Amer Funds EuroPac R6	TIAA-CREF	-22.43%	-12.70%	0.28%	0.91%	3.97%	0.49
Amer Funds EuroPac R4	Fidelity	-22.52%	-13.03%	-0.07%	0.56%	3.60%	0.83
Vanguard Total Intl Stock Index Inst	TIAA-CREF/Fidelity	-24.31%	-16.55%	-2.52%	-0.65%	2.09%	0.08
MFS International Intrinsic Value R4	Fidelity	-13.48%	-2.90%	5.51%	5.61%	8.37%	0.76
MFS International Intrinsic Value R6	TIAA-CREF	-13.45%	-2.80%	5.62%	5.72%	8.43%	0.63
Foreign Large Blend Universe	Peer Group	-23.56%	-15.38%	-2.81%	-1.24%	2.25%	
MSCI EAFE	Benchmark	-22.72%	-13.92%	-1.33%	-0.13%	3.20%	
FOREIGN SMALL/MID GROWTH							
T Rowe Price International Discovery	Fidelity	-20.99%	-12.13%	0.74%	3.77%	6.97%	1.19
T Rowe Price International Discovery I	TIAA-CREF	-20.97%	-12.03%	0.87%	3.88%	7.03%	1.07
Foreign Small/Mid Growth Universe	Peer Group	-24.82%	-14.79%	-0.27%	1.48%	5.68%	
MSCI World ex USA Smid Cap USD	Benchmark	-27.07%	-17.66%	-2.88%	0.33%	3.97%	
SMALL COMPANY VALUE							
Goldman Sachs Small Value Inst	Fidelity	-36.11%	-30.06%	-9.22%	-2.73%	6.13%	0.95
Goldman Sachs Small Value R6	TIAA-CREF	-36.12%	-30.05%	-9.21%	-2.75%	5.91%	0.96
Small Value Universe	Peer Group	-36.73%	-31.24%	-10.90%	-4.01%	4.08%	
Russell 2000 Value	Benchmark	-35.66%	-29.64%	-9.51%	-2.42%	4.79%	
SMALL COMPANY GROWTH							
T Rowe Price QM US Small-Cap Gr Eq I	TIAA-CREF/Fidelity	-23.81%	-13.63%	2.68%	4.02%	11.27%	0.65
Small Growth Universe	Peer Group	-23.97%	-16.92%	2.41%	3.03%	9.04%	
Russell 2000 Growth	Benchmark	-25.76%	-18.58%	0.10%	1.70%	8.89%	
SPECIALTY-REAL ESTATE							
Cohen & Steers Realty Shares L	Fidelity	-22.83%	-12.49%	1.22%	2.11%	8.35%	0.97
Cohen & Steers Instl Realty Shares	TIAA-CREF	-22.80%	-12.35%	1.42%	2.34%	8.58%	0.76
Specialty-Real Estate Universe	Peer Group	-24.03%	-16.51%	-1.52%	0.17%	7.27%	
Dow Jones US Select REIT	Benchmark	-28.52%	-23.96%	-4.28%	-1.42%	6.88%	
SPECIALTY-REAL ESTATE							
TIAA Real Estate Account	TIAA-CREF	0.11%	3.84%	4.54%	5.00%	8.80%	0.83
Specialty-Real Estate Universe	Peer Group	-24.03%	-16.51%	-1.52%	0.17%	7.27%	
NCREIF Property Index	Benchmark	0.71%	5.28%	6.41%	7.65%	10.17%	
TARGET DATE							
Vanguard Target Retire Inc Tr Plus	TIAA-CREF/Fidelity	-5.90%	0.98%	3.46%	3.24%	-	0.06
Retirement Income Moderate	Peer Group	-8.03%	-1.64%	2.25%	2.24%	4.08%	
Morningstar Lifetime Moderate Income Index	Benchmark	-7.69%	-1.38%	2.73%	2.82%	4.64%	
Vanguard Target Retire 2015 Tr Plus	TIAA-CREF/Fidelity	-7.42%	-0.08%	3.67%	3.63%	-	0.06
2015 Moderate	Peer Group	-9.80%	-2.90%	2.26%	2.61%	5.15%	
Morningstar Lifetime Moderate 2015 Index	Benchmark	-8.75%	-1.23%	3.44%	3.44%	5.83%	
Vanguard Target Retire 2020 Tr Plus	TIAA-CREF/Fidelity	-10.72%	-2.56%	3.37%	3.67%	-	0.06
2020 Moderate	Peer Group	-11.15%	-3.79%	2.34%	2.72%	5.64%	
Morningstar Lifetime Moderate 2020 Index	Benchmark	-9.98%	-1.99%	3.48%	3.58%	6.22%	
Vanguard Target Retire 2025 Tr Plus	TIAA-CREF/Fidelity	-12.90%	-4.15%	3.18%	3.72%	-	0.06
2025 Moderate	Peer Group	-12.80%	-4.90%	2.40%	2.94%	6.09%	
Morningstar Lifetime Conservative 2025 Index	Benchmark	-11.86%	-3.44%	3.33%	3.66%	6.61%	
Vanguard Target Retire 2030 Tr Plus	TIAA-CREF/Fidelity	-14.71%	-5.65%	2.91%	3.67%	-	0.06
2030 Moderate	Peer Group	-15.30%	-6.92%	2.16%	2.97%	6.39%	
Morningstar Lifetime Conservative 2030 Index	Benchmark	-14.58%	-5.79%	2.87%	3.57%	6.87%	

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Vanguard Target Retire 2035 Tr Plus	TIAA-CREF/Fidelity	-16.47%	-7.14%	2.64%	3.63%	-	0.06
2035 Moderate	Peer Group	-17.16%	-8.30%	1.94%	3.00%	6.59%	
Morningstar Lifetime Conservative 2035 Index	Benchmark	-17.72%	-8.69%	2.12%	3.29%	6.91%	
Vanguard Target Retire 2040 Tr Plus	TIAA-CREF/Fidelity	-18.20%	-8.63%	2.33%	3.54%	-	0.06
2040 Moderate	Peer Group	-18.83%	-9.75%	1.65%	2.82%	6.63%	
Morningstar Lifetime Moderate 2040 Index	Benchmark	-20.29%	-11.16%	1.36%	2.93%	6.78%	
Vanguard Target Retire 2045 Tr Plus	TIAA-CREF/Fidelity	-19.83%	-10.08%	1.88%	3.32%	-	0.06
2045 Moderate	Peer Group	-20.25%	-11.11%	1.13%	2.51%	6.39%	
Morningstar Lifetime Moderate 2045 Index	Benchmark	-21.76%	-12.64%	0.84%	2.63%	6.58%	
Vanguard Target Retire 2050 Tr Plus	TIAA-CREF/Fidelity	-19.82%	-10.08%	1.88%	3.31%	-	0.06
2050 Moderate	Peer Group	-20.43%	-11.18%	1.22%	2.58%	6.47%	
Morningstar Lifetime Moderate 2050 Index	Benchmark	-22.30%	-13.22%	0.60%	2.47%	6.44%	
Vanguard Target Retire 2055 Tr Plus	TIAA-CREF/Fidelity	-19.82%	-10.06%	1.89%	3.30%	-	0.06
2055 Moderate	Peer Group	-20.94%	-11.79%	0.68%	2.26%	6.05%	
Morningstar Lifetime Moderate 2055 Index	Benchmark	-22.48%	-13.45%	0.48%	2.37%	6.31%	
Vanguard Target Retire 2060 Tr Plus	TIAA-CREF/Fidelity	-19.80%	-10.03%	1.90%	3.31%	-	0.06
Vanguard Target Retire 2065 Tr Plus	TIAA-CREF/Fidelity	-19.83%	-10.05%	-	-	-	
2060+ Moderate	Peer Group	-20.66%	-11.37%	1.07%	2.93%	-	
Morningstar Lifetime Moderate 2060 Index	Benchmark	-22.58%	-13.61%	0.39%	2.29%	-	

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