

PLAN INVESTMENT REVIEW | PERFORMANCE SUMMARY
 THE UNIVERSITY OF NORTH CAROLINA
 FOR THE PERIOD ENDING 9.30.15

INVESTMENT NAME	PROVIDER	Q3 '15	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*	Exp Ratio
MONEY MARKET							
Fidelity Retirement Money Market	Fidelity	0.00%	0.01%	0.01%	0.01%	1.43%	0.42
CREF Money Market R3	TIAA-CREF	0.00%	0.00%	0.00%	0.00%	1.29%	0.32
BofA Merrill Lynch 3-month U.S. T-Bill	Benchmark	0.01%	0.02%	0.06%	0.08%	1.33%	
STABLE VALUE							
Fidelity Managed Income Portfolio	Fidelity	0.29%	1.13%	1.03%	1.16%	2.14%	0.79
Principal Fixed Annuity**	Fidelity	-	-	-	-	-	-
TIAA Traditional Annuity	TIAA-CREF	0.96%	3.96%	4.04%	4.07%	4.51%	-
Hueler Stable Value Index (gross)	Peer Group	0.52%	2.15%	2.27%	2.50%	3.50%	
BofA Merrill Lynch 3-month U.S. T-Bill	Benchmark	0.01%	0.02%	0.06%	0.08%	1.33%	
SHORT TERM BOND							
Vanguard Short Term Bond Index Adm	Fidelity/TIAA-CREF	0.62%	1.93%	1.05%	1.50%	3.39%	0.07
Morningstar Short Term Bond Universe	Peer Group	-0.14%	0.54%	0.79%	1.54%	2.95%	
Barclays Government/Credit 1-3 Yr	Benchmark	0.29%	1.19%	0.86%	1.04%	2.85%	
INTERMEDIATE TERM BOND							
JPMorgan Core Bond R5	Fidelity	1.31%	3.25%	1.87%	3.38%	5.06%	0.55
Vanguard Total Bond Market Index Inst	TIAA-CREF/Fidelity	1.18%	2.76%	1.59%	3.00%	4.63%	0.06
MetWest Total Return Bond	TIAA-CREF/Fidelity	0.67%	2.25%	2.86%	4.66%	6.30%	0.4
JPMorgan Core Bond R6	TIAA-CREF	1.42%	3.32%	1.94%	3.45%	5.15%	0.36
Morningstar Intermediate Term Bond Universe	Peer Group	0.33%	1.45%	1.59%	3.19%	4.36%	
Barclays Aggregate Bond Index	Benchmark	1.23%	2.94%	1.71%	3.10%	4.64%	
MODERATE ALLOCATION							
Fidelity Balanced K	Fidelity	-5.95%	-0.65%	8.77%	9.59%	6.41%	0.46
Morningstar Moderate Allocation Universe	Peer Group	-5.61%	-2.52%	6.34%	7.33%	5.15%	
60% S&P 500 40% BC Agg	Benchmark	-3.39%	0.95%	8.14%	9.33%	6.22%	
WORLD ALLOCATION							
CREF Social Choice Account R3	TIAA-CREF	-4.44%	-1.81%	6.89%	7.42%	5.24%	0.33
Morningstar World Allocation Universe	Peer Group	-6.71%	-6.25%	2.97%	4.35%	4.36%	
60% MSCI World 40% BC Agg Index	Benchmark	-4.55%	-1.46%	6.26%	6.77%	5.38%	
LARGE COMPANY VALUE							
JHancock Disciplined Value R5	TIAA-CREF/Fidelity	-9.06%	-4.14%	11.65%	12.75%	7.27%	0.77
Morningstar Large Value Universe	Peer Group	-8.41%	-4.93%	10.33%	10.87%	5.36%	
Russell 1000 Value	Benchmark	-8.39%	-4.42%	11.59%	12.29%	5.71%	
LARGE COMPANY BLEND							
Vanguard Instl Index Fund	TIAA-CREF/Fidelity	-6.45%	-0.63%	12.37%	13.31%	6.80%	0.04
CREF Stock R3	TIAA-CREF	-8.70%	-3.34%	9.48%	9.62%	5.52%	0.37
Morningstar Large Blend Universe	Peer Group	-7.53%	-2.46%	11.29%	11.72%	6.03%	
S&P 500 Index	Benchmark	-6.44%	-0.61%	12.40%	13.34%	6.80%	

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**403(b) Plan only; the Principal Fixed Annuity is currently crediting 1.00% for 2015

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LARGE COMPANY GROWTH							
Vanguard FTSE Social Index Inv	Fidelity	-6.98%	1.61%	15.49%	14.27%	6.06%	0.27
Fidelity Contrafund K	Fidelity	-4.67%	3.37%	13.27%	13.47%	8.54%	0.54
T Rowe Price Instl Large Cap Growth	TIAA-CREF/Fidelity	-4.86%	5.80%	16.48%	15.63%	8.95%	0.56
Morningstar Large Growth Universe	Peer Group	-6.68%	1.40%	12.57%	12.67%	7.00%	
Russell 1000 Growth	Benchmark	-5.29%	3.17%	13.61%	14.47%	8.09%	
MEDIUM COMPANY VALUE							
MFS Mid Cap Value R4	Fidelity	-7.90%	0.43%	14.22%	13.58%	7.22%	0.96
MFS Mid Cap Value R5	TIAA-CREF	-7.85%	0.59%	14.30%	13.51%	7.05%	0.84
Morningstar Mid Value Universe	Peer Group	-9.19%	-3.18%	12.05%	11.37%	6.59%	
Russell MidCap Value	Benchmark	-8.04%	-2.07%	13.69%	13.15%	7.42%	
MEDIUM COMPANY BLEND							
Vanguard Ext Mkt Idx Inst	TIAA-CREF/Fidelity	-10.55%	-0.18%	12.94%	12.99%	7.77%	0.06
Morningstar Mid Blend Universe	Peer Group	-9.14%	-2.30%	11.75%	11.19%	6.34%	
Russell MidCap	Benchmark	-8.01%	-0.25%	13.91%	13.40%	7.87%	
MEDIUM COMPANY GROWTH							
Morgan Stanley Inst Mid Cap Growth I	TIAA-CREF/Fidelity	-10.79%	-6.18%	9.34%	7.82%	7.69%	0.75
Morningstar Mid Growth Universe	Peer Group	-9.48%	0.86%	12.01%	11.72%	7.30%	
Russell MidCap Growth	Benchmark	-7.99%	1.45%	13.97%	13.58%	8.09%	
FOREIGN LARGE VALUE							
MFS International Value R4	Fidelity	-4.47%	1.52%	10.40%	9.91%	6.96%	0.84
MFS International Value R5	TIAA-CREF	-4.47%	1.60%	10.49%	9.94%	7.03%	0.69
Morningstar Foreign Large Value Universe	Peer Group	-10.65%	-10.42%	4.26%	2.85%	2.15%	
MSCI EAFE	Benchmark	-10.19%	-8.27%	6.08%	4.45%	3.44%	
FOREIGN LARGE BLEND							
Amer Funds EuroPac R6	TIAA-CREF	-9.81%	-4.93%	6.35%	4.55%	5.24%	0.49
Amer Funds EuroPac R4	Fidelity	-9.88%	-5.25%	5.98%	4.18%	5.00%	0.84
Vanguard Total Intl Stock Index Inst	TIAA-CREF/Fidelity	-11.59%	-10.71%	3.15%	2.18%	3.03%	0.12
Morningstar Foreign Large Blend Universe	Peer Group	-10.34%	-8.01%	4.71%	3.36%	2.92%	
MSCI EAFE	Benchmark	-10.19%	-8.27%	6.08%	4.45%	3.44%	
FOREIGN SMALL/MID GROWTH							
Columbia Acorn International Y	TIAA-CREF/Fidelity	-10.01%	-7.76%	5.00%	4.73%	6.73%	0.85
Morningstar Foreign Small/Mid Growth Universe	Peer Group	-7.14%	-1.20%	8.08%	7.35%	6.06%	
MSCI World ex USA Smid Cap USD	Benchmark	-8.41%	-3.96%	7.36%	5.54%	4.72%	
SMALL COMPANY VALUE							
Goldman Sachs Small Value Inst	TIAA-CREF/Fidelity	-10.23%	-0.65%	12.05%	13.07%	8.14%	0.95
Morningstar Small Value Universe	Peer Group	-10.32%	-2.95%	10.15%	10.25%	6.02%	
Russell 2000 Value	Benchmark	-10.73%	-1.60%	9.18%	10.17%	5.35%	
SMALL COMPANY GROWTH							
Eagle Small Cap Growth R5	Fidelity	-12.55%	2.47%	10.99%	12.68%	8.59%	0.77
Eagle Small Cap Growth R6	TIAA-CREF	-12.53%	2.57%	11.12%	12.71%	8.43%	0.66
Morningstar Small Growth Universe	Peer Group	-11.96%	2.36%	11.12%	12.13%	7.19%	
Russell 2000 Growth	Benchmark	-13.06%	4.04%	12.85%	13.26%	7.67%	

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SPECIALTY-REAL ESTATE							
Cohen & Steers Realty Shares	Fidelity	2.59%	11.65%	10.06%	11.69%	7.31%	0.97
Cohen & Steers Instl Realty Shares	TIAA-CREF	2.68%	11.79%	10.29%	11.88%	7.52%	0.75
Morningstar Specialty-Real Estate Universe	Peer Group	1.36%	8.64%	8.69%	11.20%	6.17%	
Dow Jones US Select REIT	Benchmark	3.09%	11.82%	9.92%	12.31%	6.69%	
SPECIALTY-REAL ESTATE							
TIAA-CREF Real Estate Account	TIAA-CREF	2.00%	10.40%	10.14%	11.47%	4.39%	0.87
Morningstar Specialty-Real Estate Universe	Peer Group	1.36%	8.64%	8.69%	11.20%	6.17%	
NCREIF Property Index	Benchmark	3.09%	13.47%	11.90%	12.55%	8.01%	
TARGET DATE (TIAA-CREF/Fidelity)							
Vanguard Target Retirement Income Inv	TIAA-CREF/Fidelity	-2.11%	0.18%	3.56%	5.17%	4.96%	0.16
Retirement Income Moderate	Peer Group	-3.32%	-1.31%	3.09%	4.40%	3.83%	
Morningstar Lifetime Moderate Income Index	Benchmark	-3.02%	-1.41%	2.87%	5.04%	5.02%	
Vanguard Target Retirement 2010 Inv	TIAA-CREF/Fidelity	-2.59%	0.06%	4.73%	6.24%	-	0.16
2000-2010 Moderate	Peer Group	-3.93%	-1.67%	4.24%	5.55%	3.89%	
Morningstar Lifetime Moderate 2010 Index	Benchmark	-3.44%	-1.62%	3.85%	6.01%	5.57%	
Vanguard Target Retirement 2015 Inv	TIAA-CREF/Fidelity	-3.87%	-0.66%	5.88%	7.04%	5.30%	0.16
2011-2015 Moderate	Peer Group	-4.30%	-1.81%	4.97%	6.10%	3.96%	
Morningstar Lifetime Moderate 2015 Index	Benchmark	-3.86%	-1.85%	4.45%	6.53%	5.74%	
Vanguard Target Retirement 2020 Inv	TIAA-CREF/Fidelity	-4.81%	-1.13%	6.74%	7.66%	-	0.16
2016-2020 Moderate	Peer Group	-5.12%	-2.03%	5.93%	6.94%	4.21%	
Morningstar Lifetime Moderate 2020 Index	Benchmark	-4.48%	-2.20%	5.24%	7.14%	5.88%	
Vanguard Target Retirement 2025 Inv	TIAA-CREF/Fidelity	-5.53%	-1.60%	7.31%	8.15%	5.41%	0.17
2021-2025 Moderate	Peer Group	-5.85%	-2.59%	6.56%	7.67%	4.81%	
Morningstar Lifetime Moderate 2025 Index	Benchmark	-5.41%	-2.75%	6.17%	7.80%	5.97%	
Vanguard Target Retirement 2030 Inv	TIAA-CREF/Fidelity	-6.31%	-2.16%	7.87%	8.61%	-	0.17
2026-2030 Moderate	Peer Group	-6.82%	-2.91%	7.42%	7.88%	4.31%	
Morningstar Lifetime Moderate 2030 Index	Benchmark	-6.56%	-3.49%	6.99%	8.31%	6.04%	
Vanguard Target Retirement 2035 Inv	TIAA-CREF/Fidelity	-7.12%	-2.75%	8.41%	9.06%	5.56%	0.18
2031-2035 Moderate	Peer Group	-7.31%	-3.41%	7.46%	8.31%	4.50%	
Morningstar Lifetime Moderate 2035 Index	Benchmark	-7.62%	-4.26%	7.44%	8.54%	6.07%	
Vanguard Target Retirement 2040 Inv	TIAA-CREF/Fidelity	-7.93%	-3.43%	8.61%	9.18%	-	0.18
2036-2040 Moderate	Peer Group	-7.71%	-3.31%	8.21%	8.61%	4.91%	
Morningstar Lifetime Moderate 2040 Index	Benchmark	-8.32%	-4.86%	7.51%	8.51%	6.07%	
Vanguard Target Retirement 2045 Inv	TIAA-CREF/Fidelity	-7.95%	-3.49%	8.59%	9.19%	5.73%	0.18
2041-2045 Moderate	Peer Group	-8.08%	-3.95%	6.79%	8.30%	5.01%	
Morningstar Lifetime Moderate 2045 Index	Benchmark	-8.65%	-5.22%	7.38%	8.35%	6.04%	
Vanguard Target Retirement 2050 Inv	TIAA-CREF/Fidelity	-7.94%	-3.46%	8.60%	9.18%	-	0.18
Vanguard Target Retirement 2055 Inv	TIAA-CREF/Fidelity	-8.00%	-3.58%	8.55%	9.24%	-	0.18
Vanguard Target Retirement 2060 Inv	TIAA-CREF/Fidelity	-8.00%	-3.61%	8.54%	-	-	0.18
2050+ Moderate	Peer Group	-8.12%	-3.63%	7.76%	8.45%	4.65%	
Morningstar Lifetime Moderate 2050 Index	Benchmark	-8.82%	-5.48%	7.21%	8.17%	6.01%	

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