

LEGACY FUND
INVESTMENT PERFORMANCE REPORT AS OF NOVEMBER 30, 2018

	November-18					October-18					September-18					Current FYTD		Prior Year FY18		3 Years Ended 6/30/2018		5 Years Ended 6/30/2018	
	Allocation		Month			Allocation		Month			Allocation		Quarter			Returns		Returns		Gross ⁽¹⁾		Gross ⁽¹⁾	
	Market Value	Actual	Policy	Gross ⁽¹⁾	Net	Market Value	Actual	Policy	Gross ⁽¹⁾	Net	Market Value	Actual	Policy	Gross ⁽¹⁾	Net	Gross ⁽¹⁾	Net	Gross ⁽¹⁾	Net	Gross ⁽¹⁾	Net	Gross ⁽¹⁾	Net
TOTAL LEGACY FUND	5,765,157,670	100.0%	100.0%	0.55%	0.52%	5,666,300,659	100.0%	100.0%	-4.75%	-4.78%	5,886,115,867	100.0%	100.0%	2.20%	2.16%	-2.13%	-2.21%	7.78%	7.57%	7.04%	6.79%	6.28%	6.06%
<i>POLICY TARGET BENCHMARK</i>				<i>0.84%</i>	<i>0.84%</i>				<i>-4.33%</i>	<i>-4.33%</i>				<i>2.19%</i>	<i>2.19%</i>	<i>-1.42%</i>	<i>-1.42%</i>	<i>6.51%</i>	<i>6.51%</i>	<i>5.75%</i>	<i>5.75%</i>	<i>5.09%</i>	<i>5.09%</i>
ATTRIBUTION ANALYSIS																							
Asset Allocation				-0.01%	-0.01%				0.00%	0.00%				0.01%	0.01%	0.00%	0.00%	-0.05%	-0.05%	-0.04%	-0.04%	-0.14%	-0.14%
Manager Selection				-0.29%	-0.32%				-0.42%	-0.44%				0.01%	-0.03%	-0.70%	-0.79%	1.32%	1.11%	1.33%	1.08%	1.34%	1.11%
TOTAL RELATIVE RETURN				-0.29%	-0.32%				-0.42%	-0.44%				0.01%	-0.02%	-0.70%	-0.79%	1.27%	1.06%	1.29%	1.04%	1.19%	0.96%
GLOBAL EQUITY	2,786,050,485	48.3%	50.0%	0.91%	0.87%	2,691,258,966	47.5%	50.0%	-8.78%	-8.80%	2,950,918,871	50.1%	50.0%	4.06%	4.01%	-4.21%	-4.31%						
<i>Benchmark</i>				<i>1.11%</i>	<i>1.11%</i>				<i>-8.03%</i>	<i>-8.03%</i>				<i>4.37%</i>	<i>4.37%</i>	<i>-2.94%</i>	<i>-2.94%</i>						
Domestic - broad	1,708,793,274	29.6%	30.0%	1.80%	1.75%	1,643,950,576	29.0%	30.0%	-8.15%	-8.15%	1,789,925,914	30.4%	30.0%	6.08%	6.04%	-0.82%	-0.90%						
<i>Benchmark</i>				<i>1.92%</i>	<i>1.92%</i>				<i>-8.09%</i>	<i>-8.09%</i>				<i>6.39%</i>	<i>6.39%</i>	<i>-0.33%</i>	<i>-0.33%</i>						
LARGE CAP DOMESTIC EQUITY																							
LA Capital Large Cap Growth	383,346,284	6.6%	6.6%	0.99%	0.93%	379,803,227	6.7%	6.6%	-8.88%	-8.88%	416,835,541	7.1%	6.6%	9.39%	9.34%	0.66%	0.56%	19.38%	19.14%	13.09%	12.86%	N/A	N/A
<i>Russell 1000 Growth</i>				<i>1.06%</i>	<i>1.06%</i>				<i>-8.94%</i>	<i>-8.94%</i>				<i>9.17%</i>	<i>9.17%</i>	<i>0.46%</i>	<i>0.46%</i>	<i>22.51%</i>	<i>22.51%</i>	<i>14.98%</i>	<i>14.98%</i>		
LSV Large Cap Value	377,311,911	6.5%	6.6%	2.87%	2.79%	346,889,268	6.1%	6.6%	-6.51%	-6.51%	371,059,699	6.3%	6.6%	4.23%	4.15%	0.23%	0.08%	10.55%	10.24%	9.43%	9.11%	N/A	N/A
<i>Russell 1000 Value</i>				<i>2.99%</i>	<i>2.99%</i>				<i>-5.18%</i>	<i>-5.18%</i>				<i>5.70%</i>	<i>5.70%</i>	<i>3.22%</i>	<i>3.22%</i>	<i>6.77%</i>	<i>6.77%</i>	<i>8.26%</i>	<i>8.26%</i>		
LA Capital 60% Large Cap/40% Large Cap Active Extension	247,121,361	4.3%	4.4%	2.17%	2.13%	241,967,586	4.3%	4.4%	-7.16%	-7.16%	260,633,079	4.4%	4.4%	7.87%	7.84%	2.31%	2.25%	12.79%	12.65%	11.14%	10.98%	N/A	N/A
<i>Russell 1000</i>				<i>2.04%</i>	<i>2.04%</i>				<i>-7.08%</i>	<i>-7.08%</i>				<i>7.42%</i>	<i>7.42%</i>	<i>1.85%</i>	<i>1.85%</i>	<i>14.54%</i>	<i>14.54%</i>	<i>11.64%</i>	<i>11.64%</i>		
Clifton Group Enhanced S&P 500	253,185,998	4.4%	4.4%	1.92%	1.92%	248,424,329	4.4%	4.4%	-6.93%	-6.93%	266,924,394	4.5%	4.4%	7.52%	7.52%	1.98%	1.98%	13.76%	13.83%	11.93%	11.84%	N/A	N/A
<i>S&P 500</i>				<i>2.04%</i>	<i>2.04%</i>				<i>-6.84%</i>	<i>-6.84%</i>				<i>7.71%</i>	<i>7.71%</i>	<i>2.39%</i>	<i>2.39%</i>	<i>14.38%</i>	<i>14.38%</i>	<i>11.93%</i>	<i>11.93%</i>		
TOTAL LARGE CAP DOMESTIC EQUITY	1,260,965,554	21.9%	22.0%	1.95%	1.90%	1,217,084,411	21.5%	22.0%	-7.48%	-7.48%	1,315,452,713	22.3%	22.0%	7.22%	7.17%	1.13%	1.05%	14.33%	14.14%	11.41%	11.20%	N/A	N/A
<i>Russell 1000</i>				<i>2.04%</i>	<i>2.04%</i>				<i>-7.08%</i>	<i>-7.08%</i>				<i>7.42%</i>	<i>7.42%</i>	<i>1.85%</i>	<i>1.85%</i>	<i>14.54%</i>	<i>14.54%</i>	<i>11.64%</i>	<i>11.64%</i>		
SMALL CAP DOMESTIC EQUITY																							
PIMCO - Research Affiliates Equity US Small	218,687,663	3.8%	4.0%	1.00%	0.93%	201,477,246	3.6%	4.0%	-9.02%	-9.02%	221,454,671	3.8%	4.0%	2.71%	2.65%	-5.63%	-5.75%	17.01%	16.73%	11.01%	10.73%	N/A	N/A
Clifton Group Enhanced Russell 2000	229,140,058	4.0%	4.0%	1.66%	1.66%	225,388,919	4.0%	4.0%	-10.92%	-10.92%	253,018,530	4.3%	4.0%	3.35%	3.35%	-6.40%	-6.40%	17.68%	17.56%	11.67%	11.27%	N/A	N/A
TOTAL SMALL CAP DOMESTIC EQUITY	447,827,720	7.8%	8.0%	1.39%	1.36%	426,866,165	7.5%	8.0%	-10.03%	-10.03%	474,473,201	8.1%	8.0%	3.05%	3.02%	-6.00%	-6.06%	17.42%	17.22%	11.39%	11.02%	N/A	N/A
<i>Russell 2000</i>				<i>1.59%</i>	<i>1.59%</i>				<i>-10.86%</i>	<i>-10.86%</i>				<i>3.58%</i>	<i>3.58%</i>	<i>-6.21%</i>	<i>-6.21%</i>	<i>17.57%</i>	<i>17.57%</i>	<i>10.96%</i>	<i>10.96%</i>		
INTERNATIONAL EQUITY																							
LSV International Large Cap Value	439,830,175	7.6%	8.0%	-0.73%	-0.83%	428,282,642	7.6%	8.0%	-8.15%	-8.15%	466,307,036	7.9%	8.0%	1.83%	1.74%	-7.15%	-7.33%	5.35%	4.95%	5.97%	5.57%	N/A	N/A
<i>MSCI EAFE</i>				<i>-0.13%</i>	<i>-0.13%</i>				<i>-7.96%</i>	<i>-7.96%</i>				<i>1.36%</i>	<i>1.36%</i>	<i>-6.83%</i>	<i>-6.83%</i>	<i>6.84%</i>	<i>6.84%</i>	<i>4.90%</i>	<i>4.90%</i>		
William Blair International Leaders	430,616,488	7.5%	8.0%	0.11%	0.11%	420,141,806	7.4%	8.0%	-10.83%	-10.92%	471,641,197	8.0%	8.0%	1.50%	1.41%	-9.39%	-9.56%	15.78%	15.35%	N/A	N/A	N/A	N/A
<i>MSCI ACWI ex-US IMI (Net)</i>				<i>0.85%</i>	<i>0.85%</i>				<i>-8.36%</i>	<i>-8.36%</i>				<i>0.39%</i>	<i>0.39%</i>	<i>-7.22%</i>	<i>-7.22%</i>	<i>7.75%</i>	<i>7.75%</i>				
DFA International Small Cap Value (1)	104,698,634	1.8%	2.0%	-1.87%	-1.87%	101,520,181	1.8%	2.0%	-9.93%	-9.93%	112,706,397	1.9%	2.0%	-0.97%	-0.97%	-12.47%	-12.47%	5.40%	5.40%	7.19%	7.19%	N/A	N/A
Vanguard International Explorer Fund (1)	102,111,914	1.8%	2.0%	-0.39%	-0.39%	97,363,761	1.7%	2.0%	-11.76%	-11.76%	110,338,328	1.9%	2.0%	-2.83%	-2.83%	-14.59%	-14.59%	11.47%	11.47%	9.38%	9.38%	N/A	N/A
<i>S&P/Citigroup BMI EPAC < \$2BN</i>				<i>1.37%</i>	<i>1.37%</i>				<i>-10.83%</i>	<i>-10.83%</i>				<i>-0.45%</i>	<i>-0.45%</i>	<i>-10.02%</i>	<i>-10.02%</i>	<i>10.47%</i>	<i>10.47%</i>	<i>8.87%</i>	<i>8.87%</i>		
TOTAL INTERNATIONAL EQUITY	1,077,257,211	18.7%	20.0%	-0.46%	-0.50%	1,047,308,390	18.5%	20.0%	-9.75%	-9.79%	1,160,992,958	19.7%	20.0%	0.97%	0.89%	-9.30%	-9.44%	10.11%	9.79%	7.00%	6.69%	N/A	N/A
<i>MSCI World Ex US (2)</i>				<i>-0.09%</i>	<i>-0.09%</i>				<i>-7.95%</i>	<i>-7.95%</i>				<i>1.31%</i>	<i>1.31%</i>	<i>-6.83%</i>	<i>-6.83%</i>	<i>7.04%</i>	<i>7.04%</i>	<i>4.74%</i>	<i>4.74%</i>		

LEGACY FUND
INVESTMENT PERFORMANCE REPORT AS OF NOVEMBER 30, 2018

	November-18					October-18					September-18					Current FYTD Returns		Prior Year FY18 Returns		3 Years Ended 6/30/2018		5 Years Ended 6/30/2018	
	Allocation		Month			Allocation		Month			Allocation		Quarter			Gross ⁽¹⁾	Net	Gross ⁽¹⁾	Net	Gross ⁽¹⁾	Net	Gross ⁽¹⁾	Net
	Market Value	Actual	Policy	Gross ⁽¹⁾	Net	Market Value	Actual	Policy	Gross ⁽¹⁾	Net	Market Value	Actual	Policy	Gross ⁽¹⁾	Net	Gross ⁽¹⁾	Net	Gross ⁽¹⁾	Net	Gross ⁽¹⁾	Net	Gross ⁽¹⁾	Net
GLOBAL FIXED INCOME	2,072,494,882	35.9%	35.0%	0.24%	0.23%	2,059,322,931	36.3%	35.0%	-0.94%	-0.95%	2,050,114,202	34.8%	35.0%	0.69%	0.66%	-0.02%	-0.07%						
<i>Benchmark</i>				0.60%	0.60%				-0.79%	-0.79%				0.02%	0.02%	-0.18%	-0.18%						
FIXED INCOME																							
Western Asset U.S. Core Fixed Income	562,263,133	9.8%	10.1%	0.40%	0.37%	560,218,827	9.9%	10.1%	-0.91%	-0.91%	549,333,434	9.3%	10.1%	0.32%	0.29%	-0.20%	-0.26%	0.48%	0.36%	3.19%	3.06%	N/A	N/A
Prudential Core Plus Fixed Income	351,979,781	6.1%	10.1%	0.51%	0.51%	350,182,568	6.2%	10.1%	-0.82%	-0.82%	322,832,976	5.5%	10.1%	0.32%	0.27%	0.01%	-0.04%	1.04%	0.78%	3.86%	3.58%	N/A	N/A
PIMCO Distressed Senior Credit Opportunities II (1)	39,658,014	0.7%	0.7%	-0.32%	-0.32%	39,784,905	0.7%	0.7%	0.29%	0.29%	39,668,633	0.7%	0.7%	1.69%	1.69%	1.66%	1.66%	10.02%	10.02%	10.37%	10.37%	N/A	N/A
PIMCO BRAVO II (1)	16,848,580	0.3%	0.3%	0.00%	0.00%	18,307,940	0.3%	0.3%	2.00%	2.00%	18,954,541	0.3%	0.3%	0.00%	0.00%	2.00%	2.00%	1.79%	1.79%	7.29%	7.29%	N/A	N/A
<i>Bloomberg Aggregate</i>				0.60%	0.60%				-0.79%	-0.79%				0.02%	0.02%	-0.18%	-0.18%	-0.40%	-0.40%	1.72%	1.72%		
Declaration Total Return Bond Fund (1)	156,382,776	2.7%	2.7%	0.61%	0.61%	145,515,111	2.6%	2.6%	-0.35%	-0.35%	146,020,141	2.5%	2.5%	0.40%	0.40%	0.67%	0.67%	3.34%	3.34%	3.64%	3.64%	N/A	N/A
<i>3m LIBOR</i>				0.23%	0.23%				0.22%	0.22%				0.60%	0.60%	1.05%	1.05%	1.75%	1.75%	1.07%	1.07%		
State Street U.S. Govt Credit Bond Index	282,657,274	4.9%	4.9%	0.49%	0.48%	281,318,208	5.0%	4.9%	-0.86%	-0.86%	283,758,363	4.8%	4.9%	0.04%	0.04%	-0.34%	-0.35%	-0.59%	-0.62%	1.84%	1.81%	N/A	N/A
<i>Bloomberg Gov/Credit</i>				0.47%	0.47%				-0.87%	-0.87%				0.06%	0.06%	-0.34%	-0.34%	-0.63%	-0.63%	1.89%	1.89%		
Wells Capital Medium Quality Credit	523,308,569	9.1%	3.9%	-0.52%	-0.52%	526,040,675	9.3%	3.9%	-1.82%	-1.85%	535,973,504	9.1%	3.9%	1.56%	1.52%	-0.80%	-0.88%	-0.11%	-0.26%	4.05%	3.88%	N/A	N/A
<i>Bloomberg Credit Baa</i>				-0.39%	-0.39%				-1.76%	-1.76%				1.35%	1.35%	-0.82%	-0.82%	-0.57%	-0.57%	3.26%	3.26%		
Ares ND Credit Strategies	51,955,886	0.9%	0.9%	1.80%	1.80%	51,038,254	0.9%	0.9%	0.00%	0.00%	51,038,254	0.9%	0.9%	0.00%	0.00%	1.80%	1.80%	N/A	N/A	N/A	N/A	N/A	N/A
Cerberus ND Private Credit Fund	48,264,004	0.8%	0.8%	0.87%	0.87%	47,846,732	0.8%	0.8%	0.94%	0.94%	47,403,139	0.8%	0.8%	1.71%	1.71%	3.56%	3.56%	N/A	N/A	N/A	N/A	N/A	N/A
<i>S&P LSTA Leveraged Loan B Index</i>				-0.83%	-0.83%				0.03%	0.03%				1.96%	1.96%	1.15%	1.15%						
Bank of ND Match Loan CDs	39,176,864	0.7%	0.7%	0.27%	0.27%	39,069,711	0.7%	0.7%	0.28%	0.28%	55,131,218	0.9%	0.9%	0.81%	0.81%	1.36%	1.36%	2.86%	2.86%	N/A	N/A	N/A	N/A
TOTAL FIXED INCOME	2,072,494,882	35.9%	35.0%	0.24%	0.23%	2,059,322,931	36.3%	35.0%	-0.94%	-0.95%	2,050,114,202	34.8%	35.0%	0.69%	0.66%	-0.02%	-0.07%	1.23%	1.12%	3.79%	3.67%	N/A	N/A
<i>Bloomberg Aggregate</i>				0.60%	0.60%				-0.79%	-0.79%				0.02%	0.02%	-0.18%	-0.18%	-0.40%	-0.40%	1.72%	1.72%		
GLOBAL REAL ASSETS	853,844,835	14.8%	15.0%	0.09%	0.05%	863,381,658	15.2%	15.0%	-0.28%	-0.33%	832,586,998	14.1%	15.0%	-0.40%	-0.40%	-0.58%	-0.68%						
<i>Benchmark</i>				0.50%	0.50%				-0.29%	-0.29%				0.05%	0.05%	0.25%	0.25%						
DIVERSIFIED REAL ASSETS																							
Western Asset Global Inflation Linked Plus, L.L.C.	390,862,606	6.8%	7.0%	0.00%	-0.03%	400,994,655	7.1%	6.9%	-2.24%	-2.24%	384,800,014	6.5%	7.2%	-1.48%	-1.51%	-3.70%	-3.75%	2.59%	2.46%	2.08%	1.95%	N/A	N/A
<i>Bloomberg Global Inflation Linked Index</i>				0.53%	0.53%				-1.11%	-1.11%				-1.63%	-1.63%	-2.20%	-2.20%	3.31%	3.31%	2.25%	2.25%		
Grosvenor Customized Infrastructure Strategies II (1)	41,242,957	0.7%	0.7%	0.00%	0.00%	41,242,957	0.7%	0.7%	3.45%	3.45%	39,866,601	0.7%	0.7%	0.00%	0.00%	3.45%	3.45%	7.98%	7.98%	5.77%	5.77%	N/A	N/A
JP Morgan Infrastructure Investments Fund (IIF)	120,761,998	2.1%	2.1%	0.55%	0.35%	120,342,376	2.1%	2.1%	0.00%	0.00%	120,342,376	2.0%	2.0%	1.70%	1.73%	2.25%	2.09%	10.60%	9.89%	7.55%	6.68%	N/A	N/A
ISQ Global Infrastructure Fund II (1)	11,519,174	0.2%	0.2%	1.59%	1.59%	11,339,384	0.2%	0.2%	-22.76%	-22.76%	4,278,756	0.1%	0.1%	6.97%	6.97%	-16.07%	-16.07%	N/A	N/A	N/A	N/A	N/A	N/A
<i>50% NCREIF ODCE/50% CPI-U (tagged one quarter) (3)</i>				0.34%	0.34%				0.31%	0.31%				1.43%	1.43%	2.09%	2.09%	3.09%	3.09%	1.74%	1.74%		
TOTAL DIVERSIFIED REAL ASSETS	564,386,735	9.8%	10.0%	0.14%	0.08%	573,919,372	10.1%	10.0%	-1.60%	-1.60%	549,287,748	9.3%	10.0%	-0.61%	-0.62%	-2.05%	-2.13%	4.66%	4.41%	3.50%	3.21%	N/A	N/A
<i>Benchmark</i>				0.47%	0.47%				-0.71%	-0.71%				-0.76%	-0.76%	-1.01%	-1.01%	3.31%	3.31%	2.11%	2.11%		
REAL ESTATE																							
J.P. Morgan U.S. Real Estate Income and Growth Domestic, LP	148,976,205	2.6%	2.5%	0.00%	0.00%	148,980,391	2.6%	2.5%	2.11%	1.89%	146,218,863	2.5%	2.5%	0.00%	0.04%	2.11%	1.92%	7.50%	6.75%	8.86%	7.93%	N/A	N/A
Invesco Core Real Estate-USA, LP	140,481,895	2.4%	2.5%	0.00%	0.00%	140,481,895	2.5%	2.5%	2.57%	2.48%	137,080,387	2.3%	2.5%	0.00%	0.00%	2.57%	2.48%	8.27%	7.91%	9.24%	8.88%	N/A	N/A
TOTAL REAL ESTATE	289,458,099	5.0%	5.0%	0.00%	0.00%	289,462,286	5.1%	5.0%	2.33%	2.18%	283,299,250	4.8%	5.0%	0.00%	0.02%	2.33%	2.19%	7.87%	7.31%	9.04%	8.39%	N/A	N/A
<i>NCREIF Total Index</i>				0.56%	0.56%				0.56%	0.56%				1.67%	1.67%	2.81%	2.81%	7.19%	7.19%	8.25%	8.25%		
CASH EQUIVALENTS																							
Northern Trust-MFB NI Govt Assets Portfolio (1)	38,247,391			0.20%	0.20%	37,865,301			0.16%	0.16%	37,779,527			0.44%	0.44%	0.80%	0.80%	1.09%	1.09%	0.51%	0.51%	0.31%	0.31%
Bank of ND	14,520,078			0.18%	0.18%	14,471,803			0.18%	0.18%	14,716,268			0.50%	0.50%	0.87%	0.87%	1.42%	1.42%	N/A	N/A	N/A	N/A
TOTAL CASH EQUIVALENTS	52,767,469	0.9%	0.0%	0.19%	0.19%	52,337,104	0.9%	0.0%	0.17%	0.17%	52,495,795	0.9%	0.0%	0.46%	0.46%	0.82%	0.82%	1.21%	1.21%	0.59%	0.59%	0.36%	0.36%
<i>90 Day T-Bill</i>				0.21%	0.21%				0.17%	0.17%				0.49%	0.49%	0.87%	0.87%	1.36%	1.36%	0.68%	0.68%	0.42%	0.42%

Initial funding September 7, 2011.

NOTE: Monthly returns and market values are preliminary and subject to change.

(1) All limited partnership-type (and mutual funds as of 7/1/14) investment returns will only be reported net of fees, which is standard practice by the investment consultant.

(2) This benchmark was changed to the MSCI World ex-US as of July 1, 2016 and the MSCI EAFE (unhedged) as of April 1, 2011.

(3) Prior to July 1, 2018, the benchmark was CPI-W.