

Performance and Fee Report
Reported under G.S. 147-69.12(b)
Fiscal Year 2018 - 2019

This report is divided into four sections:

Section 1. Value and Performance Supplement

Lists the market value and investment return for each internally and externally managed investment in the Retirement Systems portfolio.

Section 2. Fee Supplement

Lists the fees for each externally managed investment in the Retirement Systems portfolio.

Section 3. Additional Information

Lists several additional items requested by G.S. 147-69.12(b).

Section 4. Use of new Investment Authority Report

Details information on grants of investment authority from the state legislature as required by G.S. 147-69.8.

Section 1
Value and Performance Supplement

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NCRS Public Equity Portfolio
June 30, 2019

Fund	LLC/LLP	Inception	Market Value	Returns					
				1 Yr	3 Yr	5 Yr	10 Yr	15 Yr	20 Yr
Baillie Gifford EAFE Plus Alpha <i>MSCI EAFE</i>		2007	\$ 2,405,437	(2.8)	16.8	6.8	11.1	-	-
				1.1	9.1	2.2	6.9	5.3	4.0
BlackRock EAFE LC Growth <i>MSCI EAFE Growth Index</i>		2016	\$ 876,782	4.5	10.0	-	-	-	-
				4.7	10.1	4.7	8.6	6.6	4.1
BlackRock Emerging Markets Opportunities Fund <i>MSCI Emerging Markets</i>		2009	\$ 754,205	1.8	12.5	4.1	7.9	-	-
				1.2	10.7	2.5	5.8	8.7	7.2
Internal Russell Mid Cap Value Passive <i>Russell Midcap Custom</i>		2013	\$ 416,776	3.8	-	-	-	-	-
				3.7	8.9	6.9	-	-	-
BlackRock MSCI ACWI ex US IMI <i>MSCI ACWI ex US IMI Index</i>		2010	\$ 7,856,521	0.5	9.4	2.5	-	-	-
				0.3	9.2	2.2	6.8	6.0	4.8
Brown Advisory Small Cap Growth <i>Russell 2000 Growth</i>		2008	\$ 367,946	16.1	17.5	13.4	16.8	-	-
				(0.5)	14.7	8.6	14.4	8.9	6.5
Earnest Partners Small Cap Value <i>Russell 2000 Value</i>		2002	\$ 586,266	1.0	13.9	9.3	14.5	9.0	-
				(6.2)	9.8	5.4	12.4	7.3	8.6
ECM Bespoke Fund 2 <i>Equity Hedge Benchmark</i>	Yes	2016	\$ 30,300	(10.8)	-	-	-	-	-
				2.2	4.6	2.3	-	-	-
ECM Feeder Fund 2 <i>Equity Hedge Benchmark</i>	Yes	2016	\$ 156,733	(8.7)	7.8	-	-	-	-
				2.2	4.6	2.3	-	-	-
Franklin Templeton Int'l SC <i>MSCI AC World ex USA Small Cap Index</i>		2010	\$ 611,067	(4.2)	9.9	3.7	-	-	-
				(5.9)	7.8	2.8	8.5	7.4	6.9
Internal TOBAM Max Div US <i>Russell 1000</i>		2018	\$ 400,339	-	-	-	-	-	-
				10.0	14.1	10.5	14.8	8.9	6.2
Internal Russell 200 Passive <i>Russell Top 200 Custom</i>		2017	\$ 12,407,119	10.9	-	-	-	-	-
				10.9	14.9	-	-	-	-
Internal Russell Mid Cap Passive <i>Russell Midcap Index</i>		2017	\$ 3,056,985	7.9	-	-	-	-	-
				7.8	12.2	8.6	15.2	9.8	9.0
Mondrian Focused All Country World ex US IMI <i>MSCI Emerging Markets</i>		2017	\$ 2,469,031	3.2	-	-	-	-	-
				1.2	10.7	2.5	5.8	8.7	7.2
Numeric Small Cap Value <i>Russell 2000 Value</i>		2007	\$ 432,209	(7.1)	6.6	3.1	13.9	-	-
				(6.2)	9.8	5.4	12.4	7.3	8.6
ONSHE Marshall Wace <i>Equity Hedge Benchmark</i>	Yes	2016	\$ 225,160	1.0	-	-	-	-	-
				2.2	4.6	2.3	-	-	-
ONSHE Menta <i>Equity Hedge Benchmark</i>	Yes	2016	\$ 205,511	4.5	0.9	-	-	-	-
				2.2	4.6	2.3	-	-	-
TimesSquare MidCap Growth <i>Russell Midcap Growth</i>		2007	\$ 764,491	14.9	16.3	10.7	15.2	-	-
				13.9	16.5	11.1	16.0	10.3	7.7
TOBAM AntiBmk World ex USA <i>MSCI ACWI Ex US</i>		2018	\$ 202,487	-	-	-	-	-	-
				1.3	9.4	2.2	6.5	5.9	-
ValueAct Capital <i>Russell MidCap Value</i>	Yes	2015	\$ 887,885	1.1	12.5	-	-	-	-
				3.7	8.9	6.7	14.6	9.3	9.2
ValueAct Capital Fund B <i>Russell MidCap Value</i>	Yes	2018	\$ 76,668	-	-	-	-	-	-
				3.7	8.9	6.7	14.6	9.3	9.2
Walter Scott International <i>MSCI ACWI Ex US</i>		2002	\$ 1,938,475	6.7	11.9	7.4	9.2	8.2	-
				1.3	9.4	2.2	6.5	5.9	-
Wellington Diversified International <i>MSCI ACWI Ex US</i>		1987	\$ 1,312,090	(3.2)	9.9	2.4	8.0	6.5	5.2
				1.3	9.4	2.2	6.5	5.9	-
Wellington Opportunistic Growth <i>Russell 3000 Growth Custom</i>		1999	\$ 1,826,950	17.2	20.8	14.7	16.8	10.4	8.5
				10.6	17.8	13.0	16.1	9.8	6.6
BlackRock Global Transition Cash and Liquidating Accounts	N/A	N/A	\$ 107	-	-	-	-	-	-
			\$ 9,283	-	-	-	-	-	-
Total Public Equity			\$ 40,276,824	5.1	12.1	6.5	11.0	6.9	5.4
Public Equity Benchmark				4.4	10.9	5.7	10.2	6.3	4.4

Methodology and Notes:

-Dollar Values in Thousands

-Returns are calculated using a Modified Dietz time weighted rate of return methodology. This method uses the beginning and ending valuation for the measurement period, and weights each -The Equity Hedge Benchmark is the MSCI ACWI IMI Net beta adjusted to the target beta of the Equity Hedge Portfolio.

-As of July 2011, the Public Equity Benchmark is the dynamically weighted combination of the MSCI ACWI IMI Net (Long-Only) and a beta adjusted MSCI ACWI IMI Net (Hedged Equity).

- Equity portfolio cash and any residual value from closed accounts are aggregated in the line item labeled "Cash and Liquidating Accounts."

NCRS Private Equity Portfolio
June 30, 2019

Fund	Vintage	Liquidated	Market Value	Commitment	Unfunded	IRR	TVPI	Distributions	DPI	Advisory Board
A.V. Management IV, LLC	2002	--	\$ 589	\$ 5,000	\$ 0	0.36	1.04	\$ 4,607	0.92	YES
Academy Venture Fund, LLC	1999	2012	\$ 0	\$ 5,000	\$ 0	(22.26)	0.18	\$ 916	0.18	YES
Accel-KKR Capital Partners IV, LP	2013	--	\$ 8,552	\$ 10,000	\$ 6,923	35.10	2.52	\$ 12,077	1.48	NO
Access Capital L.P. II D	2002	--	\$ 90	\$ 30,321	\$ 5,986	4.44	1.21	\$ 32,224	1.20	NO
AG Private Equity Partners IV (R), L.P.	2008	--	\$ 26,137	\$ 48,810	\$ 16,107	4.06	1.31	\$ 16,839	0.51	YES
AG Private Equity Partners IV, L.P.	2008	--	\$ 28,492	\$ 48,810	\$ 5,125	6.96	1.47	\$ 36,608	0.83	YES
Ampersand 2006 Limited Partnership	2006	--	\$ 21,987	\$ 30,000	\$ 0	16.10	2.79	\$ 61,761	2.06	YES
Angeleno Investors II, L.P.	2006	--	\$ 7,788	\$ 30,000	\$ 0	1.71	1.12	\$ 31,431	0.90	YES
Apollo Investment Fund VI, L.P.	2005	2013	\$ 0	\$ 128,418	\$ 0	4.85	1.23	\$ 158,307	1.23	NO
Apollo Investment Fund VII, L.P.	2008	2011	\$ 0	\$ 34,550	\$ 0	11.43	1.17	\$ 41,319	1.17	NO
Apollo Investment Fund VIII, L.P.	2013	--	\$ 190,570	\$ 220,000	\$ 36,302	9.62	1.25	\$ 72,449	0.34	NO
Arch IX Overage	2016	--	\$ 93,495	\$ 60,000	\$ 7,200	41.65	1.77	\$ 0	0	YES
ARCH Venture Fund VII, L.P.	2007	--	\$ 44,386	\$ 50,000	\$ 0	38.86	4.99	\$ 208,631	4.12	YES
ARCH Venture Fund VIII, L.P.	2014	--	\$ 176,398	\$ 80,000	\$ 1,600	28.54	2.29	\$ 3,319	0.04	YES
ARCH Venture Fund IX	2016	--	\$ 77,285	\$ 60,000	\$ 15,000	43.67	1.72	\$ 79	0.00	YES
Aurora Ventures IV, LLC	2002	--	\$ 977	\$ 15,000	\$ 0	0.43	1.05	\$ 14,789	0.98	YES
Aurora Ventures V, LLC	2005	--	\$ 7,978	\$ 15,000	\$ 0	6.61	1.63	\$ 16,495	1.10	YES
Avista Capital Partners I, L.P.	2006	--	\$ 1,193	\$ 50,000	\$ 726	4.69	1.31	\$ 68,105	1.29	YES
Avista Capital Partners II, L.P.	2008	--	\$ 20,808	\$ 100,000	\$ 13,748	15.14	2.07	\$ 158,042	1.83	YES
Avista Capital Partners III, L.P.	2011	--	\$ 64,353	\$ 150,000	\$ 8,371	0.23	1.01	\$ 80,848	0.56	YES
Blackstone Core Equity Partners - NC LP	2017	--	\$ 0	\$ 250,000	\$ 250,000	0	0	\$ 0	0	N/A
Blackstone Core Equity Partners LP	2017	--	\$ 147,428	\$ 250,000	\$ 120,746	9.72	1.11	\$ 40,105	0.24	YES
Blackstone TN Partners LP	2017	--	\$ 35,985	\$ 40,000	\$ 3,974	(0.05)	1.00	\$ 1,604	0.04	N/A
Burrill Life Sciences Capital Fund III, L.P.	2005	--	\$ 13,385	\$ 50,000	\$ 58	(3.63)	0.76	\$ 24,743	0.50	YES
Burrill Life Sciences Capital Fund, L.P.	2002	2015	\$ 0	\$ 41,632	\$ 0	3.93	1.22	\$ 50,772	1.22	YES
Carolinas Capital, L.P.	1990	2008	\$ 0	\$ 225	\$ 0	7.09	1.54	\$ 347	1.54	NO
Carousel Capital Partners III, L.P.	2006	2019	\$ 0	\$ 16,294	\$ 0	23.47	2.33	\$ 37,875	2.33	YES
Carousel Capital Partners IV, L.P.	2012	--	\$ 26,991	\$ 24,999	\$ 4,190	38.92	2.97	\$ 37,468	1.72	YES
Carousel Capital Partners V LP	2017	--	\$ 8,382	\$ 30,000	\$ 21,538	6.14	1.08	\$ 751	0.09	YES
Castle Harlan Partners IV, L.P.	2002	--	\$ 8,421	\$ 75,000	\$ 7,252	14.25	1.48	\$ 97,588	1.36	YES
Castle Harlan Partners V, L.P.	2008	--	\$ 49,337	\$ 100,000	\$ 11,473	11.47	1.30	\$ 75,783	0.78	YES
Catterton Growth Partners, L.P.	2008	--	\$ 11,258	\$ 30,000	\$ 272	9.26	1.73	\$ 41,055	1.36	YES
Catterton Growth Partners II, L.P.	2013	--	\$ 98,253	\$ 75,000	\$ 447	6.50	1.32	\$ 0	0	YES
Catterton Partners VII, L.P.	2013	--	\$ 88,680	\$ 100,000	\$ 22,463	15.20	1.67	\$ 101,080	0.91	YES
Chapter IV Investors Special Situations Fund, L.P.	2006	2018	\$ 0	\$ 44,467	\$ 0	1.82	1.17	\$ 59,322	1.17	YES
Charterhouse Capital Partners IX, L.P.	2009	--	\$ 21,308	\$ 113,880	\$ 7,849	10.44	1.36	\$ 144,072	1.19	YES
Charterhouse Capital Partners X, L.P.	2015	--	\$ 80,141	\$ 170,820	\$ 105,929	22.13	1.47	\$ 10,912	0.18	YES
Coller International Partners IV, L.P.	2002	2018	\$ 0	\$ 83,729	\$ 0	13.20	1.37	\$ 120,170	1.37	YES
Crestview Partners II, L.P.	2008	--	\$ 47,254	\$ 100,000	\$ 15,203	13.22	1.94	\$ 117,359	1.38	YES
Crestview Capital Partners III, L.P.	2013	--	\$ 117,769	\$ 150,000	\$ 64,500	14.26	1.32	\$ 19,317	0.19	YES
CVC Europe Equity Partners IV, L.P.	2005	--	\$ 91	\$ 74,022	\$ 8,704	16.63	1.97	\$ 153,921	1.97	NO
CVC Capital Partners VI, L.P.	2014	--	\$ 95,277	\$ 85,410	\$ 17,245	15.38	1.38	\$ 30,487	0.34	NO
CVE Kauffman Fund I	2007	--	\$ 53,366	\$ 47,713	\$ 3,463	11.73	2.31	\$ 49,353	1.11	YES
DLJ Merchant Banking Partners II, L.P.	1996	2016	\$ 0	\$ 6,896	\$ 0	5.98	1.30	\$ 9,903	1.30	NO
Elevation Partners, L.P.	2005	--	\$ 192	\$ 91,652	\$ 1,066	12.15	1.59	\$ 147,260	1.59	YES
Francisco Partners Agility	2017	--	\$ 26,391	\$ 50,000	\$ 24,750	88.61	1.38	\$ 8,552	0.34	YES
Francisco Partners II, L.P.	2006	--	\$ 9,933	\$ 60,000	\$ 4,140	10.06	1.55	\$ 84,314	1.39	YES
Francisco Partners IV, L.P.	2015	--	\$ 114,994	\$ 100,000	\$ 2,550	23.56	1.70	\$ 55,865	0.56	YES
Franklin Fairview I, L.P.	1997	2017	\$ 0	\$ 2,478	\$ 0	0.98	1.16	\$ 2,888	1.16	NO
GCM Grosvenor - NC Innovation Fund	2010	--	\$ 98,031	\$ 230,000	\$ 30,527	20.77	1.88	\$ 315,085	1.43	N/A
GCM Grosvenor - NC Innovation Fund 2013-1	2013	--	\$ 7,956	\$ 15,037	\$ 2,235	23.75	2.29	\$ 23,064	1.70	N/A
GCM Grosvenor - NC Innovation Fund II	2015	--	\$ 104,055	\$ 258,401	\$ 122,748	12.88	1.16	\$ 62,495	0.43	N/A
GCM Grosvenor - NC Investment Fund 2006	2006	--	\$ 29,458	\$ 252,482	\$ 3,293	3.65	1.24	\$ 281,090	1.13	N/A
GCM Grosvenor - NC Investment Fund 2008 Series 1	2008	--	\$ 33,892	\$ 179,996	\$ 26,399	5.90	1.34	\$ 177,252	1.13	N/A
GCM Grosvenor - NC Investment Fund 2008 Series 2	2009	--	\$ 36,838	\$ 50,000	\$ (653)	(4.95)	0.79	\$ 4,615	0.09	N/A
Halifax Capital Partners II, L.P.	2005	--	\$ 0	\$ 15,000	\$ 2,852	7.26	1.31	\$ 16,056	1.31	YES
Halifax Capital Partners III, L.P.	2012	--	\$ 15,558	\$ 30,000	\$ 5,449	25.43	1.61	\$ 29,776	1.06	YES
HarbourVest Partners III, L.P.	1989	2008	\$ 0	\$ 6,500	\$ 0	13.91	2.16	\$ 14,012	2.16	NO
Harvest Partners IV, L.P.	2001	--	\$ 363	\$ 47,904	\$ 1,372	35.77	2.24	\$ 104,194	2.24	YES
Harvest Partners V, L.P.	2006	--	\$ 12,369	\$ 75,000	\$ 6,770	18.24	1.92	\$ 120,054	1.74	YES
Harvest Partners VI, L.P.	2011	--	\$ 47,179	\$ 100,000	\$ 7,305	22.39	2.04	\$ 151,399	1.56	YES
Harvest Partners VII, L.P.	2016	--	\$ 80,219	\$ 100,000	\$ 27,110	7.20	1.09	\$ 11,194	0.13	YES
Hatteras Venture Partners III, L.P.	2007	--	\$ 12,343	\$ 16,354	\$ 1,941	(1.08)	0.93	\$ 3,211	0.19	YES
Hg Capital 7	2013	--	\$ 58,258	\$ 82,726	\$ 23,194	10.56	1.39	\$ 66,445	0.74	YES
Highland Capital Partners VI, L.P.	2001	--	\$ 155	\$ 5,000	\$ 0	11.95	1.62	\$ 7,946	1.59	NO
Highland Capital Partners VII, L.P.	2006	--	\$ 5,013	\$ 15,000	\$ 0	6.07	1.49	\$ 17,401	1.16	NO
Highland Consumer Fund I, L.P.	2007	--	\$ 6,352	\$ 25,000	\$ 0	(2.69)	0.82	\$ 14,208	0.57	YES
Horsley Bridge International IV, L.P.	2006	--	\$ 42,697	\$ 65,000	\$ 2,779	8.78	1.82	\$ 70,669	1.14	NO
Horsley Bridge International V, L.P.	2008	--	\$ 129,091	\$ 75,000	\$ 3,149	18.18	2.26	\$ 33,424	0.47	NO
Horsley Bridge IX, L.P.	2008	--	\$ 126,496	\$ 85,000	\$ 2,987	19.15	2.68	\$ 93,434	1.14	NO
Intersouth Partners II, L.P.	1988	2004	\$ 0	\$ 2,000	\$ 0	(6.10)	0.73	\$ 1,465	0.73	NO
Intersouth Partners III, L.P.	1994	2014	\$ 0	\$ 1,000	\$ 0	26.92	2.14	\$ 2,140	2.14	NO
Intersouth Partners VI, L.P.	2003	--	\$ 2,519	\$ 7,000	\$ 0	1.74	1.14	\$ 5,436	0.78	NO
Kitty Hawk Capital III, L.P.	1994	2012	\$ 0	\$ 1,000	\$ 0	(5.03)	0.59	\$ 592	0.59	NO
KRG Capital Fund II, L.P.	2001	2016	\$ 0	\$ 19,568	\$ 0	21.64	1.51	\$ 29,648	1.51	YES
KRG Capital Fund III, L.P.	2005	2017	\$ 0	\$ 73,591	\$ 0	1.69	1.09	\$ 80,524	1.09	YES
KRG Capital Fund IV, L.P.	2007	--	\$ 2,543	\$ 140,362	\$ 3,364	13.43	1.71	\$ 246,307	1.69	YES
L Catterton Growth Partners III, L.P.	2016	--	\$ 80,664	\$ 75,000	\$ 17,911	24.97	1.48	\$ 7,317	0.12	YES
NCL Investments, L.P. - PE Series	2014	--	\$ 111,495	\$ 250,000	\$ 73,662	11.16	1.21	\$ 152,205	0.70	Observer
NCL Investments II, L.P. - Outside Opportunities Series A	2018	--	\$ 228,044	\$ 300,000	\$ 71,600	(0.35)	1.00	\$ 0	0	YES
NCL Investments II, L.P. - PE Overflow Series	2018	--	\$ 65,215	\$ 200,000	\$ 136,052	5.87	1.03	\$ 3,823	0.06	YES
NCL Investments II, L.P. - PE Series	2018	--	\$ 56,425	\$ 300,000	\$ 249,065	21.55	1.11	\$ 0	0	YES
Levine Leichtman Capital Partners V	2013	--	\$ 126,295	\$ 150,000	\$ 27,632	11.14	1.43	\$ 69,701	0.51	YES

NCRS Private Equity Portfolio
June 30, 2019

Fund	Vintage	Liquidated	Market Value	Commitment	Unfunded	IRR	TVPI	Distributions	DPI	Advisory Board
Lexington Middle Market Investors, L.P.	2004	--	\$ 12,152	\$ 100,000	\$ 912	11.63	1.65	\$ 150,862	1.52	YES
Lexington Middle Market Investors II, L.P.	2008	--	\$ 33,913	\$ 100,000	\$ 2,263	14.01	1.66	\$ 128,254	1.31	YES
Lexington Middle Market Investors III, L.P.	2012	--	\$ 89,367	\$ 150,000	\$ 32,389	18.68	1.44	\$ 80,187	0.68	YES
Lindsay Goldberg II, L.P.	2006	--	\$ 1,192	\$ 100,000	\$ 5,441	7.11	1.42	\$ 137,843	1.40	YES
Lindsay Goldberg III, LP	2008	--	\$ 1,771	\$ 100,000	\$ 4,491	8.13	1.36	\$ 128,798	1.34	YES
LittleJohn Opportunities Fund II LP	2017	--	\$ 66,310	\$ 125,000	\$ 57,842	(0.98)	0.99	\$ 94	0.00	YES
Longreach Capital Partners I, L.P.	2006	--	\$ 30,844	\$ 75,000	\$ 2,382	(1.08)	0.93	\$ 48,452	0.57	YES
Markstone Capital Partners, L.P.	2005	2017	\$ 0	\$ 48,570	\$ 0	(85.27)	0.30	\$ 16,131	0.30	YES
Marlin Equity IV	2013	--	\$ 35,308	\$ 49,000	\$ 341	7.57	1.22	\$ 24,200	0.50	NO
MatlinPatterson Global Opportunities Partners III	2007	--	\$ 28,566	\$ 100,000	\$ 2,292	4.36	1.31	\$ 98,992	1.01	NO
MHR Institutional Partners IV, L.P.	2015	--	\$ 62,968	\$ 150,000	\$ 84,950	(1.44)	0.97	\$ 6,859	0.10	YES
Milestone Partners IV, L.P.	2011	--	\$ 53,965	\$ 50,000	\$ 728	11.33	1.52	\$ 29,936	0.54	YES
Mount Kellett Capital Partners II, LP	2011	--	\$ 12,242	\$ 75,000	\$ 1,741	2.26	1.07	\$ 68,542	0.91	YES
NCEF Liquidating Trust	1990	2013	\$ 0	\$ 10,010	\$ 0	20.21	6.14	\$ 61,501	6.14	N/A
NEA 14, L.P.	2012	--	\$ 48,927	\$ 45,000	\$ 2,700	16.65	2.07	\$ 38,515	0.91	NO
NEA 15 Opportunity Fund, L.P.	2015	--	\$ 41,635	\$ 65,000	\$ 6,988	21.10	1.48	\$ 44,280	0.76	YES
NEA 15, L.P.	2015	--	\$ 83,643	\$ 67,500	\$ 7,763	20.37	1.64	\$ 14,379	0.24	NO
North Carolina Economic Opportunities Fund	2001	2015	\$ 0	\$ 6,561	\$ 0	16.27	1.69	\$ 11,079	1.69	N/A
Northbound NCRS Fund, L.P.	2015	--	\$ 181,768	\$ 200,000	\$ 45,876	16.93	1.34	\$ 24,886	0.16	N/A
Novak Biddle Venture Partners III, L.P.	2000	2017	\$ 0	\$ 17,000	\$ 0	(13.59)	0.56	\$ 9,450	0.56	NO
Novak Biddle Venture Partners IV, L.P.	2004	--	\$ 1,005	\$ 10,000	\$ 307	(6.00)	0.64	\$ 5,240	0.54	NO
Novak Biddle Venture Partners V, L.P.	2007	--	\$ 1,030	\$ 10,000	\$ 357	16.06	2.65	\$ 24,526	2.54	NO
Oaktree European Principal Fund III, L.P.	2011	--	\$ 32,321	\$ 40,561	\$ 12,199	10.13	1.70	\$ 23,631	0.72	NO
Pappas Life Science Ventures II, L.P.	2000	2016	\$ 0	\$ 4,925	\$ 0	3.47	1.20	\$ 5,989	1.20	YES
Pappas Life Science Ventures III, L.P.	2005	--	\$ 921	\$ 20,000	\$ 100	4.84	1.40	\$ 26,841	1.35	YES
Pappas Life Science Ventures IV, L.P.	2009	--	\$ 7,696	\$ 24,457	\$ 611	33.00	2.41	\$ 49,810	2.09	YES
Perseus Market Opportunity Fund, L.P.	2002	2015	\$ 0	\$ 50,000	\$ 0	(15.81)	0.48	\$ 26,371	0.48	YES
Perseus Partners VII, L.P.	2006	2015	\$ 0	\$ 48,431	\$ 0	(38.45)	0.17	\$ 7,999	0.17	YES
Quaker BioVentures II, L.P.	2007	--	\$ 18,754	\$ 100,000	\$ 5,273	1.48	1.07	\$ 81,794	0.87	YES
Robeco Clean Tech II	2008	--	\$ 43,027	\$ 75,000	\$ 3,648	(1.75)	0.88	\$ 19,572	0.27	YES
Robeco Clean Tech II Co-Inv	2008	--	\$ 13,470	\$ 75,000	\$ 16,470	(5.68)	0.68	\$ 26,101	0.45	N/A
Sprout Capital VI, L.P.	1989	2009	\$ 0	\$ 6,500	\$ 0	18.54	2.16	\$ 14,030	2.16	NO
Sprout Growth II, L.P.	1993	2011	\$ 0	\$ 3,000	\$ 0	15.44	1.98	\$ 5,931	1.98	NO
Starvest Partners II	2007	--	\$ 13,121	\$ 30,000	\$ 11	(2.66)	0.83	\$ 12,002	0.40	YES
StepStone Pioneer Capital Europe	2006	--	\$ 22,340	\$ 170,820	\$ 33,039	6.63	1.45	\$ 232,964	1.32	YES
StepStone Pioneer Capital I	2004	2018	\$ 0	\$ 136,794	\$ 0	5.06	1.32	\$ 188,993	1.32	YES
StepStone Pioneer Capital II	2006	--	\$ 30,133	\$ 125,000	\$ 7,880	9.02	1.87	\$ 207,658	1.63	YES
StepStone SYN	2006	--	\$ 12,270	\$ 35,000	\$ 4,242	(1.06)	0.91	\$ 16,465	0.52	N/A
Synergy Life Science Partners, L.P.	2006	--	\$ 6,944	\$ 38,000	\$ 1,330	6.20	1.63	\$ 52,907	1.44	YES
TCV VI, L.P.	2005	--	\$ 6,642	\$ 30,000	\$ 141	13.14	1.65	\$ 42,636	1.43	NO
TCV VIII, L.P.	2014	--	\$ 167,508	\$ 150,000	\$ 22,783	11.22	1.47	\$ 19,637	0.15	YES
TCV IX, L.P.	2016	--	\$ 113,295	\$ 150,000	\$ 39,660	9.22	1.10	\$ 8,243	0.07	YES
Tenaya Capital Fund V	2007	--	\$ 28,898	\$ 75,000	\$ 3,707	17.32	2.22	\$ 129,103	1.81	YES
Tenaya Capital Fund VI	2012	--	\$ 84,307	\$ 75,000	\$ 3,192	3.34	1.17	\$ 0	0	YES
Tenaya Capital Fund VII, L.P.	2015	--	\$ 59,802	\$ 90,000	\$ 26,344	9.27	1.17	\$ 15,438	0.24	YES
Terra Firma Capital Partners II, L.P.	2002	--	\$ 594	\$ 113,880	\$ 212	13.31	1.79	\$ 232,462	1.78	YES
Terra Firma Capital Partners III, L.P.	2006	--	\$ 14,845	\$ 170,820	\$ 679	(9.74)	0.44	\$ 75,907	0.37	YES
Thoma Bravo XII	2016	--	\$ 171,602	\$ 150,000	\$ 10,416	12.12	1.22	\$ 6,424	0.04	YES
TPG Biotechnology Partners II, L.P.	2006	--	\$ 3,146	\$ 18,000	\$ 8	2.59	1.19	\$ 18,356	1.01	NO
TPG Biotechnology Partners III, L.P.	2008	--	\$ 28,359	\$ 50,000	\$ 85	5.52	1.31	\$ 37,759	0.75	YES
TPG Partners IV, L.P.	2003	2013	\$ 0	\$ 92,798	\$ 0	13.94	1.71	\$ 161,089	1.71	NO
TPG Partners V, L.P.	2006	2013	\$ 0	\$ 125,215	\$ 0	(7.73)	0.72	\$ 90,366	0.72	NO
TPG Partners VI, L.P.	2008	2013	\$ 0	\$ 33,034	\$ 0	(6.38)	0.88	\$ 29,522	0.88	NO
Trident VII LP	2017	--	\$ 93,464	\$ 125,000	\$ 39,563	10.10	1.09	\$ 3,431	0.04	Observer
Tudor Ventures III, L.P.	2006	--	\$ 1,398	\$ 30,000	\$ 94	3.29	1.20	\$ 29,996	1.15	YES
Venture First II, L.P.	1988	2004	\$ 0	\$ 3,000	\$ 0	(15.61)	0.23	\$ 694	0.23	NO
Vista Equity Partners Fund IV, L.P.	2011	--	\$ 36,429	\$ 49,408	\$ 8,507	18.09	2.16	\$ 59,925	1.34	NO
Warburg Pincus Private Equity IX, L.P.	2005	2013	\$ 0	\$ 50,000	\$ 0	4.20	1.20	\$ 60,538	1.20	NO
Warburg Pincus Private Equity X - 10	2007	2013	\$ 0	\$ 22,800	\$ 0	(2.09)	0.95	\$ 21,860	0.95	YES
Warburg Pincus Private Equity X - 40	2007	2013	\$ 0	\$ 66,950	\$ 0	(2.77)	0.93	\$ 62,169	0.93	YES
Warburg Pincus Private Equity X - 50	2007	2013	\$ 0	\$ 88,875	\$ 0	(2.44)	0.94	\$ 84,177	0.94	YES
Warburg Pincus Private Equity XI, L.P.	2012	--	\$ 134,565	\$ 150,000	\$ 0	14.07	1.61	\$ 109,023	0.72	Observer
Warburg Pincus Private Equity XII, L.P.	2015	--	\$ 152,165	\$ 175,000	\$ 38,238	9.92	1.17	\$ 8,121	0.06	Yes
WLR AGO Co-Inv, L.P.	2008	2014	\$ 0	\$ 7,162	\$ 0	5.15	1.29	\$ 9,466	1.29	N/A
WLR AHM Co-Inv, L.P.	2007	2015	\$ 0	\$ 28,634	\$ 0	11.81	1.65	\$ 47,447	1.65	YES
WLR Recovery Fund IV, L.P.	2007	--	\$ 11,327	\$ 200,000	\$ 19,131	7.43	1.35	\$ 233,667	1.29	YES
Stock Distribution	2002	--	\$ 16,146	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AIP Cash			\$ (2)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Private Equity			\$ 5,457,524	\$ 11,641,752	\$ 2,220,969	8.65	1.40	\$ 8,507,410	0.85	

Methodology and Notes:

- Dollar values in Thousands

- Returns are calculated using the Internal Rate of Return (IRR) methodology. The IRR is the discount rate where the sum of the discounted cash flows and the discounted valuation is equal to zero. Returns are reported net of fees.

- Total Value to Paid-In (TVPI), also known as the Investment Multiple, is the ratio of cumulative distributions plus the valuation to cumulative paid-in.

- Distributions to Paid-In (DPI), also known as the Realization Multiple, is the ratio of cumulative distributions to cumulative paid-in.

- The advisory board column is an indication of NCRS participation on the Fund's advisory board. N/A indicates that the Fund has no advisory board.

NCRS Non-Core Real Estate Portfolio
June 30, 2019

Fund	Vintage	Liquidated	Market Value	Commitment	Unfunded	IRR	TVPI	Distributions	DPI	Advisory Board
AG Asia Realty Fund II, L.P.	2010	--	\$ 1,193	\$ 25,000	\$ 5,592	20.45	1.82	\$ 34,199	1.75	YES
AG Asia Realty Fund III LP	2016	--	\$ 86,354	\$ 100,000	\$ 12,393	15.43	1.27	\$ 36,458	0.38	YES
AG Core Plus Realty Fund I, L.P.	2003	2018	\$ 0	\$ 71,250	\$ 0	17.53	1.52	\$ 108,278	1.52	YES
AG Core Plus Realty Fund II, L.P.	2006	--	\$ 2,723	\$ 100,000	\$ 5,500	8.18	1.33	\$ 123,462	1.30	YES
AG Net Lease Realty Fund II, L.P.	2010	--	\$ 89,143	\$ 100,000	\$ 3,000	9.07	1.67	\$ 71,765	0.75	YES
AG Net Lease Realty Fund III, L.P.	2013	--	\$ 95,656	\$ 100,000	\$ 4,000	6.80	1.18	\$ 17,459	0.18	YES
American Value Partners Fund I, L.P.	2006	--	\$ 4,621	\$ 50,000	\$ 12,531	0.39	1.02	\$ 33,698	0.90	YES
Benson Elliot Real Estate Partners II, L.P.	2006	--	\$ 8,077	\$ 56,940	\$ 9,267	(7.31)	0.56	\$ 23,972	0.42	YES
Benson Elliot Real Estate Partners III, L.P.	2008	--	\$ 21,444	\$ 56,940	\$ 9,247	9.49	1.33	\$ 51,790	0.94	YES
Blackstone Real Estate Partners Europe IV, L.P.	2013	--	\$ 129,284	\$ 250,000	\$ 48,536	16.76	1.57	\$ 213,307	0.98	YES
Blackstone Real Estate Partners Europe V, L.P.	2016	--	\$ 140,275	\$ 200,000	\$ 81,618	15.18	1.15	\$ 4,293	0.03	YES
Blackstone Real Estate Partners V, L.P.	2006	--	\$ 7,397	\$ 91,413	\$ 4,061	10.30	2.03	\$ 186,204	1.95	NO
Blackstone Real Estate Partners VI, L.P.	2007	--	\$ 18,046	\$ 200,000	\$ 9,816	13.04	2.06	\$ 409,951	1.97	YES
Blackstone Real Estate Partners VII, L.P.	2011	--	\$ 175,084	\$ 300,000	\$ 41,987	17.19	1.86	\$ 343,220	1.23	YES
Blackstone Real Estate Partners VIII, L.P.	2015	--	\$ 167,528	\$ 200,000	\$ 67,676	15.85	1.25	\$ 60,984	0.33	YES
Blackstone Real Estate Partners IX LP	2018	--	\$ 0	\$ 300,000	\$ 300,000	0	0	\$ 0	0	YES
Brookfield Real Estate Finance Fund III, L.P.	2011	2019	\$ 0	\$ 73,891	\$ 0	7.14	1.15	\$ 85,652	1.15	YES
CB Richard Ellis Strategic Partners US IV, L.P.	2005	2017	\$ 0	\$ 150,000	\$ 0	(33.41)	0.04	\$ 6,409	0.04	YES
CB Richard Ellis Strategic Partners US V, L.P.	2007	--	\$ 21,309	\$ 100,000	\$ 5,297	5.51	1.40	\$ 111,369	1.18	YES
Cherokee Investment Partners III, L.P.	2002	--	\$ 268	\$ 50,000	\$ 1,848	(33.37)	0.27	\$ 12,800	0.27	YES
Cherokee Investment Partners IV, L.P.	2005	--	\$ 9,745	\$ 50,358	\$ 5,345	(11.76)	0.46	\$ 10,831	0.24	YES
CrossHarbor Institutional Partners, L.P.	2006	2019	\$ 0	\$ 43,858	\$ 0	6.13	1.55	\$ 68,609	1.55	YES
CrossHarbor Institutional Partners II, L.P.	2010	--	\$ 16,187	\$ 106,000	\$ 6,235	12.54	1.50	\$ 133,626	1.34	YES
Crow Holdings Realty Partners IV, L.P.	2006	--	\$ 325	\$ 80,000	\$ 6,451	1.68	1.10	\$ 85,040	1.10	YES
Crow Holdings Realty Partners IV-A, L.P.	2006	--	\$ 37	\$ 20,000	\$ 1,613	1.57	1.10	\$ 21,121	1.10	YES
Crow Holdings Realty Partners V, L.P.	2008	2018	\$ 0	\$ 92,279	\$ 0	15.01	1.50	\$ 152,591	1.50	YES
Crow Holdings Realty Partners VI, L.P.	2012	--	\$ 26,258	\$ 85,000	\$ 7,688	11.57	1.39	\$ 88,848	1.07	YES
Crow Holdings Realty Partners VII, L.P.	2015	--	\$ 67,460	\$ 100,000	\$ 10,209	13.95	1.29	\$ 54,372	0.58	YES
Crow Holdings Retail Fund II, L.P.	2016	--	\$ 56,501	\$ 100,000	\$ 43,197	3.63	1.03	\$ 3,581	0.06	YES
DB Real Estate Global Opps I-A/I-B, L.P.	2003	--	\$ 213	\$ 152,061	\$ 0	18.37	1.32	\$ 200,752	1.32	YES
DLJ Real Estate Capital Partners I, L.P. (Closed)	1995	2010	\$ 0	\$ 23,667	\$ 0	10.67	1.47	\$ 38,279	1.47	YES
DLJ Real Estate Capital Partners II, L.P.	2000	2015	\$ 0	\$ 47,347	\$ 0	14.22	1.47	\$ 77,480	1.47	YES
DLJ Real Estate Capital Partners III, L.P.	2005	--	\$ 48,005	\$ 150,000	\$ 8,063	(1.54)	0.88	\$ 89,763	0.58	YES
DLJ Real Estate Capital Partners IV, L.P.	2007	--	\$ 83,472	\$ 100,000	\$ 4,286	4.61	1.33	\$ 57,637	0.54	YES
DRA Growth & Income Fund III, LLC	2000	2014	\$ 0	\$ 25,000	\$ 0	22.98	2.78	\$ 70,008	2.78	YES
DRA Growth & Income Fund IV, LLC	2002	2015	\$ 0	\$ 50,000	\$ 0	12.13	1.63	\$ 86,986	1.63	YES
DRA Growth & Income Fund V, LLC	2005	2018	\$ 0	\$ 100,000	\$ 0	5.24	1.46	\$ 155,532	1.46	YES
DRA Growth & Income Fund V Co-Investment, LLC	2005	2018	\$ 0	\$ 24,927	\$ 0	10.26	1.99	\$ 52,023	1.99	YES
DRA Growth & Income Fund VI, LLC	2007	--	\$ 1,804	\$ 34,480	\$ 0	9.56	1.59	\$ 55,112	1.54	YES
DRA Growth & Income Fund VII, LLC	2011	--	\$ 62,925	\$ 149,310	\$ 0	20.22	1.97	\$ 307,471	1.86	YES
DRA Growth & Income Fund VIII, LLC	2013	--	\$ 117,241	\$ 146,248	\$ 5,889	12.72	1.32	\$ 94,423	0.59	YES
Frogmore Real Estate Partners I, L.P.	2005	--	\$ 1,282	\$ 30,672	\$ 34	(4.96)	0.65	\$ 27,941	0.62	NO
Frogmore Real Estate Partners II, L.P.	2008	--	\$ 2,021	\$ 31,818	\$ 2,139	12.89	1.39	\$ 49,699	1.34	YES
Frogmore Real Estate Partners III, L.P.	2014	--	\$ 33,704	\$ 61,344	\$ 8,660	(4.87)	0.88	\$ 17,890	0.31	YES
Harrison St. RE Partners III, L.P.	2010	--	\$ 2,800	\$ 60,000	\$ 9,805	20.38	1.83	\$ 90,090	1.77	YES
Harrison St. RE Partners IV, L.P.	2013	--	\$ 45,548	\$ 100,000	\$ 24,536	13.35	1.64	\$ 77,863	1.03	YES
Harrison St. RE Partners V Co-Investment, L.P.	2014	--	\$ 60,708	\$ 50,000	\$ 2,653	13.41	1.48	\$ 15,735	0.31	YES
Harrison St. RE Partners V, L.P.	2014	--	\$ 85,229	\$ 100,000	\$ 13,457	12.01	1.33	\$ 40,510	0.43	YES
Harrison St. RE Partners VI, L.P.	2016	--	\$ 87,660	\$ 100,000	\$ 18,317	7.67	1.09	\$ 3,988	0.05	YES
Harrison Street Real Estate Partners VI Co-Investment LP	2016	--	\$ 42,132	\$ 50,000	\$ 12,962	17.61	1.25	\$ 17,911	0.37	YES
Harrison Street Real Estate Partners VI Co-Investment 3 LP	2018	--	\$ 47,711	\$ 50,000	\$ 3,991	4.55	1.04	\$ 0	0	YES
Hawkeye (Scout) Fund I-A, L.P.	2006	--	\$ 308	\$ 49,918	\$ 0	15.05	1.53	\$ 79,102	1.52	YES
Hawkeye (Scout) Fund II, L.P.	2012	--	\$ 99,608	\$ 100,000	\$ 7,900	5.13	1.10	\$ 4,409	0.05	YES
JER Real Estate Partners Fund III, L.P.	2003	2016	\$ 0	\$ 68,036	\$ 0	4.20	1.17	\$ 86,724	1.17	YES
JER Real Estate Partners IV, L.P.	2006	2015	\$ 0	\$ 30,219	\$ 0	(4.97)	0.46	\$ 14,009	0.46	YES
Keystone Industrial Fund I, L.P.	2005	2017	\$ 0	\$ 95,041	\$ 0	4.01	1.27	\$ 135,670	1.27	YES
Keystone Industrial Fund II, L.P.	2008	2017	\$ 0	\$ 137,935	\$ 0	26.94	2.24	\$ 309,029	2.24	YES
Keystone Industrial Fund III, L.P.	2013	2017	\$ 0	\$ 46,871	\$ 0	39.97	1.59	\$ 74,536	1.59	YES
LaSalle Real Estate Debt Strategies II, L.P.	2014	--	\$ 19,152	\$ 79,544	\$ 22,544	2.44	1.05	\$ 56,348	0.78	YES
LEM Real Estate Mezzanine Fund II, L.P.	2006	--	\$ 560	\$ 50,000	\$ 30,335	3.16	1.29	\$ 26,867	1.26	YES
Lone Star Real Estate Partners II	2010	--	\$ 12,405	\$ 300,000	\$ 34,171	25.95	1.55	\$ 402,489	1.50	YES
Meadow Real Estate Fund II, L.P.	2012	--	\$ 17,149	\$ 60,000	\$ 3,051	17.81	1.63	\$ 79,476	1.34	YES
Meadow Real Estate Fund III, L.P.	2014	--	\$ 108,559	\$ 100,000	\$ 20,578	8.08	1.29	\$ 20,605	0.21	YES
Meadow Real Estate Fund IV, L.P.	2016	--	\$ 60,345	\$ 75,000	\$ 20,441	8.47	1.11	\$ 0	0	YES
Mesa West Real Estate Income Fund III, L.P.	2013	--	\$ 11,179	\$ 100,000	\$ 94,737	8.96	1.29	\$ 86,977	1.14	YES
North Haven Real Estate Fund V International	2005	--	\$ 4,773	\$ 110,000	\$ 200	5.12	1.15	\$ 128,555	1.11	YES
Morgan Stanley Real Estate Fund VI, L.P.	2007	--	\$ 13,517	\$ 440,000	\$ 0	(13.27)	0.32	\$ 132,104	0.29	YES
NorthCreek Fund, L.P.	2011	--	\$ 6,780	\$ 205,000	\$ 0	21.36	3.04	\$ 616,383	3.01	YES
NorthRock Fund II, L.P.	2012	2017	\$ 0	\$ 363,980	\$ 0	22.23	1.53	\$ 630,012	1.53	YES
NorthRock Fund III, L.P.	2015	--	\$ 362,439	\$ 400,000	\$ 67,264	4.29	1.09	\$ 0	0	YES
Paladin Latin American Partners III, L.P.	2008	--	\$ 4,888	\$ 50,000	\$ 0	(25.69)	0.26	\$ 7,888	0.16	YES
Patria Brazil Real Estate Fund II	2010	--	\$ 13,819	\$ 50,000	\$ 15,657	(3.09)	0.89	\$ 17,110	0.49	YES
Penwood CSIP I, L.P.	2005	2018	\$ 0	\$ 50,000	\$ 0	(3.57)	0.76	\$ 37,893	0.76	YES
Penwood PSIP II, L.P.	2007	2017	\$ 0	\$ 85,455	\$ 0	24.29	2.10	\$ 179,968	2.10	YES
RLJ Lodging Fund I, L.P. (Closed)	2004	2008	\$ 0	\$ 50,000	\$ 0	52.87	1.99	\$ 99,306	1.99	YES
Rockpoint NYC CIP Investors, L.P.	2013	2017	\$ 0	\$ 78,320	\$ 0	40.02	1.43	\$ 112,211	1.43	YES
Rockpoint Real Estate Fund I, L.P.	2004	2017	\$ 0	\$ 90,524	\$ 0	12.03	1.25	\$ 119,396	1.25	YES
Rockpoint Real Estate Fund II, L.P.	2005	--	\$ 5,410	\$ 135,787	\$ 0	(2.44)	0.86	\$ 120,947	0.82	YES
Rockpoint Real Estate Fund III, L.P.	2007	--	\$ 5,148	\$ 100,000	\$ 8,482	13.84	1.39	\$ 128,873	1.34	YES
Rockpoint Real Estate Fund IV, L.P.	2011	--	\$ 32,210	\$ 84,916	\$ 7,389	15.20	1.39	\$ 84,459	1.00	YES
Rockpoint Real Estate Fund V Side Car, L.P.	2014	2019	\$ 0	\$ 0	\$ 0	0	0	\$ 0	0	YES
Rockpoint Real Estate Fund V, L.P.	2014	--	\$ 84,183	\$ 100,000	\$ 26,125	14.64	1.18	\$ 18,558	0.21	YES
Rockwood Capital Real Estate Partners Fund VI, L.P	2005	--	\$ 379	\$ 83,855	\$ 0	1.60	1.11	\$ 91,849	1.11	YES
Rockwood Capital Real Estate Partners Fund VII, L.P.	2006	--	\$ 21,203	\$ 125,000	\$ 0	(3.49)	0.73	\$ 69,402	0.56	YES

NCRS Non-Core Real Estate Portfolio
June 30, 2019

Fund	Vintage	Liquidated	Market Value	Commitment	Unfunded	IRR	TVPI	Distributions	DPI	Advisory Board
Rockwood Capital Real Estate Partners Fund VIII, L.P.	2008	--	\$ 230	\$ 45,754	\$ 0	18.91	1.63	\$ 75,281	1.63	YES
Rockwood Capital Real Estate Partners Fund IX, L.P.	2012	--	\$ 17,511	\$ 50,000	\$ 4,295	11.36	1.36	\$ 44,537	0.97	YES
Rockwood Capital Real Estate Partners Fund IX CIV, L.P.	2015	2016	\$ 0	\$ 0	\$ 0	0	0	\$ 0	0	YES
Rockwood Capital Real Estate Partners Fund X Side Car, L.P.	2015	--	\$ 51,434	\$ 50,000	\$ 2,193	5.82	1.10	\$ 1,000	0.02	YES
Rockwood Capital Real Estate Partners X, L.P.	2015	--	\$ 73,188	\$ 100,000	\$ 27,839	4.39	1.07	\$ 5,201	0.07	YES
Rockwood Development Partners	2016	--	\$ 221,713	\$ 250,000	\$ 63,433	16.13	1.19	\$ 0	0.00	YES
RREEF Global Opportunities Fund II, LLC	2005	--	\$ 1,448	\$ 200,000	\$ 0	(8.68)	0.55	\$ 109,654	0.54	YES
Sentinel Realty Partners V (Closed)	1998	2009	\$ 0	\$ 50,000	\$ 0	7.52	1.73	\$ 86,401	1.73	N/A
SRI Seven REIT	2004	--	\$ 125	\$ 75,000	\$ 2,419	7.61	1.56	\$ 113,300	1.56	YES
SRI Eight REIT	2006	--	\$ 66,305	\$ 100,000	\$ 4,650	(0.94)	0.92	\$ 21,385	0.22	YES
SRI Nine REIT	2007	--	\$ 5,740	\$ 65,909	\$ 3,944	9.52	1.44	\$ 83,712	1.34	YES
SRI Ten REIT	2011	--	\$ 35,626	\$ 100,000	\$ 22,586	15.65	1.62	\$ 89,837	1.16	YES
Starwood Opportunity Fund VII, L.P.	2005	--	\$ 11,176	\$ 150,000	\$ 0	(2.89)	0.77	\$ 104,598	0.69	YES
Starwood SDL/SOF Co-Investment	2005	--	\$ 2,803	\$ 50,779	\$ 0	7.98	1.89	\$ 93,047	1.83	YES
Terra Firma Deutsche Annington, L.P. (Non-Core)	2005	2014	\$ 0	\$ 52,570	\$ 0	8.58	1.73	\$ 103,647	1.73	N/A
Value Enhancement Fund II	1996	2016	\$ 0	\$ 25,000	\$ 0	5.05	1.38	\$ 36,711	1.38	N/A
Value Enhancement Fund III, LLC (Closed)	1998	2008	\$ 0	\$ 25,000	\$ 0	14.03	1.66	\$ 43,225	1.66	N/A
Value Enhancement Fund IV, L.P.	1999	2014	\$ 0	\$ 100,000	\$ 0	(0.19)	0.94	\$ 98,188	0.94	N/A
Warburg Pincus Real Estate I, L.P.	2006	--	\$ 2,211	\$ 95,833	\$ 0	7.43	1.62	\$ 152,726	1.59	YES
WCP Real Estate Fund III(A), L.P.	2011	--	\$ 57,204	\$ 100,000	\$ 7,040	9.39	1.56	\$ 88,169	0.95	YES
Westbrook Real Estate Fund I, L.P.	1995	2014	\$ 0	\$ 10,000	\$ 0	26.06	2.16	\$ 23,462	2.16	YES
Westbrook Real Estate Fund II, L.P.	1997	2013	\$ 0	\$ 50,000	\$ 0	12.92	1.48	\$ 79,872	1.48	YES
Westbrook Real Estate Fund III, L.P.	1998	2014	\$ 0	\$ 96,373	\$ 0	8.18	1.34	\$ 137,468	1.34	YES
Westbrook Real Estate Fund IV, L.P.	2000	2015	\$ 0	\$ 89,645	\$ 0	20.62	1.66	\$ 157,652	1.66	YES
Total			\$ 3,298,098	\$ 10,717,066	\$ 1,315,171	6.73	1.32	\$ 9,901,206	1.00	

Methodology and Notes:

- Dollar values in Thousands

- Returns are calculated using the Internal Rate of Return (IRR) methodology. The IRR is the discount rate where the sum of the discounted cash flows and the discounted valuation is equal to zero. Returns are reported net of fees.

- Total Value to Paid-In (TVPI), also known as the Investment Multiple, is the ratio of cumulative distributions plus the valuation to cumulative paid-in.

- Distributions to Paid-In (DPI), also known as the Realization Multiple, is the ratio of cumulative distributions to cumulative paid-in.

- The advisory board column is an indication of NCRS participation on the Fund's advisory board, N/A indicates that the Fund has no advisory board.

NCRS Opportunistic Fixed Income Portfolio

June 30, 2019

Fund	Vintage	Liquidated	Market Value	Commitment	Unfunded	IRR	TVPI	Distributions	DPI	Advisory Board
AG Capital Recovery Partners V, L.P.	2005	--	\$ 48	\$ 23,375	\$ 0	2.87	1.13	\$ 26,378	1.13	YES
AG Capital Recovery Partners VI, L.P.	2008	--	\$ 29	\$ 200,000	\$ 0	6.99	1.38	\$ 284,630	1.38	YES
AG Commercial Real Estate Debt Fund, L.P.	2008	2017	\$ 0	\$ 73,214	\$ 0	3.62	1.18	\$ 88,309	1.18	N/A
AG GECC Public-Private Investment Fund (PPIP)	2010	2014	\$ 0	\$ 180,000	\$ 0	20.13	1.54	\$ 278,165	1.54	N/A
AG Global Debt Strategy Partners, L.P.	2008	--	\$ 565,417	\$ 279,915	\$ 0	9.37	2.04	\$ 5,399	0.02	YES
AG Pishgah, L.P.	2016	--	\$ 570,103	\$ 400,000	\$ 0	12.25	1.43	\$ 0	0	YES
AG TALF Partners, L.P.	2009	2011	\$ 0	\$ 73,214	\$ 0	22.42	1.32	\$ 96,608	1.32	N/A
Anchorage Capital Partners	2011	--	\$ 538,465	\$ 350,000	\$ 0	5.48	1.54	\$ 0	0	NO
Benefit Street Partners Capital Opportunity Fund, L.P.	2013	--	\$ 143,342	\$ 150,000	\$ 8,890	8.58	1.37	\$ 57,706	0.39	YES
Benefit Street Partners Capital Opportunity Fund II LP	2016	--	\$ 140,999	\$ 150,000	\$ 8,286	5.81	1.09	\$ 17,262	0.12	YES
Benefit Street Partners Debt Funds IV LP	2016	--	\$ 149,465	\$ 250,000	\$ 100,192	6.08	1.09	\$ 18,207	0.12	YES
Brigade LCS Fund	2011	--	\$ 266,890	\$ 330,000	\$ 0	4.22	1.37	\$ 185,242	0.56	NO
Brightwood Capital Fund III, L.P.	2014	--	\$ 66,179	\$ 100,000	\$ 20,000	6.09	1.22	\$ 33,302	0.41	YES
Centerbridge Special Credit Partners III	2016	--	\$ 83,405	\$ 350,000	\$ 275,655	6.18	1.10	\$ 14,906	0.17	YES
Citadel Residential Mortgage Opportunities Fund, LLC	2011	2011	\$ 0	\$ 119,072	\$ 0	(2.37)	0.99	\$ 122,558	0.99	N/A
Claren Road Credit Fund, Ltd.	2011	--	\$ 0	\$ 260,000	\$ 0	(0.29)	0.99	\$ 258,008	0.99	YES
Claren Road Credit Opportunities Partners, L.P.	2013	--	\$ 0	\$ 231,840	\$ 0	(13.13)	0.71	\$ 166,011	0.71	YES
CVI Credit Value Fund	2010	--	\$ 8,900	\$ 150,000	\$ 7,500	13.10	1.70	\$ 248,451	1.65	YES
CVI Credit Value Fund II	2013	--	\$ 37,300	\$ 200,000	\$ 10,000	9.14	1.46	\$ 241,780	1.27	YES
CVI Credit Value Fund III	2015	--	\$ 82,100	\$ 100,000	\$ 5,000	9.77	1.27	\$ 38,633	0.41	YES
Fortress Credit Opportunities Fund III (A)	2012	--	\$ 26,707	\$ 75,000	\$ 10,256	10.70	1.44	\$ 67,765	1.04	YES
GSO Capital Opportunities Fund	2007	--	\$ 2,220	\$ 133,652	\$ 8,265	16.96	1.65	\$ 256,575	1.64	YES
GSO Capital Opportunities Fund II, L.P.	2011	--	\$ 35,725	\$ 99,313	\$ 26,204	12.19	1.33	\$ 78,759	0.92	YES
GSO Capital Solutions Fund II, L.P.	2013	--	\$ 21,387	\$ 84,667	\$ 35,246	9.20	1.15	\$ 46,015	0.79	YES
HC NCBR	2017	--	\$ 256,200	\$ 226,636	\$ 0	8.18	1.13	\$ 0	0	NO
Highbridge Irish Specialty Loan Fund III plc	2013	--	\$ 35,232	\$ 150,000	\$ 9,324	6.65	1.21	\$ 166,635	1.00	YES
Highbridge Principle Strategies Kitty Hawk Credit Fund LP	2016	--	\$ 155,385	\$ 200,000	\$ 44,865	6.99	1.07	\$ 106,715	0.43	YES
Highbridge Specialty Loan Fund 2016 LP	2016	--	\$ 153,797	\$ 200,000	\$ 48,327	15.35	1.08	\$ 52,101	0.27	YES
HPS Cardinal Fund LP Series A	2016	--	\$ 308,536	\$ 425,000	\$ 100,075	4.53	1.08	\$ 53,142	0.16	YES
HPS Cardinal Fund LP Series B	2017	--	\$ 53,906	\$ 0	\$ 0	10.50	1.18	\$ 8,544	0.16	YES
Magnetar Constellation Fund IV LLC	2013	--	\$ 44,329	\$ 100,000	\$ 0	7.04	1.31	\$ 87,759	0.88	YES
Marathon Currituck Fund, LP	2014	--	\$ 522,585	\$ 453,000	\$ 18,752	4.14	1.21	\$ 5,739	0.01	NO
Marathon Currituck Series D	2016	--	\$ 26,073	\$ 100,000	\$ 79,793	7.99	1.08	\$ 54,793	0.73	NO
MCP Private Capital Fund II	2014	--	\$ 52,339	\$ 68,328	\$ 17,477	11.31	1.31	\$ 21,881	0.39	YES
Monarch Debt Recovery Fund	2011	--	\$ 542,000	\$ 380,000	\$ 0	4.84	1.43	\$ 1,840	0.00	NO
Oaktree Value Opportunities Fund, L.P.	2011	--	\$ 110,683	\$ 190,000	\$ 0	3.47	1.22	\$ 122,613	0.64	NO
PAAMCO - Newport Burgundy	2010	--	\$ 430,465	\$ 950,000	\$ 0	2.78	1.17	\$ 676,636	0.71	YES
Panther BCM	2019	--	\$ 132,493	\$ 131,242	\$ 0	0.95	1.01	\$ 0	0	NO
Providence Debt Fund III, L.P.	2013	--	\$ 148,478	\$ 200,000	\$ 8,495	7.58	1.28	\$ 105,557	0.53	YES
Saba Capital Partners	2011	2015	\$ 0	\$ 150,000	\$ 0	(7.05)	0.79	\$ 119,737	0.79	N/A
Silverback Arbitrage Fund	2012	--	\$ 53,730	\$ 155,000	\$ 0	(0.30)	0.98	\$ 98,808	0.64	NO
Varde Fund X	2011	--	\$ 30,730	\$ 100,000	\$ 0	12.04	1.84	\$ 153,344	1.53	YES
WLR IV PPIP Co-Invest	2010	--	\$ 7,626	\$ 150,000	\$ 4,305	14.89	1.40	\$ 197,028	1.35	YES
Total Opportunistic Fixed Income			\$ 5,803,272	\$ 8,692,470	\$ 846,909	6.04	1.27	\$ 4,663,544	0.57	

Methodology and Notes:

- Dollar values in Thousands

- Returns are calculated using the Internal Rate of Return (IRR) methodology. The IRR is the discount rate where the sum of the discounted cash flows and the discounted valuation is equal to zero. Returns are reported net of fees.

- Total Value to Paid-In (TVPI), also known as the Investment Multiple, is the ratio of cumulative distributions plus the valuation to cumulative paid-in.

- Distributions to Paid-In (DPI), also known as the Realization Multiple, is the ratio of cumulative distributions to cumulative paid-in.

- The advisory board column is an indication of NCRS participation on the Fund's advisory board. N/A indicates that the Fund has no advisory board.

NCRS Rates and Liquidity Portfolio

June 30, 2019

Fund	Inception	Market Value	Returns					
			1 Yr	3 Yr	5 Yr	10 Yr	15 Yr	20 Yr
Core IG Fixed Income	1997	\$ 26,967,154	9.7	2.8	3.7	5.3	5.5	6.1
<i>Core Fixed Income Benchmark</i>			10.0	2.7	3.9	5.3	5.3	5.9
IG Fixed Income Cash	2014	\$ 3,080,343	1.9	1.4	1.1	-	-	-
<i>IG Fixed Income Cash Benchmark</i>			2.2	1.3	0.8	-	-	-
Pension Cash	2013	\$ 3,121,454	2.3	1.5	1.2	-	-	-
<i>Pension Cash Benchmark</i>			2.2	1.3	0.8	-	-	-
Total		\$ 33,168,952	8.2	2.5	3.3	5.1	5.4	6.0
<i>Rates & Liquidity Benchmark</i>			9.0	2.5	3.5	5.1	5.2	5.8

Methodology and Notes:

- Dollar values in Thousands

- Returns are calculated using a Modified Dietz time weighted rate of return methodology. This method uses the beginning and ending valuation for the measurement period, and weights each cash flow by the amount of time it is invested. Returns are reported net of fees.

- The Core Fixed Income Benchmark consists of 30% Gov't 5+yr / 35% Corp. (Inv. Grade - BBB Max 25%) 5+yr / 35% Mtg. Master.

- The IG Fixed Income Cash Benchmark is the iMoneyNet First Tier Institutional Money Market Funds Net Index.

- The Rates & Liquidity Benchmark is a blend of the IG Fixed Income Benchmark and the Pension Cash Benchmark at policy weights. The IG Fixed Income Benchmark is a blend of the Core Fixed Income Benchmark and the IG Fixed Income Cash Benchmark using the following weights: 10% IG Fixed Income Cash Benchmark and 90% Core Fixed Income Benchmark.

NCRS Inflation Sensitive Portfolio

June 30, 2019

Fund	Vintage	Liquidated	Market Value	Commitment	Unfunded	IRR	TVPI	Distribution	DPI	Advisory Board
ArcLight Energy Partners Fund V, L.P.	2011	--	\$ 37,469	\$ 100,000	\$ 14,907	8.78	1.39	\$ 80,512	0.95	YES
ArcLight Shore Co-Investments Holdings II, LLC	2013	2015	\$ 0	\$ 8,487	\$ 0	8.39	1.11	\$ 9,869	1.11	N/A
BlackRock TIPS Index	2015	--	\$ 57,840	\$ 500,000	\$ 0	1.19	1.02	\$ 450,000	0.90	N/A
Blackstone Energy Partners, LP	2012	--	\$ 89,821	\$ 100,000	\$ 9,457	14.19	1.69	\$ 75,914	0.77	YES
Blackstone Energy Partners II, L.P.	2014	--	\$ 88,918	\$ 100,000	\$ 27,884	14.23	1.16	\$ 5,979	0.07	YES
Blackstone Granite Fund - Class A - Resources Select	2011	2018	\$ 0	\$ 500,000	\$ 0	(7.87)	0.59	\$ 293,120	0.59	N/A
Blackstone Granite Fund - Class B - Commodity Pod	2014	2018	\$ 0	\$ 200,000	\$ 0	(1.30)	0.96	\$ 191,217	0.96	N/A
Blackstone Granite Fund - Class C - Opportunistic Commodity	2014	2017	\$ 0	\$ 38,179	\$ 0	(62.14)	0.50	\$ 18,914	0.50	N/A
Bayview Opportunity Offshore Fund IVb LP	2014	--	\$ 125,993	\$ 400,000	\$ 97,252	14.89	1.51	\$ 335,777	1.10	NO
Blackstone SP NCRASMA	2014	--	\$ 207,436	\$ 409,811	\$ 157,318	15.52	1.33	\$ 207,466	0.66	Observer
Blackstone SP NCRASMA (Overage)	2015	--	\$ 36,700	\$ 83,831	\$ 19,886	12.28	1.30	\$ 50,912	0.76	N/A
Brookfield Infrastructure Fund II-B, L.P.	2013	--	\$ 214,552	\$ 200,000	\$ 21,350	8.94	1.37	\$ 49,240	0.26	YES
Campbell Timber Fund III, LLC	2006	--	\$ 714,394	\$ 796,878	\$ 0	(0.41)	0.97	\$ 54,600	0.07	YES
Capital Dynamics US Solar Energy, LP	2012	2016	\$ 0	\$ 22,421	\$ 0	10.28	1.23	\$ 28,112	1.23	YES
Credit Suisse Enhanced	2011	2017	\$ 0	\$ 500,000	\$ 0	(13.73)	0.53	\$ 263,514	0.53	N/A
Denham Commodity Partners Fund VI LP	2012	--	\$ 57,370	\$ 75,000	\$ 5,370	6.08	1.16	\$ 39,266	0.47	NO
DCPF VI Oil and Gas Co-Inv Fund	2013	--	\$ 39,143	\$ 50,000	\$ 9,535	17.28	1.61	\$ 30,127	0.70	YES
DL Blue Diamond Fund	2016	--	\$ 791,618	\$ 725,000	\$ 0	4.80	1.09	\$ 0	0	N/A
EIF United States Power Fund IV, L.P.	2011	--	\$ 70,762	\$ 75,000	\$ 2,679	5.43	1.25	\$ 19,169	0.27	YES
EIG Energy Fund XVI, L.P.	2013	--	\$ 174,558	\$ 250,000	\$ 76,606	7.64	1.20	\$ 100,370	0.44	YES
EIG Energy Fund XVII LP	2019	--	\$ 97,035	\$ 300,000	\$ 202,965	(9.50)	0.91	\$ 13,965	0.11	YES
EnCap Energy Capital Fund VIII Co-Investors, L.P.	2011	--	\$ 10,460	\$ 29,815	\$ 0	(13.57)	0.54	\$ 5,982	0.20	N/A
EnCap Energy Capital Fund VIII, LP	2011	--	\$ 16,325	\$ 50,000	\$ 2,401	(4.06)	0.87	\$ 26,735	0.54	NO
EnCap Energy Capital Fund X, L.P.	2015	--	\$ 105,841	\$ 123,000	\$ 27,171	10.80	1.22	\$ 20,177	0.19	Observer
Energy Capital Partners II (Summit Co-Invest), LP	2011	--	\$ 6,150	\$ 26,897	\$ (98)	(6.85)	0.74	\$ 13,931	0.52	N/A
Energy Capital Partners II, LP	2010	--	\$ 6,191	\$ 50,000	\$ 14,875	10.82	1.53	\$ 50,572	1.36	YES
Energy Capital Partners III, LP	2014	--	\$ 90,355	\$ 101,668	\$ 16,730	12.45	1.31	\$ 30,721	0.33	YES
Gresham TAP Flex	2010	--	\$ 207,837	\$ 800,000	\$ 0	(8.00)	0.57	\$ 250,000	0.31	N/A
GSO Bakken Holdings I LP	2013	--	\$ 9,619	\$ 15,000	\$ 1,610	(1.70)	0.91	\$ 3,167	0.23	N/A
GSO Energy Partners - B LP	2013	--	\$ 170,685	\$ 250,000	\$ 98,557	4.59	1.10	\$ 39,241	0.21	N/A
GSO Foreland Resources Co-Invest LP	2012	2014	\$ 0	\$ 11,670	\$ 0	28.23	1.32	\$ 15,646	1.32	N/A
IFM Global Infrastructure Fund, L.P.	2013	--	\$ 356,467	\$ 300,000	\$ 0	11.34	1.45	\$ 126,497	0.38	YES
Intervale Capital II, LP	2012	--	\$ 41,750	\$ 51,429	\$ 11,109	0.97	1.05	\$ 3,769	0.09	YES
Intervale Capital III, LP	2014	--	\$ 47,338	\$ 60,000	\$ 13,787	0.81	1.03	\$ 5,688	0.11	YES
Jade Real Assets Fund, L.P.	2014	--	\$ 81,917	\$ 150,000	\$ 76,187	11.86	1.28	\$ 106,098	0.72	N/A
NCL Investments, L.P. - RA Series	2014	--	\$ 152,943	\$ 250,000	\$ 101,941	16.44	1.24	\$ 51,370	0.31	N/A
NCL Investments, L.P. - RE Series	2014	--	\$ 51,905	\$ 102,681	\$ 9,296	10.46	1.18	\$ 72,599	0.69	NO
NCL Investments II, L.P. - RA Series	2018	--	\$ 44,883	\$ 250,000	\$ 232,479	911.36	2.56	\$ 0	0	YES
NCL Investments II, L.P. - RE Overflow Series	2018	--	\$ 48,582	\$ 75,000	\$ 38,521	41.66	1.25	\$ 8,632	0.19	YES
NCL Investments II, L.P. - RE Series	2018	--	\$ 29,140	\$ 125,000	\$ 102,385	38.93	1.17	\$ 15,879	0.41	YES
NCL Investments II LP - Outside Opportunities Series B	2019	--	\$ 0	\$ 200,000	\$ 200,000	0	0	\$ 0	0	YES
Lindsay Goldberg III - Formation Energy L.P.	2013	--	\$ 65	\$ 10,000	\$ 4,554	(15.85)	0.46	\$ 2,443	0.45	N/A
MTP Energy Fund LP	2013	--	\$ 142,695	\$ 250,000	\$ 0	(0.58)	0.97	\$ 99,798	0.40	N/A
MTP Energy Opportunities Fund LP	2013	--	\$ 9,095	\$ 75,000	\$ 22,583	1.31	1.05	\$ 46,442	0.88	YES
MTP Energy Opportunities Fund II LLC	2015	--	\$ 241,618	\$ 250,000	\$ 4,061	7.11	1.10	\$ 100,993	0.33	YES
NC Garnet Fund	2016	--	\$ 410,218	\$ 375,000	\$ 0	3.77	1.09	\$ 0	0	N/A
North Star Investment Co-Invest	2013	--	\$ 134,055	\$ 200,000	\$ 31,542	11.04	1.50	\$ 148,888	0.79	N/A
North Star Investment Holdings LLC	2012	--	\$ 128,470	\$ 200,000	\$ 5,268	8.07	1.36	\$ 167,436	0.77	N/A
Perella Weinberg Partners ABV Opportunity Fund III LP	2011	--	\$ 67,776	\$ 150,000	\$ 3,619	4.73	1.20	\$ 117,434	0.76	YES
Quintana Energy I Co-Investment	2007	--	\$ 0	\$ 75,000	\$ 52,885	12.92	1.63	\$ 36,117	1.63	YES
Quintana Energy I, L.P.	2006	--	\$ 16,061	\$ 100,000	\$ 215	(4.96)	0.76	\$ 59,444	0.60	YES
Quintana Energy II Co-Invest	2008	2014	\$ 0	\$ 0	\$ 0	0	0	\$ 0	0	N/A
Quintana Energy Partners II, L.P.	2008	--	\$ 8,879	\$ 86,208	\$ 1,749	(5.69)	0.90	\$ 67,300	0.80	YES
Orion Mine Finance Fund I	2012	--	\$ 54,178	\$ 75,000	\$ 1,799	4.14	1.17	\$ 36,421	0.47	YES
Orion Mine Finance Fund I-A	2014	--	\$ 121,854	\$ 125,737	\$ 7,353	18.55	1.69	\$ 79,009	0.66	YES
RMK Emerging Growth Timberland Fund	1993	2013	\$ 0	\$ 15,000	\$ 0	9.38	2.92	\$ 44,072	2.92	N/A
Sheridan Production Partners I, L.P.	2007	--	\$ 34,084	\$ 116,550	\$ 0	(0.08)	1.00	\$ 82,750	0.71	YES
Sheridan Production Partners II, L.P.	2010	--	\$ 13,846	\$ 165,000	\$ 0	(33.57)	0.15	\$ 11,550	0.07	YES
Timber Investment Resources (Nahela, LLC) Separate	2006	--	\$ 285,177	\$ 200,000	\$ 0	3.42	1.51	\$ 16,459	0.08	YES
Varde Fund XI, L.P.	2014	--	\$ 329,665	\$ 350,000	\$ 0	7.91	1.37	\$ 150,058	0.43	YES
Vermillion Celadon	2011	2013	\$ 0	\$ 300,000	\$ 0	(13.42)	0.76	\$ 228,352	0.76	N/A
Total Inflation			\$ 6,279,734	\$ 11,575,262	\$ 1,727,788	1.35	1.06	\$ 4,659,715	0.45	

Methodology and Notes:

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- Distributions to Paid-In (DPI), also known as the Realization Multiple, is the ratio of cumulative distributions to cumulative paid-in.

- The advisory board column is an indication of NCRS participation on the Fund's advisory board. N/A indicates that the Fund has no advisory board.

NCRS Core Real Estate Portfolio
June 30, 2019

Fund	Vintage	Liquidated	Market Value	Commitment	Unfunded	IRR	TVPI	Distributions	DPI	Advisory Board
BlackRock Developed	2016	--	\$ 400,808	\$ 312,446	\$ 0	7.76	1.28	\$ 0	0	N/A
Blackstone NC Property Partners, L.P.	2014	--	\$ 151,444	\$ 200,000	\$ 18,123	2.59	1.08	\$ 50,047	0.27	YES
Blackstone Property Partners, L.P.	2014	--	\$ 435,429	\$ 302,674	\$ 0	9.51	1.40	\$ 34,424	0.10	YES
BREP Edens Investment Partners L.P.	2013	--	\$ 546,600	\$ 487,500	\$ 41,999	7.31	1.38	\$ 90,955	0.20	YES
BR Emerging REIT	2016	--	\$ 82,763	\$ 50,000	\$ 0	16.25	1.66	\$ 0	0	N/A
BR World REIT	2016	--	\$ 302,872	\$ 227,153	\$ 0	8.88	1.33	\$ 0	0	N/A
CIGNA Realty Investors Open-End Fund	1987	2015	\$ 0	\$ 243,939	\$ 0	2.57	1.16	\$ 282,717	1.16	N/A
CIM Urban REIT, LLC	2006	--	\$ 48,474	\$ 100,000	\$ 0	5.45	1.56	\$ 107,754	1.08	YES
JP Morgan Strategic Property Fund	1989	--	\$ 402,560	\$ 305,133	\$ 0	9.01	2.83	\$ 501,463	1.57	N/A
LBA NC Core Industrial, L.P.	2016	--	\$ 346,029	\$ 300,000	\$ 4,950	11.83	1.27	\$ 29,045	0.10	YES
LBA NC Core Industrial II LP	2018	--	\$ 178,698	\$ 250,000	\$ 72,079	2.55	1.02	\$ 1,961	0.01	YES
M&G Real Estate Debt Fund III	2013	--	\$ 14,998	\$ 32,645	\$ 4,587	1.14	1.03	\$ 24,251	0.63	YES
Meadow Core Plus Real Estate Fund	2014	--	\$ 119,934	\$ 127,270	\$ 47,236	2.02	1.07	\$ 57,733	0.35	YES
Meadow Core Plus Real Estate Fund 2015-1 Series	2015	--	\$ 80,294	\$ 82,726	\$ 6,205	(3.20)	0.95	\$ 35,072	0.29	YES
MS Global RE Securities	2007	--	\$ 6	\$ 400,000	\$ 0	0.79	1.07	\$ 428,702	1.07	N/A
MW North Carolina Debt Fund, LLC	2016	--	\$ 171,581	\$ 200,000	\$ 46,244	6.06	1.11	\$ 6,006	0.04	YES
NorthRock Core Fund, L.P.	2008	--	\$ 725,221	\$ 600,000	\$ 36,826	9.74	1.86	\$ 325,336	0.57	YES
NorthRock Fund II, L.P. - Core	2016	--	\$ 601,950	\$ 372,900	\$ 2,786	8.19	1.18	\$ 128,370	0.21	YES
NorthRock Fund IV, L.P.	2015	--	\$ 393,454	\$ 400,000	\$ 40,199	7.27	1.17	\$ 55,398	0.14	YES
Prudential Property Investment Separate Account	2004	2017	\$ 0	\$ 204,935	\$ 0	9.76	1.74	\$ 363,169	1.74	N/A
RLJ Lodging Fund II, L.P.	2006	2014	\$ 0	\$ 50,000	\$ 0	3.61	1.25	\$ 62,323	1.25	YES
RLJ Real Estate Fund III, L.P.	2007	2014	\$ 0	\$ 40,601	\$ 0	9.62	1.41	\$ 57,227	1.41	YES
Rockpoint Growth and Income Side Car Fund I, L.P.	2014	--	\$ 197,913	\$ 200,000	\$ 27,651	10.36	1.40	\$ 47,320	0.27	YES
Rockpoint Growth and Income Real Estate Fund I, L.P.	2014	--	\$ 208,221	\$ 200,000	\$ 17,162	9.92	1.31	\$ 41,963	0.22	YES
Rockpoint Growth and Income Real Estate Fund II, L.P.	2016	--	\$ 82,962	\$ 100,000	\$ 31,541	16.03	1.18	\$ 4,915	0.07	YES
Rockpoint Growth and Income Side Car Fund II, L.P.	2016	--	\$ 117,928	\$ 100,000	\$ 2,315	12.49	1.20	\$ 1,825	0.02	YES
Rockwood Income and Credit Partners LP	2016	--	\$ 63,123	\$ 100,000	\$ 39,616	9.67	1.12	\$ 34,242	0.39	YES
RREEF Global Opportunities Fund II, LLC Senior Nts	2010	2013	\$ 0	\$ 12,122	\$ 0	23.62	1.55	\$ 18,644	1.55	YES
Security Capital Focus Select	2007	2016	\$ 0	\$ 30,000	\$ 0	3.92	1.39	\$ 41,833	1.39	N/A
Sentinel Real Estate Fund (Closed)	1985	2010	\$ 0	\$ 65,000	\$ 0	7.08	3.26	\$ 222,130	3.26	N/A
STAG Investments II, LLC	2005	2018	\$ 0	\$ 74,986	\$ 0	(8.33)	0.78	\$ 58,236	0.78	YES
Terra Firma Deutsche Annington, L.P. (Core)	2014	--	\$ 10	\$ 80,822	\$ 0	4.23	1.06	\$ 103,010	1.06	N/A
UBS Trumbull Property Fund	1984	2017	\$ 0	\$ 290,000	\$ 0	8.66	2.11	\$ 614,977	2.11	YES
UBS Trumbull Property Income Fund	1984	2016	\$ 0	\$ 120,995	\$ 0	8.32	3.09	\$ 374,331	3.09	YES
Total Core Real Estate			\$ 5,673,270	\$ 6,663,847	\$ 439,520	7.22	1.46	\$ 4,205,378	0.62	

Methodology and Notes:

- Dollar values in Thousands

- Returns are calculated using the Internal Rate of Return (IRR) methodology. The IRR is the discount rate where the sum of the discounted cash flows and the discounted valuation is equal to zero. Returns are reported net of fees.

- Total Value to Paid-In (TVPI), also known as the Investment Multiple, is the ratio of cumulative distributions plus the valuation to cumulative paid-in.

- Distributions to Paid-In (DPI), also known as the Realization Multiple, is the ratio of cumulative distributions to cumulative paid-in.

- The advisory board column is an indication of NCRS participation on the Fund's advisory board, N/A indicates that the Fund has no advisory board.

NCRS Multi-Strategy Portfolio
June 30, 2019

Fund	Inception	Market Value	Returns					
			1 Yr	3 Yr	5 Yr	10 Yr	15 Yr	20 Yr
AG Cataloochee, L.P.	2016	\$ 210,961	(1.9)	5.0	-	-	-	-
Broyhill Fund	2002	\$ 96	(51.3)	(21.6)	(34.3)	(28.9)	(20.3)	-
Gladius Aconcagua	2011	\$ 1,642,093	5.0	9.2	5.6	-	-	-
Gladius Arx Fund	2017	\$ 135,650	(4.0)	-	-	-	-	-
Gladius Venator Fund	2017	\$ 59,736	(8.5)	-	-	-	-	-
Total		\$ 2,048,536	3.3	7.5	4.4	8.2	5.7	-
Multi-Strategy Benchmark			2.7	6.8	3.4	6.8	7.2	-

Methodology and Notes:

- Dollar values in Thousands

- Returns are calculated using a Modified Dietz time weighted rate of return methodology. This method uses the beginning and ending valuation for the measurement period, and weights each cash flow by the amount of time it is invested. Returns are reported net of fees.

- The Multi-Strategy Benchmark is comprised of a dynamically weighted combination of the HFRX ED: Multi-Strategy Index, net of fees, and the market value weighted benchmarks for any other total fund strategies within the Portfolio.

Section 2
Fee Supplement

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Total NCRS External Management and Incentive Fees Paid FY 2019

Asset Classification	Management Fees	Incentive Fees	Total Fees	Ending Market Value	Ratio of Fees to Ending Market Value
Public Equity	\$ 60,363	\$ 3,302	\$ 63,664	\$ 40,276,824	0.16%
Private Equity	\$ 58,634	\$ 80,272	\$ 138,906	\$ 5,457,524	2.55%
Non-Core Real Estate	\$ 43,621	\$ 33,875	\$ 77,497	\$ 3,298,098	2.35%
Opportunistic Fixed Income	\$ 50,382	\$ 25,912	\$ 76,294	\$ 5,803,272	1.31%
IG Fixed Income & Cash	\$ 0	\$ 0	\$ 0	\$ 30,047,498	0.00%
Pension Cash	\$ 0	\$ 0	\$ 0	\$ 3,121,454	0.00%
Inflation Sensitive	\$ 48,410	\$ 14,855	\$ 63,266	\$ 6,279,734	1.01%
Core Real Estate	\$ 33,414	\$ 29,140	\$ 62,555	\$ 5,673,270	1.10%
Multi-Strategy	\$ 5,991	\$ 0	\$ 5,991	\$ 2,048,536	0.29%
Total Fund	\$ 300,816	\$ 187,357	\$ 488,173	\$ 102,006,210	0.48%
Ratio of Fees to Ending Market Value	0.29%	0.18%	0.48%	--	--

Notes:

- Dollar values in Thousands

- Consistent with industry convention, cost figures do not include the fees and expenses of investment managers that are held within fund-of-fund vehicles. Such fees and expenses have been deducted from all reported investment returns.

Public Equity External Management and Incentive Fees Paid FY 2019

Fund	Management Fees	Incentive Fees	Total Fees	Ending Market Value
Baillie Gifford EAFE Plus Alpha	\$ 6,713	\$ 0	\$ 6,713	\$ 2,405,437
BlackRock EAFE LC Growth	\$ 193	\$ 0	\$ 193	\$ 876,782
BlackRock Emerging Markets Opportunities Fund	\$ 1,473	\$ 0	\$ 1,473	\$ 754,205
BlackRock Mid Cap Passive	\$ 0	\$ 0	\$ 0	\$ 416,776
BlackRock MSCI ACWI ex US IMI	\$ 1,778	\$ 0	\$ 1,778	\$ 7,856,521
Brown Advisory Small Cap Growth	\$ 1,719	\$ 0	\$ 1,719	\$ 367,946
Earnest Partners Small Cap Value	\$ 2,665	\$ 0	\$ 2,665	\$ 586,266
ECM Bespoke Fund 2	\$ 0	\$ 0	\$ 0	\$ 30,300
ECM Feeder Fund 2	\$ 3,556	\$ 0	\$ 3,556	\$ 156,733
Franklin Templeton Int'l SC	\$ 3,909	\$ 0	\$ 3,909	\$ 611,067
Internal Russell 200 Passive	\$ 0	\$ 0	\$ 0	\$ 12,407,119
Internal Russell Mid Cap Passive	\$ 0	\$ 0	\$ 0	\$ 3,056,985
Internal TOBAM Max Div US	\$ 0	\$ 0	\$ 0	\$ 400,339
Mondrian Focused All Country World ex US IMI	\$ 9,253	\$ 0	\$ 9,253	\$ 2,469,031
Numeric Small Cap Value	\$ 1,969	\$ 0	\$ 1,969	\$ 432,209
ONSHE Marshall Wace	\$ 2,911	\$ 3,302	\$ 6,213	\$ 225,160
ONSHE Menta	\$ 2,438	\$ 0	\$ 2,438	\$ 205,511
TimesSquare MidCap Growth	\$ 3,057	\$ 0	\$ 3,057	\$ 764,491
TOBAM AntiBnk World ex USA	\$ 243	\$ 0	\$ 243	\$ 202,487
ValueAct Capital	\$ 3,874	\$ 0	\$ 3,874	\$ 887,885
ValueAct Capital Fund B	\$ 0	\$ 0	\$ 0	\$ 76,668
Walter Scott International	\$ 5,413	\$ 0	\$ 5,413	\$ 1,938,475
Wellington Diversified International	\$ 3,132	\$ 0	\$ 3,132	\$ 1,312,090
Wellington Opportunistic Growth	\$ 5,755	\$ 0	\$ 5,755	\$ 1,826,950
BlackRock Global Transition	\$ 0	\$ 0	\$ 0	\$ 107
Cash and Liquidating Accounts	\$ 311	\$ 0	\$ 311	\$ 9,283
Total	\$ 60,363	\$ 3,302	\$ 63,664	\$ 40,276,824

Notes:

- Dollar values in Thousands.

Private Equity External Management and Incentive Fees Paid FY 2019

Fund	Management Fees	Incentive Fees	Total Fees	Ending Market Value
A.V. Management IV, LLC	\$ 0	\$ 0	\$ 0	\$ 589
Accel-KKR Capital Partners IV, LP	\$ 134	\$ 1,414	\$ 1,548	\$ 8,552
Access Capital L.P. II D	\$ 0	\$ 0	\$ 0	\$ 90
AG Private Equity Partners IV (R), L.P.	\$ 249	\$ 0	\$ 249	\$ 26,137
AG Private Equity Partners IV, L.P.	\$ 387	\$ 0	\$ 387	\$ 28,492
Ampersand 2006 Limited Partnership	\$ 9	\$ 0	\$ 9	\$ 21,987
Angeleno Investors II, L.P.	\$ 313	\$ 0	\$ 313	\$ 7,788
Apollo Investment Fund VIII, L.P.	\$ 376	\$ 1,065	\$ 1,441	\$ 190,570
Arch IX Overage	\$ 0	\$ 0	\$ 0	\$ 93,495
ARCH Venture Fund IX	\$ 1,350	\$ 0	\$ 1,350	\$ 77,285
ARCH Venture Fund VII, L.P.	\$ 0	\$ 22,776	\$ 22,776	\$ 44,386
ARCH Venture Fund VIII, L.P.	\$ 1,154	\$ 0	\$ 1,154	\$ 176,398
Aurora Ventures IV, LLC	\$ 0	\$ 0	\$ 0	\$ 977
Aurora Ventures V, LLC	\$ 0	\$ 0	\$ 0	\$ 7,978
Avista Capital Partners I, L.P.	\$ 17	\$ 0	\$ 17	\$ 1,193
Avista Capital Partners II, L.P.	\$ 0	\$ 0	\$ 0	\$ 20,808
Avista Capital Partners III, L.P.	\$ 0	\$ 0	\$ 0	\$ 64,353
Blackstone Core Equity Partners LP	\$ 985	\$ 0	\$ 985	\$ 147,428
Blackstone TN Partners LP	\$ 0	\$ 0	\$ 0	\$ 35,985
Burrill Life Sciences Capital Fund III, L.P.	\$ 169	\$ 0	\$ 169	\$ 13,385
Carousel Capital Partners III, L.P.	\$ 0	\$ 40	\$ 40	\$ 0
Carousel Capital Partners IV, L.P.	\$ 122	\$ 349	\$ 471	\$ 26,991
Carousel Capital Partners V LP	\$ 485	\$ 0	\$ 485	\$ 8,382
Castle Harlan Partners IV, L.P.	\$ 0	\$ 0	\$ 0	\$ 8,421
Castle Harlan Partners V, L.P.	\$ 0	\$ 0	\$ 0	\$ 49,337
Catterton Growth Partners II, L.P.	\$ 1,195	\$ 0	\$ 1,195	\$ 98,253
Catterton Growth Partners, L.P.	\$ 257	\$ 2,659	\$ 2,916	\$ 11,258
Catterton Partners VII, L.P.	\$ 1,563	\$ 0	\$ 1,563	\$ 88,680
Chapter IV Investors Special Situations Fund, L.P.	\$ 0	\$ 0	\$ 0	\$ 0
Charterhouse Capital Partners IX, L.P.	\$ 498	\$ 0	\$ 498	\$ 21,308
Charterhouse Capital Partners X, L.P.	\$ 2,421	\$ 0	\$ 2,421	\$ 80,141
Coller International Partners IV, L.P.	\$ 0	\$ 0	\$ 0	\$ 0
Crestview Capital Partners III, L.P.	\$ (49)	\$ 0	\$ (49)	\$ 117,769
Crestview Partners II, L.P.	\$ 437	\$ 2,817	\$ 3,254	\$ 47,254
CVC Capital Partners VI, L.P.	\$ 793	\$ 0	\$ 793	\$ 95,277
CVC Europe Equity Partners IV, L.P.	\$ 0	\$ 9	\$ 9	\$ 91
CVE Kauffman Fund I	\$ 280	\$ 54	\$ 334	\$ 53,366
Elevation Partners, L.P.	\$ 0	\$ 0	\$ 0	\$ 192
Francisco Partners Agility	\$ 900	\$ 0	\$ 900	\$ 26,391
Francisco Partners II, L.P.	\$ 0	\$ 0	\$ 0	\$ 9,933
Francisco Partners IV, L.P.	\$ 1,174	\$ 0	\$ 1,174	\$ 114,994
GCM Grosvenor - NC Innovation Fund	\$ 677	\$ 1,459	\$ 2,136	\$ 98,031
GCM Grosvenor - NC Innovation Fund 2013-1	\$ 38	\$ 0	\$ 38	\$ 7,956
GCM Grosvenor - NC Innovation Fund II	\$ 1,856	\$ 0	\$ 1,856	\$ 104,055
GCM Grosvenor - NC Investment Fund 2006	\$ 690	\$ 28	\$ 718	\$ 29,458
GCM Grosvenor - NC Investment Fund 2008 Series 1	\$ 586	\$ 0	\$ 586	\$ 33,892
GCM Grosvenor - NC Investment Fund 2008 Series 2	\$ 0	\$ 0	\$ 0	\$ 36,838
Halifax Capital Partners II, L.P.	\$ 57	\$ 0	\$ 57	\$ 0
Halifax Capital Partners III, L.P.	\$ 127	\$ 916	\$ 1,043	\$ 15,558
Harvest Partners IV, L.P.	\$ 0	\$ 0	\$ 0	\$ 363
Harvest Partners V, L.P.	\$ 0	\$ 0	\$ 0	\$ 12,369
Harvest Partners VI, L.P.	\$ 0	\$ 8,274	\$ 8,274	\$ 47,179
Harvest Partners VII, L.P.	\$ 137	\$ 563	\$ 701	\$ 80,219
Hatteras Venture Partners III, L.P.	\$ 74	\$ 0	\$ 74	\$ 12,343
Hg Capital 7	\$ 1,023	\$ 0	\$ 1,023	\$ 58,258
Highland Capital Partners VI, L.P.	\$ 0	\$ 0	\$ 0	\$ 155
Highland Capital Partners VII, L.P.	\$ 149	\$ 0	\$ 149	\$ 5,013
Highland Consumer Fund I, L.P.	\$ 250	\$ 0	\$ 250	\$ 6,352
Horsley Bridge International IV, L.P.	\$ 489	\$ 0	\$ 489	\$ 42,697
Horsley Bridge International V, L.P.	\$ 563	\$ 0	\$ 563	\$ 129,091
Horsley Bridge IX, L.P.	\$ 613	\$ 0	\$ 613	\$ 126,496
Intersouth Partners VI, L.P.	\$ 0	\$ 0	\$ 0	\$ 2,519
KRG Capital Fund IV, L.P.	\$ (1,871)	\$ 7,709	\$ 5,837	\$ 2,543

Private Equity External Management and Incentive Fees Paid FY 2019

Fund	Management Fees	Incentive Fees	Total Fees	Ending Market Value
L Catterton Growth Partners III, L.P.	\$ 1,321	\$ 0	\$ 1,321	\$ 80,664
Landmark Equity Partners XV, L.P.	\$ 1,950	\$ 0	\$ 1,950	\$ 111,495
Landmark Equity Partners XVI Opportunities LP	\$ 0	\$ 0	\$ 0	\$ 228,044
Landmark Equity Partners XVI Overflow LP	\$ 0	\$ 0	\$ 0	\$ 65,215
Landmark Equity Partners XVI Opportunities LP	\$ 6,099	\$ 0	\$ 6,099	\$ 56,425
Levine Leichtman Capital Partners V	\$ 942	\$ 3,872	\$ 4,814	\$ 126,295
Lexington Middle Market Investors II, L.P.	\$ 396	\$ 793	\$ 1,188	\$ 33,913
Lexington Middle Market Investors III, L.P.	\$ 1,089	\$ 0	\$ 1,089	\$ 89,367
Lexington Middle Market Investors, L.P.	\$ 0	\$ 395	\$ 395	\$ 12,152
Lindsay Goldberg II, L.P.	\$ 0	\$ 0	\$ 0	\$ 1,192
Lindsay Goldberg III, LP	\$ 293	\$ 3,558	\$ 3,851	\$ 1,771
LittleJohn Opportunities Fund II LP	\$ 468	\$ 0	\$ 468	\$ 66,310
Longreach Capital Partners I, L.P.	\$ 0	\$ 0	\$ 0	\$ 30,844
Marlin Equity IV	\$ 225	\$ 0	\$ 225	\$ 35,308
MatlinPatterson Global Opportunities Partners III	\$ 123	\$ 0	\$ 123	\$ 28,566
MHR Institutional Partners IV, L.P.	\$ 2,221	\$ 0	\$ 2,221	\$ 62,968
Milestone Partners IV, L.P.	\$ 363	\$ 0	\$ 363	\$ 53,965
Mount Kellett Capital Partners II, LP	\$ 175	\$ 0	\$ 175	\$ 12,242
NEA 14, L.P.	\$ 391	\$ 0	\$ 391	\$ 48,927
NEA 15 Opportunity Fund, L.P.	\$ 319	\$ 0	\$ 319	\$ 41,635
NEA 15, L.P.	\$ 741	\$ 0	\$ 741	\$ 83,643
Northbound NCRS Fund, L.P.	\$ 621	\$ 0	\$ 621	\$ 181,768
Novak Biddle Venture Partners IV, L.P.	\$ 0	\$ 0	\$ 0	\$ 1,005
Novak Biddle Venture Partners V, L.P.	\$ 57	\$ 0	\$ 57	\$ 1,030
Oaktree European Principal Fund III, L.P.	\$ 669	\$ 12,289	\$ 12,958	\$ 32,321
Pappas Life Science Ventures III, L.P.	\$ 0	\$ 0	\$ 0	\$ 921
Pappas Life Science Ventures IV, L.P.	\$ 367	\$ 1,384	\$ 1,751	\$ 7,696
Quaker BioVentures II, L.P.	\$ 879	\$ 0	\$ 879	\$ 18,754
Robeco Clean Tech II	\$ 512	\$ 0	\$ 512	\$ 43,027
Robeco Clean Tech II Co-Inv	\$ 586	\$ 0	\$ 586	\$ 13,470
Starvest Partners II	\$ 207	\$ 0	\$ 207	\$ 13,121
StepStone Pioneer Capital Europe	\$ 265	\$ 0	\$ 265	\$ 22,340
StepStone Pioneer Capital I	\$ 0	\$ 0	\$ 0	\$ 0
StepStone Pioneer Capital II	\$ 345	\$ 0	\$ 345	\$ 30,133
StepStone SYN	\$ 116	\$ 0	\$ 116	\$ 12,270
Stock Distribution	\$ 0	\$ 0	\$ 0	\$ 16,146
Synergy Life Science Partners, L.P.	\$ 219	\$ 0	\$ 219	\$ 6,944
TCV IX, L.P.	\$ 2,519	\$ 0	\$ 2,519	\$ 113,295
TCV VI, L.P.	\$ 0	\$ 58	\$ 58	\$ 6,642
TCV VIII, L.P.	\$ 3,000	\$ 0	\$ 3,000	\$ 167,508
Tenaya Capital Fund V	\$ 669	\$ 3,763	\$ 4,431	\$ 28,898
Tenaya Capital Fund VI	\$ 1,199	\$ 10	\$ 1,209	\$ 84,307
Tenaya Capital Fund VII, L.P.	\$ 1,800	\$ 1,434	\$ 3,234	\$ 59,802
Terra Firma Capital Partners II, LP.	\$ 0	\$ 0	\$ 0	\$ 594
Terra Firma Capital Partners III, L.P.	\$ 0	\$ 0	\$ 0	\$ 14,845
Thoma Bravo XII	\$ 1,849	\$ 0	\$ 1,849	\$ 171,602
TPG Biotechnology Partners II, L.P.	\$ 0	\$ 303	\$ 303	\$ 3,146
TPG Biotechnology Partners III, L.P.	\$ 96	\$ 183	\$ 280	\$ 28,359
Trident VII LP	\$ 1,875	\$ 0	\$ 1,875	\$ 93,464
Tudor Ventures III, L.P.	\$ 0	\$ 0	\$ 0	\$ 1,398
Vista Equity Partners Fund IV, L.P.	\$ 367	\$ 0	\$ 367	\$ 36,429
Warburg Pincus Private Equity XI, L.P.	\$ 805	\$ 2,098	\$ 2,902	\$ 134,565
Warburg Pincus Private Equity XII, L.P.	\$ 1,785	\$ 0	\$ 1,785	\$ 152,165
WLR Recovery Fund IV, L.P.	\$ 38	\$ 0	\$ 38	\$ 11,327
Total	\$ 58,634	\$ 80,272	\$ 138,906	\$ 5,457,525

Notes:

- Dollar values in Thousands.

Non-Core Real Estate External Management and Incentive Fees Paid FY 2019

Fund	Management Fees	Incentive Fees	Total Fees	Ending Market Value
AG Asia Realty Fund II, L.P.	\$ 66	\$ 535	\$ 601	\$ 1,193
AG Asia Realty Fund III LP	\$ 1,139	\$ 0	\$ 1,139	\$ 86,354
AG Core Plus Realty Fund II, L.P.	\$ 27	\$ 0	\$ 27	\$ 2,723
AG Net Lease Realty Fund II, L.P.	\$ 1,881	\$ 0	\$ 1,881	\$ 89,143
AG Net Lease Realty Fund III, L.P.	\$ 1,686	\$ 0	\$ 1,686	\$ 95,656
American Value Partners Fund I, L.P.	\$ 159	\$ 0	\$ 159	\$ 4,621
Benson Elliot Real Estate Partners II, L.P.	\$ 0	\$ 0	\$ 0	\$ 8,077
Benson Elliot Real Estate Partners III, L.P.	\$ 349	\$ 1,442	\$ 1,791	\$ 21,444
Blackstone Real Estate Partners Europe IV, L.P.	\$ 1,616	\$ 5,733	\$ 7,350	\$ 129,284
Blackstone Real Estate Partners Europe V, L.P.	\$ 3,230	\$ 192	\$ 3,422	\$ 140,275
Blackstone Real Estate Partners V, L.P.	\$ 0	\$ 2,600	\$ 2,600	\$ 7,397
Blackstone Real Estate Partners VI, L.P.	\$ 238	\$ 2,835	\$ 3,073	\$ 18,046
Blackstone Real Estate Partners VII, L.P.	\$ 2,037	\$ 4,434	\$ 6,471	\$ 175,084
Blackstone Real Estate Partners VIII, L.P.	\$ 2,250	\$ 722	\$ 2,972	\$ 167,528
Brookfield Real Estate Finance Fund III, L.P.	\$ 0	\$ 0	\$ 0	\$ 0
CB Richard Ellis Strategic Partners US V, L.P.	\$ 200	\$ 0	\$ 200	\$ 21,309
Cherokee Investment Partners III, L.P.	\$ 0	\$ 0	\$ 0	\$ 268
Cherokee Investment Partners IV, L.P.	\$ 160	\$ 0	\$ 160	\$ 9,745
CrossHarbor Institutional Partners II, L.P.	\$ 510	\$ 0	\$ 510	\$ 16,187
CrossHarbor Institutional Partners, L.P.	\$ 38	\$ 0	\$ 38	\$ 0
Crow Holdings Realty Partners IV, L.P.	\$ 7	\$ 0	\$ 7	\$ 325
Crow Holdings Realty Partners IV-A, L.P.	\$ 2	\$ 0	\$ 2	\$ 37
Crow Holdings Realty Partners V, L.P.	\$ 0	\$ 1,416	\$ 1,416	\$ 0
Crow Holdings Realty Partners VI, L.P.	\$ 535	\$ 0	\$ 535	\$ 26,258
Crow Holdings Realty Partners VII, L.P.	\$ 860	\$ 0	\$ 860	\$ 67,460
Crow Holdings Retail Fund II, L.P.	\$ 1,150	\$ 0	\$ 1,150	\$ 56,501
DB Real Estate Global Opps I-A/I-B, L.P.	\$ 0	\$ 0	\$ 0	\$ 213
DLJ Real Estate Capital Partners III, L.P.	\$ 516	\$ 0	\$ 516	\$ 48,005
DLJ Real Estate Capital Partners IV, L.P.	\$ 753	\$ 0	\$ 753	\$ 83,472
DRA Growth & Income Fund V Co-Investment, LLC	\$ 0	\$ 8	\$ 8	\$ 0
DRA Growth & Income Fund V, LLC	\$ 0	\$ 0	\$ 0	\$ 0
DRA Growth & Income Fund VI, LLC	\$ 42	\$ 221	\$ 263	\$ 1,804
DRA Growth & Income Fund VII, LLC	\$ 1,514	\$ 7,219	\$ 8,733	\$ 62,925
DRA Growth & Income Fund VIII, LLC	\$ 2,436	\$ 0	\$ 2,436	\$ 117,241
Frogmore Real Estate Partners I, L.P.	\$ 0	\$ 0	\$ 0	\$ 1,282
Frogmore Real Estate Partners II, L.P.	\$ 38	\$ 833	\$ 871	\$ 2,021
Frogmore Real Estate Partners III, L.P.	\$ 819	\$ 0	\$ 819	\$ 33,704
Harrison St. RE Partners III, L.P.	\$ 86	\$ 1,522	\$ 1,608	\$ 2,800
Harrison St. RE Partners IV, L.P.	\$ 621	\$ 0	\$ 621	\$ 45,548
Harrison St. RE Partners V Co-Investment, L.P.	\$ 336	\$ 0	\$ 336	\$ 60,708
Harrison St. RE Partners V, L.P.	\$ 887	\$ 0	\$ 887	\$ 85,229
Harrison St. RE Partners VI, L.P.	\$ 1,500	\$ 0	\$ 1,500	\$ 87,660
Harrison Street Real Estate Partners VI Co-Investment LP	\$ 249	\$ 0	\$ 249	\$ 42,132
Harrison Street Real Estate Partners VI Co-Investment 3 LP	\$ 84	\$ 0	\$ 84	\$ 47,711
Hawkeye (Scout) Fund 1-A, L.P.	\$ 0	\$ 1	\$ 1	\$ 308
Hawkeye (Scout) Fund II, L.P.	\$ 750	\$ 0	\$ 750	\$ 99,608
LaSalle Real Estate Debt Strategies II, L.P.	\$ 518	\$ 0	\$ 518	\$ 19,152
LEM Real Estate Mezzanine Fund II, L.P.	\$ 45	\$ 0	\$ 45	\$ 560
Lone Star Real Estate Partners II	\$ 29	\$ 424	\$ 453	\$ 12,405
Meadow Real Estate Fund II, L.P.	\$ 187	\$ 0	\$ 187	\$ 17,149
Meadow Real Estate Fund III, L.P.	\$ 1,223	\$ 0	\$ 1,223	\$ 108,559
Meadow Real Estate Fund IV, L.P.	\$ 938	\$ 0	\$ 938	\$ 60,345
Mesa West Real Estate Income Fund III, L.P.	\$ 364	\$ 0	\$ 364	\$ 11,179
Morgan Stanley Real Estate Fund VI, L.P.	\$ 73	\$ 0	\$ 73	\$ 13,517
North Haven Real Estate Fund V International	\$ 32	\$ 0	\$ 32	\$ 4,773
NorthCreek Fund, L.P.	\$ 256	\$ 0	\$ 256	\$ 6,780
NorthRock Fund III, L.P.	\$ 1,700	\$ 0	\$ 1,700	\$ 362,439
Paladin Latin American Partners III, L.P.	\$ 436	\$ 0	\$ 436	\$ 4,888
Patria Brazil Real Estate Fund II	\$ 276	\$ 0	\$ 276	\$ 13,819
Penwood CSIP I, L.P.	\$ 0	\$ 0	\$ 0	\$ 0
Penwood PSIP II, L.P.	\$ 0	\$ 0	\$ 0	\$ 0
Rockpoint Real Estate Fund II, L.P.	\$ 42	\$ 0	\$ 42	\$ 5,410
Rockpoint Real Estate Fund III, L.P.	\$ 172	\$ 1,169	\$ 1,340	\$ 5,148
Rockpoint Real Estate Fund IV, L.P.	\$ 534	\$ 315	\$ 849	\$ 32,210
Rockpoint Real Estate Fund V, L.P.	\$ 1,313	\$ 0	\$ 1,313	\$ 84,183
Rockwood Capital Real Estate Partners Fund IX, L.P.	\$ 617	\$ 0	\$ 617	\$ 17,511
Rockwood Capital Real Estate Partners Fund VI, L.P.	\$ 0	\$ 0	\$ 0	\$ 379
Rockwood Capital Real Estate Partners Fund VII, L.P.	\$ 159	\$ 0	\$ 159	\$ 21,203

Non-Core Real Estate External Management and Incentive Fees Paid FY 2019

Fund	Management Fees	Incentive Fees	Total Fees	Ending Market Value
Rockwood Capital Real Estate Partners Fund VIII, L.P.	\$ 41	\$ 457	\$ 498	\$ 230
Rockwood Capital Real Estate Partners Fund X Side Car, L.P.	\$ 134	\$ 0	\$ 134	\$ 51,434
Rockwood Capital Real Estate Partners X, L.P.	\$ 1,142	\$ 0	\$ 1,142	\$ 73,188
Rockwood Development Partners	\$ 2,125	\$ 0	\$ 2,125	\$ 221,713
RREEF Global Opportunities Fund II, LLC	\$ 0	\$ 0	\$ 0	\$ 1,448
SRI Eight REIT	\$ 922	\$ 0	\$ 922	\$ 66,305
SRI Nine REIT	\$ 159	\$ 8	\$ 166	\$ 5,740
SRI Seven REIT	\$ 0	\$ 0	\$ 0	\$ 125
SRI Ten REIT	\$ 509	\$ 1,789	\$ 2,298	\$ 35,626
Starwood Opportunity Fund VII, L.P.	\$ 0	\$ 0	\$ 0	\$ 11,176
Starwood SDL/SOF Co-Investment	\$ 0	\$ 0	\$ 0	\$ 2,803
Warburg Pincus Real Estate I, L.P.	\$ 0	\$ 0	\$ 0	\$ 2,211
WCP Real Estate Fund III(A), L.P.	\$ 902	\$ 0	\$ 902	\$ 57,204
Total	\$ 43,621	\$ 33,875	\$ 77,497	\$ 3,298,098

Notes:

- Dollar values in Thousands.

Opportunistic Fixed Income External Management and Incentive Fees Paid FY 2019

Fund	Management Fees	Incentive Fees	Total Fees	Ending Market Value
AG Capital Recovery Partners V, L.P.	\$ 0	\$ 0	\$ 0	\$ 48
AG Capital Recovery Partners VI, L.P.	\$ 0	\$ 555	\$ 555	\$ 29
AG Global Debt Strategy Partners, L.P.	\$ 2,856	\$ 0	\$ 2,856	\$ 565,417
AG Pisgah, L.P.	\$ 2,205	\$ 0	\$ 2,205	\$ 570,103
Anchorage Capital Partners	\$ 6,688	\$ 1,075	\$ 7,763	\$ 538,465
Benefit Street Partners Capital Opportunity Fund II LP	\$ 710	\$ 0	\$ 710	\$ 140,999
Benefit Street Partners Capital Opportunity Fund, L.P.	\$ 767	\$ 0	\$ 767	\$ 143,342
Benefit Street Partners Debt Funds IV LP	\$ 1,299	\$ 0	\$ 1,299	\$ 149,465
Brigade LCS Fund	\$ 3,836	\$ 0	\$ 3,836	\$ 266,890
Brightwood Capital Fund III, L.P.	\$ 0	\$ 0	\$ 0	\$ 66,179
Centerbridge Special Credit Partners III	\$ 1,574	\$ 0	\$ 1,574	\$ 83,405
Claren Road Credit Fund, Ltd.	\$ 0	\$ 0	\$ 0	\$ 0
Claren Road Credit Opportunities Partners, L.P.	\$ 0	\$ 0	\$ 0	\$ 0
CVI Credit Value Fund	\$ 602	\$ 9,561	\$ 10,163	\$ 8,900
CVI Credit Value Fund II	\$ 1,304	\$ 1,049	\$ 2,353	\$ 37,300
CVI Credit Value Fund III	\$ 1,050	\$ 0	\$ 1,050	\$ 82,100
Fortress Credit Opportunities Fund III (A)	\$ 244	\$ 1,029	\$ 1,273	\$ 26,707
GSO Capital Opportunities Fund	\$ 56	\$ 0	\$ 56	\$ 2,220
GSO Capital Opportunities Fund II, L.P.	\$ 640	\$ 5,120	\$ 5,761	\$ 35,725
GSO Capital Solutions Fund II, L.P.	\$ 510	\$ 0	\$ 510	\$ 21,387
HC NCBR	\$ 2,674	\$ 0	\$ 2,674	\$ 256,200
Highbridge Irish Specialty Loan Fund III plc	\$ 758	\$ 299	\$ 1,057	\$ 35,232
Highbridge Principle Strategies Kitty Hawk Credit Fund LP	\$ 487	\$ 1,676	\$ 2,163	\$ 155,385
Highbridge Specialty Loan Fund 2016 LP	\$ 1,737	\$ 1,290	\$ 3,027	\$ 153,797
HPS Cardinal Fund LP Series A	\$ 1,285	\$ 0	\$ 1,285	\$ 308,536
HPS Cardinal Fund LP Series B	\$ 320	\$ 0	\$ 320	\$ 53,906
Magnetar Constellation Fund IV LLC	\$ 630	\$ 0	\$ 630	\$ 44,329
Marathon Currituck Fund, LP	\$ 3,828	\$ 0	\$ 3,828	\$ 522,585
Marathon Currituck Series D	\$ 99	\$ 0	\$ 99	\$ 26,073
MCP Private Capital Fund II	\$ 779	\$ 0	\$ 779	\$ 52,339
Monarch Debt Recovery Fund	\$ 5,149	\$ 4,258	\$ 9,406	\$ 542,000
Oaktree Value Opportunities Fund, L.P.	\$ 1,122	\$ 0	\$ 1,122	\$ 110,683
PAAMCO - Newport Burgundy	\$ 4,263	\$ 0	\$ 4,263	\$ 430,465
Panther BCM	\$ 0	\$ 0	\$ 0	\$ 132,493
Providence Debt Fund III, L.P.	\$ 1,503	\$ 0	\$ 1,503	\$ 148,478
Silverback Arbitrage Fund	\$ 875	\$ 0	\$ 875	\$ 53,730
Varde Fund X	\$ 486	\$ 0	\$ 486	\$ 30,730
WLR IV PPIP Co-Invest	\$ 47	\$ 0	\$ 47	\$ 7,626
Total Opportunistic Fixed Income	\$ 50,382	\$ 25,912	\$ 76,294	\$ 5,803,272

Notes:

- Dollar values in Thousands.

Inflation Sensitive External Management and Incentive Fees Paid FY 2019

Fund	Management Fees	Incentive Fees	Total Fees	Ending Market Value
ArcLight Energy Partners Fund V, L.P.	\$ 822	\$ 0	\$ 822	\$ 37,469
BlackRock TIPS Index	\$ 13	\$ 0	\$ 13	\$ 57,840
Blackstone Energy Partners II, L.P.	\$ 1,651	\$ 175	\$ 1,826	\$ 88,918
Blackstone Energy Partners, LP	\$ 351	\$ 2,917	\$ 3,269	\$ 89,821
Blackstone Granite Fund - Class A - Resources Select	\$ 0	\$ 0	\$ 0	\$ 0
Blackstone Granite Fund - Class B - Commodity Pod	\$ 0	\$ 0	\$ 0	\$ 0
Blackstone Granite Fund - Class D - Bayview	\$ 2,851	\$ 0	\$ 2,851	\$ 125,993
Blackstone SP NCRASMA	\$ 1,487	\$ 3,370	\$ 4,857	\$ 207,436
Blackstone SP NCRASMA (Overage)	\$ 170	\$ 0	\$ 170	\$ 36,700
Brookfield Infrastructure Fund II-B, L.P.	\$ 2,199	\$ 0	\$ 2,199	\$ 214,552
Campbell Timber Fund III, LLC	\$ 3,603	\$ 0	\$ 3,603	\$ 714,394
DCPF VI Oil and Gas Co-Inv Fund	\$ 271	\$ 19	\$ 289	\$ 39,143
Denham Commodity Partners Fund VI LP	\$ 613	\$ 10	\$ 623	\$ 57,370
DL Blue Diamond Fund	\$ 1,623	\$ 0	\$ 1,623	\$ 0
Doubleline Blue Diamond II	\$ 0	\$ 0	\$ 0	\$ 791,618
EIF United States Power Fund IV, L.P.	\$ 895	\$ 0	\$ 895	\$ 70,762
EIG Energy Fund XVI, L.P.	\$ 2,065	\$ 0	\$ 2,065	\$ 174,558
EIG Energy Fund XVII LP	\$ 0	\$ 0	\$ 0	\$ 97,035
EnCap Energy Capital Fund VIII Co-Investors, L.P.	\$ 0	\$ 0	\$ 0	\$ 10,460
EnCap Energy Capital Fund VIII, LP	\$ 288	\$ 0	\$ 288	\$ 16,325
EnCap Energy Capital Fund X, L.P.	\$ 1,183	\$ 0	\$ 1,183	\$ 105,841
Energy Capital Partners II (Summit Co-Invest), LP	\$ 22	\$ 0	\$ 22	\$ 6,150
Energy Capital Partners II, LP	\$ 186	\$ 0	\$ 186	\$ 6,191
Energy Capital Partners III, LP	\$ 1,075	\$ 0	\$ 1,075	\$ 90,355
Gresham TAP Flex	\$ 160	\$ 2,172	\$ 2,332	\$ 207,837
GSO Bakken Holdings I LP	\$ 124	\$ 0	\$ 124	\$ 9,619
GSO Energy Partners - B LP	\$ 966	\$ 0	\$ 966	\$ 170,685
IFM Global Infrastructure Fund, L.P.	\$ 2,031	\$ 3,259	\$ 5,290	\$ 356,467
Intervale Capital II, LP	\$ 531	\$ 0	\$ 531	\$ 41,750
Intervale Capital III, LP	\$ 754	\$ 0	\$ 754	\$ 47,338
Jade Real Assets Fund, L.P.	\$ 373	\$ 1,585	\$ 1,958	\$ 81,917
NCL Investments, L.P. - RA Series	\$ 1,265	\$ 0	\$ 1,265	\$ 152,943
NCL Investments, L.P. - RE Series	\$ 775	\$ 0	\$ 775	\$ 51,905
NCL Investments II, L.P. - RA Series	\$ 1,228	\$ 0	\$ 1,228	\$ 44,883
NCL Investments II, L.P. - RE Overflow Series	\$ 0	\$ 0	\$ 0	\$ 48,582
NCL Investments II, L.P. - RE Series	\$ 2,558	\$ 0	\$ 2,558	\$ 29,140
NCL Investments II LP - Outside Opportunities Series B	\$ 0	\$ 0	\$ 0	\$ 0
Lindsay Goldberg III - Formation Energy L.P.	\$ 0	\$ 0	\$ 0	\$ 65
MTP Energy Fund LP	\$ 2,222	\$ 0	\$ 2,222	\$ 142,695
MTP Energy Opportunities Fund II LLC	\$ 0	\$ 0	\$ 0	\$ 241,618
MTP Energy Opportunities Fund LP	\$ 0	\$ 0	\$ 0	\$ 9,095
NC Garnet Fund	\$ 1,695	\$ 0	\$ 1,695	\$ 410,218
North Star Investment Co-Invest	\$ 246	\$ 0	\$ 246	\$ 134,055
North Star Investment Holdings LLC	\$ 1,345	\$ 0	\$ 1,345	\$ 128,470
Orion Mine Finance Fund I	\$ 610	\$ 1,349	\$ 1,959	\$ 54,178
Orion Mine Finance Fund I-A	\$ 0	\$ 0	\$ 0	\$ 121,854
Perella Weinberg Partners ABV Opportunity Fund III LP	\$ 1,176	\$ 0	\$ 1,176	\$ 67,776
Quintana Energy I Co-Investment	\$ 0	\$ 0	\$ 0	\$ 0
Quintana Energy I, L.P.	\$ 1,815	\$ 0	\$ 1,815	\$ 16,061
Quintana Energy Partners II, L.P.	\$ 379	\$ 0	\$ 379	\$ 8,879
Sheridan Production Partners I, L.P.	\$ 1,921	\$ 0	\$ 1,921	\$ 34,084
Sheridan Production Partners II, L.P.	\$ 966	\$ 0	\$ 966	\$ 13,846
Timber Investment Resources (Nahele, LLC) Separate	\$ 1,161	\$ 0	\$ 1,161	\$ 285,177
Varde Fund XI, L.P.	\$ 2,742	\$ 0	\$ 2,742	\$ 329,665
Total	\$ 48,410	\$ 14,855	\$ 63,266	\$ 6,279,734

Notes:

- Dollar values in Thousands.

Core Real Estate External Management and Incentive Fees Paid CY FY 2019

Fund	Management Fees	Incentive Fees	Total Fees	Ending Market Value
BlackRock Developed	\$ 32	\$ 0	\$ 32	\$ 400,808
Blackstone NC Property Partners, L.P.	\$ 897	\$ 0	\$ 897	\$ 151,444
Blackstone Property Partners, L.P.	\$ 3,561	\$ 0	\$ 3,561	\$ 435,429
BREP Edens Investment Partners L.P.	\$ 3,327	\$ 0	\$ 3,327	\$ 546,600
BR Emerging REIT	\$ 173	\$ 0	\$ 173	\$ 82,763
BR World REIT	\$ 673	\$ 0	\$ 673	\$ 302,872
CIM Urban REIT, LLC	\$ 0	\$ 0	\$ 0	\$ 48,474
JP Morgan Strategic Property Fund	\$ 3,181	\$ 0	\$ 3,181	\$ 402,560
LBA NC Core Industrial, L.P.	\$ 2,019	\$ 115	\$ 2,133	\$ 346,029
LBA NC Core Industrial II LP	\$ 1,278	\$ 0	\$ 1,278	\$ 178,698
M&G Real Estate Debt Fund III	\$ 154	\$ 0	\$ 154	\$ 14,998
Meadow Core Plus Real Estate Fund	\$ 1,474	\$ 0	\$ 1,474	\$ 119,934
Meadow Core Plus Real Estate Fund 2015-1 Series	\$ 0	\$ 0	\$ 0	\$ 80,294
MS Global RE Securities	\$ 0	\$ 0	\$ 0	\$ 6
MW North Carolina Debt Fund, LLC	\$ 2,268	\$ 0	\$ 2,268	\$ 171,581
NorthRock Core Fund, L.P.	\$ 5,582	\$ 29,026	\$ 34,608	\$ 725,221
NorthRock Fund II, L.P. - Core	\$ 2,699	\$ 0	\$ 2,699	\$ 601,950
NorthRock Fund IV, L.P.	\$ 1,928	\$ 0	\$ 1,928	\$ 393,454
Rockpoint Growth and Income Side Car Fund I, L.P.	\$ 692	\$ 0	\$ 692	\$ 197,913
Rockpoint Growth and Income Real Estate Fund I, L.P.	\$ 1,756	\$ 0	\$ 1,756	\$ 208,221
Rockpoint Growth and Income Real Estate Fund II, L.P.	\$ 784	\$ 0	\$ 784	\$ 82,962
Rockpoint Growth and Income Side Car Fund II, L.P.	\$ 571	\$ 0	\$ 571	\$ 117,928
Rockwood Income and Credit Partners LP	\$ 367	\$ 0	\$ 367	\$ 63,123
STAG Investments II, LLC	\$ 0	\$ 0	\$ 0	\$ 0
Terra Firma Deutsche Annington, L.P. (Core)	\$ 0	\$ 0	\$ 0	\$ 10
UBS Trumbull Property Fund	\$ 0	\$ 0	\$ 0	\$ 0
Total Core Real Estate	\$ 33,414	\$ 29,140	\$ 62,555	\$ 5,673,270

Notes:

- Dollar values in Thousands.

Multi-Strategy External Management and Incentive Fees Paid FY 2019

Fund	Management Fees	Incentive Fees	Total Fees	Ending Market Value
AG Cataloochee, L.P.	\$ 1,293	\$ 0	\$ 1,293	\$ 210,961
Broyhill Fund	\$ 0	\$ 0	\$ 0	\$ 96
GCM/NC Invest Fund 2011 Series	\$ 0	\$ 0	\$ 0	\$ 0
Gladius Aconcagua	\$ 2,500	\$ 0	\$ 2,500	\$ 1,642,093
Gladius Arx Fund	\$ 1,750	\$ 0	\$ 1,750	\$ 135,650
Gladius Venator Fund	\$ 448	\$ 0	\$ 448	\$ 59,736
SCS Instl Global Series I	\$ 0	\$ 0	\$ 0	\$ 0
Total	\$ 5,991	\$ -	\$ 5,991	\$ 2,048,536

Notes:

- Dollar values in Thousands.

Section 3
Additional Information

Portfolio	Name	Commitment Amount	Statutory Classification	Inception Year	Investment Manager	Management & Incentive Fees
Public Equity Portfolio	See Section 1 of this report	Fixed commitment amounts only for the following funds: ECM Feeder Fund 2 LP: \$125 million; ValueAct Capital: \$750 million; ValueAct Capital Fund B: \$75 million. For all other funds, none.	N.C.G.S. §§ 147-69.2(b)(8) for long-only public equity investments; N.C.G.S. §§ 147-69.2(b)(8)(b.) for public equity limited liability investment vehicles ONSHE BlackRock, ECM Bespoke Fund 2, ECM Feeder Fund 2, ONSHE Marshall Wace, ONSHE MEN, ValueAct Capital, and ValueAct Capital Fund B.	See Section 1 of this report	Externally managed by firms listed in Section 1 of this report	See section 2 of this report
Private Equity Portfolio	See Section 1 of this report	See Section 1 of this report	N.C.G.S. §§ 147-69.2(b)(9)	See Section 1 of this report	Externally managed by firms listed in Section 1 of this report	See section 2 of this report
Non-Core Real Estate Portfolio	See Section 1 of this report	See Section 1 of this report	N.C.G.S. §§ 147-69.2(b)(7)	See Section 1 of this report	Externally managed by firms listed in Section 1 of this report	See section 2 of this report
Opportunistic Fixed Income Portfolio	See Section 1 of this report	See Section 1 of this report	N.C.G.S. §§ 147-69.2(b)(6c)	See Section 1 of this report	Externally managed by firms listed in Section 1 of this report	See section 2 of this report
Rates and Liquidity Portfolio	See Section 1 of this report	None	N.C.G.S. §§ 147-69.1(c) and 147-69.2(b)(1)-(6b)	1941	Managed internally by staff of the State Treasurer	No management fees or incentive fees
Inflation Sensitive Portfolio	See Section 1 of this report	See Section 1 of this report	N.C.G.S. §§ 147-69.2(b)(9a)	See Section 1 of this report	Externally managed by firms listed in Section 1 of this report	See section 2 of this report
Core Real Estate Portfolio	See Section 1 of this report	See Section 1 of this report	N.C.G.S. §§ 147-69.2(b)(7)	See Section 1 of this report	Externally managed by firms listed in Section 1 of this report	See section 2 of this report
Multi-Strategy Portfolio	See Section 1 of this report	See Section 1 of this report	N.C.G.S. §§ 147-69.2(b)(9)(ii)	See Section 1 of this report	Externally managed by firms listed in Section 1 of this report	See section 2 of this report

We are not aware of any placement agent fees relating to any Retirement Systems investment that were directly or indirectly borne by the State Treasurer or Retirement Systems.

Section 4

Use of New Investment Authority Report required by G.S. 147-69.8

This report is pursuant to G.S. 147-69.8 on the use of new investment authority by the State Treasurer. The report covers new investment authority granted by the General Assembly since 2009 and includes performance and other investment information through June 30, 2019. We have interpreted "new investment authority" or "broadens the investment authority" in the statute to cover two types of situations: (1) changes in the percentage limits stated by G.S. 147-69.2(b) for particular classes of investments; and (2) changes that allowed the State Treasurer to invest in an investment asset type that was not previously allowed.

Opportunistic Fixed Income Portfolio

The Opportunistic Fixed Income (or Credit Strategies) asset class (G.S. 147-69.2(b)(6c)) was created by the General Assembly in June 2009. It included some investments that were previously authorized under other provisions of G.S. 147-69.2. See "NCRS Opportunistic Fixed Income Portfolio" in Section 1 "Value and Performance Supplement" for the investment returns, earnings, changes to value, and gains and losses in disposition of such investments.

The value of Opportunistic Fixed Income assets originally was limited to 5% of the total assets of the Retirement Systems, but the limit was raised to 7.5% in August 2013. The allocation to Opportunistic Fixed Income assets remained below the original 5% limit in fiscal year 2013 despite the increase in the limit to 7.5%; however, the allocation rose above 5% in April 2014. Information on the individual funds with a vintage year later than 2014 can be found in Section 1 of this report.

Inflation Sensitive Portfolio

The Inflation Sensitive asset class (G.S. 147-69.2(b)(9a)) was created by the General Assembly in June 2009. It included some investments that were previously authorized under other provisions of G.S. 147-69.2. See "NCRS Inflation Protection Portfolio" in Section 1 "Value and Performance Supplement" for the investment returns, earnings, changes to value, and gains and losses in disposition of such investments.

The value of Inflation Sensitive assets originally was limited to 5% of the total assets of the Retirement Systems, but the limit was raised to 7.5% in August 2013. The allocation of Inflation Sensitive assets remained below the original 5% limit in fiscal year 2014 despite the increase in the limit to 7.5%; however, the allocation rose above 5% in May 2015. Information on the individual funds with a vintage year later than 2015 can be found in Section 1 of this report.

Section 4

Use of New Investment Authority Report required by G.S. 147-69.8

Alternatives Portfolio

The State Treasurer makes investments in the Alternatives Portfolio, which includes the Private Equity and Multi-Strategy Portfolios, through G.S. 147-69.2(b)(9). G.S. 147-69.2(b)(9)(ii), added by Session Law 2011-211 in June 2011, allows investments in limited liability entities if their primary purpose is “to engage in any other strategies not expressly authorized by any other subdivision of this subsection.” The State Treasurer today administratively classifies the Multi-Strategy Portfolio under G.S. 147-69.2(b)(9)(ii). See “Multi-Strategy Portfolio” in Section 1 “Value and Performance Supplement” for the investment returns, earnings, changes to value, and gains and losses in disposition of such investments.

The limit on the value of Alternatives assets as a percentage of the total assets of the Retirements Systems was raised from 5% to 7.5% in June 2011 (Session Law 2011-211) and to 8.75% in August 2013 (Session Law 2013-398). The allocation to the Alternatives Portfolio rose above 5% in September 2011, and has been above or below 5% at various times since 2011. However, the allocation has not exceeded 7.5%. Information on the individual funds with a vintage year later than 2012 can be found in Section 1 of this report for both the Private Equity Portfolio and the Multi-Strategy portfolios.

Public Equity Portfolio

The State Treasurer makes investments in the Public Equity (or Global Equity) Portfolio through G.S. 147-69.2(b)(8).

Beginning in June 2011, investments were permitted in “limited partnerships, limited liability companies, and other limited liability investment vehicles that are not publicly traded and invest primarily in [public equities]” (G.S. 147-69.2(b)(8)(b.)). These investments include the Hedged Equity subcomponent of the Public Equity Portfolio identified in the State Treasurer’s Investment Policy Statement. See “NCRS Public Equity Portfolio” in Section 1 “Value and Performance Supplement” for the investment returns, earnings, changes to value, and gains and losses in disposition of such investments with the LLC/LLP label.