

MOA Trust Fund  
Endowment Approach  
20-Quarter Rolling Average

	Period Ended	Market Value of Pooled Funds	
	9/30/1999	\$ 115,942,192	
Year end market value	12/31/1999	128,935,517	per CAFR
	3/31/2000	132,723,530	
	6/30/2000	172,642,919	
	9/30/2000	175,087,014	
Year end market value	12/31/2000	144,504,832	per CAFR
	3/31/2001	134,991,087	
	6/30/2001	140,530,297	
	9/30/2001	131,226,706	
Year end market value	12/31/2001	136,662,353	per CAFR
	3/31/2002	132,443,335	
	6/30/2002	126,020,704	
	9/30/2002	116,478,947	
Year end market value	12/31/2002	112,012,848	per CAFR
	3/31/2003	109,521,379	
	6/30/2003	120,889,967	
	9/30/2003	120,489,826	
Year end market value	12/31/2003	125,046,116	per CAFR
	3/31/2004	128,613,206	
	6/30/2004	128,263,692	
	9/30/2004	127,386,305	
Year end market value	12/31/2004	128,928,345	per CAFR
	3/31/2005	127,282,313	
	6/30/2005	129,624,534	
	9/30/2005	133,410,851	
Year end market value	12/31/2005	129,647,006	per CAFR
	3/31/2006	133,731,424	
	6/30/2006	132,292,889	
	9/30/2006	137,823,341	
Year end market value	12/31/2006	138,545,970	per CAFR
	3/31/2007	139,812,981	
	6/30/2007	145,666,791	
	9/30/2007	149,264,442	
Year end market value	12/31/2007	141,010,321	per CAFR
	3/31/2008	133,536,413	
	6/30/2008	131,389,097	
	9/30/2008	121,812,288	
Year end market value	12/31/2008	96,649,951	per CAFR
	3/31/2009	92,055,144	
	6/30/2009	101,170,132	
	9/30/2009	110,979,235	
Year end market value	12/31/2009	112,793,726	per CAFR
	3/31/2010	117,153,261	
	6/30/2010	112,696,152	
	9/30/2010	119,287,965	
Year end market value	12/31/2010	120,339,061	per CAFR
	3/31/2011	125,427,321	
	6/30/2011	125,330,803	
	9/30/2011	110,998,384	
Year end market value	12/31/2011	116,814,323	per CAFR
	3/31/2012	125,427,321	
	6/30/2012	121,910,966	
	9/30/2012	125,692,240	
Year end market value	12/31/2012	127,688,082	per CAFR
	3/31/2013	131,637,911	
	6/30/2013	129,807,825	
	9/30/2013	136,442,797	
Year end market value	12/31/2013	144,240,786	per CAFR
	3/31/2014	144,231,444	
	6/30/2014	150,777,506	
	9/30/2014	147,837,101	
Year end market value	12/31/2014	148,990,379	per CAFR
	3/31/2015	153,087,288	
	6/30/2015	150,936,994	
	9/30/2015	143,314,969	
Year end market value	12/31/2015	144,736,594	per CAFR
	3/31/2016	144,998,635	
	6/30/2016	144,243,440	
	9/30/2016	147,297,290	
Year end market value	12/31/2016	146,500,000	projected
	3/31/2017	148,924,575	projected
	6/30/2017	151,389,277	projected
	9/30/2017	153,894,769	projected
Year end market value	12/31/2017	150,441,728	projected
	3/31/2018	152,931,538	projected
	6/30/2018	155,462,555	projected
	9/30/2018	158,035,461	projected
Year end market value	12/31/2018	154,350,947	projected
	3/31/2019	156,905,456	projected
	6/30/2019	159,502,241	projected
	9/30/2019	162,142,003	projected
Year end market value	12/31/2019	158,325,453	projected
	3/31/2020	160,945,739	projected

2008	2009	2010	2011	2012	2013	2014	2015	Projected 2016	Projected 2017
132,563,337	129,906,705	126,418,490	123,985,324	120,490,106	117,362,668	123,003,487	130,933,283	136,245,117	141,664,841
5.0%	5.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.25%
6,600,000	6,500,000	5,100,000	5,000,000	4,800,000	4,700,000	4,900,000	5,200,000	5,400,000	6,000,000
(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)

Projected 2018	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027
146,751,247	150,252,825	152,263,983	155,942,361	160,329,672	164,507,431	168,773,764	173,155,181	177,659,829	182,285,653
4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%
6,200,000	6,400,000	6,500,000	6,600,000	6,800,000	7,000,000	7,200,000	7,400,000	7,600,000	7,700,000
(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)

Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034	Projected 2035	Projected 2036	Projected 2037
187,573,753	192,452,215	197,440,752	202,541,306	207,750,864	213,081,908	218,537,599	224,115,426	229,813,065	235,643,732
4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%
8,000,000	8,200,000	8,400,000	8,600,000	8,800,000	9,100,000	9,300,000	9,500,000	9,800,000	10,000,000
(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)	(rounded)

**MOA Trust Fund  
Endowment Approach  
20-Quarter Rolling Average**

Period Ended	Market Value of Pooled Funds	
6/30/2020	163,609,391	projected
9/30/2020	166,317,127	projected
12/31/2020	162,469,675	projected
3/31/2021	165,158,548	projected
6/30/2021	167,891,922	projected
9/30/2021	170,670,534	projected
12/31/2021	166,695,131	projected
3/31/2022	169,453,935	projected
6/30/2022	172,258,398	projected
9/30/2022	175,109,274	projected
12/31/2022	171,007,333	projected
3/31/2023	173,837,504	projected
6/30/2023	176,714,515	projected
9/30/2023	179,639,140	projected
12/31/2023	175,412,168	projected
3/31/2024	178,315,239	projected
6/30/2024	181,266,357	projected
9/30/2024	184,266,315	projected
12/31/2024	180,015,922	projected
3/31/2025	182,995,186	projected
6/30/2025	186,023,756	projected
9/30/2025	189,102,449	projected
12/31/2025	184,732,095	projected
3/31/2026	187,789,411	projected
6/30/2026	190,897,326	projected
9/30/2026	194,056,677	projected
12/31/2026	189,568,315	projected
3/31/2027	192,705,670	projected
6/30/2027	195,894,949	projected
9/30/2027	199,137,010	projected
12/31/2027	194,432,728	projected
3/31/2028	197,650,590	projected
6/30/2028	200,921,707	projected
9/30/2028	204,246,961	projected
12/31/2028	199,427,248	projected
3/31/2029	202,727,769	projected
6/30/2029	206,082,914	projected
9/30/2029	209,493,586	projected
12/31/2029	204,560,705	projected
3/31/2030	207,946,185	projected
6/30/2030	211,387,694	projected
9/30/2030	214,886,160	projected
12/31/2030	209,842,526	projected
3/31/2031	213,315,420	projected
6/30/2031	216,845,790	projected
9/30/2031	220,434,588	projected
12/31/2031	215,182,780	projected
3/31/2032	218,744,055	projected
6/30/2032	222,364,270	projected
9/30/2032	226,044,398	projected
12/31/2032	220,685,433	projected
3/31/2033	224,337,777	projected
6/30/2033	228,050,567	projected
9/30/2033	231,824,804	projected
12/31/2033	226,261,505	projected
3/31/2034	230,006,132	projected
6/30/2034	233,812,734	projected
9/30/2034	237,682,335	projected
12/31/2034	232,015,977	projected
3/31/2035	235,855,842	projected
6/30/2035	239,759,256	projected
9/30/2035	243,727,272	projected
12/31/2035	237,860,958	projected
3/31/2036	241,797,557	projected
6/30/2036	245,799,306	projected
9/30/2036	249,867,285	projected
12/31/2036	243,902,588	projected
3/31/2037	247,939,176	projected

Trailing 20-quarter average market value at 3/31 ea. yr.

Annual Payout Calculation, per Endowment Formula

**Note:** Using Callan's Capital Market projections issued Q1 2015 the average annual investment return (i.e., geometric mean return) over the next 10-year period for the MOA Trust Fund is assumed to be 6.62%.