

Montana Board of Investments

Presentation on

Pensions & Investments

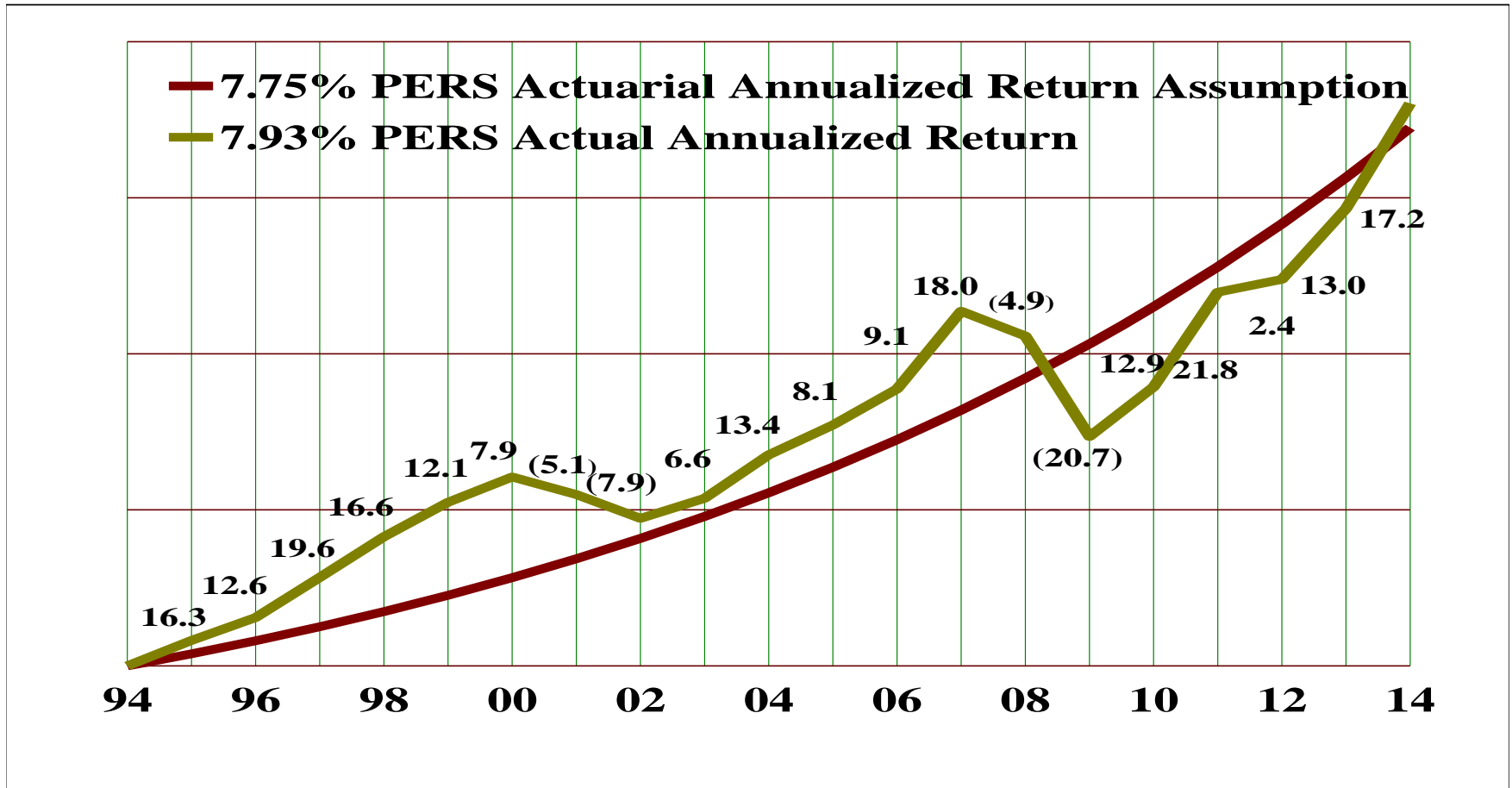
To: State Administration and Veterans' Affairs Interim Committee

By: David Ewer, Executive Director

Cliff Sheets, Chief Investment Officer

Date: November 17, 2014

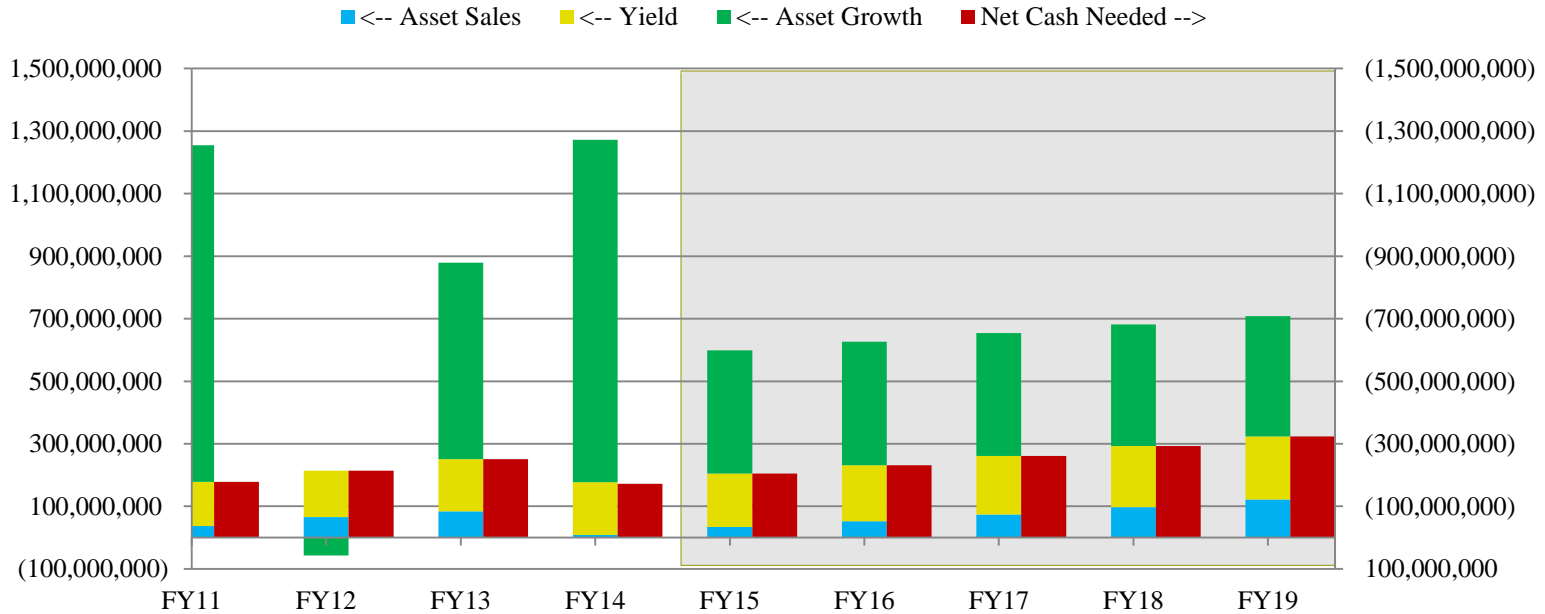
Actual Investment Return Versus Actuarial Assumption (Through FY14)



Pension Cash Needs vs. Asset Changes: Historical and Forecasted

PERS & TRS

Annual Total Return vs. Net Cash Needed

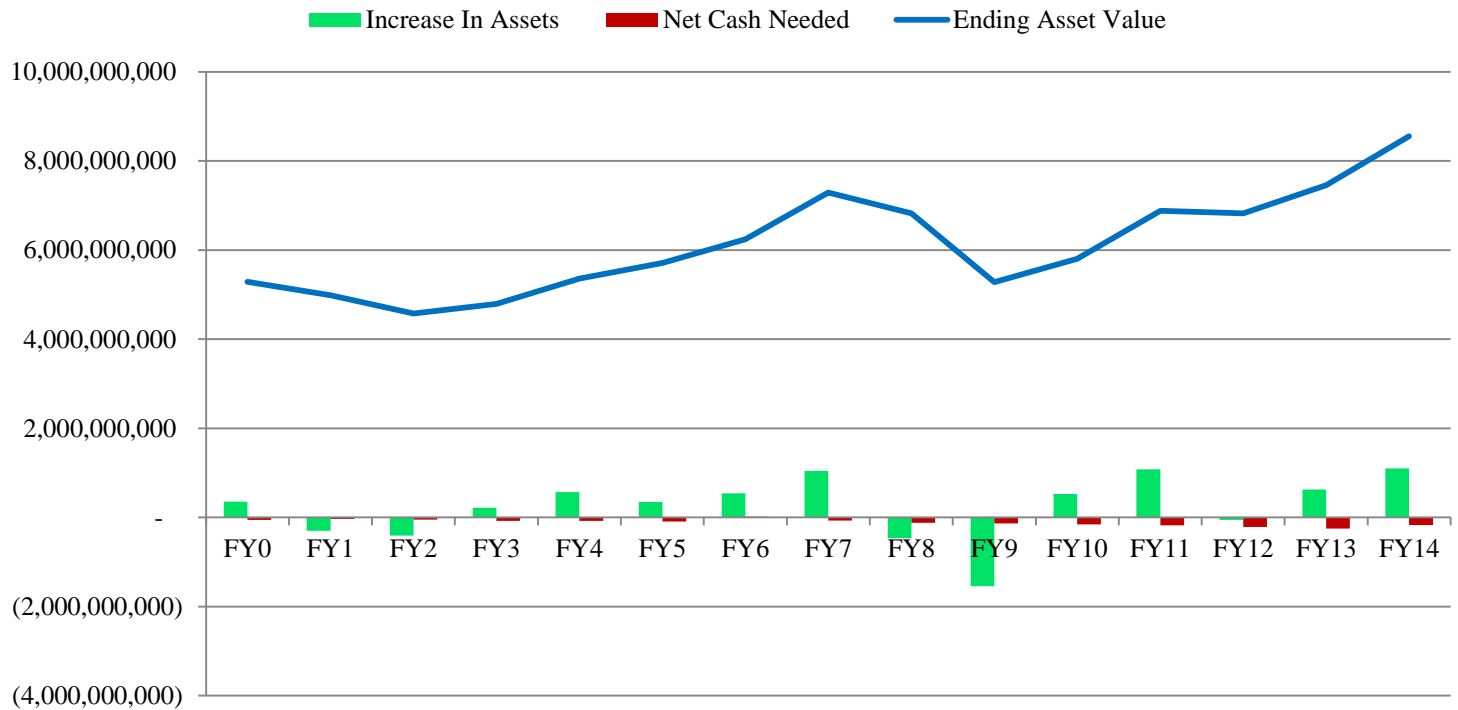


(In Millions)	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Total Return	1,254.7	157.7	878.8	1,272.5	598.7	626.2	653.9	681.4	708.6
Asset Sales	(36.7)	(65.2)	(84.5)	(8.0)	(33.6)	(52.6)	(73.8)	(97.8)	(121.4)
Yield	(141.5)	(149.3)	(166.5)	(168.9)	(171.0)	(178.9)	(186.8)	(194.7)	(202.5)
Asset Growth	1,076.5	(56.8)	627.8	1,095.6	394.1	394.7	393.3	388.9	384.7

Historical Change in Assets vs. Net Cash Needed

PERS & TRS

Asset Value vs. Annual Asset Growth



Retirement Plan vs. Benchmark vs. Peers

Montana Board of Investments
Retirement Plans
Comparative Performance
As of September 30, 2014

	QTD	CYTD	1 Years	3 Years	5 Years	7 Years	10 Years	2013	2012	2011	2010	2009
Public Employees' Retirement - Net	-0.25	5.79	11.67	13.81	10.91	4.59	6.98	17.38	13.24	2.13	12.77	15.42
Public Employees' Benchmark	0.10	6.77	12.89	14.32	11.54	4.88	7.09	17.94	14.88	1.67	12.44	15.41
<i>Difference</i>	<i>-0.35</i>	<i>-0.98</i>	<i>-1.22</i>	<i>-0.51</i>	<i>-0.63</i>	<i>-0.29</i>	<i>-0.11</i>	<i>-0.56</i>	<i>-1.64</i>	<i>0.46</i>	<i>0.33</i>	<i>0.01</i>
Public Employees' Retirement - Gross	-0.13	6.22	12.24	14.40	11.51	5.15	7.45	17.96	13.83	2.68	13.44	16.08
All Public Plans > \$3B Total Fund Median	-1.20	5.26	10.58	12.91	10.40	4.78	7.60	15.18	13.36	0.89	12.73	18.21
Public Employees' Retirement - Gross Rank	16	23	5	12	8	42	61	10	35	25	40	74
Teachers' Retirement - Net	-0.24	5.81	11.71	13.83	10.93	4.59	6.98	17.38	13.24	2.14	12.80	15.42
Teachers' Benchmark	0.11	6.79	12.92	14.33	11.55	4.88	7.09	17.94	14.89	1.66	12.45	15.40
<i>Difference</i>	<i>-0.35</i>	<i>-0.98</i>	<i>-1.21</i>	<i>-0.50</i>	<i>-0.62</i>	<i>-0.29</i>	<i>-0.11</i>	<i>-0.56</i>	<i>-1.65</i>	<i>0.48</i>	<i>0.35</i>	<i>0.02</i>
Teachers' Retirement - Gross	-0.13	6.24	12.28	14.42	11.52	5.15	7.45	17.96	13.84	2.68	13.47	16.08
All Public Plans > \$3B Total Fund Median	-1.20	5.26	10.58	12.91	10.40	4.78	7.60	15.18	13.36	0.89	12.73	18.21
Teachers' Retirement - Gross Rank	16	23	5	12	8	41	61	10	35	25	40	74
Police Retirement - Net	-0.25	5.80	11.68	13.82	10.88	4.54	6.91	17.41	13.23	2.10	12.62	15.42
Police Benchmark	0.11	6.79	12.91	14.29	11.49	4.83	7.00	17.92	14.80	1.66	12.26	15.46
<i>Difference</i>	<i>-0.36</i>	<i>-0.99</i>	<i>-1.23</i>	<i>-0.47</i>	<i>-0.61</i>	<i>-0.29</i>	<i>-0.09</i>	<i>-0.51</i>	<i>-1.57</i>	<i>0.44</i>	<i>0.36</i>	<i>-0.04</i>
Police Retirement - Gross	-0.14	6.22	12.25	14.40	11.47	5.10	7.38	18.00	13.78	2.65	13.29	16.08
All Public Plans > \$3B Total Fund Median	-1.20	5.26	10.58	12.91	10.40	4.78	7.60	15.18	13.36	0.89	12.73	18.21
Police Retirement - Gross Rank	16	23	5	12	8	44	64	10	37	27	42	74

Net performance shown is net of all manager fees and expenses (Net-All). All Public Plans > \$3B Total Fund Median is reported gross of fees.

Benchmark returns reflect unmanaged indices which are not impacted by management fees.

