Montana Board of Investments

Presentation to the State Administration and Veterans' Affairs Interim Committee

November 17, 2016

David Ewer, Executive Director Joe Cullen, Chief Investment Officer

Montana Board of Investments

- Nine-member Board appointed by the Governor with professional investment staff.
- Invests all state monies under Constitution's Unified Investment Program.
 - Pension assets, over \$10 billion
- Operates under prudent expert principle in a fiduciary capacity.

Key Points Regarding Pension Investments

- Pension investing requires a long-term outlook.
- It involves taking substantial risk to generate strong returns.
- Over the long-term, investors have been paid for taking risk if done prudently. Asset Allocation remains critical to the pension plans' long-term success.
- Greater than 70% of the pension assets are invested in some form of equity, compared to debt or cash investments.
- Paying pension benefits requires maintaining adequate liquidity.
- Diversification improves the stability of overall investment returns.
- Over time, nearly every asset type has either been at the top or bottom of the year's performance relative to other asset classes.

Periodic Table of Annual Returns

FY7	FY8	FY9	FY10	FY11	FY12	FY13	FY14	FY15	FY16
Intl Equity	Prvt Equity	Fixed Inc	Prvt Equity	US Equity	Real Estate	US Equity	US Equity	Real Estate	Real Estate
31.5%	9.6%	2.5%	18.2%	31.9%	11.5%	22%	25.2%	13.1%	12.1%
Prvt Equity	Fixed Inc	Cash	US Equity	Intl Equity	Prvt Equity	Intl Equity	Intl Equity	Prvt Equity	Fixed Inc
23.4%	5.8%	1.7%	15.9%	30.6%	11.1%	14.4%	21.7%	8.4%	6%
US Equity	Real Estate	PERS	Fixed Inc	PERS	Fixed Inc	PERS	PERS	US Equity	Prvt Equity
19.5%	4.6%	-20.7%	14.4%	21.8%	8.1%	13%	17.2%	7.3%	5.8%
PERS	Cash	Prvt Equity	PERS	Prvt Equity	US Equity	Prvt Equity	Prvt Equity	PERS	PERS
18%	4.3%	-24.3%	12.9%	21.5%	3%	12.6%	16.5%	4.6%	2.1%
Fixed Inc	PERS	US Equity	Intl Equity	Real Estate	PERS	Real Estate	Real Estate	Fixed Inc	US Equity
6.9%	-4.9%	-27.3%	9.9%	16.5%	2.4%	8.5%	11.7%	2.3%	1.7%
Cash	Intl Equity	Real Estate	Cash	Fixed Inc	Cash	Fixed Inc	Fixed Inc	Cash	Cash
5.6%	-9.3%	-28%	0.3%	6.8%	0.3%	1.6%	5.2%	0.1%	0.4%
Real Estate	US Equity	Intl Equity	Real Estate	Cash	Intl Equity	Cash	Cash	Intl Equity	Intl Equity
4.9%	-13%	-35.3%	-17.3%	0.3%	-15.5%	0.2%	0.1%	-4.2%	-8.9%

Periodic Table of Annualized Returns

Trailing As of September 30, 2016

Beginning Ending	1 YR 9/30/2015 9/30/2016	3 YR 9/30/2013 9/30/2016	5 YR 9/30/2011 9/30/2016	7 YR 9/30/2009 9/30/2016	10 YR 9/30/2006 9/30/2016
	US Equity	Real Estate	US Equity	Prvt Equity	Prvt Equity
	13.9%	12.1%	16.1%	13.1%	9.1%
	Real Estate	US Equity	Real Estate	US Equity	US Equity
	10.3%	10.3%	11.1%	13%	7%
	Intl Equity	Prvt Equity	Prvt Equity	PERS	PERS
	10%	10.2%	10.5%	9.2%	5.8%
	PERS	PERS	PERS	Real Estate	Fixed Inc
	9.5%	7.3%	10.2%	8.5%	5.6%
	Fixed Inc	Fixed Inc	Intl Equity	Fixed Inc	Real Estate
	5.8%	4.5%	6.7%	5.5%	2.8%
	Prvt Equity	Intl Equity	Fixed Inc	Intl Equity	Intl Equity
	4.1%	1.0%	4.3%	4%	1.6%
	Cash	Cash	Cash	Cash	Cash
	0.5%	0.3%	0.3%	0.3%	1.2%

Current Asset Allocation

Pension Fund Asset Allocations & Board Approved Ranges As of 9/30/16						
		Range	Range			
Asset Class	Current	Low	High			
Domestic Equities	38	28	44			
International Equities	16	14	22			
Private Equity	11	9	15			
Real Estate	9	6	10			
Fixed Income	23	22	30			
Cash	3	1	5			
Total						
¹ Existing Policy allows total equity range of 58% - 72% and Timber may not exceed 2% of total pension assets.						