

State of Michigan Retirement Systems

ASSET ALLOCATION REVIEW

Investment Advisory Committee Meeting

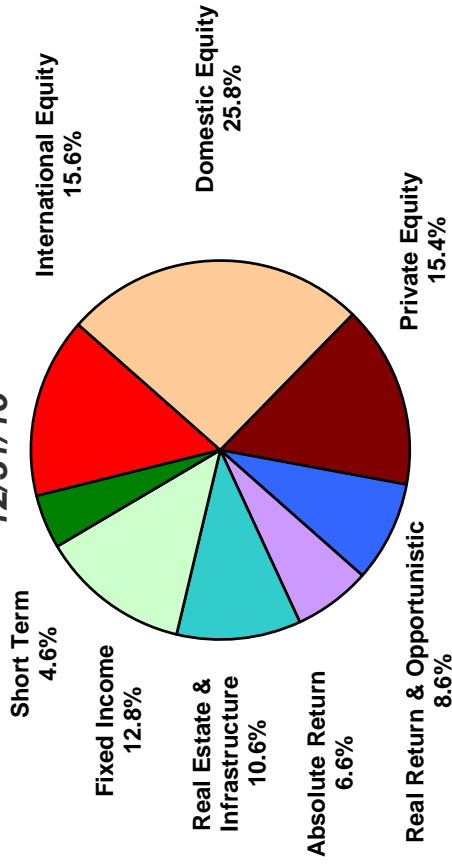
March 9, 2017



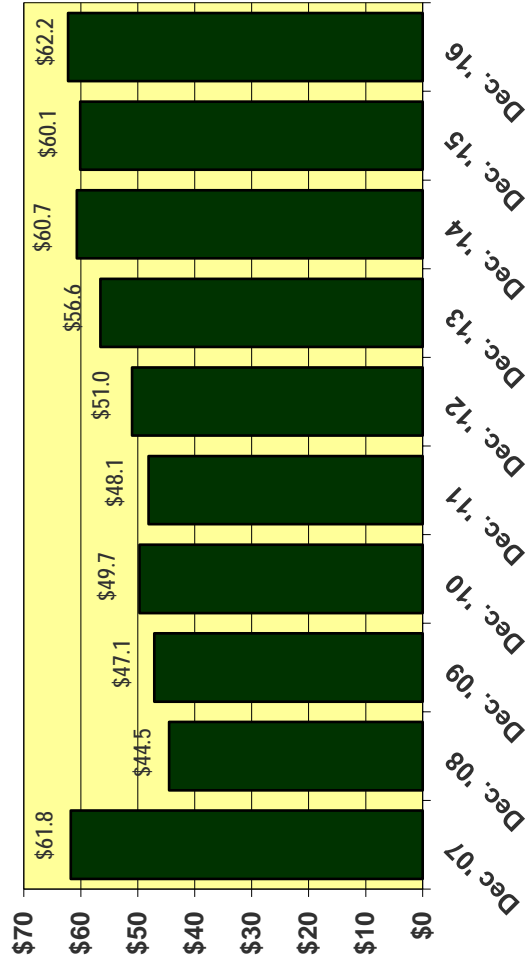
Jon M. Braeutigam
Chief Investment Officer
Bureau of Investments

STATE OF MICHIGAN RETIREMENT SYSTEMS PROFILE - DECEMBER 2016

Asset Allocation 12/31/16



Market Value* (Billions of Dollars)



Asset Allocation By Market Value (In Millions)

Investment Strategies	12/31/16	9/30/16
Domestic Equity	\$16,059	\$15,842
International Equity	9,687	9,802
Private Equity	9,563	9,457
Fixed Income	7,971	8,112
Real Estate & Infra.	6,562	6,564
Real Return & Opport.	5,366	5,397
Absolute Return	4,077	3,978
Short Term***	2,955	2,459
TOTAL	\$62,240	\$61,611

Short Term Equivalents (in Billions)

Short Term Strategy***	\$3.0
Short Term in Other Inv. Strategies	0.6
TOTAL SHORT TERM	\$3.6

5.8% of Total Funds

Market Value By Plan ~ 12/31/16

	(in Millions)		Combined Mkt. Value	%
	Pension Plan Mkt. Value	OPEB** Mkt. Value		
MPSERS	\$43,481	\$4,439	\$47,920	77.0%
MSERS - (closed)	10,997	1,662	12,659	20.3%
MSPRS	1,285	121	1,406	2.3%
MJRS - (closed)	254	1	255	0.4%
TOTAL	\$56,017	\$6,223	\$62,240	100.0%



**18th Largest DB Public Pension Fund in the U.S.
19th Largest DB Pension Fund in the U.S.**



Pensions & Investments Survey - February 6, 2017 Issue

*The combined net payout for the plans for FY 2016 was \$2.1 billion with \$22 billion paid out since FY 2008 thru FY 2016 (SOMCAFR). This represents the amount paid to beneficiaries in excess of employer and employee contributions.

**OPEB - Other Post Employment Benefits

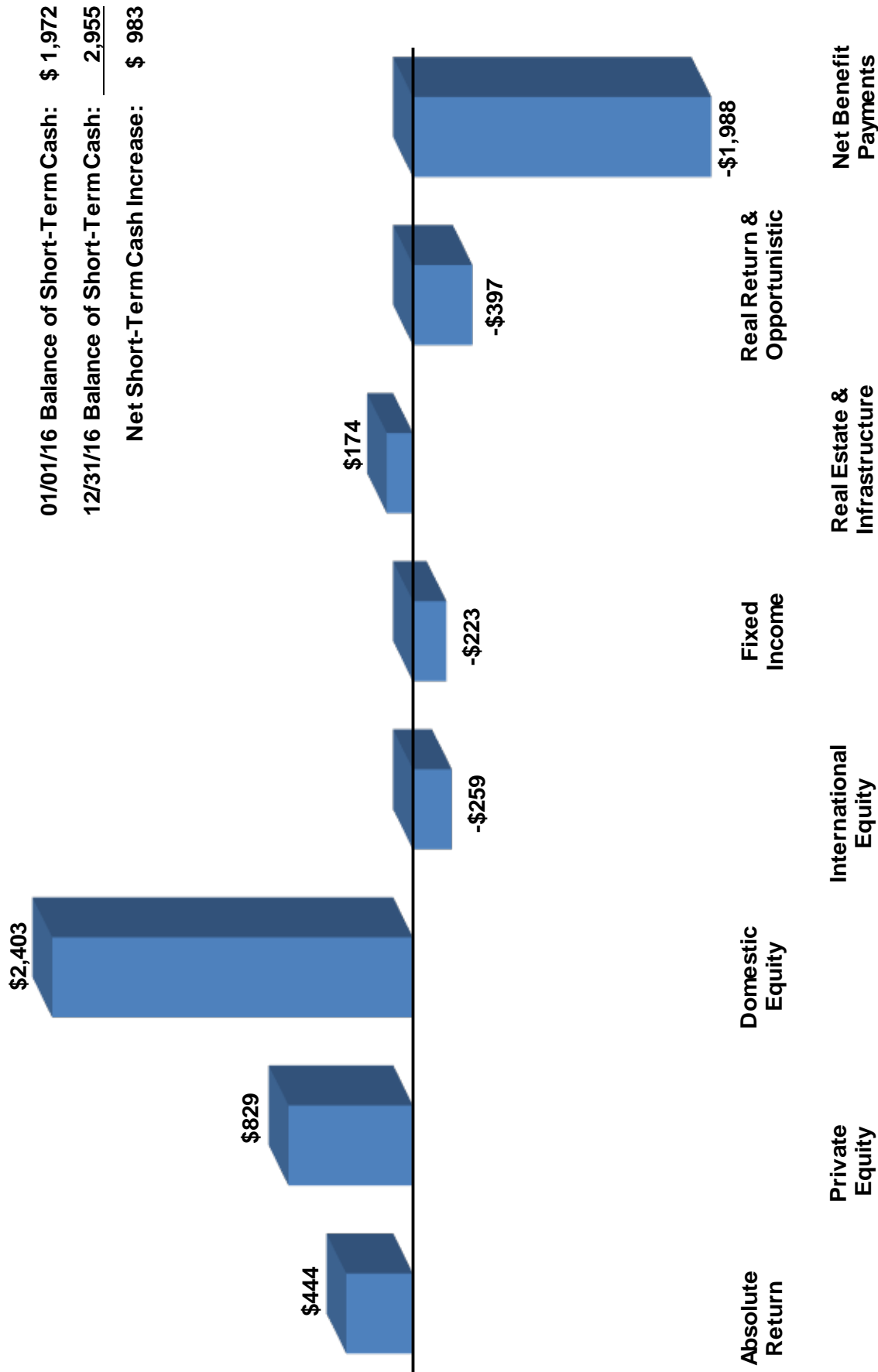
Asset Allocation Targets As of 12/31/16

Asset Class	MPERS			MSERS			MSPRS			MJRS			SMRS
	Actual 12/31/16	Target 9/30/17	Target* 9/30/18	Actual 12/31/16	Target 9/30/17	Target* 9/30/18	Actual 12/31/16	Target 9/30/17	Target* 9/30/18	Actual 12/31/16	Target 9/30/17	Target* 9/30/18	Ranges
Broad U.S. Equity	25.8%	27.0%	28.0%	25.9%	27.0%	28.0%	25.8%	27.0%	28.0%	26.0%	27.0%	28.0%	20% - 50%
Private Equity	15.4%	16.5%	18.0%	15.4%	16.5%	18.0%	15.4%	16.5%	18.0%	15.5%	16.5%	18.0%	10% - 25%
Broad Int'l Equity	15.6%	16.0%	16.0%	15.6%	16.0%	16.0%	15.6%	16.0%	16.0%	15.7%	16.0%	16.0%	10% - 20%
U.S. Fixed Income Core	12.8%	12.0%	10.5%	12.8%	12.0%	10.5%	12.8%	12.0%	10.5%	12.9%	12.0%	10.5%	8% - 25%
Real Estate / Infrastructure	10.6%	10.5%	10.0%	10.6%	10.5%	10.0%	10.6%	10.5%	10.0%	10.6%	10.5%	10.0%	0% - 15%
Real Return / Opportunistic	8.6%	9.0%	9.5%	8.6%	9.0%	9.5%	8.6%	9.0%	9.5%	8.7%	9.0%	9.5%	0% - 15%
Absolute Return	6.6%	6.0%	6.0%	6.6%	6.0%	6.0%	6.6%	6.0%	6.0%	6.6%	6.0%	6.0%	0% - 12%
Cash	4.6%	3.0%	2.0%	4.5%	3.0%	2.0%	4.6%	3.0%	2.0%	4.0%	3.0%	2.0%	1% - 9%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

*Complies with basket clause and international restrictions.

Sources and Uses of Cash

January 2016 ~ December 2016



A negative number in an asset category indicates a use of cash, a positive number indicates a source of cash.
Dollars in millions