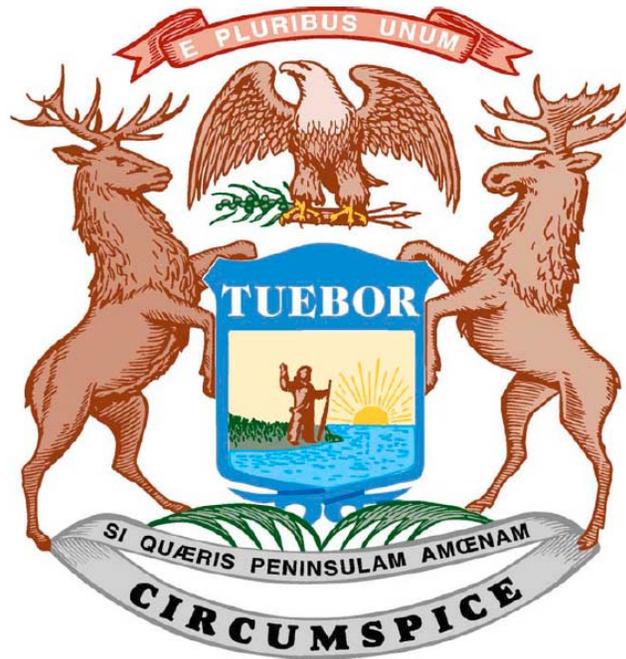




# Michigan Department of Treasury Bureau of Investments



**Gregory J. Parker**

Director of Investments – Public Markets

Director of Asset Allocation

March 21, 2013



# ***Today's Topics:***

- **The Bureau of Investments**
- **MPSERS High Level Plan Overview**
- **MPSERS Asset Allocation**
- **Stock and Bond Markets 2012 Review**
- **MPSERS Returns**

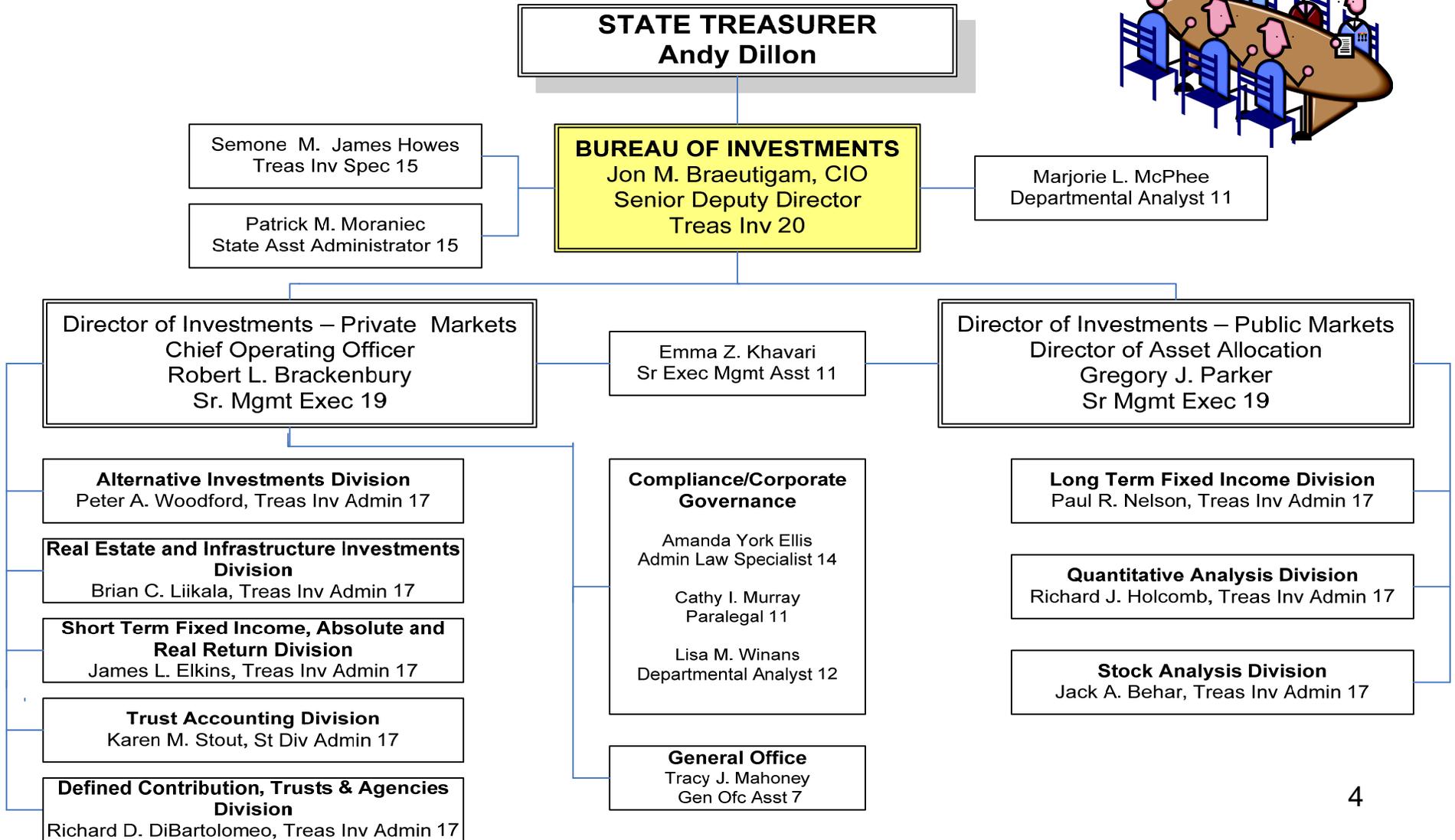


# ***BOI ~ Mission Statement***

- ***The Bureau of Investments provides quality investment management services, professional expertise, and advice to the State Treasurer as fiduciary of the State of Michigan Retirement Systems and Michigan boards and agencies. The Bureau strives to provide consistent and cost-effective management of funds to achieve competitive investment returns that meet objectives within an acceptable level of risk for the benefit of employees, retirees, and citizens of the State of Michigan.***



# Bureau of Investments (BOI) As of January 2013

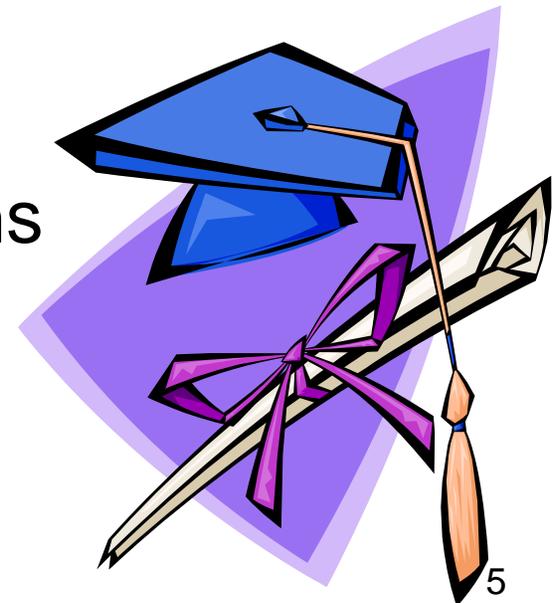




# ***Bureau of Investments (BOI)***

## ***As of December 31, 2012***

- 43 Investment Professionals
- 32 Individuals with a Masters Degree or higher
- 19 C.F.A.
- 9 other professional designations





# BOI Investment and Cash Position

## As of December 31, 2012



<b>TOTAL RETIREMENT RELATED - DB and DC Plans</b>	<b>\$56,316,540,970</b>
<i>OTHER MAJOR FUNDS</i>	
<u>Health Care Account</u>	
<b>MPSERS Health Care Account</b>	<b>\$567,214,698</b>
<u>Family Independence Agency</u>	
<b>Children's Trust</b>	<b>\$24,587,802</b>
<u>Lottery</u>	
<b>State Lottery</b>	<b>327,168,494</b>
<u>Military &amp; Veterans Affairs</u>	
<b>Veterans' Trust</b>	<b>53,833,179</b>
<u>Natural Resources and Environment</u>	
<b>Game and Fish Lifetime License Trust</b>	<b>21,028,839</b>
<b>Game and Fish Protection Trust</b>	<b>210,241,575</b>
<b>Natural Resources Trust</b>	<b>700,760,972</b>
<b>Nongame Fish and Wildlife Trust</b>	<b>6,942,277</b>
<b>State Park Endowment</b>	<b>210,687,536</b>
<u>Multiple Agencies</u>	
<b>Gifts, Bequests, and Deposits Fund</b>	<b>18,243,190</b>
<b>Children With Special Needs</b>	<b>21,593,534</b>
<u>Transportation</u>	
<b>Mackinac Bridge Authority</b>	<b>62,424,308</b>
<u>Treasury</u>	
<b>MESP (TIAA-CREF - 529 Plan)</b>	<b>3,126,859,884</b>
<b>MI 529 Advisor Plan</b>	<b>179,919,688</b>
<b>Michigan Higher Education Assist. Authority</b>	<b>0</b>
<b>MET I</b>	<b>137,672,634</b>
<b>MET II</b>	<b>684,185,594</b>
<b>SUBTOTAL FOR TRUST AND AGENCY FUNDS</b>	<b>\$6,353,364,204</b>
<i>COMMON CASH</i>	
<b>State Treasurer's Common Cash</b>	<b>\$2,772,016,806</b>
<b>TOTAL UNDER MANAGEMENT</b>	<b>\$65,441,921,980</b>



# ***Plan Membership Summary***

**As of September 30, 2011**

<b>MEMBER TYPE</b>	<b>MPSERS</b>
<b>Retirees &amp; Benef. Receiving Benefits</b>	<b>192,435</b>
<b>Current Employees Vested</b>	<b>114,680</b>
<b>Current Employees Non-Vested</b>	<b>121,980</b>
<b>Inactive Employees Entitled To, But Not Yet Receiving Benefits</b>	<b>15,090</b>
<b>TOTAL MPSERS MEMBERS</b>	<b>444,185</b>



# ***Plan Membership Ratio***

**As of September 30, 2011**

<b>Ratio of Active/Retiree</b>	<b>MPERS</b>
<b>Year 2011</b>	<b>1.23:1</b>
<b>Year 2010</b>	<b>1.29:1</b>
<b>Year 2009</b>	<b>1.56:1</b>
<b>Year 2008</b>	<b>1.67:1</b>
<b>Year 2007</b>	<b>1.82:1</b>



# ***MPERS Funded Ratio***

**Years Ending September**

<b>Year</b>	<b>Market Value of Assets</b>	<b>Actuarial Value of Assets</b>	<b>Actuarial Accrued Liability</b>	<b>Funded Ratio Based on Actuarial Value</b>
<b>2011</b>	<b>\$34,675</b>	<b>\$41,038</b>	<b>\$63,427</b>	<b>64.7%</b>
<b>2010</b>	<b>\$35,855</b>	<b>\$43,294</b>	<b>\$60,927</b>	<b>71.1%</b>
<b>2009</b>	<b>\$34,498</b>	<b>\$44,703</b>	<b>\$56,685</b>	<b>78.9%</b>
<b>2008</b>	<b>\$39,188</b>	<b>\$45,667</b>	<b>\$54,608</b>	<b>83.6%</b>
<b>2007</b>	<b>\$48,363</b>	<b>\$45,335</b>	<b>\$51,107</b>	<b>88.7%</b>
<b>2006</b>	<b>\$42,995</b>	<b>\$39,893</b>	<b>\$49,136</b>	<b>81.2%</b>
<b>2005</b>	<b>\$39,216</b>	<b>\$38,211</b>	<b>\$48,206</b>	<b>79.3%</b>
<b>1983</b>	<b>\$6,285</b>	<b>\$6,035</b>	<b>\$8,434</b>	<b>71.6%</b>
<b><i>MPERS Estimated Market Value Funded Ratio</i></b>				
<b>12/31/2012</b>	<b>\$39,808</b>	<b>- - -</b>	<b>\$63,427</b>	<b>62.8%</b>

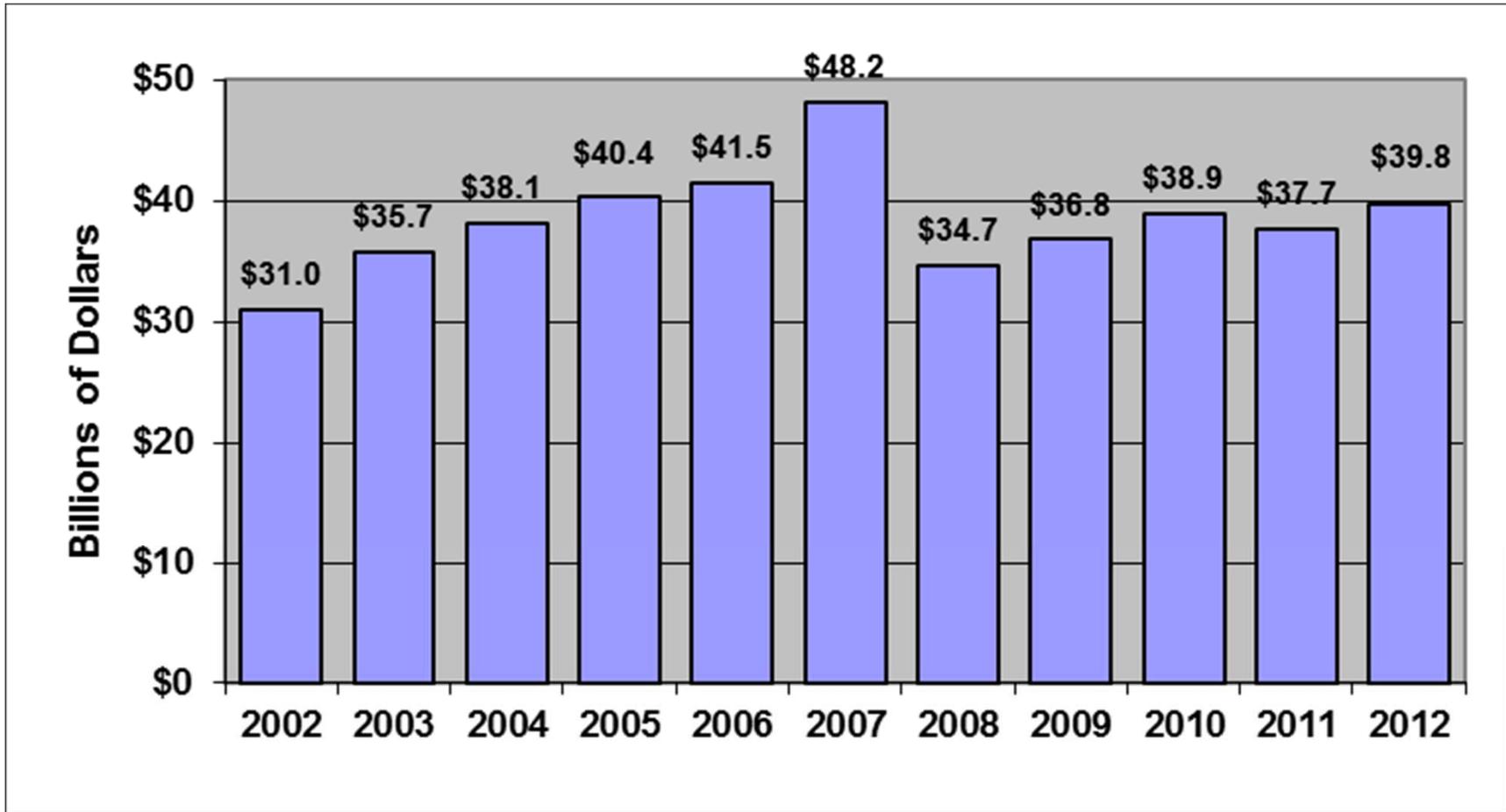
(\$ in Millions)

Source: Pension Plans Component Unit Financial Reports and Actuarial Valuations



# ***MPERS Market Value***

## ***\$39.8 Billion***



Years Ending December 31



# ***MPERS***

## ***Contributions and Distributions***

### ***FY 2011***

#### **Contributions**

Employer	\$1,156.0
Members	<u>332.0</u>

**Total Contributions** \$1,488.0

Pension Benefit Distributions 3,942.0

**Net** **(\$2,454.0)**

- Equal to (per quarter on average) (\$613.5)
- Or about 6.2% of total market value of fund



# ***MPERS Asset Allocation***

## ***As of December 31, 2012***

<b><i>Asset Allocation By Market Value</i></b>				
<b>(In Millions)</b>				
<b>Investment Strategies</b>	<b>12/31/2012</b>		<b>Target Allocation</b>	
			<b>Target</b>	<b>Range</b>
<b>Domestic Equity</b>	<b>\$10,477</b>	<b>26.3%</b>	<b>33%</b>	<b>20% - 50%</b>
<b>Alternative Investments</b>	<b>8,244</b>	<b>20.7%</b>	<b>14%</b>	<b>10% - 25%</b>
<b>International Equity</b>	<b>5,775</b>	<b>14.5%</b>	<b>16%</b>	<b>10% - 20%</b>
<b>Fixed Income</b>	<b>5,288</b>	<b>13.3%</b>	<b>16%</b>	<b>10% - 25%</b>
<b>Real Estate</b>	<b>4,088</b>	<b>10.3%</b>	<b>9%</b>	<b>0% - 15%</b>
<b>Short Term</b>	<b>2,273</b>	<b>5.7%</b>	<b>2%</b>	<b>1% - 9%</b>
<b>Real Return &amp; Opport.</b>	<b>2,114</b>	<b>5.3%</b>	<b>4%</b>	<b>0% - 10%</b>
<b>Absolute Return</b>	<b>1,549</b>	<b>3.9%</b>	<b>6%</b>	<b>0% - 12%</b>
<b>TOTAL</b>	<b>\$39,808</b>	<b>100.0%</b>	<b>100%</b>	



# ***MPERS Total Plan Universe***

## ***Peer Asset Allocation Comparison***

***Public Funds (DB) > \$1 Billion***  
***(for major asset categories)***

	<u>Equities Domestic</u>	<u>Equities Foreign</u>	<u>Fixed Income</u>	<u>Real Estate</u>	<u>Private Equity</u>	<u>Cash Equivalent</u>						
5th Percentile	58.7	32.2	38.1	10.3	20.9	25.8						
25th Percentile	45.8	22.0	27.4	6.3	12.5	8.5						
50th Percentile	31.5	15.7	22.2	2.7	8.9	3.8						
75th Percentile	23.0	8.2	16.3	0.0	1.4	1.3						
95th Percentile	0.0	0.0	0.0	0.0	0.0	0.0						
<b>Total Public School</b>	<b>27.7</b>	<b>63</b>	<b>14.1</b>	<b>57</b>	<b>13.3</b>	<b>81</b>	<b>10.0</b>	<b>8</b>	<b>21.0</b>	<b>4</b>	<b>5.0</b>	<b>42</b>



# ***SMRS by Asset Class***

***As of December 31, 2012***

## **Domestic Equity**

\$13.2 Billion in managed funds

23 Strategies

Approximately 1,200 Stocks

## **Real Estate**

\$5.2 Billion in managed funds

40 Advisors

61 Accounts

## **Alternative Investments**

\$10.5 Billion in managed funds

84 Sponsors

266 Partnerships

3,448 Companies

## **Absolute and Real Return**

**(and Opportunistic)**

\$4.7 Billion in managed funds

4 Strategies

107 Managers



# ***SMRS by Asset Class***

***As of December 31, 2012***

## **Fixed Income**

\$6.8 Billion in managed funds

8 Strategies

Represents Over 2,417 Positions

## **Short Term Investments**

\$2.9 Billion in Managed Funds

## **International Equity**

\$7.4 Billion in managed funds

16 Strategies

Representing 5,100 Stocks

## **Trust Accounting**

Approximately 100,000  
transactions annually



## *Bond Market Environment*

Market	2012 Yield		2012 Yield	
	Change	12/31/12	Change	9/30/12
<b>30-Year Treasury</b>	<b>5.5 bp</b>	<b>3.0%</b>	<b>12.6 bp</b>	<b>2.8%</b>
<b>10-Year Treasury</b>	<b>-11.9 bp</b>	<b>1.8%</b>	<b>12.4 bp</b>	<b>1.6%</b>
<b>5-Year Treasury</b>	<b>-10.9 bp</b>	<b>0.7%</b>	<b>9.8 bp</b>	<b>0.6%</b>
<b>2-Year Treasury</b>	<b>0.8 bp</b>	<b>0.3%</b>	<b>1.7 bp</b>	<b>0.2%</b>
<b>Fed Funds</b>	<b>0 bp</b>	<b>0.3%</b>	<b>0 bp</b>	<b>0.3%</b>



## *Stock Market Update*

Market	Thru 12/31/12		Thru 9/30/12	
	Price Change	12/31/12	Price Change	9/30/12
<b>DJIA</b>	<b>7.3%</b>	<b>13,104</b>	<b>10.0%</b>	<b>13,437</b>
<b>S&amp;P 500</b>	<b>13.4%</b>	<b>1,426</b>	<b>14.5%</b>	<b>1,441</b>
<b>NASDAQ</b>	<b>15.9%</b>	<b>3,019</b>	<b>6.0%</b>	<b>3,116</b>
<b>BMI-EPAC (USD)</b>	<b>14.7%</b>	<b>236.0</b>	<b>8.1%</b>	<b>223.0</b>



# S&P 500 – Last 10 Years





***MPERS FUND***  
***Time-Weighted Rate of Return***  
***Public Funds (DB) > \$10 Billion***  
**As of December 31, 2012**

	<u>1 Year</u> <u>Rate</u>	<u>5 Years</u> <u>Rate</u>	<u>10 Years</u> <u>Rate</u>
<b>TOTAL PLAN</b>	12.6	2.2	7.5
Median - Greater than \$10 Billion	13.5	2.4	7.7



# ***MPSERS FUND***

## ***Time-Weighted Rate of Return***

### ***Funds (DB) > \$10 Billion***

**As of September 30, 2012**

	<u>1 Year</u>	<u>5 Years</u>	<u>10 Years</u>
5th Percentile	18.8	7.1	9.1
25th Percentile	16.6	2.6	8.3
50th Percentile	15.2	2.1	7.9
75th Percentile	13.5	1.4	7.6
95th Percentile	12.3	0.4	6.1
<b>Total Public School</b>	13.5	1.6	7.7

Source: State Street Investment Analytics



# Time-Weighted Rates of Return

*Individual asset classes doing very well on a relative basis*

Asset Class w/Benchmark	CY 2012	
	Five Years Rate	One Year Rate
<b>Total Plan</b>	<b>2.2%</b>	<b>12.6%</b>
Median*	2.4%	13.5%
<b>Domestic Equities</b>	<b>2.0%</b>	<b>16.8%</b>
S&P 1500 Index	2.1%	16.2%
<b>International Equities</b>	<b>-2.5%</b>	<b>19.4%</b>
S&P Developed BMI-EPAC net 75/25	-3.0%	17.9%
<b>Private Equity</b>	<b>5.7%</b>	<b>14.3%</b>
Alternative Blended Benchmark	7.2%	32.8%

\*Comparison universe is the State Street Universe comprised of Public Funds greater than \$10 Billion on the Total Plan level and greater than \$1 Billion for asset classes.



## *Time-Weighted Rates of Return*

Asset Class w/Benchmark	CY 2012	
	Five Years Rate	One Year Rate
<b>Real Estate</b>	<b>-3.3%</b>	<b>8.7%</b>
NCREIF Open Fund Index Net	-2.0%	9.8%
<b>Bonds</b>	<b>7.0%</b>	<b>5.7%</b>
Barclays Govt/Credit	6.1%	4.8%
<b>Cash Equivalents</b>	<b>0.1%</b>	<b>0.3%</b>
30-Day T-Bill	0.3%	0.1%

\*Comparison universe is the State Street Universe comprised of Public Funds greater than \$10 Billion on the Total Plan level and greater than \$1 Billion for asset classes.



## Disclaimer



**This presentation was given solely for the purpose of explaining the structure and investment process for the State of Michigan Retirement Systems. It should not be interpreted in any way as financial advice.**