



## Michigan Department of Treasury Bureau of Investments



**Jon M. Braeutigam**  
Chief Investment Officer  
Bureau of Investments  
March 17, 2011



### *Today's Topics:*

- **The Bureau of Investments**
- **MPSERS High Level Plan Overview**
- **MPSERS Asset Allocation**
- **Stock and Bond Markets 2010 Review**
- **MPSERS Returns**



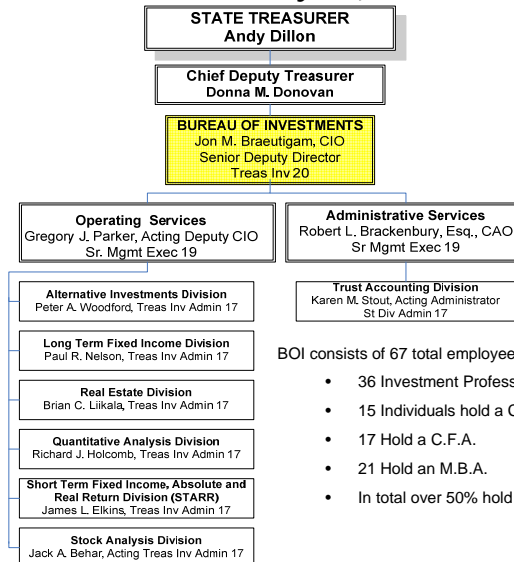
## BOI ~ Mission Statement

- **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 February 25, 2011



BOI consists of 67 total employees of which there are:

- 36 Investment Professionals
- 15 Individuals hold a C.F.A. and an M.B.A.
- 17 Hold a C.F.A.
- 21 Hold an M.B.A.
- In total over 50% hold an M.B.A. or C.F.A. or both.

## **BOI Investment and Cash Position**

### **As of December 31, 2010**

<b>TOTAL RETIREMENT RELATED - DB &amp; 401K/457</b>	<b>\$54,796,334,506</b>
<i>OTHER MAJOR FUNDS</i>	
<i>Health Care Account</i>	
MPSERS and MSERS Health Care Accounts	\$77,510,667
<i>Family Independence Agency</i>	
Children's Trust	\$23,233,117
<i>Lottery</i>	
State Lottery	410,828,752
<i>Military &amp; Veterans Affairs</i>	
Veterans' Trust	51,435,999
<i>Natural Resources and Environment</i>	
Game and Fish Lifetime License Trust	18,749,818
Game and Fish Protection Trust	195,778,367
Natural Resources Trust	691,095,315
Nongame Fish and Wildlife Trust	6,783,188
State Park Endowment	155,197,962
<i>Multiple Agencies</i>	
Gifts, Bequests, and Deposits Fund	15,898,481
Children With Special Needs	20,292,584
<i>Transportation</i>	
Mackinac Bridge Authority	48,277,536
<i>Treasury</i>	
MESP (TIAA-CREF - 529 Plan)	2,518,482,591
MI 529 Advisor Plan	39,454,041
Michigan Higher Education Assist. Authority	1,501,254
MET I	181,589,759
MET II	595,736,705
<b>SUBTOTAL FOR TRUST AND AGENCY FUNDS</b>	<b>\$5,051,846,134</b>
<i>COMMON CASH</i>	
State Treasurer's Common Cash	\$2,407,416,670
<b>TOTAL UNDER MANAGEMENT</b>	<b>\$62,255,597,310</b>

5

## **Plan Membership Summary**

As of September 30, 2010

MEMBER TYPE	MPSERS
<b>Retirees &amp; Benef. Receiving Benefits</b>	<b>187,722</b>
<b>Current Employees Vested</b>	<b>113,688</b>
<b>Current Employees Non-Vested</b>	<b>128,880</b>
<b>Inactive Employees Entitled To, But Not Yet Receiving Benefits</b>	<b>15,026</b>
<b>Total MPSERS Members</b>	<b>445,316</b>

Source: Pension Plans Component Unit Financial Reports Fiscal Year Ended September 30, 2010

6



## Plan Membership Ratio

As of September 30, 2010

Ratio of Active/Retiree	MPSERS
<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>
<b>Year 2006</b>	<b>1.94:1</b>

Source: Pension Plans Component Unit Financial Reports Fiscal Year Ended September 30, 2010

7



## MPSERS Funded Ratio

Years Ending September

Year	Market Value of Assets	Actuarial Value of Assets	Actuarial Accrued Liability	Funded Ratio Based on Actuarial Value
2009	\$34,498	\$44,703	\$56,685	78.9%
2008	\$39,066	\$45,667	\$54,608	83.6%
2007	\$48,363	\$45,335	\$51,107	88.7%
2006	\$42,995	\$39,893	\$49,136	81.2%
2005	\$39,216	\$38,211	\$48,206	79.3%
2004	\$36,289	\$38,784	\$46,317	83.7%
1983	\$6,285	\$6,035	\$8,434	71.6%
<b>MPSERS Estimated Market Value Funded Ratio</b>				
12/31/2010	\$38,896	- - -	\$56,685	68.6%

(\$ in Millions)

Source: Pension Plans Component Unit Financial Reports and Actuarial Valuations

8

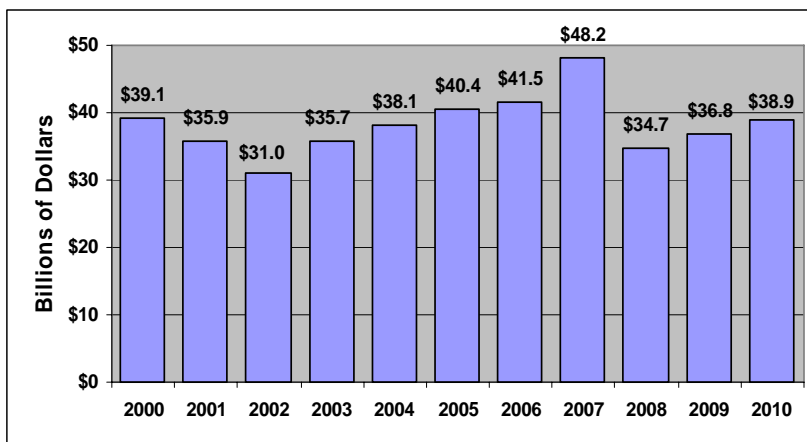


## SMRS Market Value by Plan As of December 31, 2010

	Market Value <i>(In Millions)</i>	%
Public School Employees	\$38,896	78.2%
State Employees	9,520	19.2%
State Police	1,059	2.1%
Judges	248	0.5%
<b>TOTAL</b>	<b>\$49,723</b>	<b>100.0%</b>



## MPERS Market Value \$38.9 Billion



Years Ending December 31



## **MPERS**

### **Contributions and Distributions**

*FY 2010*

#### **Contributions**

Members	\$378.0
Employer	1,001.0

**Total Contributions** \$1,379.0

Pension Benefit Distributions 3,525.0

**Net** **(\$2,146.0)**

- Equal to (per quarter on average) (\$536.5)
- Or about 5.5% of total market value of fund

Figures are in millions

11



## **MPERS Asset Allocation**

### **As of December 31, 2010**

<b>Asset Allocation By Market Value</b>				
(In Millions)				
Investment Strategies	12/31/2010		Target Allocation	
	Value	%	Target	Range
Domestic Equity	\$13,737	35.3%	33%	20% - 50%
Alternative Investments	8,017	20.6%	14%	10% - 20%
Fixed Income	5,967	15.4%	16%	10% - 25%
International Equity	5,403	13.9%	16%	10% - 20%
Real Estate	3,225	8.3%	9%	5% - 15%
Absolute & Real Return	1,484	3.8%	10%	0% - 20%
Short Term	1,063	2.7%	2%	1% - 7%
<b>TOTAL</b>	<b>\$38,896</b>	<b>100.0%</b>	<b>100%</b>	

12



## **MSPERS Total Plan Universe Peer Asset Allocation Comparison** (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	60.67	30.89	44.01	9.86	21.70	11.70
25th Percentile	44.99	21.30	31.85	4.87	9.80	6.51
<b>50th Percentile</b>	<b>34.88</b>	<b>17.75</b>	<b>23.96</b>	<b>2.69</b>	<b>5.22</b>	<b>3.25</b>
75th Percentile	26.17	14.02	18.63	0.09	0.37	1.54
95th Percentile	10.09	0.00	6.22	0.00	0.00	0.42
<b>Total Public School</b>	<b>35.32</b>	<b>11.63</b>	<b>15.34</b>	<b>8.29</b>	<b>20.61</b>	<b>2.73</b>

Source: State Street Investment Analytics  
Period ending 12/31/2010

13



## **MPERS by Asset Class** As of January 31, 2010

### **Domestic Equity**

\$13,151 Million in managed funds  
31 Strategies  
Approximately 1,467 Stocks

### **Real Estate**

\$3,874 Million in managed funds  
30 Sponsors  
53 Partnerships  
Over 2,000 properties

### **Alternative Investments**

\$8,653 Million in managed funds  
83 Sponsors  
251 Partnerships  
3,442 Companies

### **Short Term Investments**

\$679 Million in managed Funds

14



# MPERS by Asset Class

As of January 31, 2010

## Fixed Income

\$6,835 Million in managed funds  
9 Strategies  
Representing 2,849 Positions

## Absolute and Real Return (and Opportunistic)

\$786 Million in managed funds  
20 Strategies

## International Equity

\$4,616 Million in managed funds  
8 Strategies  
Representing 6,300 Stocks

## Trust Accounting

Accurately accounted for \$36 billion  
in Investments - Comprehensive  
Annual Financial Report (CAFR)



## Stock Market Update

Market	Thru 12/31/10		Thru 9/30/10	
	Price Change	12/31/10	Price Change	9/30/10
DJIA	11.02%	11,578	3.45%	10,788
S&P 500	12.78%	1,258	2.34%	1,141
NASDAQ	16.91%	2,653	4.38%	2,369
BMI-EPAC (USD)	7.57%	242.3	0.48%	226.4





## Bond Market Environment

Market	2010		Q4 2010	
	Yield Change	12/31/10	Yield Change	9/30/10
30-Year Treasury	-30 bp	4.34%	65 bp	3.69%
10-Year Treasury	-54 bp	3.30%	78 bp	2.51%
5-Year Treasury	-67 bp	2.01%	74 bp	1.27%
2-Year Treasury	-54 bp	0.60%	17bp	0.43%
Fed Funds	0 bp	0.25%	0 bp	0.25%

17



## S&P 500 – Last 10 Years



18



**MPSERS FUND**  
**Time-Weighted Rate of Return**  
*Public Funds (DB) > \$10 Billion*

As of December 31, 2010

	<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>	12.7	4.1	4.0
Median - Greater than \$10 Billion	12.7	4.2	4.5

Source: State Street Investment Analytics



**MPSERS FUND**  
**Time-Weighted Rate of Return**  
*Public Funds (DB) > \$10 Billion*  
*Close to peer in 1 and 5 year time periods*

As of December 31, 2010

	<u>1 Year</u>	<u>5 Years</u>	<u>10 Years</u>
5th Percentile	15.23	5.60	5.71
25th Percentile	14.16	4.70	4.96
<b>50th Percentile</b>	<b>12.74</b>	<b>4.16</b>	<b>4.47</b>
75th Percentile	11.73	3.89	4.17
95th Percentile	9.02	2.33	3.62
<b>Total Public School</b>	<b>12.68</b>	<b>4.10</b>	<b>4.01</b>

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 2010	
	Five Years	One Year
	Rate	Rate
<b>Total Plan</b>	<b>4.1%</b>	<b>12.7%</b>
Median*	4.1%	13.2%
<b>Domestic Equities</b>	<b>2.9%</b>	<b>15.2%</b>
S&P 1500 Index	2.7%	16.4%
<b>International Equities</b>	<b>2.1%</b>	<b>10.6%</b>
S&P Developed BMI-EPAC net 75/25	1.6%	9.6%
<b>Private Equity</b>	<b>10.2%</b>	<b>18.7%</b>
Alternative Blended Benchmark	6.1%	17.9%

\*State Street Universe of Public Funds > \$1 Billion

21



## Time-Weighted Rates of Return

Asset Class w/Benchmark	CY 2010	
	Five Years	One Year
	Rate	Rate
<b>Real Estate</b>	<b>-0.1%</b>	<b>3.7%</b>
NCREIF Open Fund Index Net	-1.1%	15.3%
<b>Bonds</b>	<b>6.9%</b>	<b>8.3%</b>
Barclays Govt/Credit	5.6%	6.6%
<b>Cash Equivalents</b>	<b>2.1%</b>	<b>0.5%</b>
30-Day T-Bill	2.2%	0.1%

\*State Street Universe of Public Funds > \$1 Billion

22



## 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.**