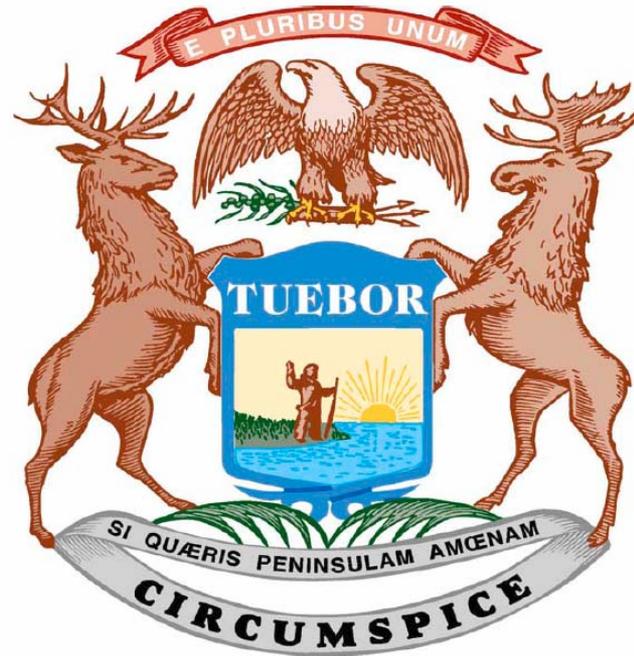




Michigan Department of Treasury Bureau of Investments



Gregory J. Parker, CFA

Deputy Chief Investment Officer

Bureau of Investments

April 27, 2011



Today's Topics:

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



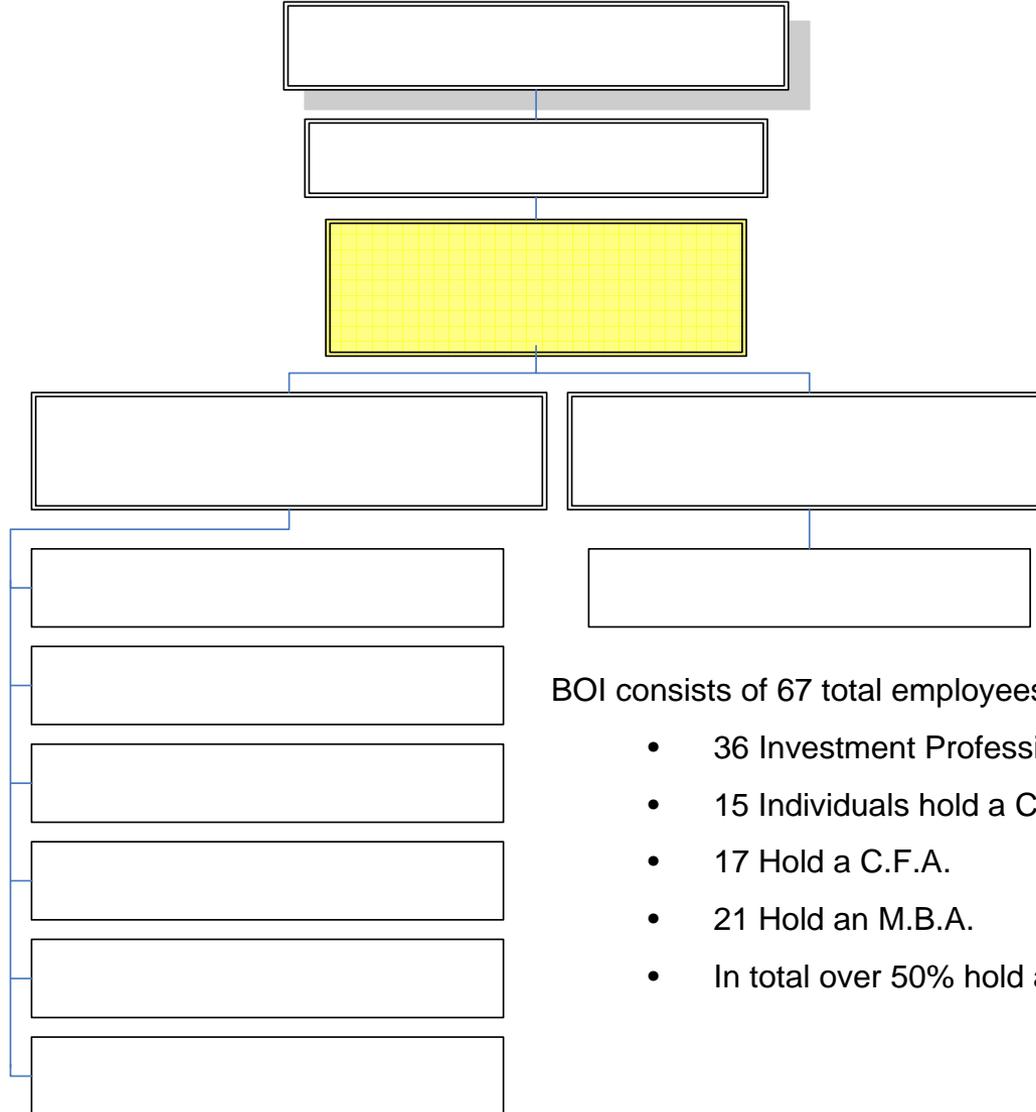
BOI ~ Mission Statement

- 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

| | |
|---|-------------------------|
| TOTAL RETIREMENT RELATED - DB & 401k/457 | \$54,796,334,506 |
| <u>OTHER MAJOR FUNDS</u> | |
| <u>Health Care Account</u> | |
| MPSERS and MSERS Health Care Accounts | \$77,510,667 |
| <u>Family Independence Agency</u> | |
| Children's Trust | \$23,233,117 |
| <u>Lottery</u> | |
| State Lottery | 410,828,752 |
| <u>Military & Veterans Affairs</u> | |
| Veterans' Trust | 51,435,999 |
| <u>Natural Resources and Environment</u> | |
| 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 |
| <u>Multiple Agencies</u> | |
| Gifts, Bequests, and Deposits Fund | 15,898,481 |
| Children With Special Needs | 20,292,584 |
| <u>Transportation</u> | |
| Mackinac Bridge Authority | 48,277,536 |
| <u>Treasury</u> | |
| 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 |
| SUBTOTAL FOR TRUST AND AGENCY FUNDS | \$5,051,846,134 |
| <u>COMMON CASH</u> | |
| State Treasurer's Common Cash | \$2,407,416,670 |
| TOTAL UNDER MANAGEMENT | \$62,255,597,310 |



Plan Membership Summary

As of September 30, 2010

| MEMBER TYPE | MSERS |
|---|---------------|
| Retirees & Benef. Receiving Benefits | 50,462 |
| Current Employees Vested | 24,829 |
| Current Employees Non-Vested | 649 |
| Inactive Employees Entitled To, But Not Yet Receiving Benefits | 6,243 |
| TOTAL MSERS MEMBERS | 82,183 |



Plan Membership Ratio

As of September 30, 2010

| Ratio of Active/Retiree | MSERS |
|------------------------------------|--------------|
| Year 2010 | .50:1 |
| Year 2009 | .56:1 |
| Year 2008 | .59:1 |
| Year 2007 | .66:1 |
| Year 2006 | .71:1 |



MRSERS Funded Ratio

Years Ending September

| Year | Market Value of Assets | Actuarial Value of Assets | Actuarial Accrued Liability | Funded Ratio Based on Actuarial Value |
|--|-------------------------------|----------------------------------|------------------------------------|--|
| 2009 | \$8,583 | \$11,107 | \$14,234 | 78.0% |
| 2008 | \$9,786 | \$11,403 | \$13,766 | 82.8% |
| 2007 | \$12,103 | \$11,344 | \$13,162 | 86.2% |
| 2006 | \$10,890 | \$10,111 | \$12,799 | 79.0% |
| 2005 | \$10,131 | \$9,897 | \$12,400 | 79.8% |
| 2004 | \$9,428 | \$10,149 | \$12,004 | 84.5% |
| 1983 | \$1,842 | \$1,752 | \$2,369 | 74.0% |
| <i>MRSERS Estimated Market Value Funded Ratio</i> | | | | |
| 12/31/2010 | \$9,520 | - - - | \$14,234 | 66.9% |

(\$ in Millions)

Source: Pension Plans Component Unit Financial Reports and Actuarial Valuations



SMRS Market Value by Plan

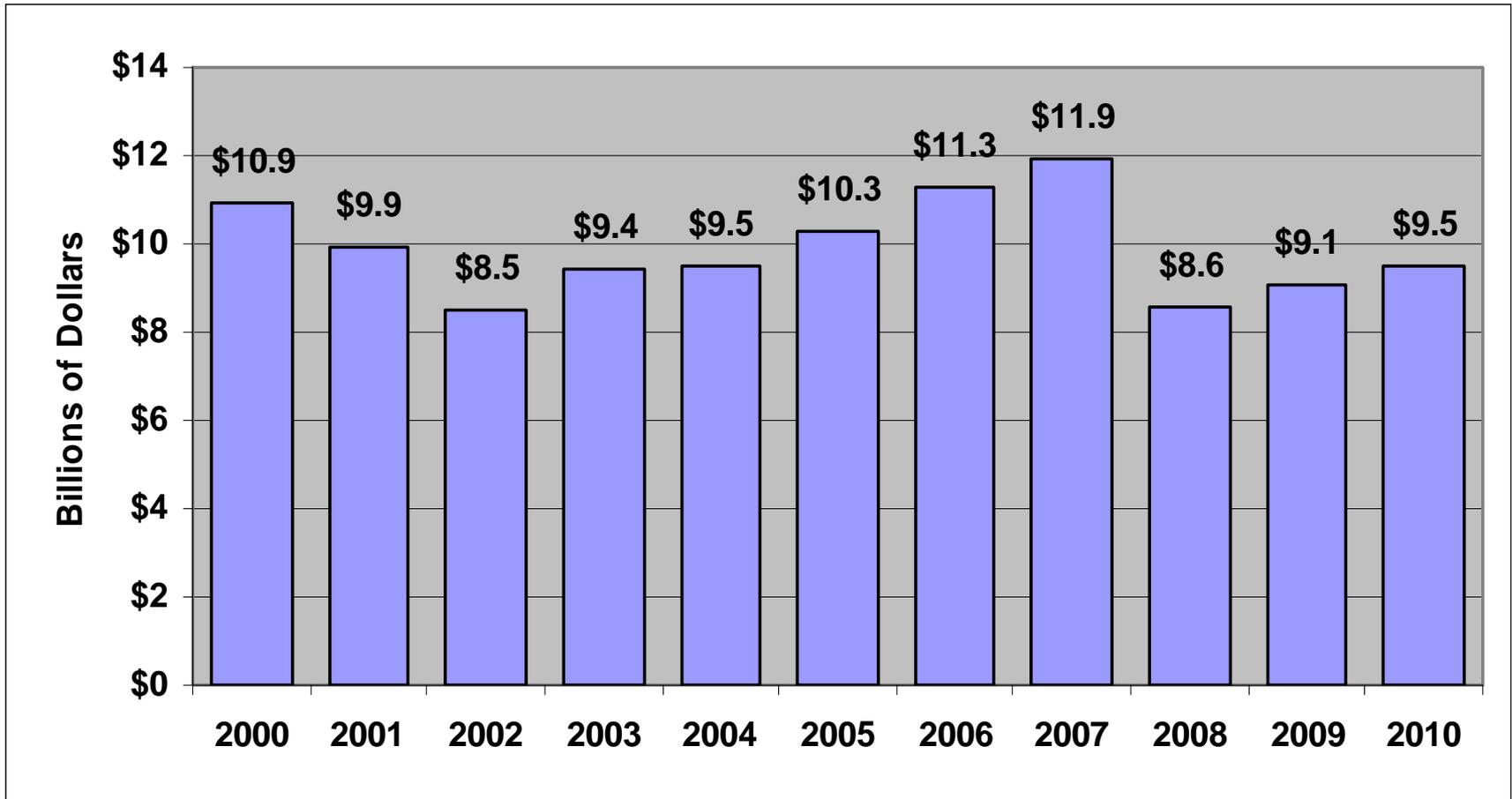
As of December 31, 2010

| | 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% |
| TOTAL | \$49,723 | 100.0% |



MSEERS Market Value

\$9.5 Billion



Years Ending December 31



MSEERS

Contributions and Distributions

FY 2010

Contributions

| | |
|----------|--------------|
| Members | \$26.0 |
| Employer | <u>370.0</u> |

Total Contributions \$396.0

Pension Benefit Distributions 917.0

Net **(\$521.0)**

- Equal to (per quarter on average) (\$130.3)
- Or about 5.7% of total market value of fund



MRSERS Asset Allocation

As of December 31, 2010

Asset Allocation By Market Value

(In Millions)

| Investment Strategies | 12/31/2010 | | Target Allocation | |
|-----------------------------------|--------------------|-------------------|--------------------------|------------------|
| | | | Target | Range |
| Domestic Equity | \$3,366 | 35.4% | 33% | 20% - 50% |
| Alternative Investments | 1,878 | 19.7% | 14% | 10% - 20% |
| Fixed Income | 1,423 | 14.9% | 16% | 10% - 25% |
| International Equity | 1,351 | 14.2% | 16% | 10% - 20% |
| Real Estate | 852 | 9.0% | 9% | 5% - 15% |
| Absolute & Real Return | 366 | 3.8% | 10% | 0% - 20% |
| Short Term | 284 | 3.0% | 2% | 1% - 7% |
| TOTAL | \$9,520 | 100.0% | 100% | |



MRSERS 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 | 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 |
| 50th Percentile | 34.88 | 17.75 | 23.96 | 2.69 | 5.22 | 3.25 |
| 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 |
| Total State Employees | 35.36 48 | 11.89 80 | 14.94 94 | 8.95 8 | 19.73 8 | 2.98 54 |



SMRS by Asset Class

As of December 31, 2010

Domestic Equity

\$17.6 Billion in managed funds
30 Strategies
Approximately 1,435 Stocks

Real Estate

\$4.2 Billion in managed funds
30 Advisors
53 Real Estate Accounts
Over 2,000 properties

Alternative Investments

\$9.9 Billion in managed funds
82 Sponsors
253 Partnerships
3,455 Companies

Short Term Investments

\$1.9 Billion in Managed Funds



SMRS by Asset Class

As of December 31, 2010

Fixed Income

\$7.8 Billion in managed funds

11 Strategies

Representing 4,448 Positions

Absolute and Real Return (and Opportunistic)

\$1.9 Billion in managed funds

4 Strategies

47 Managers

International Equity

\$6.9 Billion in managed funds

11 Strategies

Representing 6,300 Stocks

Trust Accounting

Approximately 100,000
transactions annually



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% |



S&P 500 – Last 10 Years





MSERS FUND

Time-Weighted Rate of Return

Public Funds (DB) > \$1 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> |
|-----------------------------------|--|---|--|
| TOTAL PLAN | 12.6 | 4.0 | 3.9 |
| Median - Greater than \$1 Billion | 13.0 | 4.5 | 4.7 |



MSERS 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 |
| 50th Percentile | 12.74 | 4.16 | 4.47 |
| 75th Percentile | 11.73 | 3.89 | 4.17 |
| 95th Percentile | 9.02 | 2.33 | 3.62 |
| Total State Employees | 12.54 | 3.97 | 3.94 |



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 |
| Total Plan | 4.0% | 12.6% |
| Median* | 4.5% | 13.0% |
| Domestic Equities | 2.9% | 15.2% |
| S&P 1500 Index | 2.7% | 16.4% |
| International Equities | 2.1% | 10.6% |
| S&P Developed BMI-EPAC net 75/25 | 1.6% | 9.6% |
| Private Equity | 10.2% | 18.7% |
| Alternative Blended Benchmark | 6.1% | 17.9% |

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



Time-Weighted Rates of Return

| Asset Class w/Benchmark | CY 2010 | |
|----------------------------|--------------|-------------|
| | Five Years | One Year |
| | Rate | Rate |
| Real Estate | -0.1% | 3.7% |
| NCREIF Open Fund Index Net | -1.1% | 15.3% |
| Bonds | 6.9% | 8.3% |
| Barclays Govt/Credit | 5.6% | 6.6% |
| Cash Equivalents | 1.7% | 0.5% |
| 30-Day T-Bill | 2.2% | 0.1% |

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



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.