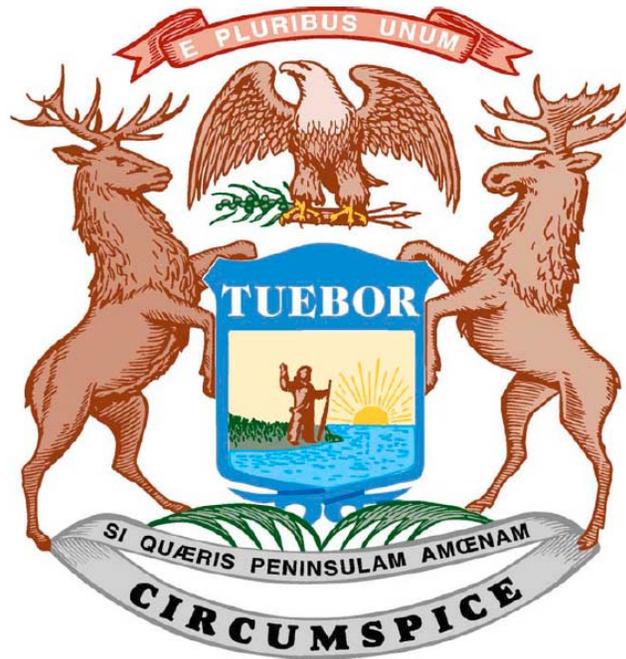




Michigan Department of Treasury Bureau of Investments



Jon M. Braeutigam

Chief Investment Officer

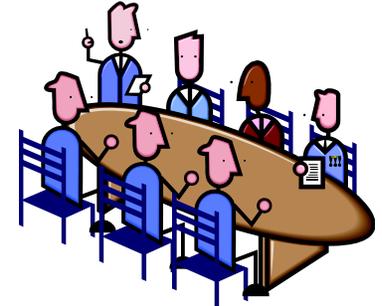
Bureau of Investments

March 27, 2014



Bureau of Investments (BOI)

As of January 2014



BUREAU OF INVESTMENTS
 Jon M. Braeutigam, CIO
 Senior Chief Investment Officer 21

Director of Investments—Private Markets
 Chief Operating Officer
 Robert L. Brackenbury
 Senior Director of Investments 20

Director of Investments—Public Markets
 Director of Asset Allocation
 Gregory J. Parker
 Senior Director of Investments 20

Alternative Investments Division
 Peter A. Woodford, Sr Investment Mgr 18

Real Estate & Infrastructure Investments Division
 Brian C. Liikala, Sr Investment Mgr 18

Short Term Fixed Income, Absolute & Real Return Division
 James L. Elkins, Sr Investment Mgr 18

Compliance & Corporate Governance Division
 Amanda York Ellis, St Div Admin 17

Trust Accounting Division
 Karen M. Stout, St Div Admin 17

Long Term Fixed Income Division
 Vacant, Investment Mgr 18

Quantitative Analysis Division
 Richard J. Holcomb, Sr Investment Mgr 18

Stock Analysis Division
 Jack A. Behar, Sr Investment Mgr 18

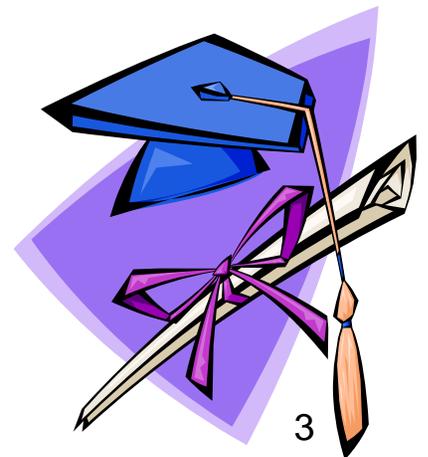
Defined Contribution, Trusts & Agencies Division
 Richard D. DiBartolomeo, Sr Investment Mgr 18



Bureau of Investments (BOI)

January 2014

- 74 BOI Employees
- 45 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, 2013



TOTAL RETIREMENT RELATED	\$62,822,765,077
<i>OTHER MAJOR FUNDS</i>	
<u>Health Care Account</u>	
MPSERS Health Care Account	\$552,034,843
<u>Family Independence Agency</u>	
Children's Trust	\$24,528,169
<u>Lottery</u>	
State Lottery	314,912,974
<u>Military & Veterans Affairs</u>	
Veterans' Trust	53,806,493
<u>Natural Resources and Environment</u>	
Game and Fish Lifetime License Trust	16,383,148
Game and Fish Protection Trust	219,030,677
Natural Resources Trust	706,023,165
Nongame Fish and Wildlife Trust	6,795,029
State Park Endowment	231,496,193
<u>Multiple Agencies</u>	
Gifts, Bequests, and Deposits Fund	18,367,843
Children With Special Needs	20,433,353
<u>Transportation</u>	
Mackinac Bridge Authority	59,764,381
<u>Treasury</u>	
MESP (TIAA-CREF - 529 Plan)	3,674,850,697
MI 529 Advisor Plan	269,113,127
MET I	136,155,048
MET II	796,688,386
SUBTOTAL FOR TRUST AND AGENCY FUNDS	\$7,100,383,525
<i>COMMON CASH</i>	
State Treasurer's Common Cash	\$3,241,353,525
TOTAL UNDER MANAGEMENT	\$73,164,502,127



Plan Membership Summary

As of September 30, 2013

MEMBER TYPE	MPSERS
Retirees & Benef. Receiving Benefits	200,952
Current Employees Vested	110,926
Current Employees Non-Vested	103,980
Inactive Employees Entitled To, But Not Yet Receiving Benefits	16,235
Total MPSERS Members	432,093



MPERS Funded Ratio

Years Ending September

Year	Market Value of Assets	Actuarial Value of Assets	Actuarial Accrued Liability	Funded Ratio Based on Actuarial Value
2012	\$37,700	\$38,450	\$62,716	61.3%
2011	\$34,675	\$41,038	\$63,427	64.7%
2010	\$35,855	\$43,294	\$60,927	71.1%
2009	\$34,498	\$44,703	\$56,685	78.9%
2008	\$39,188	\$45,667	\$54,608	83.6%
2007	\$48,363	\$45,335	\$51,107	88.7%
2006	\$42,995	\$39,893	\$49,136	81.2%
1983	\$6,285	\$6,035	\$8,434	71.6%
<i>MPERS Estimated Market Value Funded Ratio</i>				
12/31/2013	\$44,035	- - -	\$62,716	70.2%

(\$ in Millions)

Source: Pension Plans Component Unit Financial Reports and Actuarial Valuations



MPERS

Contributions and Distributions

FY 2013

Contributions

Members	\$385.0
Employer	<u>1,364.1</u>

Total Contributions \$1,749.1

Pension Benefit Distributions 4,238.5

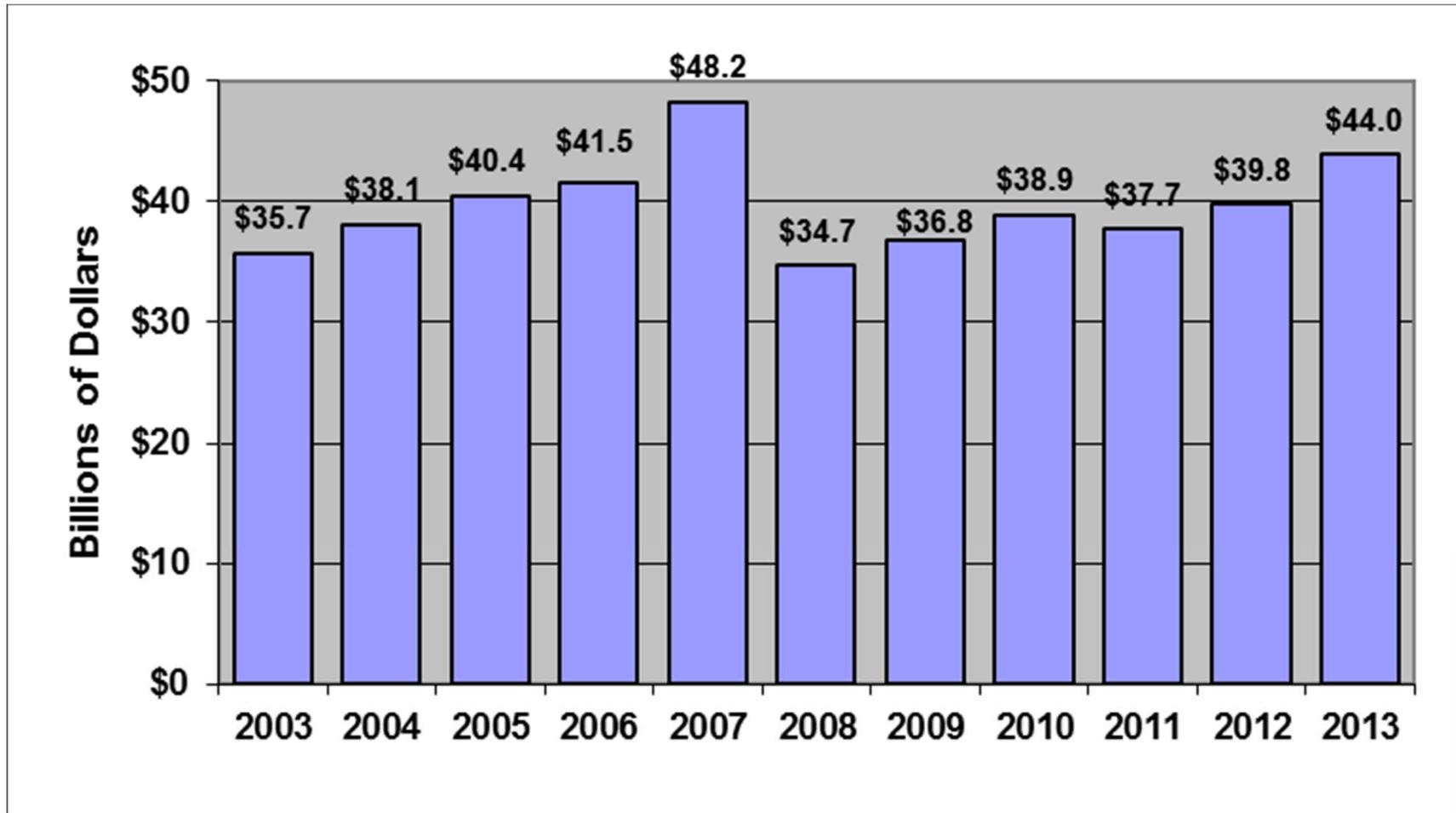
Net **(\$2,489.4)**

- Equal to (per quarter on average) (\$622.4)
- Or about 5.7% of total market value of fund



MPERS Market Value

\$44 Billion



Years Ending December 31

Footnote: In FY 2013 the net payout was \$2.5 billion. This represents the amount paid to beneficiaries in excess of employer and employee contributions.



MPERS Asset Allocation

As of December 31, 2013

Asset Allocation By Market Value

(In Millions)

<u>Investment Strategies</u>	<u>12/31/2013</u>		Target Allocation	
			<u>Target</u>	<u>Range</u>
Domestic Equity	\$13,199	30.0%	31%	20% - 50%
Alternative Investments	7,967	18.1%	16%	10% - 25%
International Equity	7,099	16.1%	16%	10% - 20%
Fixed Income	5,222	11.9%	15%	10% - 25%
Real Estate & Infrastructure	4,071	9.2%	9%	0% - 15%
Real Return & Opportunistic	2,441	5.5%	5%	0% - 10%
Absolute Return	1,892	4.3%	4%	0% - 12%
Short Term	2144	4.9%	4%	1% - 9%
TOTAL	<u>\$44,035</u>	<u>100.0%</u>	<u>100%</u>	



SMRS by Asset Class

As of September 30, 2013

Domestic Equity

\$15.3 Billion in managed funds

24 Strategies

Approximately 1,300 Stocks

Real Estate

\$5.9 Billion in managed funds

41 Advisors

68 Accounts

Alternative Investments

\$10.2 Billion in managed funds

86 Sponsors

266 Partnerships

3,384 Companies

Absolute and Real Return

(and Opportunistic)

\$5.3 Billion in managed funds

4 Strategies

136 Managers



SMRS by Asset Class

As of September 30, 2013

Fixed Income

\$6.7 Billion in managed funds

9 Strategies

Represents Over 2,650 Positions

Short Term Investments

\$2.4 Billion in Managed Funds

International Equity

\$7.4 Billion in managed funds

16 Strategies

Representing 5,100 Stocks

Trust Accounting

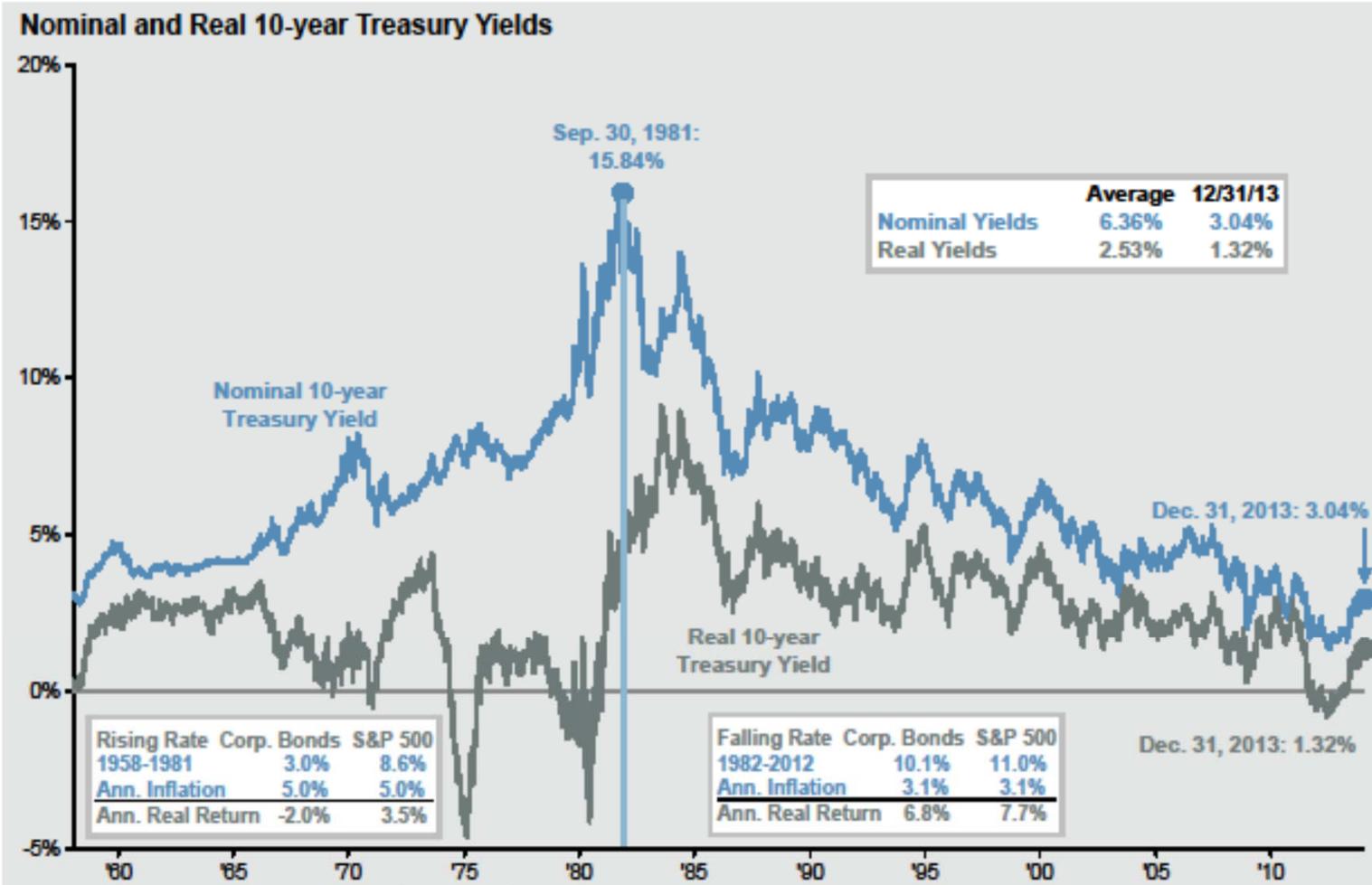
Approximately 100,000
transactions annually



MARKET INSIGHTS

Interest Rates and Inflation

Fixed Income



Source: Federal Reserve, BLS, J.P. Morgan Asset Management.

Real 10-year Treasury yields are calculated as the daily Treasury yield less year-over-year core inflation for that month except for December 2013, where real yields are calculated by subtracting out November 2013 year-over-year core inflation. All returns above reflect annualized total returns, which include reinvestment of dividends. Corporate bond returns are based on a composite index of investment grade bond performance. Guide to the Markets - U.S.

Data are as of 12/31/13.





Stock Market Update

Market	12/31/13		Thru 2/28/14	
	Price Change	12/31/13	Price Change	2/28/14
S&P 500	29.6%	1,848	0.6%	1,859
MSCI ACWI Ex USA	16.0%	281.0	0.0%	281.0



S&P 500 – Last 10 Years





MPERS FUND

Time-Weighted Rate of Return

Public Funds (DB) > \$10 Billion

As of December 31, 2013

	<u>1-Year Return</u>	<u>3-Year Return</u>	<u>5-Year Return</u>	<u>7-Year Return</u>	<u>10-Year Return</u>
TOTAL PLAN	16.4	10.6	11.3	5.3	7.2
Median - Greater than \$10 Billion	15.8	9.8	11.7	5.3	7.1



Time-Weighted Rates of Return

Individual asset classes doing well on a relative basis

Asset Class w/Benchmark	CY 2013	
	3-Year Annual Return	1-Year Return
Total Plan*	10.6%	16.4%
Median*	9.8%	15.8%
Domestic Equities	16.0%	34.1%
S&P 1500 Index	16.2%	32.8%
International Equities	6.3%	14.9%
MSCI ACWI Ex USA	5.6%	15.8%
Bonds	4.0%	-0.5%
Barclays Aggregate	3.3%	-2.0%

*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 2013	
	3-Year Annual Return	1-Year Return
Private Equity	15.7%	16.8%
Alternative Blended Benchmark	19.2%	22.4%
Real Estate	11.0%	11.3%
NCREIF - Property Blended Index	10.5%	9.6%
Absolute Return	6.0%	12.0%
HFRI FOF Cons 1 month lagged	2.9%	7.9%
Real Return and Opportunistic	6.2%	8.7%
Benchmark	7.6%	7.3%
Cash Equivalents	0.3%	0.4%
30-Day T-Bill	0.1%	0.0%

*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.



U.S. Economy

- Forecasted for modest higher growth
- Housing continues to turn upwards
- Auto sales are doing well
- Energy – less dependence on foreign sources
- Yearly deficit projections are falling
- Consumer debt service is low
- Stock market hitting all time high (as of 3/14)
- Corporations have strong balance sheets



Concerns

- Need to address U.S., states, and municipalities long-term liabilities
- World is uncertain (Iran, North Korea, Ukraine, Syria, etc.)
- Europe is out of the recession, but still has high levels of debt
- Larger emerging market economies are experiencing growing pains