

# INVESTMENT ADVISORY COMMITTEE MEETING

September 4, 2014

STATE OF MICHIGAN RETIREMENT SYSTEMS  
QUARTERLY INVESTMENT REVIEW



**R. Kevin Clinton, State Treasurer**

Prepared by Bureau of Investments  
Michigan Department of Treasury



# INVESTMENT ADVISORY COMMITTEE MEETING

SEPTEMBER 4, 2014

## Agenda



- 9:30 a.m. Call to Order and Opening Remarks
- 9:40 a.m. Approval of Minutes of 6/5/14, IAC Meeting
- 9:45 a.m. Executive Summary & Performance for Periods Ending 6/30/14
- 10:00 a.m. Current Asset Allocation Review
- 10:10 a.m. Round Table Discussion
- 10:20 a.m. Asset Liability Study – R.V. Kuhns & Associates – *Jim Voytko, President, Director of Research, and Senior Consultant*
- 11:30 a.m. Closing Remarks ~ Adjournment



### *Reports Received and Filed:*

- *Markets Review and Outlook*
- *Absolute and Real Return/Opportunistic*
- *Alternative Investments*
- *Domestic Equity*
- *Fixed Income*
- *International Equity*
- *Real Estate & Infrastructure*
- *Basket Clause*

### 2014 Meeting Schedule

Tuesday, December 2, 2014

### TENTATIVE ~ 2015 Meeting Schedule

Thursday, March 5, 2015

Thursday, June 4, 2015

Thursday, September 3, 2015

Tuesday, December 1, 2015

All meetings start at 9:30 a.m.

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**STATE OF MICHIGAN  
RETIREMENT SYSTEMS**

**MINUTES**

**INVESTMENT ADVISORY COMMITTEE MEETING**

**SEPTEMBER 4, 2014**



**Jon M. Braeutigam  
Chief Investment Officer  
Bureau of Investments**



## **INVESTMENT ADVISORY COMMITTEE**

The Investment Advisory Committee (IAC) held its quarterly meeting on Thursday, June 5, 2014, at the Bureau of Investments, Great Lakes Conference Room, 2501 Coolidge Road, Suite 400, East Lansing, Michigan.

Members Present:

Nick A. Khouri, Chairman  
L. Erik Lundberg  
Steve Arwood, LARA

In attendance from the Department of Treasury: State Treasurer R. Kevin Clinton, Jon M. Braeutigam, Gregory J. Parker, Robert L. Brackenbury, Jim Elkins, Peter Woodford, Karen Stout, Brian Liikala, Richard Holcomb, Jack Behar, Dan Quigley, Rick DiBartolomeo, Vikram Ambekar, Indu Sambandam, Ann Storberg, Lan Chen, Marge McPhee, Janet Sudac, and Emma Khavari.

Others in attendance: Jim Voytko, Molly Jason, Joe Curtin, and June Morse. Special Guests: Kenneth L. Fisher and Owen Muehlfeld from Fisher Investments.

### **Call to Order**

Chairman Khouri called the June 5, 2014, IAC meeting to order at 9:30 a.m. and thanked everyone for taking time from their busy schedules to attend the meeting. Chairman Khouri reflected on the first quarter of 2014 and the past year. He remarked that it is a good time to review what was done, what worked, and what it means going forward. He stated that it was his opinion that the plan had a great trailing four quarters both in absolute and relative terms, and the market has been performing well. He noted that the discussions at this meeting would take into consideration the broader issues of asset allocation, the markets, and what is being planned over the next year.

### **Approval of Minutes of March 6, 2014**

Chairman Khouri asked for a motion to approve the minutes of the March 6, 2014, IAC meeting. Mr. Erik Lundberg so moved, seconded by Mr. Steve Arwood; there were no objections – so approved.

### **Executive Summary – Performance Section**

Chairman Khouri turned the meeting over to Mr. Jon Braeutigam to discuss the performance section of the Executive Summary. Mr. Braeutigam noted that the overall returns, for the performance ending March 31, 2014, were very good. There were several questions addressed regarding the State Street peer ranks and policy return. Mr. Jim Voytko noted that any plan which has a significant allocation to private equity is

going to be trailing its policy benchmark return as the private equity benchmark is usually driven by the public markets and so there is a time lag.

## **Executive Summary – Asset Allocation and Capital Markets Sections**

Mr. Braeutigam turned the meeting over to Mr. Greg Parker to review the Asset Allocation Section and Capital Markets Section of the Executive Summary.

**Asset Allocation** – Mr. Parker highlighted the past twelve months where money has been shifted from domestic equity to international equity. Private market exposure, private equity, and real estate have been reduced to pay benefits. Funds have been put to work in the real return and opportunistic strategies while maintaining a lower than peer average allocation to fixed income due to its low expected returns. Mr. Parker noted that going back two years, the ten-year rate was 50 basis points lower than it is today. He concluded asset allocation noting that there is \$6.4 billion in outstanding commitments primarily to private equity, but also to real estate infrastructure, and real return and opportunistic as well.

**Capital Markets** – Mr. Parker noted that the foreign markets have underperformed the domestic markets. The returns for the developed foreign markets and the large-cap U.S., over the past two years are nearly identical, with the biggest difference being in the small-cap U.S. verses emerging markets. He noted that foreign equities in the world market are about 80% in developed and 20% in emerging. Within the international portfolio, the split is close to the same, being slightly overweight to emerging. There were several questions asked and there was a discussion regarding what is happening in emerging markets and what affects the markets. Mr. Parker also discussed the European sovereign debt interest rates, noting that both the Spanish and Italian ten-year rates are just barely above the U.S. rates. The Russian stock market is at or slightly higher than it was when the Crimean crisis began.

**Highlighted Asset Class** – Mr. Parker discussed the highlighted asset class – domestic equity. He noted that the plan had 29.7% allocated to domestic equity, which is slightly underweight the strategic target of 31%. The plans have steadily reduced the allocation in order to diversify the portfolio. This portfolio is a mix of active and indexed strategies with a mix of approximately a 50/50 split. Mr. Behar noted that the Division had successfully reduced the fee agreements within the manager program, now down to 28 basis points and once the negotiations are complete, it will be down to 24 basis points, ex the manager-of-manager program.

**Performance** – Mr. Braeutigam reviewed the performance of the plans noting the 15.7% one-year return and the 7.4% ten-year return. He discussed the individual asset classes noting there has been a turnaround in domestic equity which is reflected in the one-year number. He noted that the whole team played a role in the turnaround. Mr. Braeutigam noted that the strategy is to drive down fees, own the same number of stocks, and focus on knowing the companies in which the plan funds are being invested. He discussed the benchmark for alternative investments and answered several questions regarding the benchmark. He talked about international equity which

has trailed domestic markets over the last ten years. It is his opinion that not having exposure to emerging markets for most of the last ten years has hurt the plan. He noted that the ten-year number for bonds was good, and that real estate and infrastructure had a good return too. There was a brief discussion regarding what has gone on in real estate over the past year. Mr. Braeutigam noted that real return and opportunistic had a great one-year number and discussed the type of investments that are contained in this asset class.

**Guest Speaker – Fisher Investments** – Mr. Kenneth L. Fisher, Chief Executive Officer, Co-Chief Investment Officer, and Investment Policy Committee Member

Chairman Khouri thanked Mr. Fisher for presenting at the IAC Meeting. Mr. Behar introduced Mr. Fisher noting that Fisher Investments has been one of the plan's longest serving managers. Fisher Investments have outperformed the benchmark by 120 basis points annualized over this time period (approximately ten years), a cumulative outperformance for the fund of 27%, which is fantastic. Mr. Fisher has been a contributor to Forbes Magazine for almost 30 years and he has written ten books.

Mr. Fisher thanked the Bureau of Investments staff for being a valued client and for having confidence in Fisher Investments. He discussed the outlook for the coming year noting that he feels this will be another strong year for global equities, the steepening yield curves will encourage bank lending, the political climate is favorable, and that the improvement in investor sentiment will fuel the bull market. He also discussed quantitative easing and how it affects the markets.

Mr. Fisher discussed the quote by Sir John Templeton – “Bull markets are born on pessimism, grow on skepticism, mature on optimism, and die on euphoria.” It is the opinion of Mr. Fisher that this statement is usually true. He went on to discuss the factors which lead from a bear market to a bull market. He compared the bull markets to a physics vector, except wiggly, where the physics vector starts at a point and moves in a direction that has a force behind it and keeps going in that direction until it runs out of force or hits an immovable object and is deflected.

Mr. Fisher discussed politics noting that this is a mid-term election year. He noted the history of what happens with mid-term elections that speak to more gridlock, and markets like gridlock. And when there are potential for changes this can lead to increases in political risk aversion which increases market risk aversion. He discussed the gains of U.S. equities in the second-half of a mid-term year and what influences the gains. Mr. Fisher talked about the history of the markets and politics, how history repeats itself, and the things that have happened in the markets during bull and bear markets. He noted the similarities of what is happening now within the markets and politics, and what has happened within the last several years. He discussed the psychology of the bull market. He also talked about Greece, Germany, and the recession in Europe which was tied to fiscal austerity. Mr. Fisher answered questions regarding the Asian crisis in the 1990s and the issues happening with China now.

Mr. Fisher talked about the sector allocations and the bull market. He noted that he is on the lookout for a big, bad, unexpected phenomena that will truncate the bull market. Mr. Fisher answered more questions regarding health care, interest rates, retail investors, and corporate borrowing. He provided his views and insights into the function, history, and future of the markets.

Mr. Braeutigam thanked Mr. Fisher for his presentation.

**Asset Allocation, Markets Review and Outlook, Investment Reports, and Basket Clause**

In the spirit of time, these reports were received and filed.

**Next Meeting Date and Adjournment**

The next Investment Advisory Committee Meeting is scheduled for Thursday, September 4, 2014. The meeting was adjourned by Mr. Khouri at 11:55 a.m.

Approved:

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Nick Khouri, Chairman

**STATE OF MICHIGAN  
RETIREMENT SYSTEMS**

**EXECUTIVE SUMMARY**

**INVESTMENT ADVISORY COMMITTEE MEETING**

**SEPTEMBER 4, 2014**



**Gregory J. Parker, CFA  
Director of Investments – Public Markets  
Director of Asset Allocation  
Bureau of Investments**



# EXECUTIVE SUMMARY

June 2014

## Performance

*Some key performance highlights.*

MPSERS Plan	1-Year	3-Years	5-Years	7-Years	10-Years
Annualized Returns	19.1%	11.1%	13.1%	5.3%	7.6%
Policy Return	17.1%	11.1%	13.7%	5.5%	7.5%
Peer Median Return	17.1%	9.9%	12.8%	5.1%	7.6%
Rank vs. Peers	7	10	37	36	46

- The absolute returns over the past one, three, and five years have been especially strong as the markets have rebounded from the 2008-09 financial crisis.
- The plan exceeded the policy benchmark over the past year. The largest contributions for the strong relative performance were good selectivity in the real return & opportunistic, real estate and infrastructure, and domestic equity asset classes.
- Against the peer group, returns for the plan are greater than median returns across all time periods. The relative one and three-year returns are exceptional; ranking in the top decile. The outperformance to the peer median over the past year was helped by superior selectivity in private equity as well as domestic equity, and the underweight to fixed income compared to peers.
- Over the past year, most asset classes earned returns at or in excess of the performance benchmarks.

## Asset Allocation

*Using equities to pay benefits, increasing diversifying strategies.*

- The combined systems paid out \$2.1 billion net of contributions over the past twelve months ending in June 2014; 3.5% of the June 2014 AUM.
- Over the past year, the plans put to work \$0.5 billion in international equity and \$0.2 billion in absolute return strategies. Over the same time period, the plans reduced the allocation to private equity by \$2.0 billion, real estate by \$0.6 billion, realized \$0.3 billion of gains in real return & opportunistic, and reduced domestic equity by \$0.2 billion.
- According to the State Street peer universe data, the peer median allocation for the long-term fixed income asset class is 21.6% versus the plan's allocation of 11.6%. The strategic target allocation for fixed income is 15%. With the 10-year U.S. Treasury yielding approximately 2.5% and cash yielding approximately 20 basis points (bps) at the end of June 2014, the lower allocation is justified as it will be difficult to earn the target rate of 8% with a higher allocation to fixed income.
- The plans have outstanding capital commitments to fund approximately \$6.2 billion in illiquid asset classes, primarily private equity. This figure is about 10% of the June 2014 market value and is an additional liquidity consideration.

## **Capital Markets**

*An update on stocks and bonds.*

- Capital market assumptions used for determining strategic asset allocations are being reduced across the board. This is the general opinion for most consultants, investment banks, and other market participants. The reason for this phenomenon is the low interest rate environment caused by the policies of the Federal Reserve and other central banks, as well as the run-up in prices for most risk assets over the past five years after the depths of the Great Recession.
- Equity markets continue to be strong. The broad domestic market index, S&P 1500, returned 24.7% over the past year, 16.5% over the past three years, and 19.2% per year over the past five years ending June 2014. The broad foreign market index, MSCI ACWI ex USA, returned annualized 22.3% over the past year, 6.2% over the past three years and 11.6% per year over the past five years ending June 2014.
- The 10-year U.S. Treasury closed June 2014 at 2.5%. Rates in securities with a maturity of two to seven years saw rates back up roughly 30 bps over the past year. Thirty-year maturity rates fell almost 20 bps.
- The market concern for risk is near historic lows. The MOVE Index, a measure of interest rate volatility, marked its second lowest month-end reading in 20 years. The more commonly referenced VIX Index, a measure of equity volatility, hit its lowest month-end reading since January 2007.

## **Economic Backdrop**

*Developed foreign economies perhaps turn the corner.*

- The most recent reading of the annualized U.S. GDP growth was a healthy 4.0%, however, the brutally cold winter with snow accumulation in large parts of the country knocked down the first quarter GDP growth to -2.9%.
- Current estimates for 2014 GDP growth for the U.S. is 1.7%. Coincidental economic indicators such as the Institute for Supply Management's Manufacturing and Non-Manufacturing PMI Indexes are nicely above 50, indicating that there currently is a modest expansion in the U.S. economy.
- The Federal Reserve continues to taper the Quantitative Easing policies. It is expected that the Fed will have fully tapered by October of 2014.
- U.S. Profit Margins – The latest measurement for corporate profits as a percentage of GDP is at 8.1%, the lowest level since June 2008. Profits cratered in the first quarter of 2014, down 17.5% from September of 2013.
- The unemployment rate at the end of July 2014 was 6.2%, the lowest rate since September 2008 and down from 7.3% one year prior.
- Year-to-date, ending in April 2014, commodity prices are broadly higher, although the prices fell considerably in July, falling 4.5% during the month. Food commodities, measured by CRB/Reuters, softened in July as well; however, they are still up more than 22% year-to-date ending July 2014.
- General measures of inflation are still modest; the latest U.S. CPI Y-O-Y measured 2.1%. Right now, inflation is not an issue globally; however, the trends are in higher prices rather than lower prices.

**STATE OF MICHIGAN  
RETIREMENT SYSTEMS**

**PERFORMANCE**

**FOR PERIODS ENDING  
JUNE 30, 2014**

**INVESTMENT ADVISORY COMMITTEE MEETING**

**SEPTEMBER 4, 2014**



**Jon M. Braeutigam  
Chief Investment Officer  
Bureau of Investments**



# *Bureau of Investments*

## *Mission Statement*

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*The Bureau of Investments continually strives to provide quality investment management services, broad professional expertise, and independent advice to the State Treasurer as fiduciary of the State of Michigan Retirement Systems, and various Michigan trust funds and the State's common cash.*

## *SMRS Goals*

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*Maintain sufficient liquidity to pay benefits.*

*Meet or exceed the actuarial assumption  
over the long term.*

*Perform in the top half of the public plan  
universe over the long term.*

*Diversify assets to reduce risk.*

*Exceed individual asset class benchmarks  
over the long term.*

# MPSERS PENSION

## Time-Weighted Rates of Return

Periods Ending June 30, 2014

	% of Portfolio 06/30/14	Ten Years <sup>1</sup>		Seven Years <sup>1</sup>		Five Years <sup>1</sup>		Three Years <sup>1</sup>		One Year		Current Quarter	
		Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank
<b>TOTAL PLAN</b>	<b>100.0</b>	<b>7.6</b>	<b>46</b>	<b>5.3</b>	<b>36</b>	<b>13.1</b>	<b>37</b>	<b>11.1</b>	<b>10</b>	<b>19.1</b>	<b>7</b>	<b>4.2</b>	<b>9</b>
Median - Greater than \$10 Billion <sup>2</sup>		7.6		5.1		12.8		9.9		17.1		3.9	
MPSERS Total Plan Policy		7.5		5.5		13.7		11.1		17.1		3.5	
<b>DOMESTIC EQUITIES</b>	<b>30.2</b>	<b>8.1</b>	<b>42</b>	<b>6.6</b>	<b>30</b>	<b>18.8</b>	<b>52</b>	<b>16.8</b>	<b>25</b>	<b>26.2</b>	<b>18</b>	<b>5.0</b>	<b>18</b>
Median <sup>2</sup>		7.9		6.3		18.9		15.7		24.5		4.8	
S&P 1500 Index		8.1		6.4		19.2		16.5		24.7		5.1	
<b>ALTERNATIVE INVESTMENTS</b>	<b>17.2</b>	<b>14.2</b>	<b>30</b>	<b>10.1</b>	<b>17</b>	<b>18.3</b>	<b>5</b>	<b>14.9</b>	<b>11</b>	<b>23.8</b>	<b>6</b>	<b>5.2</b>	<b>21</b>
Median <sup>2</sup>		11.5		8.1		14.4		12.2		17.9		3.6	
Alternative Blended Benchmark <sup>3</sup>		11.6		10.3		23.1		17.7		25.0		2.6	
<b>INTERNATIONAL EQUITIES</b>	<b>16.1</b>	<b>6.7</b>	<b>74</b>	<b>0.8</b>	<b>73</b>	<b>12.1</b>	<b>66</b>	<b>6.9</b>	<b>61</b>	<b>22.2</b>	<b>71</b>	<b>5.1</b>	<b>21</b>
Median <sup>2</sup>		7.5		1.7		12.5		7.3		23.0		4.7	
International Blended Benchmark <sup>4</sup>		6.3		0.1		10.5		6.2		22.3		5.3	
<b>BONDS</b>	<b>11.6</b>	<b>5.6</b>	<b>32</b>	<b>6.3</b>	<b>36</b>	<b>6.1</b>	<b>72</b>	<b>4.3</b>	<b>67</b>	<b>5.1</b>	<b>65</b>	<b>2.0</b>	<b>69</b>
Median <sup>2</sup>		5.0		5.8		7.3		4.9		5.8		2.2	
Barclays Aggregate		4.9		5.4		4.9		3.7		4.4		2.0	
<b>REAL ESTATE &amp; INFRASTRUCTURE</b>	<b>9.3</b>	<b>5.9</b>	<b>44</b>	<b>1.2</b>	<b>58</b>	<b>4.3</b>	<b>83</b>	<b>11.2</b>	<b>53</b>	<b>15.0</b>	<b>30</b>	<b>4.3</b>	<b>40</b>
Median <sup>2</sup>		5.6		1.6		7.9		11.3		13.8		3.7	
NCREIF - Property Blended Index <sup>5</sup>		7.3		3.5		8.3		9.9		9.8		2.6	
NCREIF Open Fund Index Net		6.2		1.8		9.0		11.4		11.7		2.7	
<b>REAL RETURN AND OPPORTUNISTIC</b>	<b>5.7</b>							<b>11.3</b>		<b>26.2</b>		<b>4.4</b>	
50% (CPI +500 bps) + 50% (8% actuarial rate);								7.5		7.6		2.0	
<b>ABSOLUTE RETURN</b>	<b>4.5</b>					<b>8.3</b>		<b>6.4</b>		<b>8.8</b>		<b>1.0</b>	
HFR1 FOF Cons 1 month lagged						4.1		2.9		5.2		0.3	
<b>CASH EQUIVALENTS</b>	<b>5.4</b>	<b>1.6</b>		<b>0.5</b>		<b>0.6</b>		<b>0.3</b>		<b>0.3</b>		<b>0.1</b>	
1 Month T-Bill		1.5		0.5		0.1		0.0		0.0		0.0	

<sup>1</sup> Annualized Returns

<sup>2</sup> 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.

<sup>3</sup> SP 500 + 300 bps thru 12/31/06. Ending market value (EMV) weighted blend of 10 yr yield + 300 bps and SP 500 + 300 bps 12/31/06 to 9/30/09. EMV weighted blend of 10 yr yield + 300 bps and SP 500 + 300 bps 3-month lagged 9/30/09 to present.

<sup>4</sup> International blended benchmark is S&P Developed BMI-EPAC 50/50 prior to 1/1/2010. S&P Developed BMI-EPAC 75 USD / 25 Local, 1/1/2010 to 9/30/10. MSCI ACWI Ex USA Gross 10/1/2010 to present.

<sup>5</sup> NCREIF - Property Blended Index is NPI minus 75 bps prior to October 2005; NPI minus 130 bps current.

Source: State Street Analytics; the NCREIF - NPI (Property Index) source is NCREIF; the S&P BMI-EPAC Index source is S&P.

# Cumulative and Consecutive Total Fund Returns

## MPERS

Cumulative For Years Ending 6/30/14

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
<b>MPERS</b>	<b>19.1</b>	<b>15.6</b>	<b>11.1</b>	<b>13.7</b>	<b>13.1</b>	<b>6.9</b>	<b>5.3</b>	<b>6.9</b>	<b>7.5</b>	<b>7.6</b>
<b>Public Plan - Median (&gt; \$10 billion)*</b>	<b>17.1</b>	<b>14.9</b>	<b>9.9</b>	<b>12.9</b>	<b>12.8</b>	<b>6.4</b>	<b>5.1</b>	<b>6.7</b>	<b>7.2</b>	<b>7.6</b>
<b>Rank</b>	<b>7</b>	<b>32</b>	<b>10</b>	<b>22</b>	<b>37</b>	<b>39</b>	<b>36</b>	<b>38</b>	<b>27</b>	<b>46</b>
<b>bp Difference - Median</b>	<b>200</b>	<b>67</b>	<b>115</b>	<b>79</b>	<b>31</b>	<b>50</b>	<b>22</b>	<b>25</b>	<b>31</b>	<b>5</b>
Consecutive For Years Ending										
	06/14	06/13	06/12	06/11	06/10	06/09	06/08	06/07	06/06	06/05
<b>MPERS</b>	<b>19.1</b>	<b>12.2</b>	<b>2.6</b>	<b>21.7</b>	<b>10.9</b>	<b>-19.3</b>	<b>-4.0</b>	<b>19.3</b>	<b>12.5</b>	<b>8.3</b>
<b>Public Plan - Median (&gt; \$10 billion)*</b>	<b>17.1</b>	<b>12.5</b>	<b>1.5</b>	<b>21.7</b>	<b>13.2</b>	<b>-19.7</b>	<b>-3.3</b>	<b>18.1</b>	<b>10.9</b>	<b>10.0</b>
<b>Rank</b>	<b>7</b>	<b>59</b>	<b>30</b>	<b>48</b>	<b>77</b>	<b>42</b>	<b>62</b>	<b>30</b>	<b>27</b>	<b>90</b>
<b>bp Difference - Median</b>	<b>200</b>	<b>-27</b>	<b>112</b>	<b>6</b>	<b>-234</b>	<b>39</b>	<b>-63</b>	<b>117</b>	<b>163</b>	<b>-172</b>

## MSERS

Cumulative For Years Ending 6/30/14

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
<b>MSERS</b>	<b>19.1</b>	<b>15.6</b>	<b>11.0</b>	<b>13.6</b>	<b>13.0</b>	<b>6.8</b>	<b>5.1</b>	<b>6.8</b>	<b>7.4</b>	<b>7.5</b>
<b>Public Plan - Median (&gt; \$1 billion)*</b>	<b>17.4</b>	<b>14.9</b>	<b>10.1</b>	<b>12.9</b>	<b>12.8</b>	<b>6.7</b>	<b>5.1</b>	<b>6.6</b>	<b>7.2</b>	<b>7.4</b>
<b>Rank</b>	<b>8</b>	<b>36</b>	<b>16</b>	<b>28</b>	<b>43</b>	<b>49</b>	<b>50</b>	<b>41</b>	<b>30</b>	<b>42</b>
<b>bp Difference - Median</b>	<b>167</b>	<b>63</b>	<b>92</b>	<b>71</b>	<b>19</b>	<b>8</b>	<b>0</b>	<b>17</b>	<b>28</b>	<b>11</b>
Consecutive For Years Ending										
	06/14	06/13	06/12	06/11	06/10	06/09	06/08	06/07	06/06	06/05
<b>MSERS</b>	<b>19.1</b>	<b>12.2</b>	<b>2.4</b>	<b>21.7</b>	<b>10.5</b>	<b>-19.5</b>	<b>-4.1</b>	<b>19.3</b>	<b>12.5</b>	<b>8.3</b>
<b>Public Plan - Median (&gt; \$1 billion)*</b>	<b>17.4</b>	<b>12.5</b>	<b>1.0</b>	<b>22.1</b>	<b>12.9</b>	<b>-19.7</b>	<b>-3.5</b>	<b>17.8</b>	<b>10.9</b>	<b>9.7</b>
<b>Rank</b>	<b>8</b>	<b>62</b>	<b>23</b>	<b>53</b>	<b>79</b>	<b>45</b>	<b>59</b>	<b>22</b>	<b>25</b>	<b>90</b>
<b>bp Difference - Median</b>	<b>167</b>	<b>-33</b>	<b>141</b>	<b>-37</b>	<b>-242</b>	<b>27</b>	<b>-60</b>	<b>153</b>	<b>160</b>	<b>-143</b>

\*State Street Public Funds Universe

# Cumulative and Consecutive Total Fund Returns

## MSPRS

Cumulative For Years Ending 6/30/14

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
<b>MSPRS</b>	<b>19.0</b>	<b>15.5</b>	<b>11.0</b>	<b>13.6</b>	<b>12.9</b>	<b>6.8</b>	<b>5.2</b>	<b>6.9</b>	<b>7.5</b>	<b>7.6</b>
<b>Public Plan - Median (&gt; \$1 billion)*</b>	<b>17.4</b>	<b>14.9</b>	<b>10.1</b>	<b>12.9</b>	<b>12.8</b>	<b>6.7</b>	<b>5.1</b>	<b>6.6</b>	<b>7.2</b>	<b>7.4</b>
<b>Rank</b>	<b>8</b>	<b>39</b>	<b>18</b>	<b>28</b>	<b>43</b>	<b>49</b>	<b>50</b>	<b>40</b>	<b>30</b>	<b>41</b>
<b>bp Difference - Median</b>	<b>159</b>	<b>53</b>	<b>88</b>	<b>69</b>	<b>17</b>	<b>6</b>	<b>2</b>	<b>21</b>	<b>32</b>	<b>14</b>
Consecutive For Years Ending										
	06/14	06/13	06/12	06/11	06/10	06/09	06/08	06/07	06/06	06/05
<b>MSPRS</b>	<b>19.0</b>	<b>12.1</b>	<b>2.5</b>	<b>21.8</b>	<b>10.4</b>	<b>-19.5</b>	<b>-3.9</b>	<b>19.5</b>	<b>12.6</b>	<b>8.3</b>
<b>Public Plan - Median (&gt; \$1 billion)*</b>	<b>17.4</b>	<b>12.5</b>	<b>1.0</b>	<b>22.1</b>	<b>12.9</b>	<b>-19.7</b>	<b>-3.5</b>	<b>17.8</b>	<b>10.9</b>	<b>9.7</b>
<b>Rank</b>	<b>8</b>	<b>64</b>	<b>20</b>	<b>52</b>	<b>79</b>	<b>46</b>	<b>56</b>	<b>20</b>	<b>23</b>	<b>89</b>
<b>bp Difference - Median</b>	<b>159</b>	<b>-44</b>	<b>145</b>	<b>-30</b>	<b>-245</b>	<b>25</b>	<b>-41</b>	<b>170</b>	<b>169</b>	<b>-141</b>

## MJRS

Cumulative For Years Ending 6/30/14

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
<b>MJRS</b>	<b>18.2</b>	<b>15.2</b>	<b>10.7</b>	<b>13.5</b>	<b>12.4</b>	<b>6.4</b>	<b>4.9</b>	<b>6.6</b>	<b>7.2</b>	<b>7.3</b>
<b>Public Plan - Median (&gt; \$1 billion)*</b>	<b>17.4</b>	<b>14.9</b>	<b>10.1</b>	<b>12.9</b>	<b>12.8</b>	<b>6.7</b>	<b>5.1</b>	<b>6.6</b>	<b>7.2</b>	<b>7.4</b>
<b>Rank</b>	<b>32</b>	<b>44</b>	<b>27</b>	<b>29</b>	<b>60</b>	<b>56</b>	<b>67</b>	<b>54</b>	<b>50</b>	<b>64</b>
<b>bp Difference - Median</b>	<b>79</b>	<b>23</b>	<b>65</b>	<b>59</b>	<b>-40</b>	<b>-28</b>	<b>-22</b>	<b>-6</b>	<b>3</b>	<b>-15</b>
Consecutive For Years Ending										
	06/14	06/13	06/12	06/11	06/10	06/09	06/08	06/07	06/06	06/05
<b>MJRS</b>	<b>18.2</b>	<b>12.2</b>	<b>2.4</b>	<b>22.1</b>	<b>8.0</b>	<b>-18.9</b>	<b>-3.6</b>	<b>19.0</b>	<b>12.0</b>	<b>8.1</b>
<b>Public Plan - Median (&gt; \$1 billion)*</b>	<b>17.4</b>	<b>12.5</b>	<b>1.0</b>	<b>22.1</b>	<b>12.9</b>	<b>-19.7</b>	<b>-3.5</b>	<b>17.8</b>	<b>10.9</b>	<b>9.7</b>
<b>Rank</b>	<b>32</b>	<b>61</b>	<b>23</b>	<b>48</b>	<b>98</b>	<b>33</b>	<b>52</b>	<b>27</b>	<b>32</b>	<b>92</b>
<b>bp Difference - Median</b>	<b>79</b>	<b>-28</b>	<b>135</b>	<b>5</b>	<b>-487</b>	<b>81</b>	<b>-11</b>	<b>120</b>	<b>112</b>	<b>-166</b>

\*State Street Public Funds Universe

**STATE OF MICHIGAN  
RETIREMENT SYSTEMS**

**ASSET ALLOCATION REVIEW**

**INVESTMENT ADVISORY COMMITTEE MEETING**

**SEPTEMBER 4, 2014**



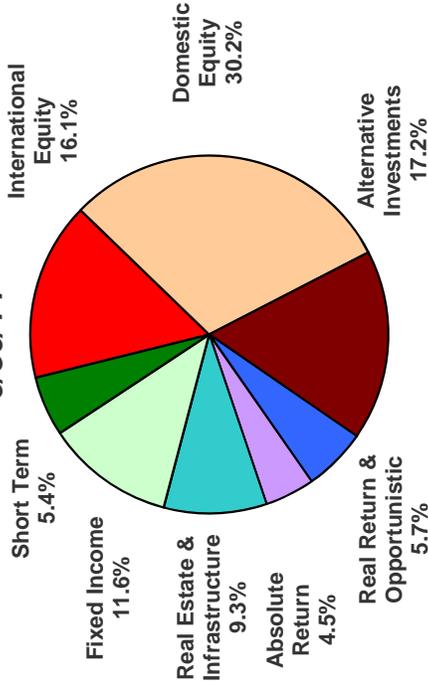
**Jon M. Braeutigam  
Chief Investment Officer  
Bureau of Investments**





# STATE OF MICHIGAN RETIREMENT SYSTEMS PROFILE - JUNE 2014

## Asset Allocation 6/30/14



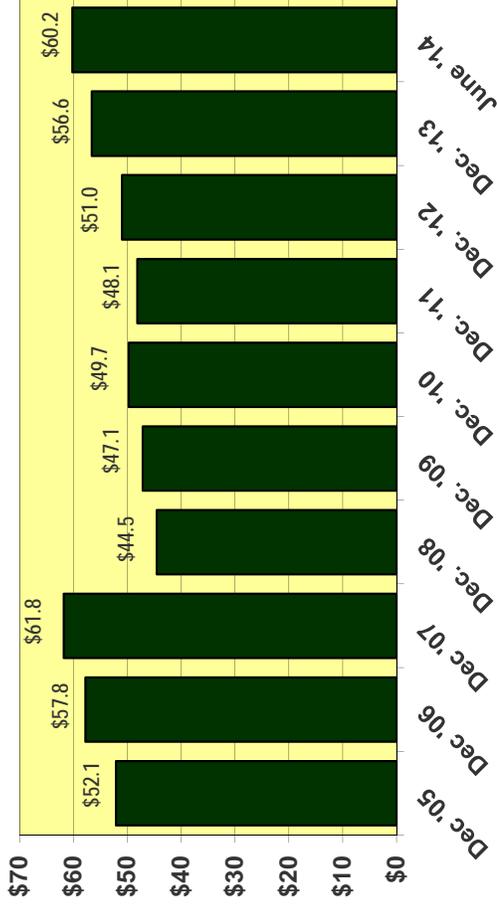
## Asset Allocation By Market Value (In Millions)

Investment Strategies	6/30/14	3/31/14
Domestic Equity	\$18,175	\$17,349
Alternative Investments	10,342	10,434
International Equity	9,673	9,193
Fixed Income	7,004	6,864
Real Estate & Infra.	5,610	5,468
Real Return & Opport.	3,421	4,130
Absolute Return	2,673	2,557
Short Term**	3,256	2,273
<b>TOTAL</b>	<b>\$60,154</b>	<b>\$58,268</b>
	<b>100.0%</b>	<b>100.0%</b>

## Short Term Equivalents (in Billions)

Short Term Strategy***	\$3.3
Short Term in Other Inv. Strategies	0.9
<b>TOTAL SHORT TERM</b>	<b>\$4.2</b>
	<b>7.0% of Total Funds</b>

## Market Value\* (Billions of Dollars)



## Market Value By Plan ~ 6/30/14 (in Millions)

	Pension Plan Mkt. Value	OPEB** Mkt. Value	Combined Mkt. Value	%
MPERS	\$43,903	\$2,813	\$46,716	77.7%
MSERS - (closed)	10,912	937	11,849	19.7%
MSPRS	1,248	69	1,317	2.2%
MJRS - (closed)	271	1	272	0.4%
<b>TOTAL</b>	<b>\$56,334</b>	<b>\$3,820</b>	<b>\$60,154</b>	<b>100.0%</b>



16th Largest DB Public Pension Fund in the U.S.  
23rd Largest DB Pension Fund in the U.S.



Pensions & Investments Survey - February 3, 2014 Issue

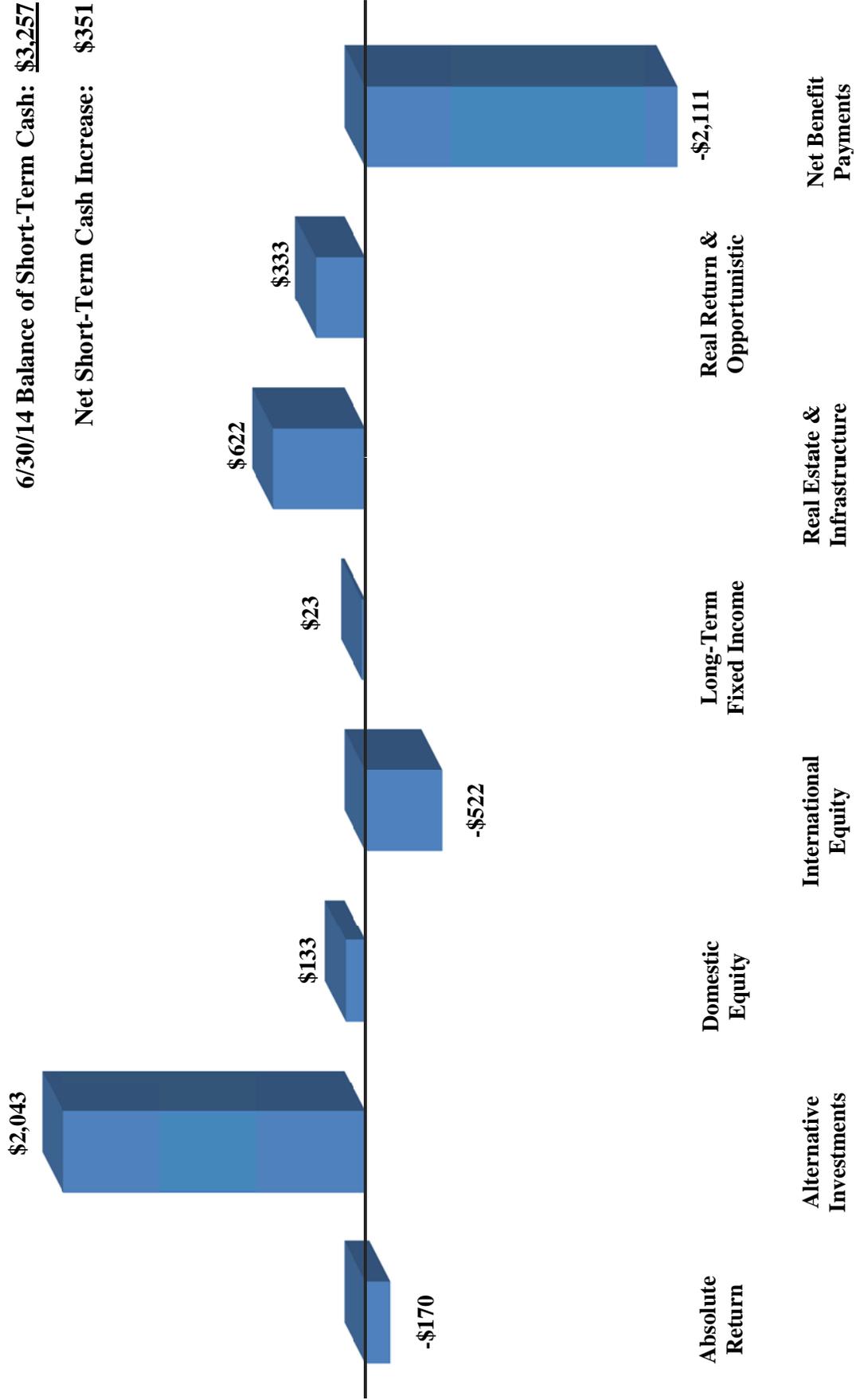
\*The combined net payout for the plans for FY2013 was \$2.4 billion (SOMCAFR). This represents the amount paid to beneficiaries in excess of employer and employee contributions.

\*\*OPEB - Other Post Employment Benefits

# Sources and Uses of Cash

July 2013 ~ June 2014

7/01/13 Balance of Short-Term Cash: \$2,906  
 6/30/14 Balance of Short-Term Cash: \$3,257  
 Net Short-Term Cash Increase: \$351



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

# Asset Allocation Targets

As of 6/30/14

Asset Class	MPSERS		MSERS		MSPRS		MJRS		SMRS
	Actual 6/30/14	Target 9/30/14	Actual 6/30/14	Target 9/30/14	Actual 6/30/14	Target 9/30/14	Actual 6/30/14	Target 9/30/14	Ranges
Broad U.S. Equity	30.3%	30.0%	30.3%	30.0%	30.3%	30.0%	28.3%	28.0%	20% - 50%
Alternative Invest.	17.2%	17.5%	17.2%	17.5%	17.2%	17.5%	15.3%	15.5%	10% - 25%
Broad Int'l Equity	16.1%	15.5%	16.1%	15.5%	16.1%	15.5%	15.1%	14.5%	10% - 20%
U.S. Fixed Income Core	11.7%	14.0%	11.7%	14.0%	11.7%	14.0%	15.7%	18.0%	10% - 25%
Real Estate / Infrastructure	9.3%	9.0%	9.3%	9.0%	9.3%	9.0%	10.4%	10.0%	0% - 15%
Real Return / Opportunistic	5.7%	5.7%	5.7%	5.7%	5.6%	5.7%	5.7%	5.7%	0% - 10%
Absolute Return	4.4%	4.3%	4.4%	4.3%	4.5%	4.3%	4.5%	4.3%	0% - 12%
Cash	5.3%	4.0%	5.3%	4.0%	5.3%	4.0%	5.0%	4.0%	1% - 9%
<b>TOTAL</b>	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.



**STATE OF MICHIGAN  
RETIREMENT SYSTEMS**

**MARKETS REVIEW AND OUTLOOK**

**INVESTMENT ADVISORY COMMITTEE MEETING**

**SEPTEMBER 4, 2014**



**Gregory J. Parker, CFA  
Director of Investments – Public Markets  
Director of Asset Allocation  
Bureau of Investments**



# CAPITAL MARKETS

## Return and Risk Assumptions, Benchmark and Outlook

*A starting point.*

<b>MPSERS Plan</b>	<b>Assumed Return* (Arithmetic)</b>	<b>Standard Deviation*</b>	<b>Trailing 10-Year (Benchmark**)</b>	<b>Tactical (Short Term) Expectations***</b>
Private Equity	11.0%	30.3%	11.6%	Trim
International Equity	8.6%	20.6%	8.2%	Hold
Domestic Equity	7.0%	17.8%	8.1%	Hold
Real Estate (Core)	7.0%	12.5%	7.3%	Trim
Absolute Return	6.8%	9.8%	5.5%	Hold
Real Ret/Oppportunistic	6.0%	11.5%	7.1%	Hold
Long-Term Fixed	4.0%	6.0%	4.9%	Hold
Short-Term	2.3%	3.0%	1.5%	Hold

\* RV Kuhns 2014 Long-Term Return/Risk Assumptions

\*\* Investment Policy Statement; Annualized Returns

\*\*\* Actual investments may differ due to changing conditions and the availability of new information

## Overview

*An improved outlook for developed international.*

- Capital market assumptions used for determining strategic asset allocations are being reduced across the board. This is the general opinion for most consultants, investment banks, and other market participants. The reason for this phenomenon is the low interest rate environment caused by the policies of the Federal Reserve and other central banks, as well as the run-up in prices for most risk assets over the past five years after the depths of the Great Recession.
- The broad domestic market index, S&P 1500, returned 24.7% over the past year, 16.5% over the past three years, and 19.2% per year over the past five years ending June 2014.
- Although, the economic backdrop for developed international markets has improved, developed markets continue to underperform the U.S. International Equities continue to underperform domestic. Over the past one, three, and five years ending June 2014, the broad international market index, MSCI ACWI ex USA, underperformed the domestic S&P 1500 index by 2.4%, 10.2%, and 7.3% annualized respectively.
- In February 2014, tensions between Russia and Ukraine began to escalate. So far, the global response has been one of condemnation with some sanctioning of Russian interests. The Russian stock market index MICEX has dropped by 4.5% as of July 2014, and its price has been volatile.
- The 10-year U.S. Treasury closed June 2014 at 2.5%. Rates in securities with a maturity of two to seven years saw rates back up 20-40 bps. The 30-year rate was 30 bps lower and rates at the very front end saw virtually no change at all. The 10-year U.S. Treasury is now approximately at its 5-year monthly average rate of 2.6%.
- Valuations in the commercial real estate market are full in some areas, though opportunities are selectively available. REITs are fairly priced against the 10-year U.S. Treasury, but appear expensive on other valuation metrics.

## **Domestic Equity**

*Up and up.*

- The U.S. stock market levels continued the steady ascension started from the bottom of March 2009, and from a technical perspective, the large cap market looks very healthy, though the small cap market is near the bottom of its trading range. The broad domestic market index, S&P 1500, returned 24.7% over the past year, 16.5% over the past three years, and 19.2% per year over the past five years ending June 2014.
- Domestic equity remains attractively priced relative to bonds, though as the market continues its run the valuation discount becomes smaller and smaller. Valuation metrics are mixed, meaning there is uncertainty whether the absolute returns over the next cycle will be as strong as the historical average. Small caps look expensive by some measures.
- Within domestic equity, small-cap returns have continued to outpace large caps. Over the past one, three, and five years, small has annually outperformed large by 0.7%, 0.2%, and 2.6% respectively. Last year ending in June, value outperformed growth by 2.5%; however, over the last three years, growth beat value by 0.5% per year. Over the past five years, the style returns are almost identical.

## **International Equity**

*Developed international looks interesting.*

- International Equities continue to underperform domestic. Over the past one, three, and five years ending June 2014, the broad international market index, MSCI ACWI ex USA, underperformed the domestic S&P 1500 index by 2.4%, 10.2%, and 7.3% annualized respectively.
- Within international equities, over the past one, three, and five years ending in June 2014, emerging markets have underperformed developed markets annualized by 8.0%, 8.0%, and 2.6% respectively.
- In February 2014, tensions between Russia and Ukraine began to escalate. So far, the global response has been one of condemnation with some sanctioning of Russian interests. The Russian stock market index MICEX has dropped by nearly 4.5% as of July 2014, and its price has been volatile.
- The price trend (measured in local currency) of developed international markets is the best it has been since 2007, however there is some softening in European countries. The trend in prices for emerging markets is still neutral to slightly bearish.
- The plan increased its weight to international equity over the last year by slightly more than \$500 million and is now at its strategic target weight of 16%. The plan is underweight international equity against a global benchmark (approximately 35% versus 50%) and it is also slightly underweight peers; 16.0% versus 18.4%. Actual emerging market exposure is approximately 25.9% of total international equity which is only 3.3% overweight.
- Based on a price to earnings valuation multiple, excluding non-earning companies, developed international equity markets trade at a 9% discount to the U.S. counterparts, while emerging markets trade at over a 30% discount.

## **Interest Rates**

*Fed tapering and the market impact*

- The 10-year U.S. Treasury closed June 2014 at 2.5%. Rates in securities with a maturity of two to seven years saw rates back up roughly 30 bps over the past year. Thirty year maturity rates fell almost 20 bps. The 10-year U.S. Treasury is now just under its five-year average of 2.6%, and 50 bps lower than the start of the year.
- The Barclays U.S. Aggregate Index returned 4.4% over the past year ending June 2014.
- European 10-year sovereigns continue to fall. At the end of June, German 10-year rates were 1.3% below U.S. Treasury rates. Spanish and Italian rates were just 10-20 bps higher than U.S. rates.
- The U.S. yield curve is steep as measured by the difference between the 10 and 2-year U.S. Treasury rates. These rates rank in the top quartile in terms of steepness since 1977 increasing the opportunities to “ride down the yield curve”.
- Investment grade credit spreads at the end of July 2014 are about average, while on the other hand, high-yield spreads are roughly 75 basis points (bps) lower than normal.
- The index’s sensitivity to changes in interest rates has increased over time as measured by the modified adjusted duration. At the end of June 2014, the Barclays Aggregate Index had a duration of 5.4. At this stage in the economic cycle, credit risk is still preferable to duration risk.

## **Real Estate**

*Need to be selective at these valuations.*

- The publicly traded FTSE Nareit REIT Index was up roughly 13% over the past year for the period ending June 2014. Over the past three and five years, the index is up 11.9% and 23.6% respectively.
- Privately held real estate normally lags the REIT index by one year. Because of this fact, the plan’s real estate returns could continue to see modestly positive returns though valuations are a concern.
- The REIT index is fairly priced relative to bonds; however, some valuation metrics indicate that the index is expensively priced. In other words, this index is cheap relative to bonds; however, it is not expected to deliver high absolute returns over the longer term.
- The price trend of the FTSE Nareit REIT Index flattened, however it is currently at the top of its range. Selective private market transactions take time to execute and could still make long-term sense, however, caution is warranted.
- Over the past year, the plan was a net seller of real estate, raising over \$600 million in cash.

# ECONOMIC OUTLOOK

## Select Historic Economic Growth with Forecasts

*Growing in 2014.*

Real GDP Growth Actual/Forecasts	2012	2013	2014	2015	2016
World	2.1	2.2	2.5	3.1	3.2
U.S.	2.3	2.2	1.7	3.0	3.0
Developed (G10)	1.2	1.3	1.6	2.3	2.2
Asia	6.2	6.3	6.4	6.3	6.3
EMEA	2.6	2.2	1.8	2.5	3.0
Europe	-0.3	0.1	1.6	1.8	1.8
Latin America	2.7	2.5	1.8	2.7	3.3
China	7.7	7.7	7.4	7.2	7.1

\*Source: Bloomberg

## Economic Overview

*Slow, steady improvement.*

- The most recent reading of the annualized U.S. GDP growth was a healthy 4.0%, however the brutally cold winter with snow accumulation in large parts of the country knocked down the first quarter GDP growth to -2.9%. Current estimates for 2014 GDP growth for the U.S. is 1.7%. Coincidental economic indicators such as the Institute for Supply Management's Manufacturing and Non-Manufacturing PMI Indexes are nicely above 50, indicating that there currently is a modest expansion in the U.S. economy.
- The Federal Reserve continues to taper the Quantitative Easing policies. It is expected that the Fed will have fully tapered by October of 2014.
- U.S. Profit Margins – The latest measurement for corporate profits as a percentage of GDP is at 8.1%, the lowest level since June 2008. Profits cratered in the first quarter of 2014, down 17.5% from September of 2013.
- Economists are forecasting acceleration in global economic growth despite a slowdown in growth in China. Europe and the U.S. are the primary drivers of the growth story.
- The number of jobs lost due to the 2008-09 economic event called the “Great Recession” was completely recovered in May 2014. At 6.25 years, this recovery in the job market was the longest post-war recovery by almost 2.5 years. The rate of increased employment appears to be slowly increasing as well.
- The unemployment rate at the end of July 2014 was 6.2%, the lowest rate since September 2008 and down from 7.3% one year prior.
- Housing as a driver of the economy continues to show signs of cooling. The momentum in the new home sales and housing starts figures is waning; the twelve-month moving averages peaked at the beginning of 2014 and have now flattened.
- Year-to-date ending in April 2014, commodity prices are broadly higher, although the prices fell considerably in July, falling 4.5% during the month. Food commodities, measured by CRB/Reuters, softened in July as well; however, they are still up more than 22% year-to-date ending July 2014. General measures of inflation are still modest; the latest U.S. CPI Y-O-Y measured 2.1%. Right now, inflation is not an issue globally; however the trends are in higher prices rather than lower prices.





**STATE OF MICHIGAN  
RETIREMENT SYSTEMS**

**ABSOLUTE AND REAL RETURN REVIEW**

**INVESTMENT ADVISORY COMMITTEE MEETING**

**SEPTEMBER 4, 2014**



**James L. Elkins, Administrator  
Short-Term Fixed Income, Absolute and Real Return Division**



## EXECUTIVE SUMMARY

### Absolute Return

MPSERS Plan	1-Year	3-Years	5-Years	7-Years	10-Years
Absolute Return	8.8%	6.4%	8.3%	NA	NA
HFRI FOF Conservative*	5.2%	2.9%	4.1%	0.5%	2.8%

\*One month lag on the index

### **Strategy Overview**

- The strategy of the Absolute Return portfolio is to further diversify the total plans' holdings by contributing returns above investment grade fixed income with lower volatility than the equity portfolio.
- Arbitrage – Event-driven managers delivered gains from distressed credit positions and merger arbitrage allocations, while performance from event-oriented equities was mixed during the quarter. Fixed income arbitrage managers registered gains for the quarter, with significant contributions from arbitrage opportunities in international yield curves and structured credit positions.
- Credit/Distressed – Liquidations and distressed debt positions performed well during the quarter, with gains from Lehman Brothers, sovereign debt and a bankruptcy in the utility and power sector. Restructured oriented equities were significant contributors during the quarter as management teams continued to improve operations and equity markets provided an accommodative backdrop. Structured credit continued to deliver gains as spreads tightened and banks announced a series of mortgage settlements.
- Long/Short Equity – The long/short equity allocation delivered a gain for the quarter. Managers realized gains from long positions across multiple industries, with significant gains from the media, technology, and energy sectors. Performance from positions in financials and healthcare were mixed during the quarter, with idiosyncratic developments driving performance.
- During the quarter, no new investments were made in the Absolute Return Portfolio.

### Real Return and Opportunistic

MPSERS Plan	1-Year	3-Years	5-Years	7-Years	10-Years
Real Return and Opport.	26.2%	11.3%	NA	NA	NA
Custom Benchmark	7.6%	7.5%	NA	NA	NA

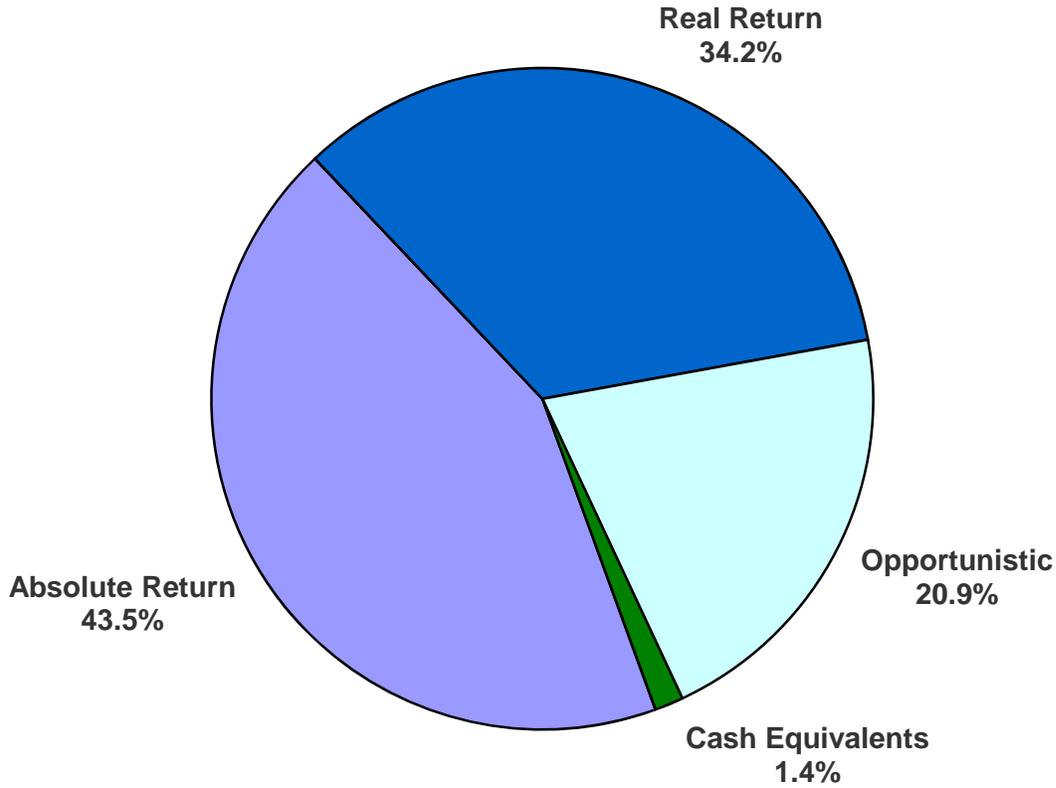
- The strategy of the Real Return & Opportunistic portfolio is to provide an inflation hedge or to gain exposure to attractive opportunities that may not fit in another plan portfolio.

- Senior Secured Credit – Performing non-investment grade credit managers generated solid returns due to improving labor markets and the Fed’s intentions to keep rates low. The S&P/LSTA Leveraged Loan Index and Merrill Lynch U.S. High Yield Master II Index were up 1.4% and 2.6% respectively, for the quarter. Technical support remained steady through the period as CLO issuance made up for slowing demand in retail loan funds, and demand outpaced the new supply.
- Direct Lending – Distributions picked up during the quarter as a couple of funds matured and returned capital. Managers continue to have a healthy pipeline of opportunities and expect transactions to progress at a steady pace as we move into the remainder of the year. Middle market lending spreads have held at an attractive level even with increased competition in the space.
- During the quarter, one new commitment was closed: KKR Energy Income and Growth Fund for \$65 million (Energy).



# SMRS

## Absolute, Real Return and Opportunistic 6/30/14



Market Value in Millions				
	<u>6/30/14</u>		<u>3/31/14</u>	
Absolute Return	\$2,653	43.5%	\$2,557	38.2%
Real Return	2,083	34.2%	2,173	32.5%
Opportunistic	1,274	20.9%	1,706	25.5%
Cash Equivalents	84	1.4%	251	3.8%
<b>Total Investments</b>	<b><u>\$6,094</u></b>	<b><u>100.0%</u></b>	<b><u>\$6,687</u></b>	<b><u>100.0%</u></b>



**SMRS**  
**Absolute Return**  
**6/30/14**

**Net Market Values by Entity**

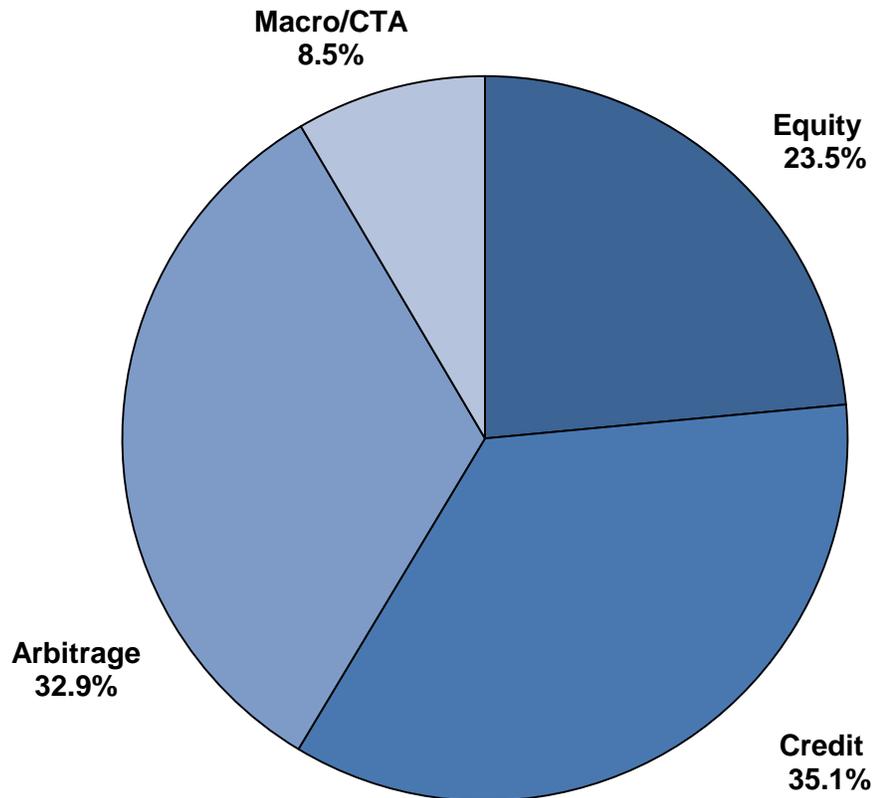
	<u>Net Market Value</u>
Absolute Return Capital Partners, L.P.	\$44,416,130
Apollo Offshore Credit Strategies Fund Ltd.	144,180,225
Brevan Howard Multi-Strategy Fund, L.P.	105,250,267
Drawbridge Opportunities Fund	169,185,781
Elliott International Limited	38,417,582
* EnTrust White Pine Partners L.P.	345,767,746
FrontPoint Multi-Strategy Fund Series A, L.P.	2,101,999
Mastic Commodity Fund LTD	50,781,034
MP Securitized Credit Master Fund, L.P.	61,887,046
* Sand Hill, LLC	1,274,890,057
Spartan Partners L.P.	39,443,472
* <u>Tahquamenon Fund L.P.</u>	<u>376,376,752</u>
<b>Total Market Value</b>	<b><u><u>\$2,652,698,091</u></u></b>

\* Fund of Funds.



# SMRS Absolute Return 6/30/14

## Investments By Strategy



Strategy Breakdown			
Underlying Funds:	114	Median Position Size:	0.4%
Strategies:	4	Average Position Size:	0.9%
Relationships:	12	Largest Position Size:	6.4%



# SMRS

## Real Return and Opportunistic

6/30/14

### Net Market Value by Entity

	<u>Net Market Value</u>	<u>Unfunded Commitment</u>
* Abernathy Fund I, LLC	\$ 273,371,026	\$83,846,124
Apollo Credit Opportunities Fund III LP	43,058,586	57,460,625
Apollo European Principal Finance Fund II	34,399,764	26,027,491
Apollo Financial Credit Investments Fund II	176,564,025	141,660,624
Apollo Offshore Credit Fund Ltd	473,027,797	
Apollo Offshore Structured Credit Recovery Fund II	65,552,107	
Apollo Offshore Structured Credit Recovery Fund III	36,998,499	70,000,000
Carlyle Intl Energy Partners LP	4,878,837	44,997,502
Content Holdings LLC	185,184,528	
Elegantree Fund SPC	7,779,093	42,500,000
Emerald	28,075,049	
Energy Recapitalization and Restructuring Fund LP	48,196,569	83,324,116
ERR Michigan Holdings LP	7,831,118	2,556,702
* Fairfield Settlement Partners, LLC	61,467,169	54,995,477
Fortress MSR Opportunities Fund I A LP	114,991,369	80,171,275
Galaxie Ave. Partners, LLC	99,900,000	
Highbridge Principal Strategies - Specialty Loan Fund III	92,341,208	76,714,643
Hopen Life Sciences Fund II	4,142,398	6,275,000
JP Morgan Global Maritime Investment Fund LP	50,160,215	93,124,284
KANG Fund LP	49,014,979	150,837,139
** <b>KKR EI&amp;G Fund</b>	<b>11,460,693</b>	<b>53,270,147</b>
KKR Lending Partners LP	81,867,549	11,801,912
Lakewater LLC, Series 1	172,903,913	43,129,869
Lakewater LLC, Series 2	195,835,782	68,808,490
Lakewater LLC, Series 3	208,736,403	
Lakewater LLC, Series 4	17,858,345	36,148,656
Orion Mine Finance Fund I LP	64,770,604	77,703,545
<b>Orion Mine Finance Fund 1A LP</b>	<b>5,085,653</b>	<b>50,745,185</b>
Renaissance Venture Cap Fund II LP	2,631,418	22,750,000
REOG Fund II Coinvest LP	1,434,907	23,565,093
Ridgewood Energy Oil & Gas II	33,869,173	103,471,941
SJC Direct Lending Fund I, LP	101,388,372	21,289,181
SJC Direct Lending Fund II, LP	94,449,671	277,039,802
* Social Network Holdings, LLC	498,530,636	
<u>Varo Coinvestment LP</u>	7,189,954	92,283
<b>Total Market Value</b>	<b><u>\$3,354,947,409</u></b>	<b><u>\$1,804,307,106</u></b>

\* Fund of Funds.

\*\* New commitment made during quarter reported.

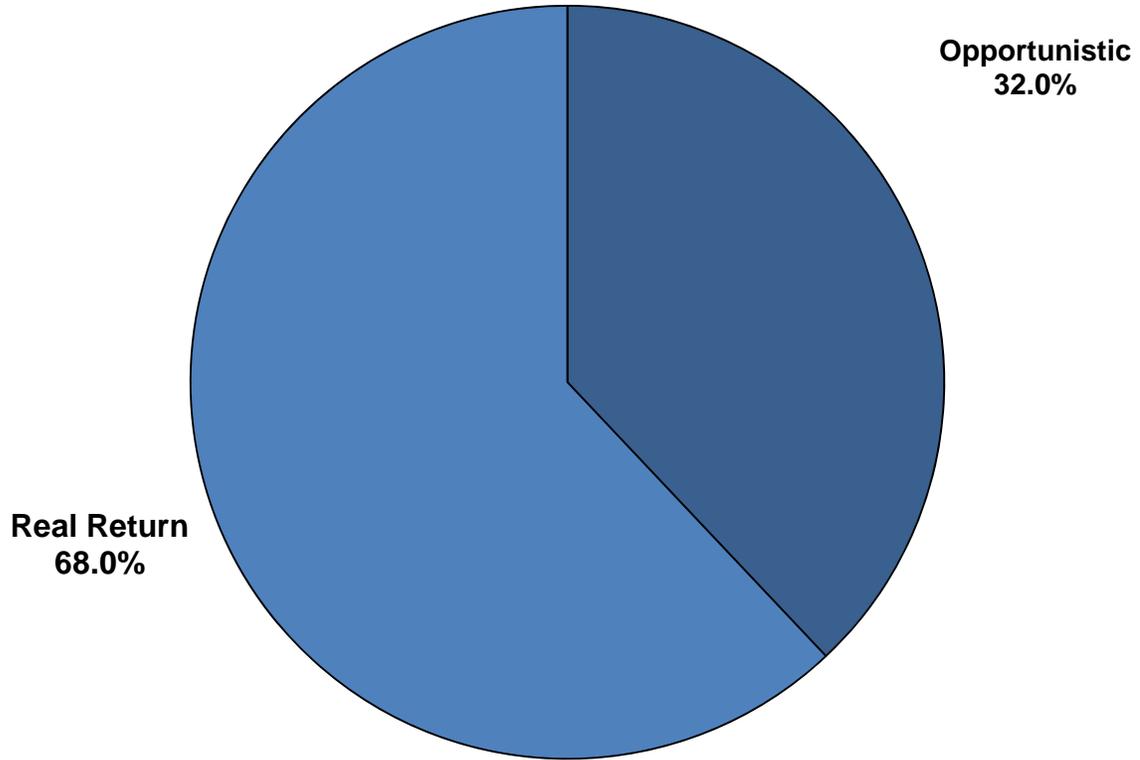


# SMRS

## Real Return and Opportunistic

6/30/14

### Investments By Strategy



Investment Strategy	
Opportunistic:	\$1,273,776,898
Real Return:	\$2,081,170,511



**STATE OF MICHIGAN  
RETIREMENT SYSTEMS**

**ALTERNATIVE INVESTMENTS  
REVIEW**

**INVESTMENT ADVISORY COMMITTEE MEETING**

**SEPTEMBER 4, 2014**



**Peter A. Woodford, Administrator  
Alternative Investments Division**



## EXECUTIVE SUMMARY

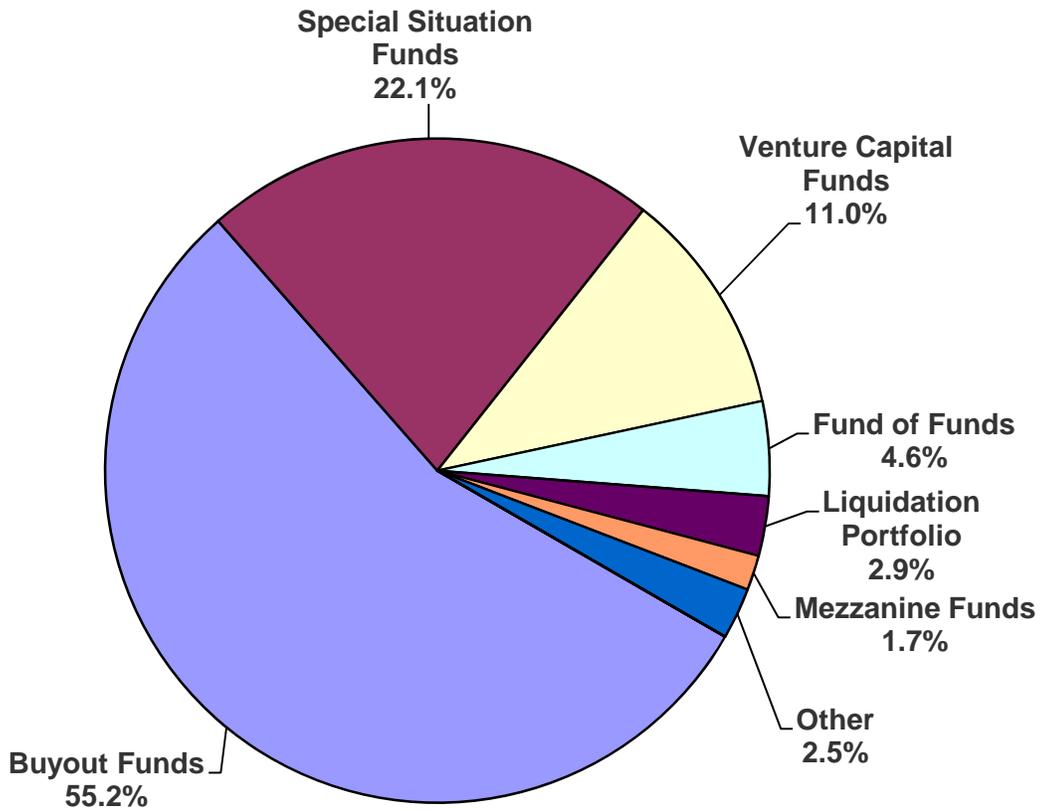
MPSERS Plan	1-Year	3-Years	5-Years	7-Years	10-Years
Annualized Returns	23.8	14.9	18.3	10.1	14.2
Benchmark Return	25.0	17.7	23.1	10.3	11.6
Peer Median Return	17.9	12.2	14.4	8.1	11.5
Rank vs. Peers	6	11	5	17	30

### General Overview

- Global financial markets performed well in the second quarter of 2014, driven in large part by improving labor market conditions in the United States and new stimulus measures undertaken by the European Central Bank.
- Global M&A exit activity for PE-backed companies totaled \$146 billion in the second quarter of 2014, the highest quarterly total on record. Sales to strategic buyers accounted for 74% of all M&A exits in the first half of 2014.
- High-yield debt issuance reached a record high in the second quarter of 2014, driven by strong investor demand for yield in a low interest rate and low default rate environment. U.S. high-yield issuance totaled \$110 billion during the quarter, surpassing the prior quarterly high of \$95.9 billion in the fourth quarter of 2012. European high-yield issuance totaled €49.8 billion during the quarter, twice as large as the prior quarter record in the first quarter of 2013.
- Average purchase price to EBITDA multiple was 9.6x during the quarter, up from 9.1x in the first quarter. The increase in purchase multiples was driven largely by middle-market transactions (defined as companies with less than \$50 million in EBITDA).
- Leverage multiples have been steadily increasing over the past year. The average debt-to-EBITDA multiple for new buyout transactions in the second quarter of 2014 was 5.7x, up from 5.5x in the first quarter and up from 5.3x for all of 2013. Despite the increase in average leverage multiples, low interest rates have made servicing debt less burdensome on portfolio companies and new buyout transactions continue to be capitalized with relatively high levels of equity capital.
- Private equity firms worldwide raised \$75 billion in the second quarter of 2014, a small decrease from the prior quarter and flat from the year-ago quarter. The first half of 2014 fundraising totaled \$152 billion, a 14% increase over the first half of 2013.
- InvestMichigan Update: the SMRS has committed \$510 million to the program (\$180 million to MGCP I, \$150 million to GCMOF, and \$180 million to MGCP II). In total, the program has invested approximately \$265 million across 47 deals through 6/30/2014.
  - MGCP I - \$147 million invested across 30 deals, net IRR 16.1%, MOIC 1.5x
  - GCMOF - \$85 million invested across 9 deals, net IRR 12.3%, MOIC 1.3x
  - MGCP II - \$33 million invested across 8 deals (fund in J-curve)
- During the quarter, new commitments were made to Veritas Capital (\$100 million), Turnbridge Capital Partners (\$150 million), Warburg Pincus (\$125 million), Meritech Capital Partners (\$20 million), and FirstMark (\$20 million). Veritas focuses on middle market buyout, Turnbridge and Warburg commitments target the energy space, Meritech and FirstMark focus on late stage venture.



# SMRS Alternative Investments 6/30/14



Market Value in Millions				
	6/30/14		3/31/14	
Buyout Funds	\$5,710	55.2%	\$5,944	57.0%
Special Situation Funds	2,287	22.1%	2,188	21.0%
Venture Capital Funds	1,135	11.0%	1,108	10.6%
Fund of Funds	482	4.6%	462	4.4%
Liquidation Portfolio	298	2.9%	391	3.7%
Mezzanine Funds	180	1.7%	201	1.9%
Other	250	2.5%	140	1.4%
<b>Total</b>	<b>\$10,342</b>	<b>100.0%</b>	<b>\$10,434</b>	<b>100.0%</b>



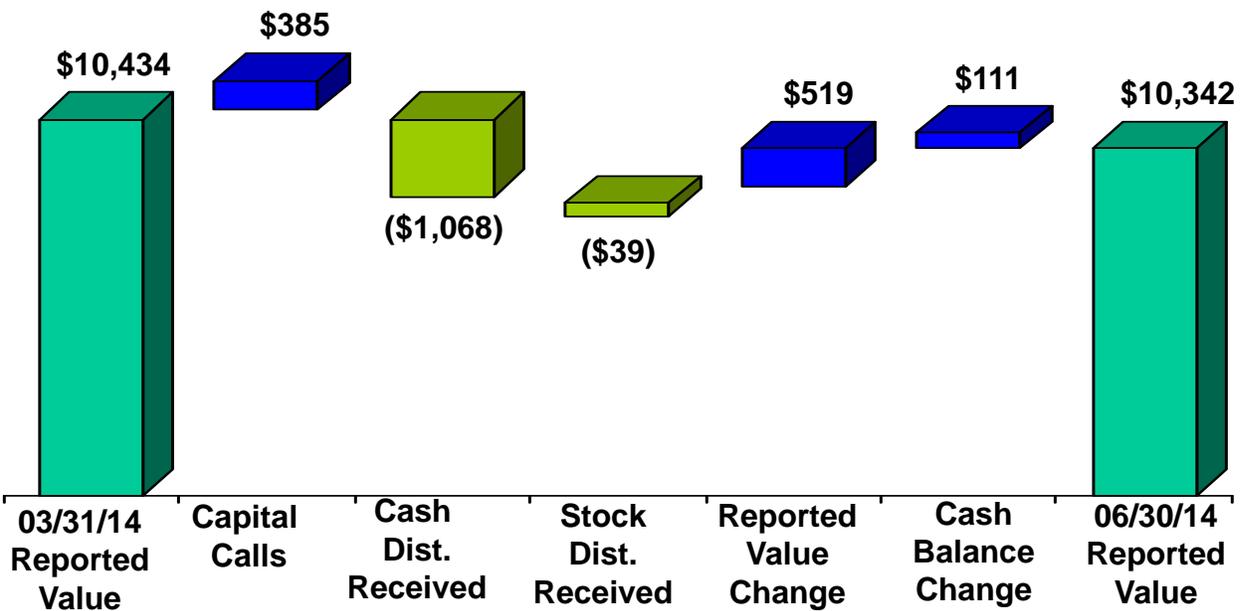
# SMRS

## Alternative Investments

6/30/14

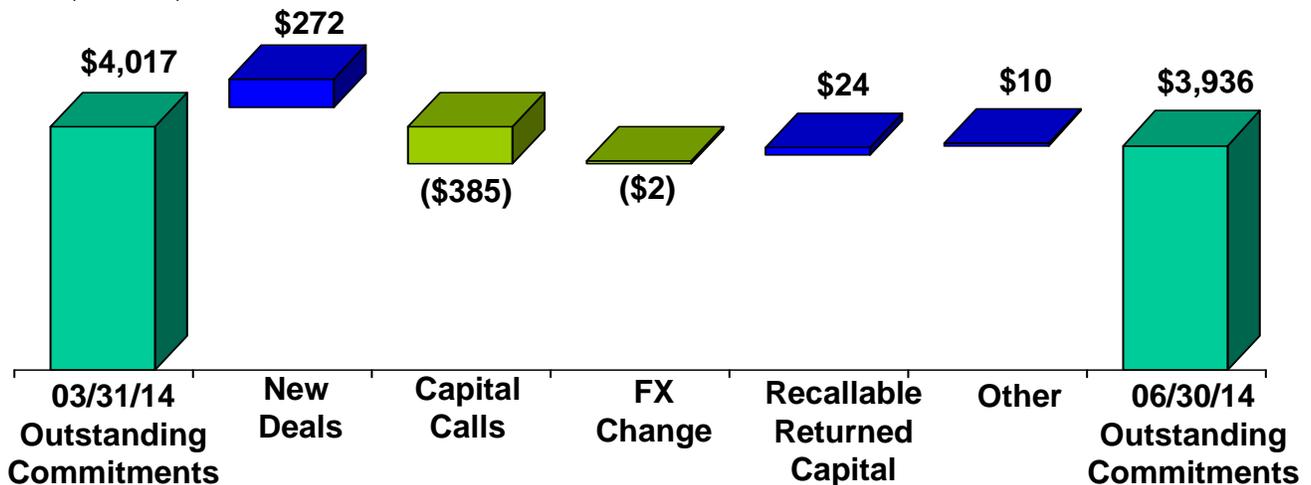
### Invested Commitments

(\$ Millions)



### Outstanding Commitments

(\$ Millions)



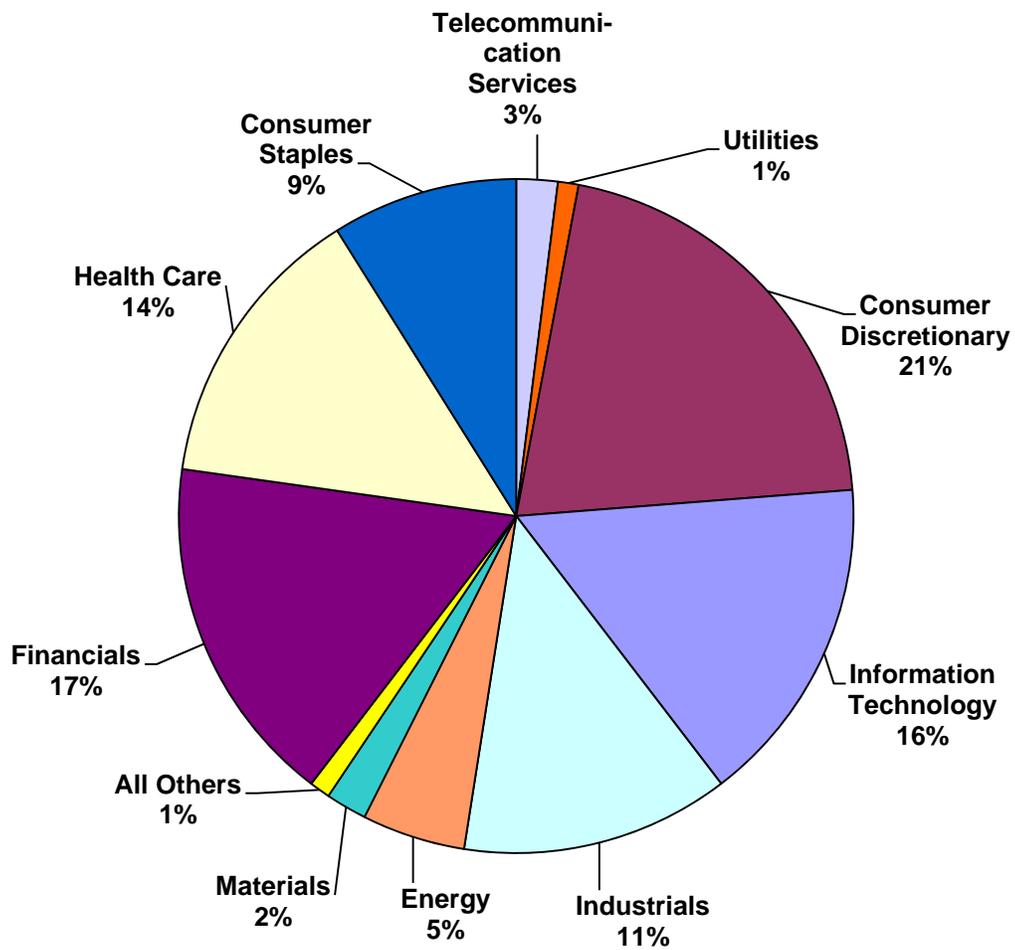


# SMRS

## Alternative Investments

6/30/14

### Investment by Industry

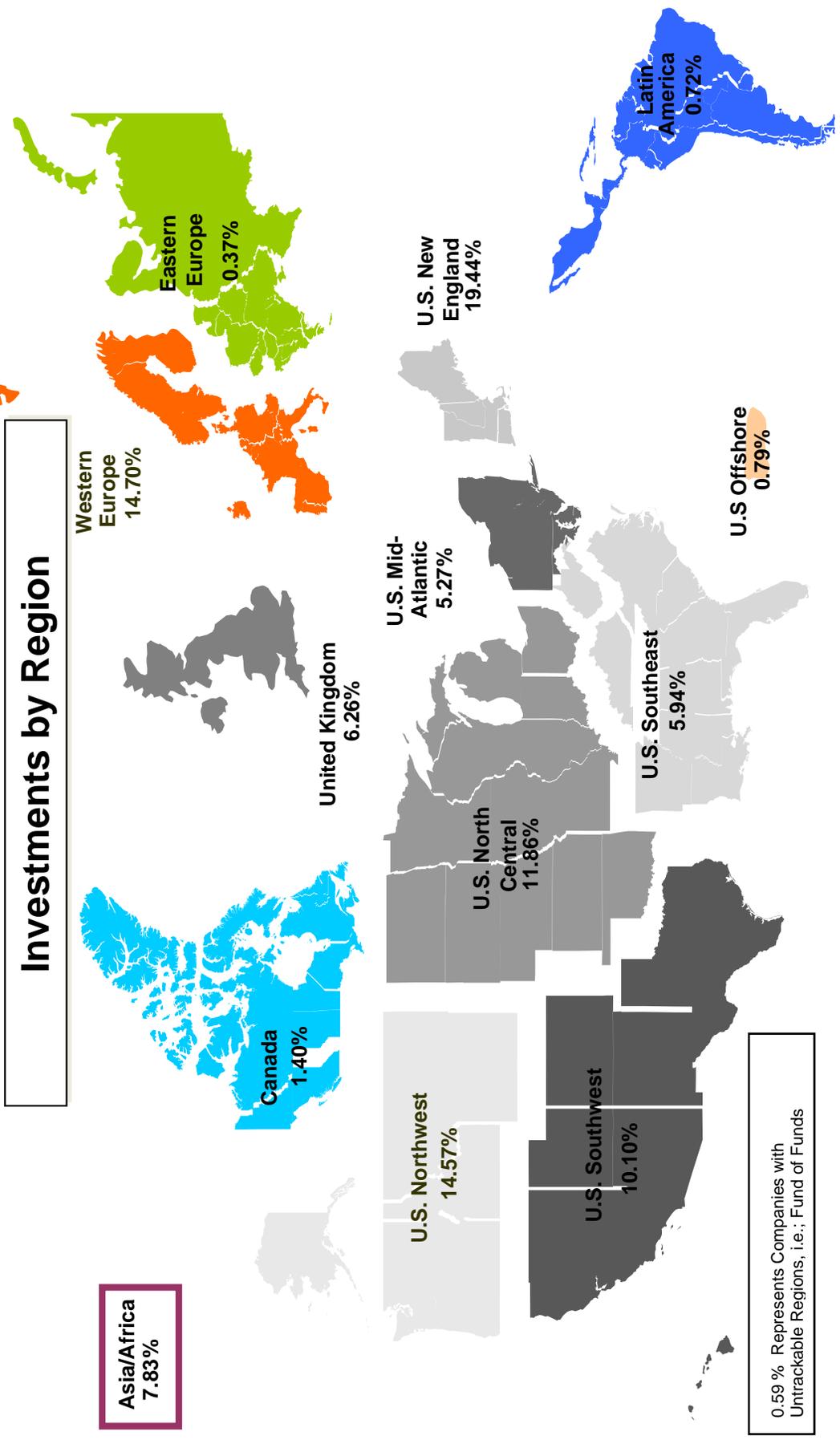


These numbers are based on the most recent available General Partner Data; primarily 03/31/14 and are subject to change.



# Alternative Investments

6/30/14



## Investments by Region

0.59 % Represents Companies with Untrackable Regions, i.e.; Fund of Funds

Geographic Report: North America 68%, Europe 21%, Asia 6%, Other 5%



# SMRS

## Alternative Investments

6/30/14

### Portfolio by Vintage Year

<u>Asset Vintage</u>	<u>Reported Value</u>	<u>Outstanding Commitment</u>	<u>Total Exposure</u>
1986-98	\$ 72	\$ 21	\$ 93
1999	82	19	101
2000	165	36	201
2001	315	45	360
2002	578	15	593
2003	132	19	151
2004	495	57	552
2005	704	105	809
2006*	2,639	492	3,131
2007	1,617	202	1,819
2008	1,770	486	2,256
2009	162	41	203
2010	218	99	317
2011	331	307	638
2012	620	1,130	1,750
2013	168	544	712
2014	25	318	343
Cash	233	-	233
Act. Small Cap - Stock Dist	16	-	16
<b>Total</b>	<b><u>\$ 10,342</u></b>	<b><u>\$ 3,936</u></b>	<b><u>\$ 14,278</u></b>

\*Liquidation portfolio is 2006 vintage

### FX Exposure

	<u>Reported Value</u>	<u>Outstanding Commitment</u>	<u>Total Exposure</u>	<u>Total (USD)</u>
Euro (\$1.37825/ €)	€ 825	€ 175	€ 1,000	1,369
Pound (\$1.66715/ £)	£6	£1	£7	12
Yen (\$0.0097102/ ¥)	¥0	¥0	¥0	0



# SMRS

## Alternative Investments

6/30/14

### Top 10 Sponsors

(\$ Millions)

<u>Asset Type</u>	<u>Reported Value</u>	<u>Outstanding Commitment</u>	<u>Total</u>
GCM Grosvenor	\$ 714	\$ 335	\$1,049
Kohlberg Kravis Roberts & Co	722	160	882
Warburg Pincus Capital	518	211	729
Carlyle Group	494	230	724
Blackstone Capital Partners	477	195	672
Glencoe Capital	561	46	607
TPG	477	81	558
Advent International	360	140	500
Green Equity Investors	340	116	456
Apax Partners, Inc.	349	88	437
<b>Top 10 Total Value</b>	<b><u>\$5,012</u></b>	<b><u>\$1,602</u></b>	<b><u>\$6,614</u></b>

### Cash Weighted Rates of Return\*

<u>(Net IRR)</u>	<u>Current Qtr.</u>	<u>1-Year</u>	<u>3-Years</u>	<u>5-Years</u>	<u>10-Years</u>
Buyout	1.53%	21.21%	11.78%	18.04%	16.52%
Venture Capital	3.20%	27.04%	11.58%	17.25%	10.91%
Special Situations	0.60%	18.88%	11.06%	16.71%	11.03%
Fund of Funds	-0.07%	11.13%	8.53%	11.10%	10.53%
Mezzanine Debt	1.25%	10.00%	11.93%	21.89%	7.93%

\*These numbers are based on most recent available General Partner reported data; primarily 3/31/14 and are subject to change.



# SMRS

## Alternative Investments

6/30/14

### Net Market Values by Ownership Entity

	<u>Adjusted Reported Value</u>	<u>Unfunded Commitment</u>
Accel Europe I, L.P.	19,309,794	1
Accel Europe II	21,515,557	3,300,000
Accel Growth Fund II, L.P.	9,368,493	2,520,000
Accel Growth Fund III, L.P.	1,050,000	12,950,000
Accel IX, L.P.	16,590,200	3,000,000
Accel VI, L.P.	2,024,924	-
Accel VI-S	3,190,838	652,611
Accel VII, L.P.	2,504,452	5,000,000
Accel VIII, L.P.	3,937,242	4,782,499
Accel X, L.P.	17,737,515	1,650,000
Accel XI, L.P.	5,623,170	2,480,000
Accel XII, L.P.	1,050,000	5,950,000
Advent Global Private Equity III	405,991	20
Advent Global Private Equity IV	1,796,016	-
Advent Global Private Equity V	38,873,778	10,500,000
Advent International GPE VI-A LP	217,219,753	10,199,980
Advent International GPE VII-B, L.P.	102,104,024	119,200,000
Affinity Asia Pacific Fund II, L.P.	111,272	5,288,237
Affinity Asia Pacific Fund III, L.P.	115,670,331	18,564,389
Affinity Asia Pacific Fund IV (No.2) L.P.	5,657,668	115,827,047
APA Excelsior IV, L.P.	298,116	-
APA Excelsior V	171,366	545,625
Apax Europe Fund VI	114,177,310	2,895,476
Apax Europe V, L.P.	4,413,067	-
Apax Europe VII, L.P.	170,578,077	5,101,224
Apax Excelsior VI	1,406,501	1,614,434
Apax US VII	35,609,839	417,509
Apax VIII - B, L.P.	22,424,831	76,950,315
Apollo Investment Fund VIII L.P.	3,615,601	95,582,368
Arboretum Ventures II	4,144,417	630,096
Arboretum Ventures III, L.P.	10,019,481	4,500,000
Ares Corporate Opportunities Fund II	28,269,014	11,755,627
Ares Corporate Opportunities Fund III, LP	81,258,372	14,810,965
Ares Corporate Opportunities Fund IV, L.P.	23,494,967	75,406,913
Austin Ventures VIII, L.P.	5,158,086	-
Avenue Special Situations Fund IV, L.P.	718,738	-
Avenue Special Situations Fund V, L.P.	2,380,838	-
Avenue Special Situations Fund VI (B), L.P.	50,542,774	-
AXA ASF Miller Co-Investment	66,942,640	25,201,187

	<b>Adjusted Reported Value</b>	<b>Unfunded Commitment</b>
Axiom Asia Private Capital Fund III, L.P.	7,305,589	27,509,264
Banc Fund VI	5,934,009	-
Banc Fund VII	38,681,851	-
Banc Fund VIII	26,443,371	-
Battery Ventures VI, L.P.	4,894,623	-
Battery Ventures VII, L.P.	10,284,559	377,778
Battery Ventures VIII	26,495,268	701,800
BC European Capital IX	55,984,112	47,665,448
BC European Capital VII, L.P.	704,451	-
BC European Capital VIII, L.P.	97,379,465	14,198,085
Berkshire Fund IV, L.P.	236,222	1,898,016
Berkshire Fund V, L.P.	1,173,665	1,900,578
Berkshire Fund VI, L.P.	35,949,535	5,205,752
Berkshire Fund VII, L.P.	84,185,248	9,623,817
Berkshire Fund VIII, L.P.	46,352,951	75,897,043
Blackstone Capital Partners IV	80,073,963	5,302,213
Blackstone Capital Partners V	211,871,896	23,935,811
Blackstone Capital Partners V-S	27,340,625	712,476
Blackstone Capital Partners VI, LP	158,117,425	164,825,617
Bridgepoint Europe IV	57,479,713	8,515,129
Brockway Moran & Partners Fund III	10,438,582	4,076,923
Carlyle Europe Partners	183,839	464,676
Carlyle Europe Partners II	19,826,767	5,078,769
Carlyle Europe Partners III	116,617,439	17,235,568
Carlyle Partners IV, L.P.	58,889,591	15,996,608
Carlyle Partners V L.P.	265,216,645	52,110,651
Carlyle Partners VI, L.P.	33,706,471	139,047,314
Castle Harlan Partners IV	12,438,630	5,647,298
Castle Harlan Partners V	27,991,333	43,073,296
CCMP Capital Investors II	113,046,261	10,851,118
CCMP Capital Investors III, L.P.	10,834,293	38,153,166
Cerberus SMRS Partners, L.P.	37,726,940	62,054,657
Clarus Life Sciences II, L.P.	51,702,416	6,440,000
Clarus Lifesciences I	16,807,373	4,079,460
Clearstone Venture Partners II (idealab)	4,922,300	-
Clearstone Venture Partners III	29,203,100	1,612,000
CM Liquidity Fund, L.P.	-	25,000,000
CMEA Ventures VI	9,175,256	1,575,000
CMEA Ventures VII, L.P.	29,381,628	3,600,000
Coller International Partners IV	11,332,180	4,000,000
Coller International Partners V, L.P.	92,423,986	43,600,000
Coller International Partners VI, L.P.	45,688,975	64,566,482
Crescent Mezzanine Partners VI, L.P.	27,769,147	48,284,618
DLJ Investment Partners II	1,771,616	0
DLJ Investment Partners III	24,862,657	69,839,297
DLJ Merchant Banking Partners III, L.P.	7,957,788	1,854,201
DLJ Merchant Banking Ptrs II, L.P.	1,589,895	1,856,746

	<b>Adjusted Reported Value</b>	<b>Unfunded Commitment</b>
Doughty Hanson & Co IV	70,069,262	3,286,858
Doughty Hanson & Co V	116,946,967	40,201,204
Doughty Hanson Co. III L.P.	24,550,038	3,102,822
EDF Ventures III	3,002,245	-
Essex Woodlands Health IV	2,963,178	-
Essex Woodlands Health V	8,322,273	-
Essex Woodlands Health Ventures Fund VIII	71,248,081	12,000,000
Essex Woodlands Health VI	15,542,375	687,500
Essex Woodlands Health VII	74,759,111	-
FirstMark Capital I, L.P.	63,239,606	3,961,386
<b>** FirstMark Capital OF I, L.P.</b>	<b>2,200,000</b>	<b>17,800,000</b>
Flagship Ventures Fund 2004	17,556,798	-
Flagship Ventures Fund 2007, L.P.	41,801,698	525,000
Flagship Ventures Fund IV, L.P.	19,790,075	6,150,000
Fox Paine Capital Fund II, LP	22,623,632	16,024,880
Frontenac VIII	3,115,145	1,800,000
GCM Grosvenor Fund Investment Program I, L.P.	27,687,359	1,472,696
GCM Grosvenor Fund Investment Program II, L.P.	84,437,759	17,355,043
GCM Grosvenor Fund Investment Program III - 2004	101,698,578	6,542,786
GCM Grosvenor Fund Investment Program III - 2006	117,164,921	24,858,473
GCM Grosvenor Fund Investment Program V, L.P.	80,610,388	37,000,815
GCM Grosvenor Fund Investment Program VI, L.P.	5,178,651	29,266,755
GCM Grosvenor SeasPriFIP LP (PIS06-10)	98,762,958	107,760,297
<b>** GCM Grosvenor SeasPriFIP LP (PIS14)</b>	<b>18,414,663</b>	<b>93,323,017</b>
GCM Grosvenor SeasPriFIP LP (Seed)	180,488,028	17,096,752
Glencoe Capital Michigan Opportunities Fund, LP	142,739,411	32,890,491
Glencoe Capital Partners II	8,133,378	355,381
Glencoe Capital Partners III	10,852,375	6,120,760
Glencoe Stockwell Fund	305,035,129	-
Glencoe Stockwell Fund II, L.P.	93,996,031	6,447,777
Globespan Capital Partners IV (Jafco)	19,372,126	475,000
Globespan Capital Partners V, LP	46,175,998	6,937,500
Green Equity Investors III	55,359	9,112,215
Green Equity Investors IV	51,388,398	1,136,036
Green Equity Investors V	249,129,719	18,649,339
Green Equity Investors VI, L.P.	39,704,699	87,414,298
Grotech Partners V	258,042	-
Grotech Partners VI	8,418,983	-
GSO Capital Opportunities Fund II, L.P.	11,962,197	29,250,359
H.I.G. Bayside Debt & LBO Fund II, LP	9,982,390	5,933,333
H.I.G. Brightpoint Capital Partners II	523,106	-
H.I.G. Capital Partners IV, L.P.	15,578,905	1,707,500
H.I.G. Europe Capital Partners L.P.	29,064,560	2,615,054
HarbourVest Dover Street VIII, L.P.	22,333,102	47,587,500
HarbourVest Int'l III Direct	4,524,034	1,000,000
HarbourVest Int'l III Partnership	5,224,747	1,200,000
HarbourVest Partners V - Direct Fund LP	237,340	-

	<b>Adjusted Reported Value</b>	<b>Unfunded Commitment</b>
HarbourVest V Partnership	519,629	300,000
HarbourVest VI - Direct Fund LP	8,189,111	750,000
HarbourVest VI Partnership	24,437,512	2,000,000
Healthcare Venture V	1,176,551	-
Healthcare Venture VI	1,301,068	-
Healthcare Venture VII	5,094,998	-
Healthcare Venture VIII	23,806,645	4,700,000
InterWest Partners IX	12,294,378	1,600,000
JAFCO America Technology Fund III	749,629	-
JP Morgan Partners Global Investors	36,975,348	3,217,192
JPMorgan Global Investors Selldown	31,224,013	5,623,366
Kelso Investment Associates VII	12,949,475	4,970,176
Kelso Investment Associates VIII	131,826,851	26,138,515
Khosla Ventures III, L.P.	69,203,855	6,750,000
Khosla Ventures IV, L.P.	35,854,449	19,000,000
KKR 2006 Fund, L.P.	229,921,067	17,475,357
KKR Asia	74,771,855	1,245,287
KKR Asian Fund II, L.P.	11,979,985	37,497,572
KKR China Growth Fund	32,720,840	20,286,500
KKR E2 Investors (Annex) Fund	13,370,860	15,681,230
KKR European Fund II	73,691,492	-
KKR European Fund III	125,741,186	4,992,298
KKR European Fund LP 1	2,579,566	307,605
KKR Millennium Fund	90,604,002	-
KKR North America Fund XI, L.P.	66,759,189	61,994,041
Lightspeed Venture Partners VI	9,296,923	3,299,089
Lightspeed Venture Partners VII, L.P.	41,729,177	860,436
Lion Capital Fund I (HME II)	2,324,372	13,932,217
Lion Capital Fund II	39,682,938	5,885,870
Lion Capital Fund III, L.P.	64,106,347	27,941,891
Long Point Capital Fund	12,719	41,415
Long Point Capital Fund II	17,725,120	949,013
Matlin Patterson Global Opportunities Partners	36,896	-
MatlinPatterson Global Opportunities Partners II	2,390,911	92,719
MatlinPatterson Global Opportunities Partners III	73,926,549	12,762,334
Menlo Ventures IX, L.P.	12,338,145	-
Menlo Ventures VIII	2,449,079	-
Menlo Ventures X, L.P.	25,167,954	2,000,000
Menlo Ventures XI, L.P.	20,826,360	6,000,000
MeriTech Capital Partners II, L.P.	4,219,429	1,850,000
Meritech Capital Partners III, L.P.	36,582,618	600,000
Meritech Capital Partners IV, L.P.	22,609,749	1,700,000
Michigan Growth Capital Partners II, L.P.	57,485,509	119,815,781
Michigan Growth Capital Partners, LP	159,578,078	27,749,899
Midtown Fund III, L.P.	2,595,289	272,000
Midtown II Liquidating Trust	1,309,702	-
MPM BioVentures III	5,140,169	-

	<u>Adjusted Reported Value</u>	<u>Unfunded Commitment</u>
New Leaf Ventures II, L.P.	31,553,765	1,925,000
Nordic Capital VI, L.P.	46,501,598	-
Nordic Capital VII	73,818,134	13,416,848
Nordic Capital VIII, L.P. (Alpha)	3,665,494	50,175,460
North Castle Partners III	3,323,812	416,294
Oak Investment Partners X, L.P.	13,997,068	-
Oak Investments Partners IX, L.P.	2,903,304	-
OCM Opportunities Fund IX, L.P.	50,262,624	27,750,000
OCM Opportunities Fund VII (B), L.P.	10,978,219	25,128,619
OCM Opportunities Fund VII, L.P.	11,071,319	-
OCM Opportunities Fund VIII B, L.P.	45,629,439	-
OCM Opportunities Fund VIII, L.P.	31,292,272	-
OCM Principal Opportunities Fund IV	24,819,024	5,002,377
One Liberty Fund III	1,116,310	-
One Liberty Fund IV	2,067,122	-
One Liberty Ventures 2000	14,729,058	-
Paine & Partners Capital Fund III, LP	143,496,563	2,692,675
Parthenon Investors II	9,391,026	3,186,779
Parthenon Investors III	61,633,743	6,504,836
Parthenon Investors IV, L.P.	9,572,138	28,598,566
Peninsula Capital Fund III	211,892	1,400,000
Peninsula Capital Fund IV	15,815,525	2,201,026
Permira Europe III LP	5,830,149	293,683
Permira IV, L.P.	104,340,398	8,762,560
Phoenix Equity Partners IV	10,352,181	1,409,939
Primus Capital Fund IV	3,336	500,000
Primus Capital Fund V	7,999,975	712,500
Providence Equity Partners V, L.P.	70,783,011	12,942,709
Providence Equity Partners VI, L.P.	210,072,290	31,081,212
Questor Partners Fund II	15,150,137	5,794,612
RFE Investment Partners VII, LP	28,283,869	173,332
RFE Investment Partners VIII, L.P.	12,567,426	15,736,764
RFE IV Venture	349,319	-
Riverside Capital Appreciation Fund VI, LP	7,074,130	65,759,140
Riverside Micro Cap Fund I, LP	31,381,327	3,942,028
Riverside Micro-Cap Fund II, L.P.	39,843,438	3,830,788
<b>** Riverside Micro-Cap Fund III, L.P.</b>	-	<b>40,000,000</b>
Silver Lake Partners II	13,946,370	3,531,586
Silver Lake Partners III	84,177,747	19,494,246
Silver Lake Partners IV, L.P.	7,041,804	42,338,293
Sprout Capital IX	1,629,708	-
Sprout Capital VIII, L.P.	1	-
TCW Shared Op Fund III	1,767,784	-
TCW Shared Op Fund IV	9,507,302	4,524,779
TCW Shared Op Fund V	26,344,435	11,653,868
TCW/Crescent Mezzanine Partners III, L.P.	6,197,551	4,552,763
TCW/Crescent Mezzanine Partners IV, L.P.	23,393,229	6,030,737

	<b>Adjusted Reported Value</b>	<b>Unfunded Commitment</b>
TCW/Crescent Mezzanine Partners V, LLC	67,667,377	15,558,996
The Huron Fund III, L.P.	26,000,605	8,072,500
The Huron Fund IV, L.P.	5,667,358	28,770,000
The Shansby Group 4	25,930,361	520,829
The Shansby Group 5 (TSG5)	89,844,373	10,453,345
TPG IV (Texas Pacific Group IV)	18,162,443	211,725
TPG Partners III, LP	9,025,690	2,087,002
TPG Partners VI, L.P.	235,349,408	43,314,601
TPG V (Texas Pacific Group V)	214,683,725	34,917,668
Trilantic Capital Partners V (North America) Fund A, L.P.	8,523,573	40,087,728
TSG6, L.P.	51,098,671	83,218,046
Tullis - Dickerson Capital II	6,334,090	-
Tullis - Dickerson Capital III	11,324,559	-
Unitas Asia Opportunity Fund	458,541	-
Unitas Asia Opportunity Fund II	1,358,528	26,604,144
Unitas Asia Opportunity Fund III	48,572,747	46,196,017
Vista Equity Partners Fund V, L.P.	2,027,026	47,972,974
<b>** Warburg Pincus Energy, L.P.</b>	<b>-</b>	<b>100,000,000</b>
Warburg Pincus Equity Partners, L.P.	9,297,379	-
Warburg Pincus International Partners	26,071,453	-
Warburg Pincus Private Equity IX	82,058,763	-
Warburg Pincus Private Equity VIII, L.P.	44,549,137	-
Warburg Pincus Private Equity X, L.P.	264,134,490	-
Warburg Pincus Private Equity XI, L.P.	91,416,090	111,500,000
Weiss, Peck & Greer V (adm: Opus Capital)	1,239,668	386,240
WestAm COREplus Private Equity QP	8,018,950	2,110,761
WestAm Special Private Equity Partners	6,792,661	2,317,427
Wind Point Partners III	2,768,613	-
Wind Point Partners IV	137,807	1,541,518
Wind Point Partners V, L.P.	12,989,096	455,013
Wind Point Partners VI	30,878,494	5,599,137
Wind Point Partners VII	48,131,208	18,084,450
<b>TOTAL Alternative Investments *</b>	<b>\$ 10,092,299,354</b>	<b>\$ 3,936,417,965</b>
Cash	204,377,507	-
Active Small Cap Cah	28,964,596	-
Active Small Cap	16,249,358	-
<b>Grand Total</b>	<b>\$ 10,341,890,815</b>	<b>\$ 3,936,417,965</b>

\* Total Alternative Investment amounts do not include Cash and Active Small Cap

\*\* New Commitments made during quarter reported



**STATE OF MICHIGAN  
RETIREMENT SYSTEMS**

**DOMESTIC EQUITY REVIEW**

**INVESTMENT ADVISORY COMMITTEE MEETING**

**SEPTEMBER 4, 2014**



**Jack A. Behar, CFA, Administrator  
Stock Analysis Division**



## EXECUTIVE SUMMARY

### Performance

<b>Total Domestic Equity, Gross</b>	<b>1-Year</b>	<b>3-Years</b>	<b>5-Years</b>	<b>7-Years</b>	<b>10-Years</b>
Annualized Returns	26.1%	16.7%	18.8%	6.6%	8.1%
S&P 1500	24.7%	16.5%	19.2%	6.4%	8.1%
State Street Peer Group	22.0%	14.0%	21.5%	6.5%	7.6%
Rank vs. Peers	18	25	52	30	42

<b>Total Domestic Equity, Net</b>	<b>1-Year</b>	<b>3-Years</b>	<b>5-Years</b>
Annualized Returns	26.0%	16.5%	18.6%
S&P 1500	24.7%	16.5%	19.2%
Lipper Multi Core	24.3%	14.3%	17.7%

<b>Total Active Equity, Net</b>	<b>1-Year</b>	<b>3-Years</b>	<b>5-Years</b>
Annualized Returns	27.0%	16.8%	18.4%
S&P 1500	24.7%	16.5%	19.2%
Lipper Multi Core	24.3%	14.3%	17.7%
Rank vs. Peers	22	19	44

- Total Domestic Equity outperformed the S&P 1500 and ranked in the top quartile of its State Street peer group, gross of fees, on both a one and three-year basis. Five-year performance underperformed the benchmark and came in slightly behind peers.
- Net of fees, Total Active Equity also outperformed its benchmark and ranked in the top quartile of its peer group over one and three years. Five-year performance lagged the benchmark, but outperformed peers.
- Internal management, as a group, outperformed the S&P 500 on a one and a three-year basis and ranked in the 17th, the 10th, and the 34th percentiles of large-cap managers over the past one, three, and five years respectively.
- Since February of 2000, internal active management has outperformed the S&P 500 by 50 bps annualized, or 7% in aggregate.
- External management underperformed its benchmark on a one, three, and five-year basis, and slightly underperformed its peer group.
  - Results were significantly impacted by 80 bps to 100 bps of fee drag over the three and five-year time periods, as well as 40 bps of fee drag during the past year.
  - Costs are now in the 25 bps range, which will help returns going forward.

- The division also benefitted from equitizing its portfolio manager cash while hedging out much of its small-cap manager exposure. This lifted overall results above the weighted average of the division's internal and external manager program returns.

### **Strategy Update**

- Total Active Equity's portfolio trades at an estimated 25% discount to its benchmark, the S&P 1500, on the basis of normalized earnings (Total Active Equity at 14.5x versus the S&P 1500 at 18).
- We expect Total Active Equity's PE ratio to at least partially converge with that of the S&P 1500 over the next five years, driving annualized outperformance.
- If it does not, we expect outperformance on the basis of a 1.2% per year greater net dividend yield (dividends + buybacks) than the S&P 1500, alongside similar earnings growth.
- Total active equity remains significantly overweight the financial sector while underweight commodity-related themes and small-cap stocks.
- Five of SMRS' seven internal strategies are outperforming their benchmarks on an inception-to-date basis, four of which rank in the top 20% of managers as compared to their peer groups.
- The external manager program has been concentrated and restructured with respect to fees paid, and we are optimistic that its relative performance will improve going forward.
- Total fees paid for both internal and external active management is now 13 bps per year, or similar to that of the Vanguard S&P 500 Index Fund.
- SMRS has reduced its small-cap underweight on the heels of recent large-cap outperformance, but remains overweight large-cap stocks.

### **Market Environment and Outlook**

- At 18x normalized earnings, equity markets look reasonably priced in comparison to bonds.
- Assuming a 3.5% normalized dividend yield and 5.2% long-term expected earnings growth, the S&P 1500 is poised to return approximately 8.7% over the long-term (Stock Analysis Division's estimate).
- This compares to the 30-year U.S. Treasury at 3.3%, and a historical average return for the S&P 500 of 9.6%.



# SMRS

## Domestic Equities

6/30/14

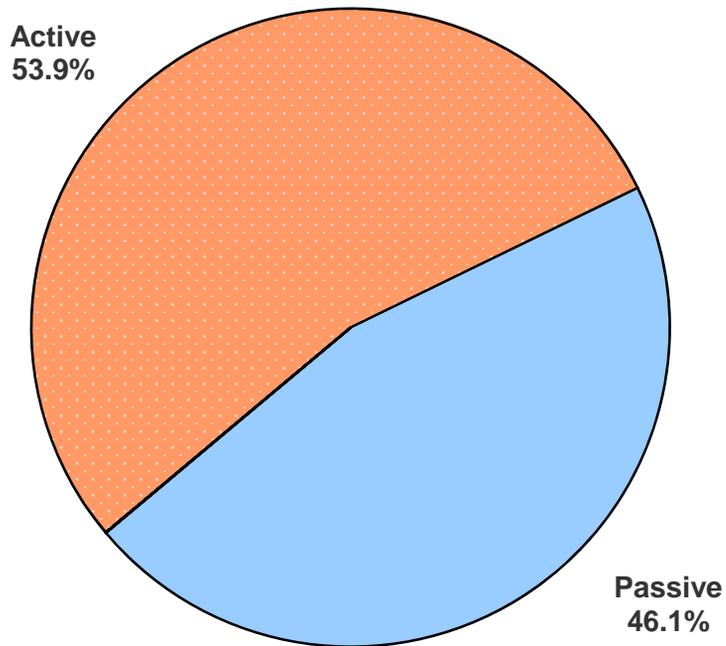
	Amount	% of Total
<b>Passive</b>		
S&P 500	\$7,580,807	
S&P 400	<u>791,860</u>	
<b>Sub Total</b>	<b>\$8,372,667</b>	46.1%
<b>Internal Active</b>		
Large-Cap Core	\$2,399,858	
Large-Cap Growth	1,515,833	
All-Cap GARP	647,215	
Concentrated Equity Fund	520,104	
Large-Cap Value	335,479	
Absolute Return Income Fund	304,218	
Tactical Asset Allocation	131,361	
Concentrated All-Cap Growth	<u>93,517</u>	
<b>Sub Total</b>	<b>\$5,947,585</b>	32.7%
<b>External Active</b>		
Fisher All-Cap Value	\$996,294	
Seizert Capital Partners All-Cap Core	732,618	
Los Angeles Capital All-Cap Growth	541,536	
Champlain Mid-Cap Core	531,328	
Cramer Rosenthal McGlynn All-Cap Core	284,117	
Clarkston Small-Cap Core	224,162	
GW Capital All-Cap Value	222,394	
Northpointe All-Cap Core	103,494	
Attucks Asset Management	79,009	
Munder Mid-Cap Core	70,609	
Bivium Capital	<u>69,161</u>	
<b>Sub Total</b>	<b>\$3,854,722</b>	21.2%
<b>TOTAL</b>	<b><u>\$18,174,974</u></b>	100.0%

Note: All dollar amounts are expressed in thousands.



# SMRS

## Domestic Equity Holdings By Category 6/30/14

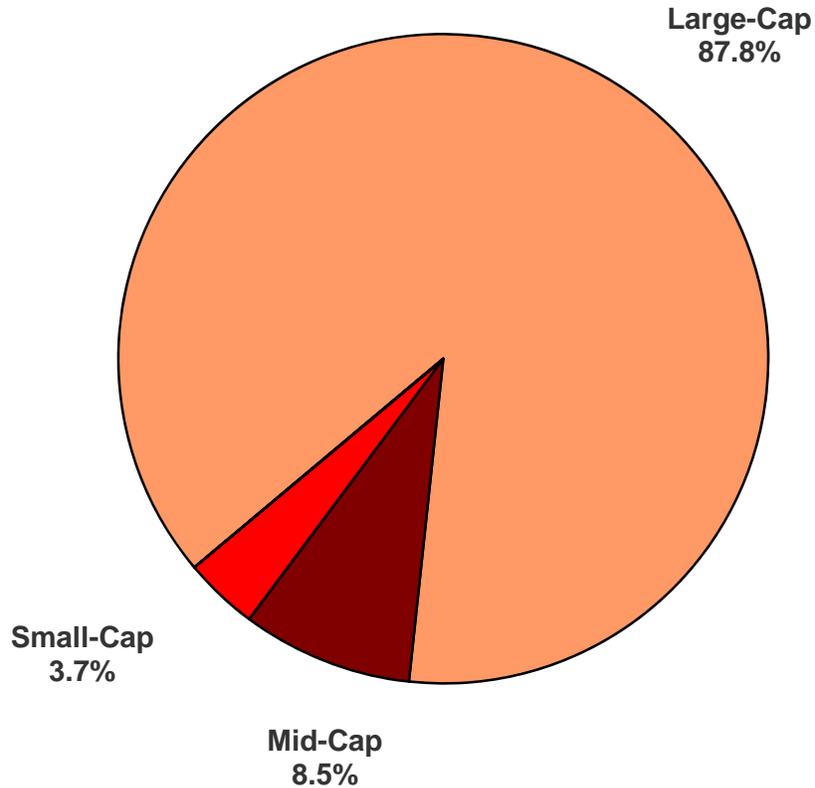


Market Value in Millions				
	<u>6/30/14</u>		<u>3/31/14</u>	
	<u>Assets</u>	<u>Percent</u>	<u>Assets</u>	<u>Percent</u>
Active	\$9,802	53.9%	\$9,348	53.9%
Passive	<u>8,373</u>	<u>46.1%</u>	<u>8,001</u>	<u>46.1%</u>
<b>Total Domestic Equity</b>	<b><u>\$18,175</u></b>	<b><u>100.0%</u></b>	<b><u>\$17,349</u></b>	<b><u>100.0%</u></b>



# SMRS

## Domestic Equity Exposure By Market Cap 6/30/14



### Market Value in Millions

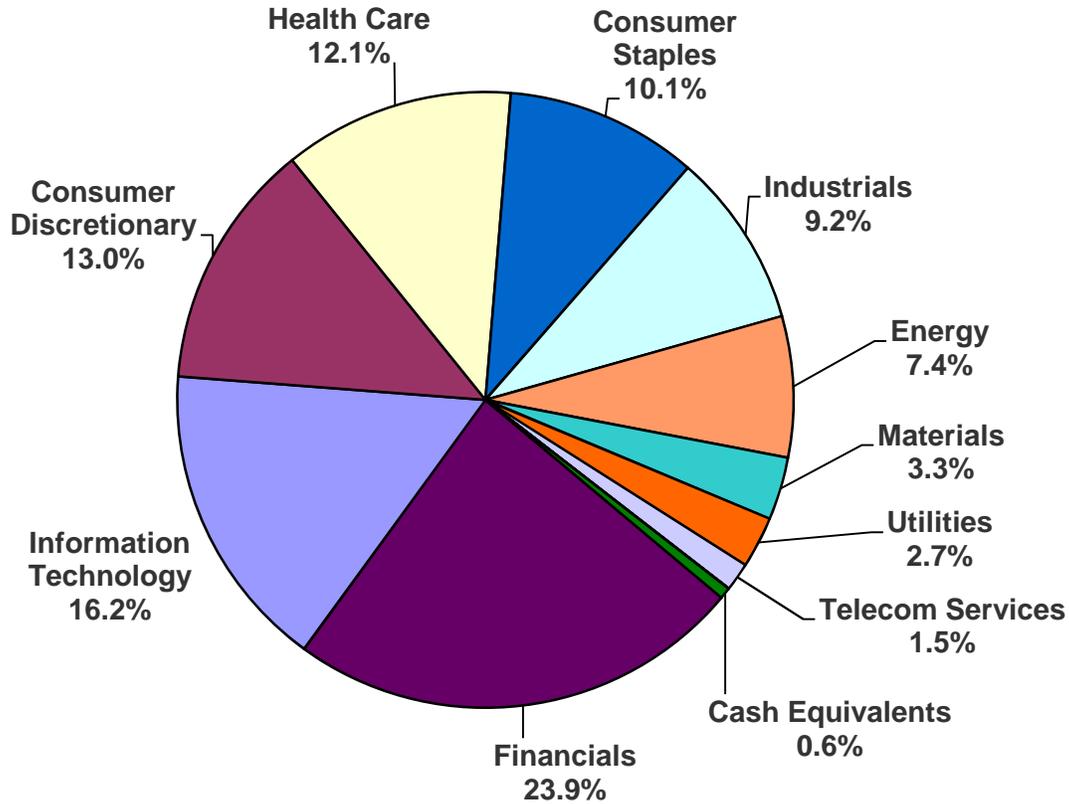
	6/30/14		
	<u>Assets</u>	<u>Percent</u>	<u>S&amp;P 1500</u>
Large-Cap (>\$10B)	\$15,958	87.8%	84.7%
Mid-Cap (>\$4 <\$10B)	1,545	8.5%	9.3%
Small-Cap (<\$4B)	672	3.7%	6.0%
<b>Total Domestic Equity</b>	<b><u>\$18,175</u></b>	<b><u>100.0%</u></b>	<b><u>100.0%</u></b>



# SMRS

## All Domestic Equity Holdings By Category

6/30/14



	6/30/14			3/31/14	
	Assets	Percent	Benchmark	Assets	Percent
Financials	\$4,343	23.9%	17.4%	\$3,856	22.2%
Information Technology	2,941	16.2%	18.1%	2,808	16.2%
Consumer Discretionary	2,364	13.0%	12.0%	2,325	13.4%
Health Care	2,195	12.1%	12.9%	2,069	11.9%
Consumer Staples	1,835	10.1%	8.8%	1,507	8.7%
Industrials	1,685	9.2%	11.2%	1,567	9.0%
Energy	1,343	7.4%	10.2%	1,308	7.5%
Materials	598	3.3%	3.9%	642	3.7%
Utilities	492	2.7%	3.3%	582	3.4%
Telecom Services	268	1.5%	2.2%	220	1.3%
Other	0	0.0%	0.0%	6	0.1%
Total Investments	\$18,064	99.4%	100.0%	\$16,890	97.4%
Cash Equivalents	111	0.6%	0.0%	459	2.6%
<b>Total</b>	<b>\$18,175</b>	<b>100.0%</b>	<b>100.0%</b>	<b>\$17,349</b>	<b>100.0%</b>

Benchmark: S&P 1500



SMRS

## All Domestic Equities Composite

6/30/14

Date:	<u>6/30/14</u>	<u>3/31/14</u>	<u>12/31/13</u>	<u>9/30/13</u>
Assets (\$million):	\$18,175	\$17,349	\$16,943	\$15,341
Number of Securities:	1,237	1,306	1,377	1,390
Benchmark:	S&P 1500			
Description:	The Domestic Equities Composite combines both the SMRS' All Actively Managed Composite and its index funds..			

<b>Characteristics:</b>	<b><u>SMRS</u></b>	<b><u>S&amp;P 1500</u></b>
Weighted Average Capitalization (\$billion):	\$116.8	\$110.8
Trailing 12-month P/E:	18.1x	18.6x
Forecast P/E:	16.5x	16.9x
Price/Book:	2.4x	2.6x
Beta:	0.98	1.01
Dividend Yield:	1.8%	1.8%
3-5 Year EPS Growth Estimate:	11.8%	11.7%
Return on Equity:	18.6%	18.8%

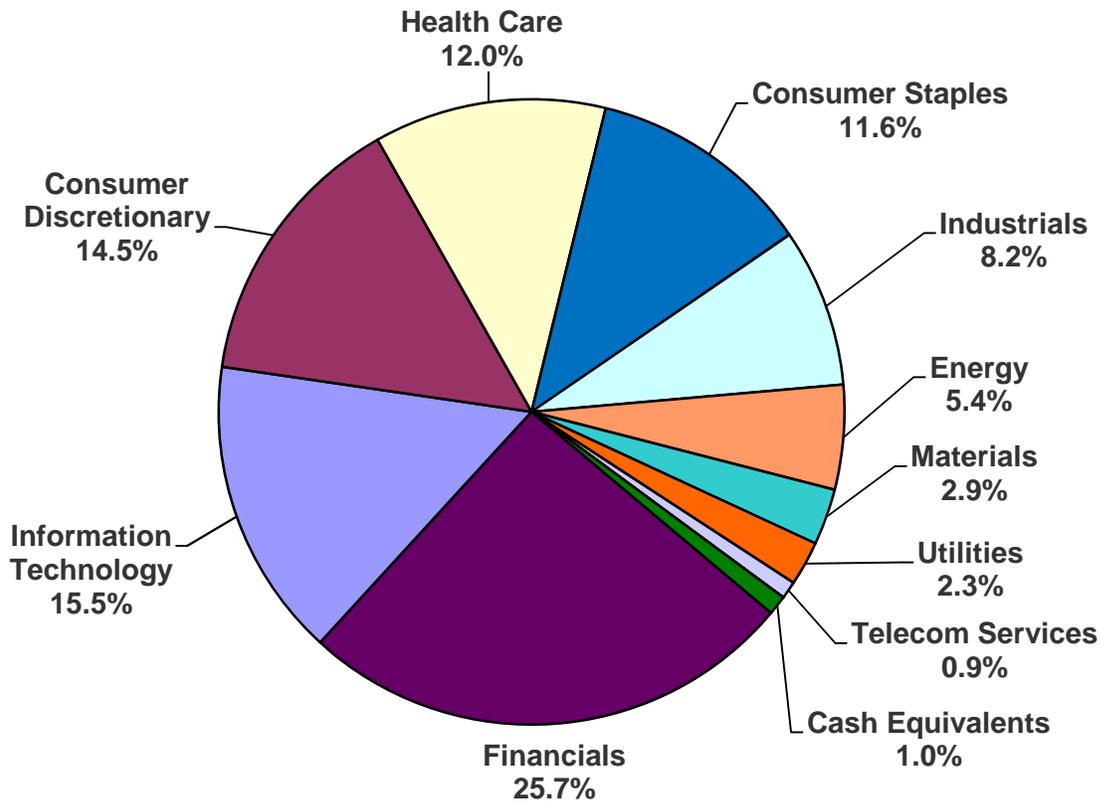
### TOP TEN HOLDINGS - All Domestic Equities 6/30/14

	<b><u>Portfolio Weight</u></b>	<b><u>Total Shares</u></b>	<b><u>6/30/14 Price</u></b>	<b><u>YTD14 Total Return</u></b>	<b><u>Market Value</u></b>
Apple Inc.	3.2%	6,247,901	\$92.93	21.9%	\$580,617,440
Wal-Mart Stores, Inc.	2.6%	6,349,192	\$75.07	-1.2%	476,633,843
SPDR S&P 500 ETF	2.4%	2,234,550	\$195.72	5.2%	437,346,126
Bank of America Corporation	2.0%	23,752,318	\$15.37	-10.6%	365,073,128
Johnson & Johnson	2.0%	3,397,108	\$104.62	7.2%	355,405,439
Bank of New York Mellon Corporation	1.9%	9,058,690	\$37.48	6.7%	339,519,701
Goldman Sachs Group, Inc.	1.8%	1,909,392	\$167.44	2.5%	319,708,596
U.S. Bancorp	1.7%	7,322,238	\$43.32	1.6%	317,199,350
PepsiCo, Inc.	1.5%	3,106,088	\$89.34	7.8%	277,497,902
Microsoft Corporation	<u>1.2%</u>	5,381,907	\$41.70	2.4%	<u>224,425,522</u>
TOTAL	<u>20.3%</u>				<u>\$3,693,427,048</u>



# SMRS

## All Active Domestic Equity Holdings By Category 6/30/14



	Market Value in Millions				
	6/30/14			3/31/14	
	Assets	Percent	Benchmark	Assets	Percent
Financials	\$2,523	25.7%	17.4%	\$2,090	22.4%
Information Technology	1,517	15.5%	18.1%	1,467	15.7%
Consumer Discretionary	1,421	14.5%	12.0%	1,408	15.1%
Health Care	1,172	12.0%	12.9%	1,093	11.7%
Consumer Staples	1,132	11.6%	8.8%	826	8.8%
Industrials	805	8.2%	11.2%	717	7.7%
Energy	527	5.4%	10.2%	574	6.1%
Materials	289	2.9%	3.9%	349	3.7%
Utilities	230	2.3%	3.3%	339	3.6%
Telecom Services	91	0.9%	2.2%	49	0.5%
Other	0	0.0%	0.0%	6	0.1%
Total Investments	\$9,707	99.0%	100.0%	\$8,918	95.4%
Cash Equivalents	95	1.0%	0.0%	430	4.6%
<b>Total</b>	<b>\$9,802</b>	<b>100.0%</b>	<b>100.0%</b>	<b>\$9,348</b>	<b>100.0%</b>

Benchmark: S&P 1500



# SMRS

## All Actively Managed Composite

6/30/14

Date:	<u>6/30/14</u>	<u>3/31/14</u>	<u>12/31/13</u>	<u>9/30/13</u>
Assets (\$million):	\$9,802	\$9,348	\$9,055	\$8,176
Number of Securities:	920	1,020	1,083	1,121
Benchmark:	S&P 1500			

Description: The Actively Managed Composite is designed to add consistent alpha by investing in managers with value-added, but diverse strategies. While the expectation is that most will outperform over time, the composite is designed such that they do so during differing parts of the business cycle.

<b>Characteristics:</b>	<b><u>SMRS</u></b>	<b><u>S&amp;P 1500</u></b>
Weighted Average Capitalization (\$billion):	\$117.6	\$110.8
Trailing 12-month P/E:	17.7x	18.6x
Forecast P/E:	16.2x	16.9x
Price/Book:	2.2x	2.6x
Beta:	0.96	1.01
Dividend Yield:	1.7%	1.8%
3-5 Year EPS Growth Estimate:	11.8%	11.7%
Return on Equity:	18.2%	18.8%

### TOP TEN HOLDINGS - All Actively Managed 6/30/14

	<u>Portfolio Weight</u>	<u>Total Shares</u>	<u>6/30/14 Price</u>	<u>YTD14 Total Return</u>	<u>Market Value</u>
Wal-Mart Stores, Inc.	4.4%	5,688,758	\$75.07	-1.2%	\$427,055,063
Apple Inc.	3.6%	3,777,270	\$92.93	21.9%	351,021,701
Bank of New York Mellon Corporation	3.3%	8,591,458	\$37.48	6.7%	322,007,846
Bank of America Corporation	3.0%	19,443,523	\$15.37	-10.6%	298,846,949
Goldman Sachs Group, Inc.	3.0%	1,739,010	\$167.44	2.5%	291,179,834
U.S. Bancorp	2.9%	6,578,500	\$43.32	1.6%	284,980,620
Johnson & Johnson	2.4%	2,237,848	\$104.62	7.2%	234,123,658
PepsiCo, Inc.	2.3%	2,484,915	\$89.34	7.8%	222,002,306
Gilead Sciences, Inc.	1.6%	1,936,216	\$82.91	17.0%	160,531,669
AutoZone, Inc.	<u>1.6%</u>	289,530	\$536.24	-0.2%	<u>155,257,567</u>
TOTAL	<u>28.0%</u>				<u>\$2,747,007,213</u>

## Combined Active Equity Portfolio, Return Expectations 6/30/14

### Return Assumption Estimates

	<u>Expected Return ****</u>	<u>Normal Dividend Yield **</u>	<u>LT Growth Rate ***</u>
<b>SAD Combined Active Equity</b>	<b>9.7%</b>	<b>4.7%</b>	<b>5.0%</b>
S&P 1500 All-Cap *****	8.7%	3.5%	5.2%
S&P 500 Large-Cap *****	8.7%	3.7%	<b>5.0%</b>
S&P Historical Average	9.6%		
S&P 400 Mid-Cap	8.7%	2.2%	<b>6.5%</b>
S&P 600 Small-Cap	8.2%	1.2%	<b>7.0%</b>
US 30-Year Treasury	3.3%	3.3%	0.0%

### Normal Dividend Yield Decomposition

	<u>Normal Price/Earnings</u>	<u>Normal Earnings Yield*</u>	<u>Normal Payout Ratio</u>	<u>Normal Dividend Yield**</u>
<b>SAD Combined Active Equity</b>	<b>14.5</b>	<b>6.9%</b>	<b>68%</b>	<b>4.7%</b>
S&P 1500 All-Cap	18.1	5.5%	63%	3.5%
S&P 500 Large-Cap	17.9	5.6%	67%	3.7%
S&P 400 Mid-Cap	20.2	5.0%	44%	2.2%
S&P 600 Small-Cap	22.1	4.5%	26%	1.2%

### Portfolio and Benchmark Risk Estimates

	<u>Expected Return ****</u>	<u>Standard Deviation</u>	<u>Expected Return/Volatility</u>
<b>SAD Combined Active Equity</b>	<b>9.7%</b>	<b>10.51%</b>	<b>0.92</b>
S&P 1500 All-Cap	8.7%	10.65%	0.82
S&P 500 Large-Cap	8.7%	10.45%	0.83
S&P 400 Mid-Cap	8.7%	12.64%	0.69
S&P 600 Small-Cap	8.2%	14.51%	0.56
US 30-Year Treasury	3.3%	10.85%	0.31

\*Earnings Yield = Earnings/Price

\*\* Includes Share Buybacks

\*\*\* LT Growth Rate Calculation: Return on Equity \* (1-Dividend Payout Ratio)

\*\*\*\* Yield to Maturity Formula: Dividend Yield + LT Growth Rate

\*\*\*\*\* S&P 500 Return is greater than that of the S&P 1500, but indices look the same due to rounding

## SMRS Internal/External Manager Performance – Net of Fees 6/30/14

### Total Domestic Equity Performance, Gross

	<u>Market Value</u>	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>	<u>7 Years</u>	<u>10 Years</u>
Total Domestic Equity	\$18,175,256,430	26.1%	16.7%	18.8%	6.6%	8.1%
S&P 1500		24.7%	16.5%	19.2%	6.4%	8.1%
State Street Peer Rank		18	25	52	30	42

### Total Domestic Equity Performance, Net of Fees

	<u>Market Value</u>	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>
Total Domestic Equity	\$18,175,256,430	26.0%	16.5%	18.6%
S&P 1500		24.7%	16.5%	19.2%
Lipper Multi Core		24.3%	14.3%	17.7%

### Total Active Equity Performance, Net of Fees

	<u>Market Value</u>	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>
Total Active Equity	\$9,802,586,170	27.0%	16.8%	18.4%
S&P 1500		24.7%	16.5%	19.2%
Lipper Multi Core		24.3%	14.3%	17.7%
Total Active Equity % Rank		22	19	44

### Manager Performance, Net of Fees

	<u>Market Value</u>	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>	<u>Inception</u>	<u>Inception Date</u>
Total Internal Active	\$5,816,500,930	26.7%	17.3%	18.0%	N/A	N/A
S&P 500		24.6%	16.6%	18.8%		
Lipper Large-Cap Core		23.7%	15.1%	17.4%		
Total Internal Active % Rank		17	10	34		
Total External Active	\$3,854,723,803	23.8%	14.2%	18.0%	N/A	N/A
S&P 1500		24.7%	16.5%	19.2%		
Lipper Multi Core		24.3%	14.3%	17.7%		
Total External Active % Rank		58	58	51		
SMRS Large-Cap Core	\$2,399,857,573	29.6%	19.6%	19.5%	7.9%	8/31/07
S&P 500		24.6%	16.6%	18.8%	6.7%	
Lipper Large-Cap Core		23.7%	15.1%	17.4%	6.2%	
Large-Cap Core % Rank		3	2	8	10	
SMRS Large-Cap Growth	\$1,516,109,963	29.4%	17.8%	18.4%	9.0%	5/31/05
S&P 500 Growth Index		27.1%	17.0%	19.2%	9.0%	
Lipper Large Growth		26.7%	14.8%	17.7%	8.6%	
Large-Cap Growth % Rank		24	10	34	34	
Fisher All-Cap	\$996,294,451	20.9%	10.1%	18.5%	10.2%	10/31/04
S&P 1500/S&P 600 Value Blend		24.7%	15.6%	20.2%	9.1%	
Lipper Small Value		23.6%	14.6%	20.1%	9.0%	
Fisher All-Cap % Rank		79	94	79	16	

**Manager Performance, Net of Fees  
6/30/14**

	<u>Market Value</u>	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>	<u>Inception</u>	<u>Inception Date</u>
Seizert Capital Partners	\$732,617,640	21.8%	16.7%	--	19.6%	11/30/09
S&P 1500/S&P400 Value Blend		24.7%	16.5%	--	20.7%	
<i>Lipper Multi core</i>		24.3%	14.3%	--	16.0%	
<i>Seizert Capital Partners Peer Rank</i>		73	19	--	9	
SMRS All-Cap GARP*	\$647,215,481	27.2%	19.9%	--	19.2%	4/30/11
S&P 1500 Super Composite		24.7%	16.5%	--	15.1%	
<i>Lipper Multi Core</i>		24.3%	14.3%	--	13.1%	
<i>SMRS All-Cap GARP* % Rank</i>		21	3	--	1	
LA Capital Mid-Cap Core	\$541,536,127	27.2%	15.7%	21.3%	11.4%	5/31/05
S&P 400 Mid-Cap/S&P 400 Mid-Cap Growth Blend		23.2%	14.0%	20.9%	10.5%	
<i>Lipper Mid Core</i>		24.9%	13.9%	19.5%	9.4%	
<i>LA Capital Mid-Cap Core Peer Rank</i>		20	19	27	7	
Champlain Mid-Cap Core	\$531,327,679	24.0%	14.3%	19.1%	20.9%	2/28/09
S&P 400 Mid-Cap Index		25.2%	15.3%	21.7%	23.4%	
<i>Lipper Mid Core</i>		24.9%	13.9%	19.5%	21.3%	
<i>Champlain Mid-Cap Core % Rank</i>		64	51	66	65	
Concentrated Equity	\$520,104,530	24.9%	--	--	25.3%	5/31/13
S&P 1500 Super Composite		24.7%	--	--	21.9%	
<i>Lipper Multi Core</i>		24.3%	--	--	21.8%	
<i>Concentrated Equity % Rank</i>		47	--	--	18	
SMRS Large-Cap Value	\$335,478,515	19.5%	14.1%	15.7%	2.9%	7/31/07
S&P 500 Value Index		22.0%	16.3%	18.5%	4.2%	
<i>Lipper Large Value</i>		23.3%	15.4%	17.6%	4.6%	
<i>SMRS Large-Cap Value % Rank</i>		95	78	87	90	
SMRS Absolute Return Income Fund	\$304,218,034	18.5%	15.2%	17.7%	16.7%	1/31/09
60% S&P 500/40% Barclays AGG		16.2%	11.5%	13.3%	12.7%	
<i>Lipper Mixed Target Allocation Moderate/Growth Blend</i>		16.2%	9.5%	12.7%	12.8%	
<i>SMRS Absolute Return Income Fund % Rank</i>		25	1	2	3	
Cramer Rosenthal All-Cap	\$284,117,393	21.3%	12.8%	18.3%	10.3%	5/31/05
S&P 400 Value/S&P 1500 Blend		24.7%	16.3%	21.4%	10.3%	
<i>Lipper Mid Value</i>		26.2%	15.4%	20.6%	9.8%	
<i>Cramer Rosenthal All-Cap %Rank</i>		94	89	86	41	
NorthPointe Small-Cap Core	\$103,494,000	22.6%	11.0%	17.0%	7.5%	10/31/04
NorthPointe Blended Benchmark		25.5%	16.8%	21.0%	9.4%	
<i>Lipper Small Core</i>		23.7%	14.3%	20.0%	9.5%	
<i>NorthPointe Small-Cap Core % Rank</i>		69	91	89	92	
Concentrated All-Cap Growth	\$93,516,833	11.2%	--	--	13.2%	5/31/13
S&P 1500 Super Composite Growth		26.8%	--	--	23.1%	
<i>Lipper Multi Growth</i>		26.2%	--	--	23.4%	
<i>Concentrated All-Cap Growth % Rank</i>		100	--	--	99	

**Manager Performance, Net of Fees  
6/30/14**

	<u>Market Value</u>	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>	<u>Inception</u>	<u>Inception Date</u>
Attucks Asset Management	\$79,008,985	25.8%	15.2%	18.7%	6.3%	11/30/07
S&P 1500 Super Composite		24.7%	16.5%	19.2%	6.2%	
<i>Lipper Multi Core</i>		24.3%	14.3%	17.7%	5.4%	
<i>Attucks Asset Management % Rank</i>		36	44	37	33	
Munder Mid-Cap Core	\$70,609,060	22.9%	14.0%	20.2%	22.5%	4/30/09
S&P 400 Mid-Cap Index		25.2%	15.3%	21.7%	24.5%	
<i>Lipper Mid Core</i>		24.9%	13.9%	19.5%	22.4%	
<i>Munder Mid-Cap Core % Rank</i>		76	58	43	52	
Bivium Capital Partners	\$69,159,468	22.1%	13.7%	18.5%	5.6%	11/30/07
S&P 1500 Super Composite		24.7%	16.5%	19.2%	6.2%	
<i>Lipper Multi Core</i>		24.3%	14.3%	17.7%	5.4%	
<i>Bivium Capital Partners % Rank</i>		70	63	40	48	



**STATE OF MICHIGAN  
RETIREMENT SYSTEMS**

**FIXED INCOME REVIEW**

**INVESTMENT ADVISORY COMMITTEE MEETING**

**SEPTEMBER 4, 2014**



**Daniel J. Quigley, Administrator  
Long-Term Fixed Income Division**



## EXECUTIVE SUMMARY

### Performance

MPSERS Plan	1-Year	3-Years	5-Years	7-Years	10-Years
Long-Term Fixed Income	5.1%	4.3%	6.1%	6.3%	5.6%
Barclays Aggregate	4.4%	3.7%	4.9%	5.4%	4.9%
Peer Median Return	5.8%	4.9%	7.3%	5.8%	5.0%
Rank vs. Peers	65	67	72	36	32

- Long-Term Fixed Income returns outperformed the Barclays Aggregate Index on a one year basis by holding an overweight position to corporate bonds and structured securities. The returns also benefitted slightly from holding shorter duration securities than the index.

### Strategy Update

- Allocation to Long-Term Fixed Income has remained stable for the last twelve months.
- Long-Term Fixed Income continues to look to increase the overall rate of return by maintaining an overweight to investment grade credit, high yield credit, RMBS, and ABS investments. This strategy increases the credit risk and liquidity risk of the portfolio. These risks are offset by lower interest rate risk as these securities reduce the duration of the portfolio.
- As opportunities present themselves, Long-Term Fixed Income will look to diversify from Barclay's Aggregate and Barclay's Investment Grade Credit focused investment strategies. This is due to the increase in the duration of these benchmarks as well as the fact that the index is increasingly comprised of U.S. Government securities.

### Market Environment and Outlook

- Treasury rates have increased slightly on a year-over-year basis but have declined during the first half of the calendar year. The 10-year U.S. Treasury ended the quarter yielding 2.5%, down from 3.0% on 12/31/13. Yields remain near their lowest levels in sixty years and the long-term risk to the portfolio remains the potential for interest rate increases. Greater uncertainty regarding the Federal Reserve policy may also increase interest rate volatility in the months ahead.
- The shape of the yield curve has flattened on a year-to-date basis. The yield spread between 2-year and 30-year U.S. Treasuries decreased by 69 bps on a year-to-date basis to 290 bps. This spread remains elevated by historical standards.
- U.S. investment grade credit spreads have tightened 7 bps to 99 bps during the second quarter of 2014. High Yield spreads tightened 20 bps to 337 bps over the same time period. Both spread levels have tightened dramatically from their 2008-2009 highs and are currently below their long-term historical averages. The spreads remain above their pre-recession levels.
- Despite the rally in U.S. Treasuries, and the corresponding reduction in interest rates during the quarter, U.S. interest rates remain relatively attractive when compared with other developed global fixed income markets. The 10-year U.S. Treasury currently yields 1.3% more than the 10-year German Bund and 2.0% more than the Japanese Government Bonds.

- The portfolio remains defensively positioned for interest rate increases after the bond rally during the first half of the year. The duration remains short of the benchmark as we focus on intermediate securities. We have offset this short position by holding a larger allocation to securitized and corporate debt securities in order to increase the interest income of the portfolio.

### **Conclusion**

- Given the current level and shape of the yield curve, it seems appropriate to focus on intermediate duration issues. This area of the yield curve offers the best risk-adjusted return in this environment. We will continue to target investments that offer attractive yield pickup for the portfolio but will do so within our existing allocation to corporate bonds. We will also look to maintain our overweight to securitized assets within the portfolio.



# SMRS

## Fixed Income Holdings Portfolio Characteristics

Benchmark: Barclays Aggregate

6/30/14

<u>Characteristic</u>	<u>Portfolio</u>	<u>Benchmark</u>	<u>Relative (%)</u>
Maturity (Yrs)	5.9	7.1	83.1
Maturity (Yrs) w/Cash Equiv.	5.8	7.1	81.7
Duration (Yrs)	4.9	5.3	92.5
Duration (Yrs) w/Cash Equiv.	4.8	5.3	90.6
Coupon (%)	4.1	3.4	120.6
Yield to Maturity (%)	2.4	2.1	114.3
Moody's Quality	A-2	AA-2	
S&P Quality	A	AA-	



# SMRS

## Long-Term Fixed Income

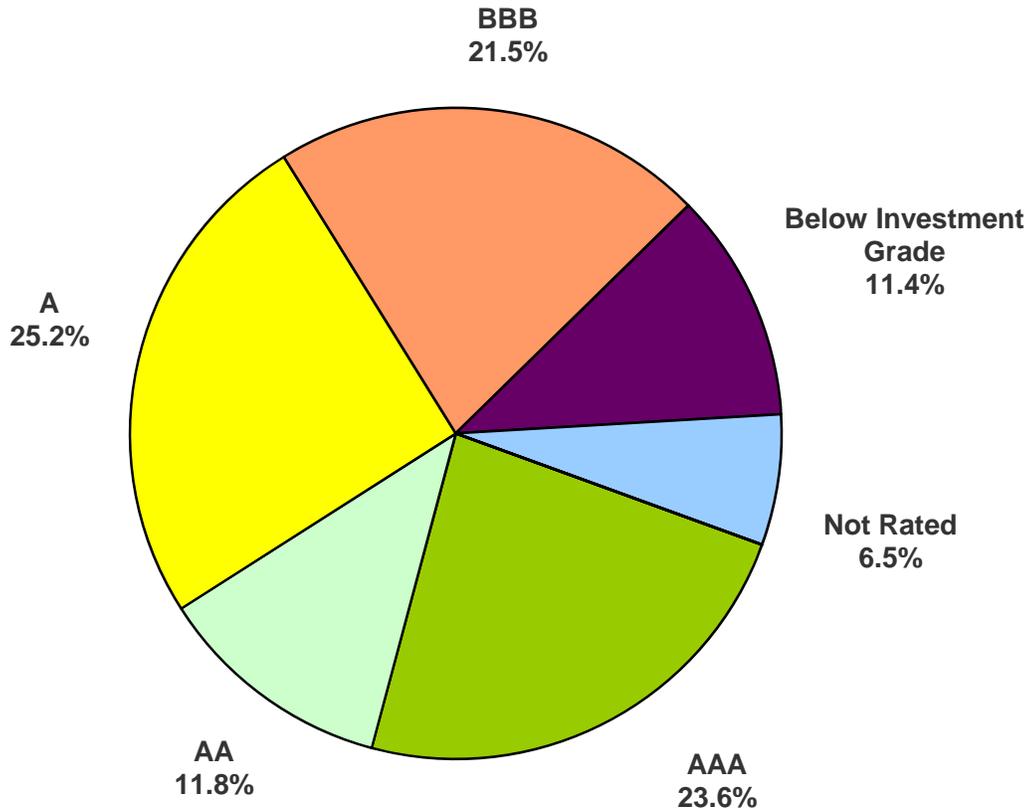
6/30/14

	Amount	% of Total
<b>Core</b>	(in millions)	
LTFID Internal	\$4,763	
Dodge & Cox	242	
Ambassador Capital Management	56	
<b>Sub Total</b>	<b>\$5,061</b>	72.3%
<b>Credit</b>		
Prudential	\$253	
<b>Sub Total</b>	<b>\$253</b>	3.6%
<b>Securitized Debt</b>		
Principal Global	\$322	
Met West Securitized Ops	383	
<b>Sub Total</b>	<b>\$705</b>	10.1%
<b>High Yield</b>		
Columbia Management	\$314	
Prudential High Yield	310	
<b>Sub Total</b>	<b>\$624</b>	8.9%
<b>Tactical</b>		
Pyramis	\$254	
Loomis Core Plus	107	
<b>Sub Total</b>	<b>\$361</b>	5.1%
<b>TOTAL</b>	<b><u><u>\$7,004</u></u></b>	<b><u><u>100.0%</u></u></b>



# SMRS

## Fixed Income By Rating Total U.S. Long-Term Fixed Income 6/30/14



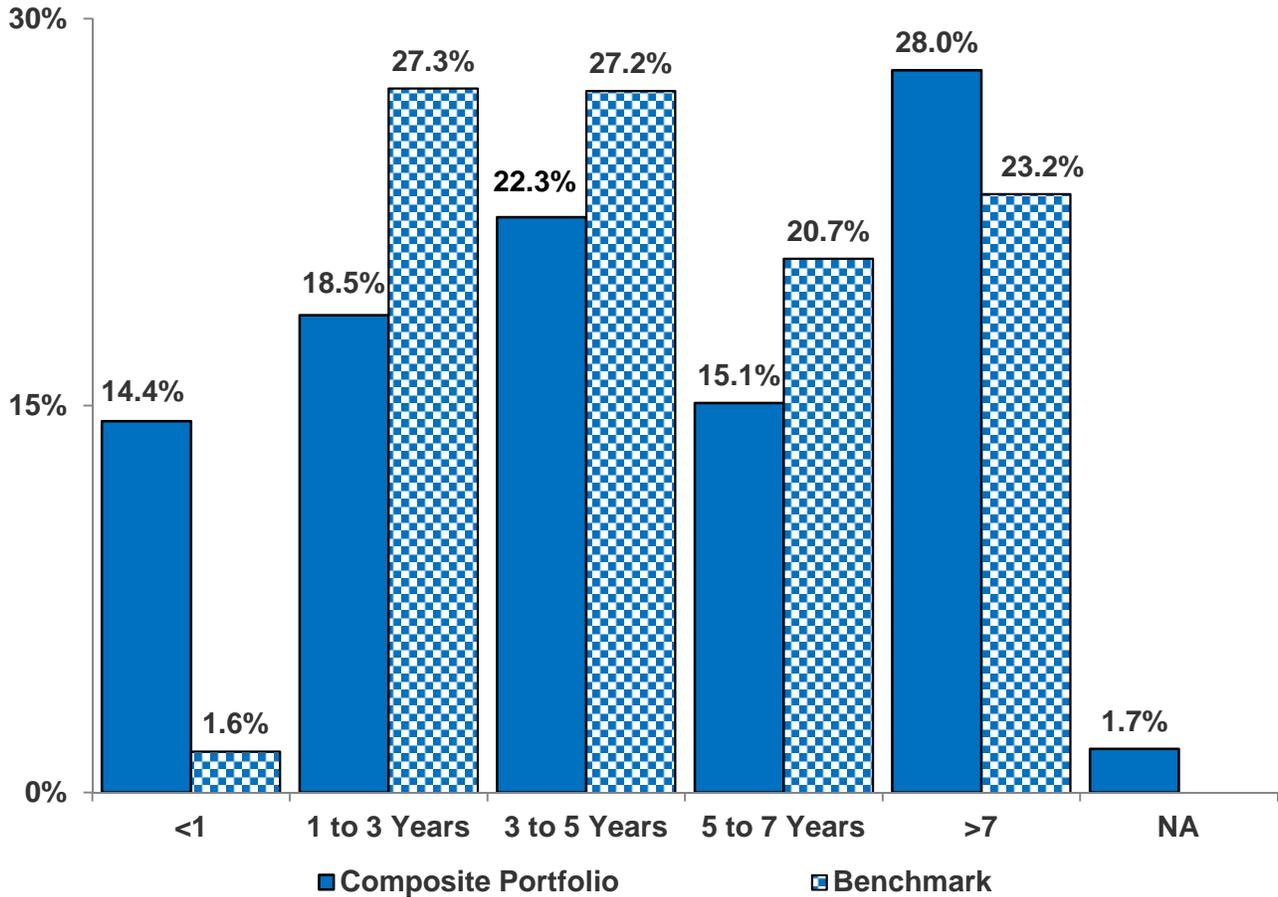
Market Value in Millions					
	6/30/14			3/31/14	
	Assets	Percent	Benchmark	Assets	Percent
AAA	\$1,652	23.6%	72.5%	\$1,862	27.1%
AA	825	11.8%	5.5%	885	12.9%
A	1,769	25.2%	11.7%	1,883	27.4%
BBB	1,505	21.5%	10.1%	1,262	18.4%
Not Rated	455	6.5%	0.2%	324	4.7%
Below Investment Grade	798	11.4%	0.0%	648	9.5%
<b>Total Investments</b>	<b>\$7,004</b>	<b>100.0%</b>	<b>100.0%</b>	<b>\$6,864</b>	<b>100.0%</b>

Benchmark: Barclays US Aggregate



# SMRS

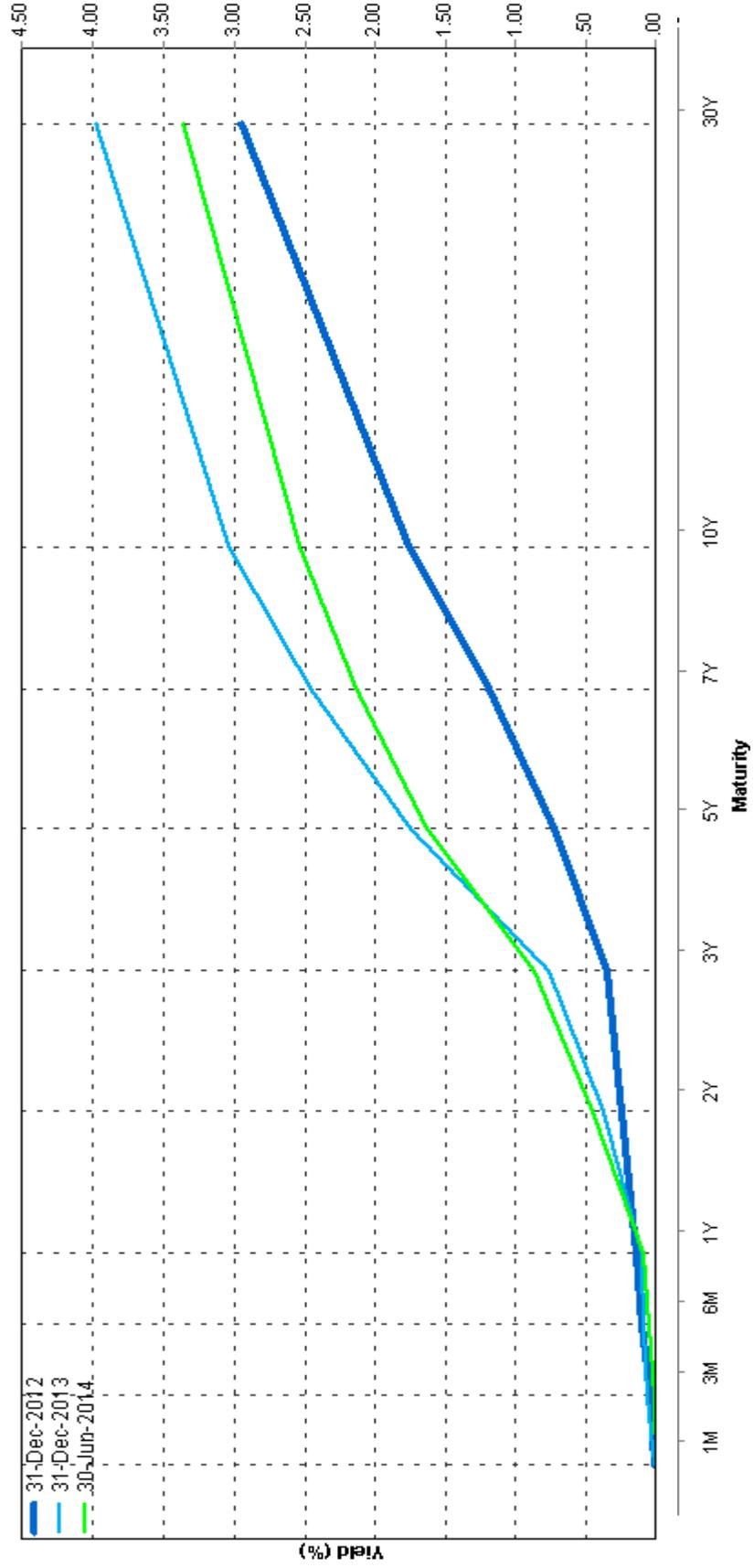
## Duration Distribution Fixed Income Composite Versus Benchmark 6/30/14



Source: Factset

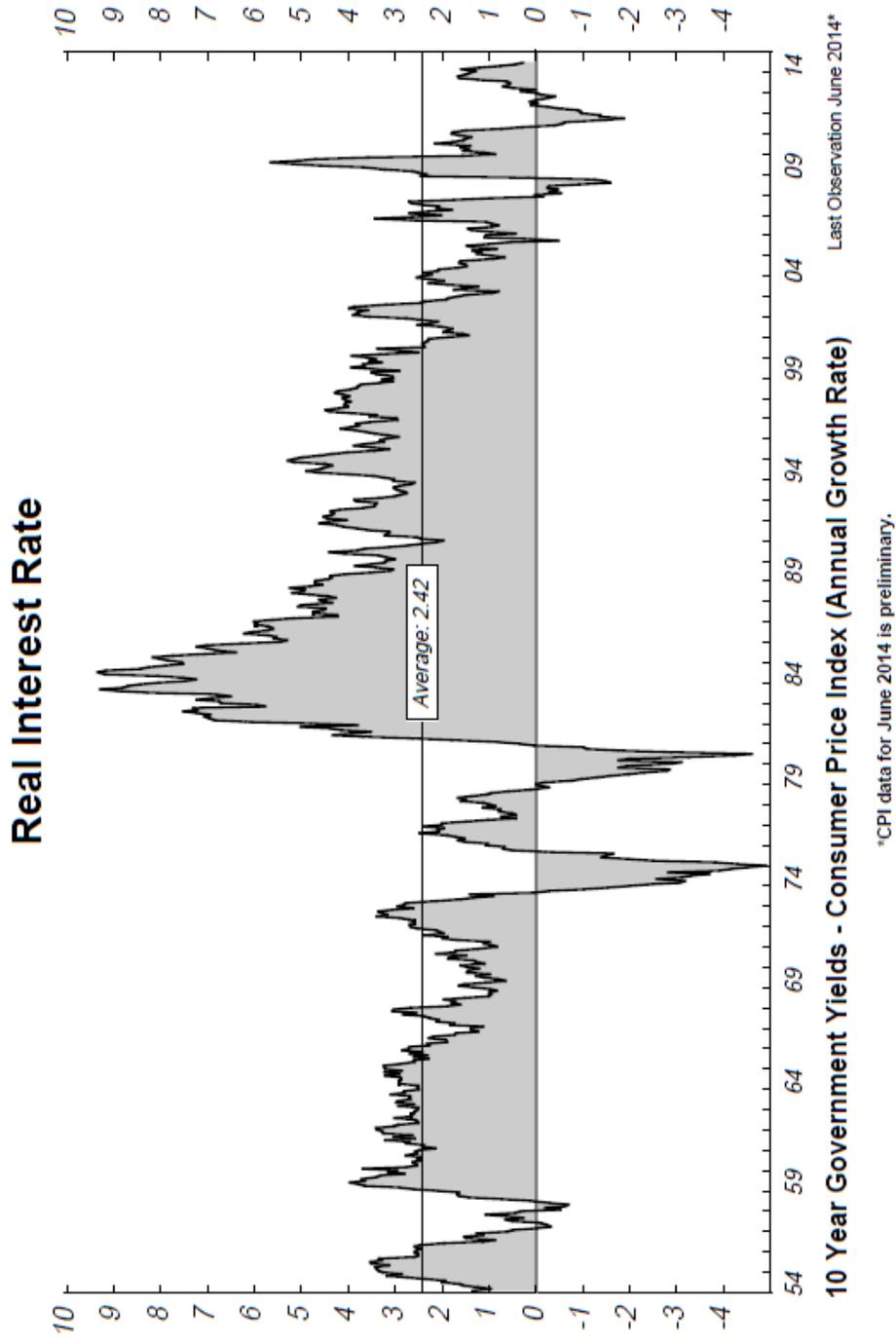
Duration	Market Value in Millions		
	Assets	Portfolio Weight	Benchmark Weight
<1	\$1,007	14.4%	1.6%
1 to 3 Years	1,298	18.5%	27.3%
3 to 5 Years	1,565	22.3%	27.2%
5 to 7 Years	1,055	15.1%	20.7%
>7	1,958	28.0%	23.2%
NA	121	1.7%	0.0%
<b>Total</b>	<b>\$7,004</b>	<b>100.0%</b>	<b>100.0%</b>

# U.S. Yield Curve Movement



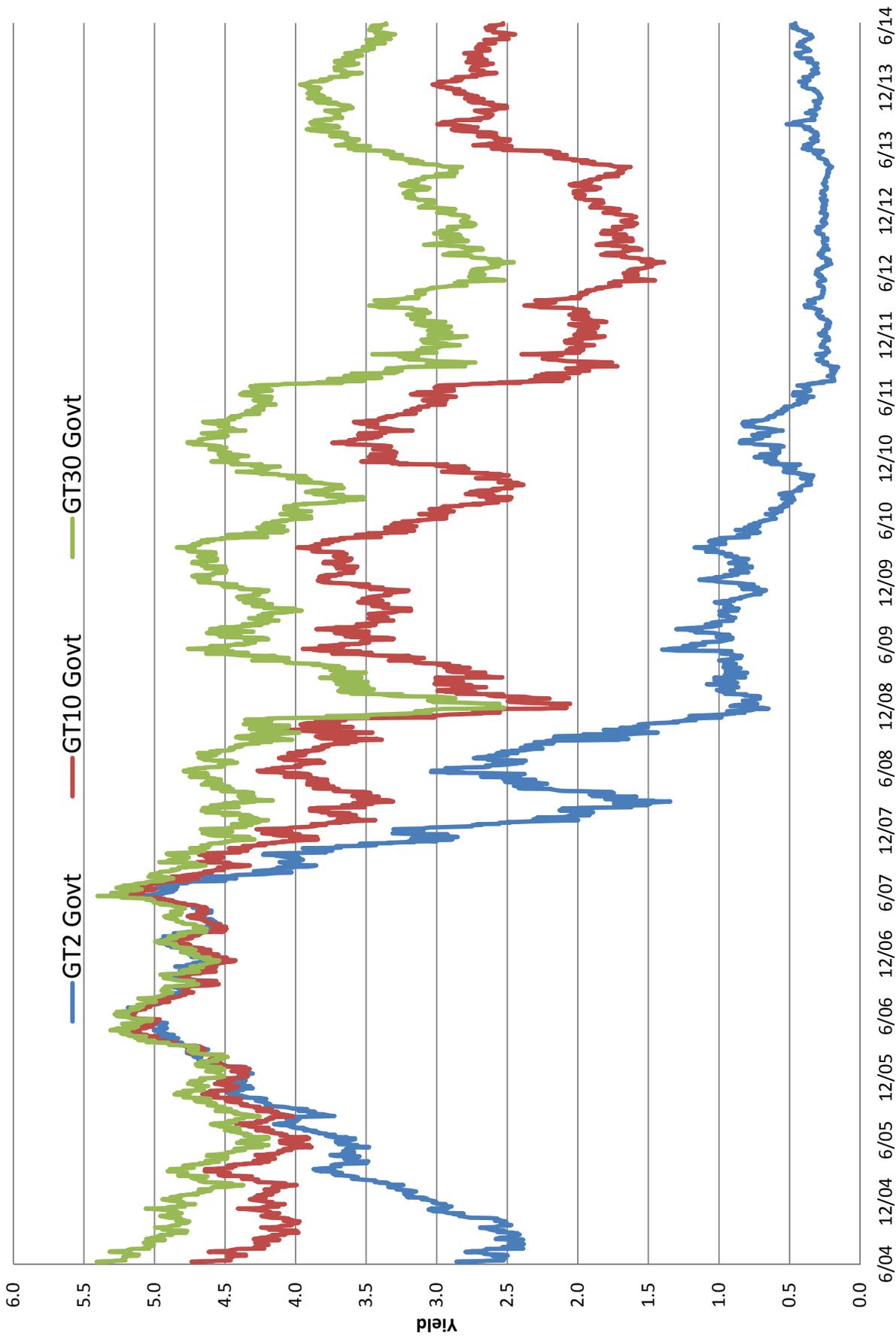
Source: Factset

# Real Interest Rate Movement



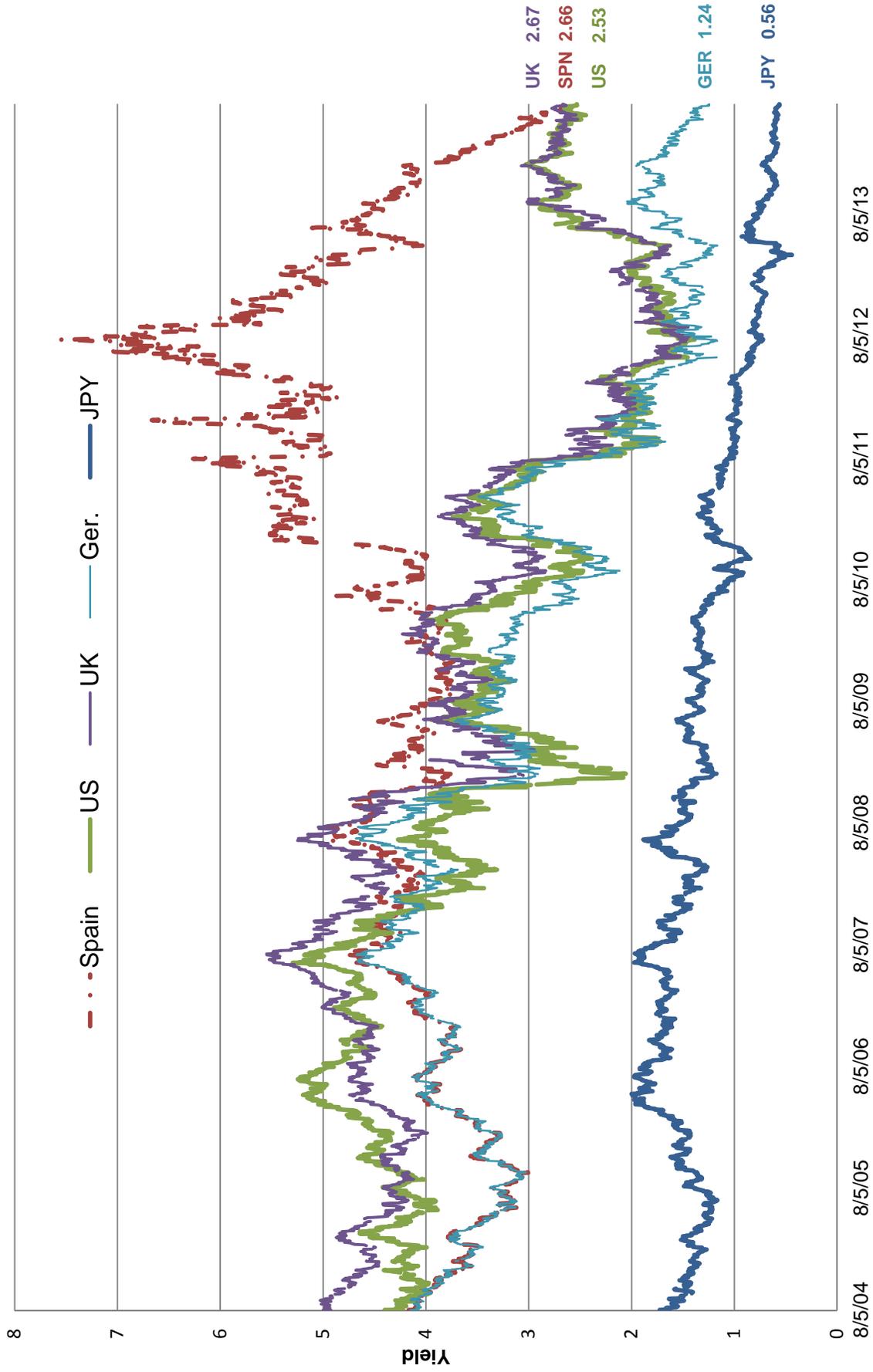
Sources: Federal Reserve Board; Bureau of Labor Statistics; Copyright © 2014 Crandall, Pierce & Company • All rights reserved.

# Relative Yield Movement



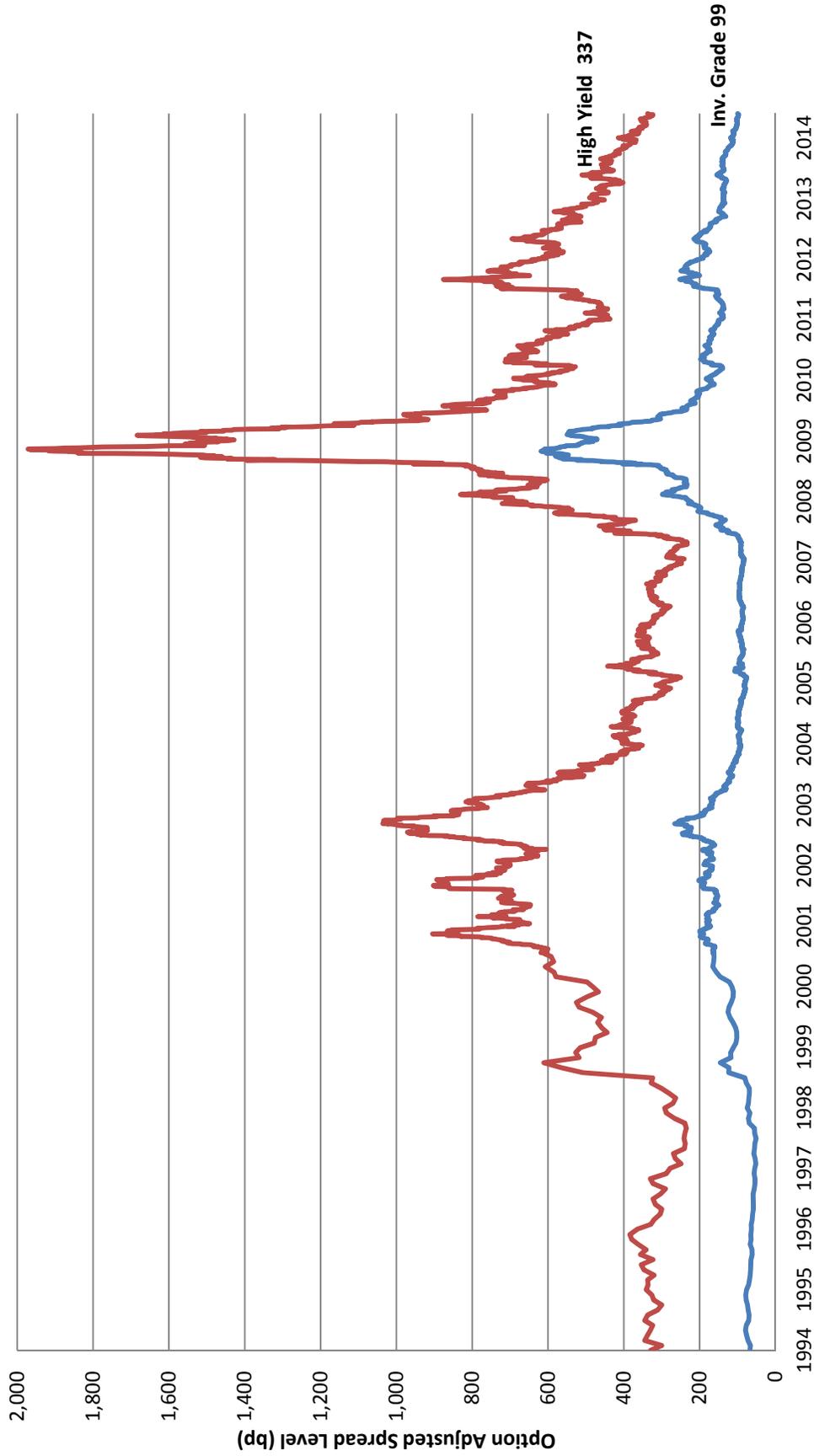
Source: Bloomberg

# 10-Year Sovereign Yields



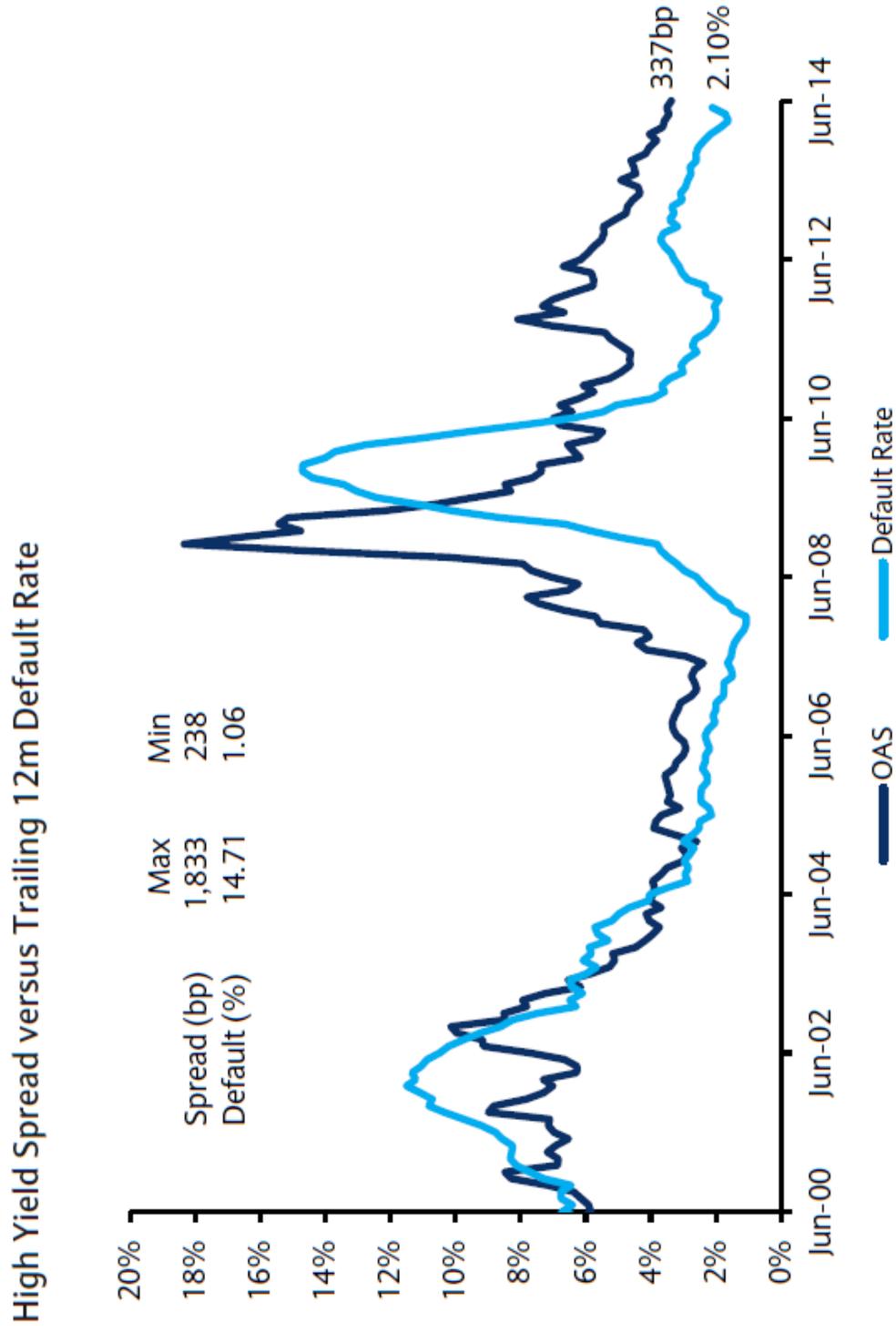
Source: Bloomberg

# Corporate Spread Movement



Source: Barclay's

# U.S. High Yield Default Rates



**STATE OF MICHIGAN  
RETIREMENT SYSTEMS**

**INTERNATIONAL EQUITY  
REVIEW**

**INVESTMENT ADVISORY COMMITTEE MEETING**

**SEPTEMBER 4, 2014**



**Richard J. Holcomb, CFA, Administrator  
Quantitative Analysis Division**



## EXECUTIVE SUMMARY

### Performance

<b>MPSERS Plan</b>	<b>1-Year</b>	<b>3-Years</b>	<b>5-Years</b>	<b>7-Years</b>	<b>10-Years</b>
Annualized Returns	22.2 %	6.9%	12.1%	0.8%	6.7%
Benchmark Return	22.3%	6.2%	10.5%	0.1%	6.3%
Peer Return (> \$1 B)	23.0%	7.3%	12.5%	1.7%	7.5%
Rank vs. Peers	71	61	66	73	74

- The total international equity portfolio has come back to nearly match its trailing year benchmark due to earlier rebalancing activities and favorable stock plus style impacts. Although exceeding developed market performance in the second quarter, emerging markets have underperformed by approximately 8% in the trailing year as geopolitical risks have increased and economic growth has slowed. International portfolio returns have exceeded their internal benchmarks over all longer time periods.
- International performance comparisons with peer group returns remain difficult. First, peers have had a lower allocation to emerging markets when emerging markets underperformed developed markets. Second, the portfolio has maintained a higher allocation to passive strategies over time, which underperformed active strategies in several time periods. The significant passive strategy position has reduced risk, lowered return variance, and reduced the overall cost of management. Third, some peers use global funds for their international allocations, which have included the outperforming U.S. equity securities category.
- Internally managed stock plus funds both outperformed their benchmarks, using a conservative approach to managing fixed income and dividend stock assets underlying swap overlays. All counterparties used for swap agreements, and the fixed income securities held are rated investment grade.
- Indexed and internal stock plus investments represent 55% of international developed markets equity exposure. That composite had a return of 4.6% in the second quarter and 25.0% for the year, outperforming its benchmarks due to beneficial compositional differences between component index funds and enhancements from stock plus assets.
- Active developed market fund managers had a return of 4.3% for the quarter and 24.6% for the year. Manager returns are well diversified, and reflect a combination of fundamental analysis driven, quantitative and stock plus fixed income enhancement strategies. Two additional managers were added in the second quarter with strong fundamental research capabilities, T. Rowe Price and Lazard. The external stock plus strategies are recovering from earlier underperformance, and their strategies are positioned well for a slow U.S. and global growth economic environment.

- Total Emerging Market equity returns were 8.1% for the quarter, and 15.5% for the trailing year. Active exposure to the RAFI fundamental factor subset index was a major positive contributor to the outperformance of the MSCI EM benchmark, as value stocks performed well. The Research Affiliates Fundamental Index (RAFI) is a value style strategy with a good long-term record. The strategy has a long time horizon, deep value characteristics and an additional level of political risk sensitivity that makes it quite volatile in shorter periods. Forty-four percent of exposure to Emerging Markets is indexed. Emerging Markets equity mandated exposure was brought more into line with its weight in the MSCI ACWI Ex USA benchmark, but over 3% more EM exposure results from the Developed Market External Manager use of substitute stocks and broader risk platforms.

## **Outlook**

- The outlook for international equities is cautiously positive based on gradual improvement in the European economy, improving bank reserve levels, no serious long lasting disruption of trade resulting from geopolitical tensions, continuing European Central Bank support of liquidity, and finally, attractive relative valuation with the U.S. market. Emerging Markets have been negatively affected by slower growth and both geopolitical and internal political problems. Many concerns appear to be discounted, and relative growth expectations remain a long-term positive. Political instability and currency devaluation remain important concerns.
- External managers, diversified by style, are starting to benefit from a better environment for active stock selection with wider universe return dispersion. Value style factor performance has started to improve, and small and mid-cap international stocks continue to perform well. Stock Plus strategies are expected to continue to enhance returns by focusing on credit and trading opportunities in a slow growth economic environment.
- Emerging Markets are expected to benefit from growing local consumer demand trends and slowly improving governance, regulation and financial reforms in select countries. Political instability, corruption, lack of tested legal systems, and changing tax regimes will remain concerns. Infrastructure investments and projects should stimulate emerging market economies, and the need for foreign capital and expertise might speed some financial reforms.

## **Investment Plan**

- Move slowly toward longer term objectives as a slow global recovery develops and relative valuations of international markets remain positive.
- Take advantage of attractive corporate spreads and high quality, less liquid securities to enhance the returns in stock plus strategies. Collaborate with internal fixed income staff for an effective hybrid approach to security research and selection.
- Prepare for derivative market product and regulatory changes by focusing on standardized, exchange-supported structures as they become available, and the management of collateral positions.



# SMRS

## International Equities

6/30/14

Markets	Indexed	Active	Total Indexed & Active	Percent
<b>Developed Markets - Large/Mid Cap</b>				
Internal Stock Plus Combination	\$1,777			
SSgA PMI Fund	1,100			
Vanguard Developed Markets Fund	603			
PIMCO Stock Plus Fund		\$1,088		
Wellington Int'l Research Equity Fund		629		
Baillie Gifford ACWI Ex US Alpha Fund		376		
Marathon-London EAFE Fund		358		
T Rowe Price Int'l Core Equity		232		
Lazard Int'l Equity		227		
<b>Sub Total Developed Large/Mid Cap</b>	<b>\$3,480</b>	<b>\$2,910</b>	<b>\$6,390</b>	<b>66.1%</b>
<b>Developed Markets - Small Cap</b>				
SSgA EMI Fund	\$792			
Franklin Templeton Int'l Small Cap Fund		\$211		
MFS Int'l Small Cap Fund		194		
SSgA Int'l Small Cap Alpha Fund		186		
<b>Sub Total Developed Small Cap</b>	<b>\$792</b>	<b>\$591</b>	<b>\$1,383</b>	<b>14.3%</b>
<b>Total Developed Markets</b>	<b>\$4,272</b>	<b>\$3,501</b>	<b>\$7,773</b>	<b>80.4%</b>
<b>Emerging Markets - All Cap</b>				
Vanguard Emerging Mkt Stock Index Fund	\$757			
Internal Emerging Market Equity Fund	77			
PIMCO Emerging Market Fund		\$547		
LACM Emerging Market Fund		336		
Wellington Emerging Market Fund		183		
<b>Sub Total Emerging All Cap</b>	<b>\$834</b>	<b>\$1,066</b>	<b>\$1,900</b>	<b>19.6%</b>

**TOTAL**

**\$5,106**

**\$4,567**

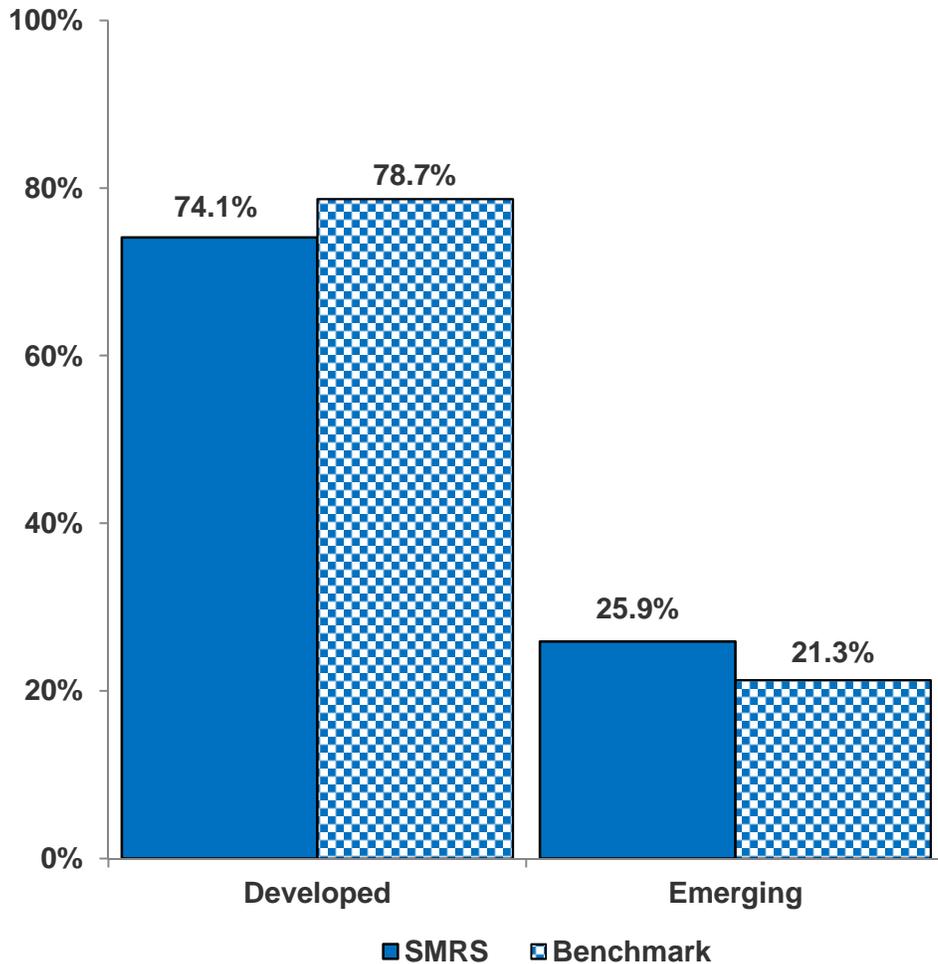
**\$9,673**

**100.0%**



# SMRS

## International Equity Exposure By Category SMRS Versus Benchmark 6/30/14



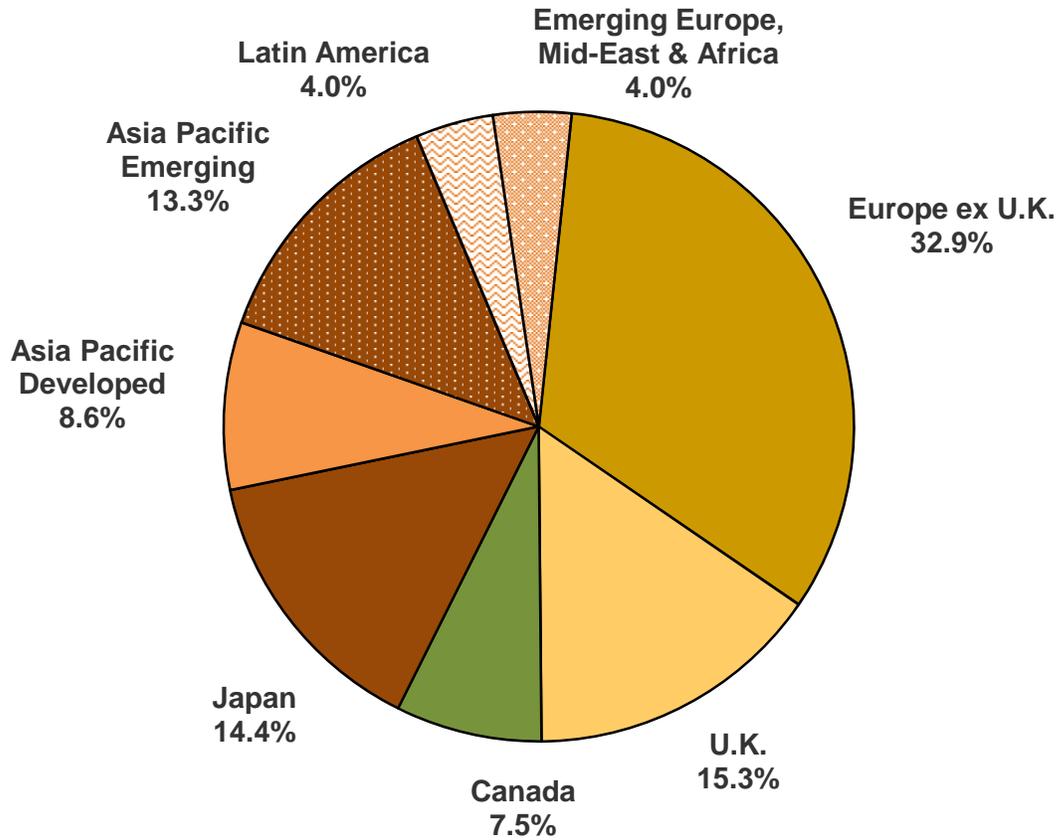
Investments by Region		
	<u>SMRS</u>	<u>MSCI ACWI ex USA</u>
Developed	74.1%	78.7%
Emerging	25.9%	21.3%
<b>Total</b>	<u><u>100.0%</u></u>	<u><u>100.0%</u></u>



# SMRS

## MSCI ACWI ex USA

6/30/14

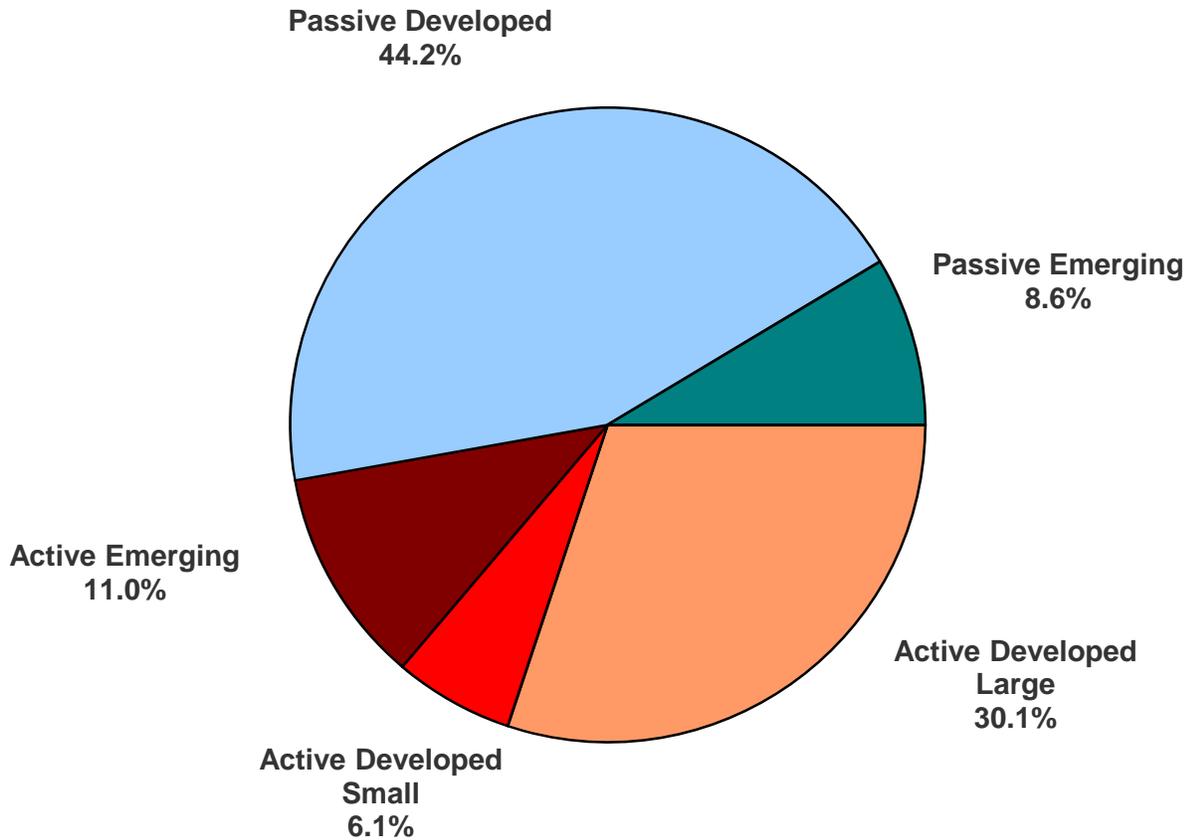


<u>Developed</u>	<u>Benchmark</u>
Europe ex U.K.	32.9%
U.K.	15.3%
Japan	14.4%
Asia Pacific Developed	8.6%
Canada	7.5%
<b>Total Developed</b>	<b>78.7%</b>
<u>Emerging</u>	
Asia Pacific Emerging	13.3%
Latin America	4.0%
Emerging Europe, Mid-East & Africa	4.0%
<b>Total Emerging</b>	<b>21.3%</b>
<b>Total</b>	<b>100.0%</b>



# SMRS

## International Equity Holdings By Category 6/30/14

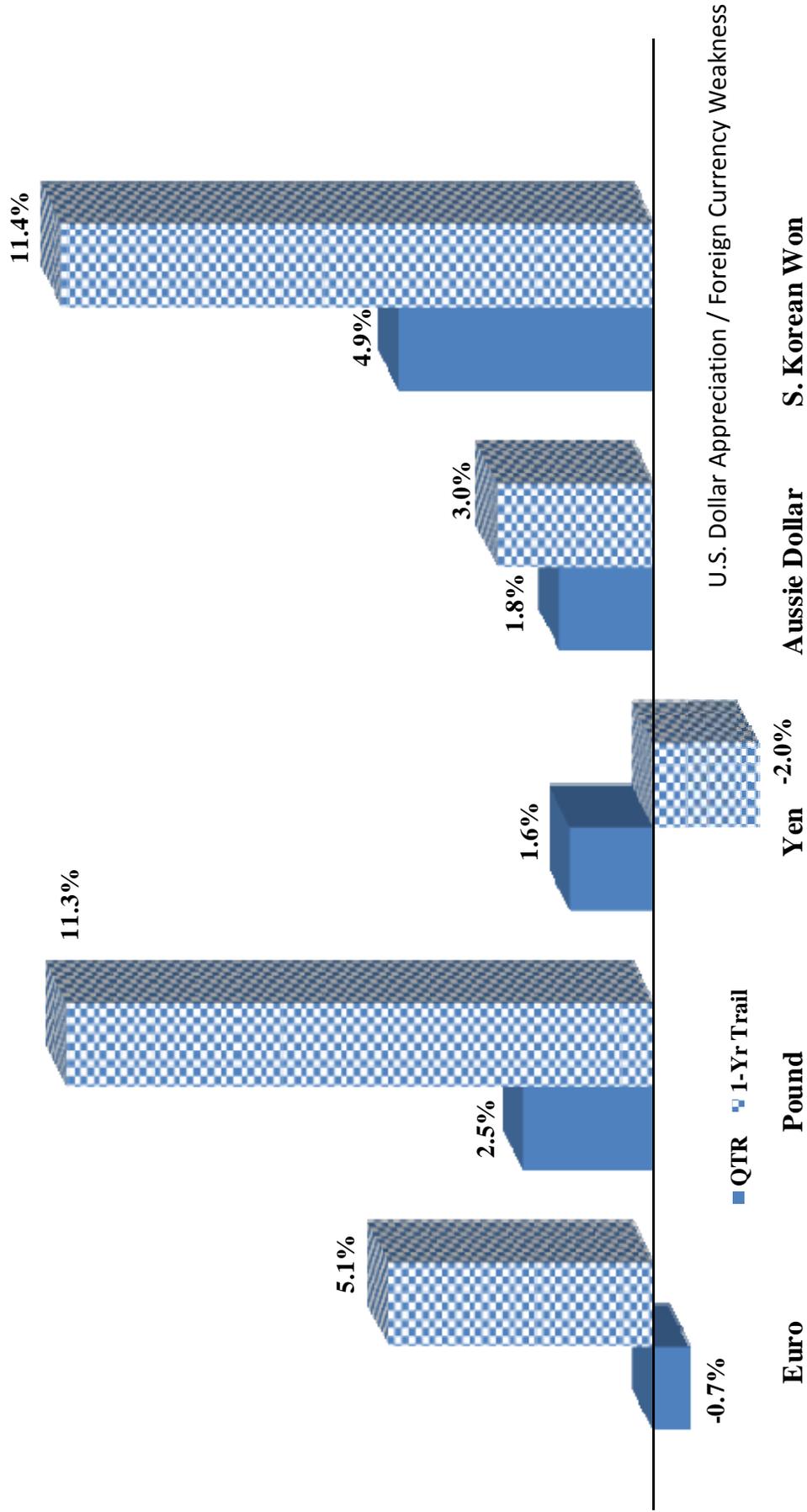


Market Value in Millions				
	<u>6/30/14</u>		<u>3/31/14</u>	
<b>Active</b>				
Developed Large	\$2,910	30.1%	\$2,347	25.5%
Developed Small	591	6.1%	570	6.2%
Emerging	<u>1,066</u>	<u>11.0%</u>	<u>982</u>	<u>10.7%</u>
<b>Total Active Equity</b>	<b>4,567</b>	<b>47.2%</b>	<b>3,899</b>	<b>42.4%</b>
<b>Passive</b>				
Developed	\$4,272	44.2%	\$4,319	47.0%
Emerging	<u>834</u>	<u>8.6%</u>	<u>975</u>	<u>10.6%</u>
<b>Total Passive Equity</b>	<b>5,106</b>	<b>52.8%</b>	<b>5,294</b>	<b>57.6%</b>
<b>Total International Equity</b>	<b><u>\$9,673</u></b>	<b><u>100.0%</u></b>	<b><u>\$9,193</u></b>	<b><u>100.0%</u></b>

# Currency Performance vs. the U.S. Dollar

6/30/14

U.S. Dollar Depreciation / Foreign Currency Strength





**STATE OF MICHIGAN  
RETIREMENT SYSTEMS**

**REAL ESTATE AND  
INFRASTRUCTURE REVIEW**

**INVESTMENT ADVISORY COMMITTEE MEETING**

**SEPTEMBER 4, 2014**



**Brian C. Liikala, Administrator  
Real Estate and Infrastructure Division**



## EXECUTIVE SUMMARY

<b>MPSERS Plan</b>	<b>1-Year</b>	<b>3-Years</b>	<b>5-Years</b>	<b>7-Years</b>	<b>10-Years</b>
Annualized Return	15.0	11.2	4.3	1.2	5.9
NCREIF NPI	9.8	9.9	8.3	3.5	7.3
Peer Median Return	13.8	11.3	7.9	1.6	5.6
Rank vs. Peers	30	53	83	58	44

- Total REID value was \$5.6 billion with a total one-year return of 15%. Valuations increased this quarter for the majority of the portfolio due to strong rent growth in apartments, room rate growth in hospitality, and increased value in “for rent” single family.
- High quality, cash flowing, core real property assets have appreciated as investors seek current yield, and protection from volatility. In New York, San Francisco, and Houston investors are paying near record low cap rates. Secondary markets are beginning to see more attraction for investors seeking higher yields. Debt markets are open and competitive with lenders offering lower spreads and easing terms.
- REID strategy includes: investing in distressed assets at a discount; consistently communicating with lenders for distressed debt opportunities; developing apartments in urban markets; selling core properties to institutional investors, public REITs, and non-traded REIT’s flush with capital and paying historically low capitalization rates. Also, adding value through strong management and leasing by finding properties in key urban centers that have strong economic fundamentals.
- REID is working with its general partners in executing sales of non-strategic properties in secondary markets with limited upside potential, at attractive values, and capitalizing on the sale of portfolios of core assets at historically low capitalization rates. Also, the general partners that specialize in credit strategies have been investing in distressed debt opportunities and mezzanine financing at discounted pricing, yielding attractive returns.
- In the commercial mortgage-backed securities (CMBS) market, spreads over the swap rate for AAA-rated securities decreased 11 basis points (bps) from prior quarter and now stand at 75 bps. New issuance for CMBS in 2013 reported by Commercial Mortgage Alert was \$98 billion, which compares to \$51 billion in 2012. CMBS issuance is expected to be \$110 billion for 2014.
- Fund flows to the infrastructure sector continue to remain robust, as investor sentiment toward the asset class continues to improve with several funds raising over \$5 billion in capital. Opportunities include North American energy, European transportation, alternative energy, and emerging market fundamental infrastructure projects.
- During the quarter REID closed on one real estate investment: Crown Small Cap Real Estate Fund II, a global fund-of-funds strategy with a commitment of \$25 million.
- REID closed one infrastructure investment: a \$75 million commitment to First Reserve Energy, a fund focused on North America energy.

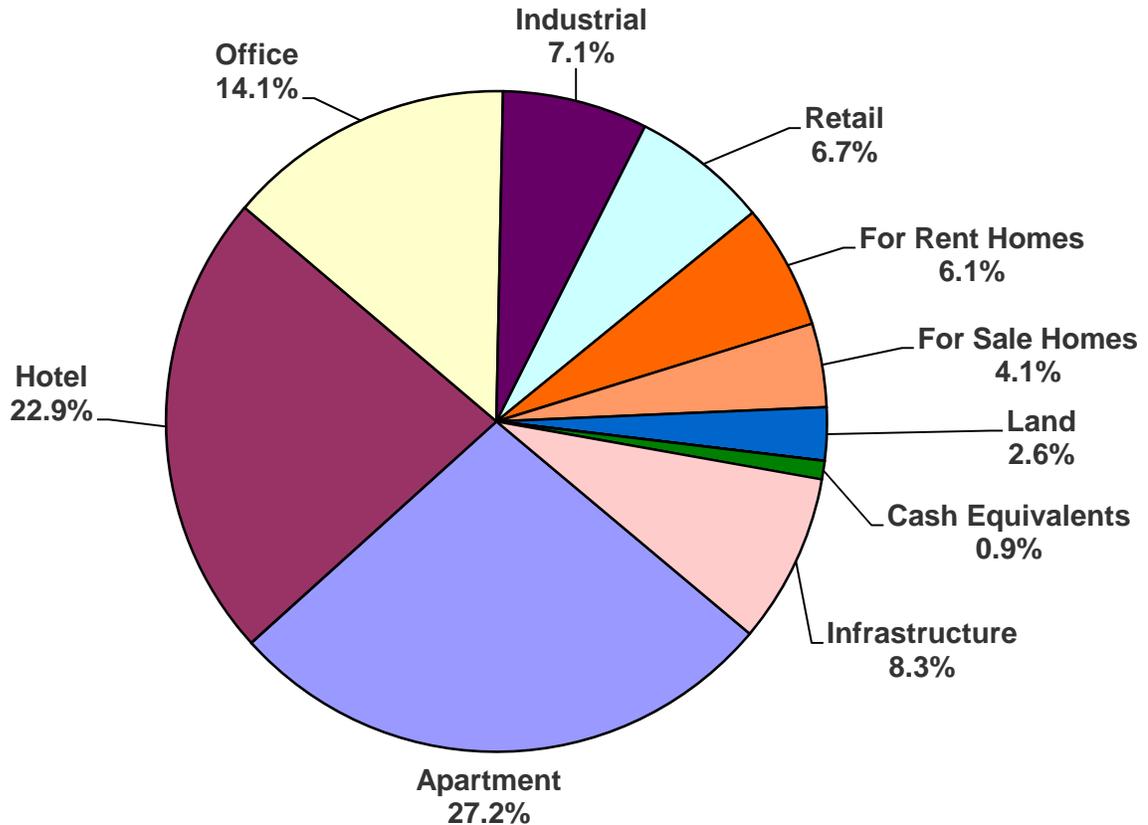


# SMRS

## Real Estate and Infrastructure Holdings

### By Property Type

6/30/14



### Market Value in Millions

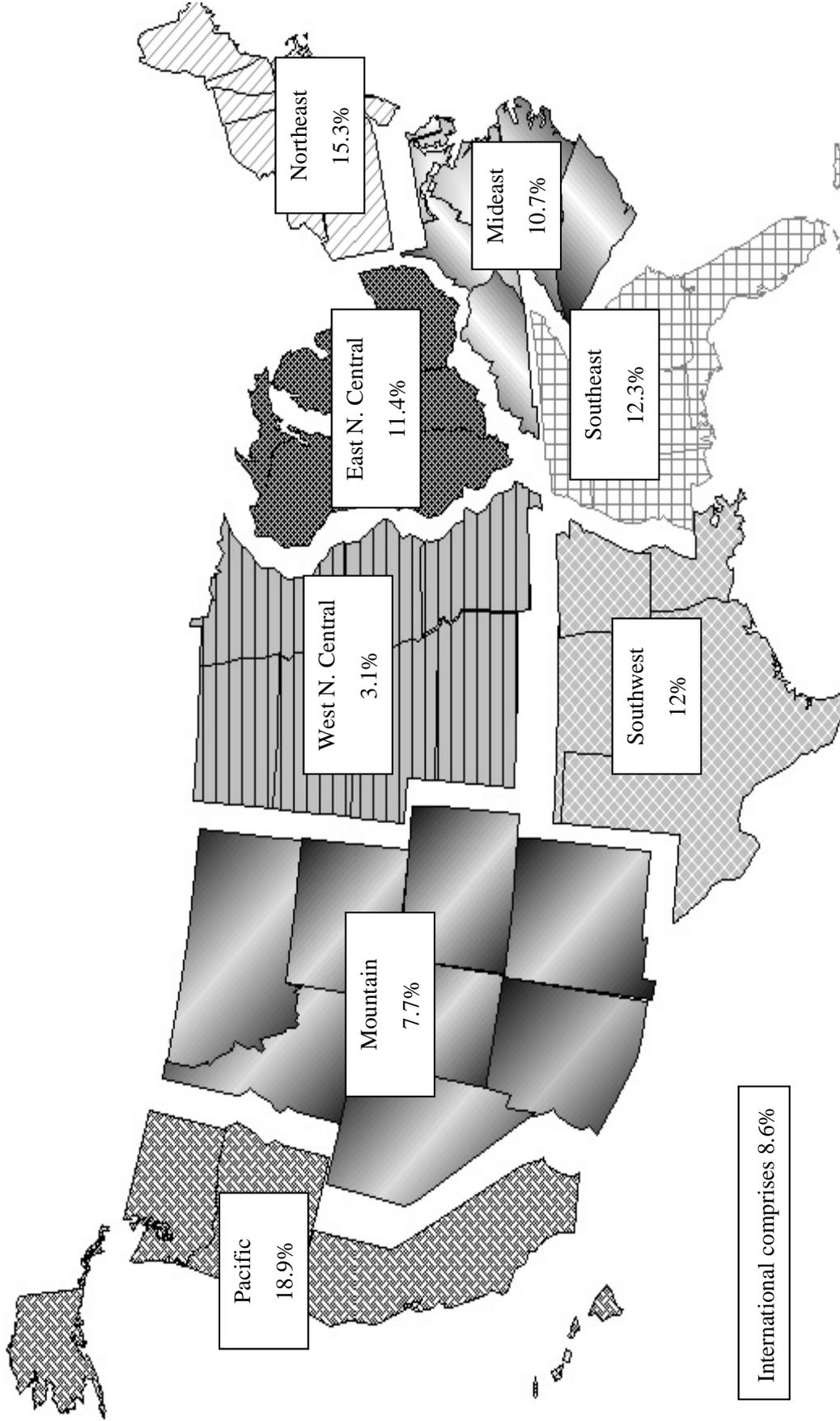
	6/30/14		3/31/14	
Apartment	\$1,524	27.2%	\$1,505	27.5%
Hotel	1,286	22.9%	1,190	21.7%
Office	790	14.1%	791	14.5%
Infrastructure	468	8.3%	412	7.5%
Industrial	400	7.1%	412	7.5%
Retail	374	6.7%	371	6.9%
For Rent Homes	345	6.1%	323	5.9%
For Sale Homes	230	4.1%	234	4.3%
Land	145	2.6%	159	2.9%
	<u>\$5,562</u>	<u>99.1%</u>	<u>\$5,397</u>	<u>98.7%</u>
Cash Equivalents	48	0.9%	71	1.3%
<b>Total Investments</b>	<b><u>\$5,610</u></b>	<b><u>100.0%</u></b>	<b><u>\$5,468</u></b>	<b><u>100.0%</u></b>



# Real Estate by Region

**Based on Net Market Value**  
(excludes cash & cash equivalents)

6/30/14



Geographic regions defined by NCREIF, whose property index composition is: Pacific 29.5%, Mountain 5.7%, West N. Central 1.7%, Southwest 11%, East N. Central 7.8%, Southeast 10%, Northeast 10%, Midwest 13.7%



SMRS

6/30/14

## Top Ten Advisors or Companies

<u>Advisor or Company</u>	<u>Net Market Value</u>
MWT Holdings, LLC	\$ 1,027,407,713
Clarion Partners (formerly ING Clarion)	964,811,739
Blackstone Group	509,014,034
Kensington Realty Advisors, Inc.	298,256,233
Five Star Realty Partners, LLC	226,825,148
CIM Group, Inc.	223,820,252
Principal Real Estate Investors	219,440,306
Bentall Kennedy LP	207,629,124
Rialto Capital	128,104,413
L&B Realty Advisors	127,606,146
	<u>\$ 3,932,915,108</u>

## Occupancy by Property Type

	Apartment	Office	Industrial	Retail	Hotel
SMRS Portfolio	94.9%	89.5%	89.1%	91.5%	64.5%
National Average	91.7%	85.2%	88.9%	93.3%	59.3%



# Real Estate

## Net Market Values by Ownership Entity

6/30/14

	<u>Net Market Value</u>	<u>Unfunded Commitment</u>
801 Grand Avenue Capital, LLC	\$ 89,320,961	\$ 0
AGL Annuity Contract GVA 0016	283,302,101	0
Avanath Affordable Housing I, LLC	17,433,477	2,492,748
Beacon Capital Strategic Partners IV, LP	14,265,358	0
Beacon Capital Strategic Partners V, LP	14,169,771	4,500,000
BlackRock Retail Opportunity Fund, LLC	541,871	0
Blackstone R/E IH3 Co-Inv Partners	344,579,984	0
Blackstone Real Estate Partners V, LP	54,808,112	2,087,026
Blackstone Real Estate Partners VI, LP	109,625,938	4,117,734
Capri Select Income II	5,726,521	0
Capri Urban Investors, LLC	21,904,107	0
CIM Fund III, LP	105,289,406	0
CIM Urban REIT, LLC	92,772,190	0
CIM VI (Urban REIT), LLC	25,758,656	0
City Lights Investments, LLC	119,607,674	0
Cobalt Industrial REIT	52,175,358	0
Cobalt Industrial REIT II	67,649,352	0
CPI Capital Partners N.A., LP	3,041,876	0
CPI Capital Partners N.A., Secondary, LP	14,122,363	0
* <b>Crown Small Cap Real Estate</b>	0	25,000,000
Devon Real Estate Conversion Fund, LP	5,821,849	0
Domain Hotel Properties, LLC	798,734,554	0
Dynamic Retail Trust	70,763,050	0
Gateway Capital R/E Fund II, LP	83,122,282	2,048,500
Great Lakes Property Group Trust	284,321,093	0
Invesco Mortgage Recovery Feeder Fund	24,350,443	2,393,165
JBC Opportunity Fund III, LP	18,328,105	0
JP Morgan India Property Fund II, LLC	7,542,363	32,303,422
KBS/SM Fund III, LP	64,348,898	0
L & B Medical Properties Partners, LP	463,453	4,000,000
Landmark Real Estate Partners V, LP	28,504,002	3,900,000
LaSalle Asia Opportunity Fund II, LP	261,414	0
LaSalle Asia Opportunity Fund III, LP	31,115,169	4,000,000
Lion Industrial Trust	130,204,961	0
Lion Mexico Fund, LP	35,872,224	0
Lowe Hospitality Investment Partners	1,300,178	0
MERS Acquisitions, Ltd.	127,142,692	0
MG Alliance, LLC	13,634,127	11,084,112
Morgan Stanley R/E Fund V - International	4,593,246	0
Morgan Stanley R/E Fund VI - International	41,774,021	0
Morgan Stanley R/E Fund V - U.S.	10,305,207	0
Morgan Stanley R/E Special Situations Fund III	69,877,812	0
MWT Holdings, LLC	1,027,407,713	0
Northpark-Land Associates, LLLP	28,413,355	0
Paladin Realty Brazil Investors III (USA), LP	39,658,715	0
Principal Separate Account	130,119,344	0
Proprium RE Spec Situations Fund LP	8,932,895	7,000,000
Rialto Real Estate Fund, LP	39,042,158	8,277,006
Rialto Real Estate Fund II, LP	24,439,406	43,306,004
Rialto Mezzanine Partners Fund	64,622,849	9,400,000
SM Brell II, LP	60,564,214	0
Stockbridge Real Estate Fund II-C, LP	37,119,906	0
Strategic LP	182,453,380	51,441,616
Trophy Property Development LP	64,773,097	8,908,100
True North High Yield Investment Fund II	32,851,000	5,000,000
Venture Center, LLC	38,410,983	0
Western National Realty Fund II, LP	26,353,580	0
	<u>\$ 5,093,638,815</u>	<u>\$ 231,259,433</u>
<b>Short-Term Investments and Other</b>	21,638,806	0
<b>Total Real Estate Investments</b>	<u><b>\$ 5,115,277,621</b></u>	<u><b>\$ 231,259,433</b></u>

\* New commitment made during the quarter reported



# Infrastructure Investments

## Net Market Values by Ownership Entity 6/30/14

	<u>Net Market Value</u>	<u>Unfunded Commitment</u>
ASF VI Infrastructure B LP	\$ 13,050,841	\$ 25,257,370
ASF Como Co-Investment LP	30,836,653	26,339,042
Balfour Beatty Infrastructure Partners, LP	7,234,718	42,462,389
Blackstone Energy Partners, LP	32,503,345	26,299,010
Brookfield Infrastructure Fund II-B, L.P.	13,090,628	37,755,289
Customized Infrastructure Strategies, LP	86,867,970	17,926,254
Dalmore Capital Fund	68,217,542	869,726
* <b>First Reserve Energy Infrastructure Fund II, L.P.</b>	0	75,000,000
** GCM Grosvenor Infrastructure Investment Program, LP	48,510,177	0
JP Morgan AIRRO India Sidecar Fund US, LLC	75,344,787	5,033,815
JP Morgan AIRRO Fund II US, LLC	24,743,499	73,198,532
KKR Global Infrastructure Investors, LP	56,517,670	21,597,000
StonePeak Infrastructure Fund LP	11,361,626	63,594,865
	<u>\$ 468,279,456</u>	<u>\$ 415,333,292</u>
<b>Short-Term Investments and Other</b>	26,477,481	0
<b>Total Infrastructure Investments</b>	<u><b>\$ 494,756,939</b></u>	<u><b>\$ 415,333,292</b></u>

\* New commitment made during the quarter reported

\*\* Name change from: CSG Infrastructure Investment Program, LP

**STATE OF MICHIGAN  
RETIREMENT SYSTEMS**

**BASKET CLAUSE REVIEW**

**INVESTMENT ADVISORY COMMITTEE MEETING**

**SEPTEMBER 4, 2014**



**Karen M. Stout, CPA, CGFM, Administrator  
Trust Accounting Division**





# SMRS

## Basket Clause Investments

6/30/14

<u>Asset Class</u>	<u>Value</u>
Total Absolute Return	\$2,652,698,091
Total Real Return and Opportunistic	928,600,966
Total International Equity	336,067,568
Total Long-Term Fixed Income	<u>15,750,575</u>
<b>Total Basket Clause Investments</b>	<b><u>\$3,933,117,200</u></b>

The basket clause investments at June 30, 2014, were \$3.93 billion or 6.54% of the total portfolio value of \$60.15 billion.

The Public Employee Retirement System Investment Act, 1965 PA 314, MCL 38.1132 *et seq*, authorizes the State Treasurer to invest up to 30% of the system's assets in investments "not otherwise qualified under the act." MCL 38.1140d(1). Commonly referred to as Section 20d (after the authorizing section of PA 314) or Basket Clause investments, this provision gives the State Treasurer the flexibility to take advantage of market opportunities not specifically authorized in PA 314 while conserving protections against imprudent investment.



## Disclaimer



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

