### INVESTMENT ADVISORY COMMITTEE MEETING

June 5, 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

### June 5, 2014

### Agenda



9:30 a.m.	Call to Order and Opening Remarks
9:40 a.m.	Approval of Minutes of 3/6/14, IAC Meeting
9:45 a.m.	Executive Summary & Performance for Periods Ending 3/31/14
10:00 a.m.	Current Asset Allocation Review
10:10 a.m.	Round Table Discussion
10:20 a.m.	Fisher Investments Institutional Group – Ken Fisher, Founder, Chairman, CEO, and Co-Chief Investment Officer
10:50 a.m.	Review of Investment Reports
	Domestic Equity
11:30 a.m.	Closing Remarks ~ Adjournment

2

### Reports Received and Filed:

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

### 2014 Meeting Schedule

Thursday, September 4, 2014 Tuesday, December 2, 2014

All meetings start at 9:30 a.m.

### **MINUTES**

### INVESTMENT ADVISORY COMMITTEE MEETING June 5, 2014



Jon M. Braeutigam Chief Investment Officer Bureau of Investments

### **INVESTMENT ADVISORY COMMITTEE**

The Investment Advisory Committee (IAC) held its quarterly meeting on Thursday, March 6, 2014, at the Bureau of Investments, Great Lakes Conference Room, 2501 Coolidge Road, Suite 400, East Lansing, Michigan.

### Members Present:

Nick A. Khouri, Chairman James B. Nicholson – via phone L. Erik Lundberg Steve Arwood, LARA Phillip J. Stoddard, DTMB, ORS

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, Marybeth Gienapp, Brian Liikala, Richard Holcomb, Jack Behar, Dan Quigley, Tim Reynolds, Amanda Ellis, Marge McPhee, and Emma Khavari.

Others in attendance: Becky Gratsinger, Molly Jason, Renaye Manley, John Ide, Haley Rucker, and June Morse.

### Call to Order

Chairman Khouri called the March 6, 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 2013 noting it is a good time to review what was done, what worked, and what it means going forward. He noted that 2013 was a good year.

### Approval of Minutes of December 3, 2013

Chairman Khouri asked for a motion to approve the minutes of the December 3, 2013, IAC meeting. Mr. Steve Arwood so moved, seconded by Mr. James Nicholson; 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. He noted that the absolute returns for the fund have been great the past five years, and the seven and ten years were better than the median plans for that timeframe. The public market was strong, and the S&P 1500 was up 33% in 2013. He discussed the State Street peer group and noted that the plan is compared to the public pension funds greater than \$10 billion. There were several questions asked and a lengthy discussion of the public equity markets being oversold / overbought.

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

Mr. Braeutigam turned the meeting over to Mr. Greg Parker to review the Asset Allocation Section of the Executive Summary. Mr. Parker reviewed the Sources and Uses of Cash bar chart found under the Asset Allocation tab. He noted that there was \$1.8 billion in alternatives and \$600 million in real estate, which were used to fund the benefit payments. Funds were raised in domestic equity and re-distributed into international equity; and the absolute return, and real return & opportunistic strategies, recognizing the fact that the U.S. market was strong last year, up 33%, but international equities trailed. There were several questions asked and a discussion of the international equity asset class.

Mr. Parker discussed the fixed income asset class which is underweight verses the peers. Several questions were raised and discussed about the asset allocation to the fixed income asset class and how the assets are managed. Mr. Parker discussed the Capital Markets noting that the U.S. small cap stocks are even stronger than the U.S. large cap stocks. He discussed the long-term interest rates which rose; however, European sovereign's interest rates, specifically Italy and Spain, dropped. Mr. Parker noted a few things he is watching for over the next year – it is his belief that there will be continued normalization of the Fed policy which will be driven by the improvement in the jobs and housing markets; the U.S. corporate profit margins are at all-time highs, will this continue; the global growth will improve slightly; and with the improvement in the balance sheets of consumers and the Federal government, will it promote spending?

<u>Short-Term, Absolute and Real Return</u> – Mr. Jim Elkins provided a brief description of the Short-Term Fixed Income, Absolute and Real Return & Opportunistic Division noting that the team also manages the cash for the pension system as well as the common cash. He reviewed the breakdown of the portfolio noting that 77% was in fund-of-funds and 23% was in direct. He discussed the decision, which was made back in 2008/09, of how to invest and to utilize fund-of-funds, noting fees were a consideration in the decision. There was further discussion on the fund-of-funds route and the fees associated with the decision.

He discussed the objectives of the absolute return portfolio, which is targeting returns slightly higher than fixed income, but with similar volatility, and providing diversification for the fund. The benchmark for the absolute return portfolio is the HFRI Fund of Funds Conservative. He discussed the volatility and return target when building the portfolio.

Mr. Elkins reviewed the investments by strategy in the absolute return portfolio, which includes: equity, credit, arbitrage, and Macro/CTA managers. He noted the diversification through each underlying strategy and there is little overlap. He discussed the high number of managers, 114 overall, and that a goal to reduce this number has been set for the second half of 2014. There was a discussion of the sub-categories in the different strategies with clarification of the focus of each category. Mr. Elkins reviewed the returns of the absolute return portfolio noting that the one and three-year net returns were very good beating the benchmark both time periods.

Mr. Elkins discussed the performance objectives of the real return & opportunistic portfolio, which is to exceed the benchmark net of fees. The benchmark for the real return portfolio is CPI plus 500 basis points. He noted that it was a difficult task to create the opportunistic benchmark. There was a discussion on what goes into the opportunistic bucket, the investments made on a risk-adjusted basis, and the management of those investments.

Mr. Elkins discussed the investments by strategy in the real return & opportunistic, which are: real return – real assets, energy, credit, and liquid commodities; and opportunistic – opportunistic credit, and opportunistic equity. He noted the different types of sub-categories in the different strategies and clarified the focus of each category. He reviewed the returns of the real return & opportunistic portfolio noting that the three-year return is lagging, which was expected due to the 'j' curve effect, but the one-year return is finally on the plus side and this growth is expected to continue throughout the year.

### <u>Asset Allocation, Capital Markets Overview, Economic and Market Review and Outlook, Investment Reports, and Basket Clause</u>

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, June 5, 2014. The meeting was adjourned by Mr. Erik Lundberg at 11:20 a.m.

Approved:
Nick Khouri, Chairman

### **EXECUTIVE SUMMARY**

### INVESTMENT ADVISORY COMMITTEE MEETING June 5, 2014



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

### **EXECUTIVE SUMMARY**

### March 2014

### **Performance**

Some key performance highlights.

MPSERS Plan	1-Year	3-Years	5-Years	7-Years	10-Years
Annualized Returns	15.7%	10.3%	13.8%	5.6%	7.4%
Policy Return	15.6%	10.4%	15.5%	5.7%	7.3%
Peer Median Return	12.9%	9.2%	13.7%	5.3%	7.0%
Rank vs. Peers	10	10	40	25	31

- The returns over the past one, three, and five years have been very strong as the markets have rebounded from the 2008-09 financial crisis.
- The plans have met the returns of the policy benchmark across all time periods with the
  exception of the past five years. The biggest reason for the five-year underperformance to the
  policy benchmark is the lagged effect of the private markets relative to the public markets.
  Private equity is a difficult asset class to benchmark, especially over short periods of time and
  even up to five years.
- Against the peer group, returns are greater than medians across all time periods. The relative
  one and three-year returns are exceptional; ranking close to the top decile. The
  outperformance to the peer median over the past year was split between the superior
  selectivity within private equity and an underweight to fixed income compared to peers.
- Over the past year, most asset classes ranked in the top half of the peer group and earned returns in excess of the performance benchmark.

### **Asset Allocation**

Using equities to pay benefits, increasing diversifying strategies.

- The combined systems paid out \$2.2 billion net of contributions over the past twelve months ending in March 2014; 3.8% of the March 2014 AUM.
- Over the past year, the plans put to work \$0.6 billion in real return & opportunistic, and \$0.5 billion in international equity. Over the same time period, the plans reduced the allocation to private equity by \$1.9 billion, domestic equities by \$0.7 billion, and real estate by \$0.6 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 11.8%. The strategic target allocation for fixed income is 15%. With the 10-year U.S. Treasury yielding approximately 2.7% and cash yielding approximately 20 basis points (bps) at the end of March 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 \$6.4 billion in illiquid asset classes, primarily private equity. This figure is about 11.0% of the March 2014 market value and is an additional liquidity consideration. By contrast, the current outstanding commitments are roughly \$300 million higher than five years ago.

### **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 annualized 22.0% over the past year, 14.6% over the past three years, and 21.6% per year over the past five years ending March 2014. The broad foreign market index, MSCI ACWI ex USA, returned annualized 13.0% over the past year, 4.8% over the past three years and 16.2% per year over the past five years ending March 2014.
- The 10-year U.S. Treasury closed March 2014 at 2.7%. Rates in securities with a maturity of five to ten years saw rates back up almost a full percent over the past year. Maturities of three and 30 years saw rates back up close to 0.5%, while rates at the very front end saw virtually no change at all. The 10-year U.S. Treasury is now 1.3% higher than its 2012 low.
- Italian and Spanish ten-year sovereigns ended 2013 with lower rates than the previous year. Both ended 2013 yielding around 4.15%, slightly more than 110 bps than the U.S. counterpart. Perhaps a commentary of the market's perception of the relative safety of the European sovereign debt, both the Spanish and Italian ten-year rates fell in lock-step in January 2014 as the U.S. rates backed up.

### **Economic Backdrop**

Developed foreign economies perhaps turn the corner.

- The most recent reading of the annualized U.S. GDP growth was 0.1%. The brutally cold winter with snow accumulation in large parts of the country was blamed for the very low levels of growth, perhaps legitimately so.
- 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.
- At the trend of adding 185,000 jobs per month, the number of jobs lost due to the 2008-09 economic event called the "Great Recession" will be completely recovered in May 2014. At 6.25 years, this recovery in the job market will be the longest post-war recovery by almost 2.5 years.
- The unemployment rate at the end of April was 6.3%, the lowest rate since October 2008 and down from 7.5% one year prior. The economy added 288,000 jobs during April despite the bad weather.
- Housing, as a driver of the economy, showed signs of cooling with the weather as well. The
  momentum in the new home sales and housing starts figures is waning; the 12-month moving
  averages peaked at the beginning of 2014 and have now flattened.
- Year-to-date ending in April, commodity prices are broadly higher. Food commodities, measured by CRB/Reuters, were up more than 22% during the first four months of 2014. General measures of inflation are still modest; the latest U.S. CPI Y-O-Y measured 1.5%. Right now, inflation is not an issue globally; however, the trends are in higher prices rather than lower prices.

### **Highlighted Asset Class - Domestic Equity**

A summary

Domestic Equity	1-Year	3-Years	5-Years	7-Years	10-Years
Annualized Returns	24.2%	14.7%	21.6%	6.8%	7.7%
S&P 1500	22.0%	14.6%	21.6%	6.6%	7.7%
Peer Median	22.0%	14.0%	21.5%	6.5%	7.6%
Peer Rank	11	31	46	28	37

- At the end of March 2014, the plans had 29.7% allocated to the domestic equity asset class, slightly underweight the strategic target of 31%. The plans have steadily reduced the allocation over time in order to diversify the portfolio. Ten years ago, in the first quarter of 2004, the allocation to domestic equity was 49% of the total.
- The domestic equity portfolio is a mix of active and indexed (passive) strategies. Historically, the allocation to active strategies has been the greater of the two. Ten years ago, the mix was 2/3 active 1/3 passive. Today, that mix is roughly an even 50/50 split.
- The domestic equity portfolio is a mix of internally and externally managed strategies. For
  cost efficiency, all indexed strategies are internally managed. Of the active strategies,
  approximately 2/3 is internally managed and 1/3 is externally managed. Ten years ago all
  domestic equity, active and indexed, was internally managed.
- One of the first external managers hired was Fisher Investments Group in October 2004 with an initial investment of \$50 million. The plans had \$957 million allocated to the firm as of April 2014. Ken Fisher will be giving a market update at today's meeting.

### **PERFORMANCE**

### FOR PERIODS ENDING MARCH 31, 2014

### INVESTMENT ADVISORY COMMITTEE MEETING June 5, 2014



Jon M. Braeutigam Chief Investment Officer Bureau of Investments

### Bureau of Investments

### Mission Statement

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

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 March 31, 2014	Z	Return	, 2014
		ates of I	larch 31
	MPSERS	Time-Weighted Rates of Return	Periods

	% of	Ten		Seven	L L	Five	l o	Three	) 96	One	e e	Current	ent
	Portfolio	Years		Years 1	- S	Years	L S	Years 1	S t	Year	ar	Quarter	rter
	03/31/14	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank
TOTAL PLAN	100.0	7.4	31	5.6	52	13.8	40	10.3	10	15.7	10	3.9	က
Median - Greater than \$10 Billion <sup>2</sup> MPSERS Total Plan Policy		7.0		5.3		13.7		9.2		12.9		2.2	
DOMESTIC EQUITIES  Median <sup>2</sup> S&P 1500 Index	29.8	<b>7.7</b> 7.6 7.7	37	<b>6.8</b> 6.5 6.6	28	<b>21.6</b> 21.5 21.6	46	<b>14.7</b> 14.0 14.6	31	<b>24.2</b> 22.0 22.0	11	<b>2.5</b> 2.0 1.9	18
ALTERNATIVE INVESTMENTS  Median <sup>2</sup> Alternative Blended Benchmark <sup>3</sup>	18.0	<b>14.5</b> 11.7 11.6	24	<b>11.6</b> 8.6 10.9	9	<b>15.2</b> 11.9 26.2	9	<b>15.4</b> 11.8 19.2	10	<b>21.8</b> 16.3 35.4	6	<b>7.3</b> 4.3 11.1	7
INTERNATIONAL EQUITIES  Median <sup>2</sup> International Blended Benchmark <sup>4</sup>	15.8	<b>6.2</b> 7.1 5.9	74	<b>1.1</b> 2.4 0.3	75	<b>17.2</b> 16.5 13.9	35	<b>5.</b> 4.6 4.6	71	<b>12.0</b> 14.6 12.8	74	<b>0.9</b> 0.7 0.6	35
BONDS Median <sup>2</sup> Barclays Aggregate	11.8	<b>6.</b> 4. 9. 5. 4. 5. 5. 4. 5. 5. 4. 5. 5. 4. 5. 5. 4. 5. 5. 4. 5. 5. 4. 5. 5. 4. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.	36	<b>6.0</b> 5.3 5.0	31	<b>6.5</b> 7.8 4.8	89	<b>4.</b> 4. 8 8.8	65	<b>1.0</b> 0.6 -0.1	37	<b>2.0</b> 2.3 1.8	69
REAL ESTATE & INFRASTRUCTURE  Median <sup>2</sup> NCREIF - Property Blended Index <sup>5</sup> NCREIF Open Fund Index Net	9.4	<b>5.6</b> 5.6 7.4 6.2	47	<b>1.8</b> 3.8 2.1	36	<b>2.5</b> 4.6 6.5 6.3	74	<b>11.1</b> 11.1 10.3 12.0	51	<b>13.4</b> 11.9 9.8 12.7	27	<b>4.4</b> 3.0 2.4 2.3	27
REAL RETURN AND OPPORTUNISTIC 50% (CPI +500 bps) + 50% (8% accuarial rate)	<b>7.1</b> te)							9.8 7.5		<b>21.7</b> 7.3		<b>14.9</b> 2.3	
ABSOLUTE RETURN HFRI FOF Cons 1 month lagged CASH EQUIVALENTS 3.7		1.6		0.7		4.6 0.9		6.1 2.7 0.3		7.3		3.0 2.4 0.0	
1 Month I-Bill		1.5		0.7		0.1		0.0		0.0		0.0	

<sup>1</sup> Annualized Returns

<sup>&</sup>lt;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.

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.

In the provisional 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.

### **Cumulative and Consecutive Total Fund Returns**

Cumulative For Years Ending           ar         2 Year         3 Year         4 Year           7         13.0         10.3         11.3           9.2         10.4         16           11.8         9.2         10.4           25         10         16           118         114         87           Consecutive For Years End           7         10.4         5.0         14.2           9         10.6         4.3         13.8           55         24         38		) 					
\$10 billion)*	Cumulative For Years	s Ending 3/31/	14				
\$10 billion)* 12.9 11.8 9.2 10.4 11 25 10 16 277 118 114 87 Consecutive For Years End  03/14 03/13 03/12 03/11  15.7 10.4 5.0 14.2  \$10 billion)* 12.9 10.6 4.3 13.8	2 Year 3 Year	4 Year 5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
\$10 billion)* 12.9 11.8 9.2 10.4  11 25 10 16  277 118 114 87  Consecutive For Years End  03/14 03/13 03/12 03/11  15.7 10.4 5.0 14.2  11.9 10.6 4.3 13.8	13.0 10.3	11.3 13.8	0.9	5.6	6.4	7.3	7.4
11 25 10 16 277 118 114 87  Consecutive For Years End  03/14 03/13 03/12 03/11  15.7 10.4 5.0 14.2  \$10 billion)* 12.9 10.6 4.3 13.8	12.9 11.8 9.2	10.4 13.7	5.7	5.3	6.1	7.0	7.0
Consecutive For Years End  03/14 03/13 03/12 03/11  15.7 10.4 5.0 14.2  \$10 billion)* 12.9 10.6 4.3 13.8	25		40	25	78	23	32
Consecutive For Years End       03/14     03/13     03/12     03/11       15.7     10.4     5.0     14.2       12.9     10.6     4.3     13.8       11     55     24     38	118		78	36	53	31	32
03/14     03/13     03/12     03/11       15.7     10.4     5.0     14.2       12.9     10.6     4.3     13.8       11     55     24     38	Consecutive For Y	Years Ending					
15.7 10.4 5.0 14.2 12.9 10.6 4.3 13.8	03/13 03/12	03/11 03/10	03/09	03/08	03/07	90/20	03/05
12.9 10.6 4.3 13.8 11 55 24 38	10.4	14.2 24.3	-25.5	3.3	12.1	15.0	7.7
11 55 24 38	12.9 10.6	13.8 30.0	-28.3	1.9	12.3	14.5	9.7
	11 55 24	38 87	22	52	53	45	49
bp Difference - Median 277 -17 71 39 -56	-17	39 -569	282	139	-16	43	3

			MSER	ERS						
		Cumulati	ulative For Years Ending 3/31/14	ars Endin	g 3/31/14					
	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MSERS	15.6	13.0	10.2	11.2	13.6	5.9	5.5	6.3	7.2	7.3
Public Plan - Median (> \$1 billion)*	13.0	12.0	9.4	10.5	13.8	0.9	5.3	6.1	7.0	7.0
Rank	15	23	14	22	62	22	42	37	32	31
bp Difference - Median	256	93	80	29	-12	-13	20	22	20	26
		Conse	Consecutive For Years Ending	r Years E	nding					
	03/14	03/13	03/12	03/11	03/10	60/20	03/08	03/02	90/£0	03/05
MSERS	15.6	10.4	8.4	14.1	24.1	-25.7	3.1	12.1	15.0	9.7
Public Plan - Median (> \$1 billion)*	13.0	10.5	4.4	14.0	29.5	-28.0	1.5	11.9	14.4	7.4
Rank	15	54	28	47	06	30	77	4	35	43
bp Difference - Median	256	-7	48	16	-541	234	158	24	62	27

\*State Street Public Funds Universe

### **Cumulative and Consecutive Total Fund Returns**

			MSPRS	RS						
		Cumulati	ive For Years Ending 3/31/14	ars Endin	g 3/31/14					
	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MSPRS	15.5	12.9	10.2	11.2	13.6	5.9	5.5	6.3	7.3	7.3
Public Plan - Median (> \$1 billion)*	13.0	12.0	9.4	10.5	13.8	0.9	5.3	6.1	7.0	7.0
Rank	17	24	14	22	99	99	38	34	31	31
bp Difference - Median	246	98	78	69	-19	-15	22	56	23	29
		Conse	Consecutive For Years Ending	r Years E	nding					
	03/14	03/13	03/12	03/11	03/10	03/09	03/08	03/02	90/80	03/05
MSPRS	15.5	10.4	4.9	14.3	23.6	-25.5	3.4	12.2	15.0	7.7
Public Plan - Median (> \$1 billion)*	13.0	10.5	4.4	14.0	29.5	-28.0	1.5	11.9	14.4	7.4
Rank	17	22	28	46	91	27	70	41	35	42
bp Difference - Median	246	÷	54	30	-585	249	187	32	89	28

			MJRS	RS						
		Cumulati	ive For Years Ending 3/31/14	ars Endin	g 3/31/14					
	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MJRS	14.9	12.5	6.6	11.0	13.0	5.6	5.3	6.1	7.0	7.0
Public Plan - Median (> \$1 billion)*	13.0	12.0	9.4	10.5	13.8	0.9	5.3	6.1	7.0	7.0
Rank	27	32	24	30	82	69	22	49	52	51
bp Difference - Median	183	45	20	46	-73	-45	ကု	_	-5	7
		Conse	<b>Consecutive For Years Ending</b>	r Years E	nding					
	03/14	03/13	03/12	03/11	03/10	03/09	03/08	03/02	90/80	03/02
MJRS	14.9	10.2	4.9	14.2	21.7	-24.9	3.4	12.0	14.4	7.2
Public Plan - Median (> \$1 billion)*	13.0	10.5	4.4	14.0	29.5	-28.0	1.5	11.9	14.4	7.4
Rank	27	63	78	47	93	24	70	43	46	09
bp Difference - Median	183	÷.	52	24	-782	305	186	4	œ	-20

\*State Street Public Funds Universe

### **ASSET ALLOCATION REVIEW**

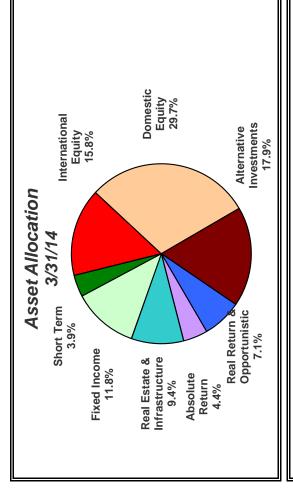
### INVESTMENT ADVISORY COMMITTEE MEETING June 5, 2014

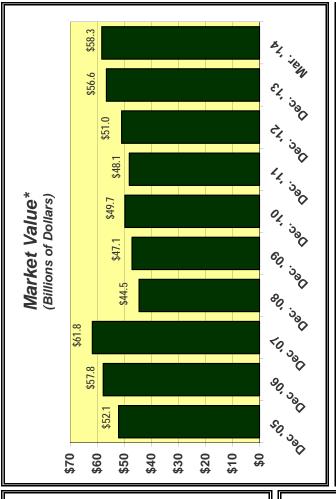


Jon M. Braeutigam Chief Investment Officer Bureau of Investments



### **PROFILE - MARCH 2014**





Asset Allocation By Market Value	(In Millions)

Investment Strategies	3/31/14	4	12/31/13	/13
Domestic Equity	\$17,349	29.7%	\$16,943	29.9%
Alternative Investments	10,434	17.9%	10,233	18.1%
International Equity	9,193	15.8%	9,121	16.1%
Fixed Income	6,864	11.8%	6,726	11.9%
Real Estate & Infra.	5,468	9.4%	5,235	9.3%
Real Return & Opport.	4,130	7.1%	3,136	2.5%
Absolute Return	2,557	4.4%	2,432	4.3%
Short Term***	2,273	3.9%	2,756	4.9%
TOTAL	\$58,268	100.0%	\$56,582	100.0%

	Market Value By Plan ~ 3/31/14 (in Millions)	<b>le By Plan</b> ~ 3 (in Millions)	3/31/14	
	Pension Plan Mkt. Value	OPEB** Mkt. Value	Combined Mkt. Value	%
	\$42,699	\$2,565	\$45,264	77.7%
MSERS - (closed)	10,605	856	11,461	19.6%
	1,212	64	1,276	2.5%
MJRS - (closed)	266	_	267	0.5%
	\$54,782	\$3,486	\$58,268	100.0%

### lions) 6.2% of Total Funds

Short Term Equivalents (in Billions)

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





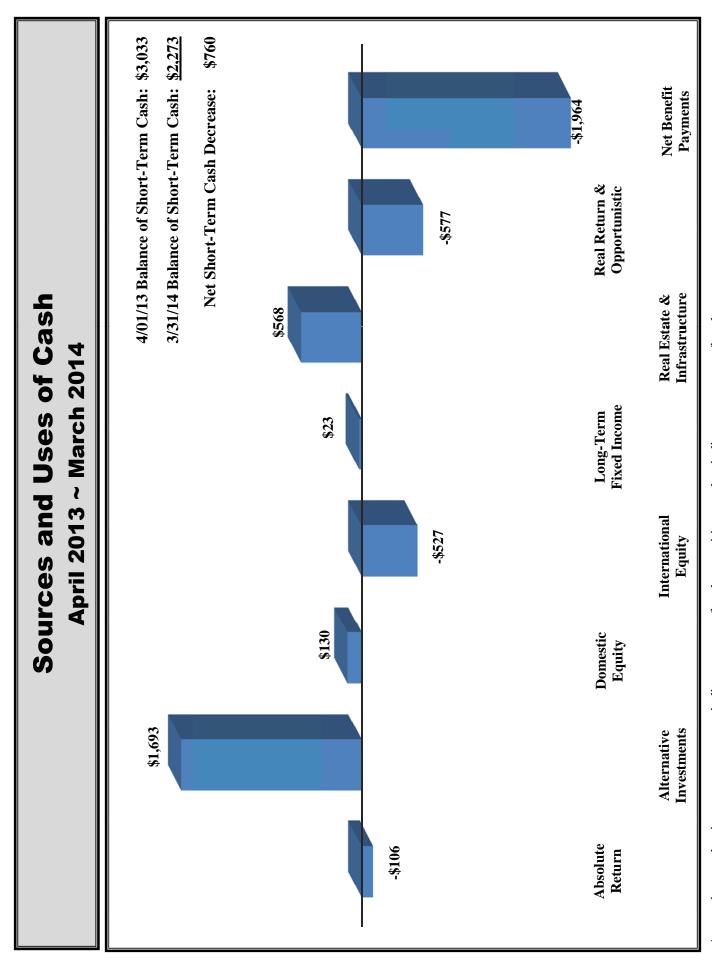
\$3.6

Short Term in Other Inv. Strategies

**TOTAL SHORT TERM** 

Short Term Strategy\*\*\*

\*\*OPEB - Other Post Employment Benefits



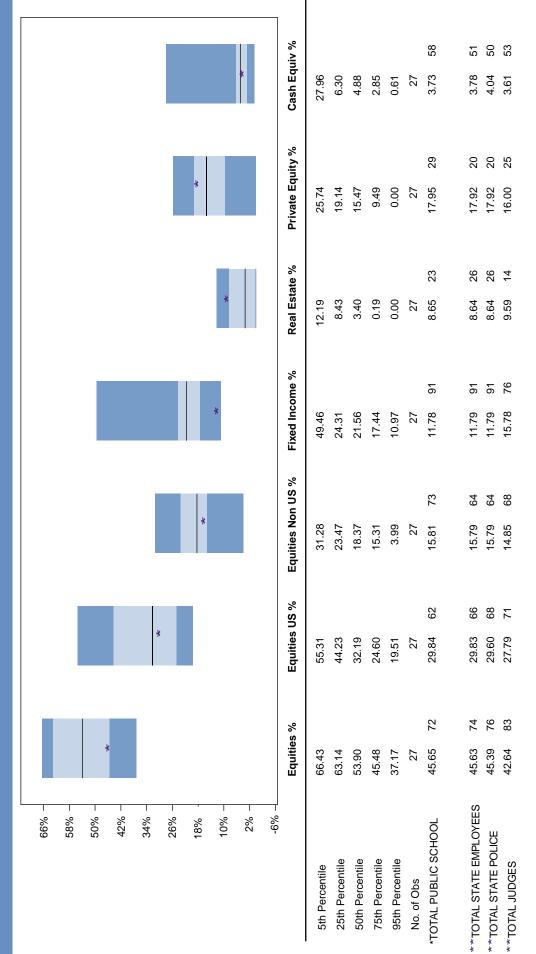
A negative number in an asset category indicates a use of cash, a positive number indicates a source of cash. Dollars in millions

				Asse	et Allo	catic	Allocation Targets	rgets					
		MPSERS			MSERS			MSPRS			MJRS		SMRS
Asset Class	Actual 3/31/14	Target 9/30/14	Target* 9/30/15	Actual 3/31/14	Target 9/30/14	Target* 9/30/15	Actual 3/31/14	Target 9/30/14	Target* 9/30/15	Actual 3/31/14	Target 9/30/14	Target* 9/30/15	Ranges
Broad U.S. Equity	29.8%	30.0%	31.0%	%8′6Z	30.0%	31.0%	%9'67	30.0%	31.0%	%8′22	28.0%	29.0%	20% - 50%
Alternative Invest.	18.0%	17.5%	16.0%	17.9%	17.5%	16.0%	17.9%	17.5%	16.0%	16.0%	15.5%	14.0%	10% - 25%
Broad Int'l Equity	15.8%	15.5%	16.0%	15.8%	15.5%	16.0%	15.8%	15.5%	16.0%	14.9%	14.5%	15.0%	10% - 20%
U.S. Fixed Income Core	11.8%	14.0%	15.0%	11.8%	14.0%	15.0%	11.8%	14.0%	15.0%	15.8%	18.0%	19.0%	10% - 25%
Real Estate / Infrastructure	9.4%	8.0%	%0.9	9.4%	8.0%	%0.9	9.4%	8.0%	%0:9	10.4%	%0.6	7.0%	0% - 15%
Real Return / Opportunistic	7.1%	5.7%	5.0%	7.1%	5.7%	5.0%	7.1%	5.7%	2.0%	7.1%	2.7%	2.0%	0% - 10%
Absolute Return	4.4%	4.3%	4.0%	4.4%	4.3%	4.0%	4.4%	4.3%	4.0%	4.4%	4.3%	4.0%	0% - 12%
Cash	3.7%	4.0%	4.0%	3.8%	4.0%	4.0%	4.0%	4.0%	4.0%	3.6%	4.0%	4.0%	1% - 9%
TOTAL	100.0%	100.0%	100.0%	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.	ise and intern	ational restrict	ions.										

## **SMRS TOTAL PLAN UNIVERSE REPORT**

## Public Funds (DB) > \$10 Billion (SSE) - Allocation

3/31/14



<sup>\*\*</sup>Public Funds (DB) > \$1 Billion (SSE) - Allocation

State Street Universe - TUCS: Computed by State Street based on TUCS data. TUCS is a service mark of Wilshire Associates Incorporated, licensed by State Street Bank and Trust Company. All TUCS content is 2013 Wilshire State Street Universe - TUCS is not endorsed or sold by Wilshire, and Wilshire makes no representations or warranties

### MARKETS REVIEW AND OUTLOOK

INVESTMENT ADVISORY COMMITTEE MEETING
JUNE 5, 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.

MPSERS Plan	Assumed Return* (Arithmetic)	Standard Deviation*	Trailing 10-Year (Benchmark**)	Tactical (Short Term) Expectations***
Private Equity	11.0%	30.3%	11.6%	Trim
International Equity	8.6%	20.6%	7.1%	Hold
Domestic Equity	7.0%	17.8%	7.7%	Hold
Real Estate (Core)	7.0%	12.5%	7.4%	Trim
Absolute Return	6.8%	9.8%	5.7%	Hold
Real Ret/Opportunistic	6.0%	11.5%	7.7%	Hold
Long-Term Fixed Income	4.0%	6.0%	4.5%	Hold
Short-Term	2.3%	3.0%	1.5%	Hold

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

### 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 22.0% over the past year, 14.6% over the past three years, and 21.6% per year over the past five years ending March 2014. Among top-down equity strategists, the average expected total return for the S&P 500 in 2014 is a modest 7.6% on earnings growth just above 7%.
- 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, five, seven, and ten years ending March 2014, the broad international market index, MSCI ACWI ex USA, underperformed the domestic S&P 1500 index by 8.6%, 10.0%, 5.3%, 4.8%, and 0.6% 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 nearly 10% as of April 2014, and its price has been volatile.
- The 10-year U.S. Treasury closed March 2014 at 2.7%. Rates in securities with a maturity of five to ten
  years saw rates back up almost a full percent over the past year. Maturities of three and 30 years saw
  rates back up close to 0.5%, while rates at the very front end saw virtually no change at all. The 10-year
  U.S. Treasury is now 1.3% higher than its 2012 low.
- Valuations in the commercial real estate market are full in some areas, though opportunities are selectively available. The public REIT market showed its vulnerability to rising interest rates during 2013.
   REITs are fairly priced against the 10-year U.S. Treasury, but appear expensive on other valuation metrics.

<sup>\*\*</sup> Investment Policy Statement; Annualized Returns

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

### **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 market looks healthy. The broad domestic market index, S&P 1500, returned 22.0% over the past year, 14.6% over the past three years, and 21.6% per year over the past five years ending March 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 4.6%, 1.1%, and 4.0% respectively. Last year ending in March, growth outperformed value by 1.5%; however, over the last three and five years, both growth and value styles have returned equally.

### International Equity

Developed international looks interesting.

- International Equities continue to underperform domestic. Over the past one, three, five, seven, and ten years ending March 2014, the broad international market index, MSCI ACWI ex USA, underperformed the domestic S&P 1500 index by 8.6%, 10.0%, 5.3%, 4.8%, and 0.6% annualized respectively.
- Within International Equities, over the past one, three, and five years ending in March 2014, emerging
  markets have underperformed developed markets annualized by 19.3%, 10.4%, and 1.3% respectively.
  From a technical perspective, the price trend for developed international has been up since the LTRO
  was introduces by the ECB in 2011.
- 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 10% as of April 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, nearly six years. The trend in prices for emerging markets is still neutral to slightly bearish. Asian markets are especially soft ending March 2014.
- 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; 15.8% versus 18.4%. Emerging market exposure is approximately 21.5% of total international equity which is only 0.7% overweight.
- Based on a price to earnings valuation multiple, excluding non-earning companies, developed international equity markets trade at a 10% discount to the U.S. counterparts, while emerging markets trade at over a 35% discount.

### **Interest Rates**

Fed tapering and the market impact

- The 10-year U.S. Treasury closed March 2014 at 2.7%. Rates in securities with a maturity of five to ten years saw rates back up almost a full percent over the past year. Maturities of three and 30 years saw rates back up close to 0.5%, while rates at the very front end saw virtually no change at all. The 10-year U.S. Treasury is now 1.3% higher than its 2012 low.
- As compared with historical spikes in interest rates, this latest episode is (so far) just mediocre. Since
  the apex in the 10-year U.S. Treasury rate in 1981, rates have been in a secular decline. During past
  notable bounces off the bottom, rates have typically increased 2-3% before eventually settling back down
  to new lows.
- The Barclays U.S. Aggregate Index returned -0.1% over the past year ending March 2014.
- Italian and Spanish ten-year sovereigns dropped a full percent in the first quarter of 2014, ending March yielding just over 3.0%. These bonds yielded just over 0.3% more than the 10-year U.S. Treasury at the end of March 2014. An incredible turn of events since the European Sovereign Debt Crisis of 2011.
- 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 decile in terms of steepness since 1977 increasing the opportunities to "ride down the yield curve".
- Investment grade credit spreads at the end of January 2014 are about average, while on the other hand, high yield spreads are roughly 120 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 March 2014, the Barclays Aggregate Index had a duration of 5.4. Investment grade credits had an average duration of 7.0 years, while the duration on high-yield has on average continued to decrease to 4.0 years. 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 returns in publicly traded FTSE Nareit REIT Index were weak over the past year, up 3.3%, due entirely to dividend income. Over longer periods, though, the index has performed well. For the period ending March 2014, the FTSE Nareit Index has returned annualized 10.4% and 28.3% over the past three and five years 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 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 is flattening and this indicates that the index returns could be modest going forward. Selective private market transactions take time to execute and could still make long-term sense, however, caution is warranted.
- In December 2013, the plans realized a \$700 million gain by selling the interest in a private retail operating company Edens, to Blackstone. The original investment was in 1997 and it earned a net IRR of 10.2%. This transaction brings the combined real estate and infrastructure asset allocation closer towards the 9% target allocation.

### **ECONOMIC OUTLOOK**

### **Select Historic Economic Growth with Forecasts**

Growing in 2014.

Real GDP Growth Actual/Forecasts	2012	2013	2014	2015	2016
World	2.2	2.1	2.8	3.1	3.3
U.S.	2.8	1.9	2.7	3.0	3.0
Developed (G10)	1.4	1.2	2.0	2.3	2.3
Asia	6.2	6.3	6.2	6.3	6.5
EMEA	2.6	1.8	1.9	2.7	3.2
Europe	-0.3	0.1	1.6	1.8	1.7
Latin America	2.8	2.3	2.2	3.0	3.7
China	7.7	7.7	7.3	7.2	7.3

<sup>\*</sup>Source: Bloomberg

### **Economic Overview**

Slow, steady improvement.

- The most recent reading of the annualized U.S. GDP growth was 0.1%. The brutally cold winter with snow accumulation in large parts of the country was blamed for the very low levels of growth, perhaps legitimately so. 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 latest reading for the annualized Quarter-over-Quarter U.S. GDP growth was 0.1.
- In its April 2014 meeting, the Federal Reserve announced a \$10 billion tapering of Quantitative Easing policy, reducing the monthly asset purchases from \$55 billion to \$45 billion per month. The tapering was expected and is seen as continued steps towards normalizing Fed policy.
- U.S. Profit Margins The latest measurement for corporate profits as a percentage of GDP is at 10.2%, just under the all-time high of 10.3% set in the fourth quarter of 2011.
- 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.
- Financial obligations as a percentage of disposable income appears to have troughed after declining since the fourth quarter of 2007. Consumer confidence is at a five-year high as well.
- At the trend of adding 185,000 jobs per month, the number of jobs lost due to the 2008-09 economic event called the "Great Recession" will be completely recovered in May 2014. At 6.25 years, this recovery in the job market will be the longest post-war recovery by almost 2.5 years.
- The unemployment rate at the end of April 2014 was 6.3%, the lowest rate since October 2008 and down from 7.5% one year prior. The economy added 288,000 jobs during April 2014 despite the bad weather.
- Housing as a driver of the economy showed signs of cooling with the weather as well. 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. Food commodities, measured by CRB/Reuters, were up more than 22% during the first four months of 2014. General measures of inflation are still modest; the latest U.S. CPI Y-O-Y measured 1.5%. Right now, inflation is not an issue globally; however the trends are in higher prices rather than lower prices.

# Annual Total Returns of Key Asset Classes 1994 - 2013

	Best	<b>←</b>																						♦ Worst			
2013	U.S.	Equity	32.80%	Int'I	Equity	15.29%	Real	Estate	10.99%	Hedge	Funds	%69'.	Infla-	tion	1.49%	Cash		0.07%	Corp.	Bonds	-2.01%	Gov't	Bonds	-2.60%		Return	Risk
2012	Inti	Equity	16.83%	U.S.	Equity	16.17%	Real	Estate	10.54%	Corp.	Bonds	9.37%	Hedge	Funds	4.06%	Gov't	Bonds	2.02%	Infla-	tion	1.70%	Cash		0.11%			
2011	Real	Estate	14.26%	Gov't	Bonds	9.02%	Corp.	Bonds	8.35%	Infla-	tion	2.96%	U.S.	Equity	1.75%	Cash		0.10%	Hedge	Funds	-3.55%	Int:	Equity	-13.71%			
2010	U.S.	Equity	16.38%	Real	Estate	13.11%	Inti	Equity	11.15%	Corp.	Bonds	8.46%	Gov't	Bonds	5.52%	Hedge	Funds	5.07%	Infla-	tion	1.50%	Cash		0.13%	US Eq.	9.49%	19.32%
2009	Int.i	Equity	41.44%	U.S.	Equity	27.24%	Corp.	Bonds	16.05%	Hedge	Funds	9.65%	Infla-	tion	2.72%	Cash		0.19%	Gov't	Bonds	-2.19%	Real	Estate	-45.52% -16.86%			
2008	Gov't	Bonds	12.38%	Cash		2.05%	Infla-	tion	0.10%	Corp.	Bonds	-3.07%	Real	Estate	-6.46%	Hedge	Funds	-19.86%	U.S.	Equity	-36.72%	Int.I	Equity	-45.52%	R.E.	9.34%	8.33%
2007	Inti	Equity	16.65%	Real	Estate	15.84%	Gov't	Bonds	8.67%	Hedge	Funds	7.68%	U.S.	Equity	5.47%	Corp.	Bonds	5.10%	Cash		5.03%	Infla-	tion	4.06%			
2006	Inti	Equity	26.65%	Real	Estate	16.59%	U.S.	Equity	15.34%	Hedge	Funds	9.21%	Cash		4.81%	Corp.	Bonds	4.27%	Gov't	Bonds	3.46%	Infla-	tion	2.55%	Corp.	6.32%	6.48%
2005	Real	Estate	20.06%	Int.i	Equity	16.62%	U.S.	Equity	5.65%	Hedge	Funds	5.13%	Infla-	tion	3.42%	Cash		3.06%	Gov't	Bonds	2.65%	Corp.	Bonds	1.95%			2042
2004	Int	Equity	20.90%	Real	Estate	14.48%	U.S.	Equity	11.78%	Hedge	Funds	5.83%	Corp.	Bonds	5.25%	Gov't	Bonds	3.48%	Infla-	tion	3.25%	Cash		1.33%	Int'l.	6.19%	5.97% 21.43%
2003	Inti	Equity	40.82%	U.S.	Equity	29.58%	Hedge	Funds	9.01%	Real	Estate	8.99%	Corp.	Bonds	%69'.	Gov't	Bonds	2.36%	Infla-	tion	1.88%	Cash		1.16%			Dott.
2002	Gov't	Bonds	11.50%	Corp.	Bonds	10.52%	Real	Estate	6.74%	Hedge	Funds	3.57%	Infla-	tion	2.39%	Cash		1.79%	Intil	Equity	-14.95%	U.S.	Equity	-21.30%	Gov't.	5.42%	5.97%
2001	Corp.	Bonds	10.40%	Real	Estate	7.28%	Gov't	Bonds	7.24%	Cash		4.43%	Hedge	Funds	3.11%	Infla-	tion	1.55%	U.S.	Equity	-10.64%	Int	Equity	-19.74%			
2000	Gov't	Bonds	13.23%	Real	Estate	12.24%	Corp.	Bonds	9.40%	Cash		6.16%	Hedge	Funds	5.77%	Infla-	tion	3.39%	U.S.	Equity	-6.98%	Int	Equity	-15.31% -19.74%	Hedge	5.19%	8.20%
1999	Int	Equity	26.97%	U.S.	Equity	20.27%	Hedge	Funds	18.93%	Real	Estate	11.36%	Cash		4.83%	Infla-	tion	2.68%	Corp.	Bonds	-1.94%	Gov't	Bonds	-2.25%			
1998	U.S.	Equity	26.33%	Intil	Equity	19.97%	Real	Estate	16.24%	Gov't	Bonds	9.85%	Corp.	Bonds	8.59%	Cash		5.24%	Infla-	tion	1.60%	Hedge	Funds	-1.61%	Cash	3.05%	2.29%
1997	U.S.	Equity	32.94%	Hedge	Funds	14.95%	Real	Estate	13.91%	Corp.	Bonds	10.23%	Gov't	Bonds	9.58%	Cash		5.35%	Int	Equity	1.77%	Infla-	tion	1.70%			
1996	U.S.	Equity	22.42%	Hedge	Funds	13.73%	Real	Estate	10.31%	Int	Equity	6.05%	Cash		5.30%	Infla-	tion	3.33%	Corp.	Bonds	3.28%	Gov't	Bonds	2.77%	Infl.	2.36%	%26.0
1995	U.S.	Equity	36.52%	Corp.	Bonds	22.24%	Gov't	Bonds	18.33%	Hedge	Funds	13.06%	Int.i	Equity	11.22%	Real	Estate	7.54%	Cash		6.04%	Infla-	tion	2.54%			
1994	Int	Equity	7.77%	Real	Estate	<b>%68.9</b>	Cash		4.26%	Infla-	tion	2.67%	U.S.	Equity	1.32%	Hedge	Funds	-1.17%	Gov't	Bonds	-3.37%	Corp.	Bonds	-3.92%		Return	Risk
	Best	<b>←</b>													5									Worst			

<sup>·</sup> Hedge Funds are represented by the HFRI FOF Conservative Index Inflation is represented by the U.S. Consumer Price Index

- U.S. Equity is represented by the S&P 500 / 1995 Forward by S&P 1500 - Real Estate is represented by the NPI

<sup>-</sup> International Equity is represented by the MSCI EAFE Index 2000 Forward - Int'l Equity is represented MSCI - AC World EX-USA Index - Cash is represented by 30-day T-Bills

<sup>-</sup> Corporate Bonds are represented by the Barclays Capital - Credit Index - Government Bonds are represented by the Barclays Capital U.S. Government

# STATE OF MICHIGAN RETIREMENT SYSTEMS

## DOMESTIC EQUITY REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING
June 5, 2014



Jack A. Behar, CFA, Administrator Stock Analysis Division

#### **EXECUTIVE SUMMARY**

#### **Performance**

Total Domestic Equity, Gross	1-Year	3-Years	5-Years	7-Years	10-Years
Annualized Returns	24.1%	14.7%	21.6%	6.8%	7.7%
S&P 1500	22.0%	14.6%	21.6%	6.6%	7.7%
State Street Peer Group	22.0%	14.0%	21.5%	6.5%	7.6%
Rank vs. Peers	11	31	46	28	37

Total Domestic Equity, Net	1-Year	3 Years	5 Years
Annualized Returns	24.0%	14.5%	21.4%
S&P 1500	22.0%	14.6%	21.6%
Lipper Multi Core	22.2%	12.7%	20.6%

Total Active Equity, Net	1-Year	3 Years	5 Years
Annualized Returns	25.7%	14.7%	21.4%
S&P 1500	22.0%	14.6%	21.6%
Lipper Multi Core	22.2%	12.7%	20.6%
Rank vs. Peers	18	24	38

- Domestic Equity and Total Active Equity performed close to their benchmarks, net of fees, on a three and five-year basis, while outperforming the S&P 1500 over the past year. Returns outpaced peers over all time periods, significantly so over the past one and three years.
  - Internal active management was a bright spot, particularly during the past one and threeyears, as it outperformed the S&P 500 by 500 bps and 70 bps respectively, net of fees, during these time periods.
    - This placed the division in the 4th and 16<sup>th</sup> percentiles respectively of all active Multi-Cap Core managers (as measured by Lipper) during the past one and three years.
    - On a five year basis, internal management matched the S&P 500, placing it in the top quartile of Multi-Cap Core managers.
  - External active management underperformed the S&P 1500 by 200 bps and 30 bps on a three and five-year basis respectively, while outperforming by 60 bps during the past year.
    - Average fees paid during the five years ending March 31 were roughly 60 bps per year, however, the difference between gross and net returns as measured by State Street was 80 bps, due to the timing of fee payments and overall market volatility.
    - Results were disappointing, because the portfolio underperformed despite being significantly overweight in small and mid-cap stocks, which were strong performers during the time period.

#### **Strategy Update**

- SMRS continued to make significant progress in reducing fees during the quarter, terminating three managers and using the resulting capital to drive lower costs across its manager portfolio. Fees paid in SMRS' total domestic equity program are now down 55% since December of 2010, from 18 bps per year to 8 bps per year or, in dollar terms, from \$32 million to \$14 million per year.
- At 8 bps, SMRS' domestic equity program now benefits from both internal and external
  active management at the cost of an SPDR S&P 500 Index fund. Based on research from
  CEM Benchmarking and RV Kuhns, we estimate that SMRS' State Street peer group pays
  an average of 30 bps per year for its domestic equity programs, or nearly \$40 million per
  year more than SMRS on a dollar equivalent basis.
- Cost reductions since 2010 were primarily driven by a 55% decrease in average external manager fees paid, from 61 bps per year in December of 2010 to 28 bps per year currently, as well as, to a lesser degree, by a shift in allocation towards passive management.
- SMRS' restructured portfolio has slightly improved fundamental and risk characteristics relative to its legacy portfolio, and continues to benefit from a roster of talented portfolio managers.
- Fees are still in the process of being renegotiated with two managers, and are expected to bring total external manager program costs down to 26 bps. Excluding SMRS' emerging manager of managers program, total external manager portfolio costs are expected to be 24 bps.
- SMRS will be paying between 7 bps and 22 bps on incremental capital earned or deployed into its program going forward, which will continue to bring fees paid as a percent of total assets down over time.

The table below highlights SMRS' cost position relative to its pension fund peers, at both the greater than \$1 billion in assets and the greater than \$10 billion in assets levels:

#### **Peer Group Cost Comparison Analysis**

Manager Category	Market Value	Bp Paid	Yearly Cost*	Ten Year Nominal Cost*
Pension Fund Peers >\$1B in Assets	\$17,348,795	0.30	\$52,046	\$520,464
SMRS Restructured Total Domestic Equity	\$17,348,795	0.08	\$13,974	\$139,739
Savings		0.22	\$38,073	\$380,725
Pension Fund Peers >\$10B in Assets	\$17,348,795	0.20	\$34,698	\$346,976
SMRS Restructured Total Domestic Equity	\$17,348,795	0.08	\$13,974	\$139,739
Savings		0.12	\$20,724	\$207,237

Note: All dollar amounts are expressed in thousands.

<sup>\*</sup>Peer cost estimates based on research from CEM Benchmarking and RV Kuhns.

The tables below highlight the progression in Total Active Equity and Total Domestic Equity costs over time:

#### **Total Active Equity Program Costs Over Time**

Total Active Equity, December 2010						
Manager Category	Market Value	% of Total	Bp Paid	Dollar Cost *		
SMRS Internal Active Management	\$7,042,268	61%	0.04	\$2,817		
SMRS External Active Managemer	4,573,369	39%	0.61	27,898		
SMRS Total Active Equity	\$11,615,637	100%	0.26	\$30,714		
Legacy Total Active Equity, March 2014						
Manager Category	Market Value	% of Total	Bp Paid	Dollar Cost *		
SMRS Internal Active Management	\$5,333,669	57%	0.04	\$2,134		
SMRS External Active Managemer	4,013,995	43%	0.41	<u>16,457</u>		
SMRS Total Active Equity	\$9,347,664	100%	0.20	\$18,591		
Restructur	Restructured Total Active Equity, March 2014					
Manager Category	Market Value	% of Total	Bp Paid	Dollar Cost *		
SMRS Internal Active Management	\$5,715,909	61%	0.04	\$2,286		
SMRS External Active Managemer	3,632,055	39%	0.28	10,087		
SMRS Total Active Equity	\$9,347,964	100%	0.13	\$12,373		

#### **Total Domestic Equity Program Costs Over Time**

Total Domestic Equity, December 2010					
Manager Category	Market Value	% of Total	<b>Bp Paid</b>	Dollar Cost *	
SMRS Total Active Equity	\$11,615,637	66%	0.26	\$30,714	
SMRS Total Passive Equity	5,954,234	34%	0.02	<u>1,191</u>	
SMRS Total Domestic Equity	\$17,569,871	100%	0.18	\$31,905	
Legacy 1	Γotal Domestic Ed	quity, March 2	014		
Manager Category	Market Value	% of Total	Bp Paid	Dollar Cost *	
SMRS Total Active Equity	\$9,347,664	54%	0.20	\$18,591	
SMRS Total Passive Equity	<u>8,001,131</u>	46%	0.02	<u>1,600</u>	
SMRS Total Domestic Equity	\$17,348,795	100%	0.12	\$20,192	
Restructured Total Domestic Equity, March 2014					
Manager Category	Market Value	% of Total	Bp Paid	Dollar Cost *	
SMRS Total Active Equity	\$9,347,664	54%	0.13	\$12,152	
SMRS Total Passive Equity	8,001,131	46%	0.02	1,600	
SMRS Total Domestic Equity	\$17,348,795	100%	0.08	\$13,752	

Note: All dollar amounts are expressed in thousands.

<sup>\*</sup>Internal active and domestic passive management estimated based on FY 2013 expenses and salaries paid.

The following tables contrast SMRS' legacy external manager portfolio with its restructured portfolio:

#### Comparison of Legacy and Restructured Portfolios By Manager

Investment Manager	Legacy Market Value	Restructured Market Value
LSV Large Cap Value	\$953,603	<b>\$</b> O
Artisan Mid Cap Value	727,151	0
Fisher All Cap (Total Return)	407,338	950,000
Cramer Rosenthal All Cap Value	283,196	283,196
LA Capital All Cap Growth	237,635	515,000
Donald Smith Small Cap Value	228,733	0
Clarkston Capital Small Cap Core	205,559	205,559
GW Capital All Cap Value	203,914	203,914
Attucks Asset Management **	176,891	76,891
Seizert Capital Concentrated *	168,495	700,000
Bivium Capital Partners **	151,227	66,226
Champlain Mid Cap Core	138,985	500,000
Munder Mid Cap Core Growth *	68,283	68,283
Northpointe Small Cap Core *	<u>62,985</u>	<u>62,985</u>
Totals	\$4,013,993	\$3,632,053

#### **Restructured Portfolio Sorted by Market Value**

Investment Manager	Market Value
Fisher All-Cap (Total Return)	\$950,000
Seizert Capital*	700,000
LA Capital All-Cap Growth	515,000
Champlain Mid-Cap Core	500,000
Cramer Rosenthal All-Cap Value	283,196
Clarkston Capital Small-Cap Core*	205,559
GW Capital All-Cap Value	203,914
Munder Mid-Cap Growth*	68,283
Bivium Capital Partners**	66,226
Attucks Asset Management**	76,891
NorthPointe Small-Cap Core*	<u>62,985</u>
TOTAL	\$3,632,053

<sup>\*</sup>Michigan Based Manager

#### **Total Active Equity, Risk Metrics**

Risk Measure	<b>Existing Portfolio</b>	Restructured Portfolio	
Number of Stocks Owned	1011	940	
Beta	0.96	0.98	
Tracking Error	1.68	1.66	

<sup>\*\*</sup>Emerging Manager Program



# SMRS DOMESTIC EQUITIES 3/31/14

	Amount	% of Total
Passive		
000 500	Φ7 000 000	
S&P 500	\$7,239,992	
S&P 400	761,139	
Sub Total	\$8,001,131	46.1%
Internal Active		
		ļ
Large-Cap Core	\$2,299,046	
Large-Cap Growth	1,423,327	
All-Cap GARP	495,238	
Absolute Return Income Fund	290,784	
Concentrated Equity Fund	337,654	
Large-Cap Value	321,547	
Tactical Asset Allocation	127,303	
Concentrated All-Cap Growth	38,770	
Sub Total	<b>\$5,333,669</b>	30.7%
External Active	Ψο,οοο,οοο	30.7 70
LSV Large-Cap Value	\$953,603	
Artisan All-Cap Value	727,151	
Fisher All-Cap Value	407,338	
Cramer Rosenthal McGlynn Mid-Cap Value	283,196	
Los Angeles Capital Mid-Cap Plus Core	237,635	
Donald Smith Small-Cap Value	228,733	
Clarkston Small-Cap Core	205,559	
GW Capital All-Cap Value	203,914	
Attucks Asset Management	176,891	
Seizert Capital Partners All-Cap Core	168,495	
Bivium	151,227	
Champlain Mid-Cap Core	138,985	
Munder Mid-Cap Core	68,283	
Northpointe Small-Cap Value	62,985	
Sub Total	\$4,013,995	23.1%

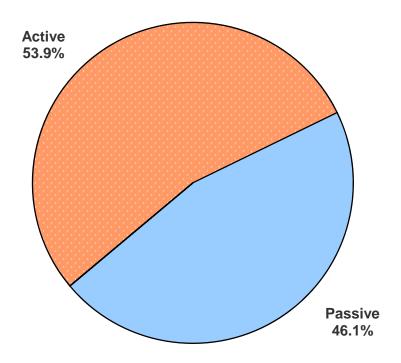
**TOTAL** 

\$17,348,795

100.0%

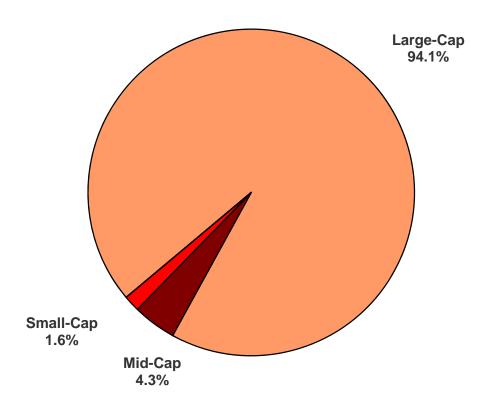
Note: All dollar amounts are expessed in thousands.

# SMRS Domestic Equity Holdings By Category 3/31/14



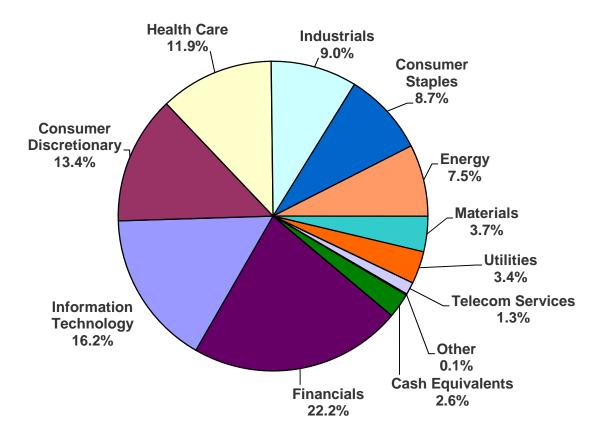
	Market Valu	ue in Millions	•	
	3/31/	14	12/31	/13
	Assets	Percent	Assets	Percent
Active	\$9,348	53.9%	\$9,054	53.4%
Passive	8,001	46.1%	7,889	46.6%
Total Domestic Equity	<u>\$17,349</u>	100.0%	<u>\$16,943</u>	100.0%

# SMRS Domestic Equity Exposure By Market Cap 3/31/14



Market Value in Millions			
		3/31/14	
	Assets	Percent	S&P 1500
Large-Cap (>\$10B)	\$16,325	94.1%	84.0%
Mid-Cap (>\$4 <\$10B)	746	4.3%	9.7%
Small-Cap (<\$4B)	278	1.6%	6.3%
Total Domestic Equity	<u>\$17,349</u>	100.0%	100.0%

# SMRS All Domestic Equity Holdings By Category 3/31/14



Market Value in Millions						
		3/31/14		12/31	1/13	
	Assets	Percent	Benchmark	Assets	Percent	
Financials	\$3,856	22.2%	17.8%	\$3,823	22.6%	
Information Technology	2,808	16.2%	17.8%	2,763	16.3%	
Consumer Discretionary	2,325	13.4%	12.3%	2,145	12.7%	
Health Care	2,069	11.9%	12.9%	2,023	11.9%	
Industrials	1,567	9.0%	11.3%	1,488	8.8%	
Consumer Staples	1,507	8.7%	8.9%	1,361	8.0%	
Energy	1,308	7.5%	9.6%	1,294	7.6%	
Materials	642	3.7%	4.0%	618	3.7%	
Utilities	582	3.4%	3.2%	516	3.0%	
Telecom Services	220	1.3%	2.2%	192	1.1%	
Other	6	0.1%	0.0%	11	0.1%	
Total Investments	\$16,890	97.4%	100.0%	\$16,234	95.8%	
Cash Equivalents	459	2.6%	0.0%	709	4.2%	
Total	\$17,349	100.0%	100.0%	\$16,943	100.0%	

Benchmark: S&P 1500



Date:	<u>3/31/14</u>	<u>12/31/13</u>	<u>9/30/13</u>	<u>6/30/13</u>
Assets (\$million):	\$17,349	\$16,943	\$15,341	\$14,563
Number of Securities:	1,306	1,377	1,390	1,422
Benchmark:	S&P 1500			

201101111101111

Description: The Domestic Equities Composite combines both the SMRS' All

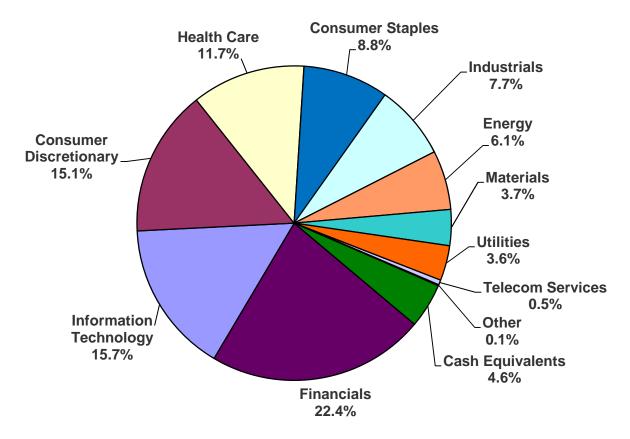
Actively Managed Composite and its index funds...

Characteristics:	<u>SMRS</u>	S&P 1500
Weighted Average Capitalization (\$billion):	\$106.4	\$105.1
Trailing 12-month P/E:	17.1x	18.1x
Forecast P/E:	15.6x	16.3x
Price/Book:	2.2x	2.6x
Beta:	0.96	1.01
Dividend Yield:	1.8%	1.9%
3-5 Year EPS Growth Estimate:	11.8%	11.8%
Return on Equity:	18.1%	18.8%

# TOP TEN HOLDINGS - All Domestic Equities 3/31/14

				YTD14	
	Portfolio	Total	3/31/14	Total	Market
	<u>Weight</u>	<u>Shares</u>	<u>Price</u>	Return	<u>Value</u>
Apple Inc.	3.0%	960,773	\$536.74	-3.8%	\$515,685,300
SPDR S&P 500 ETF	2.4%	2,206,550	\$187.01	1.7%	412,646,916
The Bank of New York Mellon Corp.	2.2%	10,726,448	\$35.29	1.5%	378,536,350
Google Inc. Class A	2.0%	613,834	\$557.79	-0.6%	342,393,087
Johnson & Johnson	1.9%	3,299,761	\$98.23	8.0%	324,135,523
PepsiCo, Inc.	1.6%	3,359,114	\$83.50	1.4%	280,486,019
Bank of America Corp.	1.6%	15,918,329	\$17.20	10.5%	273,795,259
Exelon Corp.	1.5%	7,987,789	\$33.56	23.8%	268,070,199
Wal-Mart Stores, Inc.	1.5%	3,342,076	\$76.43	-2.2%	255,434,869
Exxon Mobil Corp.	<u>1.3%</u>	2,307,244	\$97.68	-2.8%	<u>225,371,594</u>
TOTAL	<u>18.9%</u>				\$3,276,555,114

# SMRS All Active Domestic Equity Holdings By Category 3/31/14



Market Value in Millions					
		3/31/14		12/31	//13
	Assets	Percent	Benchmark	Assets	Percent
Financials	\$2,090	22.4%	17.8%	\$2,090	23.1%
Information Technology	1,467	15.7%	17.8%	1,445	15.9%
Consumer Discretionary	1,408	15.1%	12.3%	1,202	13.3%
Health Care	1,093	11.7%	12.9%	1,093	12.1%
Consumer Staples	826	8.8%	8.9%	677	7.5%
Industrials	717	7.7%	11.3%	631	6.9%
Energy	574	6.1%	9.6%	565	6.2%
Materials	349	3.7%	4.0%	332	3.6%
Utilities	339	3.6%	3.2%	289	3.2%
Telecom Services	49	0.5%	2.2%	34	0.4%
Other	6	0.1%	0.0%	2	0.1%
Total Investments	\$8,918	95.4%	100.0%	\$8,360	92.3%
Cash Equivalents	430	4.6%	0.0%	694	7.7%
Total	\$9,348	100.0%	100.0%	\$9,054	100.0%

Benchmark: S&P 1500



# All Actively Managed Composite 3/31/14

Date:	<u>3/31/14</u>	<u>12/31/13</u>	<u>9/30/13</u>	6/30/13
Assets (\$million):	\$9,348	\$9,055	\$8,176	\$7,733
Number of Securities:	1,020	1,083	1,121	1,164

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.

Characteristics:	<u>SMRS</u>	S&P 1500
Weighted Average Capitalization (\$billion):	\$103.0	\$105.1
Trailing 12-month P/E:	16.4x	18.1x
Forecast P/E:	15.0x	16.3x
Price/Book:	2.0x	2.6x
Beta:	0.93	1.01
Dividend Yield:	1.7%	1.9%
3-5 Year EPS Growth Estimate:	11.8%	11.8%
Return on Equity:	17.2%	18.8%

## TOP TEN HOLDINGS - All Actively Managed 3/31/14

				YTD14	
	Portfolio <u>Weight</u>	Total <u>Shares</u>	3/31/14 <u>Price</u>	Total <u>Return</u>	Market <u>Value</u>
The Bank of New York Mellon Corp.	3.9%	10,263,216	\$35.29	1.5%	\$362,188,893
Apple Inc.	3.4%	596,740	\$536.74	-3.8%	320,294,228
Exelon Corp.	2.7%	7,637,800	\$33.56	23.8%	256,324,568
PepsiCo, Inc.	2.4%	2,737,741	\$83.50	1.4%	228,601,374
Google Inc. Class A	2.3%	383,621	\$557.79	-0.6%	213,981,469
Johnson & Johnson	2.3%	2,145,101	\$98.23	8.0%	210,713,271
Wal-Mart Stores, Inc.	2.2%	2,681,742	\$76.43	-2.2%	204,965,541
Bank of America Corp.	2.1%	11,604,834	\$17.20	10.5%	199,603,145
AutoZone, Inc.	2.0%	345,830	\$537.10	12.4%	185,745,293
Goldman Sachs Group, Inc.	<u>2.0%</u>	1,122,723	\$163.85	-7.3%	<u>183,958,164</u>
TOTAL	<u>25.3%</u>				<u>\$2,366,375,944</u>

# Combined Active Equity Portfolio, Return Expectations 3/31/14

#### **Return Assumption Estimates**

		Normal Dividend	LT Growth	
	Expected Return****	Yield **	Rate***	
SAD Combined Active Equity	9.6%	4.6%	5.0%	
S&P 1500 All-Cap****	8.8%	3.6%	5.2%	
S&P 500 Large-Cap*****	8.8%	3.8%	5.0%	
S&P 500 Historical Average	9.6%			
S&P 400 Mid-Cap	8.7%	2.2%	6.5%	
S&P 600 Small-Cap	8.2%	1.2%	7.0%	
US 30 Year Treasury	3.6%	3.6%	0.0%	

#### **Normal Dividend Yield Decomposition**

				Normal
	Normal	Normal Earnings	Normal Payout	Dividend
	Price/Earnings	Yield *	Ratio	Yield **
SAD Combined Active Equity	14.8	6.8%	<b>68%</b>	4.6%
S&P 1500 All-Cap	17.7	5.6%	64%	3.6%
S&P 500 Large-Cap	17.4	5.7%	67%	3.8%
S&P 400 Mid-Cap	20.3	4.9%	44%	2.2%
S&P 600 Small-Cap	22.4	4.5%	26%	1.2%

#### Portfolio and Benchmark Risk Estimates

	Expected Return****	Standard Deviation	Expected Return/Volatility
SAD Combined Active Equity	9.6%	11.54%	0.83
S&P 1500 All-Cap	8.8%	11.50%	0.77
S&P 500	8.8%	11.32%	0.78
S&P 400	8.7%	13.54%	0.64
S&P 600	8.2%	14.55%	0.56
US 30 Year Treasury	3.6%	12.64%	0.28

<sup>\*</sup> Earnings Yield = Earnings/Price

<sup>\*\*</sup> Includes Share Buybacks

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

<sup>\*\*\*\*</sup> Yield to Maturity Formula: Dividend Yield + LT Growth Rate

<sup>\*\*\*\*\*</sup> 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 3/31/14

#### **Total Domestic Equity Performance, Gross**

	Market Value	1 Year	3 Years	5 Years	7 Years	10 Years
Total Domestic Equity	\$17,348,795,481	24.2%	14.7%	21.6%	6.8%	7.7%
S&P 1500		22.0%	14.6%	21.6%	6.6%	7.7%
State Street Peer Rank		11	31	46	28	37

#### **Total Domestic Equity Performance, Net of Fees**

	Market Value	1 Year	3 Years	5 Years
Total Domestic Equity	\$17,348,795,481	24.0%	14.5%	21.4%
S&P 1500		22.0%	14.6%	21.6%
Lipper Multi Core		22.2%	12.7%	20.6%

#### **Total Active Equity Performance, Net of Fees**

	Market Value	1 Year	3 Years	5 Years
Total Active Equity	\$9,347,951,203	25.8%	14.7%	21.4%
S&P 1500		22.0%	14.6%	21.6%
Lipper Multi Core		22.2%	12.7%	20.6%

#### Manager Performance, Net of Fees

						Inception
	Market Value	1 Year	3 Years	5 Years	Inception	<u>Date</u>
Total Internal Active	\$5,206,655,331	26.9%	15.4%	21.2%	4.6%	2/29/00
S&P 500		21.9%	14.7%	21.2%	4.1%	
Lipper Large Cap Core		21.3%	13.5%	19.9%	4.6%	
Total External Active	\$4,013,992,565	22.6%	12.6%	21.3%	9.0%	5/31/05
S&P 900/S&P 1500 Blend		22.0%	14.6%	21.6%	7.7%	
Lipper Multi Core		22.2%	12.7%	20.6%	7.7%	
SMRS Large-Cap Core	\$2,299,046,265	32.1%	17.6%	23.5%	7.5%	8/31/07
S&P 500		21.9%	14.7%	21.2%	6.2%	
Lipper Large Core		21.3%	13.5%	19.9%	5.7%	
SMRS Large-Cap Growth	\$1,423,604,179	25.7%	15.3%	20.6%	8.5%	5/31/05
S&P 500 Growth Index		23.1%	15.4%	21.1%	8.5%	
Lipper Large Growth		23.7%	13.2%	20.2%	8.3%	
LSV Large-Cap Value	\$953,602,669	29.4%	16.6%		17.4%	1/31/10
S&P 500 Value Index		20.5%	14.0%	21.3%	15.1%	
Lipper Large Value		22.4%	13.4%	20.3%	14.2%	
Artisan All-Cap Value	\$727,150,686	17.2%	12.4%	22.3%	10.7%	5/31/05
S&P 1500 Value/S&P 400 Value Blend		20.9%	13.0%	24.0%	9.8%	
Lipper Mid Value		23.1%	13.3%	24.2%	9.6%	
SMRS All-Cap GARP*	\$495,237,558	24.8%		23.8%	19.3%	4/30/11
S&P 1500 Super Composite		22.0%	14.6%	21.6%	14.6%	
Lipper Multi Core		22.2%	12.7%	20.6%	12.7%	

#### Manager Performance, Net of Fees

\$\frac{8}{2} \text{P EOU\sale Pool Value Blend}  \text{22.0\%} & 12.9\% & 23.6\% & 8.8\%  \text{Lipper Small Value}  \text{Concentrated Equity}  \text{\$337,653,944}     \text{Concentrated Equity}  \text{\$337,653,944}       \text{Lipper Multi Core}  \qq    \qu							Inception
\$\frac{8}{\text{P}}\$ \text{EDOU\salue}\$ \text{P}\$ \text{O}\$ \text{Value}\$ \text{Value}		Market Value	1 Year	3 Years	5 Years	<b>Inception</b>	<u>Date</u>
Lipper Small Value  24.4%  12.9%  25.1%  9.0%  Concentrated Equity \$337,653,944	Fisher All-Cap	\$407,338,138	20.3%	7.5%	22.7%	10.0%	10/31/04
Concentrated Equity \$337,653,944 31.7% 5/31/13 SRP 1500 Super Composite	S&P 1500/S&P 600 Value Blend		22.0%	12.9%	23.6%	8.8%	
\$\frac{8}{2}\text{Pt500 Super Composite}\$\tag{22.0}	Lipper Small Value		24.4%	12.9%	25.1%	9.0%	
Lipper Multi Core  22.2% 12.7% 20.6% 20.7%  SMRS Large-Cap Value \$321,546,796 20.8% 12.2% 18.1% 2.4% 7/31/07  S&B 500 Value Index 20.5% 14.0% 21.3% 3.6%  Lipper Large Value 22.4% 13.4% 20.3% 4.0%  SMRS Absolute Return Income Fund \$290,796,996 14.7% 13.9% 18.8% 16.6% 1/31/09  60% S&B 500/40% Barclays AGG 12.7% 10.4% 14.6% 12.5%  Lipper Mixed Target Allocation Moderate/Growth Blend 12.3% 8.4% 14.8% 12.6%  Cramer Rosenthal All-Cap \$283,195,809 20.3% 13.2% 20.9% 10.6% 5/31/05  S&B 400 Value/S&B 71500 Blend 20.0% 13.5% 24.4% 10.0%  Lipper Mid Value 23.1% 13.3% 24.4% 10.0%  Lipper Mid Core \$237,634,706 25.8% 13.4% 24.3% 11.2% 5/31/05  S&B 600 Value Index 22.4% 12.1% 22.6% 9.2%  Donald Smith & Co. \$228,732,606 19.3% 8.9% 22.3% 9.4% 2/28/07  S&B 600 Value Index 24.4% 12.9% 25.7% 7.4%  Lipper Multi Core 22.2% 12.7% 20.6% 4.8%  Attucks Asset Management \$176,890,862 23.5% 13.6% 21.2% 6.0% 11/30/07  S&P 1500 Super Composite 22.2% 12.7% 20.6% 4.8%  Exizer Capital Partners \$168,495,359 25.8% 16.6% 20.0% 11/30/05  S&P 1500 Super Composite 22.2% 14.8% 5.7%  Lipper Multi Core 22.2% 12.7% 20.6% 4.8%  Bivium Capital Partners \$168,495,359 25.8% 16.6% 20.0% 11/30/05  S&P 1500 Super Composite 22.0% 14.6% 21.6% 5.7%  Lipper Multi Core 22.2% 12.7% 20.6% 4.8%  Bivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/05  S&P 1500 Super Composite 22.0% 14.6% 21.6% 5.7%  Lipper Multi Core 22.2% 12.7% 20.6% 4.8%  Bivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/05  S&P 1500 Super Composite 22.0% 14.6% 21.6% 5.7%  Lipper Multi Core 22.2% 12.1% 22.2% 21.1% 5.1%  Bivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/05  S&P 1500 Super Composite 21.2% 13.4% 24.9% 24.9%  Lipper Midi Core \$68,282,659 21.0% 13.3% 22.9% 22.9% 4/30/09  S&P 400 Md-Cap Index 22.4% 12.1% 22.6% 21.4%  Munder Md-Cap Core \$68,282,659 21.0% 13.3% 22.9% 22.9% 4/30/09  S&P 400 Md-Cap Index 22.4% 12.1% 22.6% 22.6%	Concentrated Equity	\$337,653,944				31.7%	5/31/13
Lipper Multi Core  22.2% 12.7% 20.6% 20.7%  SMRS Large-Cap Value \$321,546,796 20.8% 12.2% 18.1% 2.4% 7/31/07  S&B 500 Value Index 20.5% 14.0% 21.3% 3.6%  Lipper Large Value 22.4% 13.4% 20.3% 4.0%  SMRS Absolute Return Income Fund \$290,796,996 14.7% 13.9% 18.8% 16.6% 1/31/09  60% S&B 500/40% Barclays AGG 12.7% 10.4% 14.6% 12.5%  Lipper Mixed Target Allocation Moderate/Growth Blend 12.3% 8.4% 14.8% 12.6%  Cramer Rosenthal All-Cap \$283,195,809 20.3% 13.2% 20.9% 10.6% 5/31/05  S&B 400 Value/S&B 71500 Blend 20.0% 13.5% 24.4% 10.0%  Lipper Mid Value 23.1% 13.3% 24.4% 10.0%  Lipper Mid Core \$237,634,706 25.8% 13.4% 24.3% 11.2% 5/31/05  S&B 600 Value Index 22.4% 12.1% 22.6% 9.2%  Donald Smith & Co. \$228,732,606 19.3% 8.9% 22.3% 9.4% 2/28/07  S&B 600 Value Index 24.4% 12.9% 25.7% 7.4%  Lipper Multi Core 22.2% 12.7% 20.6% 4.8%  Attucks Asset Management \$176,890,862 23.5% 13.6% 21.2% 6.0% 11/30/07  S&P 1500 Super Composite 22.2% 12.7% 20.6% 4.8%  Exizer Capital Partners \$168,495,359 25.8% 16.6% 20.0% 11/30/05  S&P 1500 Super Composite 22.2% 14.8% 5.7%  Lipper Multi Core 22.2% 12.7% 20.6% 4.8%  Bivium Capital Partners \$168,495,359 25.8% 16.6% 20.0% 11/30/05  S&P 1500 Super Composite 22.0% 14.6% 21.6% 5.7%  Lipper Multi Core 22.2% 12.7% 20.6% 4.8%  Bivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/05  S&P 1500 Super Composite 22.0% 14.6% 21.6% 5.7%  Lipper Multi Core 22.2% 12.7% 20.6% 4.8%  Bivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/05  S&P 1500 Super Composite 22.0% 14.6% 21.6% 5.7%  Lipper Multi Core 22.2% 12.1% 22.2% 21.1% 5.1%  Bivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/05  S&P 1500 Super Composite 21.2% 13.4% 24.9% 24.9%  Lipper Midi Core \$68,282,659 21.0% 13.3% 22.9% 22.9% 4/30/09  S&P 400 Md-Cap Index 22.4% 12.1% 22.6% 21.4%  Munder Md-Cap Core \$68,282,659 21.0% 13.3% 22.9% 22.9% 4/30/09  S&P 400 Md-Cap Index 22.4% 12.1% 22.6% 22.6%			22.0%	14.6%	21.6%	19.9%	
S&P 500 Value Index							
S&P 500 Value Index	SMRS Large-Cap Value	\$321.546.796	20.8%	12.2%	18.1%	2.4%	7/31/07
Lipper Large Value  22.4% 13.4% 20.3% 4.0%  SMRS Absolute Return Income Fund \$290,796,996 14.7% 13.9% 18.8% 16.6% 1/31/09 60% S&P 500/40% Barclays AGG 12.7% 10.4% 14.6% 12.5% Lipper Mixed Target Allocation Moderate/Growth Blend 12.3% 8.4% 14.6% 12.6%  Cramer Rosenthal All-Cap \$283,195,809 20.3% 13.2% 20.9% 10.6% 5/31/05 S&P 400 Value/S&P 1500 Blend 20.0% 13.5% 24.4% 10.0% 23.1% 13.3% 24.2% 9.6%  LA Capital Mid-Cap Core \$237,634,706 25.8% 13.4% 24.3% 11.2% 5/31/05 S&P 400 Mid-Cap/S&P 400 Mid-Cap Growth Blend 20.9% 12.6% 24.4% 10.5% Lipper Mid Core 22.4% 12.1% 22.6% 9.2%  Donald Smith & Co. \$228,732,606 19.3% 8.9% 22.3% 9.4% 2/28/07 S&P 600 Value Index 24.4% 12.9% 25.1% 6.7%  Attucks Asset Management \$176,890,862 23.5% 13.6% 21.2% 6.0% 11/30/07 S&P 1500 Super Composite 22.2% 12.7% 20.6% 4.8%  Lipper Mid Value 23.1% 13.3% 24.2% 18.4%  Seizert Capital Partners \$168,495,359 25.8% 16.6% - 20.0% 11/30/07 S&P 1500/S&P 400 Value Blend 22.2% 12.7% 20.6% 4.8%  Bivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/07 S&P 1500 Super Composite 22.0% 14.6% 21.6% 5.7% Lipper Mid Value 22.2% 12.7% 20.6% 4.8%  Bivium Capital Partners \$168,495,359 25.8% 16.6% - 20.0% 11/30/07 S&P 1500 Super Composite 22.0% 14.6% 21.6% 5.7% Lipper Mid Value 22.2% 12.7% 20.6% 4.8%  Bivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/07 S&P 1500 Super Composite 22.2% 12.7% 20.6% 4.8%  Bivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/07 S&P 1500 Super Composite 22.2% 12.7% 20.6% 4.8%  Champlain Mid-Cap Core \$138,985,380 20.5% 13.4% 22.9% 22.9% 4/30/09 S&P 400 Mid-Cap Index 22.4% 12.1% 22.6% 21.4%  Munder Mid-Cap Core \$68,282,659 21.0% 13.3% 22.9% 22.9% 4/30/09 S&P 400 Mid-Cap Index 22.4% 12.1% 22.6% 22.6% 22.6%		<b>*</b>					.,, .
60% S&P 500/40% Barclays AGG Lipper Mixed Target Allocation Moderate/Growth Blend 12.3% 8.4% 14.8% 12.5% Lipper Mixed Target Allocation Moderate/Growth Blend 12.3% 8.4% 14.8% 12.6%  Cramer Rosenthal All-Cap \$283,195,809 20.3% 13.2% 20.9% 10.6% 5/31/05 S&P 400 Value/S&P 1500 Blend Lipper Mid Value 23.1% 13.3% 24.2% 9.6%  LA Capital Mid-Cap Core \$237,634,706 25.8% 13.4% 24.3% 11.2% 5/31/05 S&P 400 Mid-Cap/S&P 400 Mid-Cap Growth Blend Lipper Mid Core  Donald Smith & Co. \$228,732,606 19.3% 8.9% 22.3% 9.4% 2/28/07 S&P 600 Value Index Lipper Small Value 24.4% 12.9% 25.1% 6.7%  Attucks Asset Management \$176,890,862 23.5% 13.6% 21.2% 6.0% 11/30/07 S&P 1500/S&P 400 Value Blend Lipper Multi Core 22.2% 12.7% 20.6% 4.8%  Esizert Capital Partners \$168,495,359 25.8% 16.6% 20.0% 11/30/05 S&P 1500/S&P 400 Value Blend Lipper Mid Value 23.1% 13.3% 24.2% 18.4%  Bivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/07 S&P 1500/S&P 400 Value Blend Lipper Mid Value 22.2% 12.7% 20.6% 4.8%  Champlain Mid-Cap Core \$138,985,380 20.5% 13.4% 22.2% 21.1% 22.6% 21.6%  S&P 400 Mid-Cap Index Lipper Mid Core \$22.4% 12.1% 22.6% 21.4%  Munder Mid-Cap Core \$88,282,659 21.0% 13.3% 22.9% 22.9% 4/30/09 S&P 400 Mid-Cap Index Lipper Mid Core 22.2% 12.7% 20.6% 4.8%							
60% S&P 500/40% Barclays AGG Lipper Mixed Target Allocation Moderate/Growth Blend 12.3% 8.4% 14.8% 12.5% Lipper Mixed Target Allocation Moderate/Growth Blend 12.3% 8.4% 14.8% 12.6%  Cramer Rosenthal All-Cap \$283,195,809 20.3% 13.2% 20.9% 10.6% 5/31/05 S&P 400 Value/S&P 1500 Blend Lipper Mird Value 23.1% 13.3% 24.2% 9.6%  LA Capital Mid-Cap Core \$237,634,706 25.8% 13.4% 24.3% 11.2% 5/31/05 S&P 400 Mid-Cap/S&P 400 Mid-Cap Growth Blend Lipper Mird Core  Donald Smith & Co. \$228,732,606 19.3% 8.9% 22.3% 9.4% 2/28/07 S&P 600 Value Index Lipper Small Value 24.4% 12.9% 25.1% 6.7%  Attucks Asset Management \$176,890,862 23.5% 13.6% 21.2% 6.0% 11/30/07 S&P 1500/S&P 400 Value Blend Lipper Multi Core 22.2% 12.7% 20.6% 4.8%  Esizert Capital Partners \$168,495,359 25.8% 16.6% - 20.0% 11/30/05 S&P 1500/S&P 400 Value Blend Lipper Mird Value 23.1% 13.3% 24.2% 18.4%  Esivium Capital Partners \$168,495,359 25.8% 16.6% - 20.0% 11/30/05 S&P 1500/S&P 400 Value Blend Lipper Mird Value 23.1% 13.3% 24.2% 18.4%  Evilum Capital Partners \$168,495,359 20.0% 14.3% - 20.6% 18.4%  Esivium Capital Partners \$168,495,359 20.0% 12.5% 21.1% 5.1% 11/30/05 S&P 1500/S&P 400 Value Blend Lipper Mird Value 23.1% 13.3% 24.2% 18.4%  Evilum Capital Partners \$168,495,359 20.0% 12.5% 21.1% 5.1% 11/30/05 S&P 1500/S&P 400 Value Blend Lipper Mird Value 23.1% 13.3% 24.2% 18.4%  Evilum Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/05 S&P 1500 Super Composite 22.0% 14.6% 21.6% 5.7% Lipper Multi Core 22.2% 12.7% 20.6% 4.8%  Champlain Mid-Cap Core \$138,985,380 20.5% 13.4% 22.2% 21.1% 2/28/09 S&P 400 Mid-Cap Index 21.2% 13.4% 24.9% 23.6% Lipper Mird Core 22.4% 12.1% 22.6% 22.4%  Munder Mid-Cap Core \$68,282,659 21.0% 13.3% 22.9% 22.9% 4/30/09 S&P 400 Mid-Cap Index 22.4% 12.1% 22.6% 22.6%	SMRS Absolute Return Income Fund	\$290 796 996	14 7%	13 0%	18.8%	16.6%	1/31/09
Lipper Mixed Target Allocation Moderate/Growth Blend  12.3% 8.4% 14.8% 12.6%  Cramer Rosenthal All-Cap \$283,195,809 20.3% 13.2% 20.9% 10.6% 5/31/05 S&P 400 Value/S&P 1500 Blend  Lipper Mid Value 23.1% 13.3% 24.2% 9.6%  LA Capital Mid-Cap Core \$237,634,706 25.8% 13.4% 24.3% 11.2% 5/31/05 S&P 400 Mid-Cap/S&P 400 Mid-Cap Growth Blend  Lipper Mid Core 22.4% 12.1% 22.6% 9.2%  Donald Smith & Co. \$228,732,606 19.3% 8.9% 22.3% 9.4% 2/28/07 S&P 600 Value Index 24.4% 12.9% 25.7% 7.4%  Lipper Small Value 24.4% 12.9% 25.1% 6.7%  Attucks Asset Management \$176,890,862 23.5% 13.6% 21.2% 6.0% 11/30/07 S&P 1500 Super Composite 22.2% 12.7% 20.6% 4.8%  Seizert Capital Partners \$168,495,359 25.8% 16.6% 20.0% 11/30/05 S&P 1500/S&P 400 Value Blend 22.0% 14.3% 20.6% Lipper Mid Value 23.1% 13.3% 24.2% 18.4%  Bivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/05 S&P 1500 Super Composite 22.0% 14.6% 21.6% 5.7%  Lipper Mid Value 22.2% 12.7% 20.6% 4.8%  Seizert Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/05 S&P 1500 Super Composite 22.0% 14.6% 21.6% 5.7% Lipper Mid Value 22.2% 12.7% 20.6% 4.8%  Eivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/05 S&P 400 Mid-Cap Index 22.2% 12.7% 20.6% 4.8%  Champlain Mid-Cap Core \$138,985,380 20.5% 13.4% 22.2% 21.1% 2/28/09 S&P 400 Mid-Cap Index 22.4% 12.1% 22.6% 21.4%  Munder Mid-Cap Core \$68,282,659 21.0% 13.3% 22.9% 22.9% 4/30/09 S&P 400 Mid-Cap Index 21.2% 13.4% 24.9		φ290,790,990					1/31/09
Cramer Rosenthal All-Cap \$283,195,809 20.3% 13.2% 20.9% 10.6% 5/31/05 \$8P 400 Value/S&P 1500 Blend 20.0% 13.5% 24.4% 10.0% 1.0		land					
S&P 400 Value/S&P 1500 Blend       20.0%       13.5%       24.4%       10.0%         Lipper Mid Value       23.1%       13.3%       24.2%       9.6%         LA Capital Mid-Cap Core       \$237,634,706       25.8%       13.4%       24.3%       11.2%       5/31/05         S&P 400 Mid-Cap/S&P 400 Mid-Cap Growth Blend       20.9%       12.6%       24.4%       10.5%         Lipper Mid Core       22.4%       12.1%       22.6%       9.2%         Donald Smith & Co.       \$228,732,606       19.3%       8.9%       22.3%       9.4%       2/28/07         S&P 600 Value Index       28.0%       16.2%       25.7%       7.4%       12.99       25.1%       6.7%         Attucks Asset Management       \$176,890,862       23.5%       13.6%       21.2%       6.0%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.2%       6.0%       11/30/07         Lipper Mid Value       23.1%       13.3%       24.2%       18.4%         Bivium Capital Partners       \$168,495,359       25.8%       16.6%       -       20.0%       11/30/07         S&P 1500/S&P 400 Value Blend       22.0%       14.3%       -       20.6%       11/30/07         S&P 1500	Lipper Mixed Target Allocation Moderate/Growth Bi	ena	12.3%	8.4%	14.8%	12.0%	
Lipper Mid Value  LA Capital Mid-Cap Core \$237,634,706 \$25.8% \$13.4% \$24.3% \$11.2% \$5/31/05 \$\$8P 400 Mid-Cap/\$&P 400 Mid-Cap Growth Blend \$20.9% \$12.6% \$24.4% \$10.5% \$22.4% \$12.1% \$22.6% \$9.2%  Donald Smith & Co. \$228,732,606 \$19.3% \$8.9% \$22.3% \$9.4% \$2/28/07 \$\$8P 600 Value Index \$28.0% \$16.2% \$25.7% \$7.4% \$24.4% \$12.9% \$25.1% \$6.7%  Attucks Asset Management \$176,890,862 \$23.5% \$13.6% \$21.2% \$6.0% \$11/30/07 \$8.P 1500 Super Composite \$22.2% \$12.7% \$20.6% \$4.8%  Seizert Capital Partners \$168,495,359 \$25.8% \$16.6% \$22.0% \$14.3% \$13.3% \$24.2% \$18.4%  Bivium Capital Partners \$151,225,907 \$20.0% \$12.5% \$21.1% \$5.1% \$11/30/07 \$8.P 1500 Super Composite \$22.0% \$14.6% \$21.6% \$5.7% \$22.2% \$12.7% \$20.6% \$4.8%  Bivium Capital Partners \$151,225,907 \$20.0% \$12.5% \$21.1% \$5.1% \$11/30/07 \$8.P 1500 Super Composite \$22.0% \$14.6% \$21.6% \$5.7% \$22.2% \$12.7% \$20.6% \$4.8%  Champlain Mid-Cap Core \$138,985,380 \$20.5% \$13.4% \$22.2% \$21.1% \$22.6% \$21.1% \$22.6% \$21.4%  Munder Mid-Cap Core \$68,282,659 \$21.0% \$13.3% \$22.9% \$22.9% \$24.9%		\$283,195,809					5/31/05
LA Capital Mid-Cap Core \$237,634,706 25.8% 13.4% 24.3% 11.2% 5/31/05 \$8P 400 Mid-Cap/S&P 400 Mid-Cap Growth Blend Lipper Mid Core  Donald Smith & Co. \$228,732,606 19.3% 8.9% 22.3% 9.2%  Donald Smith & Co. \$28,600 Value Index Lipper Small Value  24.4% 12.9% 25.7% 7.4% Lipper Small Value  Attucks Asset Management \$176,890,862 23.5% 13.6% 21.2% 6.0% 11/30/07 \$8P 1500 Super Composite Lipper Multi Core  22.2% 12.7% 20.6% 4.8%  Seizert Capital Partners \$168,495,359 25.8% 16.6% 20.0% 11/30/05 \$8P 1500/S&P 400 Value Blend Lipper Mid Value 23.1% 13.3% 24.2% 18.4%  Bivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.7% Lipper Multi Core  Champlain Mid-Cap Core \$138,985,380 20.5% 13.4% 22.2% 21.1% 22.6% 22.8% 21.1% 22.8% 21.1% 22.8% 22.9% 24.9% 24.9%  Munder Mid-Cap Core \$68,282,659 21.0% 13.3% 22.9% 22.9% 22.9% 4/30/09 \$&P 400 Mid-Cap Index Lipper Mid Core  Champlain Mid-Cap Core \$68,282,659 21.0% 13.3% 22.9% 22.9% 22.9% 4/30/09 \$&P 400 Mid-Cap Index Lipper Mid Core							
S&P 400 Mid-Cap/S&P 400 Mid-Cap Growth Blend Lipper Mid Core  22.4% 12.1% 22.6% 9.2%  Donald Smith & Co. \$228,732,606 19.3% 8.9% 22.3% 9.4% 2/28/07 \$2.8P 600 Value Index 28.0% 16.2% 25.7% 7.4% Lipper Small Value 24.4% 12.9% 25.1% 6.7%  Attucks Asset Management \$176,890,862 23.5% 13.6% 21.2% 6.0% 11/30/07 \$2.2% 12.7% 20.6% 4.8%  Attucks Asset Management \$176,890,862 23.5% 13.6% 21.2% 6.0% 11/30/07 \$2.2% 12.7% 20.6% 4.8%  Seizert Capital Partners \$168,495,359 25.8% 16.6% 20.0% 11/30/05 \$2.2% 12.7% 20.6% 4.8%  Seizert Capital Partners \$168,495,359 25.8% 16.6% 20.6% Lipper Mid Value 23.1% 13.3% 24.2% 18.4%  Bivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/07 \$2.2% 12.7% 20.6% 4.8%  Champlain Mid-Cap Core \$138,985,380 20.5% 13.4% 22.2% 21.1% 2/28/09 \$2.2% 12.7% 20.6% 4.8%  Champlain Mid-Cap Core \$138,985,380 20.5% 13.4% 22.2% 21.1% 2/28/09 \$2.4% 12.1% 22.6% 21.4%  Munder Mid-Cap Core \$68,282,659 21.0% 13.3% 22.9% 22.9% 4/30/09 \$2.24% 12.1% 22.6% 21.4%  Munder Mid-Cap Core \$68,282,659 21.0% 13.4% 24.9% 23.6% Lipper Mid Core	Lipper Mid Value		23.1%	13.3%	24.2%	9.6%	
Lipper Mid Core       22.4%       12.1%       22.6%       9.2%         Donald Smith & Co.       \$228,732,606       19.3%       8.9%       22.3%       9.4%       2/28/07         S&P 600 Value Index       28.0%       16.2%       25.7%       7.4%       7.4%         Lipper Small Value       24.4%       12.9%       25.1%       6.7%         Attucks Asset Management       \$176,890,862       23.5%       13.6%       21.2%       6.0%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%       5.7%         Lipper Multi Core       22.2%       12.7%       20.6%       4.8%         Seizert Capital Partners       \$168,495,359       25.8%       16.6%        20.0%       11/30/05         S&P 1500/S&P 400 Value Blend       22.0%       14.3%        20.6%       13.4%         Lipper Mid Value       23.1%       13.3%       24.2%       18.4%         Bivium Capital Partners       \$151,225,907       20.0%       12.5%       21.1%       5.1%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%       22.2%       12.1%       5.1%       11/30/07 <td< td=""><td>LA Capital Mid-Cap Core</td><td>\$237,634,706</td><td>25.8%</td><td>13.4%</td><td>24.3%</td><td>11.2%</td><td>5/31/05</td></td<>	LA Capital Mid-Cap Core	\$237,634,706	25.8%	13.4%	24.3%	11.2%	5/31/05
Donald Smith & Co. \$228,732,606	S&P 400 Mid-Cap/S&P 400 Mid-Cap Growth Blend		20.9%	12.6%	24.4%	10.5%	
S&P 600 Value Index       28.0%       16.2%       25.7%       7.4%         Lipper Small Value       24.4%       12.9%       25.1%       6.7%         Attucks Asset Management       \$176,890,862       23.5%       13.6%       21.2%       6.0%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%         Lipper Multi Core       22.2%       12.7%       20.6%       4.8%         Seizert Capital Partners       \$168,495,359       25.8%       16.6%        20.0%       11/30/05         S&P 1500/S&P 400 Value Blend       22.0%       14.3%        20.6%       11/30/05         Lipper Mid Value       23.1%       13.3%       24.2%       18.4%         Bivium Capital Partners       \$151,225,907       20.0%       12.5%       21.1%       5.1%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%       11/30/07         Lipper Multi Core       22.2%       12.7%       20.6%       4.8%         Champlain Mid-Cap Core       \$138,985,380       20.5%       13.4%       22.2%       21.1%       2/28/09         S&P 400 Mid-Cap Index       21.2%       12.1%       22.6%	Lipper Mid Core		22.4%	12.1%	22.6%	9.2%	
S&P 600 Value Index       28.0%       16.2%       25.7%       7.4%         Lipper Small Value       24.4%       12.9%       25.1%       6.7%         Attucks Asset Management       \$176,890,862       23.5%       13.6%       21.2%       6.0%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%         Lipper Multi Core       22.2%       12.7%       20.6%       4.8%         Seizert Capital Partners       \$168,495,359       25.8%       16.6%        20.0%       11/30/05         S&P 1500/S&P 400 Value Blend       22.0%       14.3%        20.6%       22.0%       14.4%        20.6%       11/30/05         S&P 1500/S&P 400 Value Blend       23.1%       13.3%       24.2%       18.4%       18.4%         Bivium Capital Partners       \$151,225,907       20.0%       12.5%       21.1%       5.1%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%       12.6%       5.7%       12.6%       5.7%       12.6%       5.7%       12.6%       5.7%       22.2%       12.1%       20.6%       4.8%       11/30/07       3.4%       22.2%       12.1%       2.26%	Donald Smith & Co.	\$228,732,606	19.3%	8.9%	22.3%	9.4%	2/28/07
Attucks Asset Management \$176,890,862 23.5% 13.6% 21.2% 6.0% 11/30/07 S&P 1500 Super Composite 22.0% 14.6% 21.6% 5.7% 20.6% 4.8%  Seizert Capital Partners \$168,495,359 25.8% 16.6% 20.0% 11/30/05 S&P 1500/S&P 400 Value Blend 22.0% 14.3% 20.6% 23.1% 13.3% 24.2% 18.4%  Bivium Capital Partners \$151,225,907 20.0% 12.5% 21.1% 5.1% 11/30/07 S&P 1500 Super Composite 22.0% 14.6% 21.6% 5.7% 22.2% 12.7% 20.6% 4.8%  Champlain Mid-Cap Core \$138,985,380 20.5% 13.4% 22.2% 21.1% 2/28/09 S&P 400 Mid-Cap Index 21.2% 13.4% 24.9% 23.6% 21.4%  Munder Mid-Cap Core \$68,282,659 21.0% 13.3% 22.9% 22.9% 4/30/09 S&P 400 Mid-Cap Index 21.2% 13.4% 24.9% 23.6% 21.9% 24.9% 23.6% 21.9% Lipper Mid Core			28.0%	16.2%	25.7%	7.4%	
S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%         Lipper Multi Core       22.2%       12.7%       20.6%       4.8%         Seizert Capital Partners       \$168,495,359       25.8%       16.6%        20.0%       11/30/05         S&P 1500/S&P 400 Value Blend       22.0%       14.3%        20.6%       18.4%         Lipper Mid Value       23.1%       13.3%       24.2%       18.4%         Bivium Capital Partners       \$151,225,907       20.0%       12.5%       21.1%       5.1%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%       11/30/07         Lipper Multi Core       22.2%       12.7%       20.6%       4.8%       11/30/07         Champlain Mid-Cap Core       \$138,985,380       20.5%       13.4%       22.2%       21.1%       2/28/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       23.6%         Munder Mid-Cap Core       \$68,282,659       21.0%       13.3%       22.9%       22.9%       4/30/09         S&P 400 Mid-Cap Index       21.2%	Lipper Small Value		24.4%	12.9%	25.1%	6.7%	
S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%         Lipper Multi Core       22.2%       12.7%       20.6%       4.8%         Seizert Capital Partners       \$168,495,359       25.8%       16.6%        20.0%       11/30/05         S&P 1500/S&P 400 Value Blend       22.0%       14.3%        20.6%       18.4%         Lipper Mid Value       23.1%       13.3%       24.2%       18.4%         Bivium Capital Partners       \$151,225,907       20.0%       12.5%       21.1%       5.1%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%       11/30/07         Lipper Multi Core       22.2%       12.7%       20.6%       4.8%       11/30/07         Champlain Mid-Cap Core       \$138,985,380       20.5%       13.4%       22.2%       21.1%       2/28/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       23.6%         Munder Mid-Cap Core       \$68,282,659       21.0%       13.3%       22.9%       22.9%       4/30/09         S&P 400 Mid-Cap Index       21.2%	Attucks Asset Management	\$176.890.862	23.5%	13.6%	21.2%	6.0%	11/30/07
Lipper Multi Core       22.2%       12.7%       20.6%       4.8%         Seizert Capital Partners       \$168,495,359       25.8%       16.6%        20.0%       11/30/08         S&P 1500/S&P 400 Value Blend       22.0%       14.3%        20.6%       20.6%       18.4%         Lipper Mid Value       23.1%       13.3%       24.2%       18.4%       11/30/07         Bivium Capital Partners       \$151,225,907       20.0%       12.5%       21.1%       5.1%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%       11/30/07         Lipper Multi Core       22.2%       12.7%       20.6%       4.8%         Champlain Mid-Cap Core       \$138,985,380       20.5%       13.4%       22.2%       21.1%       2/28/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       23.6%         Lipper Mid Core       \$68,282,659       21.0%       13.3%       22.9%       22.9%       4/30/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       24.9%         Lipper Mid Core       22.4%       12.1%       22.6%       22.6%		<b>+</b> · · · · · · · · · · · · · · · · · · ·					,
S&P 1500/S&P 400 Value Blend       22.0%       14.3%        20.6%         Lipper Mid Value       23.1%       13.3%       24.2%       18.4%         Bivium Capital Partners       \$151,225,907       20.0%       12.5%       21.1%       5.1%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%         Lipper Multi Core       22.2%       12.7%       20.6%       4.8%         Champlain Mid-Cap Core       \$138,985,380       20.5%       13.4%       22.2%       21.1%       2/28/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       23.6%       21.4%         Munder Mid-Cap Core       \$68,282,659       21.0%       13.3%       22.9%       22.9%       4/30/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       24.9%       24.9%         Lipper Mid Core       22.4%       12.1%       22.6%       22.6%       22.6%							
S&P 1500/S&P 400 Value Blend       22.0%       14.3%        20.6%         Lipper Mid Value       23.1%       13.3%       24.2%       18.4%         Bivium Capital Partners       \$151,225,907       20.0%       12.5%       21.1%       5.1%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%         Lipper Multi Core       22.2%       12.7%       20.6%       4.8%         Champlain Mid-Cap Core       \$138,985,380       20.5%       13.4%       22.2%       21.1%       2/28/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       23.6%       21.4%         Munder Mid-Cap Core       \$68,282,659       21.0%       13.3%       22.9%       22.9%       4/30/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       24.9%       24.9%         Lipper Mid Core       22.4%       12.1%       22.6%       22.6%       22.6%	Saizert Canital Partners	\$168 <u>4</u> 95 359	25.8%	16.6%		20.0%	11/30/09
Lipper Mid Value       23.1%       13.3%       24.2%       18.4%         Bivium Capital Partners       \$151,225,907       20.0%       12.5%       21.1%       5.1%       11/30/07         S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%         Lipper Multi Core       22.2%       12.7%       20.6%       4.8%         Champlain Mid-Cap Core       \$138,985,380       20.5%       13.4%       22.2%       21.1%       2/28/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       23.6%       21.4%         Munder Mid-Cap Core       \$68,282,659       21.0%       13.3%       22.9%       22.9%       4/30/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       24.9%         Lipper Mid Core       22.4%       12.1%       22.6%       22.6%		Ψ100,400,000					11/30/03
S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%         Lipper Multi Core       22.2%       12.7%       20.6%       4.8%         Champlain Mid-Cap Core       \$138,985,380       20.5%       13.4%       22.2%       21.1%       2/28/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       23.6%         Lipper Mid Core       22.4%       12.1%       22.6%       21.4%         Munder Mid-Cap Core       \$68,282,659       21.0%       13.3%       22.9%       22.9%       4/30/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       24.9%         Lipper Mid Core       22.4%       12.1%       22.6%       22.6%							
S&P 1500 Super Composite       22.0%       14.6%       21.6%       5.7%         Lipper Multi Core       22.2%       12.7%       20.6%       4.8%         Champlain Mid-Cap Core       \$138,985,380       20.5%       13.4%       22.2%       21.1%       2/28/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       23.6%         Lipper Mid Core       \$68,282,659       21.0%       13.3%       22.9%       22.9%       4/30/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       24.9%         Lipper Mid Core       22.4%       12.1%       22.6%       22.6%	Rivium Capital Partners	¢151 225 007	20.0%	12 50/	21 10/	5 10/	11/20/07
Lipper Multi Core       22.2%       12.7%       20.6%       4.8%         Champlain Mid-Cap Core       \$138,985,380       20.5%       13.4%       22.2%       21.1%       2/28/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       23.6%         Lipper Mid Core       22.4%       12.1%       22.6%       21.4%         Munder Mid-Cap Core       \$68,282,659       21.0%       13.3%       22.9%       22.9%       4/30/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       24.9%         Lipper Mid Core       22.4%       12.1%       22.6%       22.6%		\$131,223,907					11/30/01
Champlain Mid-Cap Core \$138,985,380 20.5% 13.4% 22.2% 21.1% 2/28/09 \$&P 400 Mid-Cap Index 21.2% 13.4% 24.9% 23.6% 21.4%   Lipper Mid Core 22.4% 12.1% 22.6% 21.4%    Munder Mid-Cap Core \$68,282,659 21.0% 13.3% 22.9% 22.9% 4/30/09 \$&P 400 Mid-Cap Index 21.2% 13.4% 24.9% 24.9% 24.9% 24.9% 24.9% 22.6% 22.6% 22.6%							
S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       23.6%         Lipper Mid Core       22.4%       12.1%       22.6%       21.4%         Munder Mid-Cap Core       \$68,282,659       21.0%       13.3%       22.9%       22.9%       4/30/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       24.9%         Lipper Mid Core       22.4%       12.1%       22.6%       22.6%	Lipper Multi Core		22.2%	12.7%	20.0%	4.0%	
Lipper Mid Core       22.4%       12.1%       22.6%       21.4%         Munder Mid-Cap Core       \$68,282,659       21.0%       13.3%       22.9%       22.9%       4/30/09         S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       24.9%         Lipper Mid Core       22.4%       12.1%       22.6%       22.6%	·	\$138,985,380					2/28/09
Munder Mid-Cap Core \$68,282,659 21.0% 13.3% 22.9% 22.9% 4/30/09 S&P 400 Mid-Cap Index 21.2% 13.4% 24.9% 24.9% Lipper Mid Core 22.4% 12.1% 22.6% 22.6%	•						
S&P 400 Mid-Cap Index       21.2%       13.4%       24.9%       24.9%         Lipper Mid Core       22.4%       12.1%       22.6%       22.6%	Lipper Mid Core		22.4%	12.1%	22.6%	21.4%	
Lipper Mid Core 22.4% 12.1% 22.6% 22.6%	Munder Mid-Cap Core	\$68,282,659	21.0%	13.3%	22.9%	22.9%	4/30/09
	S&P 400 Mid-Cap Index		21.2%	13.4%	24.9%	24.9%	
	Lipper Mid Core		22.4%	12.1%	22.6%	22.6%	
NorthPointe Small Cap Core \$62,984,674 29.2% 10.9% 22.2% 7.8% 10/31/04	NorthPointe Small Cap Core	\$62,984,674	29.2%	10.9%	22.2%	7.8%	10/31/04
NorthPointe Blended Benchmark 27.8% 15.2% 25.1% 9.4%	·	. ,					
Lipper Small Core 23.9% 12.8% 24.3% 9.5%							
Concentrated All Cap Growth \$38,769,594 12.0% 5/31/13	Concentrated All Cap Growth	\$38,769,594				12.0%	5/31/13
S&P 1500 Super Composite Growth 23.1% 15.2% 21.6% 20.8%		\$50,1 50,00°	23.1%	15 2%	21.6%		5,51,10
Lipper Multi Growth 24.4% 12.8% 21.2% 23.1%							

# STATE OF MICHIGAN RETIREMENT SYSTEMS

## ALTERNATIVE INVESTMENTS REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING
JUNE 5, 2014



Peter A. Woodford, Administrator Alternative Investments Division

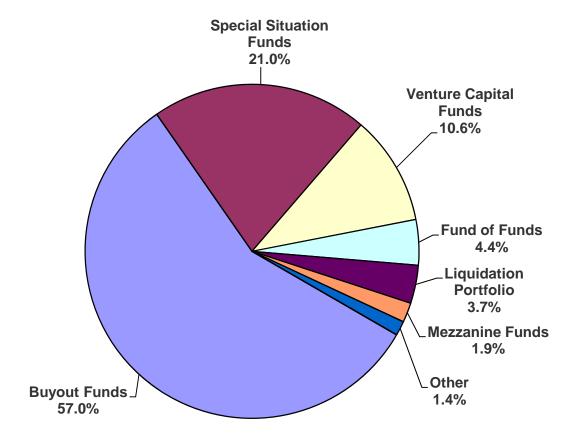
#### **EXECUTIVE SUMMARY**

MPSERS Plan	1-Year	3-Years	5-Years	7-Years	10-Years
Annualized Returns	21.8	15.4	15.2	11.6	14.5
Benchmark Return	35.4	19.2	26.2	10.9	11.6
Peer Median Return	16.3	11.8	11.9	8.6	11.7
Rank vs. Peers	9	10	6	6	24

#### **General Overview**

- The global macro environment continues to be very dynamic. Although GDP is improving, it is not yet back to pre-crises levels. Growth is expected to remain in the 2% to 3% range for the foreseeable future. The Fed has begun to reduce its monthly bond buying program, but has also made it clear that it has decoupled its decision to taper further from explicit inflation and unemployment targets. This leaves open the question how quickly the Fed will tighten monetary policy going forward and raises questions about how the economy and markets will react to potential changes in policy. Meanwhile, Europe is fragmented as some of its economies continue to be fragile and growth in emerging markets has generally slowed. Against this backdrop, equity markets remain at all-time highs and the credit markets are overvalued with yields at historic lows. In addition, the private equity market is fully priced with the average purchase price multiple for leveraged buyouts at 9.0x (transactions > \$500 million) in the U.S. according to Standard & Poor's.
- Looking ahead, overall market sentiment is cautiously optimistic, but significant challenges remain. The disconnect between muted economic fundamentals and robust market pricing will be a challenge for private equity firms looking to deploy capital in 2014. In light of accommodative credit markets and an improving macroeconomy, current market conditions favor asset sellers rather than buyers. Economic risks include an uneven global economic recovery, a fully priced marketplace, and potential tightening of credit due to Fed tapering.
- 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 \$261 million across 46 deals through 3/31/2014.
  - MGCP I \$146 million invested across 30 deals, net IRR 15.6%, MOIC 1.4x
  - o GCMOF \$84 million invested across 10 deals, net IRR 11.8%, MOIC 1.3x
  - MGCP II \$31 million invested across 6 deals (fund in J-curve)
- During the quarter, three new commitments were made: Vista Equity Partners (\$50 million), Accel Growth (\$14 million), and Accel Partners XII (\$7 million). Vista Equity focuses on Enterprise Software/Tech enabled business solutions. The Accel funds focus on early stage/growth opportunities in technology.

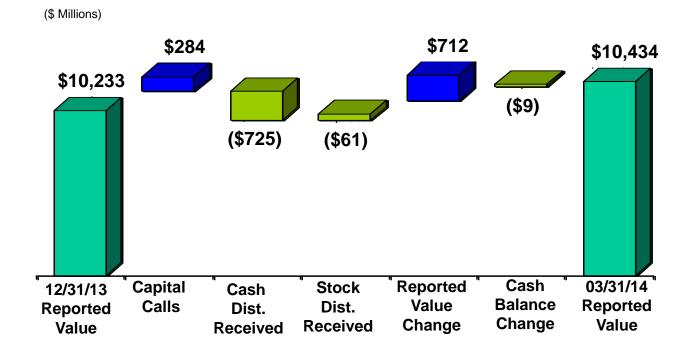




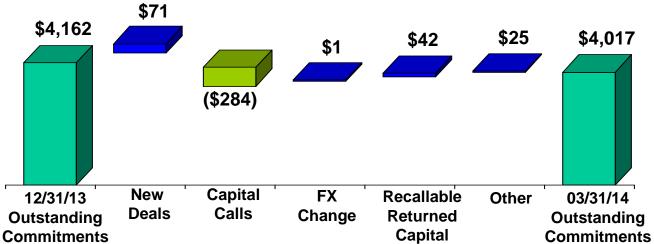
Market Value	e in Millions		
3/31/	14	12/31	/13
\$5,944	57.0%	\$5,772	56.4%
2,188	21.0%	2,235	21.8%
1,108	10.6%	1,023	10.0%
462	4.4%	457	4.5%
391	3.7%	394	3.8%
201	1.9%	200	2.0%
140	1.4%	152	1.5%
\$10,434	100.0%	\$10,233	100.0%
	3/31/ \$5,944 2,188 1,108 462 391 201 140	2,188       21.0%         1,108       10.6%         462       4.4%         391       3.7%         201       1.9%         140       1.4%	3/31/14       12/31         \$5,944       57.0%       \$5,772         2,188       21.0%       2,235         1,108       10.6%       1,023         462       4.4%       457         391       3.7%       394         201       1.9%       200         140       1.4%       152



### **Invested Commitments**



### **Outstanding Commitments** \$42 \$25 \$1

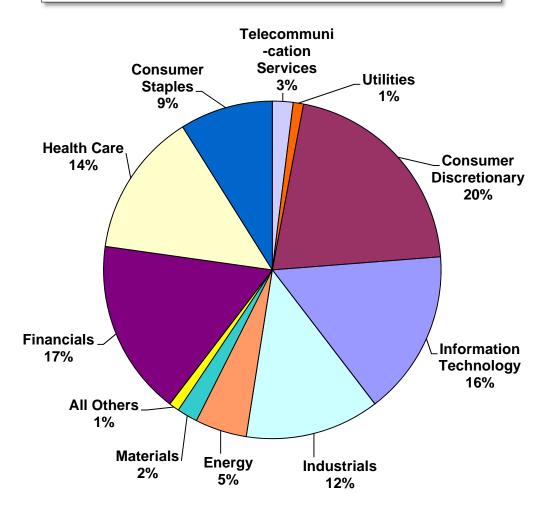


(\$ Millions)

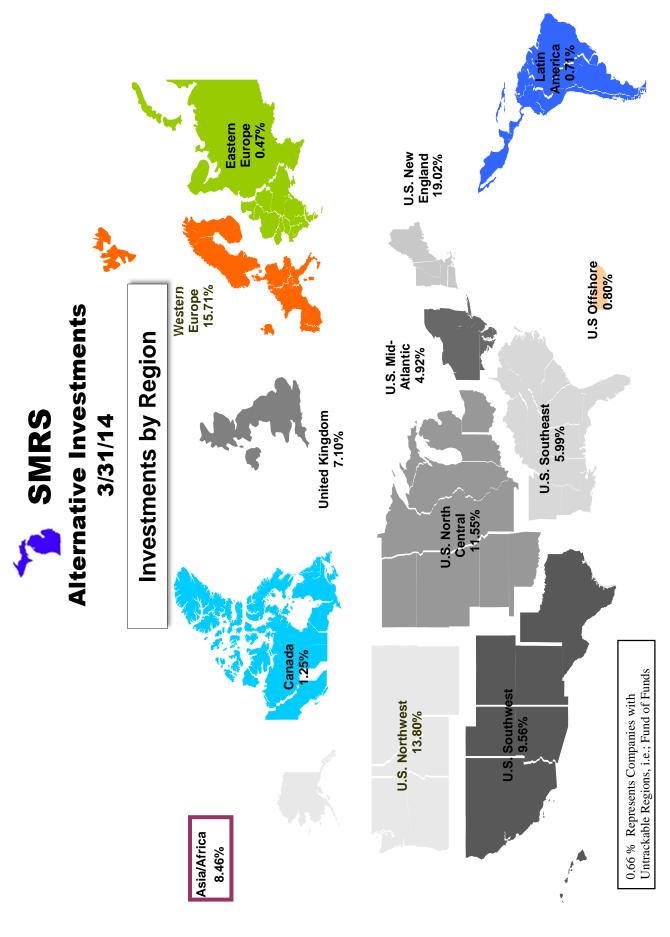


# Alternative Investments 3/31/14

### **Investment by Industry**



These numbers are based on the most recent available General Partner Data; primarily 12/31/13 and are subject to change.



Geographic Report: North America 66%, Europe 23%, Asia 6%, Other 5%



## **Portfolio by Vintage Year**

(\$ Millions)

Asset Vintage	Reported Value	Outstanding Commitment	Total Exposure
1986-98	\$ 76	\$ 23	\$ 99
1999	103	22	125
2000	161	41	202
2001	325	46	371
2002	578	21	599
2003	151	19	170
2004	500	58	558
2005	759	105	864
2006*	2,849	512	3,361
2007	1,788	213	2,001
2008	1,724	541	2,265
2009	171	49	220
2010	206	124	330
2011	285	343	628
2012	491	1,252	1,743
2013	134	577	711
2014	-	71	71
Cash	122	-	122
Act. Small Cap - Stock Dist	11		11
Total	\$ 10,434	\$ 4,017	\$ 14,451

<sup>\*</sup>Liquidation portfolio is 2006 vintage

## **FX Exposure**

	Reported Value	Oustanding Commitment	Total Exposure	Total (USD)
Euro (\$1.37825/ €)	€850	€176	€1,026	1,414
Pound (\$1.66715/£)	£6	£1	£7	12
Yen (\$0.0097102/¥)	¥0	¥0	¥0	0



# Alternative Investments 3/31/14

## **Top 10 Sponsors**

(\$ Millions)

Asset Type	Reported Value	Outstanding Commitment	Total
Credit Suisse Group	\$ 785	\$ 249	\$1,034
Kohlberg Kravis & Roberts	755	190	945
Carlyle Group	488	260	748
Blackstone Capital Partners	455	217	672
Warburg Pincus Capital	490	139	629
Glencoe Capital	526	49	575
TPG Group	453	96	549
Advent International	367	144	511
Green Equity Investors	354	127	481
Apax Partners, Inc.	332_	83	415
Top 10 Total Value	\$5,005	\$1,554	\$6,559

### **Cash Weighted Rates of Return\***

(11 (133)	Current	4.37		- >-	40.14
(Net IRR)	Qtr.	1 Year	3 Year	5 Year	10 Year
Buyout	8.3%	21.5%	14.1%	17.3%	16.5%
Venture Capital	9.8%	23.5%	14.4%	14.6%	10.3%
Special Situations	4.0%	16.8%	11.8%	15.4%	10.7%
Fund of Funds	5.0%	9.3%	8.7%	7.8%	10.4%
Hedge Funds	0.9%	15.6%	-0.6%	9.3%	4.4%
Mezzanine Debt	2.6%	16.1%	13.1%	22.3%	10.5%

<sup>\*</sup>These numbers are based on most recent available General Partner reported data; primarily 12/31/13 and are subject to change.



#### **Net Market Values by Ownership Entity**

	Adjusted Reported Value	Unfunded Commitment	
Accel Europe I, L.P.	\$ 16,856,101	\$ 1	
Accel Europe II	21,604,623	3,300,000	
Accel Growth Fund II, L.P.	8,285,703	3,420,000	
** Accel Growth Fund III, L.P.	-	14,000,000	
Accel IX, L.P.	17,640,546	3,000,000	
Accel VI, L.P.	4,819,436	-	
Accel VII, L.P.	2,503,056	5,000,000	
Accel VIII, L.P.	3,354,588	4,782,499	
Accel VI-S	7,291,836	652,611	
Accel X, L.P.	18,041,119	2,050,000	
Accel XI, L.P.	5,354,321	2,720,000	
** Accel XII, L.P.	-	7,000,000	
Advent Global Private Equity III	406,530	20	
Advent Global Private Equity IV	1,793,848	-	
Advent Global Private Equity V	45,189,373	10,500,000	
Advent International GPE VI-A LP	226,980,881	10,199,980	
Advent International GPE VII-B, L.P.	92,601,622	123,000,000	
Affinity Asia Pacific Fund II, L.P.	111,272	5,288,237	
Affinity Asia Pacific Fund III, L.P.	237,102,504	21,676,129	
Affinity Asia Pacific Fund IV, L.P.	5,657,668	115,827,047	
APA Excelsior IV, L.P.	363,064	-	
APA Excelsior V	172,377	545,625	
Apax Europe Fund VI	90,912,768	2,914,721	
Apax Europe V, L.P.	4,288,537	-	
Apax Europe VII, L.P.	174,282,793	1,292,109	
Apax Excelsior VI	1,546,911	1,614,434	
Apax US VII	37,168,484	417,509	
Apax VIII - A, L.P.	23,629,397	75,921,444	
Apollo Investment Fund VIII, L.P.	3,221,566	96,285,763	
Arboretum Ventures II	4,193,696	630,096	
Arboretum Ventures III, L.P.	8,122,557	5,805,000	
Ares Corporate Opportunities Fund II	31,189,317	11,824,189	
Ares Corporate Opportunities Fund III, LP	81,234,003	15,078,332	
Ares Corporate Opportunities Fund IV, L.P.	22,326,398	76,524,505	
ARGUS Capital Partners	126,384	2,813,672	
Austin Ventures VIII, L.P.	5,491,086	-	
Avenue International Ltd	6,338,588	-	
Avenue Special Situations Fund IV, L.P.	905,108	-	
Avenue Special Situations Fund V, L.P.	2,402,602	-	

	Adjusted Reported Value	Unfunded Commitment
Avenue Special Situations Fund VI (B), L.P.	54,558,819	_
AXA ASF Miller Co-Investment	65,260,359	25,201,187
Axiom Asia Private Capital Fund III, L.P.	5,540,414	28,926,763
Banc Fund VI	8,534,306	
Banc Fund VII	37,553,977	-
Banc Fund VIII	26,153,887	<u>-</u>
Battery Ventures VI, L.P.	4,613,845	-
Battery Ventures VII, L.P.	12,678,117	377,778
Battery Ventures VIII	28,398,758	701,800
BC European Capital IX	51,523,339	50,888,019
BC European Capital VII, L.P.	699,125	-
BC European Capital VIII, L.P.	116,357,033	14,292,452
Berkshire Fund IV, L.P.	238,282	1,898,016
Berkshire Fund V, L.P.	1,104,474	1,900,578
Berkshire Fund VI, L.P.	32,187,611	5,205,752
Berkshire Fund VII, L.P.	111,736,334	9,625,622
Berkshire Fund VIII, L.P.	37,592,850	87,542,783
Blackstone Capital Partners IV	86,501,631	5,344,643
Blackstone Capital Partners V	215,655,262	23,935,811
Blackstone Capital Partners VI, LP	126,693,396	186,768,363
Blackstone Capital Partners V-S	26,017,946	712,476
Bridgepoint Europe IV	69,480,499	8,571,724
Brockway Moran & Partners Fund III	10,147,418	4,465,030
Carlyle Europe Partners	185,140	4,465,030
•	25,420,003	
Carlyle Europe Partners II		5,037,326
Carlyle Europe Partners III Carlyle Partners IV, L.P.	115,930,915	18,060,880
·	80,903,083	16,009,296
Carlyle Partners V L.P.	259,024,447	53,099,056
Carlyle Partners VI, L.P.	6,372,389	167,207,523
Castle Harlan Partners IV	12,709,901	5,647,298
Castle Harlan Partners V	28,004,683	48,882,345
CCMP Capital Investors II	134,521,568	10,851,118
CCMP Capital Investors III, L.P.	3,373,190	46,027,217
Cerberus SMRS Partners, L.P.	23,556,527	76,154,657
Clarus Life Sciences II, L.P.	49,943,325	7,540,000
Clarus Lifesciences I	16,631,864	4,079,460
Clearstone Venture Partners II (idealab)	4,896,200	-
Clearstone Venture Partners III	29,435,300	1,612,000
CM Liquidity Fund, L.P.	-	25,000,000
CMEA Ventures VI	10,521,800	1,575,000
CMEA Ventures VII, L.P.	21,494,398	4,800,000
Coller International Partners IV	15,584,476	9,000,000
Coller International Partners V, L.P.	105,243,958	43,600,000
Coller International Partners VI, L.P.	44,761,841	64,566,482
Crescent Mezzanine Partners VI, L.P.	24,166,900	51,214,521
CSG / DLJ Fund Program II	84,959,666	17,875,860
CSG Fund Investment Program III - 2004	101,147,336	7,640,937

	Adjusted Reported Value	Unfunded Commitment
CSG Fund Investment Program III - 2006	99,983,298	27,058,743
CSG Fund Investment Program V, L.P.	75,316,284	40,729,054
CSG Fund Investment Program VI, L.P.	5,280,583	29,213,419
CSG Seasoned Primary Fund Invest Prog - Partnership Series	95,947,921	107,760,297
CSG Seasoned Primary Fund Invest Prog - Seed Series	294,873,132	17,096,752
DLJ Fund Investment Program I	27,064,145	1,641,173
DLJ Investment Partners II	1,932,601	-
DLJ Investment Partners III	22,902,913	69,659,151
DLJ Merchant Banking Partners III, L.P.	3,980,523	2,796,719
DLJ Merchant Banking Ptrs II, L.P.	1,593,879	1,856,746
Doughty Hanson & Co IV	87,481,914	3,308,704
Doughty Hanson & Co V	117,685,007	40,468,399
Doughty Hanson Co. III L.P.	24,563,091	3,102,822
Dover Street VIII, L.P.	15,988,911	53,325,000
EDF Ventures III	3,061,046	-
Essex Woodlands Health IV	2,948,656	-
Essex Woodlands Health V	8,289,578	-
Essex Woodlands Health Ventures Fund VIII	67,670,670	13,125,000
Essex Woodlands Health VI	15,517,323	687,500
Essex Woodlands Health VII	72,912,206	1,000,000
FirstMark Capital Fund II (fka: Pequot PEFII)	1,309,702	-
FirstMark Capital III (fka: Pequot PEFIII)	2,615,856	272,000
FirstMark Capital IV (fka: Pequot PEFIV)	63,274,280	3,961,386
Flagship Ventures Fund 2004	18,128,608	-
Flagship Ventures Fund 2007, L.P.	47,470,966	525,000
Flagship Ventures Fund IV, L.P.	19,511,122	6,750,000
Fox Paine Capital Fund II, LP	21,911,820	16,024,880
Frontenac VIII	3,053,517	1,800,000
Glencoe Capital Michigan Opportunities Fund, LP	133,522,996	36,539,189
Glencoe Capital Partners II	7,294,840	355,381
Glencoe Capital Partners III	11,431,550	6,120,760
Glencoe Stockwell Fund	272,782,105	-
Glencoe Stockwell Fund II, L.P.	100,713,914	6,447,777
Globespan Capital Partners IV (Jafco)	19,663,206	475,000
Globespan Capital Partners V, LP	44,650,158	6,937,500
Green Equity Investors III	55,359	9,112,215
Green Equity Investors IV	61,862,638	1,136,036
Green Equity Investors V	265,722,746	18,649,339
Green Equity Investors VI, L.P.	26,418,062	98,674,057
Grotech Partners V	262,072	-
Grotech Partners VI	10,488,875	-
GSO Capital Opportunities Fund II, L.P.	9,561,981	31,291,825
H.I.G. Bayside Debt & LBO Fund II, LP	9,426,935	6,266,666
H.I.G. Brightpoint Capital Partners II	592,582	5,255,555
H.I.G. Capital Partners IV, L.P.	20,778,982	1,707,500
H.I.G. Europe Capital Partners L.P.	29,081,825	3,549,739
HarbourVest Int'l III Direct	5,822,444	1,000,000
TIGIDOGI VOOLIILI III DIIOOL	0,022,777	1,000,000

HarbourVest Int'l III Partnership Fund LP		Adjusted Reported Value	Unfunded Commitment
HarbourVest IV Partnership Fund LP         748         600,000           HarbourVest Vartners V - Direct Fund LP         237,914         -           HarbourVest VI Partnership         738,403         300,000           HarbourVest VI Partnership         25,886,867         2,000,000           HarbourVest VI Partnership         25,886,867         2,000,000           Healthcare Venture V         1,176,978         -           Healthcare Venture VIII         5,123,302         262,500           Healthcare Venture VIII         25,482,593         4,700,000           InterWest Partners IX         13,755,105         1,600,000           JAP CO America Technology Fund III         755,538         -           JP Morgan Chase 1998 Pool Participation Fund         103,821         1,604,605           JP Morgan Chase 19992 Opo Pool Participation Fund         1,375,5105         1,600,000           JP Morgan Chase 19992 Opo Pool Participation Fund         1,172,834         1,401,7243           JP Morgan Chase 19992 Opo Pool Participation Fund         1,172,834         1,401,7243           JP Morgan Chase 19992 Opo Pool Participation Fund         1,172,834         4,401,7243           JP Morgan Chase 19992 Opo Pool Participation Fund         1,172,834         4,401,725           JP Morgan Chase 19992 Opo Pool Participat	HarbourVest Int'l III Partnership	4,795,126	1,200,000
HarbourVest V Partnership	·		
HarbourVest V Partnership   8,923,300   750,000   HarbourVest VI Partnership   25,886,867   2,000,000   Healthcare Venture V   1,176,978   - 1   Healthcare Venture V   1,386,111   - 1   Healthcare Venture V   1,386,111   5,123,302   262,500   Healthcare Venture VII   5,123,302   262,500   Healthcare Venture VIII   25,452,593   4,700,000   InterWest Partners IX   13,755,105   1,600,000   JAFCO America Technology Fund III   755,638   - 1   JP Morgan Chase 1998 Pool Participation Fund   103,821   1,600,605   JP Morgan Chase 1998 Pool Participation Fund   13,861,711   5,538,204   Kelso Investment Associates VIII   4,722,948   4,943,155	·		, -
HarbourVest VI - Direct Fund LP	HarbourVest V Partnership		300,000
HarbourVest VI Partnership	•		•
Healthcare Venture V			
Healthcare Venture VI	•		-
Healthcare Venture VIII			-
Healthcare Venture VIII			262.500
InterWest Partners IX			
JAFCO America Technology Fund III         755,638         -           JP Morgan Chase 1998 Pool Participation Fund         103,821         1,604,605           JP Morgan Chase 1999/2000 Pool Participation Fund         1         4,017,243           JP Morgan Partners Global Investors         38,439,390         3,113,676           JPMorgan Global Investors Selldown         31,568,711         5,538,204           Kelso Investment Associates VIII         14,728,946         4,948,315           Kelso Investment Associates VIII         127,439,120         24,421,260           Khosla Ventures III, L.P.         65,474,075         6,750,000           Khosla Ventures IV, L.P.         29,944,934         22,750,000           KKR R 2006 Fund, L.P.         227,539,018         19,398,357           KKR Asian Fund II, L.P.         5,588,996         44,335,448           KKR China Growth Fund         21,337,155         32,261,197           KKR European Fund II         77,646,808         -           KKR European Fund III         101,703,654         -           KKR European Fund III         101,703,654         -           KKR Ke Uropean Fund III         101,703,654         -           KKR Ke Uropean Fund III         4,006,436         307,605           KKR North America Fund XI,			
JP Morgan Chase 1998 Pool Participation Fund         1 03,821         1,604,605           JP Morgan Chase 1999/2000 Pool Participation Fund         1         4,017,243           JP Morgan Partners Global Investors         38,439,390         3,113,676           JP Morgan Global Investors Selidown         31,568,711         5,538,204           Kelso Investment Associates VII         14,728,946         4,948,315           Kelso Investment Associates VIII         127,439,120         24,421,260           Khosla Ventures III, L.P.         65,474,075         6,750,000           KKNS Asia         113,717,357         2,903,287           KKR China Growth Fund         12,897,986         44,335,448           KKR China Growth Fund         12,897,984         15,681,230           KKR European Fund II         77,646,808         -           KKR European Fund III         130,949,790         8,470,279			-
JP Morgan Chase 1999/2000 Pool Participation Fund         1         4,017,243           JP Morgan Partners Global Investors         38,439,390         3,113,676           JPMorgan Global Investors Selldown         31,568,711         5,538,204           Kelso Investment Associates VIII         14,728,946         4,948,315           Kelso Investment Associates VIII         127,439,120         24,421,260           Khosla Ventures III, L.P.         65,474,075         6,750,000           KKR Schall Ventures IV, L.P.         29,944,934         22,750,000           KKR 2006 Fund, L.P.         227,539,018         19,398,357           KKR Asia         113,717,357         2,903,287           KKR Asian Fund II, L.P.         5,588,896         44,335,448           KKR China Growth Fund         21,337,155         32,261,197           KKR European Fund III         76,646,808         -           KKR European Fund III         130,949,790         8,470,279           KKR European Fund LP 1         4,006,436         307,605           KKR Millennium Fund         101,703,654         -           KKR North America Fund XI, L.P.         59,796,703         66,947,157           Lightspeed Venture Partners VII         40,397,842         860,436           Lion Capital Fund II	<u>~.</u>		1.604.605
JP Morgan Partners Global Investors         38,439,390         3,113,676           JPMorgan Global Investors Selldown         31,568,711         5,538,204           Kelso Investment Associates VIII         14,728,946         4,948,315           Kelso Investment Associates VIII         127,439,120         24,421,260           Khosla Ventures III, L.P.         65,474,075         6,750,000           Khosla Ventures IV, L.P.         29,944,934         22,750,000           KKR 2006 Fund, L.P.         227,539,018         19,398,357           KKR Asia         113,717,357         2,903,287           KKR Asian Fund II, L.P.         5,588,896         44,335,448           KKR China Growth Fund         21,337,155         32,261,197           KKR Ez Investors (Annex) Fund         12,897,984         15,681,230           KKR European Fund II         77,646,808         -           KKR European Fund LP 1         4,006,436         307,605           KKR Millennium Fund         101,703,654         -           KKR North America Fund XI, L.P.         59,796,703         66,947,157           Lightspeed Venture Partners VI         9,297,387         3,299,089           Lightspeed Venture Partners VII         40,397,842         860,436           Lion Capital Fund II (HME II)	·	_	
JPMorgan Global Investors Selldown         31,568,711         5,538,204           Kelso Investment Associates VIII         14,728,946         4,948,315           Kelso Investment Associates VIII         127,439,120         24,421,260           Khosla Ventures III, L.P.         65,474,075         6,750,000           Khosla Ventures IV, L.P.         29,944,934         22,750,000           KKR 2006 Fund, L.P.         227,539,018         19,398,357           KKR Asia         113,717,357         2,903,287           KKR Asia         113,717,357         2,903,287           KKR Asia         113,717,357         2,903,287           KKR Asia         113,717,357         2,903,287           KKR Scain Fund II, L.P.         5,588,896         44,335,448           KKR China Growth Fund         12,897,984         15,681,230           KKR European Fund II         77,646,808         -           KKR European Fund III         130,949,799         8,470,279           KKR European Fund LP 1         4,006,436         307,605           KKR Millennium Fund         101,703,654         -           KKR North America Fund XI, L.P.         59,796,703         66,947,157           Lightspeed Venture Partners VI         9,297,387         3,299,089	·	38,439,390	
Kelso Investment Associates VIII         14,728,946         4,948,315           Kelso Investment Associates VIII         127,439,120         24,421,260           Khosla Ventures III, L.P.         65,474,075         6,750,000           Khosla Ventures IV, L.P.         29,944,934         22,750,000           KKR 2006 Fund, L.P.         227,539,018         19,398,357           KKR Asia         113,717,357         2,903,287           KKR Asian Fund II, L.P.         5,588,896         44,335,448           KKR China Growth Fund         21,337,155         32,261,197           KKR E2 Investors (Annex) Fund         12,897,984         15,681,230           KKR European Fund III         77,646,808         -           KKR European Fund LP 1         4,006,436         307,605           KKR Millennium Fund         101,703,654         -           KKR North America Fund XI, L.P.         59,796,703         66,947,157           Lightspeed Venture Partners VII         40,397,842         860,436           Lion Capital Fund I (HME II)         2,256,071         14,024,817           Lion Capital Fund III         40,018,382         5,762,575           Lion Capital Fund III         19,580,682         971,680           Matlin Patterson Global Opportunities Partners         3	_	· · ·	
Kelso Investment Associates VIII         127,439,120         24,421,260           Khosla Ventures III, L.P.         65,474,075         6,750,000           Khosla Ventures IV, L.P.         29,944,934         22,750,000           KKR 2006 Fund, L.P.         227,539,018         19,398,357           KKR Asia         113,717,357         2,903,287           KKR Asia Fund II, L.P.         5,588,896         44,335,448           KKR China Growth Fund         21,337,155         32,261,197           KKR Ez Investors (Annex) Fund         12,897,984         15,681,233           KKR European Fund III         130,949,790         8,470,279           KKR European Fund III         130,949,790         8,470,279           KKR European Fund LP 1         4,006,436         307,605           KKR North America Fund XI, L.P.         59,796,703         66,947,157           Lightspeed Venture Partners VI         9,297,387         3,299,089           Lightspeed Venture Partners VII         40,397,842         860,436           Lion Capital Fund I (HME II)         2,256,071         14,024,817           Lion Capital Fund III, L.P.         61,707,092         33,412,83           Long Point Capital Fund II         19,580,682         971,680           Matlin Patterson Global Opportunities P	-		
Khosla Ventures III, L.P.         65,474,075         6,750,000           Khosla Ventures IV, L.P.         29,944,934         22,750,000           KKR 2006 Fund, L.P.         227,539,018         19,398,357           KKR Asia         113,717,357         2,903,287           KKR Asian Fund II, L.P.         5,588,896         44,335,448           KKR China Growth Fund         21,337,155         32,261,197           KKR E2 Investors (Annex) Fund         12,897,984         15,681,230           KKR European Fund III         77,646,808         -           KKR European Fund III         130,949,790         8,470,279           KKR European Fund LP 1         4,006,436         307,605           KKR Billennium Fund         101,703,654         -           KKR North America Fund XI, L.P.         59,796,703         66,947,157           Lightspeed Venture Partners VII         9,297,387         3,299,089           Lightspeed Venture Partners VII         40,397,842         860,436           Lion Capital Fund I (HME II)         2,256,071         14,024,817           Lion Capital Fund III         44,018,382         5,762,575           Lion Capital Fund III         19,580,682         971,680           Matlin Patterson Global Opportunities Partners         11			
Khosla Ventures IV, L.P.         29,944,934         22,750,000           KKR 2006 Fund, L.P.         227,539,018         19,398,357           KKR Asia         113,717,357         2,903,287           KKR Asian Fund II, L.P.         5,588,896         44,335,448           KKR China Growth Fund         21,337,155         32,261,197           KKR E2 Investors (Annex) Fund         12,897,984         15,681,230           KKR European Fund III         77,646,808         -           KKR European Fund LP 1         4,006,436         307,605           KKR European Fund LP 1         4,006,436         307,605           KKR North America Fund XI, L.P.         59,796,703         66,947,157           Lightspeed Venture Partners VI         9,297,387         3,299,089           Lightspeed Venture Partners VII         40,397,842         860,436           Lion Capital Fund I (HME II)         2,256,071         14,024,817           Lion Capital Fund III, L.P.         61,707,092         33,412,838           Long Point Capital Fund III         15,580,682         971,680           Matlin Patterson Global Opportunities Partners         11         19,580,682         971,680           Matlin Patterson Global Opportunities Partners III         74,816,441         13,062,334			
KKR 2006 Fund, L.P.         227,539,018         19,398,357           KKR Asia         113,717,357         2,903,287           KKR Asian Fund II, L.P.         5,588,896         44,335,448           KKR China Growth Fund         21,337,155         32,261,197           KKR E Investors (Annex) Fund         12,897,984         15,681,230           KKR European Fund III         130,949,790         8,470,279           KKR European Fund LP 1         4,006,436         307,605           KKR Millennium Fund         101,703,654         -           KKR North America Fund XI, L.P.         59,796,703         66,947,157           Lightspeed Venture Partners VII         9,297,387         3,299,089           Lightspeed Venture Partners VII         40,337,842         860,436           Lion Capital Fund I (HME II)         2,256,071         14,024,817           Lion Capital Fund III, L.P.         61,707,092         33,412,838           Long Point Capital Fund II         19,580,682         971,680           Matlin Patterson Global Opportunities Partners II         2,407,618         92,719           Matlin Patterson Global Opportunities Partners III         74,816,441         13,062,334           Menlo Ventures IX, L.P.         12,541,621         -           Menlo Ventures XI, L			
KKR Asia         113,717,357         2,903,287           KKR Asian Fund II, L.P.         5,588,896         44,335,448           KKR China Growth Fund         21,337,155         32,261,197           KKR E2 Investors (Annex) Fund         12,897,984         15,681,230           KKR European Fund III         77,646,808         -           KKR European Fund LP         130,949,790         8,470,279           KKR European Fund LP 1         4,006,436         307,605           KKR Millennium Fund         101,703,654         -           KKR North America Fund XI, L.P.         59,796,703         66,947,157           Lightspeed Venture Partners VII         9,297,387         3,299,089           Lightspeed Venture Partners VIII         40,397,842         860,436           Lion Capital Fund I (HME II)         2,256,071         14,024,817           Lion Capital Fund III, L.P.         61,707,092         33,412,838           Long Point Capital Fund III         19,580,682         971,680           Matlin Patterson Global Opportunities Partners II         2,407,618         92,719           Matlin Patterson Global Opportunities Partners II         74,816,441         13,062,334           Menlo Ventures IX, L.P.         12,541,621         -           Menlo Ventures XI, L.P. <td></td> <td></td> <td></td>			
KKR Asian Fund II, L.P.         5,588,896         44,335,448           KKR China Growth Fund         21,337,155         32,261,197           KKR E2 Investors (Annex) Fund         12,897,984         15,681,230           KKR European Fund II         77,646,808         -           KKR European Fund III         130,949,790         8,470,279           KKR European Fund LP 1         4,006,436         307,605           KKR Millennium Fund         101,703,654         -           KKR North America Fund XI, L.P.         59,796,703         66,947,157           Lightspeed Venture Partners VI         9,297,387         3,299,089           Lightspeed Venture Partners VII         40,397,842         860,436           Lion Capital Fund I (HME II)         2,256,071         14,024,817           Lion Capital Fund III         4,013,382         5,762,575           Lion Capital Fund III, L.P.         61,707,092         33,412,838           Long Point Capital Fund II         19,580,682         971,680           Matlin Patterson Global Opportunities Partners II         2,407,618         92,719           MatlinPatterson Global Opportunities Partners III         74,816,441         13,062,334           Menlo Ventures IX, L.P.         12,541,621         -           Menlo Ventures XI,	•	· · ·	
KKR China Growth Fund         21,337,155         32,261,197           KKR E2 Investors (Annex) Fund         12,897,984         15,681,230           KKR European Fund II         77,646,808         -           KKR European Fund III         130,949,790         8,470,279           KKR European Fund LP 1         4,006,436         307,605           KKR Millennium Fund         101,703,654         -           KKR North America Fund XI, L.P.         59,796,703         66,947,157           Lightspeed Venture Partners VII         9,297,387         3,299,089           Lightspeed Venture Partners VII         40,397,842         860,436           Lion Capital Fund I (HME II)         2,256,071         14,024,817           Lion Capital Fund III         44,018,382         5,762,575           Lion Capital Fund III, L.P.         61,707,092         33,412,838           Long Point Capital Fund II         19,580,682         971,680           Matlin Patterson Global Opportunities Partners         36,897         -           Matlin Patterson Global Opportunities Partners II         2,407,618         92,719           Matlin Patterson Global Opportunities Partners III         74,816,441         13,062,334           Menlo Ventures IX, L.P.         23,495,690         -           Menlo			
KKR E2 Investors (Annex) Fund II       12,897,984       15,681,230         KKR European Fund II       77,646,808       -         KKR European Fund III       130,949,790       8,470,279         KKR European Fund LP 1       4,006,436       307,605         KKR Millennium Fund       101,703,654       -         KKR North America Fund XI, L.P.       59,796,703       66,947,157         Lightspeed Venture Partners VI       9,297,387       3,299,089         Lightspeed Venture Partners VII       40,397,842       860,436         Lion Capital Fund I (HME II)       2,256,071       14,024,817         Lion Capital Fund III       44,018,382       5,762,575         Lion Capital Fund III, L.P.       61,707,092       33,412,838         Long Point Capital Fund II       19,580,682       971,680         Matlin Patterson Global Opportunities Partners       36,897       -         Matlin Patterson Global Opportunities Partners II       7,4816,441       13,062,334         Menlo Ventures IX, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners III, L.P.       36,394,905       600,000	·		
KKR European Fund III       77,646,808       -         KKR European Fund III       130,949,790       8,470,279         KKR European Fund LP 1       4,006,436       307,605         KKR Millennium Fund       101,703,654       -         KKR North America Fund XI, L.P.       59,796,703       66,947,157         Lightspeed Venture Partners VI       9,297,387       3,299,089         Lightspeed Venture Partners VII       40,397,842       860,436         Lion Capital Fund I (HME II)       2,256,071       14,024,817         Lion Capital Fund II       44,018,382       5,762,575         Lion Capital Fund III, L.P.       61,707,092       33,412,838         Long Point Capital Fund II       19,580,682       971,680         Matlin Patterson Global Opportunities Partners       36,897       -         MatlinPatterson Global Opportunities Partners II       2,407,618       92,719         MatlinPatterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures XI, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners III, L.P.       3,794,175       1,850,000 <tr< td=""><td></td><td></td><td></td></tr<>			
KKR European Fund III       130,949,790       8,470,279         KKR European Fund LP 1       4,006,436       307,605         KKR Millennium Fund       101,703,654       -         KKR North America Fund XI, L.P.       59,796,703       66,947,157         Lightspeed Venture Partners VI       9,297,387       3,299,089         Lightspeed Venture Partners VII       40,397,842       860,436         Lion Capital Fund I (HME II)       2,256,071       14,024,817         Lion Capital Fund III       44,018,382       5,762,575         Lion Capital Fund III       15,007       41,415         Long Point Capital Fund II       19,580,682       971,680         Matlin Patterson Global Opportunities Partners       36,897       -         MatlinPatterson Global Opportunities Partners III       2,407,618       92,719         MatlinPatterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners III, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000			-
KKR European Fund LP 1       4,006,436       307,605         KKR Millennium Fund       101,703,654       -         KKR North America Fund XI, L.P.       59,796,703       66,947,157         Lightspeed Venture Partners VII       9,297,387       3,299,089         Lightspeed Venture Partners VIII       40,397,842       860,436         Lion Capital Fund I (HME II)       2,256,071       14,024,817         Lion Capital Fund III       44,018,382       5,762,575         Lion Capital Fund III, L.P.       61,707,092       33,412,838         Long Point Capital Fund II       19,580,682       971,680         Matlin Patterson Global Opportunities Partners        36,897       -         MatlinPatterson Global Opportunities Partners II       2,407,618       92,719         MatlinPatterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners III, L.P.       36,394,905       600,000         Meritech Capital Partners IIII, L.P.       36,394,905       600,000	·		8.470.279
KKR Millennium Fund       101,703,654       -         KKR North America Fund XI, L.P.       59,796,703       66,947,157         Lightspeed Venture Partners VI       9,297,387       3,299,089         Lightspeed Venture Partners VII       40,397,842       860,436         Lion Capital Fund I (HME II)       2,256,071       14,024,817         Lion Capital Fund III       44,018,382       5,762,575         Lion Capital Fund III, L.P.       61,707,092       33,412,838         Long Point Capital Fund II       19,580,682       971,680         Matlin Patterson Global Opportunities Partners       36,897       -         Matlin Patterson Global Opportunities Partners II       2,407,618       92,719         Matlin Patterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures VIII       2,435,690       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000	·		
KKR North America Fund XI, L.P.       59,796,703       66,947,157         Lightspeed Venture Partners VI       9,297,387       3,299,089         Lightspeed Venture Partners VII       40,397,842       860,436         Lion Capital Fund I (HME II)       2,256,071       14,024,817         Lion Capital Fund II       44,018,382       5,762,575         Lion Capital Fund III, L.P.       61,707,092       33,412,838         Long Point Capital Fund II       19,580,682       971,680         Matlin Patterson Global Opportunities Partners       36,897       -         Matlin Patterson Global Opportunities Partners II       2,407,618       92,719         MatlinPatterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures VIII       2,435,690       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000			-
Lightspeed Venture Partners VI       9,297,387       3,299,089         Lightspeed Venture Partners VII       40,397,842       860,436         Lion Capital Fund I (HME II)       2,256,071       14,024,817         Lion Capital Fund II       44,018,382       5,762,575         Lion Capital Fund III, L.P.       61,707,092       33,412,838         Long Point Capital Fund II       15,007       41,415         Long Point Capital Fund II       19,580,682       971,680         Matlin Patterson Global Opportunities Partners       36,897       -         MatlinPatterson Global Opportunities Partners II       2,407,618       92,719         MatlinPatterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures VIII       2,435,690       -         Menlo Ventures XI, L.P.       16,576,702       7,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners III, L.P.       36,394,905       600,000	KKR North America Fund XI, L.P.		66.947.157
Lightspeed Venture Partners VII       40,397,842       860,436         Lion Capital Fund I (HME II)       2,256,071       14,024,817         Lion Capital Fund III       44,018,382       5,762,575         Lion Capital Fund III, L.P.       61,707,092       33,412,838         Long Point Capital Fund I       15,007       41,415         Long Point Capital Fund II       19,580,682       971,680         Matlin Patterson Global Opportunities Partners       36,897       -         MatlinPatterson Global Opportunities Partners III       2,407,618       92,719         MatlinPatterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures VIII       2,435,690       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000			
Lion Capital Fund I (HME II)       2,256,071       14,024,817         Lion Capital Fund II       44,018,382       5,762,575         Lion Capital Fund III, L.P.       61,707,092       33,412,838         Long Point Capital Fund II       15,007       41,415         Long Point Capital Fund II       19,580,682       971,680         Matlin Patterson Global Opportunities Partners       36,897       -         MatlinPatterson Global Opportunities Partners III       2,407,618       92,719         MatlinPatterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures VIII       2,435,690       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000			
Lion Capital Fund II       44,018,382       5,762,575         Lion Capital Fund III, L.P.       61,707,092       33,412,838         Long Point Capital Fund       15,007       41,415         Long Point Capital Fund II       19,580,682       971,680         Matlin Patterson Global Opportunities Partners       36,897       -         MatlinPatterson Global Opportunities Partners III       2,407,618       92,719         MatlinPatterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures VIII       2,435,690       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000	• ,		
Lion Capital Fund III, L.P.       61,707,092       33,412,838         Long Point Capital Fund       15,007       41,415         Long Point Capital Fund II       19,580,682       971,680         Matlin Patterson Global Opportunities Partners       36,897       -         MatlinPatterson Global Opportunities Partners II       2,407,618       92,719         MatlinPatterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures VIII       2,435,690       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000	•	· · ·	
Long Point Capital Fund II       15,007       41,415         Long Point Capital Fund II       19,580,682       971,680         Matlin Patterson Global Opportunities Partners       36,897       -         MatlinPatterson Global Opportunities Partners II       2,407,618       92,719         MatlinPatterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures VIII       2,435,690       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000			
Long Point Capital Fund II       19,580,682       971,680         Matlin Patterson Global Opportunities Partners       36,897       -         MatlinPatterson Global Opportunities Partners II       2,407,618       92,719         MatlinPatterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures VIII       2,435,690       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000	•	· · ·	
Matlin Patterson Global Opportunities Partners       36,897       -         MatlinPatterson Global Opportunities Partners II       2,407,618       92,719         MatlinPatterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures VIII       2,435,690       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000			
MatlinPatterson Global Opportunities Partners II       2,407,618       92,719         MatlinPatterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures VIII       2,435,690       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000	·		-
MatlinPatterson Global Opportunities Partners III       74,816,441       13,062,334         Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures VIII       2,435,690       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000			92.719
Menlo Ventures IX, L.P.       12,541,621       -         Menlo Ventures VIII       2,435,690       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000			
Menlo Ventures VIII       2,435,690       -         Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000	• •		-
Menlo Ventures X, L.P.       23,492,288       4,000,000         Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000			_
Menlo Ventures XI, L.P.       16,576,702       7,000,000         MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000			4,000 000
MeriTech Capital Partners II, L.P.       3,794,175       1,850,000         Meritech Capital Partners III, L.P.       36,394,905       600,000			
Meritech Capital Partners III, L.P. 36,394,905 600,000			
·	·		
	•		

	Adjusted Reported Value	Unfunded Commitment
Michigan Growth Capital Partners II, L.P.	35,066,983	141,992,001
Michigan Growth Capital Partners, LP	152,109,572	30,334,898
MPM BioVentures III	5,242,245	, , -
New Leaf Ventures II, L.P.	23,379,837	3,325,000
Nordic Capital VI, L.P.	45,626,580	, , -
Nordic Capital VII	72,467,732	13,506,023
Nordic Capital VIII, L.P. (Alpha)	3,706,649	50,715,120
North Castle Partners III	3,413,648	416,294
NV Partners II	63,632	39,479
Oak Investment Partners X, L.P.	14,009,026	-
Oak Investments Partners IX, L.P.	3,235,015	-
OCM Opportunities Fund IX, L.P.	36,575,800	39,750,000
OCM Opportunities Fund VII (B), L.P.	11,087,742	25,128,619
OCM Opportunities Fund VII, L.P.	10,930,184	, , -
OCM Opportunities Fund VIII B, L.P.	44,063,800	-
OCM Opportunities Fund VIII, L.P.	29,223,288	-
OCM Principal Opportunities Fund IV	27,632,932	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	129,656,030	12,859,560
Parthenon Investors II	10,246,167	3,186,779
Parthenon Investors III	60,464,533	6,504,836
Parthenon Investors IV, L.P.	9,333,280	28,881,754
Peninsula Capital Fund III	787,786	1,400,000
Peninsula Capital Fund IV	16,260,146	2,201,026
Permira Europe III LP	5,958,524	295,635
Permira Europe IV	114,622,307	8,820,800
Phoenix Equity Partners IV	10,288,567	1,374,729
Primus Capital Fund IV	3,335	500,000
Primus Capital Fund V	9,594,701	712,500
Providence Equity Partners V, L.P.	74,565,417	12,942,709
Providence Equity Partners VI, L.P.	213,803,777	32,705,249
Questor Partners Fund II	15,158,189	5,794,612
RFE Investment Partners VII, LP	27,275,587	173,332
RFE Investment Partners VIII, L.P.	6,743,140	21,617,005
RFE IV Venture	350,845	-
Riverside Capital Appreciation Fund VI, LP	7,416,605	65,759,140
Riverside Micro Cap Fund I, LP	34,771,364	4,098,802
Riverside Micro-Cap Fund II, L.P.	38,345,588	3,830,788
Silver Lake Partners II	13,974,326	3,531,586
Silver Lake Partners III	85,333,053	26,081,850
Silver Lake Partners IV, L.P.	2,119,027	47,422,912
Sprout Capital IX	1,515,925	-
Sprout Capital VIII, L.P.	1	_
TCW Shared Op Fund III	1,767,784	_
TCW Shared Op Fund IV	10,359,575	4,524,779
	. 5,555,515	1,02 1,1 1 0

	Adjusted Reported Value	Unfunded Commitment
TCW Shared Op Fund V	23,609,274	11,653,868
TCW/Crescent Mezzanine Partners III, L.P.	5,954,042	4,552,763
TCW/Crescent Mezzanine Partners IV, L.P.	36,325,173	6,316,434
TCW/Crescent Mezzanine Partners V, LLC	82,556,287	15,558,996
The Huron Fund III, L.P.	27,281,566	8,072,500
The Huron Fund IV, L.P.	1,771,312	32,830,000
The Shansby Group 4	37,449,918	520,829
The Shansby Group 5 (TSG5)	105,179,374	11,426,474
TPG IV (Texas Pacific Group IV)	17,085,756	211,725
TPG Partners III, LP	26,101,918	2,087,002
TPG Partners VI, L.P.	208,291,376	58,539,938
TPG V (Texas Pacific Group V)	201,114,601	34,834,499
Trilantic Capital Partners V (North America) Fund A, L.P.	7,314,100	40,902,799
TSG6, L.P.	54,342,103	83,316,201
Tullis - Dickerson Capital II	6,352,330	-
Tullis - Dickerson Capital III	11,356,218	-
Unitas Asia Opportunity Fund	458,862	-
Unitas Asia Opportunity Fund II	3,177,824	26,604,144
Unitas Asia Opportunity Fund III	48,571,616	46,352,680
** Vista Equity Partners Fund V, L.P.	-	50,000,000
Warburg Pincus Equity Partners, L.P.	9,306,643	-
Warburg Pincus International Partners	25,103,949	-
Warburg Pincus Private Equity IX	86,332,588	-
Warburg Pincus Private Equity VIII, L.P	46,998,068	-
Warburg Pincus Private Equity X, L.P.	260,583,992	-
Warburg Pincus Private Equity XI, L.P.	62,155,422	139,200,000
Weiss, Peck & Greer V (adm: Opus Capital)	1,386,363	386,240
WestAm COREplus Private Equity QP	8,921,355	2,110,761
WestAm Special Private Equity Partners	7,708,024	2,317,427
Wind Point Partners III	2,735,262	-
Wind Point Partners IV	132,862	1,541,518
Wind Point Partners V, L.P.	12,924,983	455,013
Wind Point Partners VI	57,077,940	5,599,137
Wind Point Partners VII	63,511,384	26,604,064
TOTAL Alternative Investments *	\$ 10,301,029,121	\$ 4,016,780,661
Cash	95,711,243	-
Active Small Cap Cah	25,794,444	-
Active Small Cap	11,067,494	<u> </u>
Grand Total	\$ 10,433,602,301	\$ 4,016,780,661

<sup>\*</sup> Total Alternative Investment amounts do not include Cash and Active Small Cap

<sup>\*\*</sup> New Commitments made during quarter reported

# STATE OF MICHIGAN RETIREMENT SYSTEMS

# INTERNATIONAL EQUITY REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING
June 5, 2014



Richard J. Holcomb, CFA, Administrator Quantitative Analysis Division

#### **EXECUTIVE SUMMARY**

#### **Performance**

MPSERS Plan	1-Year	3-Years	5-Years	7-Years	10-Years
Annualized Returns	12.0%	5.4%	17.2%	1.1%	6.2%
Benchmark Return	12.8%	4.6%	13.9%	0.3%	5.9%
Peer Return (> \$1 B)	14.6%	6.4%	16.5%	2.4%	7.1%
Rank vs. Peers	74	71	35	75	74

- The total international equity portfolio continued to underperform its trailing year benchmark due primarily to its exposure to the underperforming emerging markets category and some unfavorable external manager style impacts. In the past year, emerging markets underperformed developed markets by 18% as geopolitical risks have increased and Chinese economic growth has slowed. International portfolio returns did exceed 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, especially noticeable in the past year. Second, the portfolio has maintained a higher allocation to passive strategies, which underperformed active strategies in these time periods. The passive strategies have 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 60% of international developed markets equity exposure. That composite had a return of 1.4% in the first quarter and 18.3% for the year, outperforming its benchmark due to beneficial compositional differences between component index funds, exposure to small-cap indices and enhancements from stock plus assets.
- Active developed market fund managers had a return of +1.1% for the quarter and +17.7% for the year, outperforming their respective benchmarks. Manager returns are well diversified, and reflect a combination of fundamental, quantitative and stock plus fixed income enhancement strategies. The external stock plus strategies are recovering from earlier under-performance, and their strategies are positioned well for a slow U.S. and global growth economic environment.

• Total Emerging Market equity returns were -0.5% for the quarter, and -3.0% for the trailing year. Active exposure to the RAFI fundamental factor subset index was a major contributor to the shortfall to the MSCI EM benchmark, although other external fund managers, both passive and active, underperformed in the difficult investment environment. The Research Affiliates Fundamental Index (RAFI) is a value style strategy with a good, long-term record, but that strategy has proven to have longer time horizon, deep value characteristics with an additional level of political risk sensitivity when used in the emerging markets category. Fifty percent of exposure to Emerging Markets is passive.

#### **Outlook**

- The outlook for international equities is cautiously positive based on gradual improvement in the European economy, improving bank reserve levels, no serious 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 in China, weaker commodity demand, and both geopolitical and internal political problems. Many concerns appear to be discounted, and longer term growth expectations remain 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 outperform the larger cap indices. 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. 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**

- Manage the asset allocation of international equities, moving 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 structures and construction and management of collateral positions.



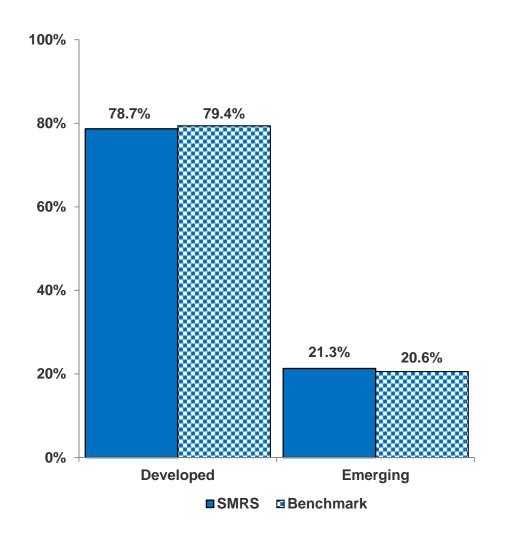
# SMRS INTERNATIONAL EQUITIES 3/31/14

Markets	Indexed	Active	Total Indexed & Active	Percent
Developed Markets - Large/Mid Cap				
Internal Stock Plus Combination SSgA PMI Fund Vanguard Developed Markets Fund PIMCO Stock Plus Fund Wellington Int'l Research Equity Fund Baillie Gifford ACWI Ex US Alpha Fund Marathon-London EAFE Fund	\$1,920 1,047 579	\$1,035 601 365 346		
Sub Total Developed Large/Mid Cap	\$3,546	\$2,347	\$5,892	64.1%
Developed Markets - Small Cap				
SSgA EMI Fund Franklin Templeton Int'l Small Cap Fund MFS Int'l Small Cap Fund SSgA Int'l Small Cap Alpha Fund	\$773	\$202 186 183		
Sub Total Developed Small Cap	\$773	\$570	\$1,343	14.6%
Total Developed Markets	\$4,319	\$2,917	\$7,236	78.7%
Emerging Markets - All Cap				
Vanguard Emerging Mkt Stock Index Fund Internal Emerging Market Equity Fund PIMCO Emerging Market Fund LACM Emerging Market Fund Wellington Emerging Market Fund	\$904 72	\$493 315 174		
Sub Total Emerging All Cap	\$976	\$982	\$1,958	21.3%

TOTAL \$5,294 \$3,899 \$9,193 100.0%

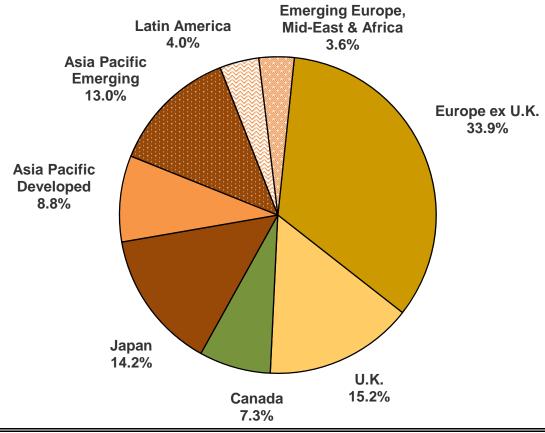
Note: All dollar amounts are expressed in millions.





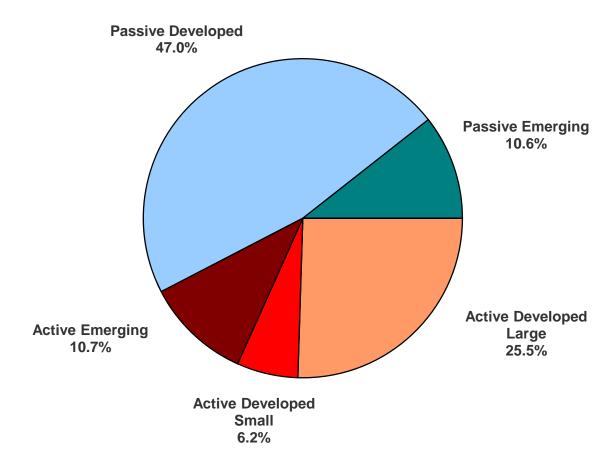
Investments by Region				
	<u>SMRS</u>	MSCI ACWI ex USA		
Developed	78.7%	79.4%		
Emerging	21.3%	20.6%		
Total	100.0%	100.0%		



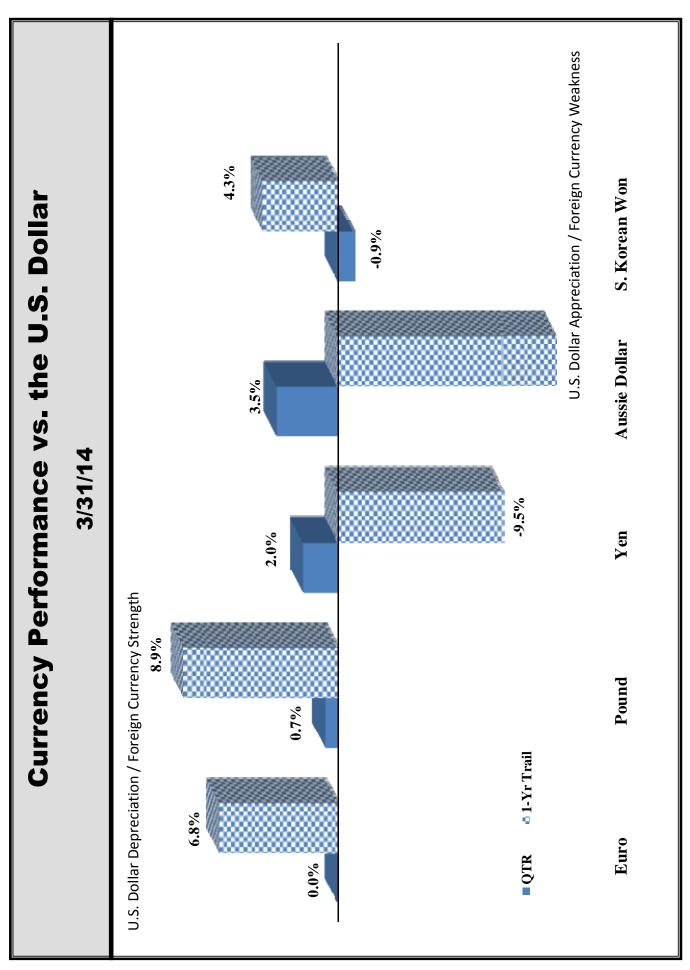


Developed	<b>Benchmark</b>
Europe ex U.K.	33.9%
U.K.	15.2%
Japan	14.2%
Asia Pacific Developed	8.8%
Canada	7.3%
Total Developed	79.4%
Emerging	
Asia Pacific Emerging	13.0%
Latin America	4.0%
Emerging Europe, Mid-East & Africa	3.6%
Total Emerging	20.6%
Total	100.0%

# SMRS International Equity Holdings By Category 3/31/14



N	larket Valu	e in Millions		
	3/31/	<i>'</i> 14	12/31	/13
Active			-	
Developed Large	\$2,347	25.5%	\$2,333	25.6%
Developed Small	570	6.2%	555	6.1%
Emerging	982	10.7%	989	10.8%
<b>Total Active Equity</b>	3,899	42.4%	3,877	42.5%
Passive				
 Developed	\$4,319	47.0%	\$4,265	46.8%
Emerging	975	10.6%	979	10.7%
<b>Total Passive Equity</b>	5,294	57.6%	5,244	57.5%
Total International Equity	\$9,193	100.0%	\$9,121	100.0%



## STATE OF MICHIGAN RETIREMENT SYSTEMS

## FIXED INCOME REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING
June 5, 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	1.0%	4.4%	6.5%	6.0%	5.3%
Barclays Aggregate	-0.1%	3.8%	4.8%	5.0%	4.5%
Peer Median Return	0.6%	4.8%	7.8%	5.3%	4.9%
Rank vs. Peers	37	65	68	31	36

Long-Term Fixed Income returns outperformed its peer group and the Barclays Aggregate
Index on a one year basis by holding shorter duration securities than the index. The returns
also benefitted from an overweight position in corporate bonds and structured securities, which
outperformed U.S. Treasuries.

#### **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 modestly
  adding below investment grade corporate bonds (high yield), 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.
- Assets may be redeployed from the internal strategy to external managers. 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 increased on a year-over-year basis but have declined during the first quarter of the calendar year. The 10-year U.S. Treasury ended the quarter yielding 2.7%, down from 3.0% on 12/31/13. Yields remain near their lowest levels in sixty years and any increase in interest rates may develop over an extended period.
- In addition to the overall interest rate declines, the shape of the yield curve flattened during the quarter. The yield spread between two-year and thirty-year U.S. Treasuries decreased by 45 bps for the quarter to 314 bps. This spread remains elevated by historical standards.
- U.S. investment grade credit spreads have tightened 8 bps to 106 bps during the first quarter of 2014. High Yield spreads tightened 25 bps to 357 bps over the same time period. Both spread levels have tightened dramatically from their 2008-2009 highs, but remain above their prerecession levels.
- Real interest rates on TIPS have returned to positive territory on maturities greater than six years. The real yield on the 10-year TIPS security is 0.4% versus its historical average of 2% to 2.5%.
- While Treasury yields have increased over the past year, the largest risk within the fixed income markets continues to be the threat of further interest rate increases. Accordingly, the portfolio duration remains short of the benchmark as we focus on intermediate securities. We have offset this short position by holding a larger allocation to corporate debt securities.

#### 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. In an attempt to increase return, it appears appropriate to target an allocation of 10% of division assets to below investment grade portfolios on a long-term basis. We will also look to diversify away from the duration risk of our benchmark by looking into other areas that offer attractive spread pick-up while maintaining shorter than benchmark duration.

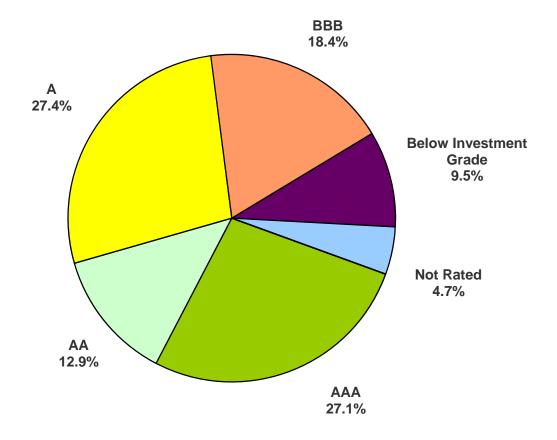


## SMRS LONG-TERM FIXED INCOME 3/31/14

	Amount	% of Total
Core	(in millions)	
1.750	<b>A</b> 4 0=0	
LTFID Internal	\$4,673	
Pyramis	253	
Dodge & Cox	237	
Loomis Core Plus	104	
Ambassador Capital Management	55	
Sub Total	\$5,323	77.5%
Credit		
	<b>.</b>	
Prudential	\$443	
Sub Total	\$443	6.5%
Securitized Debt		
Dringing Clabel	<b>C</b> 044	
Principal Global	\$311	
Met West Securitzed Ops	376	
Sub Total	\$687	10.1%
High Yield		
Columbia Management	\$207	
Prudential High Yield	204	
Sub Total	\$411	6.0%
TOTAL	\$6,864	100.0%



## Total U.S. Long-Term Fixed Income 3/31/14

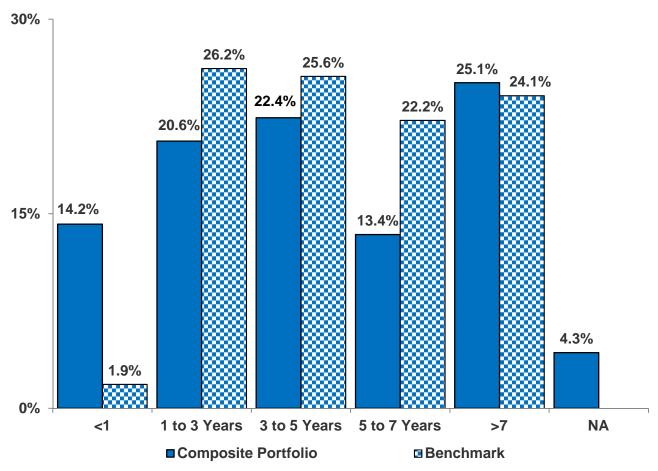


Market Value in Millions							
		3/31/14		12/31	1/13		
	Assets	Percent	Assets	Percent			
AAA	\$1,862	27.1%	71.6%	\$1,617	24.1%		
AA	885	12.9%	5.0%	427	6.4%		
Α	1,883	27.4%	11.4%	2,094	31.1%		
BBB	1,262	18.4%	11.9%	1,448	21.5%		
Not Rated	324	4.7%	0.1%	506	7.5%		
Below Investment Grade	648	9.5%	0.0%	634	9.4%		
Total Investments	\$6,864	100.0%	100.0%	\$6,726	100.0%		

Benchmark: Barclays US Aggregate



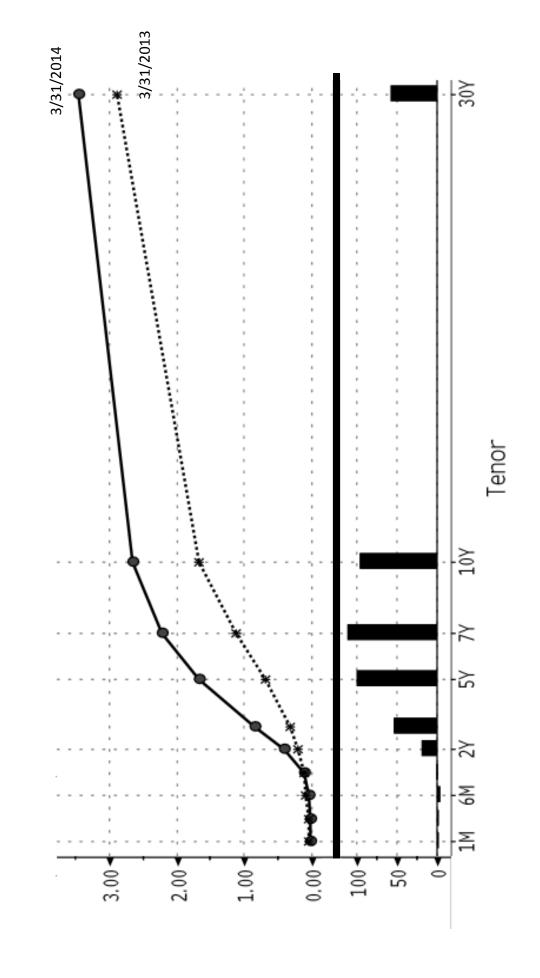
# Duration Distribution Fixed Income Composite Versus Benchmark 3/31/14



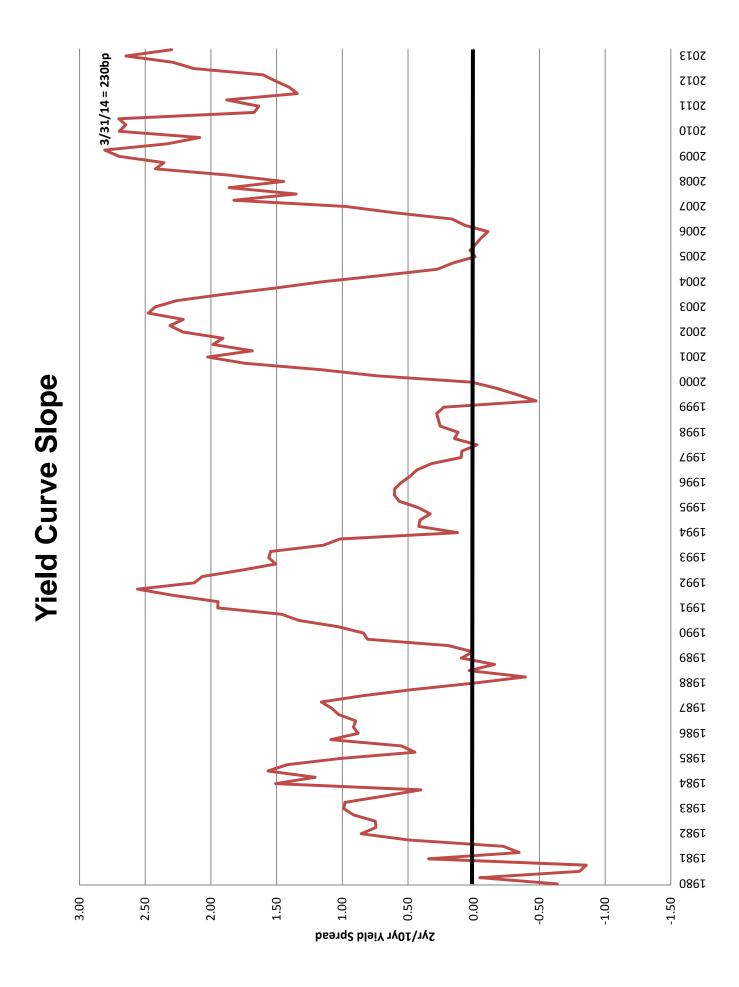
Source: Factset

Market Value in Millions						
Duration	Assets	Portfolio Weight	Benchmark Weight			
<1	\$974	14.2%	1.9%			
1 to 3 Years	1,415	20.6%	26.2%			
3 to 5 Years	1,536	22.4%	25.6%			
5 to 7 Years	923	13.4%	22.2%			
>7	1,724	25.1%	24.1%			
NA	292	4.3%	0.0%			
Total	\$6,864	100.0%	100.0%			

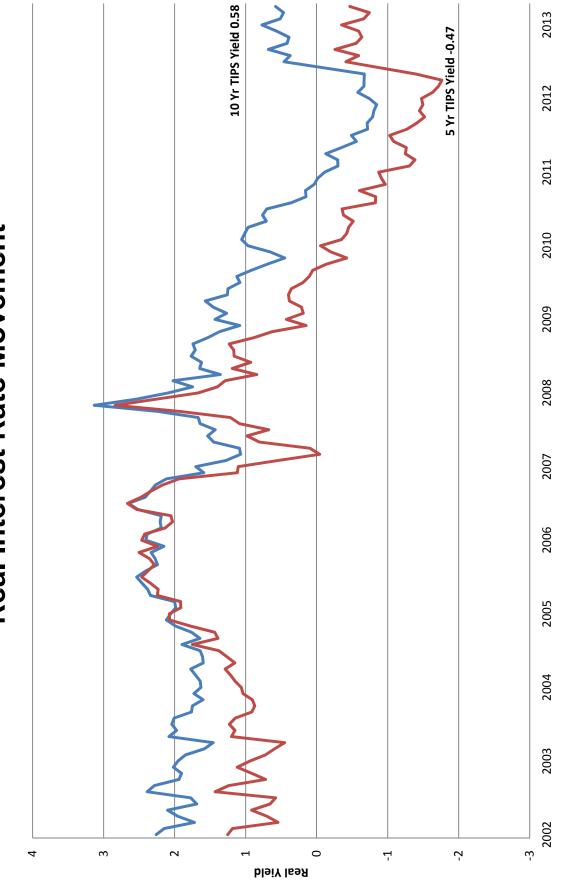
U.S. Yield Curve Movement



Source: Bloomberg

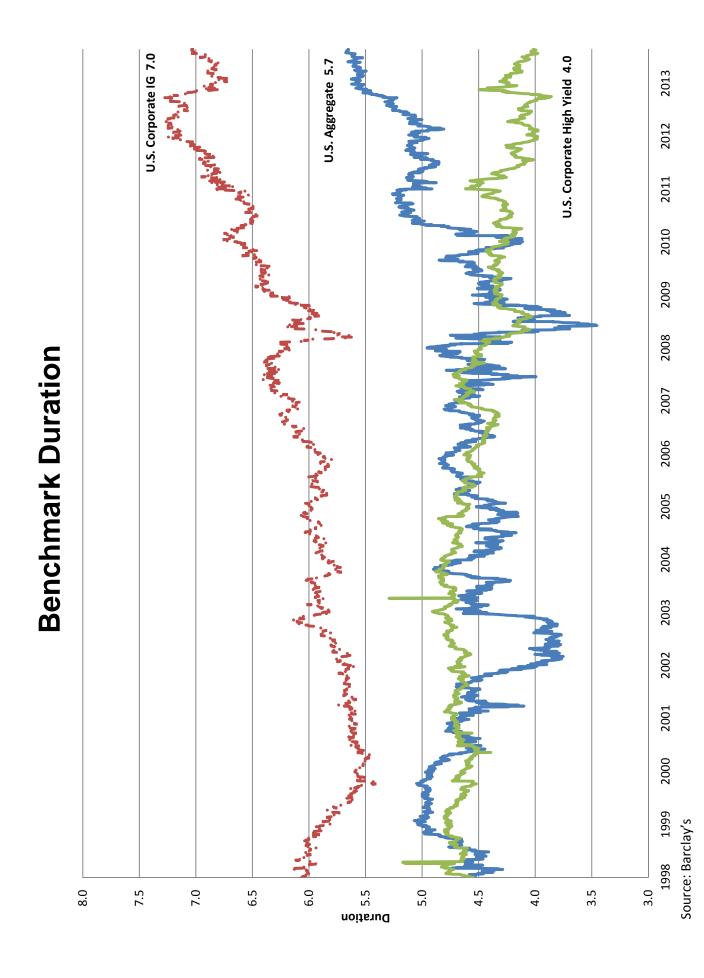


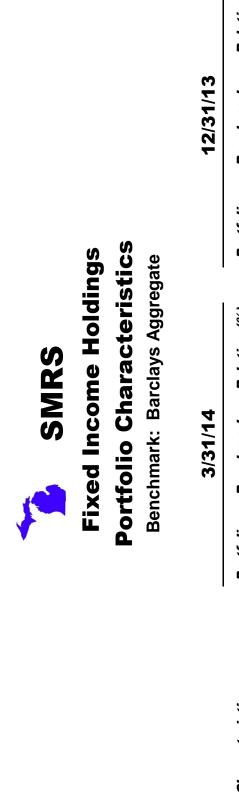




Source: Bloomberg

Source: Barclay's





		100			12/31/13	
Characteristic	Portfolio	Benchmark	Relative (%)	Portfolio	Benchmark	Relative (%)
Maturity (Yrs)	5.6	7.1	78.9	5.2	7.0	74.3
Maturity (Yrs) w/Cash Equiv.	5.4	7.1	76.1	5.1	7.0	72.9
Duration (Yrs)	4.7	5.4	87.0	4.3	5.3	81.1
Duration (Yrs) w/Cash Equiv.	4.6	5.4	85.2	4.3	5.3	81.1
Coupon (%)	4.1	3.4	120.6	4.1	3.4	120.6
Yield to Maturity (%)	2.4	2.3	104.3	2.4	2.4	100.0
Moody's Quality	A-1	AA-2		A-1	AA-2	
S&P Quality	<b>A</b> +	AA		<b>+</b>	AA	

## STATE OF MICHIGAN RETIREMENT SYSTEMS

## ABSOLUTE AND REAL RETURN REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING
June 5, 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	11.1%	6.1%	10.7%	NA	NA
HFRI FOF Conservative*	7.3%	2.7%	4.6%	1.0%	2.7%

<sup>\*</sup>One month lag on the index

#### Strategy Overview

- The strategy of the Absolute Return portfolio is to further diversify the plan's holdings by contributing returns above investment grade fixed income with lower volatility than the equity portfolio.
- Arbitrage Event-driven managers delivered gains from event-oriented equities, restructured equities, and distressed credit, while merger arbitrage remained a modest contributor as allocations to the strategy were relatively low during the period. Fixed income arbitrage managers registered gains in the quarter, with significant contributions from opportunities in international yield curves and structured credit positions.
- Credit/Distressed Legacy restructurings and liquidations performed well during the quarter as management teams and trustees took steps to monetize assets, resolve legal claims and prepare companies for sale. With default rates expected to stay low for some time, managers continue to look for event-oriented situations in the U.S. and Europe, while remaining disciplined in their underwriting.
- Long/Short Equity The long/short allocation delivered a gain for the quarter. Managers
  realized gains in healthcare and enterprise-focused technology companies as well as
  energy and industrial companies. Performance from positions in consumer-oriented
  technology, financials, and media was mixed during the quarter as investors became
  concerned about the rate of future growth for these companies.
- During the quarter, no new investments were made in the Absolute Return Portfolio.

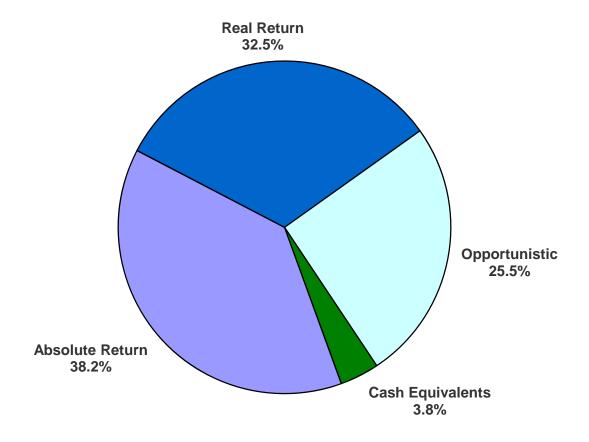
#### **Real Return and Opportunistic**

MPSERS Plan	1-Year	3-Years	5-Years	7-Years	10-Years
Real Return and Opport.	21.7%	9.8%	NA	NA	NA
Custom Benchmark	7.3%	7.5%	NA	NA	NA

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

- The opportunistic allocation had a strong quarter due to a positive market response to an initial public offering of a Twitter in the portfolio.
- Senior Secured Credit Performing non-investment grade credit managers delivered modest gains as investors processed news of future increases in rates and closely monitored tensions between Russia and the Ukraine. The S&P/LSTA Leveraged Loan Index and Merrill Lynch U.S. High Yield Master II Index were up 1.2% and 3.0% respectively, for the quarter. Technical support remained strong through the period as CLO issuance made up for slowing demand in retail loan funds, and demand outpaced the new supply.
- Direct Lending Capital calls slowed during the quarter as activity during the first quarter of each year tends to be more moderate. 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, three new commitments were closed: Apollo Structured Credit Recovery Fund III for \$100 million (structured credit); Ridgewood Energy Oil & Gas Fund II Co-Investment for \$25 million (U.S. Energy); Varo Co-investment Fund for \$4 million (International Energy).

# SMRS Absolute, Real Return and Opportunistic 3/31/14



	Market Val	ue in Millions	3	
	3/31/	/14	12/31	/13
Absolute Return	\$2,557	38.2%	\$2,432	43.7%
Real Return	2,173	32.5%	1,940	34.9%
Opportunistic	1,706	25.5%	1,166	20.9%
Cash Equivalents	251	3.8%	30	0.5%
Total Investments	\$6,687	100.0%	<u>\$5,568</u>	100.0%



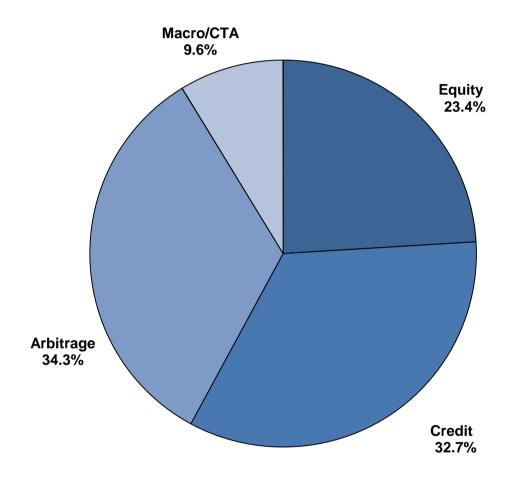
## **Net Market Values by Entity**

	Net Market Value
Absolute Return Capital Partners, L.P.	\$43,989,150
Apollo Offshore Credit Strategies Fund Ltd.	141,337,035
Brevan Howard Multi-Strategy Fund, L.P.	105,455,589
Drawbridge Opportunities Fund	165,137,409
Elliott International Limited	37,534,008
* EnTrust White Pine Partners L.P.	319,377,018
FrontPoint Multi-Strategy Fund Series A, L.P.	2,058,174
MP Securitized Credit Master Fund, L.P.	60,307,366
* Sand Hill, LLC	1,270,302,393
Spartan Partners L.P.	38,752,345
* Tahquamenon Fund L.P.	368,735,381
Total Market Value	\$2,552,985,867

<sup>\*</sup> Fund of Funds.



## **Investments By Strategy**



Strategy Breakdown					
Underlying Funds:	113	Median Position Size:	0.4%		
Strategies:	4	Average Position Size:	0.9%		
Relationships:	11	Largest Position Size:	6.5%		



## **Net Market Value by Entity**

Net Market Value by Littly				
			Unfunded	
		Net Market Value	<u>Commitment</u>	
*	Abernathy Fund I, LLC	\$ 244,147,588	\$66,038,075	
	Apollo Credit Opportunities Fund III LP	43,058,586	57,460,625	
	Apollo European Principal Finance Fund II	28,541,155	24,949,472	
	Apollo Financial Credit Investments Fund II	180,980,708	217,512,227	
	Apollo Offshore Credit Fund Ltd	464,710,207		
	Apollo Offshore Structured Credit Recovery Fund II	63,908,579		
**	Apollo Offshore Structured Credit Recovery Fund III	10,000,000	90,000,000	
	Carlyle Intl Energy Partners LP	6,232,511	43,672,089	
	Commodity Holdings	241,177,730		
	Content Holdings LLC	190,559,626		
	Elegantree Fund SPC	2,123,070	48,000,000	
	Emerald	28,075,049		
	Energy Recapitalization and Restructuring Fund LP	42,899,547	86,981,311	
	ERR Michigan Holdings LP	7,441,431		
*	Fairfield Settlement Partners, LLC	45,639,295	53,781,467	
	Fortress MSR Opportunities Fund I A LP	115,329,567	73,059,210	
	Galaxie Ave. Partners, LLC	99,900,000		
	Highbridge Principal Strategies - Senior Loan Fund II	741,124		
	Highbridge Principal Strategies - Specialty Loan Fund III	93,314,385	59,511,069	
	Hopen Life Sciences Fund II	2,957,283	6,900,000	
	JP Morgan Global Maritime Investment Fund LP	34,800,589	90,961,732	
	KANG Fund LP	52,941,552	146,666,667	
	KKR Lending Partners LP	87,941,161	32,917,565	
	Lakewater LLC, Series 1	166,029,384	38,660,719	
	Lakewater LLC, Series 2	185,993,651	82,266,185	
	Lakewater LLC, Series 3	85,170,446		
	Lakewater LLC, Series 4	13,883,053	42,763,607	
***	Orion Mine Finance Fund I LP	54,213,157	76,869,591	
	Renaissance Venture Cap Fund II LP	1,994,126	22,750,000	
**	REOG Fund II Coinvest LP	454,219	24,545,781	
	Ridgewood Energy Oil & Gas II	14,298,256	107,075,983	
	SJC Direct Lending Fund I, LP	109,113,073		
	SJC Direct Lending Fund II, LP	97,389,506	289,735,952	
*	Social Network Holdings, LLC	927,730,125		
**	Varo Coinvestment LP	3,668,393	3,831,607	
	Total Market Value	\$3,747,358,134	\$1,786,910,934	

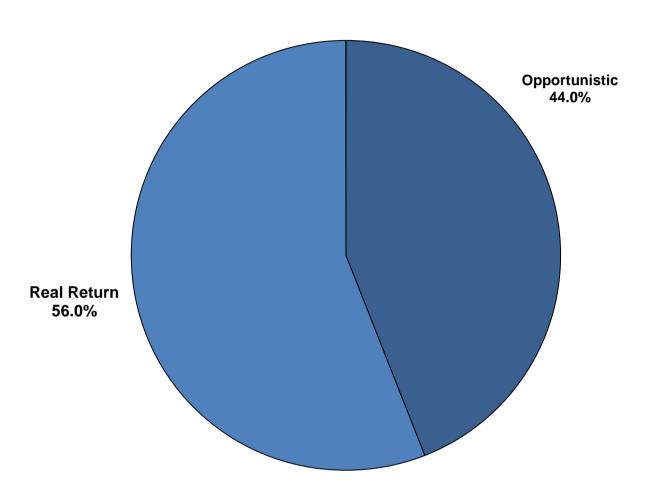
<sup>\*</sup> Fund of Funds.

<sup>\*\*</sup> New commitment made during quarter reported.

<sup>\*\*\*</sup> Fund name change (Previously Red Kite Mine Finance Fund II)



## **Investments By Strategy**



Investment Strategy				
Opportunistic:	\$1,649,342,917			
Real Return:	\$2,098,015,217			

## STATE OF MICHIGAN RETIREMENT SYSTEMS

## REAL ESTATE AND INFRASTRUCTURE REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING
JUNE 5, 2014



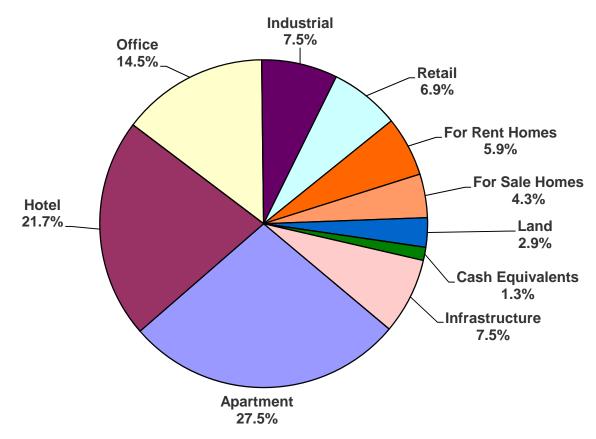
Brian C. Liikala, Administrator Real Estate and Infrastructure Division

### **EXECUTIVE SUMMARY**

MPSERS Plan	1-Year	3-Years	5-Years	7-Years	10-Years
Annualized Return	13.4	11.1	2.5	1.8	5.6
NCREIF NPI	9.8	10.3	6.5	3.8	7.4
Peer Median Return	11.9	11.1	4.6	1.1	5.6
Rank vs. Peers	26	51	74	36	47

- Total REID value was \$5.4 billion with a total one-year return of 13.4%. Valuations increased this quarter for the majority of the portfolio due to strong rent growth in apartments, room rate growth in hospitality, and increased occupancy in industrial properties. On-campus medical office properties also increased in value and are becoming attractive to investors for resilience to economic downturn.
- High quality, cash flowing, core real property assets have appreciated as investors seek
  current yield, and protection from volatility. 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 nontraded 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 3 basis points (bps) from prior quarter and now stand at 86 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.
- REID closed two infrastructure investments; a \$35 million commitment to ASF VI Infrastructure, a global closed end fund of funds seeking secondary opportunities at a discount. Also a \$45 million investment to ASF Como Co-Investment, a purchase of an existing limited partners interest in an European infrastructure fund at a discount to net asset value. Both funds are managed by Ardian Investment Management.

# SMRS Real Estate and Infrastructure Holdings By Property Type 3/31/14

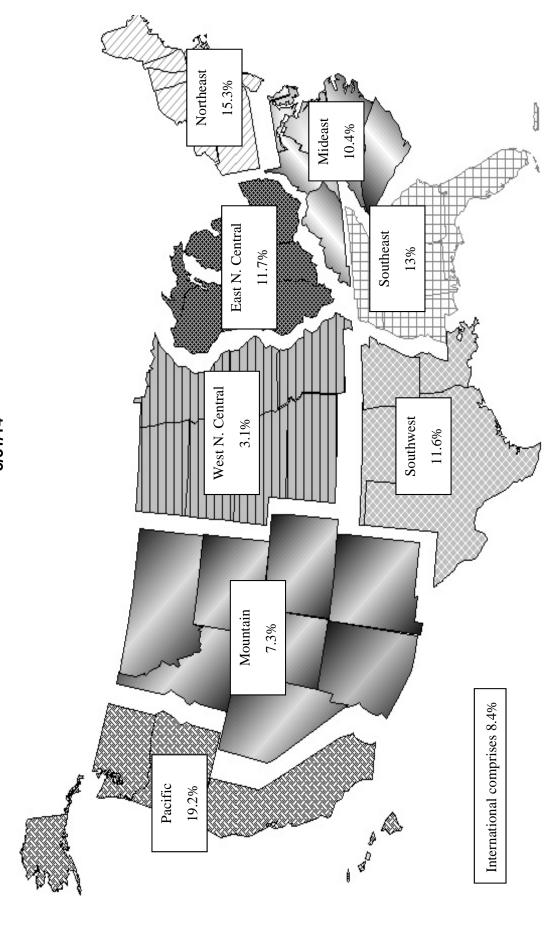


Market Value in Millions						
	3/31/	<i>'</i> 14	12/31/13			
Apartment	\$1,505	27.5%	\$1,417	27.1%		
Hotel	1,190	21.7%	1,134	21.7%		
Office	791	14.5%	793	15.1%		
Infrastructure	412	7.5%	345	6.6%		
Industrial	412	7.5%	432	8.3%		
Retail	371	6.9%	362	6.9%		
For Rent Homes	323	5.9%	300	5.7%		
For Sale Homes	234	4.3%	258	4.9%		
Land	159	2.9%	140	2.7%		
Senior Living	0	0.0%	6	0.1%		
	\$5,397	98.7%	\$5,187	99.1%		
Cash Equivalents	71	1.3%	48	0.9%		
Total Investments	\$5,468	100.0%	\$5,235	100.0%		



# Real Estate by Region

Based on Net Market Value (excludes cash & cash equivalents) 3/31/14



Geographic regions defined by NCREIF, whose property index composition is: Pacific 29.4%, Mountain 5.7%, West N. Central 1.7%, Southwest 10.9%, East N. Central 7.3%, Southeast 10.2%, Northeast 20.9%, Mideast 13.9%



## **Top Ten Advisors or Companies**

Advisor or Company		Net Market Value
MWT Holdings, LLC	\$	969,499,160
Clarion Partners (formerly ING Clarion)		945,211,599
Blackstone Group		521,816,982
Kensington Realty Advisors, Inc.		295,835,255
Principal Real Estate Investors		246,407,562
Five Star Realty Partners, LLC		226,825,148
Bentall Kennedy LP		217,143,498
CIM Group, Inc.		207,133,013
L&B Realty Advisors		130,278,855
Morgan Stanely Real Estate		127,888,261
	Φ	0.000.000.000
	\$	3,888,039,333

## Occupancy by Property Type

	<b>Apartment</b>	Office	Industrial	Retail	Hotel
SMRS Portfolio	94.0%	88.7%	88.4%	92.7%	64.4%
National Average	91.8%	85.1%	88.7%	93.2%	61.5%



## **Real Estate**

## Net Market Values by Ownership Entity 3/31/14

	Net Market Value	Unfunded Commitment
224.2		
801 Grand Avenue Capital, LLC	\$ 99,831,712	\$ 0
AGL Annuity Contract GVA 0016	283,302,101	2.700.224
Avanath Affordable Housing I, LLC Beacon Capital Strategic Partners IV, LP	19,708,849 14,179,228	2,788,334
Beacon Capital Strategic Partners V, LP	13,780,620	4,500,000
BlackRock Retail Opportunity Fund, LLC	10,799,107	4,300,000
Blackstone R/E IH3 Co-Inv Partners	322,825,858	0
Blackstone Real Estate Partners V, LP	55,934,272	2,208,906
Blackstone Real Estate Partners VI, LP	110,966,448	4,409,717
Capri Select Income II	5,645,835	, , 0
Capri Urban Investors, LLC	21,530,745	0
CIM Fund III, LP	95,020,681	6,933,371
CIM Urban REIT, LLC	87,033,667	0
CIM VI (Urban REIT), LLC	25,078,665	0
City Lights Investments, LLC	119,190,615	0
Cobalt Industrial REIT	50,288,763	0
Cobalt Industrial REIT II	68,357,379	0
CPI Capital Partners N.A., LP	5,141,463	0
CPI Capital Partners N.A., Secondary, LP	14,514,018	0
Devon Real Estate Conversion Fund, LP Domain Hotel Properties, LLC	5,879,232 780,246,902	0
Dynamic Retail Trust	52,735,572	0
Gateway Capital R/E Fund II, LP	86,686,517	2,048,500
Great Lakes Property Group Trust	281,900,115	2,040,000
Invesco Mortgage Recovery Feeder Fund	24,838,532	3,121,228
JBC Opportunity Fund III, LP	17,153,997	0
KBS/SM Fund III, LP	61,654,473	0
L & B Medical Properties Partners, LP	2,403,119	4,000,000
Landmark Real Estate Partners V, LP	28,504,002	3,900,000
LaSalle Asia Opportunity Fund II, LP	4,854,105	0
LaSalle Asia Opportunity Fund III, LP	34,260,680	4,000,000
Lion Industrial Trust	127,237,844	0
Lion Mexico Fund, LP	37,726,853	0
Lowe Hospitality Investment Partners	1,224,366	0
MERS Acquisitions, Ltd.	127,875,735	12 022 112
MG Alliance, LLC Morgan Stanley R/E Fund V - International	9,133,727 5,970,116	13,932,112 0
Morgan Stanley R/E Fund V - International	40,641,611	0
Morgan Stanley R/E Fund V - U.S.	10,021,171	Ő
Morgan Stanley R/E Special Situations Fund III	71,255,362	0
MWT Holdings, LLC	969,499,160	32,000,000
Northpark-Land Associates, LLLP	26,925,649	, , 0
Paladin Realty Brazil Investors III (USA), LP	36,433,850	0
Principal Separate Account	146,575,850	0
Proprium RE Spec Situations Fund LP	2,726,553	8,305,452
Rialto Real Estate Fund, LP	40,794,628	8,277,006
Rialto Real Estate Fund II, LP	26,112,230	43,306,004
Rialto Mezzanine Partners Fund	49,644,590	25,000,000
SM Brell II, LP	61,955,478	0
Stockbridge Real Estate Fund II-C, LP Strategic LP	36,256,626 191,967,754	0 52,512,654
Trophy Property Development LP	62,121,998	8,908,100
True North High Yield Investment Fund II	36,338,207	7,213,251
Venture Center, LLC	35,355,885	7,210,201 N
Western National Realty Fund II, LP	26,258,114	Õ
	\$ 4,984,300,628	\$ 237,364,635
Short-Term Investments and Other	46,136,543	0
Total Real Estate Investments	\$ 5,030,437,171	\$ 237,364,635
Total Noal Educe Investments	Ψ 0,000,701,111	Ψ 201,004,000



## Infrastructure Investments Net Market Values by Ownership Entity 3/31/14

	Net Market Unfunded Value Commitme	
* ASF VI Infrastructure B LP	\$ 5,557,848	\$ 29,442,152
* ASF Como Co-Investment LP	17,952,870	27,047,130
Balfour Beatty Infrastructure Partners, LP	7,266,921	42,462,389
Blackstone Energy Partners, LP	32,090,404	27,617,775
Brookfield Infrastructure Fund II-B, L.P.	6,195,269	44,130,917
CSG Infrastructure Investment Program, LP	49,533,820	0
Customized Infrastructure Strategies, LP	71,685,647	29,926,254
Dalmore Capital Fund	63,928,636	5,392,968
JP Morgan AIRRO India Sidecar Fund US, LLC	72,311,368	5,033,815
JP Morgan AIRRO Fund II US, LLC	24,274,280	73,198,532
KKR Global Infrastructure Investors, LP	53,653,875	24,437,000
StonePeak Infrastructure Fund LP	8,043,401	65,880,872
	\$ 412,494,338	\$ 374,569,804
Short-Term Investments and Other	25,132,068	0
Total Infrastructure Investments	\$ 437,626,406	\$ 374,569,804

<sup>\*</sup> New commitment made during the quarter reported

## STATE OF MICHIGAN RETIREMENT SYSTEMS

## **BASKET CLAUSE REVIEW**

INVESTMENT ADVISORY COMMITTEE MEETING
June 5, 2014



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



	Value
Total Absolute and Real Return	\$5,126,484,737
Total International Equity	314,782,659
Total Long-Term Fixed Income	9,470,304
Total Basket Clause Investments	<u>\$5,450,737,700</u>

The basket clause investments at March 31, 2014, were \$5.45 billion or 9.35% of the total portfolio value of \$58.27 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**

అంతు

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.