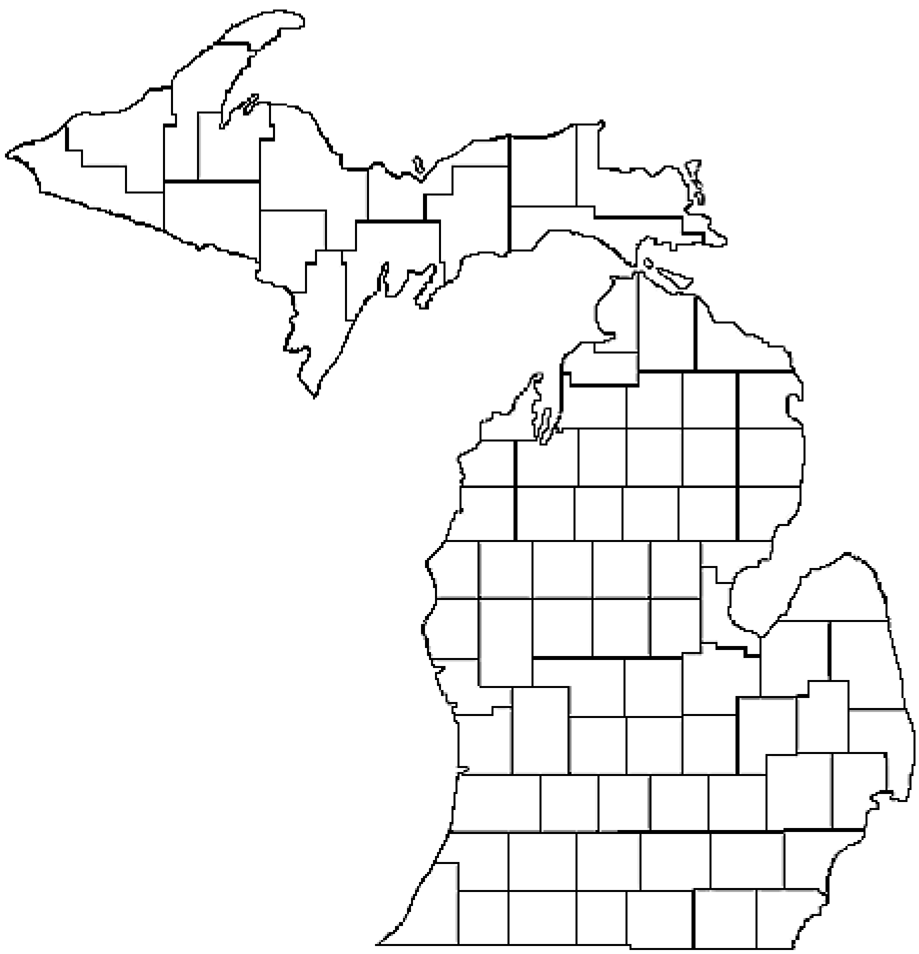
INVESTMENT ADVISORY COMMITTEE MEETING

December 2, 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

DECEMBER 2, 2014

Agenda

9:30 a.m.	Call to Order and Opening Remarks
9:40 a.m.	Approval of Minutes of 9/4/14, IAC Meeting
9:45 a.m.	Executive Summary & Performance for Periods Ending 9/30/14
10:00 a.m.	Current Asset Allocation Review
	Markets Review and Outlook – *Receive and File*
10:10 a.m.	Round Table Discussion
10:20 a.m.	Introduction of new consultants: Hewitt EnnisKnupp
10:30 a.m.	*Industry Trends* – Kewitt EnnisKnupp ~ Stephen Cummings, CEO / Max Kotary, Partner, Investment Consultant
10:50 a.m.	Review of Investment Reports

- Absolute and Real Return/Opportunistic
- Domestic Equity
- Fixed Income
- International Equity
- Private Equity
- Real Estate & Infrastructure

11:25 a.m.	Basket Clause – *Receive and File* Investment Policy Statement – *Receive and File*
11:30 a.m.	Closing Remarks ~ Adjournment

2015 Meeting Schedule

Thursday, March 5, 2015
Thursday, June 4, 2015
Thursday, September 3, 2015
Tuesday, December 1, 2015

All meetings start at 9:30 a.m.

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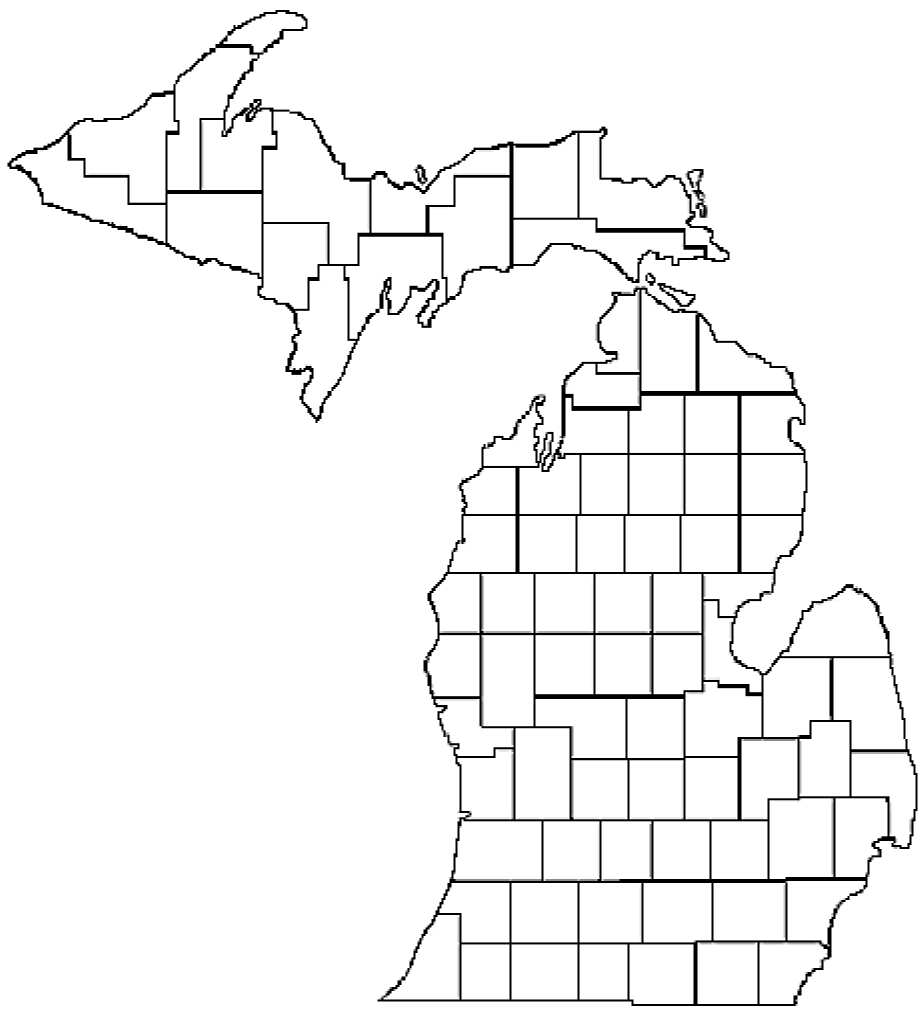
STATE OF MICHIGAN
RETIREMENT SYSTEMS

MINUTES

INVESTMENT ADVISORY COMMITTEE MEETING

DECEMBER 2, 2014



Jon M. Braeutigam
Chief Investment Officer
Bureau of Investments

INVESTMENT ADVISORY COMMITTEE

The Investment Advisory Committee (IAC) held its quarterly meeting on Thursday, September 4, 2014, at the Bureau of Investments, Great Lakes Conference Room, 2501 Coolidge Road, Suite 400, East Lansing, Michigan.

Members Present:

Nick A. Khouri, Chairman
L. Erik Lundberg
Mike Zimmer, LARA
John Roberts, DTMB

In attendance from the Department of Treasury: State Treasurer R. Kevin Clinton, Jon M. Braeutigam, Gregory J. Parker, Robert L. Brackenbury, Jim Elkins, Peter Woodford, Karen Stout, Brian Liikala, Jack Behar, Dan Quigley, Amanda Ellis, Rick DiBartolomeo, Ted Kulinski, Giles Feldpausch, Jane Waligorski, Ann Storberg, Marge McPhee, and Emma Khavari.

Others in attendance: Jim Voytko, Ryan Sullivan, Phil Stoddard, Molly Jason, John Ide, and Andy Knapp.

Call to Order

Chairman Khouri called the September 4, 2014, IAC meeting to order at 9:30 a.m. and thanked everyone for taking time from their busy schedules to attend the meeting. He congratulated the Bureau of Investments staff on the fine job they have done noting that the fund has done very well over the past three years. He also remarked that the focus of this meeting is on the Asset Liability Studies conducted by R. V. Kuhns and Associates, which is a critical review for a pension plan. This study looks at the liabilities, the assets, and the investment performance to see how it does or does not match with the funding ratio. He also noted that asset allocation is an interesting and important discussion as it determines both risk and returns over the long run.

Treasurer Clinton and Chairman Khouri welcomed Mr. Mike Zimmer who has been named Acting Director of the Department of Licensing and Regulatory Affairs.

Approval of Minutes of June 5, 2014

Chairman Khouri asked for a motion to approve the minutes of the June 5, 2014, IAC meeting. Mr. Mike Zimmer so moved, seconded by Mr. John Roberts; there were no objections – so approved.

Executive Summary – Performance Section

Chairman Khouri turned the meeting over to Mr. Jon Braeutigam to discuss the performance section of the Executive Summary.

Mr. Braeutigam stated: “Today’s focus for the IAC (as the Chair mentioned) is really the foundation and going forward Strategic Investment Plan to accomplish earning the actuarial rate of return on a long term going forward basis. The Strategic asset allocation set forth is foundational and it will be presented by Greg Parker, who is head of our Strategic Asset Allocation. The accompanying asset liability study will be presented by Jim Voytko and his team from RVK, our general consultant. The asset liability study examines how different strategic investment allocations accomplish the objectives of satisfying the plans benefit obligations going forward.

Next, please turn to page 1 of the Executive Summary tab, and we will briefly review the plan’s returns as of June 30, 2014. I would just like to thank all BOI staff publically because, for the period ending June 30th, the plan’s investments have performed very well, (because the markets are obviously up strongly) but also compared to peers. In every time period; the one, three, five, seven, and ten years, the plan has outperformed peers. In the one-year time period the plan is in the top performing percentile and it has earned 2% more than peers. This equates to approximately $1.2 billion in added assets to the fund over the peer return in just the last year.

We know returns will most likely slow, given how low interest rates are currently, and we know beating peers is not always possible, but it is nice to take a moment to smell the roses, look at what’s good, and just say thank you to all BOI staff. The Bureau of Investments is only as good as its team and having a long term, knowledgeable, motivated staff with a strong sense of fiduciary responsibility in our culture helps generate these types of returns. Our culture is one where we strive to do all we can to benefit retirees.

I would also like to publically thank BOI employees regarding the recent successful follow-up Performance Audit by the Auditor General, which found no issues with BOI. A performance audit is different than a year-end audit. Performance audits attempt to see how effective a program area is doing as opposed to a year end audit which focuses solely on financial statements. Performance audits are intensive and time consuming, as they should be, and staff spent much time compiling information, so thank you for all your work and for the successful outcome.”

Chairman Khouri also noted that the past few years have been very good and the BOI staff have done a great job.

<u>Strategic Asset Allocation</u> – Mr. Greg Parker, Director of Investments – Public Markets and Director of Asset Allocation

Mr. Braeutigam turned the meeting over to Mr. Greg Parker to review the Strategic Asset Allocation. Mr. Parker began by explaining that his presentation was an introduction to how the conclusions in the studies were made and a brief explanation of what Mr. Jim Voytko would cover, in depth, from the Asset Liability Studies that they performed for the Michigan Public School Employees’ Retirement System, the Michigan State Police Retirement System, and the Michigan Judges’ Retirement System. He noted that the Strategic Asset Allocation is a high level, long-term plan to prudently manage risks and yet is foundational to how to invest money to earn an 8% return, while considering expectations of future returns and the associated risks.

Mr. Parker discussed the reasonableness of the R. V. Kuhns' rate assumptions by comparing them to the peer average, J.P. Morgan's, and the benchmark's past returns. The conclusion for the assumption review was that the assumptions used for the Asset Liability Study are similar to other market participant assumptions, market participants will have differing opinions on the outlook for various asset classes, and the assumptions closely resemble the asset class benchmarks. Mr. Parker discussed the asset allocation changes that have occurred over time. He noted that the asset allocation has changed over time to reflect market conditions with the plan being poised to earn an 8% rate of return over the long term.

Asset Liability Study – R. V. Kuhns & Associates – Mr. Jim Voytko, President, Director of Research, Senior Consultant, and Principal; and Mr. Ryan Sullivan, Consultant, Asset/Liability Team

Mr. Jim Voytko began his presentation noting the function of an asset liability study is to estimate the health of the pension plan and the direction that it is headed. He explained that there are three drivers that come into play: the contribution policy, the liability policy or benefit policy, and the investment strategy or asset allocation. No other study pulls all three into play at one time. The key purpose is to determine the reasonableness of the strategic asset allocation. This study frames the quadrant in which the plan should operate and outlines where the strategic investment program should operate. The asset allocation study and the asset liability study should operate in the same quadrant. Mr. Voytko discussed the AR and the AAR, which is the assumed rate versus the actuarial assumed rate. The AR is from the asset allocation analysis, which is periodic; and the ARR is from the actuary with the state, whichever body sets the contribution policy.

Mr. Voytko introduced Mr. Ryan Sullivan. Mr. Sullivan discussed the methodology that is used to conduct these studies which is the same data that the actuary uses to produce the annual valuation, including the same assumptions. The goal is not to make assumptions or question the assumptions of the actuary but to replicate what is being used to calculate the contribution. This data is then used, the same demographic participant by participant data, to recalculate the liability in year one and then it is rolled forward to project the plan for the next 20 years. The demographics are allowed to change based on the assumptions laid out by the actuary.

Mr. Sullivan explained that this information is then modeled two different ways: a deterministic model analysis and a stochastic model analysis. He explained that the deterministic model analysis assumes all assumptions are met at all times each and every year in the future, particularly the assumed rate of return. This is a simple analysis, easy to understand, and it allows different scenarios to be answered. The stochastic model analysis is based on the Monte Carlo analysis and is more difficult because there are a lot more moving pieces; however, this is the more real world analysis because it is known that a return of 8% will not be generated each and every year as there will be ups and downs, but it will be averaged over the long term. The stochastic model analysis tried to incorporate these ups and downs.

Mr. Sullivan reviewed some of the key conclusions from the Michigan Public School Employees' Retirement System. He then noted that using the deterministic model analysis the funded ratio is projected to be 89% by 2033. Mr. Sullivan reviewed the stochastic model analysis noting that significant improvements in financial health are possible through the continued use of a well-diversified investment portfolio. He discussed the findings using comparisons of funding levels for four different asset mixes, the strategic target, current allocation, conservative, and aggressive portfolios.

There was much discussion on different scenarios and possible outcomes using different variables. Many questions were asked and answered regarding the Asset Liability Study and the results from the study. There was also a discussion of each of the different asset classes and where they were located on the efficient frontier. Mr. Voytko noted that the results of conducting the Asset Liability Study show, by comparing material differences in strategy and the current versus the strategic, that the plan is moving in the right direction.

Chairman Khouri and Mr. Braeutigam thanked Mr. Voytko and Mr. Sullivan for their insightful presentation.

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

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

Next Meeting Date and Adjournment

The next Investment Advisory Committee Meeting is scheduled for Tuesday, December 4, 2014. The meeting was adjourned by Mr. Khouri at 11:33 a.m.

Approved:

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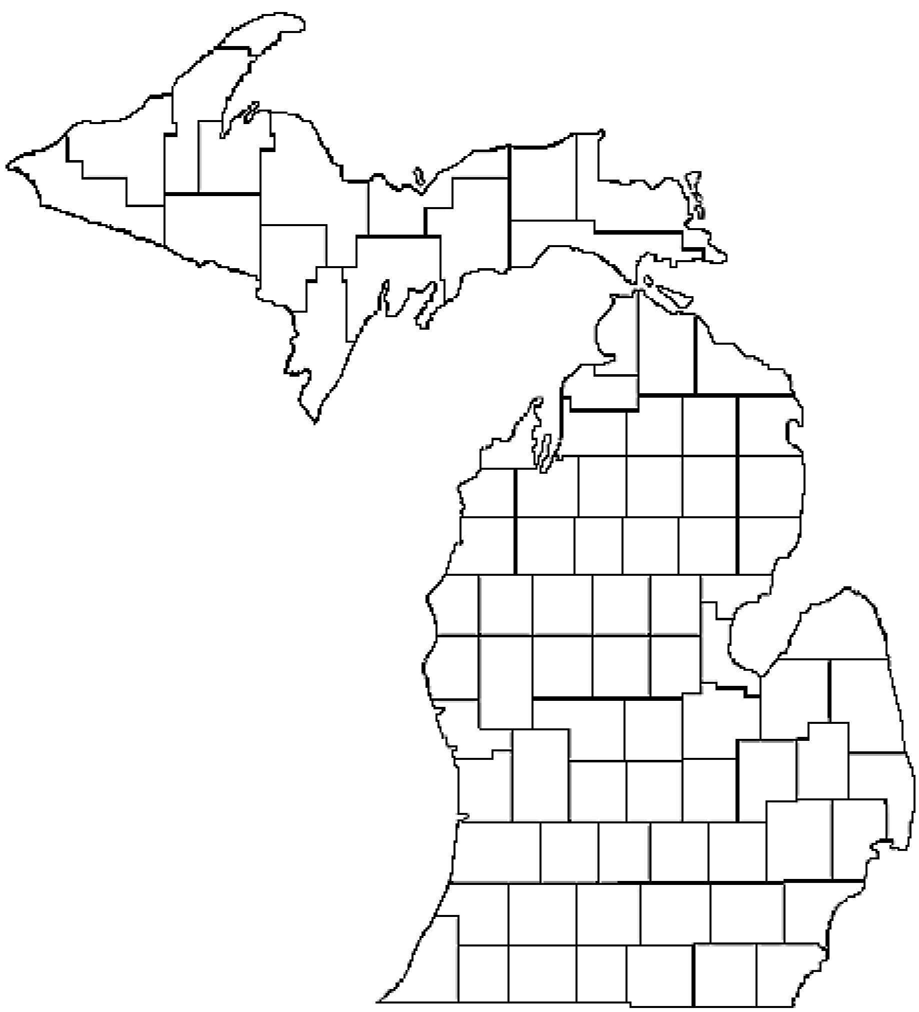
Nick Khouri, Chairman

STATE OF MICHIGAN
RETIREMENT SYSTEMS

EXECUTIVE SUMMARY

INVESTMENT ADVISORY COMMITTEE MEETING

DECEMBER 2, 2014



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

EXECUTIVE SUMMARY

October 2014

Performance

An overview.

MPSERS Plan (9/30/14)	1-Year	3-Years	5-Years	7-Years	10-Years
Annualized Returns	15.6%	13.8%	11.4%	5.0%	7.7%
Policy Return	12.9%	14.1%	11.4%	5.3%	7.6%
Peer Median Return	11.0%	13.1%	10.4%	4.6%	7.3%
Rank vs. Peers	3	31	14	35	17

- The absolute returns, for the period ending September 30, 2014, over the past one, three, and five years have been especially strong as the markets have rebounded from the 2008-09 financial crisis.
- On a relative basis, the returns have also been especially strong this fiscal year. The plan exceeded the policy benchmark over the past year by 2.7%. The largest contributions for the strong relative performance were good selectivity in most asset classes; especially in the real estate, real return & opportunistic, and domestic equity asset classes.
- Against the peer group, returns for the plan are greater than median returns across all time periods. The past one year relative returns are exceptional, out returning the peer median by 4.6% and ranking in the top decile. The outperformance to the peer median over the past year was helped by superior selectivity in private equity, domestic equity, as well as real estate and the underweight to fixed income compared to peers.
- Over the past year, most asset classes earned returns at or in excess of the performance benchmarks. Private equity and domestic equity returns ranked in the top decile compared to peers and Real Estate ranked in the top quartile.
- We expect, going forward, returns to moderate.

Asset Allocation

Tactically modestly increasing liquidity.

- The combined systems paid out $2.1 billion net of contributions over the past twelve months ending in September 2014; 3.5% of the September 2014 AUM.
- Over the past year, the plans put to work $0.5 billion in both international equity and absolute return strategies. Over the same time period, the plans reduced the allocation to private equity by $2.1 billion, real estate by $1.4 billion, realized $0.9 billion of gains in real return & opportunistic. The allocation to short term cash was increased by $1.4 billion.
- According to the State Street peer universe data, the peer median allocation for the long-term fixed income asset class is 23% versus the plan's allocation of 11.6%. The strategic target allocation for fixed income is 15%. With the 10-year U.S. Treasury yielding approximately 2.5% and cash yielding approximately 20 basis points (bps) at the end of September 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 $5.9 billion in illiquid asset classes, primarily private equity. This figure is about 9.8% of the September 2014 market value and is an additional liquidity consideration.

Capital Markets
An update on stocks and bonds.

- Capital market assumptions used for determining strategic asset allocations are being reduced across the board. This is the general opinion for most consultants, investment banks, and other market participants. The reason for this 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 18.6% over the past year, 23.0% over the past three years, and 15.8% per year over the past five years ending September 2014. Over the past one, three, and five years ending September 2014, the broad international market index, MSCI ACWI ex USA, underperformed the S&P 1500 index by 13.8%, 11.2%, and 9.8% annualized respectively.
- The 10-year U.S. Treasury closed September 2014 at 2.5%. Rates in securities with a maturity of two to seven years saw rates back up roughly 30 bps over the past year. Thirty year maturity rates fell almost 50 bps and rates at the very front end saw virtually no change at all.
- In June, the market concern for risk was near historic lows. However, by October 15, the bond market experienced an episode of highly unusual price volatility. That morning the 10-year U.S. Treasury dropped in yield by more than 30 bps before rallying later in the day. Had the market closed at such an extreme change, it would have been the largest one-day decline in yields since March 2009.

Economic Backdrop
A strengthening U.S. dollar.

- The most recent reading of the annualized U.S. GDP growth was a healthy 3.5%, above the consensus estimate of 3.0%. Current estimates for 2015 GDP growth for the U.S. is 3.0%. Coincidental economic indicators such as the Institute for Supply Management's Manufacturing and Non-Manufacturing PMI Indexes are nicely above 50, and at their highest levels in over 3 years, indicating that there currently is a modest expansion in the U.S. economy.
- Europe and Japan both hit economic growth slumps during the past quarter. Quarter-over-quarter growth in Europe was flat, and Japan's growth shrunk by 1.8%.
- As expected, the Federal Reserve has fully tapered its Quantitative Easing policies in October. However, in a surprise move, the Bank of Japan announced at the end of October additional quantitative easing policies. Starting in 2015, the Bank of Japan will increase its balance sheet by 15% of GDP per year and it will extend the average duration of its bond purchases from seven years to ten years.
- Over the past twelve months ending October 2014, the U.S. dollar appreciated by more than 8% as measured by the DXY index. At the end of October, the dollar was at its highest value since June 2010.
- The price of crude oil ended October 2014 at $80.54, its lowest month-end closing level since September 2011. Since June 2014 the price for a barrel of oil has dropped over 23%. Gasoline prices, as measured by the U.S. Department of Energy, ended October 2014 at $3.06 per gallon; the lowest price since December 2010 and down $0.65 from the peak earlier this year.

STATE OF MICHIGAN
RETIREMENT SYSTEMS

PERFORMANCE

FOR PERIODS ENDING
SEPTEMBER 30, 2014

INVESTMENT ADVISORY COMMITTEE MEETING

DECEMBER 2, 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 September 30, 2014

	% of Portfolio 09/30/14	Ten Years [1] Rate	Ten Years [1] Rank	Seven Years [1] Rate	Seven Years [1] Rank	Five Years [1] Rate	Five Years [1] Rank	Three Years [1] Rate	Three Years [1] Rank	One Year Rate	One Year Rank	Current Quarter Rate	Current Quarter Rank
TOTAL PLAN	**100.0**	**7.7**	**17**	**5.0**	**35**	**11.4**	**14**	**13.8**	**31**	**15.6**	**3**	**1.0**	**4**
Median - Greater than $10 Billion [2]		7.3		4.6		10.4		13.1		11.0		-0.8	
MPSERS Total Plan Policy		7.6		5.3		11.4		14.1		12.9		0.6	
DOMESTIC EQUITIES	**30.3**	**8.4**	**38**	**6.4**	**34**	**15.7**	**50**	**23.8**	**12**	**20.5**	**7**	**0.9**	**6**
Median [2]		8.1		6.1		15.6		22.3		15.8		-0.6	
S&P 1500 Index		8.3		6.2		15.8		23.0		18.6		0.4	
PRIVATE EQUITIES	**17.3**	**14.4**	**23**	**9.7**	**9**	**18.4**	**4**	**14.4**	**12**	**25.3**	**8**	**4.8**	**16**
Median [2]		11.0		6.2		12.3		12.0		16.8		2.5	
Alternative Blended Benchmark [3]		12.3		10.8		20.9		19.7		27.8		5.9	
INTERNATIONAL EQUITIES	**15.3**	**6.2**	**80**	**0.0**	**63**	**6.9**	**68**	**13.1**	**63**	**6.0**	**34**	**-4.9**	**31**
Median [2]		6.8		0.4		7.3		13.6		5.5		-5.3	
International Blended Benchmark [4]		5.8		-0.6		5.8		12.3		5.1		-5.3	
BONDS	**11.5**	**5.4**	**26**	**5.9**	**34**	**5.0**	**74**	**3.5**	**65**	**4.6**	**56**	**0.2**	**28**
Median [2]		4.8		5.4		5.9		4.2		4.8		0.0	
Barclays Aggregate		4.6		5.0		4.1		2.4		4.0		0.2	
REAL ESTATE & INFRASTRUCTURE	**9.1**	**6.3**	**45**	**1.6**	**51**	**6.6**	**75**	**12.0**	**52**	**19.8**	**12**	**5.8**	**12**
Median [2]		6.1		1.7		9.2		12.1		12.3		2.0	
NCREIF - Property Blended Index [5]		7.2		3.4		9.6		9.7		9.8		2.3	
NCREIF Open Fund Index Net		6.2		1.7		11.3		11.3		11.4		3.0	
REAL RETURN AND OPPORTUNISTIC	**4.9**							**12.2**		**24.5**		**1.6**	
50% (CPI +500 bps) + 50% (8% actuarial rate)								7.3		7.4		1.5	
ABSOLUTE RETURN	**5.2**					**6.9**		**8.1**		**9.2**		**1.3**	
HFRI FOF Cons 1 month lagged						3.7		4.2		6.5		0.9	
CASH EQUIVALENTS	**6.4**	**1.5**		**0.3**		**0.5**		**0.3**		**0.2**		**0.1**	
1 Month T-Bill		1.4		0.3		0.1		0.0		0.0		0.0	

[1] Annualized Returns

[2] 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.

[3] 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.

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

[5] NCREIF - Property Blended Index is NPI minus 75 bps prior to October 2005, NPI minus 130 bps current.

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

Cumulative and Consecutive Total Fund Returns

MPSERS

Cumulative For Years Ending 9/30/14

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MPSERS	15.6	14.1	13.8	12.0	11.4	8.2	5.0	6.5	7.2	7.7
Public Plan - Median (> $10 billion)*	11.0	11.7	13.1	10.4	10.4	8.0	4.6	6.1	6.5	7.3
Rank	3	9	31	10	14	39	35	25	10	17
bp Difference - Median	462	233	75	158	94	24	40	38	66	44

Consecutive For Years Ending

	09/14	09/13	09/12	09/11	09/10	09/09	09/08	09/07	09/06	09/05
MPSERS	15.6	12.5	13.4	6.6	8.8	-6.1	-12.3	17.2	12.8	12.8
Public Plan - Median (> $10 billion)*	11.0	12.6	15.4	2.4	10.3	-0.3	-14.8	16.6	11.0	14.2
Rank	3	52	83	4	80	83	23	38	15	80
bp Difference - Median	462	-10	-200	421	-143	-588	254	62	188	-139

MSERS

Cumulative For Years Ending 9/30/14

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MSERS	15.5	14.0	13.8	11.9	11.2	8.1	4.9	6.4	7.1	7.6
Public Plan - Median (> $1 billion)*	10.7	11.7	13.1	10.4	10.4	8.1	4.8	6.1	6.6	7.3
Rank	3	6	34	7	15	52	41	36	20	29
bp Difference - Median	486	228	73	156	85	-4	15	27	48	34

Consecutive For Years Ending

	09/14	09/13	09/12	09/11	09/10	09/09	09/08	09/07	09/06	09/05
MSERS	15.5	12.5	13.4	6.5	8.5	-6.3	-12.4	17.2	12.8	12.8
Public Plan - Median (> $1 billion)*	10.7	12.7	16.0	2.2	10.4	0.0	-14.4	16.2	10.8	14.0
Rank	3	54	87	4	86	88	30	32	16	79
bp Difference - Median	486	-23	-259	424	-183	-629	199	104	200	-120

*State Street Public Funds Universe

Cumulative and Consecutive Total Fund Returns

MSPRS

Cumulative For Years Ending 9/30/14

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MSPRS	15.5	13.9	13.7	11.9	11.2	8.1	4.9	6.4	7.1	7.7
Public Plan - Median (> $1 billion)*	10.7	11.7	13.1	10.4	10.4	8.1	4.8	6.1	6.6	7.3
Rank	3	6	35	7	15	53	41	35	19	29
bp Difference - Median	478	221	65	157	85	-8	16	30	51	38

Consecutive For Years Ending

	09/14	09/13	09/12	09/11	09/10	09/09	09/08	09/07	09/06	09/05
MSPRS	15.5	12.4	13.3	6.7	8.5	-6.5	-12.2	17.4	12.9	12.9
Public Plan - Median (> $1 billion)*	10.7	12.7	16.0	2.2	10.4	0.0	-14.4	16.2	10.8	14.0
Rank	3	55	90	3	86	89	22	27	14	79
bp Difference - Median	478	-28	-272	450	-184	-651	223	120	208	-115

MJRS

Cumulative For Years Ending 9/30/14

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MJRS	14.9	13.5	13.6	11.7	10.7	7.7	4.7	6.2	6.8	7.4
Public Plan - Median (> $1 billion)*	10.7	11.7	13.1	10.4	10.4	8.1	4.8	6.1	6.6	7.3
Rank	3	12	36	13	35	72	57	47	30	44
bp Difference - Median	421	176	57	134	36	-45	-6	6	26	9

Consecutive For Years Ending

	09/14	09/13	09/12	09/11	09/10	09/09	09/08	09/07	09/06	09/05
MJRS	14.9	12.1	13.9	6.1	7.0	-6.4	-11.7	17.0	12.5	12.3
Public Plan - Median (> $1 billion)*	10.7	12.7	16.0	2.2	10.4	0.0	-14.4	16.2	10.8	14.0
Rank	3	64	82	6	100	88	16	34	18	83
bp Difference - Median	421	-62	-206	385	-332	-637	273	81	173	-178

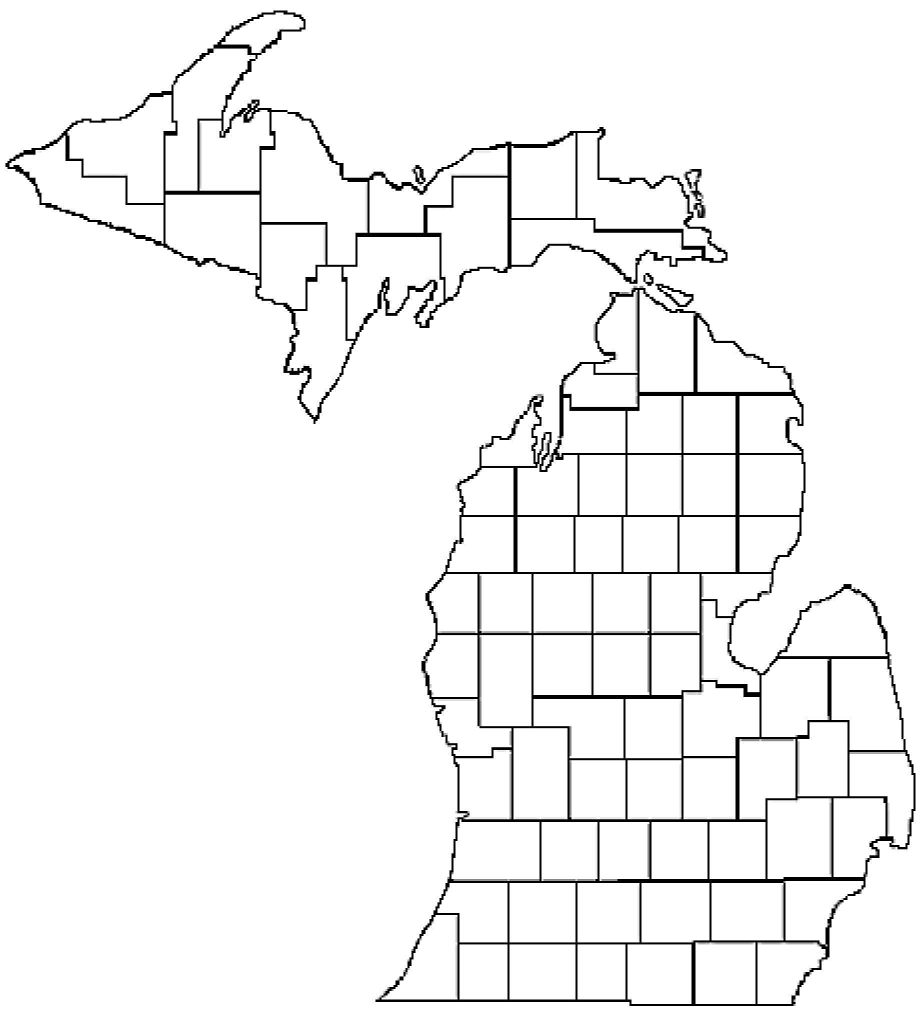
*State Street Public Funds Universe

STATE OF MICHIGAN
RETIREMENT SYSTEMS

ASSET ALLOCATION REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

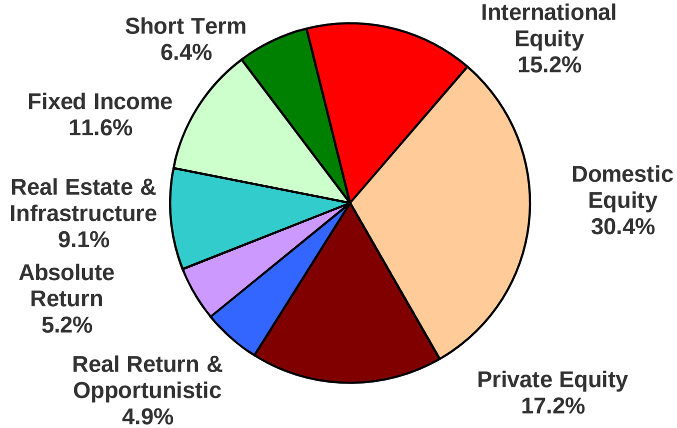
DECEMBER 2, 2014



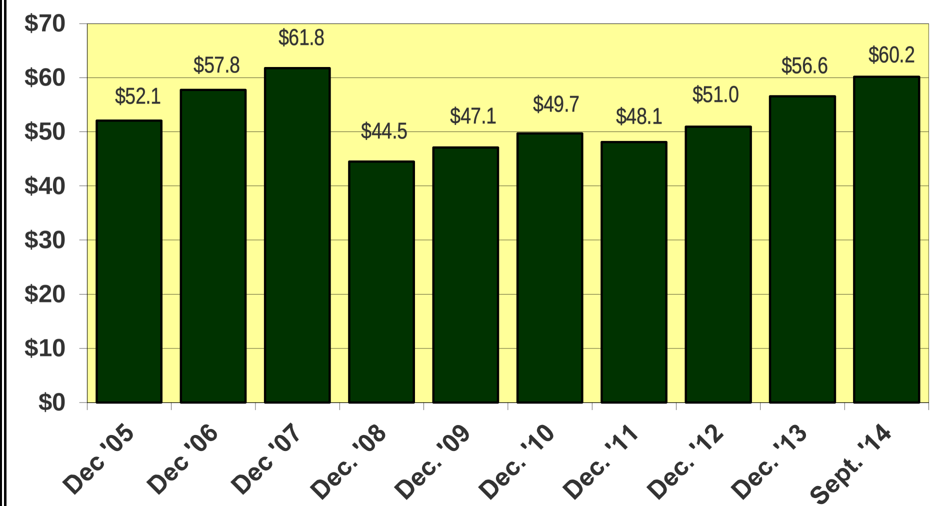
Jon M. Braeutigam
Chief Investment Officer
Bureau of Investments

STATE OF MICHIGAN RETIREMENT SYSTEMS
PROFILE - SEPTEMBER 2014

Asset Allocation 9/30/14



Market Value*
(Billions of Dollars)



Asset Allocation By Market Value
(In Millions)

Investment Strategies	9/30/14		6/30/14	
Domestic Equity	$18,311	30.4%	$18,175	30.2%
Private Equity	10,368	17.2%	10,342	17.2%
International Equity	9,184	15.2%	9,673	16.1%
Fixed Income	7,014	11.6%	7,004	11.6%
Real Estate & Infra.	5,462	9.1%	5,610	9.3%
Absolute Return	3,118	5.2%	2,673	4.5%
Real Return & Opport.	2,931	4.9%	3,421	5.7%
Short Term***	3,832	6.4%	3,256	5.4%
TOTAL	$60,220	100.0%	$60,154	100.0%

Market Value By Plan ~ 9/30/14
(in Millions)

	Pension Plan Mkt. Value	OPEB** Mkt. Value	Combined Mkt. Value	%
MPSERS	$43,640	$3,055	$46,695	77.5%
MSERS - (closed)	10,914	1,019	11,933	19.8%
MSPRS	1,249	74	1,323	2.2%
MJRS - (closed)	268	1	269	0.5%
TOTAL	$56,071	$4,149	$60,220	100.0%

Short Term Equivalents *(in Billions)*

Short Term Strategy***	$3.8	
Short Term in Other Inv. Strategies	0.9	
TOTAL SHORT TERM	$4.7	7.8% of Total Funds

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

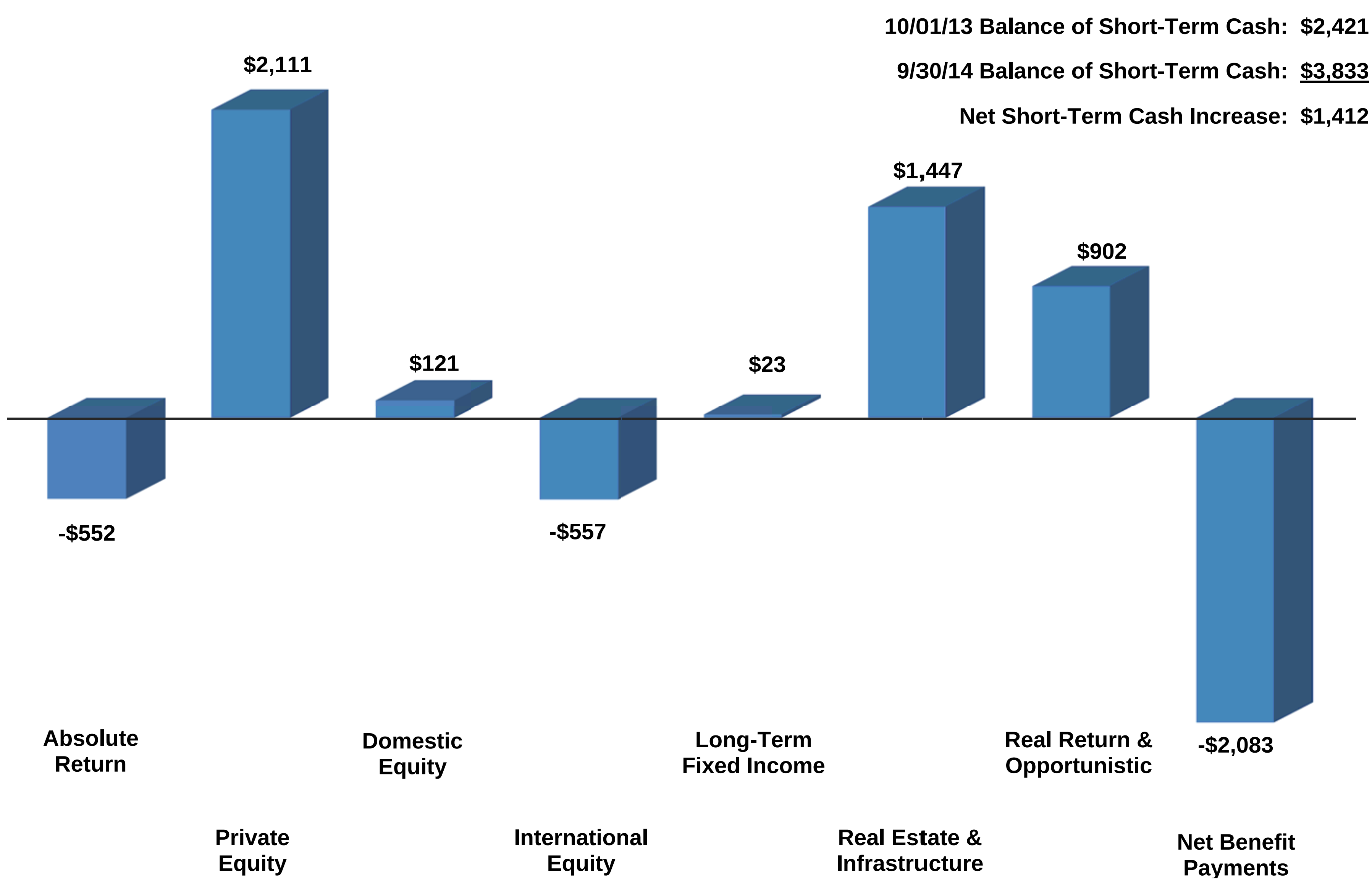
Pensions & Investments Survey - February 3, 2014 Issue

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

***OPEB - Other Post Employment Benefits*

Sources and Uses of Cash

October 2013 ~ September 2014



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

Asset Allocation Targets

As of 9/30/14

	MPSERS			MSERS			MSPRS			MJRS			SMRS
Asset Class	***Actual 9/30/14***	***Target 9/30/15***	***Target* 9/30/16***	***Actual 9/30/14***	***Target 9/30/15***	***Target* 9/30/16***	***Actual 9/30/14***	***Target 9/30/15***	***Target* 9/30/16***	***Actual 9/30/14***	***Target 9/30/15***	***Target* 9/30/16***	***Ranges***
Broad U.S. Equity	30.4%	29.2%	28.0%	30.4%	29.2%	28.0%	30.4%	29.2%	28.0%	28.4%	28.2%	28.0%	20% - 50%
Private Equity	17.2%	17.6%	18.0%	17.2%	17.6%	18.0%	17.2%	17.6%	18.0%	15.2%	16.6%	18.0%	10% - 25%
Broad Int'l Equity	15.2%	15.6%	16.0%	15.2%	15.6%	16.0%	15.2%	15.6%	16.0%	14.2%	15.1%	16.0%	10% - 20%
U.S. Fixed Income Core	11.6%	11.1%	10.5%	11.6%	11.1%	10.5%	11.6%	11.1%	10.5%	15.7%	13.1%	10.5%	8% - 25%
Real Estate / Infrastructure	9.1%	9.5%	10.0%	9.1%	9.5%	10.0%	9.1%	9.5%	10.0%	10.1%	10.0%	10.0%	0% - 15%
Real Return / Opportunistic	4.9%	7.2%	9.5%	4.9%	7.2%	9.5%	4.9%	7.2%	9.5%	4.9%	7.2%	9.5%	0% - 15%
Absolute Return	5.2%	5.6%	6.0%	5.2%	5.6%	6.0%	5.2%	5.6%	6.0%	5.2%	5.6%	6.0%	0% - 12%
Cash	6.4%	4.2%	2.0%	6.4%	4.2%	2.0%	6.4%	4.2%	2.0%	6.3%	4.2%	2.0%	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%	

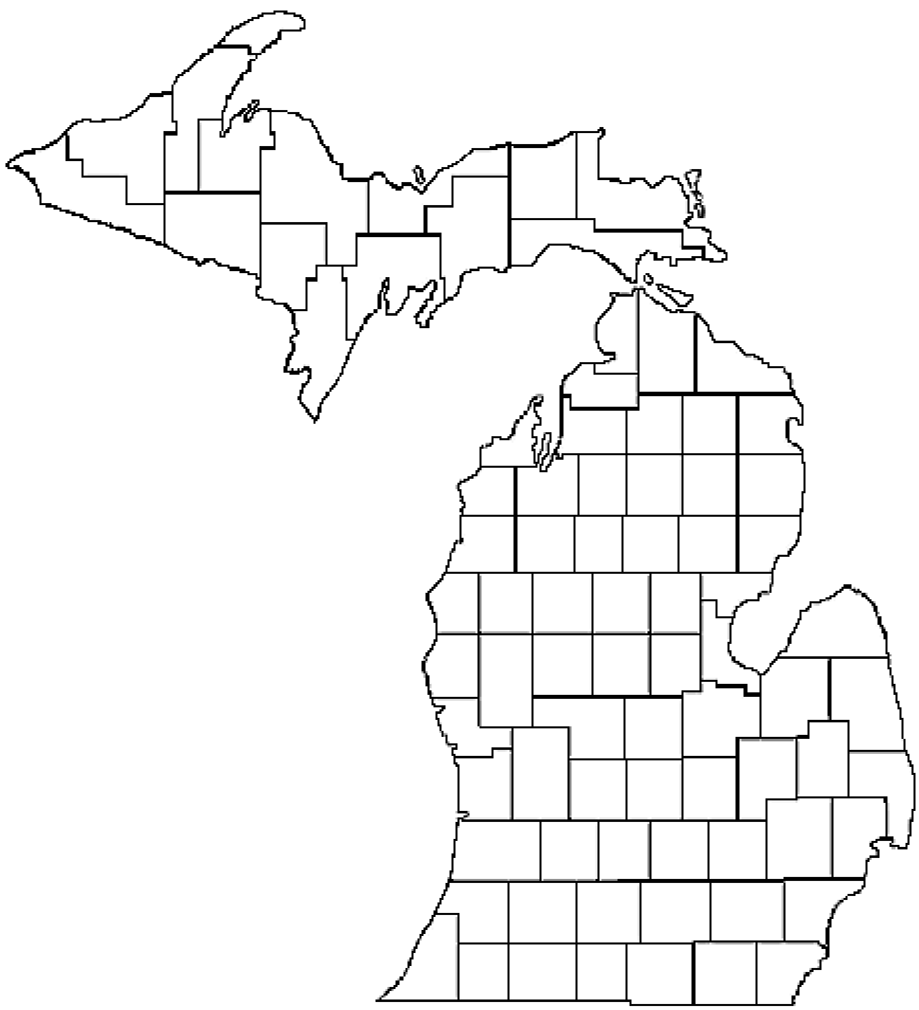
***Complies with basket clause and international restrictions.**

STATE OF MICHIGAN
RETIREMENT SYSTEMS

MARKETS REVIEW AND OUTLOOK

INVESTMENT ADVISORY COMMITTEE MEETING

DECEMBER 2, 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%	10.7%	Trim
International Equity	8.6%	20.6%	7.1%	Hold
Domestic Equity	7.0%	17.8%	8.3%	Trim
Real Estate (Core)	7.0%	12.5%	7.2%	Trim
Absolute Return	6.8%	9.8%	5.6%	Add
Real Ret/Opportunistic	6.0%	11.5%	7.7%	Hold
Long-Term Fixed	4.0%	6.0%	4.6%	Hold
Short-Term	2.3%	3.0%	1.4%	Hold

* RV Kuhns 2014 Long-Term Return/Risk Assumptions
** Investment Policy Statement; Annualized Returns
*** Actual investments may differ due to changing conditions and the availability of new information

Overview

Softening the outlook for risk assets.

- 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 18.6% over the past year, 23.0% over the past three years, and 15.8% per year over the past five years ending September 2014. Technical price trends look good but valuations are above normal.

- International Equities continue to underperform domestic. Over the past one, three, and five years ending September 2014, the broad international market index, MSCI ACWI ex USA, underperformed the S&P 1500 index by 13.8%, 11.2%, and 9.8% annualized respectively. Technical price trends are neutral at best, and the U.S. dollar looks to be a headwind.

- The 10-year U.S. Treasury closed September 2014 at 2.5%. Rates in securities with a maturity of two to seven years saw rates back up roughly 30 basis points (bps) over the past year. Thirty-year maturity rates fell almost 50 bps and rates at the very front end saw virtually no change at all. The 10-year U.S. Treasury is now approximately at its five-year monthly average rate of 2.6%.

- Valuations in the commercial real estate market are full in some areas, though opportunities are selectively available. Against the 10-year U.S. Treasury REITs are fairly priced, but appear expensive on other valuation metrics.

- On October 15, the bond market experienced an episode of highly unusual price volatility. That morning the 10-year U.S. Treasury dropped in yield by more than 30 basis points before rallying later in the day. Had the market closed at such an extreme change, it would have been the largest one day decline in yields since March 2009. Particularly unnerving regarding the yield swing was not only a total evaporation of liquidity, but benign economic backdrop. The economic news on that day was not good, however the severe market reaction was not justified.

Domestic Equity

Large caps continue to run.

- The U.S. stock market levels continue the steady ascension started from the bottom of March 2009, and from a technical perspective, the large-cap market looks very healthy. The small-cap price trend is noticeably weaker and given the stretched relative valuations, continued weakness and underperformance is not unlikely. The broad domestic market index, S&P 1500, returned 18.6% over the past year, 23.0% over the past three years, and 15.8% per year over the past five years ending September 2014.

- Valuation metrics are above average and the absolute returns over the next cycle will not likely be as strong as the historical average. Small caps look expensive by some measures. The domestic equity assets are positioned as modestly defensive relative to the benchmark.

- Perhaps reflecting the stretched relative valuations of small caps; over the past one, three, and five years ending September 2014, small has annually underperformed large by 13.2%, 1.4%, and 1.2% respectively. Last year ending in September, growth slightly outperformed value by 0.2%; and over the past five years by 1.2% annually. However, over the last three years, value beat growth by 1.0% per year.

- The active portfolio is now slightly defensively oriented relative to the S&P 1500 benchmark. This action seems prudent after five-and-a-half year of recovery in the stock market. The fund is underweight the typical cyclical areas of the market; small caps, as well as commodity-related industries. This is a slight contrast in philosophy over the past three years. In September 2011, the fund had an above market risk exposure; a good call as the market would increase in value by nearly 86% over the three years.

International Equity

International equity continues to underperform.

- International Equities continue to underperform domestic. Over the past one, three, and five years ending September 2014, the broad international market index, MSCI ACWI ex USA, underperformed the S&P 1500 index by 13.8%, 11.2%, and 9.8% annualized respectively.

- Within international equities, over the past one, three, and five years ending in September 2014, emerging markets have underperformed developed markets annualized by 0.6%, 6.0%, and 2.1% respectively.

- The price trend (measured in local currency) of developed international markets broke badly to the downside during the three months ending October 2014. The trend in prices for emerging markets is still neutral. With the strength of the U.S. dollar acting as another headwind, there appears to be no need to rush allocating additional assets to international equities.

- The plan increased its weight to international equity over the last year by slightly more than $550 million though it remains below its strategic target weight of 16%. The plan is underweight international equity against a global benchmark (approximately 33% versus 50%) and it is also slightly underweight peers; 15.2% versus 17.4%. Actual emerging market exposure is approximately 26.5% of total international equity which is 4.8% overweight.

- Based on a price-to-earnings valuation multiple, excluding non-earning companies, developed international equity markets trade at a 14% discount to the U.S. counterparts, while emerging markets trade at over a 35% discount.

- Russia is one example of an emerging market economy that is trading at a big discount to the broader market with a price earnings multiple of around 6 at the end of September 2014; a 50% discount to emerging markets broadly. However there are high risks, considering Russia's conflict with Ukraine and the potential spillover to the rest of Europe.

Interest Rates

Low rates persist

- The 10-year U.S. Treasury closed September 2014 at 2.5%. Rates in securities with a maturity of two to seven years saw rates back up roughly 30 bps over the past year. Thirty-year maturity rates fell almost 50 bps. The 10-year U.S. Treasury is now just under its five-year average of 2.6%, and 50 bps lower than the start of the year.
- The Barclays U.S. Aggregate Index returned just under 4% over the past year ending September 2014.
- European 10-year sovereigns continue to fall. At the end of September, German 10-year rates were 1.5% below U.S. Treasury rates. Spanish and Italian rates were also 20-30 bps lower than U.S. rates.
- The U.S. yield curve is still fairly steep as measured by the difference between the 10 and 2-year U.S. Treasury rates. These rates rank in the top quartile in terms of steepness since 1977 increasing the opportunities to "ride down the yield curve".
- Investment grade credit spreads at the end of October 2014 are a little better than average, while on the other hand, high-yield spreads are roughly 40 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 September 2014, the Barclays Aggregate Index had a duration of 5.6. At this stage in the economic cycle, credit risk is still preferable to duration risk.

Real Estate

Need to be selective at these valuations.

- The publicly traded FTSE Nareit REIT Index was up roughly 13.1% over the past year for the period ending September 2014. Over the past three and five years, the index is up 17.2% and 16.2% respectively.
- Privately held real estate normally lags the REIT Index by one year. Because of this fact, the plan's real estate returns could continue to see modestly positive returns though valuations are a concern.
- The REIT Index is fairly priced relative to bonds; however, some valuation metrics indicate that the index is very expensively priced. In other words, this index is cheap relative to bonds; however, it is not expected to deliver high absolute returns over the longer term.
- The price trend of the FTSE Nareit REIT Index flattened, however it is currently at the top of its range. Selective private market transactions take time to execute and could still make long-term sense, however, caution is warranted.
- Over the past year, taking advantage of the stretched valuations, the plan was a net seller of real estate. Net sales in real estate were $1.4 billion over the past twelve months.

ECONOMIC OUTLOOK

Select Historic Economic Growth with Forecasts

An eye to 2015.

Real GDP Growth Actual/Forecasts	2012	2013	2014	2015	2016
World	2.1	2.2	2.5	3.0	3.1
U.S.	2.3	2.2	2.2	3.0	2.9
Developed (G10)	1.2	1.3	1.7	2.2	2.2
Asia	6.2	6.3	6.4	6.1	6.3
EMEA	2.6	2.3	1.6	2.0	2.6
Europe	-0.7	-0.4	0.8	1.2	1.5
Latin America	2.6	2.6	1.2	2.3	3.3
China	7.7	7.7	7.4	7.0	7.0

*Source: Bloomberg

Economic Overview

U. S. economy remains the bright spot.

- The most recent reading of the annualized U.S. GDP growth was a healthy 3.5%, above the consensus estimate of 3.0%. Current estimates for 2015 GDP growth for the U.S. is 3.0%. Coincidental economic indicators such as the Institute for Supply Management's Manufacturing and Non-Manufacturing PMI Indexes are nicely above 50, and at their highest levels in over three years, indicating that there currently is a modest expansion in the U.S. economy.

- Europe and Japan both hit economic growth slumps during the past quarter. Quarter-over-quarter growth in Europe was flat, and Japan's growth shrunk by 1.8%.

- As expected, the Federal Reserve has fully tapered its Quantitative Easing policies in October. However, in a surprise move, the Bank of Japan announced at the end of October additional quantitative easing policies. Starting in 2015, the Bank of Japan will increase its balance sheet by 15% of GDP per year and it will extend the average duration of its bond purchases from seven years to ten years.

- Over the past twelve months ending October 2014, the U.S. dollar appreciated by more than 8% as measured by the DXY index. At the end of October, the dollar was at its highest value since June 2010.

- The price of crude oil ended October 2014 at $80.54, its lowest month-end closing level since September 2011. Since June, 2014 the price for a barrel of oil has dropped over 23%. Gasoline prices, as measured by the U.S. Department of Energy, ended October 2014 at $3.06 per gallon; the lowest price since December 2010 and down $0.65 from the peak earlier this year.

- A destabilizing threat of ISIS growing in power. ISIS claims religious authority over all Muslims worldwide, and it wants to bring Muslim-inhabited regions of the world under its political control, beginning with the region of the Levant which approximately covers Syria, Jordan, Israel/Palestine, Lebanon, Cyprus, and part of southern Turkey.

Annual Total Returns of Key Asset Classes 1994 - 2013

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Best	Int'l Equity 7.77%	U.S. Equity 36.52%	U.S. Equity 22.42%	U.S. Equity 32.94%	U.S. Equity 26.33%	Int'l Equity 26.97%	Gov't Bonds 13.23%	Corp. Bonds 10.40%	Gov't Bonds 11.50%	Int'l Equity 40.82%
	Real Estate 6.39%	Corp. Bonds 22.24%	Hedge Funds 13.73%	Hedge Funds 14.95%	Int'l Equity 19.97%	U.S. Equity 20.27%	Real Estate 12.24%	Real Estate 7.28%	Corp. Bonds 10.52%	U.S. Equity 29.58%
	Cash 4.26%	Gov't Bonds 18.33%	Real Estate 10.31%	Real Estate 13.91%	Real Estate 16.24%	Hedge Funds 18.93%	Corp. Bonds 9.40%	Gov't Bonds 7.24%	Real Estate 6.74%	Hedge Funds 9.01%
	Infla-tion 2.67%	Hedge Funds 13.06%	Int'l Equity 6.05%	Corp. Bonds 10.23%	Gov't Bonds 9.85%	Real Estate 11.36%	Cash 6.16%	Cash 4.43%	Hedge Funds 3.57%	Real Estate 8.99%
	U.S. Equity 1.32%	Int'l Equity 11.22%	Cash 5.30%	Gov't Bonds 9.58%	Corp. Bonds 8.59%	Cash 4.83%	Hedge Funds 5.77%	Hedge Funds 3.11%	Infla-tion 2.39%	Corp. Bonds 7.69%
	Hedge Funds -1.17%	Real Estate 7.54%	Infla-tion 3.33%	Cash 5.35%	Cash 5.24%	Infla-tion 2.68%	Infla-tion 3.39%	Infla-tion 1.55%	Cash 1.79%	Gov't Bonds 2.36%
	Gov't Bonds -3.37%	Cash 6.04%	Corp. Bonds 3.28%	Int'l Equity 1.77%	Infla-tion 1.60%	Corp. Bonds -1.94%	U.S. Equity -6.98%	U.S. Equity -10.64%	Int'l Equity -14.95%	Infla-tion 1.88%
Worst	Corp. Bonds -3.92%	Infla-tion 2.54%	Gov't Bonds 2.77%	Infla-tion 1.70%	Hedge Funds -1.61%	Gov't Bonds -2.25%	Int'l Equity -15.31%	Int'l Equity -19.74%	U.S. Equity -21.30%	Cash 1.16%

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Best	Int'l Equity 20.90%	Real Estate 20.06%	Int'l Equity 26.65%	Int'l Equity 16.65%	Gov't Bonds 12.38%	Int'l Equity 41.44%	U.S. Equity 16.38%	Real Estate 14.26%	Int'l Equity 16.83%	U.S. Equity 32.80%
	Real Estate 14.48%	Int'l Equity 16.62%	Real Estate 16.59%	Real Estate 15.84%	Cash 2.05%	U.S. Equity 27.24%	Real Estate 13.11%	Gov't Bonds 9.02%	U.S. Equity 16.17%	Int'l Equity 15.29%
	U.S. Equity 11.78%	U.S. Equity 5.65%	U.S. Equity 15.34%	Gov't Bonds 8.67%	Infla-tion 0.10%	Corp. Bonds 16.05%	Int'l Equity 11.15%	Corp. Bonds 8.35%	Real Estate 10.54%	Real Estate 10.99%
	Hedge Funds 5.83%	Hedge Funds 5.13%	Hedge Funds 9.21%	Hedge Funds 7.68%	Corp. Bonds -3.07%	Hedge Funds 9.65%	Corp. Bonds 8.46%	Infla-tion 2.96%	Corp. Bonds 9.37%	Hedge Funds 7.69%
	Corp. Bonds 5.25%	Infla-tion 3.42%	Cash 4.81%	U.S. Equity 5.47%	Real Estate -6.46%	Infla-tion 2.72%	Gov't Bonds 5.52%	U.S. Equity 1.75%	Hedge Funds 4.06%	Infla-tion 1.49%
	Gov't Bonds 3.48%	Cash 3.06%	Corp. Bonds 4.27%	Corp. Bonds 5.10%	Hedge Funds -19.86%	Cash 0.19%	Hedge Funds 5.07%	Cash 0.10%	Gov't Bonds 2.02%	Cash 0.07%
	Infla-tion 3.25%	Gov't Bonds 2.65%	Gov't Bonds 3.46%	Cash 5.03%	U.S. Equity -36.72%	Gov't Bonds -2.19%	Infla-tion 1.50%	Hedge Funds -3.55%	Infla-tion 1.70%	Corp. Bonds -2.01%
Worst	Cash 1.33%	Corp. Bonds 1.95%	Infla-tion 2.55%	Infla-tion 4.06%	Int'l Equity -45.52%	Real Estate -16.86%	Cash 0.13%	Int'l Equity -13.71%	Cash 0.11%	Gov't Bonds -2.60%

Annualized Returns 1994 - 2013

	Infl.	Cash	Hedge	Gov't.	Int'l.	Corp.	R.E.	US Eq.
Return	2.36%	3.05%	5.19%	5.42%	6.19%	6.32%	9.34%	9.49%
Risk	0.97%	2.29%	8.20%	5.97%	21.43%	6.48%	8.33%	19.32%

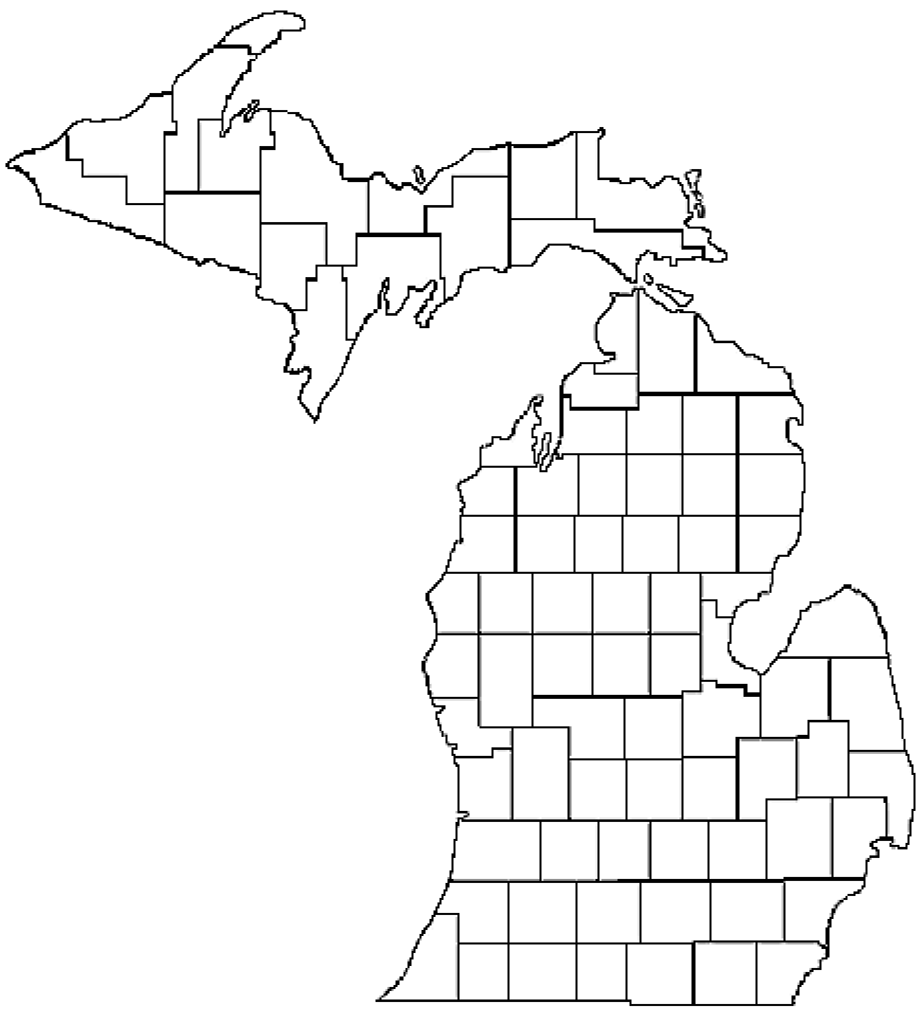
- Hedge Funds are represented by the HFRI FOF Conservative Index
- Inflation is represented by the U.S. Consumer Price Index
- International Equity is represented by the MSCI EAFE Index 2000 Forward - Int'l Equity is represented MSCI - AC World EX-USA Index
- Cash is represented by 30-day T-Bills
- U.S. Equity is represented by the S&P 500 / 1995 Forward by S&P 1500
- Real Estate is represented by the NPI
- 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

ABSOLUTE AND REAL RETURN REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

DECEMBER 2, 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	9.2%	8.1%	6.9%	NA	NA
HFRI FOF Conservative*	6.5%	4.2%	3.7%	0.8%	2.8%

*One month lag on the index

- The strategy of the Absolute Return portfolio is to further diversify the total plans' holdings targeting returns above investment grade fixed income with lower volatility than the equity portfolio. The portfolio utilizes a diverse mix of managers that invest both long and short to target specific exposures and hedge out unwanted risk.

- Arbitrage – The arbitrage strategy was modestly down for the quarter, yet still positive for the year. Event-driven managers were mixed during the quarter, experiencing losses from distressed credit positions, gains from liquidations, and mixed performance from merger arbitrage. The fixed income arbitrage allocation produced a gain for the quarter from positions across U.S. and European structured products, while corporate opportunities detracted from performance.

- Credit/Distressed – The credit strategy was modestly up for the quarter but still remains the best performing strategy for the year. Mortgage and structured product managers performed well in the third quarter driven by a strong bid for high yielding stable cash flows. We maintain a positive outlook on the mortgage space due to our manager's ability to generate returns through asset allocation, securitization, and active trading. Corporate credit manager's performance was mixed during the quarter. Managers encountered volatility, and despite suffering some losses, were able to buy into prospective value propositions at attractive levels. With a heightened sense of volatility, managers continue to attempt to source catalysts and event-driven, idiosyncratic opportunities that are uncorrelated with broader market credits.

- Long/Short Equity – The equity strategy delivered a solid gain for the quarter and is modestly behind the credit strategy for the best performing strategy for the year. Three themes emerged as key performance drivers this quarter: 1) alpha generation of idiosyncratic shorts, 2) underperformance of small caps relative to large caps, and 3) outperformance of relative value strategies. Managers realized gains from long and short positions in technology and short positions in energy and food retailers. Long positions in retail and energy were detractors during the quarter, as sentiment in these sectors turned negative.

- Strategy allocations remained similar to last quarter. Year over year allocations saw a modest rotation out of arbitrage and macro and into equity. CTA exposure was replaced with quantitative equity managers, and gains in arbitrage and credit were used to fund activist strategies.

- 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.	24.5%	12.2%	NA	NA	NA
Custom Benchmark	7.4%	7.3%	NA	NA	NA

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

- The portfolio had a strong one year return due to a large Twitter (TWTR) holding that had a very positive market response to an initial public offering.

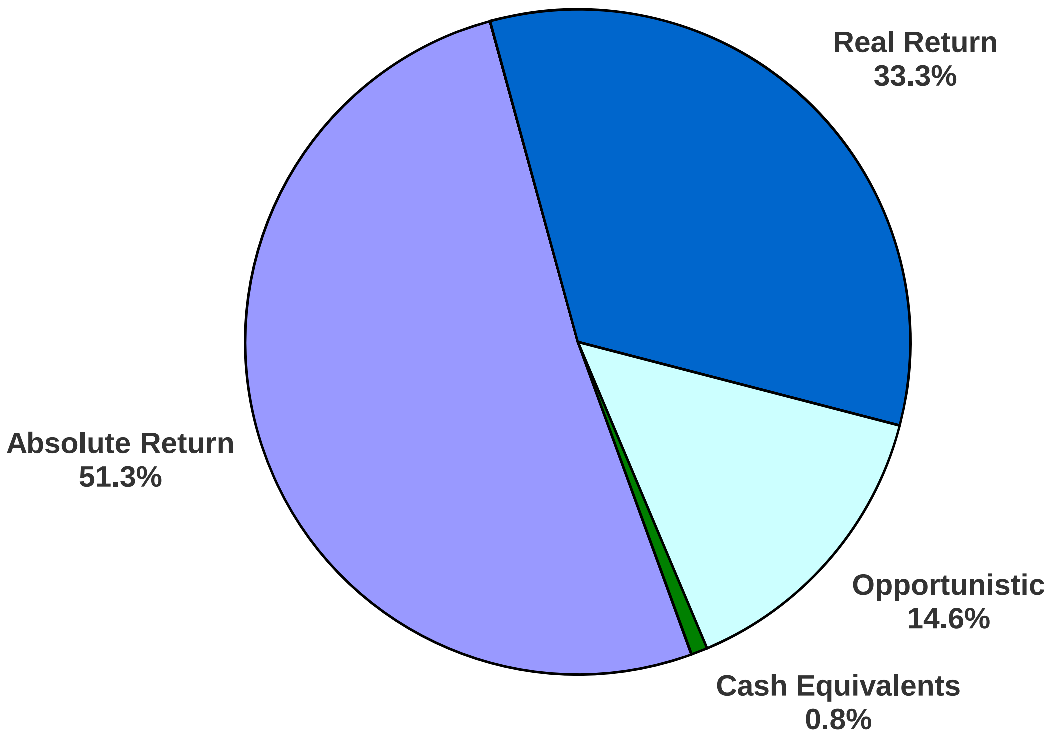
- Senior Secured Credit – Performing non-investment grade credit managers generated positive returns during the quarter due to the use of tactical hedges, investments in higher quality credits, and an allocation to shorter maturity, technically stable loans. The S&P/LSTA Leveraged Loan Index and Merrill Lynch U.S. High Yield Master II Index were down -0.50% and -1.92% respectively, for the quarter. Market technicals were weaker in both September and Q3, as net new supply outweighed demand.

- Direct Lending – Distributions modestly outweighed called capital during the quarter as a couple of funds matured and returned capital. Managers have seen a sizeable increase in the pipeline of opportunities and expect transactions to outweigh maturities as we move into the fourth quarter of this year. Middle market lending spreads have held at an attractive level with minor spread compression as we see increased competition in the space.

- Energy Funds – The energy exposure performed well despite a large drop in energy prices during the quarter. While STARR has made substantial commitments to energy funds over the past two years, investments which required high price appreciation to achieve solid returns were avoided. A substantial amount of uncalled commitments remains ready to capitalize on lower energy prices should they persist.

- During the quarter, one new commitment was closed: Kayne Private Energy Income Fund, L.P. for $150 million (Energy)

SMRS
Absolute, Real Return and Opportunistic
9/30/14



Market Value in Millions

	9/30/14		6/30/14	
Absolute Return	$3,106	51.3%	$2,653	43.5%
Real Return	2,012	33.3%	2,083	34.2%
Opportunistic	882	14.6%	1,274	20.9%
Cash Equivalents	49	0.8%	84	1.4%
Total Investments	**$6,049**	**100.0%**	**$6,094**	**100.0%**

SMRS
Absolute Return
9/30/14

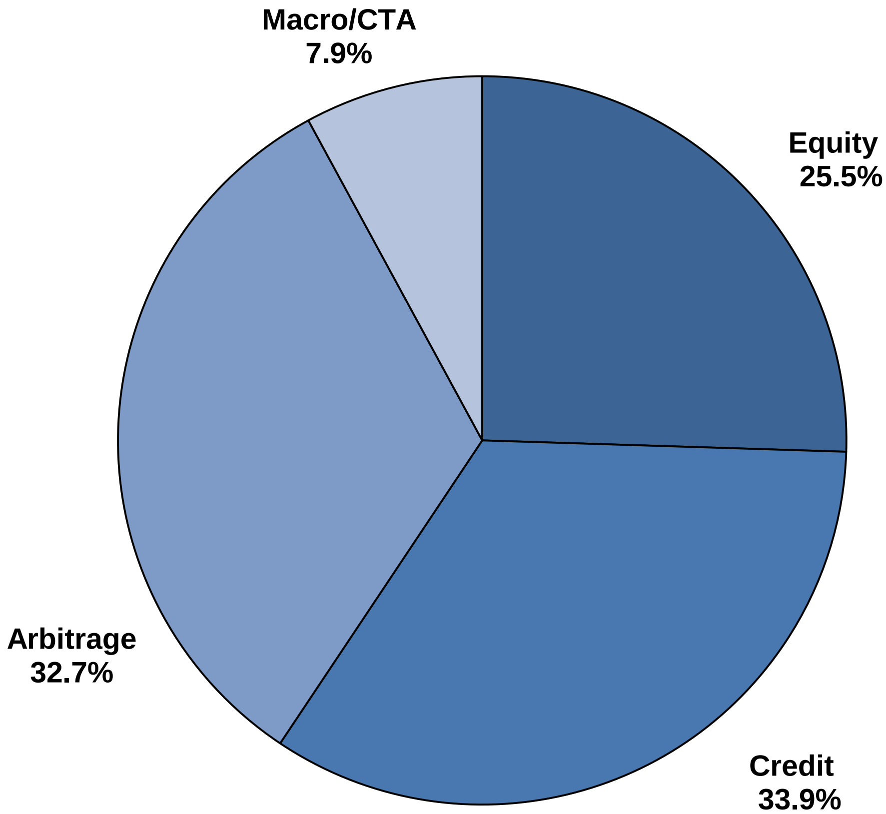
Net Market Values by Entity

	Net Market Value
Absolute Return Capital Partners, L.P.	$42,734,638
Apollo Offshore Credit Strategies Fund Ltd.	145,971,990
Brevan Howard Multi-Strategy Fund, L.P.	106,158,499
Drawbridge Opportunities Fund	173,836,840
Elliott International Limited	49,137,637
* EnTrust White Pine Partners L.P.	352,761,659
FrontPoint Multi-Strategy Fund Series A, L.P.	2,096,971
Mastic Commodity Fund LTD	49,672,705
MP Securitized Credit Master Fund, L.P.	62,670,847
* Sand Hill, LLC	1,293,523,543
Spartan Partners L.P.	40,004,790
* Tahquamenon Fund L.P.	787,140,883
Total Market Value	**$3,105,711,002**

* Fund of Funds

SMRS
Absolute Return
9/30/14

Investments By Strategy



Strategy Breakdown

Underlying Funds:	133	Median Position Size:	0.4%
Strategies:	4	Average Position Size:	0.7%
Relationships:	12	Largest Position Size:	6.6%

SMRS
Real Return and Opportunistic
9/30/14

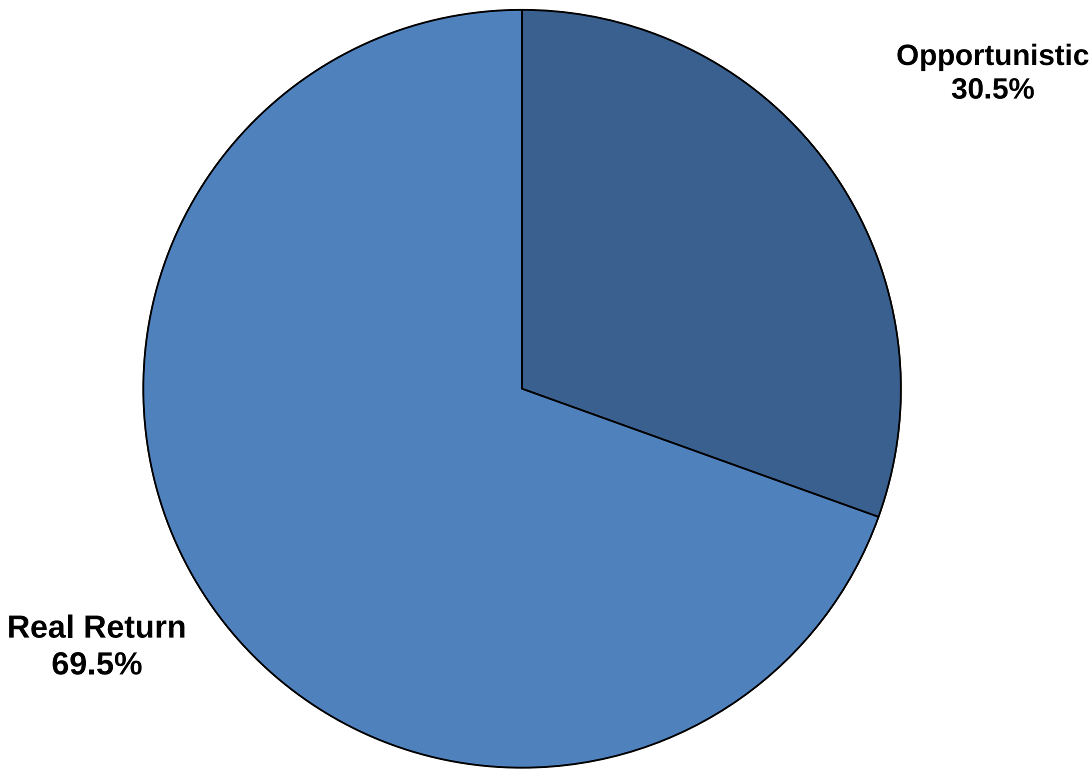
Net Market Value by Entity

		Net Market Value	Unfunded Commitment
*	Abernathy Fund I, LLC	$ 268,994,724	$98,390,930
	Apollo Credit Opportunities Fund III LP	31,442,478	70,947,259
	Apollo European Principal Finance Fund II	35,702,863	26,450,712
	Apollo Financial Credit Investments Fund II	127,792,704	180,235,413
	Apollo Offshore Credit Fund Ltd	278,679,652	0
	Apollo Offshore Structured Credit Recovery Fund II	66,337,514	0
	Apollo Offshore Structured Credit Recovery Fund III	97,770,568	2,600,000
	Carlyle Intl Energy Partners LP	4,415,080	44,173,683
	Content Holdings LLC	160,478,072	$0
	Elegantree Fund SPC	15,062,462	35,000,000
	Energy Recapitalization and Restructuring Fund LP	40,130,596	91,023,162
	ERR Michigan Holdings LP	8,673,603	894,576
*	Fairfield Settlement Partners, LLC	58,942,517	56,460,947
	Fortress MSR Opportunities Fund I A LP	117,477,307	17,000,000
	Galaxie Ave. Partners, LLC	99,900,000	0
	Highbridge Principal Strategies - Specialty Loan Fund III	99,726,323	69,881,678
	Hopen Life Sciences Fund II	3,782,180	5,950,000
	JP Morgan Global Maritime Investment Fund LP	56,856,699	84,041,565
	KANG Fund LP	48,888,067	150,837,139
	KKR EI&G Fund	11,174,107	52,281,139
	KKR Lending Partners LP	80,763,115	17,234,630
	Lakewater LLC, Series 1	168,194,355	54,390,412
	Lakewater LLC, Series 2	200,463,457	66,159,623
	Lakewater LLC, Series 3	316,725,478	0
	Lakewater LLC, Series 4	29,588,184	21,124,211
	Orion Mine Finance Fund I LP	67,413,583	75,024,500
	Orion Mine Finance Fund 1A LP	5,048,680	50,012,761
	Renaissance Venture Cap Fund II LP	2,551,178	22,000,000
	REOG Fund II Coinvest LP	2,815,798	22,184,203
	Ridgewood Energy Oil & Gas II	42,686,815	98,619,239
	SJC Direct Lending Fund I, LP	89,894,335	21,289,181
	SJC Direct Lending Fund II, LP	94,152,942	278,126,205
*	Social Network Holdings, LLC	152,302,333	0
	Varo Coinvestment LP	7,002,363	3,825,180
	Total Market Value	**$2,894,493,146**	**$1,716,158,348**

* Fund of Funds

SMRS
Real Return and Opportunistic
9/30/14

Investments By Strategy



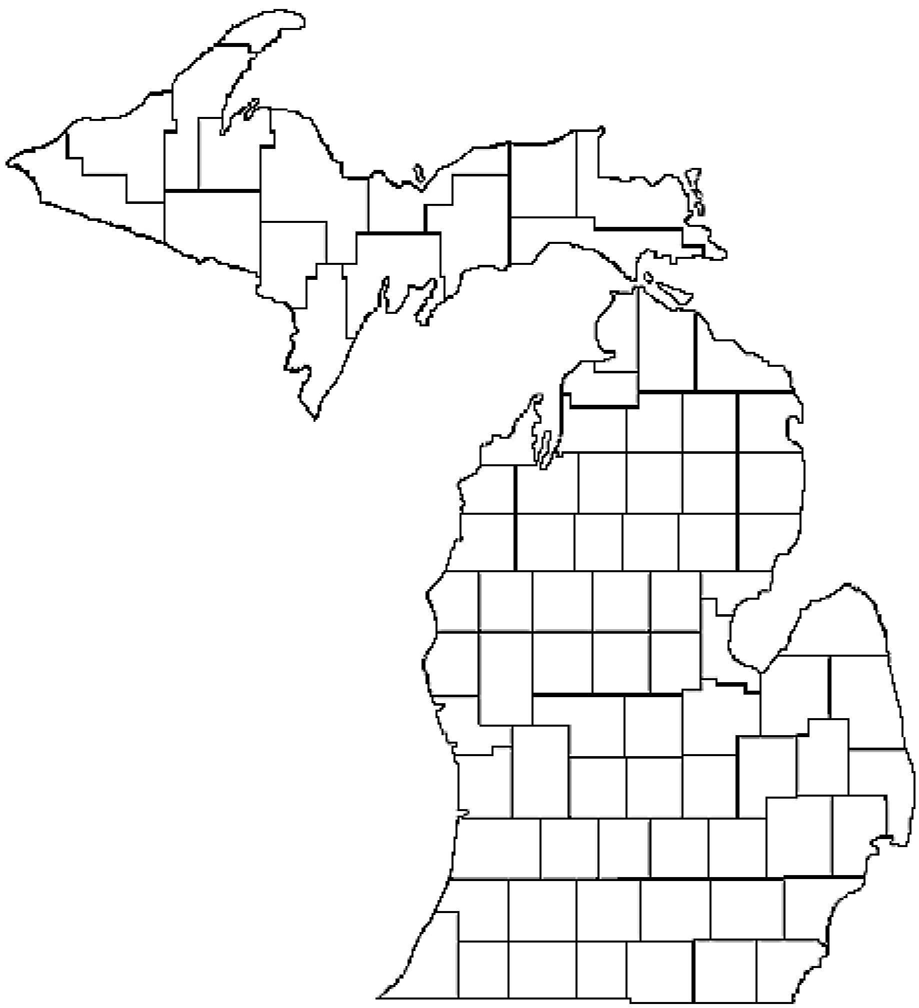
Investment Strategy	
Opportunistic:	$882,508,268
Real Return:	$2,011,984,878

STATE OF MICHIGAN
RETIREMENT SYSTEMS

DOMESTIC EQUITY REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

DECEMBER 2, 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	20.5%	23.8%	15.7%	6.4%	8.4%
S&P 1500	18.6%	23.0%	15.8%	6.2%	8.3%
State Street Peer Group	15.8%	22.3%	15.6%	6.1%	8.1%
Rank vs. Peers	7	12	50	34	38

Total Domestic Equity, Net	1-Year	3-Years	5-Years
Annualized Returns	20.3%	23.6%	15.5%
S&P 1500	18.6%	23.0%	15.8%
Lipper Multi Core	15.0%	21.6%	14.2%

Total Active Equity, Net	1-Year	3-Years	5-Years
Annualized Returns	21.4%	23.9%	15.3%
S&P 1500	18.6%	23.0%	15.8%
Lipper Multi Core	15.0%	21.6%	14.2%
Percent Rank vs. Lipper Multi Core	5	23	36

- Total Domestic Equity (active & passive management combined) outperformed the S&P 1500 and ranked in the top quartile of its State Street peer group, gross of fees, on both a one and a three-year basis. Five-year performance underperformed the benchmark and roughly matched peers. These numbers are not inclusive of SMRS' now ~20 bps per year cost advantage (8 bps versus 30 bps) over its peer group.

- Net of fees, Total Active Equity outperformed its benchmark and ranked in the top decile and the top quartile of its peer group over one and three-years respectively. Five-year performance lagged the benchmark, but outperformed peers.

- Internal management, net of fees, outperformed the S&P 500 on a one and three-year basis and performed in the top quartile of Lipper Large-Cap Core managers over the past one, three, and five years.

- External management underperformed its benchmark on a one, three, and five-year basis, while slightly outperforming peer averages.

    - Results relative to the benchmark were impacted by fee drag, stock selection, and managers' overall defensive posturing in an up market.

    - On a style and risk adjusted basis, returns over the past one and three-years were value added, as managers took on less risk than their respective benchmarks.

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

Strategy Update

- Total Active Equity's portfolio trades at an estimated 20% discount to its benchmark, the S&P 1500, on the basis of normalized earnings (Total Active Equity at 14.5x versus the S&P 1500 at ~18x), with slightly less volatility and slightly slower growth prospects going forward.

- We expect Total Active Equity's PE ratio to at least partially converge with that of the S&P 1500 over the next five years, driving annualized outperformance.

- If it does not, we expect outperformance on the basis of a 1.3% per year greater net dividend yield (dividends + buybacks) than the S&P 1500, on top of similar growth.

- Total active equity remains significantly overweight the financial sector while underweight commodity-related themes and small-cap stocks.

- Four of SMRS' seven internal strategies are outperforming their benchmarks on an inception to date basis, three of which rank in the top 10% of their peer groups during these time periods.

- The external manager program has been concentrated and its costs have been reduced to the 25 bps per year range, giving us optimism that its performance will improve going forward.

- Total fees paid for both internal and external active management now amount to 13 bps per year, or similar to that of the Vanguard S&P 500 Index Fund.

- SMRS has reduced its small-cap underweight on the heels of recent large-cap outperformance, but remains overweight large-cap stocks.

Market Environment and Outlook

- At 18x normalized earnings, equity markets look reasonably priced in comparison to bonds.

- Assuming a 3.5% normalized dividend yield (dividends plus buybacks) and 5% long-term expected earnings growth, the S&P 1500 is poised to return approximately 8.5% over the long-term absent significant multiple expansion or contraction.

- This compares to the 30-year U.S. Treasury at 3.2%, and an historical average return for the S&P 500 of 9.6%

SMRS

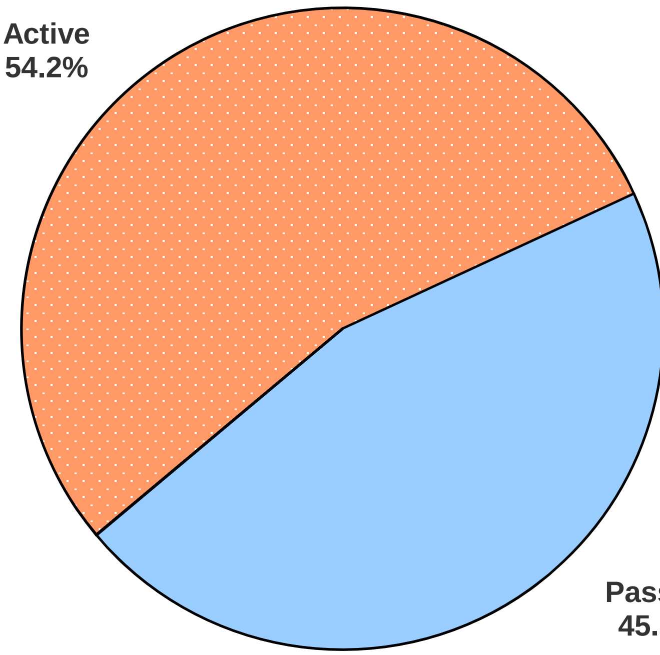
Domestic Equities

9/30/14

	Amount	% of Total
Passive		
S&P 500	$7,641,342	
S&P 400	756,976	
Sub Total	**$8,398,318**	45.9%
Internal Active		
Large-Cap Core	$2,447,578	
Large-Cap Growth	1,572,555	
All-Cap GARP	667,584	
Concentrated Equity Fund	490,827	
Large-Cap Value	337,351	
Absolute Return Income Fund	298,070	
Tactical Asset Allocation	159,828	
Concentrated All-Cap Growth	85,124	
Sub Total	**$6,058,917**	33.1%
External Active		
Fisher All-Cap Value	$1,031,601	
Seizert Capital Partners All-Cap Core	730,986	
Los Angeles Capital All-Cap Growth	545,934	
Champlain Mid-Cap Core	521,457	
Cramer Rosenthal McGlynn All-Cap Core	275,460	
Clarkston Small-Cap Core	223,753	
GW Capital All-Cap Value	205,793	
Northpointe All-Cap Core	101,617	
Attucks Asset Management	77,947	
Munder Mid-Cap Core	69,926	
Bivium Capital	68,861	
Sub Total	**$3,853,335**	21.0%
TOTAL	**$18,310,570**	100.0%

Note: All dollar amounts are expessed in thousands.

SMRS
Domestic Equity Holdings By Category
9/30/14



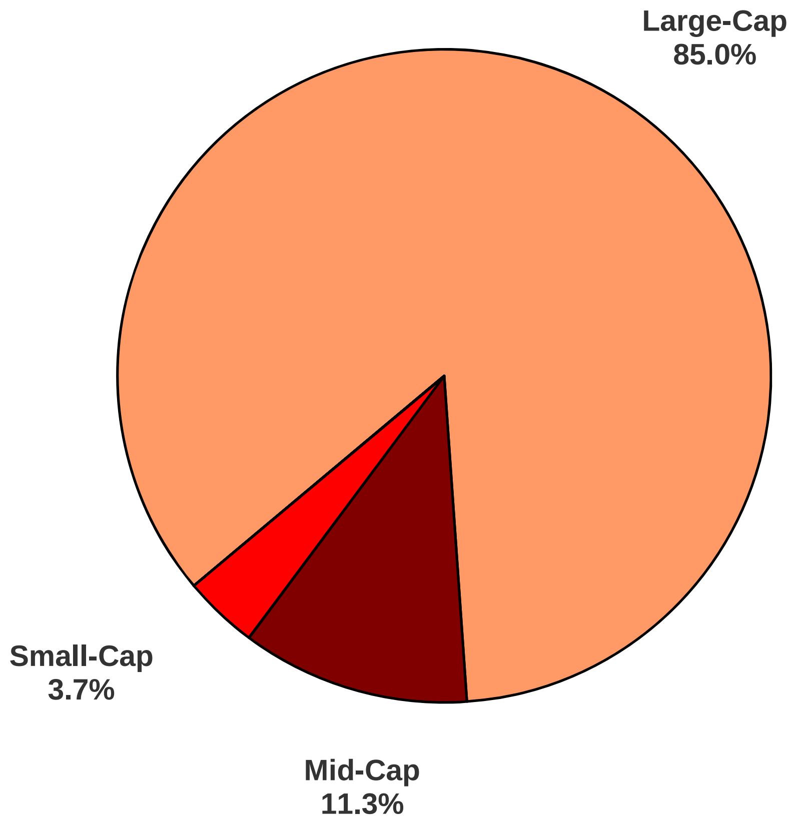
Market Value in Millions

	9/30/14		6/30/14	
	Assets	**Percent**	**Assets**	**Percent**
Active	$9,913	54.2%	$9,802	53.9%
Passive	8,398	45.8%	8,373	46.1%
Total Domestic Equity	**$18,311**	**100.0%**	**$18,175**	**100.0%**

SMRS

Domestic Equity Exposure By Market Cap

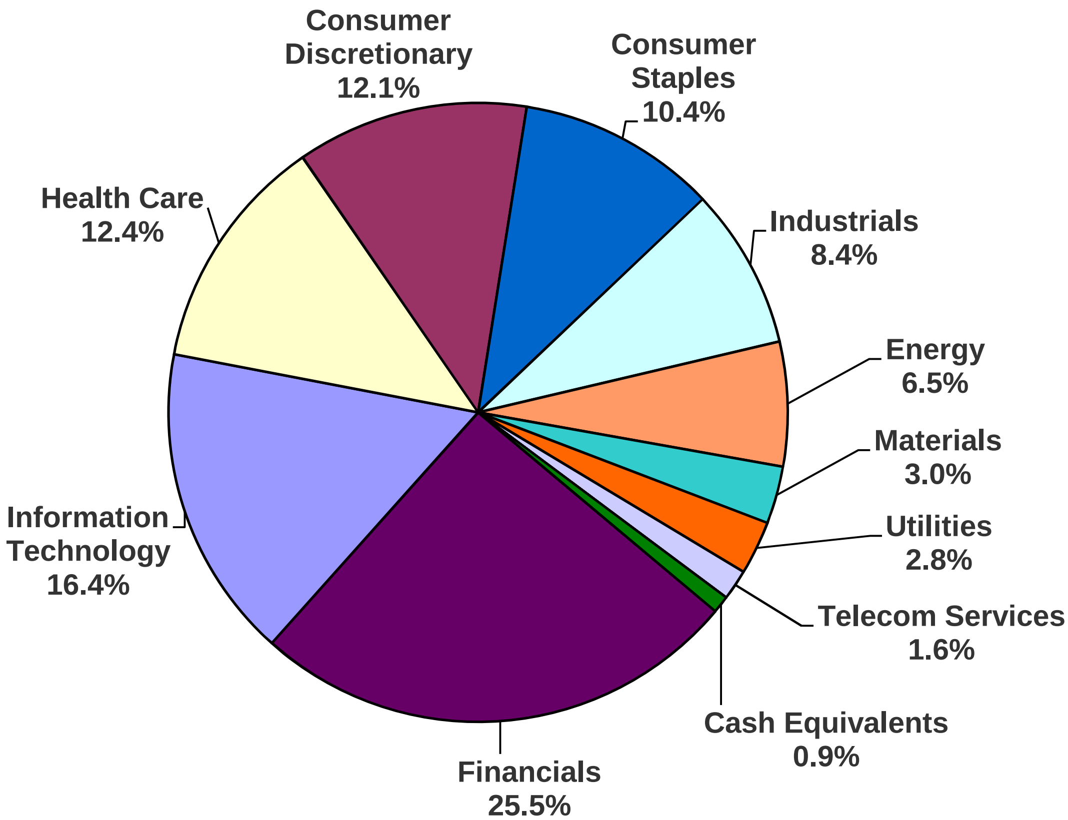
9/30/14



Market Value in Millions

	9/30/14		
	Assets	**Percent**	**S&P 1500**
Large-Cap (>$10B)	$15,564	85.0%	85.0%
Mid-Cap (>$4 <$10B)	2,069	11.3%	8.8%
Small-Cap (<$4B)	678	3.7%	6.2%
Total Domestic Equity	**$18,311**	**100.0%**	**100.0%**

SMRS
All Domestic Equity Holdings By Category
9/30/14



Market Value in Millions

	9/30/14			6/30/14	
	Assets	**Percent**	**Benchmark**	**Assets**	**Percent**
Financials	$4,668	25.5%	17.6%	$4,343	23.9%
Information Technology	3,001	16.4%	18.8%	2,941	16.2%
Health Care	2,273	12.4%	13.5%	2,195	12.1%
Consumer Discretionary	2,216	12.1%	11.9%	2,364	13.0%
Consumer Staples	1,897	10.4%	8.9%	1,835	10.1%
Industrials	1,537	8.4%	10.9%	1,685	9.2%
Energy	1,194	6.5%	9.2%	1,343	7.4%
Materials	558	3.0%	3.9%	598	3.3%
Utilities	523	2.8%	3.1%	492	2.7%
Telecom Services	286	1.6%	2.2%	268	1.5%
Total Investments	$18,153	99.1%	100.0%	$18,064	99.4%
Cash Equivalents	158	0.9%	0.0%	111	0.6%
Total	**$18,311**	**100.0%**	**100.0%**	**$18,175**	**100.0%**

Benchmark: S&P 1500

SMRS

All Domestic Equities Composite

9/30/14

Date:	9/30/14	6/30/14	3/31/14	12/31/13
Assets ($million):	$18,311	$18,175	$17,349	$16,943
Number of Securities:	1,295	1,237	1,306	1,377
Benchmark:	S&P 1500			

Description: The Domestic Equities Composite combines both the SMRS' All Actively Managed Composite and its index funds.

Characteristics:	**SMRS**	**S&P 1500**
Weighted Average Capitalization ($billion):	$124.4	$116.3
Trailing 12-month P/E:	17.2x	18.2x
Forecast P/E:	16.0x	16.8x
Price/Book:	2.3x	2.6x
Beta:	0.97	1.01
Dividend Yield:	1.8%	1.9%
3-5 Year EPS Growth Estimate:	11.5%	11.7%
Return on Equity:	18.9%	18.8%

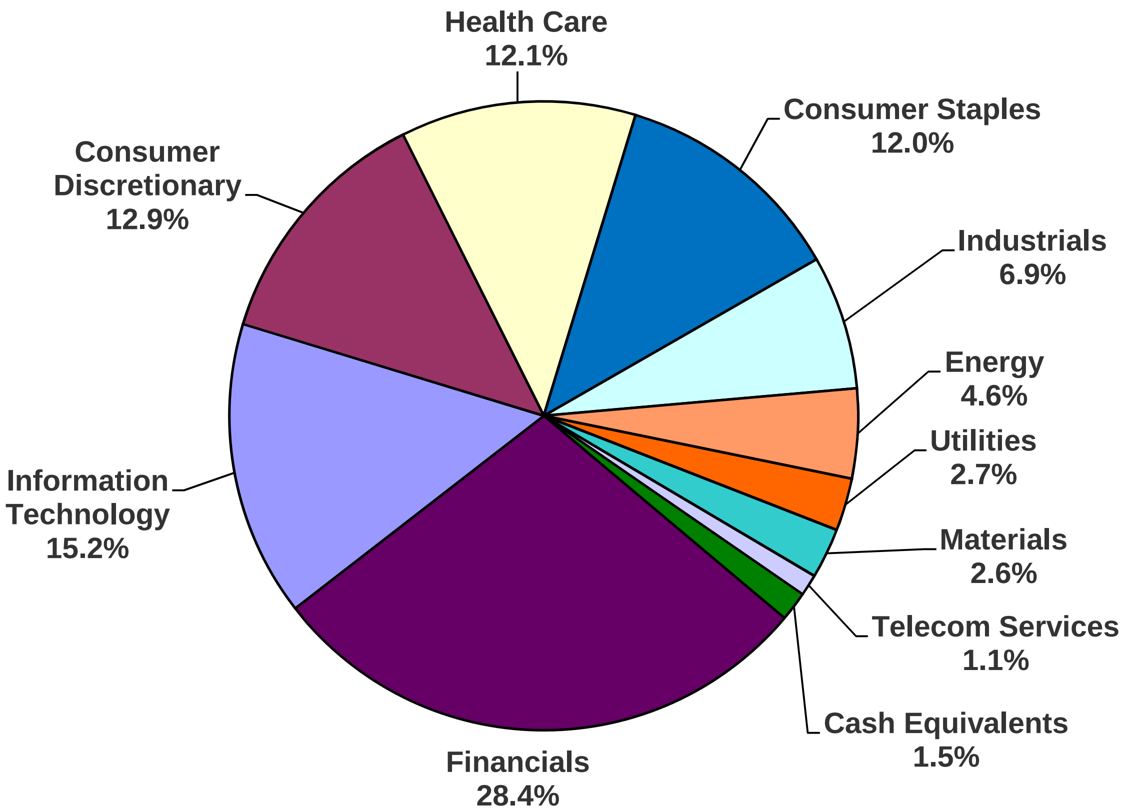
TOP TEN HOLDINGS - All Domestic Equities
9/30/14

	Portfolio Weight	Total Shares	9/30/14 Price	YTD14 Total Return	Market Value
Wal-Mart Stores, Inc.	4.0%	9,631,825	$76.47	-1.0%	$736,545,658
U.S. Bancorp	4.0%	17,367,770	$41.83	5.3%	726,493,819
Apple, Inc.	3.4%	6,111,758	$100.75	27.8%	615,759,619
Goldman Sachs Group, Inc.	2.5%	2,508,472	$183.57	4.6%	460,480,205
SPDR S&P 500 ETF Trust	2.5%	2,300,550	$197.02	8.2%	453,254,361
Wells Fargo & Co.	2.2%	7,839,331	$51.87	16.7%	406,626,099
Johnson & Johnson	2.0%	3,411,975	$106.59	18.8%	363,682,415
Bank of America Corp.	1.7%	18,261,079	$17.05	10.0%	311,351,397
Microsoft, Inc.	1.4%	5,600,639	$46.36	26.5%	259,645,624
IBM Corp.	1.4%	1,326,020	$189.83	3.0%	251,718,377
TOTAL	25.0%				$4,585,557,573

SMRS

All Active Domestic Equity Holdings By Category

9/30/14



Market Value in Millions

	9/30/14			6/30/14	
	Assets	**Percent**	**Benchmark**	**Assets**	**Percent**
Financials	$2,813	28.4%	17.6%	$2,523	25.7%
Information Technology	1,509	15.2%	18.8%	1,517	15.5%
Consumer Discretionary	1,275	12.9%	11.9%	1,421	14.5%
Health Care	1,205	12.1%	13.5%	1,172	12.0%
Consumer Staples	1,188	12.0%	8.9%	1,132	11.6%
Industrials	681	6.9%	10.9%	805	8.2%
Energy	460	4.6%	9.2%	527	5.4%
Utilities	273	2.7%	3.1%	230	2.3%
Materials	255	2.6%	3.9%	289	2.9%
Telecom Services	107	1.1%	2.2%	91	0.9%
Total Investments	$9,766	98.5%	100.0%	$9,707	99.0%
Cash Equivalents	147	1.5%	0.0%	95	1.0%
Total	**$9,913**	**100.0%**	**100.0%**	**$9,802**	**100.0%**

Benchmark: S&P 1500

SMRS

All Actively Managed Composite

9/30/14

Date:	9/30/14	6/30/14	3/31/14	12/30/13
Assets ($million):	$9,913	$9,802	$9,348	$9,055
Number of Securities:	983	920	1,020	1,083

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:	**SMRS**	**S&P 1500**
Weighted Average Capitalization ($billion):	$126.9	$116.3
Trailing 12-month P/E:	16.4x	18.2x
Forecast P/E:	15.4x	16.8x
Price/Book:	2.1x	2.6x
Beta:	0.93	1.01
Dividend Yield:	1.8%	1.9%
3-5 Year EPS Growth Estimate:	11.3%	11.7%
Return on Equity:	18.9%	18.8%

TOP TEN HOLDINGS - All Actively Managed
9/30/14

	Portfolio Weight	Total Shares	9/30/14 Price	YTD14 Total Return	Market Value
U.S. Bancorp	7.0%	16,629,032	$41.83	5.3%	$695,592,409
Wal-Mart Stores, Inc.	6.9%	8,984,491	$76.47	-1.0%	687,044,027
Goldman Sachs Group, Inc.	4.3%	2,340,490	$183.57	4.6%	429,643,749
Apple, Inc.	3.7%	3,657,027	$100.75	27.8%	368,445,470
Wells Fargo & Co.	3.1%	5,891,797	$51.87	16.7%	305,607,510
Johnson & Johnson	2.4%	2,255,815	$106.59	18.8%	240,447,321
Bank of America Corp.	2.4%	13,949,984	$17.05	10.0%	237,847,227
Exelon Corp.	2.1%	6,189,395	$34.09	28.2%	210,996,476
Everest RE Group, Ltd.	2.0%	1,235,000	$162.01	5.4%	200,082,350
IBM Corp.	1.8%	945,685	$189.83	3.0%	179,519,384
TOTAL	35.9%				$3,555,225,922

Combined Active Equity Portfolio, Return Expectations
9/30/14

Return Assumption Estimates

	Expected Return ****	Normal Dividend Yield **	LT Growth Rate ***
SAD Combined Active Equity	**9.6%**	**4.9%**	**4.8%**
S&P 1500 All-Cap *****	8.5%	3.6%	5.0%
S&P 500 Large-Cap *****	8.5%	3.8%	4.8%
S&P 400 Mid-Cap	8.4%	1.9%	6.5%
S&P 600 Small-Cap	8.1%	1.1%	7.0%
US 30-Year Treasury	3.2%	3.2%	0.0%

Normal Dividend Yield Decomposition

	Normal Price/Earnings	Normal Earnings Yield*	Normal Payout Ratio	Normal Dividend Yield**
SAD Combined Active Equity	**14.5**	**6.9%**	**70%**	**4.9%**
S&P 1500 All-Cap	18.4	5.4%	66%	3.6%
S&P 500 Large-Cap	18.1	5.5%	68%	3.8%
S&P 400 Mid-Cap	21.3	4.7%	41%	1.9%
S&P 600 Small-Cap	22.8	4.4%	24%	1.1%

Portfolio and Benchmark Risk Estimates

	Expected Return ****	Standard Deviation	Expected Return/Volatility
SAD Combined Active Equity	**9.6%**	**10.9%**	**0.9**
S&P 1500 All-Cap	8.5%	11.0%	0.8
S&P 500 Large-Cap	8.5%	11.0%	0.8
S&P 400 Mid-Cap	8.4%	11.8%	0.7
S&P 600 Small-Cap	8.1%	14.0%	0.6
US 30-Year Treasury	3.2%	15.6%	0.2

*Earnings Yield = Earnings/Price
**Includes Share Buybacks
***LT Growth Rate Calculation: Return on Equity * (1-Dividend Payout Ratio)
****Yield to Maturity Formula: Dividend Yield + LT Growth Rate
*****S&P 500 Return is greater than that of the S&P 1500, but indices look the same due to rounding

SMRS Internal/External Manager Performance – Net of Fees
9/30/14

Total Domestic Equity Performance, Gross

	Market Value	1 Year	3 Years	5 Years	7 Years	10 Years
Total Domestic Equity	**$18,310,845,721**	**20.4%**	**23.8%**	**15.7%**	**6.4%**	**8.4%**
S&P 1500		18.6%	23.0%	15.8%	6.2%	8.3%
State Street Peer Group		*15.5%*	*22.3%*	*15.6%*	*6.1%*	*9.1%*

Total Domestic Equity Performance, Net of Fees

	Market Value	1 Year	3 Years	5 Years	7 Years
Total Domestic Equity	**$18,310,845,721**	**20.3%**	**23.6%**	**15.5%**	**6.3%**
S&P 1500		18.6%	23.0%	15.8%	6.2%
Lipper Multi Core		*15.0%*	*21.6%*	*14.2%*	*5.5%*

Total Active Equity Performance, Net of Fees

	Market Value	1 Year	3 Years	5 Years	7 Years
Total Active Equity	**$9.912,526,859**	**21.4%**	**23.9%**	**15.3%**	**6.3%**
S&P 1500		18.6%	23.0%	15.8%	6.2%
Style & Risk Adjusted Benchmark		16.0%	21.9%	15.2%	6.0%
Lipper Multi Core		15.0%	21.6%	14.2%	5.5%
Percent Rank vs. Lipper Multi Core		5	23	36	32

Manager Performance, Net of Fees

	Market Value	1 Year	3 Years	5 Years	7 Years	Inception	Inception Date
Total Internal Active	**$5,899,363,558**	**22.1%**	**23.7%**	**15.3%**	**6.1%**	**N/A**	**N/A**
S&P 500		19.7%	23.0%	15.7%	6.0%		
Style & Risk Adjusted Benchmark		15.8%	21.4%	15.1%	5.8%		
Lipper Large-Cap Core		*17.4%*	*21.5%*	*14.2%*	*5.4%*		
Pct. Rank vs. Lipper Large-Cap Core		*4*	*17*	*25*	*27*		
Total External Active	**$3,853,335,666**	**16.2%**	**21.9%**	**14.5%**	**6.1%**	**N/A**	**N/A**
S&P 1500		18.6%	23.0%	15.8%	6.2%		
Style & Risk Adjusted Benchmark		14.2%	21.2%	15.0%	7.0%		
Lipper Multi Core		*15.0%*	*21.6%*	*14.2%*	*5.5%*		
Pct. Rank vs. Lipper Multi Core		*43*	*50*	*53*	*39*		
SMRS Large-Cap Core	$2,447,578,277	26.7%	27.5%	16.7%	7.4%	7.9%	8/31/07
S&P 500		19.7%	23.0%	15.7%	6.0%	6.6%	
Style & Risk Adjusted Benchmark		13.3%	21.6%	15.1%	5.4%	6.0%	
Lipper Large-Cap Core		*17.4%*	*21.5%*	*14.2%*	*5.4%*	*6.0%*	
Pct. Rank vs. Lipper Large-Cap Core		*1*	*1*	*5*	*6*	*7*	

Manager Performance, Net of Fees
9/30/14

	Market Value	1 Year	3 Years	5 Years	7 Years	Inception	Inception Date
SMRS Large-Cap Growth	$1,572,832,396	25.1%	23.4%	16.2%	7.8%	9.2%	5/31/05
S&P 500 Growth index		21.6%	22.6%	16.6%	7.8%	8.9%	
Style & Risk Adjusted Benchmark		22.5%	22.7%	16.7%	7.8%	9.0%	
Lipper Large Growth		*17.3%*	*21.5%*	*15.0%*	*6.4%*	*8.6%*	
Pct. Rank vs. Lipper Large Growth		*2*	*20*	*21*	*19*	*31*	
Fisher All-Cap	$1,031,601,080	21.0%	22.8%	14.5%	7.4%	10.3%	10/31/04
S&P 1500/S&P 600 Value Blend		18.6%	24.7%	16.0%	7.1%	8.9%	
Style & Risk Adjusted Benchmark		17.5%	24.6%	16.7%	7.4%	9.6%	
Lipper Blended Peer Group		*15.0%*	*20.9%*	*13.7%*	*6.2%*	*8.0%*	
Pct. Rank vs. Lipper Blended Peer Group		*6*	*31*	*37*	*17*	*1*	
Seizert Capital Partners	$730,986,089	14.4%	25.3%	--	--	18.5%	11/30/09
S&P 1500/S&P400 Value Blend		18.6%	23.0%	--	--	19.6%	
Style & Risk Adjusted Benchmark		13.3%	23.0%	--	--	15.9%	
Lipper Multi Core		*15.0%*	*21.6%*	--	--	*15.1%*	
Pct. Rank vs. Lipper Multi Core		*58*	*11*	--	--	*6*	
SMRS All-Cap GARP	$667,583,701	24.4%	26.6%	--	--	18.8%	4/30/11
S&P 1500 Super Composite		18.6%	23.0%	--	--	14.1%	
Style & Risk Adjusted Benchmark		18.3%	22.3%	--	--	14.0%	
Lipper Multi Core		*15.0%*	*21.6%*	--	--	*14.0%*	
Pct. Rank vs. Lipper Multi Core		*1*	*6*	--	--	*1*	
LA Capital Mid-Cap Core	$545,934,075	18.1%	24.2%	16.6%	8.6%	11.2%	5/31/05
LA Capital Blended Benchmark		10.2%	21.4%	15.8%	7.7%	9.8%	
Style & Risk Adjusted Benchmark		18.9%	21.2%	15.6%	8.0%	9.8%	
Lipper Mid Core		*14.6%*	*21.0%*	*15.0%*	*6.0%*	*8.8%*	
Pct. Rank vs. Lipper Mid Core		*24*	*13*	*24*	*12*	*11*	
Champlain Mid-Cap Core	$521,456,816	12.7%	20.8%	15.5%	--	19.5%	2/28/09
S&P 400 Mid-Cap Index		11.8%	22.4%	16.4%	--	21.4%	
Style & Risk Adjusted Benchmark		12.4%	20.2%	13.7%	--	17.9%	
Lipper Mid Core		*11.9%*	*21.6%*	*14.8%*	--	*19.7%*	
Pct. Rank vs. Lipper Mid Core		*37*	*66*	*45*	--	*65*	
Concentrated Equity	$490,823,956	6.4%	--	--	--	15.6%	5/31/13
S&P 1500 Super Composite		18.6%	--	--	--	18.1%	
Style & Risk Adjusted Benchmark		6.8%	--	--	--	16.0%	
Lipper Multi Core		*15.0%*	--	--	--	*16.9%*	
Pct. Rank vs. Lipper Multi Core		*98*	--	--	--	*66*	
SMRS Large-Cap Value	$337,351,057	15.3%	19.9%	13.1%	3.2%	2.9%	7/31/07
S&P 500 Value Index		17.8%	23.5%	14.7%	4.2%	4.1%	
Style & Risk Adjusted Benchmark		17.8%	20.8%	13.7%	4.4%	4.4%	
Lipper Large Value		*17.3%*	*22.5%*	*13.9%*	*4.6%*	*4.3%*	
Pct. Rank vs. Lipper Large Value		*85*	*85*	*72*	*86*	*87*	
SMRS Absolute Return Income Fund	$298,070,330	11.9%	17.3%	14.8%	--	15.5%	1/31/09
60% S&P 500/40% Barclays AGG		13.3%	14.5%	11.2%	--	12.2%	
Style & Risk Adjusted Benchmark		12.6%	15.1%	9.0%	--	10.6%	
Lipper Mixed Blend		*9.6%*	*13.2%*	*9.6%*	--	*11.9%*	
Pct. Rank vs. Lipper Mixed Blend		*21*	*7*	*1*	--	4	

Manager Performance, Net of Fees
9/30/14

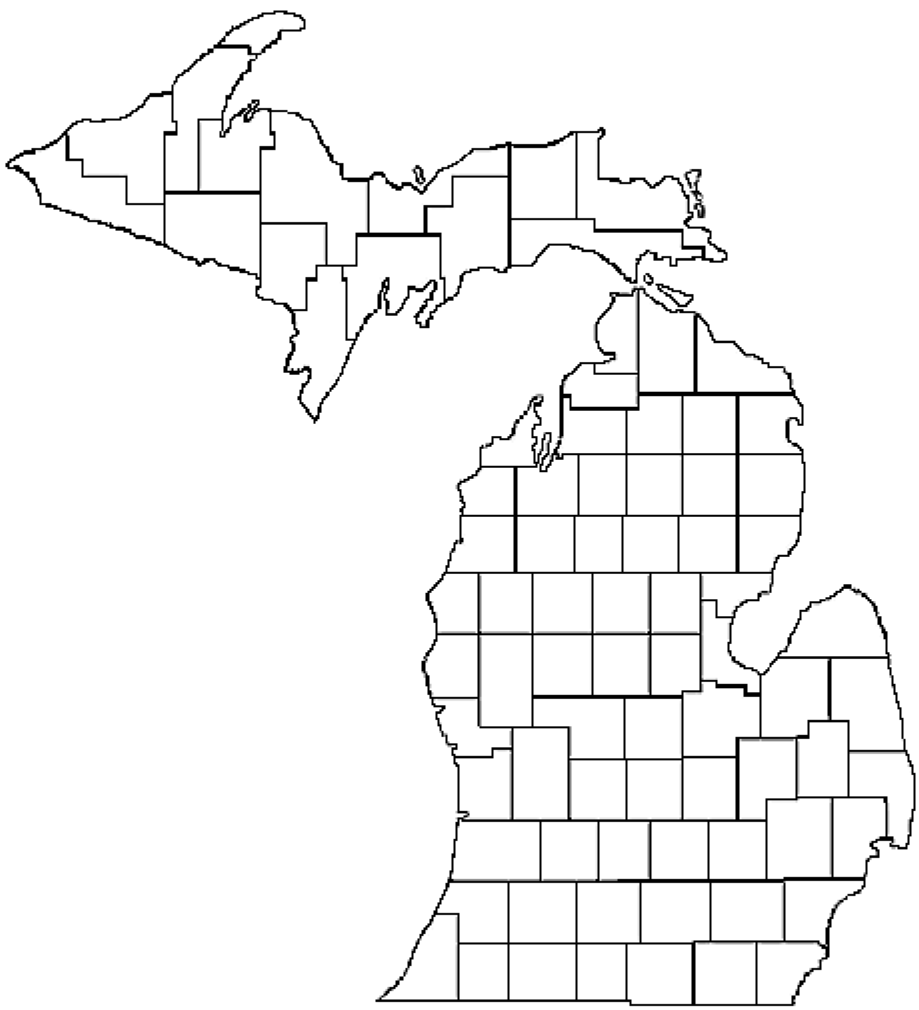
	Market Value	1 Year	3 Years	5 Years	7 Years	Inception	Inception Date
Cramer Rosenthal All-Cap	$275,459,741	10.8%	21.6%	14.3%	6.5%	9.6%	**5/31/05**
S&P 400 Value/S&P 1500 Blend		18.6%	25.9%	16.8%	8.0%	10.1%	
Style & Risk Adjusted Benchmark		13.6%	20.0%	15.9%	7.3%	8.8%	
Lipper Multi Core		*15.0%*	*21.6%*	*14.2%*	*5.5%*	*7.9%*	
Pct. Rank vs. Lipper Multi Core		*85*	*53*	*57*	*24*	*13*	
Clarkston Capital	$223,753,244	--	--	--	--	6.6%	1/1/14
S&P 600		--	--	--	--	-3.7%	
Style & Risk Adjusted Benchmark		--	--	--	--	3.3%	
Lipper Small-Cap Core		--	--	--	--	*-3.1%*	
Pct. Rank vs. Lipper Small-Cap Core		--	--	--	--	*1*	
GW Capital	$205,793,019	--	--	--	--	2.9%	1/1/14
S&P 1500 Value		--	--	--	--	6.7%	
Style & Risk Adjusted Benchmark		--	--	--	--	-2.3%	
Lipper Mid Value		--	--	--	--	*5.1%*	
Pct. Rank vs. Lipper Mid Value		--	--	--	--	*82*	
NorthPointe Small-Cap Core	$101,616,959	9.2%	22.4%	12.0%	4.4%	7.1%	10/31/04
NorthPointe Blended Benchmark		5.7%	22.9%	15.0%	6.5%	8.4%	
Style & Risk Blended Benchmark		8.3%	25.0%	16.8%	7.6%	9.5%	
Lipper Small Core		*5.7%*	*20.9%*	*14.3%*	*6.1%*	*8.4%*	
Pct. Rank vs. Lipper Small Core		*18*	*34*	*86*	*87*	*84*	
Concentrated All-Cap Growth	$85,123,840	-0.3%	--	--	--	3.6%	5/31/13
S&P 600		5.7%	--	--	--	15.1%	
Style & Risk Adjusted Benchmark		10.2%	--	--	--	12.3%	
Lipper Small-Cap Core		*5.7%*	--	--	--	*13.5%*	
Pct. Rank vs. Lipper Small-Cap Core		*95*	--	--	--	*99*	
Attucks Asset Management	$77,947,198	14.4%	21.4%	14.8%	--	5.9%	11/30/07
S&P 1500 Super Composite		18.6%	23.0%	15.8%	--	6.1%	
Style & Risk Adjusted Benchmark		13.4%	21.4%	15.2%	--	7.0%	
Lipper Multi Core		*15.0%*	*21.6%*	*14.2%*	--	*5.3%*	
Lipper Multi Core		*58*	*55*	*47*	--	*40*	
Munder Mid-Cap Core	$69,925,971	13.2%	21.3%	16.4%	--	21.2%	4/30/09
S&P 400 Mid-Cap Growth		10.2%	20.4%	16.7%	--	22.4%	
Style & Risk Adjusted Benchmark		11.8%	20.8%	15.2%	--	20.1%	
Lipper Mid-Cap Growth		*9.7%*	*20.2%*	*15.3%*	--	*20.5%*	
Pct. Rank vs. Lipper Mid-Cap Growth		*20*	*34*	*27*	--	*32*	
Bivium Capital Partners	$68,861,474	12.1%	20.7%	15.0%	--	5.3%	11/30/07
S&P 1500 Super Composite		18.6%	23.0%	15.8%	--	6.1%	
Style & Risk Adjusted Benchmark		16.2%	22.2%	16.2%	--	6.5%	
Lipper Multi Core		*15.0%*	*21.6%*	*14.2%*	--	*5.3%*	
Pct. Rank vs. Lipper Multi Core		*73*	*64*	*43*	--	*55*	

STATE OF MICHIGAN
RETIREMENT SYSTEMS

FIXED INCOME REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

DECEMBER 2, 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	4.6%	3.5%	5.0%	5.9%	5.4%
Barclays Aggregate	4.0%	2.4%	4.1%	5.0%	4.6%
Peer Median Return	4.8%	4.2%	5.9%	5.4%	4.8%
Rank vs. Peers	56	65	74	34	26

- Long-Term Fixed Income returns outperformed the Barclays Aggregate Index on a one-year basis by holding an overweight position to corporate bonds and structured securities. This outperformance was slightly offset by holding a shorter duration than the index as long term interest rates declined during the year.

Strategy Update

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

Market Environment and Outlook

- The U.S. Treasury yield curve has flattened on a year-over-year basis as long-term interest rates have declined while short-term interest rates have increased. The 10-year U.S. Treasury ended the quarter yielding 2.5%, down from 3.0% on December 31, 2013. Yields remain near their lowest levels in sixty years and the long-term risk to the portfolio remains the potential for interest rate increases. Greater uncertainty regarding the Federal Reserve policy has the potential to increase interest rate volatility in the months ahead.
- U.S. investment grade credit spreads have tightened 8 basis points (bps) to 120 bps during the calendar year. High-yield spreads experienced increased volatility during the quarter. Spreads in the high-yield markets have increased by 87 bps during the quarter and 40 bps on a year-to-date basis. Both investment grade and high yield spread levels have tightened dramatically from their 2008-09 highs and are currently below their long-term historical averages. The spreads remain above their pre-recession levels.
- Despite the rally in U.S. Treasuries, and the corresponding reduction in interest rates during the quarter, U.S. interest rates remain relatively attractive when compared with other developed global fixed income markets. The 10-year U.S. Treasury currently yields 1.5% more than the 10-year German Bund and 2.0% more than the Japanese Government Bonds.

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

Conclusion

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

SMRS

Long-Term Fixed Income

9/30/14

	Amount	% of Total
Core	(in millions)	
LTFID Internal	$4,731	
Dodge & Cox	243	
Sub Total	**$4,974**	70.9%
Credit		
Prudential	$252	
Sub Total	**$252**	3.6%
Securitized Debt		
Principal Global	$325	
Met West Securitzed Ops	387	
Sub Total	**$712**	10.2%
High Yield		
Columbia Management	$308	
Prudential High Yield	305	
Sub Total	**$613**	8.7%
Tactical		
Pyramis	$257	
Loomis Core Plus	206	
Sub Total	**$463**	6.6%
TOTAL	**$7,014**	100.0%

SMRS

Fixed Income Holdings

Portfolio Characteristics

Benchmark: Barclays Aggregate

9/30/14

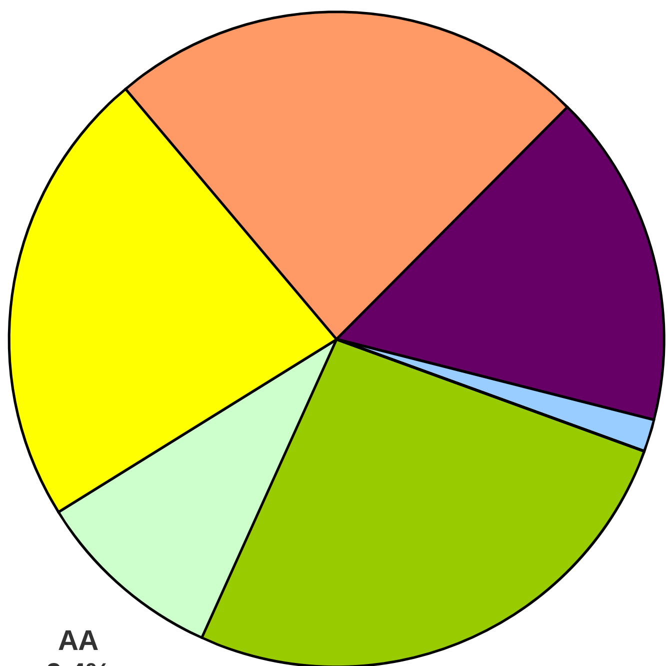
Characteristic	*Portfolio*	*Benchmark*	*Relative (%)*
Average Life	6.8	7.4	91.8
Average Life w/Cash Equiv.	6.7	7.4	90.6
Duration (Yrs)	5.2	5.6	93.7
Duration (Yrs) w/Cash Equiv.	5.2	5.6	92.4
Coupon (%)	4.1	3.4	119.0
Yield to Maturity (%)	3.2	2.3	135.9
Moody's Credit Rating	A3	Aa2	
S&P Credit Rating	BBB	AA-	

SMRS

Fixed Income By Rating

Total U.S. Long-Term Fixed Income

9/30/14



Market Value in Millions

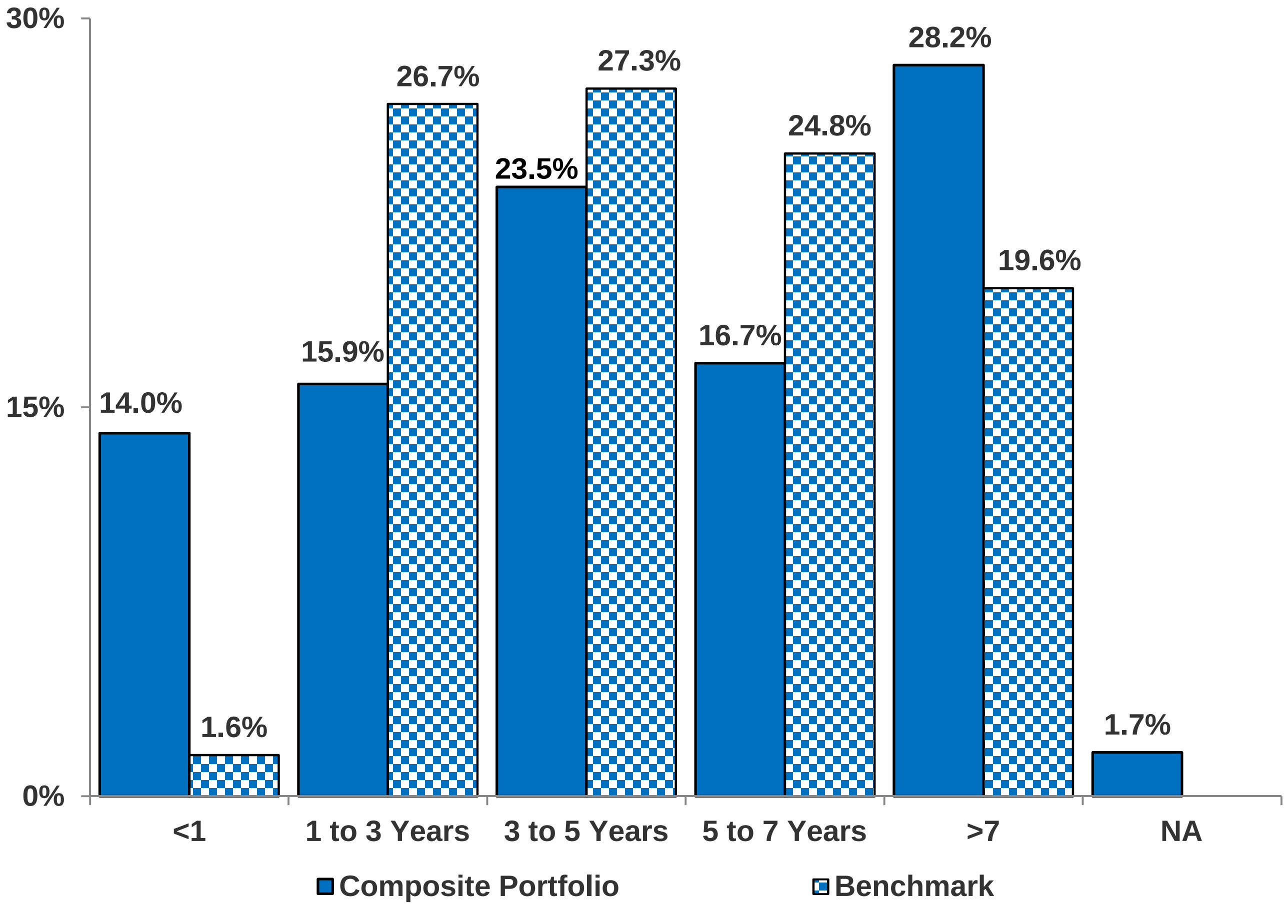
	9/30/14			6/30/14	
	Assets	Percent	Benchmark	Assets	Percent
AAA	$1,840	26.2%	72.2%	$1,652	23.6%
AA	660	9.4%	5.4%	825	11.8%
A	1,594	22.7%	11.9%	1,769	25.2%
BBB	1,652	23.6%	9.8%	1,505	21.5%
Not Rated	114	1.6%	0.1%	455	6.5%
Below Investment Grade	1,154	16.5%	0.6%	798	11.4%
Total Investments	**$7,014**	**100.0%**	**100.0%**	**$7,004**	**100.0%**

Benchmark: Barclays US Aggregate

SMRS

Duration Distribution

Fixed Income Composite Versus Benchmark
9/30/14

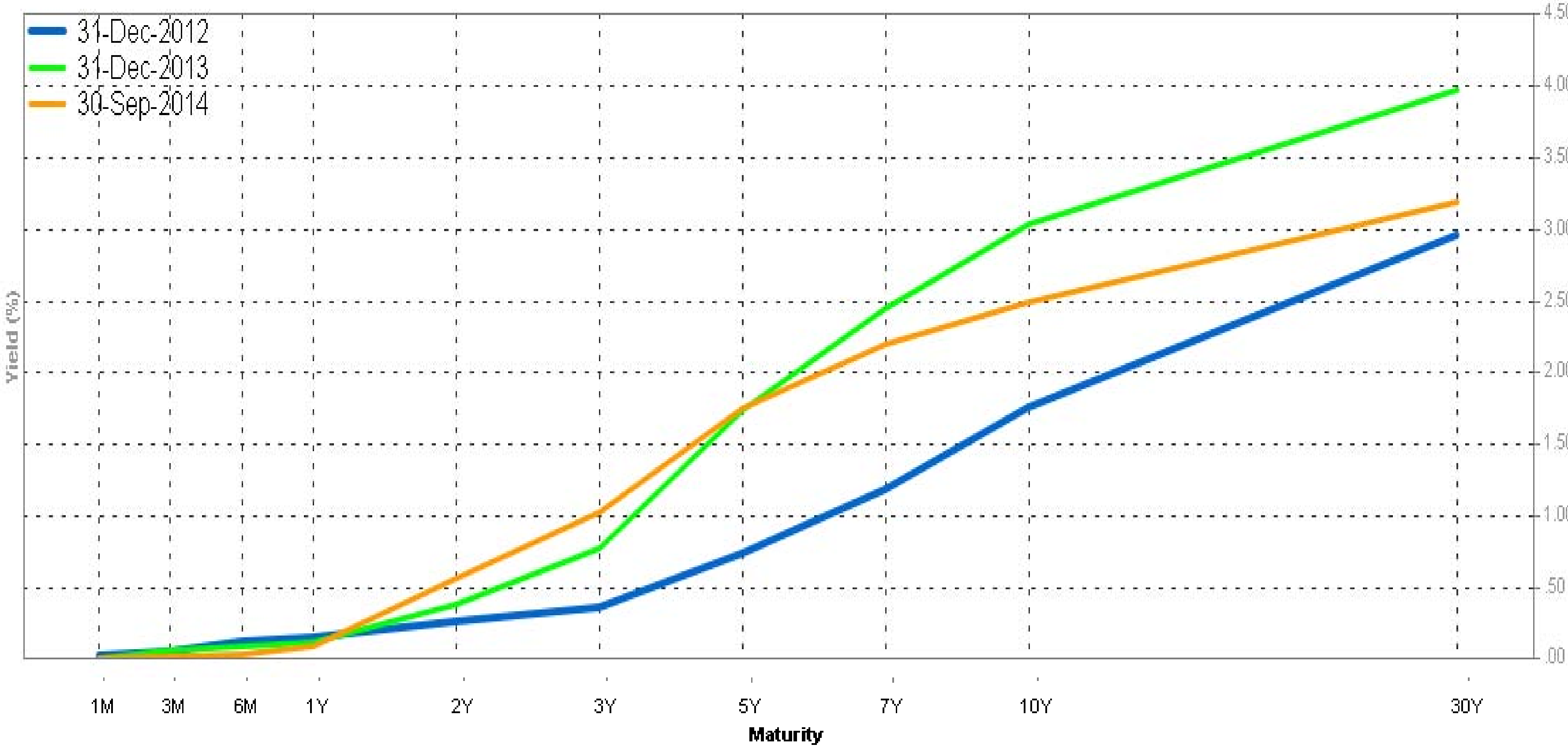


Source: Factset

Market Value in Millions

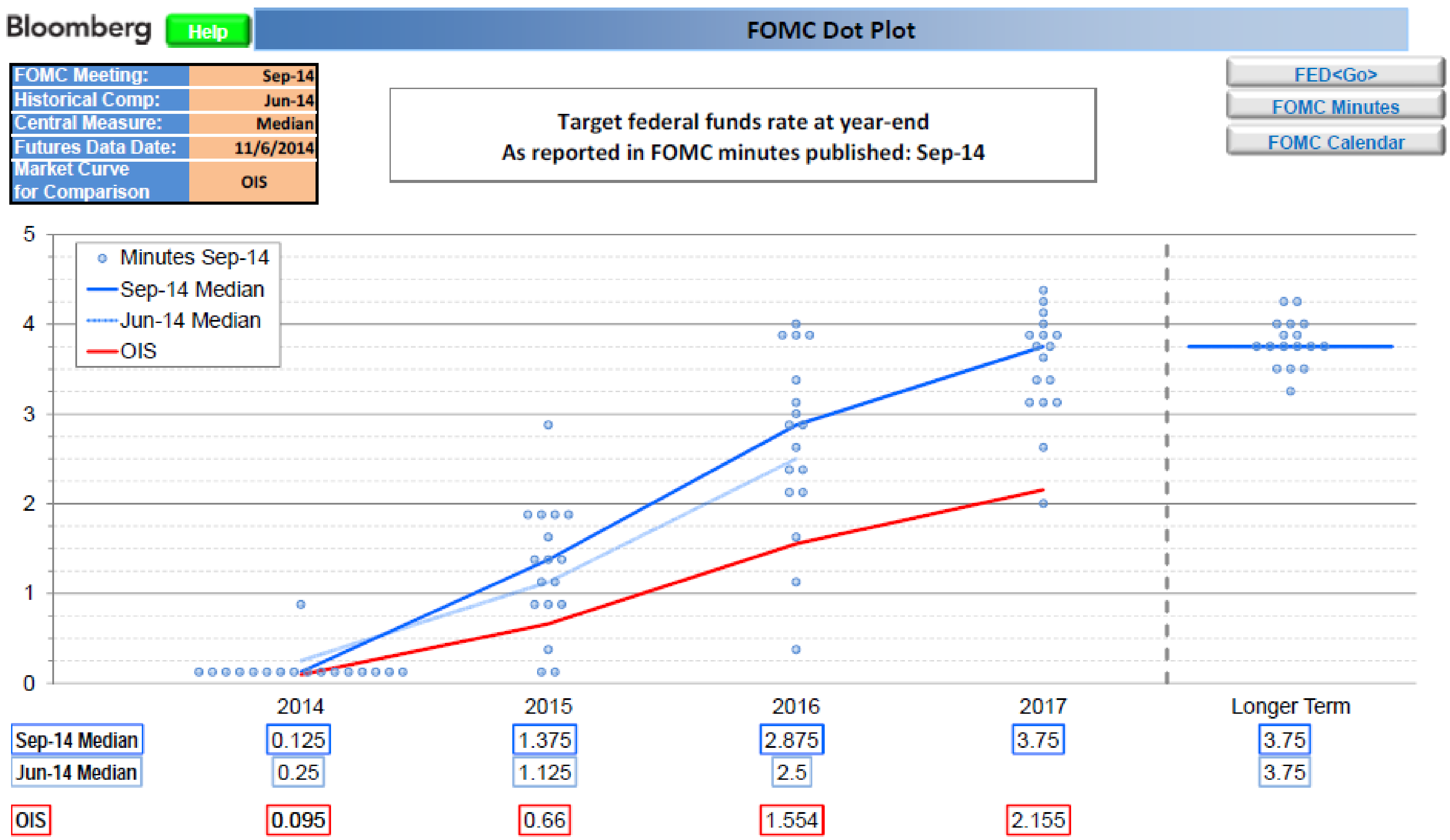
Duration	Assets	Portfolio Weight	Benchmark Weight
<1	$980	14.0%	1.6%
1 to 3 Years	1,113	15.9%	26.7%
3 to 5 Years	1,651	23.5%	27.3%
5 to 7 Years	1,173	16.7%	24.8%
>7	1,980	28.2%	19.6%
NA	117	1.7%	0.0%
Total	**$7,014**	**100.0%**	**100.0%**

U.S. Yield Curve Movement



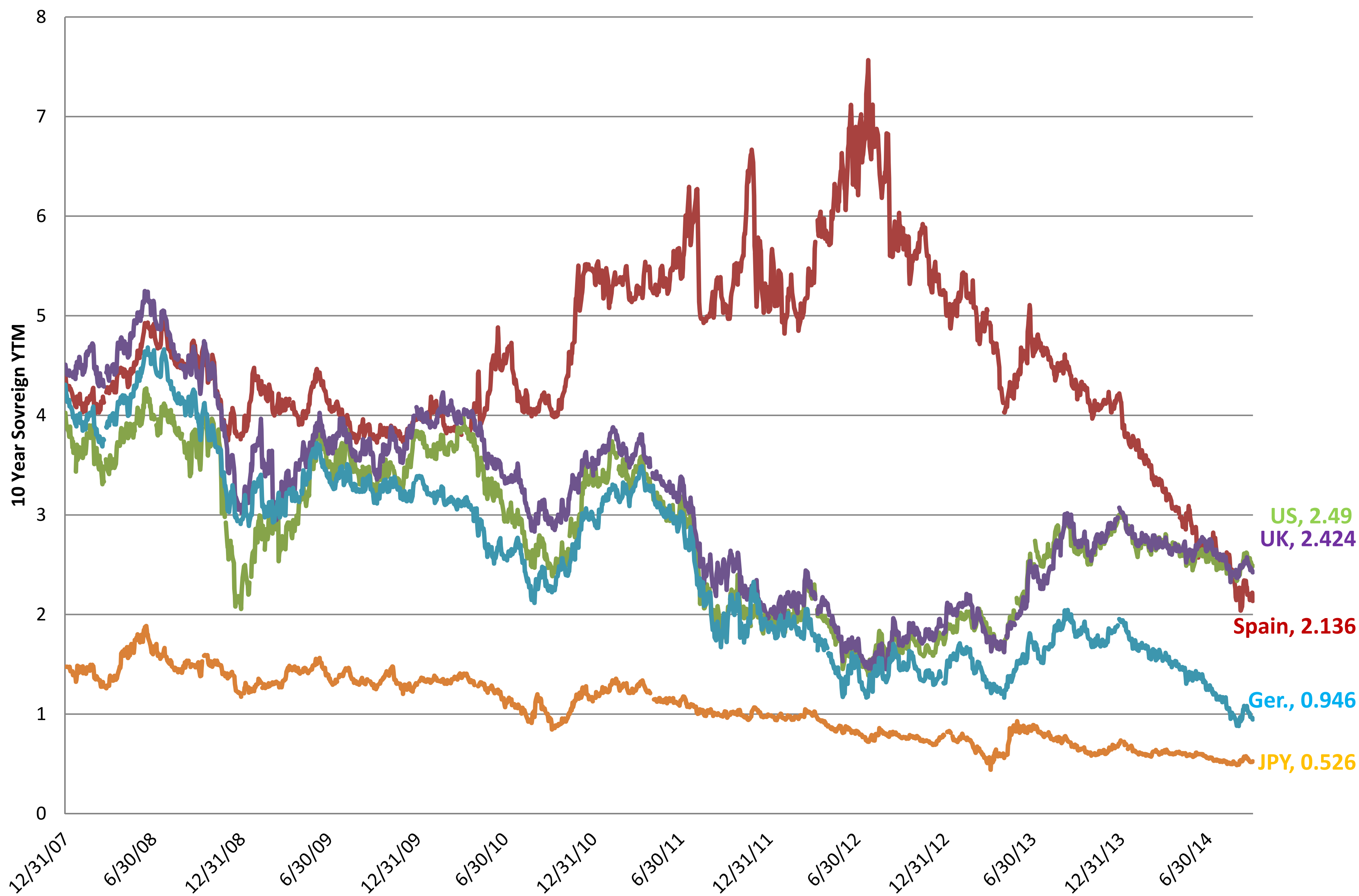
Source: Factset

FOMC Tightening Projections



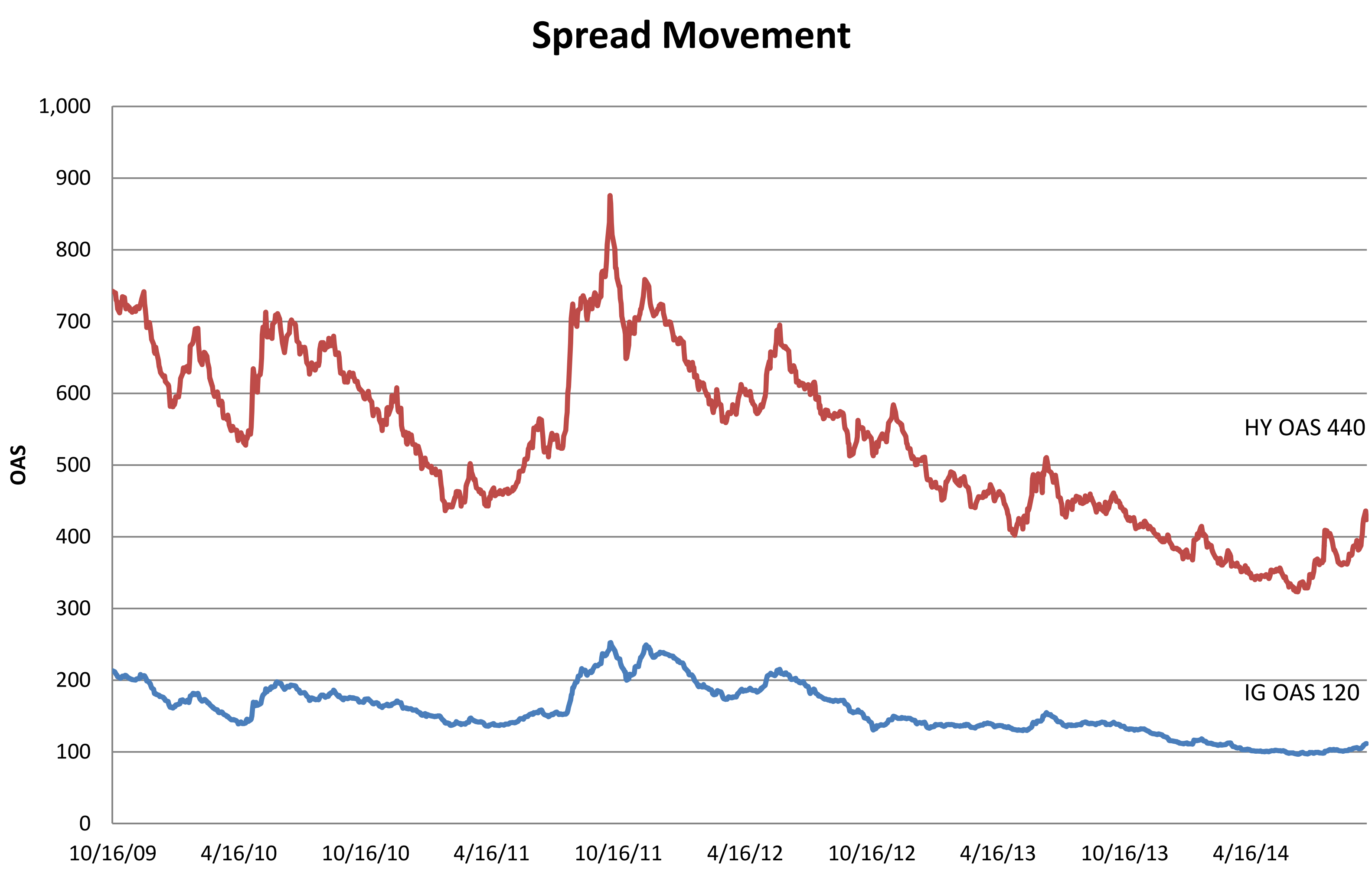
Source: Bloomberg

Global Yield Movement



Source: Bloomberg

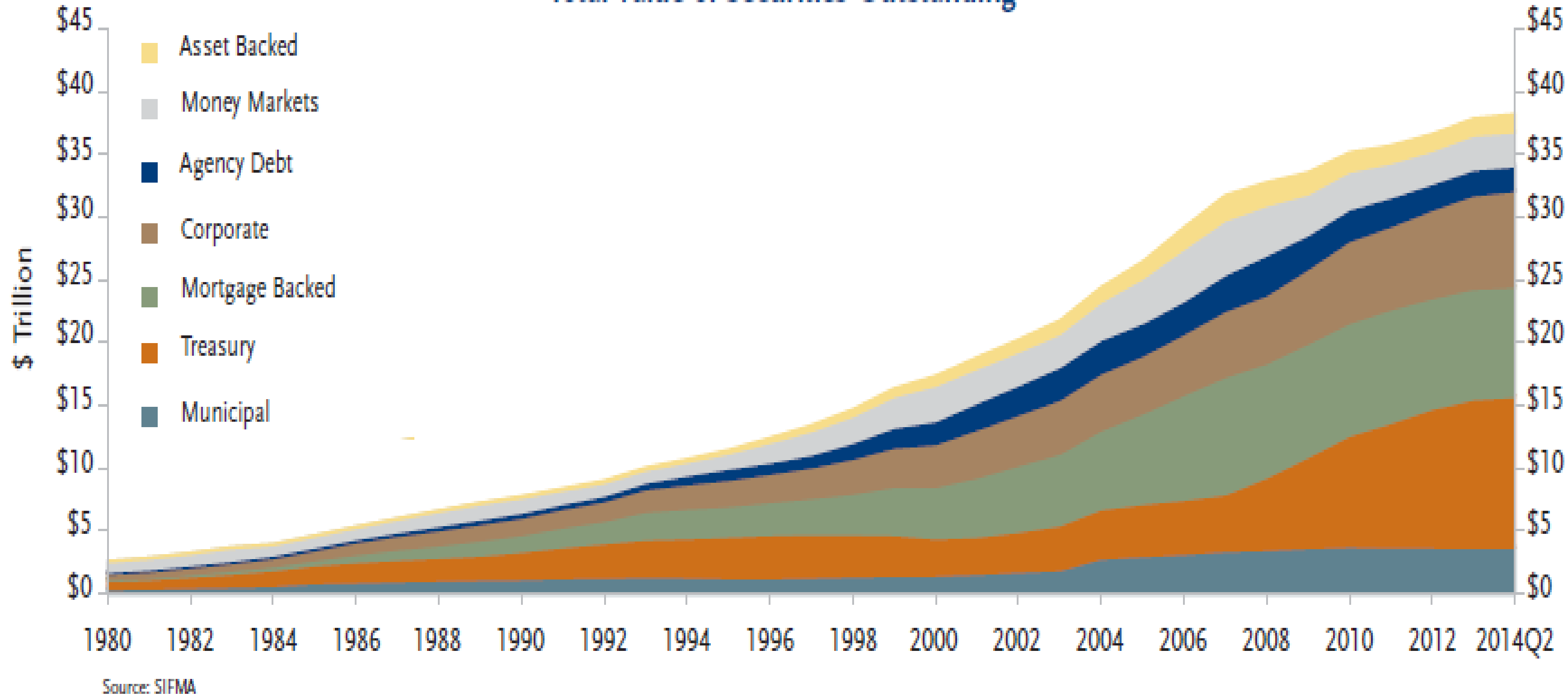
U.S. Corporate Spread Movement



Source: Barclay's

Evolution of U.S. Bond Market

Total Value of Securities Outstanding*



*U.S. domestic bond market information

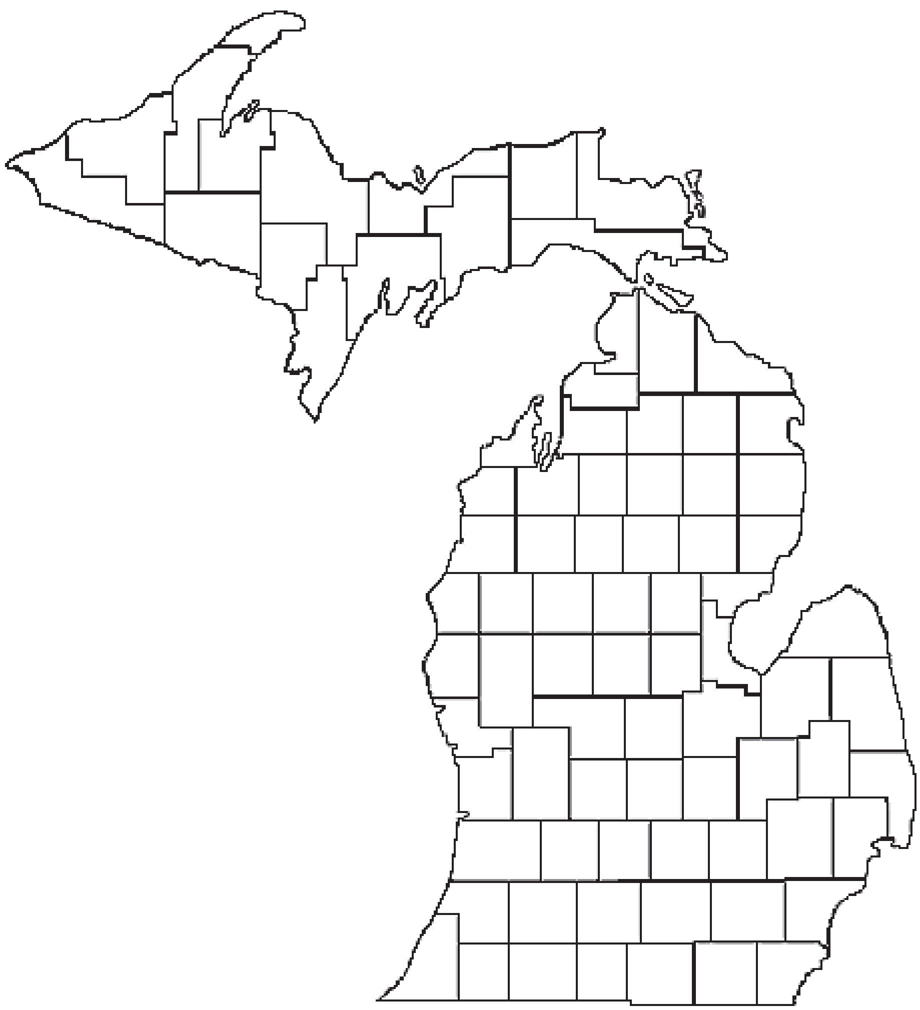
Source: Metwest

STATE OF MICHIGAN
RETIREMENT SYSTEMS

INTERNATIONAL EQUITY REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

DECEMBER 2, 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	6.0 %	13.1%	6.9%	0.0%	6.2%
Benchmark Return	5.1%	12.3%	5.8%	-0.6%	5.8%
Peer Return (> $1 B)	5.5%	13.6%	7.3%	0.4%	6.8%
Rank vs. Peers	34	63	68	63	80

- The total international equity portfolio has come back to exceed its trailing year benchmark due to earlier rebalancing activities and favorable stock plus style impacts. Exceeding developed market performance in the third quarter, emerging markets have roughly matched developed market performance in the trailing year with currency impacts, as the U.S. dollar has strengthened versus the Pound, Euro, and Yen. Globally, geopolitical risks have increased and economic growth has slowed. International portfolio returns have now exceeded their internal benchmarks over all time periods.

- International performance comparisons with peer group returns still remain difficult for the same reasons. Peers had a lower allocation to emerging markets when emerging markets underperformed developed markets. The portfolio has maintained a higher allocation to passive strategies over time, and that strategy choice underperformed active strategies in several time periods, but reduced risk, lowered return variance and reduced the overall management cost. Many peers use global mandated funds for their international exposure allocations, which have included the outperforming U.S. equity securities category.

- The internally managed stock plus funds both outperformed their benchmarks, using a conservative approach to managing fixed income and dividend stock assets underlying the equity 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 53% of international developed markets equity exposure. That composite had a return of -4.6% in the third quarter and 7.1% for the year.

- Active developed market fund managers had a return of -6.2% for the quarter and 5.1% for the year. Manager returns are well diversified, and reflect a combination of fundamental analysis driven, quantitative and stock plus fixed income enhancement strategies. The external stock plus strategies are recovering from earlier underperformance, and their strategies are positioned well for a slow U.S. and global growth economic environment.

- Total Emerging Market equity returns were -3.1% for the quarter, and 6.2% for the trailing year. Active exposure to the RAFI fundamental factor subset index was positive for the trailing year, but value stocks returned to negative returns in the quarter. The Research Affiliates Fundamental Index (RAFI) is a value style strategy with a good historical record. The strategy has a long time horizon, deep value characteristics and an additional level of political risk sensitivity that makes it quite volatile in shorter periods. Forty-four percent of exposure to Emerging Markets is indexed. Additional EM exposure results from the Developed Market External Manager use of substitute stocks and some specific broader risk platforms.

Outlook

- The outlook for international equities is cautiously positive based on slow improvement in the European economy, improving bank reserve levels, no serious long lasting disruption of trade resulting from geopolitical tensions, continuing European Central Bank support of liquidity, and attractive relative valuation with the U.S. market. Emerging Markets have been negatively affected by slower growth and both geopolitical and internal political problems. Many concerns appear to be discounted, and relative growth expectations remain positive over the long-term. 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 is currently challenged, and small and mid-cap international stocks are experiencing greater volatility. Stock Plus strategies are expected to continue to enhance returns by focusing on credit and trading opportunities in a slow growth economic environment.

- Emerging markets are expected to benefit from growing local consumer demand trends and slowly improving governance, regulation, and financial reforms in select countries. The Wellington Emerging Local Equity fund based directly on those local themes has been a solid contributor to returns. Political instability, corruption, lack of tested legal systems, and changing tax regimes will remain concerns. Infrastructure investments and projects should stimulate emerging market economies, and the need for foreign capital and expertise might speed some financial reforms.

Investment Plan

- Move slowly toward longer-term objectives as a slow global recovery develops and relative valuations of international markets remain positive.

- Take advantage of attractive corporate spreads and high quality, less liquid securities to enhance the returns in stock plus strategies. Collaborate with internal fixed income staff for an effective hybrid approach to security research and selection.

- Prepare for derivative market product and regulatory changes by focusing on standardized, exchange-supported structures as they become available, and the management of collateral positions.

SMRS

International Equities

9/30/14

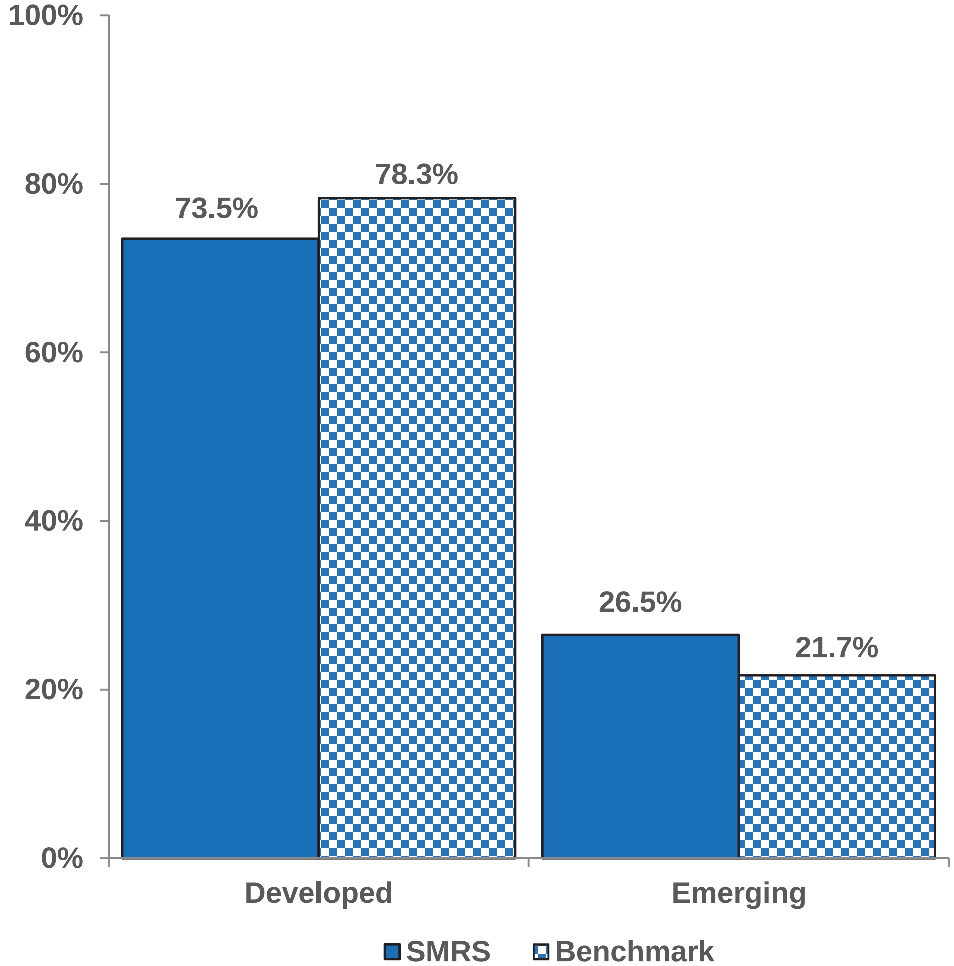
Markets	Indexed	Active	Total Indexed & Active	Percent
Developed Markets - Large/Mid Cap				
Internal Stock Plus Combination	$1,725			
SSgA PMI Fund	1,039			
Vanguard Developed Markets Fund	567			
PIMCO Stock Plus Fund		$1,016		
Wellington Int'l Research Equity Fund		595		
Baillie Gifford ACWI Ex US Alpha Fund		352		
Marathon-London EAFE Fund		336		
T Rowe Price Int'l Core Equity		220		
Lazard Int'l Equity		214		
Sub Total Developed Large/Mid Cap	**$3,331**	**$2,733**	**$6,064**	**66.0%**
Developed Markets - Small Cap				
SSgA EMI Fund	$735			
Franklin Templeton Int'l Small Cap Fund		$197		
MFS Int'l Small Cap Fund		180		
SSgA Int'l Small Cap Alpha Fund		170		
Sub Total Developed Small Cap	**$735**	**$547**	**$1,282**	**14.0%**
Total Developed Markets	**$4,066**	**$3,280**	**$7,346**	**80.0%**
Emerging Markets - All Cap				
Vanguard Emerging Mkt Stock Index Fund	$739			
Internal Emerging Market Equity Fund	74			
PIMCO Emerging Market Fund		$522		
LACM Emerging Market Fund		322		
Wellington Emerging Market Fund		181		
Sub Total Emerging All Cap	**$813**	**$1,025**	**$1,838**	**20.0%**
TOTAL	**$4,879**	**$4,305**	**$9,184**	**100.0%**

SMRS

International Equity Exposure By Category

SMRS Versus Benchmark

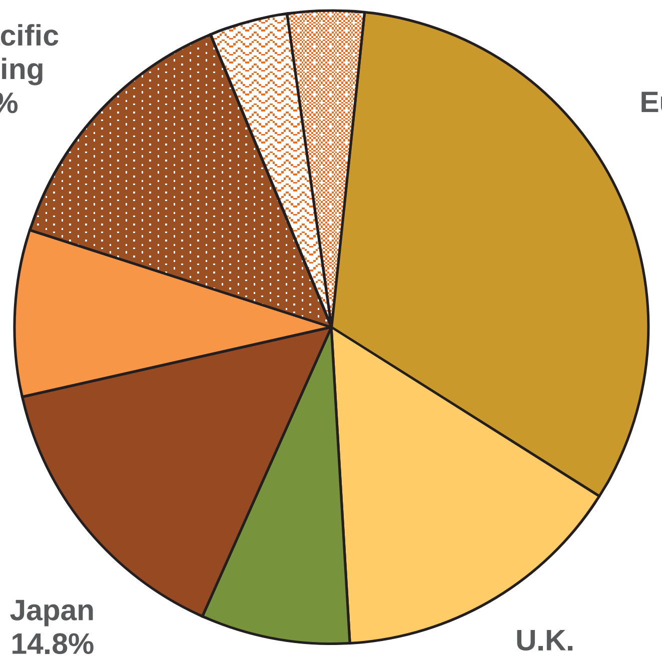
9/30/14



Investments by Region

	SMRS	MSCI ACWI ex USA
Developed	73.5%	78.3%
Emerging	26.5%	21.7%
Total	**100.0%**	**100.0%**

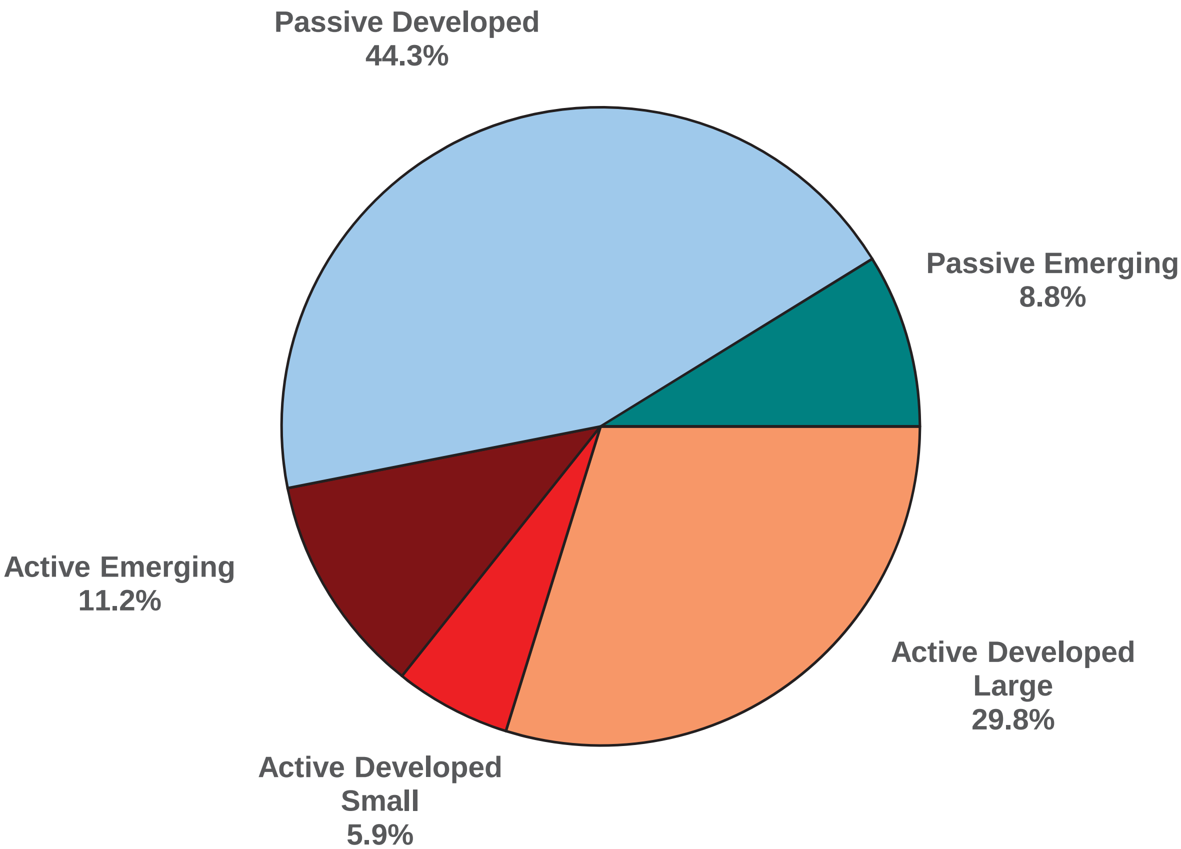
SMRS
MSCI ACWI ex USA
9/30/14



	Benchmark
Developed	
Europe ex U.K.	32.3%
U.K.	15.1%
Japan	14.8%
Asia Pacific Developed	8.5%
Canada	7.6%
Total Developed	**78.3%**
Emerging	
Asia Pacific Emerging	13.8%
Latin America	4.0%
Emerging Europe, Mid-East & Africa	3.9%
Total Emerging	**21.7%**
Total	**100.0%**

SMRS

International Equity Holdings By Category
9/30/14

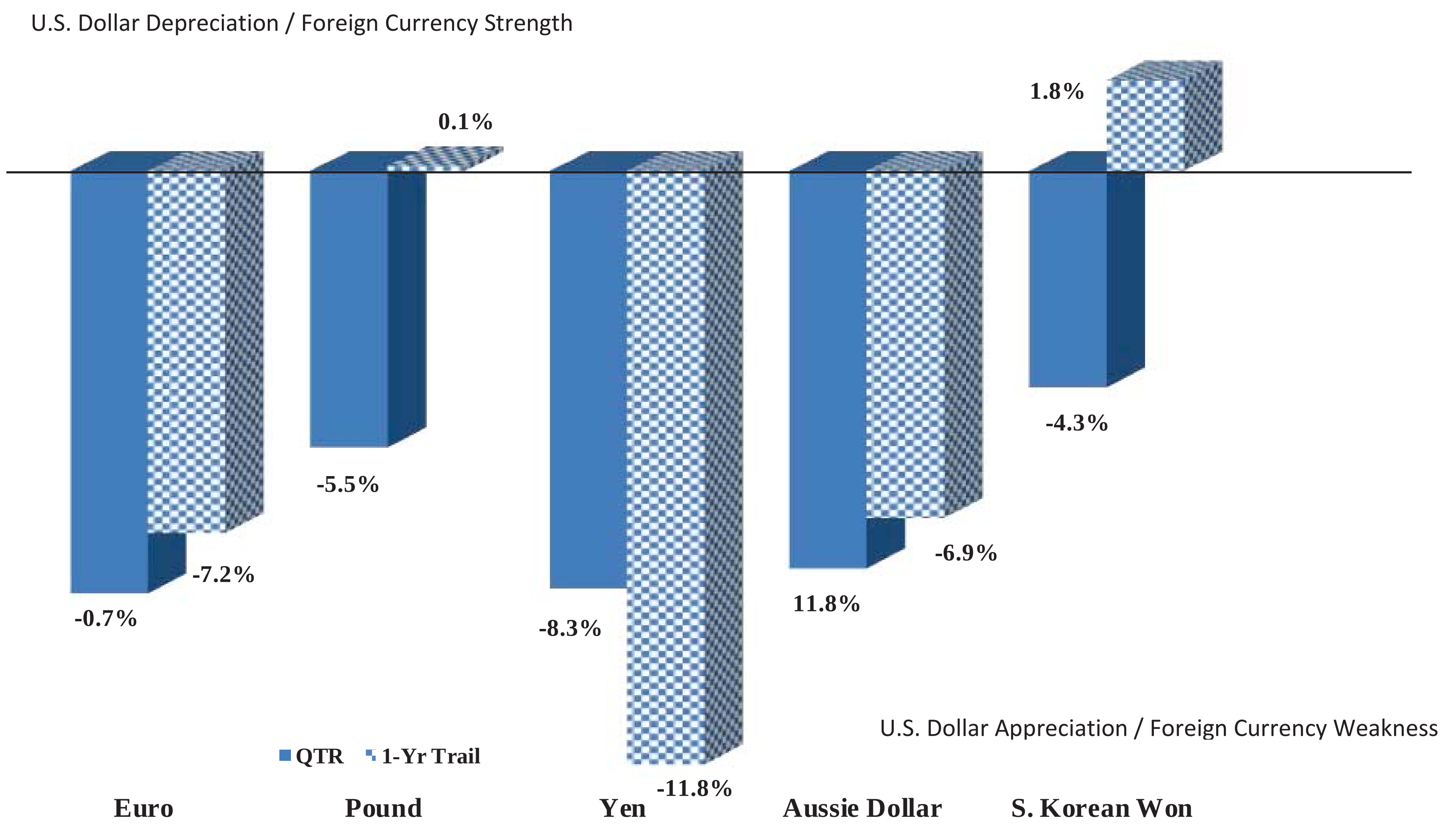


Market Value in Millions

	9/30/14		6/30/14	
Active				
Developed Large	$2,733	29.8%	$2,910	30.1%
Developed Small	547	5.9%	591	6.1%
Emerging	1,025	11.2%	1,066	11.0%
Total Active Equity	4,305	46.9%	4,567	47.2%
Passive				
Developed	$4,066	44.3%	$4,272	44.2%
Emerging	813	8.8%	834	8.6%
Total Passive Equity	4,879	53.1%	5,106	52.8%
Total International Equity	**$9,184**	**100.0%**	**$9,673**	**100.0%**

Currency Performance vs. the U.S. Dollar

9/30/14

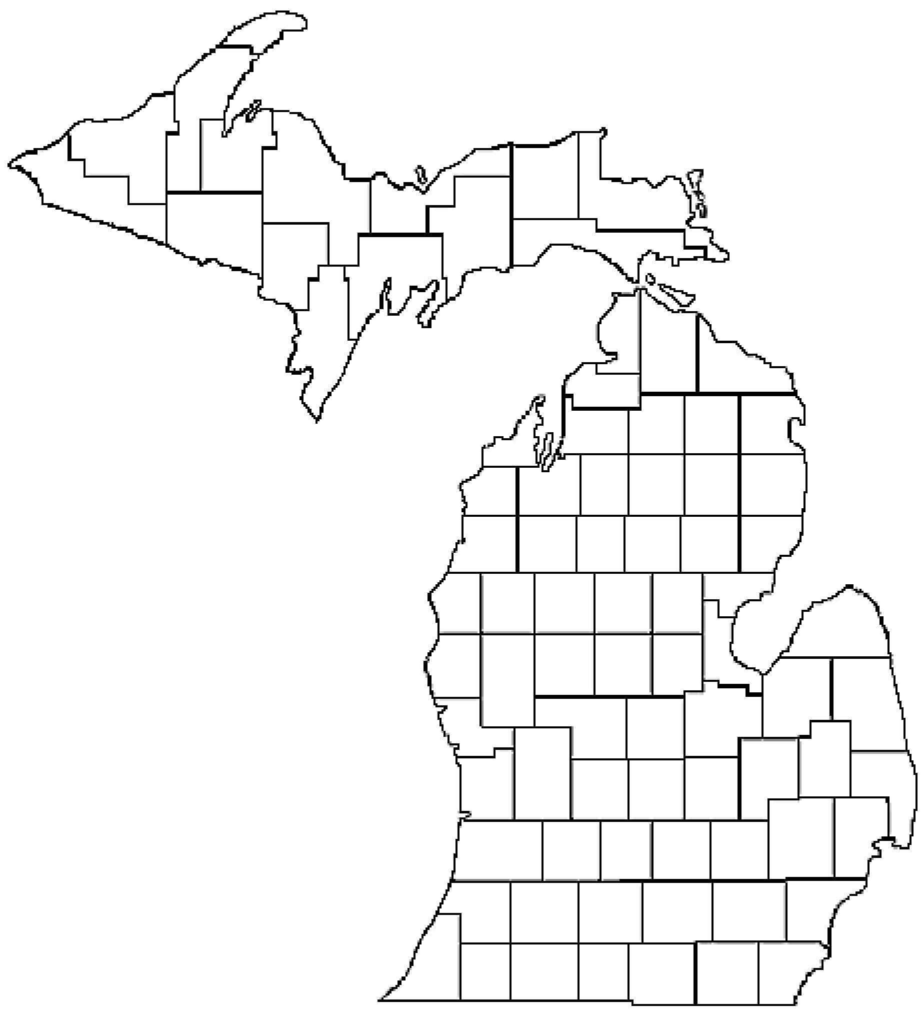


STATE OF MICHIGAN
RETIREMENT SYSTEMS

PRIVATE EQUITY REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

DECEMBER 2, 2014



Peter A. Woodford, Administrator
Private Equity Division

EXECUTIVE SUMMARY

MPSERS Plan	1-Year	3-Years	5-Years	7-Years	10-Years
Annualized Returns	25.3%	14.4%	18.4%	9.7%	14.4%
Benchmark Return	27.8%	19.7%	20.9%	10.8%	12.3%
Peer Median Return	16.8%	12.0%	12.3%	6.2%	11.0%
Rank vs. Peers	8	12	4	9	23

General Overview

- The returns in private equity have been strong in absolute terms for all time periods over the past ten years; returning 25.3% and 14.4% annualized over the past one and ten years respectively.

- The returns in the private equity portfolio are very strong relative to the peer median return. Across all time periods over the past ten years, the private equity portfolio returns ranked in the top quartile versus peers and in the top decile over the past year.

- It is not unusual for private equity to lag slightly the public market return benchmark in a strong up market, and the past year was no exception. However over the past ten years, a full market cycle, private equity has delivered 2.1% annualized excess returns.

- The Private Equity Division continues to pursue investment opportunities in distressed debt, venture capital, mezzanine debt, and buyouts with managers it believes will provide superior risk-adjusted returns. The division is overweight buyouts and will remain so based on the risk-return profile of the space.

- During the quarter the Private Equity Division closed on:
    - $100 million Turnbridge Capital Partners I focused on oil field services
    - $75 million Veritas Capital Fund V and $25 million Veritas V Co-Investors focused on Aerospace and Defense and Government Services
    - $50 million SM/TCP focused on oil field services
    - $25 million Warburg Pincus Energy MCIP focused on the Energy sector
    - $20 million Meritech Captal Partners V a late-stage venture capital manager

- 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 $300 million across 53 deals through September 30, 2014.
    - MGCP I - $147 million invested across 30 deals, net IRR 15.9%, MOIC 1.5x
    - GCMOF - $101.5 million invested across 10 deals, net IRR 12.9%, MOIC 1.4x
    - MGCP II - $54.5 million invested across 13 deals (fund in J-curve)

- Looking ahead, overall market sentiment remains positive, but significant challenges remain. Capital to fund transactions, (debt and equity), is plentiful and competing alternatives for sellers are robust (financial and non-financial buyers). In light of accommodative credit markets and an improving U.S. macro-economy, current market conditions favor asset sellers rather than buyers. Risks include an uneven global economic recovery, a highly competitive marketplace, and new leveraged lending guidelines established by U.S. regulators in March 2013.

- According to Thompson Reuters, private equity firms worldwide raised $82.6 billion in the third quarter of 2014, a 7% increase over the prior quarter.

- Average purchase price-to-EBITDA multiple (across all transaction sizes) for new buyout investments was 9.7x year-to-date third quarter 2014.

- Leverage multiples have been steadily increasing over the past year. The average debt-to-EBITDA multiple for new buyout transactions increased to 5.8x. Despite the increase in average leverage multiples, declining interest rates have made servicing debt less burdensome on portfolio companies and new buyout transactions continue to be capitalized with relatively high levels of equity capital.

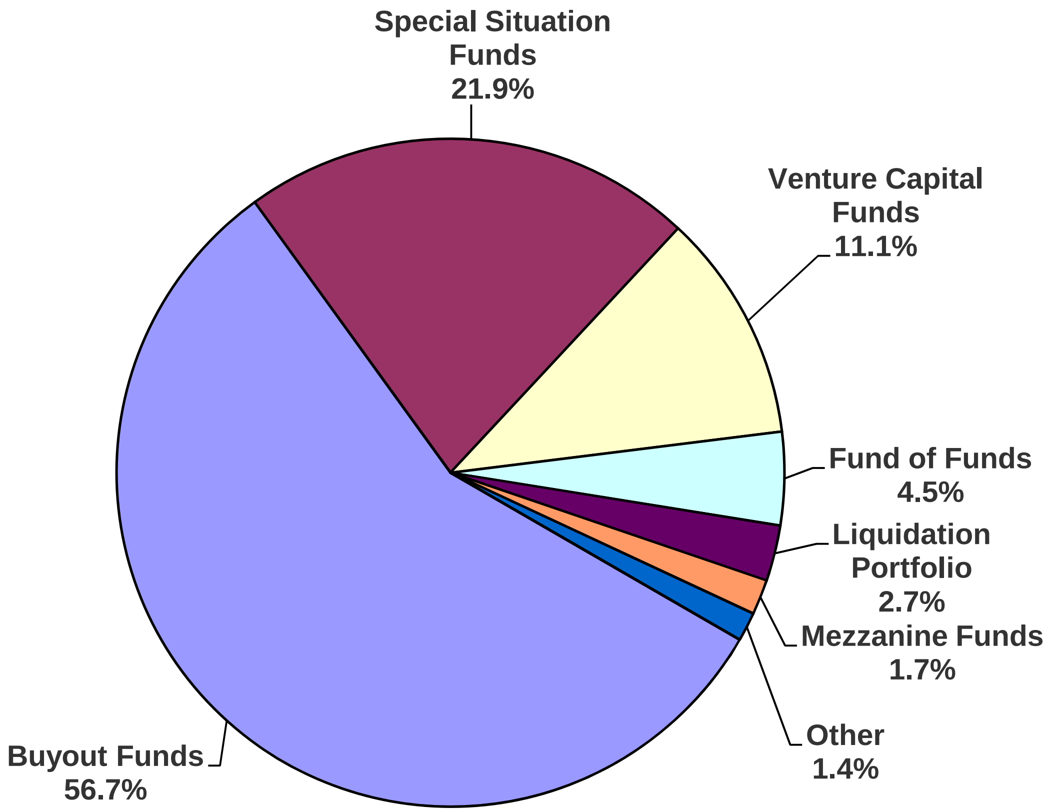
- Global IPO issuance remained strong in the third quarter of 2014 with 260 deals and $67.1 billion of capital raised. The IPO of Alibaba set a new record for capital raised at $25 billion, besting the previous record of $22 billion by Agricultural Bank of China in 2010.

- Despite a traditionally quieter third quarter, the U.S., European, and Asia-Pacific IPO markets are up 42%, 67%, and 58% by number year-to-date, respectively. Against this backdrop, financial sponsors (PE and VC funds) are keen to realize value through an exit and in the third quarter of 2014, 27% of deals by number globally were financial sponsor-backed and accounted for an impressive 64% of capital raised.

- The M&A markets were more welcoming than IPO markets as an avenue to exit portfolio companies during the third quarter. Global M&A exit activity for private-equity backed companies totaled $130 billion, down 10% from the record-setting second-quarter, but still one of the strongest quarters on record. Private equity-backed M&A activity totaled $391 billion, an increase of 39% over 2013 and just shy of the record $400 billion in exit activity in 2007.

- The brisk pace of U.S. buyout investment activity continued in the third quarter, during which buyout firms announced $59.7 billion in investments in U.S.-based companies. This represents a 5% increase from the prior quarter and a 37% increase from the third quarter in 2013. The U.S. buyout investment activity has been strong due to the country’s relatively benign economic outlook, strong IPO and M&A market exit activity, and accommodative credit markets.

SMRS
Private Equity
9/30/14

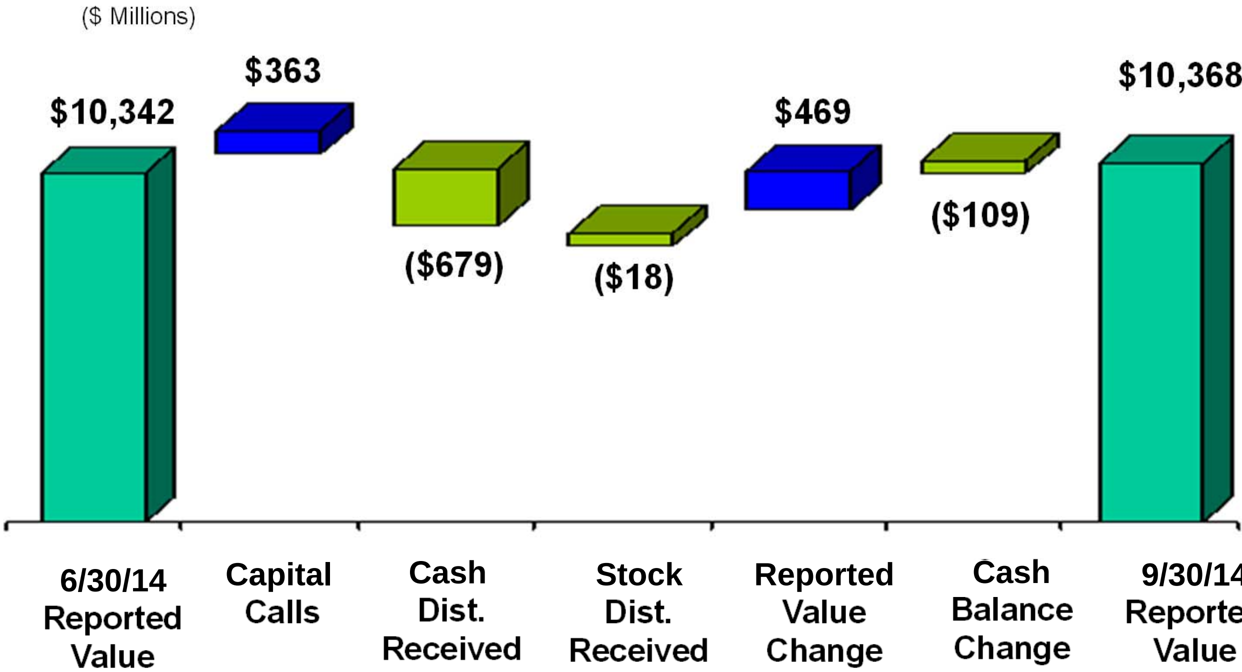


Market Value in Millions

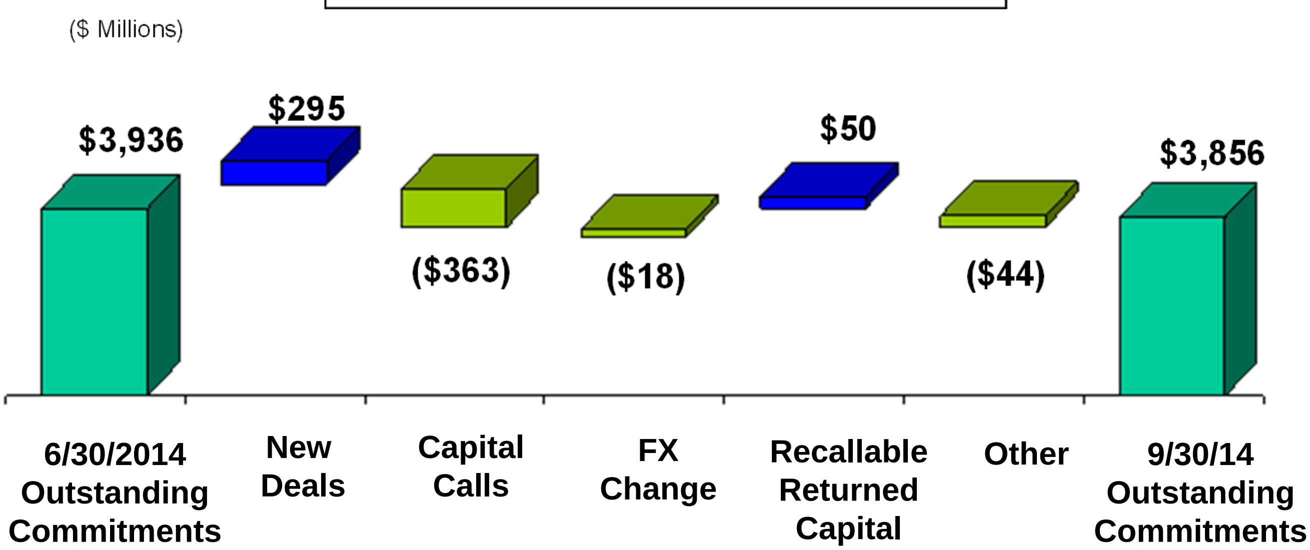
	9/30/14		6/30/14	
Buyout Funds	$5,877	56.7%	$5,710	55.2%
Special Situation Funds	2,274	21.9%	2,287	22.1%
Venture Capital Funds	1,153	11.1%	1,135	11.0%
Fund of Funds	475	4.5%	482	4.6%
Liquidation Portfolio	284	2.7%	298	2.9%
Mezzanine Funds	177	1.7%	180	1.7%
Other	128	1.4%	250	2.5%
Total	**$10,368**	**100.0%**	**$10,342**	**100.0%**

SMRS
Private Equity
9/30/14

Invested Commitments



Outstanding Commitments

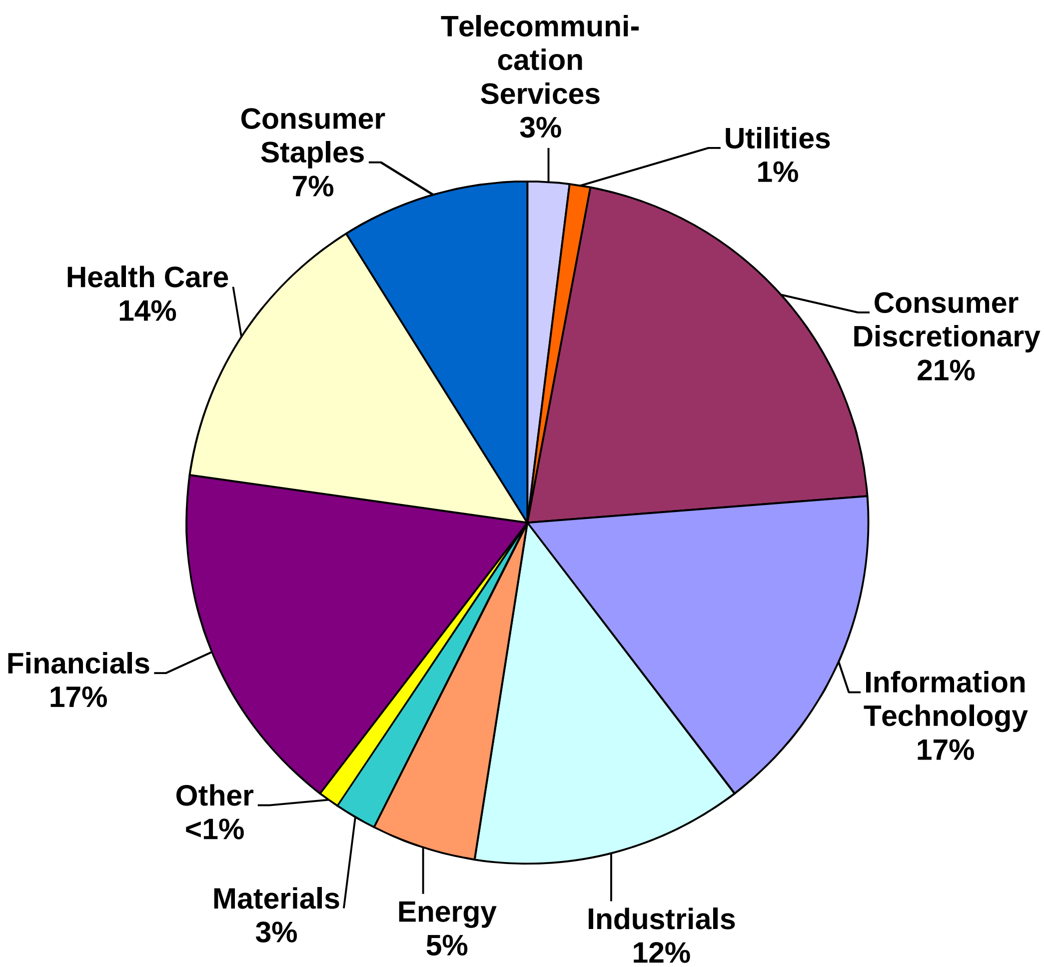


SMRS

Private Equity

9/30/14

Investments by Industry

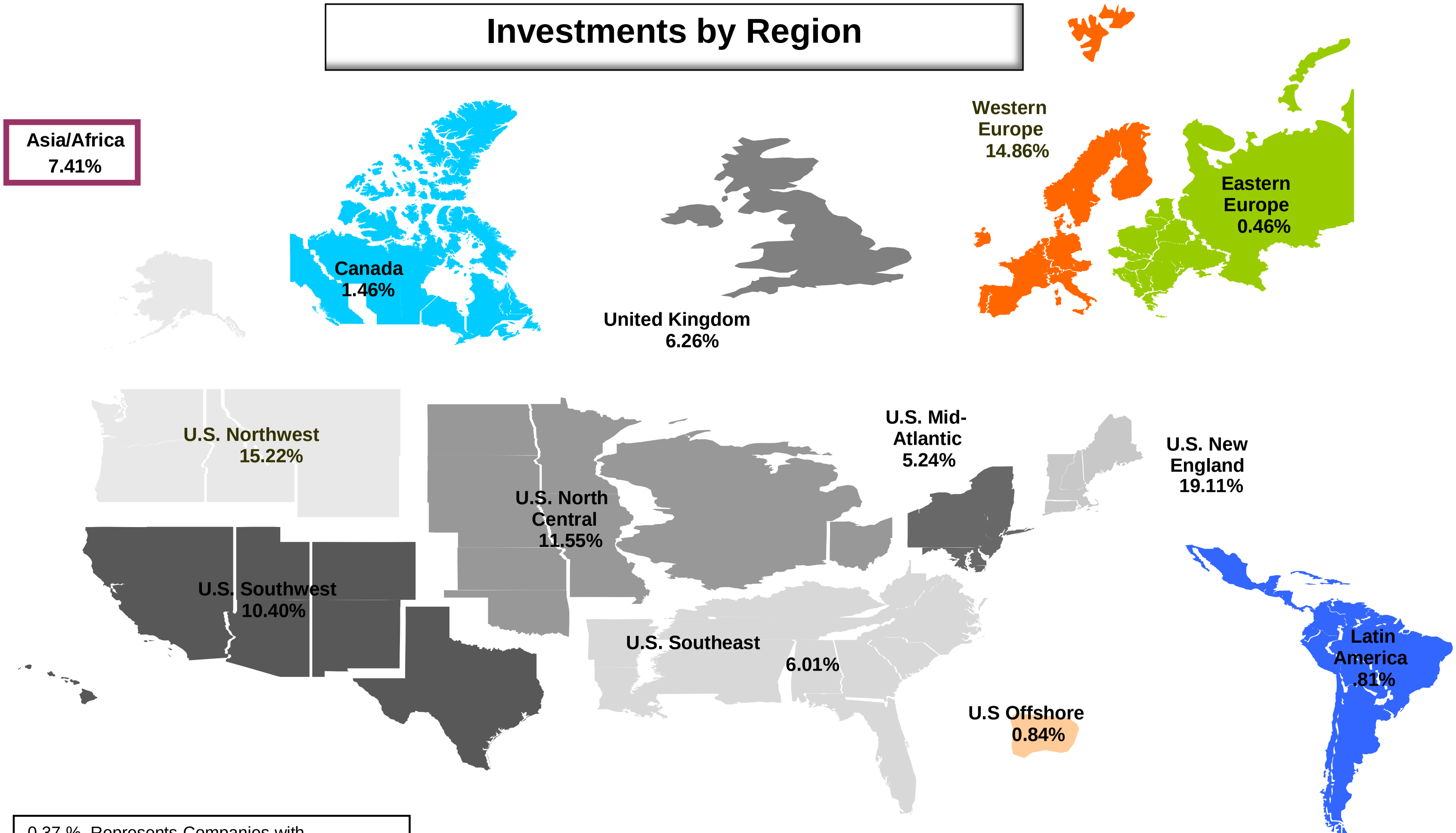


These numbers are based on the most recent available General Partner Data; primarily 6/30/14 and are subject to change.

SMRS
Private Equity
9/30/14

Investments by Region

Asia/Africa
7.41%



0.37 % Represents Companies with Untrackable Regions, i.e.; Fund of Funds

Geographic Report: North America 70%, Europe 22%, Asia 7%, Other 1%

SMRS

Private Equity

9/30/14

Portfolio by Vintage Year

($ Millions)

Asset Vintage	Reported Value	Outstanding Commitment	Total Exposure
1986-98	$ 72	$ 23	$ 95
1999	81	19	100
2000	149	36	185
2001	276	43	319
2002	513	16	529
2003	134	18	152
2004	447	49	496
2005	693	99	792
2006*	2,633	408	3,041
2007	1,584	215	1,799
2008	1,821	450	2,271
2009	165	30	195
2010	235	100	335
2011	398	267	665
2012	765	1,000	1,765
2013	217	503	720
2014	58	580	638
Cash	125	-	125
Act. Small Cap - Stock Dist	2	-	2
Total	**$ 10,368**	**$ 3,856**	**$ 14,224**

*Liquidation portfolio is 2006 vintage

FX Exposure

	Reported Value	Outstanding Commitment	Total Exposure	Total (USD)
Euro ($1.38/ €)	€ 877	€ 167	€ 1,044	1,319
Pound ($1.67/ £)	£7	£1	£8	13

SMRS
Private Equity
9/30/14

Top 10 Sponsors

($ Millions)

Asset Type	Reported Value	Outstanding Commitment	Total
GCM Grosvenor	$ 696	$ 239	$ 935
Kohlberg Kravis Roberts & Co	732	148	880
Warburg Pincus Capital	539	218	757
Carlyle Group	480	224	704
Blackstone Capital Partners	496	176	672
Glencoe Capital	504	76	580
TPG	513	45	558
Advent International	404	108	512
Green Equity Investors	376	97	473
Apax Partners, Inc.	333	86	419
Top 10 Total Value	**$5,073**	**$1,417**	**$6,490**

Cash Weighted Rates of Return*

(Net IRR)	Current Qtr.	1 Year	3 Year	5 Year	10 Year
Buyout	5.1%	25.1%	12.8%	18.6%	16.8%
Venture Capital	4.4%	28.6%	12.0%	17.5%	11.0%
Special Situations	4.1%	22.8%	12.1%	17.3%	11.4%
Fund of Funds	8.5%	20.0%	10.9%	12.4%	11.1%
Mezzanine Debt	1.5%	10.3%	12.0%	21.9%	8.0%

*These numbers are based on most recent available General Partner reported data; primarily 6/30/14 and are subject to change.

SMRS

Private Equity
9/30/14

Net Market Values by Ownership Entity

	Adjusted Reported Value	Unfunded Commitment
Accel Europe I, L.P.	19,141,114	1
Accel Europe II	20,529,098	3,300,000
Accel Growth Fund II, L.P.	10,507,225	2,040,000
Accel Growth Fund III, L.P.	3,119,043	10,850,000
Accel IX, L.P.	14,908,475	3,000,000
Accel VI, L.P.	2,024,692	0
Accel VI-S	3,192,366	652,611
Accel VII, L.P.	2,616,283	5,000,000
Accel VIII, L.P.	3,015,922	4,782,499
Accel X, L.P.	18,718,543	1,650,000
Accel XI, L.P.	6,011,584	2,080,000
Accel XII, L.P.	1,530,092	5,425,000
Advent Global Private Equity III	1,135,162	20
Advent Global Private Equity IV	1,796,269	0
Advent Global Private Equity V	36,023,940	10,500,000
Advent International GPE VI-A LP	227,914,950	9,599,980
Advent International GPE VII-B, L.P.	137,443,913	88,000,000
Affinity Asia Pacific Fund III, L.P.	113,619,753	17,894,671
Affinity Asia Pacific Fund IV (No.2) L.P.	20,500,205	107,211,441
APA Excelsior IV, L.P.	298,116	0
APA Excelsior V	94,575	545,625
Apax Europe Fund VI	106,434,659	2,671,519
Apax Europe V, L.P.	4,610,076	0
Apax Europe VII, L.P.	162,783,049	3,579,206
Apax Excelsior VI	1,591,263	1,614,434
Apax US VII	30,533,474	417,509
Apax VIII - B, L.P.	26,794,399	76,950,315
Apollo Investment Fund VIII L.P.	8,172,532	90,681,253
Arboretum Ventures II	4,935,326	410,096
Arboretum Ventures III, L.P.	10,571,188	4,500,000
Ares Corporate Opportunities Fund II	28,696,266	11,691,789
Ares Corporate Opportunities Fund III, LP	86,581,999	13,384,342
Ares Corporate Opportunities Fund IV, L.P.	38,862,259	60,589,595
Austin Ventures VIII, L.P.	3,152,856	0
Avenue Special Situations Fund IV, L.P.	572,402	0

	Adjusted Reported Value	Unfunded Commitment
Avenue Special Situations Fund V, L.P.	2,057,723	0
Avenue Special Situations Fund VI (B), L.P.	44,938,068	0
AXA ASF Miller Co-Investment	69,927,766	24,621,187
Axiom Asia Private Capital Fund III, L.P.	7,889,504	26,704,264
Banc Fund VI	5,612,940	0
Banc Fund VII	38,795,612	0
Banc Fund VIII	25,837,140	0
Battery Ventures VI, L.P.	4,306,593	0
Battery Ventures VII, L.P.	12,171,842	0
Battery Ventures VIII	21,980,565	701,800
BC European Capital IX	55,589,890	43,611,303
BC European Capital VII, L.P.	696,569	0
BC European Capital VIII, L.P.	99,012,909	13,099,902
Berkshire Fund IV, L.P.	234,147	1,898,016
Berkshire Fund V, L.P.	1	3,375,123
Berkshire Fund VI, L.P.	33,726,903	6,929,420
Berkshire Fund VII, L.P.	87,579,818	9,623,817
Berkshire Fund VIII, L.P.	56,826,902	65,827,002
Blackstone Capital Partners IV	78,245,292	5,263,026
Blackstone Capital Partners V	204,538,584	23,660,395
Blackstone Capital Partners V-S	26,943,771	712,476
Blackstone Capital Partners VI, LP	186,154,538	146,651,229
Bridgepoint Europe IV	57,680,708	7,856,507
Brockway Moran & Partners Fund III	10,245,890	4,046,923
Carlyle Europe Partners	180,067	428,734
Carlyle Europe Partners II	23,885,028	4,685,940
Carlyle Europe Partners III	107,847,058	15,974,586
Carlyle Partners IV, L.P.	58,041,807	16,009,296
Carlyle Partners V L.P.	241,815,018	63,224,613
Carlyle Partners VI, L.P.	47,964,154	123,389,099
Castle Harlan Partners IV	11,814,336	5,286,319
Castle Harlan Partners V	40,968,821	41,922,990
CCMP Capital Investors II	112,364,445	10,851,118
CCMP Capital Investors III, L.P.	10,056,657	37,217,869
Cerberus SMRS Partners, L.P.	54,916,869	45,304,657
Clarus Life Sciences II, L.P.	55,008,702	5,190,000
Clarus Lifesciences I	15,606,033	4,079,460
Clearstone Venture Partners II (idealab)	4,634,900	0
Clearstone Venture Partners III	27,954,700	1,612,000
CM Liquidity Fund, L.P.	0	25,000,000
CMEA Ventures VI	9,193,451	1,575,000
CMEA Ventures VII, L.P.	27,293,670	2,800,000
Coller International Partners IV	8,782,576	4,000,000
Coller International Partners V, L.P.	97,230,355	42,739,348

	Adjusted Reported Value	Unfunded Commitment
Coller International Partners VI, L.P.	46,104,351	58,587,132
Crescent Mezzanine Partners VI, L.P.	33,958,556	42,731,114
DLJ Investment Partners II	1,592,115	0
DLJ Investment Partners III	23,896,299	69,629,493
DLJ Merchant Banking Partners III, L.P.	6,776,713	1,854,201
DLJ Merchant Banking Ptrs II, L.P.	1,766,522	1,856,746
Doughty Hanson & Co IV	54,307,145	3,032,629
Doughty Hanson & Co V	125,072,136	37,091,751
Doughty Hanson Co. III L.P.	24,161,560	3,102,822
EDF Ventures III	2,811,200	0
Essex Woodlands Health IV	2,969,007	0
Essex Woodlands Health V	8,149,666	0
Essex Woodlands Health Ventures Fund VIII	65,878,092	9,375,000
Essex Woodlands Health VI	16,612,327	687,500
Essex Woodlands Health VII	75,592,061	0
FirstMark Capital I, L.P.	60,957,361	196,596
FirstMark Capital OF I, L.P.	2,128,602	17,800,000
Flagship Ventures Fund 2004	17,615,938	0
Flagship Ventures Fund 2007, L.P.	45,379,686	525,000
Flagship Ventures Fund IV, L.P.	20,549,201	5,550,000
Fox Paine Capital Fund II, LP	22,477,310	15,831,920
Frontenac VIII	3,114,934	1,800,000
GCM Grosvenor Fund Investment Program I, L.P.	24,931,169	1,456,383
GCM Grosvenor Fund Investment Program II, L.P.	82,533,125	16,747,684
GCM Grosvenor Fund Investment Program III - 2004	102,473,321	5,742,786
GCM Grosvenor Fund Investment Program III - 2006	108,993,127	21,358,473
GCM Grosvenor Fund Investment Program V, L.P.	85,265,742	34,027,274
GCM Grosvenor Fund Investment Program VI, L.P.	8,234,638	26,154,879
GCM Grosvenor SeasPriFIP LP (PIS06-10)	92,317,643	32,742,832
GCM Grosvenor SeasPriFIP LP (PIS14)	25,412,028	86,321,991
GCM Grosvenor SeasPriFIP LP (Seed)	166,183,330	13,933,191
Glencoe Capital Michigan Opportunities Fund, LP	130,507,765	32,704,572
Glencoe Capital Partners II	7,754,495	355,381
Glencoe Capital Partners III	9,252,050	6,120,760
Glencoe Stockwell Fund	273,097,396	(500,000)
Glencoe Stockwell Fund II, L.P.	92,314,548	6,447,777
Globespan Capital Partners IV (Jafco)	19,467,923	283,173
Globespan Capital Partners V, LP	47,202,922	6,937,500
Green Equity Investors III	55,359	9,112,215
Green Equity Investors IV	53,745,276	1,136,036
Green Equity Investors V	263,619,408	18,649,339
Green Equity Investors VI, L.P.	58,764,317	68,058,823
Grotech Partners V	140,252	0
Grotech Partners VI	8,240,078	0

	Adjusted Reported Value	Unfunded Commitment
GSO Capital Opportunities Fund II, L.P.	13,424,002	27,338,833
H.I.G. Bayside Debt & LBO Fund II, LP	9,913,003	5,933,333
H.I.G. Brightpoint Capital Partners II	448,875	0
H.I.G. Capital Partners IV, L.P.	15,427,988	1,040,833
H.I.G. Europe Capital Partners L.P.	29,414,709	2,118,519
HarbourVest Dover Street VIII, L.P.	24,134,474	46,237,500
HarbourVest Int'l III Direct	3,880,425	1,000,000
HarbourVest Int'l III Partnership	4,993,249	1,200,000
HarbourVest V Partnership	501,359	300,000
HarbourVest VI - Direct Fund LP	8,595,562	750,000
HarbourVest VI Partnership	22,828,387	2,000,000
Healthcare Venture V	1,584,305	0
Healthcare Venture VI	734,669	0
Healthcare Venture VII	5,015,171	0
Healthcare Venture VIII	25,760,065	4,100,000
InterWest Partners IX	11,465,993	1,600,000
JAFCO America Technology Fund III	582,697	0
JP Morgan Partners Global Investors	8,707,664	2,288,095
JPMorgan Global Investors Selldown	7,879,032	11,734,847
Kelso Investment Associates VII	10,087,527	4,970,176
Kelso Investment Associates VIII	127,006,174	38,667,644
Khosla Ventures III, L.P.	64,762,992	5,250,000
Khosla Ventures IV, L.P.	40,693,504	15,500,000
KKR 2006 Fund, L.P.	240,036,498	8,498,063
KKR Asia	74,138,600	3,134,477
KKR Asian Fund II, L.P.	16,101,057	34,524,087
KKR China Growth Fund	28,488,208	23,883,888
KKR E2 Investors (Annex) Fund	13,964,399	587,747
KKR European Fund II	71,440,580	0
KKR European Fund III	124,417,292	16,316,782
KKR European Fund LP 1	3,132,619	0
KKR Millennium Fund	90,185,422	0
KKR North America Fund XI, L.P.	70,459,335	60,500,865
Lightspeed Venture Partners VI	6,503,684	3,299,089
Lightspeed Venture Partners VII, L.P.	45,147,719	160,436
Lion Capital Fund I (HME II)	2,412,181	12,854,598
Lion Capital Fund II	39,546,706	7,549,781
Lion Capital Fund III, L.P.	78,344,428	27,024,989
Long Point Capital Fund	12,428	41,415
Long Point Capital Fund II	17,917,146	949,013
Matlin Patterson Global Opportunities Partners	37,306	0
MatlinPatterson Global Opportunities Partners II	2,376,202	92,719
MatlinPatterson Global Opportunities Partners III	73,505,709	6,828,461
Menlo Ventures IX, L.P.	11,173,746	0

		Adjusted Reported Value	Unfunded Commitment
	Menlo Ventures VIII	2,445,971	0
	Menlo Ventures X, L.P.	35,013,814	2,000,000
	Menlo Ventures XI, L.P.	41,769,013	6,000,000
	MeriTech Capital Partners II, L.P.	3,413,076	1,850,000
	Meritech Capital Partners III, L.P.	34,686,633	600,000
	Meritech Capital Partners IV, L.P.	21,623,568	1,700,000
*	**Meritech Capital Partners V, L.P.**	**1,100,000**	**18,900,000**
	Michigan Growth Capital Partners II, L.P.	63,665,016	114,268,585
	Michigan Growth Capital Partners, LP	171,428,163	26,239,166
	Midtown Fund III, L.P.	2,555,518	272,000
	Midtown II Liquidating Trust	1,309,702	0
	MPM BioVentures III	5,174,289	0
	New Leaf Ventures II, L.P.	27,895,298	1,925,000
	Nordic Capital VI, L.P.	46,759,228	0
	Nordic Capital VII	74,288,858	12,379,092
	Nordic Capital VIII, L.P. (Alpha)	14,218,260	36,298,555
	North Castle Partners III	3,056,727	447,448
	Oak Investment Partners X, L.P.	14,188,798	0
	Oak Investments Partners IX, L.P.	2,984,231	0
	OCM Opportunities Fund IX, L.P.	56,364,060	22,500,000
	OCM Opportunities Fund VII (B), L.P.	10,949,804	25,127,447
	OCM Opportunities Fund VII, L.P.	10,530,245	0
	OCM Opportunities Fund VIII B, L.P.	46,650,347	0
	OCM Opportunities Fund VIII, L.P.	30,194,708	0
	OCM Principal Opportunities Fund IV	24,803,451	5,002,377
	One Liberty Fund III	546,306	0
	One Liberty Fund IV	2,065,696	0
	One Liberty Ventures 2000	13,826,156	0
	Paine & Partners Capital Fund III, LP	144,387,020	7,090,787
	Parthenon Investors II	10,685,224	3,186,779
	Parthenon Investors III	57,327,068	6,143,748
	Parthenon Investors IV, L.P.	10,302,612	28,598,566
	Peninsula Capital Fund III	206,661	1,400,000
	Peninsula Capital Fund IV	15,136,436	2,201,026
	Permira Europe III LP	4,802,903	210,331
	Permira IV, L.P.	98,879,714	8,084,800
	Phoenix Equity Partners IV	11,001,849	968,986
	Primus Capital Fund IV	3,311	500,000
	Primus Capital Fund V	7,592,355	712,500
	Providence Equity Partners V, L.P.	44,298,258	13,259,419
	Providence Equity Partners VI, L.P.	218,891,254	25,564,541
	Questor Partners Fund II	15,141,089	5,883,006
	RFE Investment Partners VII, LP	28,833,324	173,332
	RFE Investment Partners VIII, L.P.	13,752,663	14,170,306

		Adjusted Reported Value	Unfunded Commitment
	RFE IV Venture	347,168	0
	Riverside Capital Appreciation Fund VI, LP	9,267,062	63,178,132
	Riverside Micro Cap Fund I, LP	28,610,753	3,905,716
	Riverside Micro-Cap Fund II, L.P.	46,590,194	3,830,788
	Riverside Micro-Cap Fund III, L.P.	19,252,204	20,747,796
	Silver Lake Partners II	15,939,638	3,531,586
	Silver Lake Partners III	85,139,208	19,494,246
	Silver Lake Partners IV, L.P.	10,035,429	41,605,399
*	**SM/TCP L.P.**	**0**	**50,000,000**
	Sprout Capital IX	1,120,759	0
	TCW Shared Op Fund III	1,767,784	0
	TCW Shared Op Fund IV	8,417,507	4,524,779
	TCW Shared Op Fund V	25,948,322	11,653,868
	TCW/Crescent Mezzanine Partners III, L.P.	6,112,567	4,552,763
	TCW/Crescent Mezzanine Partners IV, L.P.	20,769,318	6,030,737
	TCW/Crescent Mezzanine Partners V, LLC	62,220,802	15,546,729
	The Huron Fund III, L.P.	27,354,683	7,422,500
	The Huron Fund IV, L.P.	6,610,404	28,140,000
	The Shansby Group 4	1,329,973	461,858
	The Shansby Group 5 (TSG5)	84,301,441	9,167,286
	TPG IV (Texas Pacific Group IV)	17,604,601	211,725
	TPG Partners III, LP	9,075,840	2,087,002
	TPG Partners VI, L.P.	240,498,652	38,974,198
	TPG V (Texas Pacific Group V)	236,755,662	34,917,668
	Trilantic Capital Partners V (North America) Fund A, L.P.	13,666,248	35,036,412
	TSG6, L.P.	64,330,238	76,277,014
	Tullis - Dickerson Capital II	6,416,615	0
	Tullis - Dickerson Capital III	11,559,219	0
*	**Turnbridge Capital Partners I , LP**	**0**	**100,000,000**
	Unitas Asia Opportunity Fund	457,609	0
	Unitas Asia Opportunity Fund II	131,108	26,604,144
	Unitas Asia Opportunity Fund III	59,289,765	35,318,189
*	**Veritas Capital Fund V, L.P.**	**0**	**75,000,000**
*	**Veritas V Co-Investors, L.P.**	**0**	**25,000,000**
	Vista Equity Partners Fund V, L.P.	1,674,969	48,158,177
*	**Warburg Pincus Energy MCIP, L.P.**	**1,403,096**	**23,596,904**
	Warburg Pincus Energy, L.P.	2,186,406	97,813,594
	Warburg Pincus Equity Partners, L.P.	11,692,195	0
	Warburg Pincus International Partners	22,665,599	0
	Warburg Pincus Private Equity IX	83,619,997	0
	Warburg Pincus Private Equity VIII, L.P	40,012,747	0
	Warburg Pincus Private Equity X, L.P.	267,975,330	0
	Warburg Pincus Private Equity XI, L.P.	108,891,367	97,038,594

	Adjusted Reported Value	Unfunded Commitment
Weiss, Peck & Greer V (adm: Opus Capital)	1,239,668	386,240
WestAm COREplus Private Equity QP	7,754,692	2,086,719
WestAm Special Private Equity Partners	6,541,095	2,317,427
Wind Point Partners III	2,778,745	0
Wind Point Partners IV	131,332	1,541,518
Wind Point Partners V, L.P.	12,303,698	0
Wind Point Partners VI	35,059,396	11,483,254
Wind Point Partners VII	56,006,584	23,902,346
TOTAL Private Equity	**$ 10,242,151,538**	**$ 3,855,817,591**
Cash	98,659,466	0
Active Small Cap Cash	25,978,245	0
Active Small Cap	1,561,761	0
Grand Total	**$ 10,368,351,011**	**$ 3,855,817,591**

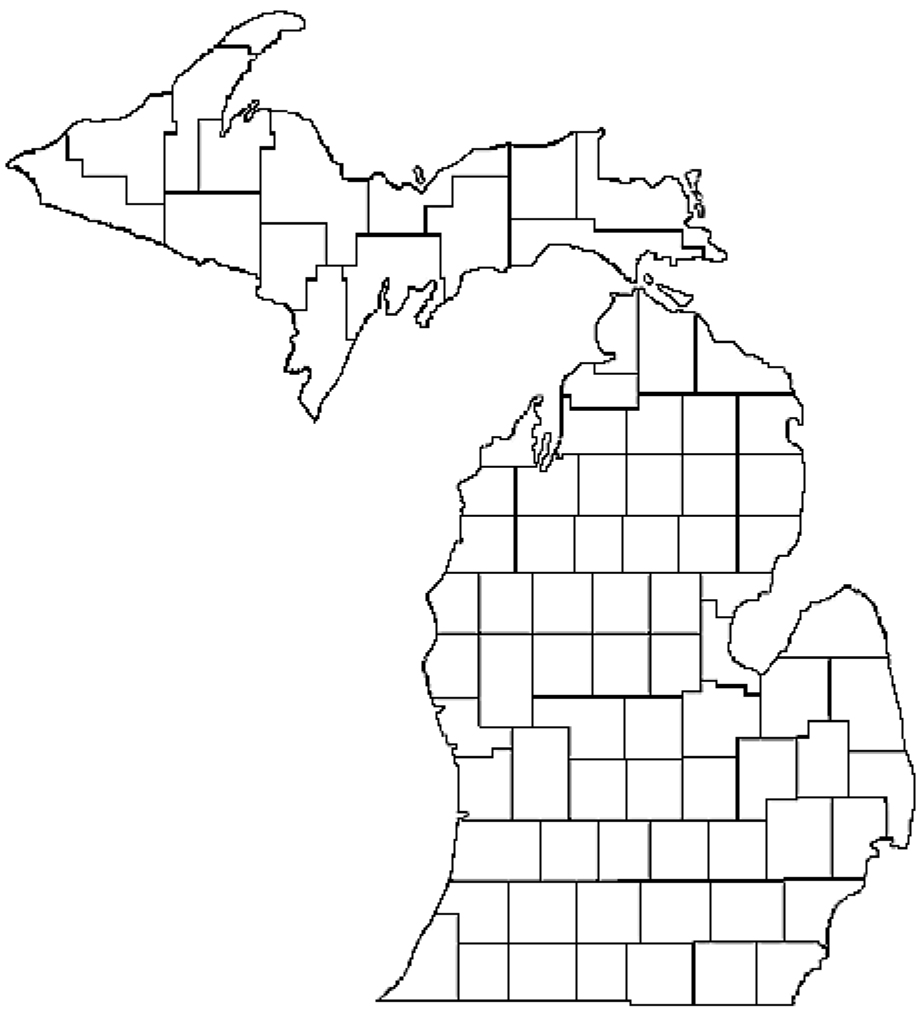
* New Commitments made during quarter reported

STATE OF MICHIGAN
RETIREMENT SYSTEMS

REAL ESTATE AND INFRASTRUCTURE REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

DECEMBER 2, 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	19.8%	12.0%	6.6%	1.6%	6.3%
NCREIF NPI	9.8%	9.7%	9.6%	3.4%	7.2%
Peer Median Return	12.3%	12.1%	9.2%	1.7%	6.1%
Rank vs. Peers	12	52	75	51	45

- Total REID value was $5.5 billion with a total one-year return of 19.8%. Valuations increased due to lease-up and strong rent growth in apartments, room rate growth in hospitality, and increased value in "for rent" single family homes.

- High quality, cash flowing, core assets have appreciated as investors seek current yield, and protection from volatility. In major markets including New York, San Francisco, and Houston, properties are trading at near record low capitalization rates. Secondary markets are being targeted by investors seeking higher yields. Debt markets are open and competitive with lenders offering lower spreads and attractive terms.

- The 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 assets to institutional investors, public REIT's, and non-traded REIT's that are flush with capital and willing to buy at historically low capitalization rates. REID is also investing in under managed properties that have strong economic fundamentals and adding value through strong management.

- The REID is working with its advisors and partners in executing the sales of non-strategic properties in secondary markets with limited upside potential, at attractive values, due to historically low capitalization rates. Also, advisors that specialize in credit strategies have been investing in distressed debt opportunities and mezzanine financing at favorable pricing, yielding attractive returns.

- In the commercial mortgage-backed securities (CMBS) market, spreads over the swap rate for AAA-rated securities increased 11 basis points (bps) from the prior quarter and now stand at 96 bps. Commercial Mortgage Alert reported that CMBS issuance is expected to be over $100 billion for 2014.

- Fund flows to the infrastructure sector continue to remain robust, as investor interest in the asset class continues to grow with several funds raising over $5 billion in capital. Opportunities include North American energy, European transportation, power generation, and emerging market fundamental infrastructure projects.

- During the quarter the REID closed the following new investments: CIM Fund VIII, L.P., a U.S. opportunity fund with a commitment of $100 million and Domain GVA-1, LLC, a mezzanine loan on New York City housing project with a commitment of $60 million.

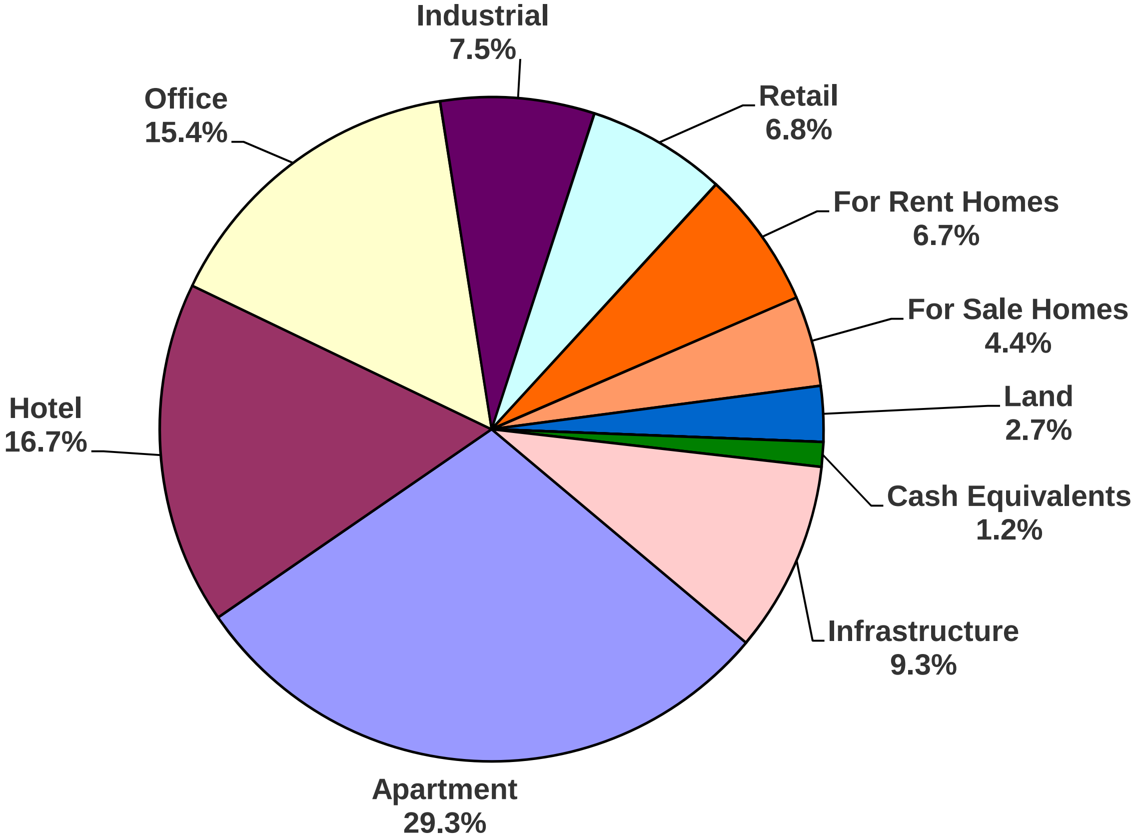
- The REID sold a portfolio of 40 select service hotels at an attractive price of $649 million gain over holding value thereby reducing REID's exposure to hospitality from 22.9% to 16.7%. This sale contributed to the $1.48 billion in REID's distributions received over the last twelve months.

SMRS

Real Estate and Infrastructure Holdings

By Property Type

9/30/14



Market Value in Millions

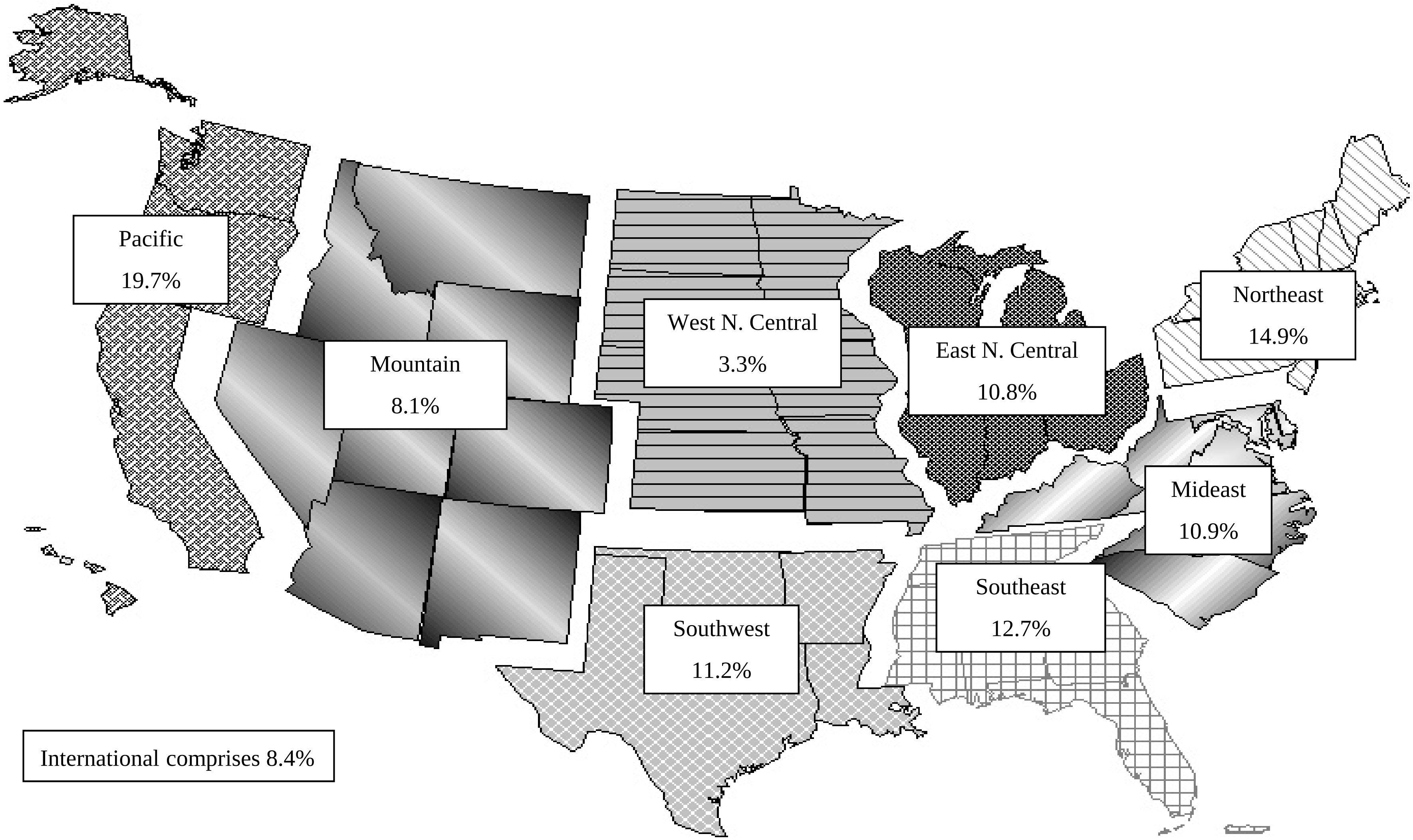
	9/30/14		6/30/14	
Apartment	$1,602	29.3%	$1,524	27.2%
Hotel	912	16.7%	1,286	22.9%
Office	843	15.4%	790	14.1%
Infrastructure	510	9.3%	468	8.3%
Industrial	410	7.5%	400	7.1%
Retail	372	6.8%	374	6.7%
For Rent Homes	366	6.7%	345	6.1%
For Sale Homes	240	4.4%	230	4.1%
Land	144	2.7%	145	2.6%
	$5,399	98.8%	$5,562	99.1%
Cash Equivalents	63	1.2%	48	0.9%
Total Investments	**$5,462**	**100.0%**	**$5,610**	**100.0%**

Real Estate by Region

Based on Net Market Value

(excludes cash & cash equivalents)

9/30/14



Geographic regions defined by NCREIF, whose property index composition is: Pacific 29.8%, Mountain 5.6%, West N. Central 1.6%, Southwest 11%, East N. Central 7.7%, Southeast 9.9%, Northeast 20.7%, Mideast 13.7%

Top Ten
Advisors or Companies

Advisor or Company	Net Market Value
MWT Holdings, LLC	$ 1,063,813,241
Clarion Partners (formerly ING Clarion)	627,510,057
Blackstone Group	524,066,230
Kensington Realty Advisors, Inc.	278,455,617
CIM Group, Inc.	274,921,470
Five Star Realty Partners, LLC	256,341,040
Principal Real Estate Investors	220,400,018
Bentall Kennedy LP	220,013,293
KBS Realty Advisors	166,725,156
Rialto Capital	136,743,262
	$ 3,768,989,384

Occupancy
by Property Type

	Apartment	Office	Industrial	Retail	Hotel
SMRS Portfolio	94.9%	90.3%	88.9%	91.6%	75.2%
National Average	92.5%	85.5%	89.2%	93.4%	68.1%

Real Estate

Net Market Values by Ownership Entity

9/30/14

	Net Market Value	Unfunded Commitment
801 Grand Avenue Capital, LLC	$ 85,194,069	$ 0
AGL Annuity Contract GVA 0016	312,605,854	0
Avanath Affordable Housing I, LLC	14,675,310	2,492,748
Beacon Capital Strategic Partners IV, LP	11,964,925	0
Beacon Capital Strategic Partners V, LP	16,621,025	2,500,000
BlackRock Retail Opportunity Fund, LLC	363,868	0
Blackstone R/E IH3 Co-Inv Partners	365,620,119	0
Blackstone Real Estate Partners V, LP	53,992,214	2,087,026
Blackstone Real Estate Partners VI, LP	104,453,897	4,117,734
Capri Select Income II	6,252,803	0
Capri Urban Investors, LLC	19,555,976	0
CIM Fund III, LP	108,751,382	0
* **CIM Fund VIII, L.P.**	52,915,603	42,168,524
CIM Urban REIT, LLC	87,559,076	0
CIM VI (Urban REIT), LLC	25,695,409	0
City Lights Investments, LLC	102,385,794	0
Cobalt Industrial REIT	52,522,269	0
Cobalt Industrial REIT II	69,597,900	0
CPI Capital Partners N.A., LP	3,004,554	0
CPI Capital Partners N.A., Secondary, LP	8,400,238	0
Crown Small Cap Real Estate	1,250,000	23,750,000
Devon Real Estate Conversion Fund, LP	5,805,712	0
* **Domain GVA 1, LLC**	0	60,000,000
Domain Hotel Properties, LLC	464,470,000	0
Dynamic Retail Trust	71,780,746	0
Gateway Capital R/E Fund II, LP	72,130,987	2,048,500
Great Lakes Property Group Trust	264,528,959	0
Invesco Mortgage Recovery Feeder Fund	24,653,072	1,461,594
JBC Opportunity Fund III, LP	17,263,853	0
JP Morgan India Property Fund II, LLC	13,479,666	27,521,013
KBS/SM Fund III, LP	103,652,638	0
L & B Medical Properties Partners, LP	223,080	0
Landmark Real Estate Partners V, LP	26,156,947	3,900,000
LaSalle Asia Opportunity Fund II, LP	495,866	0
LaSalle Asia Opportunity Fund III, LP	27,706,522	4,000,000
Lion Industrial Trust	133,932,688	0
Lion Mexico Fund, LP	29,107,369	0
Lowe Hospitality Investment Partners	1,313,049	0
MERS Acquisitions, Ltd.	127,117,476	0
MG Alliance, LLC	15,369,450	5,000,000
Morgan Stanley R/E Fund V - International	4,368,140	0
Morgan Stanley R/E Fund VI - International	42,175,224	0
Morgan Stanley R/E Fund V - U.S.	10,708,148	0
Morgan Stanley R/E Special Situations Fund III	66,228,803	0
MWT Holdings, LLC	1,063,813,241	0
Northpark-Land Associates, LLLP	28,494,334	0
Paladin Realty Brazil Investors III (USA), LP	41,114,888	0
Principal Separate Account	135,205,949	0
Proprium RE Spec Situations Fund LP	8,966,056	7,000,000
Rialto Real Estate Fund, LP	35,487,488	8,277,006
Rialto Real Estate Fund II, LP	26,281,107	43,306,004
Rialto Mezzanine Partners Fund	74,974,667	0
SM Brell II, LP	63,072,518	0
Stockbridge Real Estate Fund II-C, LP	34,192,335	0
Strategic LP	190,622,082	49,085,920
Trophy Property Development LP	64,589,798	8,908,100
True North High Yield Investment Fund II	31,485,098	5,000,000
Venture Center, LLC	38,955,306	0
Western National Realty Fund II, LP	26,225,310	0
	$ 4,889,530,857	$ 302,624,169
Short-Term Investments and Other	34,932,124	0
Total Real Estate Investments	**$ 4,924,462,981**	**$ 302,624,169**

* New commitment made during the quarter reported

Infrastructure Investments

Net Market Values by Ownership Entity

9/30/14

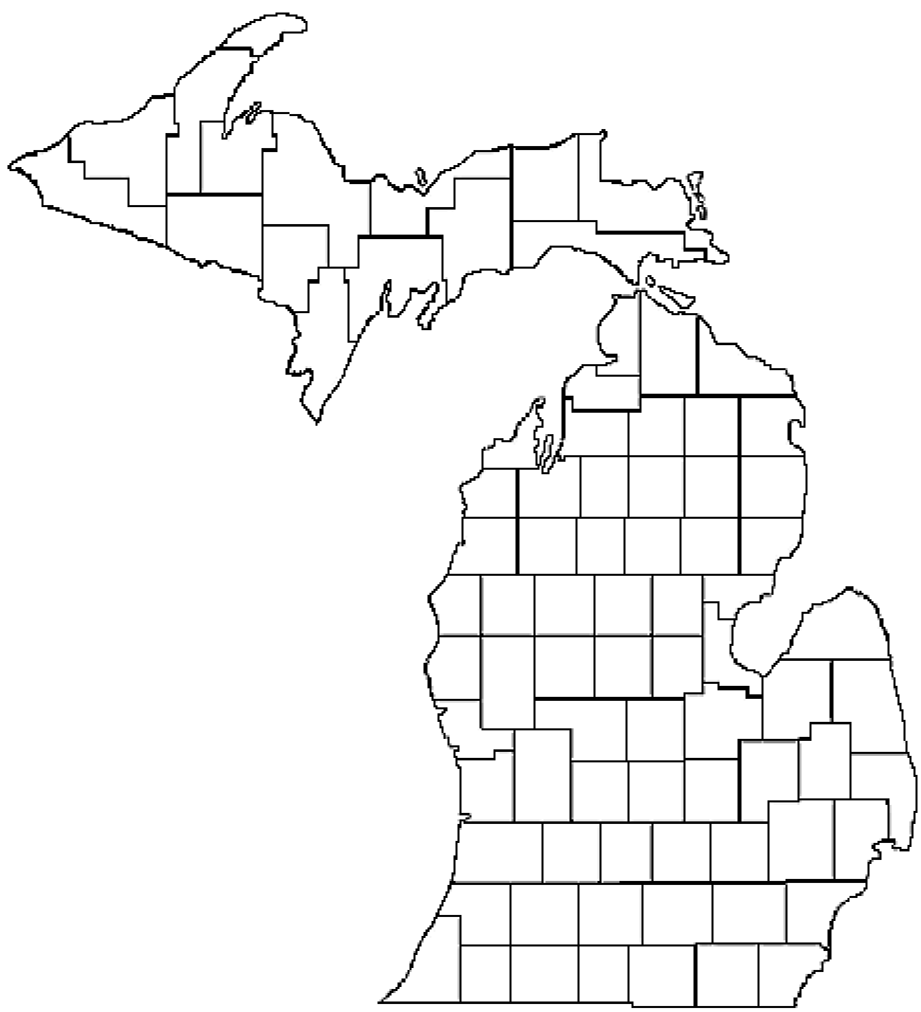
	Net Market Value	Unfunded Commitment
ASF VI Infrastructure B LP	$ 14,869,678	$ 23,948,674
ASF Como Co-Investment LP	30,682,601	26,339,042
Balfour Beatty Infrastructure Partners, LP	13,750,617	32,117,070
Blackstone Energy Partners, LP	38,499,801	24,652,155
Brookfield Infrastructure Fund II-B, L.P.	23,668,130	25,826,633
Customized Infrastructure Strategies, LP	90,810,708	17,926,254
Dalmore Capital Fund	78,917,927	887,100
First Reserve Energy Infrastructure Fund II, L.P.	-	75,000,000
GCM Grosvenor Infrastructure Investment Program, LP	50,795,693	-
JP Morgan AIRRO India Sidecar Fund US, LLC	75,806,118	5,033,815
JP Morgan AIRRO Fund II US, LLC	24,214,738	73,198,532
KKR Global Infrastructure Investors, LP	55,590,332	20,442,000
StonePeak Infrastructure Fund LP	12,254,041	62,723,132
	$ 509,860,386	$ 388,094,407
Short-Term Investments and Other	27,698,186	0
Total Infrastructure Investments	**$ 537,558,572**	**$ 388,094,407**

STATE OF MICHIGAN
RETIREMENT SYSTEMS

BASKET CLAUSE REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

DECEMBER 2, 2014



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

SMRS

Basket Clause Investments

9/30/14

Asset Class	**Value**
Total Absolute Return	$3,105,711,002
Total Real Return and Opportunistic	747,000,262
Total International Equity	322,416,625
Total Long-Term Fixed Income	20,027,257
Total Basket Clause Investments	**$4,195,155,146**

The basket clause investments at September 30, 2014, were $4.20 billion or 6.97% of the total portfolio value of $60.22 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.

STATE OF MICHIGAN
RETIREMENT SYSTEMS

INVESTMENT POLICY STATEMENT

INVESTMENT ADVISORY COMMITTEE MEETING

DECEMBER 2, 2014

Jon M. Braeutigam
Chief Investment Officer
Bureau of Investments

INVESTMENT POLICY STATEMENT

STATE OF MICHIGAN RETIREMENT SYSTEMS

Effective November 1, 2014

I. Introduction

A. This Investment Policy Statement (Policy) provides the framework for the management of the public pension fund investments of the State Treasurer. Pursuant to state law, the State Treasurer is the custodian and investment fiduciary of the Michigan Public School Employees' Retirement System (MPSERS), the Michigan State Employees' Retirement System (MSERS), the Michigan State Police Retirement System (MSPRS), and the Michigan Judges Retirement System (MJRS). Collectively, the pooled investment assets of these four systems comprise the component units of the State of Michigan Retirement Systems (SMRS). Additionally, the State Treasurer carries out investment functions for various trusts, agencies, and other entities when directed to do so through legislation or other delegation of authority.

The investment policies and objectives of SMRS are intended to allow for sufficient flexibility in the management process to capture investment opportunities, yet provide parameters that will ensure prudence and care in the execution of the investment program. The State Treasurer, as sole fiduciary in investing SMRS assets, shall act with the same care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a similar capacity and familiar with these matters would use in the conduct of an enterprise with similar aims, in accordance with the Public Employee Retirement System Investment Act, 1965 PA 314, MCL 38.1133(3) (as amended P.A. 314).

The authority of the Michigan Department of Treasury's Bureau of Investments (BOI) to act on behalf of the State Treasurer in carrying out investments is grounded in MCL 16.191 and delegated by this Policy.

B. The asset class divisions of the BOI, subject to necessary revisions by the State Treasurer or BOI, are as follows:

1. Defined Contribution, Trusts & Agencies Division (DCTA)
2. Long-Term Fixed Income Division (LTFI)
3. Private Equity Division (PED)
4. Quantitative Analysis Division (QAD)
5. Real Estate & Infrastructure Division (REID)
6. Short-Term, Absolute & Real Return Division (STARR)
7. Stock Analysis Division (SAD)

II. Assignment of Responsibilities

A. The State Treasurer is the sole fiduciary and custodian of SMRS investments pursuant to state law. The State Treasurer, with input and analysis from BOI investment personnel, Investment Advisory Committee (IAC) members, internal and external investment managers, consultants, and other service providers, as needed, shall do the following:

1. Conduct, approximately every two years, asset liability studies for each fund and distribute such studies to IAC members.

2. Establish, approximately every two years, a long-term fund target asset allocation, based on the analysis and advice of the BOI.

3. Establish, through this Policy, delegation of authority and investment responsibility.

B. The Chief Investment Officer (CIO) of the BOI serves as the senior administrator of the BOI and as the CIO of the SMRS pension funds. The CIO will implement the goals as described in Section III of this document as well as direct the investment and non-investment operations of the BOI, including each major asset class, in compliance with statutory requirements, prudent investment principles, and sound business practices.

C. Pursuant to MCL 16.191 and P.A. 314, the State Treasurer delegates investment approval authority of publicly traded equities and fixed income securities to the BOI and external managers. Absolute return, real return, and opportunistic investments made under the STARR Division are delegated to the CIO or the BOI's external investment managers where applicable.

Approval from the State Treasurer is required for investments in real estate, infrastructure, private equity, venture capital, or similar private market funds made within the REID, PED or DCTA[1] divisions, in amounts greater than 1% of the SMRS' most recent combined quarter-ending Assets Under Management (AUM). If the State Treasurer position is vacant or if the State Treasurer is not readily available, the CIO may approve with notice to the State Treasurer as soon as reasonably practicable.

D. The investment rate of return for each system shall be reviewed by an actuary at least once every 5 years. The actuary shall make a recommendation for the investment rate of return, which shall be presented for adoption to the retirement board of each system and the Department of Technology, Management, and Budget (DTMB). The investment rate of return for SMRS is presently targeted at 8%.

[1] The DCTA is responsible for managing investments for various trusts and agencies where the State Treasurer is delegated investment authority through statutes or constitutional provisions. Private market investments entered into by the State Treasurer on behalf of trusts and agencies managed by the DCTA shall be subject to the same investment approval processes applicable to other private market divisions.

E. The State Treasurer shall report investment returns and strategy quarterly to the IAC, which reviews the investments, goals, and objectives of the retirement funds and may submit recommendations regarding them to the State Treasurer. The IAC may also, by a majority vote, direct the State Treasurer to dispose of any holding which in its judgment, is not suitable for the fund involved, and may by a unanimous vote direct the State Treasurer to make specific investments.

F. The State Treasurer and the BOI, as investment fiduciaries for SMRS, may enter into contracts and pay reasonable compensation for services to investment advisors, consultants, custodians, accountants, auditors, attorneys, actuaries, investment personnel, and administrators, as permitted by Section 13 of P.A. 314.

III. General Objectives, Goals, and Policies

The general objectives define the goals to be achieved through the management of SMRS assets. General policies provide guidelines for the State Treasurer, as sole fiduciary, to follow in meeting the general objectives.

A. General Objectives:

1. The overall objective of the SMRS is to provide retirement, survivor, and disability benefits to its members through the investment of contributions and other SMRS assets.

2. The overall goals of the State Treasurer and BOI in the administration of the investment assets of SMRS are:

   a. Maintain sufficient liquidity to pay benefits.
   b. Meet or exceed the actuarial assumption over the long term.
   c. Perform in the top half of the public plan universe over the long term.
   d. Diversify assets to reduce risk.
   e. Exceed individual asset class benchmarks over the long term.

3. The primary investment objective is to earn the approved actuarial rate of return on the total investment portfolio, consistent with a high degree of prudence and sufficient diversity to reduce risk and to meet the actuarial assumption for the investment rate of return, at a reasonable cost, achieved by cultivating a motivated team of dedicated professionals. It is understood that to meet the return objective of the fund, investment risks must be assumed.

B. General Policies:

1. All transactions undertaken on behalf of SMRS shall be for the sole benefit of plan participants.

2. All BOI investment personnel (including the State Treasurer and external investment service providers) involved in the investment process shall act with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims, in accordance with P.A. 314, or as otherwise stated in the investment policy, or their contract.

3. All BOI investment personnel (including the State Treasurer and external service providers) involved in the investment process shall refrain from personal business activity that could conflict with the proper execution and management of the investment program, or that could impair their ability to make impartial decisions. These parties are required to reveal all relationships that could create or appear to create a conflict of interest in their unbiased involvement in the investment process.

4. Investments shall be made without distinction between return generated from income as opposed to capital gains. Diversification, need for liquidity, and the potential for gain and loss will be monitored on an on-going basis.

5. The allocation of assets among various asset classes shall be approved (as set forth herein in Section IV) by the State Treasurer. The Asset Allocation Policy and Objectives (the Asset Allocation Policy) shall be predicated on the following factors:

   a. the historical performance and risk measurers of capital markets adjusted for the expectations of the future short and long-term capital market performance;

   b. the correlation of returns and risk among the relevant asset classes;

   c. the expectations of future economic conditions, including inflation and interest rate assumptions;

   d. the projected liability stream of benefits and the costs of funding to both covered employees and employers; and

   e. the relationship between the current and projected assets of the plan and the projected actuarial liability stream.

6. This Asset Allocation Policy will identify target allocations to the classes of assets SMRS can utilize and the ranges within which each can fluctuate as a percent of the total portfolio. This Asset Allocation Policy is expected to provide diversification of assets in an effort to maximize the investment return to SMRS consistent with prudent market and economic risk given the return objectives of the fund. Assets of SMRS are to remain invested at all times in either cash equivalents or other asset classes as designated by this Policy.

7. Professional investment management firms, which are registered investment advisors or which are appropriately exempt from registration under the Investment Advisers Act of 1940, as may be amended, may be retained, by the State Treasurer, to assist in managing SMRS assets. Investments shall be sufficiently diversified so as to reduce the risk of material losses. Each investment manager will function under a formal Investment Management Agreement (IMA) that delineates responsibilities and appropriate performance expectations. A formal set of investment guidelines and administrative requirements for management of each portfolio is to be provided to each manager. BOI investment personnel will review the investment performance of these managers against their stated objectives on a regular basis. Individual managers will be judged according to benchmarks, which reflect the objectives and characteristics of the strategic roles their portfolios are to fulfill. Other factors for consideration shall include, but not be limited to, fundamental changes in the manager's philosophy, changes in the manager's organizational structure, financial condition (including changes in total AUM), personnel, changes in fee structure, litigation, and regulatory enforcement actions brought against the manager. Investment managers may act at their own discretion provided that actions are in accordance with P.A. 314, this Policy, and the IMA.

8. The State Treasurer and the BOI, in accordance with this Policy, will allocate contributions within the component units of SMRS on an on-going basis to balance the overall asset allocation against targets when deviations occur because of capital market fluctuations. Such allocations may be made even if contributions to managers or asset classes have recently experienced poor performance, if investment personnel believe the future outlook to be favorable. If such poor performance is the result of an occurrence other than expected market-related volatility, then a reassessment of that investment shall be undertaken.

9. The State Treasurer may utilize the services of an investment consultant(s) for, among other things, performance review, asset allocation studies, risk budgeting, manager screening and selection, educational materials, and topical studies. The comments and recommendations of the consultant will be considered by the State Treasurer, as sole fiduciary, in conjunction with other available information for the purpose of making an informed and prudent decision.

10. The State Treasurer will utilize the services of a master custodian bank that will be responsible for holding SMRS assets; settling purchases and sales of securities; identifying and collecting income that becomes due and payable on assets held; and providing a management information/accounting system.

11. The State Treasurer may retain the services of a securities lending provider to generate additional return for SMRS at acceptable levels of risk. The program will be administered in accordance with the securities lending policy negotiated with the provider.

12. The State Treasurer shall retain the services of a proxy voting agent to vote proxies in accordance with the State of Michigan Retirement Systems Proxy Voting Policy.

13. Updated return projections and asset allocation will be developed approximately every two years. The information for these reviews shall come from BOI investment personnel, outside consultants, and investment managers, as retained.

14. It is the responsibility of the State Treasurer to administer the investments of SMRS at reasonable industry standard cost, being careful to avoid sacrificing quality and opportunity for gain. These costs include, but are not limited to, management and custodial fees, consulting fees, transaction costs, and other administrative costs chargeable to SMRS, as well as incentive fees.

15. Any investment or any action pursuant to an investment for SMRS which is not expressly permitted under this Policy is not allowed unless submitted in writing, and formally reviewed and approved by the State Treasurer.

16. The State Treasurer will operate investments of SMRS in compliance with all applicable state and federal, laws and regulations concerning the investment of pension assets.

17. The State Treasurer shall retain the services of a divestment screening vendor to assist in its compliance with state divestment statutes prohibiting the acquisition of securities in companies with active business operations in state sponsors of terror.

IV. Asset Allocation Policy and Objectives

Based on the factors identified in the preceding General Objectives, Goals, and Policies, the State Treasurer has established strategic asset allocation targets and ranges on a market value basis as set forth below.

Ranges for each asset class are included in the Asset Allocation Policy to provide the State Treasurer, as sole fiduciary, with flexibility to adjust to market fluctuations and portfolio changes.

A. The five-year strategic asset allocation targets for MPSERS are provided below:

Asset Class	Benchmark	Target	Ranges	Statutory Limit*
Absolute Return	U.S. T-bills +4%	6.0%	0% - 12%	**
Core Fixed Income	Barclays U.S. Aggregate	10.5%	5% - 25%	
Cash / Short Term Fixed Income	U.S. 1 month T-bill	2.0%	1% - 10%	

Domestic Equity	S&P 1500	28.0%	20% - 50%	70%
International Equity	MSCI ACWI ex U.S.	16.0%	10% - 25%	
Private Equity	S&P 500 +3% lagged 1 quarter	18.0%	10% - 25%	30%
Real Estate / Infrastructure	NPI – 1.3%	10.0%	5% - 15%	
Real Return	U.S. CPI +5%	4.5%	0% - 10%	**
Opportunistic	Actuarial Assumption	5.0%	0% - 10%	**
Total Assets	Actuarial Assumption	100%		

B. The five-year strategic asset allocation targets for MSERS are provided below:

Asset Class	**Benchmark**	**Target**	**Ranges**	**Statutory Limit***
Absolute Return	U.S. T-bills +4%	6.0%	0% - 12%	**
Core Fixed Income	Barclays U.S. Aggregate	10.5%	5% - 25%	
Cash / Short Term Fixed Income	U.S. 1 month T-bill	2.0%	1% - 10%	
Domestic Equity	S&P 1500	28.0%	20% - 50%	70%
International Equity	MSCI ACWI ex U.S.	16.0%	10% - 25%	
Private Equity	S&P 500 +3% lagged 1 quarter	18.0%	10% - 25%	30%
Real Estate / Infrastructure	NPI – 1.3%	10.0%	5% - 15%	
Real Return	U.S. CPI +5%	4.5%	0% - 10%	**
Opportunistic	Actuarial Assumption	5.0%	0% - 10%	**
Total Assets	Actuarial Assumption	100%		

C. The five-year strategic asset allocation targets for MSPRS are provided below:

Asset Class	Benchmark	Target	Ranges	Statutory Limit*
Absolute Return	U.S. T-bills +4%	6.0%	0% - 12%	**
Core Fixed Income	Barclays U.S. Aggregate	10.5%	5% - 25%	
Cash / Short Term Fixed Income	U.S. 1 month T-bill	2.0%	1% - 10%	
Domestic Equity	S&P 1500	28.0%	20% - 50%	70%
International Equity	MSCI ACWI ex U.S.	16.0%	10% - 25%	
Private Equity	S&P 500 +3% lagged 1 quarter	18.0%	10% - 25%	30%
Real Estate / Infrastructure	NPI – 1.3%	10.0%	5% - 15%	
Real Return	U.S. CPI +5%	4.5%	0% - 10%	**
Opportunistic	Actuarial Assumption	5.0%	0% - 10%	**
Total Assets	Actuarial Assumption	100%		

D. The five-year strategic asset allocation targets for MJRS are provided below:

Asset Class	Benchmark	Target	Ranges	Statutory Limit*
Absolute Return	U.S. T-bills +4%	6.0%	0% - 12%	**
Core Fixed Income	Barclays U.S. Aggregate	10.5%	5% - 25%	
Cash / Short Term Fixed Income	U.S. 1 month T-bill	2.0%	1% - 10%	
Domestic Equity	S&P 1500	28.0%	20% - 50%	70%
International Equity	MSCI ACWI ex U.S.	16.0%	10% - 25%	
Private Equity	S&P 500 +3% lagged 1 quarter	18.0%	10% - 25%	30%
Real Estate / Infrastructure	NPI – 1.3%	10.0%	5% - 15%	

Real Return	U.S. CPI +5%	4.5%	0% - 10%	**
Opportunistic	Actuarial Assumption	5.0%	0% - 10%	**
Total Assets	Actuarial Assumption	100%		

*Additional statutory limitations may apply pursuant to Act 314 of 1965, as amended.

(1) The State Treasurer shall not invest in more than 5% of the outstanding stock of any 1 corporation, or invest more than 5% of a system's assets in the stock of any 1 corporation, pursuant to the statutory limitation of P.A. 314, section 38.1134.

(2) Investment in obligations shall not exceed 15% of the system's total assets, pursuant to the statutory limitation of P.A. 314, section 38.1137(1)(b).

(3) Unless otherwise permitted in P.A. 314, the State Treasurer shall not invest in more than 5% of the outstanding obligations of any 1 issuer or in more than 5% of a system's assets in the obligations of any 1 issuer with the amount of the outstanding debt calculated at the original tranche level. Obligations shall include publicly issued and privately held debt.

(4) Investments in small Michigan businesses shall not exceed 5% of the system's assets.

(5) Investments in noninvestment grade securities, not otherwise qualified under P.A. 314, shall not exceed 15 percent of the system's total assets.

(6) Investments in foreign securities shall not exceed 30%, pursuant to the statutory limitation of P.A. 314, section 38.1140k.

(7) The State Treasurer shall not invest in more than 5% of the outstanding global securities of any 1 issuer and shall not invest in more than 5% of the system's assets in the global securities of any 1 issuer, pursuant to the statutory limitation of P.A. 314, section 38.1140k(1)(a), (b).

(8) Investments not otherwise qualified under P.A. 314, shall not exceed 30%, pursuant to the statutory limitation of P.A. 314, section 38.1140d.

(9) Private equity shall not exceed 30%, pursuant to the statutory limitation of P.A. 314, section 38.1139a, with an additional 5% allocated to assets in Michigan private equity.

(10) Investments in derivative securities shall not exceed 15%, pursuant to the statutory limitation of P.A. 314, section 38.1140j.

**** Absolute return, real return, and opportunistic** investments are diverse and must be evaluated independently to determine whether these investments should be categorized as private equity, real property, or under Section 20d as an investment not otherwise qualified under P.A. 314.

Asset Class Definitions and Strategic Roles

Absolute Return – Investments representing ownership interest in hedge funds managed to an overall risk tolerance and including acceptable leverage levels. Diversification by fund and by strategy, such as, but not limited to, long/short equities, arbitrage, and event-driven strategies. Absolute Return strategies seek to produce return patterns over time that have a lower level of correlation with equities and other traditional asset classes. The investments may be made through partnerships or other legal entities, as standard industry practice.

Cash/Short Term Fixed Income – Investments in fixed income securities with maturities of less than one year including, but not limited to, Treasury bills and notes, commercial paper, bankers acceptances, certificates of deposit, and asset backed securities.

Equities – Diversified portfolio of investments to include public, preferred stock, convertible to stock, options, futures, or other derivatives on stocks or composites of stocks, units, participation or partnership shares which represent ownership interests in an underlying investment (excluding real property). Investment in Real Estate Investment Trusts (REITs) shall be classified as equities unless managed by the REID, which they will then be considered as real estate. Strategies will be segmented into domestic equities and international equities.

Fixed Income – Diversified portfolio with maturity greater than one year of investments representing instruments with obligated fixed or floating rates of interest to include public and private securities, mortgages, and investments in life insurance general accounts and guaranteed investment contracts, and options, futures or other derivatives on fixed income securities or fixed income components. The portfolio is designed to primarily diversify assets, protect principal and generate cash flow.

Real Estate – Diversified portfolio of investments representing ownership interest in partnerships, publicly-traded securities, operating companies, or other vehicles that represent equity and/or mortgages in real estate including, but not limited to, commercial, retail, hotel, industrial, residential, land, infrastructure, or other real estate related investments. Investments may include investments in public or private real estate operating companies and non-traditional property types or other real estate related investments. The portfolio is expected to provide diversification from traditional capital market risk. The real estate portfolio shall be diversified by property type and geography, and may include the use of leverage. The investments are typically made through partnerships or other legal entities, as standard industry practice.

Real Return – Real Return can include such diverse individual strategies as commodities, timber, floating rate notes, or a portfolio including a variety of asset classes managed tactically or strategically to achieve a real return goal. They are included in the portfolio to provide an inflation hedge or opportunistic tactical or strategic asset class exposure. Examples of additional individual strategies include, but are not limited to, TIPS, floating rate debt, and commodity futures. The investments may be direct or made through partnerships, or other legal entities, as standard industry practice.

Opportunistic – Diversified portfolio of investments representing ownership interest in partnerships, publicly-traded securities, operating companies, or other vehicles that represent equity and/or debt. Investments may include strategies across all asset classes, or a portfolio including a variety of asset classes managed tactically or strategically that may not meet a specific mandate. The portfolio is designed to provide an opportunistic tactical or strategic asset class exposure, and/or provide diversification from traditional capital market risk.

Private Equity – Investments representing ownership interest in partnerships and other vehicles including, but not limited to, venture capital, leveraged buyouts, mezzanine debt, and special situations. The portfolio will consist of domestic and international partnerships, as well as private and public securities which may be the result of distributions. Private equity investments shall be well diversified by sub-asset class (e.g. venture capital vs. buyouts), investment style (e.g. early vs. late stage, mid market vs. large cap market), and vintage year.

V. Goals and Performance Objectives

The investment performance of the fund will be measured against objectives for the total SMRS and component units and against objectives for individual portfolio components (asset classes and individual managers). Investment performance shall be measured no less than quarterly. Because capital markets fluctuate, and given the length of the duration of the liability stream, the performance relative to objectives and goals is to be judged over a period of a market cycle as well as standard annualized periods of one, three, five, seven, and ten years. Greater emphasis is placed on intermediate and long-term results.

A. Performance Objectives for Individual Components

It should be noted that peer universes may only be available for these comparisons on a gross-of-fees basis. This should be considered when evaluating SMRS returns. In addition, benchmark and peer data may change from time to time as the market/industry evolves.

1. Domestic Equities	Exceed the total return of the S&P Composite 1500 net of fees for one, three, five, seven, and ten-year periods and a market cycle. Rank above median in a public plan universe of domestic equity investments. Rank above median in a universe of managers possessing a similar market cap and style characteristics.
2. International Equities	Exceed the total return of the MSCI All Country World Index ex-U.S. net of fees for one, three, five, seven, and ten-year periods and a market cycle. Rank above median in a public plan universe of non-U.S. equity investments.

	Rank above median in a universe of managers possessing a similar market capitalization, style, and geography characteristics.
3. Private Equity	Exceed the S&P 500 Index by 300 basis points net of fees lagged by three months over one, three, five, seven, and ten-year periods and a market cycle. Rank above median in a public plan universe of private equity investments.
4. Absolute Return	Exceed U.S. T-bills by 400 basis points net of fees over one, three, five, seven, and ten-year periods and a market cycle. Exceed the appropriate HFN Fund of Funds median net of fees over one, three, five, seven, and ten-year periods and a market cycle. If available, rank above median in a public plan universe of hedge fund investments.
5. Real Return	Exceed the increase in the U.S. CPI by 500 basis points annually net of fees over one, three, five, seven, and ten-year periods and a market cycle. If available, rank above median in a nationally recognized universe of managers possessing a similar style.
6. Opportunistic	Exceed the actuarial rate of return.
7. Real Estate	Exceed the NPI over the one, three, five, seven, and ten-year periods and a market cycle, less 130 basis points. Meet or exceed the NCREIF-ODCE over one, three, five, seven, and ten-year periods and a market cycle. If available, rank above median in a public plan universe of real estate investments.
8. Fixed Income	Exceed the Barclay's U.S. Aggregate Index, net of fees for one, three, five, seven, and ten-year periods and a market cycle. Rank above median in a public plan universe of fixed income investments.

Rank above median in a nationally recognized universe of managers possessing a similar duration and credit exposure.

VI. General Investment Manager Guidelines and Requirements

A. Purchases and sales, security selection, and portfolio implementation of investment strategies are delegated to the discretion of the investment manager, subject to compliance with SMRS investment policies, individual contracts, and P.A. 314. If a commingled vehicle or mutual fund is utilized, the investment policies of that fund shall be considered the operative policy document.

B. Purchases of any securities or execution of any transaction not authorized by P.A. 314 are prohibited.

C. Transactions that involve a broker acting as a “principal” where such broker is also the investment manager who is making the transaction are prohibited. Brokers acting as investment managers are limited to “agency” transactions.

D. Transactions shall be executed at a reasonable cost, taking into consideration prevailing market conditions and services and research provided by the executing broker.

E. All investment managers shall comply with reporting requirements imposed by P.A. 314 or through investment management agreements and side letters

F. All BOI investment personnel and DTMB employees who are subject to the BOI’s Investment Personnel Supplemental Code of Ethics and Standards of Conduct shall annually affirm adherence to P.A. 314; the Standards of Conduct for Public Officers and Employees Act, 1973 PA 196; Michigan Civil Service Rules governing gifts, disclosure, and travel; CFA Institute Code of Ethics and Standards of Professional Conduct; the Michigan Department of Treasury Policy on Ethical Conduct and Supplemental Employment; and the BOI Investment Personnel Supplemental Code of Ethics and Standards of Conduct; the BOI Prohibition of Insider Trading Policy and corresponding Frequently Asked Questions.

G. Prior to becoming a service provider, investment managers shall certify that no political contributions that violate Section 13e of P.A. 314 have been made to a governmental official who could influence the award of pension contracts and shall agree to inform the State Treasurer if the statement should no longer be accurate.

H. All investment managers will be expected to provide the BOI, the custodian, and their investment consultant, on a timely basis each quarter, such data as is required for proper monitoring.

I. The use of index futures (or other derivatives) is permitted to achieve (but not limited to) the following:

1. To reduce the opportunity cost caused by “cash drag” in a rising market.

2. To decrease the transaction costs of trading without increasing the risk (volatility) of that component of SMRS.

3. To increase the manager’s flexibility in meeting the performance objectives set forth for them within defined investment style and strategy constraints.

J. Derivatives must be used in accordance with P.A. 314.

K. The REID portfolio may (through various legal structures) invest in properties located outside the United States.

L. Performance objectives are to be met on a net-of-fees basis.

M. All guidelines must be adhered to by internal and external managers. Investments contrary to the guidelines but deemed prudent by an investment manager must be approved by the State Treasurer or by an authorized representative of the State Treasurer.

N. Investment managers must comply with state laws prohibiting the State Treasurer from investing public monies in companies engaged in active business operations in countries designated as a state sponsor of terror by the United States Secretary of State. The BOI will provide investment managers with a list of prohibited companies each quarter. Investment managers must refrain from acquiring securities in companies that appear on the lists and divest if directed by the BOI.

O. Investment managers and investment service providers must comply with federal and state Pay-to-Play Rules placing limits on political contributions made to governmental officials who could influence the award of investment contracts.

VII. Other Policies

A. BOI Prohibition of Insider Trading Policy

Buying or selling securities while aware of material non-public (inside) information concerning the issuer of the securities, or improperly disclosing to others such inside information, may constitute fraud under federal and state securities laws and a violation of other legal and regulatory requirements. Inside information also includes information that any BOI investment personnel or DTMB affiliate may have concerning SMRS securities positions or trading.

The BOI has a Prohibition of Insider Trading Policy that provides a process for guarding against violations of state, federal, and foreign securities laws that prohibit insider trading. To this end, the BOI maintains and regularly updates a list of securities that BOI investment personnel and DTMB affiliates may not personally trade because the BOI has identified the securities as inside information. These securities are maintained through the Personal Trade Approval System (PTAS). Before executing trades for personal accounts, including those of household members and accounts over which the individual exercises investment discretion, the PTAS must be consulted to see if the security is restricted. This process is intended to prevent misuse of material, nonpublic or inside information. All personal trades must be disclosed quarterly to the Chief Operating Officer. The policy also creates procedures designed to prevent the sharing of insider information between public and private market investment division investment personnel. All internal portfolios will be managed in compliance with the BOI Prohibition of Insider Trading Policy.

B. State of Michigan Retirement System Proxy Voting Policy

The State Treasurer considers the active voting of proxies an integral part of the investment process that serves the interests of shareholders and advances good corporate governance. As such, the State Treasurer endeavors to timely vote proxies in all shareholder meetings where the SMRS is a shareholder and entitled to vote. In furtherance of this endeavor, the State Treasurer has adopted the SMRS Proxy Voting Policy, which is periodically reviewed and revised as needed by the BOI's Compliance and Corporate Governance Division to reflect changes in state law and emerging trends in corporate governance. The State Treasurer has retained a proxy voting agent to vote all shareholder ballots in accordance with the Proxy Voting Policy. The BOI retains the ability to manually vote any proxies at all times so that the best interests of the SMRS members and beneficiaries are served. Greater scrutiny may be directed to shareholder meetings with ballot issues believed to impact the long-term investment strategy of the SMRS.

C. Ethics

Investment personnel and DTMB affiliates are held to the highest ethical standards and must comply with a number of directives aimed at ensuring integrity at the BOI. All investment personnel and DTMB affiliates must conduct themselves in a way that promotes public confidence in the retirement systems managed by the State Treasurer. The BOI fulfills this directive by following and adhering to ethical guidelines established by P.A. 314; Standard of Conduct for Public Officers and Employees; Michigan Civil Service Rules; CFA Institute Code of Ethics and Standards of Professional Conduct; and the BOI Prohibition of Insider Trading Policy. Each year, all investment personnel and DTMB affiliates must affirm adherence to these policies, statutes, guidelines, and directives by signing an annual affirmation. Violations or suspected violations of any of these policies, statutes, guidelines, or directives must be immediately reported to the Chief Operating Officer.

Members of the Investment Advisory Committee are also required to sign a Code of Ethics and Standards of Conduct that define the ethical and behavioral guidelines within which all members of the IAC are expected to conduct themselves while serving as members of the IAC. Signed copies are maintained on the BOI's Web site.

D. Divestment

Michigan law prohibits the State Treasurer from acquiring securities of companies with active business operations in countries designated as state sponsors of terror. P.A. 314 requires that the State Treasurer quarterly review its internal and external holdings to ensure no public monies are invested in companies engaged in active business operations in Cuba, Iran, Sudan, and Syria. The BOI contracts with a third-party vendor that creates lists of scrutinized companies using statutory factors. Consistent with the statute, the BOI engages with companies where the SMRS is a shareholder. If engagement is not successful then the SMRS must divest its holdings in the company in accordance with a statutory divestment schedule.

VIII. Review and Modification of Investment Policy Statement

The State Treasurer, as sole fiduciary and in collaboration with BOI investment personnel, will review the Policy approximately every two years to determine if modifications are necessary or desirable. The most current Investment Policy Statement shall be made available to the public on the BOI Web site.

Approved:

By: R. Kevin Clinton 11/6/14

(Signature) (Date)

R. Kevin Clinton
State Treasurer

Disclaimer

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