INVESTMENT ADVISORY COMMITTEE MEETING

March 6, 2014

STATE OF MICHIGAN RETIREMENT SYSTEMS
QUARTERLY INVESTMENT REVIEW

R. Kevin Clinton, State Treasurer

Prepared by the Bureau of Investments
Michigan Department of Treasury

INVESTMENT ADVISORY COMMITTEE MEETING

March 6, 2014

Agenda

9:30 a.m.	**Call to Order and Opening Remarks**
9:40 a.m.	**Approval of Minutes of 12/3/13, IAC Meeting**
9:45 a.m.	**Executive Summary & Performance for Periods Ending 12/31/13**
10:00 a.m.	**Current Asset Allocation Review**
10:10 a.m.	**Round Table Discussion**
10:20 a.m.	**Review of Investment Reports**

- ***Absolute and Real Return/Opportunistic***
- ***Real Estate and Infrastructure (time allowing)***

11:30 a.m.	**Closing Remarks ~ Adjournment**

Reports Received and Filed:

- ***Capital Markets Overview***
- ***Economic and Market Review and Outlook***
- ***Fixed Income***
- ***Alternative Investments***
- ***Domestic Equity***
- ***International Equity***
- ***Basket Clause***

2014 Meeting Schedule

Thursday, June 5, 2014
Thursday, September 4, 2014
Tuesday, December 2, 2014

All meetings start at 9:30 a.m.

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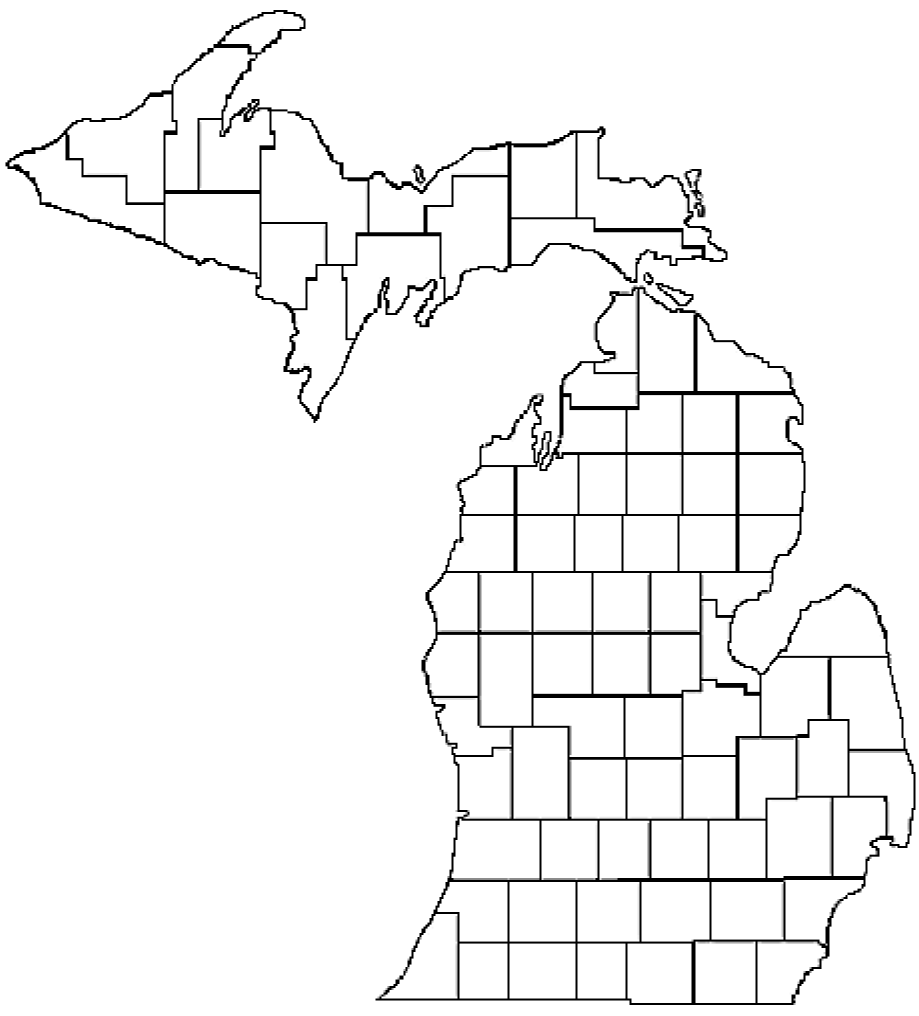
STATE OF MICHIGAN
RETIREMENT SYSTEMS

MINUTES

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 6, 2014



Jon M. Braeutigam
Chief Investment Officer
Bureau of Investments

INVESTMENT ADVISORY COMMITTEE

The Investment Advisory Committee (IAC) held its quarterly meeting on Tuesday, December 3, 2013, at the Bureau of Investments, Great Lakes Conference Room, 2501 Coolidge Road, Suite 400, East Lansing, Michigan.

Members Present:

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

In attendance from the Department of Treasury: State Treasurer R. Kevin Clinton, Jon M. Braeutigam, Gregory J. Parker, Robert L. Brackenbury, Peter Woodford, Karen Stout, Brian Liikala, Richard Holcomb, Jack Behar, Rick DiBartolomeo, Paul Nelson, Amanda Ellis, Giles Feldpausch, Dan Quigley, Marge McPhee, and Emma Khavari.

Others in attendance: Jim Voytko, Molly Jason, Mark Guastella, and Cara Dobie.

Call to Order

Chairman Khouri called the December 3, 2013, IAC meeting to order at 9:30 a.m. and thanked everyone for taking time from their busy schedules to attend the meeting. Chairman Khouri introduced the new State Treasurer, R. Kevin Clinton. Chairman Khouri reflected on 2013, noting it is a good time to review what was done, what worked, what did not work, and what it means going forward. He noted that a review of all of the asset classes was being completed at this meeting. He discussed the performance of the U.S. equities, which had a great run, and noted that Treasuries may have started their long-term trend up. He also briefly discussed the payout to retirees.

Chairman Khouri noted that Mr. Paul Nelson would be retiring at the end of December. Chairman Khouri thanked him for his service and noted that Paul’s dedication to the Department of Treasury has been very much appreciated. Chairman Khouri recalled several memorable times when Paul enlightened the Executive Office staff regarding the fixed income area.

Approval of Minutes of September 5, 2013

Chairman Khouri asked for a motion to approve the minutes of the September 5, 2013, IAC meeting. Mr. James Nicholson so moved, seconded by Mr. Steve Arwood; there were no objections – so approved.

Executive Summary – Performance Section

Chairman Khouri turned the meeting over to Mr. Jon Braeutigam to discuss the performance section of the Executive Summary. Mr. Braeutigam briefly discussed the performance of the plan ending September 30, 2013, noting that the plan has had a strong performance over the past one and three years, and over ten years has achieved a 7.4% return. Mr. Braeutigam addressed questions regarding the peer group and public plan size noting that at the total plan level, State Street's greater than ten billion for measuring performance is used; at the individual asset class level, the State Street comparison used to measure performance is greater than one billion.

Mr. Braeutigam touched on international equities noting that the fund was over-weighted to emerging markets, yet international equities still beat their benchmarks and in real estate some properties were marked-to-market more aggressively in comparison to open-ended funds. Mr. Braeutigam discussed the importance of interpreting peer performance. There was further discussion on how many plans are in the universe for the individual asset classes noting this information is provided under the Performance tab in the IAC book. Mr. Braeutigam explained that the policy benchmark for the plan is simply the target weights for each asset class of the plan multiplied by their benchmark return, noting that for some asset classes, like alternative investments and real estate, this is imperfect as they usually lag the benchmark.

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

Executive Summary – Asset Allocation Section

Mr. Parker began by reviewing the asset allocation sources and uses of cash which provides information on what has been done over the past year in the fund. He pointed out that alternative investments and domestic equity were two large sources of cash; some was redeployed to absolute return strategies, real estate and infrastructure strategies, and real return and opportunistic strategies, and of course, some cash was used to pay the retiree benefits. There was discussion on how this chart would look at the end of 2014.

Mr. Parker touched on the Capital Markets section of the Executive Summary. He noted that the yield curve is steep and that tapering was big news in 2013, with some tapering expected in 2014, possibly as soon as March. This is something he feels needs to be watched over the next 12 months. There was a discussion on fixed income and the credit side of fixed income with Mr. Parker noting that the asset class has increased its exposure to credit, putting some money to work in high yield. There was a good discussion on the Capital Markets and the opportunities in the markets, and also the philosophy and strategy of the markets.

Domestic Equity **–** Mr. Jack Behar reported on the SMRS domestic equity investments. The market value for the domestic equity holdings as of September 30, 2013, was $15,341 million. Mr. Behar provided a brief history of the Stock Analysis

Division. He went on to explain what has been happening with equities, noting when interest rates are low that drives multiple expansion of the equity markets. It is his opinion that this is what the Fed has been trying to do. Mr. Behar discussed performance noting that on a five year basis total domestic equity, both active and domestic, has outperformed the peer group, net of fees. He noted that the markets were a difficult environment for active management.

Mr. Behar discussed his confidence in the portfolio going forward noting that he does an analysis for the broad equity market. There was a lengthy discussion regarding reasonable performance and what is considered good outperformance. There was also discussion regarding the cycle in active manager outperformance or underperformance, noting there are theories, with no definite reason. Mr. Behar also explained that he has been attempting to reduce the asset management fees. He feels that he has been successful in his strategy. Mr. Behar concluded noting that the asset class is overweight in financials, health care, large cap; and underweight in commodities and small cap.

International Equity **–** Mr. Richard Holcomb reported on the SMRS international equity investments. The total international equity exposure as of September 30, 2013, was $8,153 million. He provided a brief review of the Quantitative Analysis Division noting that they have been managing the international equity exposure and the domestic U.S. index funds since 1988. He explained that they took their derivative experience with U.S. indexing, and used it for international passive investing in a derivative overlay covering foreign indices. Libor notes are held as collateral assets. There was a discussion of emerging markets and the role they play in international equities. Mr. Holcomb commented on the differences between a developed market and an emerging market.

Mr. Holcomb discussed his view of the global economy noting that most strategists think the Euro will weaken over the next year. Mr. Parker pointed out that the ECB is not expanding its balance sheet, and it is actually contracting. The U.S. Federal Reserve is increasing its balance sheet quite dramatically. Mr. Holcomb noted that the Yen decreased quite a bit in the trailing year.

Short-Term, Absolute and Real Return **–** Mr. Jon Braeutigam provided a brief update on the absolute return, and real return and opportunistic portfolio as Mr. Jim Elkins was unable to attend the meeting. Mr. Braeutigam explained that money has been put into absolute return, and real return and opportunistic from equities, alternatives, and domestic U.S. equities which helps to diversify the fund. He noted that absolute return is a portfolio of basically hedge funds and mostly through a fund-to-funds type of strategy, with some individual direct hedge funds. He discussed the role that hedge funds play in the asset class and how much meaningful diversification they add to the asset class. There was a discussion about the absolute return portfolio and what view is taken of the portfolio.

Mr. Braeutigam discussed real return and opportunistic noting that it is in kind of a ‘J’ curve where monies are invested while it takes time to get the returns up. He noted that a lot of this money is in direct lending and some in credit strategies along with other areas. The direct lending managers have found opportunities and expect transactions to progress at a steady pace. The investments range from low to high risk, investments that might not fit into other asset classes and are totally uncorrelated. There were many questions asked and a good discussion of the asset class.

<u>Fixed Income</u> **–** Mr. Paul Nelson reported on the SMRS' fixed income investments. The total market value for the fixed income portfolio as of September 30, 2013, was $6,711 million. He noted that the long-term fixed income returns outperformed the Barclays Aggregate for all time periods except the three year. Mr. Nelson discussed the option of adding below investment grade issue with the credit risk somewhat offset by lower interest rate risk in high yield investments. He noted that interest rates are close to the lowest that they have been in 60 years, which is part of the reason why a short duration is best, figuring the rates will go back up. There was a discussion regarding credit risk and below investment grade external managers.

Mr. Nelson pointed out the difference in the average duration of Barclays compared to the fund. He then highlighted the Long-Term U.S. Government Bond Yields chart which shows 200 plus years of trends noting the three different 60-year cycles. At the present time the chart indicates that the government bond yields are 30 years into a new cycle. There was a brief discussion on some of the past notes purchased and the largest holdings in the 1980s, and also decisions that were made during that time.

<u>Alternative Investments</u> **–** Mr. Peter Woodford reported on the Alternative Investments. The total market value as of September 30, 2013, was $10,217 million. Mr. Woodford noted that Alternative Investments consists of 86 sponsors, 266 partnerships, and almost 3,400 companies with investing in private equity since the early 1980s. He noted that the one, five, and ten year returns were 14.9%, 7.8%, and 14.2% respectively. Alternative Investments invests across a broad spectrum of illiquid assets including buyout, venture capital, mezzanine, distressed, fund of funds, secondary funds, and special situation funds. These investments are approximately 75% in North America, 20% in Europe, and 5% in Asia. Mr. Woodford noted some of the desirable qualities when searching for a manager, which are: deep sector expertise, a focused strategy, a stable team with low turnover, and an attractive track record. These managers will have the ability of replicate their success over challenging economic cycles. He noted that a top down approach, which includes strategy, geography, and industry, as well as a bottom up approach which focuses on people, performance, philosophy, process, and price are used to make investment decisions.

Mr. Woodford discussed the macro outlook for private equity noting that although in the midst of an economic recovery, growth is likely to be structurally lower than in past recoveries. Markets should remain relatively calm in the near-term based on the current Fed's posture. He noted that the real question is the timing and impact of the Fed tapering. Credit availability and its historically low costs will not be available indefinitely. He also discussed the leverage multiples being at pre-crisis levels, with historically low borrowing costs that are driving purchase price multiples.

Mr. Woodford discussed the different markets noting that the U.S. buyout market continues to show relative strength compared to other regions due to relatively benign economic outlook, high levels of IPO and M&A activity, and accommodative credit markets. Mr. Woodford discussed the InvestMichigan program, which was developed in 2008 to attract new companies to Michigan and to fund in-State companies with innovative technologies. Initially the program capital was $330 million and in 2012 an additional $180 million was allocated to the program increasing the total funding to $510 million. He noted that to date the program has invested approximately $240 million across 43 deals and the performance has been good.

Asset Allocation, Capital Markets Overview, Economic and Market Review and Outlook, Real Estate Asset Class Investment Report, and Basket Clause

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

Next Meeting Date and Adjournment

The next Investment Advisory Committee Meeting is scheduled for Thursday, March 6, 2014. Chairman Khouri adjourned the meeting at 11:35 a.m. and thanked everyone for coming.

Approved:

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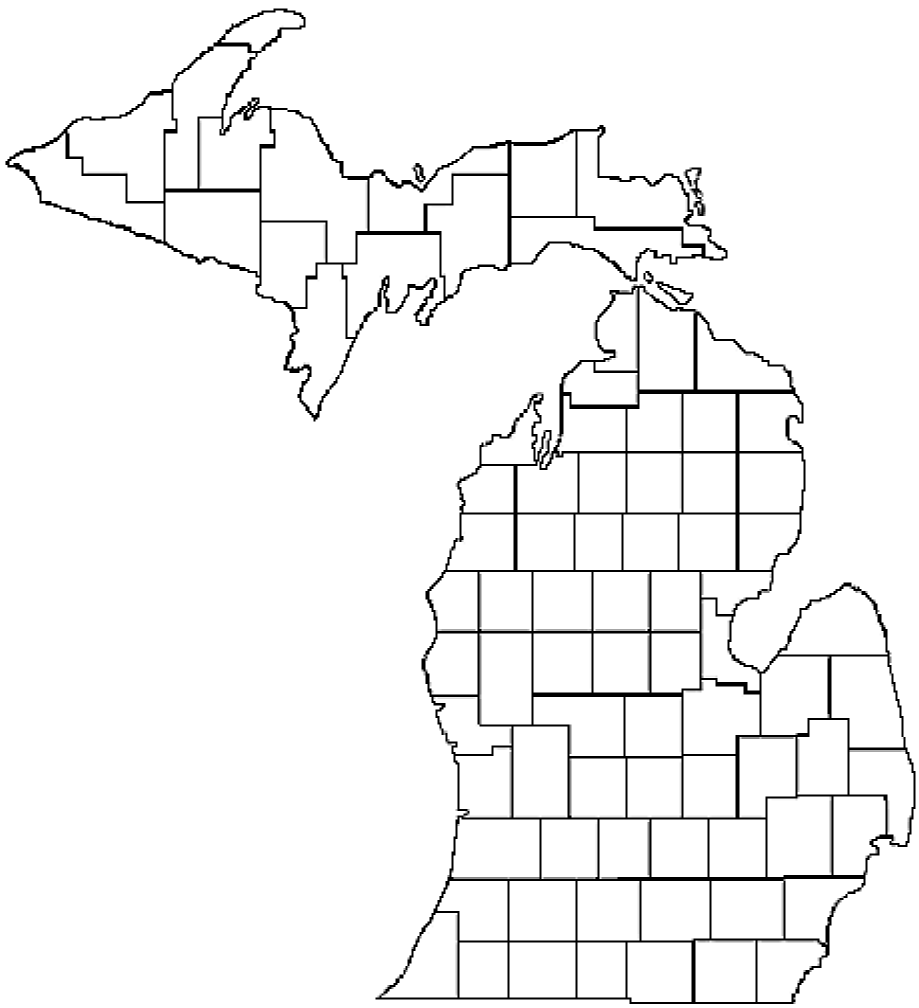
Nick Khouri, Chairman

STATE OF MICHIGAN
RETIREMENT SYSTEMS

EXECUTIVE SUMMARY

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 6, 2014



Jon M. Braeutigam
Chief Investment Officer
and
Gregory J. Parker, CFA
Director of Investments – Public Markets
Director of Asset Allocation
Bureau of Investments

EXECUTIVE SUMMARY

March 2014

Performance

Some key performance highlights.

MPSERS Plan	1-Year	3-Years	5-Years	7-Years	10-Years
Annualized Returns	16.4%	10.6%	11.3%	5.3%	7.2%
Policy Return	16.8%	11.0%	12.9%	5.5%	7.2%
Peer Median Return	15.8%	9.8%	11.7%	5.3%	7.1%
Rank vs. Peers	39	33	61	49	43

- For the period ending December 31, 2013, the absolute returns over the past one, three, and five years have been very strong as the markets have rebounded from the 2008-09 financial crisis. Over the past seven and ten years, the returns have met or exceeded peer returns. For the past five years, the plan underperformed peers by 0.4%.
- With the strong public equity market, the plan was slightly below its one-year policy return as private equity marks have time lags against a strong public market benchmark. Private equity is a difficult asset class to benchmark, especially over short periods of time and even up to five years. Over the past seven and ten years, this asset class has done very well.
- Against the peer group, private equity has performed exceptionally well. It has earned returns higher than peers over the past one, three, five, seven, and ten years. It performed in the top quartile in all periods except the past year, and earned top decile returns in the three and five year periods.
- Against the policy benchmark one-year return there was good selectivity across nearly all asset classes. Most asset classes ranked in the top half of the peer group over the past year as well.

Asset Allocation

Using illiquid assets to pay benefits.

- The combined systems paid out $2.4 billion net of contributions over the past twelve months ending in December 2013 funded by a reduction in private equity ($1.8 billion), and real estate ($0.6 billion).
- In 2013, the plans put to work $0.6 billion in international equity, $0.3 billion in real return and opportunistic as well as $0.2 billion in absolute return strategies. Domestic equity was reduced by $0.8 billion during 2013.
- According to State Street peer universe data, the peer median allocation for the long-term fixed income asset class is 21.5% versus the plan's allocation of 11.9%. With the 10-year U.S. Treasury yielding approximately 3.0% and cash yielding approximately 20 bps at the end of December 2013, the lower allocation is justified as it will be difficult to earn the target rate of 8% with a higher allocation to fixed income.
- The plans have outstanding capital commitments to fund approximately $6.3 billion in illiquid asset classes, primarily private equity. This figure is about 12% of the December 2013 market value and is an additional liquidity consideration. By contrast, the current outstanding commitments are roughly $200 million higher than five years ago.

Capital Markets

An update on stocks and bonds.

- U.S. stocks ended the year on a high note. The broad domestic market index, S&P 1500, returned 32.8% over the past year, 16.2% over the past three years, and 18.4% per year over the past five years ending December 2013. Among top-down equity strategists, the average expected total return for the S&P 500 in 2014 is a modest 7.6% on earnings growth just above 7%.

- Small cap stocks have out-performed large cap stocks over the past cycle. Over the past one, three, five, and ten years, small caps have annually outperformed by 8.9%, 2.2%, 3.4% and 3.2% respectively.

- Non-U.S. stocks have lagged. Over the past one, three, five, and seven years, the broad international market index, MSCI ACWI ex USA, underperformed the domestic S&P 1500 index by 17.5%, 11.0%, 5.6%, and 4.3% annualized respectively. Performing even worse were emerging markets; underperforming developed markets by 25.4% and 10.2% over the past one and three years annualized.

- Longer-term interest rates were higher at the end of 2013 than they were the year prior. Stronger economic data coupled with Fed tapering of its Quantitative Easing program led to higher rates and a steep yield curve. Spreads, both high-grade corporates and high-yield, have remained at middling rates, despite the back up in rates.

- Italian and Spanish ten-year sovereigns ended 2013 with lower rates than the year before. Both ended 2013 yielding around 4.15%, slightly more than 110 bps than the U.S. counterpart. Perhaps a commentary of the market's perception of the relative safety of European sovereign debt, both the Italian and Spanish ten-year rates fell in lock-step in January 2014 as the U.S. rates backed down.

- Inflation data continues to come in at subdued rates. The year-over-year change in CPI as of December was only 1.5%.

Economic Backdrop

Developed foreign economies perhaps turn the corner.

- The U.S. economy is growing and the latest year-over-year GDP growth was recorded at 2.7%, 0.7% higher than one year ago. The jobs and housing markets saw continued improvements in 2013, and coincidental indicators such as the National Purchasing Managers Index rated 50 or better for the year. The U.S. federal budget deficit has shrunk as a percent of GDP and the U.S. consumer's balance sheet is as healthy as it has been in a long time.

- The economies of major developed international markets such as Japan and the Eurozone are recovering as well. Globally, growth is expected to be higher in 2014 than last year. China is expected to grow, though at a slower rate.

Highlighted Asset Classes –Absolute Return & Real Return / Opportunistic

A summary

Absolute Return	**1-Year**	**3-Years**	**5-Years**
Annualized Returns	12.0%	6.0%	8.4%
HFRI FOF Conservative*	7.9%	2.9%	3.7%
T-bills +4%	4.1%	4.1%	4.1%

*Lagged 1 month

- The strategic objective of the absolute return asset class is to produce return patterns over time that have a low level of correlation with equities and other traditional asset classes.
- At the end of December 2013, the plan had 4.3% allocated to the absolute return asset class, slightly overweight the strategic target of 4.0%. The plan has grown the absolute return portfolio from a zero allocation at the beginning of 2008, to $2.4 billion at the end of 2013.
- Historically, the absolute return portfolio has met its objective of delivering a diversifying rate of return. Over the past five years, the returns of the absolute return portfolio were roughly 60% correlated to the broad equity market with a beta of 0.3. As the capital market returns over the past five years have been heavily influenced by macro-economic factors, specifically the policies of the Federal Reserve, it is not surprising that the actual correlations are slightly higher than expected.
- The relative returns of the absolute return portfolio have been superb over the past one, three, and five years**.** The portfolio has exceeded the returns of similarly styled hedge funds as represented by the HFRI index and T-bills + 4%.
- Nearly half the absolute return portfolio is invested in Sand Hill, LLC, a separate account portfolio managed by Aetos Capital, a diversified Fund-of-Fund portfolio utilizing 23 managers.

Real Return / Opportunistic	**1-Year**	**3-Years**	**5-Years**
Annualized Returns	6.0%	3.9%	9.1%
Custom Benchmark *	7.2%	7.5%	7.6%
DJ-UBS Commodity Index TR	-9.5%	-8.1%	1.5%

*50% CPI +5% + 50% Actuarial Assumed Rate of 8%

- The strategic objective of the Real Return/Opportunistic portfolio is to provide an inflation hedge or opportunistic tactical or strategic asset class exposure through a mixture of diverse individual strategies.
- Inflation has not been high over the past several years and it is not forecasted to be so in the future either. Accordingly, real return investments target an acceptable base investment rate and will deliver commensurately higher returns should inflation actually pick up.
- At the end of December 2013, the plan had 5.5% allocated to the asset class, slightly overweight the strategic target of 5.0%. The plan has grown the portfolio from a zero allocation at the beginning of 2008, to $3.1 billion invested at the end of 2013, with another $1.9 billion in unfunded commitments.
- Over the past five years, the portfolio has exceeded its custom return objective by a healthy 1.5%. Over the more recent one and three year periods, the portfolio is trailing, however many of the investments in the portfolio experience a 'J'-curve in the life-cycle of returns. Once the portfolio becomes more seasoned, it is expected that the portfolio's returns will be as successful as the longer five-year return.

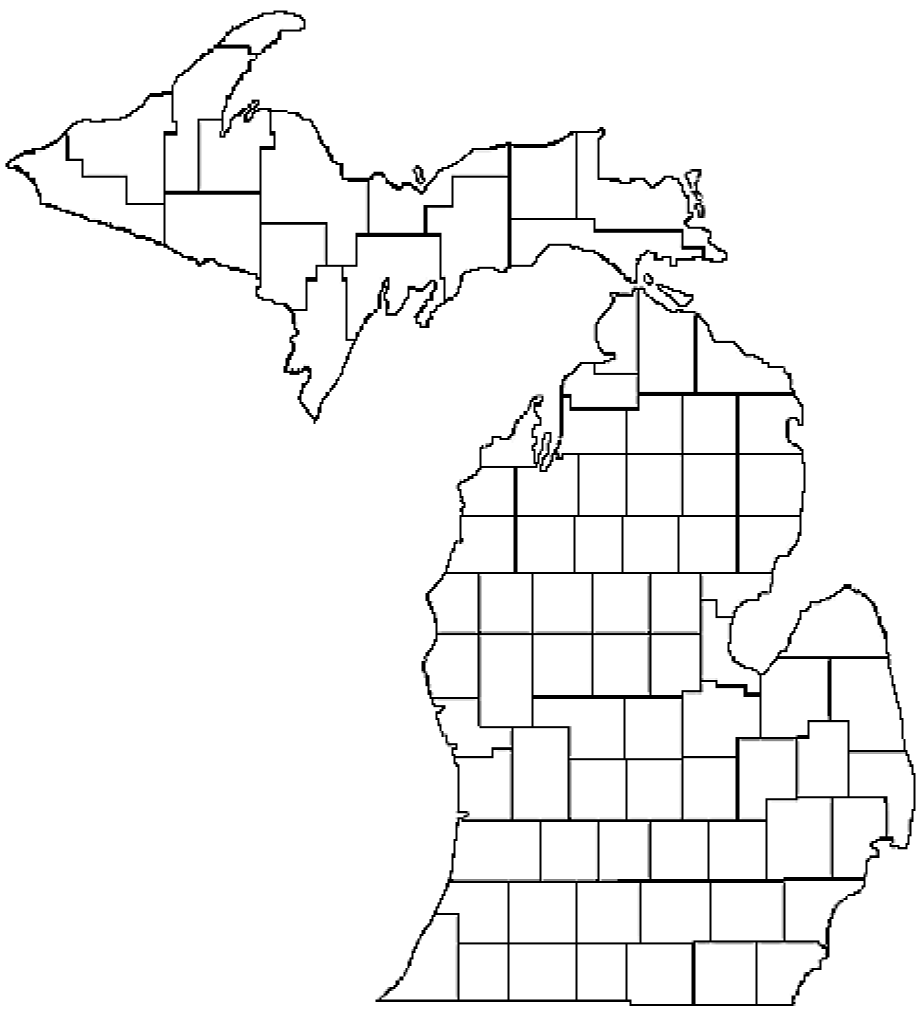
STATE OF MICHIGAN
RETIREMENT SYSTEMS

PERFORMANCE

FOR PERIODS ENDING
DECEMBER 31, 2013

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 6, 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 December 31, 2013

	% of Portfolio 12/31/13	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[1] Rate	One Year[1] Rank	Current Quarter Rate	Current Quarter Rank
TOTAL PLAN	**100.0**	**7.2**	**43**	**5.3**	**49**	**11.3**	**61**	**10.6**	**33**	**16.4**	**39**	**5.7**	**20**
Median - Greater than $10 Billion[2]		7.1		5.3		11.7		9.8		15.8		5.1	
MPSERS Total Plan Policy		7.2		5.5		12.9		11.0		16.8		5.1	
DOMESTIC EQUITIES	**30.8**	**7.6**	**51**	**6.5**	**49**	**18.6**	**53**	**16.0**	**41**	**34.1**	**30**	**10.9**	**9**
Median[2]		7.6		6.5		18.7		15.8		32.8		9.5	
S&P 1500 Index		7.8		6.5		18.4		16.2		32.8		10.3	
ALTERNATIVE INVESTMENTS	**18.2**	**14.3**	**22**	**10.9**	**14**	**12.5**	**9**	**15.7**	**7**	**16.8**	**35**	**5.9**	**9**
Median[2]		11.7		8.7		8.9		12.2		14.6		3.9	
Alternative Blended Benchmark[3]		10.7		9.5		21.0		19.2		22.4		5.9	
INTERNATIONAL EQUITIES	**15.4**	**6.7**	**78**	**1.5**	**72**	**13.3**	**62**	**6.3**	**61**	**14.9**	**87**	**5.0**	**76**
Median[2]		8.2		2.8		14.1		7.1		19.3		5.7	
International Blended Benchmark[4]		6.4		0.7		11.2		5.6		15.8		4.8	
BONDS	**11.9**	5.2	**51**	**5.9**	**29**	**6.4**	**54**	**4.0**	**68**	**-0.5**	**36**	**0.3**	**57**
Median[2]		5.3		**5.4**		7.0		4.3		-1.2		0.4	
Barclays Aggregate		4.6		4.9		4.4		3.3		-2.0		-0.1	
REAL ESTATE	**8.6**	**5.4**	**55**	**2.0**	**47**	**-0.4**	**70**	**11.0**	**58**	**11.3**	**42**	**4.0**	**17**
Median[2]		6.5		1.7		1.8		11.1		11.2		2.9	
NCREIF - Property Blended Index[5]		7.4		3.9		4.3		10.5		9.6		2.2	
NCREIF Open Fund Index Net		6.2		2.3		2.7		12.5		12.9		3.0	
REAL RETURN AND OPPORTUNISTIC	**5.1**							**6.2**		**8.7**		**2.1**	
50% (CPI +500 bps) + 50% (8% accuarial rate)								7.6		7.3		1.4	
ABSOLUTE RETURN	**4.3**					**8.4**		**6.0**		**12.0**		**3.6**	
HFRI FOF Cons 1 month lagged						3.7		2.9		7.9		2.7	
INFRASTRUCTURE INVESTMENTS	**0.7**									**11.1**		**5.1**	
CPI + 400 bps 3 month lagged										5.2		1.3	
COMMODITY INVESTMENTS	**0.4**							**-6.6**		**-10.7**		**-2.8**	
DJ-UBS Commodity Index TR								-8.1		-9.5		-1.1	
CASH EQUIVALENTS	**4.6**	**1.6**		**0.9**		**0.6**		**0.3**		**0.4**		**0.1**	
1 Month T-Bill		1.5		0.9		0.1		0.1		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 through 12/31/06. Ending market value weighted blend of 10 yr yield + 300 bps and SP 500 + 300 12/31/06 to 9/30/09. Ending market value weighted blend of 10 yr yield + 300 bps and SP 500 + 300 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.

MPSERS
Cumulative and Consecutive
Total Fund Returns

Cumulative For Years Ending 12/31/13

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MPSERS	**16.4**	**14.5**	**10.6**	**11.2**	**11.3**	**4.4**	**5.3**	**6.5**	**6.9**	**7.2**
Public Plan - Median (> $10 billion)*	**15.8**	**15.0**	**9.8**	**10.7**	**11.7**	**4.5**	**5.3**	**6.3**	**6.5**	**7.1**
Rank	**39**	**63**	**33**	**39**	**61**	**51**	**49**	**33**	**31**	**43**
bp Difference - Median	**58**	**-50**	**84**	**42**	**-37**	**-5**	**3**	**20**	**37**	**11**

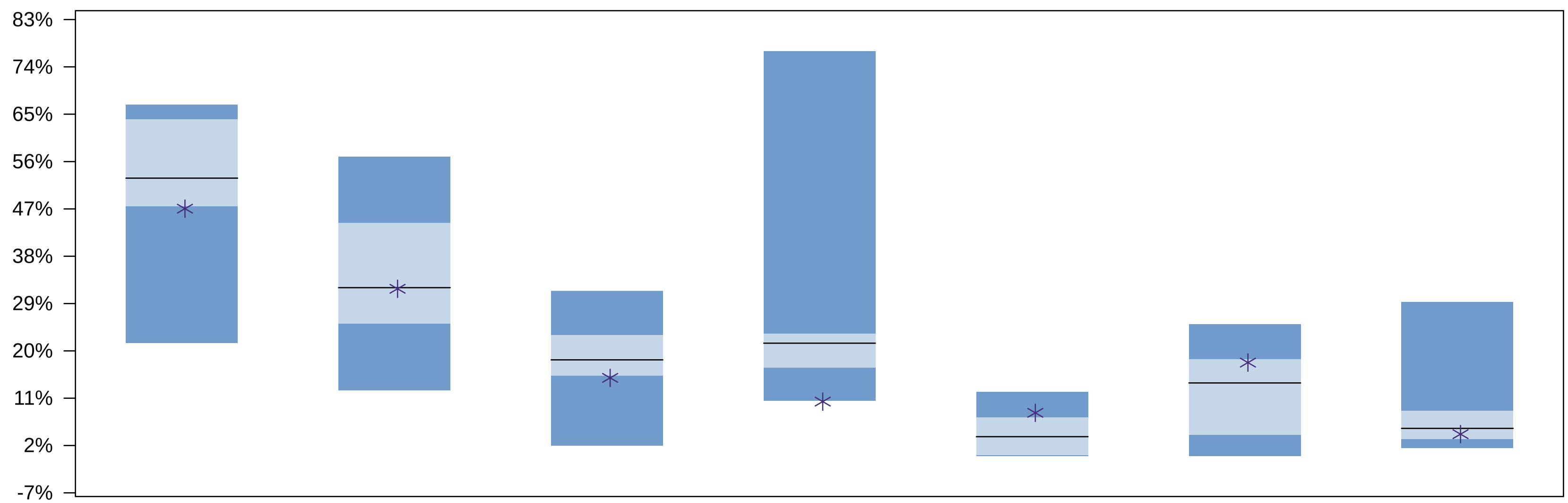
Consecutive For Years Ending

	12/13	12/12	12/11	12/10	12/09	12/08	12/07	12/06	12/05	12/04
MPSERS	**16.4**	**12.6**	**3.3**	**12.7**	**12.1**	**-24.2**	**11.1**	**15.0**	**9.9**	**10.2**
Public Plan - Median (> $10 billion)*	**15.8**	**13.4**	**1.2**	**12.8**	**17.9**	**-26.8**	**9.7**	**14.9**	**7.8**	**11.9**
Rank	**39**	**79**	**10**	**55**	**82**	**32**	**18**	**42**	**32**	**82**
bp Difference - Median	**58**	**-81**	**211**	**-15**	**-583**	**254**	**133**	**14**	**208**	**-162**

*State Street Public Funds Universe > $10 Billion.

MPSERS TOTAL PLAN UNIVERSE REPORT

Public Funds (DB) > $10 Billion (SSE) - Allocation
12/31/13



	Equities %	Equities US %	Equities Non US %	Fixed Income %	Real Estate %	Private Equity %	Cash Equiv %
5th Percentile	66.80	56.94	31.38	76.99	12.17	25.10	29.29
25th Percentile	64.03	44.36	23.05	23.31	7.33	18.47	8.66
50th Percentile	52.85	32.01	18.29	21.46	3.67	13.89	5.27
75th Percentile	47.43	25.18	15.24	16.74	0.17	4.04	3.19
95th Percentile	21.48	12.52	1.95	10.48	0.00	0.00	1.53
No. of Obs	26	26	26	26	26	26	24
TOTAL PUBLIC SCHOOL	47.43 75	32.19 50	15.24 76	10.72 93	8.60 20	18.15 27	4.55 65

Provided by State Street Investment Analytics

MSERS

Cumulative and Consecutive Total Fund Returns

Cumulative For Years Ending 12/31/13

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MSERS	**16.3**	**14.4**	**10.5**	**11.0**	**11.2**	**4.3**	**5.2**	**6.4**	**6.8**	**7.1**
Public Plan - Median (> $1 billion)*	**16.3**	**15.0**	**9.9**	**10.9**	**12.2**	**5.0**	**5.6**	**6.4**	**6.7**	**7.2**
Rank	**51**	**58**	**34**	**45**	**76**	**73**	**67**	**54**	**40**	**55**
bp Difference - Median	**-1**	**-63**	**63**	**17**	**-98**	**-68**	**-38**	**-5**	**7**	**-5**

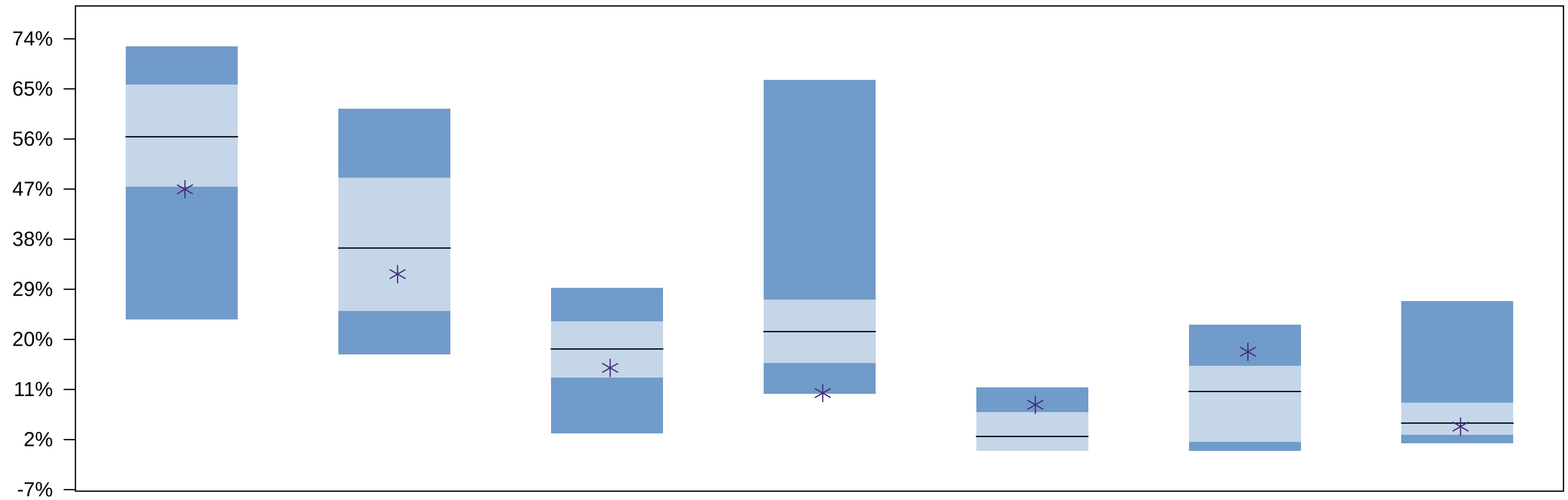
Consecutive For Years Ending

	12/13	12/12	12/11	12/10	12/09	12/08	12/07	12/06	12/05	12/04
MSERS	**16.3**	**12.6**	**3.2**	**12.5**	**11.9**	**-24.4**	**11.0**	**15.0**	**9.9**	**10.2**
Public Plan - Median (> $1 billion)*	**16.3**	**13.3**	**1.1**	**13.6**	**18.6**	**-26.0**	**9.2**	**14.7**	**7.9**	**11.8**
Rank	**51**	**69**	**12**	**70**	**86**	**32**	**11**	**35**	**22**	**84**
bp Difference - Median	**-1**	**-69**	**204**	**-104**	**-671**	**161**	**186**	**30**	**197**	**-166**

*State Street Public Funds Universe > $1 Billion.

MSERS TOTAL PLAN UNIVERSE REPORT

Public Funds (DB) > $1 Billion (SSE) - Allocation
12/31/13



	Equities %	Equities US %	Equities Non US %	Fixed Income %	Real Estate %	Private Equity %	Cash Equiv %
5th Percentile	72.64	61.43	29.27	66.63	11.39	22.63	26.85
25th Percentile	65.80	49.08	23.28	27.21	6.98	15.27	8.66
50th Percentile	56.41	36.40	18.27	21.39	2.57	10.65	4.97
75th Percentile	47.40	25.08	13.11	15.72	0.00	1.62	2.85
95th Percentile	23.59	17.31	3.17	10.22	0.00	0.00	1.38
No. of Obs	55	55	55	55	55	55	53
TOTAL EMPLOYEES	47.32 77	32.08 57	15.24 67	10.71 93	8.60 20	18.14 19	4.70 52

Provided by State Street Investment Analytics

MSPRS
Cumulative and Consecutive
Total Fund Returns

Cumulative For Years Ending 12/31/13

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MSPRS	**16.2**	**14.3**	**10.5**	**11.1**	**11.1**	**4.3**	**5.2**	**6.4**	**6.8**	**7.2**
Public Plan - Median (> $1 billion)*	**16.3**	**15.0**	**9.9**	**10.9**	**12.2**	**5.0**	**5.6**	**6.4**	**6.7**	**7.2**
Rank	**51**	**58**	**34**	**45**	**76**	**73**	**66**	**51**	**39**	**52**
bp Difference - Median	**-9**	**-71**	**64**	**19**	**-104**	**-68**	**-35**	**-2**	**11**	**-1**

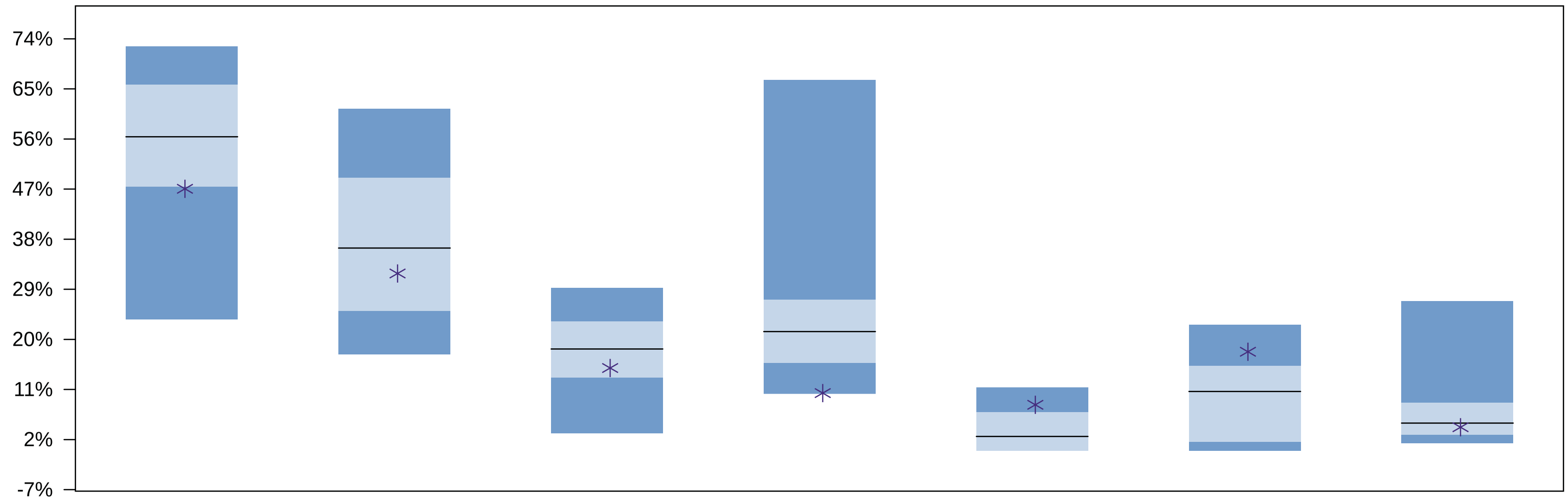
Consecutive For Years Ending

	12/13	12/12	12/11	12/10	12/09	12/08	12/07	12/06	12/05	12/04
MSPRS	**16.2**	**12.5**	**3.3**	**12.6**	**11.5**	**-24.2**	**11.2**	**15.1**	**10.0**	**10.2**
Public Plan - Median (> $1 billion)*	**16.3**	**13.3**	**1.1**	**13.6**	**18.6**	**-26.0**	**9.2**	**14.7**	**7.9**	**11.8**
Rank	**51**	**70**	**11**	**70**	**87**	**29**	**10**	**33**	**19**	**84**
bp Difference - Median	**-9**	**-76**	**219**	**-97**	**-709**	**183**	**207**	**38**	**204**	**-165**

*State Street Public Funds Universe > $1 Billion.

MSPRS TOTAL PLAN UNIVERSE REPORT

Public Funds (DB) > $1 Billion (SSE) - Allocation
12/31/13



	Equities %		Equities US %		Equities Non US %		Fixed Income %		Real Estate %		Private Equity %		Cash Equiv %	
5th Percentile	72.64		61.43		29.27		66.63		11.39		22.63		26.85	
25th Percentile	65.80		49.08		23.28		27.21		6.98		15.27		8.66	
50th Percentile	56.41		36.40		18.27		21.39		2.57		10.65		4.97	
75th Percentile	47.40		25.08		13.11		15.72		0.00		1.62		2.85	
95th Percentile	23.59		17.31		3.17		10.22		0.00		0.00		1.38	
No. of Obs	55		55		55		55		55		55		53	
TOTAL POLICE	47.41	75	32.19	56	15.22	68	10.72	93	8.60	20	18.14	19	4.58	52

Provided by State Street Investment Analytics

MJRS
Cumulative and Consecutive
Total Fund Returns

Cumulative For Years Ending 12/31/13

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MJRS	**15.6**	**14.0**	**10.3**	**10.7**	**10.6**	**4.0**	**5.0**	**6.2**	**6.5**	**6.8**
Public Plan - Median (> $1 billion)*	**16.3**	**15.0**	**9.9**	**10.9**	**12.2**	**5.0**	**5.6**	**6.4**	**6.7**	**7.2**
Rank	**63**	**63**	**40**	**54**	**87**	**81**	**77**	**72**	**58**	**74**
bp Difference - Median	**-66**	**-101**	**35**	**-12**	**-161**	**-91**	**-58**	**-25**	**-17**	**-33**

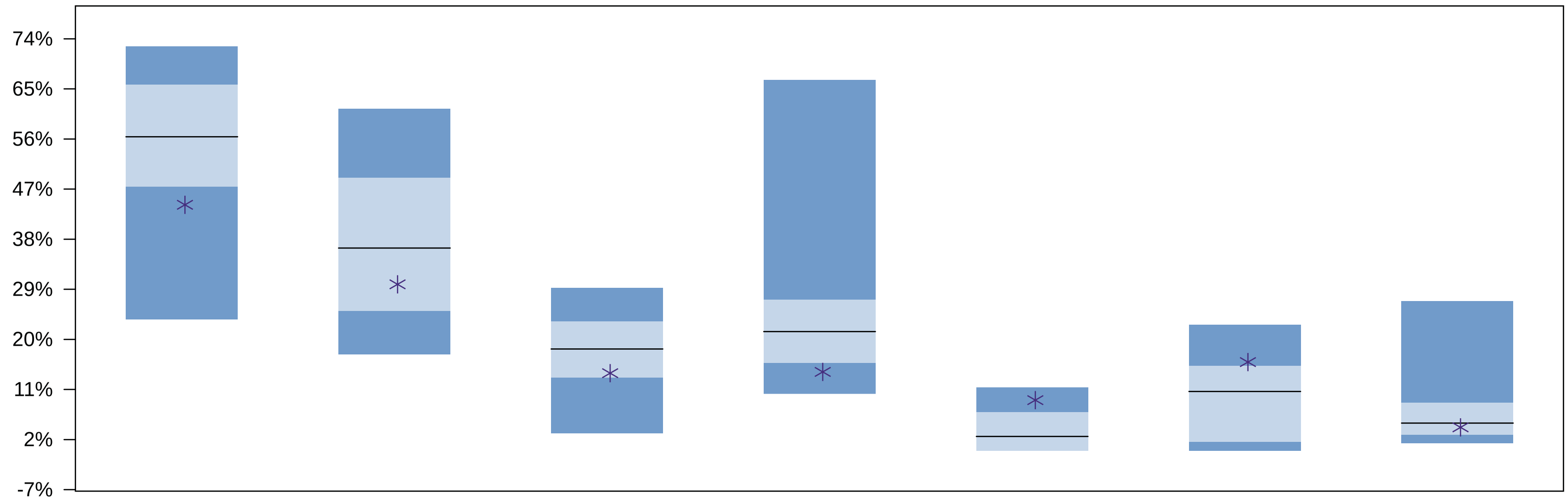
Consecutive For Years Ending

	12/13	12/12	12/11	12/10	12/09	12/08	12/07	12/06	12/05	12/04
MJRS	**15.6**	**12.5**	**3.1**	**12.2**	**9.9**	**-23.3**	**11.0**	**14.8**	**9.3**	**9.6**
Public Plan - Median (> $1 billion)*	**16.3**	**13.3**	**1.1**	**13.6**	**18.6**	**-26.0**	**9.2**	**14.7**	**7.9**	**11.8**
Rank	**63**	**71**	**12**	**77**	**91**	**21**	**11**	**45**	**26**	**87**
bp Difference - Median	**-66**	**-80**	**193**	**-134**	**-870**	**278**	**187**	**8**	**137**	**-226**

*State Street Public Funds Universe > $1 Billion.

MJRS TOTAL PLAN UNIVERSE REPORT

Public Funds (DB) > $1 Billion (SSE) - Allocation
12/31/13



	Equities %		Equities US %		Equities Non US %		Fixed Income %		Real Estate %		Private Equity %		Cash Equiv %	
5th Percentile	72.64		61.43		29.27		66.63		11.39		22.63		26.85	
25th Percentile	65.80		49.08		23.28		27.21		6.98		15.27		8.66	
50th Percentile	56.41		36.40		18.27		21.39		2.57		10.65		4.97	
75th Percentile	47.40		25.08		13.11		15.72		0.00		1.62		2.85	
95th Percentile	23.59		17.31		3.17		10.22		0.00		0.00		1.38	
No. of Obs	55		55		55		55		55		55		53	
TOTAL JUDGES	44.55	79	30.26	65	14.28	70	14.51	77	9.44	11	16.29	22	4.56	52

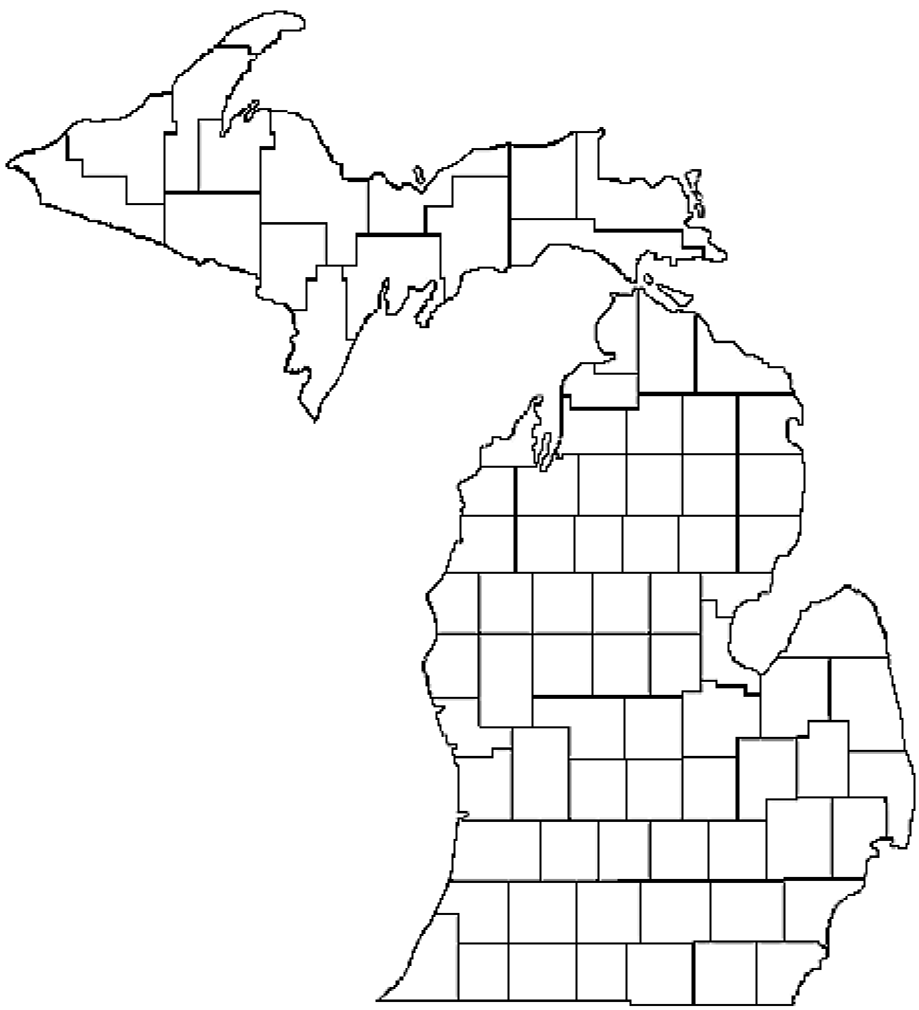
Provided by State Street Investment Analytics

STATE OF MICHIGAN
RETIREMENT SYSTEMS

ASSET ALLOCATION REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

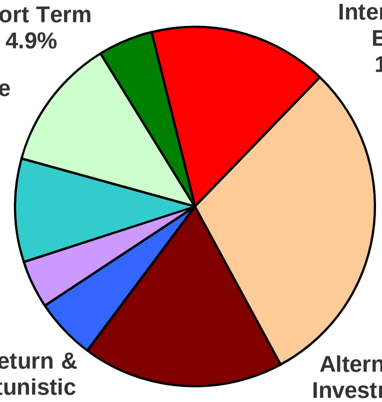
MARCH 6, 2014



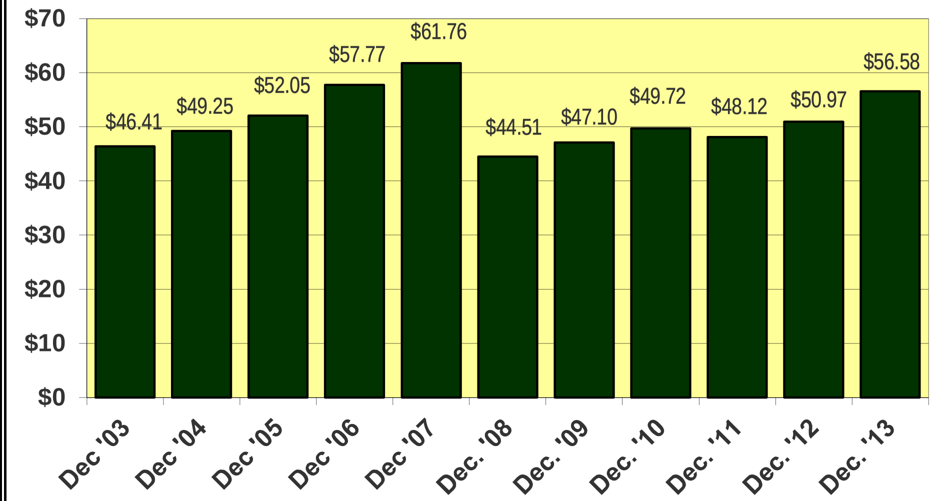
Jon M. Braeutigam
Chief Investment Officer
Bureau of Investments

STATE OF MICHIGAN RETIREMENT SYSTEMS
PROFILE - DECEMBER 2013

Asset Allocation
12/31/13



Market Value*
(Billions of Dollars)



Asset Allocation By Market Value
(In Millions)

Investment Strategies	12/31/13		9/30/13	
Domestic Equity	$16,943	29.9%	$15,341	28.3%
Alternative Investments	10,233	18.1%	10,217	18.9%
International Equity	9,121	16.1%	8,153	15.1%
Fixed Income	6,726	11.9%	6,711	12.4%
Real Estate & Infra.	5,235	9.3%	5,921	10.9%
Real Return & Opport.	3,136	5.5%	3,047	5.6%
Short Term***	2,756	4.9%	2,421	4.5%
Absolute Return	2,432	4.3%	2,341	4.3%
TOTAL	$56,582	100.0%	$54,152	100.0%

Market Value By Plan ~ 12/31/13
(in Millions)

	Pension Plan Mkt. Value	OPEB** Mkt. Value	Combined Mkt. Value	%
MPSERS	$41,747	$2,288	$44,035	77.8%
MSERS - (closed)	10,315	734	11,049	19.5%
MSPRS	1,179	56	1,235	2.2%
MJRS - (closed)	262	1	263	0.5%
TOTAL	$53,503	$3,079	$56,582	100.0%

Short Term Equivalents *(in Billions)*

Short Term Strategy***	$2.8	
Short Term in Other Inv. Strategies	0.3	
TOTAL SHORT TERM	$3.1	5.5% 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*

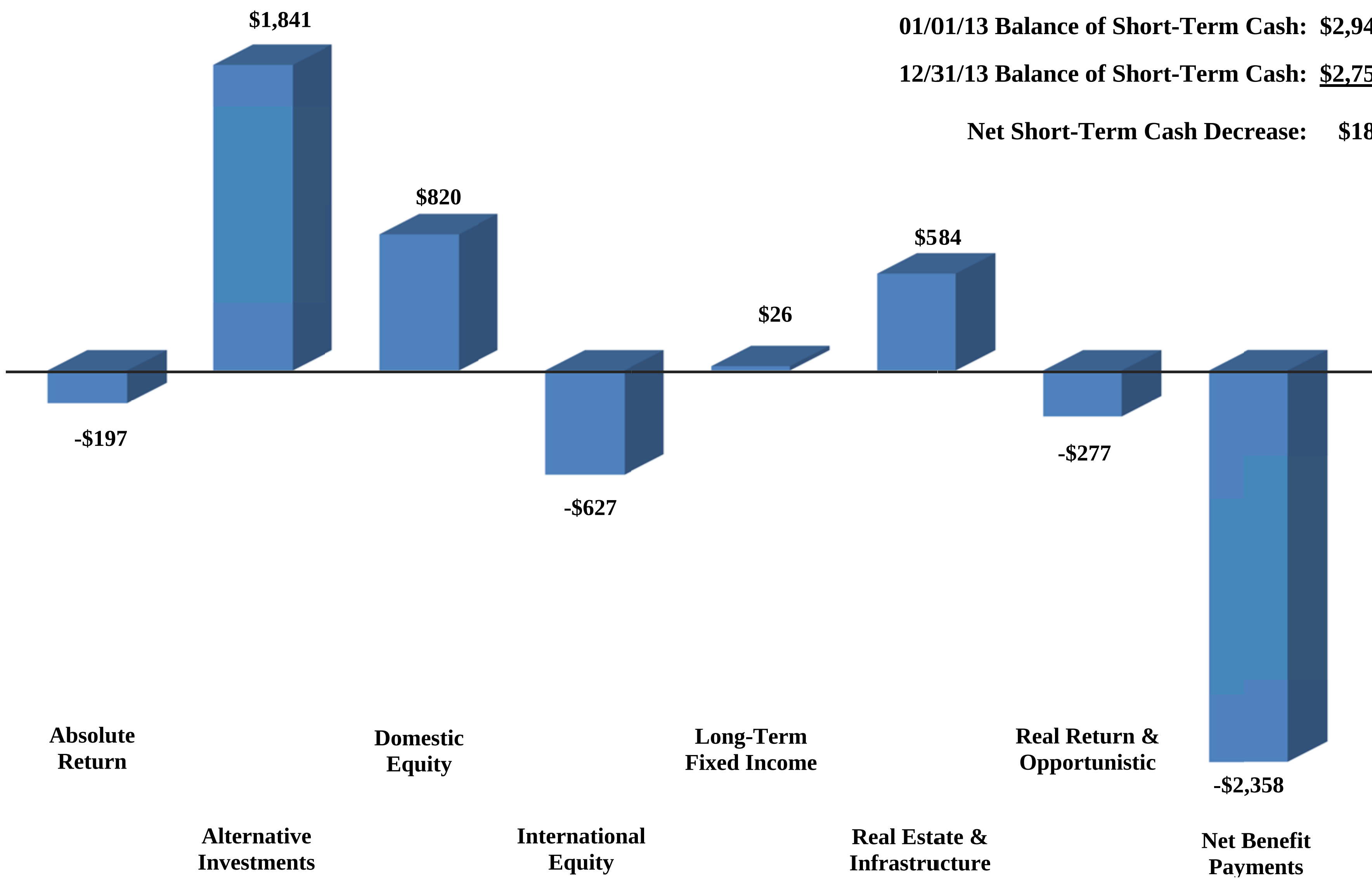
Sources and Uses of Cash

January 2013 ~ December 2013

01/01/13 Balance of Short-Term Cash: $2,945

12/31/13 Balance of Short-Term Cash: $2,757

Net Short-Term Cash Decrease: $188



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

	MPSERS			MSERS			MSPRS			MJRS			SMRS
Asset Class	***Actual 12/31/13***	***Target 9/30/14***	***Target* 9/30/15***	***Actual 12/31/13***	***Target 9/30/14***	***Target* 9/30/15***	***Actual 12/31/13***	***Target 9/30/14***	***Target* 9/30/15***	***Actual 12/31/13***	***Target 9/30/14***	***Target* 9/30/15***	***Ranges***
Broad U.S. Equity	30.1%	30.0%	31.0%	29.9%	30.0%	31.0%	30.1%	30.0%	31.0%	28.1%	28.0%	29.0%	20% - 50%
Alternative Invest.	18.2%	17.5%	16.0%	18.1%	17.5%	16.0%	18.1%	17.5%	16.0%	16.3%	15.5%	14.0%	10% - 25%
Broad Int'l Equity	16.2%	15.5%	16.0%	16.2%	15.5%	16.0%	16.1%	15.5%	16.0%	15.1%	14.5%	15.0%	10% - 20%
U.S. Fixed Income Core	11.9%	14.0%	15.0%	11.9%	14.0%	15.0%	11.9%	14.0%	15.0%	15.9%	18.0%	19.0%	10% - 25%
Real Estate Core	8.6%	8.0%	6.0%	8.6%	8.0%	6.0%	8.6%	8.0%	6.0%	9.4%	9.0%	7.0%	5% - 15%
Real Return / Opportunistic	5.4%	5.7%	5.0%	5.6%	5.7%	5.0%	5.6%	5.7%	5.0%	5.6%	5.7%	5.0%	0% - 10%
Absolute Return	4.3%	4.3%	4.0%	4.3%	4.3%	4.0%	4.3%	4.3%	4.0%	4.3%	4.3%	4.0%	0% - 12%
Cash	4.6%	4.0%	4.0%	4.7%	4.0%	4.0%	4.6%	4.0%	4.0%	4.6%	4.0%	4.0%	1% - 9%
Infrastructure	0.7%	1.0%	3.0%	0.7%	1.0%	3.0%	0.7%	1.0%	3.0%	0.7%	1.0%	3.0%	0% - 5%
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.**

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%
	Inflation 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%	Inflation 2.39%	Corp. Bonds 7.69%
	Hedge Funds -1.17%	Real Estate 7.54%	Inflation 3.33%	Cash 5.35%	Cash 5.24%	Inflation 2.68%	Inflation 3.39%	Inflation 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%	Inflation 1.60%	Corp. Bonds -1.94%	U.S. Equity -6.98%	U.S. Equity -10.64%	Int'l Equity -14.95%	Inflation 1.88%
Worst	Corp. Bonds -3.92%	Inflation 2.54%	Gov't Bonds 2.77%	Inflation 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%	Inflation 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%	Inflation 2.96%	Corp. Bonds 9.37%	Hedge Funds 7.69%
	Corp. Bonds 5.25%	Inflation 3.42%	Cash 4.81%	U.S. Equity 5.47%	Real Estate -6.46%	Inflation 2.72%	Gov't Bonds 5.52%	U.S. Equity 1.75%	Hedge Funds 4.06%	Inflation 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%
	Inflation 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%	Inflation 1.50%	Hedge Funds -3.55%	Inflation 1.70%	Corp. Bonds -2.01%
Worst	Cash 1.33%	Corp. Bonds 1.95%	Inflation 2.55%	Inflation 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%

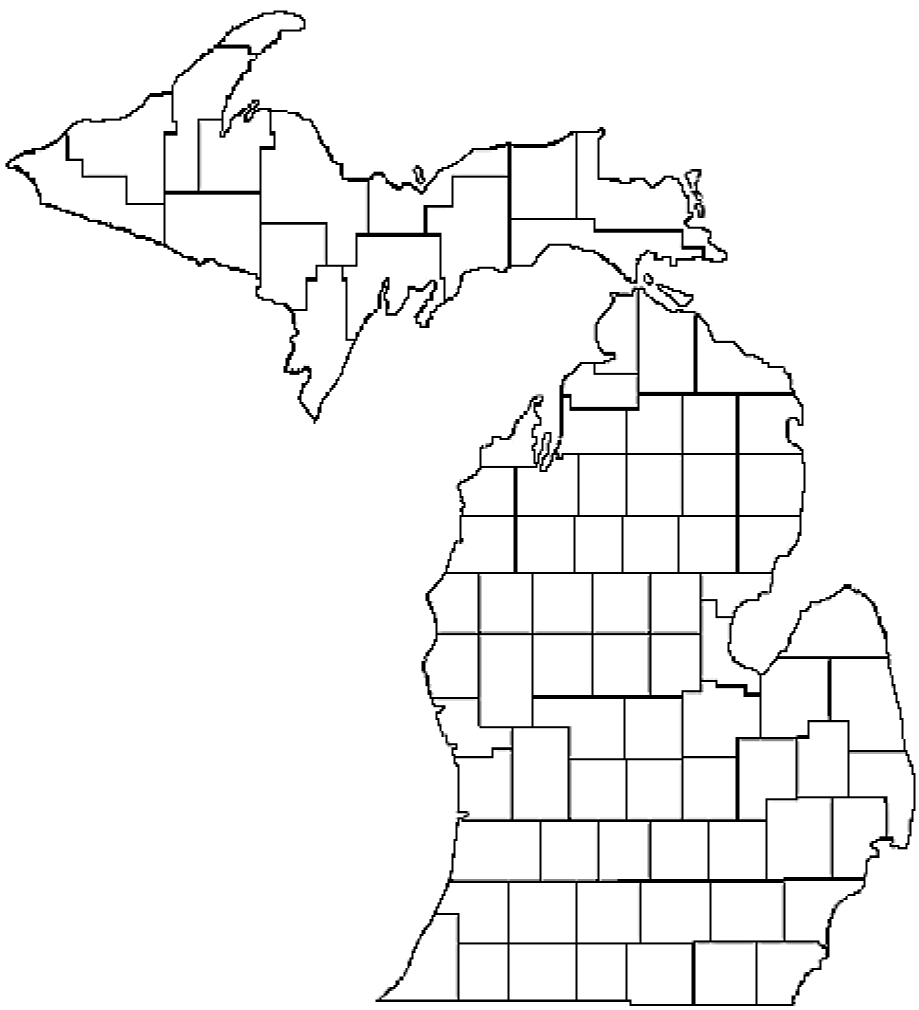
- Hedge Funds are represented by the HFRI FOF Conservative Index
- Inflation is represented by the U.S. Consumer Price Index
- International Equity is represented by the MSCI EAFE Index
2000 Forward - Int'l Equity is represented MSCI - AC World EX-USA Index
- Cash is represented by 30-day T-Bills
- U.S.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

CAPITAL MARKETS OVERVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 6, 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	11.8%	30.3%	10.6%	Trim
International Equity	8.7%	20.8%	7.6%	Hold
Domestic Equity	7.9%	18.0%	7.8%	Trim
Infrastructure	7.4%	13.8%	6.4%	Hold
Real Estate (Core)	7.0%	12.5%	7.3%	Trim
Real Ret/Opportunistic	6.0%	11.5%	7.4%	Hold
Absolute Return	6.8%	9.8%	5.6%	Hold
Long-Term Fixed	3.5%	5.8%	4.6%	Hold
Short-Term	2.3%	3.0%	1.5%	Hold

*RV Kuhns 2013 Long Term Return/Risk assumptions
**2012 Investment policy statement; annualized returns
***Actual investments may differ due to changing conditions and the availability of new information

Overview

An improved outlook for developed international.

- The broad domestic market index, S&P 1500, returned 32.8% over the past year, 16.2% over the past three years and 18.4% per year over the past five years ending December 2013. Among top-down equity strategists, the average expected total return for the S&P 500 in 2014 is a modest 7.6% on earnings growth just above 7%.

- Although, the economic backdrop for developed international markets is improving, developed markets continue to underperform the U.S. Over the past one, three, five, and seven years ending June 2013, the broad international market index, MSCI ACWI ex USA, underperformed the domestic S&P 1500 index by 17.5%, 11.0%, 5.6%, and 4.3% annualized respectively.

- The emerging markets continue to underperform developed ones having underperformed by 25.4% and 10.2% over the past one and three years annualized. Valuation multiples on the other hand are better than the U.S., although the price trend is weak and the central bank policies of the major developed economies likely will not act as a catalyst for emerging markets any time soon.

- The 10-year U.S. Treasury closed 2013 at its 52-week high rate of 3.03%, almost 130 basis points (bps) higher than the 2012 closing price. With the back-up in interest rates, the Barclays U.S. Aggregate Index one year return was -2.0%, one of the worst year-over-year returns since 1994. Although the yield curve is steep, credit risk appears to be the better bet especially with the global economy showing continued improvement.

- Valuations in the commercial real estate market are full in some areas, though opportunities are selectively available. The public REIT market showed its vulnerability to rising interest rates during 2013. REITs are fairly priced against the 10-year U.S. Treasury, but appear expensive on other valuation metrics.

Domestic Equity

Up and up.

- The returns of the U.S. stock market in 2013 were very strong. The broad domestic market index, S&P 1500, returned 32.8% over the past year, 16.2% over the past three years and 18.4% per year over the past five years ending December. The last day of 2013 was the all-time high closing level for the index, a level 2.8x higher since the depth of the market in 2009.
- Domestic equity remains attractively priced relative to bonds, though less compelling than a year ago. Valuation metrics are mixed, meaning there is uncertainty whether the absolute returns over the next cycle will be as strong as the historical average. Among top-down equity strategists, the average expected total return for the S&P 500 in 2014 is a modest 7.6%. The conventional wisdom is that in order for the market to appreciate meaningfully, earnings must grow. Strategists are forecasting earnings to grow just above 7% for 2014. Forecasting one-year market returns is a guessing game, on longer periods it is less so.
- The price trend has re-accelerated higher though, suggesting the market might continue to trend higher in the near-term with or without the support of improving fundamentals.
- As intra-stock correlations have normalized, active strategies are having success against the passive index over the past year ending September 2013. The MPSERS combined domestic equity active component outperformed the S&P 1500 by 1.3%. Over the past three years, the active component is behind the benchmark by roughly 25 bps per year and about 25 bps per year ahead for the past five years.

International Equity

Developed international looks interesting.

- International Equities continue to underperform domestic. Over the past one, three, five, and seven years ending June 2013, the broad international market index, MSCI ACWI ex USA, underperformed the domestic S&P 1500 index by 17.5%, 11.0%, 5.6%, and 4.3% annualized respectively.
- Within International Equities, over the past one and three years ending in June 2013, emerging markets have underperformed developed markets annualized by 25.4% and 10.2% respectively.
- The plan increased its weight to international equity in 2013 and is now at its strategic target weight of 16%. The plan is underweight international equity against a global benchmark (approximately 35% versus 50%) and it is also slightly underweight peers; 15.1% versus 18.3%. Emerging market exposure is approximately 21.5% of total international equity which is only 0.8% overweight.
- The economic backdrop of most foreign developed countries has shown some improvements. This is especially true in Europe where Spain, for example, announced in October its first economic expansion in the last two years. Japan is aggressively fighting deflation with a quantitative easing program that is 2.4x larger than what the U.S. Federal Reserve has implemented when adjusting for the relative size of the economy.
- Based on a price to earnings valuation multiple excluding non-earning companies, developed international equity markets trade at a 10% discount to the U.S. counterparts, while emerging markets trade at a 35% discount.
- Perhaps due to the monetary stimulus, improving economics, and lower valuations, the price trend (measured in local currency) of developed international markets is the best it has been since 2007, nearly six years. The trend in prices for emerging markets is still neutral to slightly bearish.

Interest Rates

Fed tapering and the market impact

- The 10-year U.S. Treasury closed 2013 at its 52-week high rate of 3.03%, almost 130 bps higher than the 2012 closing price. With the back-up in interest rates, the Barclays U.S. Aggregate Index one-year return was -2.0%, one of the worst year-over-year returns since 1994.
- As compared with historical spikes in interest rates, this latest episode is (so far) just mediocre. Since the apex in the 10-year U.S. Treasury rate in 1981, rates have been in a secular decline. During past notable bounces off the bottom, rates have typically increased 2-3% before eventually settling back down to new lows. After hitting its high in December, the 10-year U.S. Treasury rate fell nearly 40 bps in the first month of 2014.
- In contrast to the direction of U.S. rates, Italian and Spanish ten-year sovereigns ended 2013 with lower rates than the year before. Both ended 2013 yielding around 4.15%, slightly more than 110 bps than the U.S. counterpart. Perhaps a commentary of the market's perception of the relative safety of the European sovereign debt, both the Italian and Spanish ten-year rates fell in lock-step in January 2014 as the U.S. rates backed up.
- The yield curve is steep as measured by the difference between the 10 and 2-year U.S. Treasury rates. These rates rank in the top decile in terms of steepness since 1977 increasing the opportunities to "ride down the yield curve".
- Investment grade credit spreads at the end of January are about average, while on the other hand, high yield spreads are roughly 60 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 December 2013, the Barclays Aggregate Index had a duration of 5.3.
- At this stage in the economic cycle, credit risk is preferable to duration risk, despite the average to below average spreads. As rates have increased and the yield curve has steepened, the plan has begun to neutralize the duration underweight of the internally managed portfolio; moving from 1.5 years under the benchmark a year ago to one year at the end of 2013.

Real Estate

Need to be selective at these valuations.

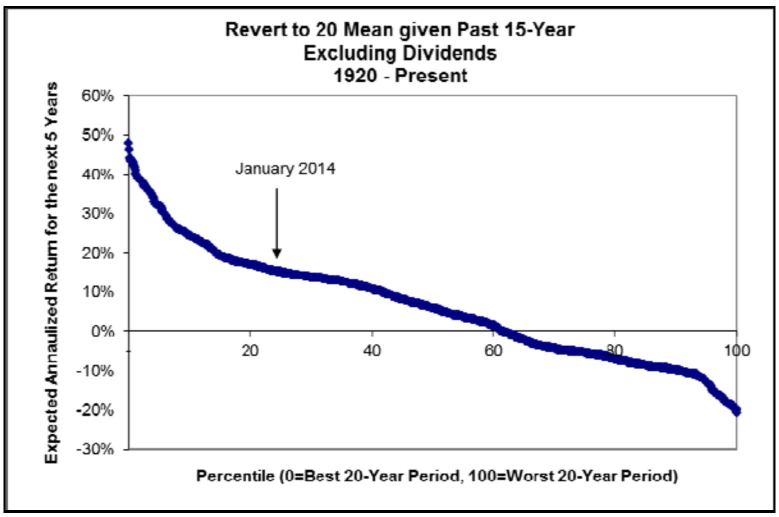
- The returns in publicly traded FTSE Nareit REIT Index were weak during 2013 up 2.9%, due entirely to dividend income. Over longer periods, though, the index has performed well. For the period ending December 2013, the FTSE Nareit Index has returned annualized 10.0% and 16.9% over the past three and five years respectively.
- Privately held real estate normally lags the REIT index by one year. Because of this fact, the plan's real estate returns should continue to see positive returns though valuations (cap rates) are a question.
- The REIT index is fairly priced relative to bonds; however, other valuation metrics indicate that the index is expensively priced. In other words, this index is cheap relative to bonds; however, it is expensive in the sense that it is not expected to deliver high absolute returns over the longer term.
- The price trend of the FTSE Nareit REIT Index is flattening and this indicates that the index returns could be modest going forward. Selective private market transactions take time to execute and could still make long-term sense, however caution is warranted.

Domestic Equities

S&P 500 – 12/31/08 – 1/31/14

- At the beginning of 2012, the S&P 500 price broke out above the 200-day moving average.
- At the beginning of 2013, the price trend re-accelerated upward.
- The market hit its all time highs during the quarter.
- The technical backdrop is positive and upward sloping.

Returns Based Outlook



- Since 1920, the median 20-year price return for the S&P 500 is 186% or 5.4% annualized.
- The S&P 500 has increased by 42.7% over the past 15 years.
- Using the 20-year median price return as a projection, the annual S&P 500 price return would be 14.9% over the next 5 years based on the previous 15-year return.

Earnings Based Outlook

5-Year Scenerio	Price Return Estimate	Total Return Estimate
Super Bull	17.5%	21.0%
Bull	6.8%	10.9%
Base	0.0%	3.5%
Bear	-10.8%	-8.3%
Super Bear	-18.3%	-16.0%

Assumptions

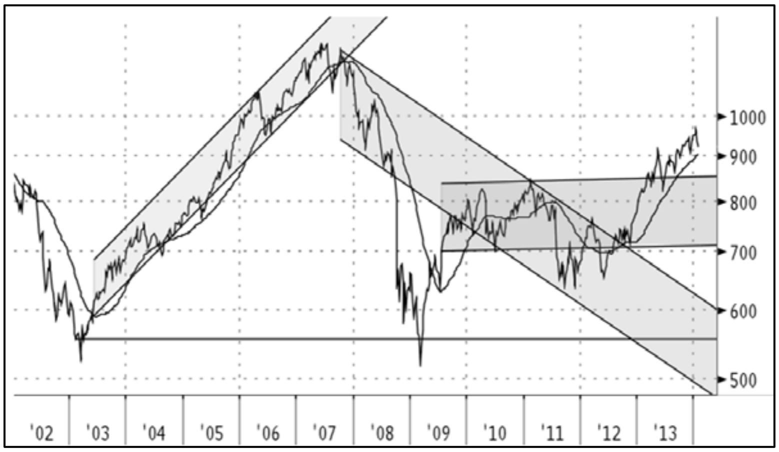
	2018 Earnings	2018 P/E Ratio	Dividend Payout
High	$160	25.0	62%
Mid	$115	15.5	54%
Low	$65	10.0	42%

Based on Robert Shiller data

International Equities

Developed Markets

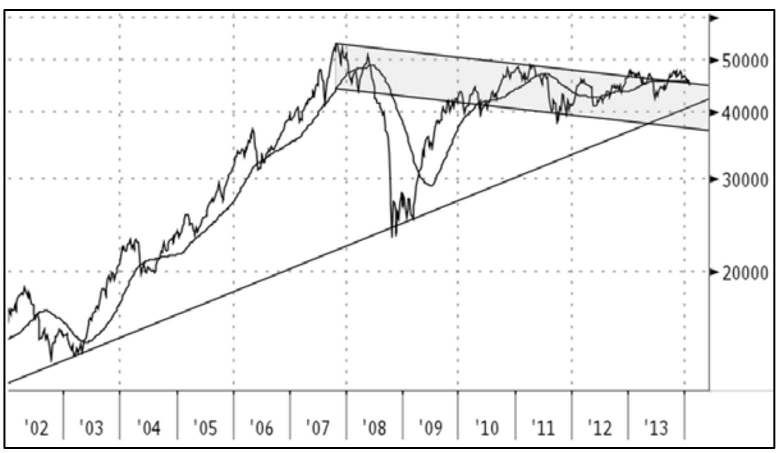
<u>MSCI EAFE</u> – 12/31/01 – 1/31/14



- The developed international equity market, represented by the MSCI EAFE LC Index, is now above its 2009-12 price channel.
- The technical backdrop for developed international markets is good and without resistance.

Emerging Markets

<u>MSCI Emerging Markets</u> – 12/31/01 – 1/31/14



- The "V-shaped" recovery in emerging markets, as represented by the MSCI Emerging Markets LC Index, began in 2008. However, the rate of appreciation has slowed since late 2009.
- The upward sloping price trend established in 2002 is still intact.
- The trend since 2007 has been price weakness; however, the price remains at the high end of the range.

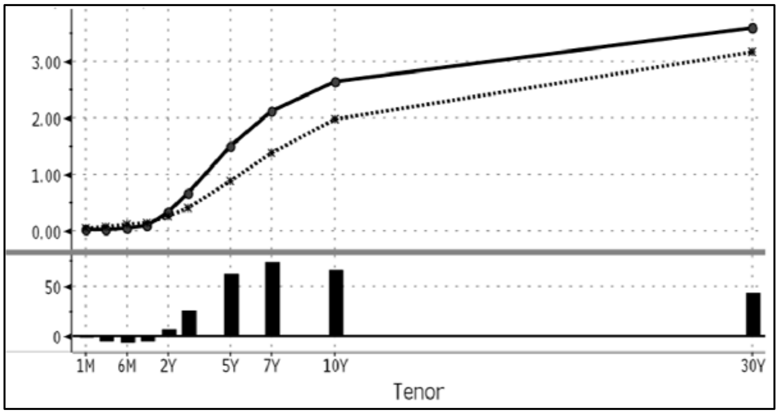
Count of Markets Priced
Below a 200-Day Moving Average

	Developed	Emerging
January 31, 2014	4	10
December 31, 2013	1	9
December 31, 2012	0	0

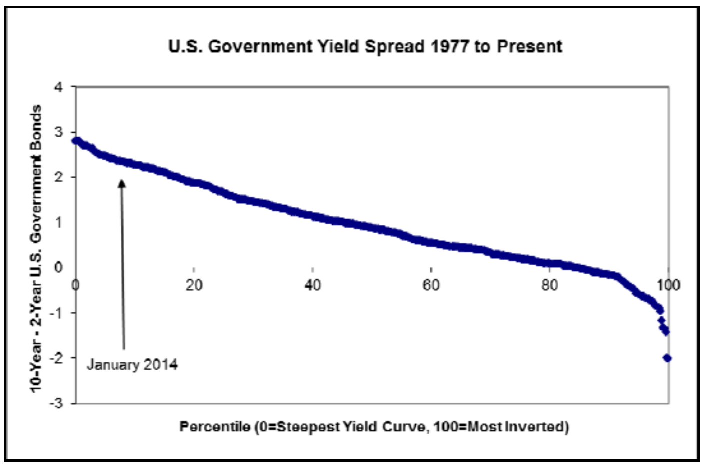
Prices above/below a 200-day moving average is a proxy for the near term direction of the stock market.

U.S. Cash and Fixed Income

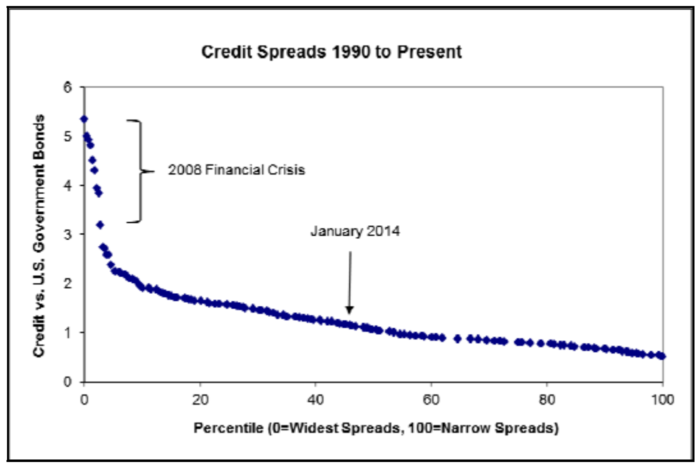
10/31/12 – 1/31/14



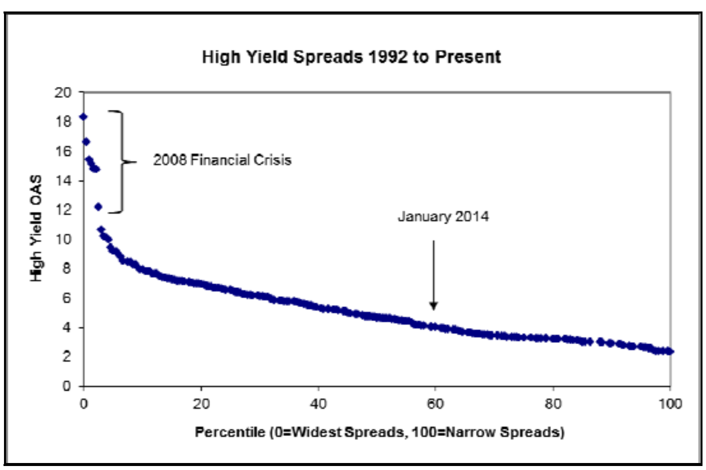
- Rates are 50 bps or more higher year-over-year at the long end.
- Rates at the short end are still very low.



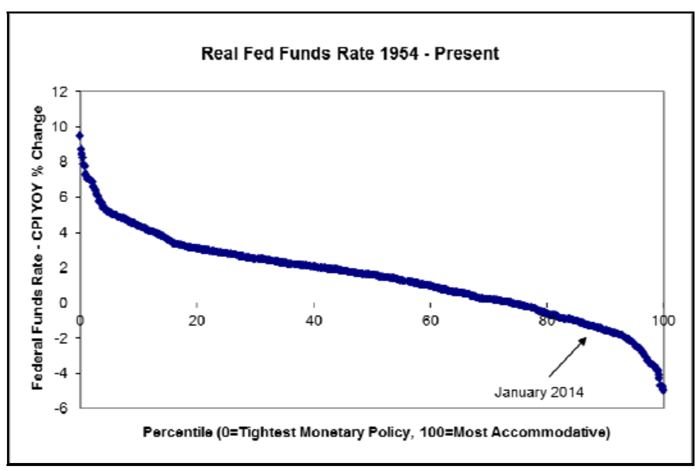
- The yield curve is steep.
- 140 bps of flattening to get to average.



- IG credit spreads are just slightly elevated.
- Spreads are less than 10 bps above the historic average.



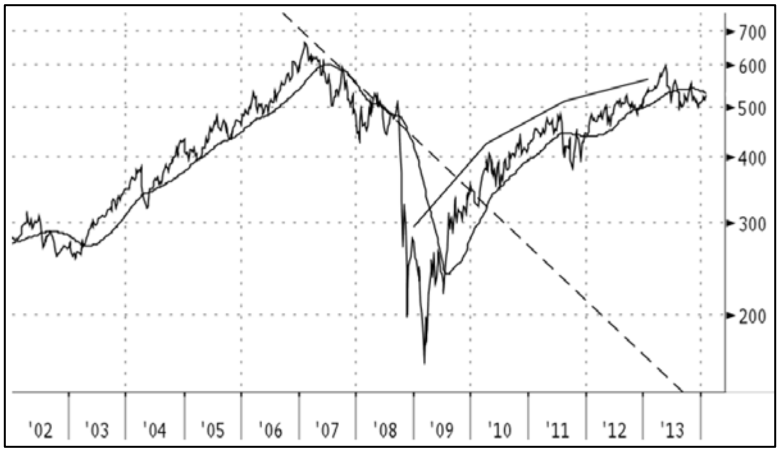
- High yield spreads are 60 bps below their historic average of +4.7%.



- The Fed maintains an extremely accommodative stance.
- The Fed has announced its intention to keep rates low through mid-2015.

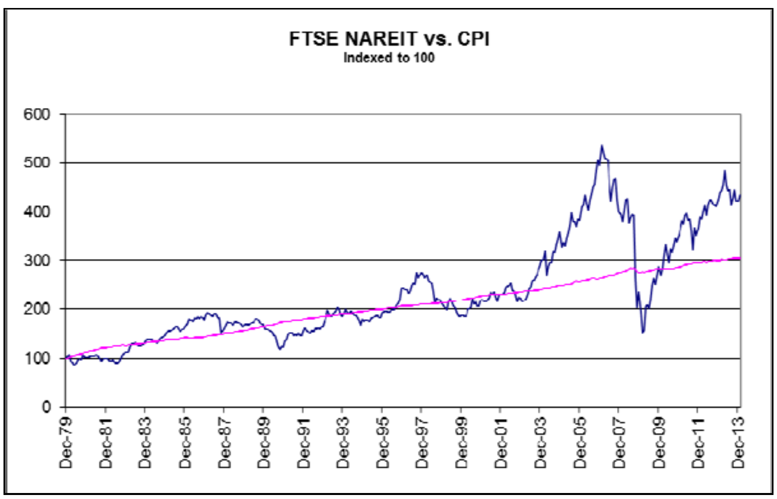
U. S. Real Estate

FTSE NAREIT Index – 12/31/01 – 1/31/14

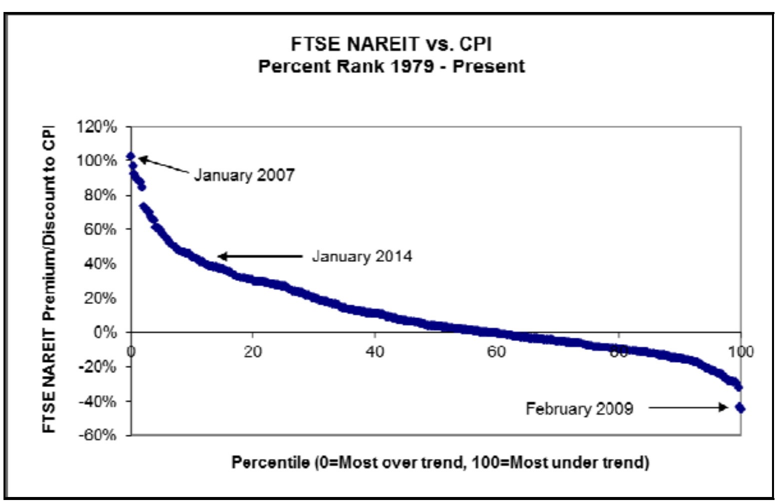


- Commercial real estate represented by the FTSE NAREIT Index has rebounded strongly since the first quarter of 2009 and has been trending up.
- The index price is at its 200-day moving average.
- The trend rate of price appreciation has moderated, and the technical backdrop for REITs is neutral.

Return Outlook

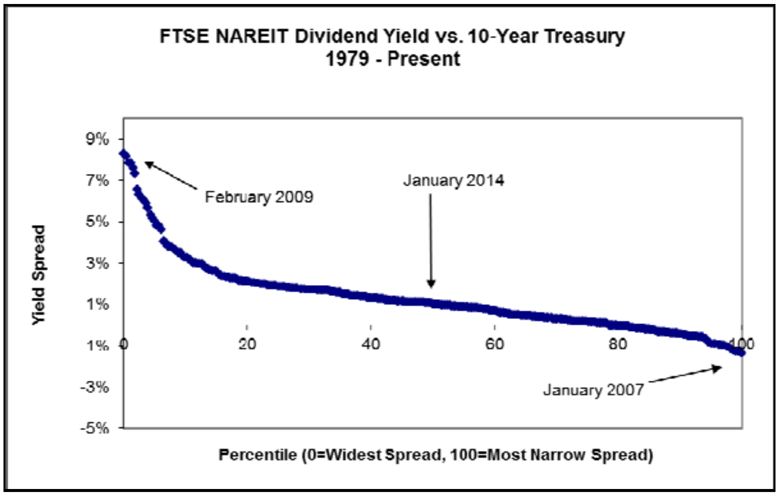


- REITs prices have trended around CPI.

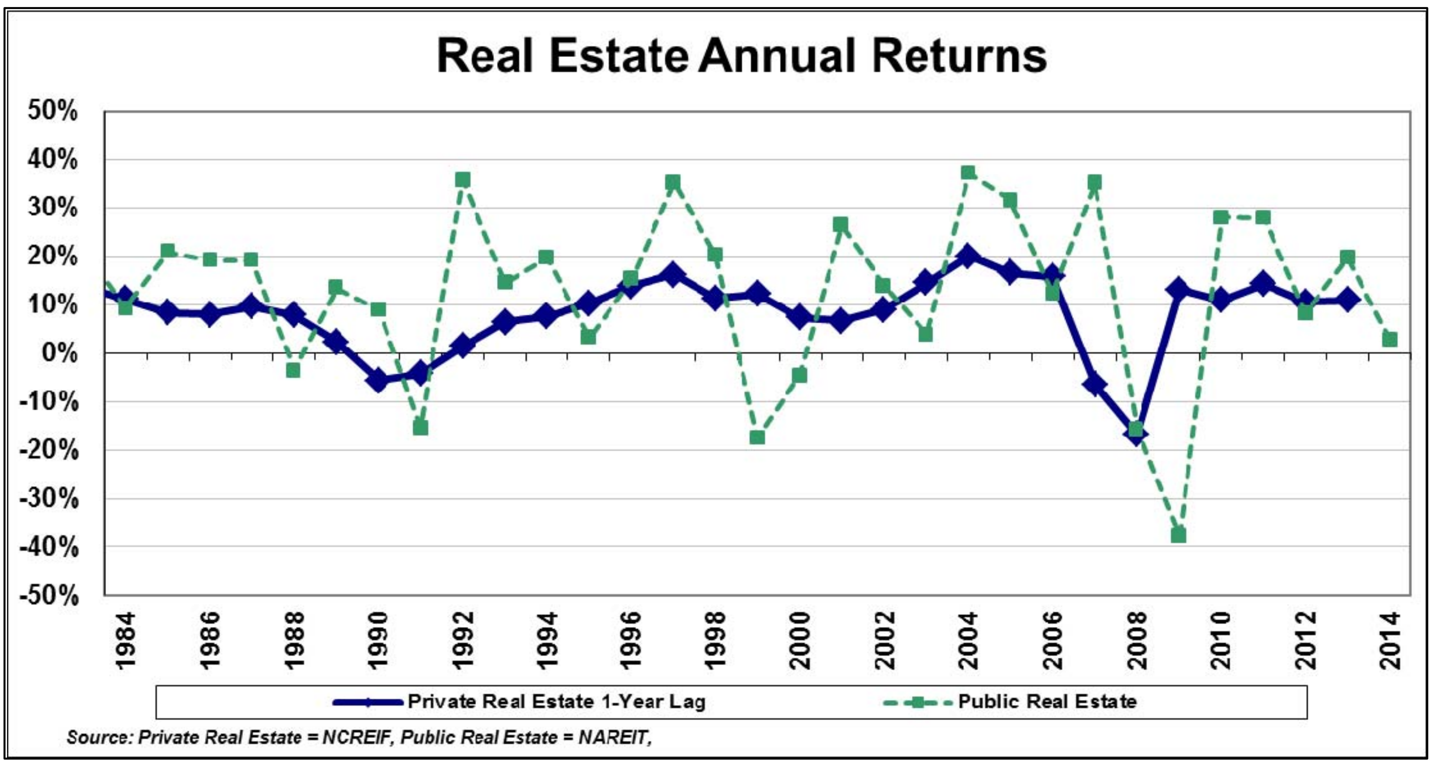


- REITs are expensive when compared to the CPI.
- REITs have priced lower ~ 90% of the time.

U.S. Real Estate - Continued



- The Index normally yields 1.00% more than 10-Year U.S. Treasuries.
- Current dividend yield is at 3.6%.
- When compared against the 10-Year U.S. Treasury, REITs are fairly priced.



- Private real estate returns historically have followed public real estate (REIT) returns.
- Using the public REIT market as a guide, the outlook for private real estate is moderately positive.

Commodities

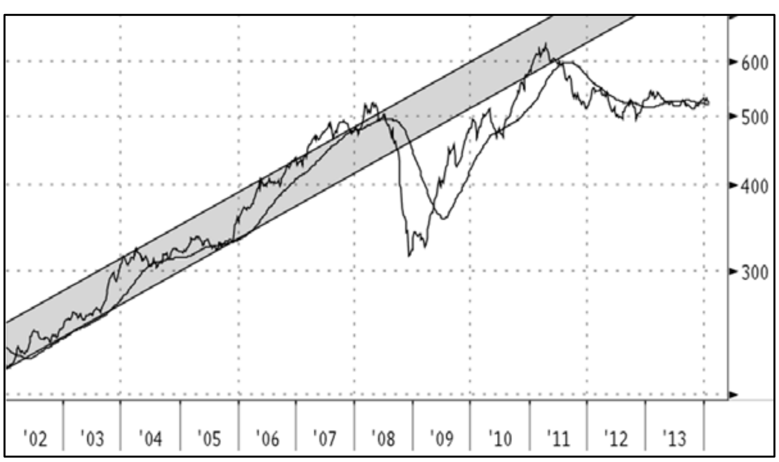
<u>CRB Index</u> – 12/31/01 – 1/31/14

- Commodity prices, as measured by the ThompsonReuters / Jeffries CRB Index, continue the downward sloping price trend.
- Inflation does not appear to be a 2014 concern.

<u>CRB Food Index</u> – 12/31/01 – 1/31/14

- CRB Food index has steadily increased since 2002.
- Food prices are at a cyclical bottom and may rebound off depressed levels in 2014.

<u>CRB Raw Industrials Index</u> – 12/31/01 – 1/31/14



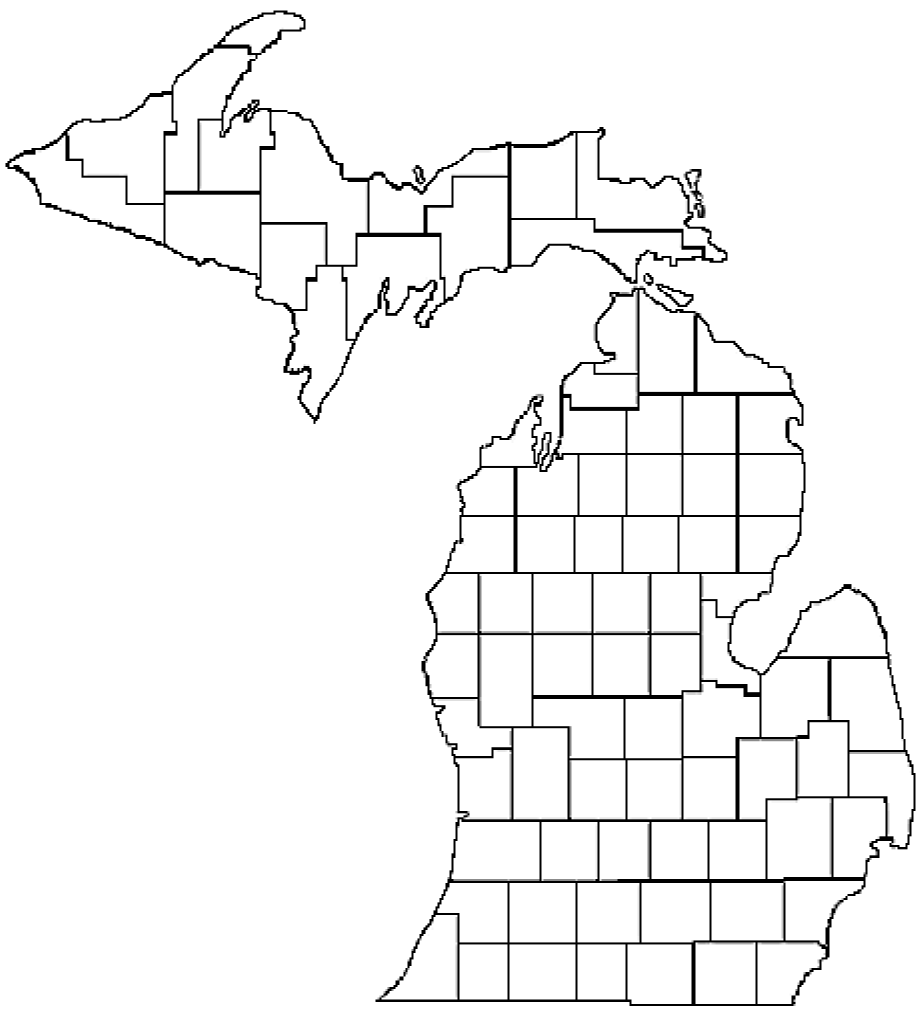
- CRB Raw Industrials index trend has rolled over.
- There appears to be no trend in the price of Raw Industrials.

STATE OF MICHIGAN
RETIREMENT SYSTEMS

ECONOMIC AND MARKET REVIEW AND OUTLOOK

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 6, 2014



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

ECONOMIC OUTLOOK

Select Historic Economic Growth with Forecasts

Growing in 2014.

Real GDP Growth Actual/Forecasts	2011	2012	2013	2014	2015
World	3.0%	2.2%	2.0%	2.8%	3.1%
U.S.	1.8%	2.8%	1.9%	2.8%	3.0%
Developed (G10)	1.4%	1.4%	1.2%	2.1%	2.2%
Asia	7.6%	6.2%	6.5%	6.2%	6.3%
EMEA	4.9%	2.6%	1.9%	2.5%	3.1%
Europe	1.6%	-0.3%	0.2%	1.4%	1.7%
Latin America	4.2%	2.9%	2.4%	2.8%	3.2%
China	9.3%	7.7%	7.7%	7.4%	7.2%

*Source: Bloomberg

U.S. Economic Overview

Slow, steady improvement.

- The most recent reading of the annualized U.S. GDP growth was 2.7%. Coincidental economic indicators such as the Institute for Supply Management's Manufacturing and Non-Manufacturing PMI Indexes are nicely above 50, indicating that there currently is a modest expansion in the U.S. economy.

- In December 2012, the Federal Reserve increased the open-ended purchase Quantitative Easing (QE) program from $40 billion to $85 billion. At its December 2013 meeting, the Fed decided to begin to reduce or taper the size of the QE from $85 billion per month to $75 billion.

- The U.S. jobs picture continues to steadily improve. The unemployment rate at the end of January was 6.6%, down from 7.9% one year prior. However, the December 2013 and January 2014 jobs reports were poor. The economy only added 188,000 jobs during these two months combined. The weather is being blamed, and it is a credible excuse as much of the country experienced an unusually cold and snowy two months.

- Given that there are still approximately 900,000 fewer jobs today than at the peak in 2008, at the trend growth rate, jobs will not be fully recovered until mid-2014, if the economy does not slow.

- Due to the effects of the budget spending restraints and the strengthening U.S. economy, the deficit is quickly dropping; it is now at 6.1% of GDP which is down 7.5% since the second quarter of 2009. Households have repaired their balance sheets as well. Today, household debt to income measuring 5.3% is close to the lowest it has been going back to the early 1990s.

International Economic Overview

Higher foreign growth with slower growing China.

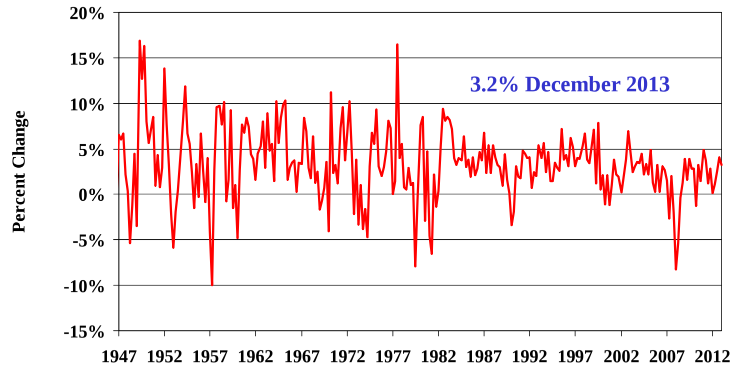
- Forecasters have lowered their estimates for 2014 global GDP growth by 0.1%, however, foreign developed countries have now slightly higher growth expectations.

- The European economy may indeed be turning a corner. Economists expect Europe to grow 1.4% in 2014, the best growth rate since 2011.

- Emerging market growth is slowing across the board. The massive growth spurred by China's economic development in the 2000s first decade is slowing and having ripple effects globally.

GDP

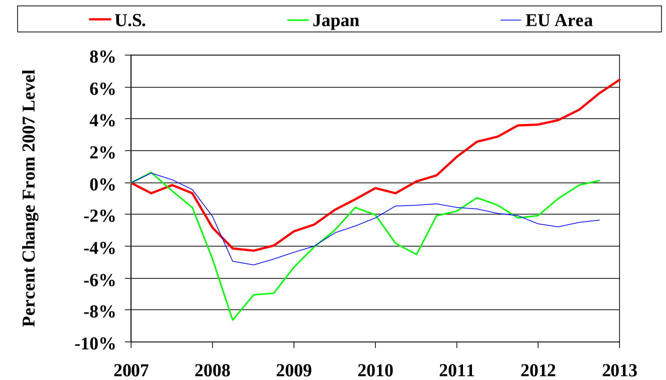
Annualized Quarter over Quarter Growth



Source: Bureau of Economic Analysis

IAC 3-7-13

GDP of Select Developed Economies



Source: Bureau of Economic Analysis

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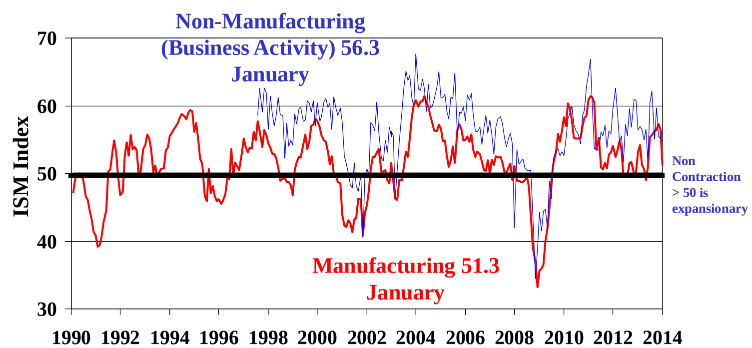
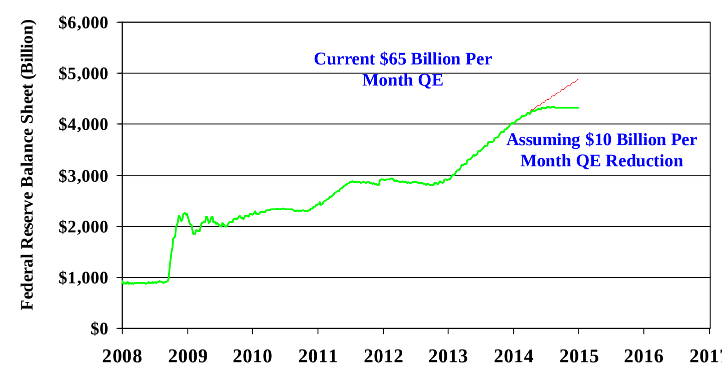
Manufacturing/Non-Manufacturing



Source: Institute for Supply Management

Assessing Tapering



Source: Federal Reserve Bank of St. Louis

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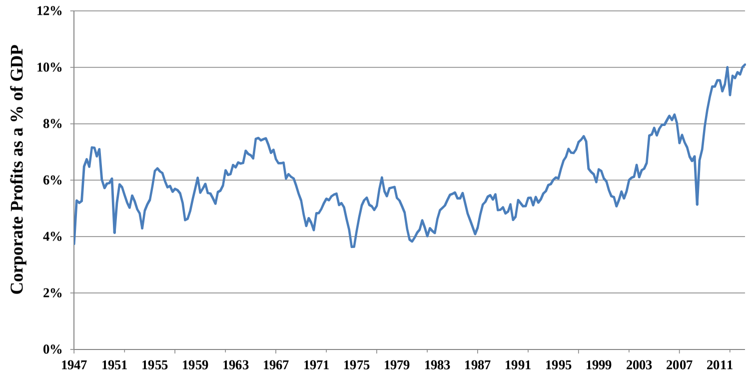
5

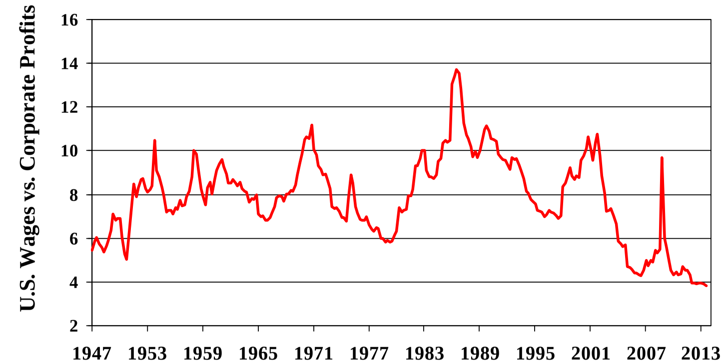
U.S. Corporate Profits as a Percent of GDP



Source: U.S. Department of Commerce, Bureau of Economic Analysis

6

U.S. Wages vs. Corporate Profits



Source: Federal Reserve Bank of St. Louis

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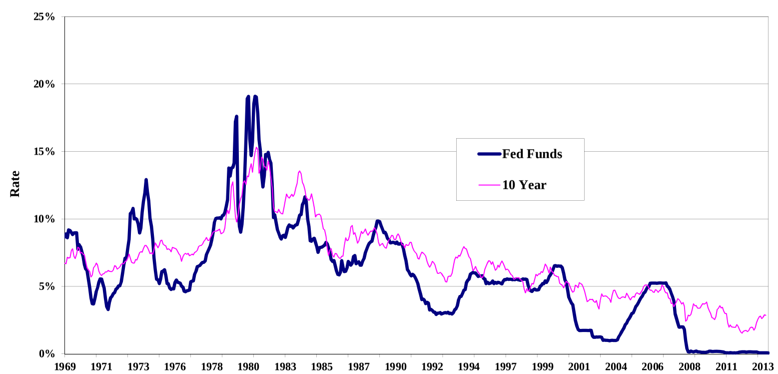
7

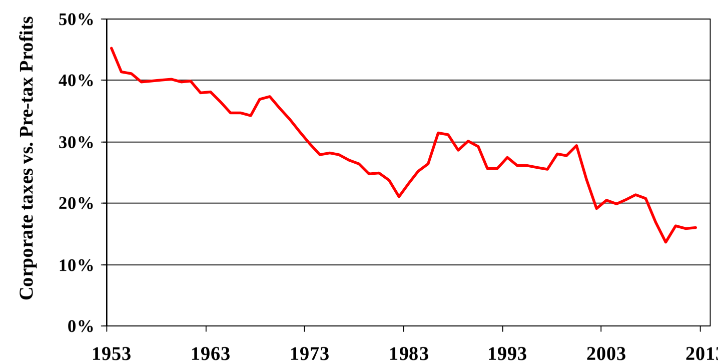
Interest Rates



Source: Federal Reserve Board, National Bureau of Economic Research

8

Corporate Taxes Rate



Source: Federal Reserve Bank of St. Louis

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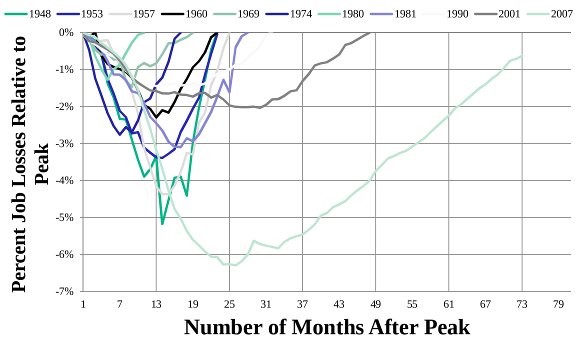
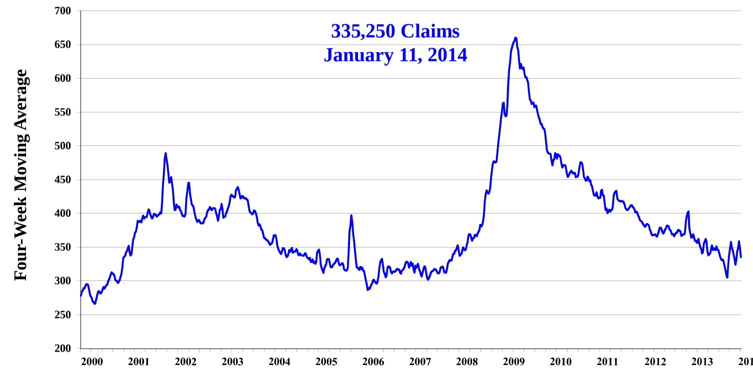
Percent Job Losses in Post WWI Recessions



Source: Federal Reserve Bank of St. Louis

10

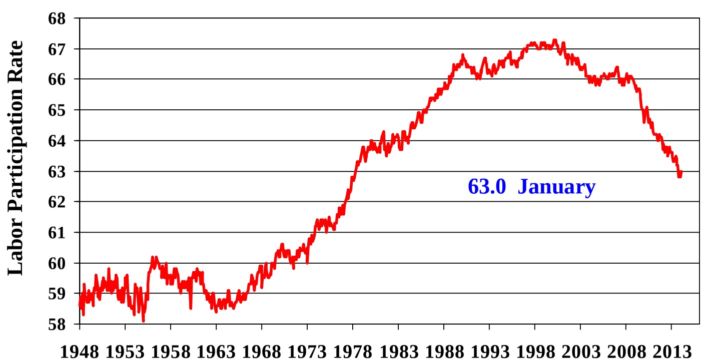
Initial Unemployment Claims



Source: U.S. Department of Labor, Employment and Training Administration

11

Labor Participation Rate



Source: Federal Reserve Bank of St. Louis

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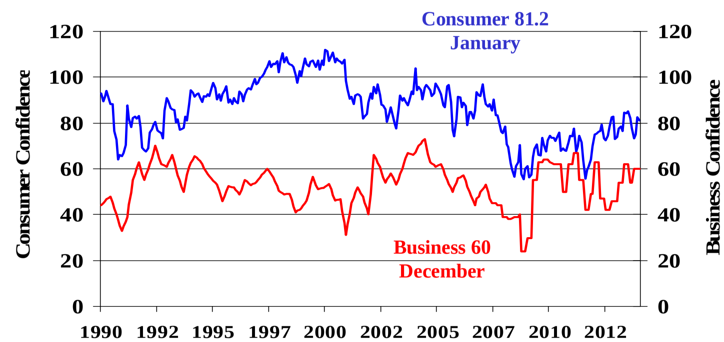
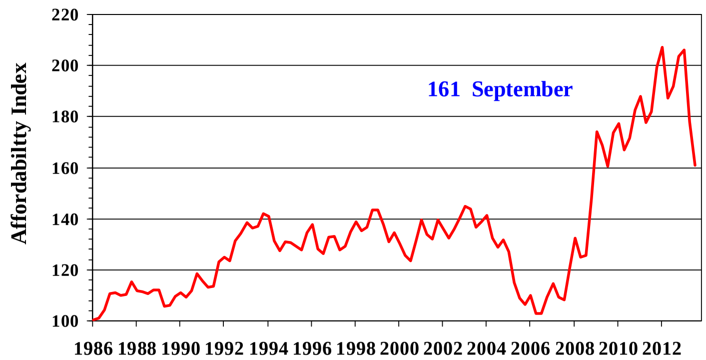
12

CEO Confidence & Consumer Sentiment



Sources: University of Michigan, Survey Research Center and The Conference Board

Housing Affordability Composite Index



Source: National Association of Realtors

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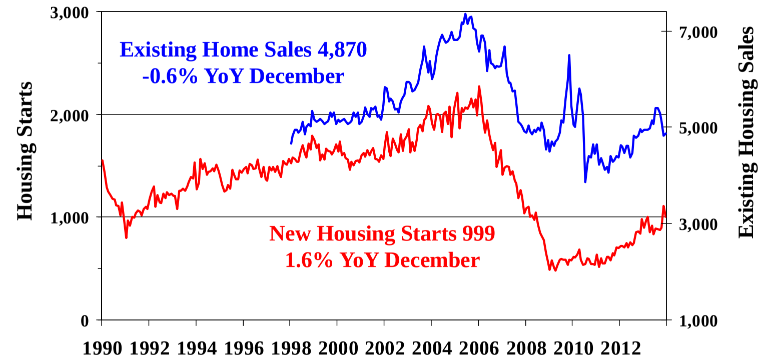
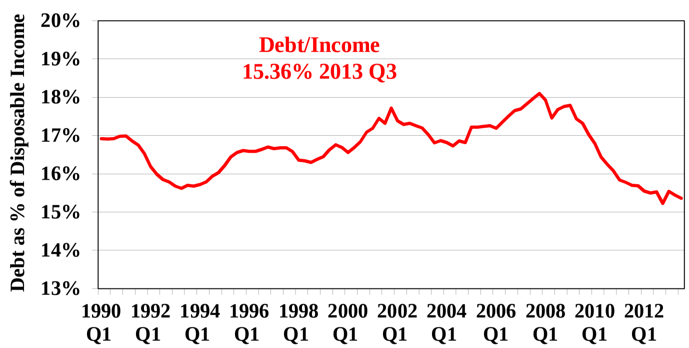
Existing Home Sales and Housing Starts



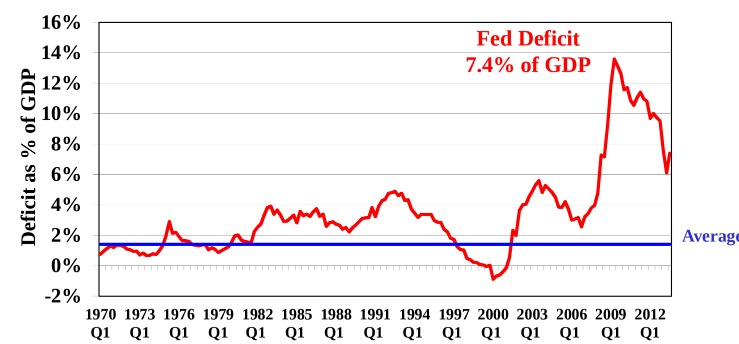
Source: U.S. Department of Commerce, U.S. Census Bureau
National Association of Realtors

Financial Obligations as Percent of Disposable Income



Source: U.S. Department of Commerce, Bureau of Economic Analysis

U.S. Deficit



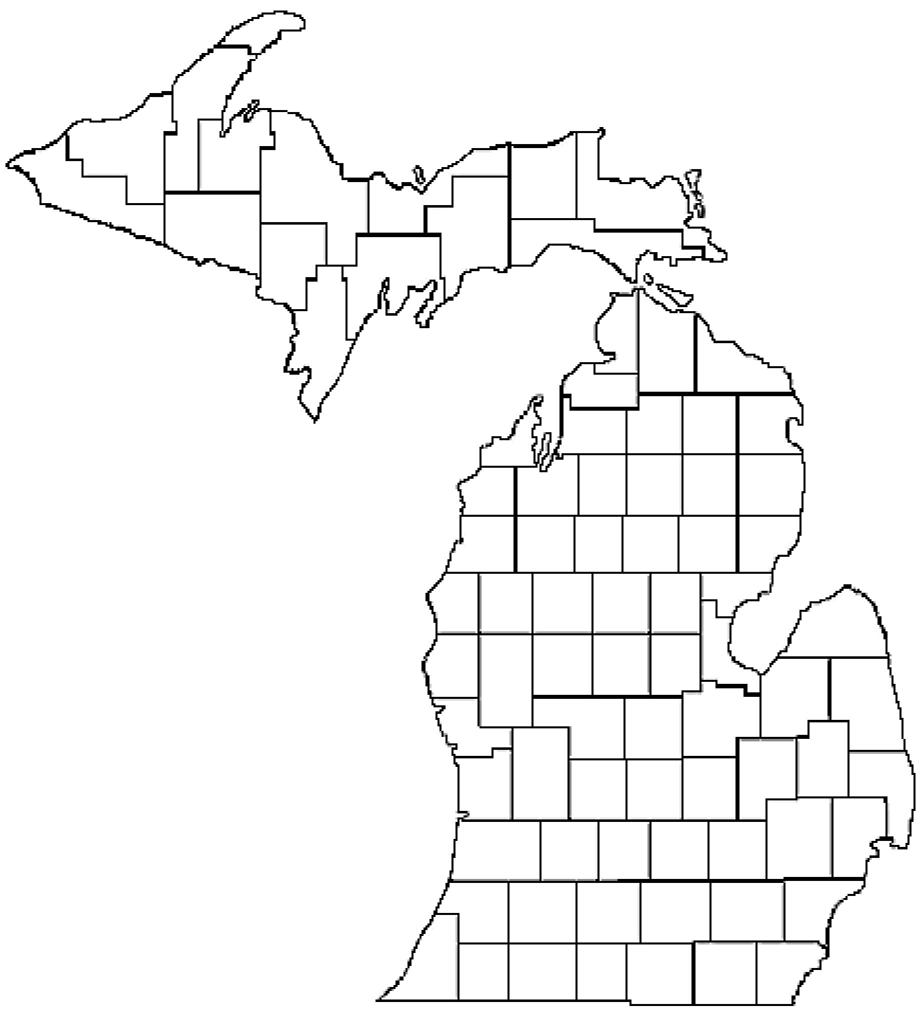
Source: U.S. Department of Commerce, Bureau of Economic Analysis

STATE OF MICHIGAN
RETIREMENT SYSTEMS

ABSOLUTE AND REAL RETURN REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 6, 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	12.0%	6.0%	8.4%	NA	NA
HFRI FOF Conservative*	7.9%	2.9%	3.7%	1.1%	2.7%

*One month lag on the index

Strategy Overview

- The strategy of the Absolute Return portfolio is to further diversify the plans holdings by contributing returns above investment grade fixed income with lower volatility than the equity portfolio.

- Arbitrage – Event-driven managers performed well during the quarter, with significant gains from a wide variety of event-oriented and value equity positions. The fixed income arbitrage allocations posted gains for the year as residential mortgage backed securities, commercial mortgage backed securities, and structured corporate credit performed well, and U.S. and European yield curve arbitrage produced gains. This strategy is 34% of the Absolute Return Portfolio.

- Credit/Distressed – Distressed credit managers generated gains for the year with significant contributions from restructurings, liquidations, and structured credit. Positions in the Lehman Brothers claims remained a significant contributor as several of the entities made sizable distributions to creditors during the year. Opportunities in Europe have picked up as the pace of bank portfolio sales ramped up throughout the year. This strategy is 33% of the Absolute Return Portfolio.

- Long/Short Equity – The long/short equity managers delivered solid gains for the year with performance driven by multiple themes on the long side. As a whole, short positions detracted from performance and generating alpha was difficult as investor risk-seeking bid up the prices of many speculative companies. This strategy is 23% of the Absolute Return Portfolio.

- 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.	8.7%	6.2%	NA	NA	NA
Custom Benchmark	7.3%	7.6%	NA	NA	NA

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

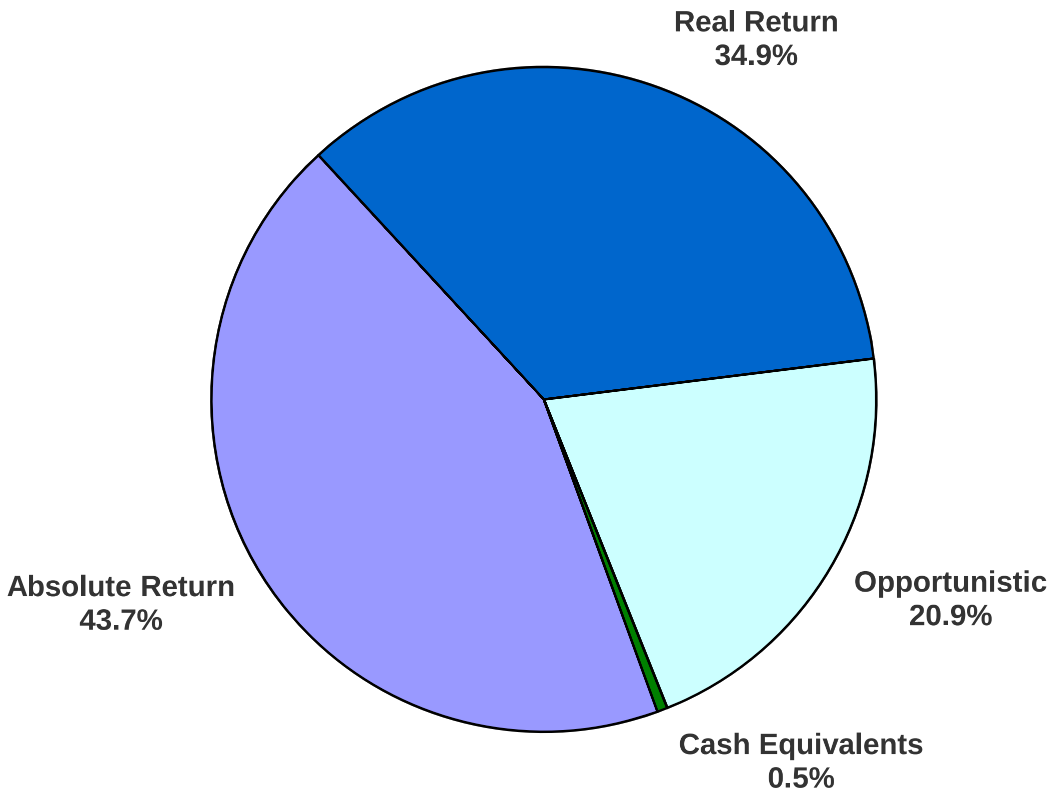
- The portfolio returns have had a slight drag due to the j-curve of many of the new investments, which is expected with an unseasoned portfolio. We have been able to offset that drag with positive cash flow from our direct lending and performing credit investments. We expect the portfolio returns to continue to ramp up as the private equity and late stage venture capital style investments in the portfolio become fully invested.

- Senior Secured Credit – Performing non-investment grade credit managers delivered gains as the markets finished 2013 on a high-note, with the S&P/LSTA Leveraged Loan and Merrill Lynch US High Yield Master II up 0.47% and 0.55% respectively, for the month of December and 5.29% and 7.42%, respectively for 2013. The default rate for the S&P/LSTA Index issuers ticked up slightly to 2.11%, which is still far below historical averages. This strategy is 15% of Real Return & Opportunistic Portfolio.

- Direct Lending – Loan activity remained strong during the quarter. Managers continue to have a healthy pipeline of opportunities and expect transactions to progress at a steady pace as we move into the new year. Middle market lending spreads have held at an attractive level even with increased competition in the space. This strategy is 14% of Real Return & Opportunistic Portfolio.

- During the quarter, two new commitments were closed: KANG Fund LP $200 million (U.S. energy); Lakewater Series IV (Agriculture/Timber).

SMRS
Absolute, Real Return and Opportunistic
12/31/13



Market Value in Millions

	12/31/13		9/30/13	
Absolute Return	$2,432	43.7%	$2,341	43.4%
Real Return	1,940	34.9%	1,848	34.3%
Opportunistic	1,166	20.9%	1,136	21.1%
Cash Equivalents	30	0.5%	63	1.2%
Total Investments	**$5,568**	**100.0%**	**$5,388**	**100.0%**

Michigan Department of Treasury, Bureau of Investments

SMRS
Absolute Return
12/31/13

Net Market Values by Entity

	Net Market Value
Absolute Return Capital Partners, L.P.	$48,505,769
Apollo Offshore Credit Strategies Fund Ltd.	135,990,920
Brevan Howard Multi-Strategy Fund, L.P.	106,045,258
Drawbridge Opportunities Fund	110,695,082
Elliott International Limited	37,039,262
* EnTrust White Pine Partners L.P.	308,669,326
FrontPoint Multi-Strategy Fund Series A, L.P.	4,788,346
MP Securitized Credit Master Fund, L.P.	57,641,259
* Sand Hill, LLC	1,228,718,039
Spartan Partners L.P.	36,773,629
* Tahquamenon Fund L.P.	356,899,370
Total Market Value	**$2,431,766,260**

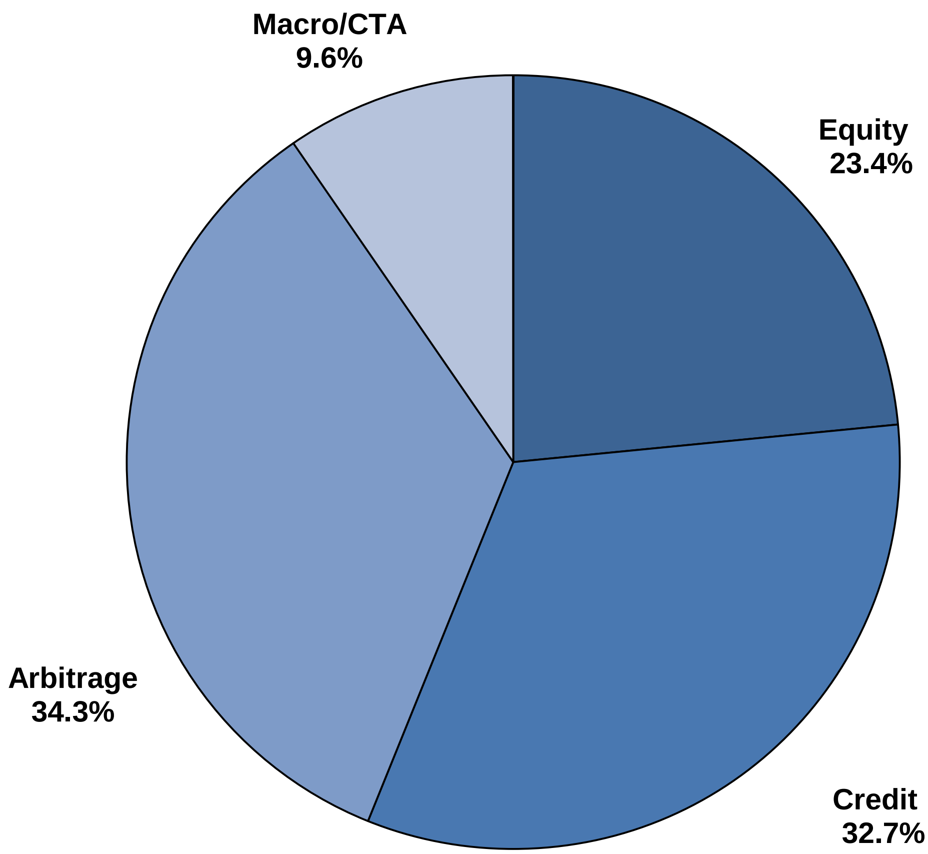
* Fund of Funds.

SMRS

Absolute Return

12/31/13

Investments By Strategy



Strategy Breakdown			
Underlying Funds:	114	Median Position Size:	0.1%
Strategies:	4	Average Position Size:	0.3%
Relationships:	11	Largest Position Size:	1.9%

SMRS
Real Return and Opportunistic
12/31/13

Net Market Value by Entity

		Net Market Value	Unfunded Commitment
*	Abernathy Fund I, LLC	$ 349,762,909	$92,911,104
	Apollo Credit Opportunities Fund III LP	30,989,354	69,529,857
	Apollo European Principal Finance Fund II	18,497,525	34,683,813
	Apollo Financial Credit Investments Fund II	26,023,131	377,135,342
	Apollo Offshore Credit Fund Ltd	456,959,822	
	Apollo Offshore Structured Credit Recovery Fund II	62,373,327	
	Carlyle Intl Energy Partners LP	11,561,039	38,440,989
	Commodity Holdings	256,125,413	
	Content Holdings LLC	70,967,546	
	Elegantree Fund SPC	2,000,000	48,000,000
	Emerald	30,777,752	
	Energy Recapitalization and Restructuring Fund LP	38,923,272	89,989,006
	ERR Michigan Holdings LP	6,223,144	
*	Fairfield Settlement Partners, LLC	63,901,658	47,830,599
	Fortress MSR Opportunities Fund I A LP	120,515,550	73,059,210
	Galaxie Ave. Partners, LLC	99,900,000	
	Highbridge Principal Strategies - Senior Loan Fund II	36,764,791	
	Highbridge Principal Strategies - Specialty Loan Fund III	76,715,972	76,714,643
	Hopen Life Sciences Fund II	2,617,852	7,300,000
	JP Morgan Global Maritime Investment Fund LP	29,434,256	93,124,284
**	**KANG Fund LP**	**53,333,333**	**146,666,667**
	KKR Lending Partners LP	87,166,539	32,917,565
	Lakewater LLC, Series 1	173,275,033	23,130,335
	Lakewater LLC, Series 2	179,953,333	83,717,200
	Lakewater LLC, Series 3	77,746,536	
**	**Lakewater LLC, Series 4**	**12,798,419**	**43,189,605**
***	Orion Mine Finance Fund I LP	42,504,817	76,869,591
	Renaissance Venture Cap Fund II LP	1,244,126	23,501,700
	Ridgewood Energy Oil & Gas II	14,283,207	107,827,506
	SJC Direct Lending Fund I, LP	119,126,301	
	SJC Direct Lending Fund II, LP	70,302,774	319,547,665
*	Social Network Holdings, LLC	482,132,280	
	Total Market Value	**$3,104,901,011**	**$1,906,086,681**

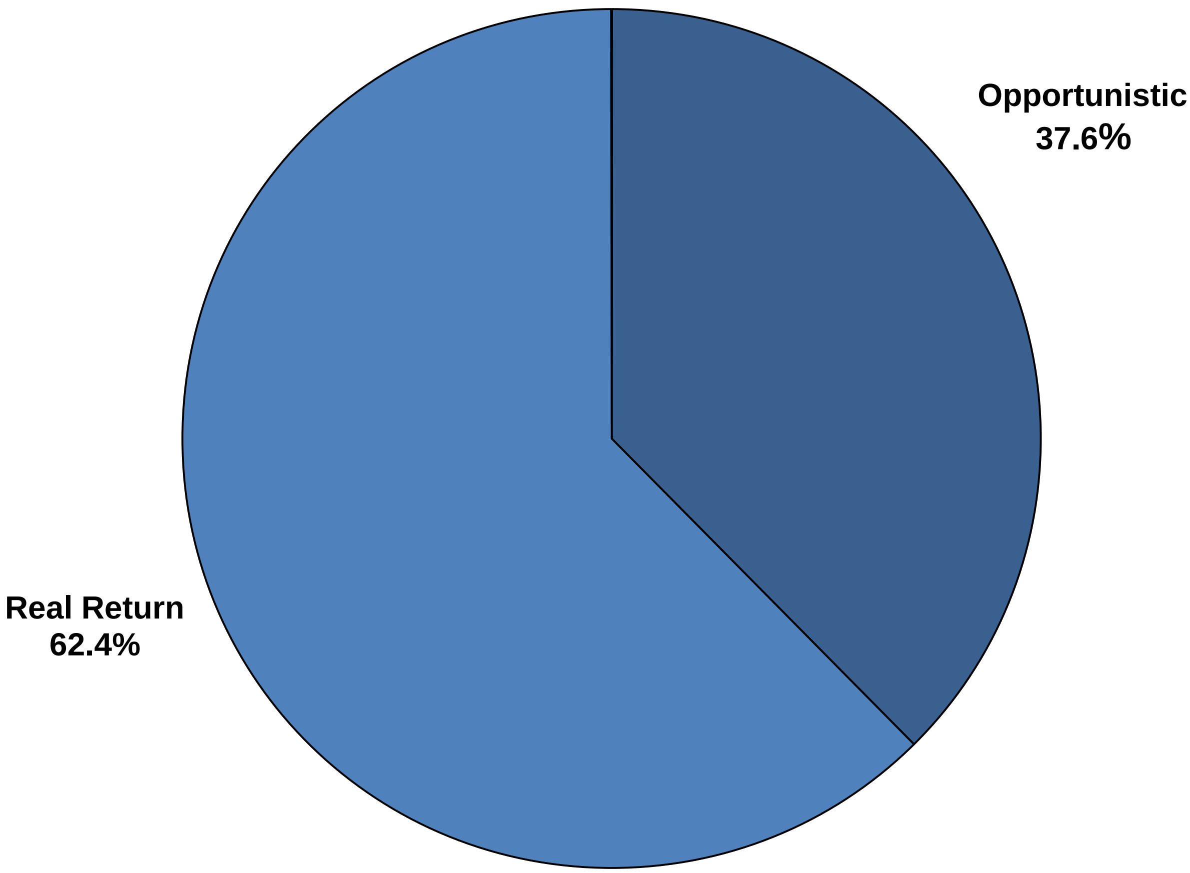
* Fund of Funds.

**** New commitment made during quarter reported.**

*** Fund name change (Previously Red Kite Mine Finance Fund II)

SMRS
Real Return and Opportunistic
12/31/13

Investments By Strategy



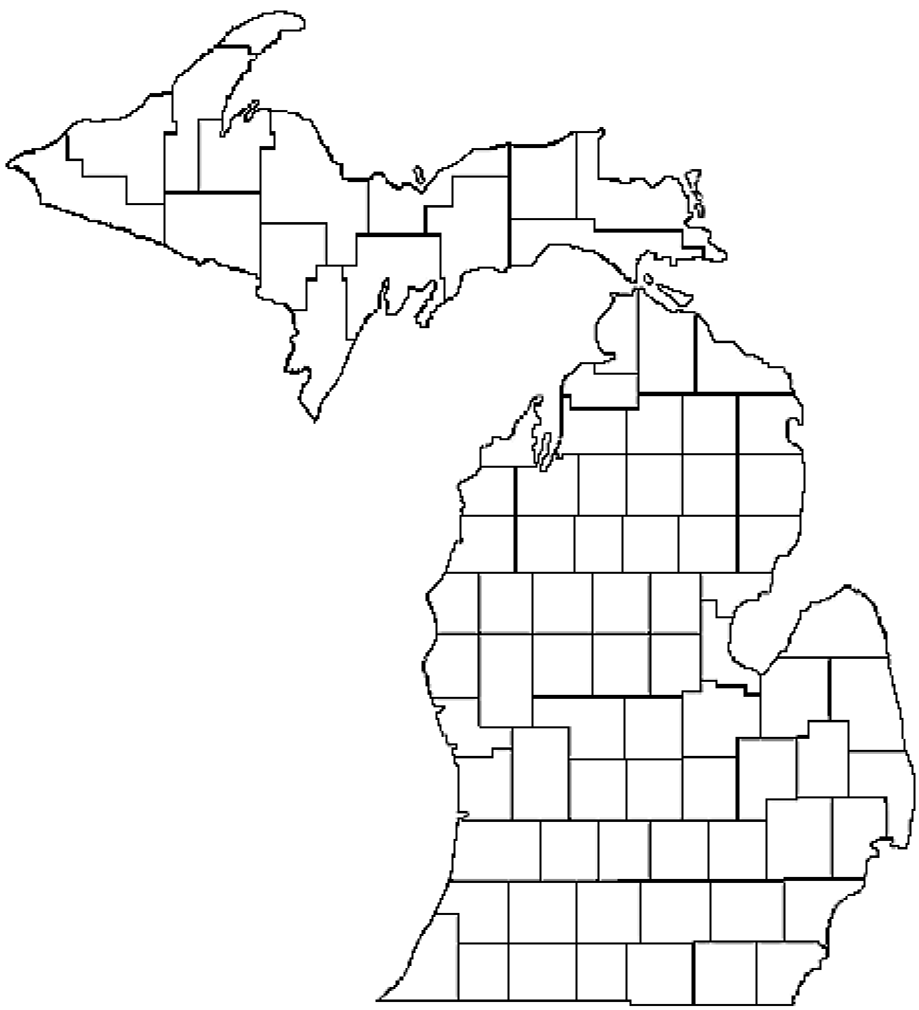
Investment Strategy	
Opportunistic:	$1,166,595,031
Real Return:	$1,938,305,980

STATE OF MICHIGAN
RETIREMENT SYSTEMS

REAL ESTATE AND INFRASTRUCTURE REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 6, 2014



Brian C. Liikala, Administrator
Real Estate & Infrastructure Division

EXECUTIVE SUMMARY
Real Estate

MPSERS Plan	1-Year	3-Years	5-Years	7-Years	10-Years
Annualized Return	11.3	11.0	-0.4	2.0	5.4
NCREIF NPI	9.6	10.5	4.3	3.9	7.4
Peer Median Return	11.2	11.1	1.8	1.7	6.5
Rank vs. Peers	42	58	70	47	55

- Total real estate market value was $4.9 billion and had a total return of 4.0% for the quarter ending December 31, 2013. High quality, cash flowing, core real property assets have appreciated as investors seek current yield, and protection from volatility.
- Valuations increased this quarter for the majority of the portfolio. Increases in valuations due to strong rent growth in apartments, and the sale of a retail portfolio contributed to the quarterly performance. Office properties that rely on employment growth for increased leasing continue to recover slowly, with a few urban markets being the exceptions (i.e. New York City, San Francisco, Houston, etc.).
- The gross market value of the portfolio is estimated at $10.1 billion and the loan-to-value ratio is 52%.
- REID is working with its general partners in executing sales of non-strategic properties in secondary markets with limited upside potential at attractive values and capitalizing on the sale of portfolios of core assets at historically low capitalization rates. Also, the general partners that specialize in credit strategies have been investing in distressed debt opportunities and mezzanine financing at discounted pricing, yielding attractive returns.
- In the commercial mortgage-backed securities (CMBS) market, spreads over the swap rate for AAA-rated securities increased 13 basis points from prior quarter and now stand at 89 basis points. CMBS delinquencies declined to 5.98% (60-day delinquent). New issuance for CMBS in 2013 reported by Commercial Mortgage Alert was $98 billion, which compares to $51 billion in 2012.
- Unfunded capital commitments for real estate totaled $193 million. Market transaction activity continues to improve with the availability of debt at attractive rates and increasing equity capital in the market. Our real estate managers are being very selective, taking advantage of opportunities from owners and lenders in markets that have potential for growth and long-term liquidity.
- The SMRS limited partnership interest in Edens Retail Operating Company was sold in December providing $710 million in proceeds. This completed a successful 16-year investment in which the company grew to over $4 billion in market capitalization. Also in the fourth quarter, a senior living portfolio was sold providing $72 million in proceeds.
- There were no new commitments for the quarter.
- REID strategy includes investing in distressed assets at a discount, consistently communicating with lenders for distressed debt opportunities, developing apartments in urban markets, selling core properties to institutional investors and REITs flush with capital and paying historically low capitalization rates, and exhibiting patience in order to find properties in urban centers that have strong economic fundamentals.

EXECUTIVE SUMMARY
Infrastructure

- Total market value of infrastructure investments ended the fourth quarter at $382 million with a total return of 5.1% for the quarter. Total return since inception has exceeded expectations and our benchmark, as both REID's timing into the sector and execution of opportunities have served well.

- The objective for this asset class is to provide an attractive risk/return profile, low correlation with other asset classes, a predictable and defensible cash flow return, and an annual total return that exceeds the benchmark (400 bps over U.S. CPI). Target investments for the asset class will also contain CPI enhancers to provide some degree of protection from inflation.

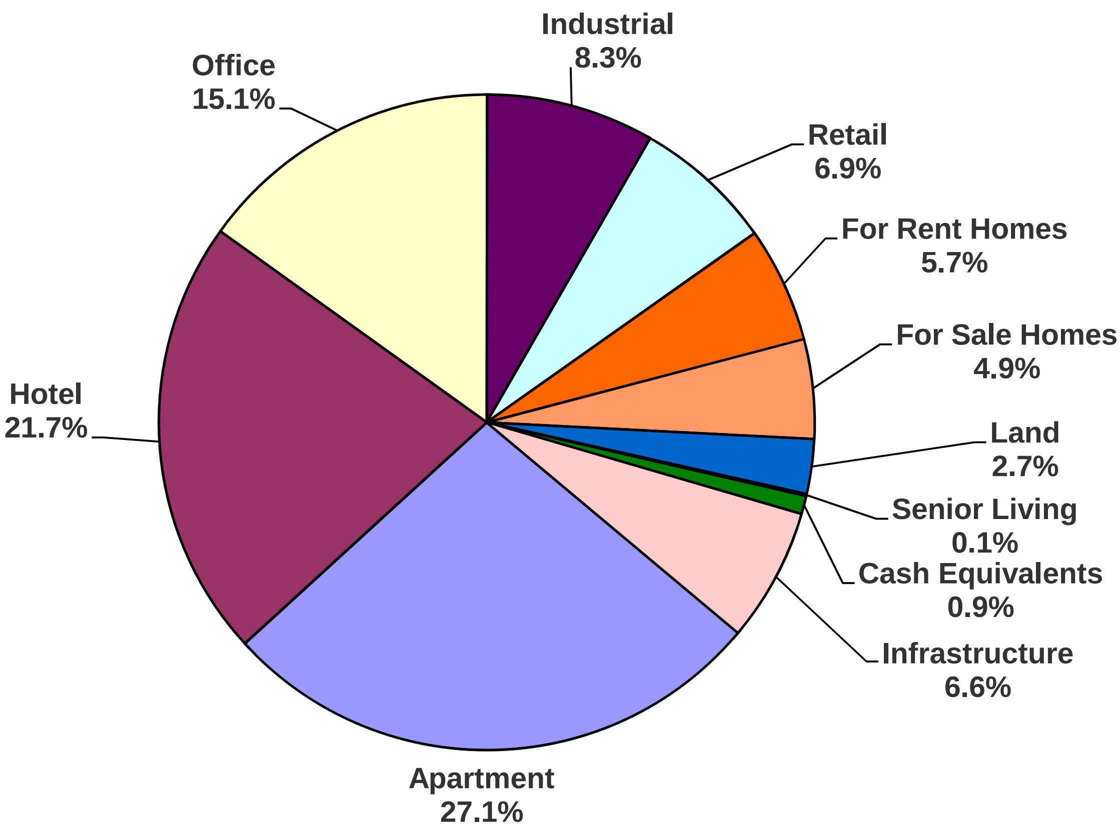
- The REID seeks investment managers that are experienced in infrastructure with a strategy that will satisfy the objectives of the fund. The managers will possess a commitment to long-term ownership, have a responsible and proven service delivery, have access to institutional quality investments, and provide alignment of interest.

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

- REID closed two new commitments: a $50 million commitment to Brookfield Infrastructure Fund II, LP, a $7 billion fund which will focus on acquiring a diversified portfolio of core infrastructure on a value add basis in North America, South America, and Europe. Assets will include transportation, renewable power, utilities, and energy. Also a $75 million commitment to Stonepeak Infrastructure Partners, LP, which is a $1.5 billion fund focused on North American middle market infrastructure assets, including midstream energy delivery, alternative energy, electric utilities, and water. These commitments closed in early October.

- REID is reviewing additional core and multi-strategy infrastructure investment opportunities and actively meeting with major infrastructure managers in the industry. Total commitments to date are $345 million; additional commitments will be made over the next several years, but only as attractive opportunities arise.

SMRS
Real Estate and Infrastructure Holdings
By Property Type
12/31/13



Market Value in Millions

	12/31/13		9/30/13	
Apartment	$1,417	27.1%	$1,384	23.4%
Hotel	1,134	21.7%	1,134	19.2%
Office	793	15.1%	805	13.6%
Industrial	432	8.3%	429	7.3%
Retail	362	6.9%	1,003	16.9%
For Rent Homes	300	5.7%	300	5.1%
For Sale Homes	258	4.9%	251	4.2%
Land	140	2.7%	143	2.4%
Senior Living	6	0.1%	53	0.9%
Total Investments	$4,842	92.5%	$5,502	93.0%
Infrastructure	345	6.6%	322	5.4%
Cash Equivalents	48	0.9%	97	1.6%
Total	**$5,235**	**100.0%**	**$5,921**	**100.0%**

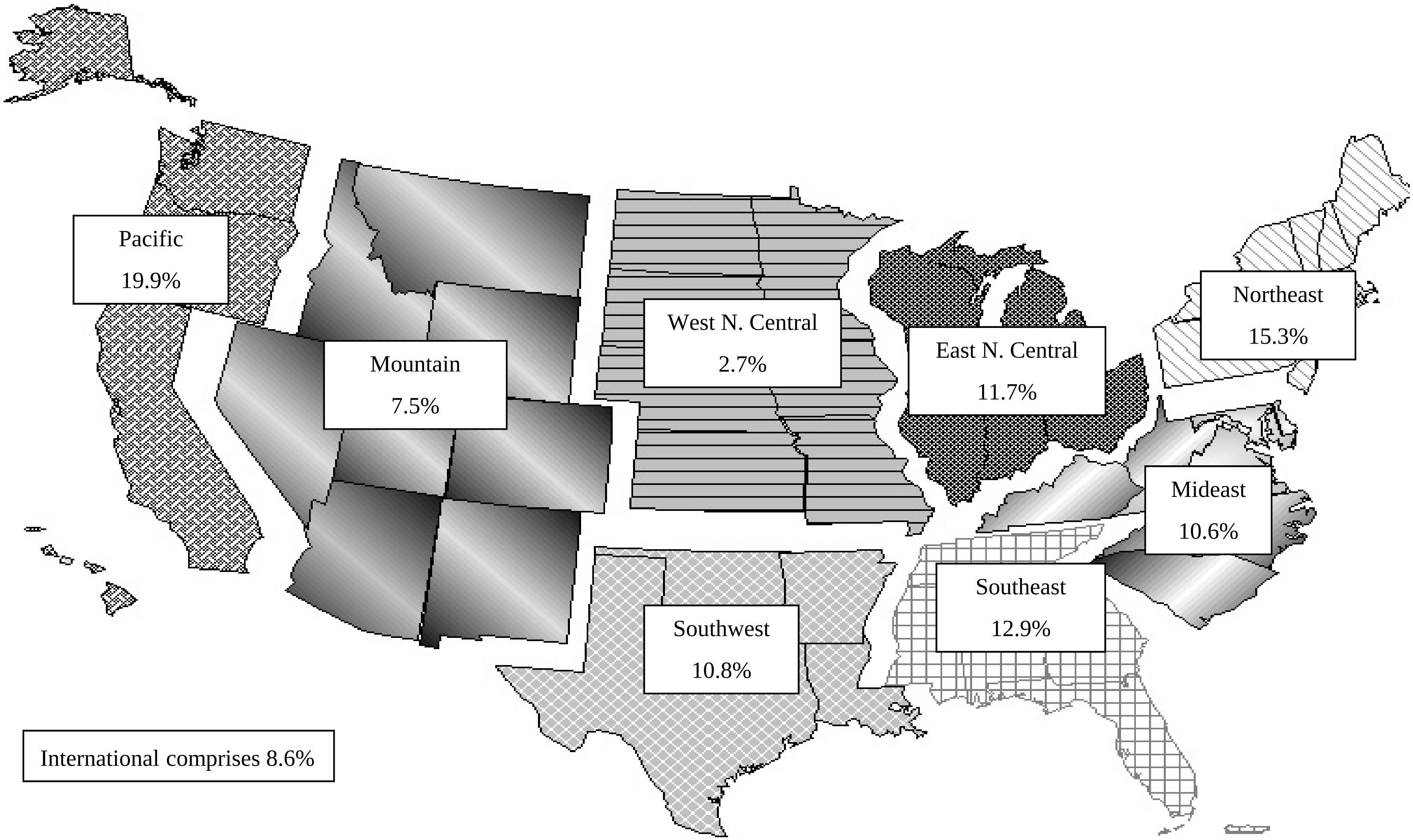
Michigan Department of Treasury, Bureau of Investments

Real Estate by Region

Based on Net Market Value

(excludes cash & cash equivalents)

12/31/13



Geographic regions defined by NCREIF, whose property index composition is: Pacific 29.2%, Mountain 5.7%, West N. Central 1.7%, Southwest 10.9%, East N. Central 7.8%, Southeast 10.4%, Northeast 20.5%, Mideast 13.8%

SMRS
Real Estate
12/31/13

Top Ten
Advisors or Companies

Advisor or Company		**Net Market Value**
Clarion Partners (formerly ING Clarion)	$	930,945,015
MWT Holdings, LLC		915,652,835
Blackstone Real Estate Advisors		457,322,605
Principal Real Estate Investors		280,921,663
Kensington Realty Advisors, Inc.		280,282,810
Five Star Realty Partners, LLC		212,926,111
Bentall Kennedy LP		207,500,835
CIM Group, Inc.		203,004,490
Morgan Stanely Real Estate		124,248,767
L&B Realty Advisors		123,988,950
	$	3,736,794,081

Occupancy
by Property Type

	Apartment	Office	Industrial	Retail	Hotel
SMRS Portfolio	94.9%	86.1%	89.0%	91.9%	70.7%
National Average	91.7%	84.9%	88.3%	93.1%	67.9%

Real Estate

Net Market Values by Ownership Entity

12/31/13

		Net Market Value		Unfunded Commitment
801 Grand Avenue Capital, LLC	$	105,140,003	$	0
AGL Annuity Contract GVA 0016		263,365,205		0
Avanath Affordable Housing I, LLC		16,442,183		6,055,000
Beacon Capital Strategic Partners IV, LP		15,435,677		0
Beacon Capital Strategic Partners V, LP		14,106,808		4,500,000
BlackRock Retail Opportunity Fund, LLC		10,683,323		0
Blackstone R/E IH3 Co-Inv Partners		299,990,037		0
Blackstone Real Estate Partners V, LP		60,944,834		2,208,906
Blackstone Real Estate Partners VI, LP		96,387,734		4,409,717
Capri Select Income II		5,203,851		0
Capri Urban Investors, LLC		21,530,745		0
CIM Fund III, LP		94,637,992		6,933,371
CIM Urban REIT, LLC		83,227,898		0
CIM VI (Urban REIT), LLC		25,138,600		0
City Lights Investments, LLC		118,721,081		6,500,000
Cobalt Industrial REIT		49,553,780		0
Cobalt Industrial REIT II		67,662,904		0
CPI Capital Partners N.A., LP		5,104,051		0
CPI Capital Partners N.A., Secondary, LP		14,177,884		0
Devon Real Estate Conversion Fund, LP		5,925,910		0
Domain Hotel Properties, LLC		767,539,861		0
Dynamic Retail Trust		55,125,130		0
Gateway Capital R/E Fund II, LP		89,758,898		1,276,875
Great Lakes Property Group Trust		264,435,976		0
Invesco Mortgage Recovery Feeder Fund		25,959,151		3,121,228
JBC Opportunity Fund III, LP		17,706,383		0
KBS/SM Fund III, LP		54,471,810		0
L & B Medical Properties Partners, LP		2,523,295		4,000,000
Landmark Real Estate Partners V, LP		29,010,619		3,900,000
LaSalle Asia Opportunity Fund II, LP		5,425,995		0
LaSalle Asia Opportunity Fund III, LP		37,318,043		4,000,000
Lion Industrial Trust		124,609,945		0
Lion Mexico Fund, LP		38,795,209		0
Lowe Hospitality Investment Partners		725,103		0
MERS Acquisitions, Ltd.		121,465,654		0
MG Alliance, LLC		7,450,602		13,932,112
Morgan Stanley R/E Fund V - International		7,770,973		0
Morgan Stanley R/E Fund VI - International		39,704,520		0
Morgan Stanley R/E Fund V - U.S.		9,733,722		0
Morgan Stanley R/E Special Situations Fund III		67,039,551		0
MWT Holdings, LLC		915,652,835		0
Northpark-Land Associates, LLLP		26,934,004		0
Paladin Realty Brazil Investors III (USA), LP		36,081,063		0
Principal Separate Account		175,781,658		0
Proprium RE Spec Situations Fund LP		74,114		5,000,000
Rialto Real Estate Fund, LP		39,059,917		8,277,006
Rialto Real Estate Fund II, LP		25,731,422		43,306,004
Rialto Mezzanine Partners Fund		45,749,684		4,406,923
SM Brell II, LP		63,758,290		0
Stockbridge Real Estate Fund II-C, LP		32,254,507		0
Strategic LP		183,905,315		52,512,654
Trophy Property Development LP		62,121,998		11,250,000
True North High Yield Investment Fund II		36,346,113		7,213,251
Venture Center, LLC		33,662,265		0
Western National Realty Fund II, LP		25,695,381		0
	$	4,842,759,507		-
Short-Term Investments and Other		10,537,700		-
Total Real Estate Investments	**$**	**4,853,297,207**	**$**	**192,803,047**

Infrastructure Investments
Net Market Values by Ownership Entity
12/31/13

		Net Market Value	Unfunded Commitment
	Balfour Beatty Infrastructure Partners, LP	$ 6,961,084	$ 41,894,051
	Blackstone Energy Partners, LP	19,434,712	39,976,115
*	**Brookfield Infrastructure Fund II-B, L.P.**	3,296,710	46,686,185
	CSG Infrastructure Investment Program, LP	49,533,820	58,144
	Customized Infrastructure Strategies, LP	70,185,647	31,426,254
	Dalmore Capital Fund	62,564,792	5,229,545
	JP Morgan AIRRO India Sidecar Fund US, LLC	70,553,384	6,086,826
	JP Morgan AIRRO Fund II US, LLC	10,552,567	86,905,000
	KKR Global Infrastructure Investors, LP	45,269,424	32,217,000
*	**StonePeak Infrastructure Fund LP**	6,809,977	66,736,873
		$ 345,162,118	-
	Short-Term Investments and Other	36,989,778	-
	Total Infrastructure Investments	**$ 382,151,896**	**$ 357,215,992**

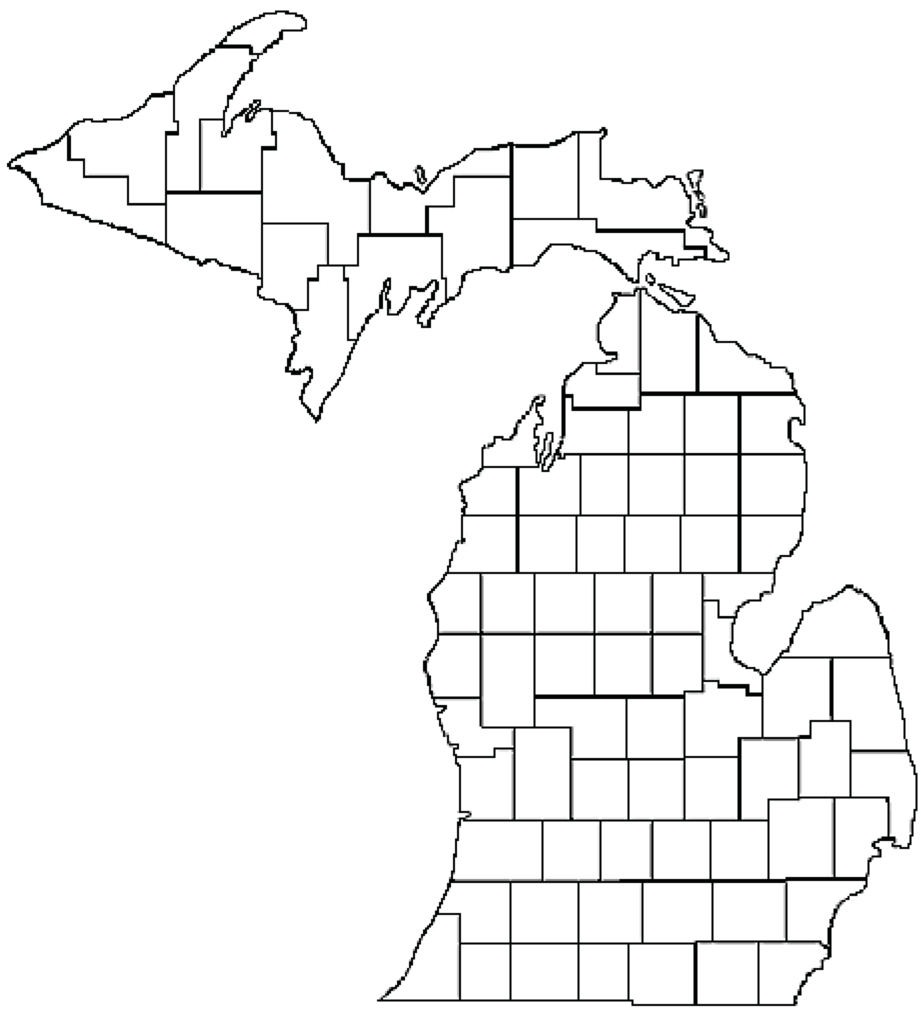
* New commitment made during the quarter reported

STATE OF MICHIGAN
RETIREMENT SYSTEMS

FIXED INCOME REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 6, 2014



Dan Quigley, Assistant 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	-0.5%	4.0%	6.4%	5.9%	5.2%
Barclays Aggregate	-2.0%	3.3%	4.4%	4.9%	4.6%
Peer Median Return	-1.2%	4.3%	7.0%	5.4%	5.3%
Rank vs. Peers	36	68	54	29	51

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

Strategy Update

- The allocation to Long-Term Fixed Income has remained stable for the last twelve months.
- Long-Term Fixed Income is looking to increase the overall rate of return by modestly adding below investment grade (high yield), RMBS, and ABS investments. This strategy increases the credit risk and liquidity risk of the portfolio. These risks are offset by lower interest rate risk as these securities reduce the duration of the portfolio.
- Assets may be redeployed from the internal strategy to external managers. Long-Term Fixed Income will look to diversify from Barclay's Aggregate focused investment strategies. This is due to the increase in the duration of the Aggregate as well as the fact that the index is increasingly comprised of U.S. Government securities.

Market Environment and Outlook

- Treasury rates increased during the year with the 10-year U.S. Treasury increasing by 125 bps during the year to 3.03%. Yields remain near their lowest levels in sixty years although an increase in interest rates may develop slowly.
- High grade credit spreads tightened 26 bp to 128 bp during 2013. HY spreads tightened 138bp to 396 bp. Both spread levels have tightened dramatically from their 2008-2009 highs, but remain above their pre-recession levels.
- Real interest rates on U.S. TIPS securities remain negative for all maturities with less than seven years to maturity.
- While Treasury yields have increased over the past year, the largest risk within the fixed income markets continues to be the threat of further interest rate increases. Accordingly, the portfolio duration remains short of the benchmark as we focus on intermediate securities. We have offset this short position by holding a larger allocation to corporate debt securities.

Conclusion

- Given the current level and shape of the yield curve, it seems appropriate to focus on intermediate duration issues. This area of the yield curve offers the best risk-adjusted return in this environment. In an attempt to increase return, it appears appropriate to target an allocation of 10% of division assets to below investment grade portfolios on a long-term basis. We will also look to diversify away from the duration risk of our benchmark by looking into other areas that offer attractive spread pick-up while maintaining shorter than benchmark duration.

SMRS

LONG-TERM FIXED INCOME

12/31/13

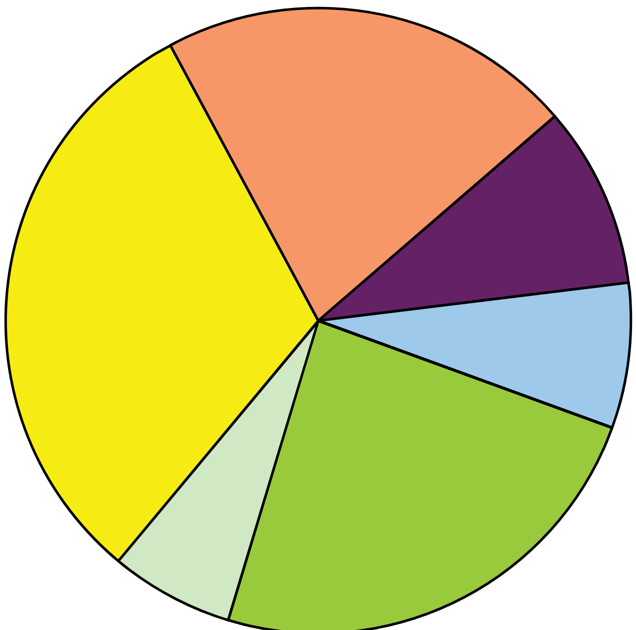
	Amount	% of Total
Core	(in millions)	
LTFID Internal	$4,790	
Pyramis	248	
Dodge & Cox	231	
Loomis Core Plus	100	
Ambassador Capital Management	54	
Sub Total	**$5,424**	80.6%
Credit		
Prudential	$430	
Sub Total	**$430**	6.4%
Securitized Debt		
Principal Global	$301	
Met West Securitzed Ops	269	
Sub Total	**$571**	8.5%
High Yield		
Columbia Management	$103	
Prudential High Yield	198	
Sub Total	**$301**	4.5%
TOTAL	**$6,726**	100.0%

SMRS

Fixed Income By Rating

Total U.S. Long-Term Fixed Income

12/31/13



Market Value in Millions

	12/31/13			9/30/13	
	Assets	**Percent**	**Benchmark**	**Assets**	**Percent**
AAA	$1,617	24.1%	73.0%	$2,047	30.5%
AA	427	6.4%	3.7%	774	11.5%
A	2,094	31.1%	9.2%	2,303	34.3%
BBB	1,448	21.5%	12.6%	1,379	20.6%
Not Rated	506	7.5%	0.2%	41	0.6%
Below Investment Grade	634	9.4%	1.3%	167	2.5%
Total Investments	**$6,726**	**100.0%**	**100.0%**	**$6,711**	**100.0%**

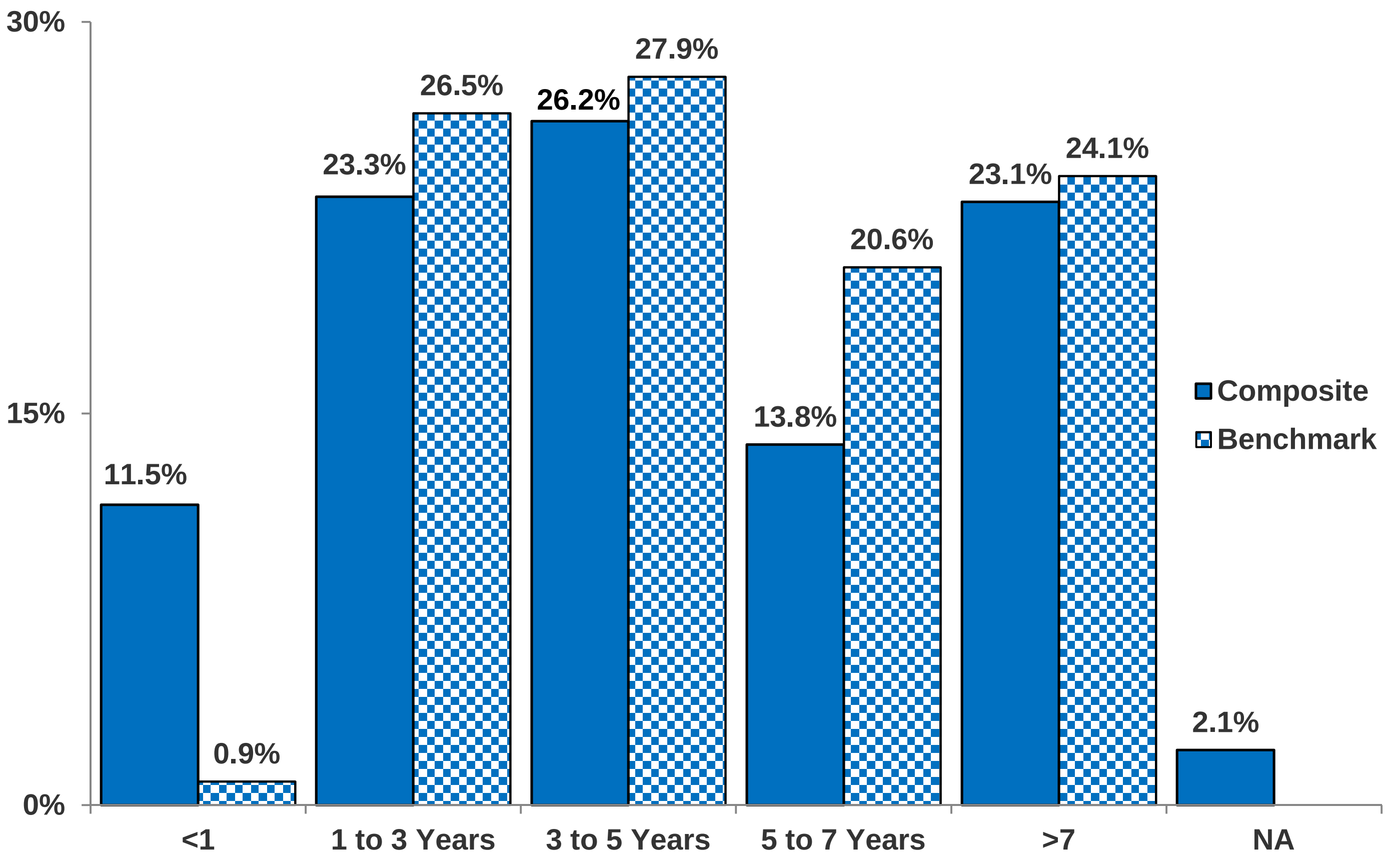
Michigan Department of Treasury, Bureau of Investments

SMRS

Duration Distribution

Fixed Income Composite Versus Benchmark

12/31/13



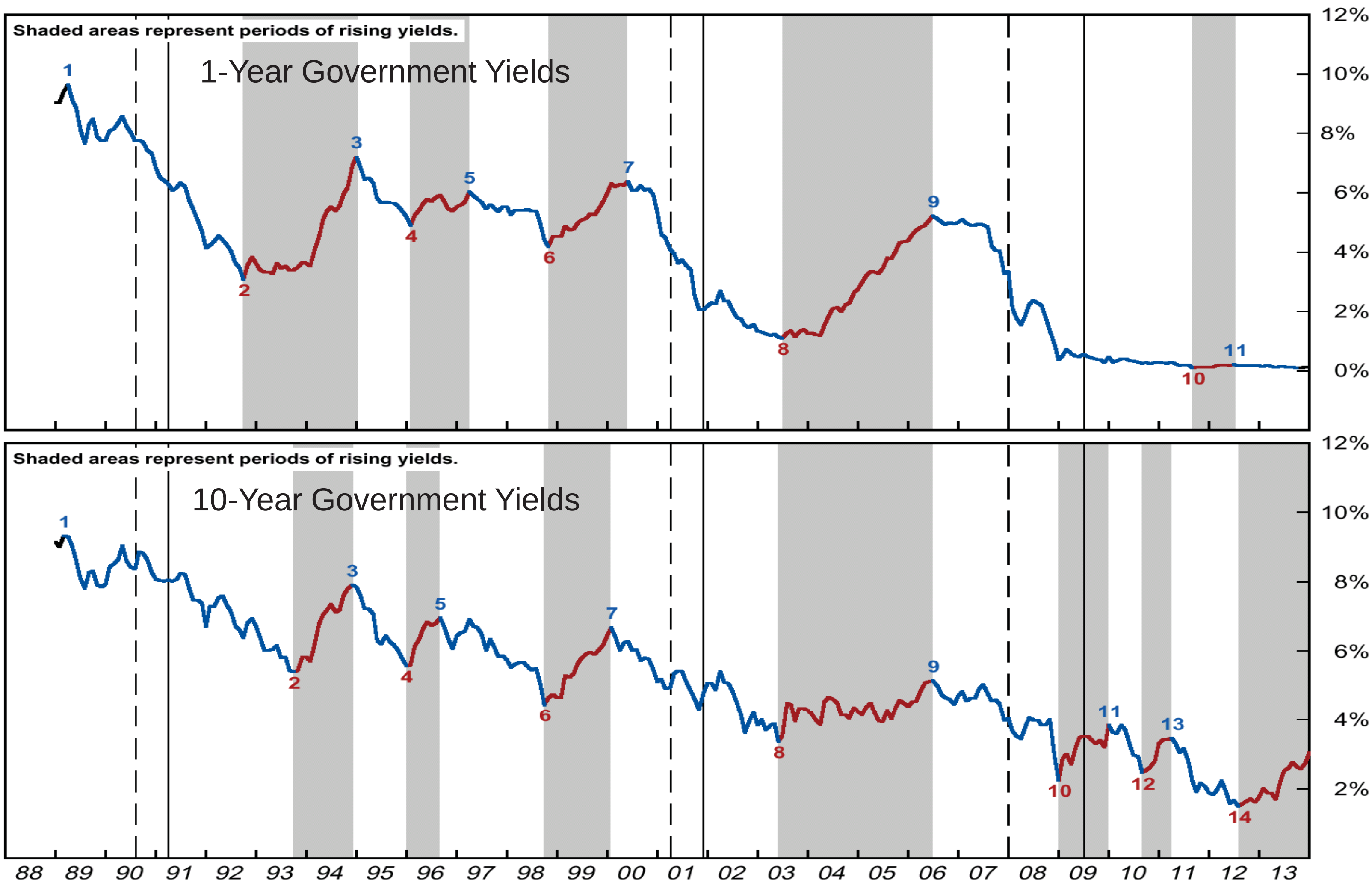
Source: Factset

Market Value in Millions

	Assets	Percent	Benchmark Weight
<1	$776	11.5%	0.9%
1 to 3 Years	1,569	23.3%	26.5%
3 to 5 Years	1,763	26.2%	27.9%
5 to 7 Years	926	13.8%	20.6%
>7	1,554	23.1%	24.1%
NA	138	2.1%	0.0%
Total	**$6,726**	**100.0%**	**100.0%**

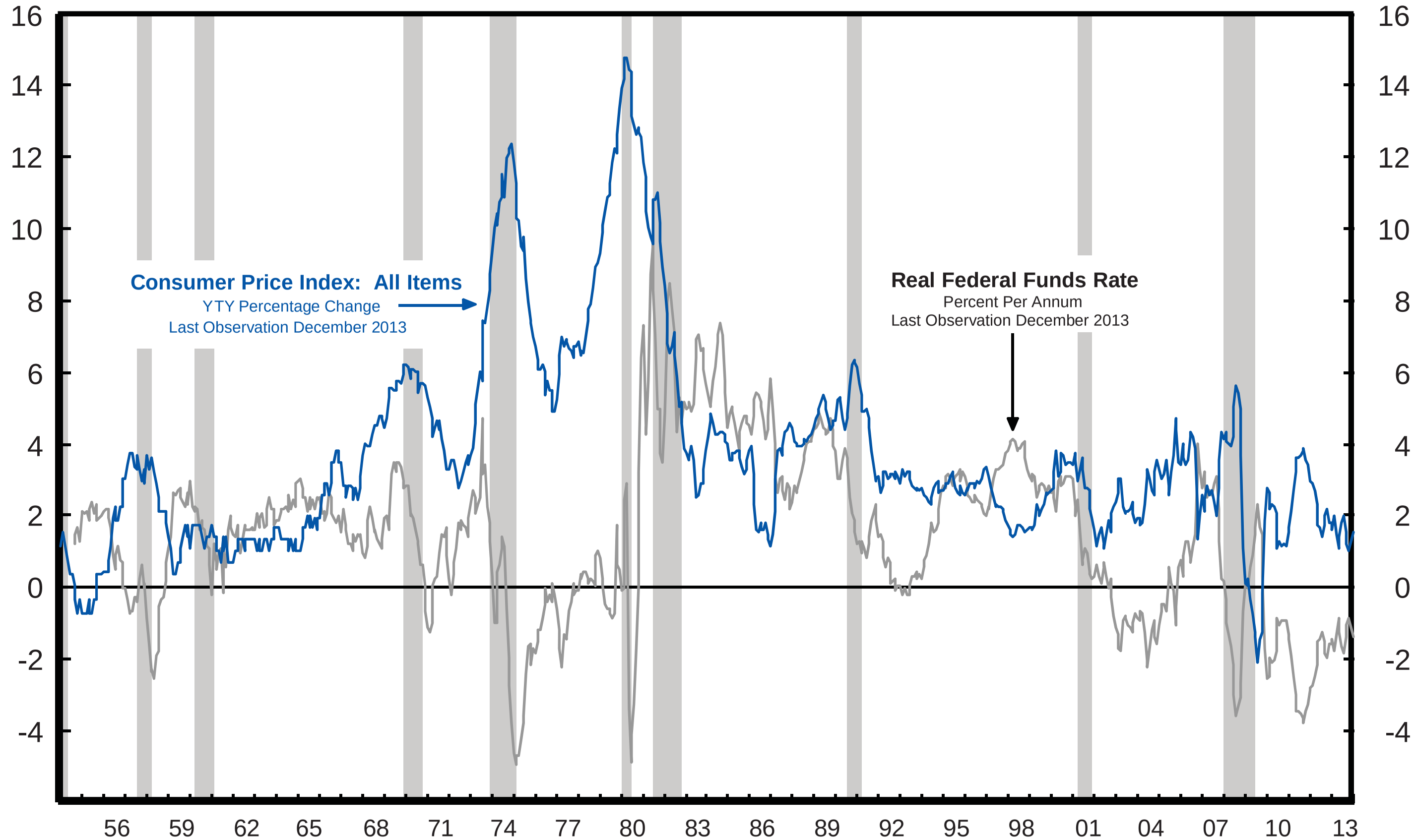
U.S. Government Bond Yields - The Course of Interest Rates

25 Years Ending December 2013



Sources: Federal Reserve Board; National Bureau of Economic Research

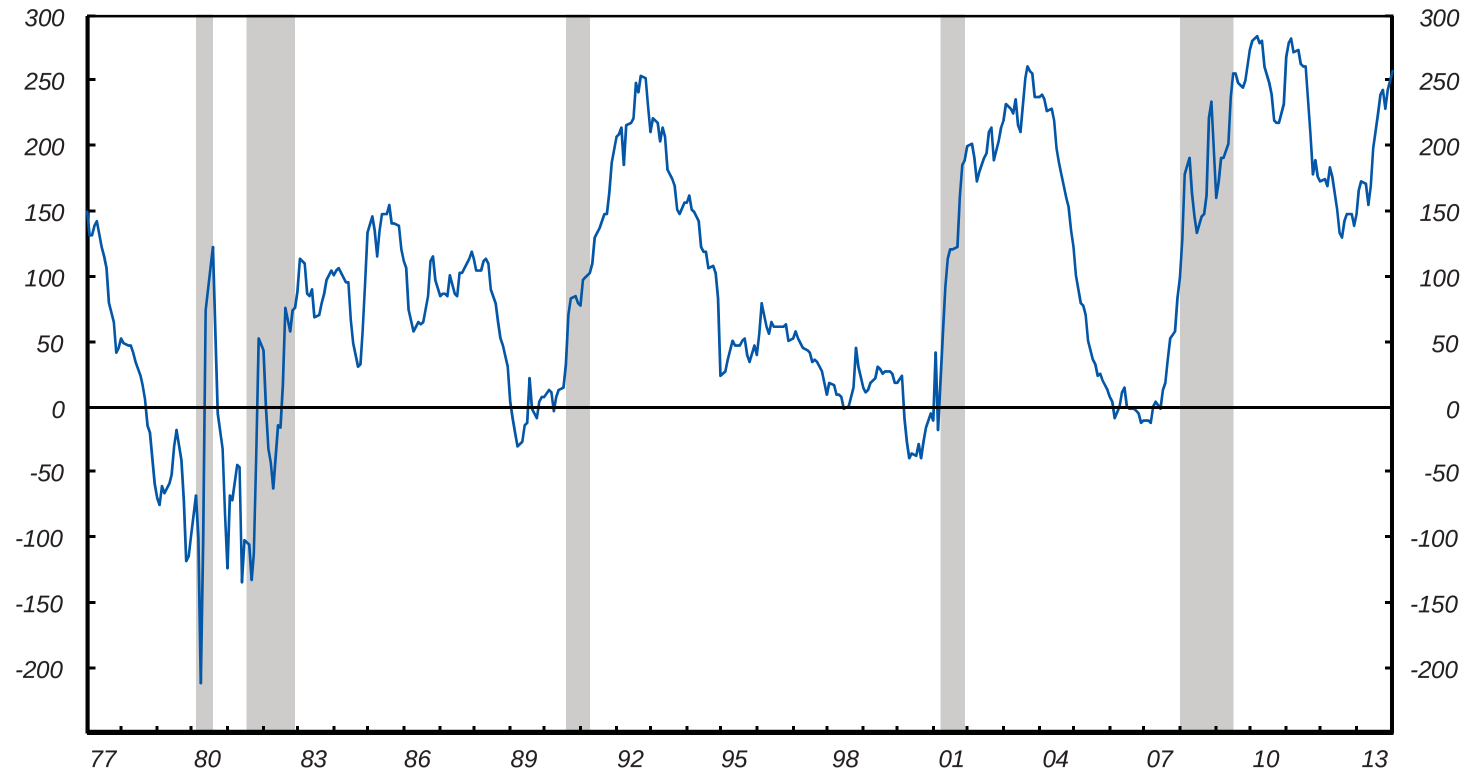
Real Federal Funds Rate and Inflation



Sources: Federal Reserve Board; Bureau of Labor Statistics

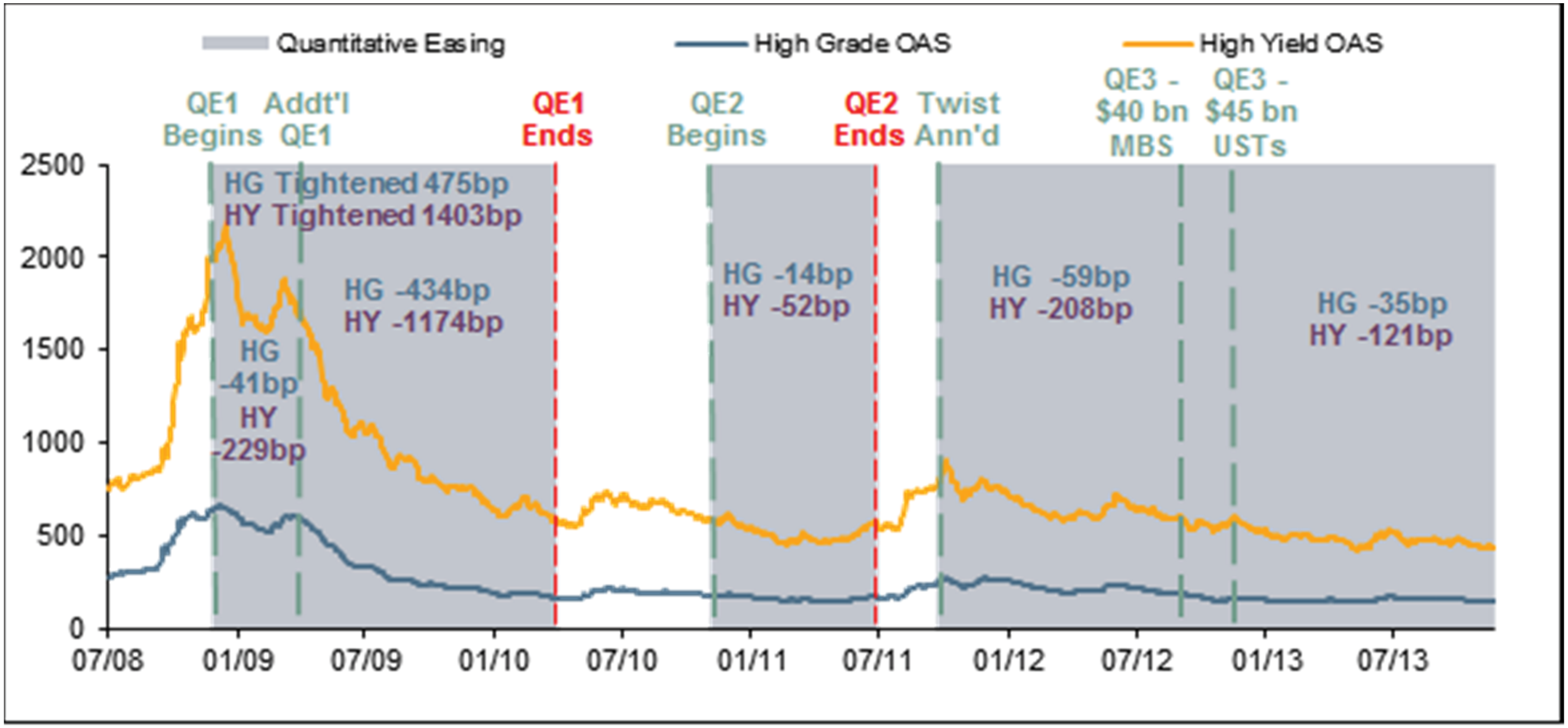
Yield Spreads: 10-Year Minus 2-Year Treasuries

Basis Points



Source: Federal Reserve Board

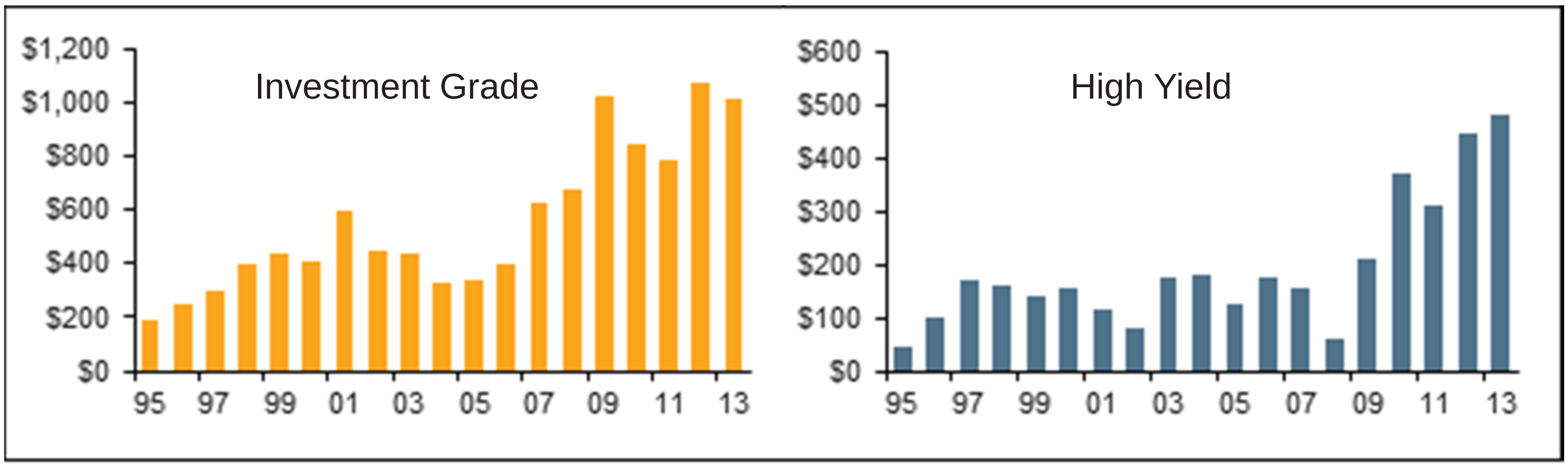
U.S. Corporate Bond Spread Moves vs. Quantitative Easing



Source: CreditSights, BofAIML Indices

Historical Annual Corporate Bond Supply

(in Billions)



Source: Dealogic, Thompson Financial
Note: Figures include Supra/Sov issuance – 2013 Data is thru December 16

SMRS

Fixed Income Holdings
Portfolio Characteristics

Benchmark: Barclays Aggregate

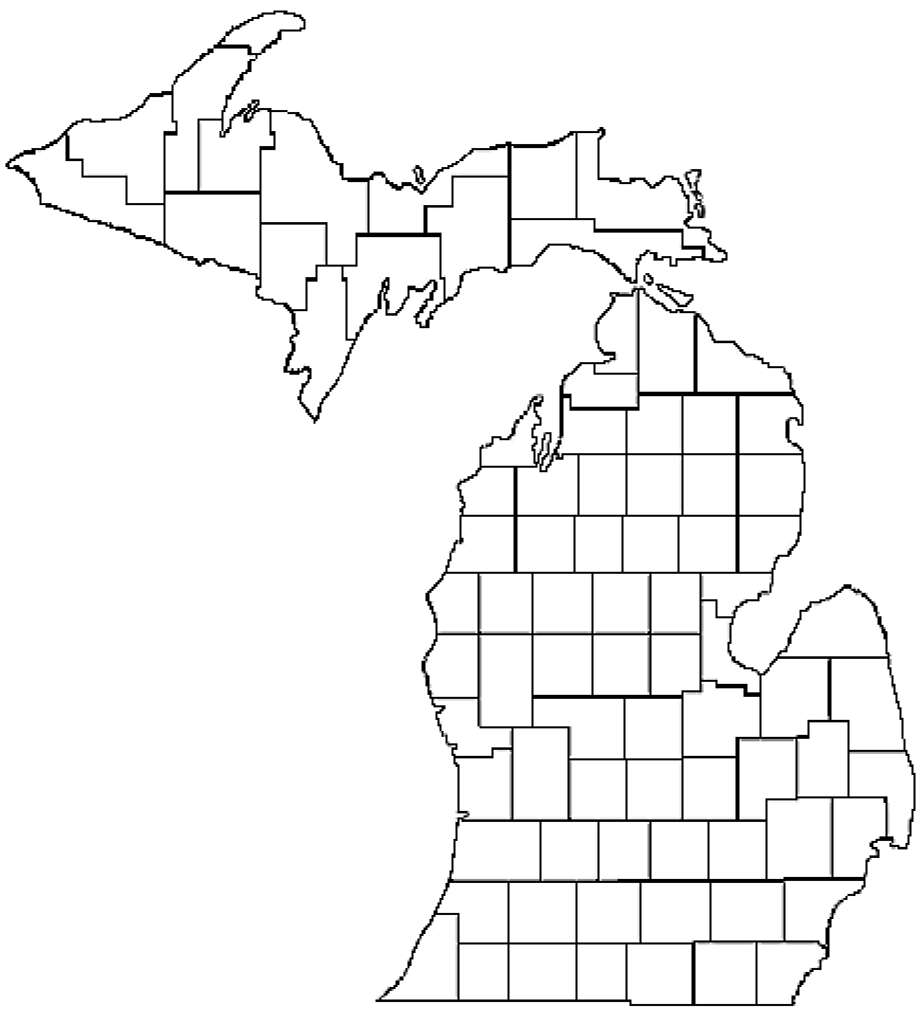
	12/31/13			9/30/13		
Characteristic	*Portfolio*	*Benchmark*	*Relative (%)*	*Portfolio*	*Benchmark*	*Relative (%)*
Maturity (Yrs)	5.2	7.0	74.3	5.1	6.9	73.9
Maturity (Yrs) w/Cash Equiv.	5.1	7.0	72.9	4.9	6.9	71.0
Duration (Yrs)	4.3	5.3	81.1	4.2	5.2	80.8
Duration (Yrs) w/Cash Equiv.	4.3	5.3	81.1	4.0	5.2	76.9
Coupon (%)	4.1	3.4	120.6	4.2	3.5	120.0
Yield to Maturity (%)	2.3	2.1	109.5	2.3	2.3	100.0
Moody's Quality	A-1	AA-2		A-2	AA-2	
S&P Quality	A+	AA-		A+	AA-	

STATE OF MICHIGAN
RETIREMENT SYSTEMS

ALTERNATIVE INVESTMENTS REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 6, 2014



Peter A. Woodford, Administrator
Alternative Investments Division

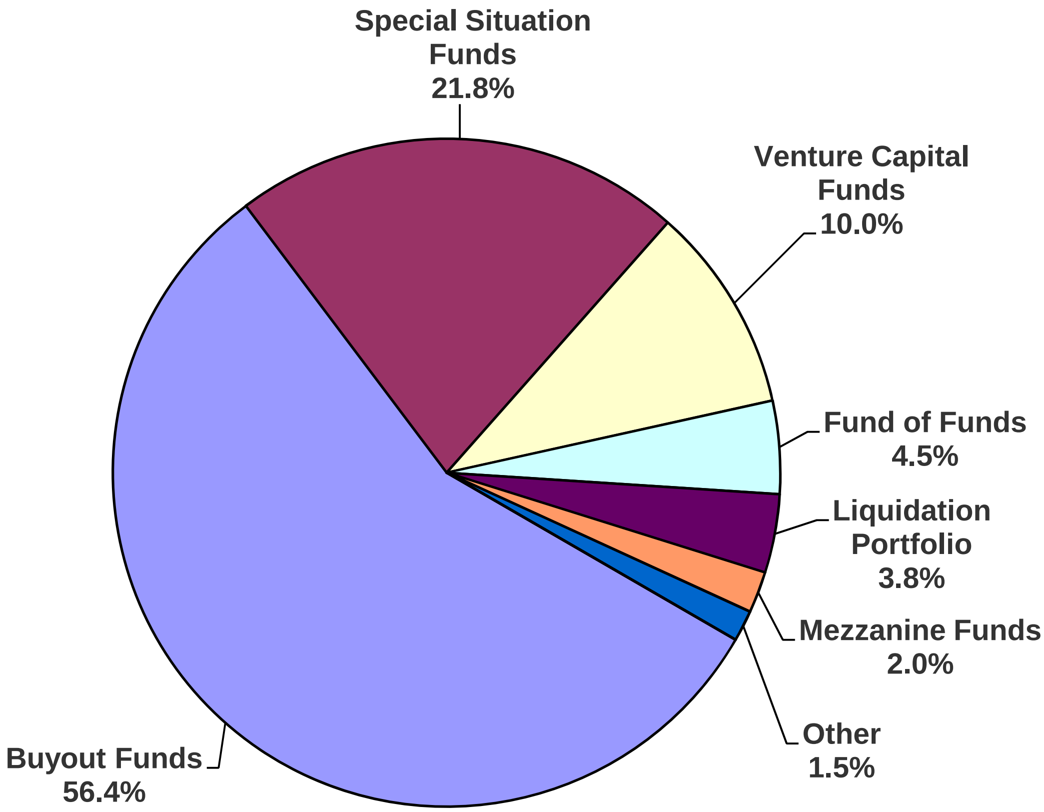
EXECUTIVE SUMMARY

MPSERS Plan	**1-Year**	**3-Years**	**5-Years**	**7-Years**	**10-Years**
Annualized Returns	16.8%	15.7%	12.5%	10.9%	14.3%
Benchmark Return	22.4%	19.2%	21.0%	9.5%	10.7%
Peer Median Return	14.6%	12.2%	8.9%	8.7%	11.7%
Rank vs. Peers	35	7	9	14	22

General Overview

- Private equity enjoyed a banner year in 2013, characterized by strong performance, robust M&A and IPO exit markets, and record-high distributions for limited partners. During the year, many private equity firms took advantage of receptive public equity markets in the U.S. and Europe to take their portfolio companies public.
- Global buyout investment activity totaled $348 billion in 2013, a 14.2% increase over the prior year and the highest level since 2007. The increase was driven primarily by strength in the U.S. market, which has been bolstered by highly accommodative credit markets, an improving macro-economic outlook, strong exit markets, and record fund raising activity.
- Private equity firms worldwide raised $295 billion in 2013, a 23% increase from the prior year and the largest amount since 2008. Buyout funds raised $175 billion, an increase of 45% from the prior year. Despite the healthy overall level of fundraising activity in the industry, fundraising remains bifurcated between a minority of managers that raise funds with relative ease and everyone else. The fundraising market has also become more concentrated over the past few years.
- The average purchase price to EBITDA multiple in the U.S. (across all size ranges) has held steady for the past three years at around 8.8x, down from 9.7x in 2007. In Europe, the average purchase price to EBITDA multiple for transactions of €500 million or greater was 8.7x in 2013, the lowest since 2004.
- Several new regulatory reforms that impact private equity took effect or were implemented in 2013; the Volker Rule, the EU Alternative Investment Fund Managers Directive ("EU AIFMD") and the "JOBS Act". The impact of these reforms on private equity appears to be relatively benign. However, the Volker Rule will restrict the ability of banks to sponsor and/or invest in private equity funds. Several banks have spun out or sold their private equity divisions and this trend will continue to provide ample opportunity to secondary buyers, including the SMRS.
- Looking ahead, overall market sentiment is positive, but significant challenges remain. Capital to fund transactions, both debt and equity, is plentiful and competing alternatives for sellers are robust (both financial and non-financial buyers). In light of accommodative credit markets and an improving macro-economy, current market conditions favor asset sellers rather than buyers. Risks include an uneven global economic recovery, a highly competitive marketplace and potential tightening of credit market conditions due to Fed tapering.
- InvestMichigan Update: the SMRS has committed $510 million to the program ($180 million to MGCP I, $150 million to GCMOF, and $180 million to MGCP II). In total, the program has invested approximately $251 million across 45 deals through 12/31/2013.
    - MGCP I - $146 million invested across 30 deals, net IRR 13.3%, MOIC 1.3x
    - GCMOF - $84 million invested across 10 deals, net IRR 11.2%, MOIC 1.3x
    - MGCP II - $21 million invested across 5 deals (fund in J-curve)
- During the quarter, one new commitment was made to Cerberus Capital for $100 million. This commitment will focus on European non-performing loans.

SMRS
Alternative Investments
12/31/13



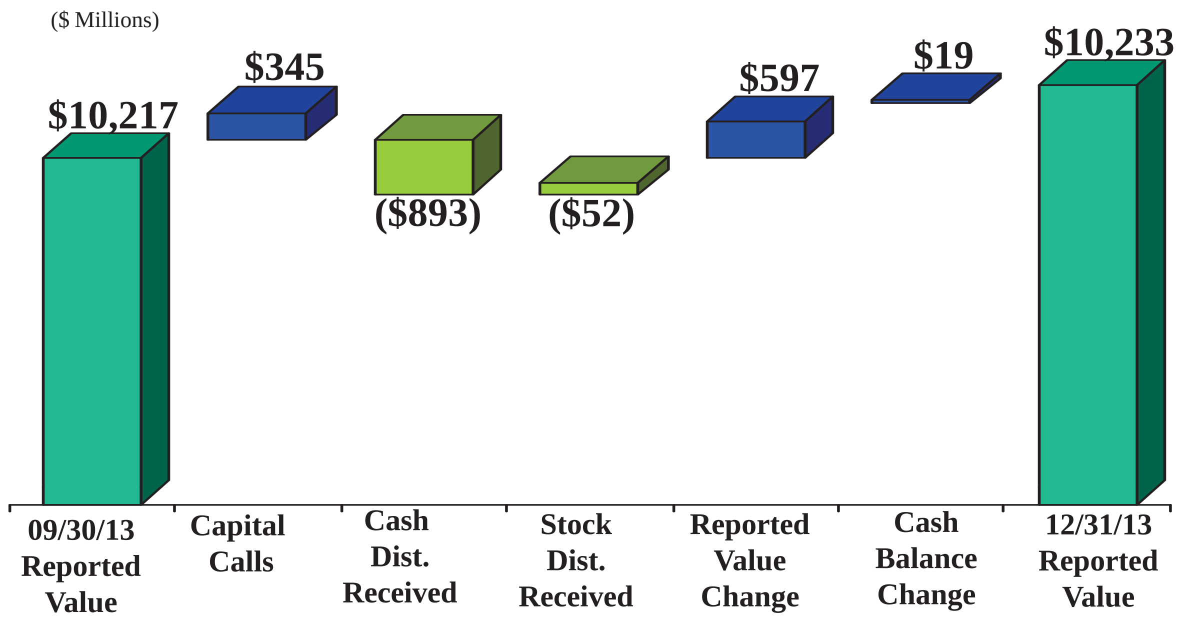
Market Value in Millions

	12/31/13		9/30/13	
Buyout Funds	$5,772	56.4%	$5,864	57.4%
Special Situation Funds	2,235	21.8%	2,098	20.5%
Venture Capital Funds	1,023	10.0%	1,022	10.0%
Fund of Funds	457	4.5%	483	4.7%
Liquidation Portfolio	394	3.8%	389	3.8%
Mezzanine Funds	200	2.0%	214	2.1%
Other	152	1.5%	147	1.5%
Total	**$10,233**	**100.0%**	**$10,217**	**100.0%**

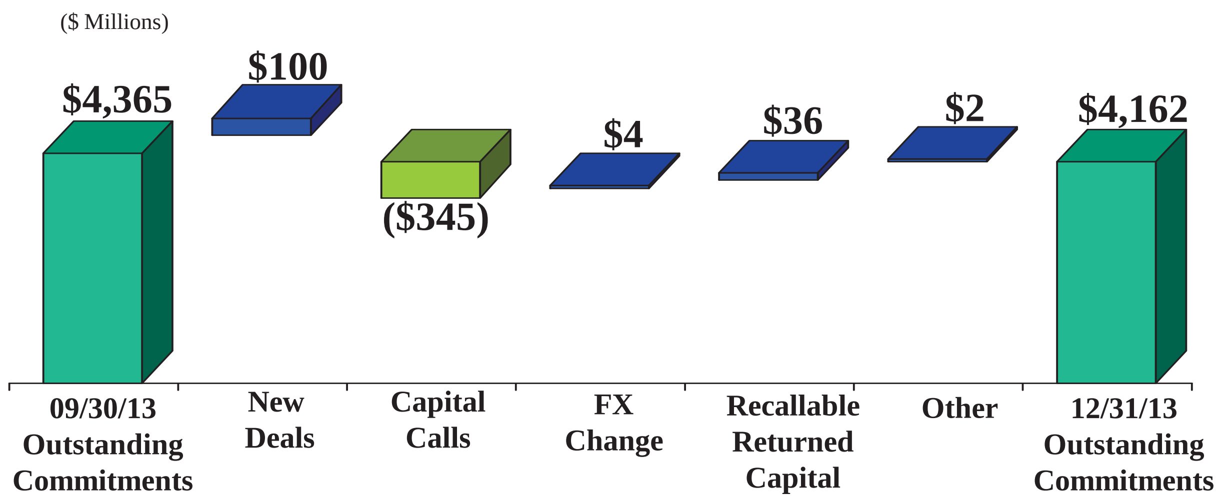
Michigan Department of Treasury, Bureau of Investments

SMRS
Alternative Investments
12/31/13

Invested Commitments

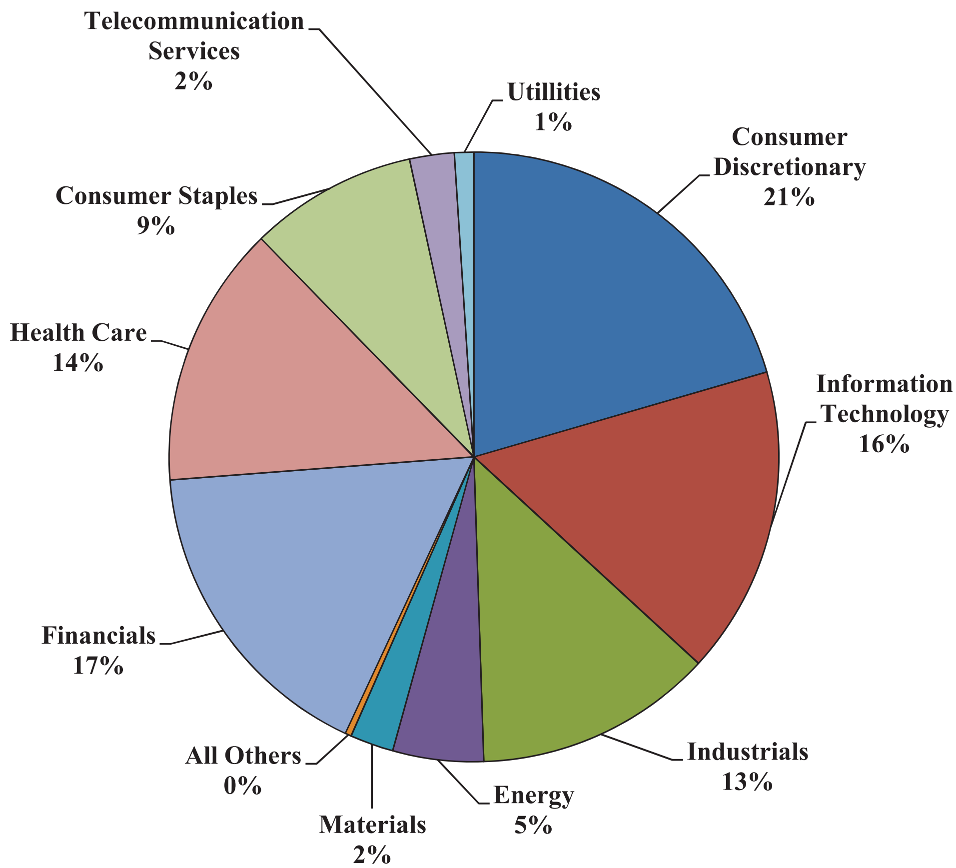


Outstanding Commitments



SMRS
Alternative Investments
12/31/13

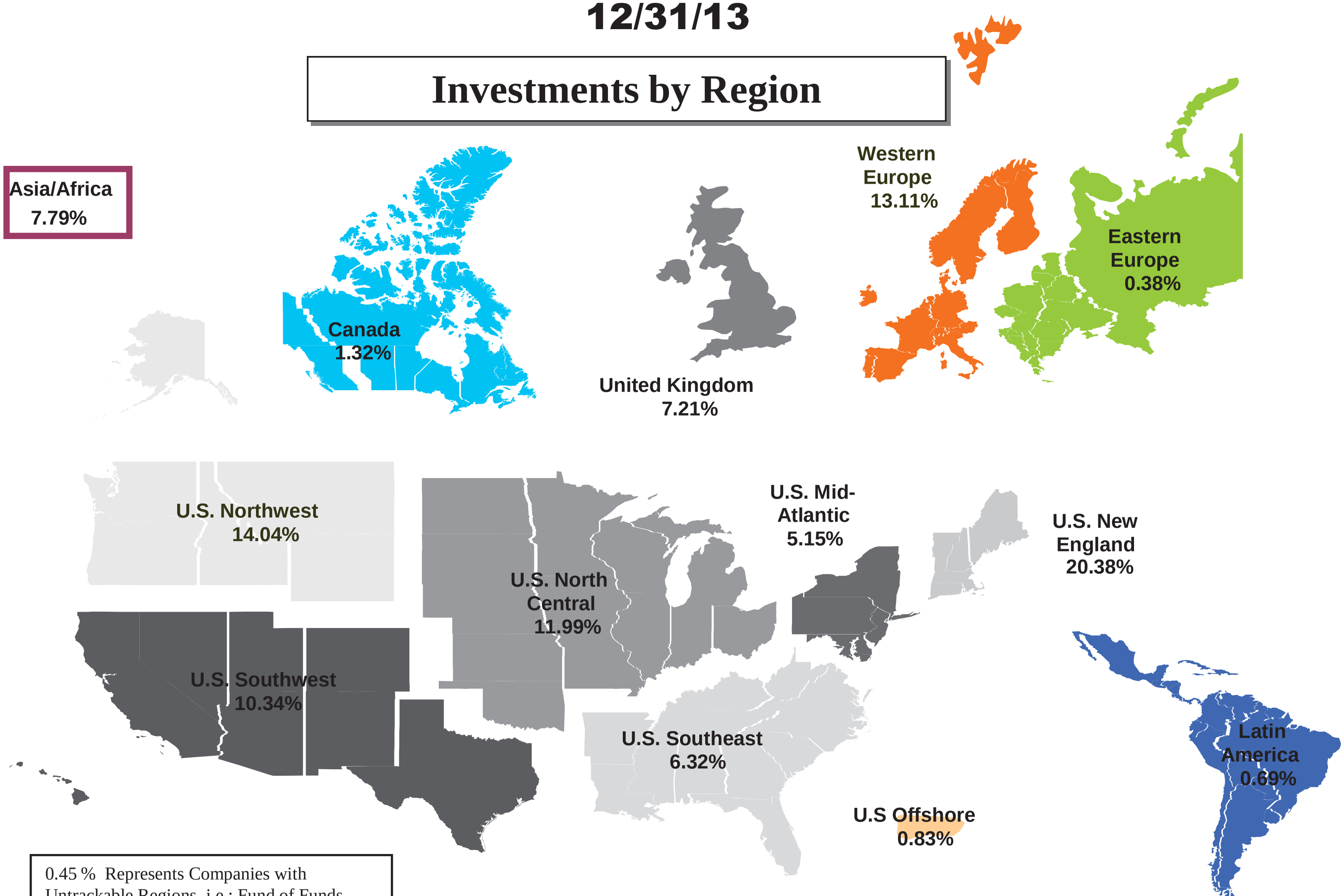
Investments by Industry



These numbers are based on the most recent available General Partner Data; primarily 09/30/13 and are subject to change.

SMRS
Alternative Investments
12/31/13

Investments by Region



0.45 % Represents Companies with Untrackable Regions, i.e.; Fund of Funds

Geographic Report: North America 70%, Europe 21%, Asia 5%, Other 4%

SMRS
Alternative Investments
12/31/13

Portfolio by Asset Strategy

($ Millions)

Investment Fund Types	Reported Value	Outstanding Commitment	Total	Percent
Large Buyout	$ 3,532	$ 1,445	$ 4,977	35%
Small Middle Market Buyout	2,240	1,029	3,269	23%
Buyout Total	**$ 5,772**	**$ 2,474**	**$ 8,246**	**58%**
Early Stage Venture Capital	$ 452	$ 74	$ 526	4%
Late-Stage Venture Capital	163	53	216	1%
Multi-Stage Venture Capital	408	50	458	3%
Venture Capital Total	**$ 1,023**	**$ 177**	**$ 1,200**	**8%**
Co-Investment Funds	$ 417	$ 6	$ 423	3%
Global Opportunity Funds	579	26	605	4%
Secondary Funds	253	215	468	3%
Distressed	322	154	476	3%
Special Situations	529	467	996	7%
Natural Resources	-	-	-	0%
Special Situations Total	**$ 2,100**	**$ 868**	**$ 2,968**	**20%**
Fund of Funds	**$ 457**	**$ 176**	**$ 633**	**4%**
Hedge Funds – Equity	**$ 1**	**$ -**	**$ 1**	**0%**
Liquidation Portfolio	**$ 394**	**$ 125**	**$ 519**	**4%**
Active Small Cap - Stock Dist.	**$ 15**	**$ -**	**$ 15**	**0%**
Total Alternative Equities	**$ 9,762**	**$ 3,820**	**$ 13,582**	**94%**
Mezzanine Debt	**$ 200**	**$ 194**	**$ 394**	**3%**
Special Situations	**135**	**148**	**283**	**2%**
Hedge Funds – Fixed Income	**6**	**-**	**6**	**0%**
Cash	**130**	**-**	**130**	**1%**
Total Alternative Fixed Income	**$ 471**	**$ 342**	**$ 813**	**6%**
Total Alternative Investments	**$ 10,233**	**$ 4,162**	**$ 14,395**	**100%**

SMRS
Alternative Investments
12/31/13

Top 10 Sponsors

($ Millions)

Asset Type	Reported Value	Outstanding Commitment	Total
Credit Suisse Group	$ 780	$ 260	$ 1,040
Kohlberg Kravis & Roberts	729	222	951
Carlyle Group	499	264	763
Blackstone Capital Partners	410	256	666
Warburg Pincus Capital	480	145	625
Glencoe Capital	572	51	623
TPG Group	456	100	556
Advent International	323	163	486
Green Equity Investors	328	131	459
Apax Partners, Inc.	319	84	403
Top 10 Total Value	**$ 4,896**	**$ 1,676**	**$ 6,572**

Cash Weighted Rates of Return*

(Net IRR)	Current Qtr.	1 Year	3 Year	5 Year	10 Year
Buyout	6.12%	16.49%	15.13%	10.53%	17.91%
Venture Capital	5.98%	13.21%	16.47%	9.97%	9.92%
Special Situations	5.93%	14.63%	14.65%	9.56%	10.78%
Fund of Funds	2.23%	6.22%	10.94%	5.54%	10.22%
Hedge Funds	-0.04%	4.61%	1.17%	6.96%	4.42%
Mezzanine Debt	3.49%	15.33%	13.83%	16.04%	11.39%

*These numbers are based on most recent available General Partner reported data; primarily 09/30/13 and are subject to change.

SMRS
Alternative Investments
12/31/13

Portfolio by Vintage Year

($ Millions)

Asset Vintage	Reported Value	Outstanding Commitment	Total Exposure
1986-93	$ 1	$ 1	$ 2
1994	1	-	1
1995	1	-	1
1996	-	2	2
1997	7	3	10
1998	71	18	89
1999	106	28	134
2000	186	41	227
2001	314	47	361
2002	616	21	637
2003	175	19	194
2004	465	59	524
2005	816	106	922
2006*	2,851	521	3,372
2007	1,714	224	1,938
2008	1,641	625	2,266
2009	168	49	217
2010	171	129	300
2011	250	365	615
2012	412	1,318	1,730
2013	122	586	708
Cash	130	-	130
Act. Small Cap - Stock Dist	15	-	15
Total	**$ 10,233**	**$ 4,162**	**$ 14,395**

** Liquidation portfolio is 2006 vintage*

FX Exposure

	Reported Value	Oustanding Commitment	Total Exposure	Total (USD)
Euro ($1.37794999/ €)	€ 800	€ 184	€ 984	1,356
Pound ($1.65624998/ £)	£7	£1	£8	13
Yen ($0.00951429/ ¥)	¥0	¥0	¥0	0

SMRS
Alternative Investments
12/31/13

Net Market Values by Ownership Entity

	ARV	Unfunded Commitment
Accel Europe I, L.P.	$ 15,564,896	$ 1
Accel Europe II	21,111,109	3,300,000
Accel Growth Fund II, L.P.	7,151,107	4,380,000
Accel IX, L.P.	12,349,244	3,000,000
Accel VI, L.P.	3,365,733	-
Accel VII, L.P.	2,502,213	5,000,000
Accel VIII, L.P.	3,348,278	4,782,499
Accel VI-S	5,311,515	652,611
Accel X, L.P.	16,126,445	2,050,000
Accel XI, L.P.	4,544,877	3,520,000
Advent Global Private Equity III	407,487	20
Advent Global Private Equity IV	1,808,593	-
Advent Global Private Equity V	37,407,852	10,500,000
Advent International GPE VI-A LP	214,271,213	10,199,980
Advent International GPE VII-B, L.P.	68,878,636	142,200,000
Affinity Asia Pacific Fund II, L.P.	639,272	5,288,237
Affinity Asia Pacific Fund III, L.P.	219,590,274	22,759,568
Affinity Asia Pacific Fund IV, L.P.	5,267,711	113,437,292
APA Excelsior IV, L.P.	438,782	-
APA Excelsior V	174,856	545,625
Apax Europe Fund VI	89,197,295	2,914,086
Apax Europe V, L.P.	5,360,687	-
Apax Europe VII, L.P.	160,847,507	2,440,724
Apax Excelsior VI	3,785,319	1,614,434
Apax US VII	34,172,121	417,509
Apax VIII - A, L.P.	25,360,496	75,581,010
Apollo Investment Fund VIII, L.P.	1,550,981	98,449,019
Arboretum Ventures II	4,168,842	790,096
Arboretum Ventures III, L.P.	7,640,718	6,195,000
Ares Corporate Opportunities Fund II	40,400,434	11,922,032
Ares Corporate Opportunities Fund III, LP	81,999,217	13,433,503
Ares Corporate Opportunities Fund IV, L.P.	20,564,628	78,344,098
ARGUS Capital Partners	133,408	2,813,672
Austin Ventures VIII, L.P.	4,447,785	-
Avenue International Ltd	6,338,588	-
Avenue Special Situations Fund IV, L.P.	1,593,909	-
Avenue Special Situations Fund V, L.P.	3,332,794	-
Avenue Special Situations Fund VI (B), L.P.	54,843,426	-
AXA ASF Miller Co-Investment	66,256,410	19,987,962
Axiom Asia Private Capital Fund III, L.P.	4,386,656	30,099,263
Banc Fund VI	11,153,890	-
Banc Fund VII	34,101,521	-
Banc Fund VIII	22,955,474	1,400,000
Battery Ventures V, L.P.	68,205	-
Battery Ventures VI, L.P.	2,767,047	-
Battery Ventures VII, L.P.	10,638,500	377,778
Battery Ventures VIII	25,698,596	701,800

Net Market Values by Ownership Entity

	ARV	Unfunded Commitment
BC European Capital IX	48,233,051	56,887,560
BC European Capital VII, L.P.	2,423,656	-
BC European Capital VIII, L.P.	115,880,689	14,289,341
Berkshire Fund IV, L.P.	230,716	1,898,016
Berkshire Fund V, L.P.	1,109,186	1,900,578
Berkshire Fund VI, L.P.	45,542,527	5,212,077
Berkshire Fund VII, L.P.	109,159,186	10,734,751
Berkshire Fund VIII, L.P.	32,039,374	88,985,464
Blackstone Capital Partners IV	77,887,994	5,460,853
Blackstone Capital Partners V	223,838,512	23,993,040
Blackstone Capital Partners VI, LP	85,074,529	226,344,678
Blackstone Capital Partners V-S	23,040,502	712,476
Bridgepoint Europe IV	58,153,955	14,394,013
Brockway Moran & Partners Fund III	9,410,476	4,502,530
Carlyle Europe Partners	199,099	467,662
Carlyle Europe Partners II	25,229,094	5,041,965
Carlyle Europe Partners III	111,806,063	15,871,282
Carlyle Partners IV, L.P.	109,087,396	15,816,728
Carlyle Partners V L.P.	251,967,607	52,898,796
Carlyle Partners VI, L.P.	511,771	173,692,894
Castle Harlan Partners IV	12,428,559	5,647,298
Castle Harlan Partners V	22,580,281	48,882,345
CCMP Capital Investors II	144,314,336	11,281,485
CCMP Capital Investors III, L.P.	117,784	49,542,035
** **Cerberus SMRS Partners, L.P.**	**16,750,000**	**83,250,000**
Clarus Life Sciences II, L.P.	36,220,831	8,690,000
Clarus Lifesciences I	17,771,854	4,079,460
Clearstone Venture Partners II (idealab)	4,905,000	-
Clearstone Venture Partners III	24,741,930	1,612,000
CM Liquidity Fund, L.P.	-	25,000,000
CMEA Ventures VI	10,657,158	1,575,000
CMEA Ventures VII, L.P.	18,350,651	5,600,000
Coller International Partners III, L.P.	828,059	-
Coller International Partners IV	21,943,704	9,000,000
Coller International Partners V, L.P.	104,541,289	43,600,000
Coller International Partners VI, L.P.	43,395,728	64,566,482
Crescent Mezzanine Partners VI, L.P.	17,261,298	57,729,267
CSFB Fund Co-Investment Program	2,368	-
CSG / DLJ Fund Program II	86,184,147	18,889,362
CSG Fund Investment Program III - 2004	103,231,125	8,046,652
CSG Fund Investment Program III - 2006	98,379,052	28,877,377
CSG Fund Investment Program V, L.P.	69,816,199	46,050,032
CSG Fund Investment Program VI, L.P.	2,882,766	31,713,419
CSG Seasoned Primary Fund Investment Program - Partnershi	94,376,535	107,760,297
CSG Seasoned Primary Fund Investment Program - Seed Serie	299,031,268	17,147,088
DLJ Fund Investment Program I	25,880,272	1,641,173
DLJ Investment Partners II	1,932,601	0
DLJ Investment Partners III	25,434,994	73,457,618
DLJ Merchant Banking Partners III, L.P.	18,811,680	2,840,873
DLJ Merchant Banking Ptrs II, L.P.	1,593,879	1,856,746

Net Market Values by Ownership Entity

	ARV	Unfunded Commitment
Doughty Hanson & Co IV	75,297,012	3,307,984
Doughty Hanson & Co V	100,044,786	40,459,591
Doughty Hanson Co. III L.P.	27,746,969	3,102,822
Dover Street VIII, L.P.	16,085,495	53,325,000
EDF Ventures III	4,224,746	-
Essex Woodlands Health IV	2,735,510	-
Essex Woodlands Health V	8,677,901	-
Essex Woodlands Health Ventures Fund VIII	57,285,132	16,500,000
Essex Woodlands Health VI	13,542,217	1,062,500
Essex Woodlands Health VII	52,701,156	1,000,000
FirstMark Capital Fund II (fka: Pequot PEFII)	1,637,734	-
FirstMark Capital III (fka: Pequot PEFIII)	4,445,068	272,000
FirstMark Capital IV (fka: Pequot PEFIV)	50,287,895	3,961,386
Flagship Ventures Fund 2004	19,218,235	-
Flagship Ventures Fund 2007, L.P.	58,813,104	525,000
Flagship Ventures Fund IV, L.P.	13,040,237	7,425,000
Fox Paine Capital Fund II, LP	22,678,477	16,183,351
Frontenac VIII	3,308,077	1,800,000
Glencoe Capital Michigan Opportunities Fund, LP	138,303,450	38,549,013
Glencoe Capital Partners II	6,394,780	355,381
Glencoe Capital Partners III	9,714,492	6,120,760
Glencoe Stockwell Fund	278,057,899	-
Glencoe Stockwell Fund II, L.P.	139,102,115	6,447,777
Globespan Capital Partners IV (Jafco)	17,464,095	475,000
Globespan Capital Partners V, LP	41,946,829	6,937,500
Green Equity Investors III	1	9,112,215
Green Equity Investors IV	70,436,286	1,136,036
Green Equity Investors V	236,748,203	18,649,339
Green Equity Investors VI, L.P.	21,265,384	102,028,645
Grotech Partners V	249,164	-
Grotech Partners VI	11,037,383	-
GSO Capital Opportunities Fund II, L.P.	7,753,551	32,879,402
H.I.G. Bayside Debt & LBO Fund II, LP	9,420,290	7,866,667
H.I.G. Brightpoint Capital Partners II	592,582	-
H.I.G. Capital Partners IV, L.P.	18,830,265	1,707,500
H.I.G. Europe Capital Partners L.P.	27,188,637	4,466,071
HarbourVest Int'l III Direct	5,010,722	1,000,000
HarbourVest Int'l III Partnership	5,610,719	1,200,000
HarbourVest IV Partnership Fund LP	38,246	600,000
HarbourVest Partners V - Direct Fund LP	237,812	-
HarbourVest V Partnership	738,403	300,000
HarbourVest VI - Direct Fund LP	8,062,689	750,000
HarbourVest VI Partnership	27,969,307	2,000,000
Healthcare Venture V	1,179,472	-
Healthcare Venture VI	1,062,673	-
Healthcare Venture VII	4,986,192	262,500
Healthcare Venture VIII	24,366,407	5,300,000
InterWest Partners IX	12,532,995	1,600,000
JAFCO America Technology Fund III	758,696	-
JP Morgan Chase 1998 Pool Participation Fund	5,463,175	1,604,605

Net Market Values by Ownership Entity

	ARV	Unfunded Commitment
JP Morgan Chase 1999/2000 Pool Participation Fund	3,628,893	4,017,243
JP Morgan Partners Global Investors	38,439,390	3,113,676
JPMorgan Global Investors Selldown	31,568,711	5,538,204
Kelso Investment Associates VII	23,811,827	4,970,176
Kelso Investment Associates VIII	118,204,810	26,926,361
Khosla Ventures III, L.P.	60,106,145	6,750,000
Khosla Ventures IV, L.P.	22,937,939	26,750,000
KKR 2006 Fund, L.P.	218,986,680	19,398,357
KKR Asia	108,439,463	2,903,287
KKR Asian Fund II, L.P.	1,801,927	48,198,073
KKR China Growth Fund	21,568,071	32,261,197
KKR E2 Investors (Annex) Fund	18,475,255	15,681,230
KKR European Fund II	82,390,899	-
KKR European Fund III	104,680,530	27,067,279
KKR European Fund LP 1	4,022,089	307,605
KKR Millennium Fund	120,212,128	-
KKR North America Fund XI, L.P.	48,269,545	76,343,424
Lightspeed Venture Partners VI	9,347,368	3,299,089
Lightspeed Venture Partners VII	38,714,066	860,436
Lion Capital Fund I (HME II)	2,126,897	14,021,764
Lion Capital Fund II	42,573,016	6,088,489
Lion Capital Fund III, L.P.	44,912,478	34,164,970
Long Point Capital Fund	15,079	41,415
Long Point Capital Fund II	14,622,959	1,004,937
Matlin Patterson Global Opportunities Partners	36,896	-
MatlinPatterson Global Opportunities Partners II	2,794,625	92,719
MatlinPatterson Global Opportunities Partners III	64,308,986	16,021,439
Menlo Ventures IX, L.P.	12,451,987	-
Menlo Ventures VIII	2,314,692	-
Menlo Ventures X, L.P.	24,504,930	4,000,000
Menlo Ventures XI, L.P.	13,271,535	9,000,000
MeriTech Capital Partners II, L.P.	4,994,452	1,850,000
Meritech Capital Partners III, L.P.	53,889,516	600,000
Meritech Capital Partners IV, L.P.	13,991,618	6,500,000
MeriTech Capital Partners, L.P.	4,448	6,187,500
Michigan Growth Capital Partners II, L.P.	34,252,386	143,659,698
Michigan Growth Capital Partners, LP	157,222,516	30,836,580
MPM BioVentures III	7,171,631	-
New Leaf Ventures II, L.P.	25,938,525	4,025,000
Nordic Capital VI, L.P.	45,333,964	-
Nordic Capital VII	68,487,064	15,504,561
Nordic Capital VIII, L.P. (Alpha)	6,256,717	48,254,164
North Castle Partners III	3,578,059	416,294
NV Partners II	60,058	43,053
Oak Investment Partners X, L.P.	14,114,252	-
Oak Investments Partners IX, L.P.	2,831,789	-
OCM Opportunities Fund IX, L.P.	26,394,896	48,750,000
OCM Opportunities Fund VII (B), L.P.	11,485,012	25,177,276
OCM Opportunities Fund VII, L.P.	12,235,760	-
OCM Opportunities Fund VIII B, L.P.	40,317,402	1,875,000
OCM Opportunities Fund VIII, L.P.	31,673,744	-

Net Market Values by Ownership Entity

	ARV	Unfunded Commitment
OCM Principal Opportunities Fund IV	28,726,350	5,002,377
One Liberty Fund III	1,044,062	-
One Liberty Fund IV	1,888,082	-
One Liberty Ventures 2000	14,371,544	-
Paine & Partners Capital Fund III, LP	121,776,763	14,558,295
Parthenon Investors II	9,569,431	3,186,779
Parthenon Investors III	60,563,305	6,504,836
Parthenon Investors IV, L.P.	10,162,040	28,881,754
Peninsula Capital Fund III	694,877	1,400,000
Peninsula Capital Fund IV	16,965,117	2,201,026
Permira Europe III LP	5,859,328	295,570
Permira Europe IV	111,628,227	8,818,880
Phoenix Equity Partners IV	11,499,037	1,365,740
Primus Capital Fund IV	5,262	500,000
Primus Capital Fund V	8,984,340	712,500
Providence Equity Partners V, L.P.	68,875,925	13,283,770
Providence Equity Partners VI, L.P.	251,790,540	32,659,265
Questor Partners Fund II	14,836,425	5,794,612
RFE Investment Partners VII, LP	26,147,203	173,332
RFE Investment Partners VIII, L.P.	6,667,951	21,617,005
RFE IV Venture	439,449	-
Riverside Capital Appreciation Fund VI, LP	6,204,100	68,795,900
Riverside Micro Cap Fund I, LP	42,520,736	4,586,079
Riverside Micro-Cap Fund II, L.P.	34,748,997	3,830,788
Silver Lake Partners II	13,739,186	3,531,586
Silver Lake Partners III	83,899,043	26,081,850
Silver Lake Partners IV, L.P.	2,377,408	47,622,592
Sprout Capital IX	2,206,099	-
Sprout Capital VIII, L.P.	128,616	-
TCW Shared Op Fund III	1,391,555	-
TCW Shared Op Fund IV	10,359,575	4,524,779
TCW Shared Op Fund V	23,609,274	11,653,868
TCW/Crescent Mezzanine Partners III, L.P.	5,954,042	4,552,763
TCW/Crescent Mezzanine Partners IV, L.P.	36,325,173	6,316,434
TCW/Crescent Mezzanine Partners V, LLC	87,327,510	15,600,616
The Huron Fund III, L.P.	29,177,858	8,072,500
The Huron Fund IV, L.P.	1,937,168	32,830,000
The Shansby Group 4	37,896,981	520,829
The Shansby Group 5 (TSG5)	115,747,435	13,154,516
TPG IV (Texas Pacific Group IV)	23,661,024	340,541
TPG Partners III, LP	25,292,037	2,087,002
TPG Partners VI, L.P.	200,784,909	61,910,456
TPG V (Texas Pacific Group V)	206,072,418	35,480,712
Trilantic Capital Partners V (North America) Fund A, L.P.	7,400,965	40,902,799
TSG6, L.P.	44,283,509	84,725,075
Tullis - Dickerson Capital II	6,086,070	-
Tullis - Dickerson Capital III	9,487,937	-
Unitas Asia Opportunity Fund	419,505	-
Unitas Asia Opportunity Fund II	45,922,757	26,604,144
Unitas Asia Opportunity Fund III	43,463,826	46,554,631
Warburg Pincus Equity Partners, L.P.	9,371,539	-

Net Market Values by Ownership Entity

	ARV	Unfunded Commitment
Warburg Pincus International Partners	25,219,647	-
Warburg Pincus Private Equity IX	89,927,658	-
Warburg Pincus Private Equity VIII, L.P	40,928,858	-
Warburg Pincus Private Equity X, L.P.	256,581,561	-
Warburg Pincus Private Equity XI, L.P.	58,344,463	145,000,000
Warburg Pincus Ventures Int'l	6,440	-
Weiss, Peck & Greer V (adm: Opus Capital)	2,700,808	386,240
WestAm COREplus Private Equity QP	10,945,431	2,110,761
WestAm Special Private Equity Partners	7,967,343	2,317,427
Wind Point Partners III	2,747,352	-
Wind Point Partners IV	132,955	1,541,518
Wind Point Partners V, L.P.	11,551,416	455,013
Wind Point Partners VI	48,956,918	7,110,116
Wind Point Partners VII	57,995,386	26,713,117
Total Alternative Investments *	**$ 10,087,580,317**	**$ 4,162,182,463**
Cash	104,618,860	-
Active Small Cap Cash	25,785,894	-
Active Small Cap	15,056,646	-
Grand Total	**$ 10,233,041,716**	**$ 4,162,182,463**

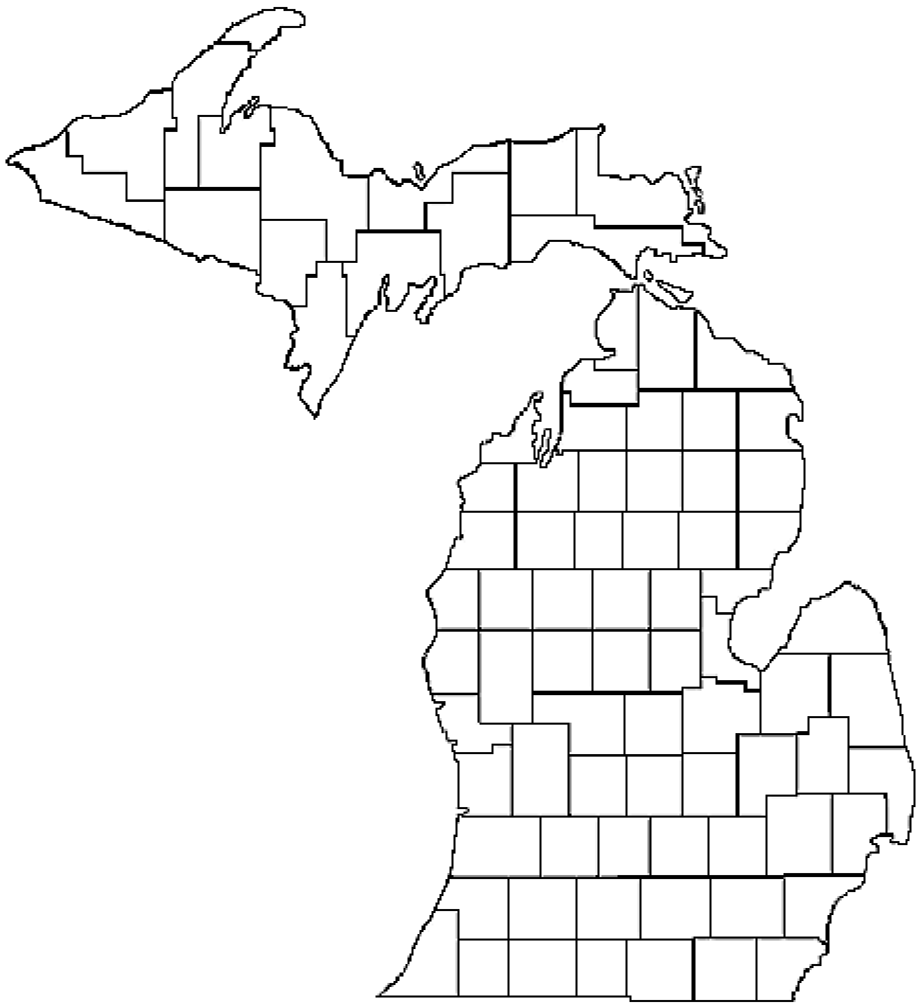
* Total Alternative Investment amounts do not include Cash and Active Small Cap
** New commitment made during quarter reported

STATE OF MICHIGAN
RETIREMENT SYSTEMS

DOMESTIC EQUITY REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 6, 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	34.1%	16.0%	18.6%	6.5%	7.6%
S&P 1500	32.8%	16.2%	18.4%	6.5%	7.8%
State Street Peer Group	32.8%	15.8%	18.7%	6.5%	7.6%
Rank vs. Peers	30	41	53	49	51

Total Domestic Equity, Net	1-Year	3 Years	5 Years
Annualized Returns	33.9%	15.7%	18.4%
S&P 1500	32.8%	16.2%	18.4%
Lipper Multi Core	32.3%	14.1%	17.7%

Total Active Equity, Net	1-Year	3 Years	5 Years
Annualized Returns	34.7%	15.6%	18.5%
S&P 1500	32.8%	16.2%	18.4%
Lipper Multi Core	32.3%	14.1%	17.7%

- Total Domestic Equities delivered an 18.6% annualized gross return during the past five years, outperforming the S&P 1500 Composite Index by 20 basis points (bps), but underperforming its State Street Peer Group by 10 bps. Active Equity returned 18.5% net of fees, outperforming the S&P 1500 by 10 bps, as well as its Lipper peer group benchmark by 80 bps.

- Significant contributors to Domestic Equity relative returns, net of fees, during the past five years in order of importance were as follows:

  - Passive equity outperformed the S&P 900 Large/Mid Cap Index by roughly 50 bps, as a result of fees earned through securities lending, as well as opportunistic trading.

  - The internal active fund composite returned 18.1%, outperforming the S&P 500 Large Cap Index by 20 bps and outperforming its Lipper peer group by ~110 bps. Five internal funds out of seven beat their benchmarks during this time period, including the Absolute Return Income Fund (~420 bps annualized outperformance), All Cap GARP (~400 bps annualized outperformance since inception in May of 2012), Large Cap Core (~160 bps annualized outperformance) and Large Cap Growth (80 bps annualized outperformance).

  - The external manager composite returned 18.6%, outperforming the S&P 1500 All Cap Index by 20 bps as well as its Lipper peer group by 90 bps. Standouts include LSV Large Cap Value (200 bps annualized outperformance since inception in 2010) and Fisher Investments (90 bps annualized outperformance).

  - The division equitized its cash in the form of financial sector exposure during the past few years, which lifted the overall active equities return above the average of its internal and external fund composites.

- During the past year, Active Equity outperformed the S&P 1500 Composite Index and its Lipper peer group average by 190 bps and 240 bps respectively.

    - Outperformance was driven by internal management (220 bps) and the equitization of cash via financial sector exposure.

    - Outperformers include the State of Michigan's (SMRS) Concentrated Equity Fund (1200 bps), LSV Large Cap Value (820 bps), LA Capital Mid Cap Growth (700 bps), SMRS Large Cap Core (480 bps), Seizert Capital All Cap (470 bp), SMRS Absolute Return Income Fund (310 bps), Champlain Mid Cap (290 bps) and SMRS Large Cap Growth (230 bps).

Strategy Update

- Domestic equity outflows totaled $16 million and $820 million during the past quarter and the past 12 months respectively.

- SMRS hired two new investment managers into its program, Michigan-based Clarkston Capital Partners and GW Capital, at $200 million per mandate. Clarkston operates in the small-cap core space, while GW Capital has an all-cap mandate. Both managers are fairly concentrated in strategy and value orientated.

- SMRS also allocated additional funds to the following internally managed strategies: All Cap GARP ($100 million), Absolute Return Income Fund ($100 million), Concentrated Equity ($40 million) and Concentrated All-Cap Growth ($20 million).

- SMRS terminated three manager relationships – Epoch Large Cap Value, JP Morgan Large Cap Growth and Edgewood Large Cap Growth. Managers were let go in order to allow SMRS to further concentrate its assets into high conviction managers at a lower cost. The SMRS external manager program is now down to 12 investment strategies from 24 in early 2012.

- SMRS continues to reduce fees wherever possible, typically in conjunction with additional or new capital allocations. The overall external manager portfolio fee is currently in the range of 40 bps, down from 60 bps a few years ago, saving the division roughly $8 million per year in fees. A division goal remains to get the SMRS' weighted average external manager fee down to 30 bps or less over the next few years.

- On a total domestic equity basis large caps make up approximately 89% of portfolio exposure, with mid caps totaling 9% of the portfolio, and small caps comprising 2%.

- Domestic equity is overweight in the financials and consumer discretionary sectors, a change from last quarter when it was overweight the financials and healthcare sectors. Healthcare valuations have dramatically improved over the past few years, while SMRS' managers have, as a group, found a number of interesting opportunities in the consumer space. U.S. financials continue to trade at a significant discount to normalized earnings while also having stronger balance sheets than during the financial crisis.

- The internal and external combined active equity portfolio is trading at 15.6x normalized earnings versus the S&P 1500 at 17.6x normalized earnings, with lower exposure to systemic risk, better capital return characteristics and slightly slower growth than its benchmark. If the active equity portfolio's normalized PE trades in line with the S&P 1500 over time, this would imply outperformance of close to 15%, potentially occurring over a period of five years.

Market Environment and Outlook

- At 17.6x normalized earnings, equity markets look reasonably priced, particularly in comparison to bonds. Assuming a 3.6% normalized dividend yield and 5.2% long term expected earnings growth, the S&P 1500 is poised to return approximately 8.8% over the long term. This compares to the 30-year U.S. Treasury at 3.9% and a historical average return of 9.2%.

- Within equities, large-cap stocks look attractive relative to small caps, particularly on a risk adjusted basis. The normalized PE for the S&P 500 is ~17x versus the S&P 600 at ~23x, while the trailing twelve-month dividend yield for S&P 500 (including buybacks) is 3.6% versus the S&P 600 at 0.9%. Over the long term, we believe that small caps will return roughly 8% based on a ~1% dividend yield and 7.0% long term earnings growth. This makes the asset class both a lower return and a higher risk proposition than large caps.

- During the past five years small cap growth has outperformed large-cap value by nearly 34% on a cumulative basis (~6.1% annualized). This has opened up the valuation gap in which SMRS' active equity has positioned itself, with its large cap overweight and modest value-stock tilt.

Five-Year Performance by Style and Market Cap	Value	Core	Growth
S&P 500 Large-Cap	16.6%	17.9%	19.2%
S&P 400 Mid-Cap	20.6%	21.9%	23.2%
S&P 600 Small-Cap	20.1%	21.4%	22.7%

Philosophy

- The Stock Analysis Division emphasizes long-term investing, because it's significantly less speculative than trying to predict short-term market moves. As with bonds, calculating the internal rate of return on current and expected cash flows is a good predictor of long-term returns.

- Market participants tend to make investment decisions based on "what is working" or what they expect to perform well over the next six months. This creates inefficiencies across the market cap spectrum for investors that are willing to have a longer time horizon, as companies that are perceived as having muted near-term prospects are often undervalued as a result.

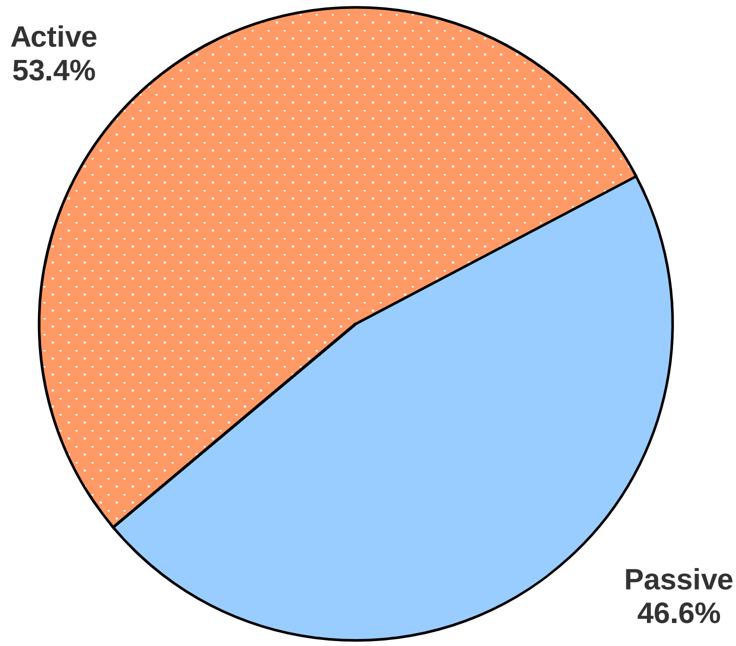
- Considerations for hiring and firing managers are based primarily on organizational structure and incentives, qualitative analysis of manager thought processes, bottom up analysis of holdings and fees. We do not typically use historical three and five-year performance to make hiring, firing, or allocation decisions, as it is not only ineffective in predicting future performance, but may even be inversely correlated to future results. According to research by Morningstar, Inc., the best predictor of future mutual fund returns over the long term is not Morningstar fund rating, or past track record – but fees. As a result, the Stock Analysis Division is very careful about how much it pays for active management, and seeks to reduce its costs wherever possible while maintaining a quality manager portfolio.

- Both absolute and relative returns are important. Benchmarks are valuable, because without them there are no objective means by which to evaluate funds. However, excessive focus on benchmarks can lead to poor decision-making, particularly with respect to understanding and evaluating risk. The Stock Analysis Division attempts to generate both strong absolute and relative returns over the long term by participating in the asset allocation discussion at the bureau level, making sub-asset allocation decisions where appropriate and constructing a portfolio with a higher level of risk-adjusted returns than its benchmark.

SMRS

Domestic Equity Holdings By Category

12/31/13



Market Value in Millions

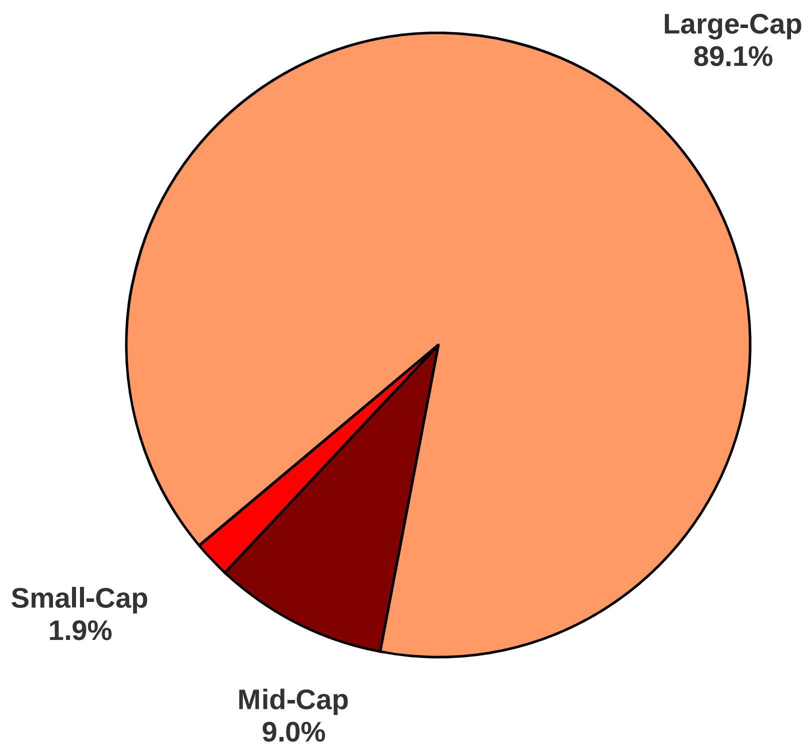
	12/31/13		9/30/13	
	Assets	**Percent**	**Assets**	**Percent**
Active	$9,054	53.4%	$8,176	53.3%
Passive	7,889	46.6%	7,165	46.7%
Total Domestic Equity	**$16,943**	**100.0%**	**$15,341**	**100.0%**

Michigan Department of Treasury, Bureau of Investments

SMRS

Domestic Equity Exposure By Market Cap

12/31/13



Market Value in Millions

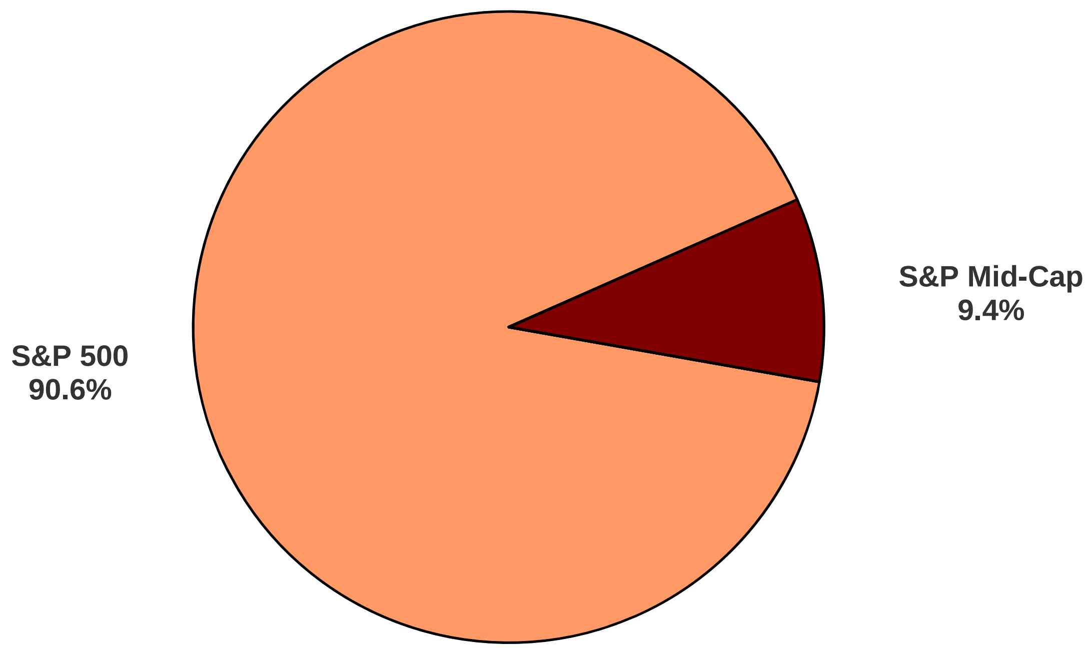
	12/31/13		
	Assets	**Percent**	**S&P 1500**
Large-Cap (>$10B)	$15,096	89.1%	83.8%
Mid-Cap (>$4 <$10B)	1,525	9.0%	9.5%
Small-Cap (<$4B)	322	1.9%	6.7%
Total Domestic Equity	**$16,943**	**100.0%**	**100.0%**

Michigan Department of Treasury, Bureau of Investments

SMRS

Domestic Passive Equity Investments

12/31/13

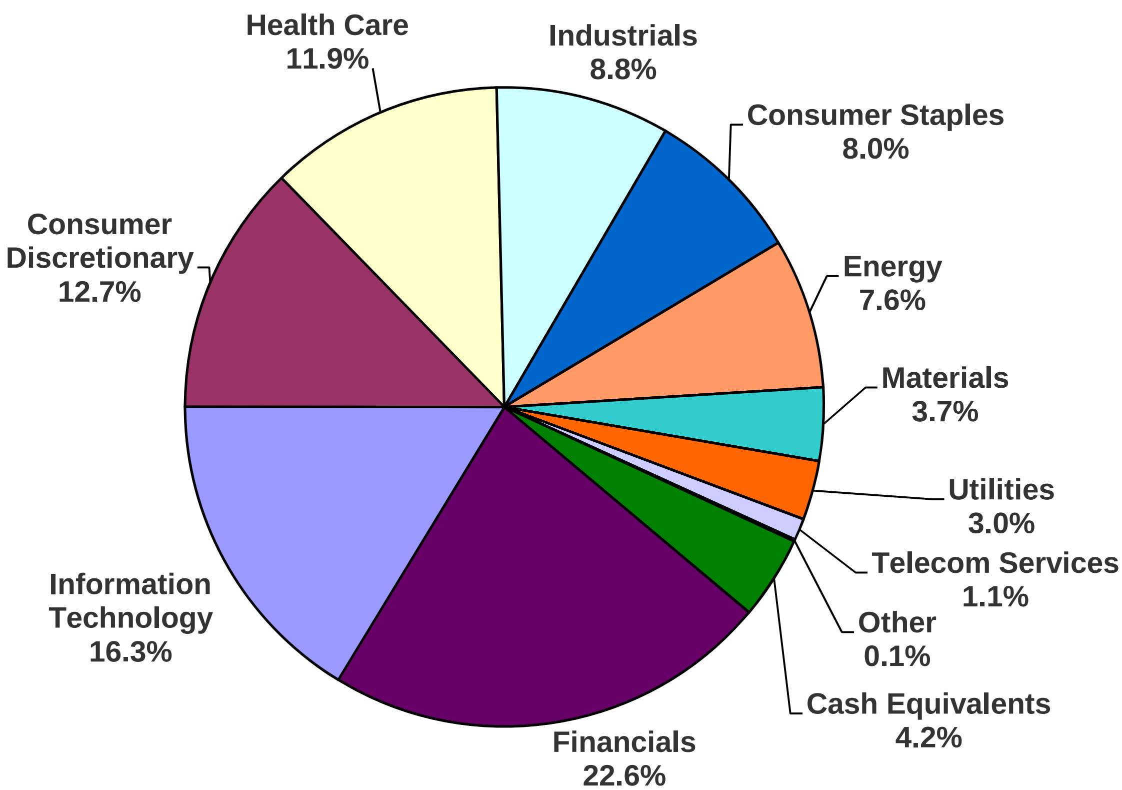


Market Value in Millions

	12/31/13		
	Assets	**Percent**	**Benchmark**
S&P 500	$7,147	90.6%	91.5%
S&P Mid-Cap	742	9.4%	8.5%
Total	**$7,889**	**100.0%**	**100.0%**

Michigan Department of Treasury, Bureau of Investments

SMRS
All Domestic Equity Holdings By Category
12/31/13



Market Value in Millions

	12/31/13			9/30/13	
	Assets	**Percent**	**Benchmark**	**Assets**	**Percent**
Financials	$3,823	22.6%	17.5%	$3,338	21.7%
Information Technology	2,763	16.3%	17.8%	2,561	16.7%
Consumer Discretionary	2,145	12.7%	12.8%	1,973	12.9%
Health Care	2,023	11.9%	12.6%	2,040	13.3%
Industrials	1,488	8.8%	11.6%	1,376	9.0%
Consumer Staples	1,361	8.0%	9.1%	1,306	8.5%
Energy	1,294	7.6%	9.6%	1,244	8.1%
Materials	618	3.7%	3.9%	599	3.9%
Utilities	516	3.0%	3.0%	363	2.4%
Telecom Services	192	1.1%	2.1%	190	1.2%
Other	11	0.1%	0.0%	6	0.1%
Total Investments	$16,234	95.8%	100.0%	$14,996	97.8%
Cash Equivalents	709	4.2%	0.0%	345	2.2%
Total	**$16,943**	**100.0%**	**100.0%**	**$15,341**	**100.0%**

Michigan Department of Treasury, Bureau of Investments **Benchmark: S&P 1500**

SMRS

All Domestic Equities Composite

12/31/13

Date:	12/31/13	9/30/13	6/30/13	3/31/13
Assets ($million):	$16,943	$15,341	$14,563	$14,722
Number of Securities:	1,377	1,390	1,422	1,393

Benchmark: S&P 1500

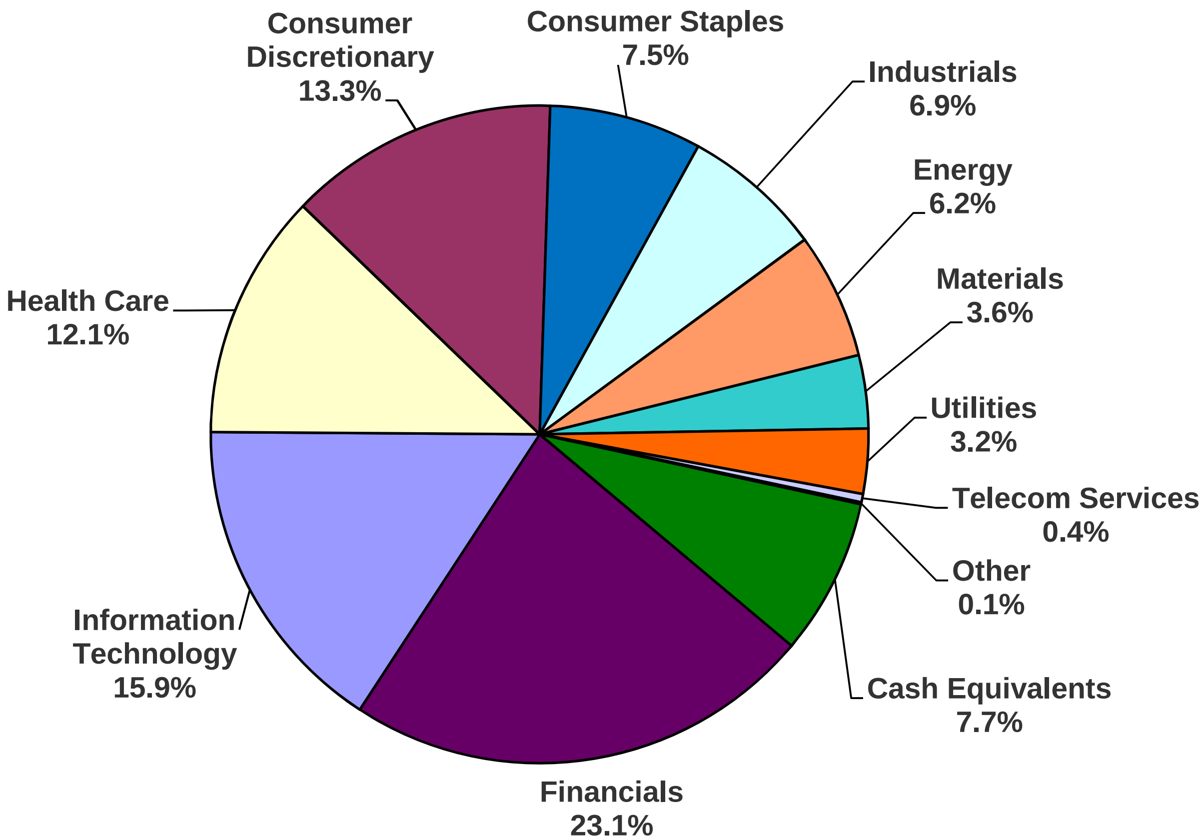
Description: The Domestic Equities Composite combines both the SMRS' All Actively Managed Composite and its index funds.

Characteristics:	SMRS	S&P 1500
Weighted Average Capitalization ($billion):	$111.9	$106.2
Trailing 12-month P/E:	17.5x	18.2x
Forecast P/E:	16.0x	17.2x
Price/Book:	2.3x	2.6x
Beta:	0.98	1.01
Dividend Yield:	1.8%	1.8%
3-5 Year EPS Growth Estimate:	11.4%	11.9%
Return on Equity:	18.4%	18.3%

TOP TEN HOLDINGS - All Domestic Equities
12/31/13

	Portfolio Weight	Total Shares	12/31/13 Price	YTD13 Total Return	Market Value
SPDR S&P 500 ETF	3.8%	3,512,896	$184.69	32.3%	$648,796,762
Apple Inc.	3.1%	941,567	$561.02	8.1%	528,237,918
Johnson & Johnson	2.4%	4,395,661	$91.59	34.6%	402,598,591
Google Inc. Class A	2.3%	347,299	$1,120.71	58.4%	389,221,462
The Bank of New York Mellon Corp.	2.0%	9,581,733	$34.94	38.6%	334,785,751
Bank of America Corp.	1.7%	18,498,929	$15.57	34.5%	288,028,325
Exxon Mobil Corp.	1.4%	2,339,144	$101.20	20.1%	236,721,373
The Goldman Sachs Group, Inc.	1.4%	1,295,405	$177.26	40.8%	229,623,490
IBM Corp.	1.2%	1,100,985	$187.57	-0.2%	206,511,756
Exelon Corp.	1.2%	7,431,789	$27.39	-3.5%	203,556,701
TOTAL	20.5%				$3,468,082,130

SMRS
All Active Domestic Equity Holdings By Category
12/31/13



Market Value in Millions

	12/31/13			9/30/13	
	Assets	**Percent**	**Benchmark**	**Assets**	**Percent**
Financials	$2,090	23.1%	17.5%	$1,751	21.4%
Information Technology	1,445	15.9%	17.8%	1,405	17.2%
Health Care	1,093	12.1%	12.6%	1,190	14.5%
Consumer Discretionary	1,202	13.3%	12.8%	1,122	13.7%
Consumer Staples	677	7.5%	9.1%	670	8.2%
Industrials	631	6.9%	11.6%	618	7.6%
Energy	565	6.2%	9.6%	572	7.0%
Materials	332	3.6%	3.9%	338	4.1%
Utilities	289	3.2%	3.0%	139	1.7%
Telecom Services	34	0.4%	2.1%	39	0.5%
Other	2	0.1%	0.0%	6	0.1%
Total Investments	$8,360	92.3%	100.0%	$7,850	96.0%
Cash Equivalents	694	7.7%	0.0%	326	4.0%
Total	**$9,054**	**100.0%**	**100.0%**	**$8,176**	**100.0%**

Michigan Department of Treasury, Bureau of Investments

Benchmark: S&P 1500

SMRS

All Actively Managed Composite

12/31/13

Date:	12/31/13	9/30/13	6/30/13	3/31/13
Assets ($million):	$9,055	$8,176	$7,733	$7,743
Number of Securities:	1,083	1,121	1,164	1,154

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):	$111.5	$106.2
Trailing 12-month P/E:	16.9x	18.2x
Forecast P/E:	15.2x	17.2x
Price/Book:	2.0x	2.6x
Beta:	0.90	1.01
Dividend Yield:	1.8%	1.8%
3-5 Year EPS Growth Estimate:	11.1%	11.9%
Return on Equity:	18.4%	18.3%

TOP TEN HOLDINGS - All Actively Managed
12/31/13

	Portfolio Weight	Total Shares	12/31/13 Price	YTD13 Total Return	Market Value
Apple Inc.	3.6%	575,834	$561.02	8.1%	$323,054,391
The Bank of New York Mellon Corp.	3.5%	9,114,801	$34.94	38.6%	318,471,147
Johnson & Johnson	3.3%	3,248,601	$91.59	34.6%	297,539,366
Google Inc. Class A	2.9%	233,181	$1,120.71	58.4%	261,328,279
SPDR S&P 500 ETF	2.5%	1,212,346	$184.69	32.3%	223,908,183
Bank of America Corp.	2.4%	14,162,734	$15.57	34.5%	220,513,768
The Goldman Sachs Group, Inc.	2.2%	1,124,023	$177.26	40.8%	199,244,317
Exelon Corp.	2.1%	7,083,400	$27.39	-3.5%	194,014,326
Kellogg Company	1.4%	2,113,030	$61.07	12.6%	129,042,742
IBM Corp.	1.4%	686,050	$187.57	-0.2%	128,682,399
TOTAL	25.4%				$2,295,798,916

SMRS

DOMESTIC EQUITIES

12/31/13

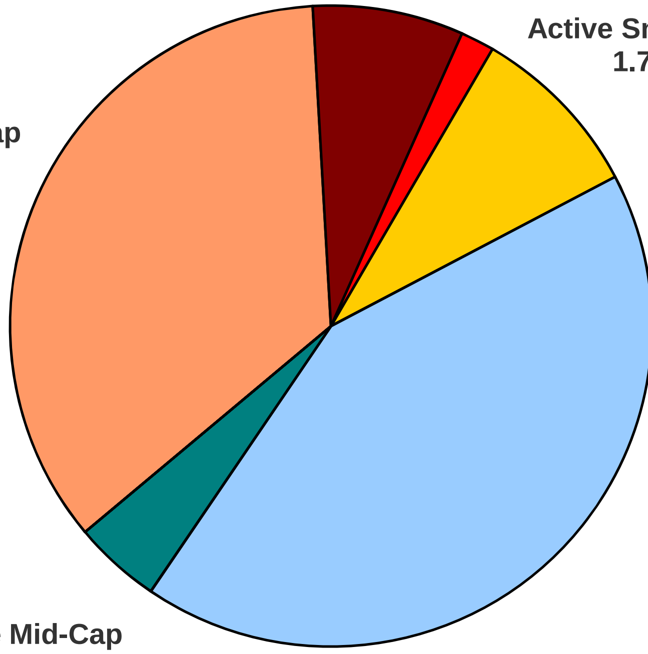
	Amount	% of Total
Passive		
S&P 500	$7,164	
S&P 400	742	
Sub Total	**$7,906**	49.3%
Internal Active		
Large-Cap Core	$2,135	
Large-Cap Growth	1,418	
Tactical Asset Allocation	667	
Absolute Return Income Fund	520	
All-Cap GARP	482	
Large-Cap Value	315	
Concentrated Equity Fund	92	
Concentrated All-Cap Growth	39	
Sub Total	**$5,668**	35.3%
External Active		
LSV Large-Cap Value	$919	
Artisan All-Cap Value	706	
Fisher All-Cap Value	405	
Cramer Rosenthal McGlynn Mid-Cap Value	277	
Donald Smith Small-Cap Value	222	
Attucks Asset Management	174	
Seizert Capital Partners All-Cap Core	165	
Bivium	151	
Champlain Mid-Cap Core	137	
Los Angeles Capital Mid-Cap Plus Core	102	
Munder Mid-Cap Core	67	
Northpointe Small-Cap Value	63	
Sub Total	**$2,469**	15.4%
TOTAL	**$16,043**	100.0%

Note: All dollar amounts are expressed in millions.

SMRS

Domestic Equity Holdings By Category

12/31/13



Market Value in Millions

	12/31/13		9/30/13	
Active				
Large-Cap	$5,974	35.2%	$5,336	34.8%
Mid-Cap	1,289	7.6%	1,194	7.8%
Small-Cap	285	1.7%	427	2.8%
Multi-Cap	1,506	8.9%	1,219	7.9%
Total Active Equity	$9,054	53.4%	$8,176	53.3%
Passive				
Large-Cap	$7,147	42.2%	$6,483	42.3%
Mid-Cap	742	4.4%	682	4.4%
Total Passive Equity	$7,889	46.6%	$7,165	46.7%
Total Domestic Equity	**$16,943**	**100.0%**	**$15,341**	**100.0%**

Michigan Department of Treasury, Bureau of Investments

Combined Active Equity Portfolio, Return Expectations
12/31/13

Return Assumption Estimates

	Yield to Maturity ****	Normal Dividend Yield **	LT Growth Rate ***
SAD Combined Active Equity	***9.4%***	***4.4%***	***5.0%***
S&P 1500 All-Cap	8.8%	3.6%	5.2%
S&P 500 Large-Cap	8.9%	3.9%	***5.0%***
S&P 400 Mid-Cap	8.7%	2.2%	***6.5%***
S&P 600 Small-Cap	8.1%	1.1%	***7.0%***
US 30 Year Treasury	3.9%	3.9%	0.0%

Trailing 12 Month and Normalized Earnings Characteristics

	TTM Price/Earnings	TTM Dividend Yield **	Normal Price/Earnings
SAD Combined Active Equity	***15.3***	**4.1%**	***15.6***
S&P 1500 All-Cap	17.7	3.3%	17.6
S&P 500 Large-Cap	17.3	3.6%	17.3
S&P 400 Mid-Cap	20.8	1.7%	20.7
S&P 600 Small-Cap	24.4	0.9%	23.2

Normalized Earnings and Dividend Characteristics

	Normal Earnings Yield *	Normal Payout Ratio	Normal Dividend Yield **
SAD Combined Active Equity	***6.4%***	***68%***	***4.4%***
S&P 1500 All-Cap	5.7%	64%	3.6%
S&P 500 Large-Cap	5.8%	67%	3.9%
S&P 400 Mid-Cap	4.8%	44%	2.2%
S&P 600 Small-Cap	4.3%	26%	1.1%

Portfolio and Benchmark Risk Estimates

	Yield to Maturity ****	Standard Deviation	Yield/Volatility
SAD Combined Active Equity	**9.4%**	**11.00%**	**0.85**
S&P 1500 All-Cap	8.8%	11.45%	0.77
S&P 500 Large-Cap	8.9%	11.25%	0.79
S&P 400 Mid-Cap	8.7%	13.60%	0.64
S&P 600 Small-Cap	8.1%	14.50%	0.56
U.S. 30-Year Treasury	3.9%	13.11%	0.30

* 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

SMRS Internal/External Manager Performance - Net of Fees
12/31/13

Total Domestic Equity Performance, Gross

	Market Value	1 Year	3 Years	5 Years	7 Years	10 Years
Total Domestic Equity	**$16,943,504,356**	**34.0%**	**15.9%**	**18.6%**	**6.5%**	**7.6%**
S&P 1500		32.8%	16.2%	18.4%	6.5%	7.8%
State Street Peer Rank		30	41	53	49	51

Total Domestic Equity Performance, Net of Fees

	Market Value	1 Year	3 Years	5 Years
Total Domestic Equity	**$16,943,504,356**	**33.9%**	**15.7%**	18.4%
S&P 1500		32.8%	16.2%	18.4%
Lipper Multi Core		*32.3%*	*14.1%*	*17.7%*

Total Active Equity Performance, Net of Fees

	Market Value	1 Year	3 Years	5 Years
Total Active Equity	**$9,054,842,310**	**34.7%**	**15.6%**	**18.50%**
S&P 1500		32.8%	16.2%	18.40%
Lipper Multi Core		*32.3%*	*14.1%*	*17.70%*

Manager Performance, Net of Fees

	Market Value	1 Year	3 Years	5 Years	Inception	Inception Date
Total Internal Active	**$4,998,194,305**	**34.6%**	**15.7%**	**18.1%**	**4.4%**	2/29/00
S&P 500		32.4%	16.2%	17.9%	4.0%	
Lipper Large Cap Core		*31.5%*	*14.9%*	*17.0%*	*4.5%*	
Total External Active	**$3,389,928,542**	**32.3%**	**14.5%**	**18.6%**	**9.0%**	5/31/05
S&P 900/S&P 1500 Blend		32.8%	16.2%	18.4%	7.7%	
Lipper Multi Core		*32.3%*	*14.1%*	*17.7%*	*7.7%*	
SMRS Large-Cap Core	$2,133,077,736	37.1%	16.5%	19.5%	6.7%	8/31/07
S&P 500		32.4%	16.2%	17.9%	6.1%	
Lipper Large Core		*31.5%*	*14.9%*	*17.0%*	*5.7%*	
SMRS Large-Cap Growth	$1,418,619,134	35.0%	16.4%	20.0%	8.7%	5/31/05
S&P 500 Growth Index		32.8%	16.8%	19.2%	8.6%	
Lipper Large Growth		*34.3%*	*15.3%*	*19.4%*	*8.5%*	
LSV Large-Cap Value	$918,927,978	40.2%	18.2%	--	17.5%	1/31/10
S&P 500 Value Index		32.0%	15.6%	16.6%	15.5%	
Lipper Large Value		*32.5%*	*14.6%*	*16.4%*	*14.3%*	
Artisan All-Cap Value	$705,662,361	26.9%	15.0%	19.8%	10.6%	5/31/05
S&P 1500 Value/S&P 400 Value Blend		32.5%	15.4%	20.3%	9.8%	
Lipper Mid Value		*35.4%*	*14.8%*	*20.9%*	*9.3%*	
SMRS Absolute Return Income Fund	$519,580,196	20.7%	14.3%	16.9%	16.9%	1/31/09
60% S&P 500/40% Barclays AGG		17.6%	11.1%	12.7%	12.7%	
Lipper Mixed Target Allocation Moderate/Growth Blend		*17.1%*	*9.3%*	*13.0%*	*13.0%*	

Manager Performance, Net of Fees

	Market Value	1 Year	3 Years	5 Years	Inception	Inception Date
SMRS All-Cap GARP*	$481,556,197	32.6%	--	--	20.0%	4/30/11
S&P 1500 Super Composite		32.8%	16.2%	18.4%	15.2%	
Lipper Multi Core		*32.3%*	*14.1%*	*17.7%*	*13.0%*	
Fisher All-Cap	$404,939,319	31.1%	10.8%	19.0%	10.3%	10/31/04
S&P 1500/S&P 600 Value Blend		32.8%	14.5%	18.1%	8.8%	
Lipper Small Value		*37.2%*	*14.7%*	*20.8%*	*9.1%*	
SMRS Large-Cap Value	$315,048,872	31.5%	13.7%	13.8%	2.2%	7/31/07
S&P 500 Value Index		32.0%	15.6%	16.6%	3.4%	
Lipper Large Value		*32.5%*	*14.6%*	*16.4%*	*3.9%*	
Cramer Rosenthal All-Cap	$276,981,752	32.3%	14.4%	19.0%	10.6%	5/31/05
S&P 400 Value/S&P 1500 Blend		35.2%	16.1%	20.8%	10.1%	
Lipper Mid Value		*35.4%*	*14.8%*	*20.9%*	*9.3%*	
Donald Smith & Co.	$221,749,905	24.3%	9.1%	19.7%	9.3%	2/28/07
S&P 600 Value Index		40.0%	17.7%	20.1%	7.3%	
Lipper Small Value		*37.2%*	*14.7%*	*20.8%*	*6.7%*	
Attucks Asset Management	$173,568,145	34.8%	15.3%	18.0%	5.9%	11/30/07
S&P 1500 Super Composite		32.8%	16.2%	18.4%	5.6%	
Lipper Multi Core		*32.3%*	*14.1%*	*17.7%*	*4.7%*	
Seizert Capital Partners	$164,601,786	37.5%	18.2%	--	20.7%	11/30/09
S&P 1500/S&P 400 Value Blend		32.8%	17.0%	--	21.4%	
Lipper Mid Value		*35.4%*	*14.8%*	*20.9%*	*18.8%*	
Bivium Capital Partners	$151,389,695	32.4%	15.6%	18.8%	5.4%	11/30/07
S&P 1500 Super Composite		32.8%	16.2%	18.4%	5.6%	
Lipper Multi Core		*32.3%*	*14.1%*	*17.7%*	*4.7%*	
Champlain Mid-Cap Core	$137,297,247	36.4%	16.3%	--	22.0%	2/28/09
S&P 400 Mid-Cap Index		33.5%	15.6%	21.9%	24.2%	
Lipper Mid Core		*34.6%*	*14.4%*	*20.2%*	*22.2%*	
LA Capital Mid-Cap Core	$102,392,921	39.8%	16.6%	21.6%	11.4%	5/31/05
S&P 400 Mid-Cap/S&P 400 Mid-Cap Growth Blend		32.8%	15.2%	21.6%	10.5%	
Lipper Mid Core		*34.6%*	*14.4%*	*20.2%*	*9.3%*	
Concentrated Equity	$91,592,791	--	--	--	29.7%	5/31/13
S&P 1500 Super Composite		32.8%	16.2%	18.4%	17.7%	
Lipper Multi Core		*32.3%*	*14.1%*	*17.7%*	*18.3%*	
Munder Mid-Cap Core	$67,061,754	34.2%	15.5%	--	23.8%	4/30/09
S&P 400 Mid-Cap Index		33.5%	15.6%	21.9%	25.5%	
Lipper Mid Core		*34.6%*	*14.4%*	*20.2%*	*23.4%*	

Manager Performance, Net of Fees

	Market Value	1 Year	3 Years	5 Years	Inception	Inception Date
NorthPointe Small Cap Core	$62,935,767	40.9%	13.0%	18.4%	8.0%	10/31/04
NorthPointe Blended Benchmark		41.3%	17.1%	19.7%	9.6%	
Lipper Small Core		*37.3%*	*15.3%*	*20.8%*	*9.6%*	
Concentrated All Cap Growth	$38,719,379	--	--	--	11.9%	5/31/13
S&P 1500 Super Composite Growth		33.1%	16.8%	19.7%	19.1%	
Lipper Multi Growth		*34.7%*	*14.9%*	*19.9%*	*22.1%*	

Performance Persistence Analysis #1

- As illustrated by the below charts, RVK found no significant evidence of performance persistence by analyzing historical manager return data.

Rank Persistency of Top Quartile Managers (based on **5** year rolling total returns)						
Top Quartile mngrs ranking above MEDIAN through 12.30.2010	Core US Fixed Income	Large Cap US Growth	Large Cap US Core	Large Cap US Value	Small Cap US Core	EAFE Core
% above median based on 1991-1995 rank	47%	27%	29%	36%	n/a	n/a
% above median based on 1996-2000 rank	43%	20%	30%	24%	27%	33%
% above median based on 2001-2005 rank	41%	42%	39%	34%	**62%**	36%

50% is considered random, greater than 50 is desirable

Example: 47% of top quartile Core Fixed Income managers (rank based on 1991-1995 five year total return) ranked above median for 1996-2010 period.

Rank Persistency of Top Quartile Managers (based on **3** year rolling total returns)						
Top Quartile mngrs ranking above MEDIAN through 12.30.2010	Core US Fixed Income	Large Cap US Growth	Large Cap US Core	Large Cap US Value	Small Cap US Core	EAFE Core
% above median based on 1990-1992 rank	31%	36%	**54%**	36%	n/a	n/a
% above median based on 1993-1995 rank	**59%**	32%	37%	43%	n/a	n/a
% above median based on 1996-1998 rank	43%	28%	27%	21%	27%	22%
% above median based on 1999-2001 rank	44%	41%	**52%**	44%	**67%**	42%
% above median based on 2002-2004 rank	45%	39%	35%	39%	42%	26%
% above median based on 2005-2007 rank	**57%**	24%	40%	**51%**	**57%**	44%

50% is considered random, greater than 50 is desirable

Data Source: eVestment Alliance. https://www.evestment.com.

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Consistency Analysis #1

Top Quartile Managers Also Experience Down Periods

- An analysis of top-quartile managers with 10+ year track records (ranks as of 12/31/2010) indicates that even top-quartile managers may experience a sustained period of below-median returns.
  - This period of underperformance may last several months, or even multiple years.
  - Following a period of underperformance, the managers in the study often experienced a significant performance recovery.

As of 12.31.2010 (1)	No. of products with 10 yr record		% of top Q mngrs that ranked below median…		Avg no. of *consecutive* Qs spent below median (2)	No. mngrs who recovered from "down period" by 09.30.2010 (3), (4)	Avg rank of the recovered mngrs following 1st "down" period (4)
	Total	Top Quartile	for 1 or more quarters	for 4 or more quarters			
US Large Cap Value	176	44	89%	77%	7.6	17	26.5
US Large Cap Growth	204	51	92%	69%	5.6	24	28.1
US Small Cap Value	124	31	94%	61%	4.3	11	27.3
US Small Cap Growth	116	29	93%	72%	6.3	16	31.6
Fixed Income - Core	164	41	90%	68%	5.6	24	24.4
Fixed Income - High Yield	72	18	94%	72%	4.2	8	29.0
Non-US Equity - EAFE Core	40	10	90%	90%	5.6	6	22.4
Non-US Equity - Emerging	72	18	94%	67%	5.0	6	26.7

(1) For this analysis we used quarterly fund ranks for three year rolling periods; ranks are based on total gross of fees returns.
(2) The average is calculated on below median periods lasting more then one quarter; ouf of total 10 years analyzed in this study.
(3) Managers who experienced one or more periods of below median ranks for four or more consecutive quarters and achieved above median returns as of 09.30.2010.
(4) "Down period" is classified as four or more consecutive quarters of below median ranks.

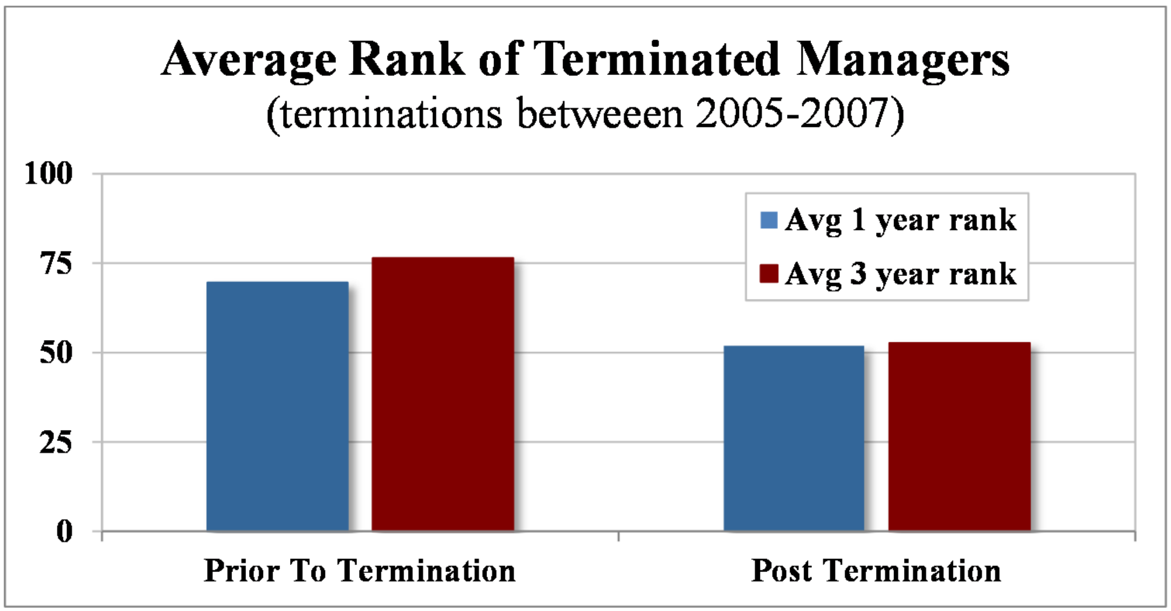
Data Source: eVestment Alliance. https://www.evestment.com.

RVKuhns & ASSOCIATES, INC.

"Chasing Returns": Study #1

Poor Recent Performance ≠ Poor Future Performance

- RVK conducted a study of actual client manager termination decisions
  - On average the rank of the terminated managers significantly improved post termination event.
  - Poor *past* performance does not necessarily mean poor *future* performance.
  - It is important to understand the reasons for short-term underperformance.



Source: R.V. Kuhns & Associates, Inc. , 2010. Client data for 36 performance based terminations of managers from 2005 to 2007.

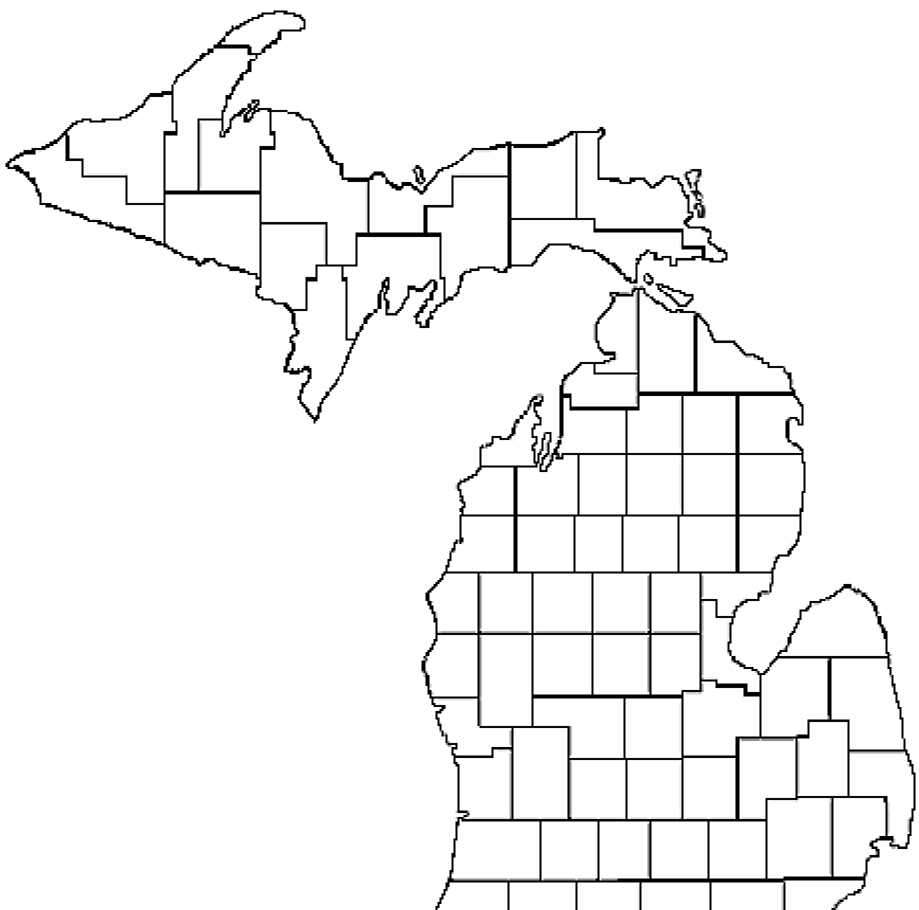
RVKuhns & ASSOCIATES, INC.

STATE OF MICHIGAN
RETIREMENT SYSTEMS

INTERNATIONAL EQUITY REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 6, 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	14.9 %	6.3%	13.3%	1.5%	6.7%
Benchmark Return	15.8%	5.6%	11.2%	0.7%	6.4%
Peer Return (> $1 B)	19.3%	7.1%	14.1%	2.8%	8.2%
Rank vs. Peers	87	61	62	72	78

- The total international equity portfolio returns exceeded their benchmark over the past three, five, seven and ten years. The portfolio underperformed its benchmark in the past year, primarily due to an overweight of the underperforming emerging markets. In 2013, emerging markets underperformed developed markets by 26%.

- Compared to peer returns, the international equity portfolio trailed in all time periods. There are three main reasons. First, peers had a lower allocation to emerging markets when emerging markets underperformed developed markets. Second, the portfolio has had a higher allocation to passive strategies, which underperformed active strategies in these time periods. Passive strategies have served well over time to reduce the complex risks of international investment. Third, some peers use global funds, with a high allocation to U.S. equities, which have outperformed international (non-U.S.) funds. Comparing a global mandate to an international (non-U.S.) mandate is an apples to oranges comparison.

- Internally managed stock plus funds both outperformed their benchmarks. All counterparties used for swap agreements, and the fixed income securities held as matching assets have investment grade ratings.

- Indexed and internal stock plus investments represent 51.5% of international developed markets equity exposure. That composite had a return of 5.8% in the fourth quarter and 24.7% for the year, outperforming its benchmark due to beneficial compositional differences between component index funds and some enhancements from stock plus assets.

- Active developed market fund managers had a return of +6.3% for the quarter and +22.0% for the year, outperforming their respective benchmarks. Manager returns are well diversified, and reflect a combination of fundamental, quantitative and stock plus fixed income enhancement strategies. The external stock plus strategies began to recover in the quarter, benefiting from adaptive active management strategies.

- Total Emerging Market equity returns were +1.9% for the quarter, and -4.4% for the trailing year. Active exposure to the RAFI fundamental factor subset index was a major contributor to the shortfall to the MSCI EM benchmark. The other external fund managers had positive contributions. The Research Affiliates Fundamental Index (RAFI) is a value style strategy, and that strategy underperformed over the time periods. Fifty percent of exposure to Emerging Markets is passive. Emerging Markets exposure is now approximately +1% over its weight in the MSCI ACWI ex USA benchmark.

Outlook

- The outlook for international equities is positive based on the European Central Bank support of liquidity, gradual improvement in the global economy and attractive relative valuation with the U.S. market. Emerging Markets have been negatively affected by slower growth in China, weaker commodity demand and credit concerns, but longer term growth expectations remain positive. Political instability and currencies remain concerns.

- External managers, diversified by style, are starting to benefit from a better environment for active stock selection with wider universe return dispersion. Stock Plus strategies are expected to continue to enhance returns by focusing on credit and trading opportunities.

- Emerging markets are expected to benefit from growing local demand trends and any additional developed market economic growth and recovery. Political instability, corruption, lack of tested legal systems, growing regulation, and changing tax regimes remain concerns. Critical infrastructure investments should also stimulate the emerging market economies.

Investment Plan

- Opportunistically increase the asset allocation to international equities toward longer term objectives as a slow global recovery becomes more visible and relative valuations of international markets become even more positive. .

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

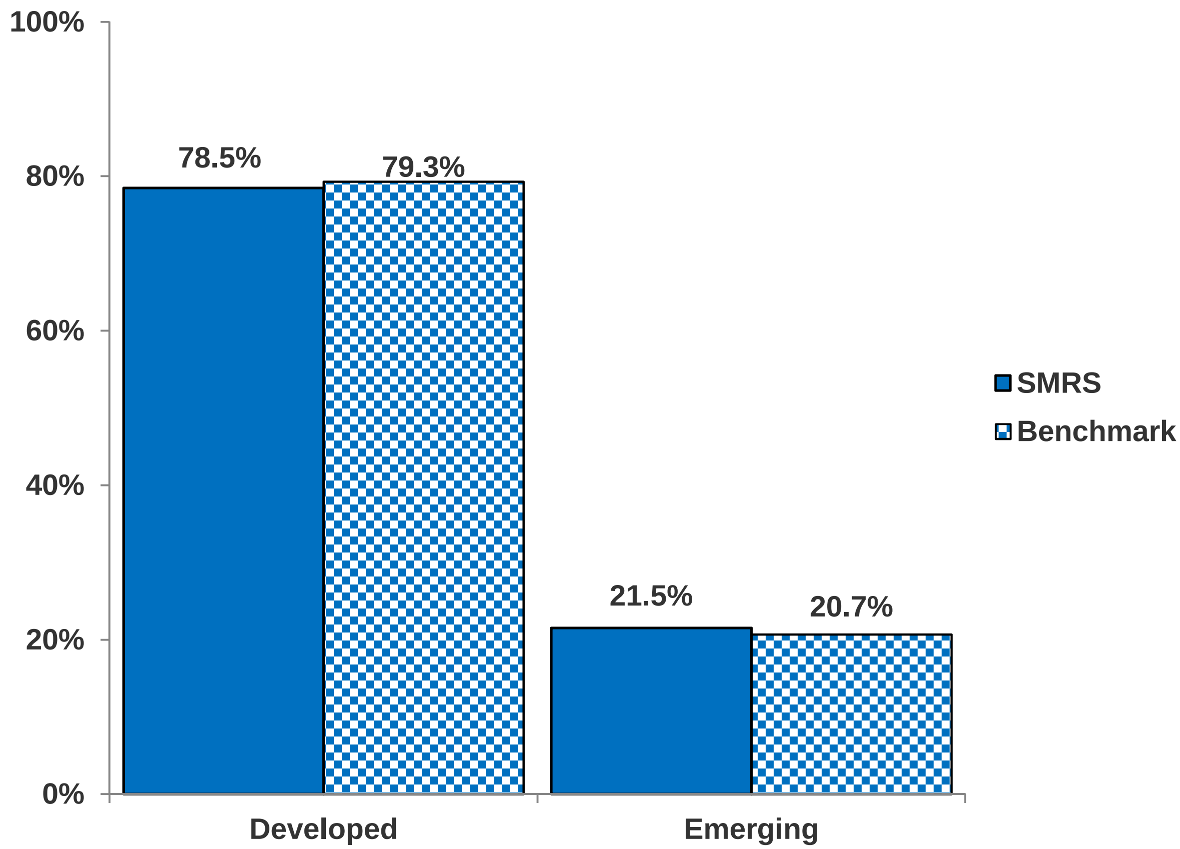
- Prepare for derivative market changes by focusing on standardized structures, construction and management of collateral positions and more frequent settlement requirements.

SMRS

International Equity Holding By Category

SMRS Versus Benchmark

12/31/13

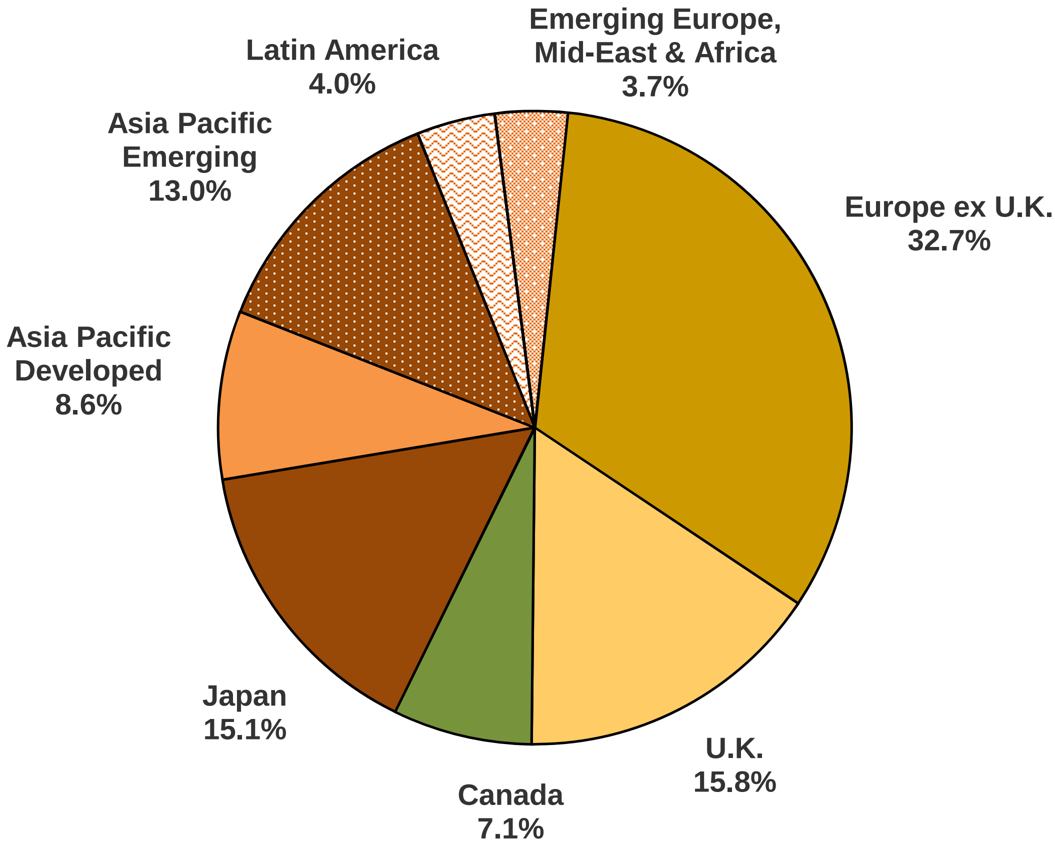


Investments by Region

	SMRS	MSCI ACWI ex USA
Developed	78.5%	79.3%
Emerging	21.5%	20.7%
Total	**100.0%**	**100.0%**

Michigan Department of Treasury, Bureau of Investments

SMRS
MSCI ACWI ex USA
12/31/13

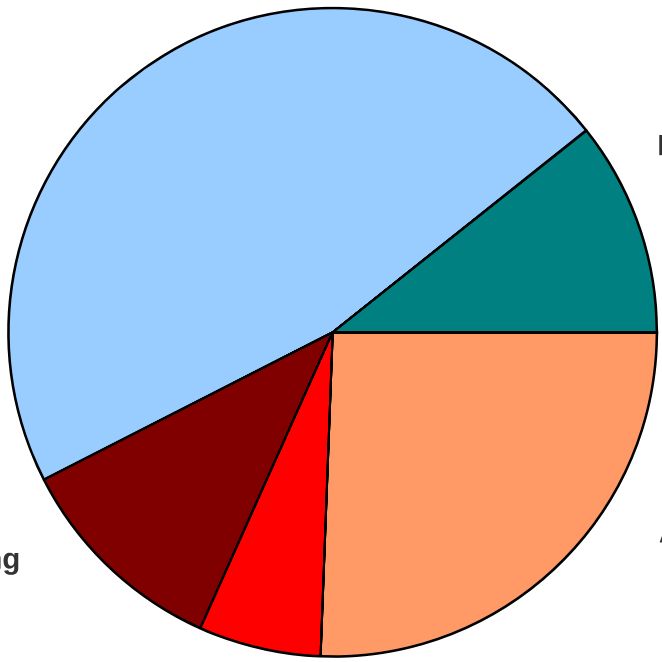


	Benchmark
Developed	
Europe ex U.K.	32.7%
U.K.	15.8%
Japan	15.1%
Asia Pacific Developed	8.6%
Canada	7.1%
Total Developed	79.3%
Emerging	
Asia Pacific Emerging	13.0%
Latin America	4.0%
Emerging Europe, Mid-East & Africa	3.7%
Total Emerging	20.7%
Total	**100.0%**

Michigan Department of Treasury, Bureau of Investments

SMRS

International Equity Holdings By Category
12/3/13



Market Value in Millions

	12/31/13		9/30/13	
Active				
Developed Large	$2,333	25.6%	$2,141	26.3%
Developed Small	555	6.1%	480	5.9%
Emerging	989	10.8%	954	11.7%
Total Active Equity	3,877	42.5%	3,575	43.9%
Passive				
Developed	$4,265	46.8%	$3,615	44.3%
Emerging	979	10.7%	963	11.8%
Total Passive Equity	5,244	57.5%	4,578	56.1%
Total International Equity	**$9,121**	**100.0%**	**$8,153**	**100.0%**

Michigan Department of Treasury, Bureau of Investments

SMRS

INTERNATIONAL EQUITIES

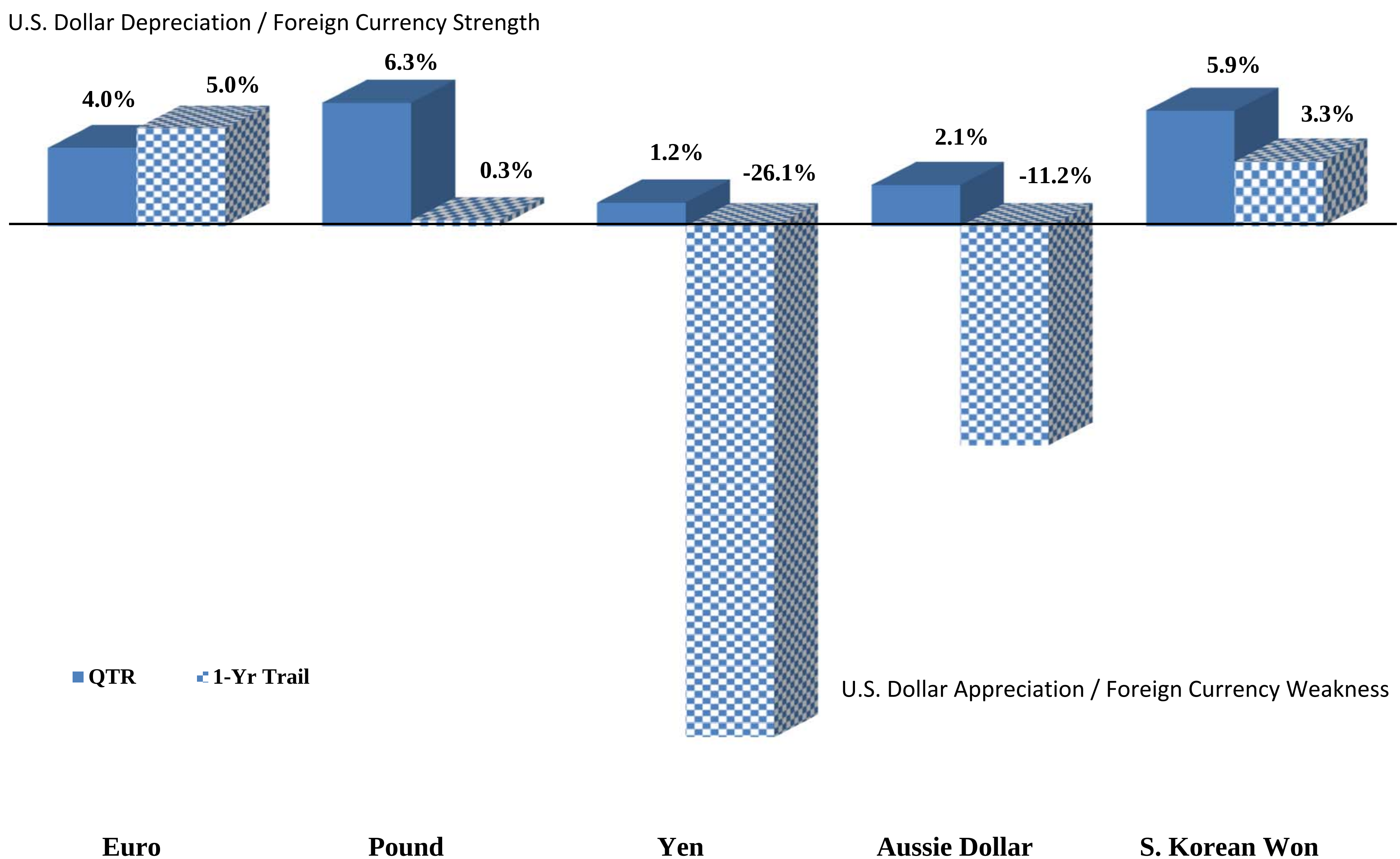
12/31/13

Markets	Indexed	Active	Total Indexed & Active	Percent
Developed Markets - Large/Mid Cap				
Internal Stock Plus Combination	$1,905			
SSgA PMI Fund	1,040			
Vanguard Developed Markets Fund	576			
PIMCO Stock Plus Fund		$1,032		
Wellington Int'l Research Equity Fund		595		
Baillie Gifford ACWI Ex US Alpha Fund		363		
Marathon-London EAFE Fund		342		
Sub Total Developed Large/Mid Cap	**$3,520**	**$2,333**	**$5,853**	**64.2%**
Developed Markets - Small Cap				
SSgA EMI Fund	$745			
Franklin Templeton Int'l Small Cap Fund		$198		
MFS Int'l Small Cap Fund		184		
SSgA Int'l Small Cap Alpha Fund		172		
Sub Total Developed Small Cap	**$745**	**$554**	**$1,299**	**14.2%**
Total Developed Markets	**$4,265**	**$2,887**	**$7,152**	**78.4%**
Emerging Markets - All Cap				
Vanguard Emerging Mkt Stock Index Fund	$906			
Internal Emerging Market Equity Fund	72			
PIMCO Emerging Market Fund		$501		
LACM Emerging Market Fund		319		
Wellington Emerging Market Fund		170		
Sub Total Emerging All Cap	**$979**	**$990**	**$1,969**	**21.6%**
TOTAL	**$5,244**	**$3,877**	**$9,121**	**100.0%**

Note: All dollar amounts are expressed in millions.

Currency Performance vs. the U.S. Dollar

12/31/13

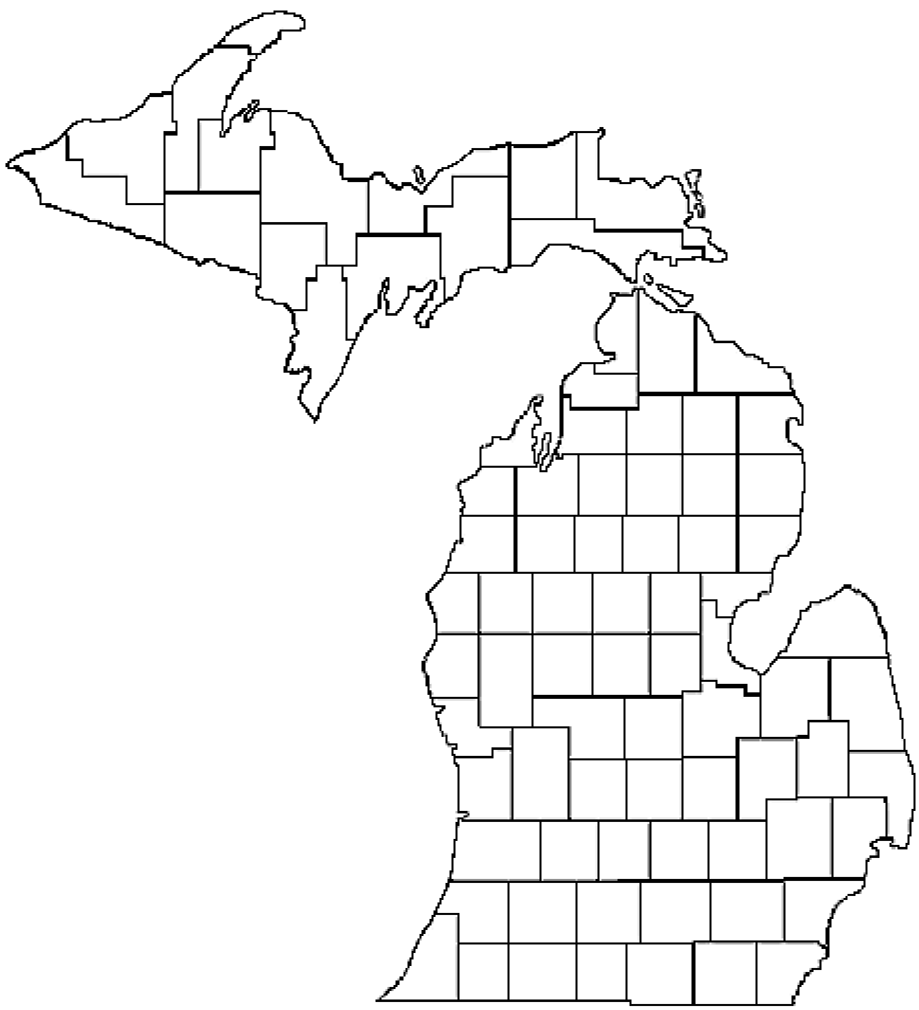


STATE OF MICHIGAN
RETIREMENT SYSTEMS

BASKET CLAUSE REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 6, 2014



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

SMRS

Basket Clause Investments

12/31/13

	Value
Total Absolute and Real Return	$4,795,717,298
Total International Equity	318,719,798
Total Long-Term Fixed Income	18,434,795
Total Basket Clause Investments	**$5,132,871,891**

The basket clause investments at December 31, 2013, were $5.13 billion or 9.07% of the total portfolio value of $56.58 billion.

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

Disclaimer

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