

INVESTMENT ADVISORY COMMITTEE MEETING

March 1, 2012

STATE OF MICHIGAN RETIREMENT SYSTEMS
QUARTERLY INVESTMENT REVIEW



Andy Dillon, State Treasurer

Prepared by Bureau of Investments
Michigan Department of Treasury

INVESTMENT ADVISORY COMMITTEE MEETING

March 1, 2012

Agenda



- 9:30 a.m. Motion to Approve New IAC Chair
- 9:35 a.m. Call to Order and Opening Remarks
- 9:40 a.m. Approval of Minutes of December 1, 2011, Meeting
Resolution for David Sowerby, former IAC Chair
- 9:45 a.m. R.V. Kuhns – Becky Gratsinger, CEO, Principal
- 10:05 a.m. Performance for Periods Ending December 31, 2011
- 10:15 a.m. Current Asset Allocation Review
- 10:25 a.m. Capital Markets Overview
Economic and Market Review and Outlook – *File*
- 10:40 a.m. Review of Investment Reports
- Alternative Investments
 - Absolute and Real Return/Oppportunistic
 - Active Domestic Equity
 - Real Estate & Infrastructure
 - International Equity
 - Indexed Domestic Equity
 - Fixed Income
- 11:40 a.m. Basket Clause – *File*
- 11:45 a.m. Adjournment

2012 Meeting Schedule

Thursday, March 1, 2012
Thursday, June 14, 2012
Thursday, September 6, 2012
Thursday, December 6, 2012

All meetings start at 9:30 a.m.

INVESTMENT ADVISORY COMMITTEE

The Investment Advisory Committee held its quarterly meeting on Thursday, December 1, 2011, at the Bureau of Investments, Great Lakes Conference Room, 2501 Coolidge Road, Suite 400, East Lansing, Michigan.

Members Present:

David G. Sowerby, Chairman
Steven H. Hilfinger, LARA
Phillip J. Stoddard, DTMB

In attendance from the Department of Treasury: Jon M. Braeutigam, Robert L. Brackenbury, Gregory J. Parker, Karen Stout, Brian Liikala, Richard Holcomb, Peter Woodford, Paul Nelson, Jack Behar, Jim Elkins, Giles Feldpausch, Chad Houghton, Amanda Ellis, Cathy Murray, Marge McPhee, and Emma Khavari.

Others in attendance: Jim Voytko, Chuck Agerstrand, Molly Jason, Renaye Manley, Cara Spagnolo, John Ide, Alex Harlan, Mark Guastella, and Joe Curtin.

Call to Order and Opening Remarks

Chairman David G. Sowerby called the September 1, 2011, meeting to order at 9:34 a.m. He discussed the challenges and volatility of the markets in September. He noted that the SMRS' portfolio did have a good quarter and October was a very good month for the markets.

Approval of Minutes of September 1, 2011

Chairman Sowerby asked for a motion to approve the September 1, 2011, minutes. A motion was made by Mr. Phillip J. Stoddard and seconded by Mr. Steven H. Hilfinger to accept the minutes as read. The motion passed unanimously.

Performance

Mr. Jon M. Braeutigam reported on the performance of the SMRS' portfolio for the time period ending September 30, 2011, noting one of the objectives of the SMRS' fund is to achieve the 8% rate-of-return. Diversity is a key element in achieving the rate-of-return needed and to reduce risk. He reviewed the market recap noting the changes that have occurred since the last meeting in September. He also discussed the 10-year Treasury and the debt problems that Europe is experiencing.

Mr. Braeutigam discussed the performance for the Public School Employees' Retirement System focusing on the total plan level for the quarter which was -6.2% while the return for the S&P 500 was -14% for the quarter. He noted the risk in the market where

everyone fled to the safety of Treasuries which was indicated by the huge move in the 10-year and 30-year Treasuries. He reviewed the performance of the asset allocation classes noting the challenges to attain good returns. He also noted the debt problems that are challenging Europe and how Europe's problems have affected the different asset classes of the SMRS' portfolio.

Asset Allocation

Mr. Braeutigam reported on the SMRS' asset allocation. The SMRS portfolio for the time period ending June 30, 2011, had a market value of \$51.621 billion. He focused on the asset allocation versus the State Street peer group of greater than \$10 billion noting that this universe is about 26% bonds while the SMRS' portfolio is at 15% bonds. The other 10% is in different types of equities which allows exposure to a variety of different types of equities. He noted that some risk must be taken to achieve the 8% actuarial rate-of-return, but caution must be a priority because of what is happening in Europe and with other geo-political events.

Mr. Braeutigam reviewed the asset allocation of the different asset classes noting some of the changes that have occurred since the last IAC meeting. He pointed out that cash has been raised and the net benefits paid out for the quarter were \$881 million.

Capital Markets Overview

Mr. Greg Parker discussed the capital markets indicating that three months ago there was concern among economists, strategists, and Wall Street that the U.S. was entering into a double-dip recession. This has not occurred. The U.S. economy is resilient. The growth of the economy is noted as tepid. He pointed out that since the last IAC meeting the liquidity situation in Europe has deteriorated significantly and banks are under tremendous pressure. He also noted the solvency problem in Europe and that the emerging economies are battling inflation. There is a great deal of uncertainty in the capital markets because of the situation in Europe.

Mr. Parker noted that there have been major defaults in a couple of financial institutions coupled with the political pressures in Europe creating even more uncertainty throughout the capital markets. He talked about publically traded fixed income, U.S. Treasuries, private equity, real estate, and commodities noting that they are likely to remain challenged in the near term. He also discussed the credit spreads noting that in September of 2011 they were nearly as wide as they have ever been, but they have come in since October. Mr. Parker pointed out that the European financial situation is as poor as the financial conditions were in the U.S. in 2008.

Economic and Market Review and Outlook

Chairman Sowerby stated in the spirit of time the Economic and Market Review and Outlook will be received and filed.

Investment Reports

Alternative Investments – Mr. Peter Woodford reported on the SMRS' alternative investments. The total market value as of September 30, 2011, was \$11,223 million. He reviewed the outlook for private equity, which remains positive. He noted that there has been a shift in market sentiment after the S&P downgrade, the debt ceiling debate, and the deterioration of the sovereign debt crisis in Europe. He discussed the four new commitments approved in the third quarter. These commitments are to a funds-of-funds manager, a large buyout manager, a middle market manager, and a micro cap manager.

Mr. Woodford discussed the turmoil that is being seen in the public and private markets, which should play well for turnaround investors. He noted the affects of the macroeconomic factors, which, if they remain tight could lead to an increase in defaults. He also discussed the opportunities in distressed debt. Cambridge Associates recently estimated that with U.S.-based sponsors there was approximately \$376 billion of uncommitted capital at the end of 2010, which is a significant amount of capital waiting to be invested. He reviewed the InvestMichigan! Program, which has committed \$147 million to 26 deals and has an additional \$56 million for follow-on investments.

Absolute, Real Return and Opportunistic – Mr. Jim Elkins reported on the SMRS' absolute, real return and opportunistic portfolio. The market value of the absolute, real return and opportunistic portfolio as of September 30, 2011, was \$2,981 million. He discussed the absolute return portfolio noting that the performance was down for the quarter but positive for the year. He talked about the managers within the portfolio and how each strategy has been affected by macro events. He talked about correlations and beta in the portfolio, targeting lower correlations, and the desired diversification in the portfolio. He also mentioned the hedge fund-to-fund performance and its exposure.

Mr. James Voytko from R.V. Kuhns commented on the performance in the absolute return portfolio. Mr. Elkins discussed how to grow the absolute return portfolio in the near term. He talked about the commodities portfolio, which had a volatile quarter and was down for the quarter but up for the year. He also noted the correlations on the commodities side, which is the same situation as on the absolute return side. He discussed the time spent looking at all available offerings, and not being satisfied with what is in the portfolio, but doing the necessary homework to ensure an uncorrelated, well diversified portfolio. Mr. Elkins also discussed unlevered yields and the average loan stats and the commitment fees the market is providing at this point in time. Mr. Elkins also noted deals that are in the pipeline which are focused primarily on credit opportunities.

Active Domestic Equity – Mr. Jack Behar reported on the SMRS' active domestic equity investments. The market value for the active domestic equity holdings as of September 30, 2011, was \$13,446 million. He discussed the performance of the three internal funds: the large cap growth fund, which is outperforming the benchmarks on an inception-to-date basis; the large-cap value fund, which is slightly outperforming its benchmark on an inception-to-date basis; and the large-cap core fund, which is

underperforming its benchmark on an inception-to-date basis. He also touched on the financials during the discussion of the large-cap core portfolio.

Mr. Behar discussed the idea of evaluating managers based on how they are positioned, how they are thinking, and environments where they should do well. He also reviewed how managers are typically selected, which is partly on performance, which is not always a good method. He also briefly discussed asset allocation within equities.

Fixed Income – Mr. Paul Nelson reported on the SMRS' fixed income portfolio. The market value of the fixed income portfolio as of September 30, 2011, was \$7,182 million. He discussed how Treasury yields continue to be near historic lows and the yield curve is quite steep. Quality spreads are wide, and under these circumstances, investors should avoid excessive length risk, but still take some credit risk. He discussed where the portfolio will be moving in the future, if spreads narrow and rates increase the focus will shift to higher grade and longer maturities.

Mr. Nelson discussed the internal corporate fund, which has over the past five years outperformed the benchmark with a considerably lower risk rate. He also noted that the government portfolio is about even with the index and there was a rally in the market. He pointed out that having two different portfolios, government and corporate, has worked out very well. It means that at one time the corporate portfolio does well, while at other times the government portfolio does well. He reviewed the timeframes of the two different portfolios and noted the top ten holdings within the fund.

Real Estate – Mr. Brian Liikala reported on the SMRS' real estate portfolio. The market value for the real estate portfolio as of September 30, 2011, was \$4,977 million. He pointed out that this is the sixth consecutive quarter of a strong real estate return, which was 3.6% total return. He discussed the volatility in the fourth quarter, and the expectations of this quarter being flat on values as the number of transactions in the market will be less. He noted that going forward he believes valuation and returns are going to be based on operations and income growth. Apartments, hospitality, and medical office have had the best improvement while the office and retail are lagging.

Mr. Liikala discussed the CMBS market and the expectations and volatility within that market. New issuance for CMBS in 2011 is expected to be revised down to \$35 billion. He discussed the debt market and since the financial crisis the focus has been on distressed debt. Bidders on distressed debt include off-shore bidders, Canadians as well as life companies. He noted the re-financing of some of the properties in the portfolio. There was a discussion of the two indexes in real estate: the NCREIF Property Index (NPI), which is unlevered and the Open-Ended Fund Index (ODCE), which is an investable universe.

International Equity – Mr. Richard Holcomb reported on the SMRS' international equity exposure as of September 30, 2011, was \$5,885 million. He discussed the difficulty in the developed markets internationally as well as in the emerging markets. He noted in looking forward, investment planning would include more in the developed markets as

significant problems must be resolved. He also discussed the Exchange Traded Fund affect, and how internationally the leverage factor is above that of the U.S. This also has something to do with why emerging markets are currently underperforming in Europe.

He commented that counterparty credit exposures are all single A or higher. The SMRS' portfolio continues to outperform the international developed and U.S. benchmarks. It was also noted that the progress continues in adding more active managers internationally. Interviews have been completed. The search included three categories: developed-large, developed-small, and emerging, with a heavy emphasis on a fundamental manager with active analyst research.

Indexed Domestic Equity – The market value of the indexed domestic equity portfolio as of September 30, 2011, was \$5,336 million. Chairman Sowerby stated in the spirit of time the indexed domestic equity report will be received and filed.

Basket Clause – The fair market value of the basket clause investments as of September 30, 2011, was \$5,973 million or 12.585% of the total portfolio market value of \$47.465 billion. Chairman Sowerby stated in the spirit of time the basket clause report will be received and filed.

Next Meeting Date and Adjournment

Chairman Sowerby asked for a motion to adjourn the December meeting. A motion was made to adjourn by Mr. Phillip J. Stoddard and seconded by Mr. Allan R. Pohl. All were in favor. Meeting adjourned at 12:01 p.m.

Approved:

Nick Khouri, Chair

**STATE OF MICHIGAN
RETIREMENT SYSTEMS**

PERFORMANCE

**FOR PERIODS ENDING
DECEMBER 31, 2011**

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 1, 2012



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

Bureau of Investments

Mission Statement



The Bureau of Investments provides quality investment management services, professional expertise, and advice to the State Treasurer as fiduciary of the State of Michigan Retirement Systems and Michigan boards and agencies. The Bureau strives to provide consistent and cost-effective management of funds to achieve competitive investment returns that meet objectives within an acceptable level of risk for the benefit of employees, retirees, and citizens of the State of Michigan.

State of Michigan Retirement Systems

Goals



Maintain sufficient liquidity to pay benefits.

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

*Achieve optimal rate of return possible
with prudent levels of risk.*

Objectives



Diversify assets to reduce risk.

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

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

Operate in a cost-effective manner.

Market/Economic Environment

Market Environment

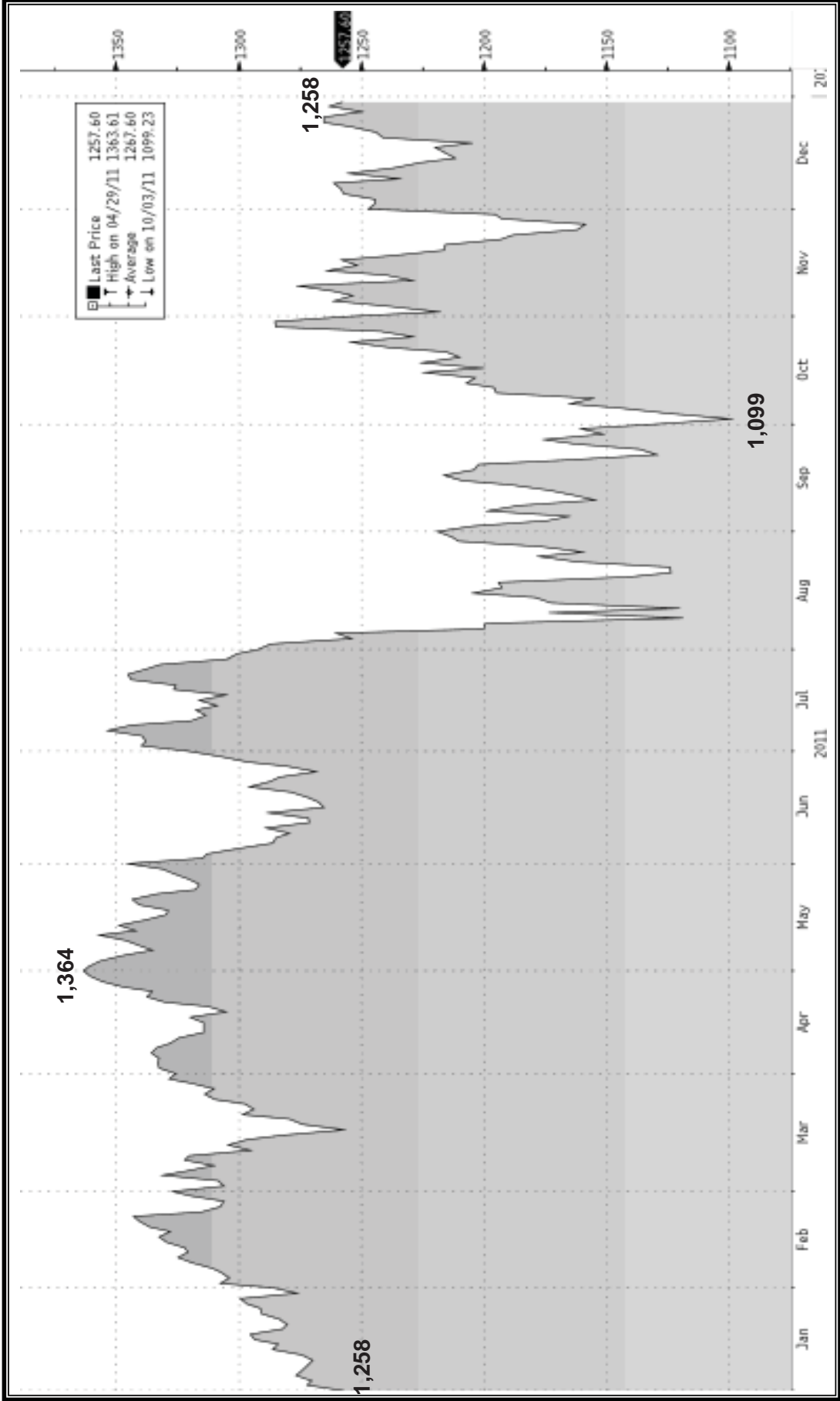
	<u>12/31/10</u>	<u>9/30/11</u>	<u>12/31/11</u>	<i>4Q10 Price</i> <u>Change</u>	<i>2011 Price</i> <u>Change</u>
DJIA	11,578	10,913	12,218	11.95%	5.53%
S&P 500	1,258	1,131	1,258	11.15%	0%
NASDAQ	2,653	2,415	2,605	7.86%	-1.80%
BMI-EPAC (Local)	189.5	156.3	161.3	3.16%	-14.91%
BMI-EPAC (USD)	242.3	200.9	206.2	2.64%	-14.91%
	<u>12/31/10</u>	<u>9/30/11</u>	<u>12/31/11</u>	<i>4Q10 bp</i> <u>Change</u>	<i>2011 bp</i> <u>Change</u>
30-Year Treas.	4.34%	2.92%	2.90%	-2 bp	-144 bp
10-Year Treas.	3.30%	1.92%	1.88%	-4 bp	-142 bp
5-Year Treas.	2.01%	0.95%	0.83%	-12 bp	-118 bp
2-Year Treas.	0.60%	0.25%	0.24%	-1 bp	-36 bp
26-Week T. Bill	0.19%	0.06%	0.06%	0 bp	-13 bp
13-Week T. Bill	0.13%	0.03%	0.02%	-1 bp	-11 bp
Fed Funds	0.25%	0.25%	0.25%	0 bp	0 bp
Prime Rate	3.25%	3.25%	3.25%	0 bp	0 bp

Economic Environment

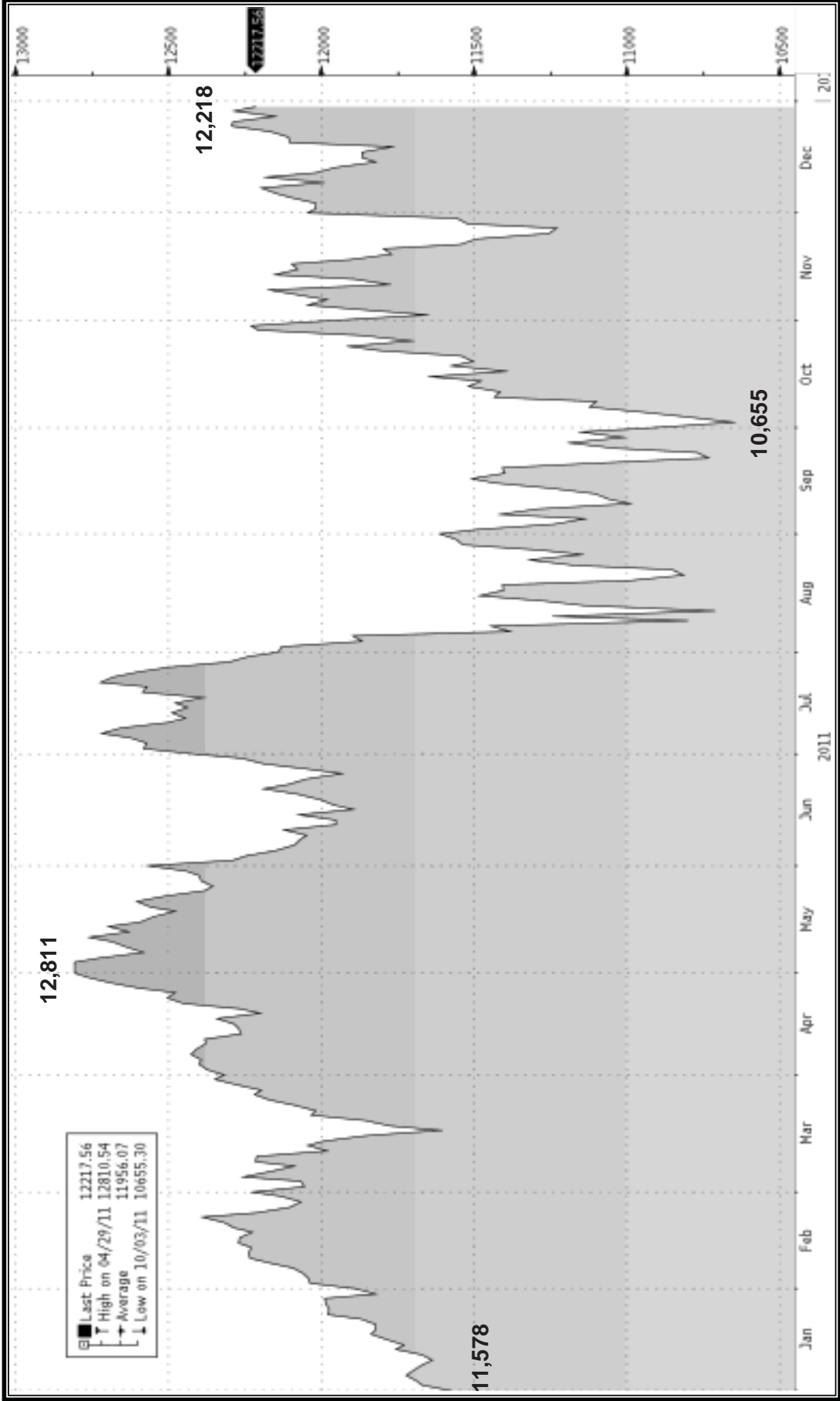
- Fourth quarter real GDP increased by 2.8% largely due to increases in consumer spending. The third quarter came in at 1.8%.
- Core inflation was 2.2%, and CPI was 3.0%. Ten-year breakeven tips yield was at 1.95% at year end.
- Housing starts averaged 656,000, up from an average of 615,000 in the third quarter. Retail sales were up 6.5% year-over-year.
- Unemployment was 8.7%, down from 9.1% in the third quarter. Initial claims for unemployment averaged 391,000 versus 413,000 in the third quarter.
- The S&P 500 rose 11% from third quarter levels, while at \$98.80 per barrel, oil rose by 24%.
- U.S. budget deficit as a percent of GDP remained at 8.6%.
- Effective Fed Fund rate fell to 4 basis points.

S & P 500 INDEX

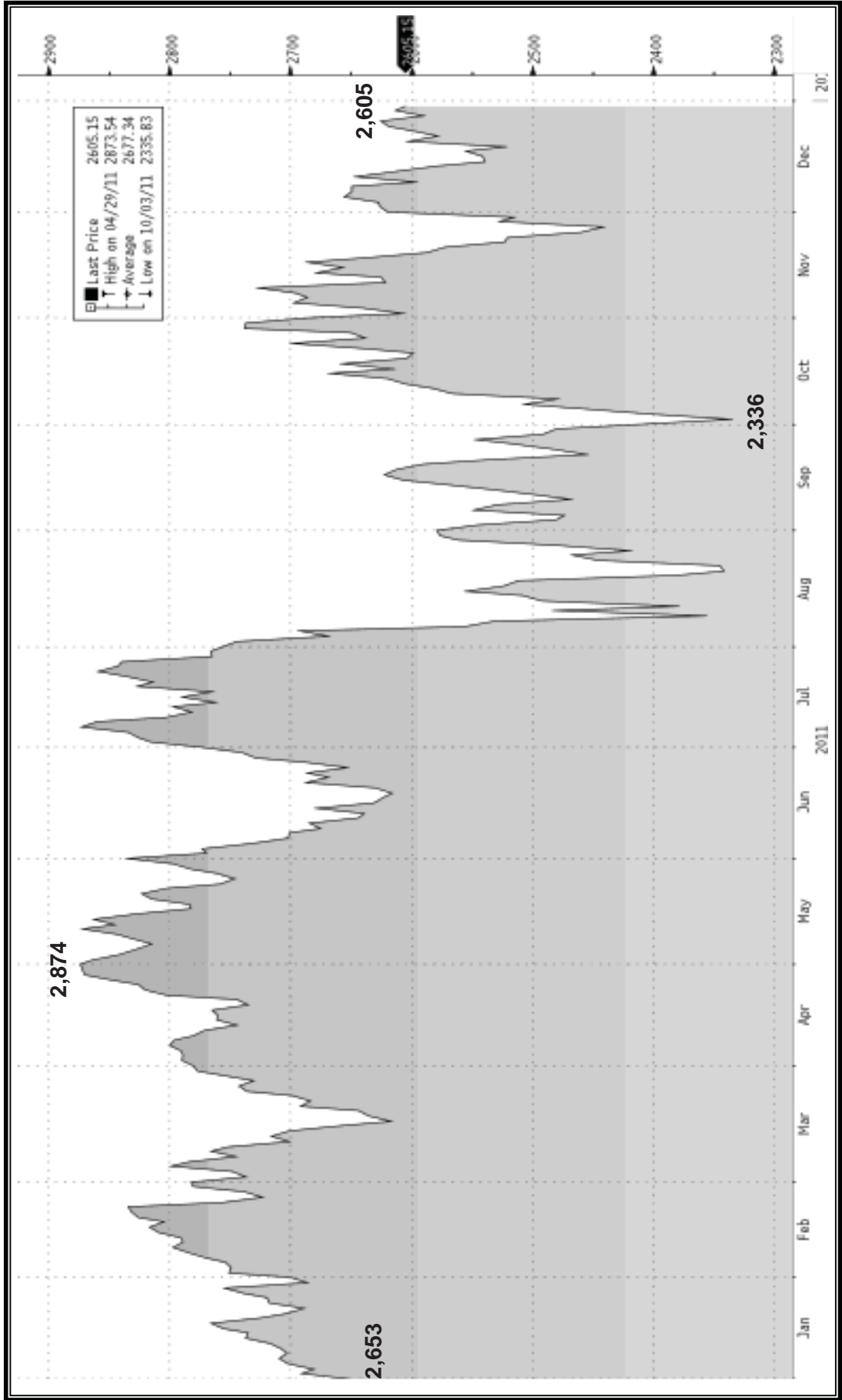
ONE YEAR ENDING DECEMBER 31, 2011



DOW JONES INDUSTRIAL AVERAGE ONE YEAR ENDING DECEMBER 31, 2011

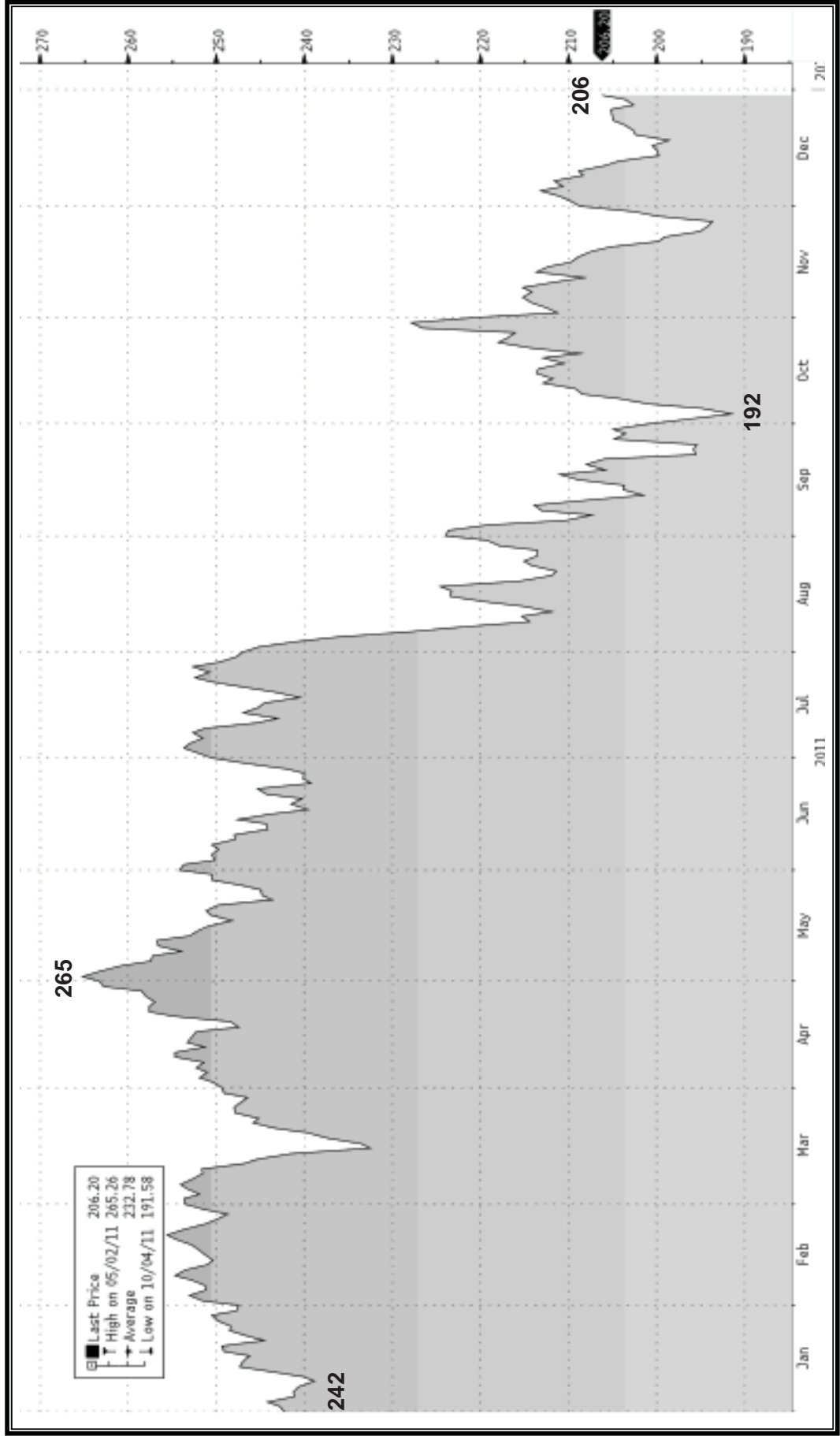


NASDAQ ONE YEAR ENDING DECEMBER 31, 2011



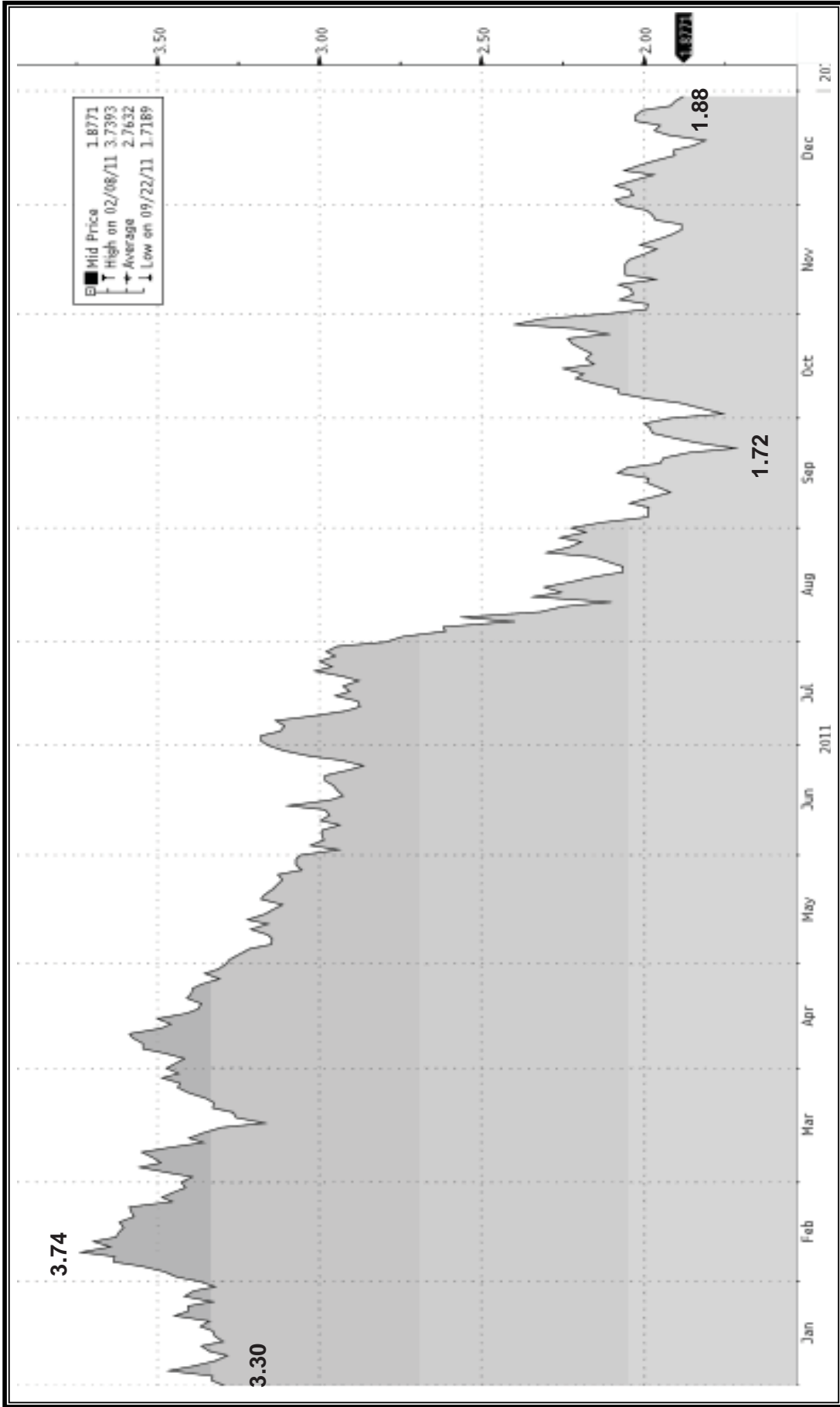
INTERNATIONAL — S&P/CITIGROUP BMI EPAC (USD)

ONE YEAR ENDING DECEMBER 31, 2011

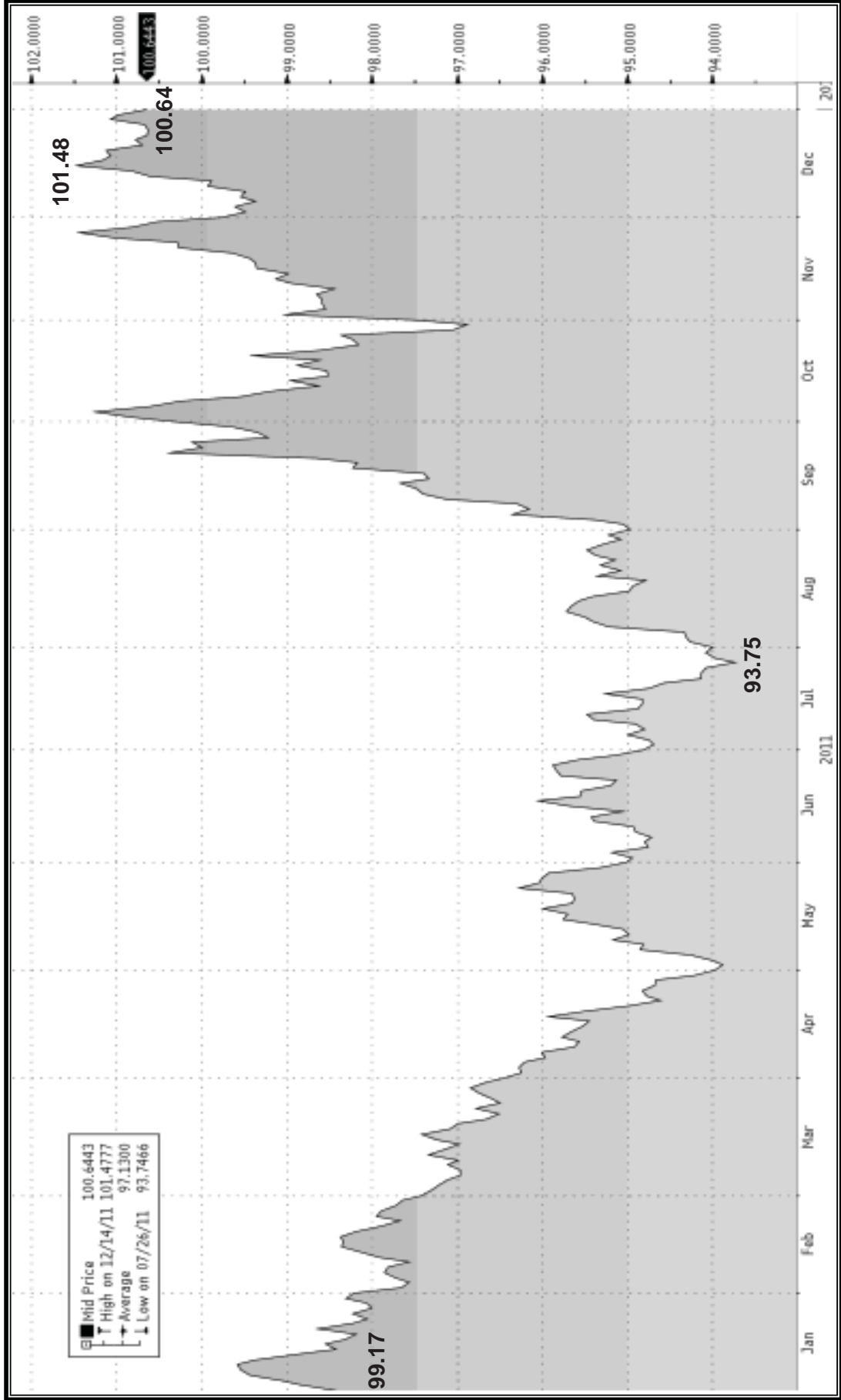


TEN-YEAR U.S. TREASURY NOTE YIELDS

ONE YEAR ENDING DECEMBER 31, 2011



U.S. DOLLAR TRADE-WEIGHTED INDEX ONE YEAR ENDING DECEMBER 31, 2011



State of Michigan Retirement Systems
Performance By Trailing Four Quarters
Total Rates of Return

<u>FUND</u>	<u>FIRST</u> <u>QTR. 2011</u>	<u>SECOND</u> <u>QTR. 2011</u>	<u>THIRD</u> <u>QTR. 2011</u>	<u>FOURTH</u> <u>QTR. 2011</u>
MPSERS	4.89 %	1.98 %	-6.15 %	2.94 %
MSERS	4.86 %	1.95 %	-6.25 %	2.96 %
MSPRS	4.92 %	2.00 %	-6.16 %	2.89 %
MJRS	4.81 %	1.75 %	-6.55 %	3.41 %
Large Cap Core	4.07 %	-0.73 %	-15.93 %	11.95 %
Large Cap Growth:				
Large Cap Growth	3.40 %	-0.12 %	-9.85 %	7.08 %
Large Cap Dividend Growth	-7.35 %	-1.81 %	-20.50 %	11.18 %
Aletheia	4.36 %	-3.25 %	-12.03 %	10.60 %
Edgewood	7.41 %	0.66 %	-10.66 %	8.53 %
Large Cap Value:				
Large Cap Value	6.19 %	-0.69 %	-13.39 %	12.78 %
LSV	8.20 %	-1.13 %	-18.25 %	14.66 %
Wasatch	6.17 %	-1.54 %	-16.75 %	11.54 %
Epoch	7.22 %	0.81 %	-16.09 %	11.59 %
Diamond Hill	5.73 %	0.80 %	-14.56 %	14.03 %
Mid Cap Value:				
Artisan	10.63 %	0.37 %	-14.38 %	13.49 %
Cramer Rosenthal	5.72 %	1.49 %	-22.30 %	15.20 %
Mid Cap Growth:				
Rainier Investment	9.59 %	0.38 %	-21.46 %	15.90 %
Wellington	9.98 %	-0.85 %	-26.08 %	16.64 %
Mid Cap Core:				
L.A. Capital	9.61 %	-1.36 %	-18.30 %	13.15 %
Champlain	9.32 %	1.49 %	-16.68 %	11.95 %
Munder	8.08 %	1.61 %	-17.69 %	10.02 %
Small Cap Growth:				
Pier Capital	13.33 %	-1.28 %	-25.85 %	12.46 %
Small Cap Value:				
Fisher	10.57 %	-3.38 %	-25.17 %	18.27 %
GW Capital	12.78 %	-0.33 %	-28.08 %	18.31 %
Donald Smith	3.80 %	-1.99 %	-17.66 %	11.45 %
Opus Capital	8.14 %	-4.26 %	-18.19 %	16.86 %
Small Cap Core:				
Champlain	8.99 %	0.63 %	-15.69 %	13.89 %
NorthPointe	5.80 %	-0.89 %	-26.67 %	14.44 %
Multicap:				
Attucks	6.70 %	-0.41 %	-15.38 %	11.58 %
Bivium	8.62 %	0.65 %	-16.60 %	11.43 %
Leading Edge	7.57 %	0.34 %	-17.08 %	11.73 %
Seizert	6.81 %	2.73 %	-19.18 %	11.83 %

State of Michigan Retirement Systems
Performance By Trailing Four Quarters
Total Rates of Return

<u>FUND</u>	<u>FIRST</u> <u>QTR. 2011</u>	<u>SECOND</u> <u>QTR. 2011</u>	<u>THIRD</u> <u>QTR. 2011</u>	<u>FOURTH</u> <u>QTR. 2011</u>
Absolute Return Income Fund	3.82 %	1.01 %	-7.09 %	10.15 %
SAD Tactical Allocation	- %	- %	-46.50 %	6.02 %
S&P 500 Index	5.96 %	0.20 %	-13.68 %	11.86 %
S&P Mid-Cap Index	9.57 %	-0.45 %	-19.28 %	13.19 %
International:				
International Equity	3.43 %	0.97 %	-18.45 %	3.40 %
Global Dividend Fund	5.86 %	1.73 %	-7.17 %	11.62 %
Wellington Intl	3.49 %	2.40 %	-19.50 %	3.45 %
SSGA Intl Alpha	5.18 %	1.20 %	-22.72 %	5.07 %
SSGA Intl Small Cap Alpha	4.84 %	2.85 %	-20.60 %	2.36 %
PIMCO Intl Stock Plus	3.91 %	2.92 %	-21.71 %	6.50 %
Emerging Markets:				
Vanguard Emerging Markets	1.88 %	-0.93 %	-23.94 %	6.01 %
LA Capital Emerging Markets	2.52 %	0.29 %	-19.16 %	5.70 %
PIMCO EM Fund Index Plus	3.69 %	0.17 %	-25.76 %	7.84 %
Alternative Investments				
Alternatives Equity	8.12 %	6.60 %	6.14 %	-5.22 %
Alternatives Fixed Income	8.44 %	6.57 %	6.33 %	-5.36 %
Alternatives Fixed Income	1.47 %	7.38 %	1.55 %	-1.80 %
Real Estate				
Real Estate	4.18 %	3.83 %	3.62 %	0.73 %
Government Bonds				
Government Bonds	0.35 %	2.61 %	2.81 %	1.18 %
Corporate Bonds				
Corporate Bonds	0.82 %	2.51 %	2.57 %	1.18 %
Fixed Income Core:				
Dodge & Cox	1.14 %	2.01 %	0.94 %	1.05 %
Pyramis Global	1.07 %	2.24 %	3.21 %	1.51 %
Metropolitan West	1.31 %	1.91 %	2.11 %	1.27 %
Ambassador Capital	- %	- %	4.33 %	1.62 %
Fixed Income Managers:				
Alliance Bernstein	1.49 %	2.26 %	2.36 %	1.50 %
Prudential Investment	1.00 %	2.43 %	2.54 %	2.14 %
CMBS Investment	14.51 %	-2.12 %	-10.59 %	0.88 %
Absolute Return Strategies	2.74 %	0.13 %	-3.33 %	-1.06 %
Commodity Investments	7.61 %	-5.40 %	-10.70 %	0.19 %
Opportunistic Investments	4.10 %	0.09 %	0.06 %	2.44 %
Cash Equivalents	0.01 %	0.01 %	0.00 %	0.01 %
Short Term Fixed Income	0.09 %	0.08 %	0.05 %	0.04 %

MPSERS

Time-Weighted Rates of Return
Periods Ending December 31, 2011

Assets	% of Portfolio 12/31/11	Ten Years ¹		Seven Years ¹		Five Years ¹		Three Years ¹		One Year ¹		Current Quarter	
		Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank
TOTAL PLAN	100.0	5.0	69	4.8	32	1.9	52	9.3	69	3.3	18	2.9	81
Median - Greater than \$10 Billion ²		5.3		4.4		1.9		11.1		1.9		4.1	
MPSERS Total Plan Policy		4.9		4.3		1.6		10.9		1.8		3.0	
DOMESTIC EQUITIES	30.2	3.0	77	2.8	54	-0.1	46	14.5	49	-0.4	46	11.7	40
Median ²		3.6		2.9		-0.4		14.5		-0.6		11.1	
S&P 1500 Index		3.4		3.0		0.1		14.7		1.8		12.1	
Stock-Active	17.9	2.8		2.6		-0.3		14.5		-0.9		11.6	
S&P 500 Index/ S&P 1500 Blended Index ³		3.1		2.8		0.1		14.7		1.8		12.1	
Stock- Large Cap Active	13.3	2.6		2.3		-0.8		13.7		-0.3		11.0	
S&P 500 Index		2.9		2.6		-0.3		14.1		2.1		11.8	
Stock - Mid Cap Active	1.5					2.6		19.1		0.6		13.8	
S&P 400 Mid Cap Index						3.3		19.6		-1.7		13.0	
Stock- Small Cap Active	1.7	5.5		5.8		3.8		18.3		-5.1		14.8	
S&P 600 Small Cap Index		7.1		4.5		1.9		17.0		1.0		17.2	
Stock - Multicap Active	1.0							15.0		0.1		11.6	
S&P 1500 Index								14.7		1.8		12.1	
Low Volatility Strategies	0.3							16.2		7.3		10.2	
Tactical Allocation Fund												6.0	
Stock-Passive US Equities	12.3	3.7		3.3		0.5		15.1		2.3		12.0	
S&P 900 Blend ⁵		3.4		2.9		0.0		14.6		1.8		11.9	
Passive S&P 500	11.1	3.2		2.9		0.1		14.5		2.5		11.9	
S&P 500 Index		2.9		2.6		-0.3		14.1		2.1		11.8	
Passive S&P Mid-Cap	1.2	7.7		6.4		4.4		20.4		-0.3		13.2	
S&P 400 Mid Cap Index		7.0		5.6		3.3		19.6		-1.7		13.0	
INTERNATIONAL EQUITIES	12.6	4.2	65	2.5	66	-4.2	66	10.9	42	-12.3	36	4.4	25
Median ²		5.2		3.0		-3.1		9.9		-13.2		4.0	
Passive International Equities	7.9	4.3		2.7		-3.8		11.7		-10.8		3.9	
S&P Developed BMI-EPAC net 75/25 blend ⁸		3.9		2.3		-4.8		8.0		-12.5		3.1	
Active International Equities	2.2					-4.9		9.4		-12.3		4.6	
S&P Developed BMI Ex U.S. net						-3.7		10.0		-12.7		3.3	
Emerging Markets Equities	2.5									-18.1		6.3	
MSCI Emerging Markets Net										-18.4		4.4	

MPSERS

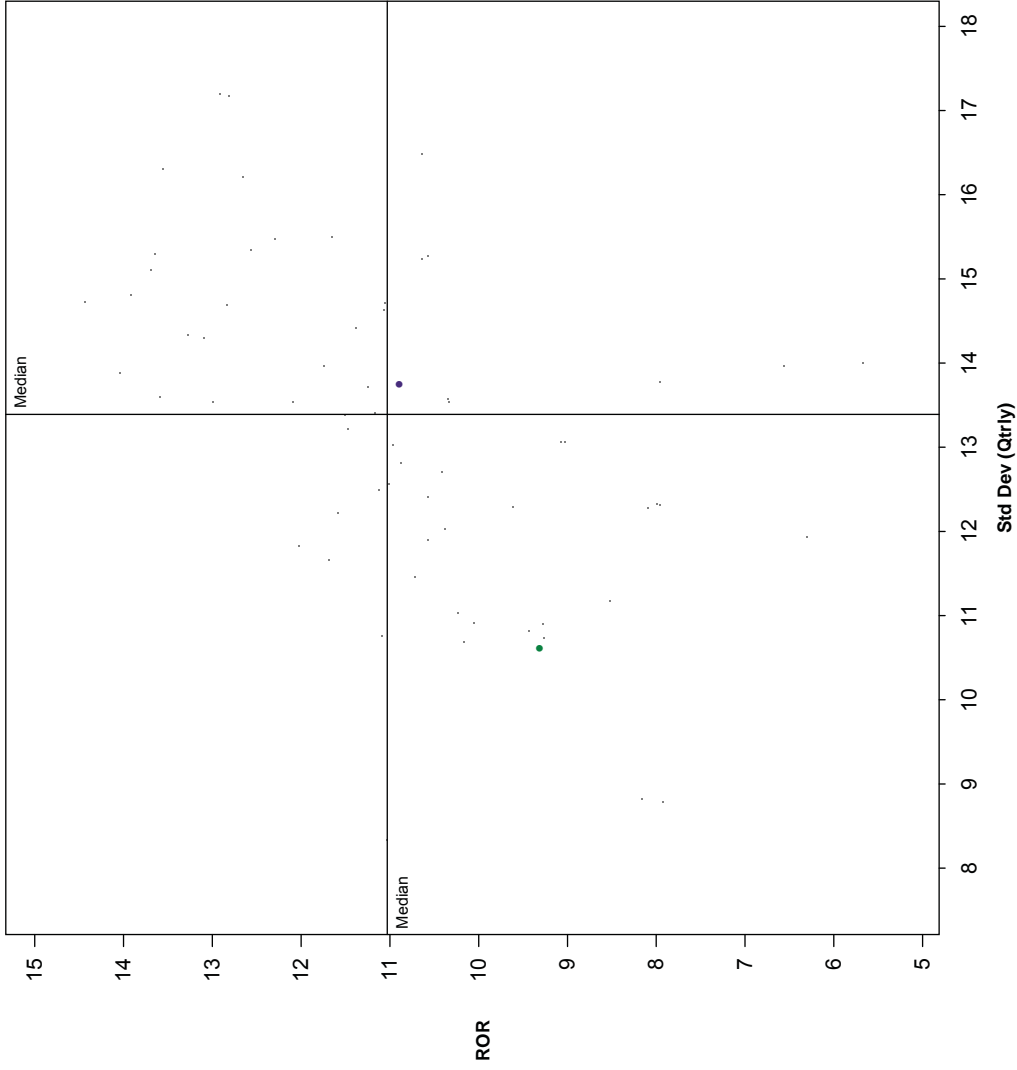
Time-Weighted Rates of Return
Periods Ending December 31, 2011

Assets	% of Portfolio 12/31/11	Ten Years ¹		Seven Years ¹		Five Years ¹		Three Years ¹		One Year ¹		Current Quarter	
		Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank
ALTERNATIVE INVESTMENTS	21.8	10.7	16	13.5	7	9.1	25	10.4	17	15.9	10	-5.2	92
Median ²		7.4		9.7		6.2		6.0		8.3		-1.3	
Alternative Blended Benchmark ⁶		6.2		5.8		3.0		16.9		4.3		-12.6	
REAL ESTATE	10.1	4.8	55	3.7	46	-1.1	29	-6.8	70	12.9	56	0.7	74
Median ²		5.1		3.4		-2.6		-5.3		13.8		2.4	
NCREIF - Property Blended Index ⁷		6.9		5.9		1.8		1.1		12.8		2.6	
NCREIF Open Fund Index Net		5.2		3.9		-1.1		-2.7		15.0		2.7	
INFRASTRUCTURE INVESTMENTS	0.2											N/A	
BONDS	13.3	6.1	67	6.2	46	7.3	41	9.1	71	7.0	49	1.3	77
Median ²		6.6		6.1		7.2		10.7		6.9		1.9	
Barclays Govt/Credit		5.9		5.5		6.6		6.6		8.7		1.2	
Government	2.9	5.5		5.8		6.6		5.8		7.1		1.2	
Barclays Government		5.6		5.6		6.6		4.0		9.0		0.8	
Corporate	7.4	6.5		6.4		7.7		10.1		7.3		1.2	
Barclays Credit		6.4		5.7		6.8		10.9		8.4		1.7	
Fixed Income External	3.0					6.5		10.2		7.3		1.6	
Barclays Aggregate				6.5		6.5		6.8		7.8		1.1	
ABSOLUTE RETURN	2.9							7.3		-1.6		-1.1	
HFRI FOF Cons 1 mth lagged								2.6		-1.9		-1.8	
COMMODITY INVESTMENTS	0.8									-8.9		0.2	
DJ-UBS Commodity Index TR										-13.3		0.3	
REAL RETURN AND OPPORTUNISTIC	2.9									6.0		2.4	
50% (CPI +500bp) + 50% (8% actuarial rate)										8.1		1.3	
CASH EQUIVALENTS	5.2	1.8		2.0		1.1		0.8		0.2		0.0	
1 Month T-Bill		1.8		2.0		1.2		0.1		0.1		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 Active Equity - Index is S&P 500 prior to March 2006. S&P 1500 current.
⁵ History prior to 5/1/07 is the S&P 1500
⁶ SP 500 + 300 BP through 12/31/06. Ending market value weighted blend of 10 yr yield + 300 BP and SP 500 + 300 12/31/06 to 9/30/09.
Ending market value weighted blend of 10 yr yield + 300 BP and SP 500 + 300 3 month lagged 9/30/09 to present.
⁷ NCREIF - Property Blended Index is NPI minus 75 basis points prior to October 2005. NPI minus 130 basis points current.
⁸ International 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 present.
Source: State Street Analytics; the NCREIF - NPI (Property Index) source is NCREIF; the S&P BMI-EPAC Index source is S&P.

MPERSERS TOTAL PLAN UNIVERSE REPORT

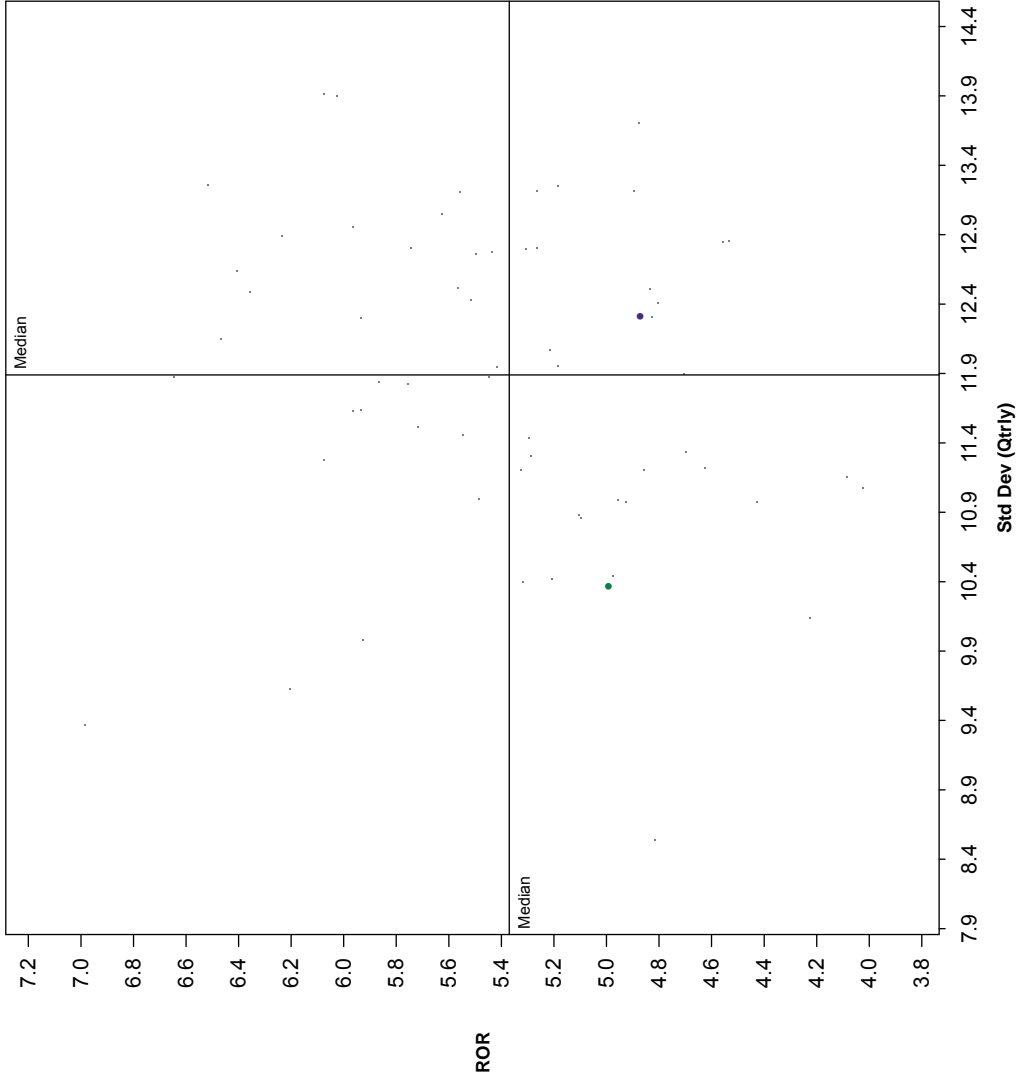
Public Funds (DB) > \$1 Billion (SSE) - Risk vs. Return 3 Years
 Period Ending December 31, 2011



NAME	Std Dev (Qtrly) 3 Yrs	ROR 3 Yrs
5th Percentile	8.81	13.93
25th Percentile	11.92	12.31
50th Percentile	13.39	11.03
75th Percentile	14.65	9.63
95th Percentile	16.38	6.87
No. of Obs	64	65
TOTAL PUBLIC SCHOOL	10.72	9.28
MPERSERS TOTAL PLAN POLICY	13.86	10.86

MPERSERS TOTAL PLAN UNIVERSE REPORT

Public Funds (DB) > \$1 Billion (SSE) - Risk vs. Return 10 Years
Period Ending December 31, 2011



NAME	Std Dev (Qtrly) 10 Yrs	10 Yrs
5th Percentile	9.62	6.52
25th Percentile	11.11	5.94
50th Percentile	11.89	5.37
75th Percentile	12.79	4.91
95th Percentile	13.48	4.33
No. of Obs	62	63
TOTAL PUBLIC SCHOOL	10.43	4.98
MPERSERS TOTAL PLAN POLICY	12.38	4.86

MPSERS

Time-Weighted Rates of Return
Public Plan Universe Comparison*
Periods Ending December 31, 2011

	<u>Quarter</u>	<u>One Year</u>	<u>Three Year</u>	<u>Five Year</u>	<u>Ten Year</u>
MPSERS	2.94	3.34	9.28	1.89	4.98 %
Rank	90	10	79	51	71
bp Difference - Median	-195	244	-175	61	-39
5th Percentile	7.76	4.36	13.93	3.04	6.52 %
25th Percentile	6.01	1.96	12.31	2.28	5.94 %
Median	4.89	0.90	11.03	1.89	5.37 %
75th Percentile	3.95	0.30	9.63	1.28	4.91 %
95th Percentile	2.03	-0.67	6.87	0.18	4.33 %

Five-Year Smoothing

	<u>2002-2007</u>	<u>2003-2008</u>	<u>2004-2009</u>	<u>2005-2010</u>	<u>2006-2011</u>
MPSERS	13.03 %	3.24 %	3.59 %	4.10 %	1.89 %
Median	13.02 %	2.04 %	3.31 %	4.48 %	1.92 %

Return vs. Risk

	<i>ANNUALIZED RETURNS</i>		<i>STD. DEVIATIONS</i>	
	<u>Value</u>	<u>Rank</u>	<u>Value</u>	<u>Rank</u>
	<u>Five Years</u>		<u>Five Years</u>	
MPSERS	1.89 %	51	12.09 %	15
Median	1.89 %		13.88 %	
	<u>Ten Years</u>		<u>Ten Years</u>	
MPSERS	4.98 %	71	10.43 %	13
Median	5.37 %		11.89 %	

*State Street Public Funds Universe > \$1 Billion.

MPSERS
Cumulative and Consecutive
Total Fund Returns

Cumulative For Years Ending 12/31/2011

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MPSERS	3.34	7.91	9.28	-0.28	1.89	3.97	4.80	5.47	6.91	4.98
Public Plan - Median (> \$1 billion)*	0.90	6.99	11.03	0.16	1.89	3.85	4.43	5.33	7.10	5.37
Rank	10	30	79	64	51	45	26	40	64	71
bp Difference - Median	+244	+92	-175	-44	0	+12	+37	+14	-19	-39

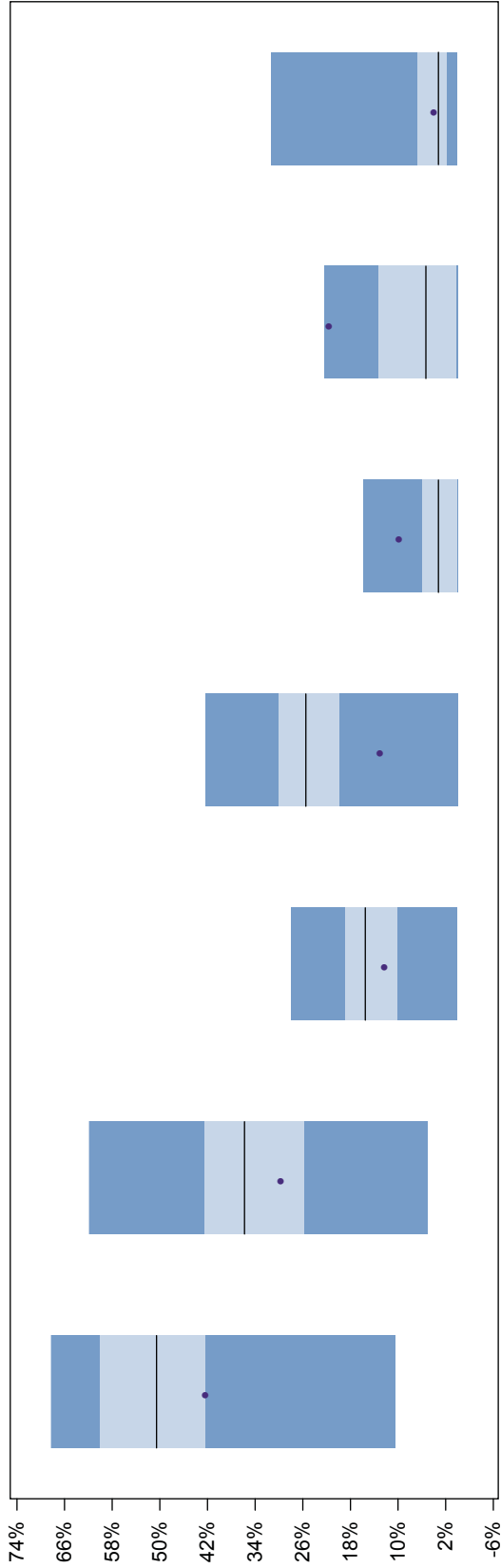
Consecutive For Years Ending

	12/11	12/10	12/09	12/08	12/07	12/06	12/05	12/04	12/03	12/02
MPSERS	3.34	12.68	12.09	-24.23	11.06	15.04	9.92	10.24	19.15	-10.89
Public Plan - Median (> \$1 billion)*	0.90	13.35	19.16	-26.51	9.12	14.47	7.88	11.63	23.15	-9.17
Rank	10	67	87	22	8	30	12	88	97	83
bp Difference - Median	+244	-67	-707	+228	+194	+57	+204	-139	-400	-172

*State Street Public Funds Universe > \$1 Billion.

MPERS TOTAL PLAN UNIVERSE REPORT

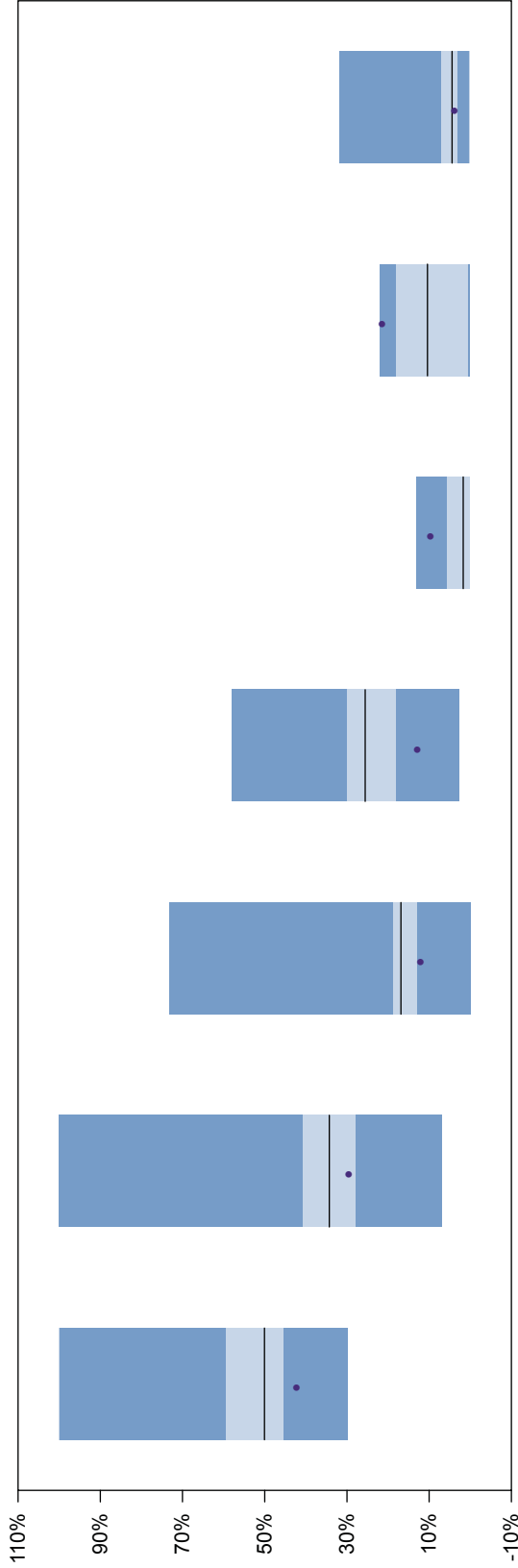
Public Funds (DB) > \$1 Billion (SSE) - Allocation
 Period Ending December 31, 2011



	Equities %	Equities Domestic %	Equities Foreign %	Fixed Income %	Real Estate %	Private Equity %	Cash Equiv %
5th Percentile	68.29	61.90	27.94	42.37	15.91	22.39	31.24
25th Percentile	60.17	42.60	18.85	30.19	6.02	13.34	6.76
50th Percentile	50.56	35.79	15.50	25.49	3.21	5.32	3.21
75th Percentile	42.25	25.68	10.05	19.86	0.04	0.23	1.74
95th Percentile	10.47	5.04	0.00	0.00	0.00	0.00	0.01
No. of Obs	68	68	68	68	68	68	67
• 1 TOTAL PUBLIC SCHOOL	42.73	30.09	12.64	13.42	10.19	21.95	4.35
	74	55	66	90	11	6	42

MPERS TOTAL PLAN UNIVERSE REPORT

Public Funds (GT) > \$10 Billion (SSE) - Allocation
 Period Ending December 31, 2011



• 1 TOTAL PUBLIC SCHOOL

MSERS

Time-Weighted Rates of Return Public Plan Universe Comparison* Periods Ending December 31, 2011

	<u>Quarter</u>	<u>One Year</u>	<u>Three Year</u>	<u>Five Year</u>	<u>Ten Year</u>
MSERS	2.96	3.18	9.12	1.74	4.90 %
Rank	90	11	81	57	76
bp Difference - Median	-193	228	-191	46	-47
5th Percentile	7.76	4.36	13.93	3.04	6.52 %
25th Percentile	6.01	1.96	12.31	2.28	5.94 %
Median	4.89	0.90	11.03	1.89	5.37 %
75th Percentile	3.95	0.30	9.63	1.28	4.91 %
95th Percentile	2.03	-0.67	6.87	0.18	4.33 %

Five-Year Smoothing

	<u>2002-2007</u>	<u>2003-2008</u>	<u>2004-2009</u>	<u>2005-2010</u>	<u>2006-2011</u>
MSERS	12.98 %	3.17 %	3.48 %	3.97 %	1.74 %
Median	13.02 %	2.04 %	3.31 %	4.48 %	1.92 %

Return vs. Risk

	<i>ANNUALIZED RETURNS</i>		<i>STD. DEVIATIONS</i>	
	<u>Value</u>	<u>Rank</u>	<u>Value</u>	<u>Rank</u>
	<u>Five Years</u>		<u>Five Years</u>	
MSERS	1.74 %	57	12.14 %	15
Median	1.89 %		13.88 %	
	<u>Ten Years</u>		<u>Ten Years</u>	
MSERS	4.90 %	76	10.43 %	12
Median	5.37 %		11.89 %	

*State Street Public Funds Universe > \$1 Billion.

MSERS
Cumulative and Consecutive
Total Fund Returns

Cumulative For Years Ending 12/31/2011

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MSERS	3.18	7.76	9.12	-0.45	1.74	3.84	4.69	5.36	6.80	4.90
Public Plan - Median (> \$1 billion)*	0.90	6.99	11.03	0.16	1.89	3.85	4.43	5.33	7.10	5.37
Rank	11	33	81	70	57	52	30	50	66	76
bp Difference - Median	+228	+77	-191	-61	-15	-1	+26	+3	-30	-47

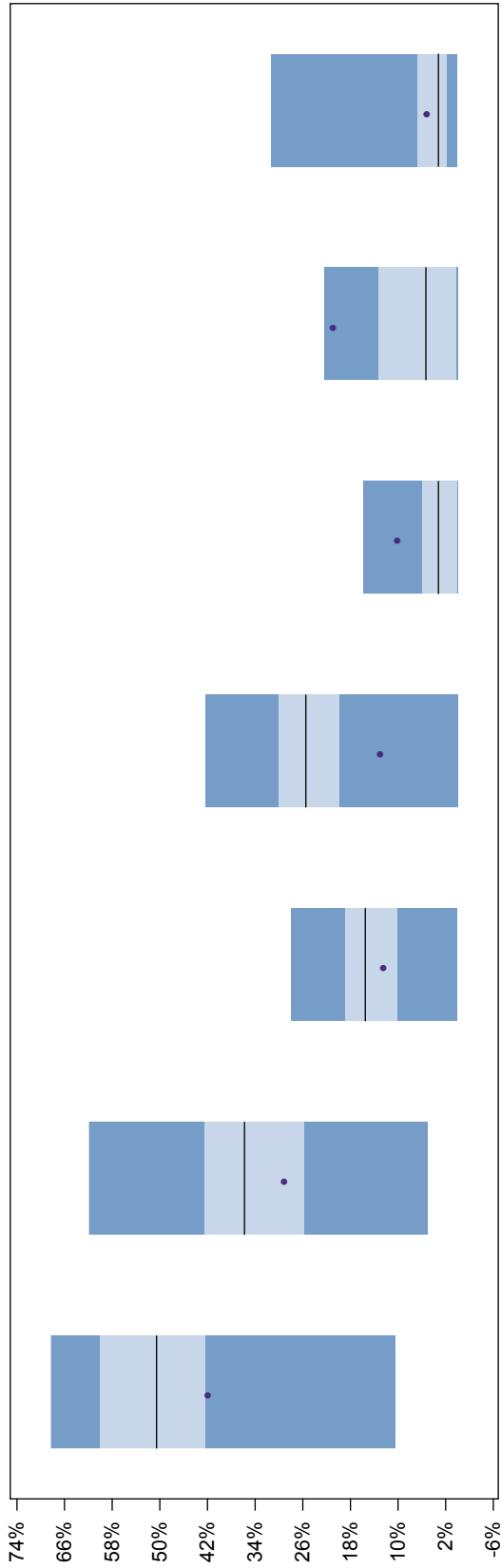
Consecutive For Years Ending

	12/11	12/10	12/09	12/08	12/07	12/06	12/05	12/04	12/03	12/02
MSERS	3.18	12.54	11.88	-24.42	11.01	15.02	9.91	10.17	19.04	-10.72
Public Plan - Median (> \$1 billion)*	0.90	13.35	19.16	-26.51	9.12	14.47	7.88	11.63	23.15	-9.17
Rank	11	73	88	27	8	31	13	89	98	77
bp Difference - Median	+228	-81	-728	+209	+189	+55	+203	-146	-411	-155

*State Street Public Funds Universe > \$1 Billion.

MSERS TOTAL PLAN UNIVERSE REPORT

Public Funds (DB) > \$1 Billion (SSE) - Allocation
 Period Ending December 31, 2011



	Equities %	Equities Domestic %	Equities Foreign %	Fixed Income %	Real Estate %	Private Equity %	Cash Equiv %
5th Percentile	68.29	61.90	27.94	42.37	15.91	22.39	31.24
25th Percentile	60.17	42.60	18.85	30.19	6.02	13.34	6.76
50th Percentile	50.56	35.79	15.50	25.49	3.21	5.32	3.21
75th Percentile	42.25	25.68	10.05	19.86	0.04	0.23	1.74
95th Percentile	10.47	5.04	0.00	0.00	0.00	0.00	0.01
No. of Obs	68	68	68	68	68	68	67
• 1 TOTAL EMPLOYEES	42.27	29.46	12.81	13.37	10.45	21.29	5.53
	75	57	65	90	11	6	34

MSPRS

Time-Weighted Rates of Return
Public Plan Universe Comparison*
Periods Ending December 31, 2011

	<u>Quarter</u>	<u>One Year</u>	<u>Three Year</u>	<u>Five Year</u>	<u>Ten Year</u>
MSPRS	2.89	3.33	9.06	1.81	4.95 %
Rank	92	11	82	54	73
bp Difference - Median	-200	243	-197	-8	-42
5th Percentile	7.76	4.36	13.93	3.04	6.52 %
25th Percentile	6.01	1.96	12.31	2.28	5.94 %
Median	4.89	0.90	11.03	1.89	5.37 %
75th Percentile	3.95	0.30	9.63	1.28	4.91 %
95th Percentile	2.03	-0.67	6.87	0.18	4.33 %

Five-Year Smoothing

	<u>2002-2007</u>	<u>2003-2008</u>	<u>2004-2009</u>	<u>2005-2010</u>	<u>2006-2011</u>
MSPRS	13.04 %	3.29 %	3.54 %	4.03 %	1.81 %
Median	13.02 %	2.04 %	3.31 %	4.48 %	1.92 %

Return vs. Risk

	<i>ANNUALIZED RETURNS</i>		<i>STD. DEVIATIONS</i>	
	<u>Value</u>	<u>Rank</u>	<u>Value</u>	<u>Rank</u>
	<u>Five Years</u>		<u>Five Years</u>	
MSPRS	1.81 %	54	12.05 %	9
Median	1.89 %		13.88 %	
	<u>Ten Years</u>		<u>Ten Years</u>	
MSPRS	4.95 %	73	10.39 %	9
Median	5.37 %		11.89 %	

*State Street Public Funds Universe > \$1 Billion.

MSPRS
Cumulative and Consecutive
Total Fund Returns

Cumulative For Years Ending 12/31/2011

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MSPRS	3.33	7.87	9.06	-0.42	1.81	3.91	4.76	5.42	6.85	4.95
Public Plan - Median (> \$1 billion)*	0.90	6.99	11.03	0.16	1.89	3.85	4.43	5.33	7.10	5.37
Rank	11	31	82	67	54	47	29	45	66	73
bp Difference - Median	+243	+88	-197	-58	-8	+6	+33	+9	-25	-42

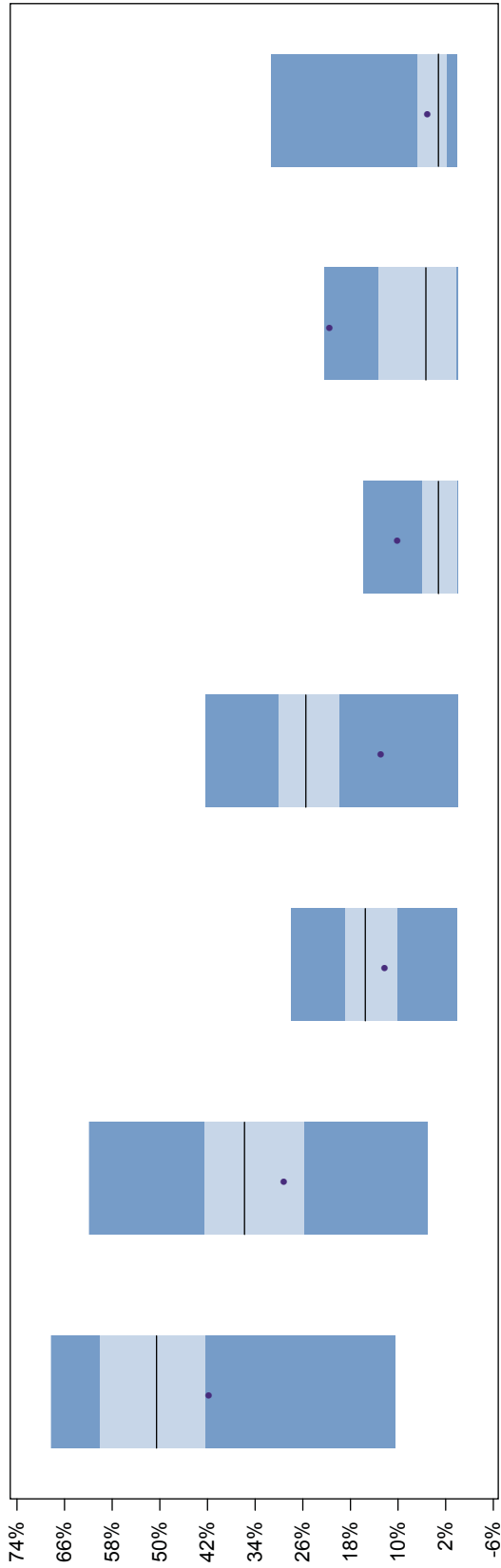
Consecutive For Years Ending

	12/11	12/10	12/09	12/08	12/07	12/06	12/05	12/04	12/03	12/02
MSPRS	3.33	12.61	11.50	-24.20	11.22	15.10	9.98	10.18	18.96	-10.68
Public Plan - Median (> \$1 billion)*	0.90	13.35	19.16	-26.51	9.12	14.47	7.88	11.63	23.15	-9.17
Rank	11	73	90	22	5	26	12	89	98	77
bp Difference - Median	+243	-74	-766	+231	+210	+63	+210	-145	-419	-151

*State Street Public Funds Universe > \$1 Billion.

MSPRS TOTAL PLAN UNIVERSE REPORT

Public Funds (DB) > \$1 Billion (SSE) - Allocation
 Period Ending December 31, 2011



	Equities %	Equities Domestic %	Equities Foreign %	Fixed Income %	Real Estate %	Private Equity %	Cash Equiv %
5th Percentile	68.29	61.90	27.94	42.37	15.91	22.39	31.24
25th Percentile	60.17	42.60	18.85	30.19	6.02	13.34	6.76
50th Percentile	50.56	35.79	15.50	25.49	3.21	5.32	3.21
75th Percentile	42.25	25.68	10.05	19.86	0.04	0.23	1.74
95th Percentile	10.47	5.04	0.00	0.00	0.00	0.00	0.01
No. of Obs	68	68	68	68	68	68	67
• 1 TOTAL POLICE	42.12	29.51	12.62	13.27	10.48	21.84	5.44
	76	57	66	90	10	6	35

MJRS

Time-Weighted Rates of Return Public Plan Universe Comparison* Periods Ending December 31, 2011

	<u>Quarter</u>	<u>One Year</u>	<u>Three Year</u>	<u>Five Year</u>	<u>Ten Year</u>
MJRS	3.41	3.06	8.32	1.61	4.71 %
Rank	87	11	85	64	87
bp Difference - Median	-148	216	-271	-28	-66
5th Percentile	7.76	4.36	13.93	3.04	6.52 %
25th Percentile	6.01	1.96	12.31	2.28	5.94 %
Median	4.89	0.90	11.03	1.89	5.37 %
75th Percentile	3.95	0.30	9.63	1.28	4.91 %
95th Percentile	2.03	-0.67	6.87	0.18	4.33 %

Five-Year Smoothing

	<u>2002-2007</u>	<u>2003-2008</u>	<u>2004-2009</u>	<u>2005-2010</u>	<u>2006-2011</u>
MJRS	12.56 %	3.22 %	3.28 %	3.83 %	1.61 %
Median	13.02 %	2.04 %	3.31 %	4.48 %	1.92 %

Return vs. Risk

	<i>ANNUALIZED RETURNS</i>		<i>STD. DEVIATIONS</i>	
	<u>Value</u>	<u>Rank</u>	<u>Value</u>	<u>Rank</u>
	<u>Five Years</u>		<u>Five Years</u>	
MJRS	1.61 %	64	11.93 %	9
Median	1.89 %		13.88 %	
	<u>Ten Years</u>		<u>Ten Years</u>	
MJRS	4.71 %	87	10.22 %	8
Median	5.37 %		11.89 %	

*State Street Public Funds Universe > \$1 Billion.

MJRS
Cumulative and Consecutive
Total Fund Returns

Cumulative For Years Ending 12/31/2011

	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year
MJRS	3.06	7.55	8.32	-0.62	1.61	3.70	4.48	5.10	6.50	4.71
Public Plan - Median (> \$1 billion)*	0.90	6.99	11.03	0.16	1.89	3.85	4.43	5.33	7.10	5.37
Rank	11	34	85	76	64	62	47	65	81	87
bp Difference - Median	+216	+56	-271	-78	-28	-15	+5	-23	-60	-66

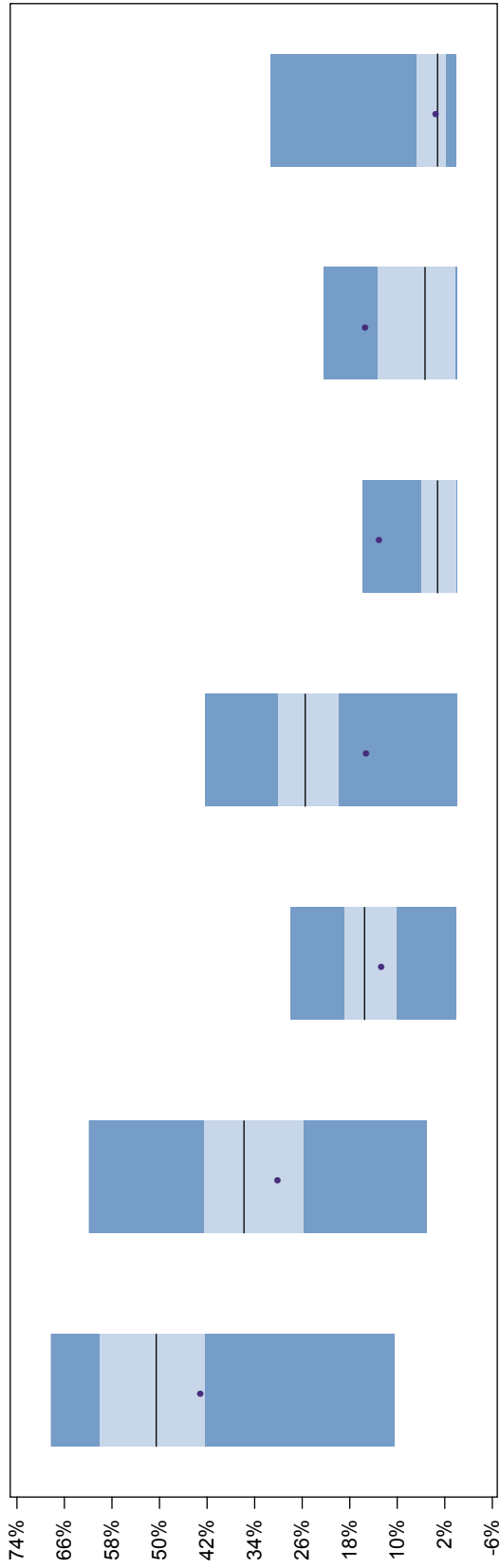
Consecutive For Years Ending

	12/11	12/10	12/09	12/08	12/07	12/06	12/05	12/04	12/03	12/02
MJRS	3.06	12.24	9.89	-23.25	11.02	14.80	9.31	9.57	18.39	-10.15
Public Plan - Median (> \$1 billion)*	0.90	13.35	19.16	-26.51	9.12	14.47	7.88	11.63	23.15	-9.17
Rank	11	82	93	13	8	38	18	93	98	74
bp Difference - Median	+216	-111	-927	+326	+190	+33	+143	-206	-476	-98

*State Street Public Funds Universe > \$1 Billion.

MJRS TOTAL PLAN UNIVERSE REPORT

Public Funds (DB) > \$1 Billion (SSE) - Allocation
 Period Ending December 31, 2011



	Equities %	Equities Domestic %	Equities Foreign %	Fixed Income %	Real Estate %	Private Equity %	Cash Equiv %
5th Percentile	68.29	61.90	27.94	42.37	15.91	22.39	31.24
25th Percentile	60.17	42.60	18.85	30.19	6.02	13.34	6.76
50th Percentile	50.56	35.79	15.50	25.49	3.21	5.32	3.21
75th Percentile	42.25	25.68	10.05	19.86	0.04	0.23	1.74
95th Percentile	10.47	5.04	0.00	0.00	0.00	0.00	0.01
No. of Obs	68	68	68	68	68	68	67
• 1 TOTAL JUDGES	43.48	30.48	13.00	15.61	13.41	15.73	3.89
	73	54	62	88	6	15	43

MPERS

Quarterly Comparisons*

Time-Weighted Rates of Return

Time Period	Rate	Rank	Median	bp Difference
2011 Year	3.34 %	10	0.90 %	+244 bp
4 Qtr.	2.94 %	90	4.89 %	-195 bp
3 Qtr.	-6.15 %	7	-8.65 %	+250 bp
2 Qtr.	1.98 %	16	1.28 %	+70 bp
1 Qtr.	4.89 %	14	4.15 %	+74 bp
2010 Year	12.68 %	65	12.96 %	-28 bp
4 Qtr.	6.21 %	41	5.96 %	+25 bp
3 Qtr.	7.15 %	90	8.46 %	-131 bp
2 Qtr.	-4.32 %	42	-4.74 %	+42 bp
1 Qtr.	3.48 %	46	3.45 %	+3 bp
2009 Year	12.09 %	82	18.19 %	-610 bp
4 Qtr.	2.58 %	93	3.44 %	-86 bp
3 Qtr.	9.14 %	85	10.91 %	-177 bp
2 Qtr.	7.33 %	89	10.24 %	-291 bp
1 Qtr.	-6.72 %	61	-6.28 %	-44 bp
2008 Year	-24.27 %	27	-25.89 %	+162 bp
4 Qtr.	-14.12 %	58	-13.71 %	-41 bp
3 Qtr.	-6.16 %	4	-9.15 %	+299 bp
2 Qtr.	-0.93 %	79	-0.60 %	-33 bp
1 Qtr.	-5.16 %	47	-5.24 %	+8 bp
2007 Year	11.06 %	8	8.56 %	+250 bp
4 Qtr.	-0.53 %	42	-0.65 %	+12 bp
3 Qtr.	2.70 %	29	2.31 %	+39 bp
2 Qtr.	6.57 %	3	4.47 %	+210 bp
1 Qtr.	2.01 %	68	2.15 %	-14 bp
2006 Year	15.04 %	34	14.34 %	+70 bp
4 Qtr.	4.98 %	93	5.86 %	-88 bp
3 Qtr.	4.54 %	6	3.90 %	+64 bp
2 Qtr.	0.14 %	4	-0.60 %	+74 bp
1 Qtr.	4.67 %	53	4.74 %	-7 bp
2005 Year	9.92 %	19	7.74 %	+218 bp
4 Qtr.	2.96 %	18	2.56 %	+40 bp
3 Qtr.	4.25 %	36	4.15 %	+10 bp
2 Qtr.	2.33 %	39	2.29 %	+4 bp
1 Qtr.	0.07 %	8	-0.82 %	+89 bp
2004 Year	10.24 %	83	11.45 %	-121 bp
4 Qtr.	5.68 %	95	8.05 %	-237 bp
3 Qtr.	0.03 %	76	0.27 %	-24 bp
2 Qtr.	1.76 %	2	0.09 %	+167 bp
1 Qtr.	2.47 %	89	2.93 %	-46 bp
2003 Year	19.15 %	83	22.61 %	-346 bp
4 Qtr.	7.90 %	77	8.89 %	-99 bp
3 Qtr.	3.55 %	37	3.34 %	+21 bp
2 Qtr.	8.69 %	91	11.14 %	-245 bp
1 Qtr.	-1.89 %	50	-1.89 %	0 bp

*State Street Public Funds Universe > \$1 Billion.

MSERS

Quarterly Comparisons*

Time-Weighted Rates of Return

Time Period	Rate	Rank	Median	bp Difference
2011 Year	3.18 %	11	0.90 %	+288 bp
4 Qtr.	2.96 %	90	4.89 %	-193 bp
3 Qtr.	-6.25 %	8	-8.65 %	+240 bp
2 Qtr.	1.95 %	17	1.28 %	+67 bp
1 Qtr.	4.86 %	14	4.15 %	+71 bp
2010 Year	12.55 %	74	12.96 %	-41 bp
4 Qtr.	6.21 %	40	5.96 %	+25 bp
3 Qtr.	9.09 %	86	10.91 %	-182 bp
2 Qtr.	-4.40 %	43	-4.74 %	+34 bp
1 Qtr.	3.40 %	54	3.45 %	-5 bp
2009 Year	11.88 %	83	18.19 %	-631 bp
4 Qtr.	2.42 %	96	3.44 %	-102 bp
3 Qtr.	9.09 %	86	10.91 %	-182 bp
2 Qtr.	7.38 %	89	10.24 %	-286 bp
1 Qtr.	-6.73 %	61	-6.28 %	-45 bp
2008 Year	-24.47 %	31	-25.89 %	+142 bp
4 Qtr.	-14.20 %	61	-13.71 %	-49 bp
3 Qtr.	-6.26 %	5	-9.15 %	+289 bp
2 Qtr.	-0.92 %	79	-0.60 %	-32 bp
1 Qtr.	-5.22 %	48	-5.24 %	+2 bp
2007 Year	11.01 %	9	8.56 %	+245 bp
4 Qtr.	-0.56 %	44	-0.65 %	+9 bp
3 Qtr.	2.66 %	31	2.31 %	+35 bp
2 Qtr.	6.55 %	5	4.47 %	+208 bp
1 Qtr.	2.05 %	62	2.15 %	-10 bp
2006 Year	15.02 %	34	14.34 %	+68 bp
4 Qtr.	4.98 %	92	5.86 %	-88 bp
3 Qtr.	4.49 %	8	3.90 %	+59 bp
2 Qtr.	0.15 %	4	-0.60 %	+75 bp
1 Qtr.	4.70 %	51	4.74 %	-4 bp
2005 Year	9.91 %	20	7.74 %	+217 bp
4 Qtr.	2.96 %	18	2.56 %	+40 bp
3 Qtr.	4.21 %	39	4.15 %	+6 bp
2 Qtr.	2.35 %	39	2.29 %	+6 bp
1 Qtr.	0.09 %	8	-0.82 %	+91 bp
2004 Year	10.17 %	84	11.45 %	-128 bp
4 Qtr.	5.69 %	95	8.05 %	-236 bp
3 Qtr.	0.03 %	77	0.27 %	-24 bp
2 Qtr.	1.72 %	3	0.09 %	+163 bp
1 Qtr.	2.45 %	92	2.93 %	-48 bp
2003 Year	19.04 %	84	22.61 %	-357 bp
4 Qtr.	7.79 %	79	8.89 %	-110 bp
3 Qtr.	3.49 %	39	3.34 %	+15 bp
2 Qtr.	8.70 %	91	11.14 %	-244 bp
1 Qtr.	-1.83 %	47	-1.89 %	+6 bp

*State Street Public Funds Universe > \$1 Billion.

MSPRS
Quarterly Comparisons*
Time-Weighted Rates of Return

Time Period	Rate	Rank	Median	bp Difference
2011 Year	3.33 %	11	0.90 %	+243 bp
4 Qtr.	2.89 %	92	4.89 %	-200 bp
3 Qtr.	-6.16 %	8	-8.65 %	+249 bp
2 Qtr.	2.00 %	15	1.28 %	+72 bp
1 Qtr.	4.92 %	10	4.15 %	+77 bp
2010 Year	12.61 %	70	12.96 %	-35 bp
4 Qtr.	6.26 %	40	5.96 %	+30 bp
3 Qtr.	8.98 %	87	10.91 %	-193 bp
2 Qtr.	-4.30 %	40	-4.74 %	+44 bp
1 Qtr.	3.40 %	54	3.45 %	-5 bp
2009 Year	11.50 %	85	18.19 %	-669 bp
4 Qtr.	2.40 %	96	3.44 %	-104 bp
3 Qtr.	8.98 %	87	10.91 %	-193 bp
2 Qtr.	7.15 %	91	10.24 %	-309 bp
1 Qtr.	-6.75 %	62	-6.28 %	-47 bp
2008 Year	-24.24 %	27	-25.89 %	+165 bp
4 Qtr.	-14.14 %	59	-13.71 %	-43 bp
3 Qtr.	-6.14 %	4	-9.15 %	+301 bp
2 Qtr.	-0.91 %	78	-0.60 %	-31 bp
1 Qtr.	-5.13 %	44	-5.24 %	+11 bp
2007 Year	11.22 %	6	8.56 %	+266 bp
4 Qtr.	-0.49 %	38	-0.65 %	+16 bp
3 Qtr.	2.70 %	30	2.31 %	+39 bp
2 Qtr.	6.65 %	2	4.47 %	+218 bp
1 Qtr.	2.05 %	62	2.15 %	-10 bp
2006 Year	15.1 %	25	14.34 %	+76 bp
4 Qtr.	4.99 %	92	5.86 %	-87 bp
3 Qtr.	4.53 %	7	3.90 %	+63 bp
2 Qtr.	0.17 %	4	-0.60 %	+77 bp
1 Qtr.	4.70 %	51	4.74 %	-4 bp
2005 Year	9.98 %	17	7.74 %	+224 bp
4 Qtr.	2.97 %	18	2.56 %	+41 bp
3 Qtr.	4.26 %	36	4.15 %	+11 bp
2 Qtr.	2.34 %	39	2.29 %	+5 bp
1 Qtr.	0.10 %	8	-0.82 %	+92 bp
2004 Year	10.18 %	84	11.45 %	-127 bp
4 Qtr.	5.69 %	95	8.05 %	-236 bp
3 Qtr.	0.05 %	75	0.27 %	-22 bp
2 Qtr.	1.70 %	3	0.09 %	+161 bp
1 Qtr.	2.45 %	92	2.93 %	-48 bp
2003 Year	18.97 %	85	22.61 %	-364 bp
4 Qtr.	7.76 %	79	8.89 %	-113 bp
3 Qtr.	3.48 %	39	3.34 %	+14 bp
2 Qtr.	8.73 %	91	11.14 %	-241 bp
1 Qtr.	-1.88 %	50	-1.89 %	+1 bp

*State Street Public Funds Universe > \$1 Billion.

MJRS
 Quarterly Comparisons*
 Time-Weighted Rates of Return

Time Period	Rate	Rank	Median	bp Difference
2011 Year	3.06 %	11	0.90 %	+216 bp
4 Qtr.	3.41 %	87	4.89 %	-148 bp
3 Qtr.	-6.55 %	10	-8.65 %	+210 bp
2 Qtr.	1.75 %	27	1.28 %	+47 bp
1 Qtr.	4.81 %	16	4.15 %	+66 bp
2010 Year	12.24 %	82	12.96 %	-72 bp
4 Qtr.	6.43 %	36	5.96 %	+47 bp
3 Qtr.	8.58 %	90	10.91 %	-233 bp
2 Qtr.	-4.86 %	59	-4.74 %	-12 bp
1 Qtr.	3.00 %	72	3.45 %	-45 bp
2009 Year	9.89 %	89	18.19 %	-830 bp
4 Qtr.	1.51 %	97	3.44 %	-193 bp
3 Qtr.	8.58 %	90	10.91 %	-233 bp
2 Qtr.	7.17 %	91	10.24 %	-307 bp
1 Qtr.	-6.94 %	64	-6.28 %	-66 bp
2008 Year	-23.28 %	18	-25.89 %	+261 bp
4 Qtr.	-13.51 %	46	-13.71 %	+20 bp
3 Qtr.	-5.96 %	2	-9.15 %	+319 bp
2 Qtr.	-0.85 %	71	-0.60 %	-25 bp
1 Qtr.	-4.86 %	36	-5.24 %	+38 bp
2007 Year	11.02 %	9	8.56 %	+246 bp
4 Qtr.	-0.44 %	37	-0.65 %	+21 bp
3 Qtr.	2.62 %	34	2.31 %	+31 bp
2 Qtr.	6.36 %	5	4.47 %	+189 bp
1 Qtr.	2.17 %	49	2.15 %	+2 bp
2006 Year	14.8 %	38	14.34 %	+46 bp
4 Qtr.	4.89 %	94	5.86 %	-97 bp
3 Qtr.	4.37 %	13	3.90 %	+47 bp
2 Qtr.	0.16 %	4	-0.60 %	+76 bp
1 Qtr.	4.71 %	51	4.74 %	-3 bp
2005 Year	9.31 %	21	7.74 %	+157 bp
4 Qtr.	2.82 %	22	2.56 %	+26 bp
3 Qtr.	3.89 %	66	4.15 %	-26 bp
2 Qtr.	2.31 %	45	2.29 %	+2 bp
1 Qtr.	0.01 %	10	-0.82 %	+83 bp
2004 Year	9.57 %	88	11.45 %	-188 bp
4 Qtr.	5.58 %	96	8.05 %	-247 bp
3 Qtr.	0.03 %	77	0.27 %	-24 bp
2 Qtr.	1.46 %	4	0.09 %	+137 bp
1 Qtr.	2.25 %	93	2.93 %	-68 bp
2003 Year	18.39 %	90	22.61 %	-422 bp
4 Qtr.	7.37 %	85	8.89 %	-152 bp
3 Qtr.	3.21 %	54	3.34 %	-13 bp
2 Qtr.	8.62 %	94	11.14 %	-252 bp
1 Qtr.	-1.64 %	43	-1.89 %	+25 bp

*State Street Public Funds Universe > \$1 Billion.

Annual Total Returns of Key Asset Classes 1992 - 2011

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Small Value Stocks	29.15%	32.57%	7.78%	38.13%	23.97%	36.52%	42.16%	43.09%	22.83%	14.02%	10.26%	48.54%	22.25%	13.54%	26.34%	11.17%	5.24%	34.47%	29.09%	7.84%	
Large Value Stocks	18.42%	23.86%	3.90%	37.58%	22.96%	33.36%	28.58%	28.25%	11.63%	8.44%	1.65%	47.25%	20.25%	6.33%	23.48%	9.13%	2.11%	31.78%	26.05%	4.65%	
Small Growth Stocks	10.52%	18.89%	3.14%	36.99%	22.00%	31.78%	20.00%	26.96%	6.08%	3.83%	-11.42%	46.03%	18.33%	4.91%	20.80%	7.05%	-28.92%	31.57%	24.50%	2.11%	
Large Growth Stocks	7.77%	18.61%	1.32%	31.04%	21.37%	29.98%	14.69%	21.26%	5.89%	2.49%	-15.66%	38.59%	15.71%	4.71%	18.37%	6.97%	-33.79%	27.17%	15.10%	0.03%	
Small Value Bonds	7.40%	10.08%	-0.64%	28.44%	16.53%	22.36%	8.70%	21.04%	-3.02%	-9.23%	-20.48%	28.68%	14.31%	4.55%	15.80%	5.49%	-34.92%	26.47%	15.06%	-0.48%	
Large Value Bonds	5.06%	9.75%	-1.81%	18.46%	6.05%	9.64%	1.23%	4.68%	-13.96%	-11.87%	-21.26%	25.66%	10.88%	4.15%	13.35%	4.74%	-37.00%	21.17%	15.05%	-2.91%	
Small Growth Stocks	3.51%	2.90%	-2.44%	11.21%	5.21%	5.26%	-2.55%	-0.82%	-22.08%	-12.75%	-22.77%	4.10%	4.34%	2.98%	4.75%	-1.57%	-39.22%	5.93%	6.54%	-5.50%	
Large Growth Stocks	1.68%	1.68%	-2.92%	5.60%	3.64%	1.78%	-6.46%	-1.48%	-22.43%	-21.45%	-30.26%	1.02%	1.20%	2.43%	4.33%	-9.78%	-43.42%	0.09%	0.02%	-12.14%	
Cash																					

Best ←

← **Best**

Worst

→ **Worst**

- Small Stocks are represented by the Russell 2000 Index
- Small Growth Stocks are represented by the Russell 2000 Growth Index
- Small Value Stocks are represented by the Russell 2000 Value Index
- U.S. Bonds are represented by the Barclays Capital Aggregate Bond Index

**STATE OF MICHIGAN
RETIREMENT SYSTEMS**

ASSET ALLOCATION REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 1, 2012

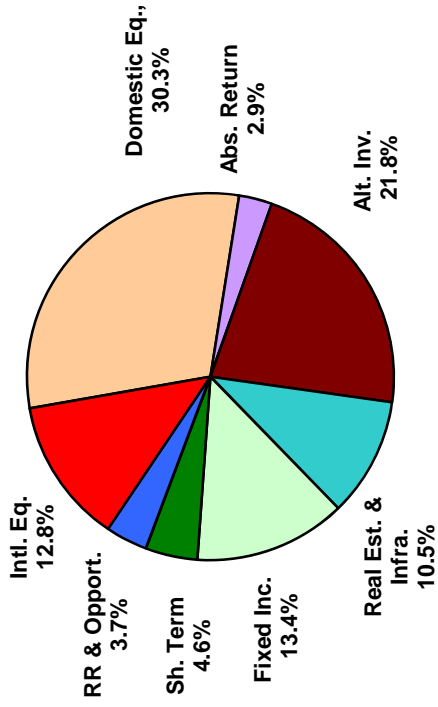


**Jon M. Braeutigam
Chief Investment Officer
Bureau of Investments**

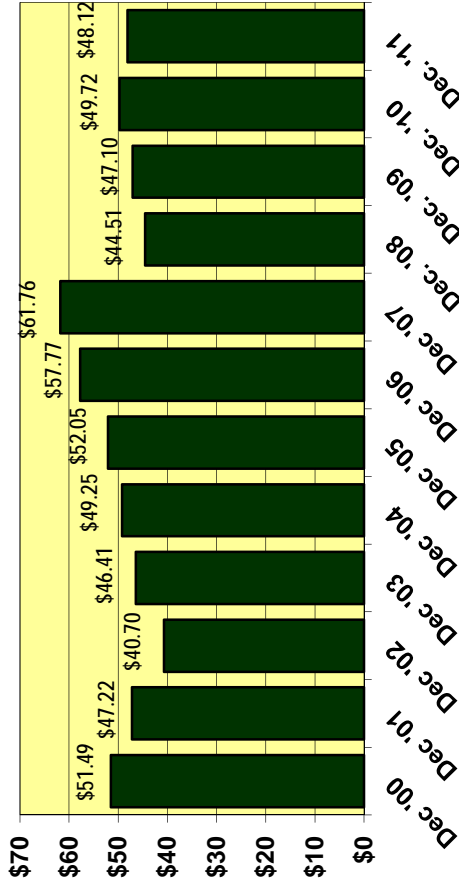


STATE OF MICHIGAN RETIREMENT SYSTEMS PROFILE - DECEMBER 2011

Asset Allocation 12/31/11



Market Value* 12/00 - 12/11 (Billions of Dollars)



Asset Allocation By Market Value

(In Millions)

Investment Strategies	12/31/2011	9/30/2011
Domestic Equity	\$14,583	\$13,446
Alternative Investments	10,487	11,223
Fixed Income	6,458	7,182
International Equity	6,146	5,885
Real Estate & Infra.	5,047	4,977
Short Term**	2,213	1,771
Real Return & Opport.	1,772	1,585
Absolute Return	1,417	1,396
TOTAL	\$48,123	\$47,465

Short Term Equivalents

Short Term Strategy**	\$2.2
Short Term in Other Inv. Strategies	1.0
TOTAL SHORT TERM	\$3.2

6.6% of Total Funds

Market Value By Plan 12/31/2011

	Market Value (In Millions)	%
Public School Employees	\$37,665	78.3%
State Employees	9,192	19.1%
State Police	1,030	2.1%
Judges	236	0.5%
TOTAL	\$48,123	100.0%



18th Largest DB Public Pension Fund in the U.S.
21st Largest DB Pension Fund in the U.S.



Pensions & Investments Survey - February 7, 2011

*The retirement systems annually pay out approximately \$2.6 billion to beneficiaries in excess of contributions (FY2010).

Asset Deployment

October – November – December ~ 2011

Beginning Cash:
\$2.62 Billion

Active Equity
+\$524 mil

Net sales of \$493 billion in active equity. Net withdrawals of \$30 million from external managers.

Passive Equity
-\$26 mil

Net cash outflows of \$31 million in S&P 500 and \$5 million in inflows from the mid-cap indices.

International
+\$61 mil

Net sales of \$242 million in international equity swaps and net outflow of \$181 million to external managers.

Alternative Invest.
+\$133 mil

Distributions exceeded draw-downs by \$133 million.

Real Estate
-\$58 mil

Draw-downs exceeded the distributions by \$58 million.

Fixed Income
+\$684 mil

Sales, calls and maturities exceeded purchases by \$684 million.

STARR
-\$311 mil

Net purchases of \$311 million in opportunistic and commodity investments.

Invest. Income
+\$272 mil
Net Benefit Payments
-\$681 mil
-\$409 mil

Ending Cash:
\$3.21 Billion

Asset Allocation Targets

Asset Class	MPERS			MSERS			MSPRS			MJRS		
	Actual 12/31/11	Target 9/30/12	Target* 9/30/13	Actual 12/31/11	Target 9/30/12	Target* 9/30/13	Actual 12/31/11	Target 9/30/12	Target* 9/30/13	Actual 12/31/11	Target 9/30/12	Target* 9/30/13
Broad US Equity	30.5%	33.0%	33.0%	29.7%	33.0%	33.0%	30.1%	33.0%	33.0%	31.0%	31.0%	31.0%
Broad Int'l Equity	12.7%	16.0%	16.0%	12.9%	16.0%	16.0%	12.7%	16.0%	16.0%	13.1%	15.0%	15.0%
US Fixed Income Core	13.4%	16.0%	16.0%	13.4%	16.0%	16.0%	13.3%	16.0%	16.0%	15.6%	20.0%	20.0%
Real Estate Core	10.4%	9.0%	9.0%	10.7%	9.0%	9.0%	10.7%	9.0%	9.0%	13.7%	10.0%	10.0%
Alternative Invest.	22.0%	14.0%	14.0%	21.3%	14.0%	14.0%	21.8%	14.0%	14.0%	15.7%	12.0%	12.0%
Absolute Return	2.9%	6.0%	6.0%	3.0%	6.0%	6.0%	3.0%	6.0%	6.0%	3.0%	6.0%	6.0%
Real Return / Opportunistic	3.7%	4.0%	4.0%	3.5%	4.0%	4.0%	3.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Cash	4.4%	2.0%	2.0%	5.5%	2.0%	2.0%	5.4%	2.0%	2.0%	3.9%	2.0%	2.0%
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%
Expected Return			8.1%			8.1%			8.1%			7.9%
Expected Risk (1 yr.)			12.7%			12.7%			12.7%			11.8%
*Complies with basket clause and international restrictions.												

Asset Allocation Targets and Ranges

Asset Class	MPSERS		MSERS		MSPRS		MJRS	
	Targets	Ranges*	Targets	Ranges*	Targets	Ranges*	Targets	Ranges*
Broad US Equity	33%	20% - 50%	33%	20% - 50%	33%	20% - 50%	31%	20% - 50%
Broad Int'l Equity	16%	10% - 20%	16%	10% - 20%	16%	10% - 20%	15%	10% - 20%
US Fixed Income Core	16%	10% - 25%	16%	10% - 25%	16%	10% - 25%	20%	10% - 30%
Real Estate Core	9%	5% - 15%	9%	5% - 15%	9%	5% - 15%	10%	5% - 15%
Alternative Invest.	14%	10% - 20%	14%	10% - 20%	14%	10% - 20%	12%	8% - 18%
Absolute Return	6%	0% - 12%	6%	0% - 12%	6%	0% - 12%	6%	0% - 12%
Real Return	4%	0% - 8%	4%	0% - 8%	4%	0% - 8%	4%	0% - 8%
Cash	2%	1% - 7%	2%	1% - 7%	2%	1% - 7%	2%	1% - 7%
TOTAL	100.0%		100.0%		100.0%		100.0%	
*Complies with basket clause and international restrictions.								

**STATE OF MICHIGAN
RETIREMENT SYSTEMS**

CAPITAL MARKETS OVERVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 1, 2012

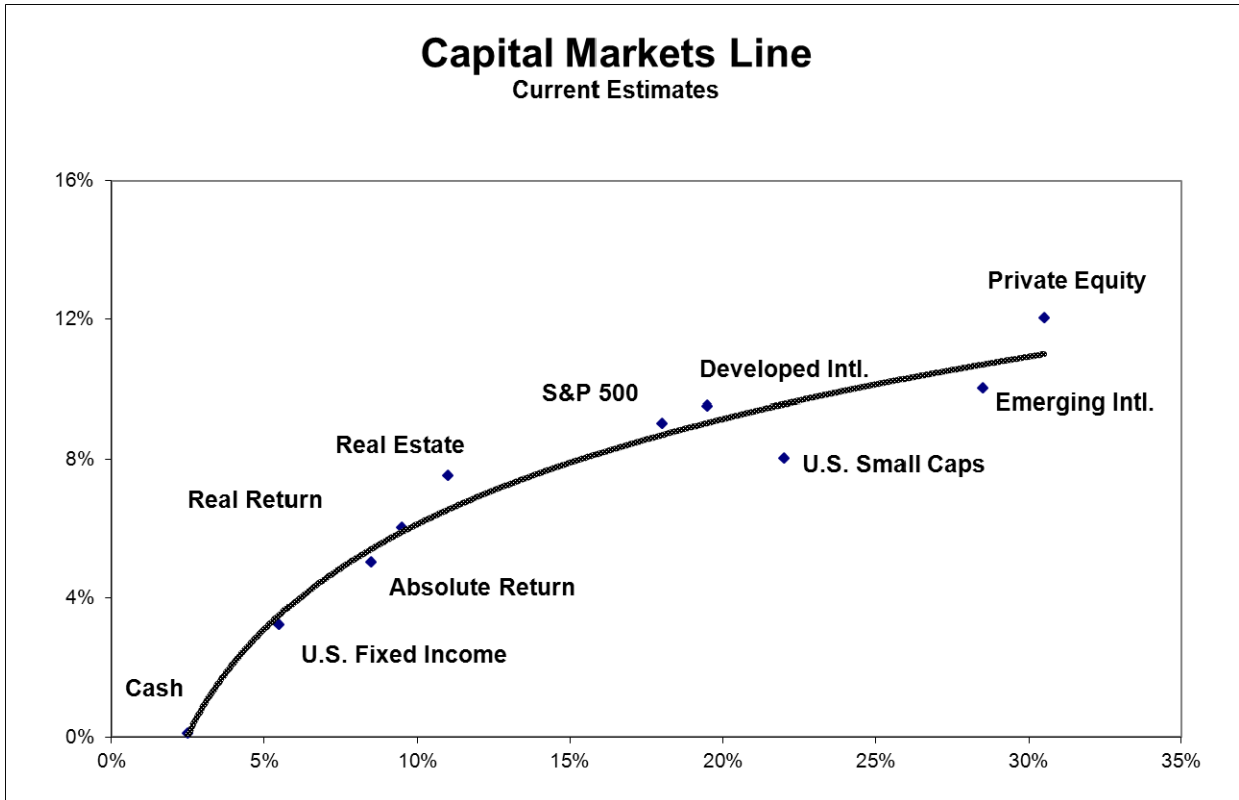
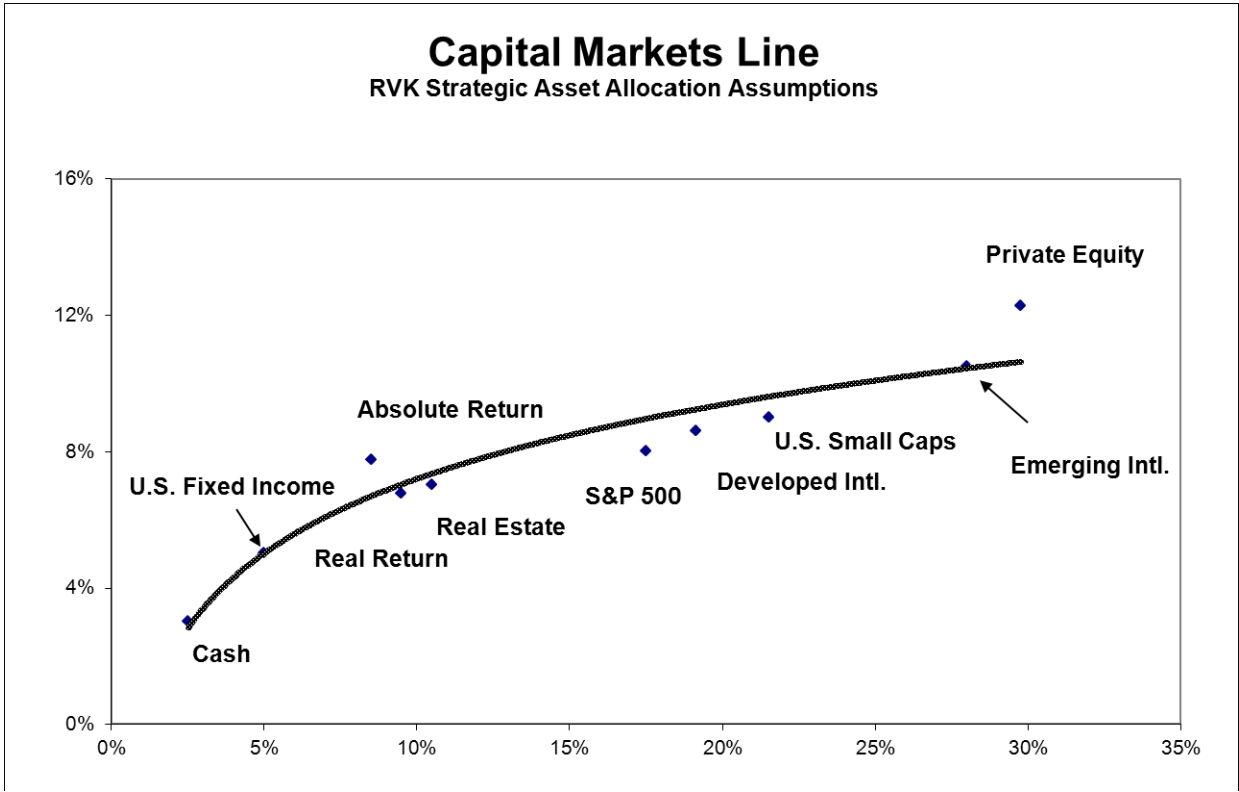


**Gregory J. Parker, CFA
Director of Investments – Public Markets
Director of Asset Allocation
Bureau of Investments**

CAPITAL MARKETS OVERVIEW

- Most asset classes are priced to return “Normal” long-term rates of returns.
- Responses to the European Sovereign Debt Crisis appear effective and credible.
 - Globally Coordinated Central Bank liquidity injection reducing currency swap rates by 50 basis points (bp).
 - Three-year Long-Term Refinancing Operations (LTROs) loaning ~ 490 billion Euros to European banks at a rate of 1%. A second operation was held on February 29, 2012.
 - Collateral rules have been relaxed making an additional 6 trillion Euros eligible to be used as collateral.
- Economic Indicators are beating expectations and in some instances improving.
 - U.S. unemployment rate down to 8.3%.
 - Leading Economic Indicators improving.
 - Consumer confidence is improving.
- Equity Market Concerns:
 - Margins are weakening.
 - Earnings growth is poor.
 - Guidance is weak.
 - Very low volume.
- Fixed Income Market Concerns:
 - Negative real rates of return on short term.
 - Negative real rates of return on 10-year Treasury.
 - Credit spreads “only” normal.
- Housing has not bottomed.
- U.S. GDP growth still very weak at 1.6%.

Capital Markets Line



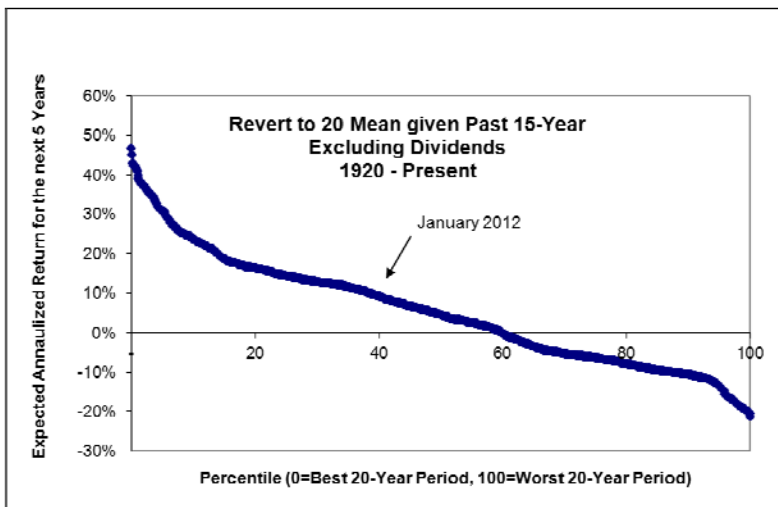
Domestic Equities

S&P 500 – 12/31/08 – 1/31/12



- We stated in December, the technical backdrop is notably weaker indicating the potential for weaker returns.
- At the beginning of 2012, the S&P 500 was priced above the 200-day moving average.
- The market is poised to test 52-week highs – too early to tell if prices can continue ascent.

Returns Based Outlook



- Since 1920, the median 20-year price return for the S&P 500 is 174.5% or 5.2% annualized.
- The S&P 500 has increased by 66.8% over the past 15 years.
- Using the 20-year median price return as a projection, there is a 50% chance that the annualized price return for the S&P 500 will be 10.5% over the next 5 years.

Earnings Based Outlook

<u>Scenario</u>	<u>Price Return Estimate</u>	<u>Total Return Estimate</u>
Super Bull	22.5%	26.1%
Bull	11.3%	15.7%
Base	3.9%	7.8%
Bear	-6.8%	-3.9%
Super Bear	-14.6%	-12.0%

Assumptions

	<u>2016 Earnings</u>	<u>2016 P/E Ratio</u>	<u>Dividend Payout</u>
High	\$141.22	25.0	62%
Mid	\$99.73	15.5	54%
Low	\$58.25	10.0	42%

Based on Robert Shiller data

International Equities

Developed Markets

MSCI EAFE – 12/31/08 – 1/31/12



- The developed international equity markets represented by the MSCI EAFE Index are above their 2009 lows.
- MSCI EAFE is now at its 200-day moving average, at the low end of the 2009-2011 price channel.
- In August, the index broke through to the downside of the established trading range.
- Developed international markets have room to run in a risk taking market.

Emerging Markets

MSCI Emerging Markets – 12/31/06 – 1/31/12



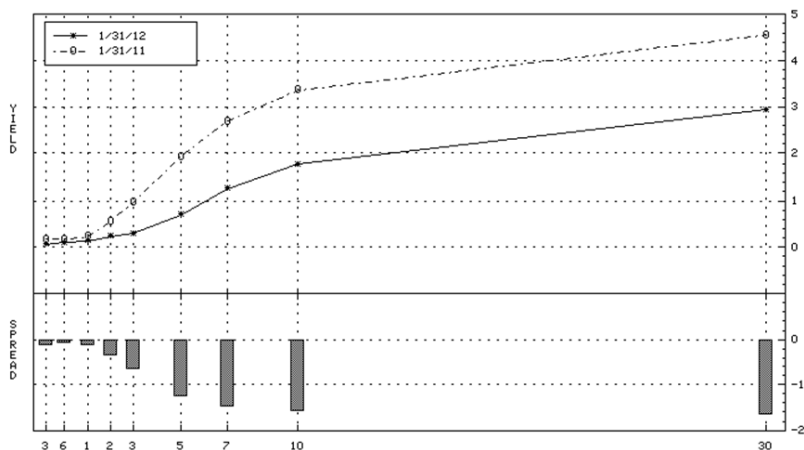
- The “V-shaped” recovery in emerging markets began in 2008. However, the rate of appreciation has slowed since late 2009.
- At the end of October, it appeared further weakness was likely in the near term until a new trend can be established.
- Emerging markets are now above the October levels and participating in the overall moves in the equity markets.

Count of Markets Priced Below a 200-Day Moving Average

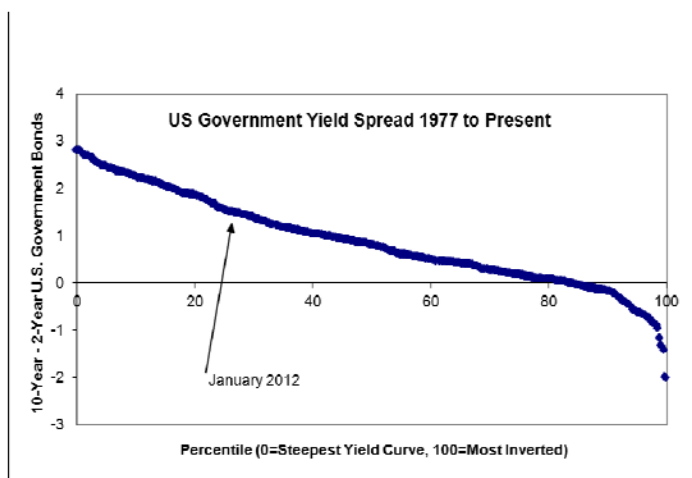
	<u>Developed</u>	<u>Emerging</u>
January 31, 2012	14	12
December 31, 2011	23	15
December 31, 2010	5	2

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

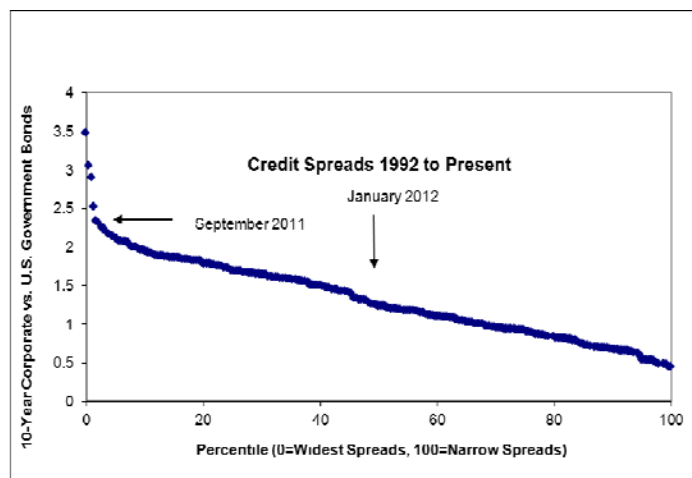
U.S. Cash and Fixed Income



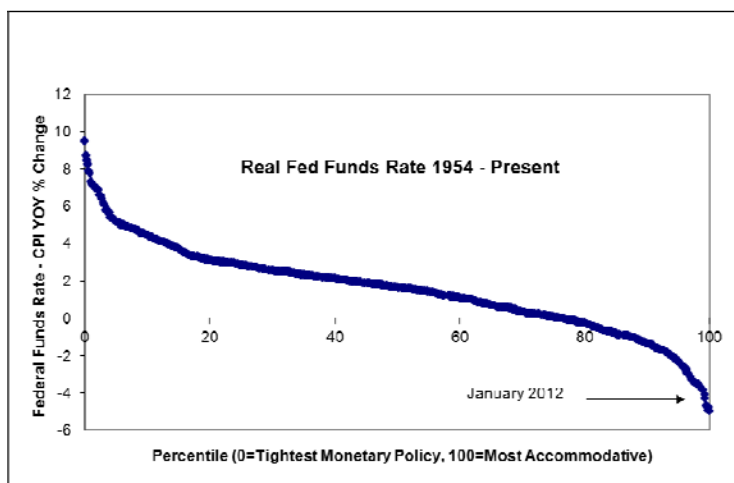
- Over the past year, rates have decreased across the curve, especially at the long end of the curve.
- Rates at the short end are still very low.



- The yield curve is steep, but flattening.
- Flattest curve in 3 years.
- Another 70 bp of flattening to get to average.



- Credit spreads are now average.
- Credit spreads are the tightest they have been in the past 4 years.



- The Fed maintains an extremely accommodative stance.
- The Fed has announced its intention to keep rates low through late 2014.

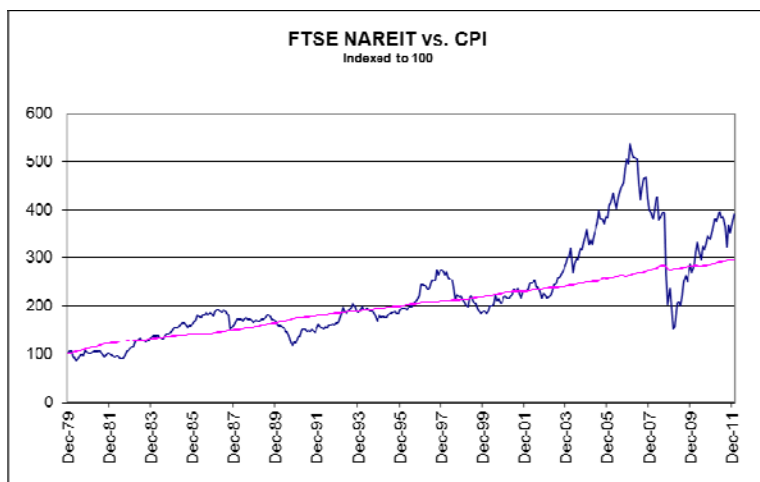
U. S. Real Estate

FTSE NAREIT Index – 1/31/06 – 1/31/12



- Commercial real estate represented by the FTSE NAREIT Index has rebounded strongly since the first quarter of 2009 and has been trending up.
- The trend rate of acceleration has rolled over.
- The index price is above its 200-day moving average.

Return Outlook

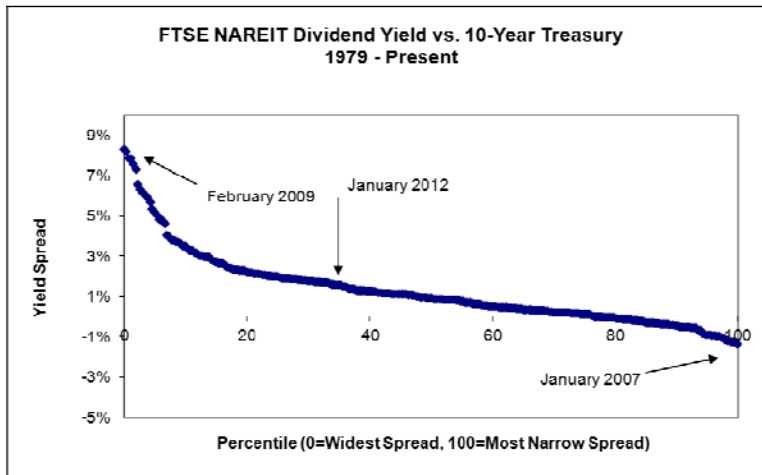


- REITs prices have trended around CPI.

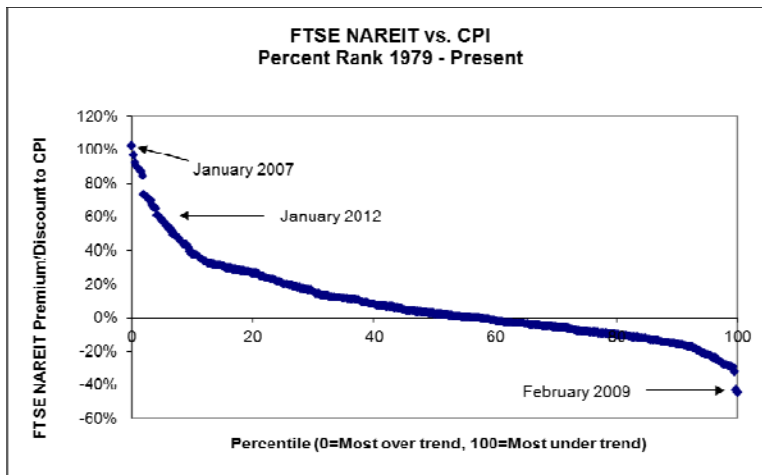


- Private real estate returns historically have followed public real estate (REIT) returns.
- Using the public REIT market as a guide, private real estate returns could return mid-single digit positive returns over the next few years.

U.S. Real Estate - Continued



- The Index normally yields 0.90% more than 10-Year Treasuries.
- Current dividend yield is at 3.5%.
- When compared against the 10-Year Treasury, REITs are reasonably priced.



- REITs have priced lower ~ 13% of the time.
- REITs are very expensive when compared to the CPI.

Commodities

CRB Index



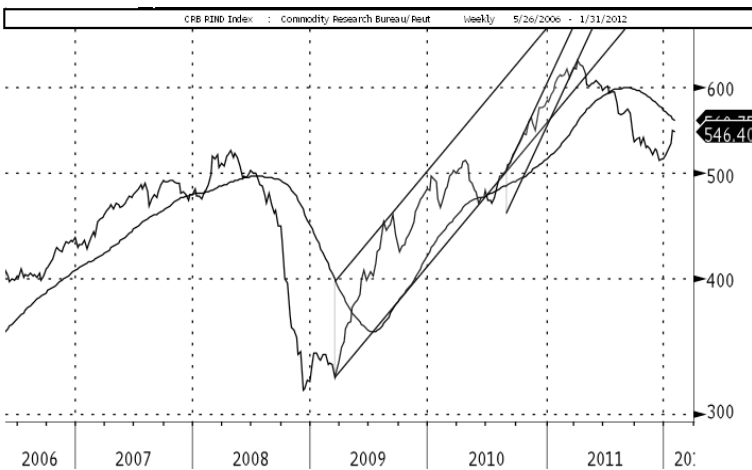
- Commodity prices, as measured by the ThomsonReuters / Jeffries CRB Index, appear to have rolled over.
- Inflation does not appear to be a 2012 concern.

CRB Food Index



- CRB Food index remains elevated
- Index price break-out in late 2010
- Price increase trend has moderated

CRB Raw Industrials Index



- CRB Raw Industrials index trend has rolled over.
- Price increase trend is falling.

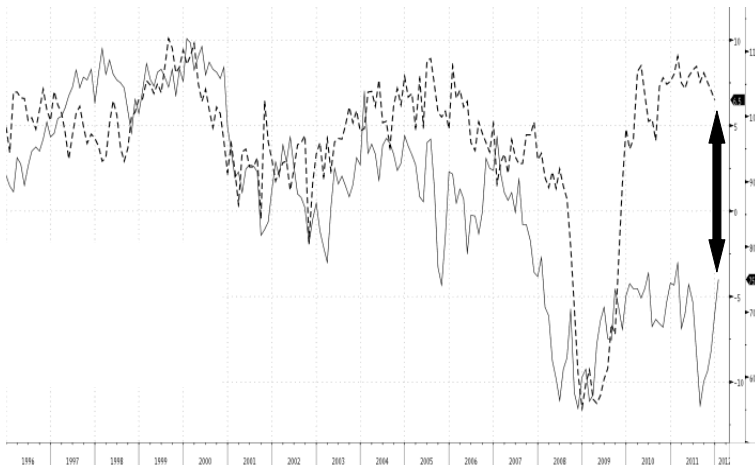
Looking Ahead to 2012

Five-Year Italian Bond Yield – 1/1/07 – 1/31/12



- June 2008 – December 2009 – Yields fall as sovereign debt is viewed as safe/desirable.
- First identified this risk at the March 2010 IAC Meeting.
- 2010 was a volatile year for Italian sovereign debt.
- 2011 started with a steady, but manageable increase in yield.
- July 2011 spikes in yields demonstrate a very unhealthy environment.
- Due to globally coordinated efforts, yields have fallen dramatically.

Retail Sales YOY Growth vs. Consumer Confidence – 12/31/1995 – 1/31/2012



- Since 1996, a very strong relationship.
- At the latest confidence reading, year-over-year growth should be ~ -10% instead of +7.9%
- In December we asked: ‘How will this gap close?’
- Spending down some, confidence up some - - more to go through.

Spending = Dotted

Confidence = Solid

**STATE OF MICHIGAN
RETIREMENT SYSTEMS**

**ECONOMIC AND MARKET REVIEW
AND OUTLOOK**

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 1, 2012



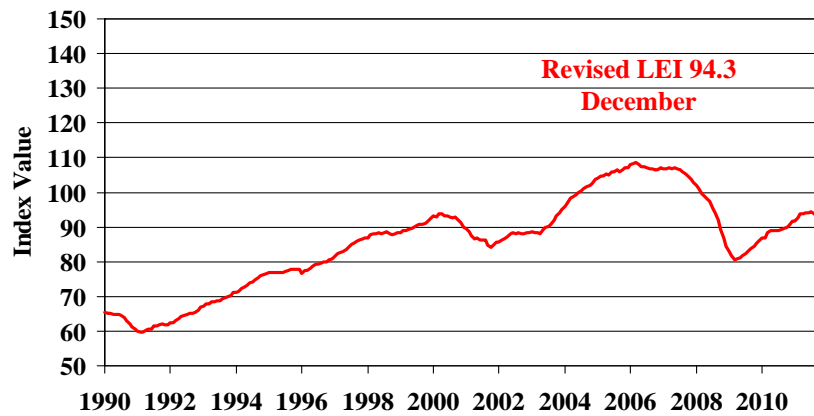
**Gregory J. Parker, CFA
Director of Investments – Public Markets
Director of Asset Allocation
Bureau of Investments**

Economic Outlook Summary

- In spite of only modest economic growth, the jobs market is showing improvements.
- Corporations are very healthy earning record profits, record margins, and low borrowing costs.
- Foreclosures remain a concern for housing.
- Households continue to deleverage with no real gain in personal incomes.
- Interest rates are very low and are expected to rise; however, not in the near term.

IAC 3-1-12

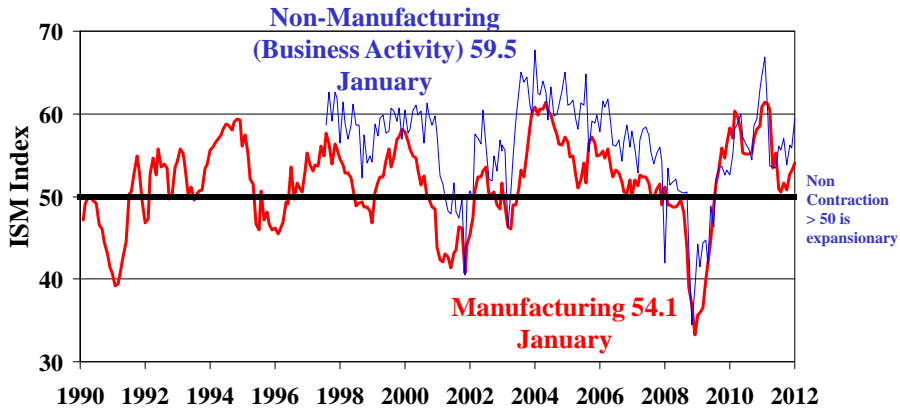
U.S. Leading Economic Indicators Slow Road To Recovery



Source: Bloomberg

IAC 3-1-12

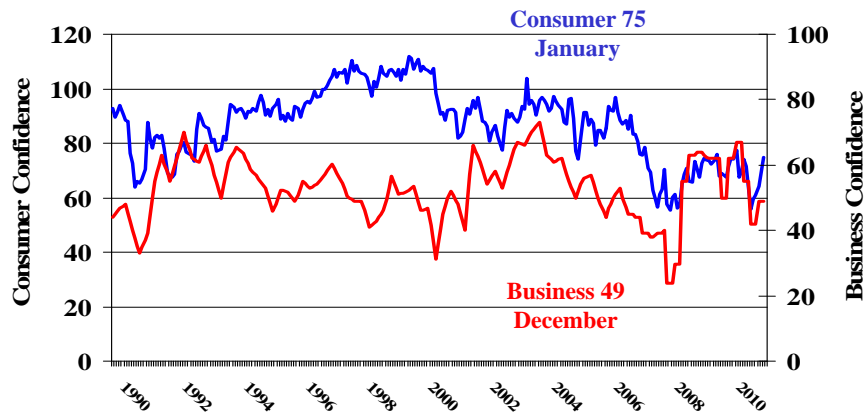
Manufacturing/Non-Manufacturing Signaling Expansion



Source: Institute for Supply Management

IAC 3-1-12

CEO & Consumer Confidence Cautiously Optimistic

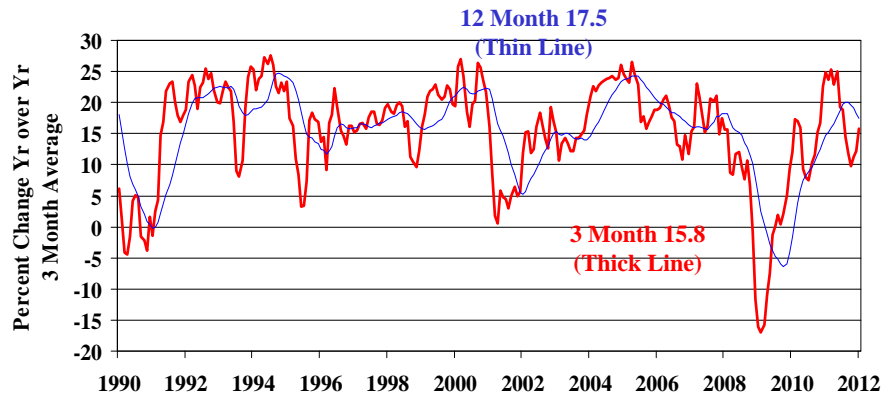


Sources: University of Michigan, Survey Research Center and The Conference Board

IAC 3-1-12

Capital Spending Expectations Waning Long Term

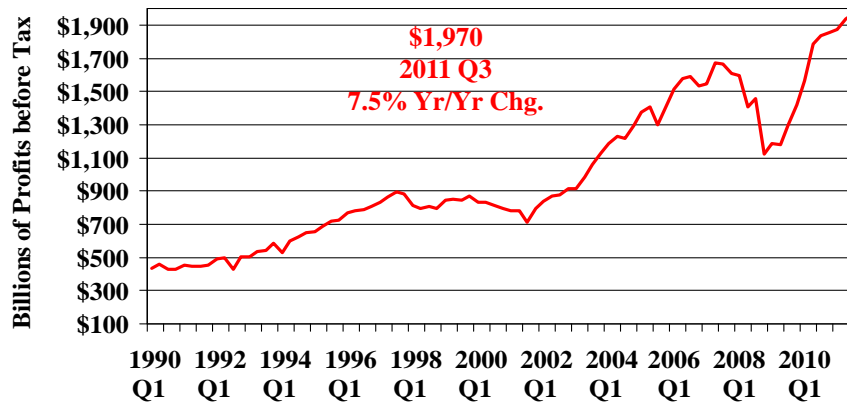
Philadelphia Federal Reserve Bank Capital Spending Expectations Index



Source: Philadelphia Federal Reserve Bank

IAC 3-1-12

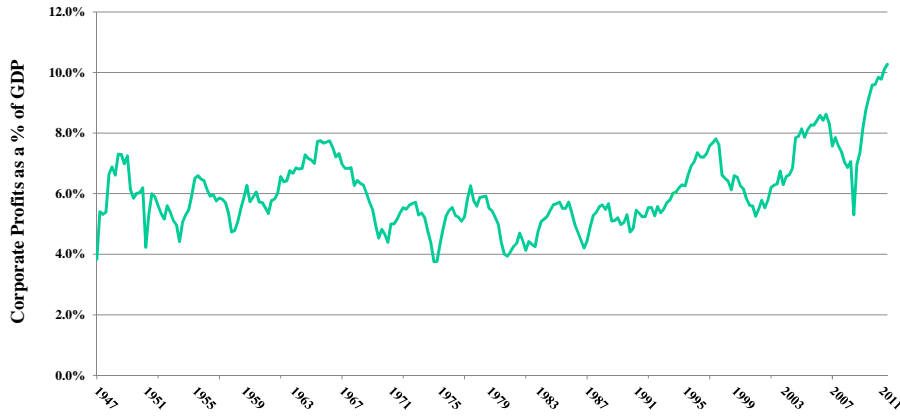
Corporate Profits Improving



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

IAC 3-1-12

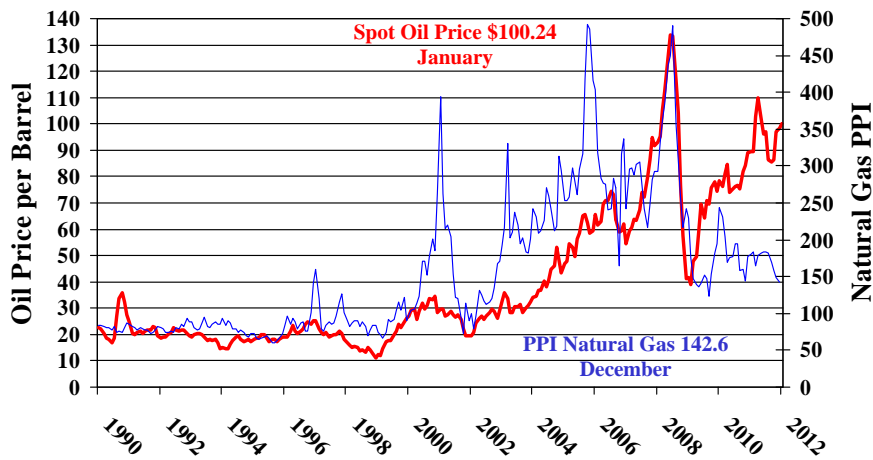
U.S. Corporate Profits as a Percent of GDP



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

IAC 3-1-12

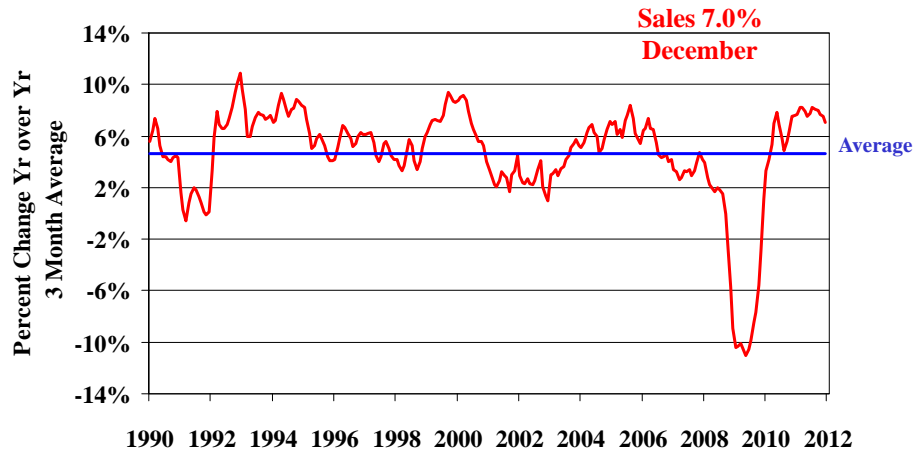
Natural Gas Decreasing Oil Prices Increasing



Sources: U.S. Department of Labor, Bureau of Labor Statistics, Federal Reserve Bank of St. Louis

IAC 3-1-12

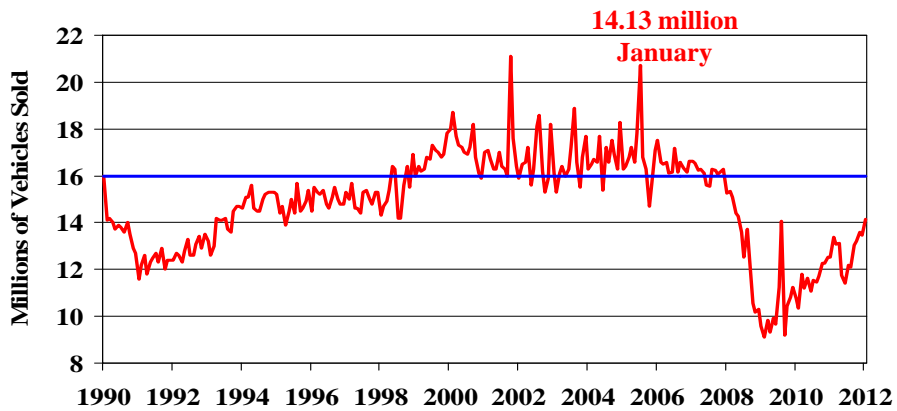
Retail Sales Remain Weak



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

IAC 3-1-12

U.S. Light Vehicle Sales Improving

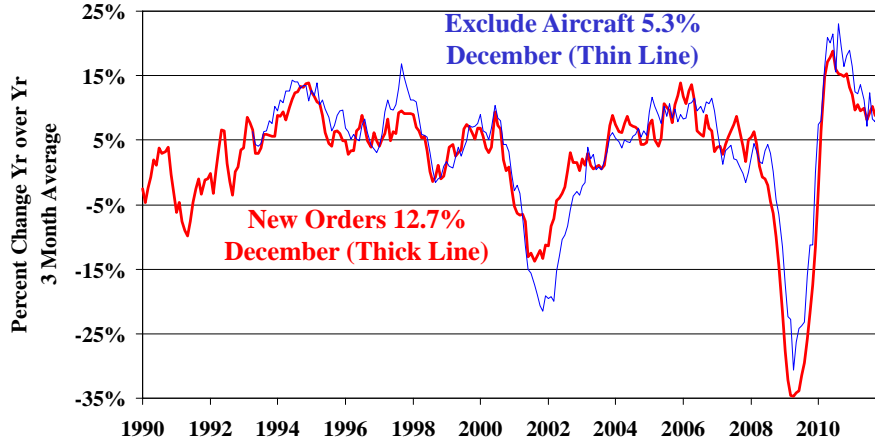


Source: U.S. Department of Commerce, Bureau of Economic Analysis, and Bloomberg

IAC 3-1-12

Capital Spending

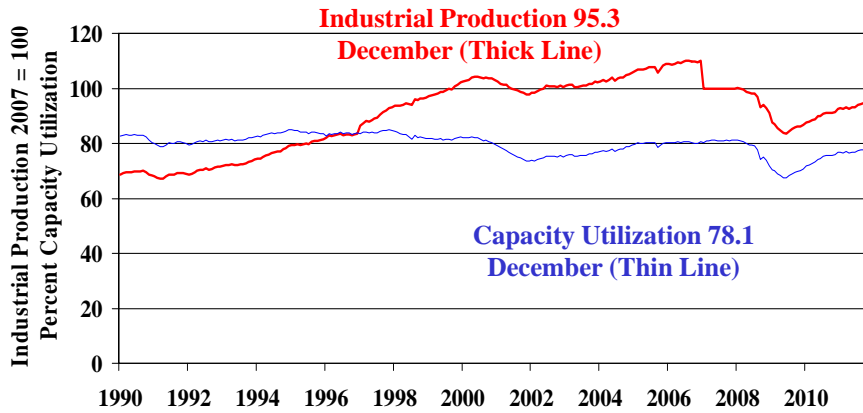
New Orders for Durable Goods (Excluding Aircraft and Defense)



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

IAC 3-1-12

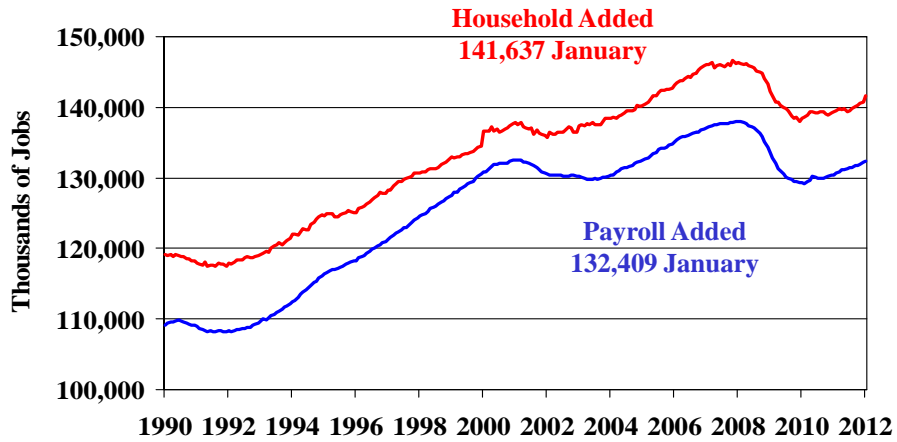
Industrial Production and Capacity Utilization Increasing Slightly



Source: U.S. Federal Reserve Bank

IAC 3-1-12

Job Market Growth



Source: U.S. Department of Labor, Bureau of Labor Statistics

IAC 3-1-12

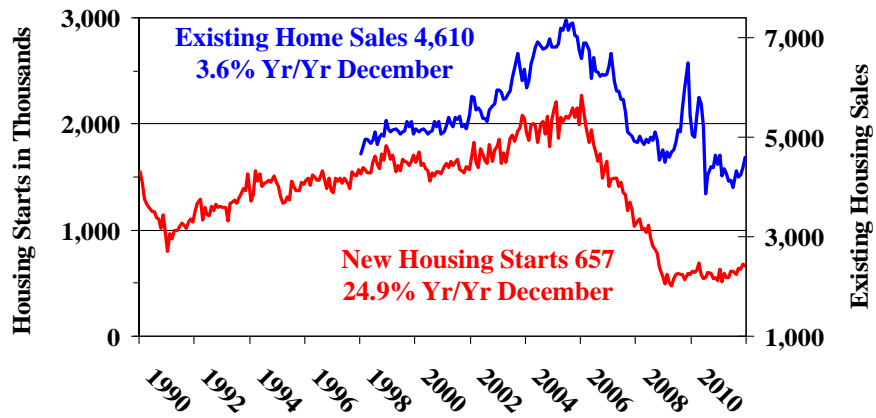
Initial Unemployment Claims Still Trending Down



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

IAC 3-1-12

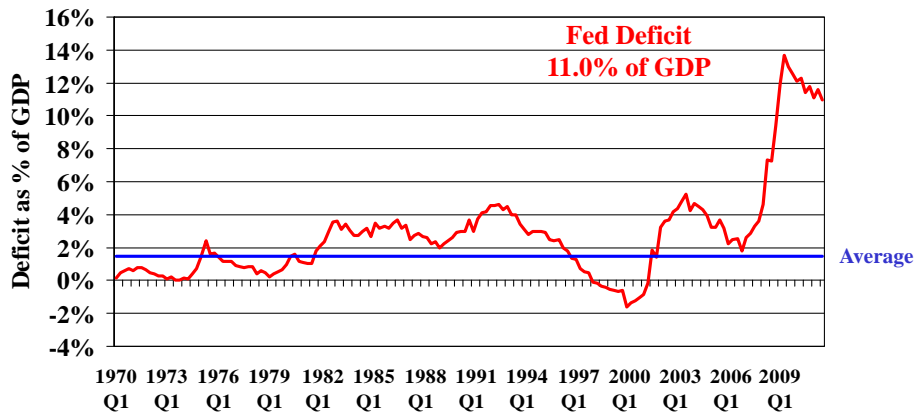
Existing Home Sales and Housing Starts Remain Weak



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

IAC 3-1-12

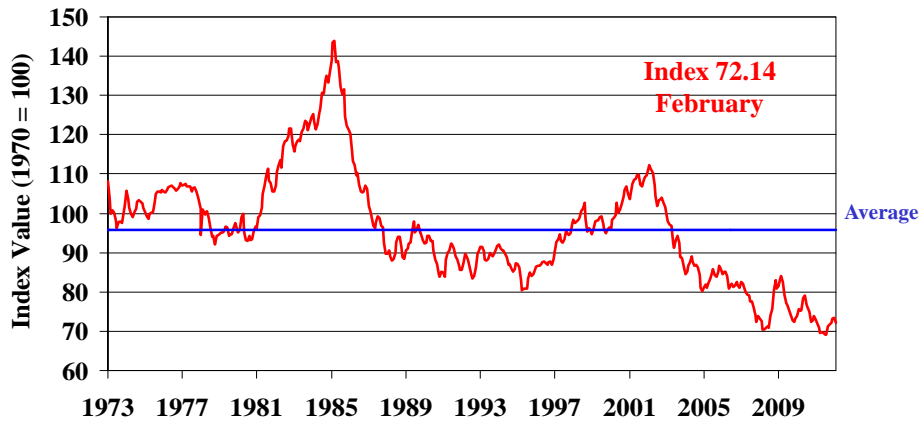
U.S. Federal Deficit Remains High



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

IAC 3-1-12

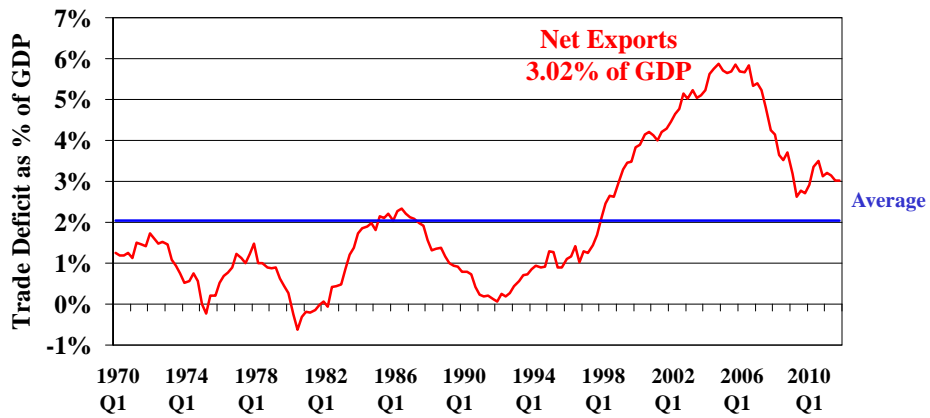
Trade Weighted U.S. Dollar Strengthening



Source: Federal Reserve Board

IAC 3-1-12

U.S. Foreign Trade Deficit Decreasing

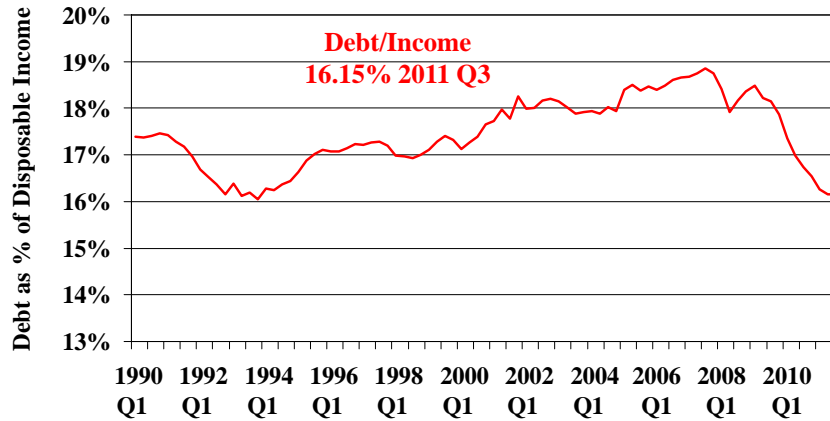


Source: U.S. Department of Commerce, Bureau of Economic Analysis

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Consumers Remain Focused On Paying Off Debt

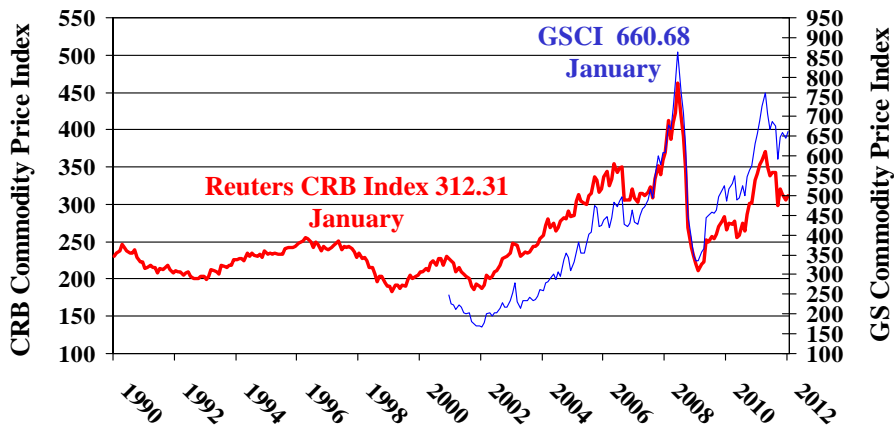
Financial Obligations as Percent of Disposable Income



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

IAC 3-1-12

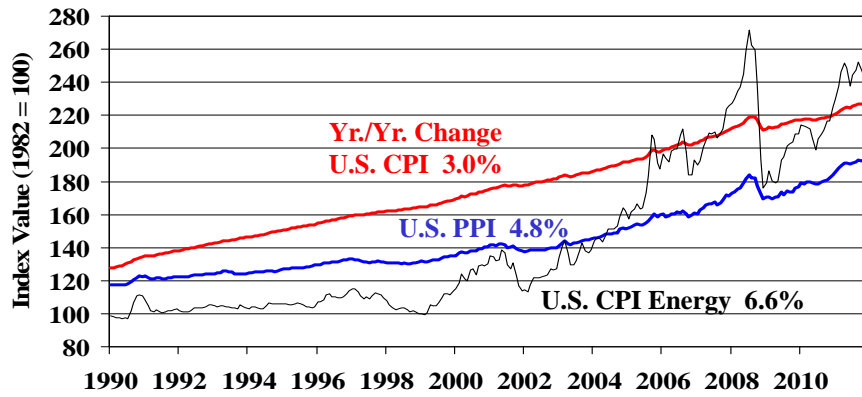
Commodity & Energy Index Prices Increasing



Sources: Reuters, Goldman Sachs, Bloomberg

IAC 3-1-12

Consumer and Producer Prices Moderating

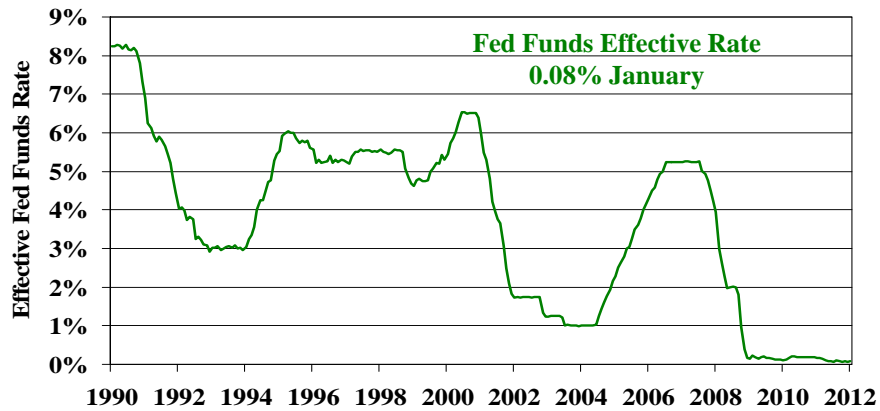


Note: Rates are year over year for latest month, seasonally adjusted.

Source: U.S. Department of Labor, Bureau of Labor Statistics

IAC 3-1-12

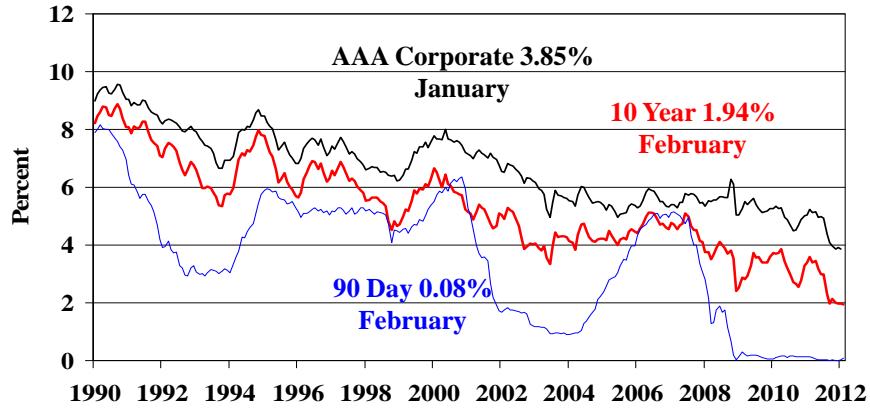
Federal Open Market Committee Holds Fed Funds Rate Below 0.10%



Source: Federal Reserve Board

IAC 3-1-12

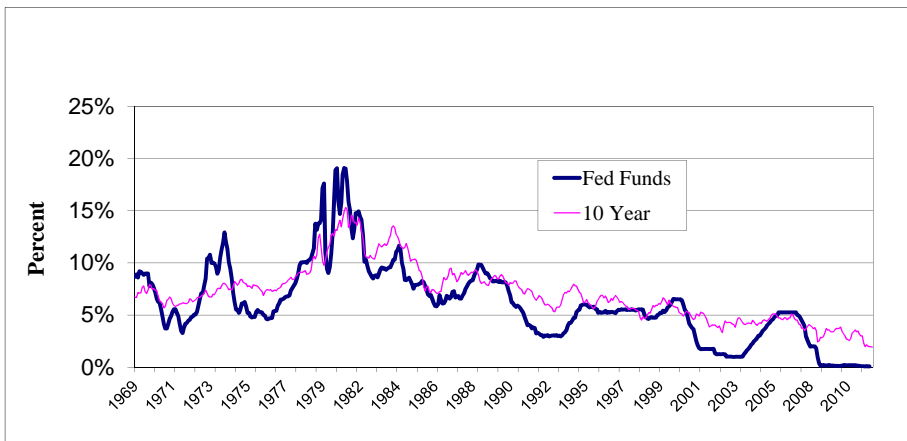
Interest Rates Remain Low



Source: Federal Reserve Board

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Interest Rates Remain Historically Low



Source: Federal Reserve Board, National Bureau of Economic Research

IAC 3-1-12

U.S. Economic Forecast Comparisons

<u>Real GDP Growth</u>	<u>2012</u>	<u>2013</u>
Univ. of Michigan	2.4%	2.5%
Blue Chip	2.2%	2.6%
Global Insight	2.0%	2.4%

IAC 3-1-12

Likelihood of 2012 Economic Outlook

2012-2013 Forecasts

<u>Scenario</u>	<u>Feb</u>	<u>May</u>	<u>Aug</u>	<u>Nov</u>	<u>Feb</u>
Stronger Growth	20%	20%	20%	20%	25%
Moderate Growth	70%	70%	75%	75%	70%
Slowdown	10%	10%	5%	5%	5%

IAC 3-1-12

Upside Risks To the Forecast

- Continued job growth.
- U.S. economy takes advantage of the glut in natural gas.
- Stronger consumer spending.
- Stronger export growth.

IAC 3-1-12

Downside Risks To the Forecast

- A credit market event.
- Shock to economy from geopolitical events.
 - Spread of social unrest
- Sovereign credit default concerns.

IAC 3-1-12

Economic and Market Outlook

February 2012

<u>Economic</u>	<u>2011</u>	Forecast	
		<u>2012</u>	<u>2013</u>
Real GDP	1.8%	2.0%	1.6%
Retail Sales	6.5%	5.0%	4.0%
Auto Sales (millions)	12.8	13.5	14.7
Housing Starts (millions)	610 4.3%	726 19.0%	974 34.2%
Corporate Profits	6.3%	2.5%	7.8%
Durable Goods	8.3%	6.3%	4.8%
Unemployment Rate	9.0%	8.8%	8.6%
<u>Prices</u>			
CPI	3.1%	1.5%	1.8%
PPI	6.0%	0.6%	1.7%
Oil (Refiner Acq. Cost, Composite, \$/bbl)	\$101.10 31.8%	\$98.39 -2.7%	\$106.43 8.2%
Employment Cost Index	2.1%	2.0%	2.2%
Value of U.S. Dollar (FRB)	-5.1%	-0.5%	-2.3%
<u>Interest Rates</u>			
Federal Funds Rate	0.10%	0.10%	0.11%
3-Month T-Bills	0.05%	0.05%	0.09%
10 Year T-Bonds	2.79%	2.33%	2.84%
<u>Equity Markets</u>			
S&P 500 (Year End)	1,325	1,450	1,550
Change	5.4%	9.4%	6.9%
Operating EPS (Year End)	\$96.67	\$105.00	\$110.50
Change	26.5%	8.6%	5.2%
Multiple on Fair Value	13.7 X	13.8 X	14.0 X
Dividend (Year End)	\$26.40	\$28.00	\$30.00
Change	8.6%	6.1%	7.1%
As a % of Earnings	27.3%	26.7%	27.1%
Yield	1.99%	1.93%	1.94%

Source: Economic Data and Interest Rates - Global Insight

Value of U.S. Dollar (FRB) - RSQE/University of Michigan

S&P 500: Historical One-Year Standard Deviation equals 22%.

Economic and Market Balance Sheet

Based on Current Economic Conditions

February 2012

Assets	Liabilities
<ul style="list-style-type: none">• Easy Monetary Policy• Rising Productivity• Strong Corporate Balance Sheets• GDP Growth• U.S. Energy Production	<ul style="list-style-type: none">• High Unemployment• Weak Housing Market• Geopolitical Turmoil• Sovereign Credit Default Concerns (PIIGS) - Euro Crisis• Federal Budget Deficit Government Debt Worries• Stress on State and Local Governments' Budgets

**STATE OF MICHIGAN
RETIREMENT SYSTEMS**

**ALTERNATIVE INVESTMENTS
REVIEW**

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 1, 2012



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

EXECUTIVE SUMMARY

General Overview

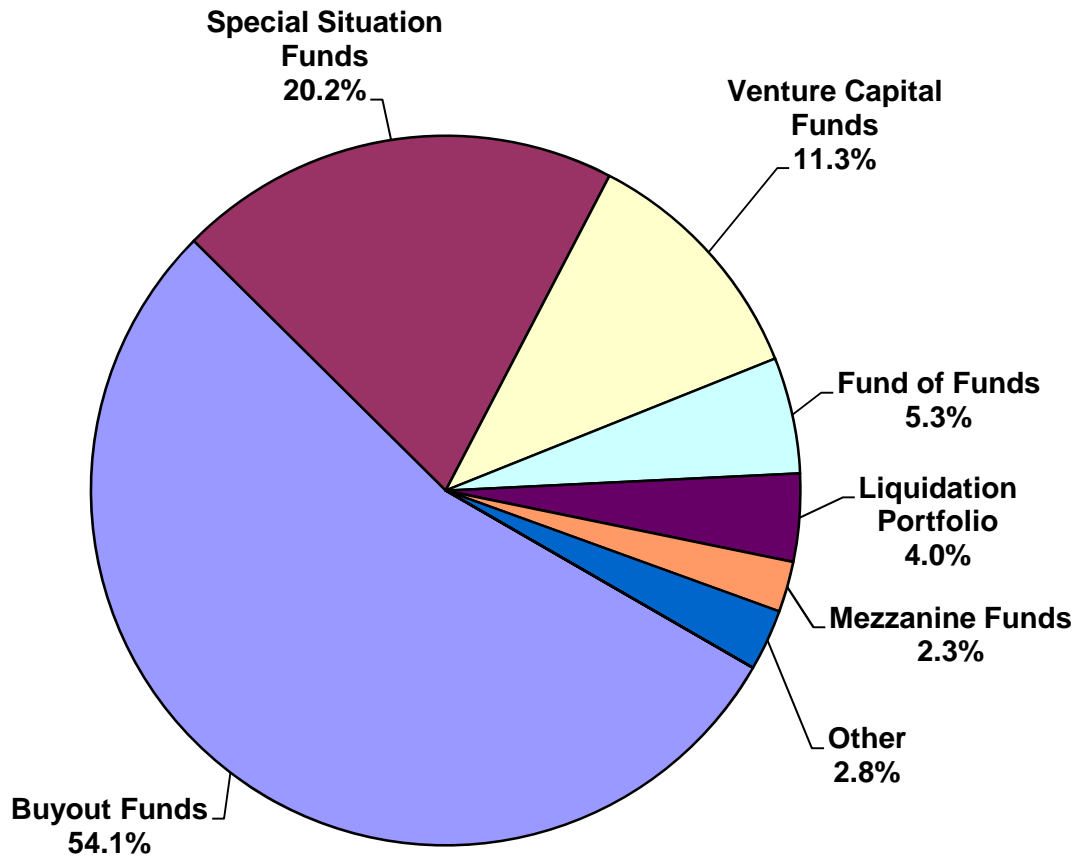
- *Buyout:* The buyout market continued its slow improvement in 2011, but it was not without macro-economic risk. The sovereign debt crises in Europe, a downgrade to the U.S.'s credit rating, and domestic political battles rattled markets and curbed momentum midway through the year. Macro-economic risks will remain dominant for 2012. The budget deficit crisis in the U.S. and the sovereign debt crisis in Europe will continue to foster volatility in both public and private markets.
- *Venture:* The venture market remains sluggish despite the recent run of venture-backed internet companies going public. According to Cambridge Associates, venture returns over the last decade were 1.3%, as of June, 2011. In recent years, a number of institutional investors have lost confidence and withdrawn from the asset class. A closer look at underlying fundamentals, including long term trends such as the pace of new company creation, could support a contrarian view for investing in the asset class. Our view is that there is still opportunity in venture, but the demarcation line between top tier firms and remaining firms is widening.
- *Distressed:* Distressed Debt firms scaled back their expectations in the U.S. as the economy stabilized in the first part of the year and favorable debt markets allowed large buyout firms to push out the maturities of portfolio company loans. The one exception is loan maturities in the mid-market, where companies remain vulnerable in a low growth economy. Many U.S. managers turned their focus to Europe instead, raising dedicated European distressed-debt vehicles to capitalize on opportunities emanating from the region's sovereign-debt problems.
- *Mezzanine:* Mezzanine debt, which had a banner year in 2010, cooled a bit in 2011, as the availability of cheap debt returned. Record high-yield debt issuance and popularity of business development companies (BDCs) has made financing cheap and plentiful.
- *Secondary:* Secondary market volume reached \$25 billion in 2011. This is the first time in history that market volume exceeded \$20 billion in consecutive years. The average high first round bid for all funds declined to 81% of NAV in the second half of 2011 as compared to 84% of NAV in the first half of the year. The decline in price was driven by macroeconomic concerns stemming from the Eurozone debt crisis and public market volatility. Pricing for buyout funds remained strong. Average high first round pricing was 86% of NAV in the second half of 2011 as compared to 87% of NAV in the first half of the year. Secondary supply was primarily driven by public pensions seeking to actively manage private fund portfolios as well as financial institutions divesting fund portfolios in response to new regulations.
- *Fundraising:* Despite modest gains year-over-year, fundraising overall remained down a monumental 70% from the record raised in 2007. The supply of funds is simply overwhelming demand. Limited partners stung by liquidity concerns and the denominator effect are reconsidering key relationships and the automatic re-up. A small trend developing is large LPs putting big money into strategic relationships for lower fees.
- *New Commitments:* Three new commitments were approved during the 4th quarter: \$125 million to TSG, \$100 million to Apax Partners, and \$40 million to Parthenon. These commitments allow the SMRS to participate in large, middle, and lower middle market buyouts, respectively.



SMRS

Alternative Investments

12/31/11



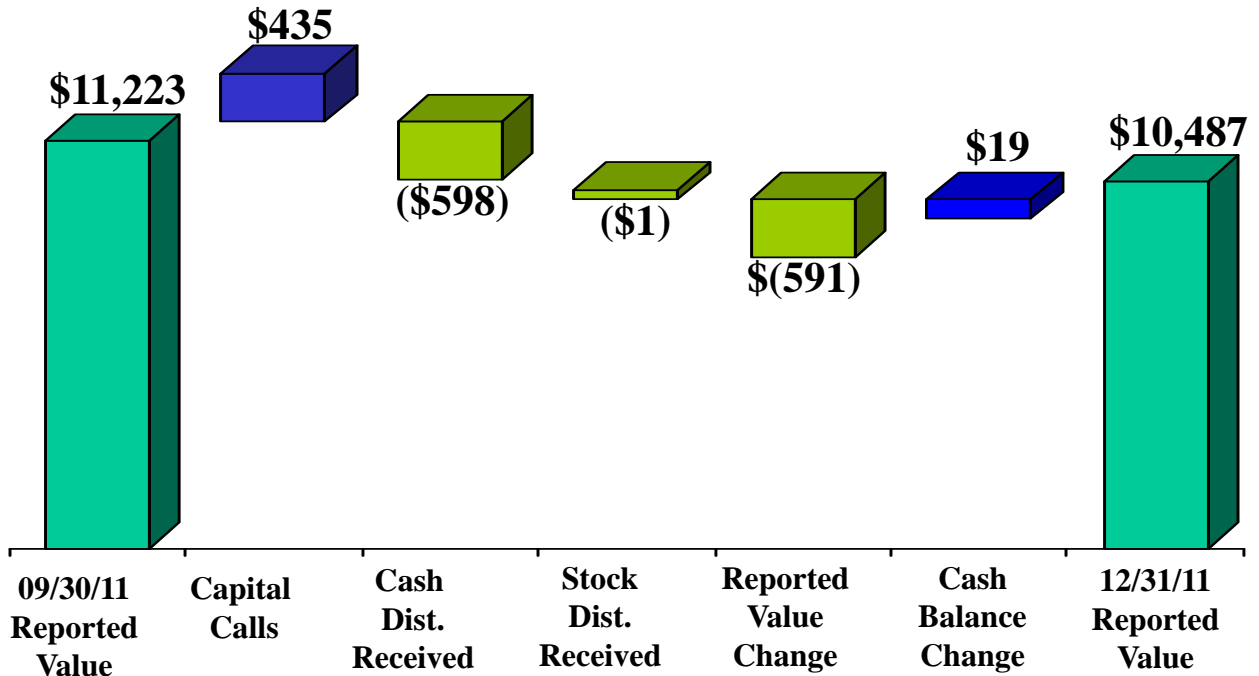
	Market Value in Millions			
	12/31/2011		9/30/2011	
Buyout Funds	\$5,677	54.1%	\$6,244	55.6%
Special Situation Funds	2,121	20.2%	2,244	20.0%
Venture Capital Funds	1,182	11.3%	1,216	10.8%
Fund of Funds	553	5.3%	577	5.1%
Liquidation Portfolio	416	4.0%	423	3.8%
Mezzanine Funds	244	2.3%	243	2.2%
Other	294	2.8%	276	2.5%
Total	\$10,487	100.0%	\$11,223	100.0%

(\$ Millions)

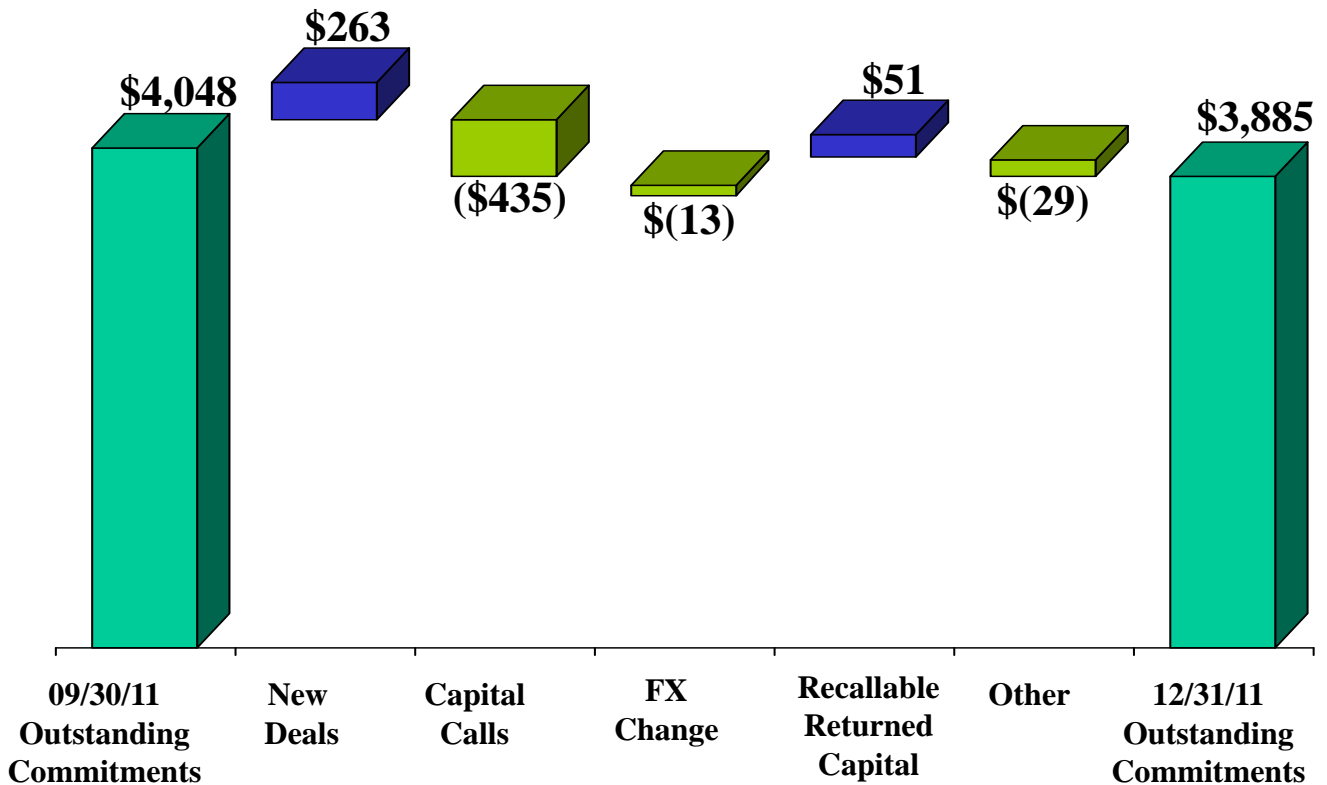
Alternative Investments Division

As of December 31, 2011

Invested Commitments



Outstanding Commitments



(\$ Millions)

Alternative Investments Division

As of December 31, 2011

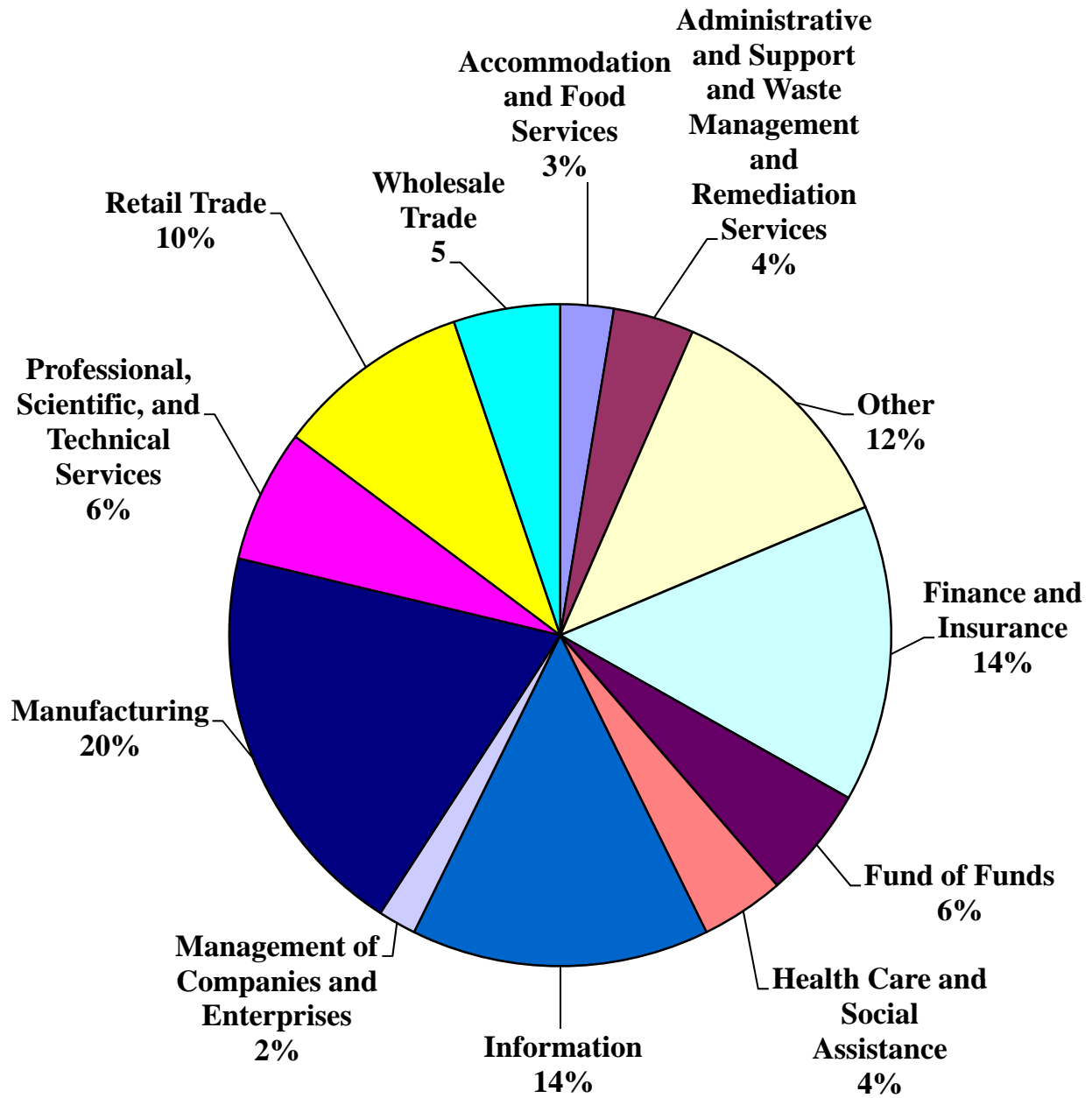
Portfolio Profile

<u>Asset Type</u>	<u>Reported Value</u>	<u>Outstanding Commitment</u>	<u>Total Exposure</u>
Buyout	\$ 5,677	\$ 2,371	\$ 8,048
Venture Capital	1,182	342	1,524
Special Situations	2,022	739	2,761
Fund of Funds	553	172	725
Hedge Funds - Equity	36	-	36
Liquidation Portfolio	416	24	440
Active Small Cap - Stock Dist	1	-	1
Total Alternative Equities	\$ 9,887	\$ 3,648	\$ 13,535
Mezzanine Debt	\$ 244	\$ 208	\$ 452
Special Situations	99	29	128
Hedge Funds - Fixed Income	113	-	113
Cash	144	-	144
Total Alternative Fixed Income	\$ 600	\$ 237	\$ 837
Total Alternative Investments	\$ 10,487	\$ 3,885	\$ 14,372

Alternative Investments Division

As of December 31, 2011

Investments By Industry

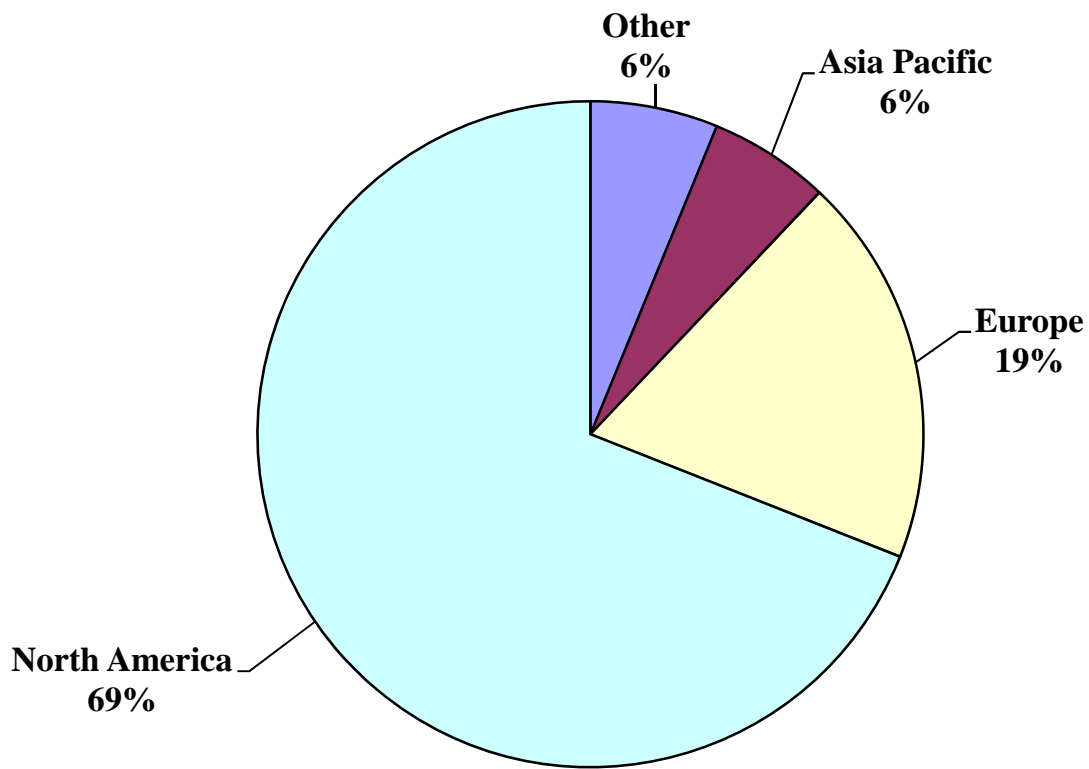


These numbers are based on the most recent available General Partner Data; primarily 09/30/2011 and are subject to change.

Alternative Investments Division

As of December 31, 2011

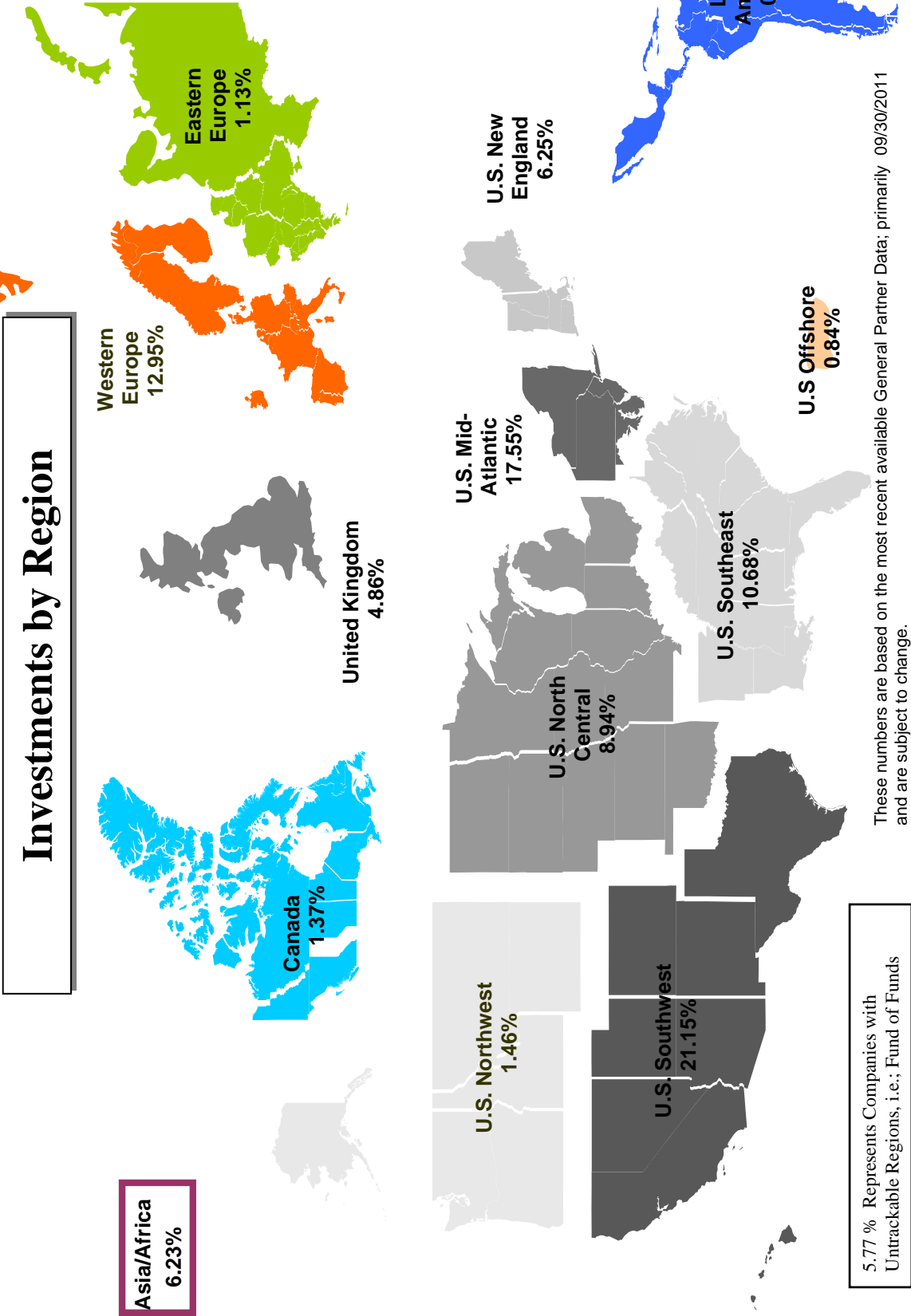
Investments By Region



These numbers are based on the most recent available General Partner Data; primarily 09/30/2011 and are subject to change.

Alternative Investments Division

As of December 31, 2011



5.77 % Represents Companies with Untrackable Regions, i.e.; Fund of Funds

These numbers are based on the most recent available General Partner Data; primarily 09/30/2011 and are subject to change.

(\$ Millions)

Alternative Investments Division

As of December 31, 2011

Portfolio By Asset Strategy

<u>Investment Fund Types</u>	<u>Reported Value</u>	<u>Outstanding Commitment</u>	<u>Total</u>	<u>Pct</u>
Large Buyout	\$ 3,580	\$ 1,203	\$ 4,783	33%
Small Middle Market Buyout	2,097	1,168	3,265	23%
Buyout Total	\$ 5,677	\$ 2,371	\$ 8,048	56%
Early Stage Venture Capital	\$ 542	\$ 138	\$ 680	5%
Late-Stage Venture Capital	182	95	277	2%
Multi-Stage Venture Capital	458	109	567	4%
Venture Capital Total	\$ 1,182	\$ 342	\$ 1,524	11%
Co-Investment Funds	\$ 558	\$ 32	\$ 590	4%
Global Opportunity Funds	673	92	765	5%
Secondary Funds	165	167	332	2%
Distressed	323	161	484	4%
Special Situations	303	287	590	4%
Natural Resources	-	-	-	0%
Special Situations Total	\$ 2,022	\$ 739	\$ 2,761	19%
Fund of Funds	\$ 553	\$ 172	\$ 725	5%
Hedge Funds – Equity	\$ 36	\$ -	\$ 36	0%
Liquidation Portfolio	\$ 416	\$ 24	\$ 440	3%
Active Small Cap - Stock Dist.	\$ 1	\$ -	\$ 1	0%
Total Alternative Equities	\$ 9,887	\$ 3,648	\$ 13,535	94%
Mezzanine Debt	\$ 244	\$ 208	\$ 452	3%
Special Situations	99	29	128	1%
Hedge Funds – Fixed Income	113	-	113	1%
Cash	144	-	144	1%
Total Alternative Fixed Income	\$ 600	\$ 237	\$ 837	6%
Total Alternative Investments	\$ 10,487	\$ 3,885	\$ 14,372	100%

(\$ Millions)

Alternative Investments Division

As of December 31, 2011

Top 10 Sponsors

<u>Asset Type</u>	<u>Reported Value</u>	<u>Outstanding Commitment</u>	<u>Total</u>
Credit Suisse Group	\$ 871	\$ 184	\$ 1,055
Kohlberg Kravis & Roberts	801	172	973
Glencoe Capital	649	117	766
Carlyle Group	531	188	719
Blackstone Capital Partners	391	324	715
Warburg Pincus Capital	572	26	598
TPG Group	397	157	554
Providence Equity Partners	371	63	434
Green Equity Investors	341	81	422
Apax Partners, Inc.	297	124	421
Top 10 Total Value	\$ 5,221	\$ 1,436	\$ 6,657

Cash Weighted Rates Of Return*

<u>(Net IRR)</u>	<u>Current Qtr.</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
Buyout	-6.8%	14.1%	7.7%	10.0%	13.1%
Venture Capital	-2.6%	27.3%	9.7%	10.9%	3.7%
Special Situations	-6.8%	13.7%	6.5%	5.4%	7.2%
Fund of Funds	2.3%	16.9%	4.6%	9.0%	6.8%
Hedge Funds	-3.1%	3.0%	10.9%	3.5%	5.5%
Mezzanine Debt	-1.7%	10.6%	16.2%	15.5%	6.9%

*These numbers are based on most recent available General Partner reported data; primarily 09/30/2011 and are subject to change.

Alternative Investments Division

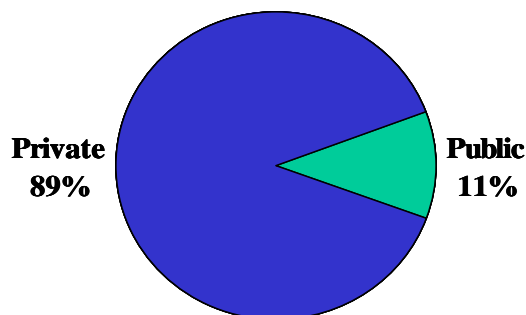
As of December 31, 2011

Portfolio By Vintage Year

<u>Asset Vintage</u>	<u>Reported Value</u>	<u>Outstanding Commitment</u>	<u>Total Exposure</u>
1986-93	\$1	\$2	\$3
1994	1	-	1
1995	22	7	29
1996	7	2	9
1997	17	16	33
1998	98	24	122
1999	247	65	312
2000	348	60	408
2001	516	84	600
2002	794	21	815
2003	396	32	428
2004	829	65	894
2005	1,312	142	1,454
2006*	2,887	662	3,549
2007	1,521	585	2,106
2008	1,068	1,091	2,159
2009	106	128	234
2010	130	172	302
2011	42	727	769
Cash	144	-	144
Act. Small Cap - Stock Dist	1	-	1
Total	\$10,487	\$3,885	\$14,372

* Liquidation portfolio is 2006 vintage

Public/Private Exposure



(\$ Millions)

Alternative Investments Division

As of December 31, 2011

Summary Of Transactions

<u>Month</u>	<u>Capital Calls*</u>	<u>Distributions Received</u>	<u>Net Cash Flow</u>
January 2011	\$143	\$184	\$41
February	102	289	187
March	<u>211</u>	<u>417</u>	<u>206</u>
Total Quarter	\$456	\$890	\$434
April 2011	\$81	\$200	\$119
May	104	284	180
June	<u>124</u>	<u>227</u>	<u>103</u>
Total Quarter	\$309	\$711	\$402
July 2011	\$120	\$175	\$55
August	129	157	28
September	<u>117</u>	<u>140</u>	<u>23</u>
Total Quarter	\$366	\$472	\$106
October 2011	\$160	\$215	\$55
November	104	209	105
December	<u>182</u>	<u>175</u>	<u>(7)</u>
Total Quarter	\$446	\$599	\$153
Trailing Twelve Month	<u>\$1,577</u>	<u>\$2,672</u>	<u>\$1,095</u>

* Includes Fees and Expenses Paid Outside of Commitment

FX Exposure

	<u>Reported Value</u>	<u>Oustanding Commitment</u>	<u>Total Exposure</u>	<u>Total (USD)</u>
Euro (\$1.298149/ €)	€841	€346	€1,187	1,541
Pound (\$1.554099/ £)	£10	£3	£13	20
Yen (\$0.012997/ ¥)	¥15	¥0	¥15	1

Net Market Values by Ownership Entity
December 31, 2011

Fund Name	ARV	Unfunded Commitment
Accel Europe I, L.P.	\$ 16,427,620	\$ 1
Accel Europe II	23,190,046	3,300,000
Accel Growth Fund II, L.P.	1,320,000	10,680,000
Accel IX, L.P.	129,918,788	3,000,000
Accel VI, L.P.	3,096,309	-
Accel VII, L.P.	3,113,188	5,000,000
Accel VIII, L.P.	4,790,790	4,782,499
Accel VI-S	5,039,201	652,611
Accel X, L.P.	12,398,771	2,350,000
Accel XI, L.P.	775,647	7,200,000
Advent Global Private Equity III	1,249,921	20
Advent Global Private Equity IV	8,324,513	-
Advent Global Private Equity V	116,127,898	10,500,000
Advent International GPE VI-A LP	135,706,379	66,600,000
Affinity Asia Pacific Fund II, L.P.	256,896	5,288,237
Affinity Asia Pacific Fund III, L.P.	127,953,488	60,865,588
APA Excelsior IV, L.P.	304,245	-
APA Excelsior V	1,518,966	545,625
Apax Europe Fund VI	86,723,799	-
Apax Europe V, L.P.	8,448,447	392,237
Apax Europe VII, L.P.	142,473,321	23,528,951
Apax Excelsior VI	13,146,084	1,614,434
Apax Globis Japan Fund	195,603	-
Apax US VII	44,491,899	491,302
Apax VIII - A, L.P.	-	97,361,175
Arboretum Ventures II	2,598,917	1,920,096
Arboretum Ventures III, L.P.	2,049,552	12,735,000
Ares Corporate Opportunities Fund II	74,034,249	15,569,820
Ares Corporate Opportunities Fund III, LP	58,100,979	49,521,577
ARGUS Capital Partners	5,669,756	2,813,672
Austin Ventures VIII, L.P.	18,920,272	-
Avenue International Ltd	112,555,826	-
Avenue Special Situations Fund IV, L.P.	6,673,389	-
Avenue Special Situations Fund V, L.P.	16,830,652	-
Avenue Special Situations Fund VI (B), L.P.	34,726,498	9,645,568
Banc Fund VI	16,192,598	-
Banc Fund VII	20,387,187	-
Banc Fund VIII	7,168,884	12,200,000
Battery Ventures V, L.P.	452,525	-
Battery Ventures VI, L.P.	8,836,096	-
Battery Ventures VII, L.P.	12,752,834	755,556
Battery Ventures VIII	32,401,115	1,475,133
BC European Capital IX	8,479,428	85,315,391
BC European Capital VII, L.P.	12,400,314	-
BC European Capital VIII, L.P.	174,101,514	15,227,288
Berkshire Fund III, L.P.	1	445,104
Berkshire Fund IV, L.P.	2,614,223	1,898,016

**Net Market Values by Ownership Entity
December 31, 2011**

Fund Name	ARV	Unfunded Commitment
Berkshire Fund V, L.P.	7,977,327	1,900,578
Berkshire Fund VI, L.P.	69,651,661	7,008,797
Berkshire Fund VII, L.P.	119,469,709	27,228,039
Berkshire Fund VIII, L.P.	6,645,799	118,253,882
Blackstone Capital Partners IV	121,206,177	444,325
Blackstone Capital Partners V	211,990,585	26,856,913
Blackstone Capital Partners VI, LP	27,989,650	270,596,222
Blackstone Capital Partners V-S	18,956,727	724,367
Blackstone Mezzanine Partners	9,386,081	14,141,621
Blackstone Partners II, L.P.	4,463	936,340
Blackstone Partners III, L.P.	1,872,916	10,428,693
Bridgepoint Europe IV	37,755,587	30,449,315
Brockway Moran & Partners Fund III	10,357,865	6,027,301
Carlyle Asia Fund	22,539,034	5,278,440
Carlyle Europe Partners	7	2,112,994
Carlyle Europe Partners II	31,509,993	5,586,297
Carlyle Europe Partners III	90,682,819	33,720,668
Carlyle Partners II, L.P.	6,774,097	-
Carlyle Partners III, L.P.	13,495,931	14,184,834
Carlyle Partners IV, L.P.	172,475,734	16,009,296
Carlyle Partners V L.P.	193,289,291	110,979,542
Castle Harlan Partners III, L.P.	3,270,127	545,932
Castle Harlan Partners IV	9,405,019	10,572,075
Castle Harlan Partners V	15,878,211	51,404,694
CCMP Capital Investors II	126,763,579	51,402,860
Clarus Life Sciences II, L.P.	21,546,483	23,420,000
Clarus Lifesciences I	25,771,151	4,079,460
Clearstone Venture Partners (idealab)	405,300	-
Clearstone Venture Partners II (idealab)	6,308,800	-
Clearstone Venture Partners III	20,365,603	1,612,000
CMEA Ventures VI	19,288,240	2,750,000
CMEA Ventures VII, L.P.	21,377,384	13,200,000
Coller International Partners III, L.P.	3,099,557	2,400,000
Coller International Partners IV	36,664,790	14,000,000
Coller International Partners V, L.P.	124,971,841	50,300,000
Coller International Partners VI, L.P.	-	100,000,000
CSFB Fund Co-Investment Program	1,621,570	1,497,890
CSG / DLJ Fund Program II	131,963,958	26,174,558
CSG Fund Investment Program III - 2004	119,786,479	1,717,748
CSG Fund Investment Program III - 2006	105,442,431	53,831,288
CSG Fund Investment Program V, L.P.	52,152,342	74,958,380
CSG Seasoned Primary Fund Investment Program	416,120,958	24,288,184
DLJ Fund Investment Program I	43,415,909	1,109,056
DLJ Investment Partners II	2,531,452	9,910,342
DLJ Investment Partners III	28,842,507	83,034,576
DLJ Merchant Banking Partners III, L.P.	21,146,566	3,182,427
DLJ Merchant Banking Ptrs II, L.P.	3,512,020	1,856,746
Doughty Hanson & Co IV	142,695,915	4,796,712
Doughty Hanson & Co V	118,692,078	64,006,127
Doughty Hanson Co. III L.P.	28,208,963	3,993,444

**Net Market Values by Ownership Entity
December 31, 2011**

Fund Name	ARV	Unfunded Commitment
EDF Ventures III	4,889,961	513,517
Energy Investors III	59,592	-
Essex Woodlands Health IV	3,722,410	-
Essex Woodlands Health V	13,010,988	-
Essex Woodlands Health Ventures Fund VIII	27,546,315	37,875,000
Essex Woodlands Health VI	15,833,239	1,812,500
Essex Woodlands Health VII	73,067,541	9,500,000
FirstMark Capital Fund II (fka: Pequot PEFII)	1,469,198	-
FirstMark Capital III (fka: Pequot PEFIII)	14,427,489	272,000
FirstMark Capital IV (fka: Pequot PEFIV)	22,599,149	4,354,578
Flagship Ventures Fund 2004	24,016,492	442,000
Flagship Ventures Fund 2007, L.P.	44,362,774	6,825,000
Flagship Ventures Fund IV, L.P.	1,771,652	12,975,000
Fox Paine Capital Fund II, LP	43,009,119	16,378,811
Frontenac VII	104,617	-
Frontenac VIII	13,741,783	1,017,776
Glencoe Capital Michigan Opportunities Fund, LP	74,188,801	79,660,309
Glencoe Capital Partners II	5,104,400	355,381
Glencoe Capital Partners III	13,112,179	6,274,454
Glencoe Stockwell Fund	443,911,808	-
Glencoe Stockwell Fund II, L.P.	112,281,107	30,726,398
Globespan Capital Partners IV (Jafco)	13,634,978	1,310,000
Globespan Capital Partners V, LP	63,894,110	12,150,000
Green Equity Investors III	9,314,730	8,978,083
Green Equity Investors IV	93,637,719	2,305,568
Green Equity Investors V	237,808,423	69,616,508
Grotech Partners V	2,647,615	-
Grotech Partners VI	14,407,354	-
GSO Capital Opportunities Fund II, L.P.	5,614,196	34,361,735
H.I.G. Bayside Debt & LBO Fund II, LP	6,896,629	12,300,000
H.I.G. Brightpoint Capital Partners II	36,286,414	-
H.I.G. Capital Partners IV, L.P.	15,741,763	10,374,167
H.I.G. Europe Capital Partners L.P.	15,059,399	11,553,526
HarbourVest Int'l II Partnership	1,387,820	799,999
HarbourVest Int'l III Direct	5,075,247	1,000,000
HarbourVest Int'l III Partnership	12,104,818	2,000,000
HarbourVest IV Partnership Fund LP	244,233	600,000
HarbourVest Partners V - Direct Fund LP	549,488	-
HarbourVest V Partnership	2,312,086	300,000
HarbourVest VI - Direct Fund LP	8,937,909	750,000
HarbourVest VI Partnership	43,803,786	3,000,000
Healthcare Venture V	1,188,473	-
Healthcare Venture VI	1,033,539	-
Healthcare Venture VII	9,772,800	487,500
Healthcare Venture VIII	21,150,005	12,300,000
InterWest Partners IX	10,889,320	3,200,000
JAFCO America Technology Fund III	2,483,221	-
JP Morgan Chase 1998 Pool Participation Fund	3,778,965	1,604,605
JP Morgan Chase 1999/2000 Pool Participation Fund	3,093,310	4,045,424
JP Morgan Partners Global Investors	43,347,832	2,776,265

Net Market Values by Ownership Entity
December 31, 2011

Fund Name	ARV	Unfunded Commitment
JPMorgan Global Investors Selldown	34,244,227	5,260,614
Kelso Investment Associates VII	81,888,012	6,496,890
Kelso Investment Associates VIII	58,145,314	83,135,569
Khosla Ventures III, L.P.	48,697,544	14,500,000
Khosla Ventures IV, L.P.	4,602,216	45,000,000
KKR 1987 Fund	1	-
KKR 1993 Fund	96,886	-
KKR 1996 Fund	4,461,490	-
KKR 1996 Secondary Fund	561,374	10,841
KKR 2006 Fund, L.P.	260,392,761	20,423,200
KKR Asia	88,650,207	27,815,000
KKR China Growth Fund	18,425,654	36,114,000
KKR E2 Investors (Annex) Fund	11,302,943	18,145,079
KKR European Fund II	102,437,490	-
KKR European Fund III	54,832,774	68,896,921
KKR European Fund LP 1	56,305,276	307,605
KKR Millennium Fund	203,546,152	-
Lightspeed Venture Partners VI	12,066,130	3,299,089
Lightspeed Venture Partners VII	36,072,290	2,960,436
Lion Capital Fund I (HME II)	7,559,032	13,170,609
Lion Capital Fund II	49,861,101	11,729,489
Lion Capital Fund III, L.P.	22,907,170	50,554,883
Long Point Capital Fund	2,780,999	1,630,617
Long Point Capital Fund II	8,293,981	1,720,302
Matlin Patterson Global Opportunities Partners	1	20,129,090
MatlinPatterson Global Opportunities Partners II	10,259,888	92,719
MatlinPatterson Global Opportunities Partners III	56,470,134	13,000,101
Menlo Ventures IX, L.P.	14,092,397	-
Menlo Ventures VII	1	-
Menlo Ventures VIII	2,130,718	-
Menlo Ventures X, L.P.	23,864,444	8,000,000
Menlo Ventures XI, L.P.	2,900,159	17,000,000
MeriTech Capital Partners II, L.P.	3,642,215	2,150,000
Meritech Capital Partners III, L.P.	116,645,388	1,200,000
Meritech Capital Partners IV, L.P.	4,161,210	15,700,000
MeriTech Capital Partners, L.P.	2,085,925	6,187,500
Michigan Growth Capital Partners, LP	126,918,421	61,512,349
MPM BioVentures III	7,905,947	-
New Leaf Ventures II, L.P.	13,048,996	17,850,000
Nordic Capital VI, L.P.	28,526,495	20,599
Nordic Capital VII	34,485,264	26,047,773
North Castle Partners III	4,963,011	91,219
NV Partners II	1,107,141	479,147
Oak Investment Partners X, L.P.	17,285,773	-
Oak Investments Partners IX, L.P.	3,420,232	-
OCM Opportunities Fund VII (B), L.P.	36,202,130	25,250,000
OCM Opportunities Fund VII, L.P.	33,226,374	-
OCM Opportunities Fund VIII B, L.P.	7,321,045	30,000,000
OCM Opportunities Fund VIII, L.P.	37,631,507	-
OCM Principal Opportunities Fund IV	46,892,814	5,002,377

Net Market Values by Ownership Entity
December 31, 2011

Fund Name	ARV	Unfunded Commitment
One Liberty Fund III	645,970	-
One Liberty Fund IV	1,682,088	-
One Liberty Ventures 2000	10,561,859	-
Paine & Partners Capital Fund III, LP	85,147,418	47,143,712
Parthenon Investors II	21,416,428	3,417,779
Parthenon Investors III	75,934,447	9,610,589
Parthenon Investors IV, L.P.	-	40,000,000
Peninsula Capital Fund III	7,614,300	1,400,000
Peninsula Capital Fund IV	29,106,355	2,469,399
Permira Europe III LP	7,826,730	331,028
Permira Europe IV	94,208,706	24,145,571
Phoenix Equity Partners IV	14,762,859	4,567,481
Primus Capital Fund IV	506,693	500,000
Primus Capital Fund V	16,424,412	712,500
Providence Equity Partners V, L.P.	101,607,564	13,222,813
Providence Equity Partners VI, L.P.	269,036,397	50,013,078
Questor Partners Fund II	13,706,147	5,794,612
RFE Investment Partners VII, LP	19,385,340	3,093,332
RFE Investment Partners VIII, L.P.	-	30,000,000
RFE IV Venture	608,789	-
RFE V Ventures	87,821	397,091
RFE VI Ventures	1,093,083	3,211,623
Riverside Micro Cap Fund I, LP	66,535,695	4,826,880
Riverside Micro-Cap Fund II, L.P.	13,180,730	21,247,958
Silver Lake Partners II	16,901,352	3,676,533
Silver Lake Partners III	64,702,024	45,439,483
Sprout Capital IX	3,617,014	-
Sprout Capital VII	70,765	-
Sprout Capital VIII, L.P.	2,204,597	-
TCW Shared Op Fund III	3,554,969	2,781,354
TCW Shared Op Fund IV	13,375,069	4,637,341
TCW Shared Op Fund V	41,172,803	12,245,846
TCW/Crescent Mezzanine	1	-
TCW/Crescent Mezzanine II	1	-
TCW/Crescent Mezzanine Partners III, L.P.	7,216,334	4,583,406
TCW/Crescent Mezzanine Partners IV, L.P.	45,287,477	7,010,855
TCW/Crescent Mezzanine Partners V, LLC	108,115,271	50,769,331
The Huron Fund III, L.P.	14,422,340	18,772,500
The Shansby Group 4	44,267,291	1,166,257
The Shansby Group 5 (TSG5)	110,624,606	29,255,289
TPG IV (Texas Pacific Group IV)	30,964,184	3,614,889
TPG Partners III, LP	43,810,103	2,087,002
TPG Partners VI, L.P.	149,193,379	107,842,014
TPG V (Texas Pacific Group V)	173,620,706	43,643,810
TSG6, L.P.	-	125,000,000
Tullis - Dickerson Capital II	6,364,031	-
Tullis - Dickerson Capital III	9,824,880	-
Unitas Asia Opportunity Fund	240,106	7,207,303
Unitas Asia Opportunity Fund II	82,007,095	26,831,127
Unitas Asia Opportunity Fund III	20,836,490	73,537,289

**Net Market Values by Ownership Entity
December 31, 2011**

Fund Name	ARV	Unfunded Commitment
Warburg Pincus Equity Partners, L.P.	13,235,892	-
Warburg Pincus International Partners	39,596,311	-
Warburg Pincus Private Equity IX	187,826,625	-
Warburg Pincus Private Equity VIII, L.P.	70,088,376	-
Warburg Pincus Private Equity X, L.P.	260,989,269	26,400,000
Warburg Pincus Ventures Int'l	415,258	-
Warburg Pincus Ventures, L.P.	227,303	-
Weiss, Peck & Greer V (adm: Opus Capital)	4,596,883	386,240
WestAm COREplus Private Equity QP	15,018,270	3,361,779
WestAm Special Private Equity Partners	10,464,462	2,455,372
Wind Point Partners III	1,776,256	-
Wind Point Partners IV	10,844,359	1,541,518
Wind Point Partners V, L.P.	15,042,234	455,013
Wind Point Partners VI	56,174,339	8,382,764
Wind Point Partners VII	30,285,033	43,521,928
Total Alternative Investments *	\$ 10,341,918,348	\$ 3,884,979,674

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

**STATE OF MICHIGAN
RETIREMENT SYSTEMS**

ABSOLUTE AND REAL RETURN REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 1, 2012



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

EXECUTIVE SUMMARY

Absolute Return

Portfolio Performance

- The overall portfolio outperformed the HFRI Fund of Funds Conservative Index by 32 basis points (bp) in 2011. Long/Short Equity and Macro/CTA strategies were both positive during the fourth quarter; however, all strategies were down for the year on European sovereign concerns, disappointing economic data, and reduced expectations for the pace of global growth.

Strategy Overview

- Arbitrage - Fixed income arbitrage managers delivered gains for the year taking advantage of opportunities in European sovereign basis trades and structured credit. Convertible arbitrage has been removed in favor of more attractive opportunities going forward. Event-driven managers detracted from performance during the year. While merger arbitrage positions and debt restructurings realized modest gains, European credit positions and value equities produced losses.
- Credit/Distressed - Most distressed credit managers were down for the year due to second half volatility. Additionally, poor operating performance from European positions and several delays in ongoing bankruptcy processes caused markdowns in a number of positions. Several large reorganization plans were confirmed or moved towards confirmation during the latter part of the year, setting the stage for distributions to creditors beginning in 2012.
- Long/Short Equity - Manager performance was mixed during the volatile year as investors de-risked in August and September. Long positions in energy and financial companies were the most costly during the year as those industries sold-off on global concerns. Long positions in consumer oriented companies and short positions in alternative energy companies helped reduce the losses, but could not fully offset them.

Current Events

- A new investment was funded from the fund of hedge fund search conducted earlier this year, and 2 new direct manager relationships were also added.

Real Return & Opportunistic

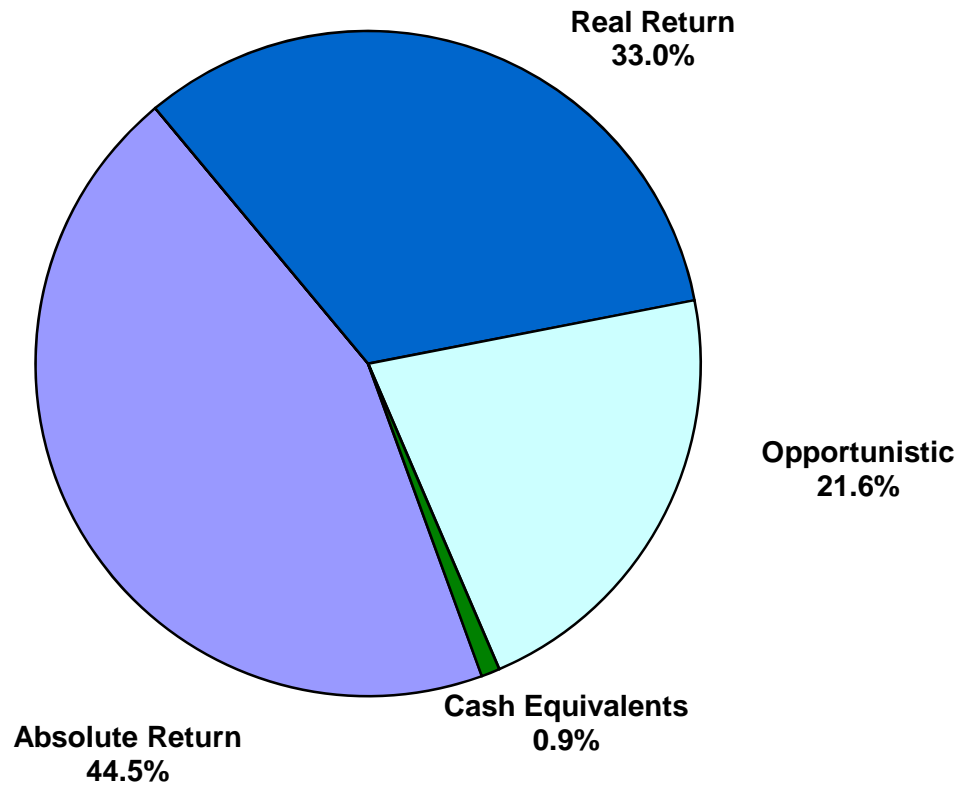
- The commodity portfolio outperformed the Dow Jones UBS Commodity Total Return Index this year by 440 bp. Correlations with commodities and other risk assets have remained elevated.
- Direct lending managers continue to see a very robust new deal pipeline. Quality borrowers, who are too small to access debt markets are still having difficulty finding a good credit source.
- Four new commitments were made during the fourth quarter: \$100 million to KKR, \$50 million to Cargill, \$25 million to Renaissance Venture Capital Fund, and \$10 million to Hopen Life Sciences.



SMRS

Absolute and Real Return

12/31/2011



Market Value in Millions				
	12/31/2011		9/30/2011	
Absolute Return	\$1,417	44.5%	\$1,396	46.8%
Real Return	1,053	33.0%	958	32.2%
Opportunistic	688	21.6%	597	20.0%
Cash Equivalents	31	0.9%	30	1.0%
Total Investments	\$3,189	100.0%	\$2,981	100.0%

ABSOLUTE AND REAL RETURN

As of December 31, 2011

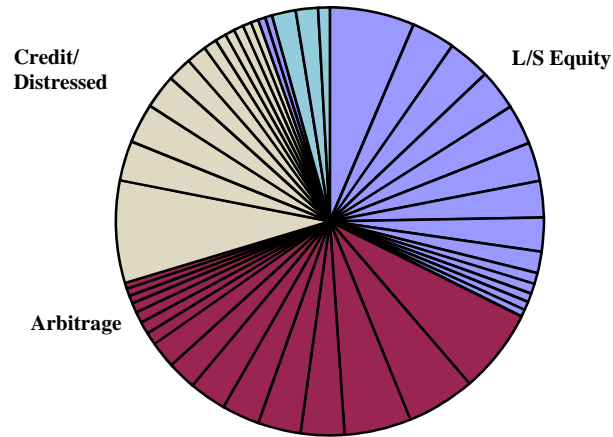
Absolute Return Portfolio Summary

<u>Advisor/Fund Name</u>	<u>Net Market Value</u>
Aetos - Sand Hill, LLC	\$970,758,276
Blackstone - Tahquamenon	255,819,603
Stone Tower Credit Strategies Fund	105,369,574
PSAM - Spartan Fund	27,307,911
FrontPoint Michigan Strategic Partnership Fund	8,075,885
Cash	50,000,000
Total Market Value	<u><u>\$1,417,331,249</u></u>

ABSOLUTE AND REAL RETURN

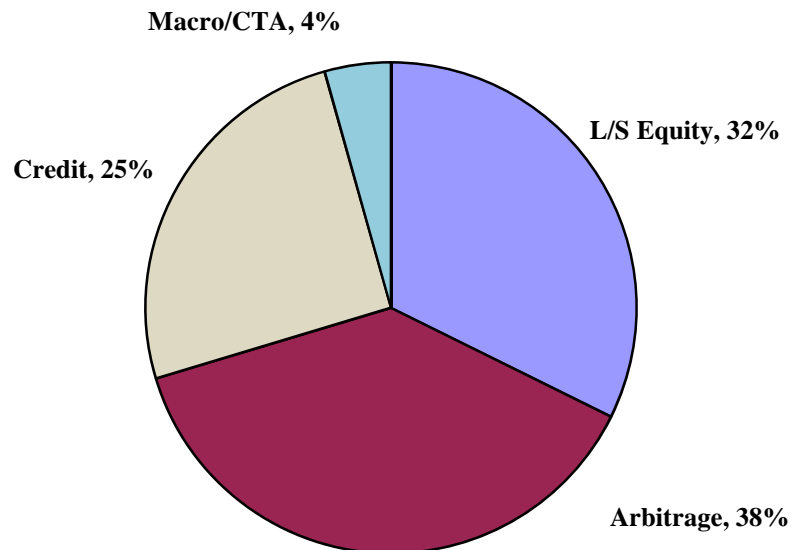
As of December 31, 2011

Absolute Return - Investments By Manager



Underlying Funds:	47	Median Position Size:	1.6%
Strategies:	4	Average Position Size:	2.1%
Relationships:	5	Largest Position Size:	7.7%

Absolute Return - Investments By Strategy



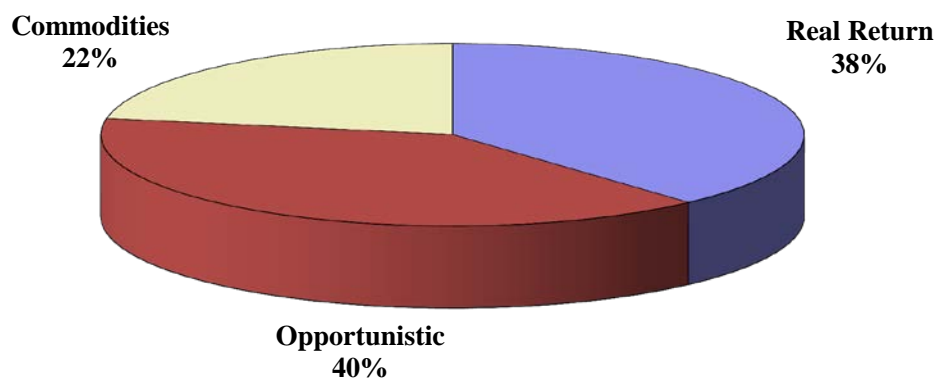
ABSOLUTE AND REAL RETURN

As of December 31, 2011

Real Return & Opportunistic Portfolio Summary

<u>Advisor/Fund Name</u>	<u>Net Market Value</u>	<u>Unfunded Commitment</u>
Social Network Holdings, LLC	\$ 463,879,989	
Commodity Holdings	386,042,185	
Stone Tower Capital Credit Fund	257,800,918	
HPS Senior Loan Fund II	146,524,711	53,475,289
SJC Direct Lending Fund	127,256,138	73,551,684
Galaxie Ave., LLC	104,317,001	
Lakewater, LLC	79,877,596	73,237,699
Fairfield Settlement Partners, LLC	64,305,895	40,458,408
Abernathy Fund I, LLC	53,175,634	164,760,510
Emerald Co-invest	50,920,889	
JP Morgan Global Maritime Fund	4,773,034	120,226,966
Hopen Life Sciences Fund II	1,864,778	8,250,000
Total Market Value	\$1,740,738,768	\$533,960,556

Investments By Strategy



**STATE OF MICHIGAN
RETIREMENT SYSTEMS**

**ACTIVE DOMESTIC EQUITY
REVIEW**

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 1, 2012



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

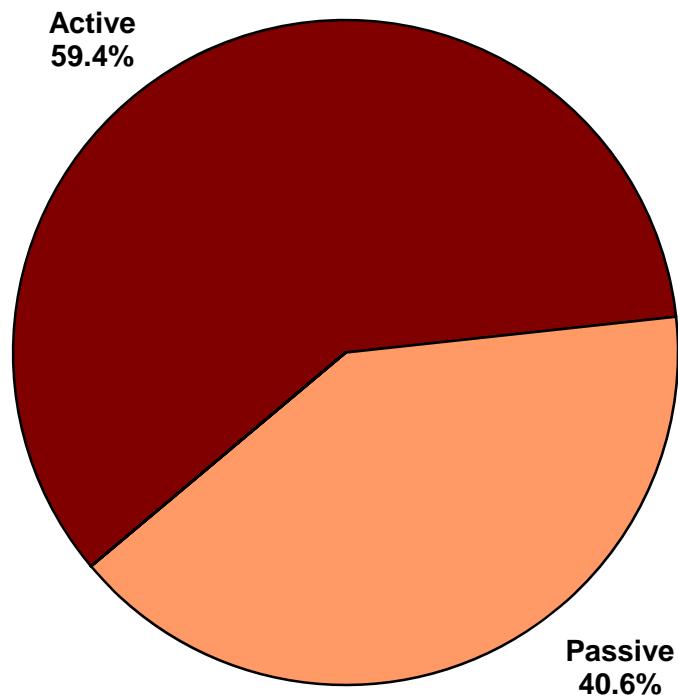
EXECUTIVE SUMMARY

- Despite significant risks to the economic environment, equity markets look reasonably priced, with the S&P 500 poised to return roughly 9.6% over the long-term versus 30-year Treasuries at 3.0%.
 - S&P 500 expected return composed of a 4.1% normalized dividend yield (including stock buybacks) and 5.5% long-term growth in book value.
- Within equities, large-cap stocks continue to look attractive relative to small and mid-caps, particularly on a risk adjusted basis.
 - Normalized PE for the S&P 500 estimated to be roughly 15x versus the S&P 600 Small-Cap at 19x.
 - Normalized dividend yield of ~4% for S&P 500 vs. 1.5% for S&P 600 Small-Cap.
- Defensive equities attractive in today's volatile, low bond yield environment.
 - Attractive dividend yields, growth potential.
 - Less volatility than long-term treasuries,
 - Similar risk profile as high yield bonds,
 - Similar long-term expected return as the S&P 500, significantly less downside risk.
- Composite internal portfolios delivering higher normalized levels of both dividend yield (~5%) and earnings yield (~8%) than the S&P 500, with slightly less aggregate risk.



SMRS

Domestic Equity Holdings By Category 12/31/11

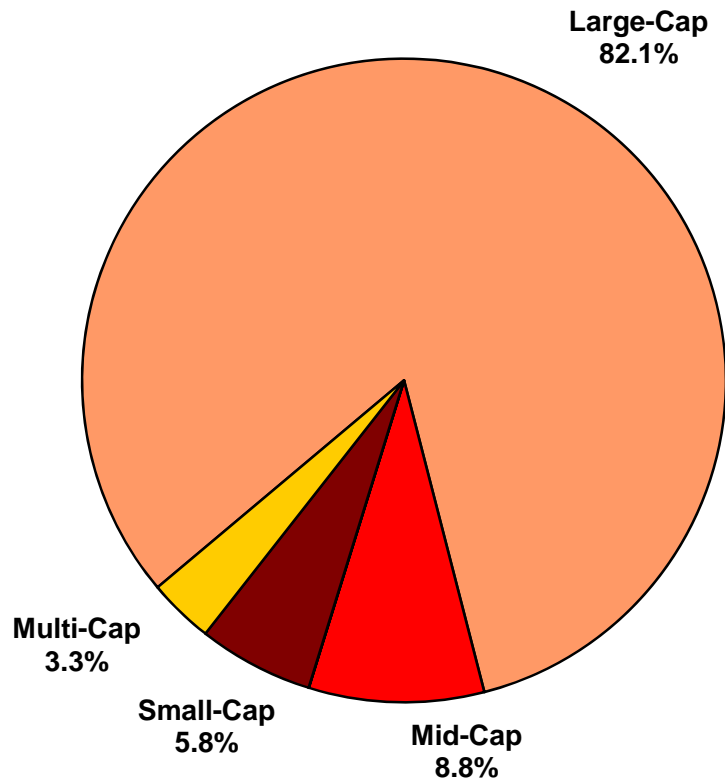


	Market Value in Millions			
	12/31/2011		9/30/2011	
Active	\$8,660	59.4%	\$8,110	60.3%
Passive	5,923	40.6%	5,336	39.7%
Total Domestic Equity	\$14,583	100.0%	\$13,446	100.0%



SMRS

Domestic Equity Holdings By Category 12/31/11



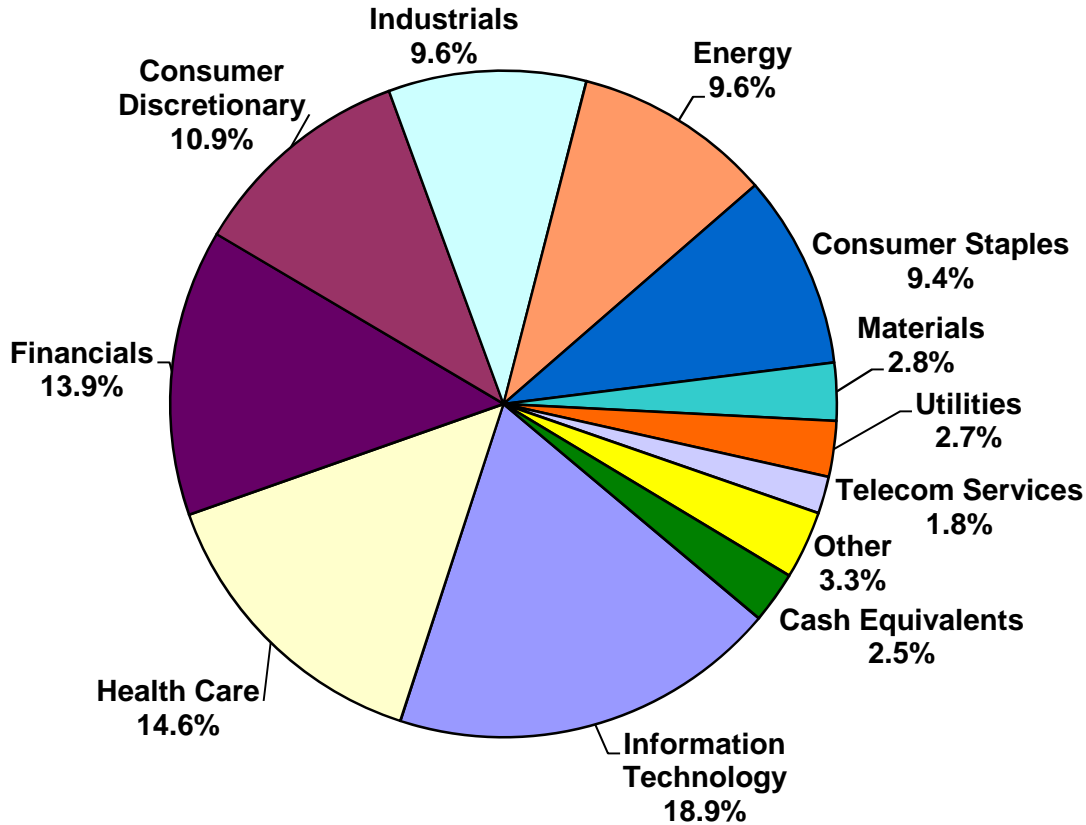
Market Value in Millions				
	12/31/2011		9/30/2011	
Large-Cap	\$11,977	82.1%	\$11,118	82.7%
Mid-Cap	1,277	8.8%	1,158	8.6%
Small-Cap	848	5.8%	739	5.5%
Multi-Cap	481	3.3%	431	3.2%
Total Domestic Equity	\$14,583	100.0%	\$13,446	100.0%



SMRS

All Domestic Equity Holdings By Category

12/31/2011



	Market Value in Millions			
	12/31/2011		9/30/2011	
Information Technology	\$2,757	18.9%	\$2,626	19.5%
Health Care	2,131	14.6%	1,940	14.4%
Financials	2,030	13.9%	1,888	14.1%
Consumer Discretionary	1,588	10.9%	1,600	11.9%
Industrials	1,407	9.6%	1,291	9.6%
Energy	1,403	9.6%	1,269	9.4%
Consumer Staples	1,363	9.4%	1,090	8.1%
Materials	409	2.8%	348	2.6%
Utilities	394	2.7%	342	2.6%
Telecom Services	267	1.8%	281	2.1%
Other	476	3.3%	433	3.2%
Total Investments	\$14,225	97.5%	\$13,108	97.5%
Cash Equivalents	358	2.5%	338	2.5%
Total	\$14,583	100.0%	\$13,446	100.0%

ALL DOMESTIC EQUITIES COMPOSITE

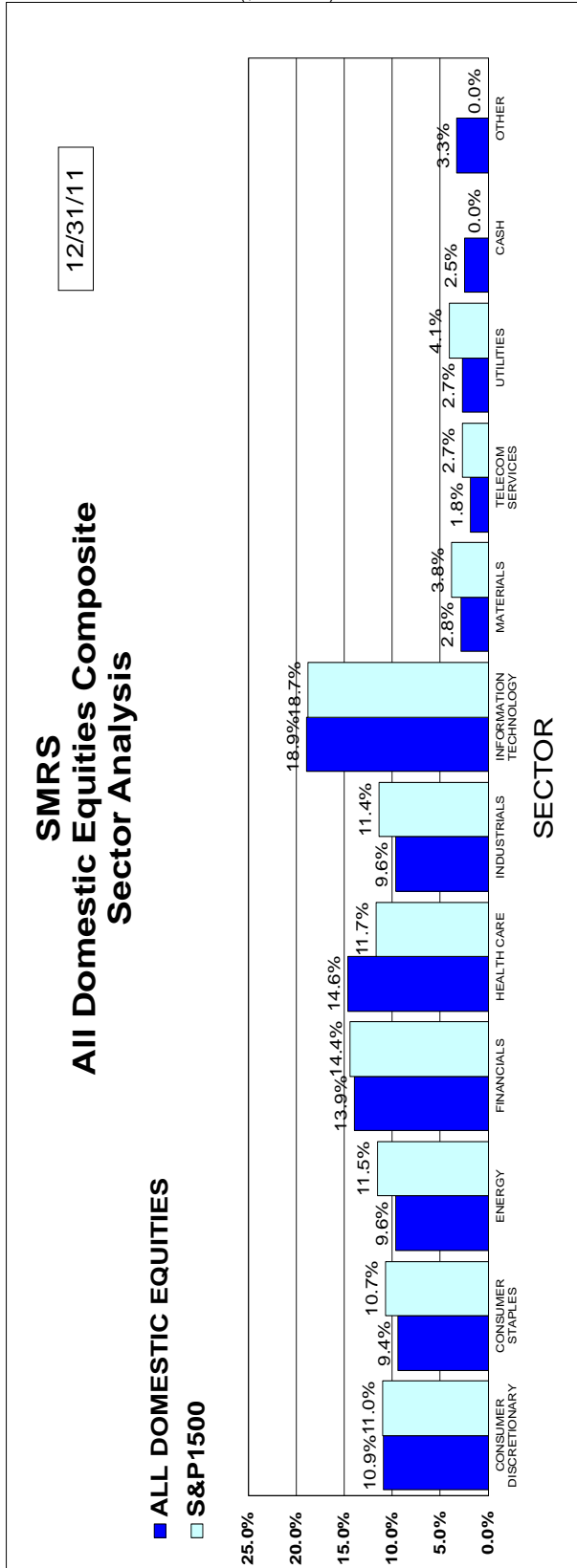
Date:	<u>12/31/2011</u>	<u>9/30/2011</u>	<u>6/30/2011</u>	<u>3/31/2011</u>
Assets (\$million):	\$14,583	\$13,446	\$17,971	\$18,048
Number of Securities:	1,399	1,402	1,436	1,413
Benchmark:	S&P 1500			
Description:	The Actively Managed Composite is designed to add consistent alpha by investing in managers with value-added, but diverse strategies. While the expectation is that most will outperform over time, the composite is designed such that they do so during differing parts of the business cycle.			

Characteristics:	<u>SMRS</u>	<u>S&P 1500</u>
Weighted Average Capitalization (\$billion):	\$72.6	\$84.2
Trailing 12-month P/E:	13.9x	13.9x
Forecast P/E:	13.0x	13.0x
Price/Book:	1.9x	2.0x
Beta:	1.01	1.00
Dividend Yield:	2.0%	2.1%
3-5 Year EPS Growth Estimate:	11.4%	11.1%
Return on Equity:	19.3%	20.3%

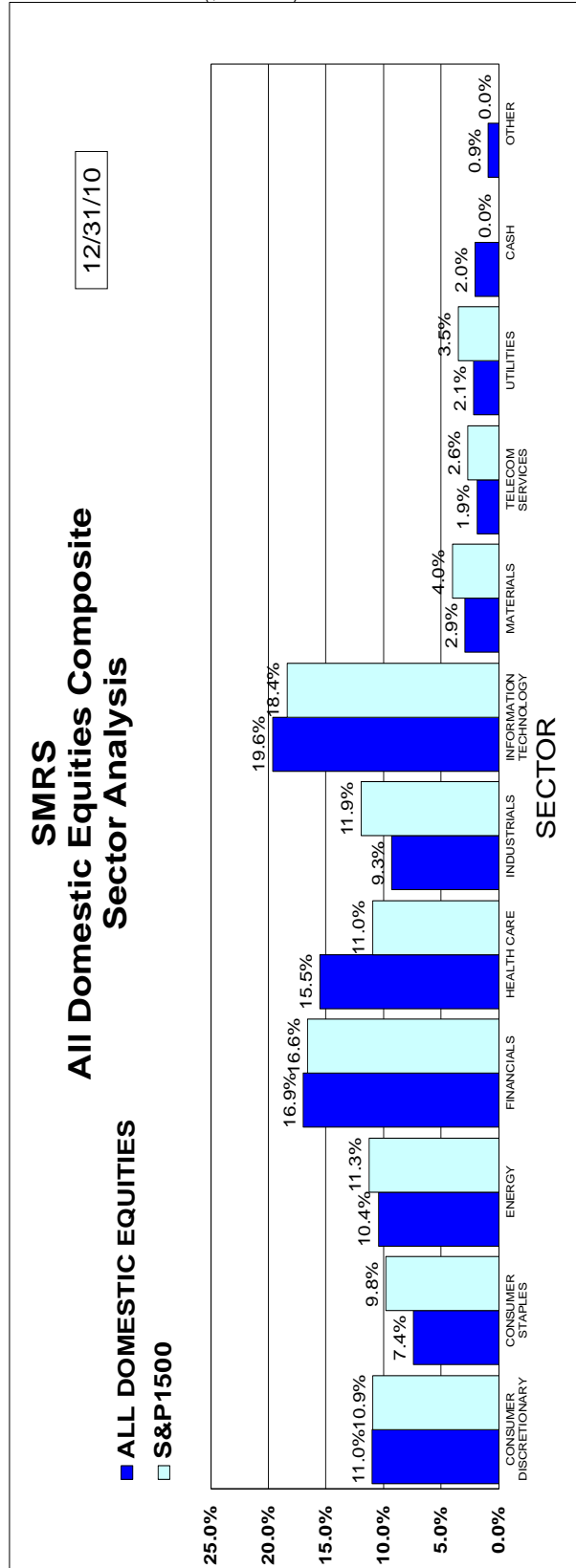
TOP TEN HOLDINGS - All Domestic Equities 12/31/2011

	<u>Portfolio Weight</u>	<u>Total Shares</u>	<u>12/31/2011 Price</u>	<u>YTD11 Total Return</u>	<u>Market Value</u>
Apple Inc.	2.86%	1,030,563	\$405.00	25.56%	\$417,378,015
Google Inc. Cl A	2.14%	483,757	\$645.90	8.74%	\$312,458,646
Johnson & Johnson	1.65%	3,665,089	\$65.58	9.89%	\$240,356,537
Exxon Mobil Corp.	1.58%	2,718,276	\$84.76	18.71%	\$230,401,074
Pfizer Inc.	1.39%	9,333,150	\$21.64	28.77%	\$201,969,366
Merck & Co. Inc.	1.35%	5,212,261	\$37.70	9.54%	\$196,502,240
Abbott Laboratories	1.28%	3,319,352	\$56.23	21.77%	\$186,647,163
Microsoft Corp.	1.27%	7,155,797	\$25.96	-4.52%	\$185,764,490
Amgen Inc.	1.19%	2,697,230	\$64.21	18.18%	\$173,189,138
SPDR S&P 500 ETF	<u>1.17%</u>	1,359,450	\$125.50	1.89%	<u>\$170,610,975</u>
TOTAL	<u>15.88%</u>				<u>\$2,315,277,644</u>

12/31/11
 \$14,583.00
 (\$ MILLION)



12/31/10
 \$17,569.47
 (\$ MILLION)

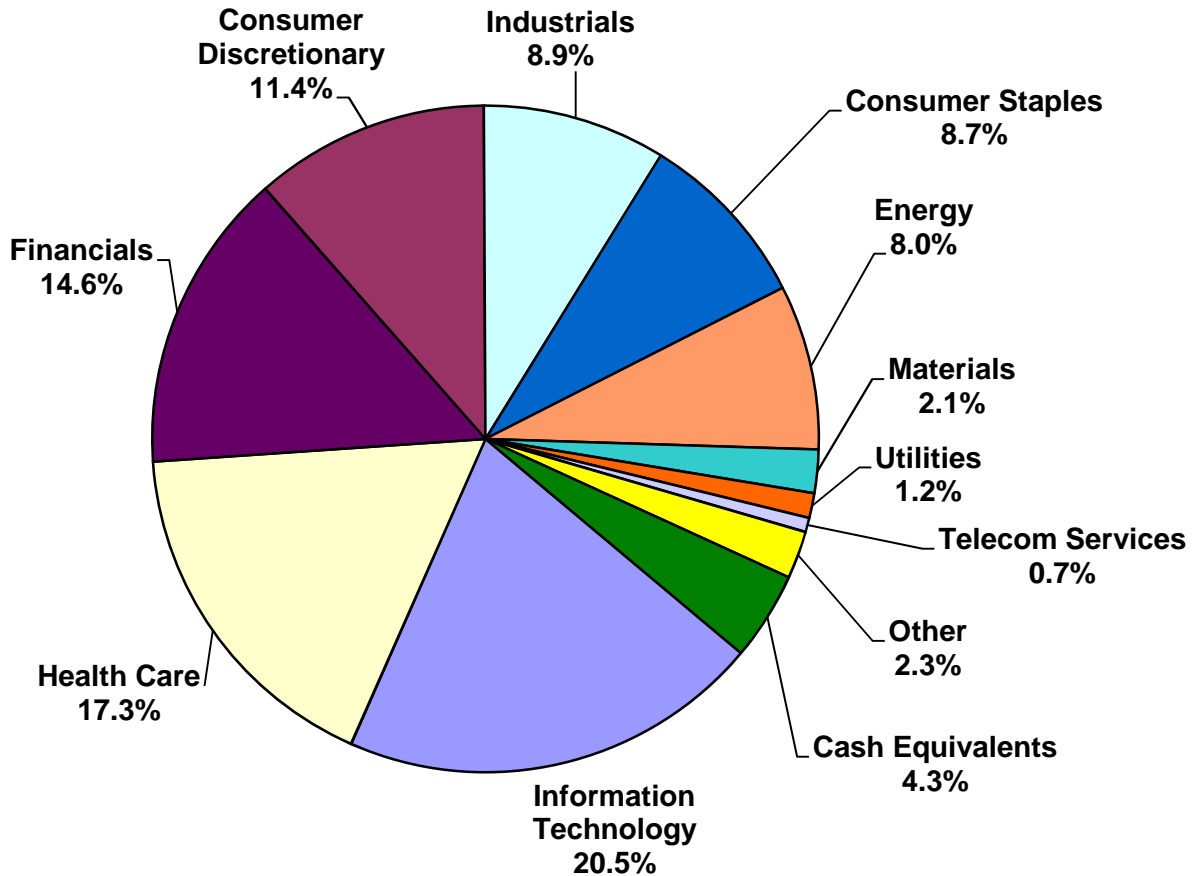




SMRS

All Active Domestic Equity Holdings By Category

12/31/2011



	Market Value in Millions			
	12/31/2011		9/30/2011	
Information Technology	\$1,776	20.5%	\$1,803	22.2%
Health Care	1,495	17.3%	1,485	18.3%
Financials	1,260	14.6%	1,137	14.0%
Consumer Discretionary	988	11.4%	941	11.6%
Industrials	772	8.9%	720	8.9%
Consumer Staples	751	8.7%	574	7.1%
Energy	697	8.0%	588	7.3%
Materials	183	2.1%	140	1.7%
Utilities	103	1.2%	99	1.2%
Telecom Services	57	0.7%	99	1.2%
Other	200	2.3%	176	2.2%
Total Investments	\$8,282	95.7%	\$7,762	95.7%
Cash Equivalents	378	4.3%	348	4.3%
Total	\$8,660	100.0%	\$8,110	100.0%

ALL ACTIVELY MANAGED COMPOSITE

Date:	<u>12/31/2011</u>	<u>9/30/2011</u>	<u>6/30/2011</u>	<u>3/31/2011</u>
Assets (\$million):	\$8,660	\$8,110	\$11,863	\$11,944
Number of Securities:	1,052	1,059	1,107	1,128
Benchmark:	S&P 1500			
Description:	The Actively Managed Composite is designed to add consistent alpha by investing in managers with value-added, but diverse strategies. While the expectation is that most will outperform over time, the composite is designed such that they do so during differing parts of the business cycle.			

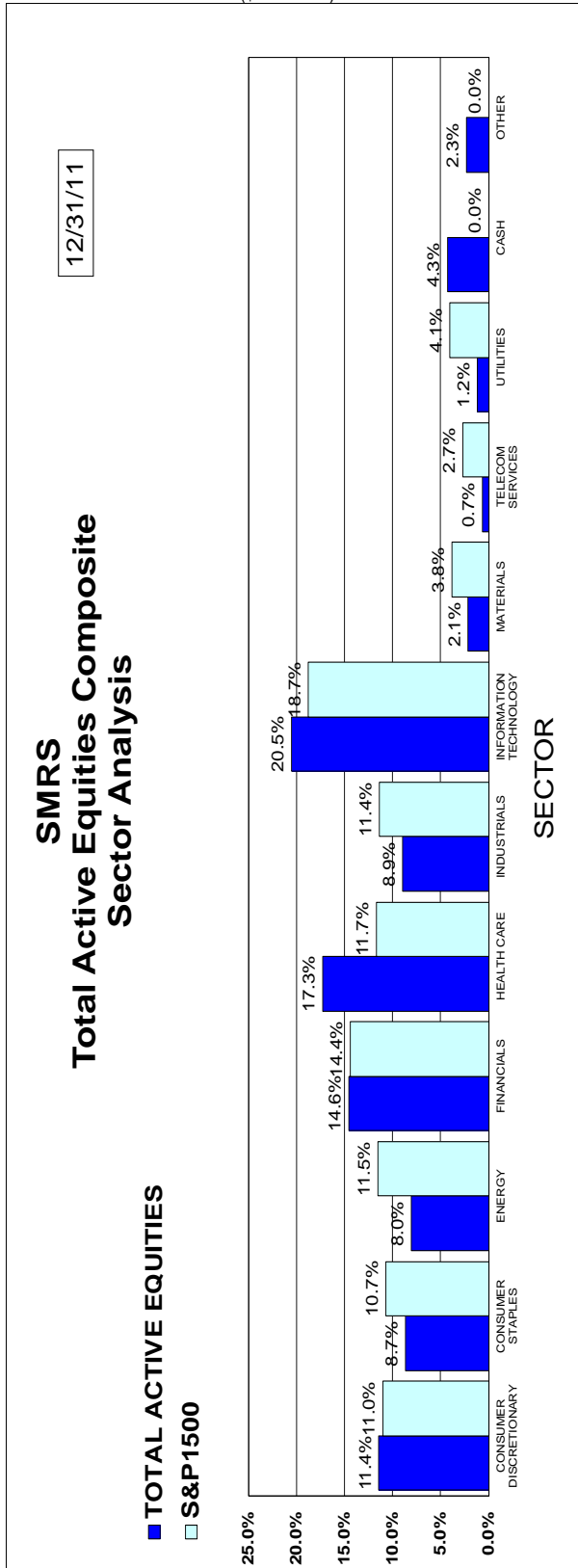
Characteristics:	<u>SMRS</u>	<u>S&P 1500</u>
Weighted Average Capitalization (\$billion):	\$62.6	\$84.2
Trailing 12-month P/E:	13.9x	13.9x
Forecast P/E:	12.9x	13.0x
Price/Book:	1.8x	2.0x
Beta:	1.04	1.00
Dividend Yield:	1.7%	2.1%
3-5 Year EPS Growth Estimate:	11.9%	11.1%
Return on Equity:	18.4%	20.3%

TOP TEN HOLDINGS - All Actively Managed
12/31/2011

	<u>Portfolio Weight</u>	<u>Total Shares</u>	<u>12/11/2011 Price</u>	<u>YTD11 Total Return</u>	<u>Market Value</u>
Apple Inc.	2.85%	609,066	\$405.00	25.56%	\$246,671,730
Google Inc. Cl A	2.75%	369,153	\$645.90	8.74%	\$238,435,923
Johnson & Johnson	1.84%	2,426,743	\$65.58	9.89%	\$159,145,806
Amgen Inc.	1.73%	2,335,562	\$64.21	18.18%	\$149,966,436
Abbott Laboratories	1.70%	2,612,927	\$56.23	21.77%	\$146,924,885
Merck & Co. Inc.	1.55%	3,561,122	\$37.70	9.54%	\$134,254,299
Pfizer Inc.	1.35%	5,416,470	\$21.64	28.77%	\$117,212,411
Microsoft Corp.	1.13%	3,760,666	\$25.96	-4.52%	\$97,626,889
PepsiCo Inc.	1.12%	1,459,330	\$66.35	4.75%	\$96,826,546
Morgan Stanley	<u>1.08%</u>	6,206,072	\$15.13	-43.93%	<u>\$93,897,869</u>
TOTAL	<u>17.10%</u>				<u>\$1,480,962,794</u>

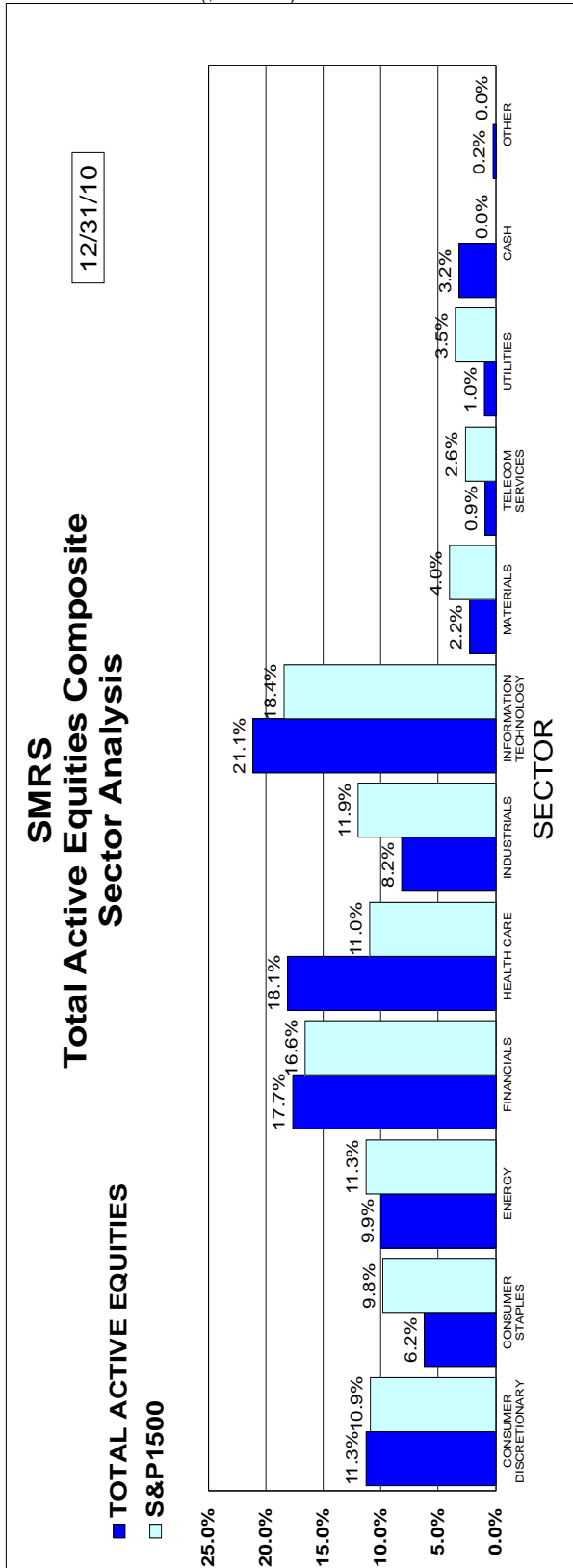
12/31/11
\$8,660.00

(\$ MILLION)



12/31/10
\$11,615.23

(\$ MILLION)

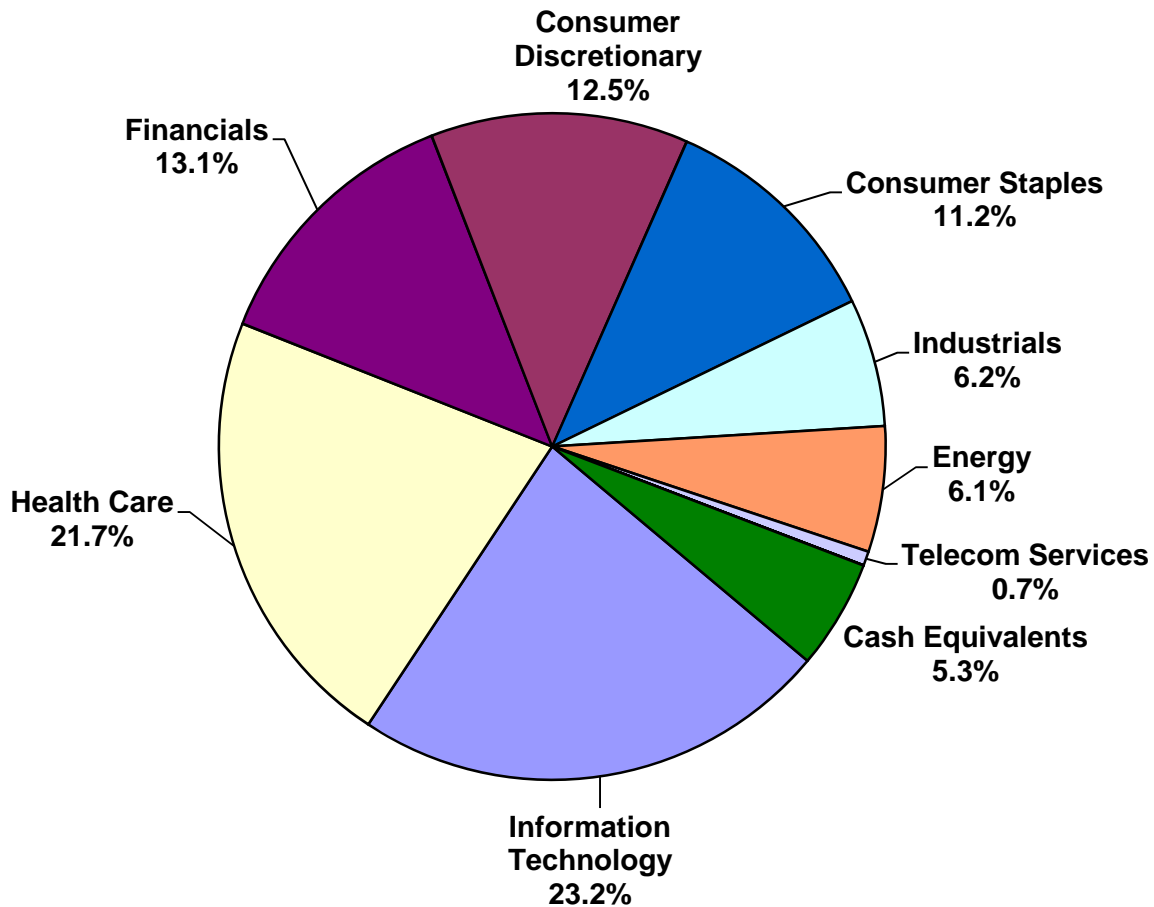




SMRS

Domestic Active Equity - Large-Cap All Internal Domestic Equity Holdings By Category

12/31/11



	Market Value in Millions			
	12/31/2011		9/30/2011	
Information Technology	\$1,059	23.2%	\$1,173	26.3%
Health Care	992	21.7%	1,026	23.0%
Financials	599	13.1%	603	13.5%
Consumer Discretionary	569	12.5%	502	11.2%
Consumer Staples	511	11.2%	385	8.6%
Industrials	283	6.2%	278	6.2%
Energy	279	6.1%	234	5.2%
Telecom Services	33	0.7%	40	0.9%
Utilities	0	0.0%	0	0.0%
Materials	0	0.0%	0	0.0%
Other	0	0.0%	0	0.0%
Total Investments	\$4,325	94.7%	\$4,241	94.9%
Cash Equivalents	244	5.3%	226	5.1%
Total	\$4,569	100.0%	\$4,467	100.0%

SMRS LARGE-CAP INTERNAL ACTIVE COMPOSITE

Date:	<u>12/31/2011</u>	<u>9/30/2011</u>	<u>6/30/2011</u>	<u>3/31/2011</u>
Assets (\$million):	\$4,569	\$4,467	\$7,238	\$7,331
Number of Securities:	92	90	93	94
Benchmark:	S&P 500			
Description:	The Large-Cap Internal Active portfolio represents a composite of the division's internally managed active portfolios. This currently includes Large-Cap Core, Large-Cap Growth, Large-Cap Value and Large-Cap Dividend Growth.			

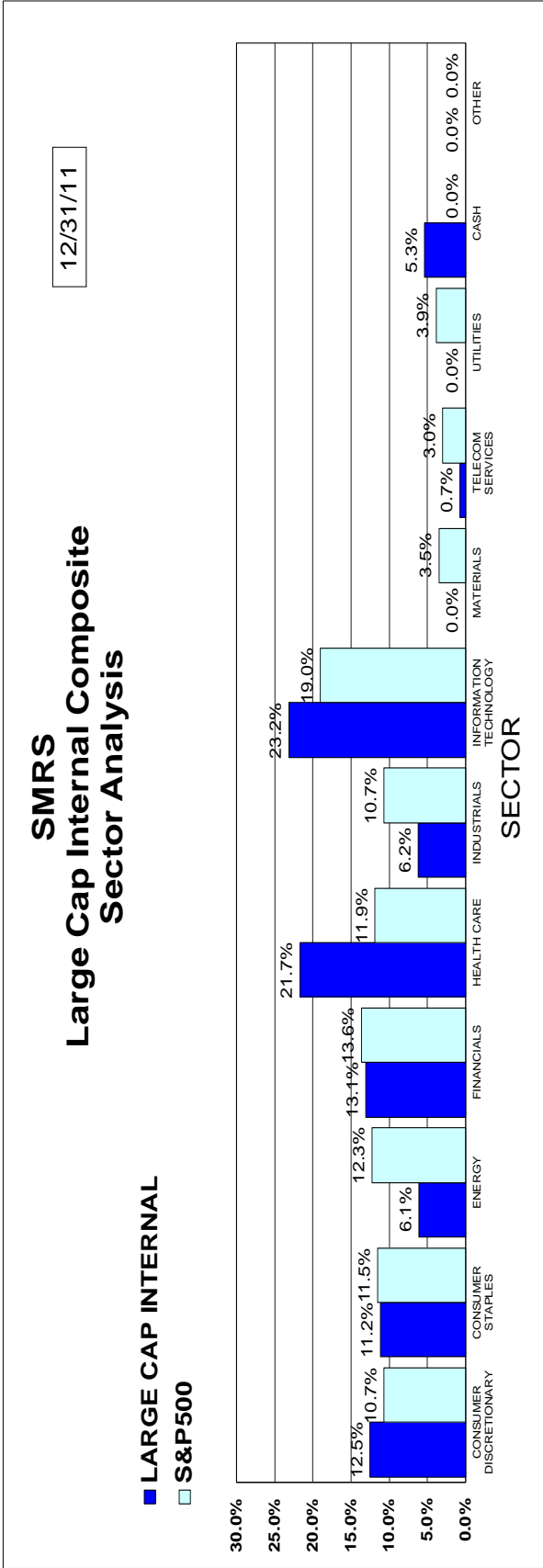
Characteristics:	<u>SMRS</u>	<u>S&P 500</u>
Weighted Average Capitalization (\$billion):	\$85.1	\$95.0
Trailing 12-month P/E:	14.5x	13.6x
Forecast P/E:	12.7x	12.7x
Price/Book:	1.7x	2.0x
Beta:	0.98	1.00
Dividend Yield:	1.8%	2.2%
3-5 Year EPS Growth Estimate:	11.3%	11.0%
Return on Equity:	20.0%	21.4%

**TOP TEN HOLDINGS - Large-Cap Internal Active
12/31/2011**

	<u>Portfolio Weight</u>	<u>Total Shares</u>	<u>12/31/2011 Price</u>	<u>YTD11 Total Return</u>	<u>Market Value</u>
Apple Inc.	4.68%	528,173	\$405.00	25.56%	\$213,910,065
Google Inc. Cl A	4.54%	321,168	\$645.90	8.74%	\$207,442,411
Johnson & Johnson	3.14%	2,187,780	\$65.58	9.89%	\$143,474,612
Amgen Inc.	3.00%	2,133,828	\$64.21	18.18%	\$137,013,096
Abbott Laboratories	2.74%	2,227,407	\$56.23	21.77%	\$125,247,096
Merck & Co. Inc.	2.51%	3,043,092	\$37.70	9.54%	\$114,724,568
Morgan Stanley	2.01%	6,075,472	\$15.13	-43.93%	\$91,921,891
Apollo Group Inc. Cl A	1.88%	1,594,627	\$53.87	36.41%	\$85,902,556
PepsiCo Inc.	1.86%	1,282,665	\$66.35	4.75%	\$85,104,823
Pfizer Inc.	<u>1.72%</u>	3,628,933	\$21.64	28.77%	<u>\$78,530,110</u>
TOTAL	<u>28.09%</u>				<u>\$1,283,271,229</u>

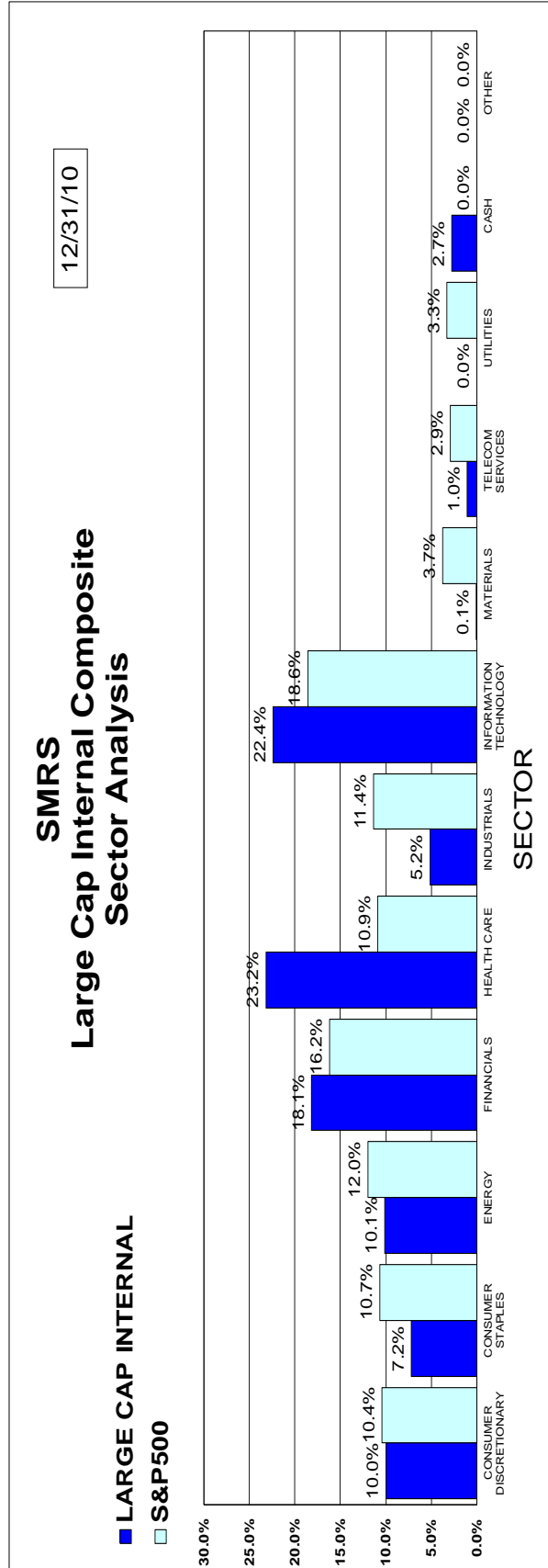
\$4,568.85

(\$ MILLION)



\$7,041.86

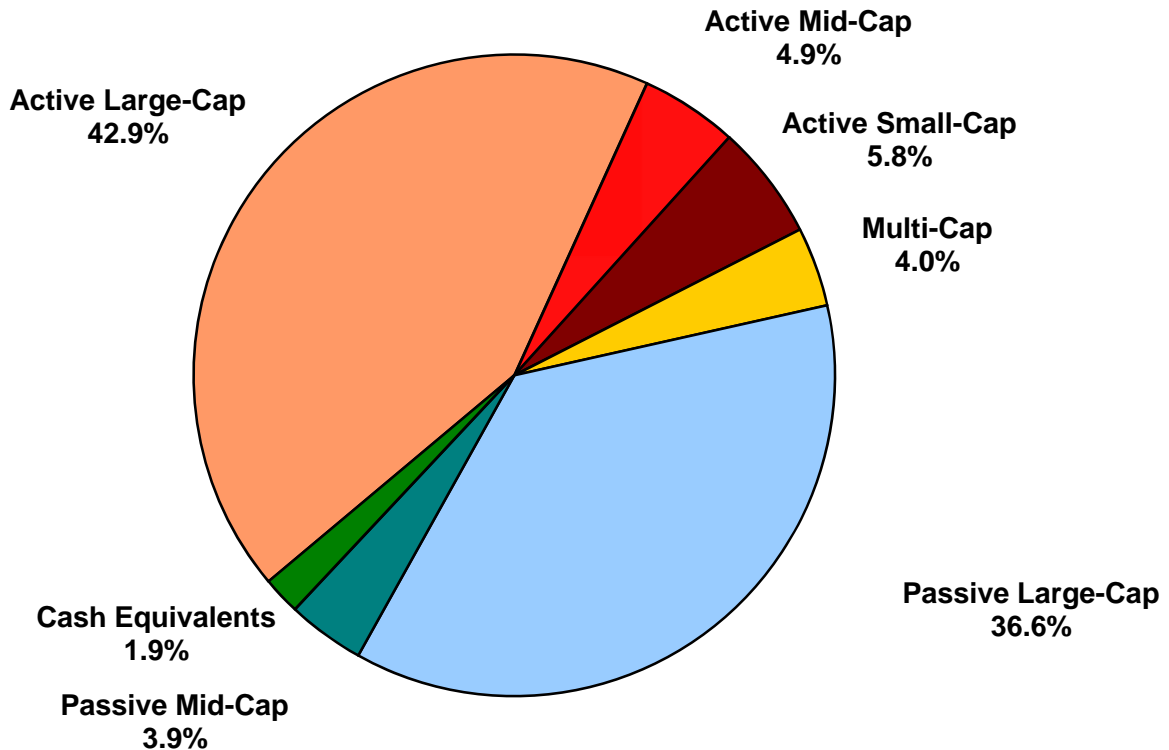
(\$ MILLION)





SMRS

Domestic Equity Holdings By Category 12/31/11



Market Value in Millions				
	12/31/2011		9/30/2011	
Active				
Large-Cap	\$6,250	42.9%	\$5,828	43.3%
Mid-Cap	708	4.9%	650	4.8%
Small-Cap	848	5.8%	739	5.5%
Multi-Cap	586	4.0%	616	4.6%
Total Active Equity	\$8,392	57.6%	\$7,833	58.2%
Passive				
Large-Cap	\$5,344	36.6%	\$4,787	35.6%
Mid-Cap	566	3.9%	507	3.8%
Total Passive Equity	\$5,910	40.5%	\$5,294	39.4%
Total Investments	\$14,302	98.1%	\$13,127	97.6%
Cash Equivalents	281	1.9%	319	2.4%
Total Domestic Equity	\$14,583	100.0%	\$13,446	100.0%

SMRS DOMESTIC EQUITIES
December 31, 2011

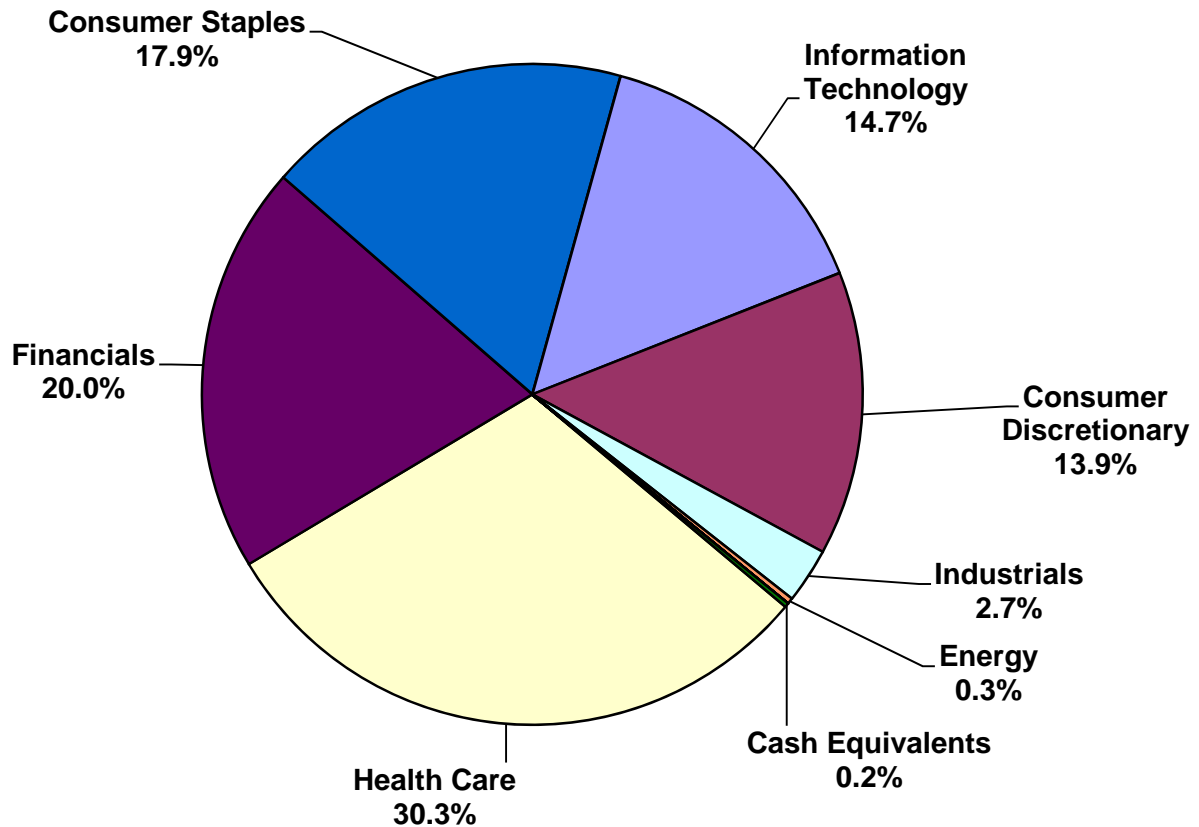
	CONCENTRATED			S&P 1500
	INDEX	CORE	HIGH ALPHA	
	(in thousands)			
Large-Cap				
Index S&P 500	\$5,354,415	\$1,851,575	\$1,248,558	\$5,354,415
Large-Cap Core			1,197,797	1,851,575
Large-Cap Growth			105,309	1,248,558
Large-Cap Value			611,450	1,197,797
Large-Cap Dividend Growth			163,895	105,309
Edgewood Large-Cap Growth			510,494	611,450
Aletheia Large-Cap Growth			232,263	163,895
LSV Large-Cap Value			230,143	510,494
Wasatch Advisors Large-Cap Value			255,755	232,263
Epoch Large-Cap Value			165,488	230,143
Diamond Hill Large-Cap Value			49,578	255,755
Absolute Return Income Fund				165,488
Tactical Asset Allocation				<u>49,578</u>
Mid-Cap				
S&P 400 Index	\$569,079	\$70,690	\$192,798	\$569,079
Artisan Mid-Cap Value			87,246	192,798
Champlain Mid-Cap Core				70,690
Cramer Rosenthal McGlynn Mid-Cap Value		64,106		87,246
Los Angeles Capital Mid-Cap Plus Core		87,934		64,106
Munder Mid-Cap Core Growth		105,262		87,934
Rainier Mid-Cap Growth		115,860		105,262
Seizert Capital Partners Mid-Cap Core				115,860
Wellington Management Mid-Cap Growth				<u>100,302</u>
Small-Cap				
Champlain Small-Cap Core			\$101,184	101,184
Donald Smith Small-Cap Value			152,905	152,905
Fisher Small-Cap Value		\$219,091		219,091
GW Capital Small-Cap Value			65,877	65,877
Northpointe Small-Cap Value		76,287		76,287
Opus Small-Cap Value			55,631	55,631
Pier Small-Cap Growth			176,666	<u>176,666</u>
Manager of Managers				
Artucks Asset Management				\$847,641
Bivium Capital Partners				6.0%
Leading Edge Investment Advisors				100.0%
TOTAL	\$5,923,494	\$2,590,805	\$5,703,339	\$14,582,309
				84.2%
				88.4%
				9.8%
				7.8%



SMRS

Domestic Active Equity - Large-Cap Core Equity Holdings By Category

12/31/11



	Market Value in Millions			
	12/31/2011		9/30/2011	
Health Care	\$560	30.3%	\$568	31.1%
Financials	372	20.0%	385	21.1%
Consumer Staples	331	17.9%	199	10.9%
Information Technology	272	14.7%	363	19.9%
Consumer Discretionary	258	13.9%	247	13.6%
Industrials	49	2.7%	49	2.7%
Energy	6	0.3%	7	0.4%
Telecom Services	0	0.0%	0	0.0%
Utilities	0	0.0%	0	0.0%
Materials	0	0.0%	0	0.0%
Other	0	0.0%	0	0.0%
Total Investments	\$1,848	99.8%	\$1,818	99.7%
Cash Equivalents	4	0.2%	6	0.3%
Total	\$1,852	100.0%	\$1,824	100.0%

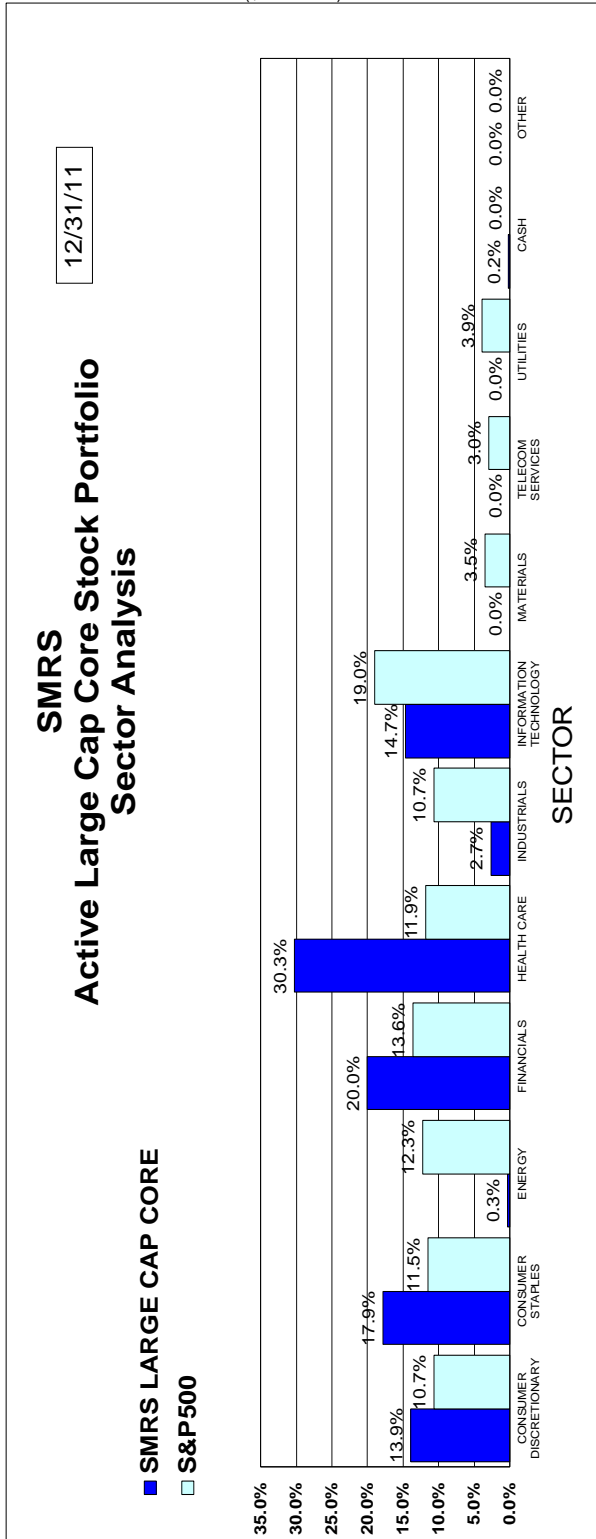
SMRS LARGE-CAP CORE PORTFOLIO

Date:	<u>12/31/2011</u>	<u>9/30/2011</u>	<u>6/30/2011</u>	<u>3/31/2011</u>
Assets (\$million):	\$1,852	\$1,824	\$3,094	\$3,209
Number of Securities:	35	36	37	36
Benchmark:	S&P 500			
Description:	The Large-Cap Core portfolio looks to add alpha by constructing a portfolio of stocks with attractive risk adjusted returns. Portfolio allocations are the result of security analysis and a risk controlled portfolio construction discipline.			

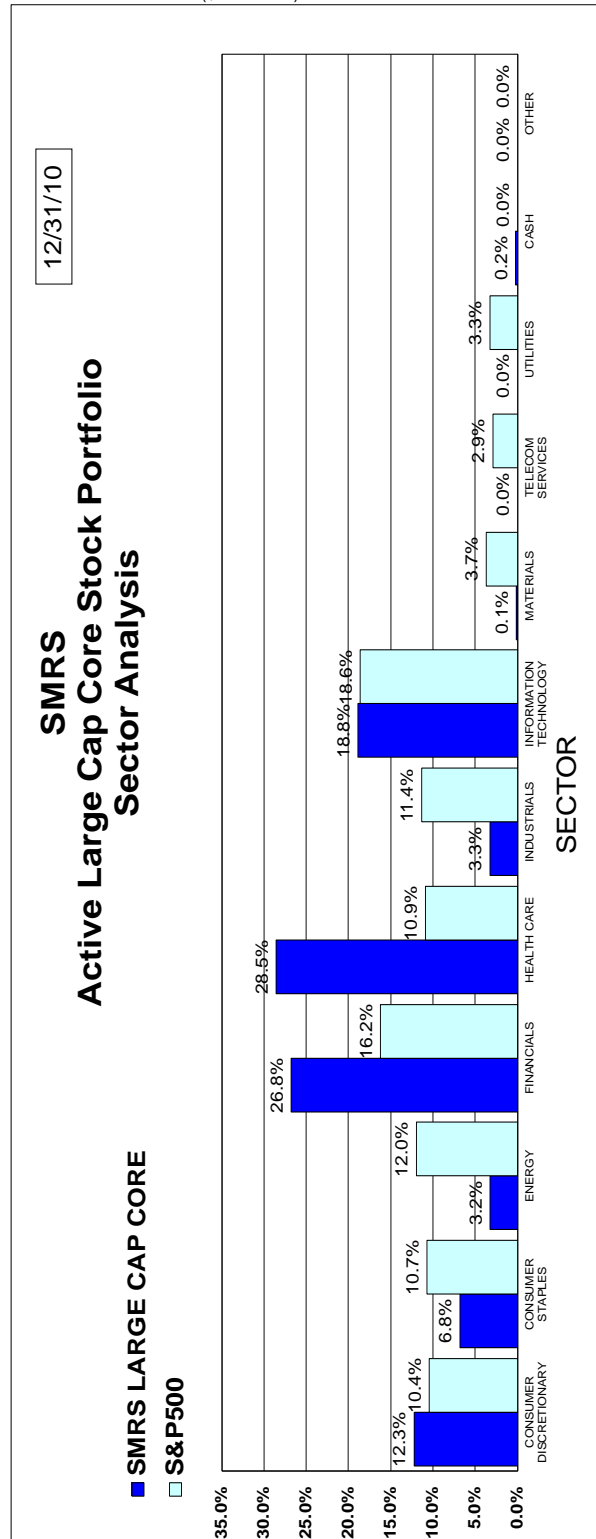
Characteristics:	<u>SMRS</u>	<u>S&P 500</u>
Weighted Average Capitalization (\$billion):	\$97.9	\$95.0
Trailing 12-month P/E:	15.4x	13.6x
Forecast P/E:	13.1x	12.7x
Price/Book:	1.6x	2.0x
Beta:	0.93	1.00
Dividend Yield:	2.2%	2.2%
3-5 Year EPS Growth Estimate:	9.7%	11.0%
Return on Equity:	19.7%	21.4%

	<u>Weight</u>	<u>Shares</u>	<u>Price</u>	<u>Return</u>	<u>Value</u>
Apple Inc.	6.78%	310,073	\$405.00	25.56%	\$125,579,565
Google Inc. Cl A	6.53%	187,168	\$645.90	8.74%	\$120,891,811
Johnson & Johnson	5.41%	1,527,076	\$65.58	9.89%	\$100,145,644
Abbott Laboratories	5.17%	1,703,151	\$56.23	21.77%	\$95,768,181
Merck & Co. Inc.	5.14%	2,527,462	\$37.70	9.54%	\$95,285,317
Amgen Inc.	5.08%	1,464,800	\$64.21	18.18%	\$94,054,808
Apollo Group Inc. Cl A	4.64%	1,594,627	\$53.87	36.41%	\$85,902,556
PepsiCo Inc.	4.60%	1,282,665	\$66.35	4.75%	\$85,104,823
Roche Holding AG ADS	4.19%	1,824,330	\$42.55	19.72%	\$77,625,242
General Mills Inc.	<u>4.09%</u>	1,876,600	\$40.41	17.20%	<u>\$75,833,406</u>
TOTAL	<u>51.63%</u>				<u>\$956,191,353</u>

12/31/11
 \$1,851.58
 (\$ MILLION)



12/31/10
 \$3,082.31
 (\$ MILLION)

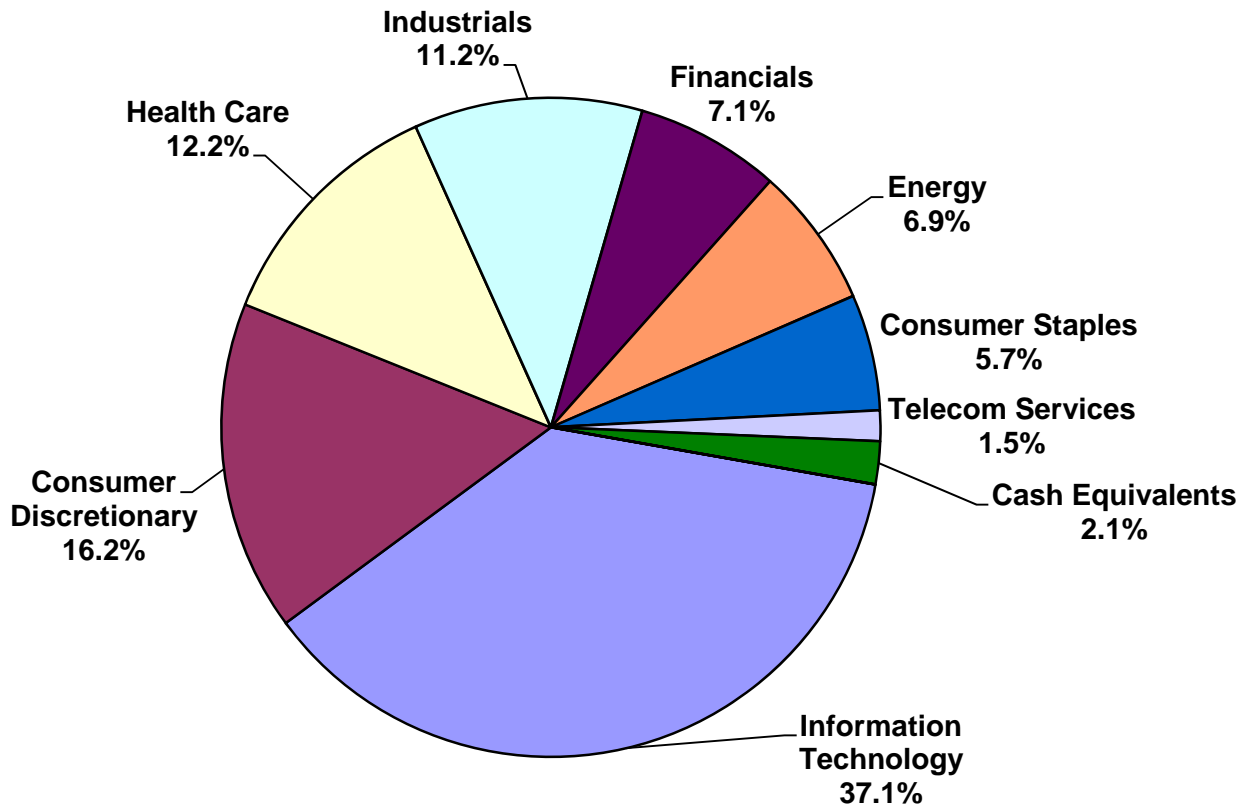




SMRS

Domestic Active Equity - Large-Cap Growth Holdings By Category

12/31/11



	Market Value in Millions			
	12/31/2011		9/30/2011	
Information Technology	\$464	37.1%	\$520	40.5%
Consumer Discretionary	202	16.2%	153	11.9%
Health Care	152	12.2%	169	13.2%
Industrials	140	11.2%	141	11.0%
Financials	89	7.1%	94	7.3%
Energy	86	6.9%	76	5.9%
Consumer Staples	71	5.7%	91	7.1%
Telecom Services	19	1.5%	26	2.0%
Materials	0	0.0%	0	0.0%
Utilities	0	0.0%	0	0.0%
Other	0	0.0%	0	0.0%
Total Investments	\$1,223	97.9%	\$1,270	98.9%
Cash Equivalents	26	2.1%	14	1.1%
Total	\$1,249	100.0%	\$1,284	100.0%

SMRS LARGE-CAP GROWTH PORTFOLIO

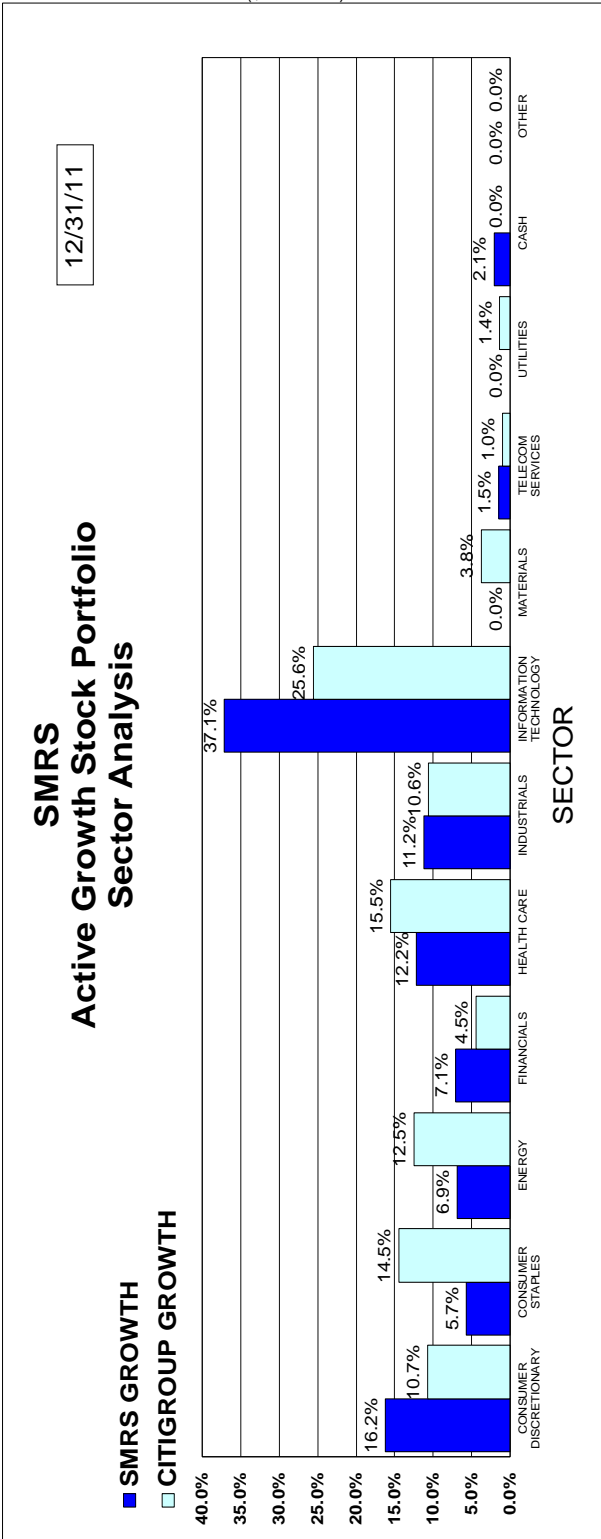
Date:	<u>12/31/2011</u>	<u>9/30/2011</u>	<u>6/30/2011</u>	<u>3/31/2011</u>
Assets (\$million):	\$1,249	\$1,284	\$2,103	\$2,106
Number of Securities:	37	36	43	45
Benchmark:	S&P 500/Citigroup Growth Index			
Description:	The Large-Cap Growth portfolio invests in companies that have above-average and sustainable growth in revenues, earnings, and cash flow; identifiable catalysts; and reasonable valuations relative to fundamentals. The portfolio seeks to minimize risk through diversification and an active risk management program.			

Characteristics:	<u>SMRS</u>	<u>S&P 500/Citi Growth</u>
Weighted Average Capitalization (\$billion):	\$78.5	\$109.7
Trailing 12-month P/E:	15.4x	15.2x
Forecast P/E:	14.5x	14.1x
Price/Book:	2.4x	3.3x
Beta:	1.05	1.00
Dividend Yield:	1.0%	1.9%
3-5 Year EPS Growth Estimate:	15.1%	12.1%
Return on Equity:	23.8%	27.4%

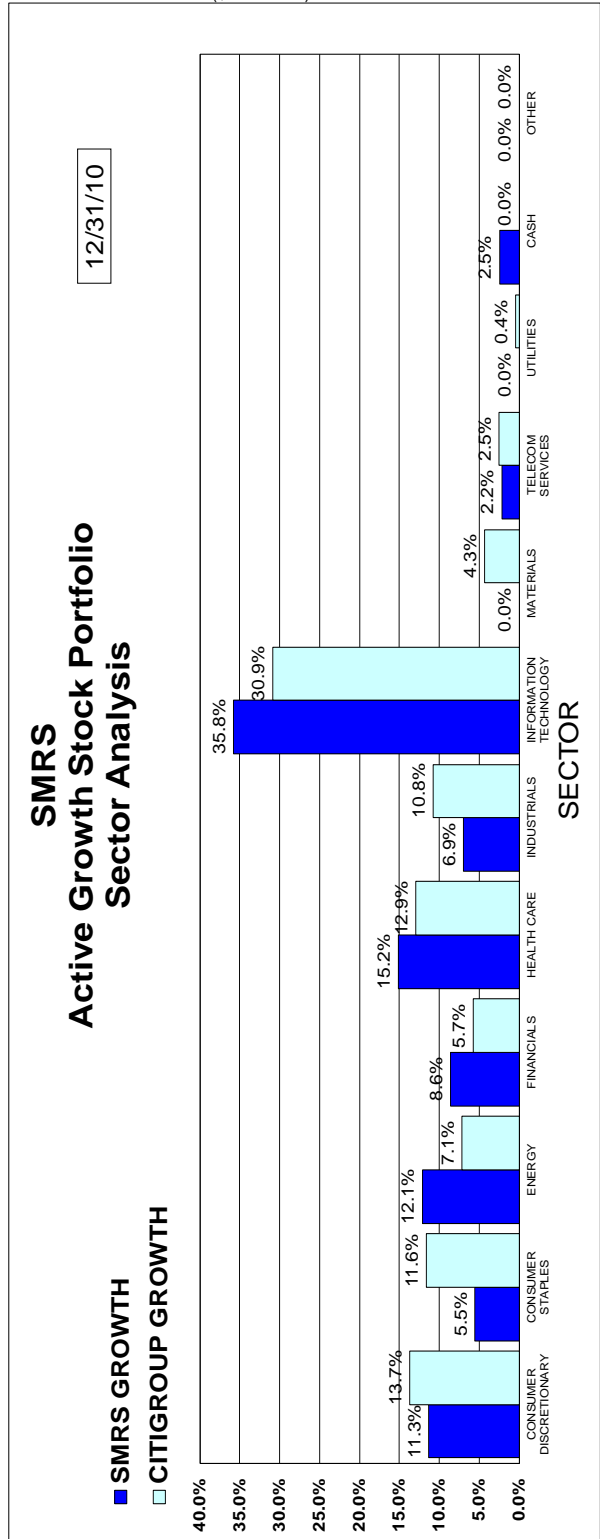
TOP TEN HOLDINGS - GROWTH 12/31/2011

	<u>Portfolio Weight</u>	<u>Total Shares</u>	<u>12/31/2011 Price</u>	<u>YTD11 Total Return</u>	<u>Market Value</u>
Apple Inc.	7.07%	218,100	\$405.00	25.56%	\$88,330,500
Google Inc. Cl A	6.93%	134,000	\$645.90	8.74%	\$86,550,600
McDonald's Corp.	5.33%	663,600	\$100.33	34.66%	\$66,578,988
Allergan Inc.	4.05%	576,300	\$87.74	28.09%	\$50,564,562
Coca-Cola Co.	3.68%	656,500	\$69.97	9.44%	\$45,935,305
eBay Inc.	3.61%	1,486,500	\$30.33	8.98%	\$45,085,545
Celgene Corp.	3.28%	606,400	\$67.60	14.31%	\$40,992,640
Oracle Corp.	3.28%	1,597,200	\$25.65	-17.46%	\$40,968,180
CME Group Inc. Cl A	3.21%	164,400	\$243.67	-22.68%	\$40,059,348
Precision Castparts Corp.	<u>3.11%</u>	235,600	\$164.79	18.47%	<u>\$38,824,524</u>
TOTAL	<u>43.55%</u>				<u>\$543,890,192</u>

12/31/11
 \$1,248.56
 (\$ MILLION)



12/31/10
 \$2,111.20
 (\$ MILLION)

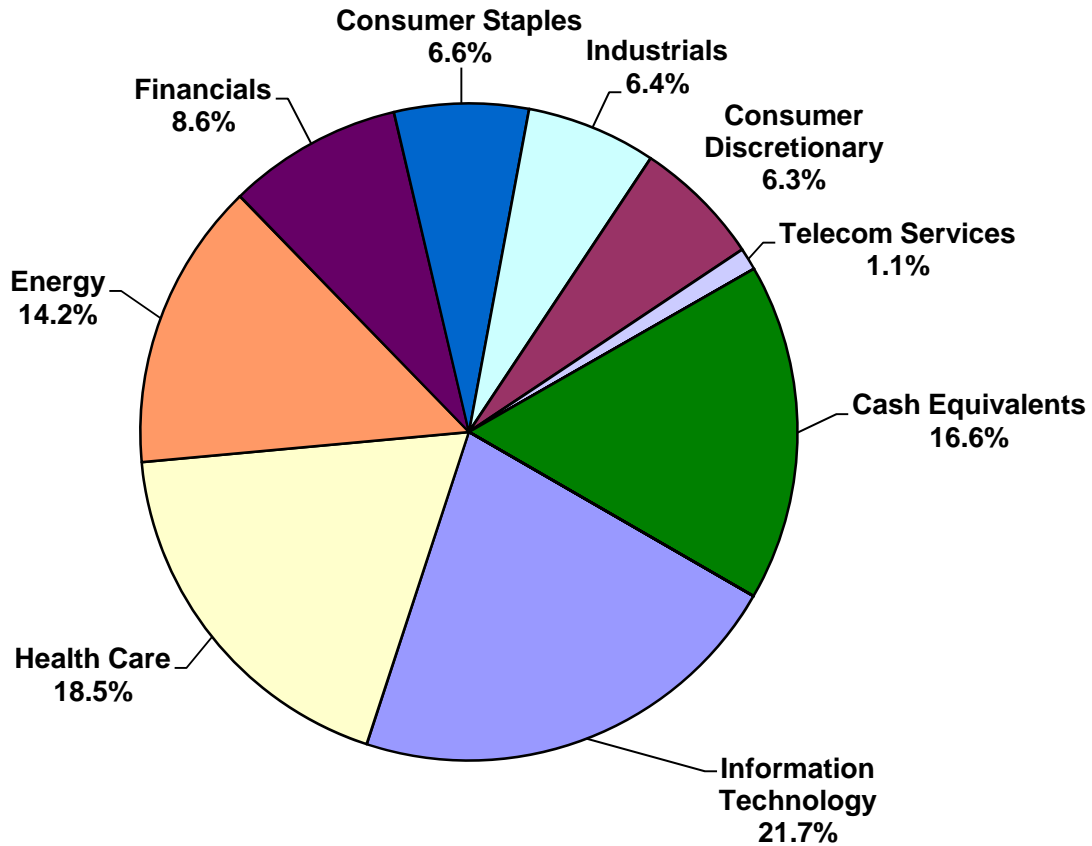




SMRS

Domestic Active Equity - Large-Cap Value Holdings By Category

12/31/11



	Market Value in Millions			
	12/31/2011		9/30/2011	
Information Technology	\$260	21.7%	\$240	20.5%
Health Care	221	18.5%	246	21.0%
Energy	171	14.2%	141	12.0%
Financials	103	8.6%	99	8.4%
Consumer Staples	79	6.6%	78	6.7%
Industrials	77	6.4%	77	6.6%
Consumer Discretionary	75	6.3%	81	6.9%
Telecom Services	13	1.1%	13	1.1%
Materials	0	0.0%	0	0.0%
Utilities	0	0.0%	0	0.0%
Other	0	0.0%	0	0.0%
Total Investments	\$999	83.4%	\$975	83.2%
Cash Equivalents	199	16.6%	197	16.8%
Total	\$1,198	100.0%	\$1,172	100.0%

SMRS LARGE-CAP VALUE PORTFOLIO

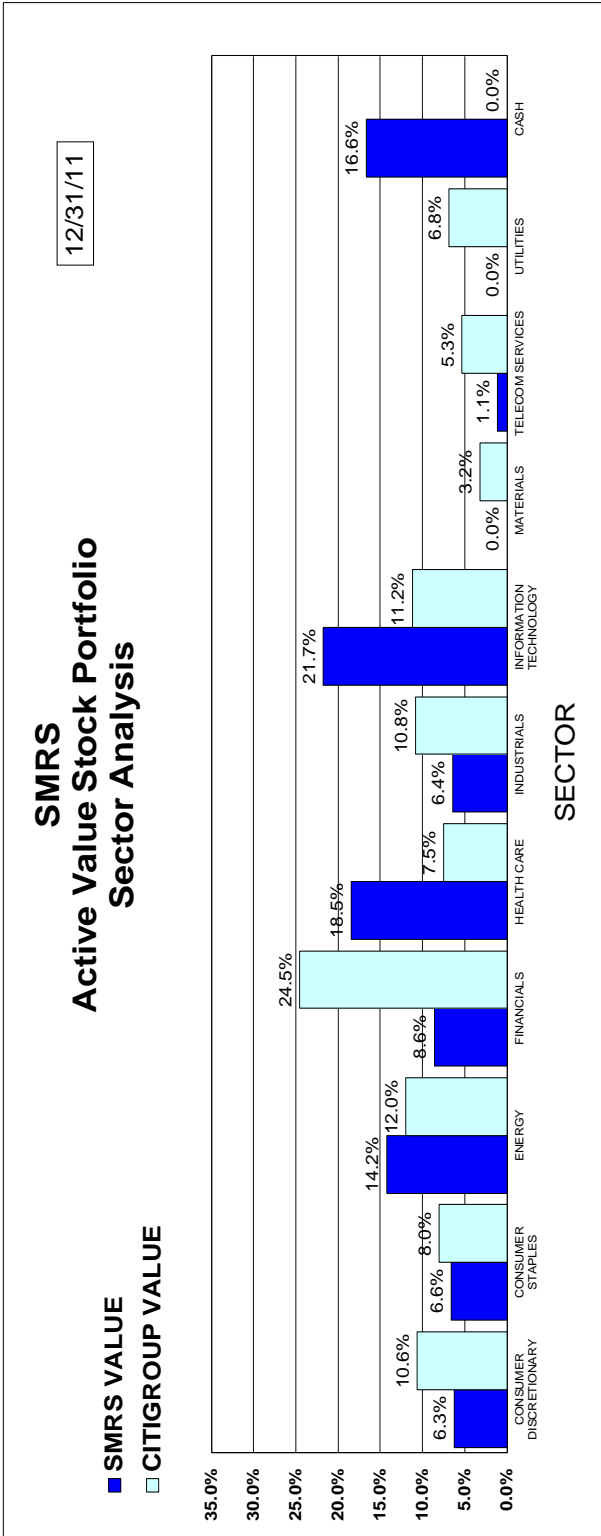
Date:	<u>12/31/2011</u>	<u>9/30/2011</u>	<u>6/30/2011</u>	<u>3/31/2011</u>
Assets (\$million):	\$1,198	\$1,172	\$1,805	\$1,867
Number of Securities:	34	35	38	39
Benchmark:	S&P 500/Citigroup Value Index			
Description:	Large-cap stocks selling at market prices that are significantly less than their underlying business value. Focus on companies with above average normalized returns on equity, strong balance sheets and business models with good long-term prospects.			

Characteristics:	<u>SMRS</u>	<u>S&P 500/Citi Value</u>
Weighted Average Capitalization (\$billion):	\$69.4	\$77.5
Trailing 12-month P/E:	12.2x	12.1x
Forecast P/E:	10.6x	11.4x
Price/Book:	1.5x	1.4x
Beta:	0.97	1.00
Dividend Yield:	2.1%	2.5%
3-5 Year EPS Growth Estimate:	9.7%	9.6%
Return on Equity:	15.8%	14.4%

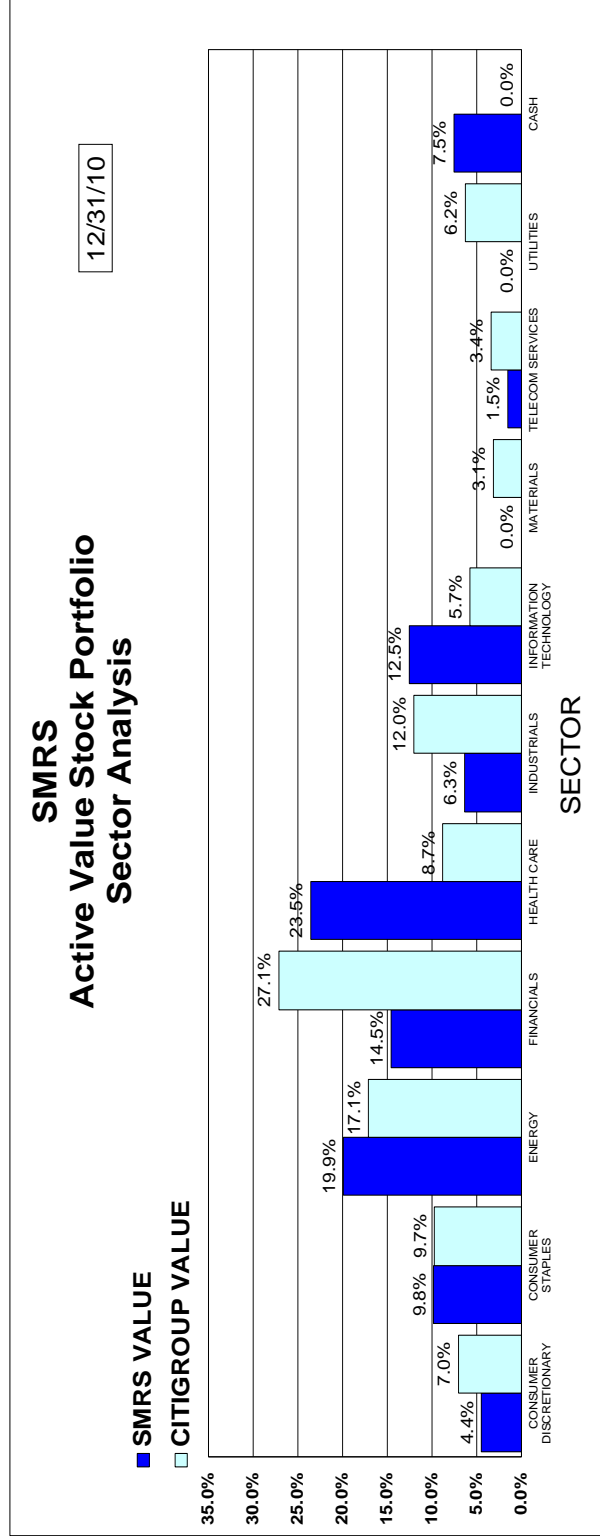
TOP TEN HOLDINGS -VALUE 12/31/2011

	<u>Portfolio Weight</u>	<u>Total Shares</u>	<u>12/31/2011 Price</u>	<u>YTD11 Total Return</u>	<u>Market Value</u>
Microsoft Corp.	4.89%	2,257,735	\$25.96	-4.52%	\$58,610,801
Cisco Systems Inc.	4.84%	3,208,261	\$18.08	-9.63%	\$58,005,359
Arrow Electronics Inc.	4.68%	1,499,400	\$37.41	9.23%	\$56,092,554
Hewlett-Packard Co.	4.25%	1,975,000	\$25.76	-37.88%	\$50,876,000
Johnson & Johnson	3.62%	660,704	\$65.58	9.89%	\$43,328,968
Amgen Inc.	3.59%	669,028	\$64.21	18.18%	\$42,958,288
Kohl's Corp.	3.29%	798,364	\$49.35	-7.33%	\$39,399,263
Apache Corp.	3.14%	415,000	\$90.58	-23.63%	\$37,590,700
Nabors Industries Ltd.	3.13%	2,162,000	\$17.34	-26.09%	\$37,489,080
Ingram Micro Inc. (Cl A)	<u>3.06%</u>	2,014,901	\$18.19	-4.71%	<u>\$36,651,049</u>
TOTAL	<u>38.48%</u>				<u>\$461,002,062</u>

12/31/11
 \$1,197.80
 (\$ MILLION)



12/31/10
 \$1,758.82
 (\$ MILLION)



ACTIVE MID-CAP STOCK PORTFOLIO

Date:	<u>12/31/2011</u>	<u>9/30/2011</u>	<u>6/30/2011</u>	<u>3/31/2011</u>	<u>Change</u>
Assets (\$million):	\$708.3	\$649.8	\$1,128.5	\$1,122.2	-\$478.7
Unique Securities:	521	522	554	555	
Benchmark:	S&P 400				
Description:	The Mid-Cap 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 enable the aggregate composite to do so during differing parts of the business cycle.				

Characteristics:	<u>SMRS</u>	<u>S&P 400</u>
Weighted Average Capitalization (\$million):	\$13,163.2	\$3,424.6
Trailing 12-month P/E:	13.3x	16.6x
Forecast P/E:	13.1x	15.4x
Price/Book:	1.8x	1.8x
Beta:	1.13	1.18
Dividend Yield:	1.31%	1.51%
3-5 Year EPS Growth Estimate:	12.3%	12.3%
Return on Equity:	16.8%	13.2%

<u>Managers</u>	<u>12/31/2011</u>	<u>% of Total</u>
Artisan Mid-Cap Value	\$192,798,304	27.22%
Champlain Investment Partners Mid-Cap Core	\$70,690,481	9.98%
Cramer Rosenthal McGlynn Mid-Cap Value	\$87,246,304	12.32%
Los Angeles Capital Mid-Cap Plus Core	\$64,106,137	9.05%
Munder Mid-Cap Core	\$87,934,208	12.41%
Rainier Mid-Cap Growth	\$105,261,877	14.86%
Wellington Management Mid-Cap Growth	<u>\$100,302,369</u>	<u>14.16%</u>
	<u>\$708,339,679</u>	<u>100.00%</u>

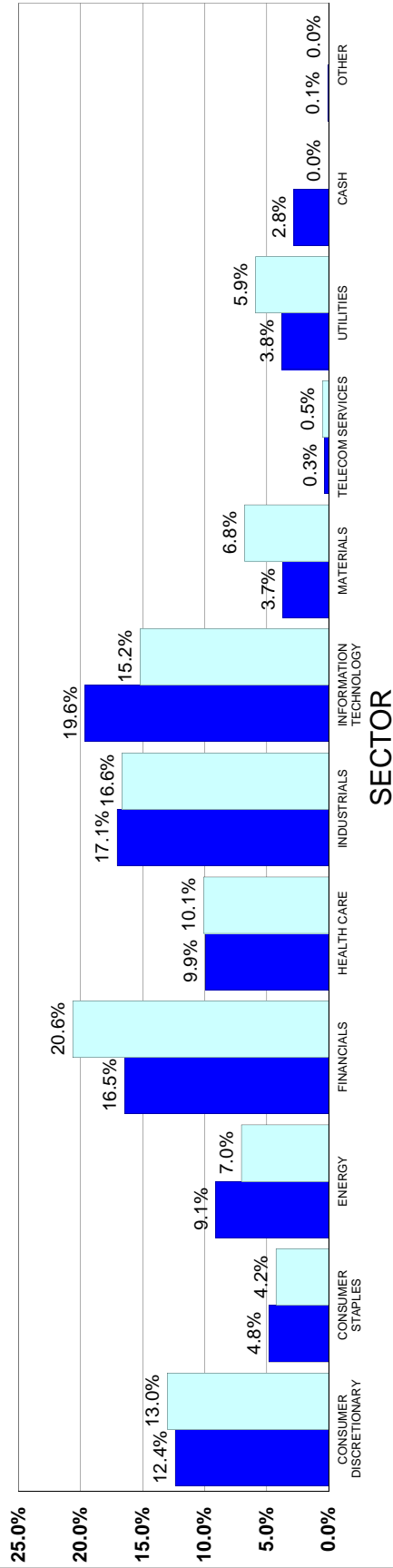
12/31/11
 \$708.34
 (\$ MILLION)

12/31/11

SMRS Mid-Cap Portfolio Composite Sector Analysis

■ SMRS MID CAP COMPOSITE

■ S&P400



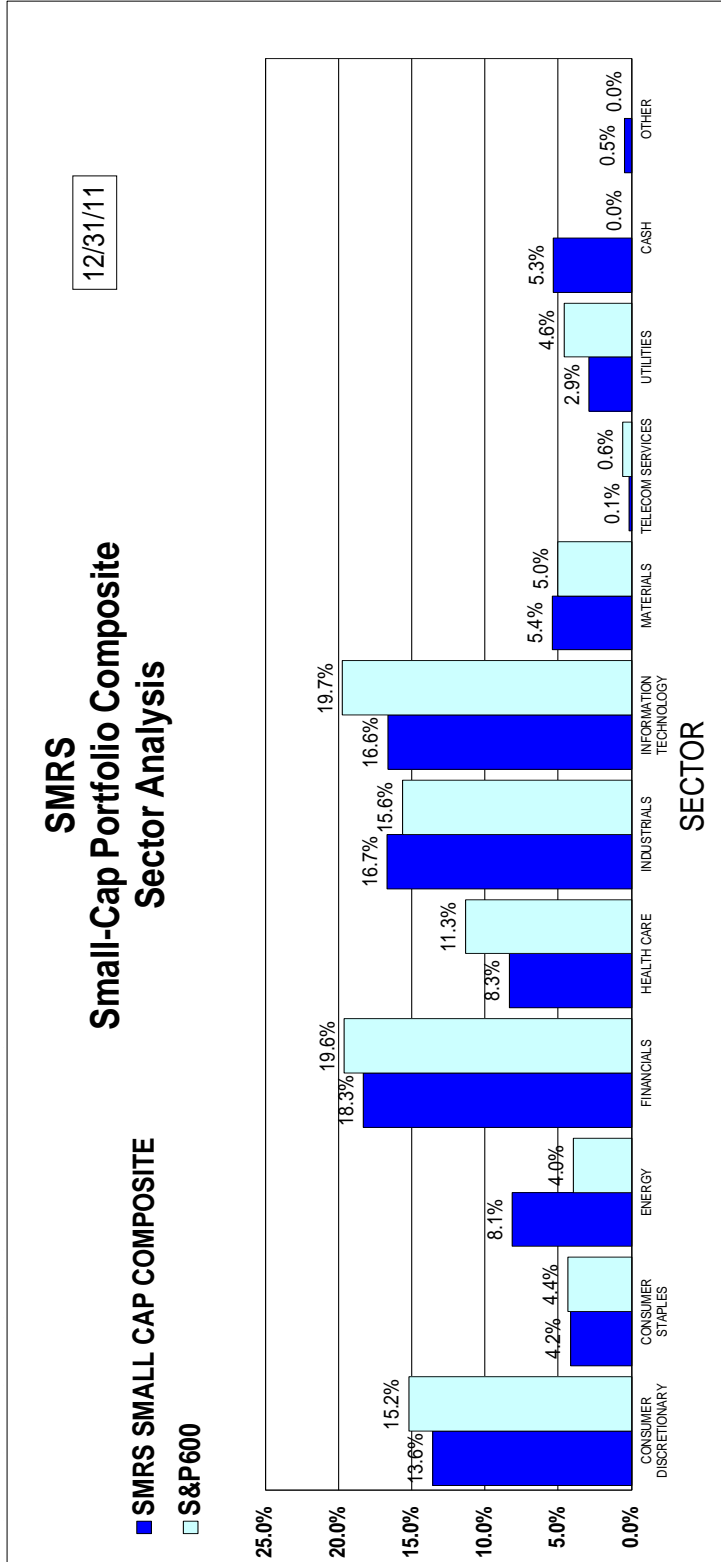
ACTIVE SMALL-CAP STOCK PORTFOLIO

Date:	<u>12/31/2011</u>	<u>9/30/2011</u>	<u>6/30/2011</u>	<u>3/31/2011</u>	<u>Change</u>
Assets (\$million):	\$847.6	\$739.6	\$961.2	\$980.8	\$108.1
Unique Securities:	432	433	438	437	
Benchmark:	S&P 600				
Description:	The Small-Cap 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 enable the aggregate composite to do so during differing parts of the business cycle.				

Characteristics:	<u>SMRS</u>	<u>S&P 600</u>
Weighted Average Capitalization (\$million):	\$1,798.4	\$1,189.3
Trailing 12-month P/E:	11.6x	16.9x
Forecast P/E:	14.9x	16.5x
Price/Book:	1.5x	1.7x
Beta:	1.27	1.28
Dividend Yield:	1.10%	1.25%
3-5 Year EPS Growth Estimate:	14.9%	13.5%
Return on Equity:	10.0%	12.0%

<u>Managers</u>	<u>12/31/2011</u>	<u>% of Total</u>
Champlain Small-Cap Core	\$101,183,929	11.94%
Donald Smith Small-Cap Value	\$152,905,258	18.04%
Fisher Small-Cap Value	\$219,091,106	25.85%
GW Capital Small-Cap Value	\$65,876,515	7.77%
Northpointe Capital Small-Cap Core	\$76,287,446	9.00%
Opus Capital Small-Cap Value	\$55,631,214	6.56%
Pier Capital Small-Cap Growth	<u>\$176,665,654</u>	<u>20.84%</u>
	<u>\$847,641,123</u>	<u>100.00%</u>

12/31/11
 \$847.64
 (\$ MILLION)



Sector/Industry Outlook

Defensive Equities

- Defensive equities (Consumer Staples, Healthcare, Utilities) are attractive relative to both bonds and equity indices.
 - For example, the Consumer Staples sector offers roughly the same expected return as the S&P 500, with significantly less downside risk.
 - Higher long-term return than S&P 600 with more than 50% less downside risk.
 - Less volatility than the 30-year Treasury bond, which is yielding 3%.
 - Roughly the same downside risk as junk bonds, which are yielding 7.3%.
 - Private equity investors can leverage such defensive investments in order to generate significantly higher (gross) returns than the S&P 500 at a similar level of risk.
 - Risk-averse investors can combine defensive equities with cash, and generate higher risk-adjusted returns than corporate or treasury bonds.
 - Healthcare sector attractive for similar reasons. Utilities least interesting of the defensive sectors.
- For those that cannot take advantage of the private equity leverage model, Financials are the most attractive of the riskier sectors/asset classes.
 - Significantly higher expected yield to maturity than S&P 600 index (12% vs. 8.5%), with roughly the same level of downside risk.
- Technology sector also offers a greater risk-adjusted return than the S&P 500.

Internal Portfolio Review and Outlook

S&P 500 Valuation

- Estimated yield to maturity (bond equivalent return) on the S&P 500 decreased to 9.6% from 10.2% in Q3, reflecting significant underlying market appreciation.
 - Yield to maturity estimate for S&P 500 based on normalized dividend yield (including share repurchases) of 4.1%, plus long term growth of 5.5%.

- Meanwhile the 30-year US Treasury stayed roughly flat at 3%.
 - Should investors begin demanding a sharply higher rate of return from U.S. sovereign assets due to the country's debt burden, both economic growth and stocks would be negatively impacted.
 - That said, at 6.6%, the equity risk premium remains wide relative to historical standards, discounting the significant economic risks present in the market, and leaving room for interest rates to rise gradually.
- S&P 400 Mid-Cap and the S&P 600 Small-Cap indices continue to appear rich relative to the S&P 500 Large-Cap benchmark, particularly on a risk-adjusted basis.
 - Normalized price to earnings of 19X, 17.5X and 15X respectively on S&P 600, S&P 400 and S&P 500 indices.
 - Normalized dividend yields of 1.4%, 2.5% and 4.1% respectively on S&P 600, S&P 400 and S&P 500 indices.
 - Estimated yield to maturity of 8.4%, 9.0% and 9.6% on S&P 600, S&P 400 and S&P 500 indices.

Internal Active Equity Positioning

- The internal active equity portfolio is estimated to have a yield to maturity of 10%, which compares favorably to the S&P 500 at 9.6%. This has been accomplished with slightly less exposure to systematic risk and volatility than the benchmark.
 - The internal active equity portfolio's estimated normalized earnings yield is 7.9% compared to the S&P 500 at 6.6%.
- The internal active equity portfolio's normalized dividend yield, including share repurchases, is estimated to be 5.1%, versus the S&P 500 at 4.1%.
- Internal Actively Managed Composite remains overweight in the Healthcare, Information Technology and Financial sectors.

This portfolio is positioned to outperform the S&P 500 over the medium term in either an up or a down market for the following reasons:

- Favorable valuation characteristics of the portfolio versus the benchmark.
- High quality nature and strong competitive positions of most companies owned.
- Overall risk profile similar to that of the S&P 500.

Internal Active Portfolio, Equity Return Expectations

Return Assumption Estimates

	<u>Yield to Maturity ****</u>	<u>Normal Dividend Yield **</u>	<u>LT Growth Rate ***</u>
SAD Internal Active Equity	10.0%	5.1%	4.9%
S&P 500 Large-Cap	9.6%	4.1%	5.5%
S&P 400 Mid-Cap	9.0%	2.5%	6.5%
S&P 600 Small-Cap	8.4%	1.4%	7.0%
US 30 Year Treasury	3.0%	3.0%	0.0%

Trailing 12 Month and Normalized Earnings Characteristics

	<u>TTM Price/Earnings</u>	<u>Normal Price/Earnings</u>	<u>Normal Earnings Yield *</u>
SAD Internal Active Equity	14.3	12.7	7.9%
S&P 500 Large-Cap	14.3	15.1	6.6%
S&P 400 Mid-Cap	19.4	17.4	5.7%
S&P 600 Small-Cap	21.4	19.2	5.2%

Normalized Earnings & Dividend Characteristics

	<u>Normal Earnings Yield</u>	<u>Normal Payout Ratio</u>	<u>Normal Dividend Yield **</u>
SAD Internal Active Equity	7.9%	64%	5.1%
S&P 500 Large-Cap	6.6%	61%	4.1%
S&P 400 Mid-Cap	5.7%	43%	2.5%
S&P 600 Small-Cap	5.2%	26%	1.4%

Third Party Expected Return Valuation Matrix

	<u>Morningstar</u>	<u>Valueline</u>	<u>Value Engine</u>
SAD Internal Active Equity	19.3%	23.7%	15.1%
S&P 500	11.3%	12.4%	10.6%
Excess Return	8.0%	11.3%	4.5%
S&P 400	1.63%	1.52%	7.02%
S&P 600	7.59%	2.02%	4.37%

Portfolio and Benchmark Risk Estimates

	<u>Portfolio Standard Deviation</u>	<u>Valueline Sharpe Ratio *****</u>	<u>Value Engine Sharpe Ratio *****</u>
SAD Internal Active Equity	22.49%	1.05	0.67
S&P 500	23.24%	0.53	0.45
S&P 400	29.28%	0.05	0.24
S&P 600	32.27%	0.06	0.13

* Earnings Yield = Earnings/Price

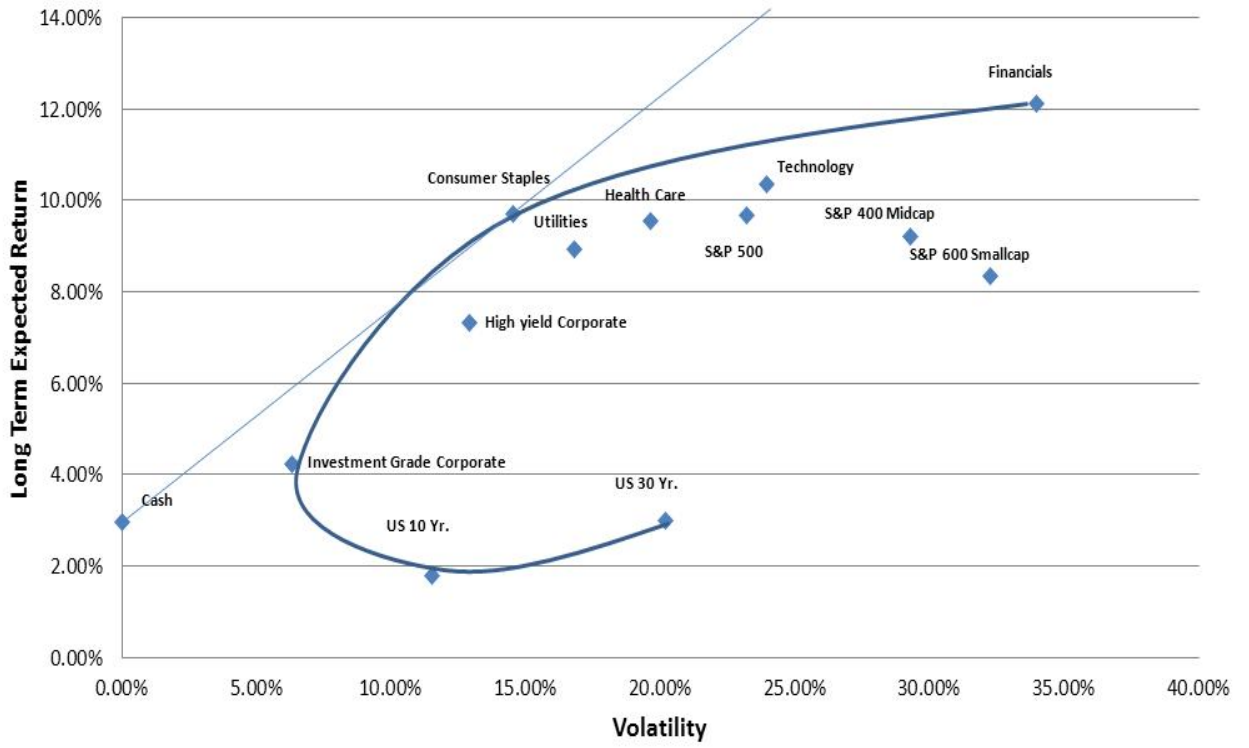
** Includes Share Buybacks

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

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

***** Sharpe Ratio Calculation: (Expected Return – Tbill Yield)/Portfolio Standard Deviation

Selected Sector/Asset Class Return Estimates



SMRS Internal/External Manager Net Performance as of 12/31/2011

Large-Cap Managers

	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>	<u>Inception</u>	<u>Inception Date</u>
Active Equity Large-Cap Composite	-0.49%	13.58%	-0.90%	N/A	
S&P 500	2.11%	14.11%	-0.25%	N/A	
<i>Internal Large-Cap Active</i>	<i>-0.45%</i>	<i>14.04%</i>	<i>-0.44%</i>	<i>N/A</i>	
S&P 500	2.11%	14.11%	-0.25%	N/A	
<i>External Large-Cap Active</i>	<i>1.03%</i>	<i>N/A</i>	<i>N/A</i>	<i>17.35%</i>	<i>4/1/2009</i>
S&P 500	2.11%	N/A	N/A	20.47%	
<u>SMRS Large-Cap Core Funds</u>					
<i>SMRS Large-Cap Core</i>	<i>-2.85%</i>	<i>14.38%</i>	<i>N/A</i>	<i>-1.61%</i>	<i>7/31/2007</i>
S&P 500	2.11%	14.11%	N/A	-1.09%	
<u>SMRS Large-Cap Value Funds</u>					
<i>SMRS Internal Large-Cap Value</i>	<i>2.94%</i>	<i>10.16%</i>	<i>N/A</i>	<i>-4.03%</i>	<i>7/31/2007</i>
S&P 500 Value Index	-0.48%	11.55%	N/A	-4.02%	
<i>External Large-Cap Value Composite</i>	<i>0.20%</i>	<i>N/A</i>	<i>N/A</i>	<i>6.59%</i>	<i>12/31/2009</i>
S&P 500 Value Index	-0.48%	N/A	N/A	7.02%	
LSV Large-Cap Value	-0.06%	N/A	N/A	7.44%	12/31/2009
S&P 500 Value Index	-0.48%	N/A	N/A	7.02%	
Wasatch Advisors	-3.38%	N/A	N/A	3.71%	12/31/2009
S&P 500 Value Index	-0.48%	N/A	N/A	7.02%	
Epoch Large-Cap Value	0.76%	N/A	N/A	7.14%	12/31/2009
S&P 500 Value Index	-0.48%	N/A	N/A	7.02%	
Diamond Hill Large-Cap	3.32%	N/A	N/A	6.84%	12/31/2009
S&P 500 Value Index	-0.48%	N/A	N/A	7.02%	
<u>SMRS Large-Cap Growth Funds</u>					
<i>SMRS Internal Large-Cap Growth</i>	<i>-0.39%</i>	<i>16.25%</i>	<i>1.74%</i>	<i>3.42%</i>	<i>1/1/2005</i>
S&P 500 Growth Index	4.65%	16.57%	2.38%	3.52%	
<i>External Large-Cap Growth Composite</i>	<i>1.76%</i>	<i>N/A</i>	<i>N/A</i>	<i>17.90%</i>	<i>4/1/2009</i>
S&P 500 Growth Index	4.65%	N/A	N/A	20.98%	
Edgewood Large-Cap Growth	4.01%	N/A	N/A	16.00%	4/1/2009
S&P 500 Growth Index	4.65%	N/A	N/A	20.98%	

Mid-Cap Managers

	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>	<u>Inception</u>	<u>Inception Date</u>
<i>External Mid-Cap Composite</i>	-0.14%	18.46%	1.97%	5.57%	5/1/2005
S&P 400 Mid-Cap Index	-1.73%	19.57%	3.32%	6.55%	
<u>SMRS Mid-Cap Core Funds</u>					
Champlain Investment Partners, Mid-Cap	2.72%	N/A	N/A	20.80%	1/31/2009
S&P 400 Mid-Cap Index	-1.73%	N/A	N/A	23.33%	
LA Capital Mid-Cap Core	-0.69%	18.53%	3.21%	7.32%	5/1/2005
S&P 400 Mid-Cap Index	-1.73%	19.57%	3.32%	6.55%	
Munder Mid-Cap Core Growth	-1.14%	N/A	N/A	23.02%	3/31/2009
S&P 400 Mid-Cap Index	-1.73%	N/A	N/A	25.60%	
<u>SMRS Mid-Cap Value Funds</u>					
Artisan Mid-Cap Value	7.26%	20.27%	5.26%	8.21%	5/1/2005
S&P 400 Value Index	-2.43%	17.01%	1.38%	5.37%	
Cramer Rosenthal Mid-Cap Value	-4.62%	15.03%	2.73%	6.50%	5/1/2005
S&P 400 Value Index	-2.43%	17.01%	1.38%	5.37%	
<u>SMRS Mid-Cap Growth Funds</u>					
Rainier Mid-Cap Growth	-0.68%	16.97%	0.75%	3.09%	1/1/2006
S&P 400 Growth Index	-0.94%	22.20%	5.26%	5.60%	
Wellington Mid-Cap Growth	-6.56%	22.45%	1.24%	3.73%	1/1/2006
S&P 400 Growth Index	-0.94%	22.20%	5.26%	5.60%	

Small-Cap Managers

	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>	<u>Inception</u>	<u>Inception Date</u>
<i>External Small-Cap Composite</i>	-5.74%	17.48%	3.07%	7.13%	10/1/2001
S&P 600 Small-Cap Index	1.02%	17.01%	1.94%	8.89%	
<u>SMRS Small Cap Core Managers</u>					
Champlain Small-Cap Core	4.59%	17.84%	N/A	6.31%	1/31/2007
S&P 600 Index	1.02%	17.01%	N/A	1.56%	
Northpointe Small Cap	-12.55%	12.23%	-2.88%	2.99%	10/1/2004
S&P 600 Value/Core Index Blend	-2.30%	14.39%	-0.06%	5.16%	
<u>SMRS Small Cap Value Managers</u>					
Fisher Small-Cap Value	-6.10%	18.13%	3.52%	7.60%	9/30/2004
S&P 600 Value Index	-1.38%	14.75%	0.12%	5.30%	
Donald Smith & Co.	-7.40%	20.54%	N/A	5.82%	1/31/2007
S&P 600 Value Index	-1.38%	14.75%	N/A	-0.30%	
GW Capital Small Cap Value	-4.92%	16.98%	N/A	0.26%	1/31/2007
S&P 600 Value Index	-1.38%	14.75%	N/A	-0.30%	
Opus Capital Small-Cap Value	-1.70%	15.65%	N/A	0.36%	1/31/2007
S&P 600 Value Index	-1.38%	14.75%	N/A	-0.30%	
<u>SMRS Small Cap Growth Managers</u>					
Pier Small-Cap Growth	-7.32%	17.93%	N/A	3.48%	1/31/2007
S&P 600 Growth Index	3.62%	19.40%	N/A	3.45%	

All-Cap Managers

	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>	<u>Inception</u>	<u>Inception Date</u>
Attucks Asset Management	-0.14%	14.28%	N/A	-1.74%	11/1/2007
S&P 1500 Super Composite	0.92%	1.44%	N/A	-2.35%	
Bivium Capital Partners	0.98%	15.60%	N/A	-2.37%	11/1/2007
S&P 1500 Super Composite	0.92%	1.44%	N/A	-2.35%	
Leading Edge Investment Advisors	-0.08%	14.59%	N/A	-1.79%	11/1/2007
S&P 1500 Super Composite	0.92%	1.44%	N/A	-2.35%	
Seizert Capital Partners	-1.31%	N/A	N/A	13.15%	11/1/2009
S&P 1500/S&P 400 Blend	3.92%	N/A	N/A	18.90%	

Summary Statistics

<u>Asset Category</u>	<u>Market Value</u>	<u>% of Total</u>	<u>S&P 1500</u>
Internal Large-Cap	\$4,569,235	31%	
External Large-Cap	\$2,004,000	14%	
Large-Cap Passive	\$5,354,453	37%	
Total Large-Cap Equity	\$11,927,688	82%	88%
Mid-Cap Active	\$708,338	5%	
Mid-Cap Passive	\$569,079	4%	
Total Mid-Cap Equity	\$1,277,417	9%	8%
Small-Cap Active	\$847,641	6%	4%
All-Cap Active	\$480,531	3%	
Total Domestic Equity	\$14,582,857	100%	

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>.

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... for 1 or more quarters	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				
US Large Cap Value	176	44	89%	7.6	17	26.5
US Large Cap Growth	204	51	92%	5.6	24	28.1
US Small Cap Value	124	31	94%	4.3	11	27.3
US Small Cap Growth	116	29	93%	6.3	16	31.6
Fixed Income - Core	164	41	90%	5.6	24	24.4
Fixed Income - High Yield	72	18	94%	4.2	8	29.0
Non-US Equity - EAFE Core	40	10	90%	5.6	6	22.4
Non-US Equity - Emerging	72	18	94%	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 than one quarter; out 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.

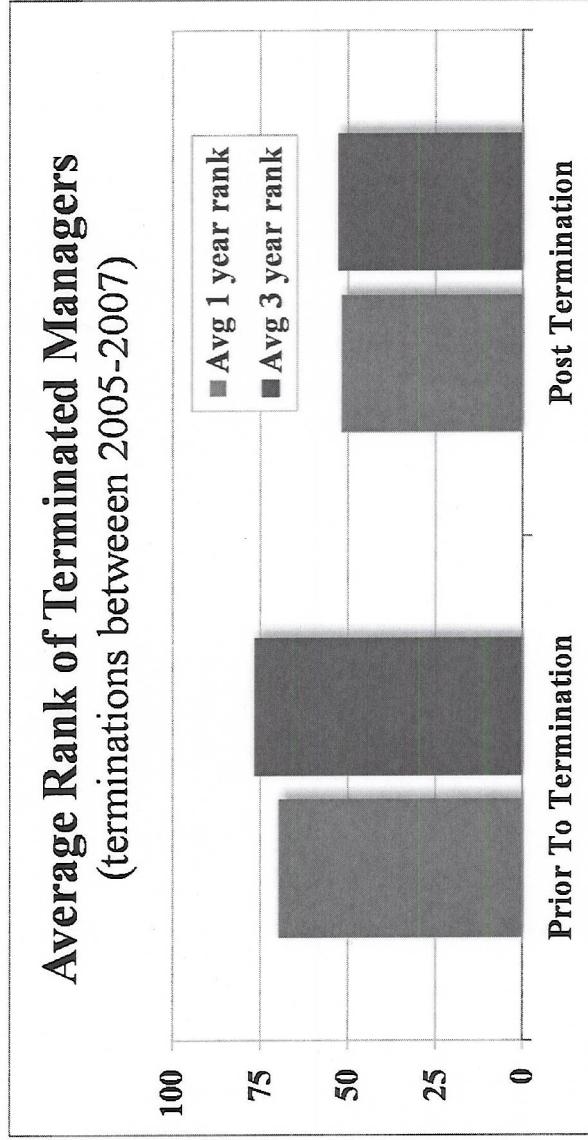
(4) "Down period" is classified as four or more consecutive quarters of below median ranks.

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

"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.



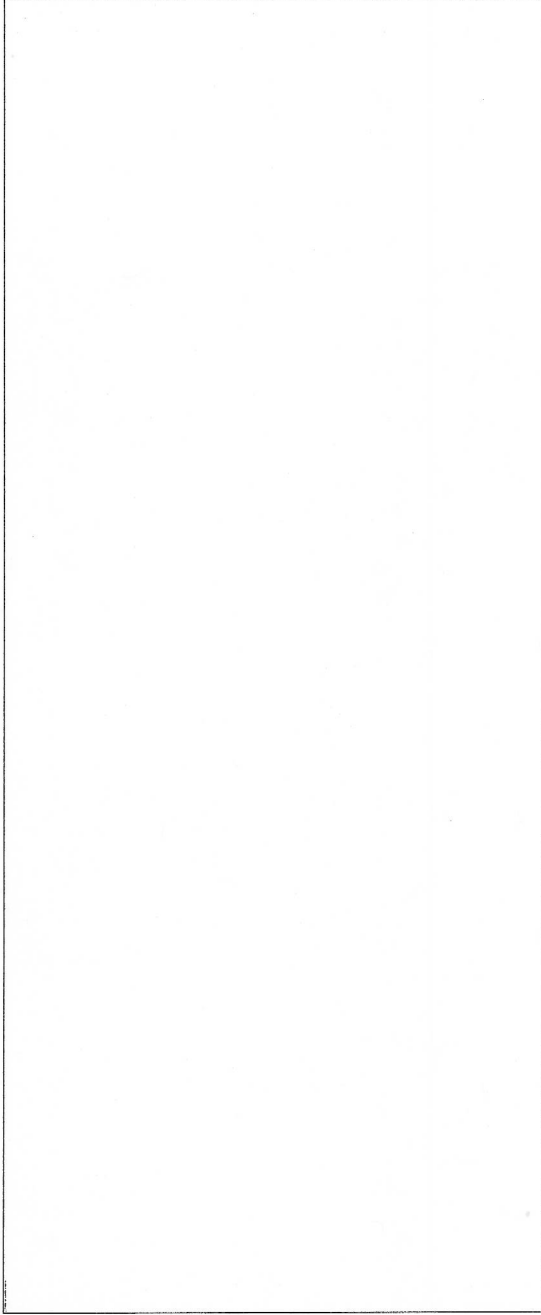
Source: R.V. Kuhns & Associates, Inc., 2010. Client data for 36 performance based terminations of managers from 2005 to 2007.



"Chasing Returns": Study #3

Investor Return < Fund Return

- ▶ The Morningstar study* below indicates that the average investor's return is generally worse than the average fund's return.
 - ▶ The gap between investor return and average fund return indicates how well investors timed their fund purchases and sales – few instances show a positive difference.



- ▶ A study** of 1991-2004 data found similar results from investor timing decisions, which resulted in a reduction of average investor equity returns of 1.56% annually.

* Source: Morningstar, "How the Average Investor's Returns Compare with the Average Fund's"

** Source: Friesen, Geoffrey C. & Sapp, Travis R., 2006 "Mutual Fund Flows and Investor Returns: An Empirical Examination of Fund Investor Timing Ability". Journal of Banking and Finance. 2007, Vol. 31, pp. 2796-2816.

**STATE OF MICHIGAN
RETIREMENT SYSTEMS**

**REAL ESTATE AND
INFRASTRUCTURE REVIEW**

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 1, 2012



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

REAL ESTATE EXECUTIVE SUMMARY

- Total market value remained at \$5.0 billion in the fourth quarter, the real estate portfolio ended the quarter with a total return of .6%, its seventh straight positive quarterly return. For the 2011 calendar year, the Real Estate and Infrastructure Investments Division (REID) earned a 12.9% total return. This strong return is in spite of an economy that lacked significant job growth, and struggled in the fourth quarter from the European financial crisis.
- Valuations were generally stable this quarter for all property types. Core investors attracted to institutional grade properties became less optimistic on revenue growth, causing disconnect between buyers and sellers of properties. Operating income increases remain mixed, with apartments, hospitality, and medical office properties continuing to experience improvement.
- The REID leverage ratio stands at 52%. REID's goal is to continue to deleverage the portfolio.
- Unfunded capital commitments for real estate totaled \$403 million. The REID is also executing sales of non-strategic office buildings and apartment projects in secondary markets with limited upside potential at attractive prices.
- In the commercial mortgage-backed securities (CMBS) market, spreads for AAA rated classes increased in reaction to the fourth quarter slowdown in the economy. CMBS delinquencies stood at 8.5% but were offset by increasing loan resolutions. New issuance for CMBS in 2012 is projected to be \$35 billion.
- Expect market transaction activity to be constrained due to the contraction of the capital markets. Real estate managers are being very selective for acquisitions, taking advantage of distressed opportunities from owners and lenders in markets that have potential for growth and long-term liquidity.
- Opportunities for investors lie in the ability to develop apartments in major urban markets, recapitalize troubled portfolios, consistently communicate with lenders for distressed assets, sell properties to REITs flush with capital, and exhibit patience in order to find properties in markets that will be first to recover.
- The NPI and Open-End Diversified Core Equity (ODCE) quarterly returns graph is attached.

INFRASTRUCTURE EXECUTIVE SUMMARY

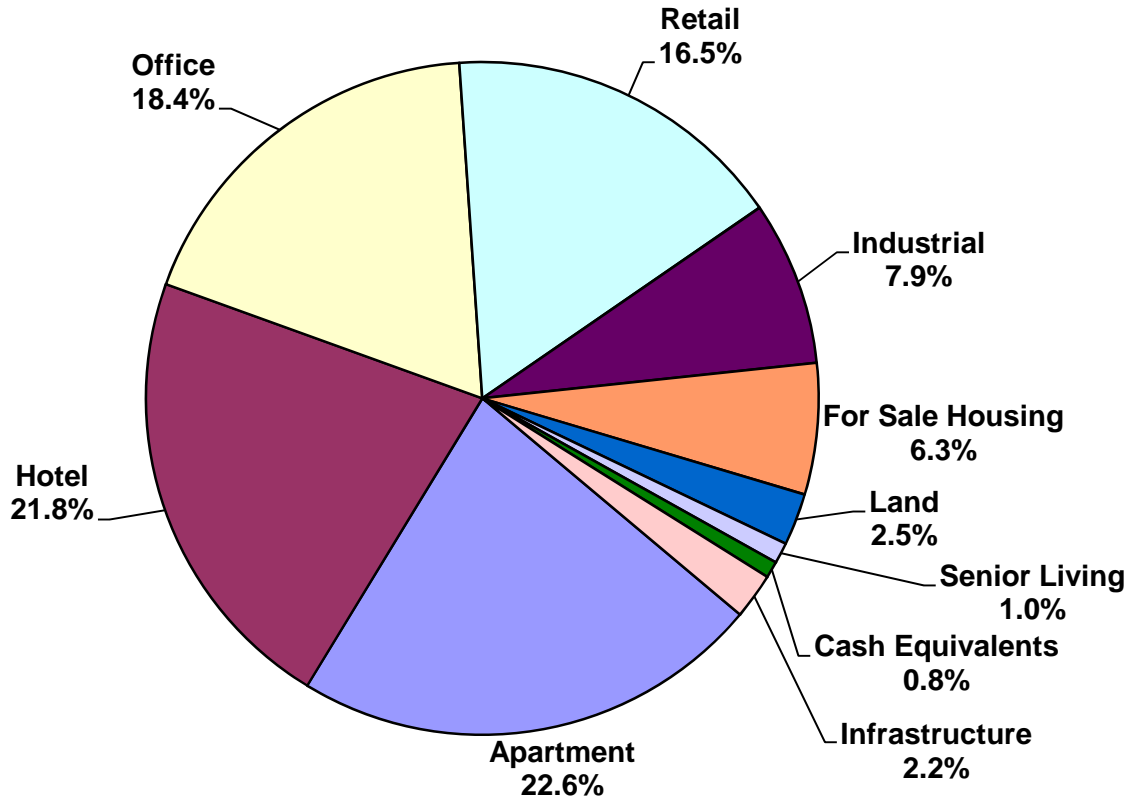
- Diversified portfolio of investments representing ownership interest in partnerships, publicly-traded securities, operating companies, or other investment vehicles that represent equity and/or debt in infrastructure and real asset sectors including, but not limited to, energy resources and utilities, transportation assets, water and waste, communications, social infrastructure, or other infrastructure and real asset related investments. Infrastructure investments shall be well-diversified by sub-asset class, investment style, geography, vintage year, and investment managers.
- The objective for this asset class is to provide a predictable and defensible cash flow return and appreciation, and a total return that exceeds the benchmark. The asset class has a low correlation with other asset classes due to its monopolistic characteristics and inelastic demand.
- REID will seek investment managers that are experienced in infrastructure with a strategy that will satisfy the objectives of REID. The managers will possess a commitment to long-term ownership, responsible and proven service delivery, access to institutional quality investments, and provide alignment of interest. Target investments will provide appropriate risk-adjusted returns and whenever possible have cash flows that are linked to inflation by CPI or other inflation escalators.
- There exists a vast need for capital to fund major projects throughout the developed and emerging markets. Governments are trying to encourage investment by amending laws, providing tax incentives, and creating public to private partnerships. Opportunities for investors lie in specific sub-asset classes where the need for improvements supports the necessary goals and objectives of the country both economically and financially. Private institutional capital for infrastructure is in high demand; and, therefore, return thresholds can be satisfied to meet the investor's goals. Risks associated with such investments can be minimized by managers experienced in structuring agreements that insulate the investor and provide financial protection from cyclical economies.
- REID made two infrastructure commitments in the fourth quarter 2011. The first is a \$100 million commitment to Customized Infrastructure Strategies, LP, a global infrastructure fund managed by Credit Suisse. The Fund is a multi-sector, geographically diverse portfolio of secondary fund investments and co-investments. The second commitment is a \$70 million commitment to the JP Morgan AIRRO India SideCar Fund. The Fund is invested in the completion of two toll roads in India and is supported by long-term contracts with the government of India. REID is reviewing several direct infrastructure investments including a U.S. communication line and a U.K. energy transmission line. Additionally, staff has met with numerous major infrastructure fund managers and is currently evaluating these investment opportunities. Additional commitments will be made over the next several years.



SMRS

Real Estate and Infrastructure Holdings By Property Type

12/31/11



Market Value in Millions

	12/31/2011		9/30/2011	
Apartment	\$1,141	22.6%	\$1,114	22.4%
Hotel	1,099	21.8%	1,121	22.5%
Office	929	18.4%	955	19.2%
Retail	831	16.5%	844	17.0%
Industrial	398	7.9%	378	7.6%
For Sale Housing	320	6.3%	323	6.5%
Land	128	2.5%	125	2.5%
Senior Living	52	1.0%	52	1.0%
Total Investments	\$4,898	97.0%	\$4,912	98.7%
Infrastructure	\$109	2.2%	\$0	0.0%
Cash Equivalents	40	0.8%	65	1.3%
Total	\$5,047	100.0%	\$4,977	100.0%

REAL ESTATE

December 31, 2011

Portfolio Leverage Summary

<u>Gross Market Value</u>	<u>Existing Debt *</u>	<u>Loan to Value %</u>
\$ 10,202,785,843	\$ 5,277,539,567	51.7%

Top Ten Advisors or Companies

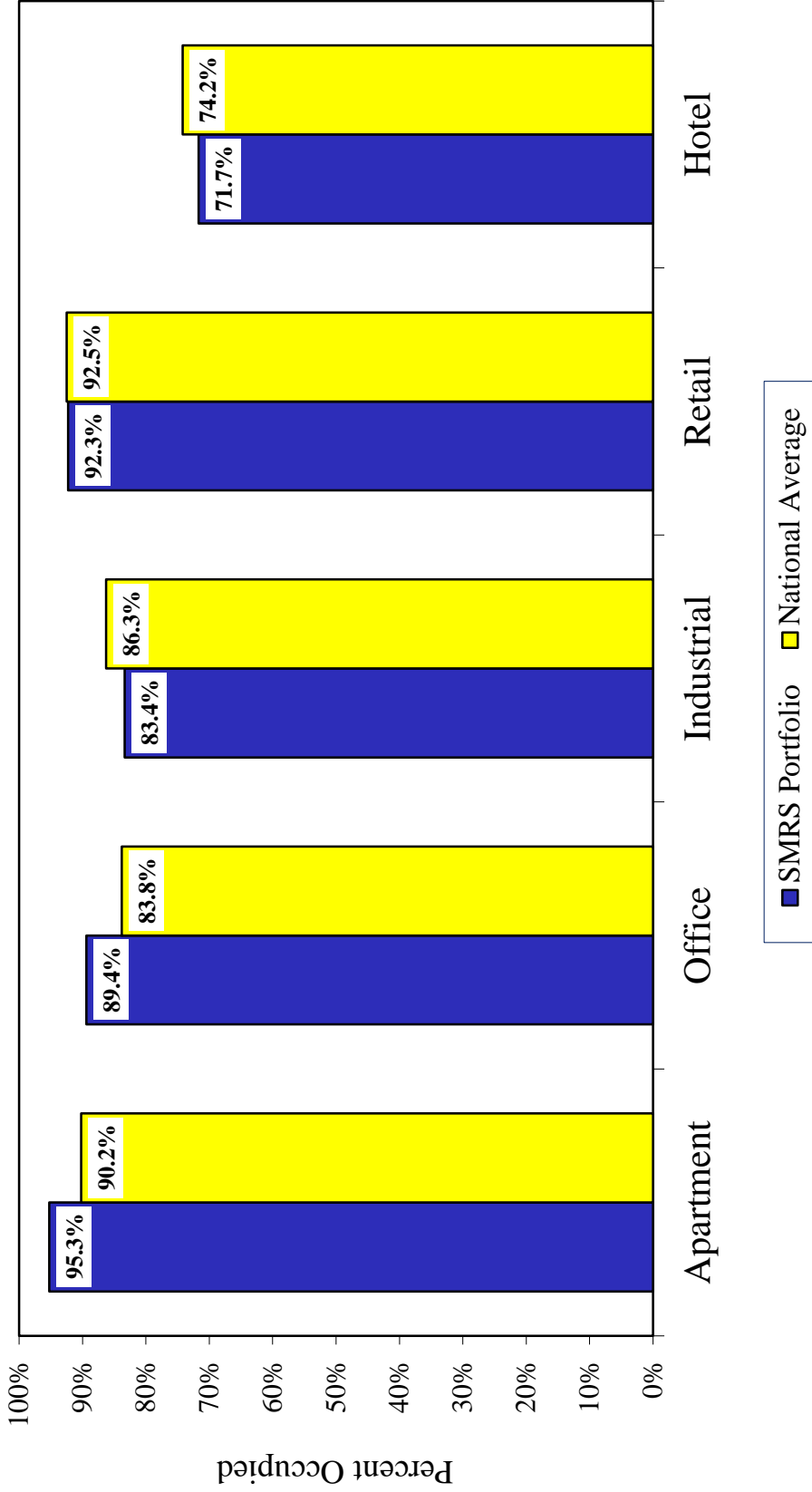
<u>Advisor or Company</u>	<u>Net Market Value</u>
Clarion Partners (formerly ING Clarion)	\$ 857,529,998
MWT Holdings, LLC **	659,245,730
Edens & Avant	566,883,830
KBS Realty Advisors, Inc.	307,785,827
Principal Real Estate Investors	271,276,849
Kensington Realty Advisors, Inc.	268,777,784
Domain Capital Advisors, LLC	235,060,707
Winnington Capital Ltd.	180,023,749
Blackstone Real Estate Advisors	136,447,153
CIM Group, Inc.	135,731,127
	<u>\$ 3,618,762,754</u>

Footnotes:

* Existing debt is comprised of property level debt.

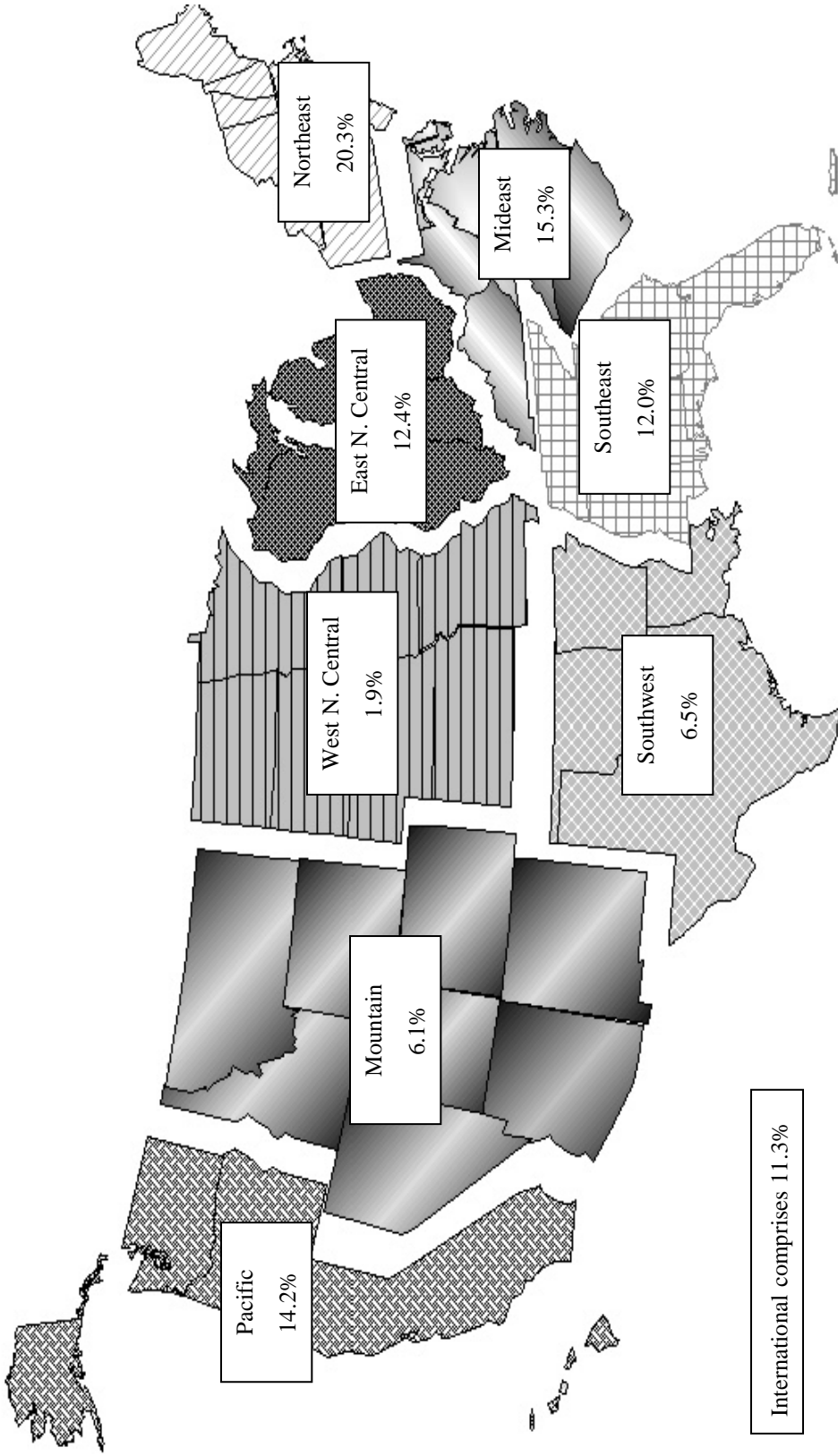
** SMRS owns approximately 50% of Simpson Housing through MWT Holdings LLC

REAL ESTATE Occupancy by Property Type December 31, 2011



National Average Source: U.S. Census Bureau (Apartment), CB Richard Ellis (Office & Industrial), Property & Portfolio Research (Retail), Smith Travel Research (Hotel)
Excludes International Real Estate Investments

Real Estate By Region
Based on Net Market Value
(excludes cash & cash equivalents)
December 31, 2011



Geographic regions defined by NCREIF, whose property index composition is: Pacific 28.8%, Mountain 5.8%, West N. Central 1.9%, Southwest 10.4%, East N. Central 8.6%, Southeast 11.6%, Northeast 19.0%, Mideast 13.9%

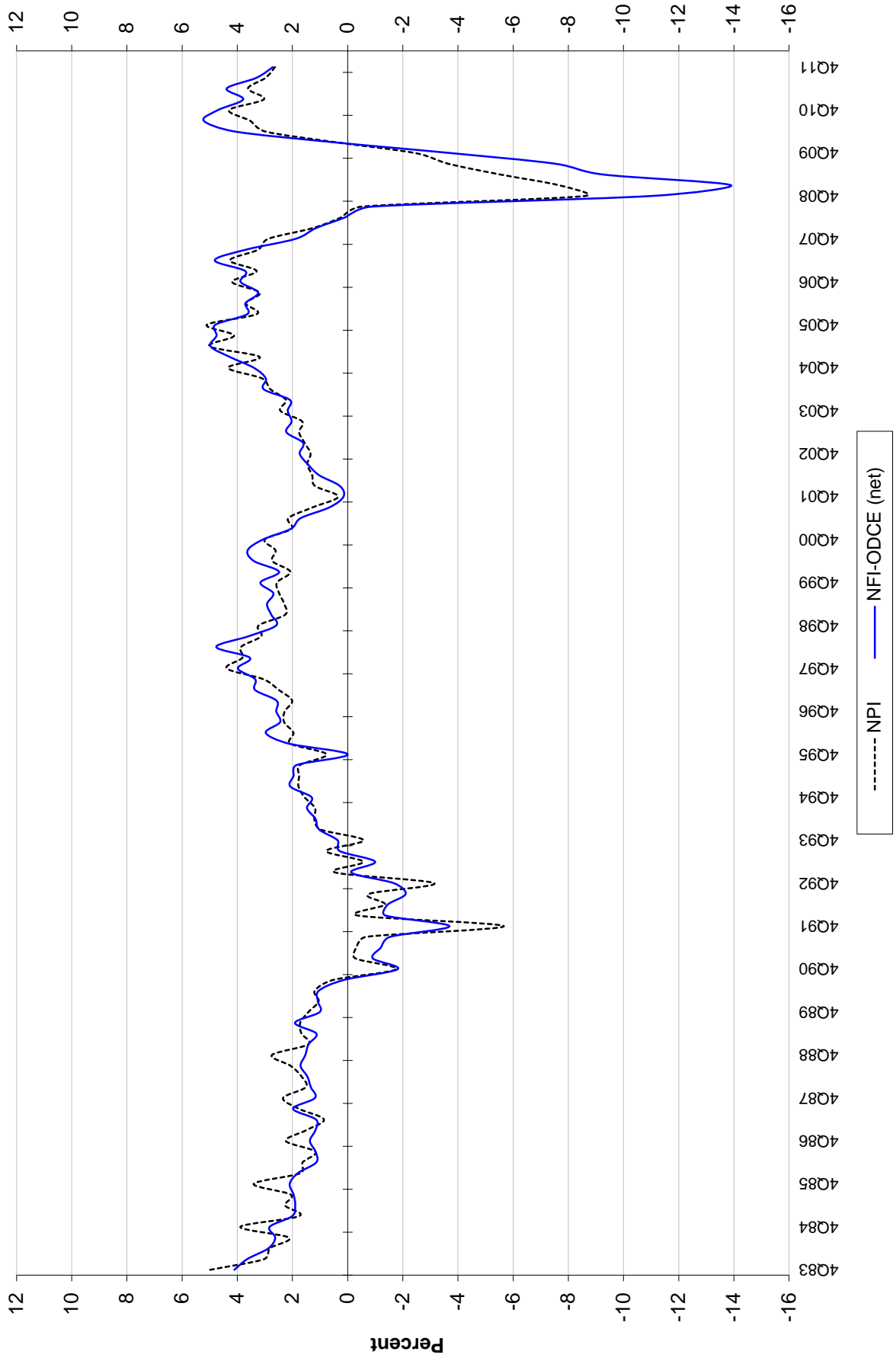
REAL ESTATE
Net Market Values by Ownership Entity
December 31, 2011

	Net Market Value	Unfunded Commitment
801 Grand Avenue Capital, LLC	\$ 126,281,915	\$ 0
AGL Annuity Contract GVA 0016	116,624,134	0
Beacon Capital Strategic Partners IV, LP	22,407,712	0
Beacon Capital Strategic Partners V, LP	20,288,607	6,500,000
BlackRock Retail Opportunity Fund, LLC	12,023,172	15,000,000
Blackstone Real Estate Partners V, LP	52,833,900	2,346,930
Blackstone Real Estate Partners VI, LP	83,613,253	9,452,865
Capri Select Income II	6,587,817	0
Capri Urban Investors, LLC	15,755,399	4,728,180
CIM Fund III, LP	60,658,989	17,524,324
CIM Urban REIT, LLC	74,289,854	0
CIM VI (Urban REIT), LLC	782,285	24,071,250
City Lights Investments, LLC	119,018,145	6,500,000
Cobalt Industrial REIT	51,283,299	0
Cobalt Industrial REIT II	68,898,552	0
Coolidge Investment Partners, LP	95,570,000	0
CPI Capital Partners N.A., LP	12,786,544	0
Devon Real Estate Conversion Fund, LP	6,215,680	0
Domain GVA-1, LLC	209,514,289	0
Domain Hotel Properties, LLC	614,801,064	0
Dynamic Retail Trust	56,426,145	0
Edens & Avant Investments, LP	510,457,684	50,000,000
Federal Street, LLC	54,694,426	0
Gateway Capital R/E Fund II, LP	91,792,821	1,276,875
Great Lakes Property Group Trust	256,342,349	0
Invesco Mortgage Recovery Feeder Fund	37,655,285	20,081,958
JBC Opportunity Fund III, LP	16,698,039	5,213,919
JBCM Operating, LP	415,401	0
KBS/SM Fund III, LP	212,549,902	0
L & B Medical Properties Partners, LP	6,590,115	2,970,395
Landmark Real Estate Partners V, LP	37,096,634	4,973,727
LaSalle Asia Opportunity Fund II, LP	11,057,949	0
LaSalle Asia Opportunity Fund III, LP	48,264,502	25,000,000
Lion Industrial Trust	103,195,081	0
Lion Mexico Fund, LP	43,963,854	2,691,848
Lowe Hospitality Investment Partners	2,414,283	0
MERS Acquisitions, Ltd.	108,972,798	0
Morgan Stanley R/E Fund V - International	16,715,773	0
Morgan Stanley R/E Fund VI - International	36,715,258	0
Morgan Stanley R/E Fund V - U.S.	6,629,494	0
MSRE Mezzanine Partners LP	3,427,571	0
Morgan Stanley R/E Special Situations Fund III	68,576,097	0
MWT Holdings, LLC	659,245,731	0
Northpark-Land Associates, LLLP	25,553,879	0
Paladin Realty Brazil Investors III (USA), LP	19,743,026	18,092,475
Principal Separate Account	144,994,935	0
Rialto Real Estate Fund, LP	38,251,109	12,764,323
SM Brell II, LP	95,235,925	0
SM MGRA I, LLC	11,185,150	17,548,493
Stockbridge Real Estate Fund II-C, LP	23,984,184	3,525,000
Strategic LP	110,200,407	53,610,494
SWA Acquisitions, Ltd.	7,415,434	0
Trophy Property Development LP	180,023,749	15,000,000
Trophy Property Development II LP	0	50,000,000
True North High Yield Investment Fund II	23,888,290	24,862,185
Venture Center, LLC	44,059,833	0
Western National Realty Fund II, LP	12,670,577	9,578,578
	\$ 4,897,338,300	-
Short Term Investments and Other	40,249,119	-
Total Real Estate Division	\$ 4,937,587,419	\$ 403,313,819

Infrastructure Investments
Net Market Values by Ownership Entity
December 31, 2011

	Net Market Value	Unfunded Commitment
Customized Infrastructure Strategies, LP	\$ 39,240,290	\$ 60,759,710
JPMorgan AIRRO India Sidecar Fund US, LLC	<u>28,790,377</u>	41,209,623
	\$ 68,030,667	-
Short Term Investments	<u>41,227,174</u>	-
Total Infrastructure Investments	\$ 109,257,841	\$ 101,969,333

NCREIF Quarterly Returns NPI and NFI-ODCE



**STATE OF MICHIGAN
RETIREMENT SYSTEMS**

**INTERNATIONAL EQUITY
REVIEW**

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 1, 2012



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

EXECUTIVE SUMMARY

Outlook

- International equities are expected to remain under pressure as recognition of system credit risk in multiple asset categories progress, and write-offs continue. Greece, Portugal, Italy, and Ireland debt problems are now visible and unresolved. Structural reforms that reduce risk have been proposed, but harmonized accounting rules and regulation are illusive goals. Earnings growth in the next year is expected to be slower than U.S. growth. Growth expectations in emerging markets are relatively positive. Political instability remains an issue, and is manifested regularly in headlines and news photo coverage.
- Indices are at reasonable levels for progressive buying of exposure over the next 6 months to 18 months. These additions will be primarily through external managers to continue diversification, and recognize better environment for active fundamental analysis techniques.
- Emerging markets are expected to discount weaker overall demand and economic concerns. Chinese industry consolidation continues, and stimulus and funding issues remain. Political instability, lack of an established and tested legal system, regulation and possible nationalization of assets and changing tax regimes are continuing concerns. Individual company financing of receivables and other strategic changes will reduce many company returns, and that trend is visible in reported results.

Investment Plan

- Move toward desired higher asset allocation targets in a progressive series of investments with both passive and active managers. Take advantage of external manager capacity and established conduits as market corrections occur. Move some assets from other categories as international equities become more attractive on a relative basis.
- Add new counterparties with strong credit ratings and unique capabilities for diversification and helpful information for decision making. Identify attractive niche investments to add to returns.
- Add an all country x U.S. perspective with both developed and emerging areas included. Be aware of opportunistic situations with non-benchmark and active products that may be stressed by withdrawal activities if they occur. Accept reasonable tracking error risk to products based on other benchmarks.
- Encourage managers to view U.S. equities as substitutes for international equities up to 20% of the funds as they once did with emerging markets holdings.
- Take advantage of attractive corporate spreads in Libor notes that reset quarterly. Prepare for derivative market changes by focusing on standardized structures and more frequent settlement requirements. Regulatory clarification for international local country index derivatives is not expected until the end of 2012 or 2013.

Performance Review for International Investments

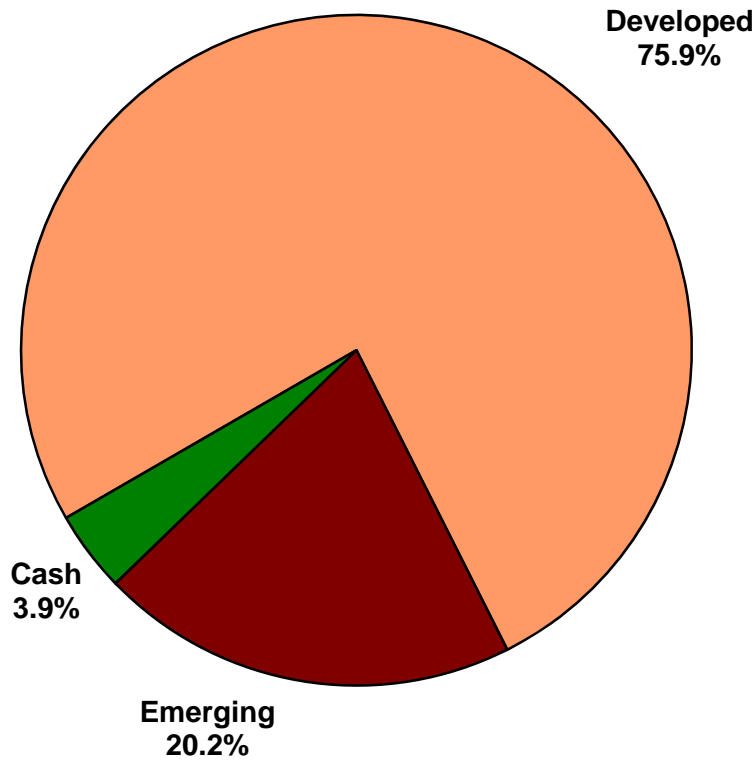
March 1, 2012

- Performance of the total international equity positions in developed markets versus our S&P BMI-EPAC 25% hedged benchmark was +4.42% versus +3.13% in the fourth quarter, resulting in a +65 basis points (bp) tracking error and +86 bp for the trailing year. Both variance numbers are within the normal expected range that recognizes a 250 typical bp possible variance. The three and five-year numbers continue to reflect the market decline in 2009 and the significant fixed income price disruption environment. The 75/25 approach to currency exposures is designed to reduce longer-term variance of international returns, and was changed at the beginning of 2011 from 50/50 in anticipation of potential periods of U.S. dollar weakness and the advantage of closer comparisons with peer groups. The three and five-year tracking error numbers were +319 and +69 bp, respectively.
- The largest component in passive exposure to international developed market returns is the internally managed stock plus fund. The \$1.4 billion of negotiated swap agreement contracts are combined with internally managed fixed income Libor note holdings and an internal Global Dividend Income fund. All counterparties used for swap agreements are investment grade. The net unrealized gain on the combined positions was \$76 million as of December 31, 2011. Recognized but unrealized gains from fixed income Libor notes “remarked at lower cost values” but expected to be held to maturity are now \$41 million. Libor notes held are listed at the end of this report.
- A perspective on a total international equity with both developed and emerging markets included is coming. In the third quarter of 2011, the MSCI ACWI EX U.S. return with gross dividend exposure was -19.78% and the equivalent SMRS total exposure return was -19.67%. Emerging markets represent approximately 23% of that benchmark.
- Externally managed, active strategy funds in all Non-U.S. equity categories totaled \$1.5 billion.
- External active international fund managers are compared to the S&P Developed BMI World X U.S. benchmark index in U.S. dollars, which had a return of +3.28% in the quarter and -12.65% for the trailing year. Manager returns are now quite diversified, and reflect different investment strategies and approaches. External active managers have been given the authority to use a limited amount of emerging or U.S. market exposure (i.e. for security substitution purposes), but those uses are considered individually and are normally constrained to no more than 20% of their portfolios.
- The Emerging Market Index returns were +4.42% for the quarter, and -18.42% for the trailing-year. Passive and active exposure of \$1.2 billion to emerging markets play a significant diversification role, but returns were more negative than developed markets; 68% of exposure to Emerging Markets is passive.



SMRS

International Equity Holding By Category SMRS Versus Benchmark 12/31/11

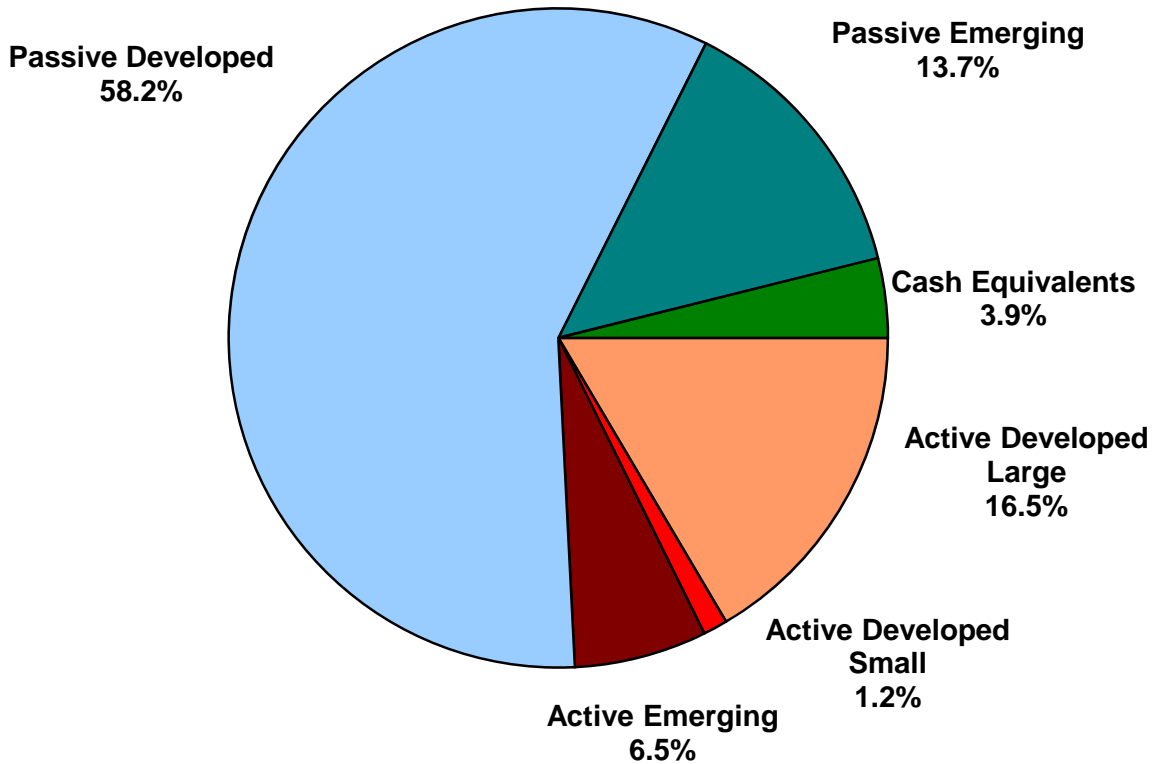


	<u>SMRS</u>	<u>Benchmark</u>
Developed	75.9%	79.4%
Emerging	20.2%	20.6%
Sub-Total	96.1%	100.0%
Cash	3.9%	0.0%
Total	100.0%	100.0%



SMRS

International Equity Holdings By Category 12/31/11



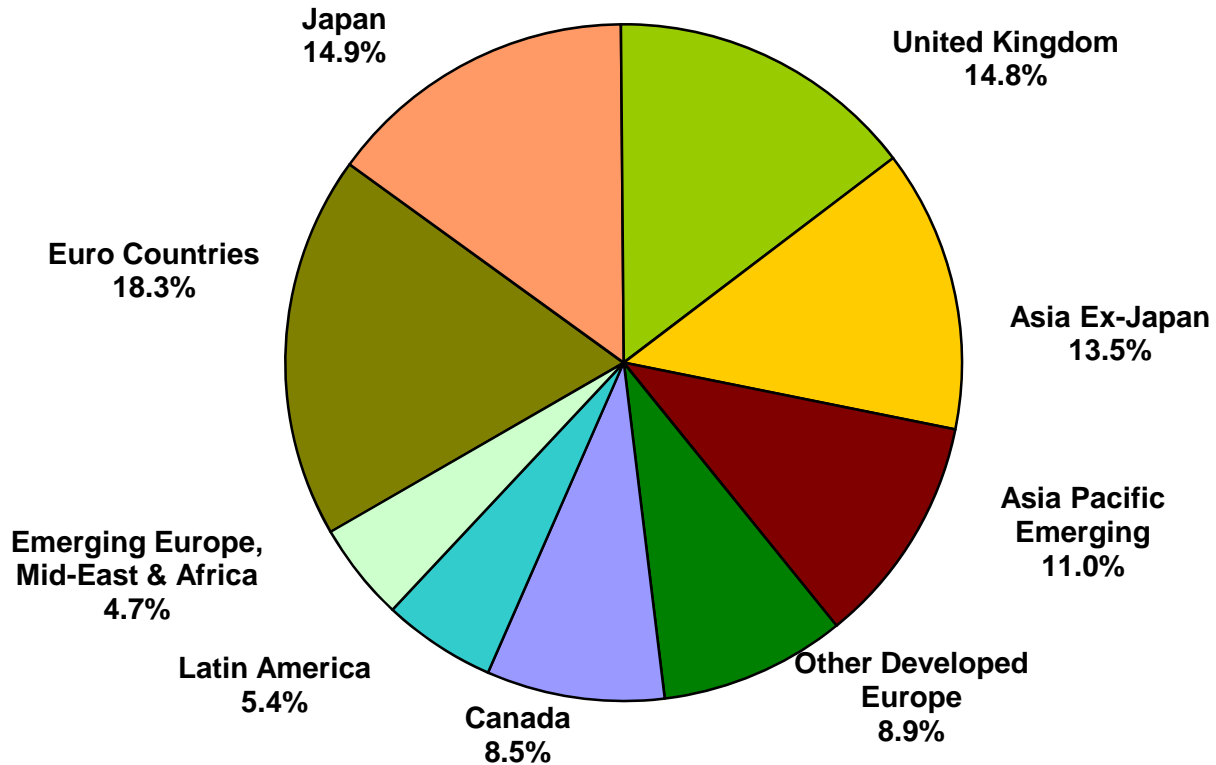
Market Value in Millions				
	12/31/2011		9/30/2011	
Active				
Developed Large	\$1,010	16.5%	\$965	16.4%
Developed Small	75	1.2%	74	1.3%
Emerging	399	6.5%	277	4.7%
Total Active Equity	1,484	24.2%	1,316	22.4%
Passive				
Developed	\$3,578	58.2%	\$3,708	63.0%
Emerging	845	13.7%	749	12.7%
Total Passive Equity	4,423	71.9%	4,457	75.7%
Total Investments	5,907	96.1%	5,773	98.1%
Cash Equivalents	\$239	3.9%	\$112	1.9%
Total International Equity	\$6,146	100.0%	\$5,885	100.0%



SMRS

S&P Global BMI - EX U.S.

12/31/11



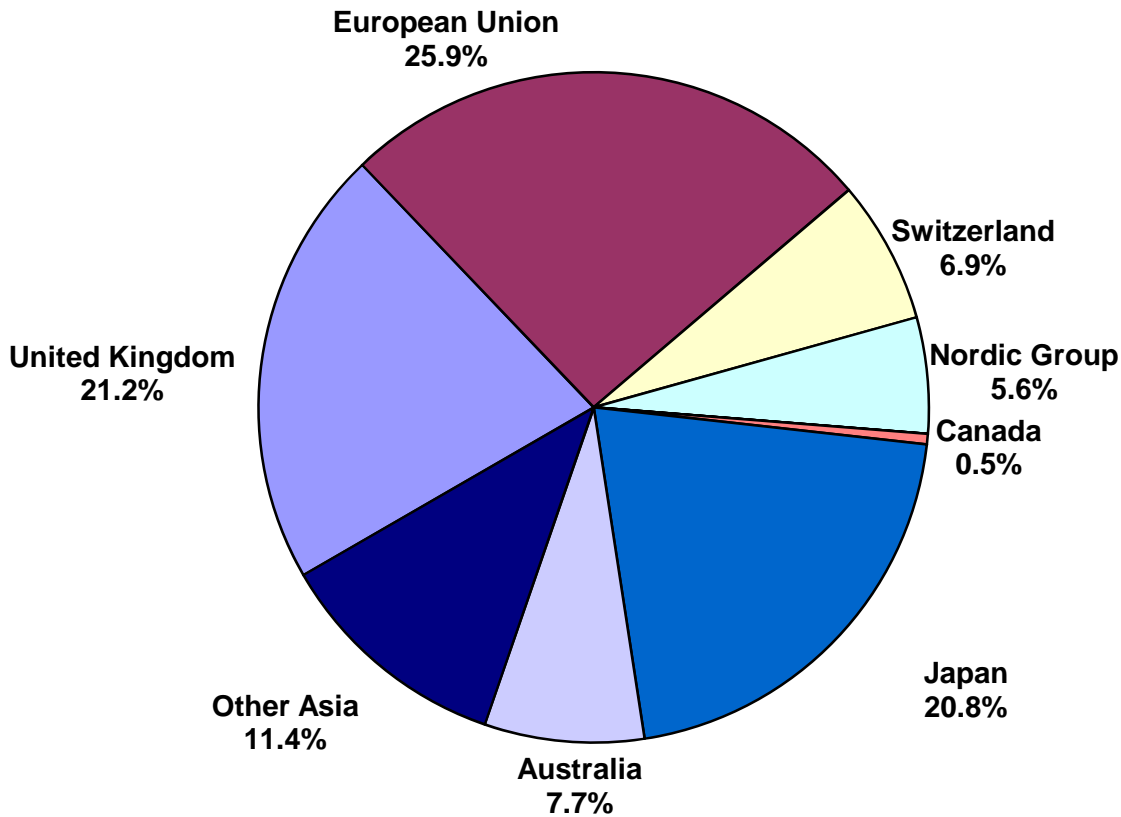
Investments by Region

	<u>Benchmark</u>
Euro Countries	18.3%
Japan	14.9%
United Kingdom	14.8%
Asia Ex-Japan	13.5%
Asia Pacific Emerging	11.0%
Other Developed Europe	8.9%
Canada	8.5%
Latin America	5.4%
Emerging Europe, Mid-East & Africa	4.7%
Total	100.0%



SMRS

Developed International Passive Equity SMRS Versus BMI EPAC Benchmark 12/31/11



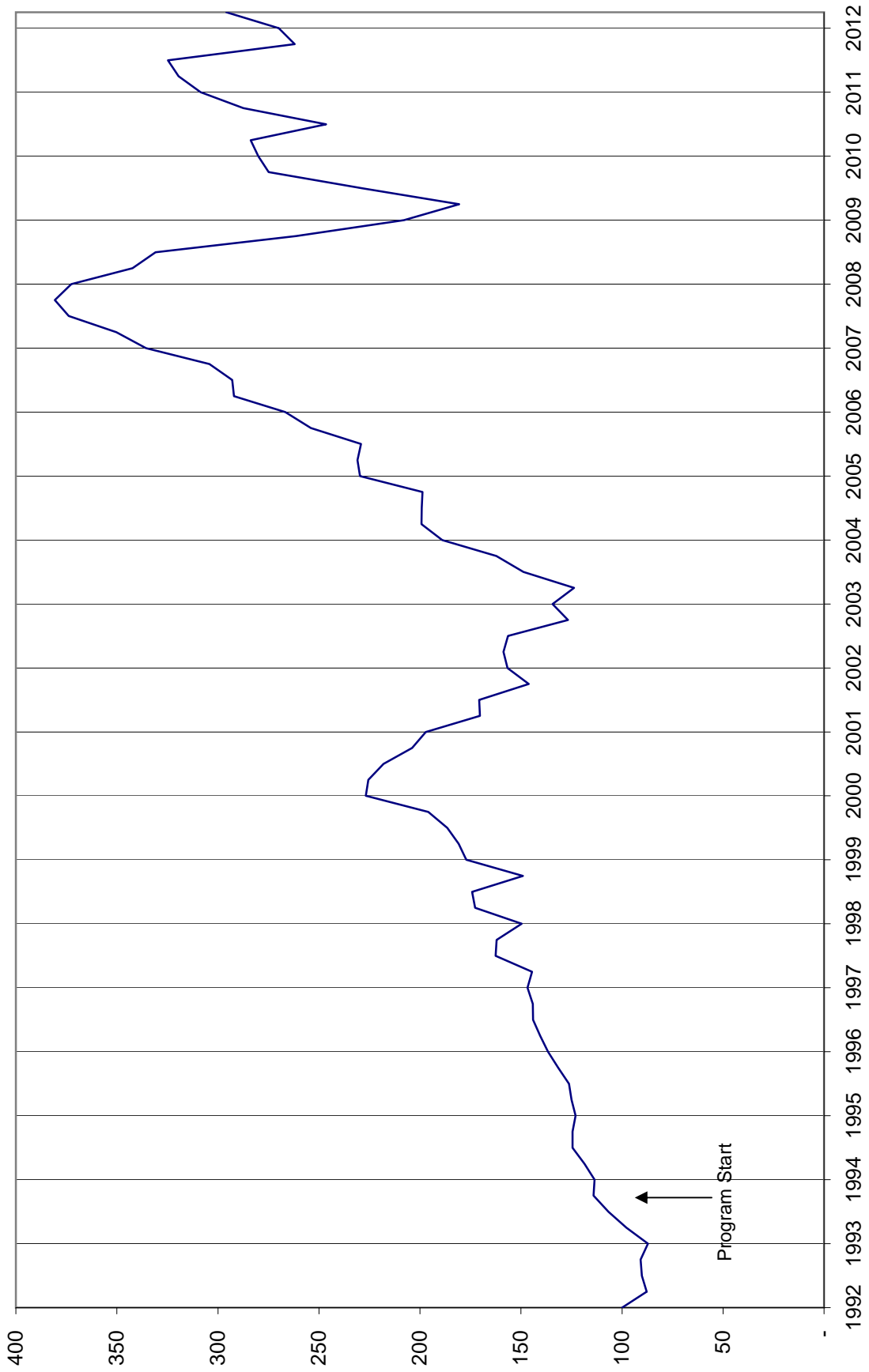
	<u>SMRS</u>	<u>Benchmark</u>
Europe		
United Kingdom	21.2%	21.0%
European Union	25.9%	26.1%
Switzerland	6.9%	7.7%
Nordic Group	5.6%	5.0%
Other Europe	0.0%	0.0%
Total Europe	59.6%	59.8%
Asia		
Japan	20.8%	21.1%
Australia	7.7%	8.2%
Other Asia	11.4%	10.9%
Total Asia	39.9%	40.2%
Canada	0.5%	0.0%
Total	100.0%	100.0%

Total Developed International Passive Equity Investment: \$3,578 Million

SMRS NON-US EQUITIES
December 31, 2011

	INDEXED	ACTIVE	<u>TOTAL</u>	<u>Percent</u>
Developed Markets - Large/Mid Capitalization				
Internal Stock Plus Combination	\$2,142,827,824		\$2,142,827,824	
SSgA PMI fund	440,918,223		440,918,223	
Vanguard Developed Markets Fund	886,516,224		886,516,224	
SSgA International Alpha Select BMI Fund		\$382,981,869	382,981,869	
Wellington International Research Equity Fund		374,442,006	374,442,006	
PIMCO Stock Plus		252,538,026	252,538,026	
Sub-Total Developed Large/Mid Cap	\$3,470,262,271	\$1,009,961,901	\$4,480,224,172	72.9%
Developed Markets - Small Capitalization				
SSgA EMI Fund	\$347,317,287	\$75,622,416	\$347,317,287	
SSgA International Small Cap Alpha Fund			75,622,416	
Sub-Total Developed Small Cap			\$422,939,703	6.9%
Total Developed Markets			\$4,903,163,875	79.8%
Emerging Markets - All Capitalization				
Vanguard Emerging Mkt Stock Index Fund	\$844,512,903		\$844,512,903	
LACM Emerging Market Fund		\$107,008,151	107,008,151	
PIMCO Emerging Market Fund		\$243,785,520	243,785,520	
Wellington Emerging Market Fund		\$47,900,250	47,900,250	
Total Emerging			\$1,243,206,824	20.2%
TOTAL	\$4,662,092,461	\$1,484,278,238	\$6,146,370,699	100%
Percent	75.9%	24.1%		

BMI EPAC Net Dividend Return Index (USD)



SMRS SWAP AGREEMENTS

International Equity Exposure

Maturity Date	Trade Date	Notional	Countries	Indices	Local Currency FX Expos.	U.S. Dollar No FX Expos.
01/18/2012	01/18/2011	103,000,000	7	7	32%	68%
01/18/2012	01/18/2011	52,647,963	2	2	0%	100%
02/15/2012	02/15/2011	90,000,000	6	6	33%	67%
02/15/2012	02/15/2011	40,000,000	2	2	0%	100%
03/12/2012	03/11/2011	100,000,000	10	10	0%	100%
03/12/2012	03/10/2009	75,000,000	9	9	0%	100%
03/26/2012	03/27/2009	10,000,744	1	1	100%	0%
03/26/2012	03/25/2009	85,000,000	10	10	100%	0%
03/30/2012	04/01/2009	29,118,502	4	4	100%	0%
04/16/2012	04/16/2009	60,000,000	9	9	100%	0%
06/25/2012	06/23/2011	100,000,000	6	6	100%	0%
07/13/2012	07/13/2011	90,003,758	2	2	100%	0%
10/19/2012	10/21/2011	190,000,000	5	5	76%	24%
10/19/2012	10/21/2011	13,000,000	1	1	100%	0%
10/19/2012	10/07/2011	130,000,000	7	7	100%	0%
12/03/2012	12/01/2011	214,999,996	8	8	100%	0%
12/03/2012	12/16/2011	35,000,000	5	5	100%	0%

Notional maturing during 2012	Total	1,417,770,962
		1,417,770,962 100%

Index Reference Summary Price Returns w/o Dividends

Index	Region	Description	12/30/11		11/30/11		09/30/11		12/31/10		High - Since 12/31/99		Low - Since 12/31/99		Date
			Current Level	% Chg	MTD	Level	% Chg	YTD	Level	% Chg	Level	% Chg	Level	% Chg	
US															
DJIA	USA		12,217.56	1.43%	12,045.68		10,913.38	11.95%	10,913.38	11,577.51	14,198.10	10/11/07	88.84%	6,469.95	3/6/09
S&P 500	USA		1,257.60	0.85%	1,246.96		1,131.42	11.15%	1,131.42	1,257.64	1,576.09	10/11/07	88.61%	666.79	3/6/09
S&P Midcap	USA		879.16	-0.52%	883.79		781.26	12.53%	781.26	907.25	1,018.65	5/2/11	137.08%	370.83	10/10/02
S&P Small	USA		415.07	1.12%	410.48		355.39	16.79%	355.39	415.73	462.42	7/7/11	144.68%	169.64	10/10/02
NASDAQ Composite	USA		2,605.15	-0.58%	2,620.34		2,415.40	7.86%	2,415.40	2,652.87	5,132.62	3/10/00	135.02%	1,108.49	10/10/02
NASDAQ 100 (QQQQ)	USA		55.83	-0.99%	56.39		52.49	6.36%	52.49	54.46	120.50	3/24/00	182.54%	19.76	10/8/02
Russell 1000	USA		693.36	0.67%	688.77		623.45	11.21%	623.45	696.90	858.63	10/11/07	91.40%	362.25	3/6/09
Russell 2000	USA		740.92	0.47%	737.42		644.16	15.02%	644.16	783.65	868.57	5/2/11	128.05%	324.90	10/10/02
Composite Indices - International															
BMI EPAC (USD)	Non-US Dev.		206.20	-1.19%	208.69		200.90	2.64%	200.90	242.33	339.11	10/31/07	84.35%	111.85	3/12/03
PMI EPAC (USD)	Non-US Dev.		200.79	-1.03%	202.88		194.68	3.14%	194.68	235.15	330.58	10/31/07	75.81%	114.21	3/12/03
EMI EPAC (USD)	Non-US Dev.		226.47	-2.07%	231.26		226.62	-0.07%	226.62	271.57	362.32	7/16/07	126.98%	99.77	10/10/02
EAFE i-Share (USD)	Non-US Dev.		49.53	-3.34%	51.24		47.78	3.66%	47.78	58.22	N/A	--	--	N/A	--
EAFE	Non-US Dev.		1,412.55	-1.03%	1,427.27		1,373.33	2.86%	1,373.33	1,658.30	2,398.71	11/1/07	73.68%	813.30	3/13/03
BMI EPAC (Local)	Non-US Dev.		161.26	0.20%	160.94		156.32	3.16%	156.32	189.52	277.12	7/13/07	46.52%	110.06	3/12/03
MSCI Emerging (USD)	Emerging		356.50	-1.21%	360.85		341.40	4.42%	341.40	437.02	473.35	10/29/07	374.58%	75.12	9/21/01
FTSE RAFI Emerging (USD)	Emerging		5,761.49	-1.33%	5,859.60		5,549.79	4.17%	5,549.79	7,271.57	7,930.70	11/1/07	494.49%	972.52	10/3/01
Europe															
CAC-40	France		3,159.81	0.16%	3,154.62		2,981.96	5.96%	2,981.96	3,804.78	6,944.77	9/4/00	31.60%	2,401.15	3/12/03
DAX-30	Germany		5,898.35	-3.13%	6,088.84		5,914.19	7.20%	5,914.19	6,914.19	8,151.57	7/13/07	169.48%	2,188.75	3/12/03
EuroStoxx	Europe		2,316.55	-0.60%	2,330.43		2,179.66	6.28%	2,179.66	2,792.82	5,522.42	3/7/00	31.21%	1,765.49	3/9/09
UK															
FTSE-100	U.K.		5,572.28	1.21%	5,505.42		5,128.48	8.65%	5,128.48	5,899.94	6,930.20	1/4/00	70.02%	3,277.50	3/12/03
Pacific															
TOPIX	Japan		728.61	0.02%	728.46		761.17	-4.28%	761.17	898.80	1,823.89	2/27/07	4.32%	698.46	3/12/09
KOSPI 200	S. Korea		238.08	-1.29%	241.19		230.41	3.33%	230.41	271.19	295.51	5/3/11	317.54%	57.02	9/27/01
Currencies															
Euro (\$ / Euro)	Europe		1.2961	-3.62%	1.3448		1.3387	-3.18%	1.3387	1.3384	1.3384				
Pound (\$ / Pound)	U.K.		1.5543	-1.08%	1.5712		1.5584	-0.26%	1.5584	1.5612	1.5612				
Yen (Yen / \$)	Japan		76.91	0.86%	77.57		77.06	0.20%	77.06	81.12	81.12				
US Dollar (LC JPM / \$)	USA		82.24	0.99%	81.43		82.01	0.28%	82.01	80.76	80.76				
FX - Major Curr. Nominal (F USA)	USA		72.24	0.00%	72.24		71.17	1.51%	71.17	73.79	73.79				
RJH/ik															

Note: Positive returns show local currency strength and USD weakness.

Note: Based on J.P. Morgan Index (US dollar vs. a trade weighted basket of non-US developed market currencies)

SUMMARY OF PASSIVE INTERNATIONAL MANAGERS

12/31/2011

Valuation Report

	<u>Country</u>	<u>Total Cost</u>	<u>% of Total</u>	<u>Current Value</u>	<u>% of Total</u>	<u>Unrealized G/L</u>	<u>% Change</u>
SSgA EMI Fund	Europe Pacific	\$141,081,749 <u>105,044,219</u>	8.71% 6.48%	\$203,960,597 <u>143,356,690</u>	12.11% 8.51%	\$62,878,848 <u>38,312,471</u>	44.57% 36.47%
Small-Cap Sub-Total		\$246,125,968		\$347,317,287		\$101,191,319	41.11%
SSgA PMI Fund	EPAC	\$386,076,678	23.83%	\$440,918,223	26.18%	\$54,841,545	14.20%
Vanguard Dev. Mkts Fund	EAFE	977,618,900	60.34%	886,516,224	52.65%	(91,102,676)	-9.32%
Vanguard Dev. Mkts. ETF	EAFE	<u>10,390,760</u>	0.64%	<u>9,189,000</u>	0.55%	<u>(1,201,760)</u>	-11.57%
Large-Cap Sub-Total		\$1,374,086,338		\$1,336,623,447		(\$37,462,891)	
External Passive Total		\$1,620,212,306	100.00%	\$1,683,940,734	100.00%	\$63,728,428	3.93%

**INTERNATIONAL COMBINED SWAP AGREEMENT POSITION
12/31/2011**

<u>COUNTRY</u>	<u>STOCK INDEX</u>	<u>AVERAGE SET LEVEL</u>	<u>NOTIONAL AMOUNT</u>	<u>% OF TOTAL</u>	<u>INDEX 12/31/2011</u>	<u>CURRENT NOTIONAL</u>	<u>% OF TOTAL</u>	<u>UNREALIZED GAIN/LOSS</u>	<u>% CHANGE</u>
EUROPE									
United Kingdom	FTSE 100 INDEX	4,618.18	-	0.00%	5,572.28	-	0.00%	-	-
United Kingdom	FTSE 100 TOTAL RETURN INDEX	3,556.58	\$278,999,306	19.68%	3,770.37	\$294,745,067	20.20%	\$15,745,761	5.64%
United Kingdom	FTSE 250 INDEX		-	0.00%	10,102.90	-	0.00%	-	-
Germany	DAX INDEX	6,423.51	115,000,000	8.11%	5,898.35	102,921,572	7.05%	(12,078,428)	-10.50%
Germany	DAX MID-CAP INDEX		-	0.00%	8,897.81	-	0.00%	-	-
France	CAC 40 INDEX	3,593.08	-	0.00%	3,159.81	-	0.00%	-	-
France	CAC 40 TOTAL RETURN INDEX	6,687.74	138,006,952	9.73%	6,518.67	129,100,803	8.85%	(8,906,149)	-6.45%
France	CAC MID 100 INDEX		-	0.00%	5,672.99	-	0.00%	-	-
Switzerland	SWISS MARKET INDEX		-	0.00%	5,936.23	-	0.00%	-	-
Switzerland	SWISS MARKET TOTAL RETURN INDEX	8,122.43	71,392,297	5.04%	9,664.36	89,049,458	6.10%	17,657,161	24.73%
Switzerland	SPI MEDIUM COMPANIES INDEX		-	0.00%	6,306.90	-	0.00%	-	-
Netherlands	AMSTERDAM EXCHANGES INDEX		-	0.00%	312.47	-	0.00%	-	-
Netherlands	AMSTERDAM EXCHANGES TOTAL RETURN INDEX	637.53	35,088,171	2.47%	827.16	44,449,509	3.05%	9,361,338	26.68%
Netherlands	AMSTERDAM MIDKAP INDEX		-	0.00%	467.90	-	0.00%	-	-
Spain	IBEX 35 INDEX	7,815.00	7,000,000	0.49%	8,566.30	7,502,176	0.51%	502,176	7.17%
Spain	IBEX 35 TOTAL RETURN INDEX	15,065.27	26,000,000	1.83%	17,157.80	29,080,018	1.99%	3,080,018	11.85%
Portugal	PORTUGAL PSI-20 INDEX		-	0.00%	5,494.27	-	0.00%	-	-
Italy	MILAN MIB30 INDEX		-	0.00%	15,089.74	-	0.00%	-	-
Italy	MILAN MIB30 TOTAL RETURN INDEX	24,030.16	24,997,500	1.76%	23,755.96	24,686,266	1.69%	(311,234)	-1.25%
Italy	MILAN MID-CAP INDEX		-	0.00%	987.85	-	0.00%	-	-
Sweden	OMX (STOCKHOLM) INDEX		-	0.00%	125.00	-	0.00%	-	-
Sweden	OMX (STOCKHOLM) TOTAL RETURN INDEX	83.14	32,633,034	2.30%	2,901.82	54,491,074	3.73%	21,858,040	66.98%
Ireland	IRISH OVERALL INDEX		-	0.00%	557.43	-	0.00%	-	-
Ireland	IRISH OVERALL TOTAL RETURN INDEX	370.32	10,002,500	0.71%	2,083.42	14,950,568	1.02%	4,948,068	49.47%
Belgium	BEL20 INDEX	4,922.64	20,000,000	1.41%	42.73	17,315,174	1.19%	(2,584,826)	-13.42%
Finland	FOX 25 INDEX	49.78	9,000,000	0.63%	389.95	7,088,197	0.49%	(1,911,803)	-21.24%
Denmark	KFX INDEX	350.34	13,000,000	0.92%	357.60	14,364,535	0.98%	1,364,535	10.50%
Norway	OBX STOCK TOTAL RETURN INDEX	287.50	9,000,000	0.63%	283.97	11,994,058	0.82%	2,994,058	33.27%
Norway	OBX STOCK INDEX		-	0.00%	264.91	-	0.00%	-	-
Greece	FTSE/ASE 20 INDEX		-	0.00%	1,891.68	-	0.00%	-	-
Austria	AUSTRIAN TRADED ATX INDX		-	0.00%		-	0.00%		

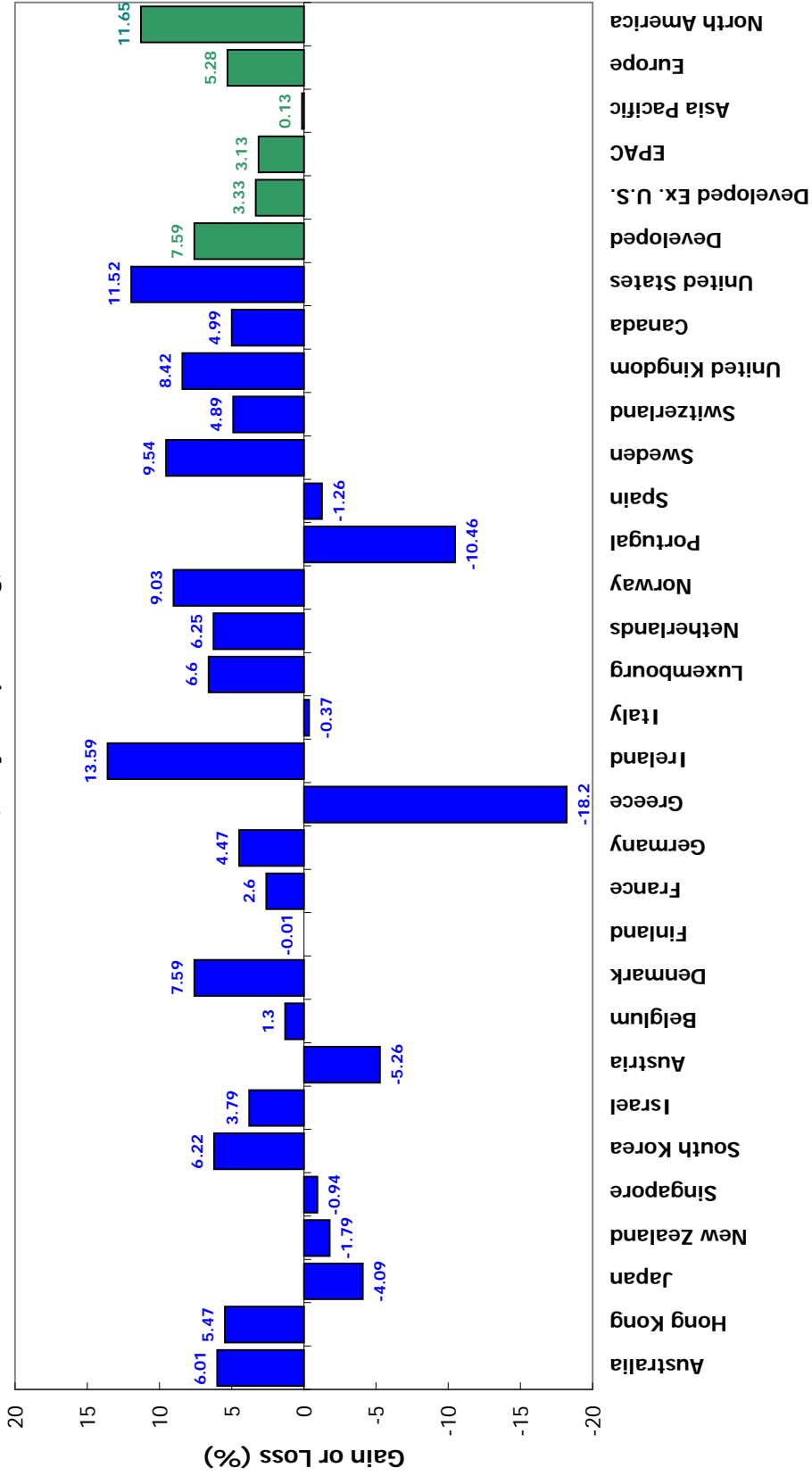
**INTERNATIONAL COMBINED SWAP AGREEMENT POSITION
12/31/2011**

<u>COUNTRY</u>	<u>STOCK INDEX</u>	<u>AVERAGE SET LEVEL</u>	<u>NOTIONAL AMOUNT</u>	<u>% OF TOTAL</u>	<u>INDEX 12/30/2011</u>	<u>CURRENT NOTIONAL</u>	<u>% OF TOTAL</u>	<u>UNREALIZED GAIN/LOSS</u>	<u>% CHANGE</u>
Japan	TOPIX INDEX (TOKYO)		-	0.00%	728.61	-	0.00%	-	
Japan	TOPIX TOTAL RETURN INDEX (TOKYO)	985.48	\$323,002,500	22.78%	935.71	\$310,677,096	21.29%	(\$12,325,404)	-3.82%
Japan	TSE2 TOPIX 2 ND SECT INDEX				2,111.43	-	0.00%		
Hong Kong	HANG SENG STOCK INDEX	24,060.25	24,647,963	1.74%	18,434.39	18,884,681	1.29%	(5,763,281)	-23.38%
Hong Kong	HANG SENG TOTAL RETURN STOCK INDEX	47,398.41	51,000,000	3.60%	39,809.23	42,888,436	2.94%	(8,111,564)	-15.91%
Australia	ASX 200 INDEX		-	0.00%	4,056.56	-	0.00%	-	
Australia	ASX 200 TOTAL RETURN INDEX	30,579.43	101,000,000	7.12%	30,879.12	108,712,825	7.45%	7,712,825	7.64%
New Zealand	NZSE 10 INDEX	156.45	5,000,000	0.35%	261.36	8,352,871	0.57%	3,352,871	67.06%
Singapore	STI INDEX	1,485.75	6,000,000	0.42%	2,646.35	10,686,926	0.73%	4,686,926	78.12%
Singapore	STI TOTAL RETURN INDEX	3,577.50	21,000,000	1.48%	3,446.04	19,207,512	1.32%	(1,792,488)	-8.54%
Korea	KOREA KOSPI 200 INDEX	252.99	85,999,996	6.07%	238.08	81,221,918	5.57%	(4,778,078)	-5.56%
Canada	TX60AR INDEX	1,117.90	10,000,744	0.71%	1,531.30	16,670,229	1.14%	6,669,485	0.47%
	TOTAL COMPOSITE		\$1,417,770,962	100.00%		\$1,459,040,969	100.00%	\$41,270,007	2.91%
	LIBOR NOTES		\$1,537,451,122			\$1,572,376,419		\$34,925,297	2.27%
	CURRENT NET MARKET VALUE:							\$76,195,304	

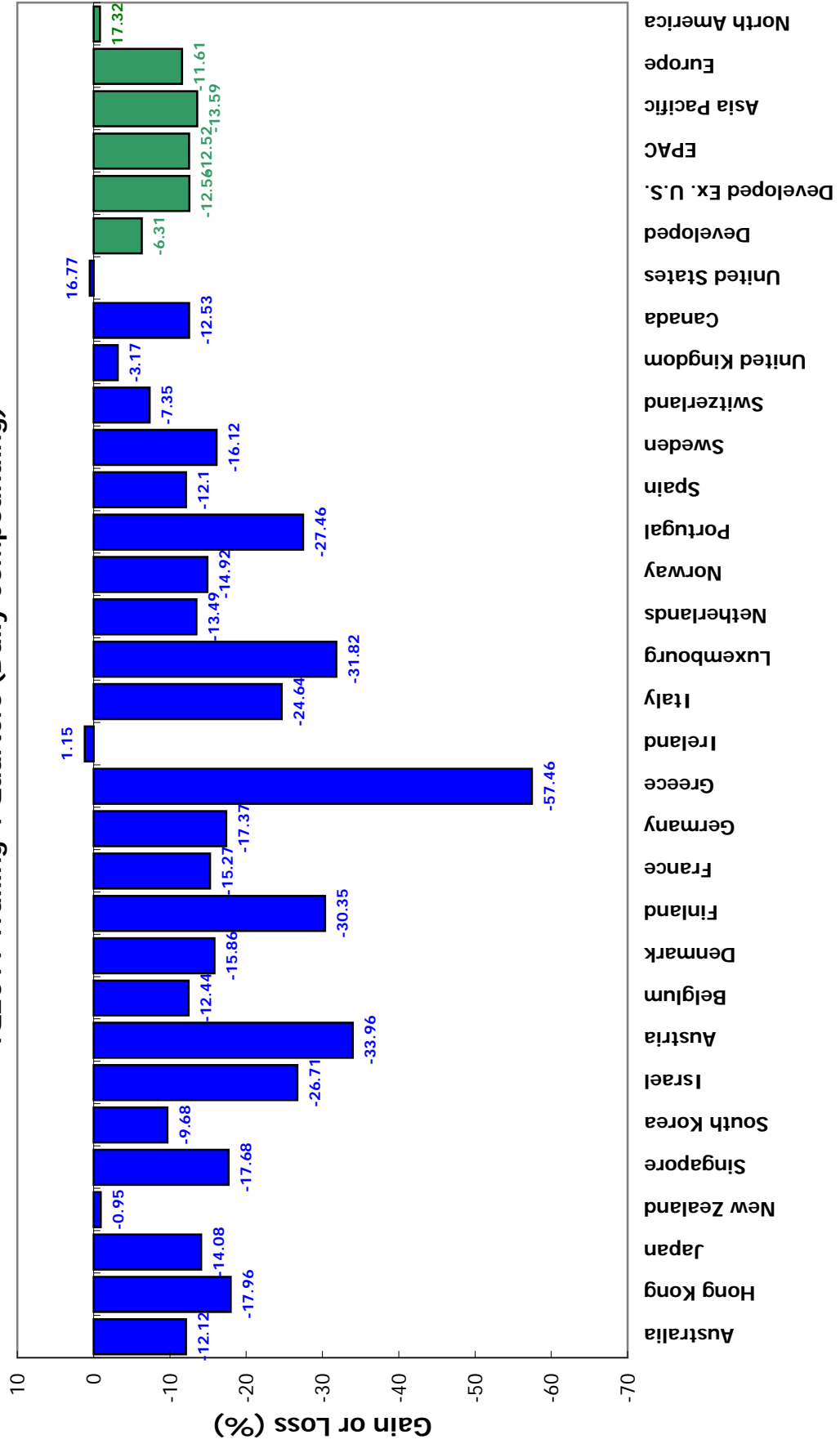
Notes: 1. Notional amounts include currency change impacts, and changes related to dividend reinvestment in some agreements
2. Current net market value excludes cash balances related to interest on continuing swaps of \$239.1 Million as of 12/31/2011
3. Information on completed swaps: (190 completed)

	<u>TOTAL</u>
Gains/Losses on Equity Swap Agreements	\$104,138,455.85
Net Interest received on Fixed Income	10,489,257.25
Gains/Losses on Dedicated Fixed Income	710,261.85
Total realized Gain/Losses and Net Interest	\$115,337,974.95

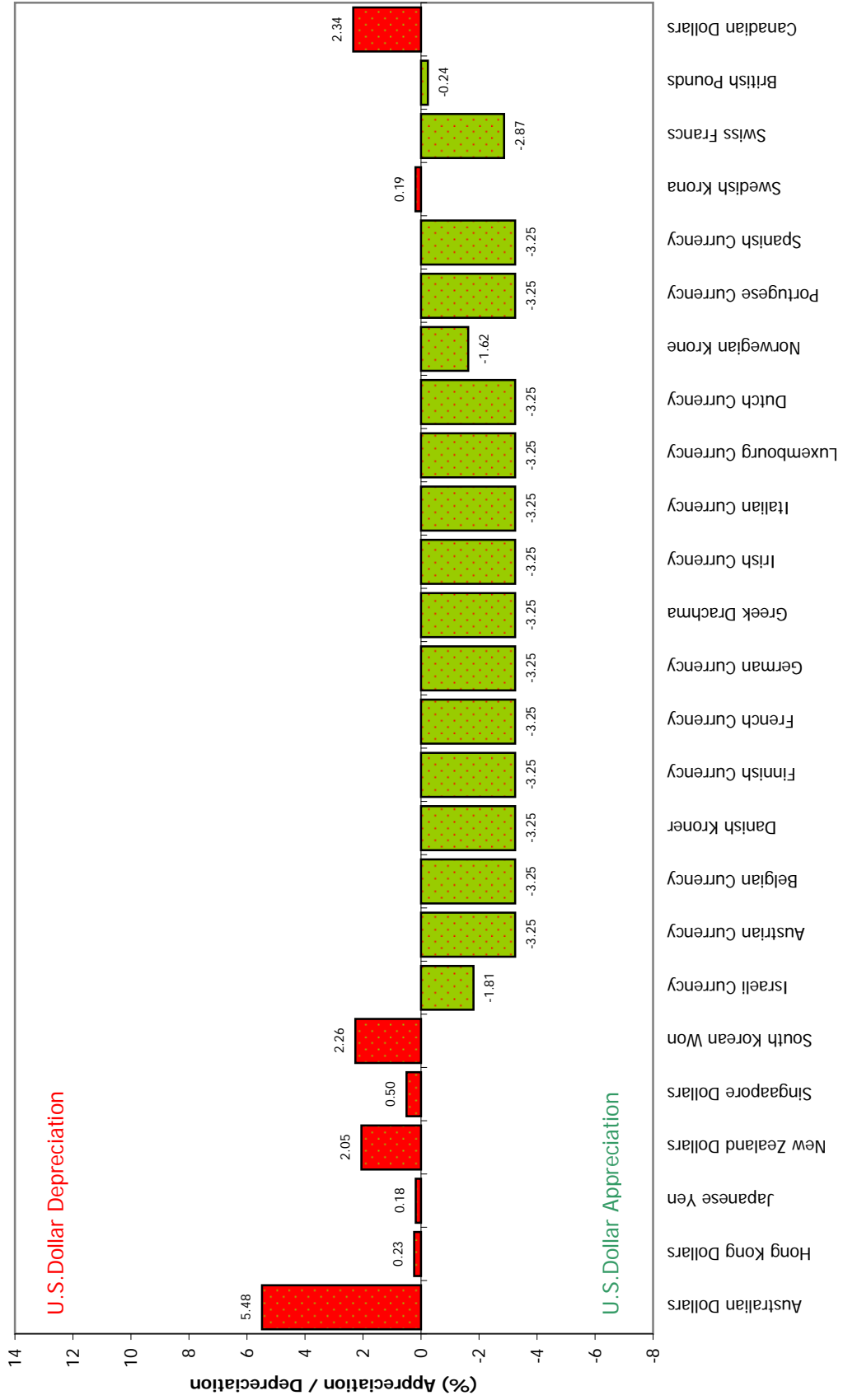
S&P Developed Equity Index
BMI Performance by Country / Region
NET Total Rates of Return in 75% US\$ / 25% LOCAL Currency
4Q2011 (Daily Compounding)



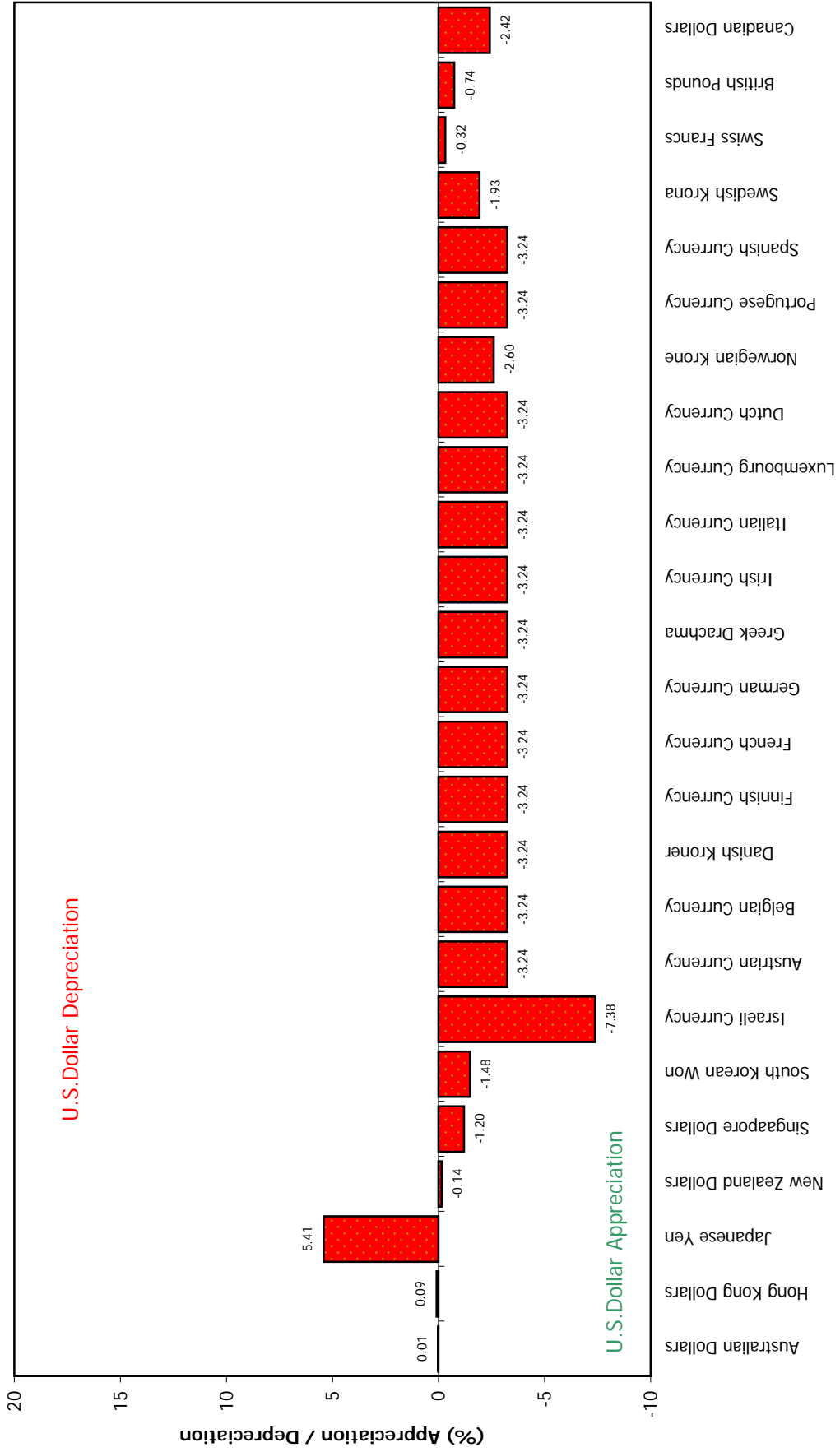
**S&P Developed Equity Index
 BMI Performance by Country / Region
 NET Total Rates of Return in 75% US\$ / 25% LOCAL Currency
 4Q2011 Trailing 4 Quarters (Daily Compounding)**



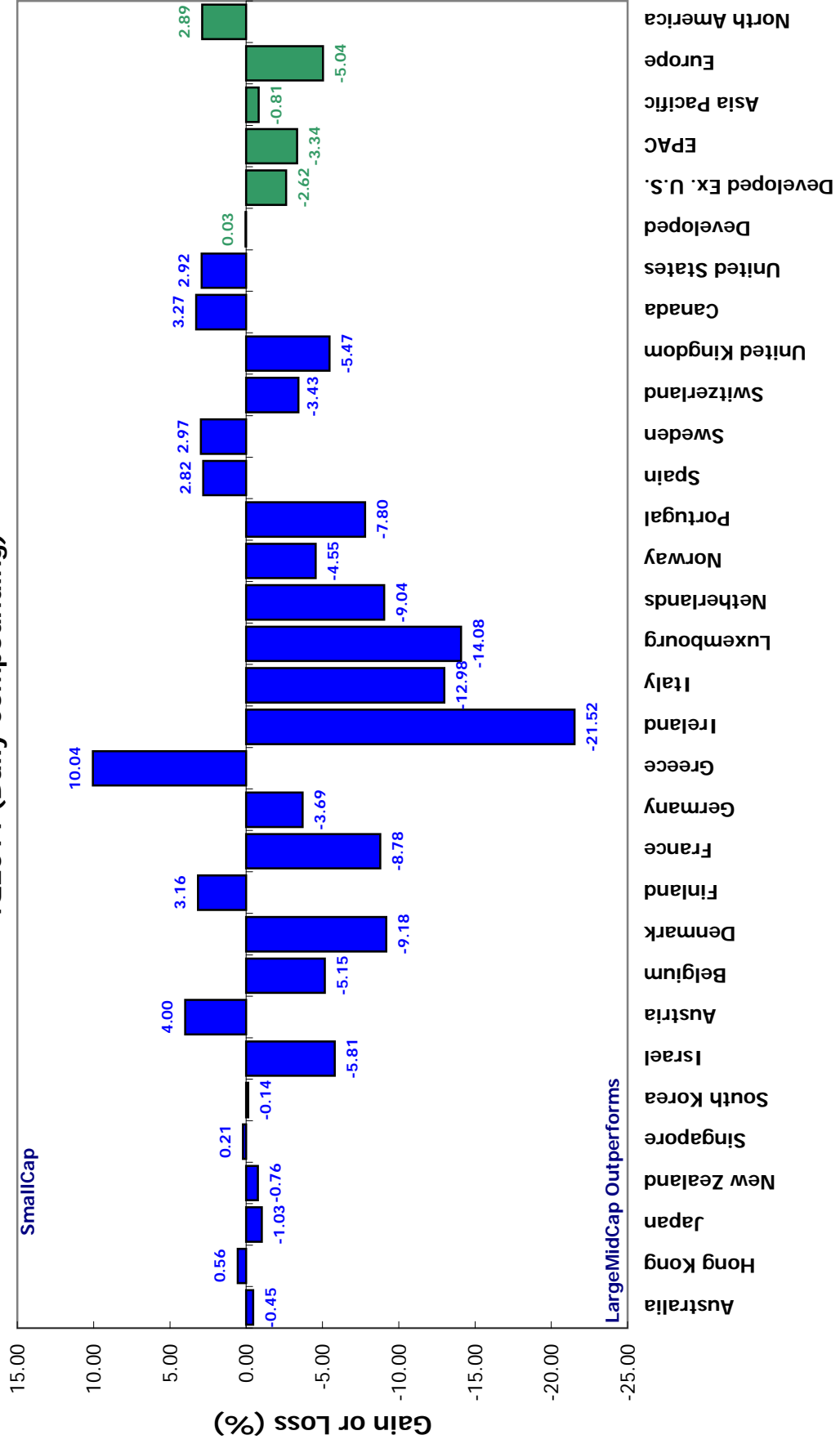
**S&P Developed Equity Index
 Currency Performance versus the U.S. Dollar (In Percentage Terms)
 30SEP2011 to 30DEC2011**

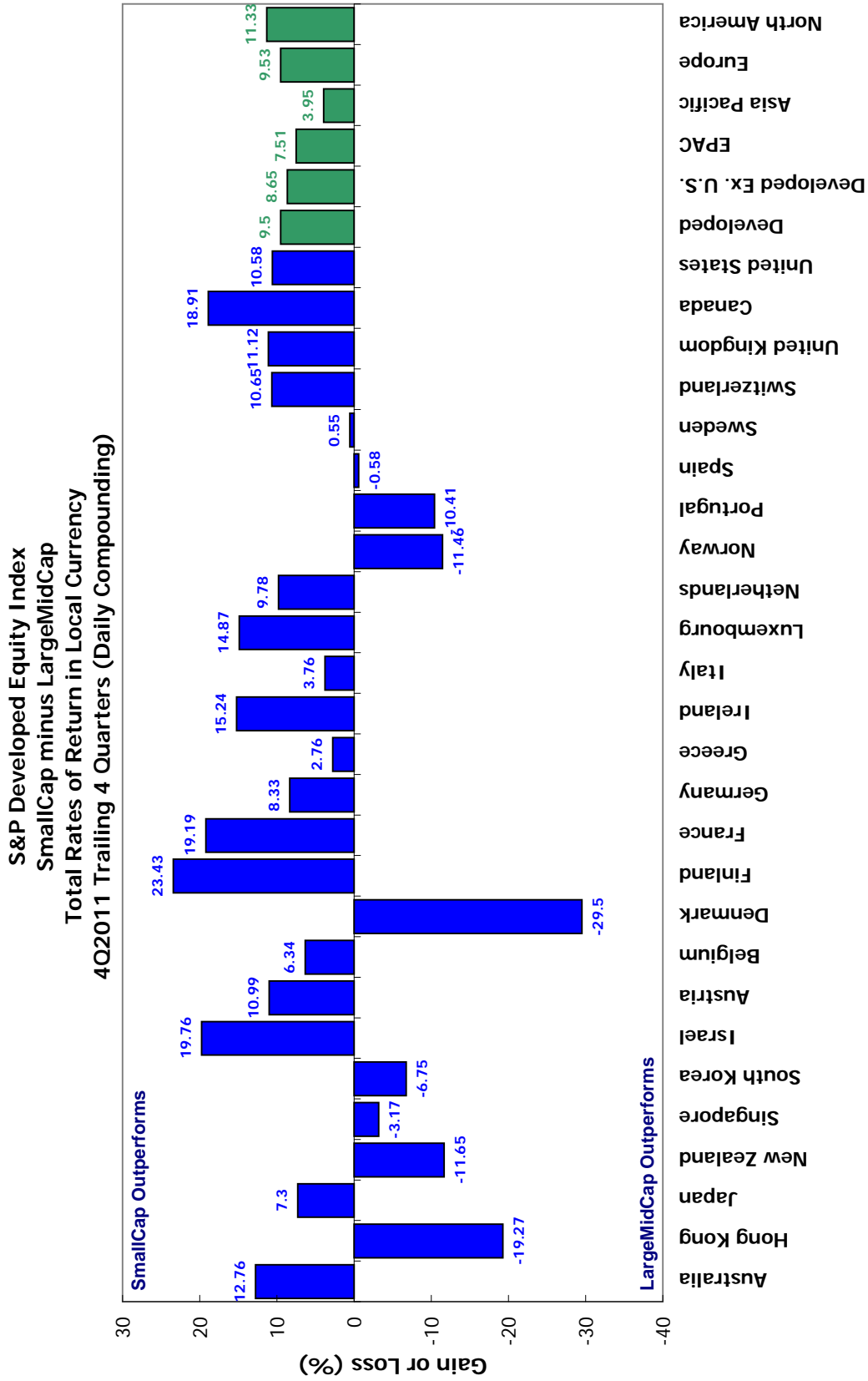


**S&P Developed Equity Index
 Currency Performance versus the U.S. Dollar (In Percentage Terms)
 30DEC2010 to 30DEC2011**



**S&P Developed Equity Index
SmallCap minus LargeMidCap
Total Rates of Return in Local Currency
4Q2011 (Daily Compounding)**





**STATE OF MICHIGAN
RETIREMENT SYSTEMS**

**INDEXED DOMESTIC EQUITY
REVIEW**

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 1, 2012

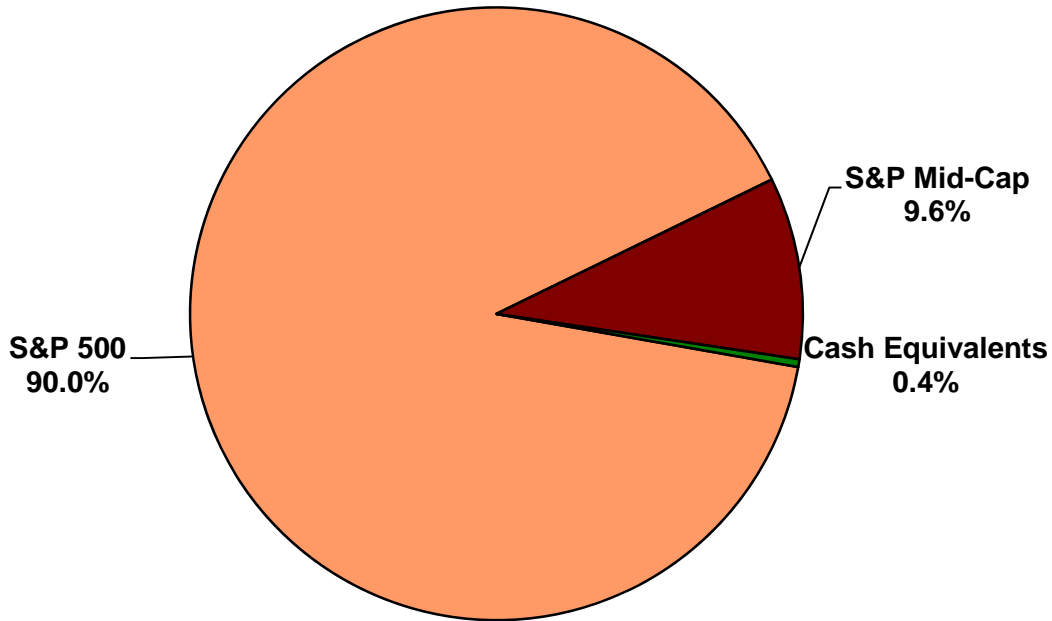


**Richard J. Holcomb, CFA, Administrator
Quantitative Analysis Division**



SMRS

Domestic Passive Equity Investments 12/31/11



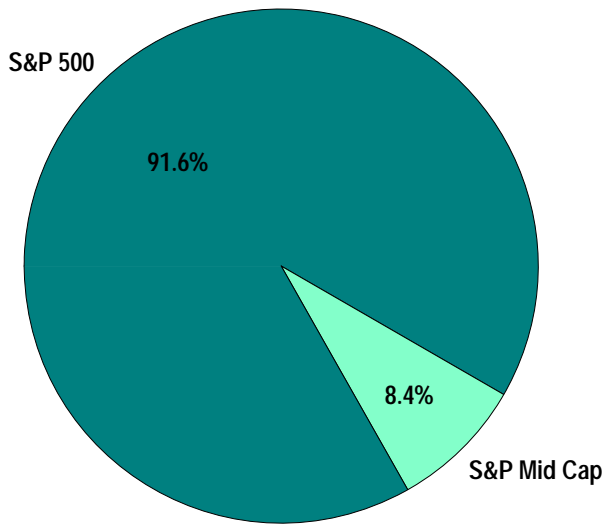
Market Value in Millions			Benchmark
S&P 500	\$5,334	90.0%	91.6%
S&P Mid-Cap	566	9.6%	8.4%
S&P Small-Cap	0	0.0%	0.0%
Total Investments	\$5,900	99.6%	100.0%
Cash Equivalents	23	0.4%	0.0%
Total	\$5,923	100.0%	100.0%



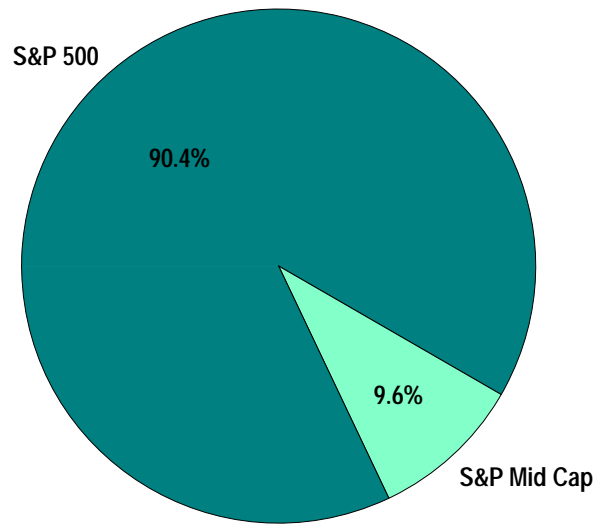
SMRS

Passive U.S. Equity Exposure 12/31/11

Standard & Poor's 900



SMRS Actual



	<u>S&P Benchmarks</u>		<u>SMRS Position Values</u>		
	<u>12/31/11 Market Cap.</u>	<u>12/31/11 Weights</u>	<u>12/31/11 Market Value</u>	<u>12/31/11 Weights</u>	<u>09/30/11 Market Value</u>
S&P 500	\$11,383 B	91.6%	\$5,354 M	90.4%	\$4,828 M
S&P Mid-Cap	\$1,050 B	8.4%	\$569 M	9.6%	\$508 M

Indexed Domestic Equity Quarter Ending 12/31/11

U.S. Index Portfolios

	12/31/2011	12/31/2011	12/31/2011	12/31/2011	12/31/2011	Period	Transaction		
Portfolio	Value	Index Level	Synthetic % Ending	Cash % Ending	Cash Flow % Beginning	Cash Flow % Beginning	Activity % Beginning	SMRS % Weight	S&P % Weight
S&P 500	\$ 5,354,414,862	1,257.60	0.00%	0.20%	-0.95%	1.69%	90.39%	91.56%	
S&P Mid-Cap	\$ 569,078,688	879.16	0.00%	0.48%	-1.24%	6.17%	9.61%	8.44%	
Total Passive	\$ 5,923,493,550	290.12	0.00%	0.23%	-0.98%	2.12%	100.00%	100.00%	

3

Portfolio Returns

Quarter	6 Mo.	9 Mo.	1-Year	2-Year	3-Year	5-Year	10-Year
S&P 500	11.86%	-3.45%	2.52%	8.84%	14.48%	0.06%	3.15%
S&P Mid-Cap	13.20%	-8.63%	-0.33%	12.73%	20.44%	4.35%	7.65%
Total Passive	11.99%	-4.00%	2.27%	9.26%	15.07%	0.50%	3.66%

Tracking Error

Quarter	6 Mo.	9 Mo.	1-Year	2-Year	3-Year	5-Year	10-Year
S&P 500	0.04%	0.24%	0.41%	0.45%	0.37%	0.31%	0.23%
S&P Mid-Cap	0.22%	0.85%	1.40%	1.17%	0.87%	1.03%	0.61%
Total Passive Benchmark	0.07%	0.21%	0.49%	0.60%	0.51%	0.46%	0.30%

**STATE OF MICHIGAN
RETIREMENT SYSTEMS**

FIXED INCOME REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 1, 2012



**Paul R. Nelson II, CFA, Administrator
Long-Term Fixed Income Division**

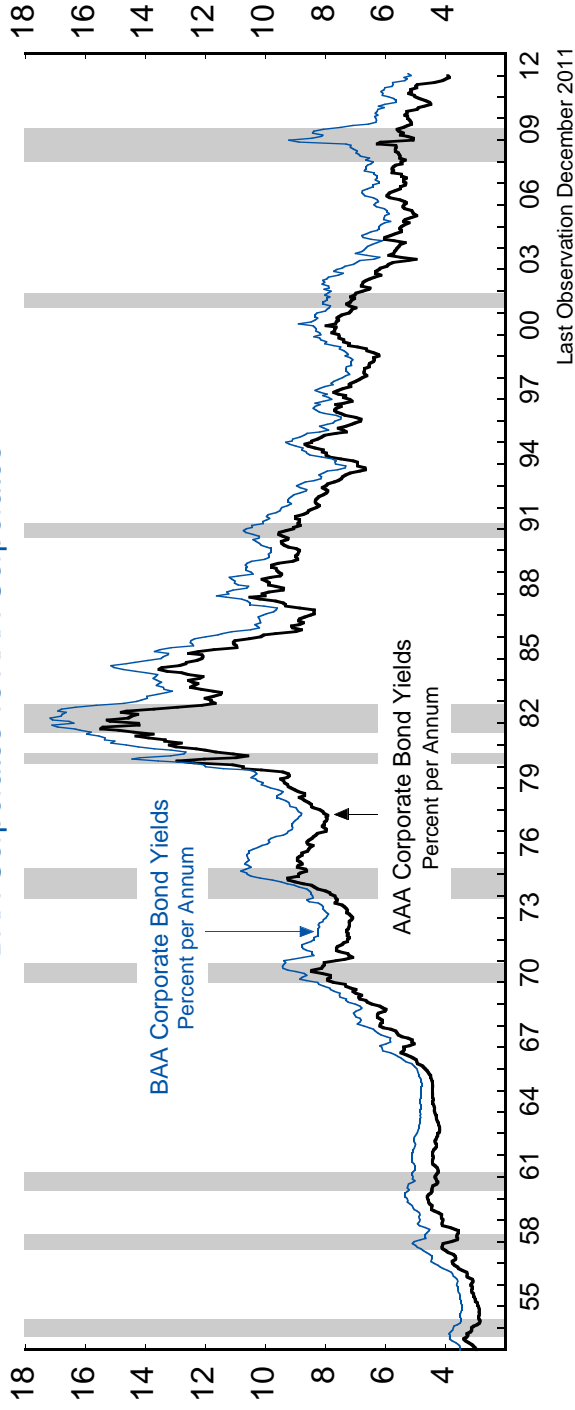
EXECUTIVE SUMMARY

Long-Term Fixed Income

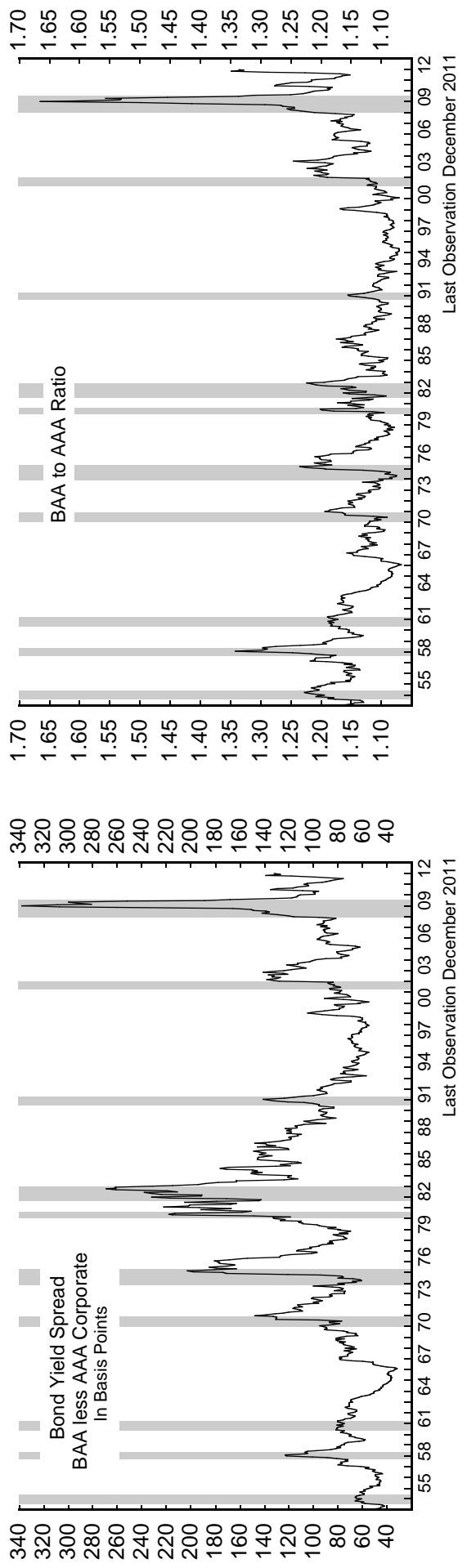
- Treasury yields continue to be near historic lows and the yield curve is steep. Quality spreads are still wide. Under these conditions, investors are being paid to accept some credit risk but should avoid excessive maturity extension risk.
- Accordingly, the Long-Term Fixed Income Division continues to focus on five to ten-year maturities and ride the yield curve where possible. To take advantage of spreads, purchases will tend to be skewed toward A and Baa issues with an overall portfolio rating of single A or better.
- Later, as spreads narrow and rates increase, the Division focus will shift to higher grade and longer maturity issues.

Bond Risk Premium

BAA Corporates vs AAA Corporates



2



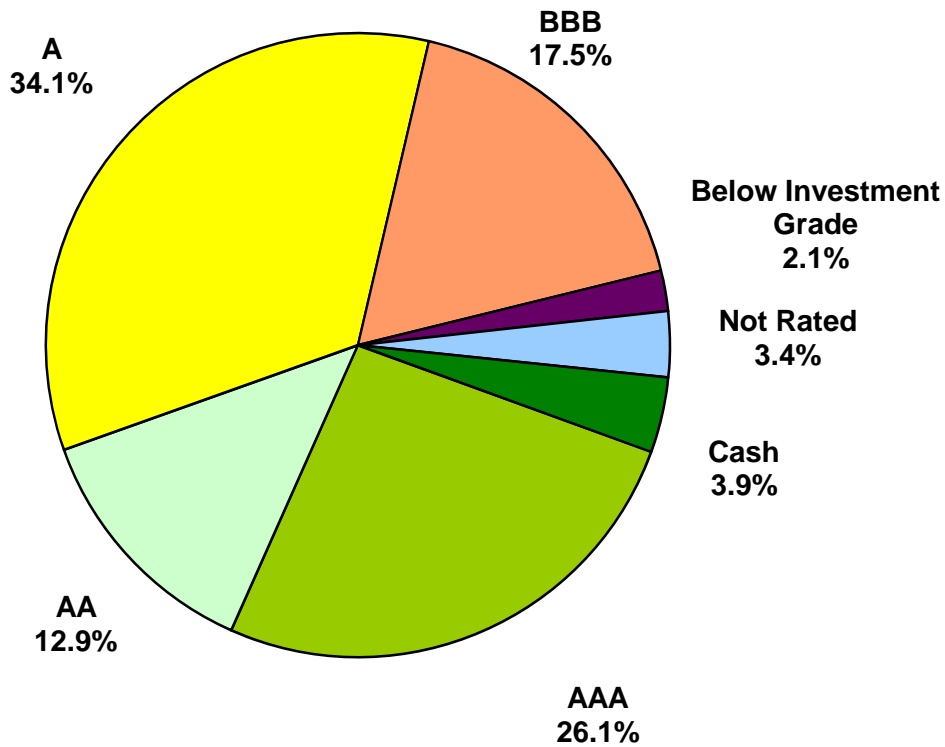


SMRS

Fixed Income By Rating

Total U.S. Government and Corporate Holdings

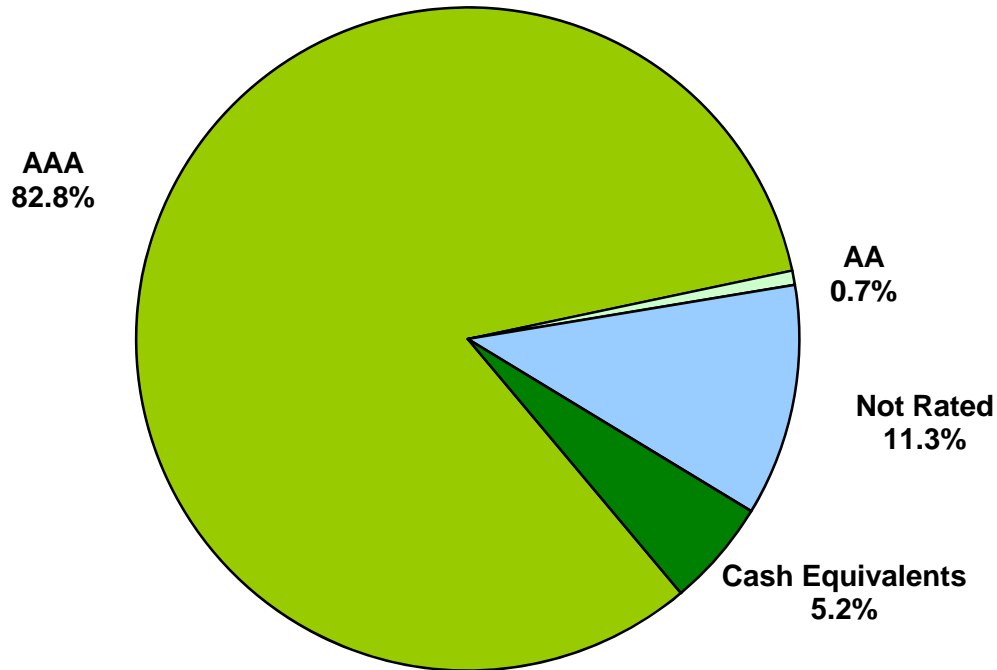
12/31/11



Market Value in Millions				
	12/31/2011		9/30/2011	
AAA	\$1,688	26.1%	\$1,858	25.9%
AA	831	12.9%	1,055	14.7%
A	2,202	34.1%	2,472	34.4%
BBB	1,130	17.5%	1,139	15.9%
Not Rated	222	3.4%	230	3.2%
Below Investment Grade	133	2.1%	130	1.8%
Cash Equivalents	252	3.9%	298	4.1%
Total Investments	\$6,458	100.0%	\$7,182	100.0%



SMRS
Fixed Income
U.S. Government Internal Holdings
12/31/11



Market Value in Millions				
	12/31/2011		9/30/2011	
AAA	1,157	82.8%	1,278	79.2%
AA	10	0.7%	0	0.0%
Not Rated	158	11.3%	157	9.8%
Cash Equivalents	73	5.2%	178	11.0%
Total	\$1,398	100.0%	\$1,613	100.0%

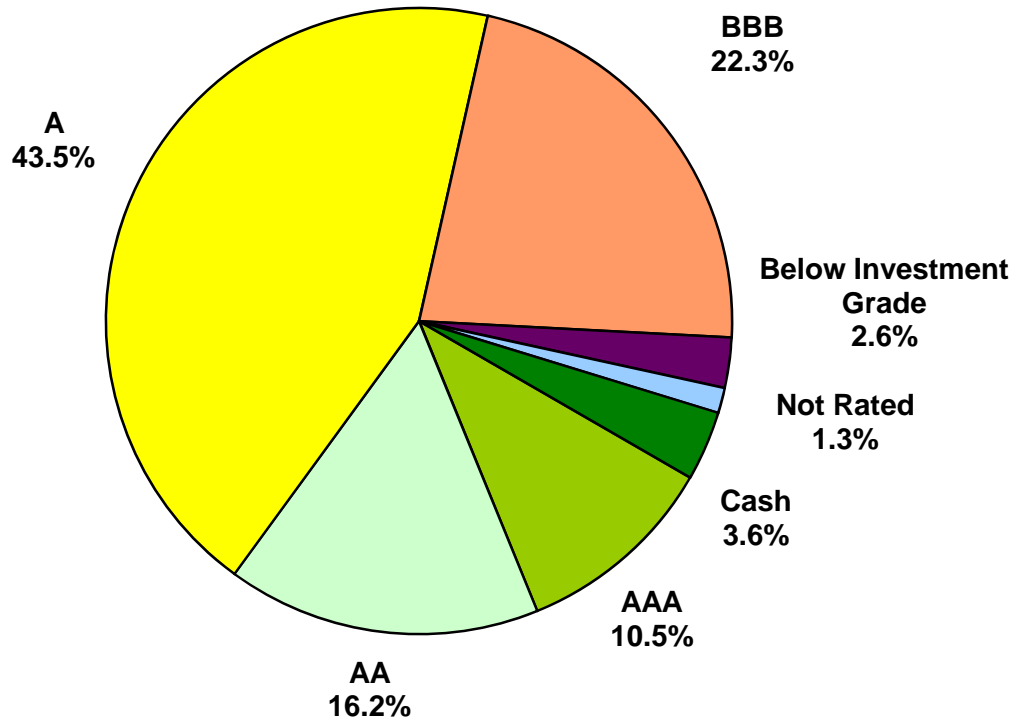


SMRS

Fixed Income By Rating

Corporate Holdings By Rating

12/31/11

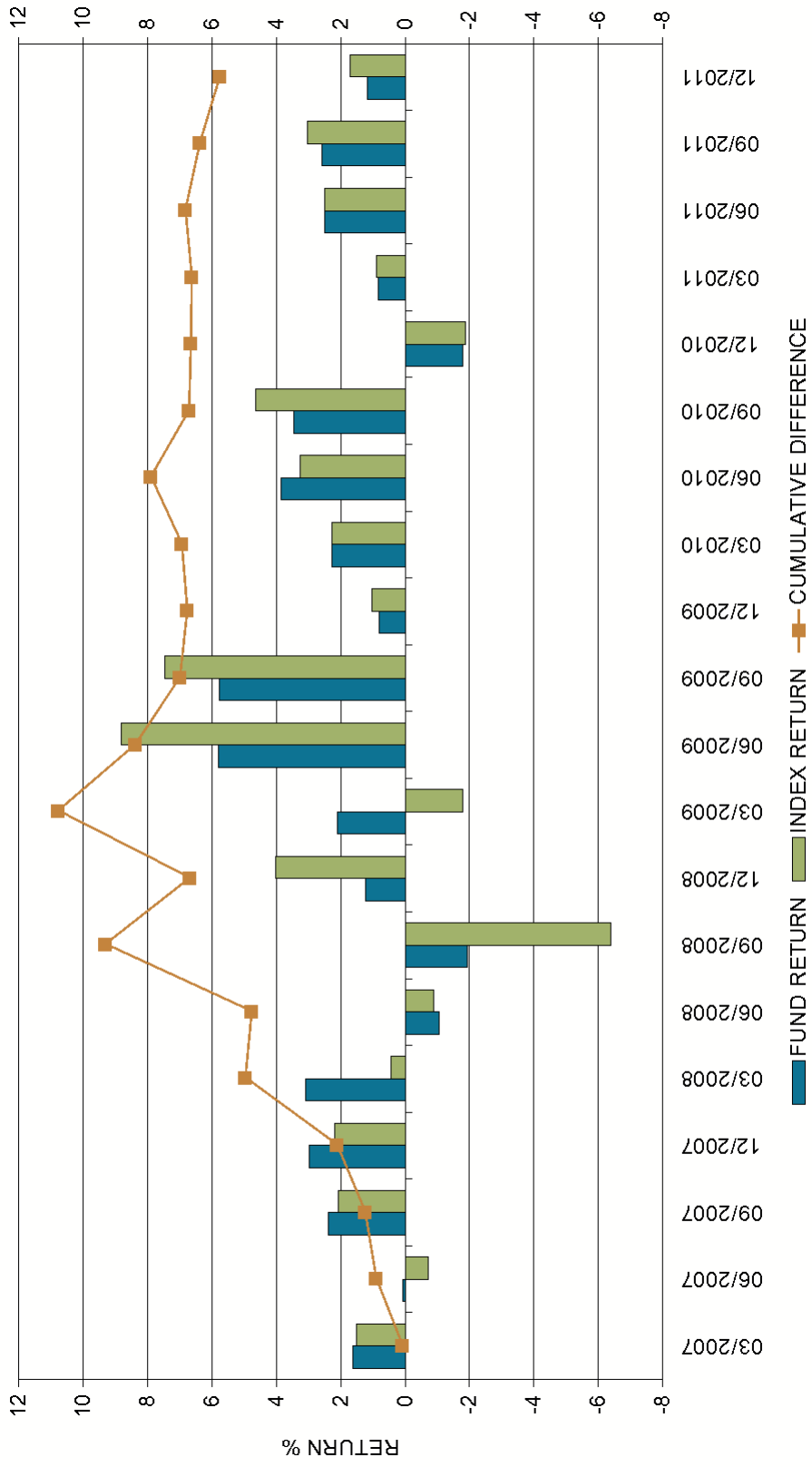


Market Value in Millions					
	12/31/2011		9/30/2011		
AAA	\$531	10.5%	\$580	10.4%	
AA	821	16.2%	1,055	18.9%	
A	2,202	43.5%	2,472	44.4%	
BBB	1,130	22.3%	1,139	20.5%	
Not Rated	64	1.3%	73	1.3%	
Below Investment Grade	133	2.6%	130	2.3%	
Cash Equivalents	179	3.6%	120	2.2%	
Total Investments	\$5,060	100.0%	\$5,569	100.0%	

Michigan State Treasury - Supersponsor
 INTERNAL CORPORATE FUND
 Index: BC CREDIT

PERIODS: December 31, 2006 - December 31, 2011

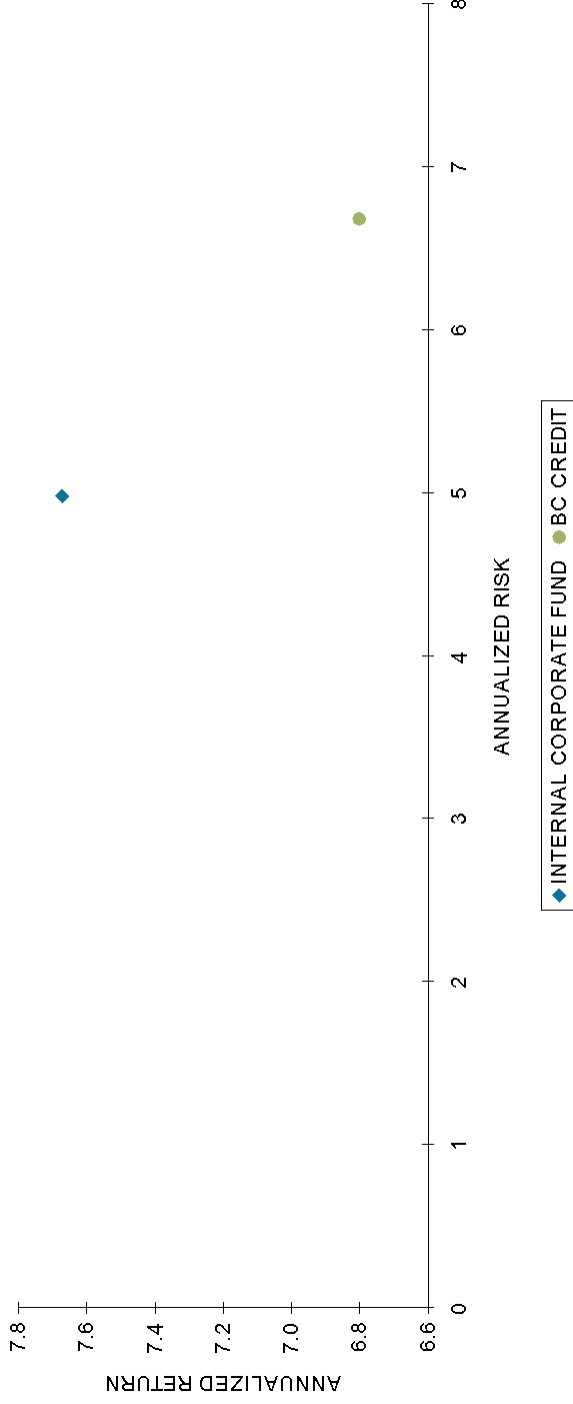
CUMULATIVE PERFORMANCE REPORT



Michigan State Treasury Supersponsor
INTERNAL CORPORATE FUND
 Index: BC CREDIT

PERIODS: December 31, 2006 - December 31, 2011

RISK VS. RETURN



RISK INFORMATION

Portfolio Return	7.67
Benchmark Return	6.80
Return Differences	0.87
Portfolio Standard Deviation	4.98
Benchmark Standard	6.68
Tracking Error	3.42

RISK STATISTICS

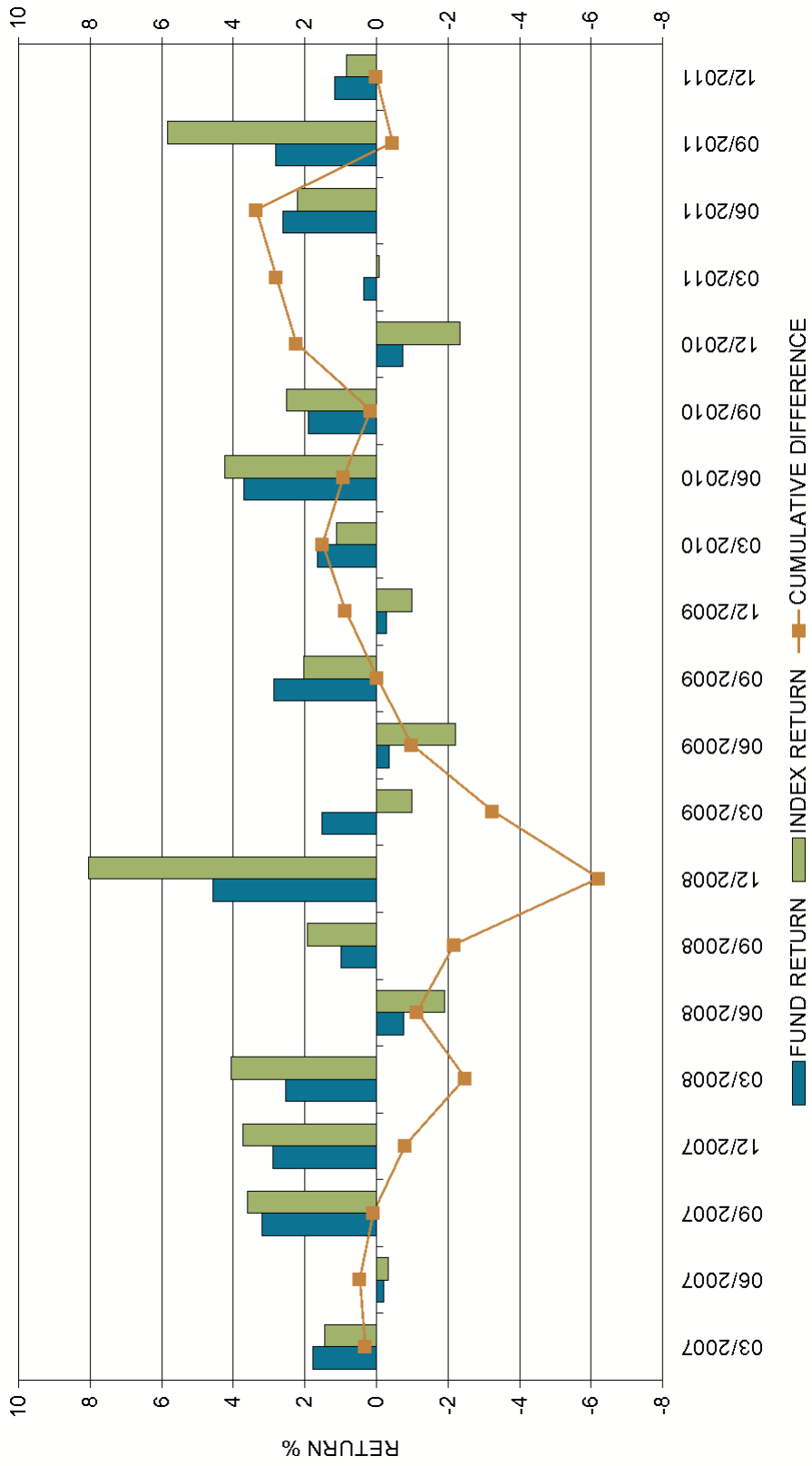
Historic Beta	0.65
R-squared	0.77
Jensen's Alpha	2.74
Sharpe Ratio	1.24
Treynor Ratio	9.54
Information Ratio	0.25

Michigan State Treasury Supersponsor
INTERNAL GOVERNMENT FUND

Index: BC US Agg Govt

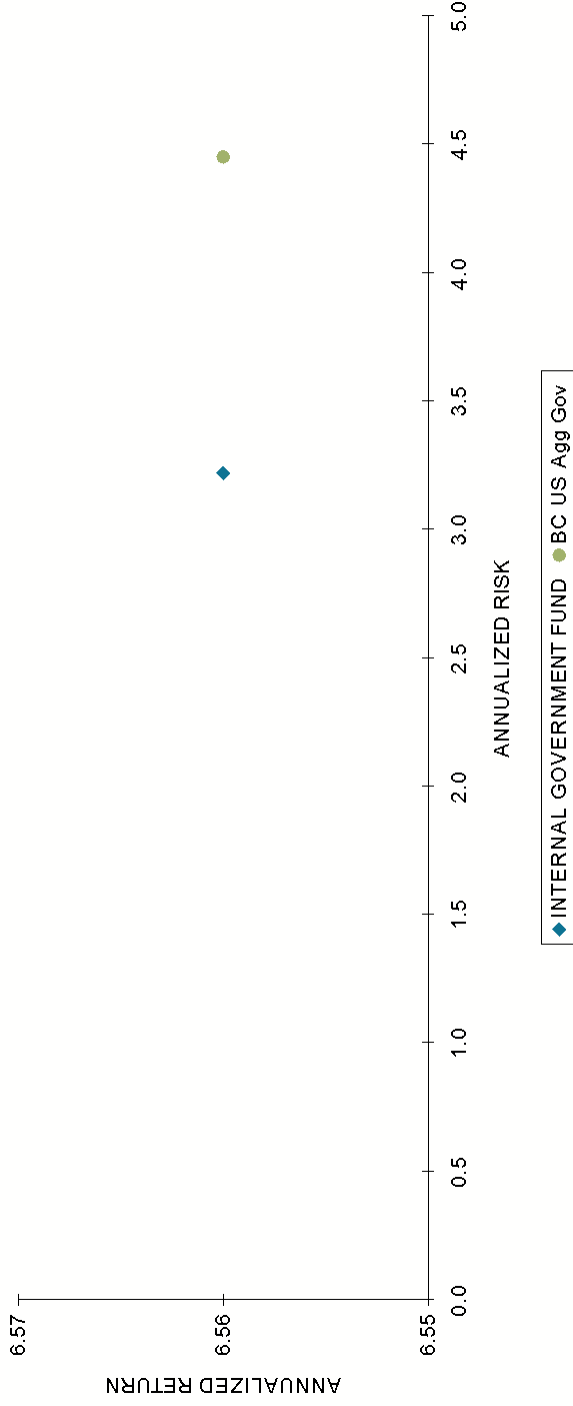
PERIODS: December 31, 2006 - December 31, 2011

CUMULATIVE PERFORMANCE REPORT



**Michigan State Treasury Supersponsor
INTERNAL GOVERNMENT FUND
Index: BC US Agg Govt
PERIODS: December 31, 2006 - December 31, 2011**

RISK VS. RETURN



RISK INFORMATION

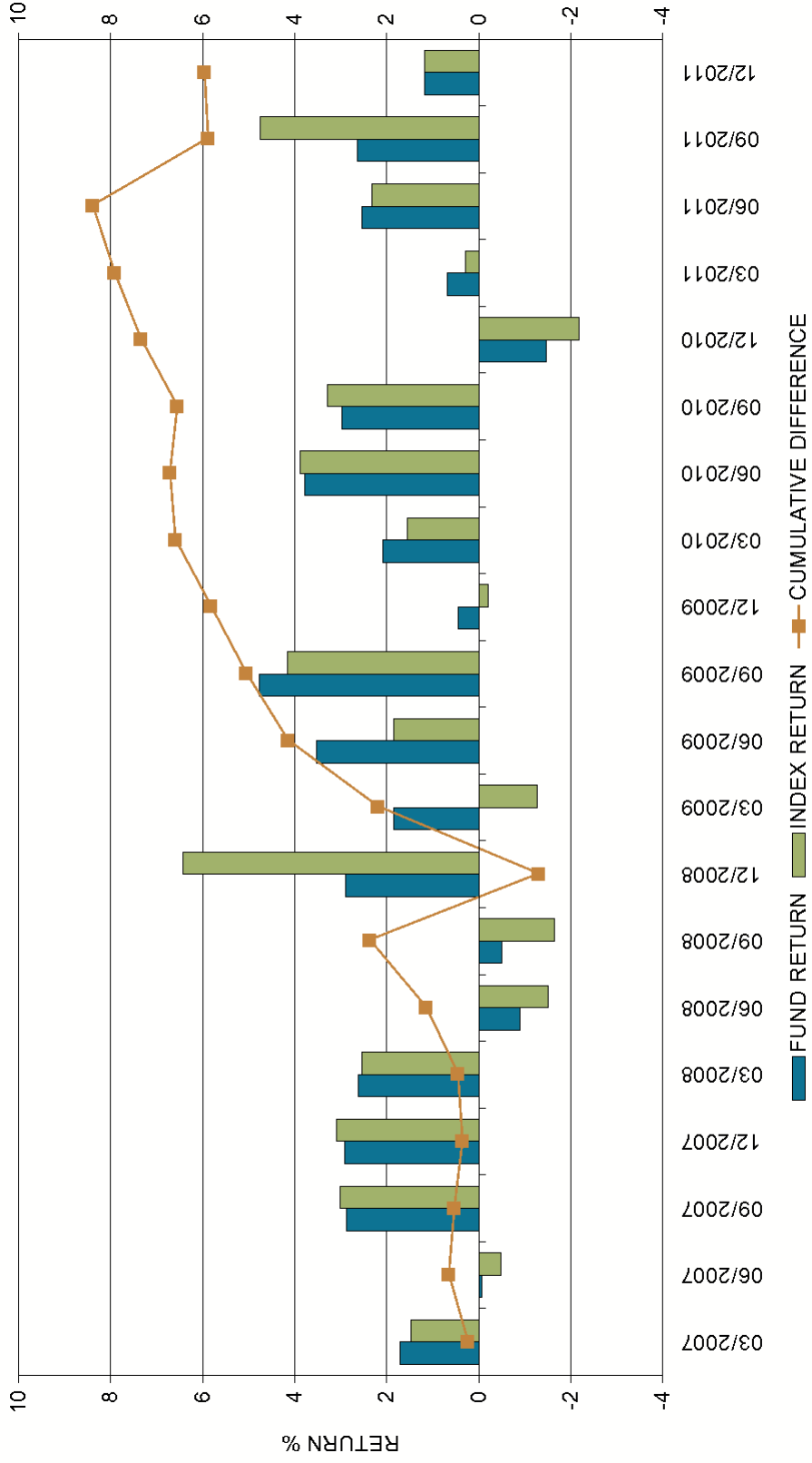
Portfolio Return	6.56
Benchmark Return	6.56
Return Differences	0.00
Portfolio Standard Deviation	3.22
Benchmark Standard	4.45
Tracking Error	2.08

RISK STATISTICS

Historic Beta	0.66
R-squared	0.80
Jensen's Alpha	1.75
Sharpe Ratio	1.58
Treynor Ratio	7.75
Information Ratio	0.00

Michigan State Treasury Supersponsor
DOMESTIC FIXED INCOME AGGREGATE
Index: BC Govt/CREDIT
PERIODS: December 31, 2006 - December 31, 2011

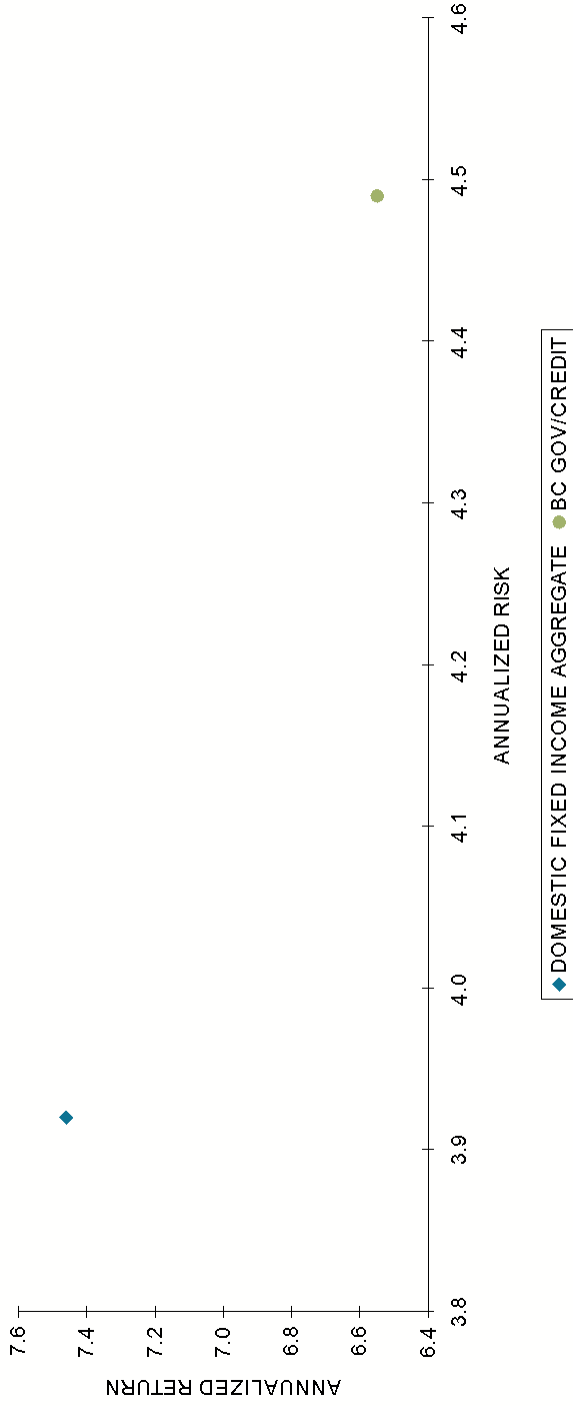
CUMULATIVE PERFORMANCE REPORT



**Michigan State Treasury Supersponsor
DOMESTIC FIXED INCOME AGGREGATE**
Index: BC GOVT/CREDIT

PERIODS: December 31, 2006 - December 31, 2011

RISK VS. RETURN



RISK INFORMATION

Portfolio Return	7.46
Benchmark Return	6.55
Return Differences	0.91
Portfolio Standard Deviation	3.92
Benchmark Standard	4.49
Tracking Error	1.89

RISK STATISTICS

Historic Beta	0.80
R-squared	0.83
Jensen's Alpha	1.94
Sharpe Ratio	1.53
Treynor Ratio	7.50
Information Ratio	0.48

State of Michigan Retirement Systems
Corporate Fixed Income Internal Holdings

Portfolio Characteristics

Benchmark: Barclays Capital U.S. Credit

<i>Characteristic</i>	December 31, 2011			September 30, 2011		
	<i>Portfolio</i>	<i>Benchmark</i>	<i>Relative (%)</i>	<i>Portfolio</i>	<i>Benchmark</i>	<i>Relative (%)</i>
Maturity (Yrs)	4.5	10.7	42.1	5.1	10.7	47.7
Maturity (Yrs) w/Cash Equiv.	4.4	10.7	41.1	5.1	10.7	47.7
Duration (Yrs)	3.8	6.8	55.9	4.3	6.8	63.2
Duration (Yrs) w/Cash Equiv.	3.7	6.8	54.4	4.2	6.8	61.8
Coupon (%)	4.9	5.4	90.7	4.9	5.4	90.7
Yield to Maturity (%)	2.2	3.6	61.1	2.3	3.7	62.2
Moody's Quality	A-3	A-3		A-3	A-3	
S&P Quality	A	A-		A	A-	

State of Michigan Retirement Systems
Government Fixed Income Internal Holdings

Portfolio Characteristics

Benchmark: Barclays Capital Government

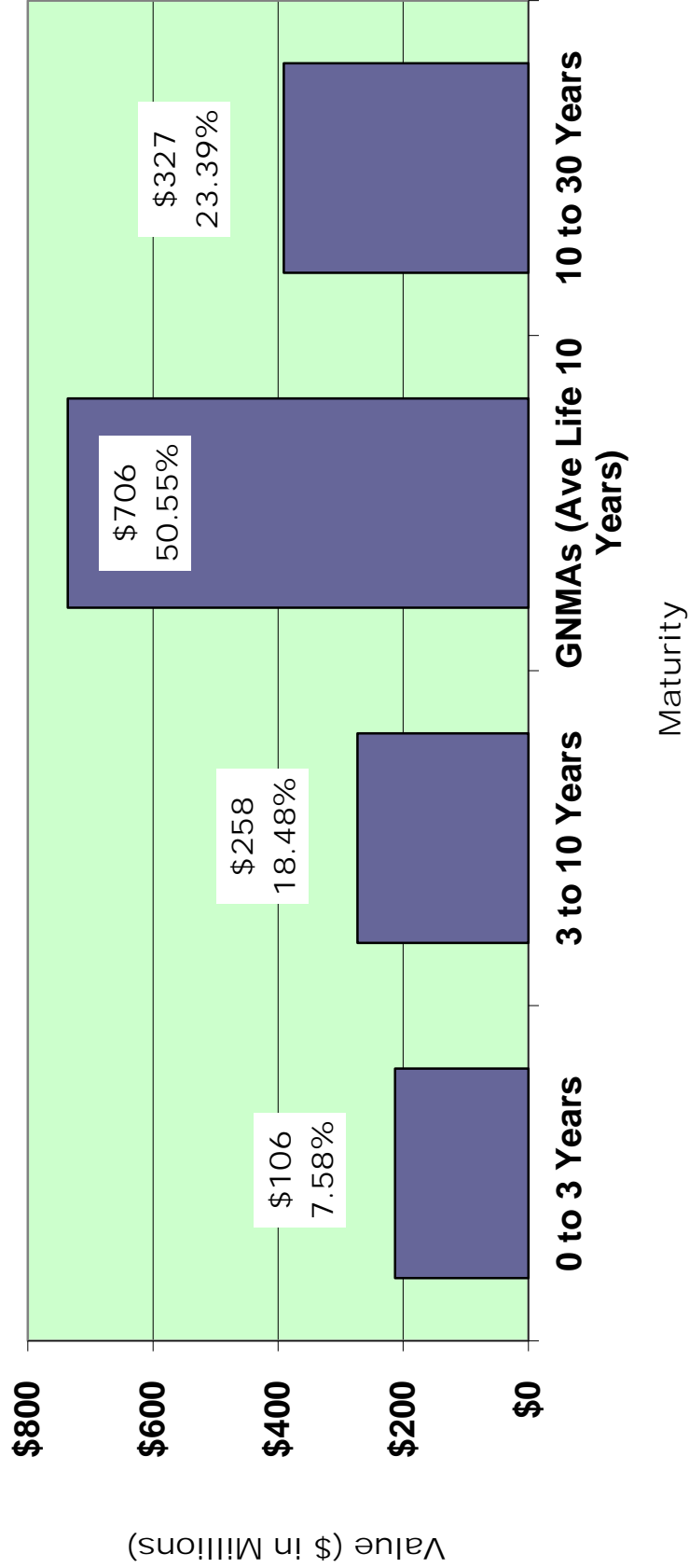
December 31, 2011 September 30, 2011

<i>Characteristic</i>	December 31, 2011		September 30, 2011	
	<i>Portfolio</i>	<i>Benchmark</i>	<i>Portfolio</i>	<i>Benchmark</i>
	<i>Relative (%)</i>		<i>Relative (%)</i>	
Maturity (Yrs)	5.1	6.9	73.9	7.0
Maturity (Yrs) w/Cash Equiv.	4.7	6.9	68.1	7.0
Duration (Yrs)	3.4	5.5	61.8	5.5
Duration (Yrs) w/Cash Equiv.	3.1	5.5	56.4	5.5
Coupon (%)	4.6	2.8	164.3	2.9
Yield to Maturity (%)	1.8	1.0	180.0	1.1
Moody's Quality	AGY	TSY	AGY	TSY
S&P Quality	AGY	TSY	AGY	TSY

Fixed Income Internal Portfolio
 Government Portfolio Maturity Distribution

As of December 31, 2011

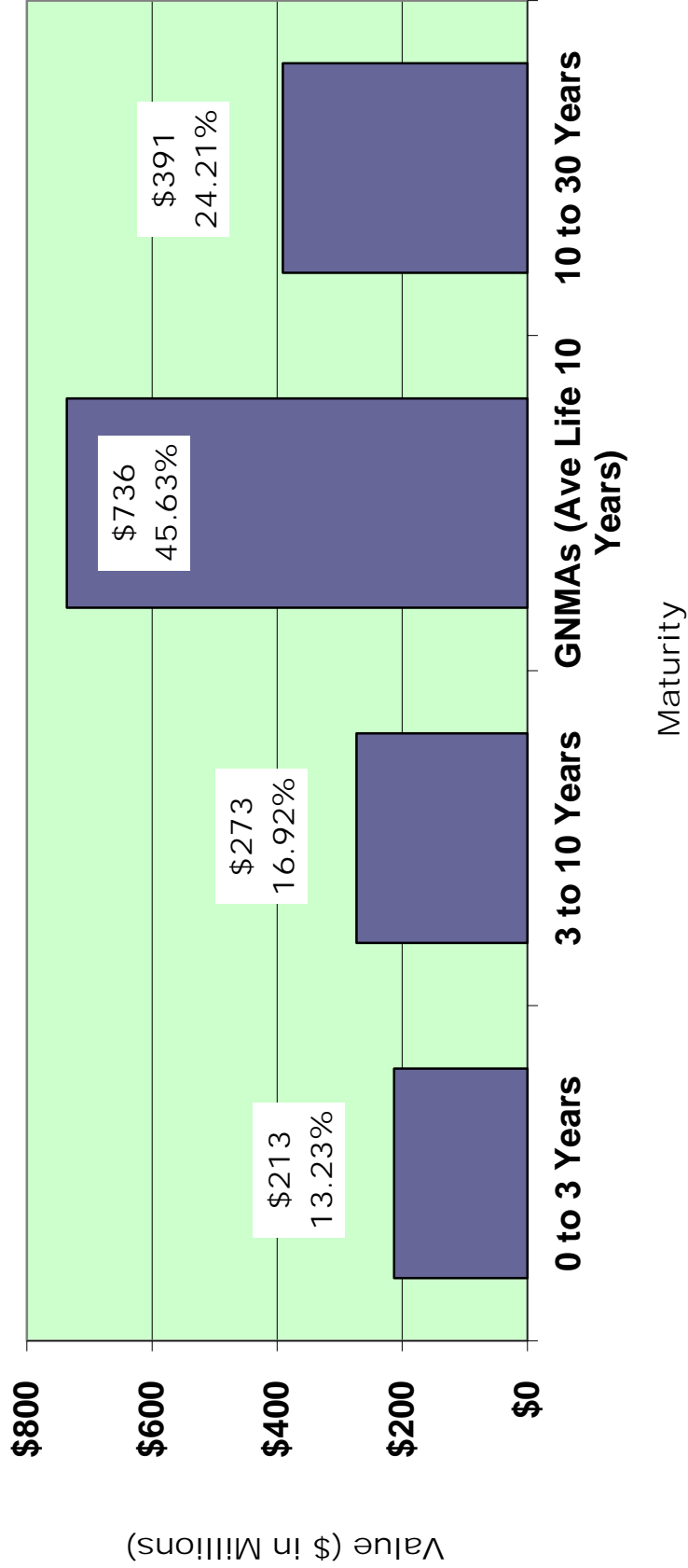
Average Maturity of July 2021
 Total Market Value \$1,398 Million



Fixed Income Internal Portfolio
 Government Portfolio Maturity Distribution

As of September 30, 2011

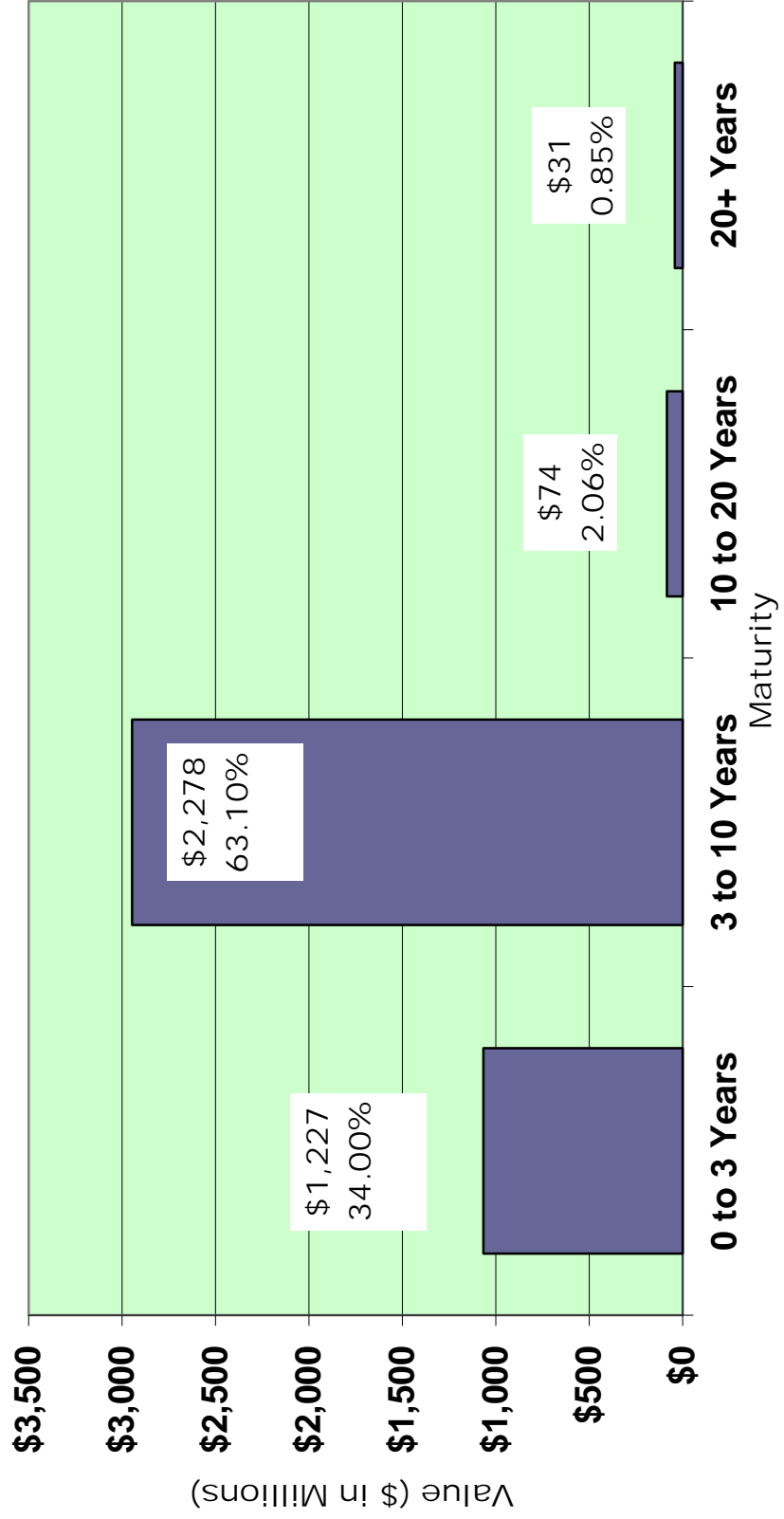
Average Maturity of July 2020
 Total Market Value \$1,613 Million



Fixed Income Internal Portfolio Corporate Portfolio Maturity Distribution

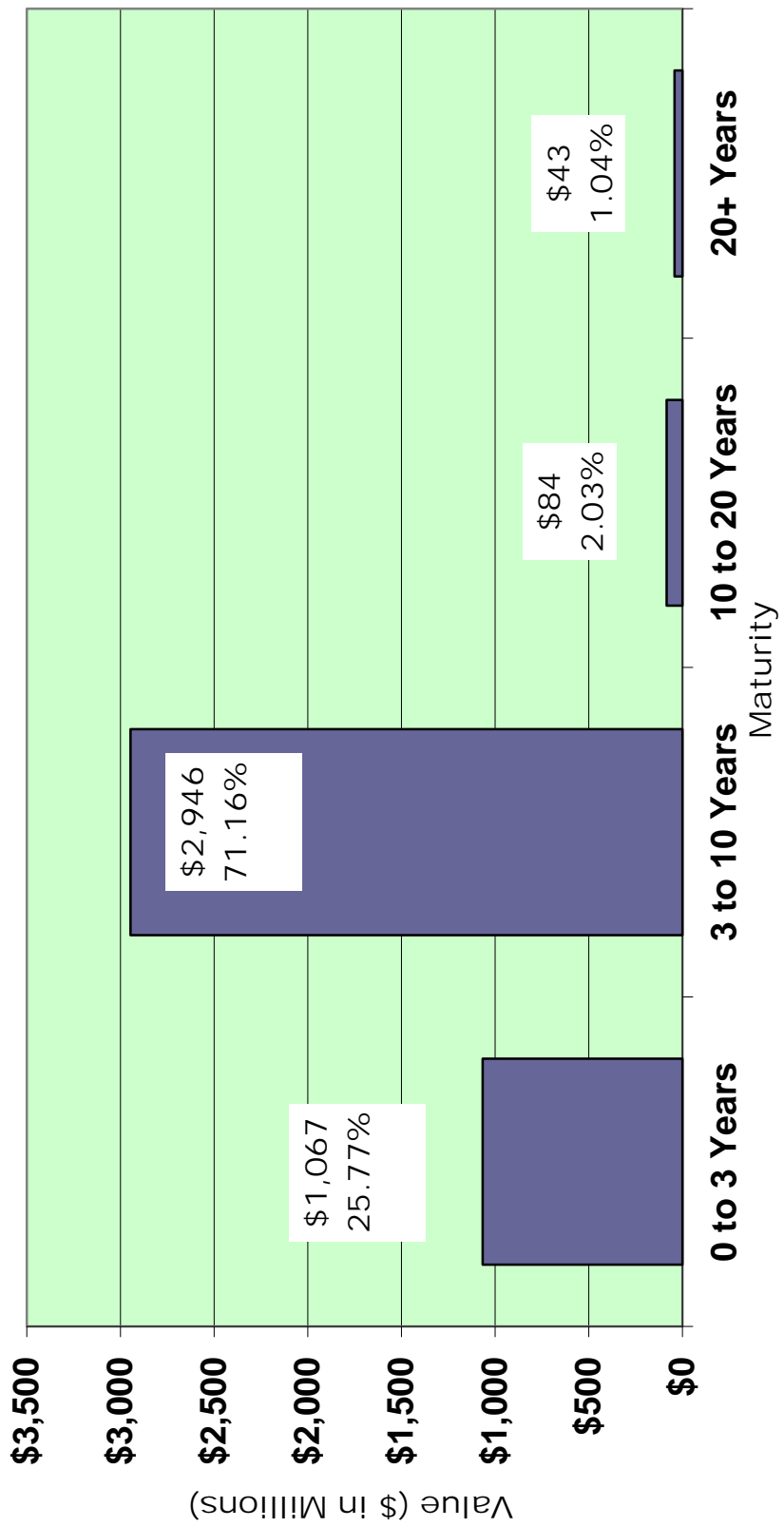
As of December 31, 2011

Average Maturity of August 2016
Total Market Value \$3,610 Million



Fixed Income Internal Portfolio
 Corporate Portfolio Maturity Distribution
 As of September 30, 2011

Average Maturity of September 2016
 Total Market Value \$4,140 Million



Fixed Income Internal Portfolio Top Ten Corporate Holdings

As of December 31, 2011

Name	Par Value	Market Value	Rating*	% of Total Portfolio
General Electric Capital Corp.	\$181,675,000	\$177,051,844	Aa2/AA+	3.53%
E.I. Du Pont de Nemours & Co.	\$70,000,000	\$78,887,498	A2/A	1.58%
DTE Energy Co.	\$66,750,000	\$78,105,733	A2/A	1.56%
Target Corp.	\$60,000,000	\$71,322,720	A2/A+	1.42%
Emerson Electric Co.	\$60,470,000	\$69,649,727	A2/A	1.39%
The Dow Chemical Co.	\$60,757,000	\$68,225,554	Baa3/BBB	1.36%
American Honda Finance Corp.	\$56,000,000	\$57,846,816	A1/A+	1.15%
Abbott Laboratories	\$49,969,000	\$56,984,311	A1/AA	1.14%
Merck & Co.	\$50,000,000	\$56,705,070	Aa3/AA	1.13%
Consumers Energy Co.	\$45,905,000	\$55,794,270	A3/BBB+	1.11%
TOTAL	<u>\$701,526,000</u>	<u>\$770,573,544</u>		15.38%

As of September 30, 2011

Name	Par Value	Market Value	Rating*	% of Total Portfolio
General Electric Capital Co.	\$181,675,000	\$175,919,252	Aa2/AA+	3.06%
Emerson Electric Co.	\$100,470,000	\$115,474,334	A2/A	2.01%
Royal Dutch Shell PLC (CL B)	\$97,320,000	\$110,222,199	Aa1/AA	1.92%
Eli Lilly & Co.	\$80,000,000	\$91,638,495	A2/AA-	1.59%
GlaxoSmithKline Capital	\$75,000,000	\$84,494,928	A1/A+	1.47%
Eaton Corp.	\$70,000,000	\$78,195,405	A3/A-	1.36%
E.I. DuPont de Nemours & Co.	\$70,000,000	\$77,597,530	A2/A	1.35%
DTE Energy Co.	\$66,750,000	\$76,908,483	A2/A	1.34%
Target Corp.	\$60,000,000	\$70,194,630	A2/A+	1.22%
The Dow Chemical Co.	\$60,757,000	\$67,604,678	Baa3/BBB	1.18%
TOTAL	<u>\$861,972,000</u>	<u>\$948,249,933</u>		16.48%

*Moody's/Standard & Poor's

Fixed Income Internal Portfolio (Purchases) / Sales

October 1, 2011 - December 31, 2011

GOVERNMENT PORTFOLIO	
<i>Purchases</i>	<i>Market Value</i>
U.S. Agencies	(\$96,700,000)
Gov Guar	(\$2,000,000)
GNMA'S	<u>(\$10,574,147)</u>
Total Purchases	(\$109,274,147)
<i>Sales/Calls/Maturities</i>	
U.S. Agencies	71,640,000
U.S. Guaranteed	60,229,901
GNMA's	<u>5,047,595</u>
Total Sales/Calls/Maturities	\$136,917,496
 NET SALES	 <u><u>\$27,643,349</u></u>

CORPORATE PORTFOLIO	
<i>Purchases/Transfers</i>	<i>Market Value</i>
A	(\$4,994,900)
BBB	<u>(\$42,171,945)</u>
Total Purchases/Transfers	(\$47,166,845)
<i>Sales/Calls/Maturities</i>	
AAA	\$47,180,000
AA	\$227,461,154
A	\$299,415,483
BBB	<u>30,854,660</u>
Total Sales/Calls/Maturities	\$604,911,297
 NET SALES	 <u><u>\$557,744,452</u></u>

**STATE OF MICHIGAN
RETIREMENT SYSTEMS**

BASKET CLAUSE REVIEW

INVESTMENT ADVISORY COMMITTEE MEETING

MARCH 1, 2012



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

BASKET CLAUSE INVESTMENTS

The basket clause investments at December 31, 2011, were \$2,829 million fair market value (“FMV”) or 5.878% of the total portfolio market value of \$48.123 billion.

		<u>December 31, 2011</u>	
Total Absolute and Real Return	(FMV)	\$2,722,027,832	5.656%
Total International Equity	(FMV)	<u>\$ 107,008,151</u>	0.222%
Total investments to date	(FMV)	\$2,829,035,983	5.878%

STATE OF MICHIGAN RETIREMENT SYSTEMS
Section20D Investment Holding - 12/31/2011

COMPANY NAME	FAIR MARKET VALUE
ABSOLUTE AND REAL RETURN	
Abernathy Fund	53,175,634
Emerald Performance Materials	50,920,889
Fairfield Settlement Partners	64,305,895
FrontPoint Michigan Strategic Partnership Fund	8,075,885
Galaxie Avenue, LLC	104,317,001
Global Maritime Investment Fund	4,773,034
Hopen Life Sciences Fund II	1,864,778
HPS Senior Loan Fund II	146,524,711
Lakewater LLC	79,877,596
PSAM - Spartan Fund	27,307,911
Sand Hill, LLC	970,758,276
SJC Direct Lending Fund	127,256,138
Social Network Holdings, LLC	463,879,989
Stone Tower Capital Credit Fund	257,800,918
Stone Tower Capital Credit Strategies	105,369,574
Tahquamenon LP	255,819,603
TOTAL ABSOLUTE AND REAL RETURN	<u>\$2,722,027,832</u>
INTERNATIONAL EQUITY	
LACM Emerging Markets Fund	107,008,151
TOTAL INTERNATIONAL EQUITY	<u>\$107,008,151</u>
GRAND TOTAL	<u><u>\$2,829,035,983</u></u>
TOTAL 20D INVESTMENTS	5.879%
as % of TOTAL PORTFOLIO (MKT)	
\$48,123 million	

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.

