

City of Hartford Pension Commission
City Conference Room
260 Constitution Plaza
Hartford, Connecticut
Friday, May 31, 2013
9:00 a.m.

AGENDA

INVESTMENT PROGRAM

- I. **Review of Minutes: Meeting of April 26, 2013**

- II. **Status of the MERF Portfolio as of April 30, 2013**
 - **Inventory of Assets**
 - **MERF's Overall Performance**

- III. **NEPC**
 - **Quarterly MERF Performance**

- IV. **Investment Policy Statement Recommendations**
 - **Revision to Target Asset Allocation**
 - **Hedge Fund Section**

- V. **Master Custodian Contract Extension**

- VI. **PIMCO Long Duration Fixed Income Guidelines**

- VII. **Report on Annual Performance Review Meeting**
 - **ING Investment Management**

- VIII. **Other Business**



CITY OF HARTFORD
PENSION COMMISSION

MEMORANDUM

To: Pension Commission
From: Adam M. Cloud, Secretary
Date: May 17, 2013
Subject: Review of Minutes from the Meeting of April 26, 2013

Enclosed for your review are the minutes of the investment portion of the Pension Commission meeting of Friday, April 26, 2013.

City of Hartford Pension Commission
City of Hartford Conference Room
260 Constitution Plaza
Hartford, CT 06103
Friday, April 26, 2013
9:00 a.m.

MINUTES

INVESTMENT PROGRAM

MEMBERS PRESENT: Peter Stevens, Chairman; Frank Lord, Commissioner; Gene Goldman, Commissioner; Marc Nelson, Employee Representative; Adam M. Cloud, Secretary and Carmen I. Sierra, Assistant Secretary

STAFF PRESENT: Gary B. Draghi, Director of Investments; P. Wayne Moore, Assistant Director of Investments; J. Sean Antoine, Principal Administrative Analyst; Terry Williams, Senior Administrative Assistant; Donna Parker, Plan Administrator and Anne Coleman, Assistant Plan Administrator

OTHERS PRESENT: Kristin Finney-Cooke, NEPC and Lisa Silvestri, Assistant Corporation Counsel

I. Review of Minutes: Meeting of March 22, 2013

Acting Chairman Lord introduced the item and asked for questions, comments or corrections. There were none.

A motion was made, seconded and adopted to accept the minutes as presented.

II. Status of the MERF Portfolio as of March 31, 2013

Acting Chairman Lord introduced the item and asked the Investment Unit to report. J. Sean Antoine, the MERF's Principal Administrative Analyst, reported that, at March 31, 2013, the MERF portfolio had a market value of approximately \$988.8 million and had generated a 1.1% return net of fees for the month, outperforming the benchmark return of 1.0%, by 10 basis points. He asked if there were any questions. There were none.

Secretary Cloud stated that NEPC, staff and he were continuing to monitor ING, a small capitalization growth equity manager for the MERF. He informed the Commission that ING's initial public offering ("IPO") would be coming to the market soon and that ING's communication was still lacking. He also noted that the MERF would be holding its annual review meeting with ING in May and would use this opportunity to discuss investment performance, communication and the issues relating to the IPO. Discussion ensued.

The Commission accepted the report for advice.

III. NEPC Update

Private Debt

Acting Chairman Lord introduced the item. Secretary Cloud asked Ms. Kristin Finney-Cooke of NEPC, the MERF's general investment consultant, to address the Commission. She stated that NEPC continues to evaluate potential private debt managers for the MERF's consideration, including managers that have visited NEPC as well as managers referred by the MERF to NEPC. She indicated that NEPC would update the MERF staff as additional opportunities emerge.

Acting Chairman Lord asked if the MERF would search for one or two managers for this mandate. Mr. Gary Draghi, the MERF's Director of Investments, stated that this asset class would operate more like the MERF's private equity portfolio, where there could be a few different partnerships, and that the Secretary, staff and the MERF's consultant would conduct due diligence on any firm or partnership before presenting potential investments to the Pension Commission for approval. Ms. Finney-Cooke concurred and suggested that there would likely be approximately three managers in this mandate. Discussion ensued.

The Commission accepted the report for advice.

NEPC Update-(continued)

Hedge Funds

Ms. Finney-Cooke noted that, with regard to the MERF's hedge fund mandate, NEPC had drafted Investment Policy Statement language for this asset class. Mr. Draghi added that staff had reviewed and submitted edits to NEPC and that a final draft would follow in the near future. Discussion ensued.

The Commission accepted the report for advice.

IV. Investment Policy Statement Revision Recommendation

Chairman Stevens introduced the item. Secretary Cloud stated that the attached documents proposed edits to the MERF's Funding and Investment Policy Statement ("FIPS") reflecting changes to the MERF's target asset allocation and asset class policy benchmarks. He stated that these changes incorporate the recommendations proposed by NEPC, the MERF's general investment consultant. He added that it would be discussed further at the next Pension Commission meeting. Discussion ensued.

The Commission accepted the report for advice.

V. Report on Annual Performance Review Meetings

Acting Chairman Lord introduced the item. Secretary Cloud stated that the reports were self-explanatory and asked if there were any questions. There were none.

The Commission accepted the report for advice.

VI. Other Business

Acting Chairman Lord introduced the item. Mr. Draghi reported that staff had rebalanced the portfolio to bring the emerging markets equity portfolio within its target range. He noted that this was accomplished by reducing the overweights to non U.S. developed markets equity, high yield fixed income and emerging markets debt.

Other Business-(continued)

Mr. Draghi also reported that progress was being made regarding the extension of the BNY Mellon ("BNYM") custody contract. He added that, potentially, the current proposal achieves savings for the MERF in excess of \$100,000 dollars annually, and that even greater savings could be achieved should the MERF decide to participate in a securities lending program with BNYM. Mr. Draghi stated that he hoped to have the terms of the proposed contract amendment finalized and ready for the Commission's approval for the next meeting.

In response to a request from Acting Chairman Lord, Secretary Cloud recommended that staff do a brief presentation on securities lending to cover changes to the program since the last MERF review. He also suggested the possibility of having a representative from BNYM give a presentation on the matter.

Mr. Draghi reported that staff had recently communicated with certain of the MERF's fixed income managers, including Hartford Investment Management Company and Pacific Investment Management Company, to explore potential guideline changes that would allow these managers to protect the MERF portfolios that they manage in the event of sudden rises in interest rates. Mr. Draghi stated that staff would review these ideas with NEPC and then follow up with a report to the Commission.

Mr. Draghi concluded by informing the Commission that NEPC was evaluating local currency emerging market debt products, including those offered by Prudential, the MERF's emerging markets debt manager, to determine how these products could potentially benefit the MERF.

Secretary Cloud noted that he included some material for the Commissioners to review at their leisure. Discussion ensued.

The Commission accepted the report for advice.

There being no further business, Acting Chairman Lord adjourned the meeting.

ATTEST: 
Adam M. Cloud, Secretary



CITY OF HARTFORD

PENSION COMMISSION

MEMORANDUM

To: Pension Commission
From: *ame*
Adam M. Cloud, Secretary
Date: May 17, 2013
Subject: **Status of MERF Portfolio as of April 30, 2013**

Portfolio and performance report for the month of April 30, 2013.

INTEROFFICE MEMORANDUM

TO: Adam M. Cloud, City Treasurer
Carmen I. Sierra, Assistant City Treasurer

FROM: Gary B. Draghi, Director of Investments *gbd*
P. Wayne Moore, Assistant Director of Investments *PWM*
J. Sean Antoine, Principal Administrative Analyst *JSA*

DATE: May 20, 2013

SUBJECT: Status of MERF Investment Portfolio as of April 30, 2013

At April 30, 2013, the market value of the MERF's investment portfolio approximated \$1 billion dollars. The portfolio generated a 1.8% return net of fees for the month (see attached), matching the MERF policy benchmark return of 1.8%.

Investment returns, net of fees, for the various asset classes and their benchmarks were as follows:

	Assets (\$Millions)	Allocation %		Net	Benchmark Returns	Return Variance
		Actual (B)	Policy	Portfolio Returns		
Alternatives	75.7	7.6%	17.0%	0.8%	1.6%	-0.8%
Equity	445.1	44.4%	37.0%	1.8%	2.5%	-0.7%
Fixed Income	387.2	38.7%	38.0%	2.1%	2.3%	-0.2%
GTAA	49.7	5.0%	5.0%	1.9%	2.4%	-0.5%
Other	0.0	0.0%	3.0%	0.0%	0.0%	0.0%
Cash (A)	44.0	4.4%	0.0%	0.0%	0.0%	0.0%
Total Portfolio	1,001.6	100.0%	100.0%	1.8%	1.8%	0.0%

Note: Differences due to rounding

(A) Includes Benefit Payment Fund with a balance approximating \$32.9 million.

(B) The MERF is transitioning its investment allocation to conform to the policy allocation targets adopted in July, 2011. The MERF anticipates that it will take approximately 2 years to complete this process.

UPDATED INFORMATION

The period from May 1 to May 17, 2013 was positive for domestic equities, as the Russell 3000 Index experienced a positive 4.54% return. The small capitalization sector was outperforming

both the large and medium capitalization sectors for the period. Through May 17th, growth was outperforming value across all cap sectors except for the large cap sector. (See enclosed copy of the Russell Investment Group's report entitled "Russell U.S. Indexes Daily Total Returns").

The period from May 1 to May 17, 2013 was positive for developed global equities markets as the Russell Global Index experienced a positive 2.6% return. Emerging Markets experienced positive returns as the Russell Emerging Markets Index returned a positive 1.2% for the same period (See enclosed copies of Russell Investment Group reports).

City of Hartford MIERF
 Net of Fees - Final
 Performance Page
 Period Ending April 30, 2013

	Market Value	% of Total Fund	April	Fiscal		1 Year	3 Years	5 Years	7 Years	10 Years	Inception to Date	Incept. Date
				YTD	YTD							
Total Plan Consolidation	\$1001.6	100.0 %	1.8 %	3.1 %	12.3 %	4.7 %	10.8 %	9.3 %	5.2 %	7.6 %	8.6 %	
Policy Benchmark	(1)	1.6	2.9	12.3	4.8	10.2	9.5	5.7	6.2	8.0	8.6	1/31/1986
Total Plan Wgt'd Benchmark	(2)	1.9	3.4	17.8	5.6	10.0	8.4	4.8	6.0	7.8	7.3	2/28/1990
Policy-Capitalization Based	(3)	1.6	4.5	13.5	12.0	9.7	9.7	5.8	5.9	7.8	6.9	9/30/2004
CPI Plus 3.5%	(4)	0.2	1.8	4.2	2.4	4.6	5.7	5.1	5.6	5.9	5.9	12/31/1996
Liquidity Portfolio		139.0	13.9	1.6	2.9	14.6	6.4	6.5	6.1	8.7	7.4	5/31/2009
Liquidity Policy	(5)	2.4	3.8	13.5	5.7	12.0	10.1	6.1	6.3	8.1	8.6	2/28/1990
Asset Allocation Fund	(6)	106.1	10.6	2.2	3.8	13.9	6.7	7.7	7.7	10.7	9.9	4/30/2009
Asset Allocation Benchmark	(7)	32.9	3.3	0.0	0.0	0.3	0.1	0.4	0.6	0.3	2.1	4/30/2009
Benefits Payment Fund				0.0	0.0	0.1	0.1	0.1	0.3	1.5	2.0	12/31/1996
U.S. Treasury 3 Month T-Bills				0.0	0.0	0.0	0.0	0.1	0.3	1.7	1.7	12/31/1996
Total Equity Consolidation ex Alternatives	\$20.9	52.0	1.7	4.1	18.2	7.8	14.2	10.5	2.6	3.7	7.3	1/31/1997
Total Equity Consolidation		446.1	44.4	1.8	4.5	8.9	14.5	10.0	2.7	4.9	2.6	2/28/2007
Comb Equity Wgt'd Benchmark	(8)	2.5	5.3	21.4	10.5	16.4	10.3	3.6	4.9	8.5	7.5	9/30/2004
Global Equity		67.1	6.7	2.7	5.0	21.3	10.1	9.3	9.3	15.8	16.0	4/30/2009
State Street Global Advisors		67.1	6.7	2.7	5.0	21.3	10.1	9.3	9.3	15.8	16.0	4/30/2009
MSCI AWCI Invest Mkts Index				2.7	4.8	20.8	9.7	8.9	8.9	15.2	19.2	4/30/2009
Domestic Equity		249.7	24.9	0.6	4.4	16.9	8.4	13.7	4.1	4.1	7.1	7/31/1996
Russell 3000 Index				1.6	7.0	20.2	12.9	12.6	5.6	5.2	7.4	7/31/1996
US Equity Policy-Cap Based	(9)	1.4	6.8	20.2	12.8	17.3	12.6	5.9	5.2	8.8	7.1	12/31/1996
Domestic Equity Active		221.3	22.1	0.8	4.5	17.1	8.4	13.7	4.5	4.4	8.7	6/30/1998
Public Equity Active		174.0	17.4	0.5	5.7	19.8	11.4	13.0	5.3	4.5	7.4	8/31/1996
Alternatives		75.7	7.6	0.8	1.6	10.2	13.1	15.2	6.0	8.0	8.3	2/28/2007
Russell 3000 Index				1.6	7.0	20.2	12.9	12.8	5.6	5.2	6.6	10/31/1997
International Equity		204.1	20.4	2.7	3.4	18.6	6.3	7.8	0.6	3.1	6.2	9/30/1997
Russell Global Ex-US Equity	(10)	3.6	3.1	22.6	7.4	14.7	6.8	0.1	2.9	10.4	4.9	7/31/1999
Infl Developed Markets Active		133.9	13.4	3.4	5.3	20.0	8.3	9.0	1.8	3.3	6.2	6/30/1999
Infl Emerging Active		70.1	7.0	1.1	(0.6)	15.6	1.8	3.6	(2.0)	15.4	9.0	4/30/2000
MSCI EAFE Composite				5.3	5.3	26.4	10.8	8.0	2.2	9.7	4.5	6/30/1999
Total Global Asset Allocation		49.7	5.0	1.9	2.2	12.6	5.0	6.0	—	—	9.3	4/30/2012
60 MSCI World 40 Cit/ MSCI				2.4	3.3	12.6	6.0	9.8	—	—	9.0	4/30/2012
Total Fixed Income		387.2	38.7	2.1	2.3	6.4	1.3	7.7	7.7	7.4	6.8	7/31/1997
Custom Fixed Benchmark	(11)	2.3	2.5	6.1	1.4	7.9	9.8	8.4	—	—	8.2	1/31/2007
Barclays Capital Aggregate Bond		7.0	2.7	7.6	0.9	3.7	3.5	5.7	6.1	5.0	6.1	7/31/1997
Comb Fixed Income Wgt'd Bmk	(12)	1.2	1.2	2.5	0.4	3.0	5.5	5.2	6.0	—	5.2	9/30/2004
US Core/Corp Plus		100.8	10.1	1.1	1.7	4.1	1.3	8.7	4.9	5.3	5.8	7/31/1996
US Core/Corp Plus Fixed Income Active		69.2	6.9	1.3	2.1	5.3	1.7	6.4	5.8	4.7	6.0	7/31/1996
US Core/Corp Plus Passive		31.6	3.2	0.6	0.9	1.7	2.2	3.8	2.8	4.0	4.8	5/31/1998
Total Long Duration		87.2	8.7	3.6	4.4	5.4	1.7	12.6	12.0	—	11.6	3/31/2008
Long Duration Active		79.8	8.0	3.6	4.4	5.9	1.8	12.6	—	—	12.3	6/30/2008
Long Duration Passive		7.4	0.7	4.0	4.6	0.3	0.8	13.1	10.0	—	9.7	3/31/2008
Global Fixed		32.7	3.3	1.1	(0.3)	(0.4)	(2.0)	3.8	4.2	—	5.9	2/28/2007
Global Fixed - Active		32.7	3.3	1.1	(0.3)	(0.4)	(2.0)	3.7	4.2	—	5.9	2/28/2007
Inflation Linked Bonds Active		55.2	5.5	0.7	1.3	4.1	0.6	8.2	5.9	—	6.9	2/28/2007
Emerging Mkts Debt Active		68.0	6.8	3.3	2.7	14.7	1.8	12.2	11.8	—	10.4	2/28/2007
High Yield		43.3	4.3	1.7	2.4	9.6	10.1	—	—	—	9.0	7/31/2010
Cash - Active		44.0	4.4	0.0	0.0	0.1	0.1	0.4	1.1	2.1	2.7	7/31/1997
U.S. Treasury 3 Month T-Bills	(13)	0.0	0.0	0.0	0.0	0.1	0.1	0.1	1.5	1.7	2.8	12/31/1996

Annualized

City of Hartford MERF

Footnotes

Performance Page

Period Ending April 30, 2013

No.	Name	Footnote
1	Policy Benchmark	<p>January 2012 to Current: 16% Russell 3000, 12% Russell Global EX US, 10% BC Aggregate, 10% BC GOVT/Credit Long, 9% MSCI Emerging Markets (NET), 7% Russell 3000 + 300 bps, 5% JPM EMBI Global, 5% BC Global Inflation Linked - US TIPS, 5% NCREIF Property Index, 5% HFRI FOF, 5% 60 MSCI World/40 Cit/ WGB, 4% BC Global Aggregate, 4% Citigroup High Yield, 3% S&P GSCI Commodity Index.</p> <p>October 2007 to December 2011: 48.5% Custom Fixed Benchmark, 25% Russell 3000, 25% Russell Global ex-US Equity Index, 1.5% 90 Day T-Bills.</p> <p>Prior to October 2007: 33% Russell 3000, 45% Barclays Capital Aggregate, 17% FTSE World Europe & Pacific, 3% Citigroup WGBI Non-US, 2% Merrill Lynch Treasury 91 day.</p> <p>Weighted average calculation using actual asset allocation percentages and benchmark index returns.</p> <p>10% FTSE World Euro and Pacific, 40% Barclays Capital Aggregate, 40.625% Russell 1000, 9.375% Russell 2000.</p>
2	Total Plan Wgtd Benchmark	
3	Policy-Capitalization Based	
4	CPI plus 3.5%	CPI data reported with one month lag.
5	Liquidity Policy	<p>October 2007 to Current: 48.5% Custom Fixed Benchmark, 25% Russell 3000, 25% Russell Global ex-US Equity Index, 1.5% 90 Day T-Bills. Prior to October 2007: 35% Russell 3000, 17% MSCI EAFE, 45% Barclays Capital Aggregate, 3% Citigroup World Govt Bond Index.</p> <p>Comprised of MERF passive portfolios.</p>
6	Asset Allocation Fund	50% MSCI ACWI Investible Mkt Index, 50% Citigroup World Govt Bond Index
7	Asset Allocation Benchmark	Weighted average calculation using actual asset allocation percentages and benchmark index returns.
8	Comb Equity Wgtd Benchmark	81.25% Russell 1000, 18.75% Russell 2000.
9	US Equity Policy-Cap Based	From October 2007 to Current: Russell Global Ex-US Equity Index. Prior to October 2007: FTSE All World Europe Pacific Index.
10	Russell Global ex U.S. Equity Index	
11	Custom Fixed Benchmark	<p>From January 2012 to Current: 26.32% Barclays Capital Long Govt/Credit Index, 26.32% Barclays Capital Aggregate Index, 13.16% Barclays Capital US TIPS Index, 10.53% Barclays Capital Global Aggregate Un-Hedged Index, 13.16% JPMorgan EMBI Global Index, 10.53% Citigroup High Yield Index.</p> <p>From October 2007 to December 2011: 31% Barclays Capital Long Govt/Credit Index, 20.6% Barclays Capital Aggregate Index, 20.6% Barclays Capital US TIPS Index, 12.4% Barclays Capital Global Aggregate Un-Hedged Index, 10.3% JPMorgan EMBI Global Index, 5.1% Citigroup High Yield Index.</p> <p>Weighted average calculation using actual asset allocation percentages and benchmark index returns.</p> <p>October 2007 to Current: US Treasury 3 Month T-bills. Prior to October 2007: Merrill Lynch Treasury 91 Day.</p>
12	Comb Fixed Wgtd Benchmark	
13	US Treasury 3 Month T-bills	

City of Hartford MERF
 Net of Fees - Final
 Performance Page
 Period Ending April 30, 2013

	Market Value	% of Total Fund	April %	3 Months %	Fiscal YTD %	YTD %	1 Year %	3 Years %	5 Years %	7 Years %	10 Years %	Inception to Date %	Incept. Date	Annualized	
														Value	%
Total Plan Consolidation	\$1001.6	100.0	1.8	3.1	12.3	4.7	10.8	9.3	4.5	5.2	7.6	8.6			
Policy Benchmark (1)			1.8	2.9	12.3	4.8	10.2	9.5	5.7	6.2	8.0	8.6	1/31/1986		
Total Plan Weighted Benchmark (2)			1.9	3.4	11.8	5.6	10.0	8.4	4.8	6.0	7.3	7.3	2/28/1990		
Policy-Capitalization Based (3)			1.6	4.5	13.5	7.6	12.0	9.7	5.8	5.8	7.8	6.9	12/31/1996		
CPI plus 3.5% (4)			0.2	1.8	4.2	2.4	4.6	3.7	5.1	5.6	5.9	5.9	12/31/1996		
Liquidity Portfolio	139.0	13.9	1.6	2.9	14.6	5.4	8.7	6.5	6.1	6.3	8.1	7.4	5/31/2009		
Liquidity Policy (5)			2.4	3.8	13.5	5.7	12.0	10.1	6.1	6.3	8.1	8.6	2/28/1990		
Asset Allocation Fund (6)			2.2	3.8	13.9	6.7	10.7	7.7	6.9	7.0	8.9	9.9	4/30/2009		
Asset Allocation Benchmark (7)			1.9	2.1	9.7	3.8	7.0	6.9	6.9	7.0	8.9	12.1	4/30/2009		
Benefits Payment Fund	32.8	3.3	0.0	0.0	0.3	0.1	0.3	0.4	0.8	1.6	1.8	2.1	10/31/1996		
90 Day T-Bills	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.3	1.5	1.7	2.8	12/31/1996		
Total Equity Consolidation ex Alternatives	520.9	52.0	1.7	4.1	18.2	7.8	14.2	10.5	2.6	3.7	8.5	7.3	1/31/1997		
Total Equity Consolidation (8)			2.5	4.5	19.5	8.9	14.5	10.0	2.7	4.9	8.5	2.6	2/28/2007		
Comb Equity Wgt Benchmark	445.1	44.4	1.8	4.5	19.5	10.5	14.2	10.3	3.6	4.9	8.5	7.5	9/30/2004		
Global Equity	67.1	6.7	2.7	5.0	21.3	10.1	15.8	9.3	4.1	4.1	7.5	7.1	4/30/2009		
SSGA AOM Invest Mkt Index AAF	67.1	6.7	2.7	5.0	21.3	10.1	15.8	9.3	4.1	4.1	7.5	7.1	4/30/2009		
MSCI AIWCI Invest Mkts Index	67.1	6.7	2.7	5.0	21.3	10.1	15.8	9.3	4.1	4.1	7.5	7.1	4/30/2009		
Domestic Equity	249.7	24.9	0.6	4.4	18.9	8.4	14.3	13.7	4.5	4.4	8.5	8.7	7/31/1996		
Russell 3000 Index (9)			1.6	7.0	20.2	12.9	17.2	12.8	5.6	5.2	8.5	5.6	10/31/1997		
US Equity Policy-Cap Based	221.3	22.1	0.8	4.5	17.1	8.4	14.6	13.7	4.5	4.4	8.5	8.7	12/31/1996		
Domestic Equity Active	174.0	17.4	0.5	5.7	19.8	14.4	16.0	13.0	5.3	4.5	8.0	7.4	8/31/1996		
Russell 3000 Index	174.0	17.4	1.6	7.0	20.2	12.9	17.2	12.8	5.6	5.2	8.5	5.6	10/31/1997		
Atlanta Capital Mgmt Large Cap Growth	89.1	8.9	0.8	4.9	17.1	10.0	11.2	11.5	5.4	5.8	7.6	3.4	5/31/1999		
Russell 1000 Growth	82.5	8.2	2.1	7.5	17.1	11.9	12.6	13.4	6.7	6.4	8.1	1.8	8/31/1999		
Eagle Capital Management Large Cap Value	82.5	8.2	1.8	7.0	20.7	13.1	19.9	14.7	8.1	8.0	8.0	10.0	10/31/2003		
Russell 1000 Value	17.4	1.7	1.5	7.0	23.3	14.0	21.8	12.3	4.2	4.0	7.7	7.7	10/31/2003		
ING Investment Management Small Cap Growth	17.4	1.7	10.9	5.5	—	11.6	—	—	—	—	—	15.8	8/31/2012		
Russell 2000 Growth Index (10,7)			0.7	4.7	27.2	11.2	16.8	—	—	—	—	21.2	8/31/2012		
SouthernSun Asset Management	25.1	2.5	0.3	6.4	25.3	13.7	22.2	—	—	—	—	20.3	9/30/2010		
Russell 2500 Value Index	75.7	7.6	0.8	1.6	10.2	1.6	13.1	15.2	6.0	—	—	8.3	2/28/2007		
ALTERNATIVES - CORP	64.2	6.4	0.9	1.8	10.7	1.8	13.7	15.8	6.8	10.7	13.8	12.8	12/31/2002		
ARES Corp. Opportunity Fund	1.0	0.1	0.0	1.8	10.7	1.8	13.7	15.8	6.8	10.7	13.8	12.8	12/31/2002		
ARES Corp. Opportunity Fund II (8.0)			0.0	0.0	25.8	(8.0)	—	10.2	7.0	7.0	—	11.0	2/28/2005		
ARES Corp. Opportunity Fund III	2.4	0.2	0.0	3.6	30.2	3.6	88.2	31.7	18.4	18.4	—	18.2	4/30/2005		
ARES Corp. Opportunity Fund IV	6.1	0.6	0.0	2.0	24.2	2.0	36.7	27.6	—	—	—	20.4	7/31/2008		
ARES Corp. Opportunity Fund V	0.3	0.0	0.0	0.0	—	0.0	—	—	—	—	—	0.0	11/30/2012		
Fairview Ventures III	8.5	0.8	3.4	3.4	12.9	3.4	17.8	12.9	3.3	—	—	1.3	7/31/2007		
Landmark Prrms XI Private Equity	1.8	0.2	0.0	0.0	3.6	0.0	2.3	13.1	(1.8)	9.4	(6.2)	(6.2)	5/31/2003		
Landmark Prrms XII Private Equity	4.9	0.5	0.0	0.0	5.7	0.0	9.4	12.3	3.5	—	—	4.9	8/31/2008		
Landmark Prrms XIV Private Equity	5.4	0.5	0.0	0.0	6.1	0.0	7.6	20.7	—	—	—	4.9	12/31/2008		
Lexington Capital Partners V	2.0	0.2	0.0	0.0	2.4	0.0	3.1	14.7	3.0	11.4	—	14.2	12/31/2002		
Lexington Capital Partners VI	5.9	0.6	0.0	0.0	7.8	0.0	10.1	13.5	4.0	14.1	—	14.1	7/31/2006		
Lexington Capital Partners VII	5.8	0.6	0.0	0.0	12.5	0.0	14.4	(22.7)	3.0	—	—	4.9	12/31/2009		
Parish Capital	3.2	0.3	0.0	0.0	7.0	0.0	14.7	12.8	7.9	—	—	0.9	4/30/2005		
Parish Capital Fund II LP	7.7	0.8	0.0	0.0	2.0	0.0	(1.8)	10.8	1.4	8.0	—	0.4	5/31/2007		
Pegasus Investment Partners LP	2.6	0.3	0.0	0.0	—	0.0	—	—	—	—	—	0.0	1/31/2013		
Smith Whitley & Peihart III	2.7	0.3	0.0	0.0	8.2	5.3	8.2	11.5	—	—	—	0.0	1/31/2009		
Vista Equity Partners IV	4.0	0.4	8.6	17.9	11.3	11.3	11.3	—	—	—	—	8.2	1/31/2012		
Russell 3000 + 300 bps	4.0	0.4	7.8	7.7	22.7	13.8	20.2	15.8	8.7	8.3	11.5	11.1	12/31/2002		

City of Hartford MERF
 Net of Fees - Final
 Performance Page
 Period Ending April 30, 2013

Annualized

ALTERNATIVES - R-E	Market Value	% of Total Fund	April %	3 Months %	Fiscal YTD %	YTD %	1 Year %	3 Years %	5 Years %	7 Years %	10 Years %	Inception to Date %	Incept. Date
Cameron Patton Fund	\$11.5	1.2	0.0	0.5	4.1	0.5	4.1	6.8	(6.3)	(7.9)	(5.6)	(5.8)	7/31/1998
Hertman America Realty Fund	5.9	0.6	0.0	0.0	—	0.0	—	—	—	—	—	0.0	1/31/2013
New Boston Urban Strategy Amer Fund	0.9	0.1	0.0	—	—	—	—	—	—	—	—	0.0	4/30/2013
TA Realty Associates Fund X	3.3	0.3	0.0	1.3	5.2	1.3	5.2	7.7	(3.2)	—	—	0.0	1/31/2007
36 Edwards St., Hartford	1.2	0.1	0.0	—	—	—	—	—	—	—	—	0.0	3/31/2013
NCREIF Property Fund (A/Rears)	0.2	0.0	0.0	2.5	7.8	2.5	10.5	12.6	2.1	6.0	(10.0)	(2.1)	7/31/1998
International Equity	204.1	20.4	2.7	3.4	18.6	6.3	13.5	7.8	0.6	3.1	10.6	6.2	9/30/1997
Russell Global ex U.S. Equity Index	(10)		3.6	3.1	22.5	7.4	14.7	6.8	0.1	2.9	10.4	4.9	7/31/1999
Intl Equity Developed Mkts	133.9	13.4	3.4	5.3	20.0	8.3	16.2	9.0	1.2	—	—	2.0	2/28/2007
Intl Developed Markets Active	133.9	13.4	3.4	5.3	20.0	8.3	16.2	9.0	1.8	3.3	10.8	6.2	6/30/1999
MSCI EAFE Composite			5.3	5.3	26.4	10.8	19.9	8.0	(0.4)	2.2	9.7	4.5	6/30/1999
First Eagle Invest Mgmt Intl Small to Mid Cap			2.7	5.1	18.4	7.6	14.8	9.4	5.9	6.9	14.3	14.8	10/31/2002
First Eagle Custom Benchmark	(11)		5.2	5.1	26.0	10.6	19.4	7.8	0.6	1.9	13.5	13.5	10/31/2002
Walker Scott International Ltd Intl Large Growth			4.0	5.5	21.3	9.0	17.3	8.9	3.3	4.7	—	4.7	5/31/2006
MSCI EAFE Net Dividend			5.2	5.1	26.0	10.6	19.4	7.4	(0.9)	1.7	—	1.7	5/31/2006
Intl Emerging Active	70.1	7.0	1.1	(0.6)	15.6	1.8	5.9	3.6	(2.0)	4.1	15.4	9.0	4/30/2000
Mendrian Inv Partners - EME	24.7	2.5	0.9	0.1	18.2	2.6	—	—	—	—	—	—	6/30/2012
Parametric EV	45.4	4.5	1.3	(1.0)	13.8	1.3	—	—	—	—	—	—	6/30/2012
MSCI Emerging Net Dividend			0.8	(2.2)	12.7	(0.9)	3.9	3.1	(0.3)	5.5	16.1	12.3	1/31/2001
Total Global Asset Allocation	49.7	5.0	1.9	2.2	12.6	5.0	9.2	—	—	—	—	—	4/30/2012
Wellington Management Co LLP	24.5	2.4	1.7	0.6	11.7	3.4	8.3	—	—	—	—	—	4/30/2012
Blackrock Global Allocation Fd	25.2	2.5	2.2	3.8	13.5	8.6	10.0	—	—	—	—	—	4/30/2012
60 MSCI World 40 Cbl WGBI			2.4	3.3	12.6	6.0	9.9	—	—	—	—	—	4/30/2012

City of Hartford MERF
 Net of Fees - Final
 Performance Page
 Period Ending April 30, 2013

	Market Value	% of Total Fund	Annualized										Inception to Date	Incept. Date
			April	3 Months	Fiscal YTD	YTD	1 Year	3 Years	5 Years	7 Years	10 Years	6.8 %		
Total Fixed Income	\$387.2	38.7 %	2.1 %	2.3 %	6.4 %	1.3 %	7.6 %	8.7 %	7.7 %	7.4 %	6.3 %	5.8 %	7/31/1997	
Custom Fixed Benchmark	(12)		2.3	2.3	6.1	1.4	7.9	9.8	8.4	—	—	8.2	1/31/2007	
Barclays Capital Aggregate Bond			1.0	1.6	2.7	0.9	3.7	5.5	6.7	5.7	5.0	6.1	7/31/1997	
Comb Fixed Income Wgtd Bank	(13)		1.1	1.2	2.5	0.4	3.0	5.5	5.2	6.0	—	5.2	9/30/2004	
US Core/Corp Plus	100.8	10.1	1.1	1.7	4.1	1.3	5.0	5.8	4.9	5.3	4.0	5.8	7/31/1996	
Barclays Capital Aggregate Bond			1.0	1.6	2.7	0.9	3.7	5.5	5.7	6.1	5.0	6.0	12/31/1996	
US Core/Corp Plus Fixed Income Active	69.2	6.9	1.3	2.1	5.3	1.7	6.4	6.6	5.8	5.6	4.7	6.0	7/31/1996	
AETNA (AD) GICS		0.1	0.3	0.8	3.2	1.1	3.8	6.6	8.0	6.3	5.1	5.9	8/31/1996	
Barclays Capital Aggregate Bond			1.0	1.6	2.7	0.9	3.7	5.5	5.7	6.1	5.0	6.0	12/31/1996	
Columbia Asset Management Co. Barclays Capital Aggregate Bond	0.9	0.1	2.8	4.4	24.4	7.0	25.2	13.9	10.6	8.5	6.7	7.4	1/31/1992	
HIMCO Core Plus Fixed Income Barclays Capital Aggregate Bond	67.9	6.8	1.3	2.0	5.1	1.6	6.2	6.5	6.4	6.3	5.4	5.7	10/31/2002	
US Core/Corp Plus Passive	31.6	3.2	0.6	0.9	1.7	0.5	2.2	3.8	2.8	4.0	3.5	4.8	5/31/1998	
Barclays Capital Aggregate Bond			1.0	1.6	2.7	0.9	3.7	5.5	5.7	6.1	5.0	5.9	5/31/1998	
SSGA 1-3 YR AAF	12.6	1.3	0.1	0.2	0.4	0.2	0.4	1.1	1.4	—	—	1.3	3/31/2008	
BC U.S. Gov Treasury 1-3 Year Index			0.1	0.2	0.5	0.2	0.5	1.2	2.0	—	—	1.8	3/31/2008	
SSGA Barclays Agg IDX AAF	19.0	1.9	1.0	1.4	2.6	0.7	3.5	—	—	—	—	5.2	5/31/2011	
Barclays Capital Aggregate Bond			1.0	1.6	2.7	0.9	3.7	—	—	—	—	5.6	5/31/2011	
Total Long Duration	87.2	8.7	3.6	4.4	5.4	1.7	9.8	12.6	12.0	—	—	11.6	3/31/2008	
Barclays Capital Long Gov/Credit			3.9	4.7	5.5	1.9	9.7	12.6	10.4	—	—	10.0	3/31/2008	
Long Duration Active	79.8	8.0	3.6	4.4	5.9	1.8	10.2	12.6	—	—	—	12.3	6/30/2008	
FIMCO Long Duration Fixed	79.8	8.0	3.6	4.4	5.9	1.8	10.2	12.6	—	—	—	11.6	6/30/2008	
Barclays Capital Long Gov/Credit			3.9	4.7	5.5	1.9	9.7	12.6	—	—	—	11.0	6/30/2008	
Long Duration Passive	7.4	0.7	4.0	4.6	0.3	0.8	6.3	13.1	10.1	—	—	9.7	3/31/2008	
SSGA LONG TREAS AAF	7.4	0.7	4.0	4.6	0.3	0.8	6.3	13.1	10.1	—	—	9.8	3/31/2008	
Barclays Capital Long Gov/Credit			3.9	4.7	5.5	1.9	9.7	12.6	10.4	—	—	10.0	3/31/2008	
Global Fixed	32.7	3.3	1.1	(0.5)	(0.4)	(2.0)	(1.3)	3.8	4.2	—	—	5.9	2/28/2007	
Barclays Capital Aggregate Global Un-Hedged			1.4	0.2	2.0	(0.7)	1.5	5.0	4.3	—	—	5.9	2/28/2007	
Global Fixed - Active	32.7	3.3	1.1	(0.3)	(0.4)	(2.0)	(0.8)	3.7	5.3	—	—	6.7	2/28/2007	
Morantz			1.1	(0.3)	(0.4)	(2.0)	(0.8)	3.7	—	—	—	3.9	10/31/1999	
Barclays Global Agg Bond-Unhedged	32.7	3.3	1.4	0.2	2.0	(0.7)	1.5	5.0	—	—	—	4.4	1/31/2010	

City of Hartford MERF
 Net of Fees - Final
 Performance Page
 Period Ending April 30, 2013

Annualized

Market	Value	% of Total Fund	Annualized										Inception to Date	Incept. Date
			April	3 Months	Fiscal YTD	YTD	1 Year	3 Years	5 Years	7 Years	10 Years	%		
Inflation Linked Bonds Active	\$55.2	5.5	0.7	1.3	4.1	0.6	5.2	8.2	5.9	—	—	6.9	2/28/2007	
Borjays Capital Treasury US TIPS Index			0.8	1.1	3.3	0.4	4.4	8.0	6.5	7.1	—	6.2	4/30/2005	
Brown Brothers Harriman & Co. TIPS	55.2	5.5	0.7	1.3	4.1	0.6	5.2	8.2	5.9	7.2	—	6.2	4/30/2005	
Barclays GIBI Inv. World Gov Inflation-Linked All Maturities Index			2.2	1.3	5.8	1.4	4.8	7.9	—	—	—	4.6	6/30/2008	
Emerging Mkts Debt Active	68.0	6.8	3.3	2.4	14.7	1.6	15.2	12.2	11.8	—	—	10.4	2/28/2007	
Pudential Emerging Markets Debt	68.0	6.8	3.3	2.4	14.7	1.6	15.2	12.2	11.8	—	—	11.1	6/31/2005	
JPM Emerging Mkt Bond Global			2.8	1.9	10.8	0.5	11.6	11.3	10.2	9.6	—	9.6	8/31/2005	
High Yield	43.2	4.3	1.7	2.7	9.6	3.5	10.1	—	—	—	—	9.0	7/31/2010	
Sheikman Capital	43.2	4.3	1.7	2.7	9.6	3.5	10.1	—	—	—	—	9.0	7/31/2010	
Chitgroup High Yield Market Index			1.9	3.4	12.6	4.8	13.6	—	—	—	—	12.5	7/31/2010	
Cash - Active	44.0	4.4	0.0	0.0	0.1	0.1	0.1	0.1	0.1	2.1	2.2	2.7	7/31/1997	
U.S. Treasury 3 Month T-Bills	44.0	4.4	0.0	0.0	0.1	0.1	0.1	0.1	0.3	1.5	1.7	2.8	12/31/1996	

City of Hartford MERF

Footnotes

Performance Page

Period Ending April 30, 2013

No.	Name	Footnote
1	Policy Benchmark	January 2012 to Current: 16% Russell 3000, 12% Russell Global EX US, 10% BC Aggregate, 10% BC GOVT/Credit Long, 9% MSCI Emerging Markets (NET), 7% Russell 3000 + 300 bps, 5% JPM EMBI Global, 5% BC Global Inflation Linked - US TIPS, 5% NCREIF Property Index, 5% HFRI FOF, 5% 60 MSCI World/40 Cit; WGB, 4% BC Global Aggregate, 4% Citigroup High Yield, 3% S&P GSCI Commodity Index. October 2007 to December 2011: 48.5% Custom Fixed Benchmark, 25% Russell 3000, 25% Russell Global ex-US Equity Index, 1.5% 90 Day T-Bills. Prior to October 2007: 33% Russell 3000, 45% Barclays Capital Aggregate, 17% FTSE World Europe & Pacific, 3% Citigroup WGBI Non-US, 2% Merrill Lynch Treasury 91 day.
2	Total Plan Wgtd Benchmark	Weighted average calculation using actual asset allocation percentages and benchmark index returns.
3	Policy-Capitalization Based	10% FTSE World Euro and Pacific, 40% Barclays Capital Aggregate, 40.625% Russell 1000, 9.375% Russell 2000.
4	CPI plus 3.5%	CPI data reported with one month lag.
5	Liquidity Policy	October 2007 to Current: 48.5% Custom Fixed Benchmark, 25% Russell 3000, 25% Russell Global ex-US Equity Index, 1.5% 90 Day T-Bills. Prior to October 2007: 35% Russell 3000, 17% MSCI EAFE, 45% Barclays Capital Aggregate, 3% Citigroup World Gov't Bond Index.
6	Asset Allocation Fund	Comprised of MERF passive portfolios.
7	Asset Allocation Benchmark	50% MSCI ACWI Investible Mkt Index, 50% Citigroup World Gov't Bond Index
8	Comb Equity Wgtd Benchmark	Weighted average calculation using actual asset allocation percentages and benchmark index returns.
9	US Equity Policy-Cap Based	81.25% Russell 1000, 18.75% Russell 2000.
10	Russell Global ex U.S. Equity Index	October 2007 to Current: Russell Global Ex-US Equity Index. Prior to October 2007: FTSE All World Europe Pacific Index.
11	First Eagle Custom Benchmark	January 2012 to Current: MSCI EAFE Net Dividend. April 2007 to December 2011: 50% EAFE / 50% EAFE Small Cap. Prior to April 2007: MSCI Small Cap Index+300bps.
12	Custom Fixed Benchmark	January 2012 to Current: 26.32% Barclays Capital Long Govt/Credit Index, 26.32% Barclays Capital Aggregate Index, 13.16% Barclays Capital US TIPS Index, 10.53% Barclays Capital Global Aggregate Un-Hedged Index, 13.16% JPMorgan EMBI Global Index, 10.53% Citigroup High Yield Index. From October 2007 to December 2011: 31% Barclays Capital Long Govt/Credit Index, 20.6% Barclays Capital Aggregate Index, 20.6% Barclays Capital US TIPS Index, 12.4% Barclays Capital Global Aggregate Un-Hedged Index, 10.3% JPMorgan EMBI Global Index, 5.1% Citigroup High Yield Index.
13	Comb Fixed Wgtd Benchmark	Weighted average calculation using actual asset allocation percentages and benchmark index returns.
14	Cash Account Short Term Cash	Returns may have a variance from the benchmark due to return methodology treatment of high cash flows.
15	US Treasury 3 Month T-bills	October 2007 to Current: US Treasury 3 Month T-bills. Prior to October 2007: Merrill Lynch Treasury 91 Day.

Russell U.S. Indexes Daily Total Returns

In Percentages, Based on \$US



Daily Total Returns Periods Ending Apr 30, 2013 Annualized Total Returns Month Ending Apr 30, 2013

INDEX NAME	May 17, 2013	MTD	YTD	Month	Last Three Months	YTD	1Q2013	2012	1 Year	3 Years	5 Years	10 Years
Broad-Market Indexes												
Russell 3000®	1.02	4.54	18.02	1.64	7.02	12.89	11.07	16.42	17.21	12.78	5.63	8.48
Russell 3000® Growth	0.99	4.55	17.01	1.91	7.14	11.92	9.82	15.21	12.83	13.40	6.75	8.26
Russell 3000® Value	1.05	4.53	18.96	1.39	6.91	13.81	12.26	17.55	21.64	12.12	4.36	8.56
Russell 3000® Defensive	0.80	3.58	18.72	2.45	8.64	14.62	11.88	12.91	18.56	14.46	6.67	8.14
Russell 3000® Dynamic	1.23	5.48	17.35	0.85	5.48	11.25	10.30	20.06	15.47	10.97	4.15	8.53
Russell 3000® Growth-Defensive	0.93	4.16	19.46	2.59	9.19	14.69	11.79	12.95	16.12	14.32	8.46	8.08
Russell 3000® Value-Defensive	0.63	2.87	17.81	2.27	7.98	14.53	11.98	12.89	21.66	14.65	4.79	8.27
Russell 3000® Growth-Dynamic	1.07	5.07	14.00	1.03	4.59	8.50	7.40	18.21	8.50	12.15	4.89	8.43
Russell 3000® Value-Dynamic	1.35	5.78	19.83	0.73	6.12	13.28	12.46	21.39	21.03	10.02	3.00	8.18
Russell 3000E™ (Inception 6/27/05)	1.02	4.54	18.03	1.64	7.03	12.91	11.09	16.43	17.22	12.78	5.64	
Large-Cap Indexes												
Russell 1000®	1.01	4.48	18.03	1.81	7.16	12.97	10.96	16.42	17.17	12.91	5.49	8.32
Russell 1000® Growth	0.97	4.44	16.84	2.12	7.27	11.87	9.54	15.26	12.60	13.44	6.66	8.08
Russell 1000® Value	1.05	4.52	19.16	1.51	7.05	14.01	12.31	17.51	21.80	12.35	4.17	8.42
Russell 1000® Defensive	0.78	3.46	18.88	2.69	8.91	14.91	11.90	12.75	18.62	14.53	6.59	7.96
Russell 1000® Dynamic	1.24	5.49	17.22	0.95	5.48	11.12	10.08	20.21	15.31	11.14	3.93	8.39
Russell 1000® Growth-Defensive	0.91	4.02	19.58	2.84	9.48	14.96	11.78	12.67	15.98	14.17	8.39	7.85
Russell 1000® Value-Defensive	0.61	2.77	18.02	2.50	8.21	14.84	12.03	12.88	22.03	15.02	4.65	8.15
Russell 1000® Growth-Dynamic	1.06	5.00	13.43	1.19	4.49	8.03	6.76	18.76	8.05	12.42	4.78	8.33
Russell 1000® Value-Dynamic	1.36	5.83	20.01	0.78	6.19	13.39	12.51	21.25	21.04	10.18	2.74	8.01
Russell Top 200®	0.98	4.31	17.20	2.03	7.19	12.36	10.12	16.04	16.30	12.58	4.80	7.11
Russell Top 200® Growth	0.97	4.10	15.93	2.39	7.55	11.36	8.77	15.06	11.91	13.44	6.69	7.27
Russell Top 200® Value	1.00	4.52	18.46	1.69	6.84	13.34	11.45	17.01	20.89	11.69	2.84	6.97
Russell Top 200® Defensive	0.78	3.54	19.08	2.92	9.02	15.02	11.76	12.65	19.01	14.29	6.19	7.35
Russell Top 200® Dynamic	1.28	5.47	14.56	0.75	4.58	8.62	7.82	21.45	12.16	10.02	2.18	6.29
Russell Top 200® Growth-Defensive	0.93	4.03	20.19	3.25	10.02	15.54	11.91	12.43	16.71	13.89	8.15	7.29
Russell Top 200® Value-Defensive	0.59	2.94	17.76	2.52	7.83	14.39	11.58	12.89	22.04	14.86	4.10	7.67
Russell Top 200® Growth-Dynamic	1.03	4.24	8.33	0.73	2.98	3.92	3.17	20.87	3.09	12.85	4.38	7.14
Russell Top 200® Value-Dynamic	1.45	6.32	19.24	0.76	5.72	12.15	11.30	22.13	19.44	8.39	0.12	5.26
Russell Top 50® Mega Cap	0.78	3.90	15.65	2.35	6.92	11.30	8.75	15.65	14.37	12.07	4.59	6.10
Mid-Cap Indexes												
Russell Midcap®	1.08	4.88	19.98	1.28	7.08	14.41	12.96	17.28	19.20	13.70	7.24	11.63
Russell Midcap® Growth	0.99	5.29	19.13	1.47	6.58	13.15	11.51	15.81	14.42	13.68	6.79	10.96
Russell Midcap® Value	1.15	4.53	20.72	1.12	7.51	15.49	14.21	18.51	23.66	13.70	7.49	11.88
Russell Midcap® Defensive	0.76	3.07	17.83	1.51	8.34	14.32	12.63	13.09	16.62	15.95	8.82	10.85

Russell Midcap® Dynamic	1.19	5.52	20.75	1.20	6.64	14.43	13.08	18.37	19.42	12.49	6.42	11.96
Russell Midcap® Growth-Defensive	0.78	3.97	16.63	0.89	6.87	12.18	11.19	13.82	12.50	15.94	9.85	11.63
Russell Midcap® Value-Defensive	0.73	1.81	19.60	2.39	10.47	17.47	14.73	12.73	22.67	16.20	7.74	9.91
Russell Midcap® Growth-Dynamic	1.09	5.95	20.39	1.76	6.43	13.63	11.66	16.60	15.13	12.40	5.52	10.61
Russell Midcap® Value-Dynamic	1.25	5.21	21.00	0.81	6.79	15.00	14.08	19.63	22.93	12.53	6.92	12.80
Small-Cap Indexes												
Russell 2000®	1.11	5.23	17.84	-0.37	5.38	11.98	12.39	16.35	17.69	11.25	7.27	10.47
Russell 2000® Growth	1.17	5.90	19.10	-0.66	5.52	12.47	13.21	14.59	15.67	12.94	7.81	10.53
Russell 2000® Value	1.05	4.61	16.66	-0.10	5.25	11.52	11.63	18.05	19.71	9.58	6.60	10.28
Russell 2000® Defensive	1.00	5.00	16.71	-0.47	5.36	11.15	11.67	14.76	17.85	13.55	7.53	10.37
Russell 2000® Dynamic	1.21	5.44	18.93	-0.27	5.40	12.79	13.10	18.16	17.40	9.03	6.73	10.42
Russell 2000® Growth-Defensive	1.16	6.01	17.80	-0.70	5.38	11.13	11.92	16.37	17.75	16.16	9.23	11.70
Russell 2000® Value-Defensive	0.83	3.94	15.55	-0.22	5.35	11.17	11.42	13.16	17.83	10.97	5.97	9.24
Russell 2000® Growth-Dynamic	1.18	5.78	20.55	-0.60	5.68	13.96	14.65	12.54	13.47	9.88	6.31	9.63
Russell 2000® Value-Dynamic	1.24	5.16	17.59	0.00	5.16	11.82	11.81	23.35	20.96	8.09	6.48	11.00
Russell 2500™	1.08	5.04	18.90	0.31	5.95	13.20	12.85	17.88	18.96	12.95	7.95	11.38
Russell 2500™ Growth	1.03	5.68	18.98	0.35	5.36	12.59	12.20	16.13	15.08	13.77	7.83	11.30
Russell 2500™ Value	1.12	4.55	18.83	0.27	6.41	13.66	13.35	19.21	22.25	12.13	7.90	11.20
Russell 2500™ Defensive	0.92	4.18	17.58	0.21	6.53	12.87	12.63	15.22	18.96	15.06	8.53	
Russell 2500™ Dynamic	1.16	5.45	19.54	0.35	5.68	13.36	12.96	19.22	18.59	11.72	7.48	
Russell 2500™ Growth-Defensive	1.05	5.23	17.56	-0.44	5.33	11.72	12.21	17.69	18.03	16.84	9.72	
Russell 2500™ Value-Defensive	0.78	3.16	17.60	0.84	7.71	14.00	13.05	12.93	19.82	13.35	7.45	
Russell 2500™ Growth-Dynamic	1.01	5.93	19.82	0.82	5.37	13.11	12.20	15.18	13.28	12.02	6.88	
Russell 2500™ Value-Dynamic	1.26	5.12	19.34	0.04	5.89	13.53	13.48	22.14	22.70	11.27	7.66	
Russell Small Cap Completeness®	0.98	4.53	18.70	0.55	6.33	13.56	12.93	18.05	18.34	12.81	7.56	11.28
Russell Small Cap Completeness® Growth	0.95	5.11	19.09	0.66	6.14	13.30	12.56	17.61	15.91	13.94	7.70	11.46
Russell Small Cap Completeness® Value	1.01	4.01	18.36	0.46	6.51	13.79	13.27	18.37	20.74	11.58	7.30	10.87
Russell Microcap®	0.86	4.59	17.69	-0.05	6.21	12.53	12.58	19.75	18.58	9.76	6.22	9.00
Russell Microcap® Growth	0.71	4.46	20.63	0.45	8.24	15.47	14.95	15.17	17.05	11.68	7.21	8.70
Russell Microcap® Value	0.95	4.67	15.90	-0.36	4.96	10.73	11.13	22.81	19.67	8.00	5.06	9.26

Copyright © Russell Investments 2013. All rights reserved. This material is proprietary and may not be reproduced, transferred, or distributed in any form other than as delivered in this presentation format, without the prior written permission from Russell Investments. It is delivered on an "as is" basis without warranty.

Russell Investments, a Washington, USA corporation, operates through subsidiaries worldwide, and is a subsidiary of The Northwestern Mutual Life Insurance Company.

Russell Investments is the owner of the trademarks, service marks, and copyrights related to its indexes. The Russell logo is a trademark and service mark of Russell Investments.

In addition to the trademarks noted above, Russell is the owner of Defensive Indexes and Dynamic Indexes.

Indexes are unmanaged and cannot be invested in directly. Returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment.

The information contained herein has been obtained from sources that we believe to be reliable, but its accuracy and completeness are not guaranteed. Russell Investment Group reserves the right at anytime and without notice to change, amend, or cease publishing the information. It has been prepared solely for informative purposes. Russell Investment Group does not make any warranty or representation regarding the information.

The information, analyses and opinions set forth herein are intended to serve as general information only and should not be relied upon by any individual or entity as advice or recommendations specific to that individual or entity. Anyone using this material should consult with their own attorney, accountant, financial or tax adviser or consultants on whom they rely for investment advice specific to their own circumstances.

This material is not an offer, solicitation or recommendation to purchase any security.

Nothing contained in this material is intended to constitute legal, tax, securities, or investment advice, nor an opinion regarding the appropriateness of any investment, nor a solicitation of any type. The general information contained in this publication should not be acted upon without obtaining specific legal, tax, and investment advice from a licensed professional.

First used January 2011. CORP-6502

Russell Global Indexes Daily Total Returns

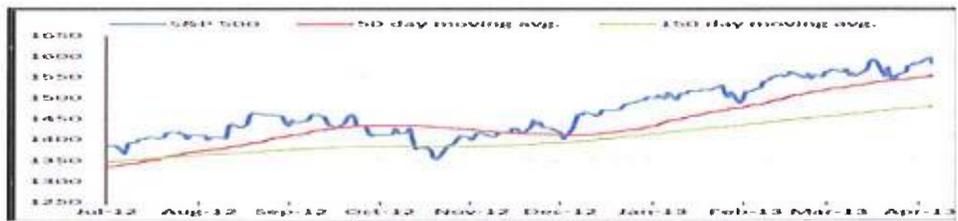
In Percentages, Based on \$US



Index name	Daily total returns As of May 17, 2013				Annualized total returns As of May 17, 2013			
	Prior day	Current day	MTD	YTD	1 year	3 years	5 years	10 years
Global								
Russell Global	-0.1	0.3	2.6	12.8	29.3	13.0	2.4	9.6
Russell Global Large Cap	-0.1	0.3	2.7	12.8	29.3	13.1	2.2	9.4
Russell Global SMID	0.0	0.3	2.6	13.6	30.8	13.6	4.5	12.7
Russell Global Small Cap	-0.1	0.4	2.1	12.8	29.4	12.1	3.7	12.2
Russell Global ex-US	0.2	-0.3	1.0	8.5	27.5	10.5	-0.4	10.9
Russell Global ex-US Large Cap	0.2	-0.3	1.1	8.3	27.5	10.4	-0.6	10.5
Russell Global ex-US Small Cap	0.1	0.0	0.3	10.0	26.8	10.9	1.8	13.4
Russell Global ex-North America	0.2	-0.3	1.1	9.3	28.7	11.0	-0.3	10.8
Russell Global ex-Japan	-0.1	0.4	2.7	12.0	29.0	13.3	2.6	9.8
Russell Global ex-US ex-Japan	0.3	-0.3	0.9	6.2	26.6	10.6	-0.4	11.5
Russell Global ex-UK	-0.2	0.4	2.6	13.0	29.3	12.8	2.5	9.7
Russell Global ex-Canada	-0.2	0.3	2.8	13.4	30.0	13.4	2.5	9.6
Russell Global ex-Australia	-0.1	0.4	2.9	13.0	29.3	12.9	2.3	9.5
Russell World Cap	-0.1	0.3	2.8	13.0	29.4	13.1	2.4	9.4
Russell Developed	-0.2	0.4	2.9	14.6	31.0	14.0	2.7	9.2
Russell Developed Large Cap	-0.2	0.4	2.9	14.7	31.1	14.1	2.6	9.0
Russell Developed Small Cap	-0.1	0.5	2.2	14.0	30.3	12.9	4.0	11.1
Russell Developed ex-US	0.3	-0.4	0.9	10.9	30.6	11.6	-0.4	10.0
Russell Developed ex-US Large Cap	0.3	-0.4	1.1	10.9	31.0	11.6	-0.6	9.8
Russell Developed ex-US Small Cap	0.1	0.0	-0.4	10.8	27.2	11.7	1.3	11.8
Russell Developed ex-North America	0.2	-0.4	1.1	12.3	32.8	12.4	-0.3	9.8
Russell Developed ex-North America Large Cap	0.3	-0.5	1.2	12.2	33.0	12.4	-0.5	9.6
Russell Developed ex-Japan	-0.2	0.4	3.0	13.8	30.8	14.4	3.0	9.4
Russell Emerging Markets	0.0	0.0	1.2	1.6	18.4	7.2	0.0	16.7
Russell Emerging Markets Large Cap	0.0	0.0	1.0	0.4	17.0	6.8	-0.5	16.6
Russell Emerging Markets Small Cap	0.1	0.0	1.8	8.2	26.1	9.3	2.6	17.7
Russell BRIC	-0.1	0.4	1.2	-0.1	16.7	2.1	-4.1	19.4
Russell Global 1000™	-0.2	0.4	2.7	12.9	29.1	13.0	1.7	8.6
Russell Global 1000™ ex-U.S.	0.1	-0.3	1.0	8.2	28.2	10.3	-1.2	9.7
Russell Global 2000™	-0.1	0.4	2.2	13.2	30.6	13.3	4.2	12.5
Russell Global 2000™ ex-U.S.	0.1	-0.1	0.2	10.0	28.5	11.9	2.5	14.1
Russell Global 3000™	-0.2	0.4	2.7	12.9	29.2	13.0	1.9	8.9
Russell Global 3000™ ex-U.S.	0.1	-0.3	1.0	8.4	28.2	10.4	-0.9	10.1
Asia Pacific								
Russell Asia Pacific	-0.1	-0.2	0.5	11.4	26.9	10.3	1.8	11.9
Russell Asia Pacific ex-Japan	-0.1	-0.2	-0.2	5.0	23.6	10.7	2.9	15.8
Russell Asia ex-Japan	0.1	0.0	1.8	4.5	21.9	9.3	2.6	15.7
Russell Greater China	0.2	-0.1	2.1	4.1	20.8	7.7	1.0	13.4
Russell Greater China Large Cap	0.1	-0.1	2.0	3.1	20.2	8.5	1.4	14.0
Russell Greater China Small Cap	0.5	-0.1	2.5	9.9	24.1	4.5	-0.5	11.1
Russell Developed Pacific Basin	-0.3	-0.4	-0.4	16.9	31.7	11.6	1.9	10.4
Russell Developed Pacific Basin ex-Japan	-0.6	-0.7	-3.5	7.2	29.7	14.8	4.4	15.9
Russell Emerging Asia	0.2	0.0	1.8	3.6	20.0	8.4	2.1	16.0
Russell Australia High Dividend	-0.7	-0.9	-6.2	11.9	34.3	15.9	5.2	--



As of 4/30/2013



- US large company stocks scaled new highs in April, with the S&P 500 beating the previous peak level from October 2007, and closing above 1,600 in early May
- Non-US developed market stocks also surged last month. The Japanese equity market--bolstered by a flush of liquidity from its central bank--led the pack, while European shares gained on the back of a bailout package for Cypriot banks.
- In contrast, emerging market stocks posted modest returns on the heels of China's disappointing first quarter GDP growth of 7.5%.
- US Treasury interest rates fell in April as bond investors bet on a continuing stream of easy money from the Fed. Declining yields boosted returns across fixed-income markets, while corporate credit spreads tightened as investors snapped up new issues from Apple and IBM.

Equity Market Indices	Level	1 WK	MTD	QTD	YTD	1 YR	3 YR	5 YR	10 YR
S&P 500	1633.7	1.2%	1.9%	1.9%	12.7%	16.9%	12.8%	5.2%	7.9%
Russell 1000	906.9	1.3%	1.0%	1.0%	13.0%	17.2%	12.9%	5.5%	8.3%
Russell 1000 Growth	751.4	1.5%	2.1%	2.1%	11.9%	12.6%	13.4%	6.7%	8.1%
Russell 1000 Value	827.1	1.1%	1.5%	1.5%	14.0%	21.1%	12.3%	4.2%	8.4%
Russell 2000	975.2	2.0%	-0.4%	-0.4%	12.0%	17.7%	11.3%	7.3%	10.5%
Russell 2000 Growth	559.9	1.9%	-0.7%	-0.7%	12.5%	15.7%	12.9%	7.0%	10.5%
Russell 2000 Value	1287.7	2.0%	-0.1%	-0.1%	11.5%	19.7%	9.6%	6.6%	10.3%
Russell 3000	971.7	1.3%	1.6%	1.6%	12.9%	17.2%	12.0%	5.6%	8.5%
MSCI ACWI	374.2	2.4%	2.9%	2.9%	9.5%	15.0%	8.7%	1.5%	8.7%
MSCI EAFE	1751.9	3.4%	5.2%	5.2%	10.6%	19.4%	7.4%	-0.9%	9.2%
MSCI Europe	1041.7	3.0%	4.3%	4.3%	7.2%	18.1%	7.3%	-2.1%	8.6%
MSCI Japan	748.5	3.9%	8.0%	8.0%	21.4%	22.0%	6.3%	-0.2%	8.0%
MSCI EM	1050.7	3.0%	0.8%	0.8%	-0.9%	-4.0%	3.1%	-0.5%	16.1%
MSCI Frontier Market	545.5	2.1%	3.6%	3.6%	12.1%	16.7%	3.3%	-9.2%	8.1%

Equity Valuation	P/S	Trail P/E	Forward P/E	10 YR Avg	10 YR P/BV Avg	Earn Yield	Div Yield	10 YR Avg
S&P 500	1.51	16.00	14.81	16.54	2.42	2.41	6.25	2.13
Russell 2000	1.07	35.87	22.19	48.93	2.00	2.06	2.79	1.50
MSCI EAFE	0.96	19.54	14.04	21.36	1.62	1.77	5.12	3.28
MSCI EM	1.05	12.34	11.04	13.57	1.59	1.90	8.10	2.80

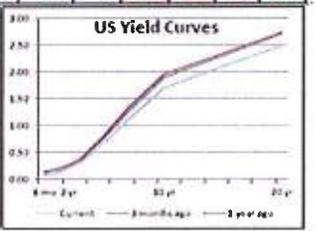
Alternative Benchmarks	Level	Lag date	MTD	QTD	YTD	1 YR	3 YR	5 YR	10 YR
DI UBS Commodity Index	131.7		-2.8%	-2.8%	-3.9%	-5.3%	-0.2%	-6.3%	3.4%
CSCI Commodity Index	629.4		-4.7%	-4.7%	-4.2%	-9.0%	0.5%	-12.0%	2.5%
Bloomberg Sweet Crude	102.5		-6.6%	-6.6%	-5.5%	-13.2%	-4.9%	-2.4%	15.2%
Gold Spot	1433.7		-7.8%	-7.6%	-11.9%	-11.5%	7.4%	11.0%	15.9%
NAREIT All Composite	178.5		6.1%	6.1%	15.2%	22.2%	17.6%	7.4%	11.9%
NCREIF Property Index	2.6	3/31/2013	N/A	2.6%	10.5%	10.5%	13.3%	2.3%	8.5%
DI CS HF Composite	502.0	3/31/2013	1.2%	3.6%	3.6%	7.2%	5.4%	3.4%	7.0%
HFRI Fund of Funds	5167.6	4/30/2013	1.1%	1.1%	4.5%	6.2%	2.2%	-0.2%	3.8%
DI CS Equity Market Neutral	246.5	3/31/2013	0.0%	0.7%	0.7%	0.2%	2.0%	-8.5%	-0.5%
DI CS Event Driven	565.1	3/31/2013	2.1%	4.8%	4.8%	10.1%	4.2%	4.0%	8.3%
DI CS Equity Long Short	553.2	3/31/2013	1.4%	5.1%	5.1%	6.1%	3.9%	2.9%	7.5%
DI CS Global Macro	838.7	3/31/2013	1.0%	2.2%	2.2%	5.2%	8.0%	5.1%	9.5%
DI CS Multi-Strategy	438.5	3/31/2013	0.6%	3.1%	3.1%	9.5%	7.5%	4.8%	7.1%

Fixed Income Indices	1 WK	MTD	QTD	YTD	1 YR	3 YR	5 YR	10 YR
BC Agg	0.1%	1.0%	1.0%	0.9%	3.7%	5.5%	5.7%	5.0%
BC US Agg Treasury	0.1%	0.9%	0.9%	0.7%	2.6%	5.3%	5.0%	4.7%
BC Credit	0.2%	1.6%	1.6%	1.6%	7.5%	7.9%	7.8%	6.0%
BC MBS	0.1%	0.5%	0.5%	0.5%	1.8%	4.1%	5.2%	5.0%
BC HY	0.8%	1.6%	1.6%	4.6%	14.0%	11.0%	11.1%	9.7%
BC Municipal	0.2%	1.1%	1.1%	1.4%	5.2%	6.2%	6.1%	5.1%
BC Converts (as of 3%)	3.4%	3.6%	3.6%	11.1%	17.8%	10.0%	7.5%	8.1%
BC 1-10 Yr TIPS	0.2%	0.0%	0.0%	0.4%	2.7%	5.7%	4.9%	5.4%
BC Long Treasury	0.1%	4.0%	4.0%	1.5%	7.0%	12.9%	9.6%	7.6%
BC Long Credit	0.3%	4.0%	4.0%	2.1%	11.5%	12.3%	10.9%	7.8%
BC US Trs Strips 20-30	0.1%	7.0%	7.0%	1.5%	10.3%	20.3%	12.8%	9.9%
EMBI	0.4%	2.8%	2.8%	0.5%	11.6%	11.3%	10.2%	10.3%
GB-EM Glob. Div.	1.1%	3.4%	3.4%	3.3%	10.3%	8.6%	8.9%	11.7%
ELMI	0.7%	1.4%	1.4%	1.4%	2.6%	2.4%	2.0%	7.1%
S&P LSTA Lev Loan	0.1%	0.6%	0.6%	2.7%	7.8%	5.9%	6.7%	5.7%
WGBI	1.3%	1.1%	1.1%	-1.7%	-1.1%	4.4%	3.7%	5.4%

Key Rates (%)	Close	ME	QE	YE	1 YR	WK	ME	YE	1 YR
Fed Funds Target	0.25	0.25	0.25	0.25	0.25	0.00	0.00	0.00	0.00
3 Mon LIBOR	0.28	0.28	0.28	0.31	0.47	0.00	-0.01	-0.03	-0.19
3 Mo T-Bill	0.04	0.07	0.07	0.04	0.09	-0.01	-0.04	-0.01	-0.06
2 Yr Treasury	0.24	0.24	0.24	0.25	0.26	0.01	-0.01	-0.01	-0.02
5 Yr Treasury	0.81	0.76	0.76	0.72	0.81	0.11	0.05	0.09	0.01
10 Yr Treasury	1.90	1.85	1.85	1.76	1.91	0.19	0.05	0.14	-0.01
30 Yr Treasury	3.09	3.10	3.10	2.85	3.11	0.15	-0.01	0.14	-0.02
10 Yr TIPS (Real Rate)	-0.49	-0.67	-0.67	-0.75	-0.36	0.16	0.18	0.26	-0.14
UK	1.89	1.77	1.77	1.83	2.11	0.16	0.12	0.06	-0.22
Germany	1.38	1.29	1.29	1.32	1.66	0.12	0.09	0.06	-0.28
Japan	0.70	0.55	0.55	0.79	0.90	0.11	0.15	-0.10	-0.20
Brazil	2.72	3.13	3.13	2.56	3.35	-0.03	-0.41	0.16	-0.63

Spreads/Risk	Close	ME	QE	YE	1 YR	WK	ME	YE	1 YR
Vix	12.59	12.70	12.70	18.02	17.15	-0.89	-0.11	-5.43	-4.56
TED Spread	0.24	0.21	0.21	0.27	0.37	0.01	0.03	-0.03	-0.13
30 Yr - 2 Yr Treasury	2.66	2.86	2.86	2.70	2.84	0.18	0.00	0.15	0.00
10 Yr TIPS B/E	2.39	2.52	2.52	2.51	2.27	0.01	-0.13	-0.12	0.12
Long corp. OAS	1.60	1.88	1.88	1.65	2.17	-0.04	-0.08	-0.05	-0.37
HY corp. OAS	4.02	4.57	4.57	5.11	5.82	-0.53	-0.55	-1.09	-1.80
Agg. OAS	0.54	0.56	0.56	0.53	0.71	-0.01	-0.02	0.01	-0.17

Currencies	Close	ME	QE	YE	1 YR	WK	ME	YE	1 YR
Euro Spot	1.30	1.28	1.28	1.32	1.32	0.00	0.01	-0.02	-0.03
British Pound Spot	1.54	1.52	1.52	1.62	1.62	0.01	0.02	-0.09	-0.09
Yen Spot	101.82	94.21	94.21	86.75	79.82	2.35	7.61	15.07	22.00
Brazilian Real Spot	2.01	2.02	2.02	2.05	1.91	-0.01	-0.01	-0.04	0.10



Sources: Bloomberg, US Department of the Treasury, NIEPC Research

Disclaimer:

- While NIEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- This Report may contain confidential or proprietary information and may not be copied or redistributed.



CITY OF HARTFORD
PENSION COMMISSION

MEMORANDUM

TO: Pension Commission

FROM: Adam M. Cloud, Secretary

DATE: May 22, 2013

SUBJECT: Investment Policy Statement Recommendation-Hedge Funds

Attached please find, for your review, the draft proposed Funding and Investment Policy Statement ("FIPS") section for the hedge fund investment asset class. Please review so that we can address any comments, questions or corrections that you may have at our May meeting.

This document was modeled on the previously adopted alternative investment FIPS sections. It was drafted by NEPC, the MERF's general consultant, with substantial input from investment staff and me. It incorporates industry best practices and lays out a prudent structure for the MERF's consideration of hedge fund investments.

Based on the foregoing, I recommend that you approve the proposed FIPS section and look forward to discussing this matter with you at our upcoming Pension Commission meeting.



CITY OF HARTFORD
PENSION COMMISSION

MEMORANDUM

TO: Pension Commission

FROM: Adam M. Cloud, Secretary

DATE: May 22, 2013

SUBJECT: Investment Policy Statement Revision Recommendation

Attached please find proposed edits to the MERF's Funding and Investment Policy Statement ("FIPS") reflecting changes to the MERF's target asset allocation and asset class policy benchmarks. These changes incorporate the recommendations proposed by the MERF's general investment consultant, NEPC, at the March 22, 2013 Pension Commission meeting and, if approved, will take effect July 1, 2013.

Specifically, cash will be added to the asset allocation with a target of 1.5% and a range of 1.5% above and below this target. This will reflect the Pension Commission's requirement that a minimum two-month cash reserve be maintained for the payment of pension benefits. The policy benchmark for the cash allocation will be the return on the U.S. Treasury 3 Month Treasury Bill. To offset this addition, the long-term policy targets for the high yield bond and long government/credit fixed income asset classes will be reduced. The high yield bond target will move to 4% from 5% and the long government/credit fixed income target will move to 8.5% from 9%. The ranges around the high yield bond and long government/credit fixed income targets will remain the same at 1.5% and 2%, respectively.

The MERF's interim asset allocation targets will also be revised to accommodate the addition of the 1.5% cash target. As a result, the global bonds and long government/credit interim targets have been reduced to 3% and 9.5%, respectively, from 4% and 10%.

Lastly, the alternatives benchmark has been specified as a weighted combination of its sub asset classes.

The above changes, when taken together, provide a more realistic target allocation while maintaining essentially the same projected risk and reward profiles as the current long term policy targets. This was evidenced by NEPC's March 22nd presentation, an excerpt of which is included in this package for your reference. Given the foregoing, both staff and I recommend that you approve these changes to the proposed FIPS and look forward to discussing this matter with you at our upcoming Pension Commission meeting.

Funding and Investment Policy Statement

of

**The Municipal Employees' Retirement Fund
of the City of Hartford**

Adam M. Cloud
Treasurer of the City of Hartford and Secretary of the City of Hartford
Pension Commission

Adopted by
The City of Hartford Pension Commission
March 11, 1994

Amended 1998, 2000, 2001, 2003, 2005, 2006, 2007, 2012 and 2013

City of Hartford 3/26/13 11:43 AM
Deleted: 2012

Article VII. Asset Allocation

The MERF’s asset mix shall be set by the Commission from time to time based upon (1) the structure of the MERF’s pension liabilities, (2) Capital Markets Theory, (3) the MERF’s full funding policy and (4) MERF liquidity needs. The following table shows the current strategic policy targets and permissible ranges for the allocation of assets within asset classes, as adopted by the Commission. These ranges are intended to serve as boundaries for the MERF’s individual asset classes as more particularly described in the table below. They will help signal the need to rebalance such classes when allocation weights fall outside these ranges.

The Commission believes that its adoption of these targets and ranges will provide an appropriate mechanism for maintaining the integrity of the asset allocation policy.

**City of Hartford
Municipal Employees’ Retirement Fund
Strategic Asset Allocation Policy and Relative Ranges**

Asset Class	Interim Policy Target	Long-term Policy Target	Range Around Policy Target
Large Cap Equities	16	13	+/- 3%
International Equities	12	10	+/-2%
Emerging Markets Equities	9	9	+/-2%
Total Public Equity	37	32	+/-5%
Core Bonds	10	5	+/-1.5%
High Yield Bonds	4	4	+/-1.5%
Global Bonds	3	3	+/-1%
Emerging Markets Debt	5	6	+/-2%
TIPS	5	4	+/-1.5%
Long Gov’t/Credit	9.5	8.5	+/-2%
Total Fixed Income	36.5	30.5	+/-5%
Real Estate	5	8	+/-3%
Private Equity	5	5	-2% /+3%
Private Debt	2	3	+/-2%
Hedge Funds	5	10	+/-2%

- City of Hartford 3/25/13 11:48 AM
Deleted: 5
- City of Hartford 5/20/13 11:50 AM
Deleted: 4
- City of Hartford 5/20/13 11:51 AM
Deleted: 10
- City of Hartford 3/25/13 11:48 AM
Deleted: 9
- City of Hartford 5/20/13 11:52 AM
Deleted: 38
- City of Hartford 5/20/13 11:52 AM
Deleted: 32

Total Alternatives	17	26	+2/-4%
Global Asset Allocation	5	7	+/-2%
Commodities	3	3	+/-1%
Total Other	8	10	+/-2%
Cash	1.5	1.5	+/-1.5%

During the period of transition from the Interim Policy Targets to the Long-term Policy Targets the range constraints shall apply relative to the Interim Policy targets.

The asset allocations will be reviewed quarterly for rebalancing purposes with the maximum interval between necessary rebalancing being one year (as of fiscal year end) such that, if an asset class exceeds the ranges noted in the preceding table, there will be at least one rebalancing transaction per fiscal year. In addition, rebalancing transactions will generally occur no more than once per quarter with a preference for no more than semi-annual activity.

It is understood that for all asset classes, exceptions to preferred policy weights may be acceptable given certain market and other conditions, providing that such exceptions are made consciously, monitored carefully by the City Treasurer and Investment Staff and reported to the Pension Commission.

The asset classes will be compared to the appropriate benchmarks on a monthly, quarterly, annual basis in addition to annualized 1, 3, 5 and since inception time periods. Appropriate policy benchmarks are indicated in the table below:

**City of Hartford
Municipal Employees' Retirement Fund
Asset Class Policy Benchmarks**

Total MERF	Custom Policy Index*
Total Equity	40% Russell 3000/ 60% Russell Global ex-U.S.
Domestic Equity	Russell 3000 Index
International Equity	Russell Global ex-U.S. Index
Total Fixed Income	Custom Fixed Income Benchmark**
Domestic Fixed Income	Barclays Aggregate Bond Index
International Fixed Income	Barclays Global Aggregate Bond Index
Total Alternatives	Custom Alternatives Benchmark***
Private Equity	Russell 3000 Index plus 300 basis points
Private Debt	Russell 3000 Index plus 200 basis points
Real Estate	NCREIF ODCE
Hedge Funds	HFRI Fund of Funds

City of Hartford 3/25/13 11:46 AM
Deleted: 0
City of Hartford 3/25/13 11:47 AM
Deleted: 0
City of Hartford 3/25/13 11:55 AM
Deleted: 2

City of Hartford 5/22/13 9:34 AM
Deleted: To Be Determined

Other	To Be Determined
Global Asset Allocation	60% MSCI World/ 40% Citigroup WGBI
Commodities	Standard & Poors GSCI
Cash	U.S. Treasury 3 Month T-Bills

* The custom MERF benchmark will be comprised of the relative weights of each component of the asset allocation listed above.

** The custom fixed income benchmark will be comprised of the relative weights of each component of the fixed income portion of the asset allocation listed above.

*** The custom alternatives benchmark will be comprised of the relative weights of each component of the alternatives portion of the asset allocation listed above.

The Commission anticipates that it will revise these targets only when it is clear that significant changes have occurred in the demographics of the participant group and/or in the capital markets such that assumptions upon which the present allocations have been made no longer appear reasonable, or as may be necessary from time to time pursuant to the findings of a periodic asset/liability study of the MERF. Accordingly, the MERF's investment managers should pursue a strategy of being fully invested in the market consistent with the foregoing guidelines to ensure that cash-equivalent positions do not interfere with the overall asset allocation strategy. In addition, in order to meet the MERF's cash disbursement needs, the Commission may direct that dividends and interest income from the investment managers' accounts be swept into the MERF's short-term investment fund ("STIF") account.

Article VIII. Asset Class Guidelines

The permissible investments included within each asset class, and special limitations or other considerations governing the investment of any funds therein, are set forth below:

A. Domestic Equities

Investments in domestic equities are defined as commitments to U.S. dollar denominated, publicly-traded common stocks of U.S. domiciled companies and securities convertible into common stock. The domestic equity portfolio should be diversified by the number of stocks, industries, economic sectors and other appropriate investment characteristics.

The aggregate domestic equity portfolio is expected to produce, over time, a total, risk-adjusted return greater than that of the Russell 3000 Index. To accomplish this objective, a combination of different investment styles and capitalization ranges may be employed in the portfolio's management. An investment in any single issue may not exceed 5% of the outstanding shares. In the case of small or illiquid companies, the MERF's commitment to any single issue may not exceed 5% of the average daily float. The securities of any single issuer may not exceed 5% of the manager's total portfolio market value. Finally, total investment by domestic equity managers in non-U.S. holdings and American depository receipts ("ADRs") shall not exceed the level within the Russell 3000 index (or the level within an individual manager's respective benchmark).

Any cash reserve held by domestic equity portfolio managers will be counted for asset allocation and investment performance as common stock. Domestic equity portfolio

2013 Asset Allocation

	Allocation as of 12/31/12	Current Target	Mix C	Mix D
Cash	3%	0%	1.5%	1.5%
Large Cap Equities	16%	13%	13%	20%
Small/Mid Cap Equities	0%	0%	0%	0%
Int'l Equities (Unhedged)	13%	10%	10%	10%
Emerging Int'l Equities	6%	9%	9%	12%
Global Equity	9%	0%	0%	0%
Total Equity	44%	32%	32%	42%
Core Bonds	9%	5%	5%	3%
High-Yield Bonds	4%	5%	4%	6%
Short Treasuries (1-3 yr)	1%	0%	0%	0%
Global Bonds (Unhedged)	3%	3%	3%	2%
EMD (External)	8%	0%	0.0%	0%
EMD (Local Currency)	0%	6%	6%	6%
TIPS	0%	4%	4%	3%
Global TIPS	6%	0%	0.0%	0%
Long Govt/Credit	8%	9%	8.5%	3%
Long Treasuries	1%	0%	0%	0%
Total Fixed Income	41%	32%	30.5%	23%
Private Equity	6%	5%	5%	7%
Private Debt	0%	3%	3%	3%
Real Estate (Core)	0%	8%	8%	6.5%
Hedge Funds Mod Vol	0%	10%	10%	11%
Total Alternatives	7%	26%	26%	28%
Global Asset Allocation	5%	7%	7%	4%
Commodities	0%	3%	3%	2%
Total Other	5%	10%	10%	6%

5-7 yr Return & Risk	Geometric Expected Return	Asset Volatility	Sharpe Ratio
	6.1%	11.8%	0.45
	6.8%	11.1%	0.54
	6.7%	11.0%	0.54
	7.2%	12.7%	0.51
30 yr Return	Geometric Expected Return	Sharpe Ratio	Sharpe Ratio
	7.2%	0.35	0.35
	7.5%	0.41	0.41
	7.5%	0.41	0.41
	8.0%	0.39	0.39

- **We have reviewed the asset allocation target for the City of Hartford MERF based on the following:**
 - NEPC's assessment of the capital markets and asset class assumptions going forward
 - MERF's long term target actuarial return
 - Liquidity profile and
 - Current Funding Status
 - The analysis is based on passive exposures to the various asset classes and do not consider the potential 30-50 bps of alpha generated by active managers

- **Given NEPC's 2013 Market Observations, Assumptions and Recommendations**

- NEPC, is not recommending any significant changes to the long term target strategic allocation adopted in late 2011 (previously known as mix "B")
- NEPC currently recommends Mix "C" shown on page 5
- Mix "C" adjusts for cash to be included (1.5%) in the portfolio due to the ongoing liquidity needs (range of 0-3% in IPS)
 - Maintains the risk, 30 year return and Sharpe Ratio at the same level of the current "target"
 - High Yield and Long Gov't bonds are slightly reduced to allow for the cash allocation
- Mix "D" represents a portfolio that will achieve the 8% long term return, however this is met by adding on more risk resulting in a lower Sharpe Ratio (risk adjusted return)

- **Moving forward in 2013:**

- NEPC continues to recommend measured implementation towards the long term allocation, anticipated to take another 12-18 months
- Areas if focus will continue to be Real Estate, Private Debt, Commodities, Hedge Funds and Emerging Market Debt (Local Currency versus External Currency)



CITY OF HARTFORD

OFFICE OF THE CITY TREASURER

ADAM M. CLOUD
CITY TREASURER

MEMORANDUM

TO: Pension Commission

FROM: Adam M. Cloud, Secretary

DATE: May 22, 2013

SUBJECT: Recommendation to Extend the Master Custodian and Performance and Analytics Services Contract

The purpose of this memorandum is to recommend that you authorize me to extend the MERF's contract with BNY Mellon ("BNYM") for master custodian and performance and analytical services. This extension will be for a period of five years although the MERF can terminate it upon one month's advance notice.

The terms of the extension will continue as before except that the annual fee for these services will be reduced from in excess of \$400,000 per year to approximately \$300,000. A 2.5% annual "cost of living increase" will accrue to BNYM starting in April 2014. The significant decrease in fees was the result of fee concessions by BNYM and the elimination of performance and analytics services that have been made redundant by NEPC's upgraded reporting. It was also achieved in a market environment for master custodian services that has generally become less competitive and more expensive for clients.

Staff expended significant effort on these negotiations and fully supports my recommendation. NEPC, the MERF's general consultant, assisted staff throughout the course of negotiations. NEPC recommends that the MERF move forward with this extension. This recommendation is attached.

In closing, I am happy that the MERF has the opportunity to maintain its strong working relationship with BNYM and to do so on an improved financial basis. This extension will avoid the need to perform a time-consuming search process and a potentially disruptive transition. I look forward to discussing this matter with you at our upcoming meeting.



MEMORANDUM

Date: May 23, 2013
To: City of Hartford, MERF
From: Kristin Finney-Cooke, CAIA and Doug Moseley
Re: Custodian Review

Purpose

Discuss the review of BNY Mellon's role as custodian for the MERF's investment program.

NEPC agrees with the evaluation that Staff conducted on BNY Mellon's custodian services, which resulted in BNY Mellon offering a competitive fee for the services required by the MERF. Further, NEPC supports the recommendation for the MERF to continue utilizing BNY Mellon as their custodian under the newly negotiated contract terms.

Background

The MERF, in consultation with NEPC, conducted an evaluation of the custodian services being provided by BNY Mellon to the Fund. The review included a comparison of BNY Mellon's services and competence performing these services, an evaluation of fees for desired services and a comparison of said fees relative to what is currently being paid by other Public Funds in the marketplace to their various custodians.

NEPC Evaluation

NEPC reviewed the data that BNY Mellon provided Staff and provided information as to the services and fees paid to custodians by our Public Fund clients. Several key factors became apparent; BNY Mellon is one of leading providers of custodian services in the marketplace, the current fees paid by the MERF were competitive due to the longstanding relationship that the MERF has had with BNY Mellon providing these services and any fee reduction would be viewed as an additional positive given the current environment.

NEPC Viewpoint/Recommendation

NEPC believes that the proposal put forth by BNY Mellon for custodian services is strong. It provides the Fund with an overall fee reduction while still delivering the services required by the MERF. NEPC views BNY Mellon as one of the leading custodian providers and is very comfortable with the MERF continuing to utilize BNY Mellon in this capacity.

Pursuant to the above, it would be our recommendation for the MERF to continue utilizing BNY Mellon as their custodian under the newly negotiated contract terms.

CITY OF HARTFORD

MEMORANDUM

TO: Pension Commission

FROM: Adam M. Cloud, Secretary

DATE: May 22, 2013

SUBJECT: PIMCO Investment Guideline Changes

The purpose of this memorandum is to recommend that you approve changes to the PIMCO Long Duration Fixed Income (“PIMCO”) investment guidelines to allow the manager to limit government securities and duration risk.

The manager, in response to MERF concerns regarding the unprecedentedly low long-term U.S. Treasury rates, has proposed these changes. I believe that they will enhance PIMCO’s ability to adopt a more defensive portfolio posture while maintaining most of the long-term yield advantage over shorter duration issues. A copy of the proposed guideline changes is attached for your review.

The draft guidelines propose reducing the target exposure to government securities and increasing the credit target. This is accomplished by specifying an index exposure consisting of 70% to long duration credit and 30% to long duration government securities. The current benchmark index, the Barclays Long Government/Credit Index, reflects market weighted allocations to these security types and presently features a 58% allocation to credit with the balance to government securities.

The duration reduction will be accomplished through the use of over-the-counter (“OTC”) derivatives. To limit the portfolio risk inherent in the use of OTC derivatives, the manager has agreed to use them only to manage portfolio duration and to limit them to derivative contracts that are traded and cleared through a central clearinghouse.

Both MERF investment staff and NEPC, the MERF’s general investment consultant, have supported these changes. Please refer to the attached memo from NEPC addressing this matter.

In conclusion, I request that the Pension Commission approve the proposed changes to the PIMCO investment guidelines. I look forward to discussing this with you at our upcoming meeting.

EXHIBIT C

PIMCO Long Duration Fixed Income Strategy

Manager's Specific Guidelines

Portfolio Duration Range:

Index Composition

Barclays Long Credit Index	70%
Barclays Long Government Index	30%
Barclays Capital 30-year Swap Index	-A%
Barclays Capital 10-year Swap Index	-B%
BofA Merrill Lynch 3-month LIBOR Index	(A% + B%)
Total	100%

Portfolio duration range: Index +/- two (2) years

Isenberg, Alan 4/15/13 5:21 PM

Deleted: Lehman Long Government/Credit +/- two (2) years

Isenberg, Alan 4/15/13 5:22 PM

Formatted: Normal

Isenberg, Alan 4/15/13 5:24 PM

Formatted Table

Isenberg, Alan 4/15/13 5:29 PM

Comment [1]: Level of swap underlay and balance between 10 and 30 year swaps will depend on City of Hartford's duration target

Isenberg, Alan 4/15/13 5:21 PM

Formatted: Normal

Credit Quality Minimums

The Manager will apply quality ratings using the higher of Moody's, S&P or Fitch. If an issue is not rated by one of these rating agencies, then the Manager will determine a rating.

Minimum Average Portfolio Quality:	A- Rating
Minimum Issue Quality:	B Rating
Minimum Commercial Paper Quality:	A-1/P-1

Should an issue be downgraded below these minimums, the Manager will determine the appropriate action (sell or hold) based on the perceived risk and expected return. Any downgraded security held under this section shall be disclosed in a separate report accompanying periodic reports submitted to the Client and in no event no less than quarterly. The report shall include an updated status report for each security.

Isenberg, Alan 4/15/13 5:21 PM

Deleted: lower

Transaction Types

Purchases and sales may be transacted for regular or deferred/forward settlement.

Transactions Types Explicitly Prohibited: All short sales are prohibited.

Isenberg, Alan 4/15/13 5:21 PM

Deleted: , and buying on margin

Asset Types and Investment Vehicles

The Manager will have discretion to invest in a broad array of public and private asset classes and investment vehicles including but not limited to:

EXHIBIT C

PIMCO Long Duration Fixed Income Strategy

Manager's Specific Guidelines

Portfolio Duration Range: \pm two (2) years

Index Composition

Barclays Long Credit Index	70%
Barclays Long Government Index	30%
Barclays Capital 30-year Swap Index	-A%
Barclays Capital 10-year Swap Index	-B%
BofA Merrill Lynch 3-month LIBOR Index	(A%+B%)
Total	100%

Portfolio duration range: Index \pm two (2) years

Isenberg, Alan 4/15/13 5:21 PM

Deleted: Lehman Long Government/Credit \pm two (2) years

Isenberg, Alan 4/15/13 5:22 PM

Formatted: Normal

Isenberg, Alan 4/15/13 5:24 PM

Formatted Table

Isenberg, Alan 4/15/13 5:29 PM

Comment [1]: Level of swap underlay and balance between 10 and 30 year swaps will depend on City of Hartford's duration target

Isenberg, Alan 4/15/13 5:21 PM

Formatted: Normal

Credit Quality Minimums

The Manager will apply quality ratings using the higher of Moody's, S&P or Fitch. If an issue is not rated by one of these rating agencies, then the Manager will determine a rating.

Minimum Average Portfolio Quality:	A- Rating
Minimum Issue Quality:	B Rating
Minimum Commercial Paper Quality:	A-1/P-1

Should an issue be downgraded below these minimums, the Manager will determine the appropriate action (sell or hold) based on the perceived risk and expected return. Any downgraded security held under this section shall be disclosed in a separate report accompanying periodic reports submitted to the Client and in no event no less than quarterly. The report shall include an updated status report for each security.

Isenberg, Alan 4/15/13 5:21 PM

Deleted: lower

Transaction Types

Purchases and sales may be transacted for regular or deferred/forward settlement.

Transactions Types Explicitly Prohibited: All short sales are prohibited.

Isenberg, Alan 4/15/13 5:21 PM

Deleted: , and buying on margin

Asset Types and Investment Vehicles

The Manager will have discretion to invest in a broad array of public and private asset classes and investment vehicles including but not limited to:



NEPC, LLC

MEMORANDUM

Date: May 23, 2013
To: City of Hartford, MERF
From: Kristin Finney-Cooke, CAIA and Doug Moseley
Re: PIMCO Guideline Update

Purpose

Discuss the relaxation of the PIMCO guidelines as it relates to the long duration fixed income portfolio

NEPC is comfortable with the updated guidelines presented to the MERF related to the PIMCO Long Duration Fixed Income Strategy. The revised guidelines allow for flexibility around the duration target of the portfolio, which we believe can be additive to the portfolio over the short and long term due to the low interest rate environment.

Background

PIMCO currently manages approximately \$80 million (8% of total portfolio assets) in a long duration fixed income portfolio for the MERF. Presently, the portfolio is benchmarked to the Barclays Long Term Govt/Credit with a typical duration of greater than 10 years. While this can be advantageous in a low interest rate environment – in a rising interest rate environment it can cause a drag on the portfolio.

NEPC Viewpoint/Recommendation

NEPC believes that the fixed income portfolio can be better positioned to defend against rising interest rates by permitting the PIMCO portfolio the flexibility to have shorter duration (6 to 8 years) than what is presently targeted in the guidelines (long term gov't/credit benchmark + 2 years). Additionally, the guidelines will allow for PIMCO to incorporate their "best" ideas into the portfolio resulting in potentially higher returns. It is important to note that the 5-7 year outlook for bond yields remain at historical low levels.

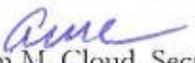
Pursuant to the above, it would be our recommendation for the MERF to adopt the updated PIMCO guidelines for the long duration fixed income portfolio.



CITY OF HARTFORD

PENSION COMMISSION

MEMORANDUM

To: Pension Commission
From: 
Adam M. Cloud, Secretary
Date: May 17, 2013
Subject: **Report on Annual Performance Review Meetings**

Attached for your review is the report on our recent annual performance review meeting with the following investment manager:

- **ING Investment Management**

**CITY TREASURER'S OFFICE
INTERNAL MEMORANDUM**

To: Adam M. Cloud, Secretary
Carmen I. Sierra, Assistant Secretary

From: Gary B. Draghi, Director of Investments *AGB*
P. Wayne Moore, Asst. Director of Investments *PM*
J. Sean Antoine, Principal Administrative Analyst *JA*

Date: May 16, 2013

Re: Report on Annual Performance Review Meeting with ING Investment Management

The Pension Commission held an annual performance review meeting with ING Investment Management ("ING"), a small cap growth equities manager for the MERF, on Tuesday, May 8, 2013. Present from ING were Denise Higgins, CFA and Senior Client Portfolio Manager and Eileen Madden, CFA and Head of Client Service.

Ms. Madden thanked the Treasurer, Pension Commission and staff for their patience over the past several months as they became an independent entity through ING's first initial public offering ("IPO"). She noted that within the next two years, the new company will be named Voya Investment Management. She attributed any difficulties in communication with clients to limitations prescribed under corresponding securities laws. Discussion ensued.

Ms. Madden explained that back in 2008 and 2009, ING had received bailout funds from the Dutch government. As a stipulation for taking the government funding, ING was required to divest its insurance, retirement services and investment management divisions.

In response to a question regarding Ms. Higgins role on the portfolio, she noted that senior management tries to limit the main portfolio manager's travel, by having her attend client meetings. She added that she is involved in all investment team meetings and is very familiar with the MERF's portfolio.

Treasurer Cloud asked how stocks were selected for clients' portfolios. Ms. Higgins stated that the small cap growth team consists of 7 analysts and 3 portfolio managers who all work on the generating ideas for the portfolio, but that the analysts make most of the investment recommendations. She went on to state that the analysts would recommend

their best alpha generating ideas to the portfolio managers, who then challenge and test these ideas before implementation.

Ms. Higgins then described the investment process and investment philosophy. She stated that for the small cap growth equity mandate, ING believes that rigorous fundamental research and disciplined portfolio construction are keys to repeatable alpha generation. She stated that ING integrates fundamental research and quantitative screening tools in order to focus its industry and company expertise into superior stock selection. Ms. Madden also mentioned that the portfolio manager who started the mandate was still with the firm.

Ms. Higgins added that ING's investment process strives to follow a consistent investment strategy and a generalist, team-oriented, repeatable, research-driven investment process to construct portfolios consisting of high quality companies that are beneficiaries of sustainable secular growth trends that will consistently outperform relevant benchmarks and peer group averages.

In response to a question regarding the cash allocation, Ms. Higgins stated that ING typically has a 2% cash allocation in its client portfolios, in order to take advantage of potential investment ideas.

In response to a question regarding the adequacy of resources now that the firm was on its own, Ms. Higgins stated that the investment management group is a self-sufficient arm of ING. She went on to note that when ING was part of the parent company, it was the third largest revenue generating business. She stated that the new entity raised sufficient funds from its IPO and debt issuance and did not lack for any resources.

Ms. Higgins reported on the performance of the portfolio managed on behalf of the MERF. She stated that the portfolio returned 17.25%, gross of fees since inception, underperforming the Russell 2000 Growth Index by 130 basis points. Ms. Higgins stated that the underperformance can be attributed to the negative stock selection. Discussion ensued.

In response to a question regarding the max weighting of any one security, Ms. Higgins stated that the max weight in any one security is 5%.

In response to a question regarding the investment markets outlook for the next 12-18 months, Ms. Higgins stated that ING's sector neutral approach does not try to forecast or react to markets, but that it tries to be aware of the macro investment environment. She stated that, however, ING has recognized weaker and slower growth investment themes and expects a similar pattern in the next several months.

Ms. Madden thanked the Treasurer and Commission for their continued business and confidence in the firm.