

City of Hartford Pension Commission  
City Conference Room  
260 Constitution Plaza  
Hartford, Connecticut  
Friday, September 25, 2015  
9:00 a.m.

AGENDA

INVESTMENT PROGRAM

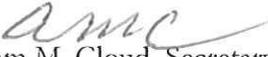
- I. Review of Meeting Minutes
  - Minutes of July 24, 2015
- II. Status of the MERF Portfolio
  - Inventory of Assets as of July 31, 2015 and August 31, 2015
  - MERF's Overall Performance
- III. NEPC Update
  - MERF Quarterly Performance Reports
- IV. MERF Update: Rebalancing Progress
- V. Real Assets
  - Proposed Real Assets Guidelines
  - Investment Pacing Plan
- VI. Private Equity Due Diligence
  - Ares Corporate Opportunities Fund V
- VII. Proposed Schedule of the MERF's Investment Managers Annual Performance Review Meeting Dates for FY 2015-2016
- VIII. Other Business
  - 36 Edwards Street—Proposal to maintain the property owned by Pension Commission



**CITY OF HARTFORD**

**PENSION COMMISSION**

**MEMORANDUM**

**To:** Pension Commission  
**From:**   
Adam M. Cloud, Secretary  
**Date:** September 15, 2015  
**Subject:** **Review of Minutes from the Meeting of July 24, 2015**

Enclosed for your review are the minutes of the investment portion of the Pension Commission meeting of Friday, July 24, 2015.

*INVESTMENTS  
AGENDA ITEM I*

City of Hartford Pension Commission  
City Conference Room  
260 Constitution Plaza  
Hartford, CT 06103  
Friday, July 24, 2015  
9:00 a.m.

MINUTES

INVESTMENT PROGRAM

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

MEMBERS EXCUSED: Nicholas Trigila, Employee Representative

STAFF PRESENT: Gary B. Draghi, Director of Investments; P. Wayne Moore, Assistant Director of Investments; J. Sean Antoine, Principal Administrative Analyst; Donna Parker, Plan Administrator and Rebecca Crowley, Assistant Plan Administrator

OTHERS PRESENT: Lisa Silvestri, Corp. Council; George Zoltowski, Management and Budget; Terry Williams, Senior Administrative Assistant; Chelsea Mott, City of Hartford Accountant; Kristin Finney-Cooke, of NEPC, the MERF's general consultant (via phone) and Tad Fergusson, PCA, the MERF's private equity consultant.

**I. Review of Minutes as of June 26, 2015**

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

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

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## **II. Status of the MERF Portfolio as of June 30, 2015**

Chairman Stevens introduced the item and asked the Investment Unit to report. J. Sean Antoine, the MERF's Principal Administrative Analyst, reported that, at June 30, 2015, the MERF portfolio had a market value of \$1.03 billion and had generated a negative 1.2% net of fees return for the month, which outperformed the benchmark return of negative 1.5%, by 30 basis points.

Mr. Antoine then reported that the MERF's equity portfolio posted a negative 2.1% return for the month, outperforming the benchmark return of negative 2.3%, by 20 basis points. He also reported that the MERF's private equity portfolio posted a positive 2.4% net return for the month, outperforming the benchmark return of negative 1.5%, by 390 basis points.

Mr. Antoine went on to report that the MERF's fixed income portfolio posted a negative 1.2% net return for the month, outperforming the custom benchmark return of negative 2.1%, by 90 basis points. He noted that the MERF's hedge fund portfolio posted a return of negative 0.7%, outperforming its benchmark return of negative 1.2%, by 50 basis points. Mr. Antoine also reported that the MERF's private debt portfolio outperformed its benchmark while its real estate portfolio underperformed. Discussion ensued.

Lastly, Mr. Antoine reviewed the MERF's asset allocation positioning relative to its targets and target ranges.

**The Commission accepted the report for advice.**

## **III. Pension Consulting Alliance Update— Private Equity Performance Report**

Chairman Stevens introduced the item and asked Mr. Tad Fergusson of Pension Consulting Alliance ("PCA"), the MERF's private equity consultant, to report to the Commission. Mr. Fergusson reported that, as of year-end December 31, 2014, the MERF's private equity portfolio program had \$138.5 million in active commitments across 17 partnerships. He stated that the portfolio's strong performance continued, resulting in a net internal rate of return of a 12.5% since inception and a multiple of invested capital of 1.4 times. He went on to note that the program remained at the high end (8.1%) of its target allocation range as the material distributions it has generated have been more than offset by the appreciation in value of the remaining underlying holdings.

Mr. Fergusson noted that, despite the strong absolute returns, the Program has outperformed its public equity based policy benchmark (Russell 3000 plus 300 basis

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points) over the ten-year time period and since inception but has underperformed over the past one, three, and five-year time periods, due to the exceptionally strong performance of the public equity markets in recent years. He noted that such equity market returns have been well above long-term expectations during those time periods.

With regard to new investments, he noted that since the program was at the high end of its target allocation and given the relatively high priced buyout market, PCA recommended that the MERF remain highly selective regarding potential future private equity investments. Discussion ensued.

In closing, Mr. Fergusson stated that the MERF's portfolio was well diversified and positioned for continued strong performance.

**The Commission accepted the report for advice.**

#### **IV. Longevity Swap Product Presentation**

Chairman Stevens introduced the item. Secretary Cloud stated that, in an effort to keep the Commission well informed on new investments, he had asked the firm William Blair to make a presentation on longevity swaps. He then asked the representative from William Blair to address the Commission.

Mr. Richard W. Thivierge, Managing Director introduced his colleagues Aleks Granchalek, Director. He then gave a brief overview of the firm and asked Mr. Granchalek to discuss longevity swaps. Mr. Granchalek stated that longevity swaps transfer the longevity risk (the possibility of members living longer than actuarial projections) of defined benefit pension funds to an insurer or bank. Mr. Granchalek added that longevity swaps are typically structured either as a derivative or as insurance contracts depending on the counterparty. He then noted that longevity risk is one of the most significant risks faced by defined benefit pension schemes. He stated that, while many pension schemes have used liability matching investment to reduce investment risk, they remain exposed to longevity risk. Mr. Granchalek concluded by noting that defined benefit pension funds such as the MERF could use longevity swaps in conjunction with other risk mitigation strategies to minimize overall risk. Discussion ensued.

**The Commission accepted the report for advice.**

**V. Reports on Annual Performance Review Meeting with Parametric Eaton Vance**

Chairman Steven introduced the item. Mr. Gary Draghi, the MERF's Director of Investments, stated that the report was self-explanatory.

**The Commission accepted the reports for advice.**

**VI. Securities Lending Report**

Chairman Stevens introduced the item. Secretary Cloud asked P. Wayne Moore, the MERF's Assistant Director of Investments, to address the Commission. Mr. Moore began by recapping the MERF's decision to reinstitute its securities lending program noting that this decision followed BNY Mellon's reconstitution of its securities lending offerings in a manner that featured a number of significant improvements including centralizing all short-term cash management, discontinuing the offering of more aggressive cash collateral reinvestment pools, offering more customized guidelines and using centralized credit analysis technology. He pointed out that BNY Mellon was one of the industry's largest securities lending service providers.

He then briefly described the MERF's program stating that borrowers include broker dealers, banks and hedge funds that borrow securities for a variety of reasons. He noted that it was prudently managed with conservative guidelines. MERF securities were lent to only the most credit worthy borrowers and that these borrowers were put through a rigorous screening process by BNY Mellon before being allowed to borrow securities. Mr. Moore then reviewed the MERF's securities lending report and concluded by noting that, since inception in October 2013, the MERF's cumulative earnings totaled approximately \$196,000, exceeding initial estimates. Discussion ensued.

**The Commission accepted the report for advice.**

**VII. Other Business**

Chairman Stevens introduced the item. Secretary Cloud stated asked Mr. Draghi to address the Commission. Mr. Draghi noted that a number of changes had occurred affecting MERF managers since the last meeting. He began by informing the Commission that TA Realty ("TA") recently announced that four of its twenty-three partners had left the firm. He stated that these individuals were not senior partners and that their departures had not triggered any of the "Key Person" provisions in the fund documents. He added that TA had indicated that others would assume their responsibilities and that resources would be added, as needed. He noted that NEPC did not believe that this change would negatively affect the MERF's existing

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investment with TA but was a contributing factor in its recommendation that the MERF pass on TA's most recent fund offering. Discussion ensued.

Mr. Draghi went on to report that Vista Equity Partners had recently sold a 20% stake in the firm to Dyal Capital, a firm that invests in minority stakes in general partners such as Vista. He recounted Vista's assertion that this transaction would allow Vista to strengthen its capital structure that, in turn, would allow Vista to accelerate its deal flow, increase its investor base and enhance its product platform. He noted that PCA was reviewing this transaction on the MERF's behalf and would report back when this review was complete. Discussion ensued.

Mr. Draghi then noted that First Eagle, an international equity manager for the MERF, announced a restructuring of its ownership that resulted in an increase in employee ownership, continued involvement of the Arnhold family as a majority owner and a repositioning of its non-employee minority owners. He noted that NEPC felt this change was positive for the firm and its investors.

Lastly, Mr. Draghi mentioned that Ares Management, one of the MERF's private equity managers, and Kayne Anderson announced a merger to form Ares Kayne Management L.P., with the intention of creating one of the largest and most diversified alternative asset managers in the U.S. He added that further information would be forthcoming but that, based on preliminary information, the MERF's consultants thought this would be a positive for clients. Discussion ensued.

**The Commission accepted the report for advice.**

Treasurer Cloud reported that the property manager responsible for maintaining the parcel of land owned by the MERF at 36 Edward Street, Hartford, was no longer in business. He added that he was in the process of selecting a replacement from the City approved vendor services list and that he would report back to the Commission at its October meeting as to a replacement. Discussion ensued.

**The Commission accepted the report for advice.**

In closing, Treasurer Cloud stated that there was not any further business.

There being no further business, Chairman Stevens adjourned the meeting.

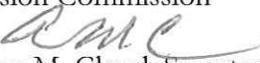
ATTEST:   
Adam M. Cloud, Secretary



**CITY OF HARTFORD**

**PENSION COMMISSION**

**MEMORANDUM**

**To:** Pension Commission  
**From:**   
Adam M. Cloud, Secretary  
**Date:** September 15, 2015  
**Subject:** Status of MERF Portfolio as of July 31, 2015  
a. Inventory of Assets  
b. MERF's Overall Performance

Status of MERF Portfolio as of August 31, 2015  
a. Inventory of Assets  
b. MERF's Overall Performance

Portfolio performance reports for the months of July 2015 and August 2015 are enclosed. We look forward to discussing them with you.

INTEROFFICE MEMORANDUM

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

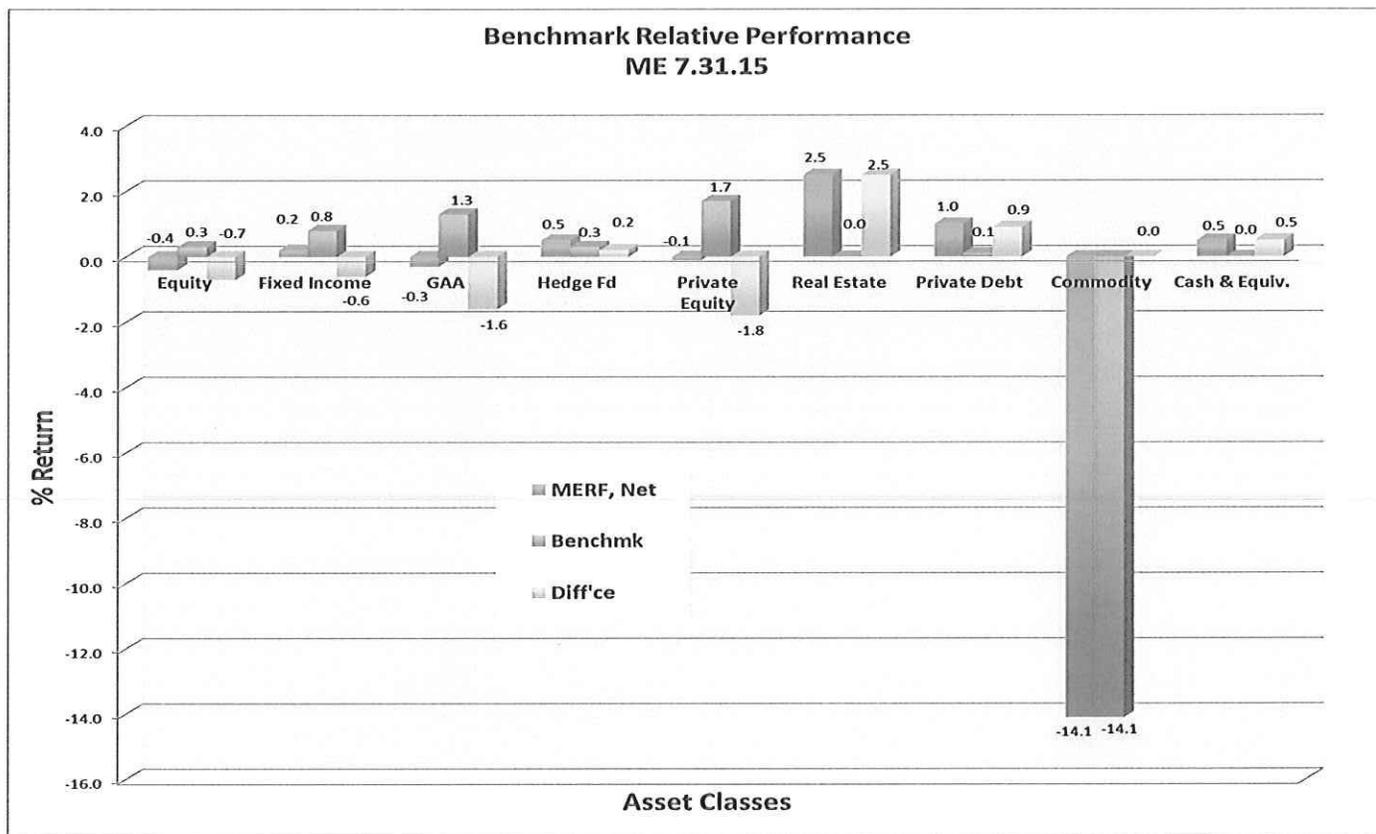
**FROM:** Gary B. Draghi, Director of Investments,  
P. Wayne Moore, Assistant Director of Investments  
J. Sean Antoine, Principal Investment Analyst

**DATE:** September 16, 2015

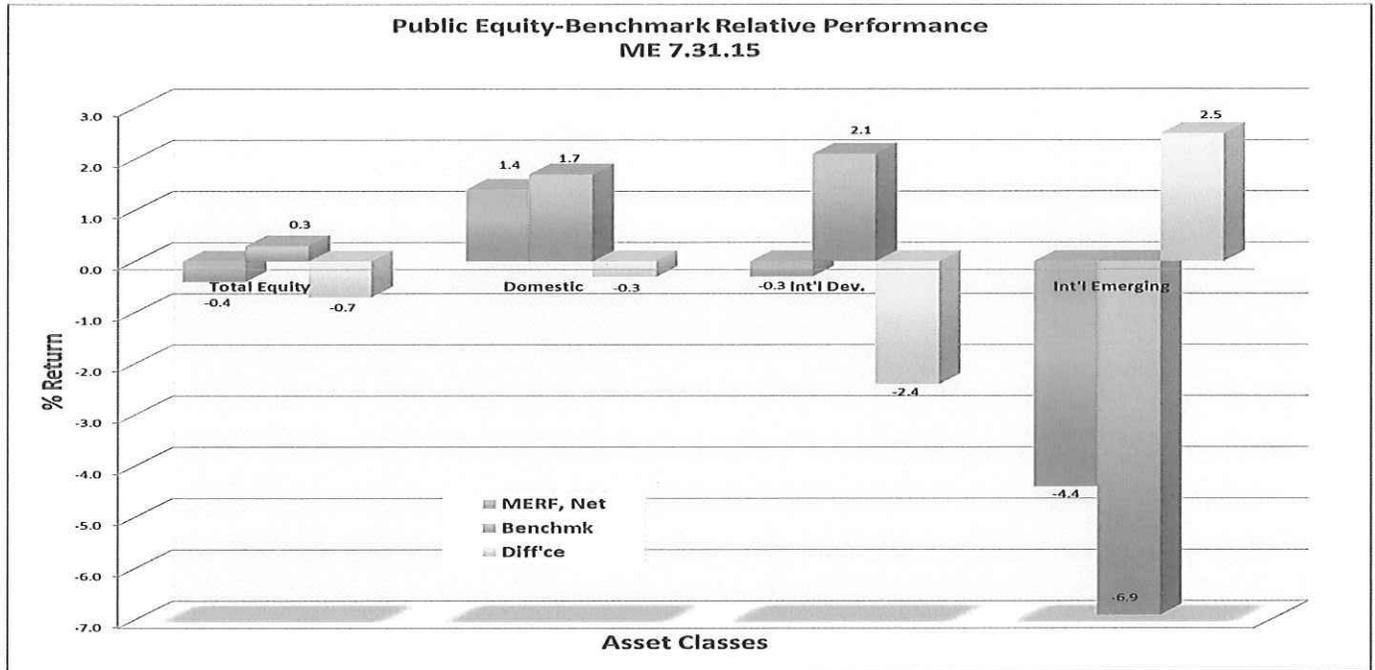
**SUBJECT:** MERF Investment Portfolio Status, as of July 31, 2015

**PERFORMANCE:**

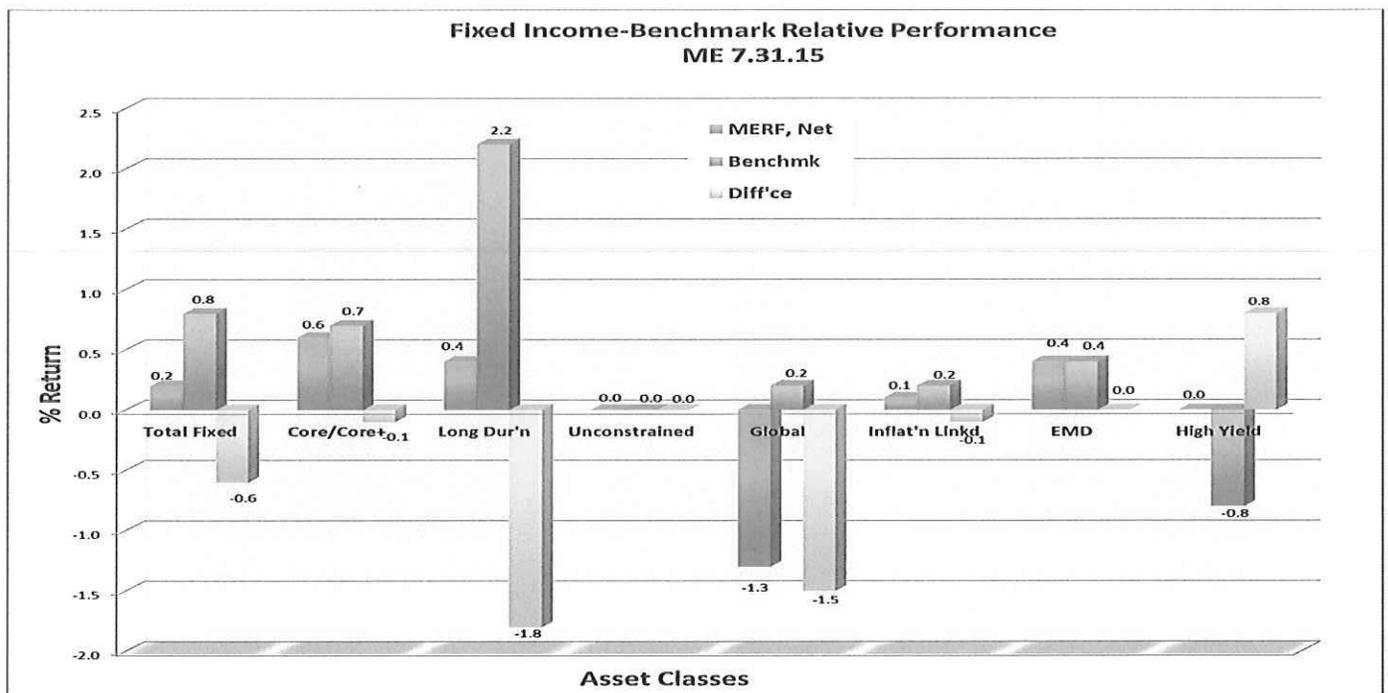
As of July 31, 2015, the MERF's net asset value totaled \$1.02 billion. Total fund performance for the month of July, net of fees, was 0.1%, which matched the MERF benchmark return. The components of monthly performance are illustrated below.



The MERF's public equity portfolio posted a -0.4% return, for the month, underperforming the benchmark return of 0.3%, by 70 basis points. All sectors except emerging markets underperformed their benchmarks. Only domestic equities generated positive returns for the month.

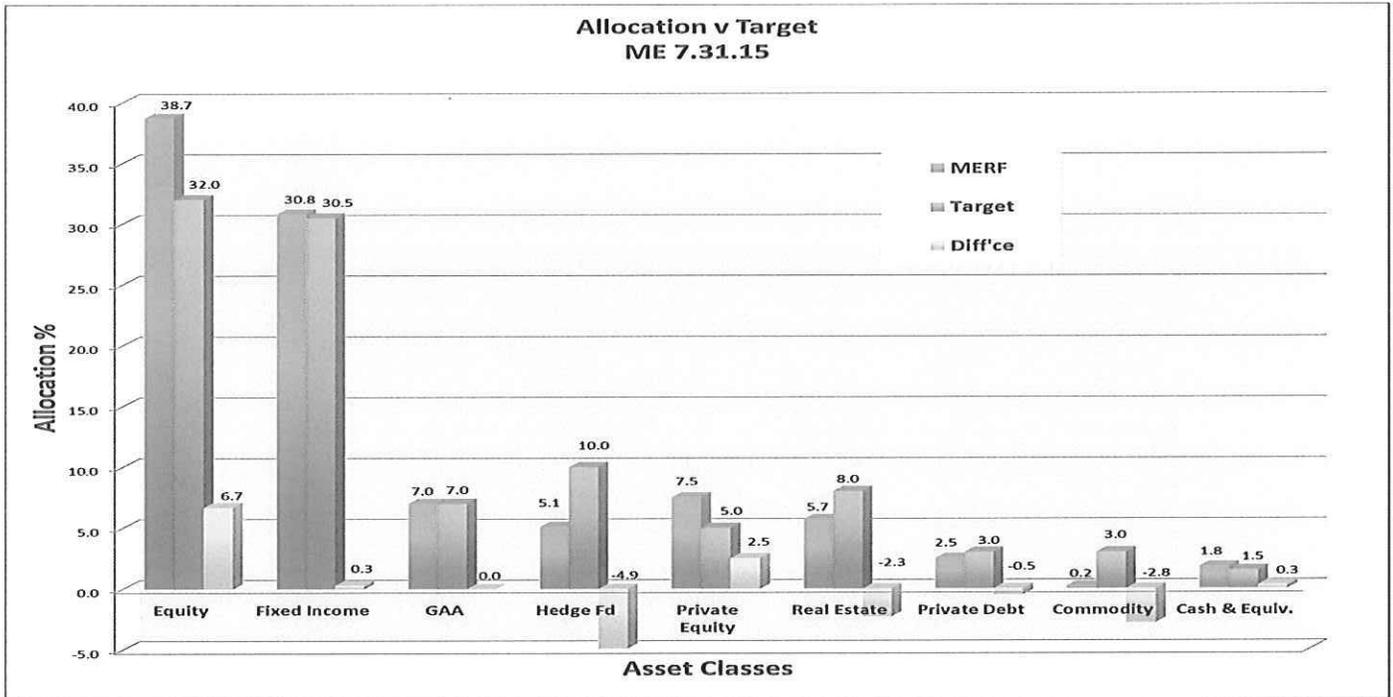


The MERF's overall fixed income performance of 0.2%, net of fees, lagged the benchmark by 60 basis points. Notably, global fixed income and long duration lagged their benchmarks for the month, while high yield outperformed its benchmark.

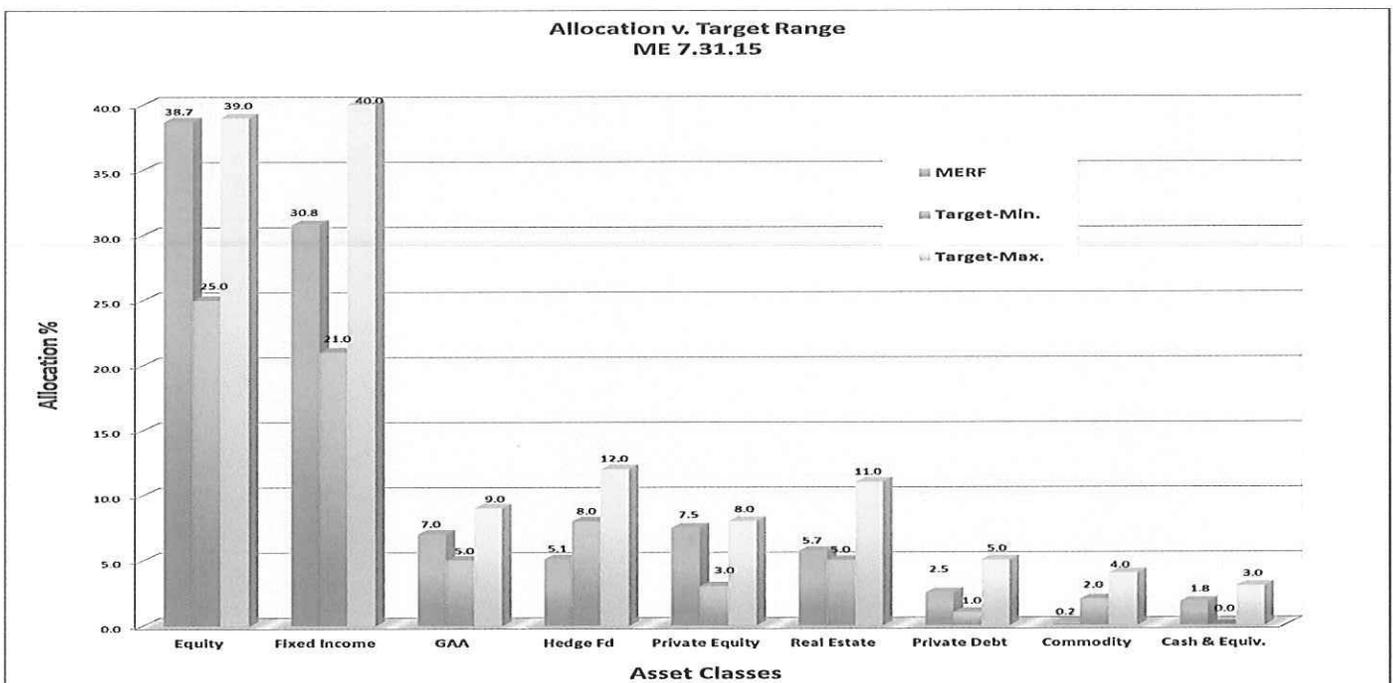


**ASSET ALLOCATION:**

As of July 2015, the MERF continues to be overweight its custom benchmark targets in equity, private equity and cash while alternative allocations continue moving towards target ranges. Hedge funds, real estate, private debt and commodities are below target allocations.



The MERF was within target ranges for all asset classes except hedge funds and commodities. These underweights are tactical positions.



= Input required

	Return %			Allocation Percentage			Asset Value (\$ millions)			
	MERF	Benchmark	Diffce	MERF	Target	Diffce	Target-Min	Target-Max	MERF	Benchmark
Total Fund	0.1	0.1	0.0							
Equity	-0.4	0.3	-0.7	38.7	32.0	6.7	25.0	39.0	395.9	395.9
Fixed Income	0.2	0.8	-0.6	30.8	30.5	0.3	21.0	40.0	314.5	314.5
GAA	-0.3	1.3	-1.6	7.0	7.0	0.0	5.0	9.0	71.7	71.7
Hedge Fd	0.5	0.3	0.2	5.1	10.0	-4.9	8.0	12.0	51.9	51.9
Private Equity	-0.1	1.7	-1.8	7.5	5.0	2.5	3.0	8.0	76.3	76.3
Real Estate	2.5	0.0	2.5	5.7	8.0	-2.3	5.0	11.0	58.6	58.6
Private Debt	1.0	0.1	0.9	2.5	3.0	-0.5	1.0	5.0	25.6	25.6
Commodity	-14.1	-14.1	0.0	0.2	3.0	-2.8	2.0	4.0	1.7	1.7
Cash & Equiv.	0.5	0.0	0.5	1.8	1.5	0.3	0.0	3.0	26.5	26.5
<b>CHECK TOTAL</b>				99.3	100.0	-0.7	70.0	131.0	1022.7	1022.7
Total Equity	-0.4	0.3	-0.7							
Domestic	1.4	1.7	-0.3							
Int'l Dev.	-0.3	2.1	-2.4							
Int'l Emerging	-4.4	-6.9	2.5							
Total Fixed	0.2	0.8	-0.6							
Core/Core+	0.6	0.7	-0.1							
Long Dur'n	0.4	2.2	-1.8							
Unconstrained	0.0	0.0	0.0							
Global	-1.3	0.2	-1.5							
Inflat'n Linkd	0.1	0.2	-0.1							
EMD	0.4	0.4	0.0							
High Yield	0.0	-0.8	0.8							

**City of Hartford MERF**  
 Net of Fees - Final  
 Performance Page  
 Period Ending July 31, 2015

Annualized

	Market Value	% of Total Fund	July	3 Months	Fiscal YTD	YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception to Date	Inception Date
			%	%	%	%	%	%	%	%	%	%	
<b>Total Plan Consolidation</b>	\$1022.7	100.0	0.1	(0.3)	0.1	2.2	2.3	7.3	7.8	5.5	5.6	8.3	1/31/1986
Policy Benchmark	(1)	0.1	(1.8)	0.1	0.1	0.1	1.1	7.0	8.0	6.4	6.2	8.2	2/28/1990
Total Plan Weight Benchmark	(2)	0.5	(1.4)	0.5	2.1	2.4	8.1	8.1	7.9	6.2	6.3	7.0	9/30/2004
Policy-Capitalization Based	(3)	1.1	0.2	1.1	2.8	6.8	10.7	10.4	10.4	7.7	7.1	7.1	12/31/1996
CPI plus 3.5%	(4)	0.3	1.7	0.3	3.7	3.7	4.9	4.9	5.3	4.7	5.5	5.7	12/31/1996
Liquidity Portfolio	(5)	76.3	0.1	(2.1)	0.1	0.3	(0.1)	6.2	5.6	---	---	6.1	5/31/2009
Asset Allocation Fund	(6)	59.2	0.1	(2.7)	0.1	0.2	(0.2)	7.6	6.3	---	---	8.0	4/30/2009
Asset Allocation Benchmark	(7)	(0.4)	(0.4)	(2.2)	1.6	0.6	6.2	6.2	6.2	---	---	9.3	4/30/2009
Benefits Payment Fund		17.1	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	1.4	1.9	10/31/1996
90 Day T-Bills		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	1.3	2.4	12/31/1996
Global Public Equity		395.9	(0.4)	(2.4)	(0.4)	2.2	0.9	10.9	10.1	5.5	---	3.7	2/28/2007
Comb Equity Wght Benchmark	(8)	0.3	(2.1)	(2.1)	0.3	4.1	2.0	13.6	11.6	6.9	6.8	7.9	9/30/2004
US Public Equity		196.3	1.4	1.7	1.4	4.2	10.9	17.9	16.2	9.8	---	6.6	2/28/2007
Russell 3000 Index		1.7	1.4	1.7	1.7	3.6	11.3	18.0	16.4	10.0	7.9	6.8	10/31/1997
US Equity Policy-Cap Based	(9)	1.3	1.4	1.3	3.7	11.5	18.0	18.0	16.3	10.1	7.9	8.0	12/31/1996
US Public Equity Active		180.9	1.4	1.8	1.4	4.2	10.9	17.8	16.2	9.8	7.3	8.3	8/31/1996
Russell 3000 Index		1.7	1.4	1.7	3.6	11.3	18.0	18.0	16.4	10.0	7.9	6.8	10/31/1997
Atlanta Capital Mgmt Large Cap Growth		60.6	2.6	2.7	3.6	12.3	16.6	16.6	15.5	9.3	7.9	4.9	5/31/1999
Russell 1000 Growth		3.4	3.4	3.0	7.5	16.1	18.8	17.7	17.7	11.3	8.9	3.9	8/31/1999
Eagle Capital Management Large Cap Value		63.2	3.4	3.1	3.4	16.4	19.3	19.3	17.3	12.3	9.9	11.3	10/31/2003
Russell 1000 Value		0.4	(0.4)	(0.4)	(0.2)	6.4	17.1	15.1	15.1	8.7	6.8	8.7	10/31/2003
ING Investment Management Small Cap Growth		24.5	(0.1)	3.8	(0.1)	7.6	16.7	17.7	---	---	---	17.7	8/31/2012
Russell 2000 Growth Index		0.4	5.5	5.5	9.2	20.1	21.0	21.0	---	---	---	21.0	8/31/2012
SouthernSun Asset Management		32.6	(3.1)	(3.7)	(3.1)	18.1	(3.9)	18.1	---	---	---	17.1	9/30/2010
Russell 2500 Value Index		(1.5)	(1.5)	(1.5)	0.2	4.5	16.6	16.6	---	---	---	15.9	9/30/2010
US Public Equity Passive		15.4	1.7	1.3	1.7	3.5	11.1	---	---	---	---	---	10/31/1997
SSGA Russell 3000 Index		1.5	1.7	1.3	1.7	3.5	11.1	---	---	---	---	---	10/31/2002
International Equity		199.6	(2.1)	(6.2)	(2.1)	0.3	(7.5)	4.9	5.0	1.8	4.4	5.3	9/30/1997
Russell Global ex U.S. Equity Index	(10)	(0.6)	(4.4)	(4.4)	4.3	(3.9)	9.9	9.9	6.8	3.0	5.6	4.8	7/31/1999
Intl Equity Developed Mkts		112.7	(0.2)	(3.5)	(0.2)	4.7	(1.2)	8.0	7.5	3.3	---	2.2	2/28/2007
Intl Developed Markets Active		106.1	(0.3)	(3.6)	(0.3)	4.6	(1.1)	8.1	7.5	3.7	5.4	5.7	6/30/1999
MSCI EAFE Composite		2.1	(1.2)	2.1	8.1	0.1	12.8	12.8	8.5	3.2	5.5	4.8	6/30/1999
First Eagle Invest Mgmt Intl All Cap		48.6	(1.3)	(3.3)	(1.3)	4.7	(1.2)	9.2	8.3	6.8	8.2	13.0	10/31/2002
First Eagle Custom Benchmark	(11)	2.1	(1.3)	2.1	7.7	(0.3)	12.3	12.3	8.3	3.9	5.8	12.2	10/31/2002
Waiver Scott International Ltd Intl Large Growth		57.5	0.4	(3.8)	0.4	4.5	(0.9)	7.1	6.9	4.2	---	3.9	5/31/2006
MSCI EAFE Net Dividend		2.1	(1.3)	2.1	7.7	(0.3)	12.3	12.3	8.0	2.8	---	2.7	5/31/2006
Intl Developed Markets Passive		6.6	1.5	(2.2)	1.5	6.1	(2.0)	---	---	---	---	---	7/31/2014
SSGA EAFE Index Fund		6.1	2.0	(1.4)	2.0	7.8	(0.3)	---	---	---	---	(0.5)	7/31/2014
SSGA Daily MSCI CAD Index		0.5	(3.6)	(10.6)	(3.6)	(9.9)	(17.9)	---	---	---	---	(17.9)	7/31/2014
Intl Emerging Markets		86.9	(4.4)	(9.5)	(4.4)	(5.0)	(14.5)	0.4	---	---	---	---	2/28/2007
MSCI Emerging Net Dividend		(6.9)	(6.9)	(13.0)	(6.9)	(4.2)	(13.4)	0.6	0.6	0.4	6.6	9.7	1/31/2001
Intl Emerging Active		81.0	(4.2)	(9.2)	(4.2)	(5.1)	(14.7)	0.3	(0.1)	(1.3)	5.5	6.7	4/30/2000
MSCI Emerging Net Dividend		(6.9)	(6.9)	(13.0)	(6.9)	(4.2)	(13.4)	0.6	0.6	0.4	6.6	9.7	1/31/2001
Mondrian Inv Partners - EME		33.4	(3.5)	(8.3)	(3.5)	(6.0)	(14.1)	(1.1)	---	---	---	0.7	6/30/2012
Parametric EV		47.6	(4.8)	(9.9)	(4.8)	(4.5)	(15.1)	1.3	---	---	---	2.4	6/30/2012
Intl Emerging Passive		5.9	(7.0)	(13.0)	(7.0)	(3.9)	(13.1)	---	---	---	---	(13.1)	8/31/2014
SSGA Daily MSCI EM Index		5.9	(7.0)	(13.0)	(7.0)	(3.9)	(13.1)	---	---	---	---	(13.1)	8/31/2014

City of Hartford MERF  
 Net of Fees - Final  
 Performance Page  
 Period Ending July 31, 2015

Annualized

Market Value	% of Total Fund	July	3 Months	Fiscal YTD	YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception to Date	Inception Date
		%	%	%	%	%	%	%	%	%	%	
(14)	\$314.5	30.8	(2.3)	0.8	0.0	0.9	1.4	4.5	5.7	5.3	6.0	7/31/1997
Total Fixed Income												
			(0.6)	0.7	0.6	2.8	1.6	3.3	6.5	—	6.2	1/31/2007
			(1.1)	0.5	(0.5)	0.0	0.7	2.8	4.7	4.6	5.5	7/31/1997
(15)			(1.1)	0.5	(0.5)	0.0	0.7	2.8	4.0	4.2	4.2	9/30/2004
US Core/Core Plus												
	52.8	5.2	(0.6)	0.6	0.8	2.6	2.1	3.6	4.2	4.1	5.3	7/31/1996
			(0.6)	0.7	0.6	2.8	1.6	3.3	4.7	4.6	5.5	12/31/1996
US Core/Core Plus Fixed Income Active												
	43.9	4.3	(0.6)	0.6	0.8	2.5	2.6	4.3	5.1	4.4	5.5	7/31/1996
	0.4	0.0	0.8	0.3	2.0	3.7	3.7	5.4	5.3	5.7	5.6	8/31/1996
			(0.6)	0.7	0.6	2.8	1.6	3.3	4.7	4.6	5.5	12/31/1996
	0.8	0.1	0.7	0.2	4.0	8.2	11.9	10.8	10.7	7.4	7.3	1/31/1992
			(0.6)	0.7	0.6	2.8	1.6	3.3	4.7	4.6	5.5	12/31/1996
	42.8	4.2	(0.6)	0.6	0.7	2.4	2.4	4.1	5.4	4.8	5.0	10/31/2002
			(0.6)	0.7	0.6	2.8	1.6	3.3	4.7	4.6	4.5	10/31/2002
US Core/Core Plus Passive												
	8.8	0.9	(0.7)	0.7	0.6	2.7	1.3	2.2	2.4	3.1	4.4	5/31/1998
			(0.6)	0.7	0.6	2.8	1.6	3.3	4.7	4.6	5.3	5/31/1998
	8.8	0.9	(0.7)	0.7	0.6	2.7	1.5	—	—	—	3.2	5/31/2011
			(0.6)	0.7	0.6	2.8	1.6	—	—	—	3.4	5/31/2011
Total Long Duration												
	61.5	6.0	(1.8)	0.4	(2.0)	(0.9)	(0.0)	5.7	8.6	—	7.8	3/31/2008
			(3.2)	2.2	(2.4)	3.8	1.7	6.9	8.3	—	7.5	3/31/2008
Long Duration Active												
	56.5	5.5	(1.7)	0.3	(2.1)	(1.5)	0.0	5.6	8.5	—	8.1	6/30/2008
			(1.7)	0.3	(2.1)	(1.5)	0.0	5.6	8.0	—	7.6	6/30/2008
			(3.2)	2.2	(2.4)	3.8	1.7	6.9	8.3	—	8.1	6/30/2008
Long Duration Passive												
	5.0	0.5	(3.2)	2.2	(2.2)	3.9	(0.8)	5.9	7.2	—	6.7	3/31/2008
			(3.2)	2.2	(2.2)	3.9	—	—	—	—	3.9	8/31/2014
			(3.2)	2.2	(2.4)	3.8	1.7	6.9	8.3	—	7.5	3/31/2008
Unconstrained Fixed Income												
	40.0	3.9	—	0.0	—	—	—	—	—	—	0.0	7/31/2015
			—	0.0	—	—	—	—	—	—	0.0	7/31/2015
	40.0	3.9	—	(0.5)	—	—	—	—	—	—	—	7/31/2015
Global Fixed												
	2.9	0.3	(2.9)	(1.3)	(3.5)	(6.1)	(2.6)	0.3	2.3	—	3.6	2/28/2007
			(2.0)	0.2	(2.9)	(6.0)	(1.1)	1.4	2.6	—	3.8	2/28/2007
Global Fixed - Passive												
	2.7	0.3	(3.2)	0.3	(5.6)	(12.3)	—	—	—	—	—	2/28/2007
			(3.2)	0.3	(5.6)	(12.3)	—	—	—	—	—	6/30/2000
Inflation Linked Composite												
	39.9	3.9	(1.4)	0.1	0.8	(1.1)	(1.0)	3.5	3.9	—	5.0	2/28/2007
			(1.6)	0.2	0.6	(1.6)	(1.3)	3.3	3.6	—	4.3	4/30/2005
	37.5	3.7	(1.4)	0.1	0.8	(1.1)	(0.9)	3.5	3.9	4.4	4.4	4/30/2005
			(1.6)	0.2	0.4	(1.7)	—	—	—	—	(1.7)	8/31/2014
Emerging Mkts Debt												
	75.0	7.3	(1.9)	0.4	2.6	(0.2)	4.3	7.2	8.9	—	8.0	2/28/2007
			(1.8)	0.4	2.2	(1.3)	2.2	5.8	7.3	7.4	7.4	6/31/2005
	71.5	7.0	(1.6)	0.6	3.2	1.0	4.7	7.4	9.1	9.0	9.0	8/31/2005
			(6.5)	(2.8)	(7.7)	(17.2)	—	—	—	—	(17.2)	8/31/2014
High Yield												
	42.4	4.1	(1.0)	0.0	3.3	2.2	5.0	6.4	—	—	6.3	7/31/2010
			(2.0)	(0.8)	(0.8)	(0.4)	5.5	7.5	—	—	8.0	7/31/2010
	40.1	3.9	(0.9)	0.0	3.4	2.3	5.0	6.5	—	—	6.4	7/31/2010
			(2.0)	(0.5)	1.9	0.8	—	—	—	—	0.8	8/31/2014
Cash - Active												
	26.6	2.6	0.6	0.5	0.9	1.2	0.4	0.5	1.2	2.2	2.6	7/31/1997
			0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.3	2.4	12/31/1996

(16)

(17)

City of Hartford MERF

Net of Fees - Final

Performance Page

Period Ending July 31, 2015

Annualized

	Market Value	% of Total Fund	July	3 Months	Fiscal YTD	YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception to Date	Inception Date
	\$	%	(0.3) %	(1.6) %	(0.3) %	%	%	%	%	%	%	%	
Global Asset Allocation	\$71.7	7.0	1.3	(0.9)	1.3	3.8	1.7	8.3	---	---	---	6.8	4/30/2012
60 MSCI World 40 Citi WGBI			(0.5)	(1.5)	(0.5)	1.5	0.1	7.8	---	---	---	6.5	4/30/2012
Wellington Management Co LLP	35.3	3.5	0.8	(1.2)	0.8	4.8	1.1	7.8	---	---	---	6.3	4/30/2012
Wellington Benchmark			(0.1)	(1.7)	(0.1)	2.8	3.3	9.2	---	---	---	7.8	4/30/2012
Blackrock Global Allocation Fd	36.4	3.6	1.1	(0.8)	1.1	2.9	2.3	8.7	---	---	---	7.2	4/30/2012
Blackrock Benchmark			(14.1)	(16.0)	(14.1)	1.9	1.8	8.1	---	---	---	6.9	4/30/2012
Commodities	1.7	0.2	(14.1)	(16.0)	(14.1)	(14.2)	(42.4)	---	---	---	---	(42.4)	8/31/2014
SSGA S&P GSCI NL QP CTF	1.7	0.2	(14.1)	(16.0)	(14.1)	(14.2)	(42.4)	---	---	---	---	(42.4)	8/31/2014
S&P GSCI			(14.1)	(15.9)	---	(14.3)	(42.7)	(16.9)	(8.2)	(15.8)	(8.2)	---	
Alternatives	212.3	20.8	0.9	3.8	0.9	5.0	11.1	12.6	12.7	7.9	---	9.3	2/28/2007
Alternatives Benchmark			0.5	1.6	0.5	4.6	8.7	10.4	9.8	5.5	---	5.4	2/28/2007
Private Equity	76.3	7.5	(0.1)	5.6	(0.1)	8.7	17.8	17.0	15.6	10.1	13.9	13.7	12/31/2002
Russell 3000 + 300 bps			1.7	1.8	1.7	5.2	14.3	21.0	19.4	13.1	10.9	12.3	12/31/2002
Real Estate	58.6	5.7	2.5	4.4	2.5	4.1	10.0	7.6	5.9	(3.1)	(3.9)	(4.0)	7/31/1998
NCREIF Property(1qtr/Arrears)			0.0	3.6	0.0	6.7	12.7	11.5	12.8	5.0	8.4	9.4	7/31/1998
Private Debt	25.6	2.5	1.0	2.4	1.0	0.4	8.5	---	---	---	---	10.5	1/31/2013
Credit Suisse Leveraged Loan Index			0.1	(0.0)	---	3.0	2.3	5.0	5.5	5.4	4.7	---	
Hedge Fund Composite	51.9	5.1	0.5	1.3	0.5	2.7	3.7	---	---	---	---	3.0	5/31/2014
HFRI Fund of Funds Index			0.3	0.2	---	2.9	4.6	6.1	4.0	1.6	3.1	---	

**City of Hartford MERF**  
 Net of Fees - Final  
 Performance Page  
 Period Ending July 31, 2015

Annualized

Market Value	% of Total Fund	July	3 Months	Fiscal YTD	YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception to Date	Inception Date
		(0.3) %	(1.6) %	(0.3) %	3.8 %	1.7 %	8.3 %	---	---	---	6.8 %	
<b>Global Asset Allocation</b>												
60 MSCI World 40 Cit: WGBI	\$71.7	7.0	(0.9)	1.3	1.5	0.1	7.8	---	---	---	6.5	4/30/2012
Wellington Management Co LLP	(12)	3.5	(0.5)	(0.5)	4.8	1.1	7.8	---	---	---	6.3	4/30/2012
Wellington Benchmark			(1.2)	0.8	2.8	3.3	9.2	---	---	---	7.8	4/30/2012
Blackrock Global Allocation Fd	(13)	3.6	(0.1)	(0.1)	2.9	2.3	8.7	---	---	---	7.2	4/30/2012
Blackrock Benchmark			(0.8)	1.1	1.9	1.8	8.1	---	---	---	6.9	4/30/2012
<b>Commodities</b>												
SSGA S&P GSCI NL QP CTF	1.7	0.2	(14.1)	(14.1)	(14.2)	(42.4)	---	---	---	---	(42.4)	8/31/2014
S&P GSCI	1.7	0.2	(14.1)	(14.1)	(14.2)	(42.4)	(16.9)	(8.2)	(15.6)	(8.2)	(42.4)	8/31/2014
<b>Alternatives</b>												
Alternatives Benchmark	(16)	20.8	3.8	0.9	5.0	11.1	12.6	12.7	7.9	---	9.3	2/28/2007
Private Equity												
Russell 3000 + 300 bps	76.3	7.5	5.6	1.7	8.7	17.8	17.0	15.6	10.1	13.9	13.7	12/31/2002
ARES Corp. Opportunity Fund			1.8	0.0	5.2	14.3	21.0	19.4	13.1	10.9	12.3	12/31/2002
ARES Corp. Opportunity Fund II	0.5	0.0	4.9	0.0	4.9	11.1	3.3	3.3	6.1	11.4	9.5	2/28/2005
ARES Corp. Opportunity Fund III	1.0	0.1	24.3	0.0	24.3	(1.0)	17.3	21.2	18.8	---	16.1	4/30/2006
ARES Corp. Opportunity Fund IV	7.3	0.7	10.6	0.2	10.6	19.5	22.1	23.8	20.0	---	19.8	7/31/2008
Fairview Ventures III	5.3	0.5	5.4	0.0	5.4	14.5	---	---	---	---	(3.6)	11/30/2012
Fairview Ventures IV	11.4	1.1	4.5	0.0	4.5	29.2	25.1	20.7	11.3	---	8.0	7/31/2007
Landmark Ptnrs XI Private Equity	0.9	0.1	2.2	0.0	2.2	(3.4)	7.3	9.6	1.8	10.8	(3.7)	5/31/2003
Landmark Ptnrs XIII Private Equity	3.7	0.4	2.3	0.0	2.3	15.4	10.9	10.8	5.6	---	6.7	8/31/2006
Landmark Ptnrs XIV Private Equity	5.6	0.5	0.0	0.0	2.1	7.5	12.5	16.8	---	---	14.1	12/31/2008
Landmark Ptnrs XV Private Equity	1.6	0.2	11.3	0.0	(3.5)	9.6	---	---	---	---	17.3	10/31/2013
Lexington Capital Partners V	1.1	0.1	0.9	0.0	2.8	8.1	10.7	12.5	5.7	11.5	14.0	12/31/2002
Lexington Capital Partners VI	3.8	0.4	2.0	0.0	4.1	7.9	13.0	14.2	7.3	7.4	7.4	7/31/2006
Lexington Capital Partners VII	5.7	0.6	0.9	0.0	4.1	12.3	17.1	16.1	---	---	(7.1)	12/31/2009
Parish Capital	2.8	0.3	(2.2)	0.0	(7.9)	9.0	12.4	12.4	8.2	9.2	3.5	4/30/2005
Parish Capital Fund II LP	9.0	0.9	1.6	(0.8)	(0.8)	20.3	18.4	15.1	8.2	---	6.4	5/31/2007
Pegasus Investment Partners LP	3.7	0.4	4.0	0.0	(5.5)	4.9	---	---	---	---	8.6	1/31/2013
Vista Equity Partners IV	9.9	1.0	16.7	0.0	27.3	38.6	15.8	---	---	---	14.1	4/30/2012
Vista Equity Partners V	3.0	0.3	(0.8)	0.0	(0.6)	---	---	---	---	---	(3.7)	9/30/2014
<b>Real Estate</b>												
NCREIF Property Fund (Ameers)	58.6	5.7	4.4	2.5	4.1	10.0	7.6	5.9	(3.1)	(3.9)	(4.0)	7/31/1998
Comerstone Patriot Fund	20.0	2.0	3.6	0.0	6.7	12.7	11.5	12.8	5.0	8.4	9.4	7/31/1998
Heitman America Realty Fund	15.8	1.5	5.7	3.1	6.3	12.6	---	---	---	---	8.1	1/31/2013
Landmark RE Fund VII	0.5	0.0	7.4	3.9	7.9	12.1	---	---	---	---	10.7	4/30/2013
Mesrow RE Value II	0.8	0.1	23.1	0.0	27.5	---	---	---	---	---	27.5	12/31/2014
New Boston Urban Strategy Amer Fund	0.8	0.1	---	0.0	---	---	---	---	---	---	0.0	6/30/2015
Oaktree Capital Mgmt	3.7	0.4	(2.1)	0.0	(3.0)	(1.3)	2.7	3.0	(5.8)	---	(6.9)	1/31/2007
Ochziff RE Fund III	0.8	0.1	1.5	2.5	17.7	23.7	---	---	---	---	21.7	7/31/2014
TA Realty Associates Fund X	0.7	0.1	(3.1)	0.0	(36.6)	---	---	---	---	---	---	7/31/2014
36 Edwards St., Hartford	6.2	0.6	2.9	0.0	3.1	12.3	0.0	0.0	0.0	0.0	(1.8)	3/31/2013
Tristan European Property 3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(1.7)	7/31/1998
SSGA US REIT Index	5.2	0.5	0.5	(0.8)	(8.5)	(15.1)	---	---	---	---	(11.7)	1/31/2014
SSGA US REIT Index	4.7	0.5	1.2	5.9	(0.2)	11.4	---	---	---	---	11.4	8/31/2014
<b>Private Debt</b>												
Credit Suisse Leveraged Loan Index	25.6	2.5	2.4	1.0	0.4	8.5	---	---	---	---	10.5	1/31/2013
Alcentra European Direct Lend	9.5	0.9	(0.0)	0.1	3.0	2.3	5.0	5.5	5.4	4.7	---	12/31/2013
Brightwood Capital Fund III	5.4	0.5	3.2	4.9	3.8	8.9	---	---	---	---	5.3	1/31/2014
Monroe Direct Lnd Fd	9.1	0.9	1.9	0.5	4.9	9.9	---	---	---	---	5.8	10/31/2013
Smith Whitley & Pelham III	1.6	0.2	(7.2)	0.0	(30.1)	(12.3)	6.8	7.3	---	---	7.9	1/31/2009
<b>Hedge Fund Composite</b>												
HFRF Fund of Funds Index	51.9	5.1	1.3	0.5	2.7	3.7	---	---	---	---	3.0	5/31/2014
Grosvenor Hedge FOF	51.9	5.1	0.2	0.3	2.9	4.6	6.1	4.0	1.6	3.1	---	5/31/2014

INTEROFFICE MEMORANDUM

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

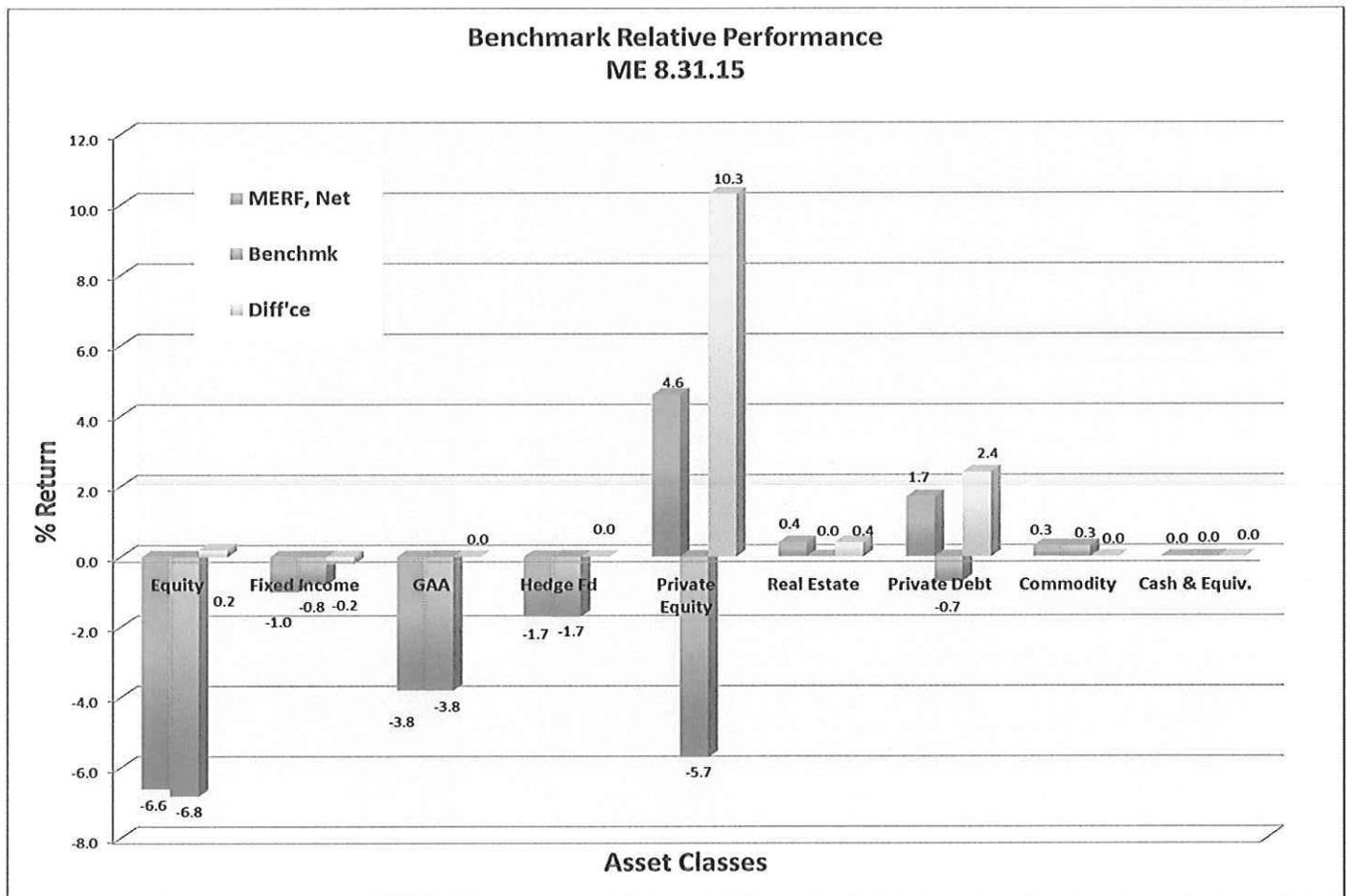
**FROM:** Gary B. Draghi, Director of Investments,  
P. Wayne Moore, Assistant Director of Investments  
J. Sean Antoine, Principal Investment Analyst

**DATE:** September 16, 2015

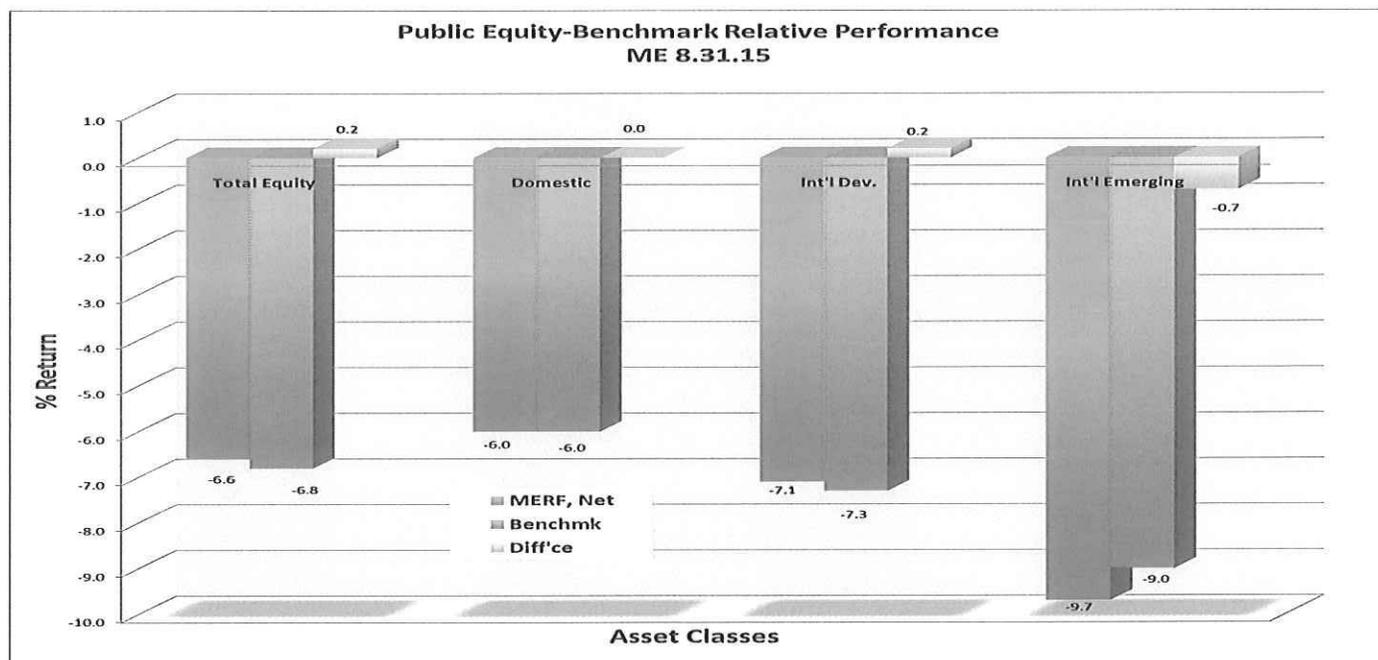
**SUBJECT:** MERF Investment Portfolio Status, as of August 31, 2015

**PERFORMANCE:**

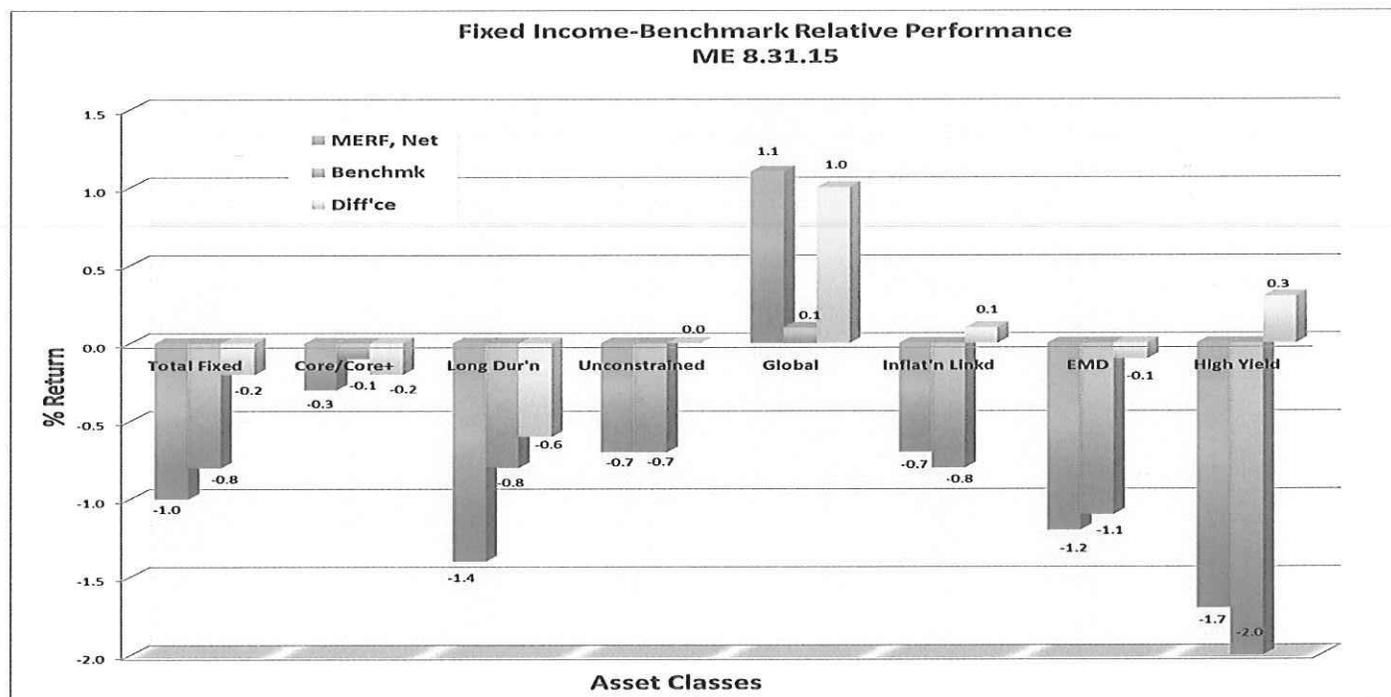
As of August 31, 2015, the MERF's net asset value totaled \$997 million. Total fund performance for the month of August, net of fees, was -2.2%, which outperformed the MERF benchmark return of -3.3%, by 110 basis points. The components of monthly performance are illustrated below.



The MERF's public equity portfolio posted a -6.6% return, for the month, slightly outperforming the benchmark return of -6.8%, by 20 basis points. International developed equities outperformed for the month, while emerging equities underperformed its benchmark.

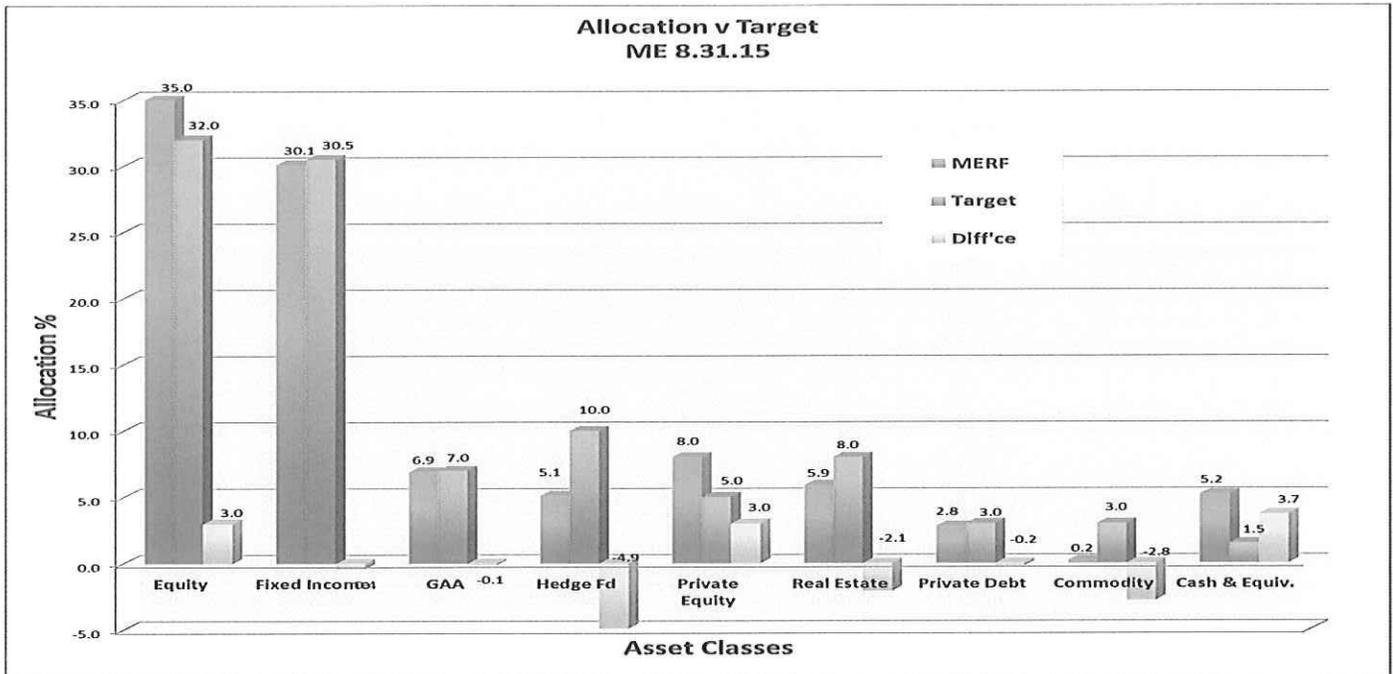


The MERF's overall fixed income performance of -1.0%, net of fees, lagged the benchmark by 20 basis points, driven by negative benchmark relative results in core/core plus, long duration and emerging market debt. Global bonds did the best, up 1.1% and 100 basis points ahead of its index, while inflation linked and high yield outperformed despite negative absolute returns.

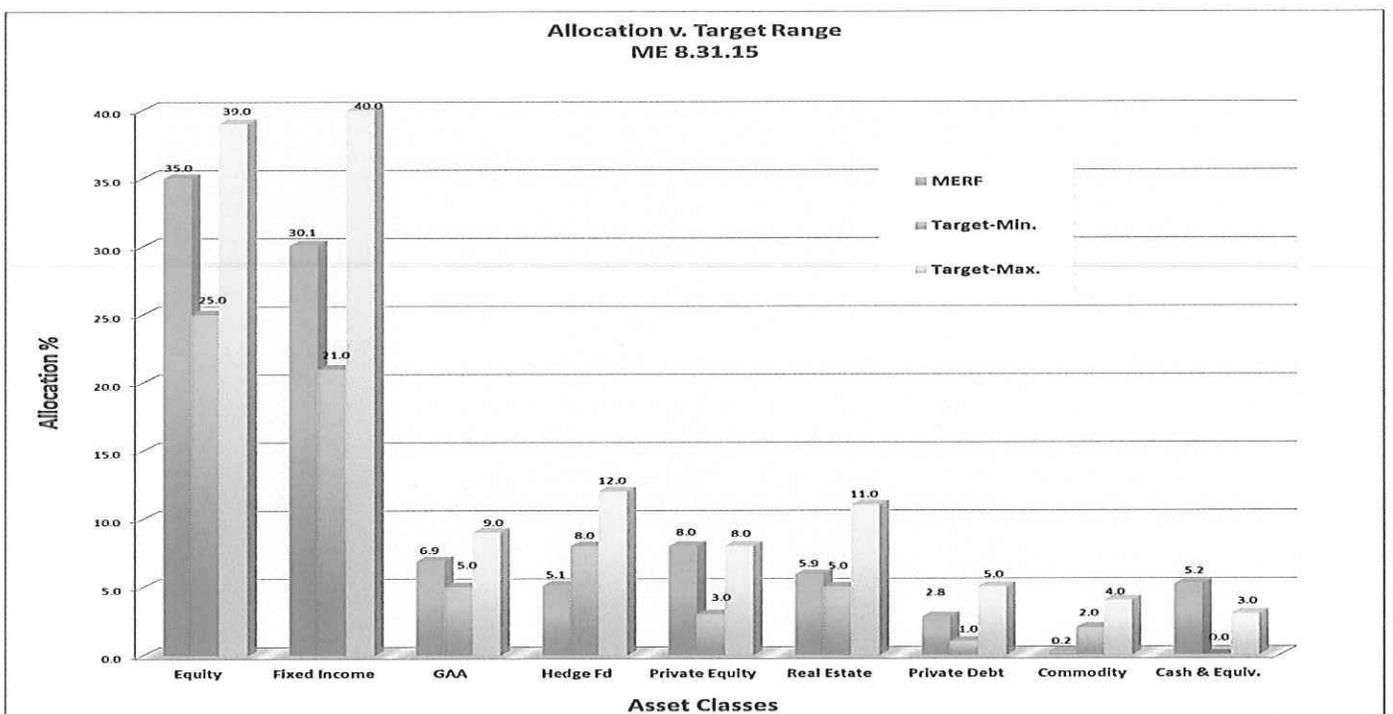


**ASSET ALLOCATION:**

As of August 2015, the MERF continues to be overweight its custom benchmark targets in equity, private equity and cash while hedge funds, real estate and commodities are below target allocations.



The MERF was within target ranges for all asset classes except hedge funds and commodities. These underweights are tactical position.



= Input required

	Return %		Allocation Percentage				Asset Value (\$ millions)		
	MERF	Benchmark	MERF	Target	Diff'ce	Target-Min	Target-Max	MERF	Benchmark
Total Fund Equity	-2.7	-3.3			0.6				
Fixed Income	-6.6	-6.8			0.2				
GAA	-1.0	-0.8	35.0	32.0	-0.2	25.0	39.0	349.5	300.2
Hedge Fd	-3.8	-3.8	30.1	30.5	0.0	21.0	40.0	68.9	68.9
Private Equity	-1.7	-1.7	6.9	7.0	0.0	5.0	9.0	51.0	51.0
Real Estate	4.6	-5.7	5.1	10.0	10.3	8.0	12.0	79.4	79.4
Private Debt	0.4	0.0	8.0	5.0	0.4	3.0	8.0	58.8	58.8
Commodity	1.7	-0.7	5.9	8.0	2.4	5.0	11.0	27.5	27.5
Cash & Equiv.	0.3	0.3	2.8	3.0	0.0	1.0	5.0	1.9	1.9
<b>CHECK TOTAL</b>	0.0	0.0	0.2	3.0	0.0	2.0	4.0	60.3	60.3
			5.2	1.5		0.0	3.0	997.5	997.5
			99.2	100.0		70.0	131.0		
Total Equity	-6.6	-6.8			0.2				
Domestic	-6.0	-6.0			0.0				
Int'l Dev.	-7.1	-7.3			0.2				
Int'l Emerging	-9.7	-9.0			-0.7				
Total Fixed	-1.0	-0.8			-0.2				
Core/Core+	-0.3	-0.1			-0.2				
Long Dur'n	-1.4	-0.8			-0.6				
Unconstrained	-0.7	-0.7			0.0				
Global	1.1	0.1			1.0				
Inflat'n Linkd	-0.7	-0.8			0.1				
EMD	-1.2	-1.1			-0.1				
High Yield	-1.7	-2.0			0.3				

City of Hartford MERF

Net of Fees - Final  
Performance Page

Period Ending August 31, 2015

Annualized

	Market Value	% of Total Fund	August	3 Months	Fiscal YTD	YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception to Date	Inception Date
	\$997.5	100.0 %	(2.7) %	(3.8) %	2.6 %	0.5 %	(1.9) %	5.8 %	7.2 %	5.1 %	5.3 %	8.2 %	
<b>Total Plan Consolidation</b>													
Policy Benchmark	(1)		(3.3)	(4.6)	(3.2)	(1.3)	(3.8)	5.4	7.4	6.0	5.8	8.1	1/31/1986
Total Plan Wgt'd Benchmark	(2)		(3.6)	(4.7)	(3.1)	(1.5)	(3.4)	6.4	7.3	5.9	5.9	6.6	2/28/1990
Policy-Capitalization Based	(3)		(3.8)	(4.2)	(2.8)	(1.1)	0.1	8.7	10.0	6.9	6.3	6.9	9/30/2004
CPI plus 3.5%	(4)		0.1	1.1	0.4	3.8	3.7	4.6	5.3	4.7	5.5	5.7	12/31/1996
Liquidity Portfolio	(5)	7.4	(3.3)	(4.7)	(3.2)	(3.0)	(5.0)	4.6	5.0	---	---	5.4	5/31/2009
Asset Allocation Fund	(6)	5.7	(4.2)	(6.1)	(4.1)	(4.0)	(6.4)	5.6	6.1	---	---	7.2	4/30/2009
Asset Allocation Benchmark	(7)		(3.3)	(4.6)	(3.2)	(1.3)	(3.8)	4.6	5.8	---	---	8.7	4/30/2009
Benefits Payment Fund		1.7	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	1.4	1.9	10/31/1986
90 Day T-Bills			0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.3	2.4	12/31/1996
Global Public Equity		35.0	(6.6)	(8.8)	(6.9)	(4.5)	(8.2)	7.6	9.2	4.7	---	2.8	2/28/2007
Comb Equity Wgt'd Benchmark	(8)		(6.8)	(8.7)	(6.6)	(3.0)	(6.9)	10.1	10.8	6.0	6.1	7.1	9/30/2004
US Public Equity		18.5	(6.0)	(6.3)	(4.7)	(2.1)	(0.2)	14.2	15.8	8.4	---	5.8	2/28/2007
Russell 3000 Index			(6.0)	(6.1)	(4.5)	(2.6)	0.4	14.6	16.0	8.8	7.3	6.4	10/31/1997
US Equity Policy-Cap Based	(9)		(6.1)	(6.1)	(4.8)	(2.6)	0.4	14.6	16.0	8.8	7.4	7.6	12/31/1996
US Public Equity Active		17.0	(6.1)	(6.3)	(4.7)	(2.1)	(0.3)	14.2	15.8	8.5	6.7	7.9	8/31/1996
Russell 3000 Index			(6.0)	(6.1)	(4.5)	(2.6)	0.4	14.6	16.0	8.8	7.3	6.4	10/31/1997
Atlanta Capital Mgmt Large Cap Growth		5.8	(5.2)	(4.1)	(2.8)	(1.9)	2.3	13.3	15.3	8.2	7.5	4.5	5/31/1999
Russell 1000 Growth			(6.1)	(4.6)	(2.9)	1.0	4.3	15.3	17.4	10.2	8.4	3.5	8/31/1999
Eagle Capital Management Large Cap Value		5.9	(6.8)	(6.0)	(3.7)	(1.6)	3.5	15.8	16.5	10.9	9.1	10.5	10/31/2003
Russell 1000 Value			(6.0)	(7.4)	(5.5)	(6.1)	(3.5)	13.9	14.7	7.5	6.2	8.1	10/31/2003
ING Investment Management Small Cap Growth		2.3	(6.6)	(5.2)	(6.7)	0.5	3.7	14.8	---	---	---	14.6	8/31/2012
Russell 2000 Growth Index			(7.6)	(6.0)	(7.2)	0.9	5.1	16.5	---	---	---	17.3	8/31/2012
SouthernSun Asset Management		3.1	(5.6)	(11.2)	(6.5)	(5.1)	(12.9)	14.4	15.5	---	---	15.5	9/30/2010
Russell 2500 Value Index			(4.9)	(7.3)	(6.3)	(4.7)	(4.8)	13.4	14.4	---	---	14.4	9/30/2010
US Public Equity Passive		1.5	(6.0)	(6.0)	(4.4)	(2.7)	0.3	---	---	---	---	---	10/31/1997
SSGA Russell 3000 Index		1.5	(6.0)	(6.0)	(4.4)	(2.7)	0.3	---	---	---	---	---	10/31/1997
International Equity		16.5	(7.1)	(11.3)	(9.0)	(6.8)	(15.1)	1.9	3.8	1.3	3.5	4.9	9/30/1997
Russell Global ex U.S. Equity Index	(10)		(7.3)	(10.4)	(7.9)	(3.4)	(11.5)	6.3	5.7	2.6	4.6	4.3	7/31/1999
Intl Equity Developed Mkts		10.7	(5.3)	(8.2)	(5.6)	(0.9)	(6.8)	5.5	6.6	3.0	---	1.5	2/28/2007
Intl Developed Markets Active		10.5	(5.2)	(8.2)	(5.5)	(0.9)	(6.6)	5.6	6.6	3.3	4.7	5.3	6/30/1999
MSCI EAFE Composite			(7.3)	(8.1)	(5.4)	0.1	(7.1)	9.0	7.5	2.7	4.4	4.3	6/30/1999
First Eagle Invest Mgmt Intl All Cap		4.7	(2.6)	(5.4)	(3.8)	1.9	(4.1)	7.5	7.9	6.8	7.8	12.7	10/31/2002
First Eagle Custom Benchmark	(11)		(7.4)	(8.1)	(5.4)	(0.2)	(7.5)	8.5	7.3	3.4	4.7	11.4	10/31/2002
Waiver Scott International Ltd Intl Large Growth		5.3	(7.4)	(10.5)	(7.0)	(3.2)	(8.8)	3.9	5.6	3.3	---	3.0	5/31/2006
MSCI EAFE Net Dividend			(7.4)	(8.1)	(5.4)	(0.2)	(7.5)	8.5	7.1	2.2	---	1.8	5/31/2006
Intl Developed Markets Passive		6.3	(7.3)	(8.6)	(5.9)	(1.6)	(9.2)	---	---	---	---	---	7/31/2014
SSGA EAFE Index Fund		5.8	(7.4)	(8.2)	(5.5)	(7.5)	(7.5)	---	---	---	---	(6.8)	7/31/2014
SSGA Daily MSCI CAD Index		0.5	(6.4)	(12.4)	(9.8)	(15.7)	(25.0)	---	---	---	---	(21.6)	7/31/2014
Intl Emerging Markets		58.0	(9.7)	(15.5)	(13.7)	(14.2)	(24.6)	(3.2)	---	---	---	---	2/28/2007
MSCI Emerging Net Dividend			(9.0)	(17.6)	(15.3)	(12.9)	(23.0)	(2.4)	(0.9)	0.2	5.5	8.9	1/31/2001
Intl Emerging Active		52.2	(9.7)	(15.3)	(13.6)	(14.3)	(24.8)	(3.3)	(1.6)	(1.4)	4.3	6.0	4/30/2000
MSCI Emerging Net Dividend			(9.0)	(17.6)	(15.3)	(12.9)	(23.0)	(2.4)	(0.9)	0.2	5.5	8.9	1/31/2001
Mondrian Inv Partners - EME		29.8	(10.7)	(15.5)	(13.8)	(16.1)	(25.3)	(4.8)	---	---	---	(2.8)	6/30/2012
Parametric EV		22.4	(8.8)	(15.0)	(13.2)	(12.9)	(24.2)	(2.2)	---	---	---	(0.5)	6/30/2012
Intl Emerging Passive		5.8	(8.9)	(17.6)	(15.3)	(12.5)	(23.0)	---	---	---	---	(19.4)	8/31/2014
SSGA Daily MSCI EM Index		5.3	(8.9)	(17.6)	(15.3)	(12.5)	(23.0)	---	---	---	---	(19.4)	8/31/2014

City of Hartford MERF

Net of Fees - Final  
Performance Page

Period Ending August 31, 2015

Annualized

	Market Value	% of Total Fund	August	3 Months	Fiscal YTD	YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception to Date	Inception Date
			(1.0) %	(1.9) %	(0.8) %	(0.5) %	(2.3) %	1.0 %	3.9 %	5.5 %	5.1 %	5.9 %	
<b>Total Fixed Income</b>	\$300.2	30.1 %	(0.8)	(2.1)	(0.0)	(0.8)	(1.6)	1.5	4.6	6.2	—	6.1	7/31/1997
Custom Fixed Benchmark	(14)		(0.1)	(0.5)	(0.0)	(0.5)	(1.6)	1.5	3.0	4.5	4.5	6.1	1/31/2007
Barclays Capital Aggregate Bond			(0.1)	(0.4)	0.5	(0.5)	(0.9)	0.6	2.5	4.0	4.1	4.2	7/31/1997
Comb Fixed Income Wgtd Bnk	(15)		(0.3)	(0.6)	0.4	(0.5)	(0.9)	0.6	2.5	4.0	4.1	4.2	9/30/2004
<b>US Core/Core Plus</b>	52.2	5.2	(0.1)	(0.5)	0.6	0.4	1.1	1.9	3.3	4.2	3.9	5.2	7/31/1996
Barclays Capital Aggregate Bond			(0.1)	(0.5)	0.6	0.4	1.6	1.5	3.0	4.5	4.5	5.4	12/31/1996
<b>US Core/Core Plus Fixed Income Active</b>	43.8	4.4	(0.3)	(0.7)	0.4	0.5	1.1	2.3	3.9	5.0	4.2	5.5	7/31/1996
AETNA (AD) GICS	0.4	0.0	0.3	0.8	0.6	2.3	3.7	3.7	5.3	5.3	5.7	5.6	8/31/1996
Barclays Capital Aggregate Bond			(0.1)	(0.5)	0.6	(0.2)	1.6	1.5	4.5	4.5	4.5	5.4	12/31/1996
Columbia Asset Management Co.	0.8	0.1	(0.2)	0.2	0.0	3.8	6.0	10.5	10.4	10.7	7.3	7.3	1/31/1992
Barclays Capital Aggregate Bond			(0.1)	(0.5)	0.6	0.4	1.6	1.5	3.0	4.5	4.5	5.4	12/31/1996
HIMCO Core Plus Fixed Income	42.6	4.3	(0.3)	(0.7)	0.4	0.4	0.9	2.2	3.8	5.3	4.6	4.9	10/31/2002
Barclays Capital Aggregate Bond			(0.1)	(0.5)	0.6	0.4	1.6	1.5	3.0	4.5	4.5	4.5	10/31/2002
<b>US Core/Core Plus Passive</b>	8.4	0.8	(0.1)	(0.6)	0.5	0.4	1.5	1.9	1.9	2.3	2.9	4.4	5/31/1998
Barclays Capital Aggregate Bond			(0.1)	(0.5)	0.6	0.4	1.6	1.5	3.0	4.5	4.5	5.3	5/31/1998
SSGA Barclays Agg. IDX AAF	8.4	0.8	(0.1)	(0.6)	0.5	0.4	1.5	1.4	—	—	—	3.1	5/31/2011
Barclays Capital Aggregate Bond			(0.1)	(0.5)	0.6	0.4	1.6	1.5	—	—	—	3.3	5/31/2011
<b>Total Long Duration</b>	60.4	6.1	(1.4)	(2.3)	(1.0)	(3.4)	(3.8)	(0.3)	4.2	8.0	—	7.5	3/31/2008
Barclays Capital Long Govt/Credit			(0.8)	(2.4)	1.4	(3.2)	(0.3)	1.7	5.6	7.9	—	7.3	3/31/2008
<b>Long Duration Active</b>	55.7	5.6	(1.4)	(2.3)	(1.2)	(3.4)	(4.2)	(0.3)	4.2	8.0	—	7.8	6/30/2008
PIMCO Long Duration Fixed	55.7	5.6	(1.4)	(2.3)	(1.2)	(3.4)	(4.2)	(0.3)	4.2	8.0	—	7.3	6/30/2008
Barclays Capital Long Govt/Credit			(0.8)	(2.4)	1.4	(3.2)	(0.3)	1.7	5.6	7.9	—	7.8	6/30/2008
<b>Long Duration Passive</b>	4.8	0.5	(0.8)	(2.4)	1.3	(3.1)	(0.3)	(0.7)	4.3	6.7	—	6.5	3/31/2008
SSGA Long US Govt/Credit	4.8	0.5	(0.8)	(2.4)	1.3	(3.1)	(0.3)	—	—	—	—	2.8	8/31/2014
Barclays Capital Long Govt/Credit			(0.8)	(2.4)	1.4	(3.2)	(0.3)	1.7	5.6	7.9	—	7.3	3/31/2008
<b>Unconstrained Fixed Income</b>	39.7	4.0	(0.7)	—	(0.7)	—	—	—	—	—	—	(0.7)	7/31/2015
Loomis Sayles Strategic Alpha	39.7	4.0	(0.7)	—	(0.7)	—	—	—	—	—	—	(0.7)	7/31/2015
Libor plus 3%			(1.2)	—	(1.6)	—	—	—	—	—	—	(1.6)	7/31/2015
<b>Global Fixed</b>	2.5	0.2	1.1	(0.0)	(0.1)	(2.4)	(5.7)	(2.2)	0.1	2.7	—	3.7	2/28/2007
Barclays Capital Aggregate Global Un-Hedged			0.1	(0.1)	0.3	(2.7)	(6.4)	(1.4)	1.2	2.9	—	3.8	2/28/2007
<b>Global Fixed - Passive</b>	2.5	0.2	0.7	1.0	1.0	(5.0)	(11.9)	—	—	—	—	—	2/28/2007
SSGA World Government Bond AAF	2.5	0.2	0.7	1.0	1.0	(5.0)	(11.9)	—	—	—	—	—	6/30/2000
<b>Inflation Linked Composite</b>	39.5	4.0	(0.7)	(1.5)	(0.6)	0.1	(2.3)	(1.2)	2.9	3.7	—	4.8	2/28/2007
Barclays Capital Treasury US TIPS Index			(0.8)	(1.5)	(0.6)	(0.2)	(2.7)	(1.5)	2.8	3.4	4.1	4.2	4/30/2005
Brown Brothers Harriman & Co. TIPS	37.2	3.7	(0.7)	(1.5)	(0.6)	0.1	(2.3)	(1.2)	3.0	3.7	4.2	4.2	4/30/2005
SSGA US TIPS Index	2.3	0.2	(0.8)	(1.5)	(0.6)	(0.3)	(2.9)	—	—	—	—	(2.3)	8/31/2014
<b>Emerging Mkts Debt</b>	64.2	6.4	(1.2)	(2.6)	(0.8)	1.4	(2.1)	3.3	6.4	8.7	—	7.7	2/28/2007
JPM EMBI Global			(1.1)	(2.4)	(0.7)	1.1	(3.0)	1.5	5.0	7.0	7.1	7.2	8/31/2005
Prudential Emerging Markets Debt	60.8	6.1	(1.0)	(2.2)	(0.4)	2.2	(0.7)	3.8	6.8	8.9	8.7	8.8	8/31/2005
SSGA Passive EM Loc Curr	3.4	0.3	(5.3)	(9.1)	(8.0)	(12.7)	(21.9)	—	—	—	—	(20.1)	8/31/2014
<b>High Yield</b>	41.7	4.2	(1.7)	(3.0)	(1.7)	1.5	(0.9)	4.2	6.2	—	—	5.9	7/31/2010
CitiGroup High Yield Market Index			(2.0)	(4.3)	(2.8)	(0.3)	(3.8)	4.4	7.1	—	—	7.5	7/31/2010
Shenman Capital	39.4	3.9	(1.7)	(2.8)	(1.6)	1.6	(0.8)	4.2	6.2	—	—	5.9	7/31/2010
SSGA High Yield Bond	2.3	0.2	(1.8)	(4.0)	(2.3)	0.0	(2.8)	—	—	—	—	(0.9)	8/31/2014
<b>Cash - Active</b>	60.3	6.0	0.0	0.6	0.5	0.9	1.2	0.5	0.5	1.2	2.2	2.6	7/31/1997
U.S. Treasury 3 Month T-bills	(17)		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.3	2.4	12/31/1996

City of Hartford MERF

Net of Fees - Final  
Performance Page

Period Ending August 31, 2015

Annualized

	Market Value	% of Total Fund	August	3 Months	Fiscal YTD	YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception to Date	Inception Date
	\$68.9	6.9 %	(3.8) %	(5.9) %	(4.0) %	(0.1) %	(3.5) %	6.1 %	---	---	---	5.5 %	
<b>Global Asset Allocation</b>													
60 MSCI World 40 Cit WGBI			(3.8)	(4.0)	(2.5)	(2.3)	(5.1)	5.8	---	---	---	5.2	4/30/2012
Wellington Management Co LLP	(12)	3.4	(4.0)	(6.3)	(4.5)	0.6	(4.0)	5.6	---	---	---	4.8	4/30/2012
Wellington Benchmark			(4.5)	(5.5)	(3.7)	(1.8)	(3.1)	7.1	---	---	---	6.2	4/30/2012
Blackrock Global Allocation Fd	(13)	3.5	(3.5)	(5.4)	(3.6)	(0.8)	(3.1)	6.5	---	---	---	5.9	4/30/2012
Blackrock Benchmark			(3.8)	(4.2)	(2.8)	(1.9)	(3.8)	6.1	---	---	---	5.6	4/30/2012
<b>Commodities</b>													
SSGA S&P GSCI NL QP CTF	1.9	0.2	0.3	(13.9)	(13.8)	(14.0)	(41.2)	---	---	---	---	(39.7)	8/31/2014
S&P GSCI	1.9	0.2	0.3	(13.9)	(13.8)	(14.0)	(41.2)	(18.5)	(7.1)	(14.9)	(9.4)	(39.7)	8/31/2014
<b>Alternatives</b>													
Alternatives Benchmark	(18)	21.7	1.5	3.2	2.5	6.6	12.5	12.1	12.9	8.1	---	9.4	2/28/2007
Private Equity			(1.8)	(1.0)	(1.4)	2.7	5.5	9.4	9.6	5.3	---	5.1	2/28/2007
Russell 3000 + 300 bps	79.4	8.0	4.6	7.0	4.5	13.6	22.5	17.5	16.4	10.8	14.4	14.0	12/31/2002
			(5.7)	(5.5)	(4.0)	(0.8)	3.4	17.6	19.0	1.9	10.4	11.7	12/31/2002
<b>Real Estate</b>													
NCREIF Property(1qtr/Arrears)	58.8	5.9	0.4	2.8	2.9	4.5	10.0	7.5	6.2	(3.1)	(3.8)	(4.0)	7/31/1998
			0.0	3.6	0.0	6.7	12.7	11.5	12.8	5.0	8.4	9.3	7/31/1998
<b>Private Debt</b>													
Credit Suisse Leveraged Loan Index	27.5	2.8	1.7	2.8	2.8	2.1	10.8	---	---	---	---	10.8	1/31/2013
			(0.7)	(0.9)	---	2.3	1.4	4.4	5.3	5.4	4.5	---	---
<b>Hedge Fund Composite</b>													
HFRI Fund of Funds Index	51.0	5.1	(1.7)	(1.9)	(1.2)	0.9	2.0	---	---	---	---	1.5	5/31/2014
			(1.7)	(2.5)	---	1.1	1.9	5.2	3.6	1.6	2.8	---	---



**CITY OF HARTFORD**

**PENSION COMMISSION**

**MEMORANDUM**

**To:** Pension Commission  
*AMC*  
**From:** Adam M. Cloud, Secretary  
**Date:** September 15, 2015  
**Subject:** NEPC Update — MERF Quarterly Performance Reports

NEPC representatives will present the portfolio reports which are attached for your review.

**MERF VS. 7.01.15 FWD ALLOC'N TARGETS**  
**06.30.15 w. Subsequent Moves**

6/17/15 12:18 PM

Mandate	Description	Com.(CF) v. Sep Acct		NAV	Alloc'n Changes	Approx. MERF Portf. after Changes	% Allocation	% Diffce- Over Target	% Diffce- Over (Under)	\$ Diffce- Over (Under)
		(SA)	Monthend							
<b>Domestic Equity</b>										
Large Growth	Atlanta	SA	59,000,000	-	-	59,000,000				
Large Value	Eagle	SA	61,200,000	-	-	61,200,000				
	<b>Subtotal Large Cap</b>		<b>120,200,000</b>	<b>-</b>	<b>-</b>	<b>120,200,000</b>	<b>11.7%</b>	<b>10.0%</b>	<b>1.7%</b>	<b>17,600,000</b>
SMID Value	SouthernSun	SA	33,600,000	-	-	33,600,000				
Small Growth	ING	SA	24,500,000	-	-	24,500,000				
	<b>Subtotal Small &amp; Midcap</b>		<b>58,100,000</b>	<b>-</b>	<b>-</b>	<b>58,100,000</b>	<b>5.7%</b>	<b>5.0%</b>	<b>0.7%</b>	<b>6,800,000</b>
R3000	Domestic Public Active		178,300,000	-	-	178,300,000				
R3000	SSGA <i>Passive</i>	CF	15,200,000	2,600,000	2,600,000	17,800,000	1.7%			
	<b>Domestic Equity</b>		<b>193,500,000</b>	<b>2,600,000</b>	<b>2,600,000</b>	<b>196,100,000</b>	<b>19.1%</b>	<b>15.0%</b>	<b>4.1%</b>	<b>42,200,000</b>
<b>International Equity</b>										
Large Growth	Walter Scott	CF	57,200,000	-	-	57,200,000				
All Cap Value	First Eagle	SA	49,300,000	-	-	49,300,000				
EAFE	SSGA <i>Passive</i>	CF	5,800,000	1,000,000	1,000,000	6,800,000				
MSCI CAD	SSGA <i>Passive</i>	CF	500,000	100,000	100,000	600,000				
	<b>Developed Int'l Equity</b>		<b>112,800,000</b>	<b>1,100,000</b>	<b>1,100,000</b>	<b>113,900,000</b>	<b>11.1%</b>	<b>11.0%</b>	<b>0.1%</b>	<b>1,040,000</b>
Em. Mkt. Eq.	Mondrian	CF	34,600,000	(5,000,000)	(5,000,000)	29,600,000				
Em. Mkt. Eq.	Parametric	CF	50,000,000	(22,000,000)	(22,000,000)	28,000,000				
MSCI EM	SSGA <i>Passive</i>	CF	5,900,000	1,000,000	1,000,000	6,900,000				
Em. Mkt. Eq.	<b>Emerging Mkts Equity</b>		<b>90,500,000</b>	<b>(26,000,000)</b>	<b>(26,000,000)</b>	<b>64,500,000</b>	<b>6.3%</b>	<b>6.0%</b>	<b>0.3%</b>	<b>2,940,000</b>
	<b>Total Equity</b>		<b>396,800,000</b>	<b>(22,300,000)</b>	<b>(22,300,000)</b>	<b>374,500,000</b>	<b>36.5%</b>	<b>32.0%</b>	<b>4.5%</b>	<b>46,180,000</b>
<b>Global Asset Allocation</b>										
60 Gl Eq/40 Gl Fx	BlackRock	CF	36,600,000	-	-	36,600,000				
65 Gl Eq/35 US Fix	Wellington	CF	35,600,000	-	-	35,600,000				
	<b>Global Asset Allocation</b>		<b>72,200,000</b>	<b>-</b>	<b>-</b>	<b>72,200,000</b>	<b>7.0%</b>	<b>7.0%</b>	<b>0.0%</b>	<b>380,000</b>
<b>Commodities</b>										
	Active Mgr-TBD		-	-	-	-				
S&P GSCI	SSGA <i>Passive</i>	CF	1,800,000	300,000	300,000	2,100,000				
	<b>Commodities</b>		<b>1,800,000</b>	<b>300,000</b>	<b>300,000</b>	<b>2,100,000</b>	<b>0.2%</b>	<b>0.0%</b>	<b>0.2%</b>	<b>2,100,000</b>
<b>Fixed Income</b>										
GIC	AETNA GIC	N/A	400,000	-	-	400,000				
Run off	CONNING-Columbia**	SA	800,000	-	-	800,000				
Core Plus	HIMCO Core Plus*	SA	42,500,000	-	-	42,500,000				
1-3 Yr Treas.	SSGA <i>Passive</i>	CF	-	-	-	-				
Barclays Agg	SSGA <i>Passive</i>	CF	9,000,000	1,500,000	1,500,000	10,500,000				
	<b>Core Fixed</b>		<b>52,700,000</b>	<b>1,500,000</b>	<b>1,500,000</b>	<b>54,200,000</b>	<b>5.3%</b>	<b>5.0%</b>	<b>0.3%</b>	<b>2,900,000</b>
Unconstr. Fl	Loomis Sayles	CF	-	45,000,000	45,000,000	45,000,000	4.4%	5.0%	-0.6%	(6,300,000)
Long Dur'n	PIMCO Long Duration	SA	67,300,000	(11,000,000)	(11,000,000)	56,300,000				
Long Dur'n	SSGA <i>Passive</i>	CF	5,100,000	900,000	900,000	6,000,000				
	<b>Lg Dur'n Fixed</b>		<b>72,400,000</b>	<b>(10,100,000)</b>	<b>(10,100,000)</b>	<b>62,300,000</b>	<b>6.1%</b>	<b>6.5%</b>	<b>-0.4%</b>	<b>(4,390,000)</b>
Global Fixed	Mondrian	SA	31,300,000	(31,300,000)	(31,300,000)	-				
WGBI	SSGA <i>Passive</i>	CF	2,700,000	400,000	400,000	3,100,000				
	<b>Global Fixed</b>		<b>34,000,000</b>	<b>(30,900,000)</b>	<b>(30,900,000)</b>	<b>3,100,000</b>	<b>0.3%</b>	<b>0.0%</b>	<b>0.3%</b>	<b>3,100,000</b>
Dom. TIPS	BBH TIPS	SA	47,400,000	(10,000,000)	(10,000,000)	37,400,000				
Barclays TIPS	SSGA <i>Passive</i>	CF	2,400,000	400,000	400,000	2,800,000				
	<b>TIPS</b>		<b>49,800,000</b>	<b>(9,600,000)</b>	<b>(9,600,000)</b>	<b>40,200,000</b>	<b>3.9%</b>	<b>4.0%</b>	<b>-0.1%</b>	<b>(840,000)</b>
Em. Mkt. Dbt	Prudential EMD	CF	71,100,000	(10,000,000)	(10,000,000)	61,100,000				
EMD Local	SSGA <i>Passive</i>	CF	3,600,000	600,000	600,000	4,200,000				
	<b>EM Debt</b>		<b>74,700,000</b>	<b>(9,400,000)</b>	<b>(9,400,000)</b>	<b>65,300,000</b>	<b>6.4%</b>	<b>6.0%</b>	<b>0.4%</b>	<b>3,740,000</b>
Hi Yield	Shenkman Capital	SA	40,100,000	-	-	40,100,000				
Barclays HY	SSGA <i>Passive</i>	CF	2,300,000	400,000	400,000	2,700,000				
	<b>Hi Yield Fixed</b>		<b>42,400,000</b>	<b>400,000</b>	<b>400,000</b>	<b>42,800,000</b>	<b>4.2%</b>	<b>4.0%</b>	<b>0.2%</b>	<b>1,760,000</b>
	<b>Total Fixed</b>		<b>326,000,000</b>	<b>(13,100,000)</b>	<b>(13,100,000)</b>	<b>312,900,000</b>	<b>30.5%</b>	<b>30.5%</b>	<b>0.0%</b>	<b>(30,000)</b>
<b>Alternatives:</b>										
	Real Estate		57,400,000	800,000	800,000	58,200,000	5.7%	8.0%	-2.3%	(23,880,000)
	Real Assets		-	-	-	-	0.0%	3.0%	-3.0%	(30,780,000)
	Private Equity		76,300,000	-	-	76,300,000	7.4%	5.0%	2.4%	25,000,000
	Private Debt		25,400,000	-	-	25,400,000	2.5%	3.0%	-0.5%	(5,380,000)
	Hedge Funds		51,600,000	-	-	51,600,000	5.0%	10.0%	-5.0%	(51,000,000)
	<b>Total Alternatives</b>		<b>210,700,000</b>	<b>800,000</b>	<b>800,000</b>	<b>211,500,000</b>	<b>20.6%</b>	<b>29.0%</b>	<b>-8.4%</b>	<b>(86,040,000)</b>
<b>Liquidity:</b>										
	Ben Paymt Fd @ CT STIF		17,100,000	-	-	17,100,000	1.7%	1.5%	0.2%	1,710,000
	Cash @ BNYM STIF		1,400,000	34,300,000	34,300,000	35,700,000	3.5%	0.0%	3.5%	35,700,000
	<b>Liquidity</b>		<b>18,500,000</b>	<b>34,300,000</b>	<b>34,300,000</b>	<b>52,800,000</b>	<b>5.1%</b>	<b>1.5%</b>	<b>3.6%</b>	<b>37,410,000</b>
	<b>Total MERF Assets</b>		<b>1,026,000,000</b>	<b>-</b>	<b>-</b>	<b>1,026,000,000</b>	<b>100%</b>	<b>100.0%</b>	<b>0%</b>	<b>2,900,000</b>

## June 30, 2015 w/ Portf. Moves

### MERF Asset Allocation vs. Target Ranges

#### 07.01.15 & FWD TARGETS

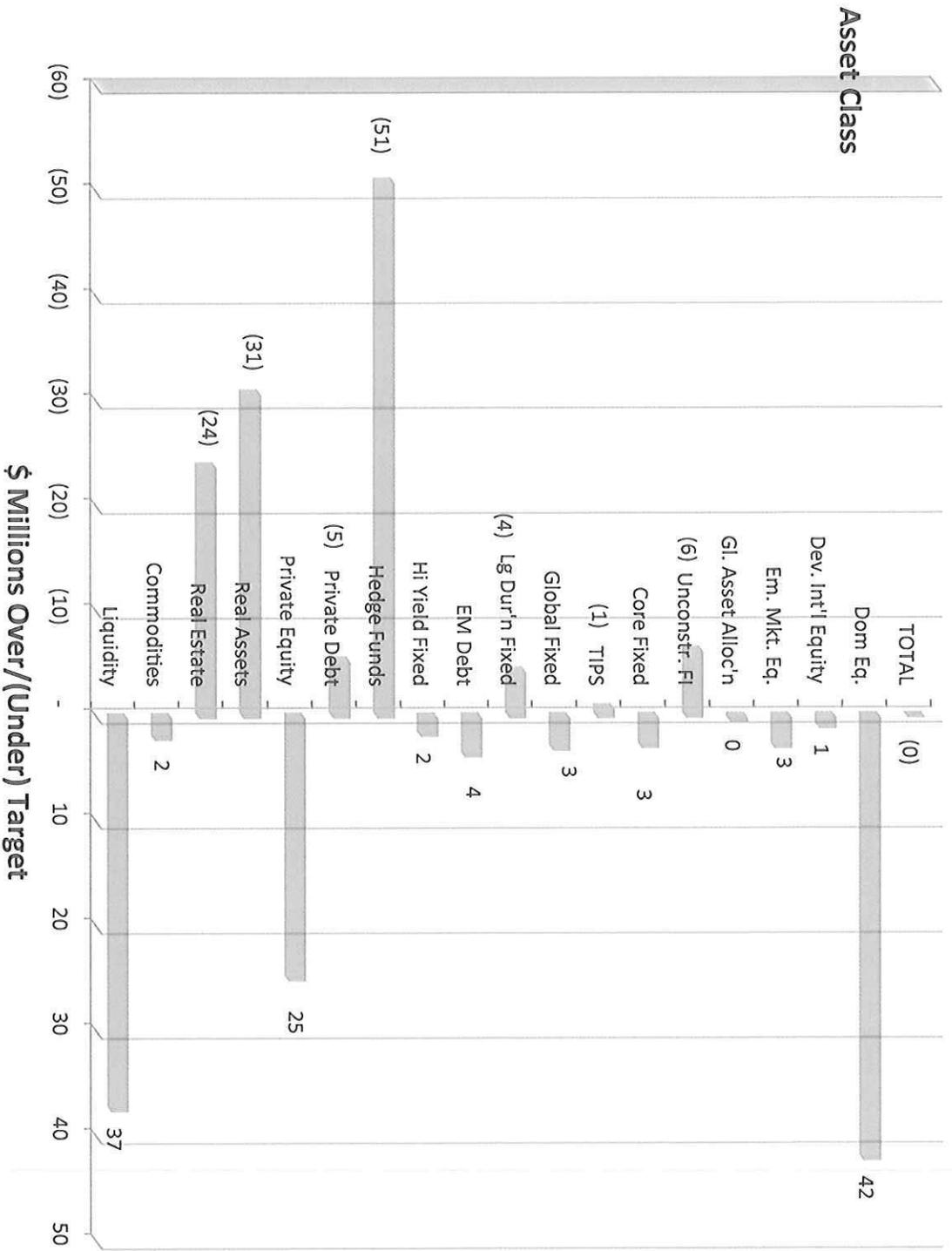
	Asset Class	Current MERF %	Lower Bound %	Upper Bound %	In Range? Y/N	Comment
1	Dom. Equity	19.1%	10	20	Y	
2	Int'l Dev'd Mkt Eq	11.1%	8	14	Y	
3	EM Equity	6.3%	4	8	Y	
4	GTAA	7.0%	5	9	Y	
5	Core Fixed	5.3%	3.5	6.5	Y	
6	Unconstr. Fixed	4.4%	3.5	6.5	Y	
7	Lg Dur Fixed	6.1%	4.5	8.5	Y	
8	Global Fixed	0.3%	0	1	Y	
9	TIPS	3.9%	2.5	5.5	Y	
10	EM Debt	6.4%	4	8	Y	
11	Hi Yld Fixed	4.2%	2.5	5.5	Y	
12	Private Equity	7.4%	3	8	Y	
13	Real Estate	5.7%	5	11	Y	
	Real Assets	0.0%	1	5	N	Pending invmt plan
14	Private Debt	2.5%	1	5	Y	
15	Hedge Funds	5.0%	8	12	N	Tactical decision
16	Commodities	0.2%	0	1	Y	
17	Cash & Equiv.	5.1%	0	3	N	Frictional \$, Tactical

100%

Asset Classes in Target Range

<b>14</b>	of	<b>17</b>
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MERF Over/(Under) Target (07.01.15 & Fwd)  
 06.30.15 w/Portf. Moves





**CITY OF HARTFORD**  
PENSION COMMISSION

**MEMORANDUM**

**To:** Pension Commission  
*AMC*  
**From:** Adam M. Cloud, Secretary  
**Date:** September 15, 2015  
**Subject:** **MERF Update: Rebalancing Progress**

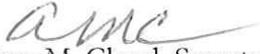
Enclosed please find analyses from Gary Draghi, the MERF's Director of Investments, reflecting MERF's rebalancing activity since our last meeting. We look forward to discussing this with you.



**CITY OF HARTFORD**

**PENSION COMMISSION**

**MEMORANDUM**

**To:** Pension Commission  
**From:**   
Adam M. Cloud, Secretary  
**Date:** September 15, 2015  
**Subject:** Real Assets

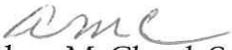
- **Proposed Real Assets Guidelines**
- **Investment Pacing Plan**

In connection with the approved changes to the MERF's asset allocation please find information on proposed real assets guidelines. Once approved, these guidelines will be incorporated in the MERF's Funding and Investment Policy Statement. Also enclosed is the proposed investment pacing plan for this asset class.

CITY OF HARTFORD

MEMORANDUM

**TO:** Pension Commission

**FROM:**   
Adam M. Cloud, Secretary

**DATE:** September 25, 2015

**SUBJECT:** Consideration of Recommendation Regarding Ares Corporate Opportunities Fund V, L.P. Due Diligence

Enclosed please find a report from Pension Consulting Alliance, Inc. ("PCA"), the MERF's private equity consultant, recommending that the MERF authorize PCA to proceed with Phase II due diligence on Ares Corporate Opportunities Fund V, L.P. ("Ares V").

This is a potential re-up commitment as the MERF has invested in the four prior Ares funds. These investments have a combined current market value of just over \$14 million and have generated net returns ranging from 8% to 23%. However, as was recently reported, there have been changes to the structure of Ares Capital Management, Inc., the General Partner of Ares V, and the firm has expanded its product lines since the MERF's commitment to Ares Corporate Opportunities Fund IV. Accordingly, additional due diligence will address these and other issues. As always, there is no additional cost to the MERF for PCA's Phase II due diligence work.

Based on PCA's report, staff and I recommend that the Pension Commission authorize me to instruct PCA to perform Phase II due diligence on Ares V.

I look forward to discussing this matter with you at our upcoming meeting.

**Date:** September 25, 2015

**To:** City of Hartford Municipal Employees' Retirement Fund ("MERF")

**From:** Pension Consulting Alliance, LLC

**Partnership:** Ares Corporate Opportunities Fund V, L.P.

**Sector:** Buyout / Special Situations

## SUMMARY

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Pension Consulting Alliance, LLC ("PCA"), has conducted a Phase I partnership review of the Ares Corporate Opportunities Fund V, L.P. ("ACOF V") opportunity and recommends it for further consideration, including the completion of a full Phase II due diligence review.

Ares Management is a global alternative asset manager and SEC-registered investment adviser with approximately \$87 billion of assets under management and over 800 employees in over 15 offices in the U.S., Europe, Australia, and Asia. The Firm currently manages four distinct groups: tradable credit, direct lending, real estate, and private markets and has the flexibility to invest throughout a company's capital structure. These four groups, while distinct, do attempt to form an integrated platform that can be mutually beneficial across disciplines.

MERF has an existing long-term relationship with Ares through \$26.0 million of commitments across all four of the prior ACOF funds. As of March 31, 2015, MERF's aggregate commitments to ACOF funds had drawn down \$26.5 million in capital (greater than commitment amount due to recycling), generated \$25.3 million in distributions, and had a remaining market value of \$15.0 million resulting in a 15.5% net since inception IRR and a 1.5x multiple of invested capital.

ACOF V represents an attractive opportunity to continue to invest with a strong buyout/special situations manager that has successfully implemented a flexible investment strategy across economic cycles. However, the Phase I review generated a few areas of concern that will need to be further examined through a Phase II review. These areas include, but may not be limited to:

- The target fund size for Fund V is almost 40% larger than Fund IV. While the ACOF series of funds has successfully raised consecutively larger funds, comfort will need to be gained that this fund size increase will not materially change the investment strategy and transaction type.
- Growth equity, one of Ares' four primary transaction types, has not been a strong contributor to performance with a 1.17x multiple of invested capital. Further discussions regarding Ares' investment in this transaction type and its expected contribution to results going forward is warranted.

- Ares focuses on generating attractive risk-adjusted returns. Further analysis will be conducted on areas of transaction risk (i.e. use of leverage, position in the capital structure, etc.) where Ares has been able to reduce risk relative to traditional buyout opportunities.
- Ares has experienced organizational change over the past couple of years and continues to expand/grow. In May 2014, Ares became a public company and began trading on the New York Stock Exchange. Approximately 70% of the Firm is still owned by its most senior investment professionals, each of whom is still involved in the day-to-day activities of the Firm. In January 2015, Ares completed the acquisition of EIF Management, LLC. This addition expands Ares' platform to include U.S. focused power and energy private equity investing. On July 23, 2015, Ares announced that it was entering into a business merger with Kayne Anderson Capital Advisors, L.P., a private alternative investment manager focusing predominantly on investments in the mid- and up-stream energy sector and who has a large retail and high net worth, family offices, and institutional investor base. Once the merger is complete, the combined firm name will be Ares Kayne Management, L.P. ("Ares Kayne"). Ares Kayne will be a more diversified alternative asset manager with a combined AUM of \$113 billion, as of March 31, 2015. The transaction is slated to close on January 1, 2016. PCA has held ongoing discussions with Ares regarding these changes and performed an onsite visit after the announcement of the merger with Kaye Anderson. Through these discussions, PCA has gained comfort that the ACOF investment team is going to remain intact with consistent decision-making/governance. However, ongoing monitoring will be warranted.

## KEY FINDINGS

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PCA's key findings in its Phase I review of ACOF V are:

**Fundraising Status** – Ares Corporate Opportunities Fund V is targeting \$6.5 billion in aggregate commitments which is almost 40% larger than the \$4.7 billion raised for Fund IV. The initial closing, targeted for November 2015, will be a “dry closing” (i.e. no management fee assessed until additional capital from Fund IV is deployed and investment activities for Fund V initiate).

**Attractive Investment Strategy** – The Fund will pursue investments in North American and European middle-market companies with transactions generally in the \$100 to \$500 million range. Ares will look to transact in opportunities where growth potential can be purchased at reasonable prices. These target companies will be franchise businesses that are positioned as market leaders in their respective segments and where Ares' investments can be utilized to unlock supplemental growth.

Ares will continue its use of flexible capital (i.e. being able to invest throughout a company's capital structure) in order to find the best position to achieve the right balance of risk and reward as well as allowing for the opportunity to engage in complex transactions across a variety of market environments. Ares believes that by pursuing its flexible capital approach it widens the potential investment universe from which to source and analyze transactions as well as identifying those investments that other private equity managers may typically choose to avoid. The following list of Ares' four primary transaction types highlights the flexibility of its strategy:

- Prudently Leveraged Control Buyouts
- Distressed Buyouts/Discounted Debt Accumulation
- Rescue/De-Leveraging Capital
- Growth Equity

The ACOF V investment strategy will focus on producing value by driving growth without relying solely on financial engineering. The process by which Ares intends on driving value is created at the portfolio company level, from investment to exit, and includes five distinct phases: (i) properly capitalize the company for growth, (ii) align employees and resources of the organization to better attain the desired growth targets, (iii) concentrate on operational excellence, (iv) carry out growth strategy which may include investing in growth capital projects and acquisitions, opportunistically, and (v) properly maneuver and position the company for exit.

Ares' believes that having the ability to deploy flexible capital positions them well to invest across a range of transaction types across a variety of market environments, with the current market, possibly, tilting towards the final stages of a credit cycle. This is a critical strategic component, in that it allows for investing in traditional buyouts or – and this relates to the idea of the opportunities that arise in the final stages of a credit cycle – invest in companies that have growth potential in excess of a cyclical recovery and reposition capital deployment for a distressed market.

**Stable Team of Experienced Investment Professionals** – ACOF V will be led by Ares' Co-heads and partners who have, on average, 20 years of experience investing, advising, underwriting, and restructuring leveraged companies as well as 14 years of working together investing capital within the flexible capital strategy. While the team will be made up of 36 investment professionals, as well as five operating advisors, it will have access to and support from the, roughly, 300 other investment professionals and advisors across the broader Ares platform.

### Ares Private Equity Group: Senior Professionals

Name	Title	Age	Joined Ares
David Kaplan*	Senior Partner	47 years	2003
Bennett Rosenthal*	Senior Partner	51 years	1998
John Kissick*	Senior Partner	73 years	1997
Tony Ressler*	Senior Partner	54 years	1997
Amy Fujimoto	Managing Director	43 years	2015
Charles Steel	Managing Director	40 years	2013
Matt Cwiertnia*	Partner	44 years	2005
Jim Hirshorn	Partner	49 years	2013
Brian Klos	Partner	33 years	2006
Dan Lukas	Partner	44 years	2008
Nav Rahemtulla	Partner	40 years	2001
Adam Stein	Partner	39 years	2000
Nate Walton	Partner	37 years	2006

Source: Ares Management

\*Co-Heads of the Private Equity Group

\*Investment Committee Member

The day-to-day operations of the Fund will be led by the senior professionals listed above with Bennett Rosenthal and David Kaplan as Co-Heads of the Private Equity Group. The Investment Committee will be made of six individuals: Matthew Cwiertnia, John Kissick, Tony Ressler, Bennett Rosenthal, David Kaplan, and David Sachs (a partner in the Ares Corporate Strategy Group). PCA does not believe that there are currently any firm generational concerns as 10 of the 13 senior investment team members are under 50 years of age. Therefore, Ares does not anticipate any succession issues over the next 10 years. Additionally, the Firm has a history of promoting from within.

**Consistent Performance Results** – Ares has generated a consistent investment track record implementing its flexible investment strategy. In aggregate, Ares has invested \$9.6 billion and generated \$16.4 billion in total value, resulting in a 23.8% gross IRR and a 17.0% net IRR as of March 31, 2015.

### Ares Management Historical Track Record: as of March 31, 2015

	Invested	Realized	Unrealized	Total Value	IRR (Gross)	MOIC (Gross)	IRR (Net)	MOIC (Net)	Peer Median	Peer Top
ACOF I (2003)	847,438	1,417,478	72,271	1,489,749	20.3%	1.8x	13.6%	1.5x	14.6%	20.1%
ACOF II (2006)	2,069,210	3,595,784	630,893	4,226,677	19.5%	2.0x	14.2%	1.8x	9.8%	15.4%
ACOF III (2008)	3,775,134	3,930,543	3,641,345	7,571,889	32.4%	2.0x	23.3%	1.7x	14.5%	22.4%
ACOF IV (2012)	2,552,409	5,879	3,117,586	3,123,464	25.4%	1.2x	12.0%	1.1x	8.9%	16.8%
<b>Total</b>	<b>\$9,244,191</b>	<b>\$8,949,685</b>	<b>\$7,462,094</b>	<b>\$16,411,779</b>	<b>23.8%</b>	<b>1.8x</b>	<b>17.0%</b>	<b>1.6x</b>		

Source: Ares Management

\* Performance comparisons are from Thomson ONE Benchmark information for All U.S. Buyout Funds as of March 31, 2015.

First Quartile
Second Quartile
Third Quartile
Fourth Quartile

In addition to consistent, stable returns, the Ares funds have performed well on a relative basis. Three of Ares' four prior funds have generated above-median results relative to their vintage year peers (as compared to the Thomson ONE Universe of Buyout as of March 31, 2015). Fund II and Fund IV with vintage years of 2006 and 2012 each placed in the second quartile, while Fund III with a 2008 vintage generated top quartile returns. Ares' first fund with an IRR of 13.6% lagged their median peer returns by 100 basis points, resulting in third quartile performance.

Given Ares' flexible investment strategy, capital has been deployed across transaction type depending upon the market environment. The largest proportion of capital (46.5%) has been invested in the Prudently Leveraged Buyout category, posting a 1.75x gross multiple to date. Distressed Buyout/Debt Accumulation category, with the second largest proportion of capital at 24.5%, has posted the highest investment multiple to date at 2.51x.

#### Transaction by Type

Transaction Type	Invested (\$M)	Percent Invested	Realized Value (\$M)	Unrealized Value (\$M)	Total Value (\$M)	MOIC (Gross)
Distressed Buyout/Debt Accumulation	2,268.99	24.5%	4,562.92	1,121.74	5,684.66	2.51x
Prudently Leveraged Buyout	4,297.06	46.5%	2,174.90	5,332.73	7,507.63	1.75x
Growth Equity	1,269.14	13.7%	774.13	715.13	1,489.26	1.17x
Rescue/De-leveraging	403.09	4.4%	593.23	-	593.23	1.47x
"Other" Toeholds	1,005.92	10.9%	844.51	292.64	1,137.15	1.13x
<b>Total</b>	<b>9,244.19</b>	<b>100.0%</b>	<b>8,949.69</b>	<b>7,462.24</b>	<b>16,411.93</b>	<b>1.78x</b>

Source: Ares Management, PCA analysis

#### Key Terms

This document refers to the terms and conditions summarized in the Ares Corporate Opportunities Fund V Private Placement Memorandum.

#### *Management Fee Structure*

During the commitment period, the management fee will equal 1.5% of aggregate capital commitments. Upon the expiration of the commitment period, management fees will be 0.75% of the Fund's aggregate cost of unrealized investments. The management fee will be offset by 100% of allocable directors' fees, consulting fees, investment banking fees, advisory fees, breakup fees, closing fees, transaction fees, financing fees, monitoring fees and similar fees paid to the general partner with actual or contemplated portfolio investments.

#### *Distributions/Carried Interest*

The general partner will receive 20% of all distributions only after investors have received back their capital contributions and expenses on realized investments, realized and unrealized losses, and an 8% preferred return. The distribution waterfall includes a "catch-up" after limited partners have achieved their 8% preferred return where the general partner receives 80% of distributions until receiving 20% of total amounts distributed. After which 80% will go to all partners in relation to their funded commitments and 20% to the general partner as carried interest.

*Term and Investment Period*

The Fund's term will be ten years from the Effective Date (the latter of the date of the final closing or the fund's first investment), subject to extension for up to two additional one-year periods with approval of the advisory board or a majority in interest of limited partners to allow for the orderly disposition of partnership investments. The commitment period will expire on the sixth anniversary of the Effective Date.

*General Partner's Capital Commitment*

The general partner, Ares Management, L.P., its investment professionals, other employees, and operating advisors, will commit, at least, \$250 million (3.8% of targeted commitments) to the Fund, in cash and will not be subject to management fees or carried interest.

## Disclaimers

*This document is provided for informational purposes only. It does not constitute an offer of securities of any of the issuers that may be described herein. Information contained herein may have been provided by third parties, including investment firms providing information on returns and assets under management, and may not have been independently verified. The past performance information contained in this report is not necessarily indicative of future results and there is no assurance that the investment in question will achieve comparable results or that the Firm will be able to implement its investment strategy or achieve its investment objectives. The actual realized value of currently unrealized investments (if any) will depend on a variety of factors, including future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs and the timing and manner of sale, all of which may differ from the assumptions and circumstances on which any current unrealized valuations are based.*

*While PCA reviewed the terms of this partnership and other accompanying financial information on predecessor partnerships, this desk review does not constitute a formal legal review of the partnership terms and other legal documents pertaining to this partnership. PCA recommends that its clients retain separate legal counsel to review the legal aspects and risks of investing in the Fund.*

*Information contained in this report was gathered from documents provided by the Firm, including but not limited to, the private placement memorandum and related updates, due diligence responses, marketing presentations, limited partnership agreement and other supplemental materials. Analysis of information was performed by PCA.*

*Neither PCA nor PCA's officers, employees or agents, make any representation or warranty, express or implied, in relation to the accuracy or completeness of the information contained in this document or any oral information provided in connection herewith, or any data subsequently generated herefrom, and accept no responsibility, obligation or liability (whether direct or indirect, in contract, tort or otherwise) in relation to any of such information. PCA and PCA's officers, employees and agents expressly disclaim any and all liability that may be based on this document and any errors therein or omissions therefrom. Neither PCA nor any of PCA's officers, employees or agents, make any representation of warranty, express or implied, that any transaction has been or may be effected on the terms or in the manner stated in this document, or as to the achievement or reasonableness of future projections, management targets, estimates, prospects or returns, if any. Any views or terms contained herein are preliminary only, and are based on financial, economic, market and other conditions prevailing as of the date of this document and are therefore subject to change.*

*The information contained in this report may include forward-looking statements. Forward-looking statements include a number of risks, uncertainties and other factors beyond the control of the Firm, which may result in material differences in actual results, performance or other expectations. The opinions, estimates and analyses reflect PCA's current judgment, which may change in the future.*

*Any tables, graphs or charts relating to past performance included in this report are intended only to illustrate investment performance for the historical periods shown. Such tables, graphs and charts are not intended to predict future performance and should not be used as the basis for an investment decision.*

*An investment in the Fund is speculative and involves a degree of risk and no assurance can be provided that the investment objectives of the Fund will be achieved. Investment in the Fund is suitable only for sophisticated investors who are in a position to tolerate such risk and satisfy themselves that such investment is appropriate for them. The Fund may lack diversification, thereby increasing the risk of loss, and the Fund's performance may be volatile. As a result, an investor could lose all or a substantial amount of its investment. The Fund's governing documents will contain descriptions of certain of the risks associated with an investment in the Fund. In addition, the Fund's fees and expenses may offset its profits. It is unlikely that there will be a secondary market for interests in the Fund. There are restrictions on redeeming and transferring interests in the Fund. In making an investment decision, you must rely on your own examination of the Fund and the terms of the offering.*



CITY OF HARTFORD  
PENSION COMMISSION

MEMORANDUM

To: Active Investment Advisors to the City of Hartford Municipal Employees' Retirement Fund

From: Adam M. Cloud, City Treasurer and Secretary of the Pension Commission

Date: August 25, 2015

Re: *Schedule of Annual Performance Review Meetings With The City of Hartford MERF FY 2015-2016*

Attached please find the schedule of annual performance review meetings for FY 2015- 2016. Meeting participants will include representatives of the external investment managers for the City of Hartford Municipal Employees' Retirement Fund (MERF), the City's Pension Commission, City Treasurer, Investment Unit staff and MERF Investment Consultant.

Please plan to arrive at our offices at 250 Constitution Plaza, 2<sup>nd</sup> floor, at 10:30 a.m. before your scheduled meeting to discuss administrative and operational issues with MERF staff. Your annual performance review, with the City of Hartford Pension Commission, will follow at the location noted on the attachment.

At your earliest convenience, please review this schedule and confirm by e-mail to J. Sean Antoine (santoine@hartford.gov), Principal Administrative Analyst, that you can attend your meeting on the proposed date. Alternatively, please contact Mr. Antoine directly if you find you cannot meet with us on the date specified, so we can reschedule your meeting.

For directions to our offices please refer to [www.hartford.gov/treasurer](http://www.hartford.gov/treasurer).

Thank you very much for your continuing cooperation.

c: Pension Commission



CITY OF HARTFORD  
PENSION COMMISSION

MEMORANDUM

To: Pension Commission

From: Adam M. Cloud, Secretary

Date: August 25, 2015

Re: Consideration of Schedule of Annual Performance Review Meetings  
With Investment Managers for FY 2015-2016

<u>Manager</u>	<u>Date</u>	<u>Location</u>
Atlanta	Tuesday, October 6, 2015	Costa Del Sol
First Eagle	Thursday, October 15, 2015	Francesco's
HIMCO	Tuesday, November 3, 2015	Marjorca Restaurant
SouthernSun Asset Mgmt.	Thursday, November 19, 2015	Carbone's
Prudential	Thursday, December 10, 2015	Max Downtown
Eagle Capital Mgmt.	Thursday, January 5, 2016	Capital Grille
Brown Brothers Harriman	Thursday, February 4, 2016	Francesco's
PIMCO	Thursday, February 18, 2016	Marjorca Restaurant
Mondrian	Thursday, March 3, 2016	Max Downtown
Walter Scott	Thursday, March 17, 2016	Capital Grille
Shenkman Capital	Thursday, April 7, 2016	ON 20 Club
VOYA	Thursday, April 14, 2016	Salute
BlackRock	Thursday, April 28, 2016	Max Downtown
Wellington	Thursday, May 12, 2016	ON 20 Club
Parametric Eaton Vance	Thursday, June 2, 2016	Capital Grille

- *Carbone's is located at 588 Franklin Avenue, Hartford (tel. 860-296-9646)*
- *Costa Del Sol is located 901 Wethersfield Ave, Hartford (tel. 860-296-1714)*
- *Francesco's Ristorante 318 Franklin Avenue, Hartford (tel. 860-296-3024)*
- *Majorca Restaurant 2074 Park Street, Hartford, CT 06106 (tel. 860-231-1024)*
- *Max Downtown is located at 185 Asylum Street, Hartford (tel.860-522-2530)*
- *ON 20 Club is located at One State Street; Hartford (tel.860-722-5161) Parking is available in the garage.*
- *Salute Restaurant is located at 100 Trumbull Street, Hartford (tel. 860-899-1350)*

## PRESENTATION MATERIALS

### A. Operational Books for meeting with staff

1). Seven business days prior to the annual performance review meeting, deliver to MERF four operational books containing the following information:

- a. Changes since the last site visit
  - i. Personnel
  - ii. Organization
  - iii. Investment philosophy or processes
  - iv. Support systems (research capability, investment accounting and information systems, performance attribution, internal controls, etc)
  - v. Major clients gained/lost; include total market value of accounts gained and total market value of asset terminations
- b. Organization chart specific to the team managing the MERF portfolio
- c. Status of compliance with regulatory requirements (attach copy of Part I and II of current Form ADV)
- d. Legal – provide overview or update on pending litigation
- e. Data re the MERF portfolio (include narrative discussion)
  - i. Performance over rolling 36 months since inception (both annualized and cumulative)
  - ii. Benchmark comparison
  - iii. Peer comparison (for returns, information ratio, Sharpe ratio and Treynor ratio)
  - iv. Percentage of Portfolio Manager's total assets and product specific assets represented by the MERF portfolio

As appropriate, confirmation that the MERF fee structure is equal to or less than the most favorable fee of any of your clients with mandates the same as or similar to that of the MERF.

### Annual Performance Review Books For Meeting With Pension Commission

2). In addition to the operations books, deliver 12 Annual Review books that replicate the operations books except that there will be an Executive Summary in the front of the Annual Review books that presents the following information:

- a. Changes in firm
- b. Review of key issues facing the investment process for the MERF portfolio
- c. Review performance and manager outlook
- d. Any other items deemed worthy by the Manager



**CITY OF HARTFORD**

PENSION COMMISSION

MEMORANDUM

**To:** Pension Commission  
*ame*  
**From:** Adam M. Cloud, Secretary  
**Date:** September 15, 2015  
**Subject:** Other Business