

City of Hartford Pension Commission
City Conference Room
260 Constitution Plaza
Hartford, Connecticut
Friday, February 22, 2013
9:00 a.m.

AGENDA

INVESTMENT PROGRAM

- I. Review of Minutes: Meeting of January 25, 2013**

- II. Status of the MERF Portfolio as of January 31, 2013**
 - a. Inventory of Assets**
 - b. MERF's Overall Performance**

- III. PCA Update**
 - Private Equity Investment Plan**

- IV. NEPC Update**
 - Investment Performance Analysis Report**
 - Capital Markets Assumptions and Actions**

- V. MERF Update**
 - Rebalancing Progress**

- VI. Report on Annual Performance Review Meetings**
 - Prudential Investment Management**
 - SouthernSun Asset Management**

- VII. Other Business**



CITY OF HARTFORD

PENSION COMMISSION

MEMORANDUM

To: Pension Commission
From: *ame*
Adam M. Cloud, Secretary
Date: February 14, 2013
Subject: **Review of Minutes from the Meeting of January 25, 2013**

Enclosed for your review are the minutes of the investment portion of the Pension Commission meeting of Friday, January 25, 2013.

**INVESTMENTS
AGENDA ITEM I**

**Pension Commission
City of Hartford Conference Room
260 Constitution Plaza
Hartford, CT 06103
Friday, January 25, 2013
9:00 a.m.**

MINUTES

INVESTMENT PROGRAM

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

MEMBER EXCUSED: Peter Stevens, Chairman

STAFF PRESENT: Gary B. Draghi, Director of Investments; P. Wayne Moore, Assistant Director of Investments; Terry Williams, Senior Administrative Assistant; Donna Parker, Plan Administrator

STAFF EXCUSED: J. Sean Antoine, Principal Administrative Analyst

OTHERS PRESENT: Doug Moseley, NEPC; Lisa Silvestri, Assistant Corporation Counsel; George Zoltowski, Principal Accountant

I. Review of Minutes: Meeting of December 14, 2012

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 December 31, 2012

Acting Chairman Lord introduced the item and asked the Investment Unit to report. P. Wayne Moore, the MERF's Assistant Director of Investments, reported that, at December 31, 2012, the MERF portfolio had a market value of approximately \$968.6 million, and had generated a 1.3% return net of fees for the month, outperforming the benchmark return of 1.2%, by 10 basis points.

Mr. Moore then reported on each of the MERF asset classes, stating that all asset classes were up for the month, except for fixed income, which exhibited a flat return for the month, matching the benchmark return. He noted that the equity portfolio achieved a net return of 2.5% for the month, outperforming the benchmark return of 2.3%, by 20 basis points.

Mr. Moore then reported that the MERF's global tactical asset allocation portfolio posted a net return of positive 1.8% for the month, outperforming the benchmark return of 0.8%, by 100 basis points.

Mr. Moore also reported that, as of January 24, 2013, the MERF total portfolio value was approximately \$980.5 million, owing to broad gains in stocks. He asked if there were any questions on the report, there were none.

Mr. Gary Draghi, the MERF's Director of Investments, then informed the Pension Commission that, in January, the MERF funded approximately \$4 million of its \$12 million commitment to Cornerstone's core real estate fund.

The Commission accepted the report for advice.

III. NEPC Update

Acting Chairman Lord introduced the item and asked Mr. Doug Moseley of NEPC, the MERF's general consultant, to report to the Commission. Mr. Moseley reviewed an updated road map, pointed out activities already completed by the MERF (e.g., recent real estate search) and the re-ordering of upcoming activities. He specifically noted the pending master custodian and private debt investment searches and potential asset allocation changes. In response to questioning, Mr. Moseley described the process of managing a master custodian search.

Secretary Cloud commented on a recent meeting he and staff held with BNY Mellon ("BNYM"), the MERF's current master custodian and performance and analytics provider, in which BNYM was pushed to provide, in conjunction with NEPC, more timely and cost-effective investment reporting. Mr. Draghi added that he had spoken with the MERF's relationship manager at BNYM who asked for an

opportunity to present a new contract offer to the MERF, prior to the MERF going out to bid. Mr. Draghi noted that staff was awaiting this proposal from BNYM. He went on to state that this proposal would be reviewed with the Secretary and NEPC and, if seen as desirable, brought to the Commission for review. Mr. Draghi further commented that the current contract predated the MERF's use of a general consultant and that the potential restructuring of BNYM's duties was timely.

Mr. Draghi then asked Mr. Moseley whether, as part of its annual asset class assumption review process, NEPC would recommend changes to the MERF's existing asset allocation. Mr. Moseley stated that an annual updating would occur as part of the process. In response to a question from Commissioner Goldman, Mr. Moseley responded that "tweaks" to the MERF's asset allocation would be recommended to account for movements in assumptions regarding the relative prospects for certain asset classes.

Acting Chairman Lord asked Mr. Moseley to provide an update on the status of NEPC's contract with the MERF. Mr. Moseley responded that the NEPC contract renewal was not imminent.

The Commission accepted the report for advice.

IV. Report on Annual Performance Review Meeting with First Eagle Investment Management

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

Acting Chairman Lord noted that upcoming meetings were set with Prudential for Wednesday, February 13, 2013 and with Eagle Capital for Tuesday, February 26, 2013.

The Commission accepted the report for advice.

V. MERF Update

Acting Chairman Lord introduced the item and asked Mr. Draghi to report to the Commission. Mr. Draghi noted that, as of December 31, 2013, a number of items had been completed, including finalizing contracts with securities litigation firms, extending the contract for proxy voting servicing and extending the BNYM contract until June 30, 2013 in order to allow for a possible search. Mr. Draghi also noted that the MERF had closed on its commitment to Pegasus Fund V on December 21, 2012

and funded a \$2 million capital call, representing more than one third of the MERF's commitment to the fund. Mr. Draghi noted that the pacing of Pegasus investments was proceeding very well. He then reiterated that the initial funding to the Cornerstone core real estate fund had been made and that most of this \$12 million commitment might be funded by the end of June 2013. Regarding the Heitman real estate fund, Mr. Draghi stated that the contract had been finalized but that none of the \$10 million MERF commitment would be called before April 1, 2013 and that it was possible that the balance of funding might not occur before December 31, 2013, subject to deal flow. Mr. Draghi concluded by noting that, regarding the MERF's commitment to the TA Associates value-add fund, the next step toward finalization would be the receipt of input from the MERF's outside counsel on the fund documents.

Acting Chairman Lord then asked Mr. Draghi to address the long duration fixed income agenda item. Mr. Draghi stated that the long duration fixed income investment allocations managed by PIMCO and SSgA represented approximately 9% of the MERF and entailed potential risks due to the current historically low interest rate environment and the likelihood of interest rates rising in the future. As such, Mr. Draghi noted that the MERF was investigating various options (e.g., lower duration, modified manager guidelines) to reduce this risk, recognizing that significant changes in interest rates would likely happen over time.

The Commission accepted the report for advice.

VI. Other Business

Acting Chairman Lord introduced the item. Secretary Cloud informed the Commission of personnel changes at ING, a small capitalization growth manager for the MERF, which impacted the MERF's main client relations contact, Mr. Arnold West, as well as another individual who was serving as an investment analyst. Secretary Cloud stated that he expected to speak with a representative of ING in order to learn more about the situation and that NEPC would also be asked to assist by reviewing the matter.

Secretary Cloud then informed the Commission that staff had reviewed the portfolio to determine the extent of any direct MERF investments in companies that manufacture firearms. He then asked Mr. Moore to report. Mr. Moore reported that, so far, the only direct firearms investment in the MERF's portfolio was a small holding via ING, that amounted to less than one-half of 1% of the \$16 million ING portfolio. Secretary Cloud stated that the MERF was considering what course of action the MERF should take to express its concern regarding the matter. Commissioner Goldman noted a recent editorial discussing the divestment of

firearms holdings and a pension fund's fiduciary duty. Mr. Moseley commented that many NEPC clients were also gathering information on the matter. Discussion ensued.

Secretary Cloud distributed a Pew Research report on the funding status of pension funds sponsored by major U.S. cities. Secretary Cloud noted that, had the City of Hartford been included, the MERF would have ranked in the top 10, based on its 83% funded status. Discussion ensued.

Employee Representative Marc Nelson informed the Commission that city tax collections for the current fiscal year levy were ahead of the previous year's budget. Discussion ensued.

Secretary Cloud concluded by informing the Commission that the Treasurer's office was developing a new and improved website, and that he would provide updates to the Commission periodically. Discussion ensued.

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

ATTEST: Adam M. Cloud
Adam M. Cloud, Secretary



CITY OF HARTFORD

PENSION COMMISSION

MEMORANDUM

To: Pension Commission
From: Adam M. Cloud, Secretary *ame*
Date: February 14, 2013
Subject: Status of MERF Portfolio as of January 31, 2013

Enclosed for your review is the MERF portfolio report for the month of January 2013.

INTEROFFICE MEMORANDUM

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

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

DATE: February 15, 2013

SUBJECT: Status of MERF Investment Portfolio as of January 31, 2013

At January 31, 2013, the market value of the MERF's investment portfolio approximated \$978.2 million dollars. The portfolio generated a 1.5% return net of fees for the month (see attached), underperforming the MERF policy benchmark return of 1.9%, by 40 basis points.

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

| | Assets (\$Millions) | Allocation % | | Net | | Return Variance |
|------------------------|------------------------|---------------|---------------|----------------------|----------------------|--------------------|
| | | Actual (B) | Policy | Portfolio Returns | Benchmark Returns | |
| Alternatives | 71.9 | 7.4% | 17.0% | 0.0% | 5.5% | -5.5% |
| Equity | 437.8 | 44.8% | 37.0% | 4.1% | 4.9% | -0.8% |
| Fixed Income | 397.7 | 40.7% | 38.0% | -1.0% | -1.2% | 0.2% |
| GTAA | 48.9 | 5.0% | 5.0% | 2.7% | 2.6% | 0.1% |
| Other | 0.0 | 0.0% | 3.0% | 0.0% | 0.0% | 0.0% |
| Cash (A) | 21.8 | 2.2% | 0.0% | 0.0% | 0.0% | 0.0% |
| Total Portfolio | 978.2 | 100.0% | 100.0% | 1.5% | 1.9% | -0.4% |

Note: Differences due to rounding

(A) Includes Benefit Payment Fund with a balance approximating \$18.7 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 February 1 to February 14, 2013 was positive for domestic equities, as the Russell 3000 Index experienced a 1.79% return. The small capitalization sector was outperforming both the large and medium capitalization sectors for the period. Through February 14th value was outperforming growth across all cap sectors (see enclosed copy of the Russell Investment Group's report entitled "Russell U.S. Indexes Daily Total Returns").

The period from February 1 to February 14, 2013 was positive for developed global equities markets as the Russell Global Index experienced a 0.6% return. Emerging Markets experienced negative returns as the Russell Emerging Markets Index returned (0.2%) for the same period (see enclosed copies of Russell Investment Group reports).

City of Hartford MERF
Net of Fees - Preliminary

Performance Page
Period Ending January 31, 2013

| | Market Value | % of Total Fund | Annualized | | | Fiscal YTD | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | Inception to Date | Incept Date |
|---|----------------|-----------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|-------------------|-------------|
| | | | January | 3 Months | YTD | | | | | | | | |
| Total Plan Consolidation | \$978.2 | 100.0 % | 1.5 % | 3.9 % | 8.9 % | 10.5 % | 9.5 % | 4.2 % | 5.1 % | 7.3 % | 8.6 % | 1/31/1986 | |
| Policy Benchmark | (1) | 1.9 | 4.0 | 9.1 | 10.3 | 10.5 | 5.6 | 4.2 | 6.1 | 8.2 | 8.5 | 2/28/1990 | |
| Total Plan Wigid Benchmark | (2) | 2.2 | 3.9 | 8.2 | 9.3 | 8.7 | 4.6 | 5.8 | 5.8 | — | 7.1 | 9/30/2004 | |
| Policy-Capitalization Based | (3) | 3.0 | 4.7 | 8.6 | 11.2 | 10.7 | 5.1 | 5.1 | 5.4 | 7.9 | 6.7 | 1/31/1996 | |
| Liquidity Portfolio | 146.7 | 15.0 | 2.4 | 4.5 | 8.4 | 8.0 | 6.3 | — | — | — | 7.1 | 5/31/2009 | |
| Liquidity Policy | (4) | 1.9 | 4.0 | 9.4 | 11.3 | 10.8 | 5.7 | 5.7 | 6.1 | 8.2 | 8.5 | 2/28/1990 | |
| Asset Allocation Fund | (6) | 2.8 | 5.3 | 9.8 | 9.6 | 9.6 | 7.6 | — | — | — | 9.5 | 4/30/2009 | |
| Asset Allocation Benchmark | (7) | 1.7 | 3.0 | 7.4 | 6.9 | 7.4 | 7.4 | — | — | — | 12.3 | 4/30/2009 | |
| Benefits Payment Fund | (8) | 0.1 | 0.1 | 0.3 | 0.4 | 0.4 | 0.4 | 0.7 | 1.8 | 1.9 | 2.1 | 10/31/1996 | |
| U.S. Treasury 3 Month T-Bills | (9) | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.4 | 1.6 | 1.7 | 2.8 | 12/31/1996 | |
| Total Equity Consolidation ex Alternatives | 509.8 | 52.1 | 3.5 | 7.5 | 13.5 | 14.6 | 11.8 | 2.6 | 3.6 | 8.8 | 7.1 | 1/31/1997 | |
| Total Equity Consolidation | (10) | 44.8 | 4.1 | 8.4 | 14.4 | 15.0 | 11.4 | 2.6 | — | — | 1.9 | 2/28/2007 | |
| Comb Equity Wigid Benchmark | (11) | 4.9 | 6.6 | 15.3 | 16.1 | 11.7 | 11.7 | 3.3 | 4.7 | — | 7.1 | 9/30/2004 | |
| Global Equity | 80.8 | 8.3 | 4.8 | 8.8 | 15.6 | 15.4 | 10.6 | — | — | — | 15.7 | 4/30/2009 | |
| State Street Global Advisors | (12) | 4.8 | 8.8 | 15.6 | 15.6 | 15.4 | 10.6 | — | — | — | 15.7 | 4/30/2009 | |
| MSCI AIWCI Invest.Mkts Index | (13) | 4.7 | 8.6 | 15.2 | 14.9 | 10.2 | — | — | — | — | 19.1 | 4/30/2009 | |
| Domestic Equity | 236.5 | 24.2 | 3.7 | 6.8 | 11.9 | 14.5 | 15.0 | 3.4 | 3.8 | 7.8 | 6.9 | 7/31/1996 | |
| Russell 3000 Index | (14) | 5.5 | 7.6 | 12.3 | 12.3 | 16.9 | 14.6 | 4.4 | 4.6 | 8.5 | 7.1 | 7/31/1996 | |
| US Equity Policy-Cap Based | (15) | 5.6 | 8.0 | 12.5 | 16.8 | 14.8 | 14.8 | 4.7 | 4.7 | 8.6 | 6.8 | 1/31/1996 | |
| Domestic Equity Active | 209.9 | 21.5 | 3.8 | 6.8 | 12.3 | 14.9 | 15.2 | 3.8 | 4.0 | 7.6 | 8.7 | 6/30/1988 | |
| Public Equity Active | (16) | 5.4 | 8.9 | 13.4 | 15.7 | 15.2 | 15.2 | 4.3 | 4.0 | 8.2 | 7.2 | 8/31/1996 | |
| Alternatives | (17) | (0.0) | 2.1 | 8.5 | 11.8 | 14.6 | 14.6 | 5.8 | — | — | 8.4 | 2/28/2007 | |
| Russell 3000 Index | (18) | 5.5 | 7.6 | 12.3 | 16.9 | 14.6 | 14.6 | 4.4 | 4.6 | 8.5 | 5.2 | 10/31/1997 | |
| International Equity | 192.5 | 19.7 | 2.7 | 7.7 | 14.6 | 14.2 | 9.0 | 1.4 | 3.7 | 10.7 | 6.1 | 9/30/1997 | |
| Russell Global Ex-US Equity | (19) | 4.2 | 9.8 | 18.8 | 14.5 | 14.5 | 8.0 | 0.8 | 3.7 | 10.8 | 4.7 | 7/31/1999 | |
| Int'l Developed Markets Active | 132.0 | 13.5 | 2.9 | 7.3 | 13.9 | 15.4 | 9.3 | 2.1 | 3.5 | 10.8 | 5.9 | 6/30/1999 | |
| Int'l Emerging Active | (20) | 6.0 | 6.2 | 2.4 | 8.5 | 16.2 | 8.0 | (0.2) | 5.3 | 15.8 | 9.2 | 4/30/2000 | |
| MSCI EAFE Composite | (21) | 5.3 | 11.3 | 20.1 | 17.8 | 7.4 | 7.4 | (0.3) | 2.6 | 9.7 | 4.2 | 6/30/1999 | |
| Total Global Asset Allocation | 48.9 | 5.0 | 2.7 | 5.2 | 10.2 | — | — | — | — | — | 7.7 | 4/30/2012 | |
| 60 MSCI World 40 Citl WGBI | (22) | 2.6 | 4.1 | 8.9 | — | — | — | — | — | — | 6.3 | 4/30/2012 | |
| Total Fixed Income | 397.7 | 40.7 | (1.0) | (0.3) | 4.0 | 5.6 | 8.4 | 7.1 | 7.0 | 6.3 | 6.8 | 7/31/1997 | |
| Custom Fixed Benchmark | (23) | (1.2) | (0.7) | 3.5 | 6.7 | 9.6 | 7.9 | 7.9 | — | — | 8.1 | 1/31/2007 | |
| Barclays Capital Aggregate Bond | (24) | (0.7) | (0.7) | 1.1 | 2.6 | 5.4 | 5.4 | 5.8 | 5.8 | 5.1 | 6.1 | 7/31/1997 | |
| Comb Fixed Income Wigid Bnk | (25) | (0.8) | (0.8) | 1.3 | 2.2 | 5.2 | 5.2 | 5.1 | 5.7 | — | 5.2 | 9/30/2004 | |
| US Core/Core Plus | 106.7 | 10.9 | (0.4) | (0.0) | 2.3 | 4.4 | 5.8 | 4.5 | 4.9 | 4.2 | 5.8 | 7/31/1996 | |
| US Core/Core Plus Fixed Income Active | (26) | 7.0 | (0.4) | 0.1 | 3.2 | 5.7 | 6.6 | 5.2 | 5.2 | 4.8 | 6.0 | 7/31/1996 | |
| US Core/Core Plus Passive | (27) | 38.4 | 3.9 | (0.4) | 0.8 | 1.6 | 3.6 | 2.6 | 3.7 | 3.6 | 4.9 | 5/31/1998 | |
| Total Long Duration | (28) | 85.7 | 8.8 | (2.8) | 0.9 | 5.1 | 11.6 | — | — | — | 11.3 | 3/31/2008 | |
| Long Duration Active | (29) | 76.8 | 7.9 | (2.5) | 1.5 | 5.6 | 11.6 | — | — | — | 12.0 | 6/30/2008 | |
| Long Duration Passive | (30) | 8.9 | 0.9 | (3.6) | (4.1) | (0.0) | — | — | — | — | 9.2 | 3/31/2008 | |
| Global Fixed | (31) | 32.8 | 3.3 | (1.7) | (0.1) | (1.1) | 4.0 | 4.8 | — | — | 6.2 | 2/28/2007 | |
| Global Fixed - Active | (32) | 32.8 | 3.3 | (1.7) | (0.1) | (0.4) | 4.0 | 4.8 | — | — | 7.0 | 2/28/2007 | |
| Initiation Linked Bonds Active | (33) | 54.6 | 5.6 | (0.6) | 2.8 | 4.7 | 8.3 | 5.3 | — | — | 7.0 | 2/28/2007 | |
| Emerging Mkts Debt Active | (34) | 75.3 | 7.7 | (0.8) | 12.0 | 18.4 | 13.5 | 11.3 | — | — | 10.5 | 2/28/2007 | |
| High Yield | (35) | 42.7 | 4.4 | 0.8 | 6.7 | 9.8 | — | — | — | — | 8.7 | 7/31/2010 | |
| Cash - Active | 21.8 | 2.2 | 0.0 | 0.1 | 0.1 | 0.2 | 0.4 | 1.2 | 2.3 | 2.2 | 2.7 | 7/31/1997 | |
| U.S. Treasury 3 Month T-Bills | (36) | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.4 | 1.6 | 1.7 | 2.8 | 1/31/1996 | |

City of Hartford MERF
Footnotes
Performance Page
Period Ending January 31, 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% HFRF FOF, 5% 60 MSCI World/40 Citi 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> |
| 2 | Total Plan Wgtd Benchmark | <p>10% FTSE World Euro and Pacific, 40% Barclays Capital Aggregate, 40.625% Russell 1000, 9.375% Russell 2000.</p> |
| 3 | Policy-Capitalization Based | <p>CPI data reported with one month lag.</p> |
| 4 | CPI plus 3.5% | <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 Gov't Bond Index.</p> |
| 5 | Liquidity Policy | <p>Comprised of MERF passive portfolios.</p> |
| 6 | Asset Allocation Fund | <p>50% MSCI ACWI Investible Mkt Index, 50% Citigroup World Gov't Bond Index</p> |
| 7 | Asset Allocation Benchmark | <p>Weighted average calculation using actual asset allocation percentages and benchmark index returns.</p> |
| 8 | Comb Equity Wgtd Benchmark | <p>81.25% Russell 1000, 18.75% Russell 2000.</p> |
| 9 | US Equity Policy-Cap Based | <p>From October 2007 to Current: Russell Global Ex-US Equity Index. Prior to October 2007: FTSE All World Europe Pacific Index.</p> |
| 10 | Russell Global ex U.S. Equity Index | <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> |
| 11 | Custom Fixed Benchmark | <p>Weighted average calculation using actual asset allocation percentages and benchmark index returns.</p> |
| 12 | Comb Fixed Wgtd Benchmark | <p>October 2007 to Current: US Treasury 3 Month T-bills. Prior to October 2007: Merrill Lynch Treasury 91 Day.</p> |
| 13 | US Treasury 3 Month T-bills | |

City of Hartford MERF
Net of Fees - Preliminary

Performance Page
 Period Ending January 31, 2013

Annualized

| | Market Value | % of Total Fund | January 1.5 % | 3 Months 3.9 % | Fiscal YTD 8.9 % | 1 Year 10.5 % | 3 Years 9.5 % | 5 Years 4.2 % | 7 Years 5.1 % | 10 Years 7.8 % | Inception to Date 8.6 % | Incept Date |
|---|----------------|-----------------|---------------|----------------|------------------|---------------|---------------|---------------|---------------|----------------|-------------------------|-------------|
| Total Plan Consolidation | \$978.2 | 100.0 % | 1.5 % | 3.9 % | 8.9 % | 10.5 % | 9.5 % | 4.2 % | 5.1 % | 7.8 % | 8.6 % | |
| Policy Benchmark | (1) | | 1.9 | 4.0 | 9.1 | 10.3 | 10.5 | 5.6 | 6.1 | 8.2 | 8.5 | 1/31/1986 |
| Total Plan Mgmt Benchmark | (2) | | 2.2 | 3.9 | 8.2 | 9.3 | 8.7 | — | 5.8 | — | 7.1 | 2/28/1990 |
| Policy-Capitalization Based | (3) | | 3.0 | 4.7 | 8.8 | 11.2 | 10.7 | 5.1 | 5.4 | 7.9 | 6.7 | 9/30/2004 |
| | | | | | | | | | | | | 12/31/1996 |
| Liquidity Portfolio | 146.7 | 15.0 | 2.4 | 4.5 | 8.4 | 8.0 | 6.3 | — | — | — | 7.1 | 5/31/2009 |
| Liquidity Policy | (9) | | 1.9 | 4.0 | 9.4 | 11.3 | 10.8 | 5.7 | 6.1 | 8.2 | 8.5 | 2/28/1990 |
| Asset Allocation Fund | (6) | | 2.8 | 5.3 | 9.8 | 9.6 | 7.6 | — | — | — | 9.5 | 4/30/2009 |
| Asset Allocation Benchmark | (7) | | 1.7 | 3.0 | 7.4 | 6.9 | 7.4 | — | — | — | 12.3 | 4/30/2009 |
| Benefits Payment Fund | | | 0.1 | 0.1 | 0.3 | 0.4 | 0.4 | 0.7 | 1.8 | 1.9 | 2.1 | 10/31/1996 |
| 90 Day T-Bills | | | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.4 | 1.6 | 1.7 | 2.8 | 12/31/1996 |
| Total Equity Consolidation | 509.8 | 52.1 | 3.5 | 7.5 | 13.5 | 14.6 | 11.8 | 2.6 | 3.6 | 8.8 | 7.1 | 1/31/1997 |
| Total Equity Consolidation ex Alternatives | 437.8 | 44.8 | 4.1 | 8.4 | 14.4 | 15.0 | 11.4 | 2.6 | — | — | 1.9 | 2/28/2007 |
| Comb Equity Mgmt Benchmark | (8) | | 4.9 | 8.6 | 15.3 | 16.7 | 11.7 | 3.3 | 4.7 | — | 7.1 | 9/30/2004 |
| Global Equity | 80.8 | 8.3 | 4.8 | 8.8 | 15.6 | 15.4 | 10.6 | — | — | — | 15.7 | 4/30/2009 |
| SSGA ACWI Invest Mkt Index AAF | | | 4.8 | 8.8 | 15.6 | 15.4 | 10.6 | — | — | — | 15.7 | 4/30/2009 |
| MSCI AWC Invest Mkts Index | | | 4.7 | 8.6 | 15.2 | 14.9 | 10.2 | — | — | — | 19.1 | 4/30/2009 |
| Domestic Equity | 236.5 | 24.2 | 3.7 | 6.8 | 11.9 | 14.5 | 15.0 | 3.4 | 3.8 | 7.8 | 6.9 | 7/31/1996 |
| Russell 3000 Index | | | 5.5 | 7.6 | 12.3 | 15.9 | 14.6 | 4.4 | 4.6 | 8.5 | 5.2 | 10/31/1997 |
| US Equity Policy-Cap Based | (9) | | 5.6 | 8.0 | 12.5 | 16.8 | 14.8 | 4.7 | 4.7 | 8.8 | 6.8 | 12/31/1996 |
| Domestic Equity Active | 209.9 | 21.5 | 3.8 | 6.8 | 12.3 | 14.9 | 15.2 | 3.8 | 4.0 | 7.6 | 8.7 | 6/30/1988 |
| Russell 3000 Index | | | 5.5 | 7.6 | 12.3 | 16.9 | 14.6 | 4.4 | 4.6 | 8.5 | 5.2 | 10/31/1997 |
| Public Equity Active | 164.6 | 16.8 | 5.4 | 8.9 | 13.4 | 15.7 | 15.2 | 4.3 | 4.0 | 8.2 | 7.2 | 8/31/1996 |
| Russell 3000 Index | | | 5.5 | 7.6 | 12.3 | 15.9 | 14.6 | 4.4 | 4.6 | 8.5 | 5.2 | 10/31/1997 |
| Alionia Capital Mgmt Large Cap Growth | | | 4.8 | 8.0 | 11.6 | 14.5 | 13.6 | 5.4 | 5.4 | 7.9 | 3.1 | 5/31/1989 |
| Russell 1000 Growth | | | 4.3 | 6.0 | 9.2 | 13.4 | 14.6 | 5.7 | 5.5 | 8.2 | 5.5 | 8/31/1999 |
| Eagle Capital Management Large Cap Value | | | 5.8 | 7.8 | 12.8 | 17.1 | 16.4 | 7.1 | 7.1 | 9.5 | 9.5 | 10/31/2003 |
| Russell 1000 Value | | | 6.5 | 8.7 | 15.2 | 20.6 | 14.3 | 2.7 | 3.7 | — | 7.2 | 10/31/2003 |
| ING Investment Management Small Cap Growth | | | 5.7 | 10.5 | — | — | — | — | — | — | 9.7 | 8/31/2012 |
| Russell 2000 Growth Index | | | 6.6 | 10.5 | — | — | — | — | — | — | 14.2 | 8/31/2012 |
| SouthernSun Asset Management | | | 6.2 | 13.7 | 21.5 | 16.0 | — | — | — | — | 21.3 | 9/30/2010 |
| Russell 2500 Value Index | | | 6.8 | 11.7 | 17.7 | 20.5 | — | — | — | — | 19.5 | 9/30/2010 |
| Alternatives | 71.9 | 7.4 | (0.0) | 2.1 | 8.5 | 11.8 | 14.6 | 5.8 | — | — | 8.4 | 2/28/2007 |
| ALTERNATIVES - CORP | 64.5 | 6.6 | (0.0) | 2.7 | 8.7 | 11.8 | 15.1 | 6.5 | 10.4 | 13.6 | 12.9 | 12/31/2002 |
| ARES Corp. Opportunity Fund | | | 0.0 | 19.3 | 36.7 | 37.5 | 13.3 | 7.3 | 8.3 | — | 12.4 | 2/28/2005 |
| ARES Corp. Opportunity Fund II | | | 0.0 | 3.7 | 25.8 | 57.2 | 30.2 | 24.7 | — | — | 18.3 | 4/30/2006 |
| ARES Corp. Opportunity Fund III | | | (0.0) | 7.5 | 21.8 | 33.3 | 26.8 | — | — | — | 21.1 | 7/31/2008 |
| ARES Corp. Opportunity Fund IV | | | 0.0 | 0.0 | — | — | — | — | — | — | 0.0 | 11/30/2012 |
| Fairview Ventures III | | | 0.0 | 1.6 | 9.2 | 13.9 | 11.6 | 1.8 | — | — | 0.7 | 7/31/2007 |
| Landmark Ptnrs XI Private Equity | | | 0.0 | (2.8) | 3.6 | 2.3 | 13.1 | (1.8) | 9.4 | — | (6.3) | 5/31/2003 |
| Landmark Ptnrs XIV Private Equity | | | 0.0 | 2.5 | 5.7 | 9.4 | 12.3 | 3.5 | — | — | 5.1 | 8/31/2005 |
| Landmark Ptnrs XIII Private Equity | | | 0.0 | 3.3 | 6.1 | 7.6 | 20.7 | — | — | — | 15.1 | 12/31/2008 |
| Lexington Capital Partners V | | | 0.0 | (0.3) | 2.4 | 10.1 | 14.7 | 4.0 | — | — | 14.5 | 12/31/2002 |
| Lexington Capital Partners VI | | | 0.0 | 2.3 | 7.8 | 13.1 | 13.5 | — | — | — | 5.1 | 7/31/2006 |
| Lexington Capital Partners VII | | | 0.0 | 4.5 | 12.5 | 14.4 | (22.7) | — | — | — | (21.7) | 12/31/2009 |
| Parish Capital | | | 0.0 | (1.4) | 7.0 | 14.7 | 10.8 | 7.9 | 9.0 | — | 0.9 | 4/30/2005 |
| Parish Capital Fund II LP | | | 0.0 | 0.5 | 2.0 | (1.8) | 10.8 | 1.4 | — | — | 0.4 | 5/31/2007 |
| Pegasus Investment Partners LP | | | 0.0 | — | — | — | — | — | — | — | 0.0 | 1/31/2013 |
| Smith Whitley & Peiham III | | | 0.0 | 1.2 | 2.7 | 6.9 | 9.6 | — | — | — | 8.5 | 1/31/2009 |
| Vista Equity Partners IV | | | 0.0 | (0.4) | (5.6) | — | — | — | — | — | (5.6) | 3/31/2012 |
| Russell 3000 | | | 5.5 | 7.6 | 12.3 | 16.9 | 14.6 | 4.4 | 4.6 | 8.5 | 8.1 | 11/30/2002 |

City of Hartford MERF
 Net of Fees - Preliminary

Performance Page
 Period Ending January 31, 2013

Annualized

| Market | Value | % of Total Fund | 3 Months | | | Fiscal YTD | Annualized | | | | | Inception to Date | Incept Date |
|--|-------|-----------------|----------|---------|--------|------------|------------|----------|---------|---------|----------|-------------------|-------------|
| | | | January | Months | % | | 1 Year | 3 Years | 5 Years | 7 Years | 10 Years | | |
| ALTERNATIVES - R-E | | | | | | | | | | | | | |
| Cornerstone Patriot Fund | \$7.4 | 0.8 % | 0.0 % | (7.2) % | 3.6 % | 10.7 % | 6.6 % | (9.6) % | (7.9) % | (5.6) % | (5.9) % | 7/31/1998 | |
| New Boston Urban Strategy Amer Fund | 4.0 | 0.4 % | 0.0 % | (7.6) % | 3.8 % | 11.5 % | 7.2 % | (10.8) % | — | — | 0.0 % | 1/31/2013 | |
| 36 Edwards St., Hartford | 3.2 | 0.3 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 0.0 % | (10.2) % | 1/31/2007 | |
| NCREIF Property Fund (Arens) | 0.2 | 0.0 % | 0.0 % | 2.3 % | — | — | — | — | — | — | (2.1) % | 7/31/1998 | |
| International Equity | | | | | | | | | | | | | |
| Russell Global ex U.S. Equity Index | 192.5 | 19.7 % | 2.7 % | 7.7 % | 14.6 % | 14.2 % | 9.0 % | 1.4 % | 3.7 % | 10.7 % | 6.1 % | 9/30/1997 | |
| Intl Equity Developed Mkts | 132.0 | 13.5 % | 2.9 % | 7.3 % | 13.9 % | 15.4 % | 9.3 % | 1.7 % | — | — | 1.2 % | 2/28/2007 | |
| Intl Developed Markets Active | | | | | | | | | | | | | |
| MSCI EAFE Composite | 132.0 | 13.5 % | 2.9 % | 7.3 % | 13.9 % | 15.4 % | 9.3 % | 2.1 % | 3.5 % | 10.8 % | 5.9 % | 6/30/1999 | |
| First Eagle Invest Mgmt Intl Small to Mid Cap | 60.0 | 6.1 % | 2.4 % | 6.3 % | 12.7 % | 11.4 % | 10.0 % | 5.6 % | 7.3 % | 14.2 % | 14.7 % | 10/31/2002 | |
| First Eagle Custom Benchmark | (11) | (11) % | 5.3 % | 11.3 % | 20.0 % | 17.3 % | 8.0 % | 0.9 % | 2.4 % | 13.9 % | 13.3 % | 10/31/2002 | |
| Waiver Scott International Ltd Intl Large Growth | 72.0 | 7.4 % | 3.3 % | 8.1 % | 15.0 % | 18.4 % | 9.0 % | 3.6 % | — | — | 4.0 % | 5/31/2006 | |
| MSCI EAFE Net Dividends | 60.5 | 6.2 % | 2.4 % | 8.5 % | 16.2 % | 8.0 % | 7.1 % | (0.2) % | 5.3 % | 15.8 % | 9.2 % | 4/30/2000 | |
| Intl Emerging Active | | | | | | | | | | | | | |
| Mondrian Inv Partners - EME | 24.7 | 2.5 % | 2.5 % | 8.9 % | 18.1 % | — | — | — | — | — | 22.9 % | 6/30/2012 | |
| Parometric EV | 35.8 | 3.7 % | 2.3 % | 8.2 % | 15.0 % | — | — | — | — | — | 19.2 % | 6/30/2012 | |
| MSCI Emerging Net Dividend | 1.4 | 1.4 % | 1.4 % | 7.7 % | 15.3 % | 7.6 % | 7.1 % | 2.0 % | 7.0 % | 16.7 % | 12.8 % | 1/31/2001 | |
| Total Global Asset Allocation | | | | | | | | | | | | | |
| Wellington Management Co LLP | 48.9 | 5.0 % | 2.7 % | 5.2 % | 10.2 % | — | — | — | — | — | 7.7 % | 4/30/2012 | |
| Blackrock Global Allocation Fd | 24.5 | 2.5 % | 2.8 % | 5.4 % | 11.1 % | — | — | — | — | — | 7.7 % | 4/30/2012 | |
| 60 MSCI World 40 Cit WGBI | 24.4 | 2.5 % | 2.7 % | 5.0 % | 9.4 % | — | — | — | — | — | 7.1 % | 4/30/2012 | |
| | | | 2.6 % | 4.1 % | 8.9 % | — | — | — | — | — | 6.3 % | 4/30/2012 | |

City of Hartford MERF
Net of Fees - Preliminary

Performance Page
Period Ending January 31, 2013

Annualized

| | Market Value | % of Total Fund | January % | 3 Months % | Fiscal YTD % | 1 Year % | 3 Years % | 5 Years % | 7 Years % | 10 Years % | Inception to Date % | Incept. Date |
|---|--------------|-----------------|-----------|------------|--------------|----------|-----------|-----------|-----------|------------|---------------------|--------------|
| Total Fixed Income | \$397.7 | 40.7 % | (1.0) % | (0.3) % | 4.0 % | 6.6 % | 8.4 % | 7.1 % | 7.0 % | 6.3 % | 6.8 % | 7/31/1997 |
| Custom Fixed Benchmark | (12) | | (1.2) | (0.7) | 3.5 | 6.7 | 9.6 | 7.9 | — | — | 8.1 | 1/31/2007 |
| Barclays Capital Aggregate Bond | (12) | | (0.7) | (0.7) | 1.1 | 2.6 | 5.4 | 5.4 | 5.8 | 5.1 | 6.1 | 7/31/1997 |
| Camb Fixed Income Mgt/Bnk | (13) | | (0.8) | (0.6) | 1.3 | 2.2 | 5.2 | 5.1 | 5.7 | — | 5.2 | 9/30/2004 |
| US Core/Core Plus | 106.7 | 10.9 | (0.4) | (0.0) | 2.3 | 4.4 | 5.8 | 4.5 | 4.9 | 4.2 | 5.8 | 7/31/1996 |
| Barclays Capital Aggregate Bond | (0.7) | | (0.7) | (0.7) | 1.1 | 2.6 | 5.4 | 5.4 | 5.8 | 5.1 | 6.0 | 12/31/1996 |
| US Core/Core Plus Fixed Income Active | 68.3 | 7.0 | (0.4) | 0.1 | 3.2 | 5.7 | 6.6 | 5.2 | 5.2 | 4.8 | 6.0 | 7/31/1996 |
| AETNA (AD) GICS | 0.6 | 0.1 | 0.3 | 1.1 | 2.4 | 3.8 | 6.7 | 6.2 | 6.4 | 5.2 | 5.9 | 8/31/1996 |
| Barclays Capital Aggregate Bond | (0.7) | | (0.7) | (0.7) | 1.1 | 2.6 | 5.4 | 5.4 | 5.8 | 5.1 | 6.0 | 12/31/1996 |
| Columbia Asset Management Co, Barclays Capital Aggregate Bond | 0.9 | 0.1 | 2.5 | 5.8 | 19.1 | 24.6 | 14.6 | 9.5 | 7.7 | 6.4 | 7.2 | 1/31/1992 |
| HIMCO Core Plus Fixed Income Barclays Capital Aggregate Bond | 66.9 | 6.8 | (0.4) | 0.1 | 3.0 | 5.5 | 6.4 | 6.0 | 5.9 | 5.5 | 5.6 | 10/31/2002 |
| Barclays Capital Aggregate Bond | (0.7) | | (0.7) | (0.7) | 1.1 | 2.6 | 5.4 | 5.4 | 5.8 | 5.1 | 5.1 | 10/31/2002 |
| US Core/Core Plus Passive | 38.4 | 3.9 | (0.4) | (0.4) | 0.8 | 1.6 | 3.6 | 2.6 | 3.7 | 3.6 | 4.9 | 5/31/1998 |
| Barclays Capital Aggregate Bond | (0.7) | | (0.7) | (0.7) | 1.1 | 2.6 | 5.4 | 5.4 | 5.8 | 5.1 | 5.6 | 5/31/1998 |
| SSGA 1-3 YR AAF | 15.4 | 1.6 | 0.0 | 0.1 | 0.3 | 0.2 | 1.1 | — | — | — | 1.3 | 3/31/2008 |
| BC U.S. Govt Treasury 1-3 Year Index | 23.0 | 2.4 | 0.0 | 0.1 | 0.3 | 0.3 | 1.2 | — | — | — | 1.8 | 3/31/2008 |
| SSGA Barclays Agg. IDX AAF | (0.7) | | (0.7) | (0.7) | 1.1 | 2.6 | — | — | — | — | 5.1 | 5/31/2011 |
| Barclays Capital Aggregate Bond | (0.7) | | (0.7) | (0.7) | 1.1 | 2.6 | — | — | — | — | 5.5 | 5/31/2011 |
| Total Long Duration | 85.7 | 8.8 | (2.6) | (3.2) | 0.9 | 5.1 | 11.6 | — | — | — | 11.3 | 3/31/2008 |
| Barclays Capital Long Govt/Credit | (2.7) | | (2.7) | (3.4) | 0.8 | 4.5 | 11.9 | — | — | — | 9.6 | 3/31/2008 |
| Long Duration Active | 76.8 | 7.9 | (2.5) | (3.1) | 1.5 | 5.6 | 11.5 | — | — | — | 12.0 | 6/30/2008 |
| PIMCO Long Duration Fixed | 76.3 | 7.9 | (2.5) | (3.1) | 1.5 | 5.6 | 12.0 | — | — | — | 11.3 | 6/30/2008 |
| Barclays Capital Long Govt/Credit | (2.7) | | (2.7) | (3.4) | 0.8 | 4.5 | 11.9 | — | — | — | 10.6 | 6/30/2008 |
| Long Duration Passive | 8.9 | 0.9 | (3.6) | (4.2) | (4.1) | (0.0) | 11.9 | — | — | — | 9.2 | 3/31/2008 |
| SSGA LONG TREAS AAF | 8.9 | 0.9 | (3.6) | (4.2) | (4.1) | (0.0) | 11.9 | — | — | — | 9.3 | 3/31/2008 |
| Barclays Capital Long Govt/Credit | (2.7) | | (2.7) | (3.4) | 0.8 | 4.5 | 11.9 | — | — | — | 9.6 | 3/31/2008 |
| Global Fixed | 32.8 | 3.3 | (1.7) | (2.5) | (0.1) | (1.1) | 3.4 | 4.8 | — | — | 6.2 | 2/28/2007 |
| Barclays Capital Aggregate Global Un-Hedged | (0.9) | | (0.9) | (1.2) | 1.8 | 1.7 | 4.7 | 4.7 | — | — | 6.1 | 2/28/2007 |
| Global Fixed - Active | 32.8 | 3.3 | (1.7) | (2.5) | (0.1) | (0.4) | 4.0 | 5.8 | — | — | 7.0 | 2/28/2007 |
| Mondrian | 32.8 | 3.3 | (1.7) | (2.5) | (0.1) | (0.4) | 4.0 | — | — | — | 4.4 | 10/31/1999 |
| Barclays Global Agg. Bond-Unhedged | (0.9) | | (0.9) | (1.2) | 1.8 | 1.7 | 4.7 | — | — | — | 4.7 | 1/31/2010 |

City of Hartford MERF
 Net of Fees - Preliminary

Performance Page
 Period Ending January 31, 2013

Annualized

| Market | Value | % of Total Fund | January % | 3 Months % | Fiscal YTD % | 1 Year % | 3 Years % | 5 Years % | 7 Years % | 10 Years % | Inception to Date % | Incept. Date |
|---|---------------|-----------------|----------------|----------------|---------------|---------------|---------------|---------------|--------------|--------------|---------------------|--------------|
| | | | | | | | | | | | | |
| Inflation Linked Bonds Active | \$54.6 | 5.6 % | (0.6) % | (0.5) % | 2.8 % | 4.7 % | 8.3 % | 5.3 % | — % | — % | 7.0 % | |
| Barclays Capital Treasury US TIPS Index | | | (0.7) | (0.6) | 2.1 | 3.9 | 8.1 | 6.1 | 6.6 | — | 6.3 | 2/28/2007 |
| Brown Brothers Harriman & Co. TIPS | \$4.8 | 5.6 | (0.6) | (0.5) | 2.8 | 4.7 | 8.3 | 6.3 | 6.6 | — | 6.3 | 4/30/2005 |
| Barclays Gbl Inv. World Gov Inflation-Linked All Maturities Index | | | 0.1 | 1.8 | 4.4 | 4.4 | 7.3 | — | — | — | 4.6 | 6/30/2008 |
| Emerging Mkts Debt Active | 75.3 | 7.7 % | (0.8) % | 2.0 % | 12.0 % | 18.4 % | 13.5 % | 11.3 % | — % | — % | 10.5 % | |
| Prudential Emerging Markets Debt | | | (0.8) | 2.0 | 12.0 | 18.4 | 13.5 | 11.3 | — | — | 11.2 | 8/31/2005 |
| JPM Emerging Mkt Bond Global | 75.3 | 7.7 | (1.4) | 1.0 | 8.7 | 14.8 | 12.3 | 10.0 | 8.4 | — | 9.7 | 8/31/2005 |
| High Yield | 42.7 | 4.4 % | 0.8 % | 2.8 % | 6.7 % | 9.8 % | — % | — % | — % | — % | 8.7 % | |
| Sheneman Capital | | | 0.8 | 2.8 | 6.7 | 9.8 | — | — | — | — | 8.7 | 7/31/2010 |
| Citigroup High Yield Market Index | 42.7 | 4.4 | 1.3 | 3.6 | 8.9 | 13.4 | — | — | — | — | 12.4 | 7/31/2010 |
| Cash - Active | (14) | 2.2 % | 0.0 % | 0.1 % | 0.1 % | 0.2 % | 0.4 % | 1.2 % | 2.3 % | 2.2 % | 2.7 % | |
| U.S. Treasury 3 Month T-bills | (14) | 2.2 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.4 | 1.6 | 1.7 | 2.8 | 7/31/1997 |

City of Hartford Municipal Employees Retirement Fund

Gross of Fee

| | Market Value (\$) | % of Portfolio | Ending January 31, 2013 | | | | | Inception | | |
|---|----------------------|-------------------|-------------------------|-------------|----------------------|-------------|--------------|--------------|---------------|---------------|
| | | | 1 Mo (%) | 3 Mo (%) | Fiscal YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | Return (%) | Since |
| Composite | 978,237,705 | 100.0 | 1.6 | 4.0 | 9.2 | 11.1 | 9.9 | 4.6 | 8.7 | Jan-86 |
| Policy Index | | | 2.0 | 4.3 | 9.1 | 10.3 | 10.4 | 5.4 | - | Jan-86 |
| Allocation Index | | | 2.2 | 4.4 | 9.5 | 10.9 | 9.2 | 5.0 | - | Jan-86 |
| Total Equity Composite | 437,831,505 | 44.8 | 4.2 | 8.5 | 14.8 | 15.8 | - | - | 14.8 | Sep-10 |
| 50% Russell 3000 / 50% Russell Global ex US | | | 4.8 | 8.7 | 15.6 | 15.8 | 11.4 | 2.7 | 14.4 | Sep-10 |
| Global Equity Composite | 80,754,890 | 8.3 | 4.8 | 8.8 | 15.6 | 15.5 | 10.7 | - | 15.8 | Apr-09 |
| MSCI ACWI | | | 4.6 | 8.3 | 15.0 | 14.8 | 9.8 | 1.5 | 18.4 | Apr-09 |
| SSGA MSCI ACWI | 80,754,890 | 8.3 | 4.8 | 8.8 | 15.6 | 15.5 | 10.7 | - | 15.8 | Apr-09 |
| MSCI ACWI | | | 4.6 | 8.3 | 15.0 | 14.8 | 9.8 | 1.5 | 18.4 | Apr-09 |
| Domestic Equity Composite | 184,611,258 | 18.8 | 5.5 | 9.1 | 13.9 | 16.6 | 16.0 | 5.1 | 7.4 | Aug-96 |
| Russell 3000 | | | 5.5 | 7.6 | 12.3 | 16.9 | 14.6 | 4.4 | 7.5 | Aug-96 |
| Atlanta Capital Large Growth | 65,803,519 | 6.7 | 4.9 | 8.1 | 11.9 | 15.2 | 14.1 | 5.9 | 3.7 | May-99 |
| Russell 1000 Growth | | | 4.3 | 6.0 | 9.2 | 13.4 | 14.6 | 5.7 | 1.3 | May-99 |
| Eagle Capital Large Value | 58,396,745 | 6.0 | 5.8 | 7.9 | 13.2 | 17.8 | 17.4 | 7.9 | 10.3 | Oct-03 |
| Russell 1000 Value | | | 6.5 | 8.7 | 15.2 | 20.6 | 14.3 | 2.7 | 7.2 | Oct-03 |
| Southern Sun SMID Value | 23,941,249 | 2.4 | 6.3 | 14.0 | 22.1 | 17.1 | - | - | 22.4 | Sep-10 |
| Russell 2500 Value | | | 6.8 | 11.7 | 17.7 | 20.5 | 16.4 | 6.7 | 19.5 | Sep-10 |
| ING Small Growth | 16,469,745 | 1.7 | 5.8 | 10.8 | - | - | - | - | 10.0 | Aug-12 |
| Russell 2000 Growth | | | 6.6 | 10.5 | 12.2 | 13.6 | 17.0 | 6.9 | 14.2 | Aug-12 |

Allocation Index: Weighted average calculation using actual asset allocation percentages and benchmark index returns.

Policy Index: NEPC Allocation effective October 2011: 16% Russell 3000, 12% Russell Global ex-US Equity, 10% Barclays Capital Aggregate, 9% MSCI Emerging Markets, 4% Barclays Capital Aggregate Global, 10% BC Gob/Credit Long, 5% JPM EMBI Global, 4% Citigroup HY, 5% BC Global Inflation Linked: US TIPS, 5% NCREIF Property Index, 7% Russell 3000 + 300 bps, 5% HFRI Fund of Funds, 5% 60 MSCI World/40 Citi WGBI, 3% S&P GSCI Commodity
 October 2007 - September 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 T-Bill
 CPI + 3.5% is not available for January.



NEPC, LLC

January 31, 2013

City of Hartford Municipal Employees Retirement Fund

Gross of Fee

| | Market Value (\$) | % of Portfolio | Ending January 31, 2013 | | | | | Inception | | |
|---------------------------------------|----------------------|-------------------|-------------------------|-------------|----------------------|-------------|--------------|--------------|---------------|---------------|
| | | | 1 Mo (%) | 3 Mo (%) | Fiscal YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | Return (%) | Since |
| International Equity Composite | 192,465,357 | 19.7 | 2.8 | 7.9 | 15.2 | 15.3 | 9.9 | 2.3 | 6.6 | Sep-97 |
| Russell Global ex US | | | 4.2 | 9.8 | 18.8 | 14.5 | 8.0 | 0.8 | - | Sep-97 |
| Walter Scott Large Growth | 71,970,535 | 7.4 | 3.4 | 8.2 | 15.6 | 19.5 | 10.0 | 4.7 | 5.1 | May-06 |
| MSCI EAFE | | | 5.3 | 11.3 | 20.0 | 17.3 | 6.9 | -0.8 | 1.0 | May-06 |
| First Eagle All Cap Value | 60,031,871 | 6.1 | 2.4 | 6.5 | 13.2 | 12.3 | 10.8 | 6.5 | 15.5 | Oct-02 |
| MSCI EAFE | | | 5.3 | 11.3 | 20.0 | 17.3 | 6.9 | -0.8 | 9.1 | Oct-02 |
| Eaton Vance Emerging Markets | 35,766,918 | 3.7 | 2.4 | 8.5 | 15.7 | - | - | - | 15.7 | Jun-12 |
| MSCI Emerging Markets | | | 1.4 | 7.7 | 15.3 | 7.7 | 7.2 | 2.0 | 15.3 | Jun-12 |
| Mondrian Emerging Markets | 24,696,006 | 2.5 | 2.5 | 9.2 | 18.4 | - | - | - | 18.4 | Jun-12 |
| MSCI Emerging Markets | | | 1.4 | 7.7 | 15.3 | 7.7 | 7.2 | 2.0 | 15.3 | Jun-12 |
| SSGA Emerging Markets | 26 | 0.0 | | | | | | | | |
| Global Asset Allocation Composite | 48,886,810 | 5.0 | 2.7 | 5.3 | 10.4 | - | - | - | 7.1 | Apr-12 |
| 60% MSCI World (Net) / 40% Citi WGBI | | | 2.6 | 4.1 | 8.8 | 9.0 | 8.0 | 3.0 | 6.0 | Apr-12 |
| BlackRock Global Allocation | 24,421,940 | 2.5 | 2.7 | 5.0 | 9.4 | - | - | - | 6.1 | Apr-12 |
| BlackRock Custom Index | | | 2.5 | 4.2 | 8.7 | 10.0 | 9.4 | 4.1 | 6.5 | Apr-12 |
| Wellington Opportunistic | 24,464,870 | 2.5 | 2.8 | 5.6 | 11.5 | - | - | - | 8.2 | Apr-12 |
| 65% MSCI ACWI (Net) / 35% BC Agg | | | 2.7 | 5.1 | 10.0 | 10.6 | 8.7 | 3.4 | 7.3 | Apr-12 |

Russell Global ex US: Return history is not available until July 2001 so performance since inception is not available.

SSGA Emerging Markets: Account was liquidated so performance is not applicable.

BlackRock Custom Index: 36% S&P 500, 24% FTSE Developed World ex-US, 24% BofA ML US 5-7 Yr Treasury, 16% Citi Non-US WGBI



NEPC, LLC

January 31, 2013

City of Hartford Municipal Employees Retirement Fund

Gross of Fee

| | Market Value (\$) | % of Portfolio | Ending January 31, 2013 | | | | | Inception | | |
|---|----------------------|-------------------|-------------------------|-------------|----------------------|-------------|--------------|--------------|---------------|---------------|
| | | | 1 Mo (%) | 3 Mo (%) | Fiscal YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | Return (%) | Since |
| Total Fixed Income Composite | 397,749,505 | 40.7 | -0.9 | -0.3 | 4.2 | 7.0 | 8.7 | 7.4 | 7.0 | Jun-97 |
| <i>Custom Fixed Benchmark</i> | | | -1.3 | -1.3 | 2.5 | 5.1 | 8.8 | 7.2 | - | Jul-97 |
| Domestic Fixed Income Composite | 289,704,134 | 29.6 | -0.9 | -0.6 | 2.8 | 5.6 | - | - | 7.5 | Sep-10 |
| <i>Domestic Fixed Income Allocation Index</i> | | | -1.0 | -0.9 | 2.3 | 4.6 | - | - | 7.6 | Sep-10 |
| <i>Barclays Aggregate</i> | | | -0.7 | -0.7 | 1.1 | 2.6 | 5.4 | 5.4 | 4.1 | Sep-10 |
| <i>Hartford Investment Core Plus Fixed</i> | <i>66,893,245</i> | <i>6.8</i> | <i>-0.4</i> | <i>0.2</i> | <i>3.2</i> | <i>5.8</i> | <i>6.8</i> | <i>6.3</i> | <i>5.9</i> | <i>Oct-02</i> |
| <i>Barclays Aggregate</i> | | | -0.7 | -0.7 | 1.1 | 2.6 | 5.4 | 5.4 | 5.1 | Oct-02 |
| <i>Aetna GICS</i> | <i>553,330</i> | <i>0.1</i> | <i>0.5</i> | <i>1.6</i> | <i>3.5</i> | <i>5.8</i> | <i>8.3</i> | <i>7.6</i> | <i>6.6</i> | <i>Aug-96</i> |
| <i>Barclays Aggregate</i> | | | -0.7 | -0.7 | 1.1 | 2.6 | 5.4 | 5.4 | 6.2 | Aug-96 |
| <i>Columbia Core Plus Fixed</i> | <i>866,315</i> | <i>0.1</i> | <i>2.3</i> | <i>5.9</i> | <i>19.4</i> | <i>25.3</i> | <i>15.0</i> | <i>8.9</i> | <i>7.4</i> | <i>Jan-92</i> |
| <i>Barclays Aggregate</i> | | | -0.7 | -0.7 | 1.1 | 2.6 | 5.4 | 5.4 | 6.3 | Jan-92 |
| <i>SSGA Barclays Aggregate Index</i> | <i>23,010,757</i> | <i>2.4</i> | <i>-0.7</i> | <i>-0.7</i> | <i>1.2</i> | <i>2.6</i> | <i>-</i> | <i>-</i> | <i>5.1</i> | <i>May-11</i> |
| <i>Barclays Aggregate</i> | | | -0.7 | -0.7 | 1.1 | 2.6 | 5.4 | 5.4 | 5.5 | May-11 |
| <i>SSGA US 1-3 Treasury Index</i> | <i>15,353,663</i> | <i>1.6</i> | <i>0.0</i> | <i>0.1</i> | <i>0.3</i> | <i>0.3</i> | <i>1.2</i> | <i>-</i> | <i>1.2</i> | <i>Mar-08</i> |
| <i>Barclays 1-3 YR TREASURY</i> | | | 0.0 | 0.1 | 0.3 | 0.3 | 1.2 | 2.0 | 1.8 | Mar-08 |
| <i>PMCO Long Duration Fixed</i> | <i>76,818,311</i> | <i>7.9</i> | <i>-2.5</i> | <i>-3.1</i> | <i>1.6</i> | <i>5.9</i> | <i>12.2</i> | <i>-</i> | <i>11.5</i> | <i>Jun-08</i> |
| <i>Barclays LT Govt/Credit</i> | | | -2.7 | -3.4 | 0.8 | 4.5 | 11.9 | 9.3 | 10.6 | Jun-08 |
| <i>SSGA Long US Treasury Index</i> | <i>8,928,462</i> | <i>0.9</i> | <i>-3.6</i> | <i>4.2</i> | <i>4.0</i> | <i>0.1</i> | <i>12.1</i> | <i>-</i> | <i>8.8</i> | <i>Mar-08</i> |
| <i>Barclays LT Govt/Credit</i> | | | -2.7 | -3.4 | 0.8 | 4.5 | 11.9 | 9.3 | 9.6 | Mar-08 |
| <i>Shenkman Capital High Yield Fixed</i> | <i>42,705,330</i> | <i>4.4</i> | <i>0.8</i> | <i>2.9</i> | <i>7.1</i> | <i>10.4</i> | <i>-</i> | <i>-</i> | <i>9.3</i> | <i>Jun-10</i> |
| <i>Citigroup High Yield Market Index</i> | | | 1.3 | 3.6 | 8.9 | 13.4 | 11.6 | 10.4 | 12.4 | Jun-10 |
| <i>Brown Bros-Harriman Global TIPS</i> | <i>54,574,721</i> | <i>5.6</i> | <i>-0.6</i> | <i>-0.5</i> | <i>2.7</i> | <i>4.6</i> | <i>8.4</i> | <i>6.4</i> | <i>6.4</i> | <i>Apr-05</i> |
| <i>Barclays US TIPS</i> | | | -0.7 | -0.8 | 2.1 | 3.9 | 8.1 | 6.1 | 6.3 | Apr-05 |

Custom Fixed Benchmark: 26.3% Barclays Gov/Credit Long, 26.3% Barclays Aggregate Bond, 10.5% Barclays Global Aggregate, 13.2% JPM EMBI Global Index, 13.2% Barclays Global Inflation-Linked, 10.5% Citi High Yield
 Domestic Fixed Income Allocation Index: Weighted average calculation using actual asset allocation percentages and benchmark index returns.



NEPC, LLC

January 31, 2013

City of Hartford Municipal Employees Retirement Fund

Gross of Fee

| | Market Value (\$) | % of Portfolio | Ending January 31, 2013 | | | | | Inception | | |
|--|----------------------|-------------------|-------------------------|-------------|----------------------|-------------|--------------|--------------|---------------|---------------|
| | | | 1 Mo (%) | 3 Mo (%) | Fiscal YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | Return (%) | Since |
| International Fixed Income Composite | 108,045,471 | 11.0 | -1.0 | 0.7 | 8.6 | 11.1 | - | - | 8.2 | Sep-10 |
| <i>International Fixed Income Allocation Index</i> | | | -1.3 | 0.3 | 6.5 | 8.7 | - | - | 7.6 | Sep-10 |
| <i>Barclays Global Aggregate</i> | | | -0.9 | -1.2 | 1.8 | 1.7 | 4.7 | 4.7 | 4.1 | Sep-10 |
| <i>Prudential Emerging Mkt Debt</i> | 75,280,992 | 7.7 | -0.7 | 2.1 | 12.4 | 19.1 | 14.2 | 12.0 | 11.9 | Aug-05 |
| <i>JPM EMBI Global Diversified</i> | | | -1.3 | 0.5 | 8.2 | 14.1 | 11.6 | 9.6 | 9.4 | Aug-05 |
| <i>Mondrian Global Fixed Income</i> | 32,764,457 | 3.3 | -1.7 | -2.4 | 0.6 | 0.7 | 4.6 | 6.3 | 7.8 | Oct-99 |
| <i>Barclays Global Aggregate</i> | | | -0.9 | -1.2 | 1.8 | 1.7 | 4.7 | 4.7 | 5.8 | Oct-99 |
| <i>SSGA Passive World Gov't</i> | 22 | 0.0 | | | | | | | | |
| Total Alternatives Composite | 71,921,349 | 7.4 | 0.0 | 2.1 | 8.5 | 12.0 | 14.6 | 5.8 | 8.4 | Feb-07 |
| <i>Russell 3000 + 3%</i> | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 6.2 | Feb-07 |
| Private Equity Composite | 64,547,671 | 6.6 | 0.0 | 2.7 | 8.8 | 12.1 | 15.0 | 6.5 | 13.0 | Dec-02 |
| <i>Russell 3000 + 3%</i> | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 10.7 | Dec-02 |
| <i>MERF - Ares Fund II</i> | 2,387,227 | 0.2 | 0.0 | 3.7 | 26.0 | 57.5 | 30.4 | 24.9 | 18.7 | Apr-06 |
| <i>Russell 3000 + 3%</i> | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 7.6 | Apr-06 |
| <i>Lexington Capital Partners</i> | 2,274,041 | 0.2 | 0.0 | -0.3 | 2.4 | -3.1 | 14.7 | 3.0 | 14.5 | Dec-02 |
| <i>Russell 3000 + 3%</i> | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 10.7 | Dec-02 |
| <i>Landmark Equity Partners XI</i> | 1,875,168 | 0.2 | 0.0 | -2.9 | 3.6 | 2.3 | 13.1 | -1.8 | -6.3 | May-03 |
| <i>Russell 3000 + 3%</i> | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 11.2 | May-03 |
| <i>Ares Corporate Opportunity Fund</i> | 2,423,833 | 0.2 | 0.0 | 19.3 | 36.7 | 37.5 | 13.3 | 7.4 | 14.5 | Feb-05 |
| <i>Russell 3000 + 3%</i> | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 8.8 | Feb-05 |
| <i>Parish Capital</i> | 3,236,014 | 0.3 | 0.0 | -1.4 | 7.0 | 14.7 | 12.8 | 7.9 | 2.0 | Apr-05 |
| <i>Russell 3000 + 3%</i> | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 8.8 | Apr-05 |
| <i>Lexington Capital Partners VI-B</i> | 6,301,006 | 0.6 | 0.0 | 2.3 | 7.8 | 10.1 | 13.5 | 4.0 | 5.1 | Jul-06 |
| <i>Russell 3000 + 3%</i> | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 8.1 | Jul-06 |

International Fixed Income Allocation Index: Weighted average calculation using actual asset allocation percentages and benchmark index returns.
 SSGA Passive World Gov't: Account was liquidated so performance is not applicable.



NEPC, LLC

January 31, 2013

City of Hartford Municipal Employees Retirement Fund

Gross of Fee

| | Market Value (\$) | % of Portfolio | Ending January 31, 2013 | | | | | Inception | | |
|-------------------------------------|----------------------|-------------------|-------------------------|-------------|----------------------|-------------|--------------|--------------|---------------|--------|
| | | | 1 Mo (%) | 3 Mo (%) | Fiscal YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | Return (%) | Since |
| Landmark Equity Partners XIII | 5,155,548 | 0.5 | 0.0 | 2.5 | 5.7 | 9.4 | 12.3 | 3.5 | 5.1 | Aug-06 |
| Russell 3000 + 3% | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 8.2 | Aug-06 |
| Parish Capital II | 7,916,004 | 0.8 | 0.0 | 0.5 | 2.0 | -1.8 | 10.8 | 1.4 | 0.4 | May-07 |
| Russell 3000 + 3% | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 5.8 | May-07 |
| Fairview Ventures III | 7,908,199 | 0.8 | 0.0 | 1.6 | 8.2 | 13.9 | 11.6 | 1.8 | 0.7 | Jul-07 |
| Russell 3000 + 3% | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 5.5 | Jul-07 |
| Ares Corporate Opportunity Fund III | 4,980,590 | 0.5 | 0.0 | 7.5 | 21.8 | 33.2 | 27.0 | - | 21.8 | Jul-08 |
| Russell 3000 + 3% | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 9.3 | Jul-08 |
| Landmark Equity Partners Fund XIV | 5,296,758 | 0.5 | 0.0 | 3.3 | 6.1 | 7.6 | 21.3 | - | 15.5 | Dec-08 |
| Russell 3000 + 3% | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 20.1 | Dec-08 |
| Smith Whitley & Co Pelham III Fund | 2,992,264 | 0.3 | 0.0 | 1.2 | 2.1 | 6.9 | 9.7 | - | 8.5 | Jan-09 |
| Russell 3000 + 3% | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 19.9 | Jan-09 |
| Lexington Capital Partners VII | 5,602,227 | 0.6 | 0.0 | 4.5 | 12.5 | 14.4 | -22.7 | - | -21.7 | Dec-09 |
| Russell 3000 + 3% | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 16.8 | Dec-09 |
| Vista Equity Partners IV | 3,351,018 | 0.3 | 0.0 | -0.4 | -5.6 | - | - | - | -5.6 | Mar-12 |
| Russell 3000 + 3% | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 15.2 | Mar-12 |
| Ares Corporate Opportunity Fund IV | 302,563 | 0.0 | 0.0 | 0.0 | - | - | - | - | 0.0 | Oct-12 |
| Russell 3000 + 3% | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 8.4 | Oct-12 |
| Pegasus Capital | 2,543,209 | 0.3 | 0.0 | - | - | - | - | - | 0.0 | Jan-13 |
| Russell 3000 + 3% | | | 5.7 | 8.4 | 14.3 | 20.4 | 18.0 | 7.6 | 5.7 | Jan-13 |



NEPC, LLC

January 31, 2013

City of Hartford Municipal Employees Retirement Fund

Gross of Fee

| | Market Value (\$) | % of Portfolio | Ending January 31, 2013 | | | | | Inception | | |
|--|--------------------|----------------|-------------------------|-------------|----------------|-------------|------------|-------------|-------------|---------------|
| | | | 1 Mo (%) | 3 Mo (%) | Fiscal YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | Return (%) | Since |
| Real Estate Composite | 7,373,679 | 0.8 | 0.0 | -7.2 | 3.6 | 10.7 | 6.6 | -9.6 | -5.9 | Jul-98 |
| NCREIF Property Index | | | 0.0 | 2.5 | 4.9 | 10.5 | 12.6 | 2.1 | 8.9 | Jul-98 |
| Comerstone | 3,960,000 | 0.4 | 0.0 | - | - | - | - | - | 0.0 | Jan-13 |
| NCREIF Property Index | | | 0.0 | 2.5 | 4.9 | 10.5 | 12.6 | 2.1 | 0.0 | Jan-13 |
| Real Estate - Land | 190,000 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -2.1 | Jul-98 |
| NCREIF Property Index | | | 0.0 | 2.5 | 4.9 | 10.5 | 12.6 | 2.1 | 8.9 | Jul-98 |
| New Boston Urban Strategy Amer Fund | 3,223,679 | 0.3 | 0.0 | -7.6 | 3.8 | 11.5 | 7.2 | -10.8 | -10.2 | Jan-07 |
| NCREIF Property Index | | | 0.0 | 2.5 | 4.9 | 10.5 | 12.6 | 2.1 | 4.2 | Jan-07 |
| Cash & Cash Equivalents | 21,848,436 | 2.2 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.3 | Jul-11 |
| 91 Day T-Bills | | | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.3 | 0.1 | Jul-11 |
| Cash | 3,172,642 | 0.3 | 0.0 | 0.0 | 0.5 | 1.1 | 0.6 | 0.9 | 2.1 | Jul-96 |
| 91 Day T-Bills | | | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.3 | 2.7 | Jul-96 |
| Benefits Payment Fund | 18,673,140 | 1.9 | 0.1 | 0.1 | 0.3 | 0.4 | 0.4 | 0.7 | 2.1 | Oct-96 |
| 91 Day T-Bills | | | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.3 | 2.7 | Oct-96 |
| COH Transition Account - BP Fund | 2,654 | 0.0 | | | | | | | | |
| 91 Day T-Bills | | | | | | | | | | |
| MERF Passive Portfolios Composite | 128,047,794 | 13.1 | 2.8 | 5.3 | 9.8 | 9.7 | 7.7 | - | 9.5 | Apr-09 |
| 50% MSCI All Country World Intl (gross) / 50% Citigroup WGBI ex US | | | 1.6 | 2.8 | 7.6 | 6.6 | 7.2 | - | 12.5 | Apr-09 |

COH Transition Account - BP Fund: The account contains one security, DYNENGY, so performance is not applicable.



NEPC, LLC

January 31, 2013

Russell U.S. Indexes Daily Total Returns

In Percentages, Based on \$US

| INDEX NAME | Daily Total Returns | | | | Periods Ending Jan 31, 2013 | | | | | Annualized Total Returns | | | | |
|------------------------------------|---------------------|------|-------|-------|-----------------------------|------|--------|-------|--------|--------------------------|---------|----------|--|--|
| | Feb 14, 2013 | MTD | YTD | Month | Last Three Months | YTD | 4Q2012 | 2012 | 1 Year | 3 Years | 5 Years | 10 Years | | |
| Broad-Market Indexes | | | | | | | | | | | | | | |
| Russell 3000® | 0.10 | 1.79 | 7.37 | 5.49 | 7.61 | 5.49 | 0.25 | 16.42 | 16.90 | 14.60 | 4.44 | 8.53 | | |
| Russell 3000® Growth | 0.09 | 1.44 | 5.96 | 4.46 | 6.34 | 4.46 | -1.19 | 15.21 | 13.44 | 14.79 | 5.79 | 8.43 | | |
| Russell 3000® Value | 0.12 | 2.11 | 8.70 | 6.46 | 8.81 | 6.46 | 1.65 | 17.55 | 20.32 | 14.35 | 2.94 | 8.48 | | |
| Russell 3000® Defensive | -0.03 | 1.12 | 6.69 | 5.50 | 6.10 | 5.50 | -1.17 | 12.91 | 16.07 | 14.40 | 4.83 | 7.85 | | |
| Russell 3000® Dynamic | 0.23 | 2.42 | 8.02 | 5.47 | 9.08 | 5.47 | 1.65 | 20.06 | 17.33 | 14.51 | 3.61 | 8.93 | | |
| Russell 3000® Growth-Defensive | 0.04 | 1.23 | 6.34 | 5.04 | 6.43 | 5.04 | -1.03 | 12.95 | 14.12 | 14.16 | 6.51 | 7.82 | | |
| Russell 3000® Value-Defensive | -0.12 | 0.98 | 7.11 | 6.07 | 5.71 | 6.07 | -1.34 | 12.89 | 18.53 | 14.67 | 3.09 | 7.96 | | |
| Russell 3000® Growth-Dynamic | 0.15 | 1.69 | 5.50 | 3.74 | 6.22 | 3.74 | -1.38 | 18.21 | 12.34 | 15.78 | 4.88 | 9.15 | | |
| Russell 3000® Value-Dynamic | 0.29 | 2.95 | 9.90 | 6.75 | 11.25 | 6.75 | 4.02 | 21.39 | 21.19 | 13.47 | 1.82 | 8.30 | | |
| Russell 3000E™ (Inception 6/27/05) | 0.10 | 1.79 | 7.38 | 5.49 | 7.61 | 5.49 | 0.25 | 16.43 | 16.92 | 14.61 | 4.44 | | | |
| Large-Cap Indexes | | | | | | | | | | | | | | |
| Russell 1000® | 0.08 | 1.73 | 7.25 | 5.42 | 7.36 | 5.42 | 0.12 | 16.42 | 17.03 | 14.48 | 4.28 | 8.36 | | |
| Russell 1000® Growth | 0.06 | 1.36 | 5.71 | 4.29 | 6.00 | 4.29 | -1.32 | 15.26 | 13.43 | 14.61 | 5.70 | 8.24 | | |
| Russell 1000® Value | 0.10 | 2.07 | 8.70 | 6.50 | 8.65 | 6.50 | 1.52 | 17.51 | 20.58 | 14.30 | 2.70 | 8.32 | | |
| Russell 1000® Defensive | -0.05 | 1.04 | 6.60 | 5.51 | 5.84 | 5.51 | -1.45 | 12.75 | 16.16 | 14.18 | 4.67 | 7.63 | | |
| Russell 1000® Dynamic | 0.21 | 2.39 | 7.86 | 5.34 | 8.86 | 5.34 | 1.67 | 20.21 | 17.47 | 14.49 | 3.44 | 8.79 | | |
| Russell 1000® Growth-Defensive | 0.02 | 1.17 | 6.23 | 5.01 | 6.18 | 5.01 | -1.29 | 12.67 | 13.94 | 13.77 | 6.33 | 7.55 | | |
| Russell 1000® Value-Defensive | -0.14 | 0.89 | 7.06 | 6.12 | 5.42 | 6.12 | -1.66 | 12.88 | 19.00 | 14.65 | 2.88 | 7.80 | | |
| Russell 1000® Growth-Dynamic | 0.12 | 1.61 | 5.05 | 3.39 | 5.77 | 3.39 | -1.36 | 18.76 | 12.49 | 15.92 | 4.89 | 9.07 | | |
| Russell 1000® Value-Dynamic | 0.28 | 2.94 | 9.92 | 6.78 | 11.17 | 6.78 | 4.02 | 21.25 | 21.26 | 13.37 | 1.54 | 8.12 | | |
| Russell Top 200® | 0.03 | 1.57 | 6.46 | 4.82 | 5.85 | 4.82 | -1.00 | 16.04 | 16.53 | 13.46 | 3.46 | 7.16 | | |
| Russell Top 200® Growth | 0.07 | 1.31 | 4.90 | 3.54 | 4.29 | 3.54 | -2.46 | 15.06 | 12.98 | 13.90 | 5.56 | 7.43 | | |
| Russell Top 200® Value | 0.00 | 1.82 | 8.01 | 6.08 | 7.39 | 6.08 | 0.47 | 17.01 | 20.15 | 13.00 | 1.31 | 6.89 | | |
| Russell Top 200® Defensive | -0.09 | 0.87 | 6.42 | 5.50 | 5.58 | 5.50 | -1.86 | 12.65 | 16.35 | 13.65 | 4.20 | 7.03 | | |
| Russell Top 200® Dynamic | 0.21 | 2.56 | 6.52 | 3.87 | 6.24 | 3.87 | 0.22 | 21.45 | 16.61 | 12.97 | 1.76 | 6.84 | | |
| Russell Top 200® Growth-Defensive | -0.01 | 1.05 | 6.12 | 5.01 | 5.94 | 5.01 | -1.58 | 12.43 | 14.08 | 13.00 | 5.85 | 6.96 | | |
| Russell Top 200® Value-Defensive | -0.19 | 0.66 | 6.78 | 6.08 | 5.15 | 6.08 | -2.19 | 12.89 | 19.20 | 14.48 | 2.43 | 7.35 | | |
| Russell Top 200® Growth-Dynamic | 0.21 | 1.78 | 2.71 | 0.92 | 1.35 | 0.92 | -4.02 | 20.87 | 10.96 | 16.31 | 4.91 | 8.17 | | |
| Russell Top 200® Value-Dynamic | 0.21 | 3.12 | 9.39 | 6.08 | 10.03 | 6.08 | 3.64 | 22.13 | 21.14 | 10.96 | -1.32 | 5.42 | | |
| Russell Top 50® Mega Cap | 0.12 | 1.52 | 5.69 | 4.10 | 3.82 | 4.10 | -3.16 | 15.65 | 15.89 | 12.66 | 3.18 | 6.27 | | |
| Mid-Cap Indexes | | | | | | | | | | | | | | |
| Russell Midcap® | 0.19 | 2.11 | 9.09 | 6.84 | 11.04 | 6.84 | 2.88 | 17.28 | 18.14 | 16.99 | 6.37 | 11.61 | | |
| Russell Midcap® Growth | 0.04 | 1.50 | 7.75 | 6.17 | 10.48 | 6.17 | 1.69 | 15.81 | 14.63 | 16.76 | 6.22 | 11.09 | | |
| Russell Midcap® Value | 0.32 | 2.63 | 10.25 | 7.42 | 11.52 | 7.42 | 3.93 | 18.51 | 21.34 | 17.21 | 6.27 | 11.74 | | |
| Russell Midcap® Defensive | 0.12 | 1.93 | 7.57 | 5.52 | 7.23 | 5.52 | 0.73 | 13.09 | 15.20 | 17.20 | 7.22 | 10.51 | | |

| | | | | | | | | | | | | |
|--|------|------|-------|------|-------|------|-------|-------|-------|-------|------|-------|
| Russell Midcap® Dynamic | 0.21 | 2.17 | 9.63 | 7.31 | 12.42 | 7.31 | 3.66 | 18.37 | 18.36 | 16.48 | 5.86 | 12.10 |
| Russell Midcap® Growth-Defensive | 0.13 | 1.70 | 6.76 | 4.97 | 7.38 | 4.97 | 0.15 | 13.82 | 13.25 | 18.24 | 8.89 | 11.47 |
| Russell Midcap® Value-Defensive | 0.11 | 2.27 | 8.75 | 6.33 | 7.02 | 6.33 | 1.59 | 12.73 | 18.12 | 15.79 | 5.44 | 9.36 |
| Russell Midcap® Growth-Dynamic | 0.00 | 1.39 | 8.25 | 6.77 | 12.08 | 6.77 | 2.48 | 16.60 | 15.02 | 15.87 | 5.09 | 10.86 |
| Russell Midcap® Value-Dynamic | 0.37 | 2.72 | 10.62 | 7.69 | 12.67 | 7.69 | 4.52 | 19.63 | 20.98 | 16.91 | 6.20 | 12.84 |
| Small-Cap Indexes | | | | | | | | | | | | |
| Russell 2000® | 0.35 | 2.45 | 8.87 | 6.26 | 10.63 | 6.26 | 1.85 | 16.35 | 15.47 | 15.98 | 6.31 | 10.70 |
| Russell 2000® Growth | 0.41 | 2.34 | 9.08 | 6.58 | 10.49 | 6.58 | 0.45 | 14.59 | 13.63 | 17.02 | 6.85 | 10.81 |
| Russell 2000® Value | 0.30 | 2.56 | 8.67 | 5.96 | 10.76 | 5.96 | 3.22 | 18.05 | 17.29 | 14.88 | 5.63 | 10.45 |
| Russell 2000® Defensive | 0.25 | 2.07 | 7.68 | 5.49 | 9.40 | 5.49 | 2.31 | 14.76 | 15.09 | 17.07 | 6.73 | 10.47 |
| Russell 2000® Dynamic | 0.45 | 2.82 | 10.03 | 7.01 | 11.85 | 7.01 | 1.40 | 18.16 | 15.77 | 14.73 | 5.61 | 10.78 |
| Russell 2000® Growth-Defensive | 0.34 | 2.11 | 7.68 | 5.46 | 9.70 | 5.46 | 2.29 | 16.37 | 16.12 | 19.71 | 8.75 | 11.86 |
| Russell 2000® Value-Defensive | 0.15 | 2.04 | 7.68 | 5.53 | 9.08 | 5.53 | 2.33 | 13.16 | 14.03 | 14.46 | 4.96 | 9.30 |
| Russell 2000® Growth-Dynamic | 0.49 | 2.60 | 10.64 | 7.84 | 11.37 | 7.84 | -1.56 | 12.54 | 11.00 | 14.39 | 5.06 | 10.00 |
| Russell 2000® Value-Dynamic | 0.42 | 3.01 | 9.54 | 6.33 | 12.26 | 6.33 | 4.01 | 23.35 | 20.25 | 14.81 | 5.57 | 11.34 |
| Russell 2500™ | 0.33 | 2.41 | 9.42 | 6.84 | 11.31 | 6.84 | 3.10 | 17.88 | 18.09 | 17.19 | 7.08 | 11.52 |
| Russell 2500™ Growth | 0.27 | 1.81 | 8.81 | 6.87 | 10.85 | 6.87 | 1.78 | 16.13 | 15.23 | 17.97 | 7.27 | 11.53 |
| Russell 2500™ Value | 0.37 | 2.88 | 9.89 | 6.81 | 11.67 | 6.81 | 4.14 | 19.21 | 20.48 | 16.42 | 6.70 | 11.27 |
| Russell 2500™ Defensive | 0.13 | 2.01 | 8.08 | 5.95 | 8.89 | 5.95 | 2.14 | 15.22 | 16.84 | 17.82 | 7.39 | |
| Russell 2500™ Dynamic | 0.43 | 2.61 | 10.06 | 7.27 | 12.52 | 7.27 | 3.57 | 19.22 | 18.40 | 16.62 | 6.75 | |
| Russell 2500™ Growth-Defensive | 0.20 | 1.77 | 7.95 | 6.07 | 9.56 | 6.07 | 2.21 | 17.69 | 18.00 | 20.24 | 9.19 | |
| Russell 2500™ Value-Defensive | 0.05 | 2.25 | 8.22 | 5.84 | 8.24 | 5.84 | 2.07 | 12.93 | 15.68 | 15.49 | 5.84 | |
| Russell 2500™ Growth-Dynamic | 0.31 | 1.84 | 9.32 | 7.35 | 11.63 | 7.35 | 1.52 | 15.18 | 13.53 | 16.62 | 6.30 | |
| Russell 2500™ Value-Dynamic | 0.50 | 3.13 | 10.57 | 7.21 | 13.13 | 7.21 | 5.03 | 22.14 | 22.15 | 16.40 | 6.75 | |
| Russell Small Cap Completeness® | 0.20 | 2.18 | 9.13 | 6.80 | 11.37 | 6.80 | 3.05 | 18.05 | 17.25 | 16.72 | 6.59 | 11.34 |
| Russell Small Cap Completeness® Growth | 0.23 | 1.70 | 8.56 | 6.75 | 11.45 | 6.75 | 2.14 | 17.61 | 15.59 | 17.61 | 6.92 | 11.57 |
| Russell Small Cap Completeness® Value | 0.18 | 2.62 | 9.64 | 6.84 | 11.29 | 6.84 | 3.90 | 18.37 | 18.83 | 15.69 | 6.10 | 10.89 |
| Russell Microcap® | 0.25 | 1.96 | 8.02 | 5.95 | 9.39 | 5.95 | 0.04 | 19.75 | 16.91 | 15.23 | 4.29 | 9.17 |
| Russell Microcap® Growth | 0.24 | 1.49 | 8.27 | 6.68 | 8.46 | 6.68 | -3.07 | 15.17 | 12.36 | 15.17 | 4.63 | 8.69 |
| Russell Microcap® Value | 0.25 | 2.24 | 7.86 | 5.50 | 9.98 | 5.50 | 2.09 | 22.81 | 20.02 | 14.88 | 3.63 | 9.55 |

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First used January 2011. CORP-6502

Russell Global Indexes Daily Total Returns

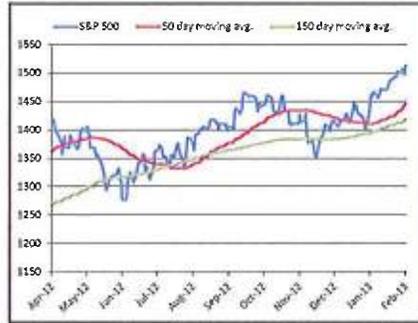
In Percentages, Based on \$US



| Index name | Daily total returns As of Feb 14, 2013 | | | | Annualized total returns As of Feb 14, 2013 | | | |
|--|---|-------------|------|------|--|---------|---------|----------|
| | Prior day | Current day | MTD | YTD | 1 year | 3 years | 5 years | 10 years |
| Global | | | | | | | | |
| Russell Global | 0.1 | -0.1 | 0.6 | 5.4 | 13.0 | 11.4 | 2.6 | 10.3 |
| Russell Global Large Cap | 0.1 | -0.1 | 0.5 | 5.3 | 13.1 | 11.3 | 2.5 | 10.0 |
| Russell Global SMID | 0.2 | 0.1 | 1.1 | 6.1 | 13.3 | 13.0 | 4.8 | 13.5 |
| Russell Global Small Cap | 0.1 | 0.1 | 1.1 | 6.1 | 12.1 | 12.0 | 3.8 | 13.0 |
| Russell Global ex-US | 0.2 | -0.3 | -0.4 | 3.7 | 11.1 | 8.6 | 0.7 | 11.7 |
| Russell Global ex-US Large Cap | 0.2 | -0.3 | -0.6 | 3.6 | 11.1 | 8.4 | 0.5 | 11.3 |
| Russell Global ex-US Small Cap | 0.0 | -0.1 | 0.4 | 4.5 | 10.8 | 9.8 | 2.1 | 14.2 |
| Russell Global ex-North America | 0.2 | -0.3 | -0.5 | 3.9 | 11.6 | 8.6 | 0.6 | 11.5 |
| Russell Global ex-Japan | 0.3 | -0.1 | 0.6 | 5.5 | 13.6 | 12.1 | 3.0 | 10.7 |
| Russell Global ex-US ex-Japan | 0.4 | -0.3 | -0.5 | 3.8 | 12.0 | 9.4 | 1.0 | 12.8 |
| Russell Global ex-UK | 0.2 | -0.1 | 0.6 | 5.5 | 12.9 | 11.4 | 2.8 | 10.3 |
| Russell Global ex-Canada | 0.2 | -0.1 | 0.6 | 5.5 | 13.4 | 11.6 | 2.7 | 10.1 |
| Russell Global ex-Australia | 0.1 | -0.1 | 0.5 | 5.3 | 12.7 | 11.3 | 2.5 | 10.1 |
| Russell World Cap | 0.2 | -0.1 | 0.6 | 5.4 | 13.1 | 11.5 | 2.7 | 10.0 |
| Russell Developed | 0.1 | -0.1 | 0.7 | 6.0 | 14.2 | 11.9 | 2.8 | 9.7 |
| Russell Developed Large Cap | 0.1 | -0.1 | 0.6 | 5.9 | 14.4 | 11.8 | 2.7 | 9.5 |
| Russell Developed Small Cap | 0.0 | 0.0 | 1.3 | 6.8 | 12.6 | 12.8 | 4.1 | 12.0 |
| Russell Developed ex-US | 0.0 | -0.4 | -0.5 | 4.4 | 13.1 | 8.7 | 0.4 | 10.6 |
| Russell Developed ex-US Large Cap | 0.0 | -0.4 | -0.6 | 4.3 | 13.3 | 8.5 | 0.2 | 10.4 |
| Russell Developed ex-US Small Cap | -0.2 | -0.2 | 0.3 | 5.0 | 11.1 | 10.0 | 1.9 | 12.8 |
| Russell Developed ex-North America | 0.0 | -0.4 | -0.6 | 4.7 | 14.1 | 8.8 | 0.2 | 10.3 |
| Russell Developed ex-North America Large Cap | 0.1 | -0.4 | -0.7 | 4.6 | 14.1 | 8.6 | 0.0 | 10.1 |
| Russell Developed ex-Japan | 0.2 | -0.2 | 0.8 | 6.2 | 15.1 | 12.8 | 3.2 | 10.1 |
| Russell Emerging Markets | 0.6 | 0.1 | -0.2 | 1.7 | 5.5 | 8.5 | 1.7 | 17.4 |
| Russell Emerging Markets Large Cap | 0.6 | 0.1 | -0.3 | 1.4 | 4.7 | 8.3 | 1.6 | 17.5 |
| Russell Emerging Markets Small Cap | 0.5 | 0.2 | 0.6 | 3.5 | 10.2 | 9.5 | 2.5 | 17.5 |
| Russell BRIC | 0.4 | 0.0 | -1.7 | 2.8 | 0.3 | 3.5 | -1.7 | 21.6 |
| Russell Global 1000™ | 0.1 | -0.2 | 0.4 | 5.2 | 13.2 | 10.9 | 2.0 | 9.1 |
| Russell Global 1000™ ex-U.S. | 0.2 | -0.4 | -0.8 | 3.7 | 11.5 | 8.0 | 0.0 | 10.5 |
| Russell Global 2000™ | 0.2 | 0.1 | 1.4 | 6.4 | 13.2 | 13.0 | 4.3 | 13.3 |
| Russell Global 2000™ ex-U.S. | 0.1 | -0.1 | 0.7 | 4.7 | 12.5 | 10.9 | 2.9 | 14.9 |
| Russell Global 3000™ | 0.1 | -0.1 | 0.5 | 5.3 | 13.2 | 11.1 | 2.2 | 9.4 |
| Russell Global 3000™ ex-U.S. | 0.2 | -0.3 | -0.6 | 3.8 | 11.6 | 8.3 | 0.3 | 10.9 |
| Asia Pacific | | | | | | | | |
| Russell Asia Pacific | -0.1 | 0.4 | 0.4 | 3.6 | 9.9 | 8.3 | 1.8 | 11.3 |
| Russell Asia Pacific ex-Japan | 0.8 | 0.5 | 0.8 | 3.8 | 12.4 | 11.2 | 3.8 | 16.3 |
| Russell Asia ex-Japan | 0.6 | 0.4 | 0.2 | 2.3 | 9.5 | 9.7 | 2.9 | 15.6 |
| Russell Greater China | 0.0 | 0.7 | -0.5 | 3.4 | 9.4 | 7.5 | 2.7 | 13.0 |
| Russell Greater China Large Cap | 0.0 | 0.7 | -0.7 | 3.0 | 9.9 | 8.3 | 3.0 | 14.0 |
| Russell Greater China Small Cap | 0.0 | 0.5 | 0.8 | 5.3 | 7.4 | 3.9 | 1.4 | 9.7 |
| Russell Developed Pacific Basin | -0.5 | 0.4 | 0.5 | 4.8 | 11.4 | 8.0 | 1.5 | 9.5 |
| Russell Developed Pacific Basin ex-Japan | 1.0 | 0.7 | 1.9 | 7.0 | 20.8 | 14.8 | 6.2 | 17.1 |
| Russell Emerging Asia | 0.6 | 0.4 | 0.1 | 1.8 | 7.7 | 9.1 | 2.4 | 15.8 |
| Russell Australia High Dividend | 1.4 | 0.8 | 3.8 | 11.5 | 27.7 | 15.0 | 6.3 | -- |



Weekly Markets & Indicators
As of 1/31/2013
News & Comments



| | Most Recent | Q4 | YE | 1 YR |
|------------------------|-------------|--------|--------|---------|
| Economic Releases | | | | |
| GDP Growth - Q-o-Q (%) | 1/31/2013 | 3.1 | 2.0 | 2.3 |
| Unemployment Rate (%) | 1/31/2013 | 7.9 | 7.8 | 8.3 |
| Conference Board LEI | 12/31/2012 | 93.9 | 93.1 | 92.2 |
| U of MI Consumer Sent. | 1/31/2013 | 73.8 | 72.9 | 75 |
| CPI All Urban | 12/31/2012 | 230.98 | 231.41 | 227,033 |
| Capacity Utilization | 12/31/2012 | 78.8 | 78.4 | 78.3 |
| Home Prices(S&P C-S) | 11/30/2012 | 145.82 | 146.17 | 138.19 |
| ADP/Payrolls | 1/31/2013 | 192 | 124 | 219 |

| Fixed Income Indices | 1 WK | MTD | QTD | YTD | 1 YR | 3 YR | 5 YR | 10 YR |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| BC Agg | -0.5% | -0.7% | -0.7% | -0.7% | 2.6% | 5.5% | 7.2% | 5.1% |
| BC US Agg Treasury | -0.5% | -0.8% | -0.8% | -0.8% | 0.7% | 5.1% | 7.1% | 4.7% |
| BC Credit | -0.7% | -0.9% | -0.9% | -0.9% | 6.2% | 8.0% | 8.5% | 6.1% |
| BC MBS | -0.2% | -0.5% | -0.5% | -0.5% | 1.7% | 4.1% | 7.0% | 5.0% |
| BC HY | -0.5% | 1.3% | 1.3% | 1.3% | 13.9% | 11.9% | 10.8% | 10.4% |
| BC Municipal | -0.4% | 0.4% | 0.4% | 0.4% | 4.8% | 6.5% | 6.8% | 5.2% |
| BC Converts (as of 1/31) | 0.1% | 3.7% | 3.7% | 3.7% | 13.3% | 10.5% | 6.4% | 8.2% |
| BC 1-10 Yr TIPS | -0.1% | -0.2% | -0.2% | -0.2% | 3.0% | 5.8% | 7.9% | 5.6% |
| BC Long Treasury | -2.0% | -3.5% | -3.5% | -3.5% | 0.0% | 11.7% | 11.2% | 7.3% |
| BC Long Credit | -1.6% | -2.2% | -2.2% | -2.2% | 7.7% | 12.3% | 10.8% | 7.9% |
| BC US Trs. Strips 20-30 | -3.1% | -5.7% | -5.7% | -5.7% | -1.4% | 18.3% | 13.7% | 9.5% |
| EMBI | -1.5% | -1.4% | -1.4% | -1.4% | 14.8% | 12.2% | 11.6% | 11.2% |
| GBI-EM Glob. Div. | 0.1% | 0.7% | 0.7% | 0.7% | 9.5% | 10.0% | 13.0% | 12.2% |
| ELMI | 0.0% | 0.8% | 0.8% | 0.8% | 3.8% | 2.8% | 6.4% | 7.7% |
| S&P 15TA Lev Loan | 0.1% | 1.1% | 1.1% | 1.1% | 8.5% | 6.7% | 6.1% | 5.7% |
| WGBI | -0.2% | -1.3% | -1.3% | -1.3% | -1.1% | 3.9% | 7.5% | 5.8% |

| Equity Market Indices | Level | 1 WK | MTD | QTD | YTD | 1 YR | 3 YR | 5 YR | 10 YR |
|-----------------------|--------|-------|------|------|------|-------|-------|-------|-------|
| S&P 500 | 1508.2 | 0.3% | 5.2% | 5.2% | 5.2% | 16.8% | 13.6% | 3.5% | 7.9% |
| Russell 1000 | 836.9 | 0.3% | 5.4% | 5.4% | 5.4% | 17.0% | 13.9% | 3.8% | 8.4% |
| Russell 1000 Growth | 689.9 | 0.1% | 4.3% | 4.3% | 4.3% | 13.4% | 14.1% | 5.8% | 8.2% |
| Russell 1000 Value | 766.9 | 0.5% | 6.5% | 6.5% | 6.5% | 20.6% | 13.7% | 1.6% | 8.3% |
| Russell 2000 | 905.3 | 0.2% | 6.3% | 6.3% | 6.3% | 15.5% | 15.5% | 4.1% | 10.7% |
| Russell 2000 Growth | 517.7 | 0.0% | 6.6% | 6.6% | 6.6% | 13.6% | 16.5% | 5.9% | 10.8% |
| Russell 2000 Value | 1199.9 | 0.5% | 6.0% | 6.0% | 6.0% | 17.3% | 14.4% | 2.3% | 10.5% |
| Russell 3000 | 897.1 | 0.8% | 6.0% | 6.0% | 6.0% | 15.1% | 12.0% | 1.4% | 6.5% |
| MSCI ACWI | 355.0 | 0.6% | 4.6% | 4.6% | 4.6% | 14.8% | 9.6% | 1.8% | 8.9% |
| MSCI EAFE | 1667.4 | 1.4% | 5.3% | 5.3% | 5.3% | 17.3% | 6.9% | -0.7% | 9.2% |
| MSCI Europe | 98.3 | 0.9% | 5.8% | 5.8% | 5.8% | 20.4% | 7.2% | -0.8% | 9.5% |
| MSCI Japan | 580.8 | 3.4% | 3.7% | 3.7% | 3.7% | 7.3% | 3.0% | -4.6% | 5.7% |
| MSCI EM | 1067.6 | -0.3% | 1.4% | 1.4% | 1.4% | 7.6% | 7.1% | 6.4% | 16.7% |
| MSCI Frontier Market | 528.5 | 1.8% | 7.5% | 7.5% | 7.5% | 16.3% | 6.2% | -3.5% | 8.7% |

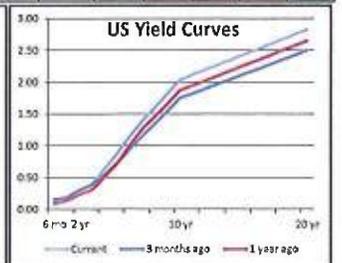
| Equity Valuation | P/S | Trailing P/E | Forward P/E | 10 YR Avg | 10 YR P/BV | 10 YR Avg | Earn Yield | Div Yield | 10 YR Avg |
|------------------|------|--------------|-------------|-----------|------------|-----------|------------|-----------|-----------|
| S&P 500 | 1.41 | 14.91 | 13.59 | 16.64 | 2.25 | 2.49 | 6.71 | 2.29 | N/A |
| Russell 2000 | 0.98 | 36.57 | 19.39 | N/A | 1.83 | 2.00 | 2.73 | 1.70 | N/A |
| MSCI EAFE | 0.91 | 18.89 | 13.60 | N/A | 1.53 | 1.77 | 5.29 | 3.45 | N/A |
| MSCI EM | 1.08 | 12.46 | 11.01 | 13.33 | 1.66 | 1.90 | 8.03 | 2.84 | N/A |

| 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 | 0.30 | 0.31 | 0.31 | 0.31 | 0.54 | -0.01 | -0.01 | -0.01 | -0.25 |
| 3 Mo T-Bill | 0.07 | 0.04 | 0.04 | 0.04 | 0.05 | -0.01 | 0.03 | 0.03 | 0.02 |
| 2 Yr Treasury | 0.26 | 0.25 | 0.25 | 0.25 | 0.21 | 0.02 | 0.02 | 0.02 | 0.05 |
| 5 Yr Treasury | 0.88 | 0.72 | 0.72 | 0.72 | 0.70 | 0.12 | 0.16 | 0.16 | 0.18 |
| 10 Yr Treasury | 2.01 | 1.76 | 1.76 | 1.76 | 1.80 | 0.17 | 0.26 | 0.26 | 0.22 |
| 30 Yr Treasury | 3.22 | 2.95 | 2.95 | 2.95 | 2.94 | 0.17 | 0.27 | 0.27 | 0.28 |
| 10 Yr TIPS (Real Rate) | -0.56 | -0.75 | -0.75 | -0.75 | -0.31 | 0.20 | 0.19 | 0.19 | -0.25 |
| UK | 2.10 | 1.83 | 1.83 | 1.83 | 1.97 | 0.09 | 0.27 | 0.27 | 0.13 |
| Germany | 1.67 | 1.32 | 1.32 | 1.32 | 1.79 | 0.10 | 0.36 | 0.36 | -0.12 |
| Japan | 0.77 | 0.79 | 0.79 | 0.79 | 0.97 | 0.05 | 0.02 | 0.02 | 0.20 |
| Brazil | 2.95 | 2.56 | 2.56 | 2.56 | 3.75 | 0.25 | 0.39 | 0.39 | -0.80 |

| Alternative Benchmarks | Level | lag date | MTD | QTD | YTD | 1 YR | 3 YR | 5 YR | 10 YR |
|-----------------------------|--------|------------|-------|-------|-------|-------|-------|-------|-------|
| DJ UBS Commodity Index | 142.1 | | 2.4% | 2.4% | 2.4% | -1.1% | 3.0% | -1.9% | 3.6% |
| GSCI Commodity Index | 676.7 | | 4.4% | 4.4% | 4.4% | 2.2% | 6.4% | -1.5% | 2.3% |
| Bloomberg Sweet Crude | 111.5 | | 4.6% | 4.6% | 4.6% | 3.7% | 14.6% | 13.8% | 13.1% |
| Gold Spot | 1675.1 | | -0.7% | -0.7% | -0.7% | -4.3% | 14.6% | 20.6% | 16.3% |
| NAREIT All Composite | 162.6 | | 4.3% | 4.3% | 4.3% | 17.3% | 20.8% | 0.7% | 11.6% |
| NCREIF Property Index | 2.5 | 12/31/2012 | N/A | 2.5% | 10.5% | 10.5% | 12.6% | 2.1% | 8.4% |
| DJ CS HF Composite | 484.8 | 12/31/2012 | 1.5% | 2.0% | 7.7% | 7.7% | 5.2% | 2.2% | 6.9% |
| HFRI Fund of Funds | 5037.1 | 12/31/2012 | 1.1% | 1.2% | 4.7% | 4.7% | 1.4% | -1.8% | 3.6% |
| DJ CS Equity Market Neutral | 245.1 | 12/31/2012 | 0.9% | 0.8% | 0.9% | 0.9% | 1.5% | -8.3% | -0.5% |
| DJ CS Event Driven | 539.4 | 12/31/2012 | 2.0% | 3.2% | 10.6% | 10.6% | 4.2% | 2.3% | 8.2% |
| DJ CS Equity Long Short | 526.4 | 12/31/2012 | 1.6% | 2.1% | 8.2% | 8.2% | 3.1% | 1.0% | 7.0% |
| DJ CS Global Macro | 821.0 | 12/31/2012 | 1.3% | 1.3% | 4.6% | 4.6% | 8.1% | 6.1% | 9.6% |
| DJ CS Multi-Strategy | 425.3 | 12/31/2012 | 1.4% | 2.7% | 11.2% | 11.2% | 7.4% | 3.3% | 7.0% |

| Spreads/Risk | Close | ME | QE | YE | 1 YR | WK | ME | YE | 1 YR |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vix | 13.96 | 18.02 | 18.02 | 18.02 | 19.44 | 1.27 | -4.06 | -4.06 | -5.48 |
| TED Spread | 0.23 | 0.27 | 0.27 | 0.27 | 0.49 | 0.01 | -0.04 | -0.04 | -0.26 |
| 30 Yr - 2 Yr Treasury | 2.96 | 2.70 | 2.70 | 2.70 | 2.72 | 0.15 | 0.25 | 0.25 | 0.23 |
| 10 Yr TIPS B/E | 2.57 | 2.51 | 2.51 | 2.51 | 2.10 | -0.03 | 0.06 | 0.06 | 0.47 |
| Long corp. OAS | 1.82 | 1.85 | 1.85 | 1.85 | 2.29 | 0.00 | -0.03 | -0.03 | -0.47 |
| HY corp. OAS | 4.76 | 5.11 | 5.11 | 5.11 | 6.43 | 0.14 | -0.35 | -0.35 | -1.67 |
| Agg. OAS | 0.54 | 0.53 | 0.53 | 0.53 | 0.79 | -0.01 | 0.01 | 0.01 | -0.25 |

| Currencies | Close | ME | QE | YE | 1 YR | WK | ME | YE | 1 YR |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Euro Spot | 1.36 | 1.32 | 1.32 | 1.32 | 1.31 | 0.02 | 0.04 | 0.04 | 0.05 |
| British Pound Spot | 1.57 | 1.62 | 1.62 | 1.62 | 1.58 | 0.00 | -0.05 | -0.05 | 0.00 |
| Yen Spot | 92.71 | 86.75 | 86.75 | 86.75 | 76.27 | 2.38 | 5.96 | 5.96 | 16.44 |
| Brazilian Real Spot | 1.99 | 2.05 | 2.05 | 2.05 | 1.75 | -0.04 | -0.06 | -0.06 | 0.24 |



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

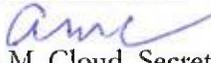
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CITY OF HARTFORD
PENSION COMMISSION

MEMORANDUM

To: Pension Commission
From: 
Adam M. Cloud, Secretary
Date: February 14, 2013
Subject: **Update from the MERF's General Investment Consultant**

NEPC representatives will attend the Pension Commission meeting on February 22, to discuss the MERF's December 31, 2012 Investment Performance Analysis report and its current capital markets assumptions. Please see the enclosed materials which they will utilize in their presentation.



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YOU DEMAND MORE. So do we.SM



**City of Hartford Municipal
Employees' Retirement Fund
Asset Class Assumptions and
Actions**

February 2013

Kristin Finney-Cooke, CAIA, Senior Consultant
Doug Moseley, Partner
Richard Pszenny, CAIA, Senior Analyst

One Main Street, Cambridge, MA 02142 | TEL: 617.374.1300 | FAX: 617.374.1313 | www.nepc.com
CAMBRIDGE | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | SAN FRANCISCO

- **After broad rally in 2012, opportunistic trades are less compelling**
 - Most markets have recovered from pull back in 2011
 - Lack of good value across markets presents opportunity to revisit investment objectives and confirm long-term strategic allocations
- **Forward-looking expectations are lower after 2012 market rally**
 - Performance in credit and US equity markets lowers 5-7 year expectations across these asset categories
 - Yields remain low as do sovereign bond return expectations
 - Non-US equities have high risk but also higher return expectations
- **30-year returns also lower for credit markets**
 - Broad based credit spread compression and low sovereign yields reduce long-term expectations for credit
 - Equity asset classes less affected by rally and supported by higher inflation expectation over 30 years
- **Macroeconomic themes continue to weigh on markets**

Capital Market Observations

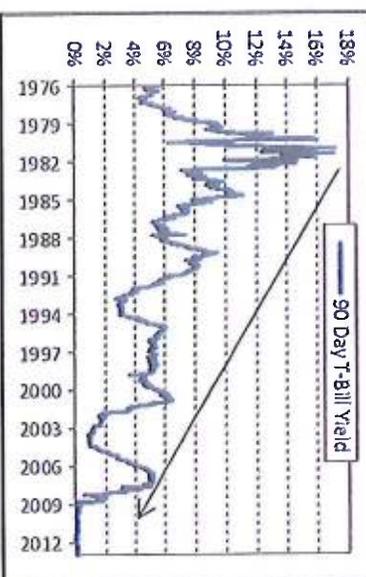
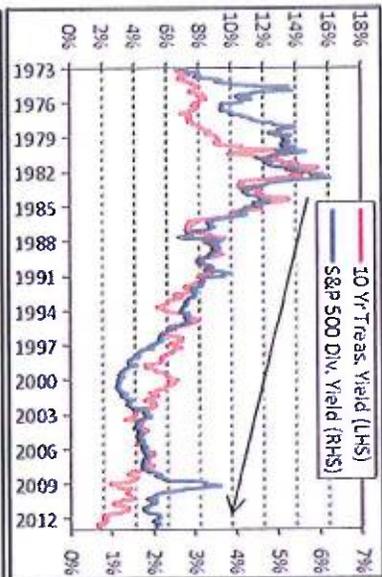
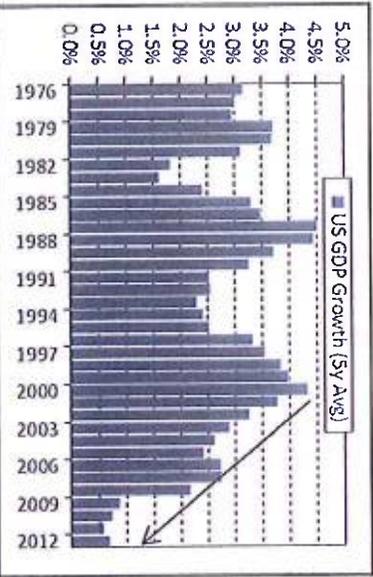


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- **Strong 2012 market returns lead to subdued expectations**
 - Without a fundamental shift in underlying economic drivers, favorable recent performance “robs from the future” and lowers 5-7 year outlook across markets
 - Markets have rallied based on policy announcements more than economic results
 - Policy accommodation could provide further tailwind to markets in near-term
 - Valuation expansion is unlikely to be a large driver on its own as few markets look cheap
- **Potential for macro shock is elevated in the near term**
 - Stimulative monetary policy in developed world creates a deceptively calm backdrop
 - US fiscal cliff, European misstep, China slow down, or Middle East conflict could send shocks across markets
- **Global growth outlook remains constrained as developed world lacks political will to truly address debt burden**
 - Pressure for fiscal tightening (European austerity, US fiscal cliff) could neutralize benefits of monetary stimulus
 - Structural debt issues plus ancillary effects of money printing will extend deleveraging
- **Seeds of inflation planted but not yet watered**
 - Money printing has led to asset price inflation instead of inflation in the real economy
 - Monetary easing creates long-term inflation threat, but muted credit growth limits near-term inflation pressure

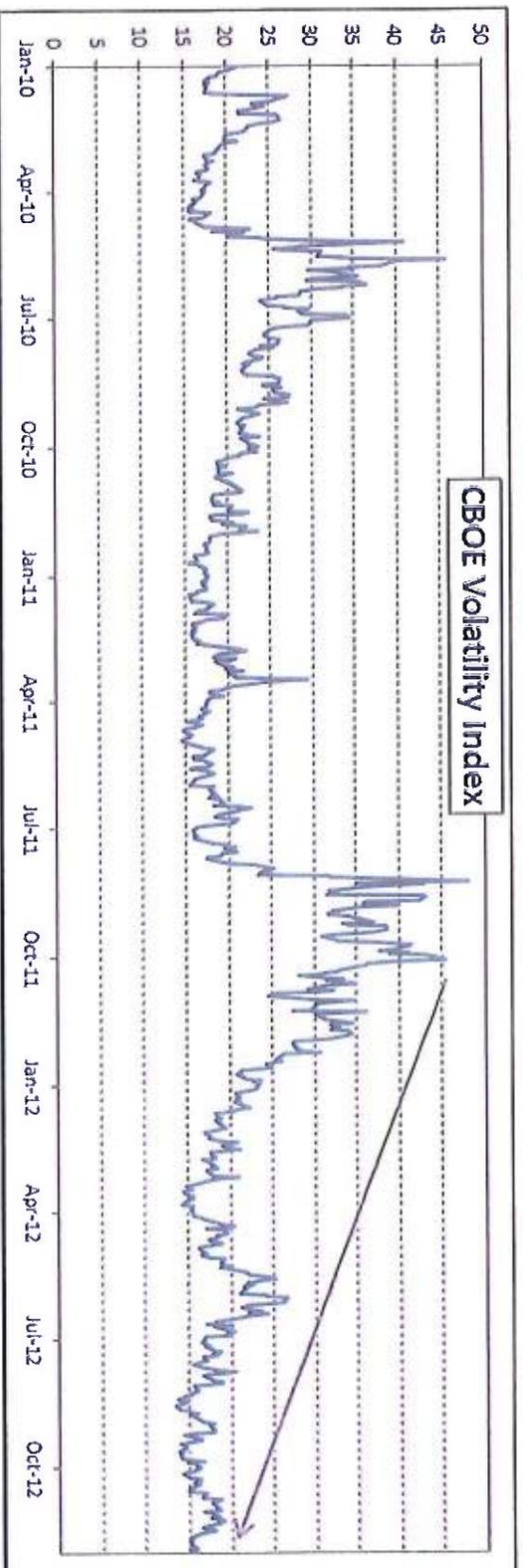
Expected Returns Are Lower After Strong Performance in 2012

- Markets responded favorably in 2012 to policy action, yet underlying building blocks remain subdued
- Growth expectations across developed markets remain low (0-3%)
- Yields are generally lower
 - Sovereign yields shifted lower in 2012
 - Credit spreads compressed
 - Dividends lower with higher price levels
- Cash rates, the starting point for returns, are pinned at 0%
- Investors can still expect to earn a premium for taking capital market risk
 - But contribution to return from valuation expansion is likely to be more limited
- In a difficult environment for savers, institutional investors do have some advantages
 - Scale
 - Time horizon



Sources: Bloomberg, Board of Governors of the Federal Reserve System as of 1/1/30

Exogenous Shocks Could Have Major Impact On Markets

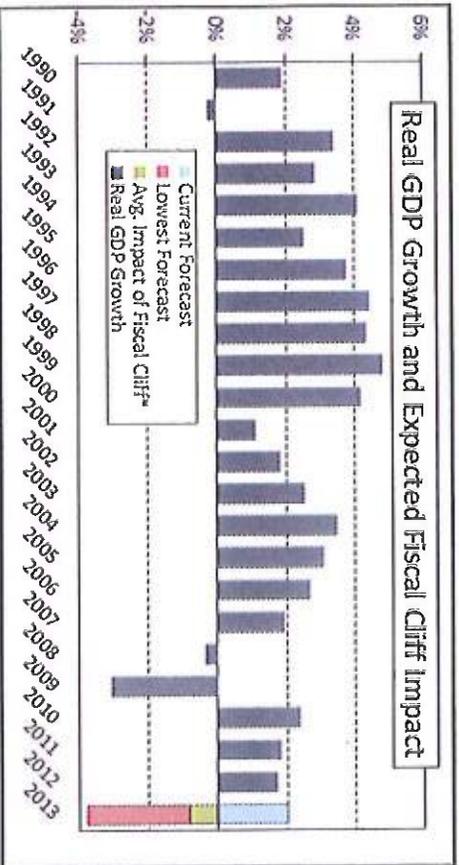


Source: CBOE as of 11/30

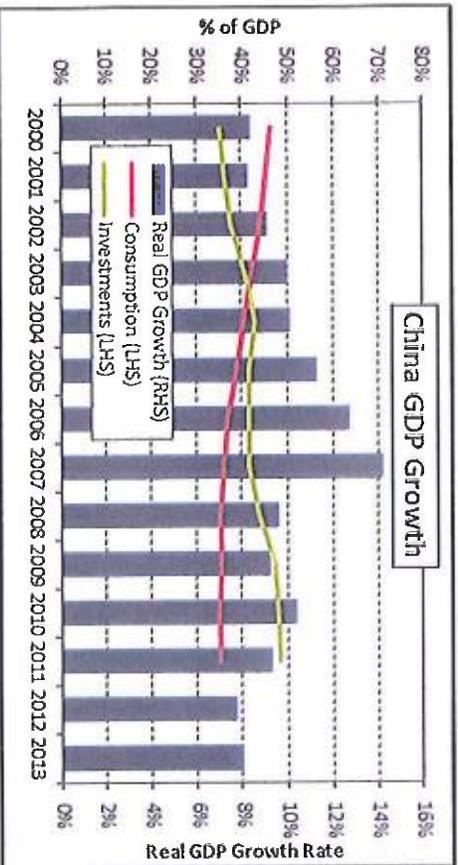
- **Markets have been calm despite potential for negative macro-economic event**
- **Political negotiations will continue in the US around the debt ceiling and potential spending cuts as increased taxes create a drag on growth**
- **Europe now has a more credible plan**
 - Forced austerity on periphery and anemic growth across the continent create challenging conditions
- **China appears to have avoided a hard landing but faces challenges**
 - Economic rebalancing – from external to internal growth
 - Leadership transition
- **Ongoing Middle East conflict (Syria) and rhetoric around broader tension (Israel/Gaza & Iran) remain major political and economic issues**



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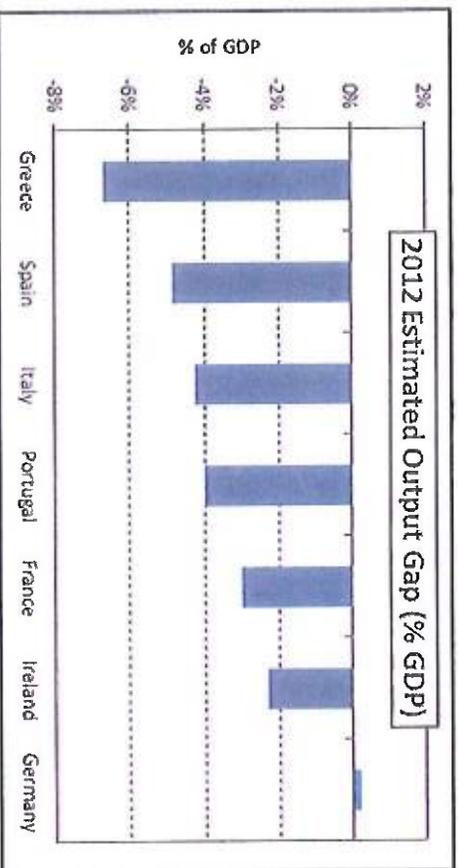


While tax cuts were minimized, the impact of the Fiscal Cliff looms over the US economy and creates a drag on growth.
 Source: BEA, CBO, & St. Louis Fed as of 11/30

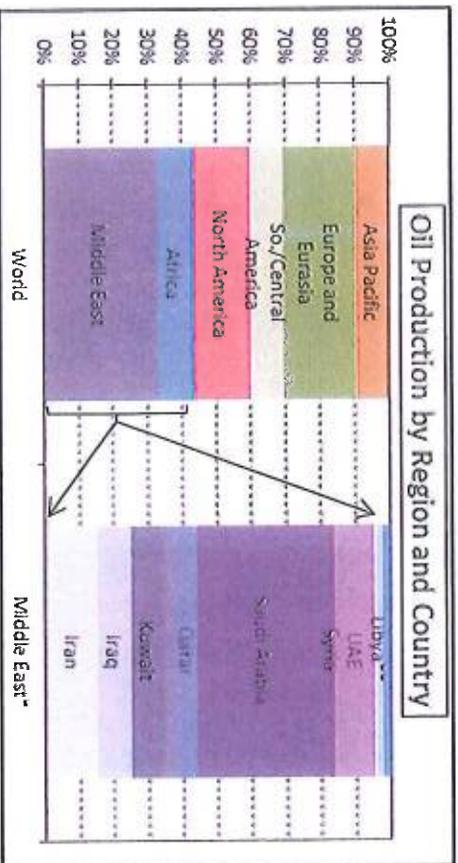


China's growth has slowed to 7-8%. Consumption must become a larger part of GDP for internal development to fuel future growth.

Source: Bloomberg as of 11/30 (2012 and 2013 are projections)



While the ECB and Eurozone leaders have developed a plan to slowly work through debt challenges, structural issues remain.
 Source: ECB as of 9/30 (2005 = 100)

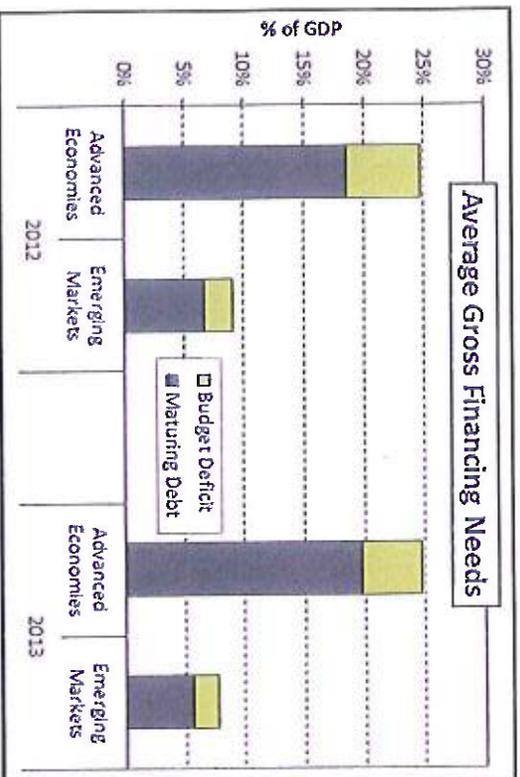


Conflict in the Middle East could impact global oil prices, though most countries associated with conflict, other than Iran, are not large oil producers.

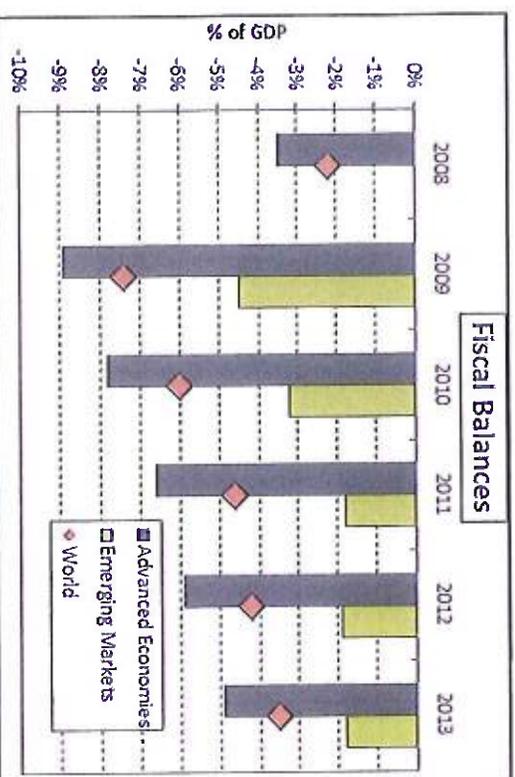
Source: BP (Data Shown is for 2011)
 *Includes Libya and Egypt; ** Libya's oil production decreased by 71% in 2011



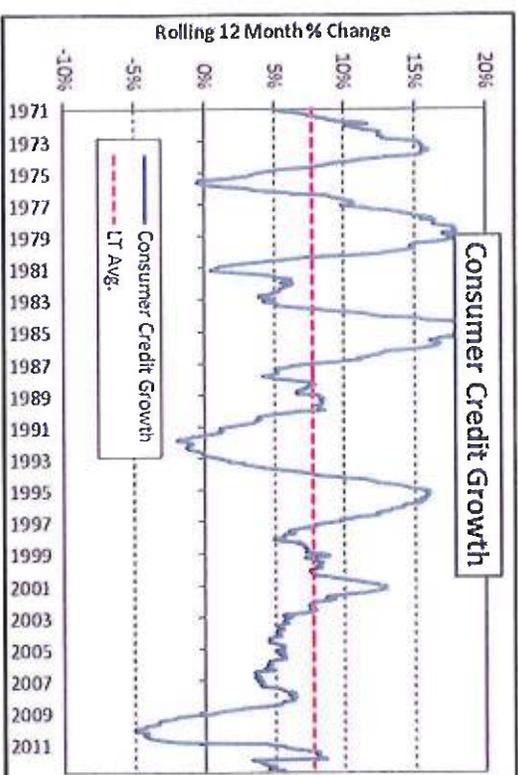
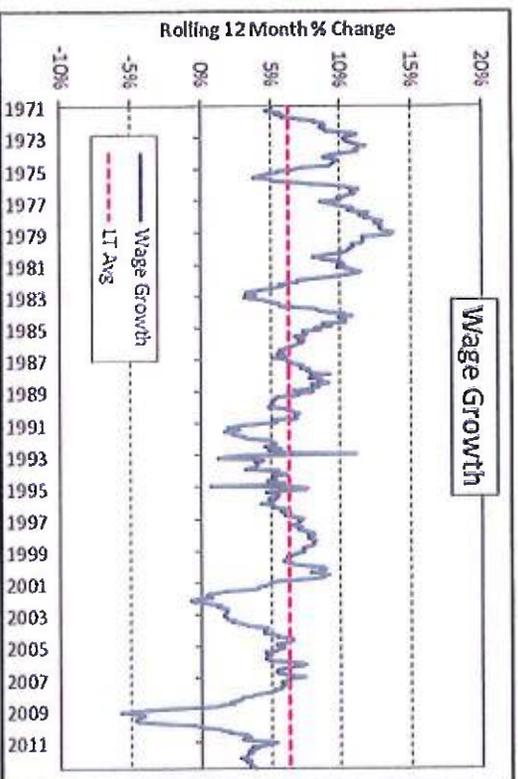
- **Policy makers continue to react to global debt challenges**
 - European leaders have produced credible plan
 - US Fed and Bank of England continue to lead in implementation of experimental monetary policy
- **Path through long-term global deleveraging requires balance between conflicting objectives**
 - Short-term funding needs and credit creation
 - Long-term sustainability of persistent fiscal deficits and ballooning sovereign debt levels
- **Political pressure for better fiscal balance is in conflict with short-term needs and could offset accommodative monetary policy**



Source: IMF (2012 & 2013 are forecasts)



Source: IMF (2012 & 2013 are forecasts)



- **Monetary accommodation has been tremendously powerful in boosting capital markets**
 - Impact on broader economy has been more limited
- **Inflation to the goods and services economy will react to drivers that remain subdued**
 - Credit growth – still muted as lenders limit credit access to highest quality borrowers
 - Wage growth – remains low with unemployment stubbornly elevated
- **Near-term inflation potential stays fairly modest amidst global deleveraging**
- **Long-term inflation pressures continue to build**
 - As economy improves and corrects imbalances, build up of loose monetary policy is likely to lead to higher inflation levels

Actions for Clients



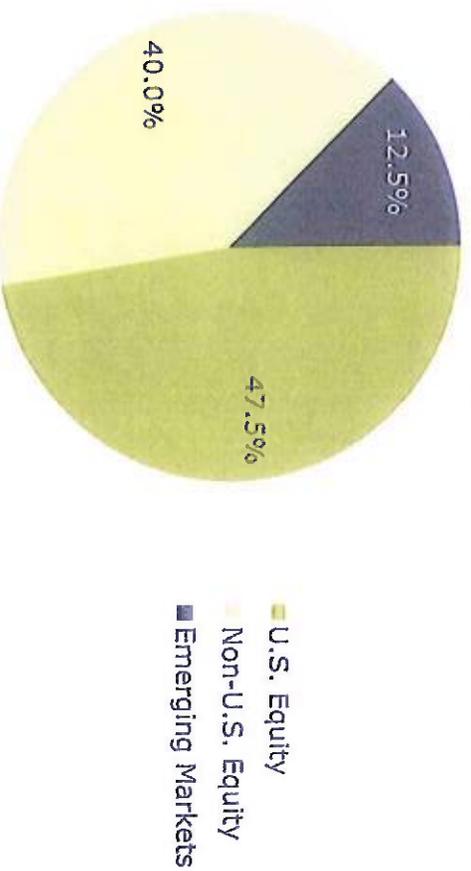
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- **Focus on strategic allocations in a time with few tactical opportunities**
 - Confirm your policy objectives and investment goals
 - Avoid stretching for higher returns through increased risk
 - Be prepared to act if opportunities do present themselves
- **Position for a continuation of macro-driven themes**
 - Examine existing managers' capabilities
 - Add to global asset allocation and top-down active strategies
 - Use flexible active managers to implement allocations to policy-driven markets
 - Non-US equities have attractive valuations, but return premium reflects downside risk
 - Credit markets have recovered but liquidity has fallen, making market dynamics less stable
- **Use Risk Parity as a stable foundation of a diversified program**
 - Reconsider what constitutes a "core" investment in this environment
 - No longer just stocks and bonds
 - Risk Parity can be used as a liquid placeholder while tactical opportunities are limited
- **Continue building allocations in emerging markets and real assets**
 - Developing countries consistently demonstrate superior fundamentals to G7 markets
 - Most investors remain vulnerable to higher inflation, with limited real assets exposure
- **Allocate to less liquid strategies with patience**
 - Distressed assets thesis is compelling but current opportunities are limited
 - Strategies providing capital to markets that have traditionally relied on banks are appealing with high income and relatively shorter time horizons
 - Significant system stress remains in real estate market but conditions have improved

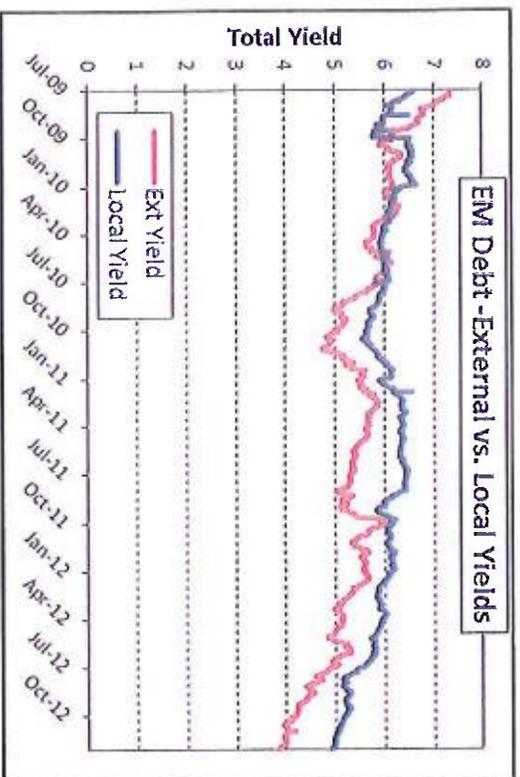
- **Given the 2012 run-up in global equities...consider rebalancing back to target allocations**
- **Given the expected low return environment**
 - Reassess the ability of your Fund to earn its assumed actuarial rate of return at prudent levels of risk
 - Both short term and long term
- **Plan to proactively communicate with non-trustee stakeholders on the potential impacts of a subdued-return environment**
 - Beneficiaries
 - Policy Makers
 - Media
- **Analyze your current and projected liquidity profile**
 - Given the attractiveness of less liquid strategies in relation to traditional asset classes...determine how much liquidity risk your Fund can assume
- **Continue to build a diversified and flexible fixed income portfolio...move away from a core (Barclays Aggregate) model**
 - Evaluate current positioning of investment grade and high yield credit
 - Consider complementary allocations to or policy allowances for more attractive risk-adjusted profiles (e.g., bank loans)
 - EMD Local Currency remains attractive relative to Global Developed-Country Bonds
 - Higher yield, shorter duration, improving credit quality, potential for currency appreciation

- **Emerging Markets remain a critical strategic exposure**
- **Performance across emerging markets was strong in 2012**
 - EM Equities: 18.2%
 - EM External Debt: 18.5%
 - EM Local Currency Debt: 16.8%
- **Even with run-up, EM remains poised for outperformance**
- **Confirm that your emerging markets exposure is at or above market-capitalization weighting**

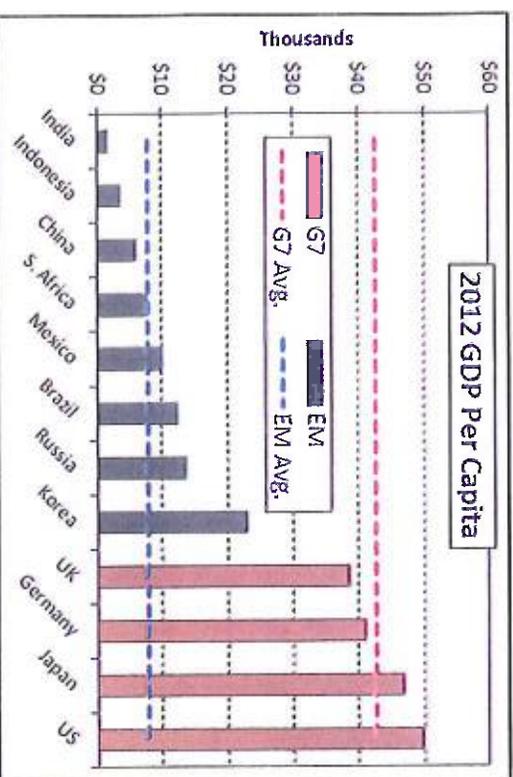
MSCI All Country World Index Regional Allocations as of 9/30/12



- **EM Local Currency Debt presents a better risk-return profile than External Debt**
 - Higher yield
 - Shorter duration
 - Better credit quality
 - Increased volatility due to currency but potential for appreciation
- **Volatility will continue as these countries manage economic growth and effects of debt deleveraging in developed markets**
 - Sources of growth likely to transition from exports and investment to internal consumption



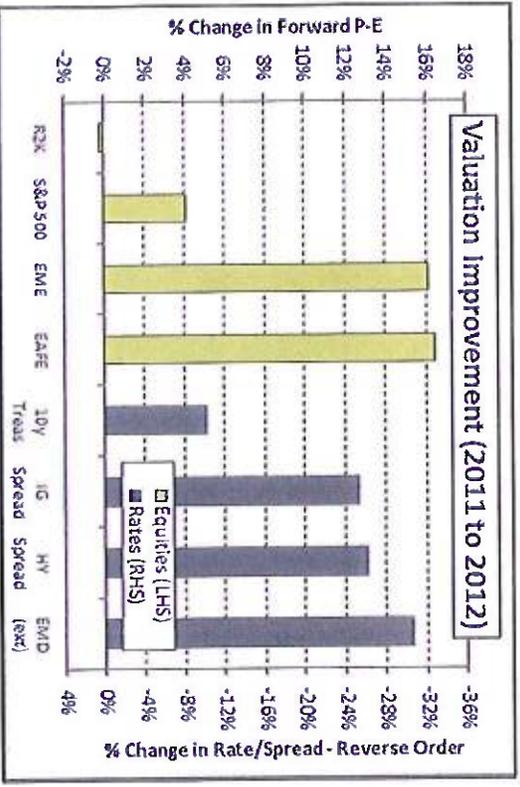
Source: Barclays Capital as of 11/30



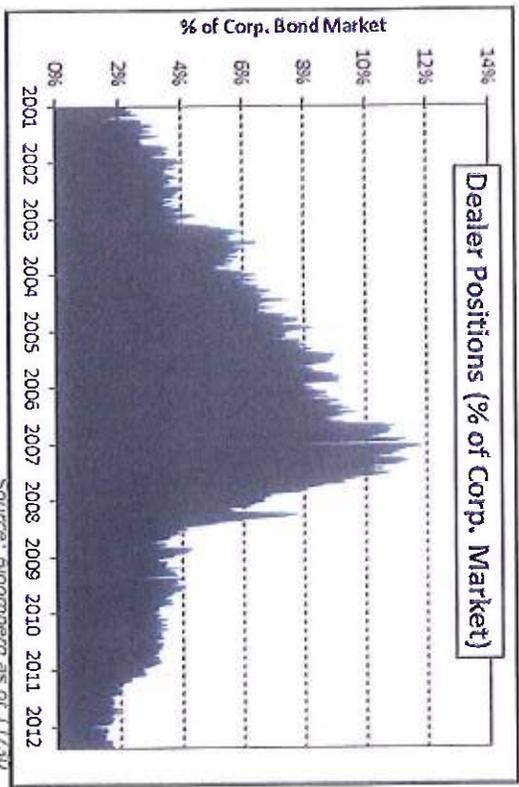
Source: IMF as of 10/31



- **Broad Portfolio Structure:**
- **Valuation opportunities are now more limited**
 - Valuations are materially less attractive than one year ago after market recovery
 - Use rebalancing as a chance to move back to strategic policy targets
- **Markets are much closer to fair value than a year ago**
 - Many asset classes can still offer reasonable returns through income and growth
- **Non-US equity valuations are attractive relative to history but discount may be appropriate given meaningful exposure to European uncertainty**
 - Important to utilize active management to capture opportunities in these areas
- **Liquid credit spreads compressed from late 2011 highs but overall market liquidity is now more limited**
 - Demand for yield has led to indiscriminate purchasing of new issues,
 - Any market shock could be exacerbated by limited trading

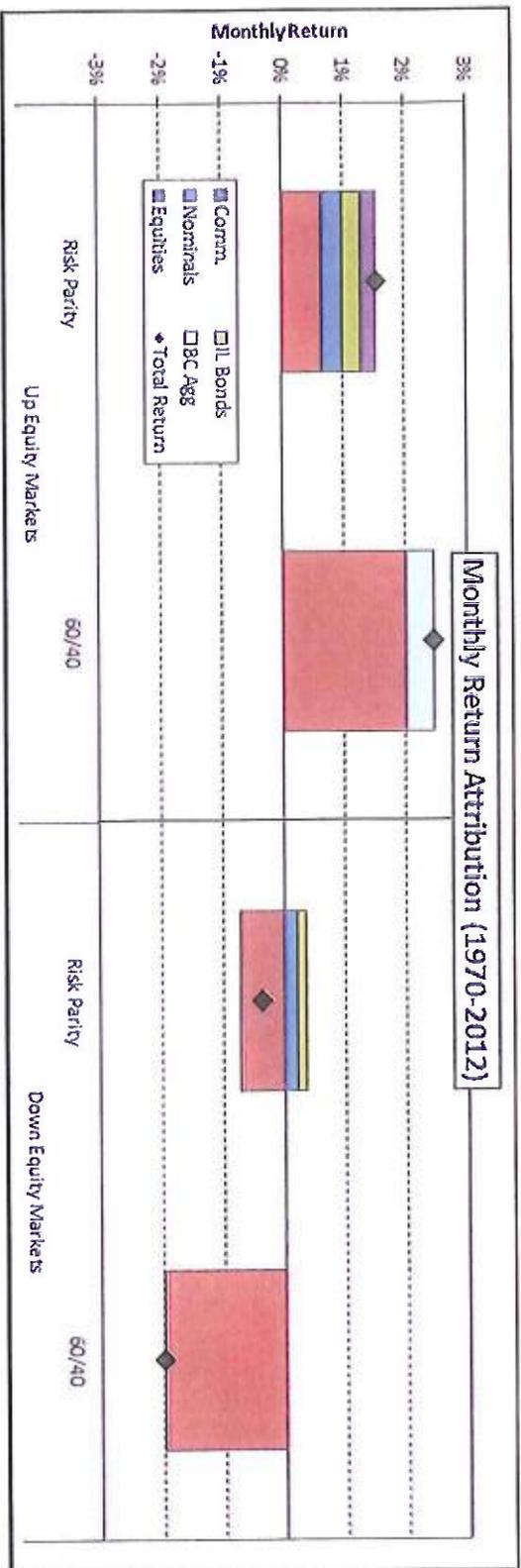


Source: Bloomberg, Barclays as of 11/30



Source: Bloomberg as of 11/30





Source: Ibbotson, Bloomberg, NEPC; 305 positive months and 199 negative months since 1970.

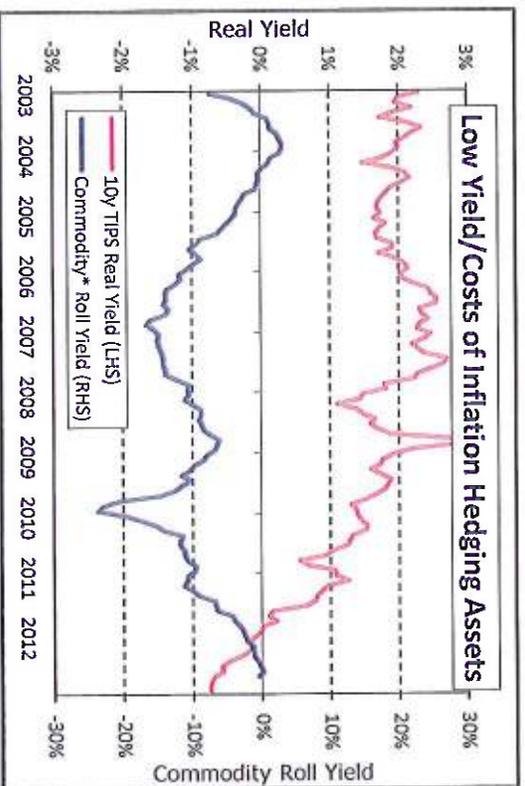
- Risk Parity is also "Return Parity"**

 - A risk balanced asset allocation provides better protection in negative return environments through exposure to different sources of return – less equity dependence
- Balanced participation in up markets along with downside protection produces more resilient long-term returns**

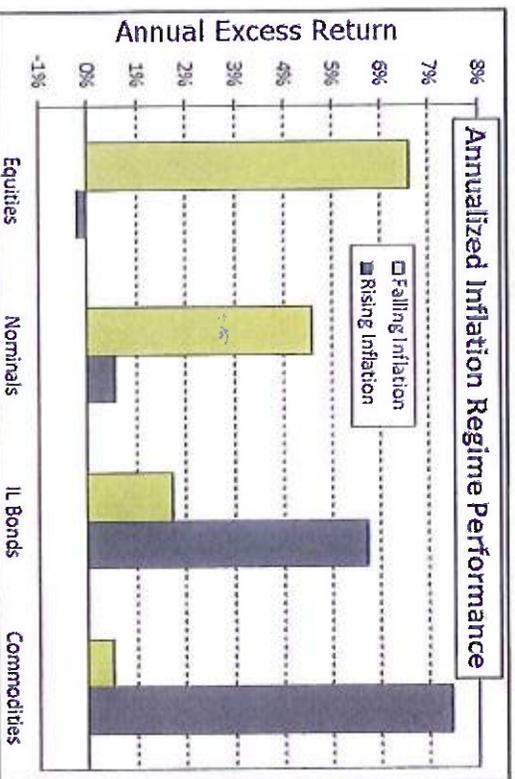
 - Risk Parity returns 9.9% since 1970
 - 60/40 returns 8.6% since 1970
- With so much global uncertainty, it remains appropriate to seek risk balanced exposure to capital markets, avoiding concentration in one asset class or factor**



- Inflation assets have performed well despite reasonably low and stable measures of inflation
- Inflation-linked bonds and commodities appear expensive relative to history
 - Positively sloped real yield curve presents opportunity for IL bonds to earn reasonable returns despite negative real yields
 - Potential for increase in spot prices allow for positive commodity return expectations
 - While many commodities remain in contango, negative roll yield has moderated from recent levels
- Investors have generally been underweight the few asset classes that can perform well in higher inflation environments
- Less liquid inflation-sensitive exposures can provide inflation protection with more attractive return expectations



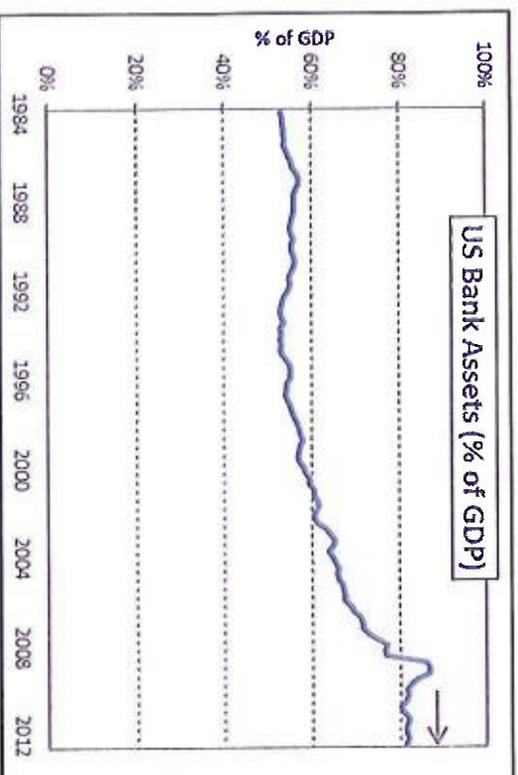
*1 Yr Roll Yield Based on a 50/50 Blend of S&P GSCI and S&P GSCI Non-Energy
 Source: St. Louis Fed, Bloomberg, as of 9/30



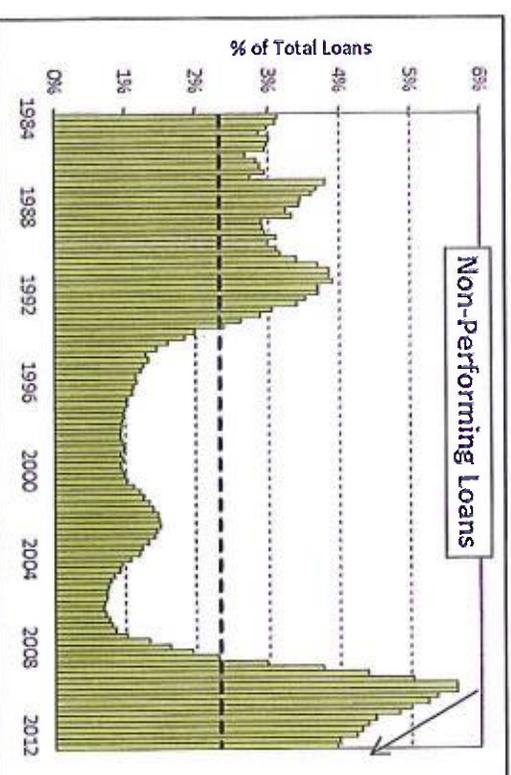
Source: Ibbotson, Bureau of Labor Statistics, as of 10/31 (Since 1/1/1970)



- **Global banking system must adjust to higher capital costs and lower leverage required in new rules**
 - Basel III
 - Dodd-Frank
 - Volker Rule
- **Regulatory restrictions lead to credit availability for high quality borrowers but constrained credit access for mid- and smaller market borrowers**
 - Creates opportunity to provide capital and play role that banks used to hold
 - Likely requires patience and investment in longer lock-up structures
 - Holding less liquid, longer-dated, and more complex credit instruments
- **Bank replacement theme likely to play out globally especially in emerging markets where demand for debt will likely increase**
 - Asian lending may be an area of outsized returns in the near-term
- **Bias of policy makers to avoid taking pain at one time has implications for illiquid strategies**
 - Modest growth and inflation allows distressed asset owners to continue holding at cost – extending time frames



Source: St. Louis Fed, Bureau of Economic Analysis as of 6/30



Source: Federal Financial Institutions Examination Council as of 6/30

2013 Asset Class Assumptions



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- **Relies on a combination of historical data and forward looking analysis**
 - Expected returns based on current market pricing and forward looking estimates
 - Volatility based on history, while recognizing current uncertainty
 - Correlations based on a mix of history and current trend
- **Historical data is used to frame current market environment as well as to compare to similar historical periods**
 - Historical index returns, volatility, correlations, valuations, and yields
- **Forward-looking analysis is based on current market pricing and a building blocks approach**
 - Return equals yield + changes in price (valuation, defaults, etc.)
 - Use of key economic observations (inflation, real growth, dividends, etc.)
 - Structural themes (supply and demand imbalances, capital flows, etc.)
- **Assumptions prepared by Asset Allocation Committee**
 - Asset Allocation team plus members of various consulting practice groups meet throughout Q4 to develop themes and assumptions
 - Specialists from public markets, hedge funds and private markets provide insight on market themes
- **Assumptions and Actions reviewed and approved by Partners Research Committee**

- **5-7 year return expectations are broadly lower relative to prior year**
 - Sustained low yields keep bond market expectations historically low
 - Rally in credit markets leads to meaningfully reduction in expectations for credit asset classes
 - Risky asset fundamentals are similar, but strong 2012 performance limits further growth potential
 - US equity outperformance leads to lower expectations, non-US markets remain unchanged
 - Liquid inflation sensitive asset classes have modest improvements in return and Sharpe ratio but forecasts are still low
 - Hedge fund assumptions reduced based on lower expected cash returns and challenging alpha environment
- **Volatility expectations reduced modestly in bond markets and certain equity markets**
 - Aligning volatility forecasts with evolution of market conditions
 - EM volatility falling modestly as growth continues
 - MBS markets reflecting government support
- **30-year returns have similar themes to 5-7 year forecasts**
 - Reflecting pressure for higher long-term inflation through 25 basis point increase in long-term inflation forecast (3% for 5-7 years and 3.25% for 30 years)
 - Broad based credit spread compression and low sovereign yields reduce long-term expectations for credit
 - Limited changes to equity forecasts
 - Remain higher than 5-7 year expectations

| Geometric Expected Return | | | |
|---------------------------|-------|-------|-----------|
| Asset Class | 2012 | 2013 | 2013-2012 |
| Cash | 1.25% | 0.75% | -0.50% |
| Treasuries | 1.50% | 1.00% | -0.50% |
| IG Corp Credit | 4.50% | 3.00% | -1.50% |
| MBS | 3.25% | 2.50% | -0.75% |
| Core Bonds* | 2.88% | 2.04% | -0.84% |
| TIPS | 1.75% | 1.50% | -0.25% |
| High-Yield Bonds | 7.00% | 5.00% | -2.00% |
| Bank Loans | 5.00% | 5.00% | |
| Global Bonds (Unhedged) | 1.25% | 0.75% | -0.50% |
| Global Bonds (Hedged) | 1.49% | 0.93% | -0.56% |
| EMD External | 5.75% | 4.00% | -1.75% |
| EMD Local Currency | 6.75% | 5.00% | -1.75% |
| Large Cap Equities | 7.25% | 6.75% | -0.50% |
| Small/Mid Cap Equities | 7.50% | 7.00% | -0.50% |
| Int'l Equities (Unhedged) | 7.75% | 7.75% | |
| Int'l Equities (Hedged) | 8.00% | 8.00% | |
| Emerging Int'l Equities | 9.75% | 9.75% | |
| Private Equity | 9.75% | 9.00% | -0.75% |
| Private Debt | 9.50% | 8.50% | -1.00% |
| Private Real Assets | N/A | 8.00% | |
| Real Estate | 6.00% | 6.00% | |
| Commodities | 4.75% | 5.00% | 0.25% |
| Hedge Funds Low Vol | 5.50% | 4.75% | -0.75% |
| Hedge Funds Mod Vol | 7.25% | 6.50% | -0.75% |

* Core Bonds assumption based on market weighted blend of components of Aggregate Index (Treasuries, IG Corp Credit, and MBS).



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2013 5-to-7 Year Volatility Forecasts

| Volatility | | | |
|---------------------------|--------|--------|-----------|
| Asset Class | 2012 | 2013 | 2013-2012 |
| Cash | 1.50% | 1.00% | -0.50% |
| Treasuries | 6.00% | 6.00% | |
| IG Corp Credit | 7.00% | 7.50% | 0.50% |
| MBS | 9.00% | 7.00% | -2.00% |
| Core Bonds* | 7.00% | 6.31% | -0.69% |
| TIPS | 7.50% | 7.50% | |
| High-Yield Bonds | 13.00% | 13.00% | |
| Bank Loans | 6.50% | 6.50% | |
| Global Bonds (Unhedged) | 10.00% | 9.00% | -1.00% |
| Global Bonds (Hedged) | 5.50% | 5.00% | -0.50% |
| EMD External | 13.00% | 12.00% | -1.00% |
| EMD Local Currency | 15.00% | 14.00% | -1.00% |
| Large Cap Equities | 18.00% | 18.00% | |
| Small/Mid Cap Equities | 22.00% | 21.00% | -1.00% |
| Int'l Equities (Unhedged) | 21.00% | 21.00% | |
| Int'l Equities (Hedged) | 19.00% | 19.00% | |
| Emerging Int'l Equities | 27.00% | 26.00% | -1.00% |
| Private Equity | 28.00% | 27.00% | -1.00% |
| Private Debt | 19.00% | 19.00% | |
| Private Real Assets | N/A | 24.00% | |
| Real Estate | 15.00% | 17.00% | 2.00% |
| Commodities | 18.00% | 18.00% | |
| Hedge Funds Low Vol | 7.00% | 7.00% | |
| Hedge Funds Mod Vol | 12.00% | 12.00% | |

* Core Bonds assumption based on market weighted blend of components of Aggregate Index (Treasuries, IG Corp Credit, and MBS).



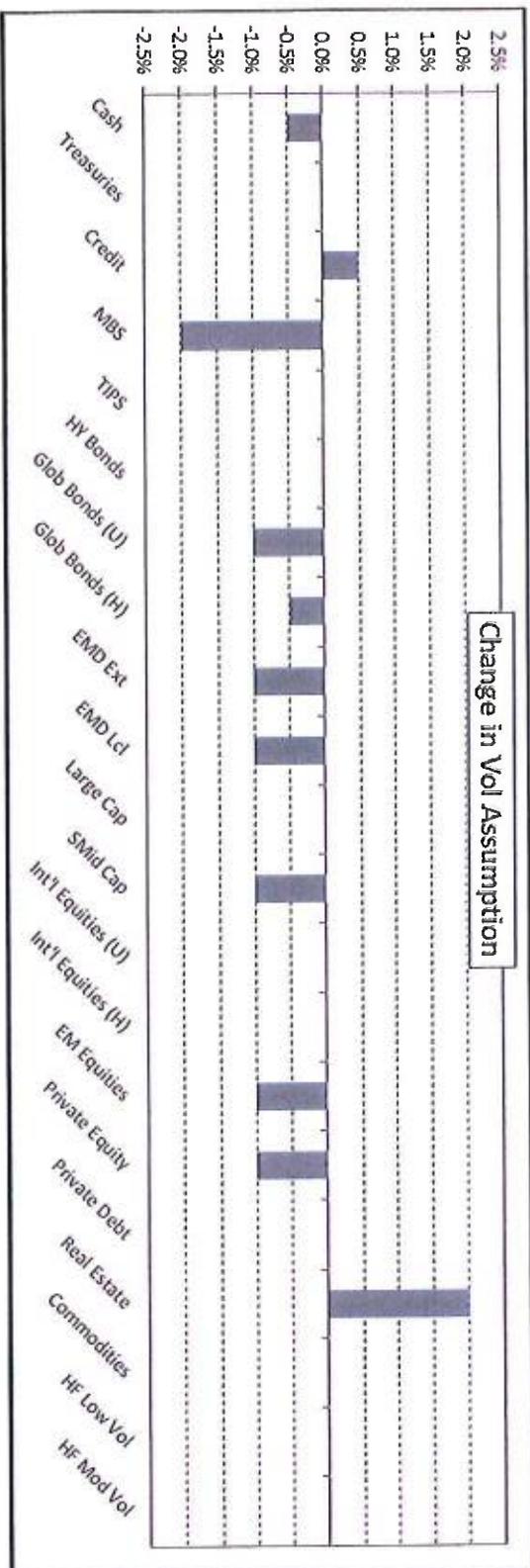
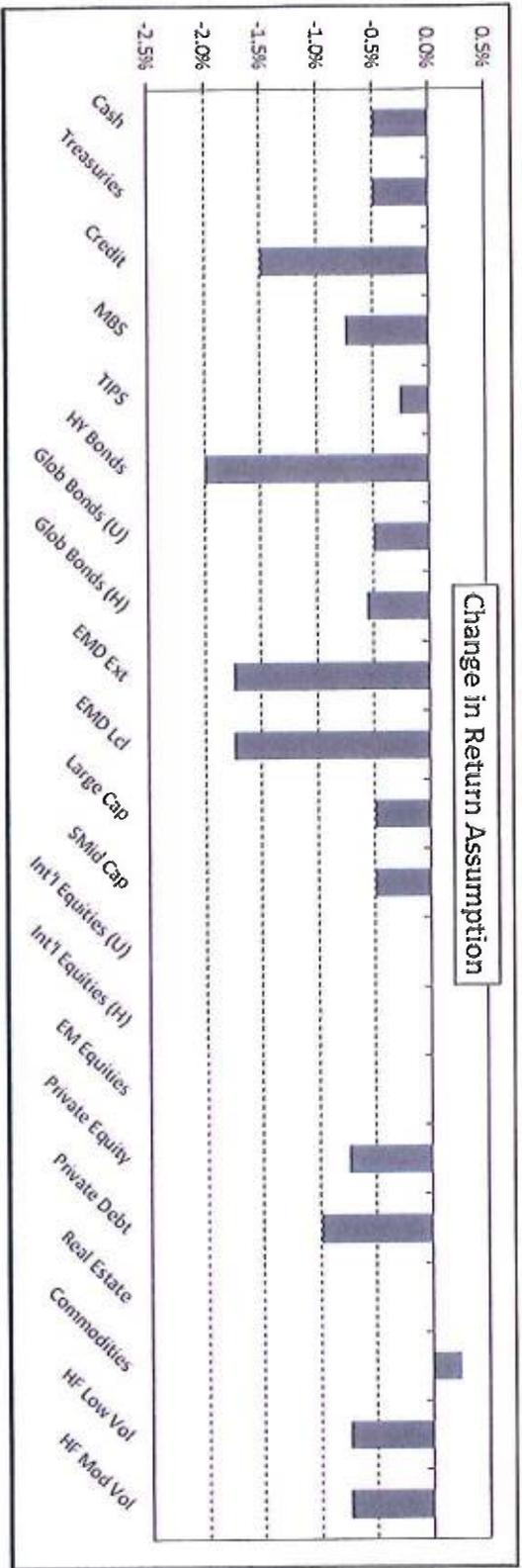
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Geometric Expected Return

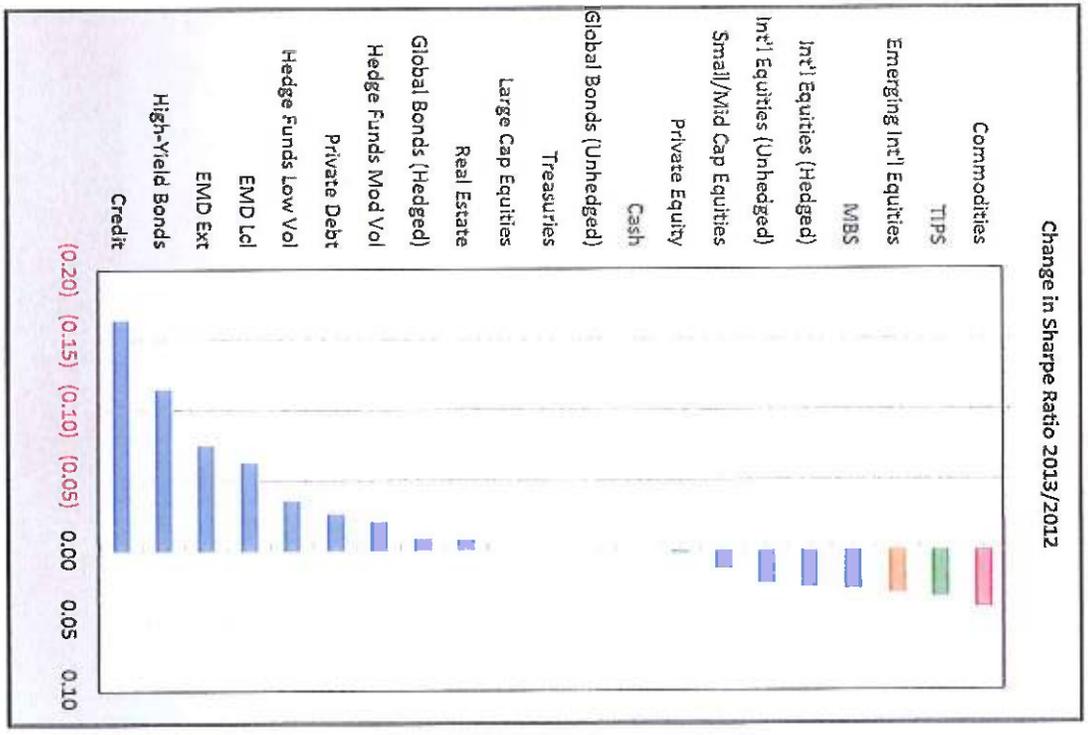
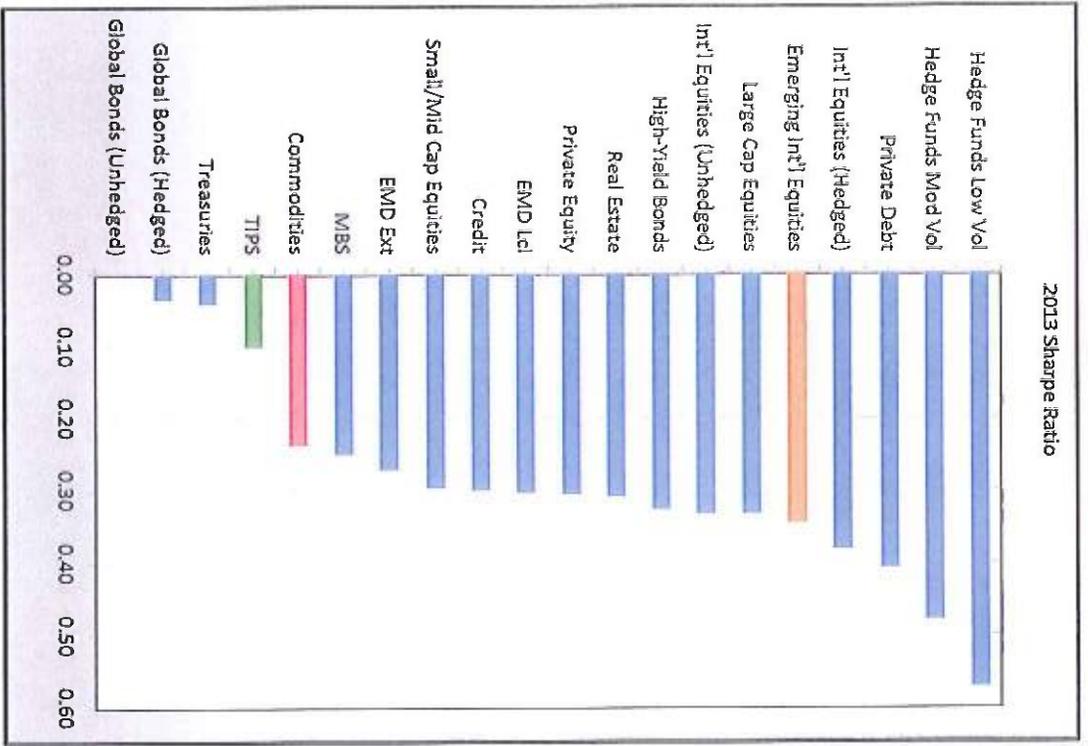
| Asset Class | 2012 | 2013 | 2013-2012 |
|---------------------------|--------|--------|-----------|
| Cash | 3.25% | 3.00% | -0.25% |
| Treasuries | 3.50% | 3.00% | -0.50% |
| Credit | 5.00% | 4.25% | -0.75% |
| MBS | 5.25% | 4.50% | -0.75% |
| Core Bonds* | 4.50% | 3.84% | -0.66% |
| TIPS | 3.75% | 3.25% | -0.50% |
| High-Yield Bonds | 6.25% | 5.25% | -1.00% |
| Bank Loans | 6.00% | 5.50% | -0.50% |
| Global Bonds (Unhedged) | 3.25% | 2.50% | -0.75% |
| Global Bonds (Hedged) | 3.48% | 2.67% | -0.81% |
| EMD External | 6.25% | 6.00% | -0.25% |
| EMD Local Currency | 7.00% | 6.25% | -0.75% |
| Large Cap Equities | 8.00% | 8.00% | |
| Small/Mid Cap Equities | 8.50% | 8.25% | -0.25% |
| Int'l Equities (Unhedged) | 8.25% | 8.25% | |
| Int'l Equities (Hedged) | 8.50% | 8.50% | |
| Emerging Int'l Equities | 9.50% | 9.50% | |
| Private Equity | 10.00% | 10.00% | |
| Private Debt | 8.00% | 8.00% | |
| Private Real Assets | N/A | 8.00% | |
| Real Estate | 6.00% | 6.00% | |
| Commodities | 5.25% | 5.50% | 0.25% |
| Hedge Funds Low Vol | 6.25% | 5.75% | -0.50% |
| Hedge Funds Mod Vol | 8.00% | 7.50% | -0.50% |

* Core Bonds assumption based on market weighted blend of components of Aggregate Index (Treasuries, IG Corp Credit, and MBS).

Summary of Changes to 2013 Return and Volatility Expectations

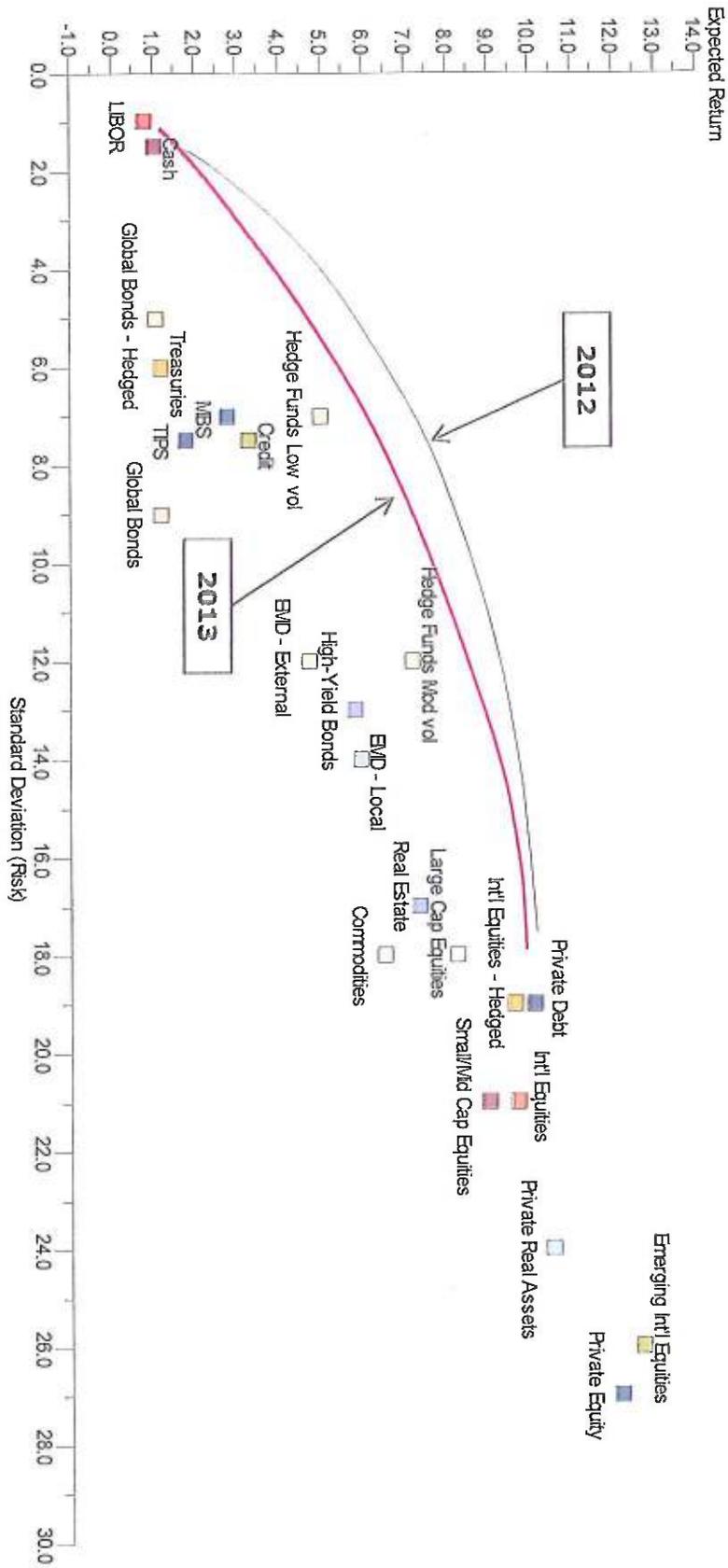


Relative Asset Class Attractiveness



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Efficient Frontier Comparison



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CITY OF HARTFORD

PENSION COMMISSION

MEMORANDUM

To: Pension Commission
From: *Amc*
Adam M. Cloud, Secretary
Date: February 14, 2013
Subject: **Private Equity Investment Plan With Presentation by Pension Consulting Alliance**

Attached for your review is a presentation booklet prepared by Pension Consulting Alliance ("PCA"), the MERF's private equity consultant, containing the MERF's 2013 Investment Plan for discussion at our meeting on Friday.

PCA's representative will attend the Pension Commission meeting on February 22 to discuss this report with you and receive the benefit of your thinking.



CITY OF HARTFORD

PENSION COMMISSION

MEMORANDUM

To: Pension Commission
From: Adam M. Cloud, Secretary *Amc*
Date: February 14, 2013
Subject: **MERF Update: Rebalancing Progress**

Enclosed please find a memo from Gary Draghi, the MERF's Director of Investments, discussing the progress that the MERF has made in implementing the rebalancing of its asset allocation. We look forward to discussing this with you.



CITY OF HARTFORD

OFFICE OF THE CITY TREASURER

ADAM M. CLOUD
CITY TREASURER

MEMORANDUM

TO: Adam M. Cloud, City Treasurer

FROM: Gary B. Draghi, Director of Investments *9/30*

DATE: February 15, 2013

SUBJECT: Asset Allocation Rebalancing - Progress

Attached please find analyses illustrating the strong progress that the MERF has made implementing the rebalancing necessary to achieve its asset allocation targets.

The table entitled MERF Rebalancing Activity, shows that four asset classes have been moved into compliance with their interim (NEPC A) target ranges while one, emerging markets debt, moved out of its target range. The emerging markets debt allocation is, however, in line with its long-term (NEPC B) target range.

As you are aware, investment in the hedge fund and commodity asset classes has been deferred while the timing of the funding of the illiquid real estate and private debt asset classes and the corresponding reduction in the public equity asset classes are dependent on the timing of investment opportunities that present themselves.

The chart entitled Change in Asset Allocation Variance from Target shows that the MERF has moved closer to the target allocation for all asset classes in which it actively invests.

cc: Carmen I. Sierra, Assistant City Treasurer

MERF Rebalancing Activity
 July 1, 2011 vs. December 31, 2012

| Asset Class | 12.31.12 | | 07.01.11 | | 07.01.11-12.31.12 | | 12.31.12 | 07.01.11 | NEPC A Target % Range | NEPC B Target % Range |
|---------------------------------------|----------|---------|----------|---------|-------------------|-------------|------------|----------|-----------------------|-----------------------|
| | Percent | Percent | Percent | Percent | 12.31.12 | 12.31.12 | | | | |
| Dom. Equity | 20.4 | 21.9 | (1.5) | N | N | 13 to 19 | 10 to 16 | | | |
| Int'l Dev'd Mkt Eq | 17.5 | 21.8 | (4.3) | N | N | 10 to 14 | 8 to 12 | | | |
| EM Equity | 6.1 | 3.5 | 2.6 | N | N | 7 to 11 | 7 to 11 | | | |
| GTAA | 4.9 | - | 4.9 | Y | N | 3 to 7 | 5 to 9 | | | |
| Core Fixed | 10.6 | 9.3 | 1.3 | Y | Y | 8.5 to 11.5 | 3.5 to 6.5 | | | |
| Lg Dur Fixed | 9.0 | 7.2 | 1.8 | Y | N | 8 to 12 | 7 to 11 | | | |
| Global Fixed | 3.4 | 9.0 | (5.6) | Y | N | 3 to 5 | 2 to 4 | | | |
| TIPS | 5.7 | 7.6 | (1.9) | Y | N | 3.5 to 6.5 | 2.5 to 5.5 | | | |
| EM Debt | 7.8 | 6.3 | 1.5 | N | Y | 3 to 7 | 4 to 8 | | | |
| Hi Yld Fixed | 4.4 | 2.7 | 1.7 | Y | Y | 2.5 to 5.5 | 3.5 to 6.5 | | | |
| Private Equity | 6.3 | 5.5 | 0.8 | Y | Y | 3 to 8 | 3 to 8 | | | |
| Real Estate | 0.7 | 0.3 | 0.4 | N | N | 2 to 8 | 5 to 11 | | | |
| Private Debt | 0.3 | 0.2 | 0.1 | Y | Y | 0 to 4 | 1 to 5 | | | |
| Hedge Fnds | - | - | - | N | N | 3 to 7 | 8 to 12 | | | |
| Commodities | - | - | - | N | N | 2 to 4 | 2 to 4 | | | |
| Cash & Equiv. | 2.9 | 4.7 | (1.8) | N | N | 0 to 2 | 0 to 2 | | | |
| 100.0 100.0 - 8 5 | | | | | | | | | | |

NEPC A In Range? Y/N
 NEPC A In Range? Y/N

Comment

@ 12.31.12 in line with NEPC B target

Commitments in place to reach target range

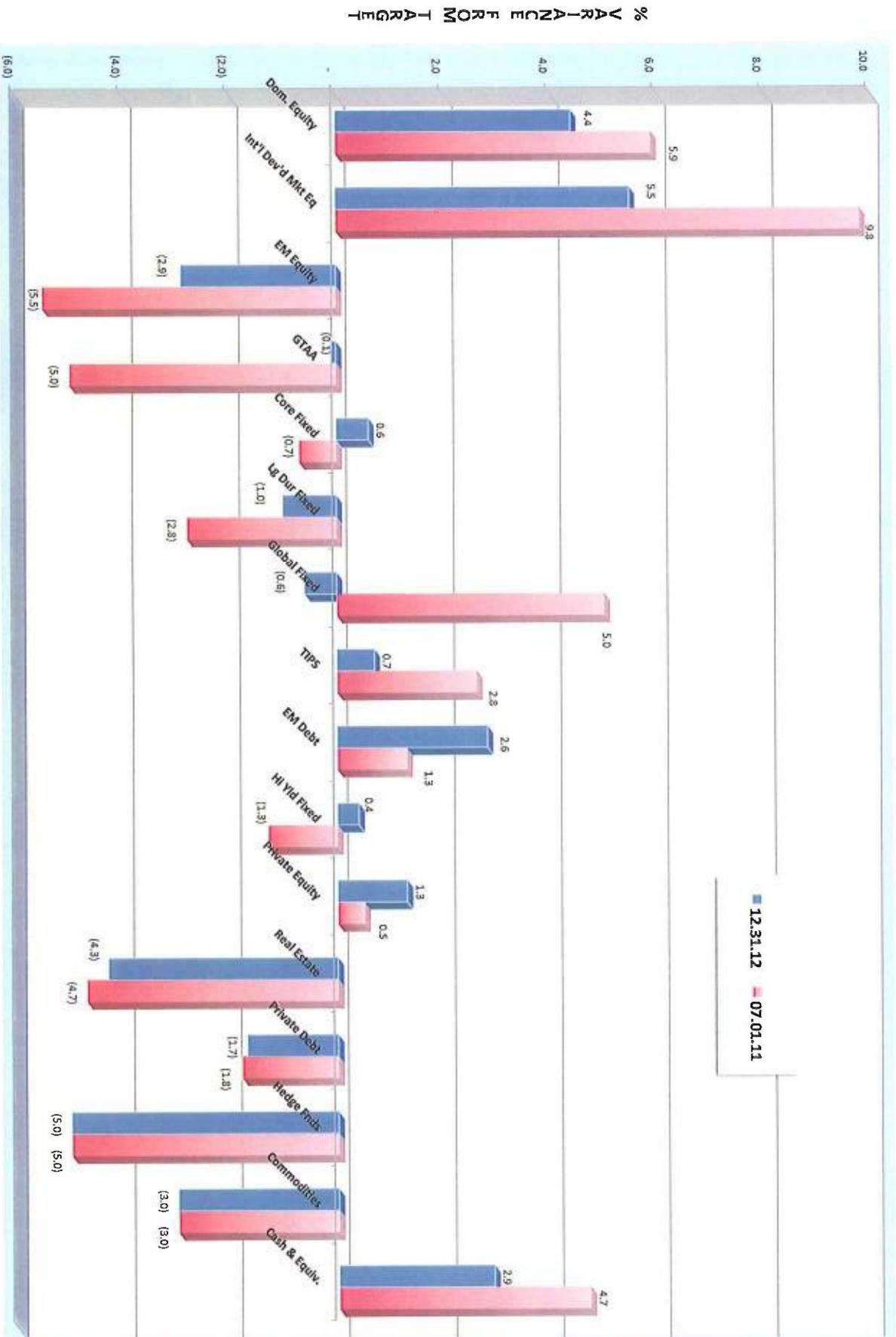
Funding deferred

Funding deferred

Asset Classes in Target Range

| | |
|---|---|
| 8 | 5 |
|---|---|

MERF
 Change in Asset Allocation Variance from Target
 12.31.12 vs. 07.01.11



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.

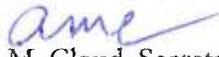
**City of Hartford
Municipal Employees’ Retirement Fund
Strategic Asset Allocation Policy and Relative Ranges**

| 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 | 5 | +/-1.5% |
| Global Bonds | 4 | 3 | +/-1% |
| Emerging Markets Debt | 5 | 6 | +/-2% |
| TIPS | 5 | 4 | +/-1.5% |
| Long Gov’t/Credit | 10 | 9 | +/-2% |
| Total Fixed Income | 38 | 32 | +/-5% |
| Real Estate | 5 | 8 | +/-3% |
| Private Equity | 5 | 5 | -2% /+3% |
| Private Debt | 2 | 3 | +/-2% |
| Hedge Funds | 5 | 10 | +/-2% |
| Total Alternatives | 17 | 26 | +2/-4% |
| Global Asset Allocation | 5 | 7 | +/-2% |
| Commodities | 3 | 3 | +/-1% |
| Total Other | 8 | 10 | +/-2% |
| Cash | 0 | 0 | +2% |



CITY OF HARTFORD
PENSION COMMISSION

MEMORANDUM

To: Pension Commission
From: 
Adam M. Cloud, Secretary
Date: February 14, 2013
Subject: **Report on Annual Performance Review Meetings**

Attached for your review are the reports on our recent annual performance review meetings with the following investment managers:

- **Prudential Investment Management**
- **SouthernSun Asset Management**

**CITY TREASURER'S OFFICE
INTERNAL MEMORANDUM**

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

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

Date: February 6, 2013

Re: Report on Annual Performance Review Meeting with SouthernSun
Asset Management

The Pension Commission held an annual performance review meeting on Thursday, January 17, 2013, with SouthernSun Asset Management ("SouthernSun"), a small to mid-cap value equity manager for the MERF. Present for SouthernSun was Michael S. Cross, Senior Analyst and Principal.

Mr. Cross gave a brief overview on the firm, noting that there had been no professional turnover during 2012 and that employee ownership had increased during the year. He added that employee ownership of the firm would likely continue to increase over the next few years.

Mr. Cross then described SouthernSun's investment process and philosophy. He stated that SouthernSun invests in niche-dominant, attractively-valued companies with financial flexibility and uniquely-fitted management teams. He stated that SouthernSun also believes careful, in-depth analysis of a company's financial strength, market position and human capital is the most comprehensive method of assigning proper valuations, identifying catalysts and reducing the risk of making an investment. Mr. Cross mentioned that the firm is a long term investor and that the team has high conviction in the 20-25 positions in client portfolios. He noted that the average holding period for a position is approximately five years, but, that it could be as long as 13 years.

Mr. Cross stated that SouthernSun is absolute return oriented, investing with a core/value approach and long term perspective through disciplined, bottom-up, fundamental analysis and on-site research. He stated that this philosophy holds true for all SouthernSun strategies and has not changed since the inception of the firm in 1989.

In response to a question about how new ideas get into the portfolio, Mr. Cross stated that ideas go onto a list and are then subjected to thorough research and then approval from SouthernSun's investment committee. He added that all

analysts are sector generalists, with a solid understanding of all the companies in the portfolio.

Commissioner Goldman asked about how frequently SouthernSun's portfolio managers visit the companies in the portfolio. Mr. Cross stated that SouthernSun meets frequently with portfolio companies, and that every company is met with at least annually, since the portfolios they manage are so concentrated.

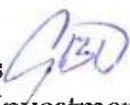
In response to a question regarding SouthernSun's sell discipline, Mr. Cross stated that stocks are sold or trimmed back if SouthernSun's analysts believe earnings are poised to deteriorate, or if the stock no longer satisfies the ongoing "buy" criteria.

Wayne Moore, the MERF's Assistant Director of Investments, asked about the growth exposure in the portfolio. Mr. Cross stated that a company may start off in the value sector and migrate to the growth sector, as a function of the company's business growing successfully. He noted, however, that negative market swings could switch a stock's orientation to value from growth. He also noted that stock reclassification can also explain changes in whether a stock is viewed as growth or value. Mr. Cross emphasized that SouthernSun had maintained its approach and that the growth exposure was not indicative of a change in investment style.

In closing, Mr. Cross thanked the Commission for its business.

**CITY OF HARTFORD MERF
MEMORANDUM**

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

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

SUBJECT: Prudential Investment Management

DATE: February 13, 2013

The Pension Commission held an annual performance review with Prudential Investment Management ("Prudential"), an emerging market debt manager for the MERF, on Wednesday, February 13, 2013. Present from Prudential were Jeffrey Alt, CFA, CAIA, Mariusz Banasiak, CFA, Portfolio Manager and Koji Maruyama, Client Service Associate.

Mr. Alt gave a brief overview of the firm and an update of its activities over the past year. He stated that Prudential had enjoyed a strong year during 2012, gaining in new clients, assets under management, investment technology upgrades and additional high-quality experienced personnel, with no negative organizational changes that affected the MERF's portfolio. Mr. Alt then asked Mr. Banasiak to review and discuss Prudential's investment process and strategy.

Mr. Banasiak then provided an overview of Prudential's investment process and strategy for the MERF's portfolio. He stated that Prudential develops an overall strategic risk budget for the emerging markets debt product reflecting inputs from several distinct teams (quantitative research and risk management, portfolio management, political risk consultants, global macroeconomic research, credit research and local market investment affiliates). Mr. Banasiak stated that these groups also contribute to a tactical risk budget under which Prudential develops and trades, based on its day-to-day views of market risk tolerances and opportunities within the broader strategic risk budget.

Mr. Banasiak stated that Prudential's investment approach seeks to add value through country allocation, security selection and foreign exchange (currency).

Mr. Banasiak then reported that the MERF's portfolio had generated a calendar year 2012 return of 24.03%, gross of fees, which significantly outperformed (by 409 basis points) Prudential's objective of beating the JP Morgan EMBI GD by 125-250 basis points annually. Prudential's three-year and five-year annualized performance also exceeded objectives, outperforming by 261 basis points and 192 basis points, respectively. Since inception of the MERF's portfolio in 2005, Prudential has outperformed the benchmark by 321 basis points (gross), annualized, with the MERF's total portfolio value increasing to \$75.9 million dollars as of December 31, 2012. Mr. Banasiak attributed the 2012 outperformance primarily to country selection, security selection, and to a lesser extent, foreign exchange. Mr. Banasiak noted that Prudential's outlook remained constructive on the emerging markets debt ("EMD") market for 2013.

Mr. Alt noted that Prudential's 2012 performance was also strong versus its peers, with first quartile rankings of returns and information ratio across all time periods, from 1 year through 10 years. Mr. Alt also described Prudential's development of a new long/short EMD product which, he stated, might be able to add incremental risk adjusted return value to the MERF in the future. He also described Prudential's other EMD product offerings which consist of a local currency denominated product, a product that blends styles and another product that focuses on corporate debt.

Mr. Alt also addressed three portfolio issues raised by the MERF. Specifically, regarding the MERF portfolio's standard deviation and benchmark-relative duration, Mr. Alt stated that Prudential focuses on its risk budget for the portfolio, using more risk whenever it believes that incremental risk adjusted return can be achieved, such as was achieved during 2013. Regarding the EMD product capacity, Mr. Alt stated that the product could be managed effectively with more assets under management, especially as the team continues to grow. Regarding the departure of a portfolio manager in 2011, Mr. Alt noted that Prudential had made several additional hires, strengthening the overall team, and that there had been no departures during 2012 that affected the MERF's portfolio.

In closing, Mr. Alt thanked the Pension Commission for its business and continued confidence in Prudential.

Subject: RE: ING Small Cap Research Analyst
Date: Tuesday, February 12, 2013 8:49:33 AM Eastern Standard Time
From: Finney-Cooke, Kristin
To: Draghi, Gary B., Moseley, Douglas W.
CC: Pszeny, Richard, Cloud, Adam, Moore, P. Wayne, Antoine, Jonathan S.

Gary-

Would please see feedback from our call with ING discussing the small cap analyst departure. As it relates to a change in the client relationship person, given that they did not touch the investment process, we have no concerns about the departure.

Small Cap Analyst Departure:

We held a meeting with Steven Salopek (Head of Small Cap Equity PM) and Conor Sullivan (Senior Consultant Relations RM) about the departure of Karthik Radhakrishnan, the senior analyst who was covering health care and biotechnology for the past 5 years. This separation was effective January 1 and was initiated by ING and was based on the fact that Karthik was spending too much time focusing on biotech names, which has typically been a small part of the portfolio and has historically been underweight vs. the benchmark. (Pharma & Biotech 7.46% average weight between 8/1/05 - 9/30-12 vs. 10.87% for Russell 2000 growth). ING's investment philosophy is based upon bottom up stock selection and that cash flows will fuel stock prices, and thus have found it difficult to find enough names to be equal weighted in the biotech space. Many of the names that they do hold in this space would be classified as defensive. Karthik was showing little interest in the healthcare sector, so the team felt it would be in the best interest of the team (and best interest of Karthik) to find someone more focused on the health care names.

Currently Karthik's research duties are being split between James Hassso (Asst PM), Chris Jennings (tech analyst) and Steven Salopek covering the remaining names. Steven mentioned that these folks all have some familiarity with the sector space as the decision to let Karthik go had been discussed for some time. This is not a permanent solution and they have seen a tremendous amount of interest from candidates to fill this role, but they will be taking their time to find the right fit with the team and to find someone with significant experience. They expect to fill the vacancy by mid-year. This was the first loss to the team since it was assembled.

Conclusion: We do not think that this departure warrants client action given the role that Karthik played in the investment process and the low representation of biotech names in the portfolio.

Please advise if you would like a formal memo outlining the above to be presented to the Commissioners.

Thank you,
Kristin

Kristin R. Finney-Cooke, CAIA
Senior Consultant

NEPC, LLC
30 South Wacker Drive
Suite 2200
Chicago, IL 60606

One Main Street
Cambridge, MA 02142
P. 617.374.1300
F. 617.374.1313



EXCESS AND SURPLUS OF NEW ENGLAND, LLC

1224 Mill Street, Building A
East Berlin, CT 06023

Phone: 860-793-9333 Fax: 860-793-1333

John W. Heslin
Wentworth-DeAngelis Insurance
74 Batterson Park Rd
Farmington CT 06032

February 6, 2013

INSURANCE BINDER

This is to certify that the undersigned have procured insurance as hereafter specified from:

Insured: City of Hartford Retirement System
550 Main St
Hartford, CT 06103

Insurer: Federal Insurance Company (admitted)
Policy Form: 14-02-2265 (Ed. 03/1997)

Assigned Policy #: 8209-7506

Policy Period: 2/27/2013 - 2/27/2014

This binder shall be effective from 12:01am, date, standard time at the address of the Insured as stated above, and shall be subject to all terms and conditions of the policy in current use by the Company. Unless cancelled in accordance with the provisions set forth below, this binder shall remain in effect for 60 days, or until replaced by issuance of the Company's policy, whichever comes first.

Coverage: Labor Management Trust Fiduciary Liability
Limit: \$5,000,000

Deductible: \$25,000

Premium: \$70,370

Endorsements added to original policy: (For Description and Convenience only, please refer to policy for actual description)

1. 10-02-1295 * Important Notice to Policyholders (6/07 ED.)
2. 14-02-10709 * EPCRS Sanctions Endorsement (3/05 ED.)
3. 14-02-12500 * Public Entity Fiduciary Liability Endorsement (10/06)
4. 14-02-12854 * Trustee Endorsement (Non-Fiduciary Defense Costs) (3/07 ED.)
5. 14-02-13766 * Amend Benefits Due Exclusion Endorsement (1/08 ED.)
6. 14-02-14111 * Amend Conduct Exclusions Endorsement 96/08 ED.)
7. 14-02-14269 * Amend Definition of Claim Endorsement (6/08 ED.)
8. 14-02-14440 * Amend Representations and Severability with Absolute Non-Rescindable Coverage Endorsement (8/08 Ed.)
9. 14-02-14450 * Amend Investigation and Settlement Endorsement (8/08 ED.)
10. 14-02-17518 * PPA Civil Money Penalties Endorsement (3/11 ED.) - \$50,000
11. 14-02-18001 * Amend Notice Endorsement (5/11 ED.)
12. 14-02-19314 * Amend Subrogation and Waiver of Recourse Section Endorsement (4/12 ed.)
13. 14-02-2823 * Connecticut Amendatory Endorsement (7/01 ED.)
14. 14-02-3099 * Add Benefit Plans (11/99 ED.)
15. 14-02-5936 * HIPAA Extension Endorsement (6/09 ED.)
16. 14-02-7652 * Amend Definition of Insured Endorsement
17. 14-02-8815 * Spousal Extension Endorsement (8/06 ED.)
18. 14-02-9228 * Compliance with Applicable Trade Sanction Laws (2/10 ED.)
19. Q07-2142 * Amend Reporting Notice Endorsement

COMBINED with #3 ON PREVIOUS BINDER

WORDING CHANGED

Premium, to be billed by ARC/Jericho, will be due 15 days from binding.
Subjectivities: None

In the event of cancellation or expiration of this binder without a policy or certificate being issued, the Insurers shall be entitled to an earned premium for the time in force at a short rate of the annual rate as charged by the Insurers hereof if cancelled by the Insured, and at a pro rate of the annual rate if cancelled by the Insurers. In no case will there be a flat cancellation.

By: Scott Farrell February 6, 2013



Wentworth-DeAngelis Insurance

Earl O. O'Garro, Jr.
Hybrid Insurance Group
30 Lewis St
Hartford, CT 06103

February 22, 2012

INSURANCE BINDER

This is to certify that the undersigned have procured insurance as hereafter specified from:

Insured: City of Hartford Retirement Systems
550 Main St
Hartford, CT 06103

Insurer: Federal Insurance Company (admitted)
Policy Form: 14-02-2265 (Ed. 03/1997)

Assigned Policy #: 8209-7506

Policy Period: 2/27/2012 - 2/27/2013

This binder shall be effective from 12:01am, date, standard time at the address of the Insured as stated above, and shall be subject to all terms and conditions of the policy in current use by the Company. Unless cancelled in accordance with the provisions set forth below, this binder shall remain in effect for 60 days, or until replaced by issuance of the Company's policy, whichever comes first.

Coverage: Labor Management Trust Fiduciary Liability
Limit: \$5,000,000

Deductible: \$0

Premium: \$67,750

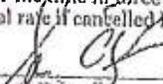
Commission: .14%

Endorsements added to original policy: (For Description and Convenience only, please refer to policy for actual description)

1. 10-02-1295 * Important Notice to Policyholders (6/07 ED.)
2. 14-02-10709 * EPCRS Sanctions Endorsement (3/05 ED.)
3. 14-02-1249 Waiver of Resources Premium Bill (1/92 ED.) **COMBINED WITH #12**
4. 14-02-12500 * Public Entity Fiduciary Liability Endorsement (10/06)
5. 14-02-12854 * Trustee Endorsement (Non-Fiduciary Defense Costs) (3/07 ED.)
6. 14-02-13766 * Amend Benefits Due Exclusion Endorsement (1/08 ED.)
7. 14-02-14111 * Amend Conduct Exclusions Endorsement (9/08 ED.)
8. 14-02-14269 * Amend Definition of Claim Endorsement (6/08 ED.)
9. 14-02-14440 * Amend Representations and Severability with Absolute Non-Rescindable Coverage Endorsement (8/08 Ed.)
10. 14-02-14450 * Amend Investigation and Settlement Endorsement (8/08 ED.)
11. 14-02-17518 * PPA Civil Money Penalties Endorsement (3/11 ED.) - \$50,000
12. 14-02-18001 * Amend Notice Endorsement (5/11 ED.)
13. 14-02-2823 * Connecticut Amendatory Endorsement (7/01 ED.)
14. 14-02-3052 Amend Resource Clause Endorsement (11/99 ED.) **ERISA NOT NEEDED.**
15. 14-02-3099 * Add Benefit Plans (11/99 ED.)
16. 14-02-5936 * HIPAA Extension Endorsement (6/09 ED.)
17. 14-02-7652 * Amend Definition of Insured Endorsement (11/02 ED.)
18. 14-02-7730 * Amend Item 1 of the Declarations Endorsement (12/02 ED.) **to REMOVE PREVIOUS BROKER RC KNDS;**
19. 14-02-8815 * Spousal Extension Endorsement (8/06 ED.)
20. 14-02-9228 * Compliance with Applicable Trade Sanction Laws (2/10 ED.)
21. Manuscript 60 Day Post-Policy Reporting Provision **SEE NEW POLICY WORDING**

Premium, to be billed by ARC/Garden City, will be due 15 days from binding.
Subjectivities: None

In the event of cancellation or expiration of this binder without a policy or certificate being issued, the Insurers shall be entitled to an earned premium for the time in force at a short rate of the annual rate as charged by the Insurers hereof if cancelled by the Insured, and at a pro rate of the annual rate if cancelled by the Insurers. In no case will there be a Flat cancellation.

By: 
Scott Parrell February 22, 2012



Hybrid Insurance Group

John W. Heslin
Wentworth-DeAngelis Insurance
74 Batterson Park Rd
Farmington CT 06032

January 29, 2013

Re: Labor Management Trust Fiduciary Liability

Insured: City of Hartford Retirement System
Policy Period: 02/27/2013 – 02/27/2014

Insurer: Federal Insurance Company (admitted)
Policy form: 14-02-2265 (3/1997)

| <u>Limit</u> | <u>Aggregate</u> | <u>Deductible</u> | <u>Premium</u> |
|--------------|------------------|-------------------|----------------|
| \$5,000,000 | \$5,000,000 | \$25,000 | \$70,370 |

Extended Reporting: A 365 day extended reporting period is available for 100% of the annual premium

Endorsements:

1. 10-02-1295 Important Notice to Policyholders (6/07 ED.)
2. 14-02-10709 EPCRS Sanctions Endorsement (3/05 ED.)
3. 14-02-12500 Public Entity Fiduciary Liability Endorsement (10/06)
4. 14-02-12854 Trustee Endorsement (Non-Fiduciary Defense Costs) (3/07 ED.)
5. 14-02-13766 Amend Benefits Due Exclusion Endorsement (1/08 ED.)
6. 14-02-14111 Amend Conduct Exclusions Endorsement 96/08 ED.)
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11. 14-02-18001 Amend Notice Endorsement (5/11 ED.)
12. 14-02-19314 Amend Subrogation and Waiver of Recourse Section Endorsement
13. 14-02-2823 Connecticut Amendatory Endorsement (7/01 ED.)
14. 14-02-3099 Add Benefit Plans (11/99 ED.)
15. 14-02-5936 HIPAA Extension Endorsement (6/09 ED.)
16. 14-02-7652 Amend Definition of insured Endorsement (11/02 ED.)
17. 14-02-8815 Spousal Extension Endorsement (8/06 ED.)
18. 14-02-9228 Compliance with Applicable Trade Sanction Laws (2/10 ED.)
19. Q07-2142 Amend Reporting Notice Endorsement (9/07 ED.)

Subjectivities: (Due prior to binding)

No additional information is required at this time

Please do not hesitate to contact me with any questions regarding this proposal.

Best Regards,

Scott Farrell
President

"This (review, proposal, etc.) has been designed as a quick reference guide to the coverage and how it works. The information provides only a general overview of subjects covered and is not intended to serve as legal advice or other professional service and should not be relied upon as such. It is not intended to be a complete summary of the terms and conditions of the coverage – at all times, the policy wording should be consulted for verification of coverage."

Prior to expiration of the current policy, it is very important that the insured is aware of the following:

Notice of any "Claim," as that term is defined in your policy, must be reported to your insurance carrier prior to the expiration date of your current policy. Claims that must be reported include any complaints or litigation filed (including any administrative actions) and any demands for damages or relief, against any insured person or entity. If your policy includes Employment Practices Liability Coverage, a Notice of Charges or Complaint from the Equal Employment Opportunity Commission (EEOC) or any similar agency against any insured is a Claim and must be reported prior to your Policy's expiration. Because your coverage is Claims-Made and Reported, Claims will only be covered, subject to your policy's other terms and conditions, if they are reported during the policy period in which the Claim is first made.

Although not always required, you may also want to give your carrier notice of any circumstances that may give rise to a Claim before the conclusion of the policy period in order to preserve any rights you may have to coverage for future Claims under your current policy. Circumstances that may give rise to a Claim include investigations, demands, threatened Claims or litigation against any insured person or entity that are not yet "Claims" under your Policy.

See your policy's "Claim" definition, "Notice" and/or "Claims Reporting" provisions for the specific terms of coverage and any possible post-policy reporting windows that may be available. If you have any questions about whether a particular matter is a Claim or a potential future Claim under your Policy, or whether reporting is required, please contact us immediately.

Market List for 2013 LMT Liability for The City of Hartford

A.M. Best rating noted in brackets

Chubb (A++) – incumbent quoted slight increase in premium with increase in retention to \$25,000

ACE (A+) – declined due to nature of business – LMT

AWAC/Darwin (A) – will only offer 1MM limit

Beazley (A) – can't compete with requested program

Chartis (A) – indicated they could not be competitive based on last year's proposal

Euclid (A) – can't compete with requested program

Evanston (A) – will not offer Prior Acts coverage

Great American (A) – quoted 5MM excess limit

Hartford (A) – declined due to underfunded plan

Travelers (A+) – declined due to financial condition of the City of Hartford

ULLICO (B+) – can't compete with requested program

XL (A) – can't compete with requested program

Historical pricing from Chubb:

2/27/08-09 New business \$70,275

2/27/09-10 renewal \$73,750

2/27/10-11 renewal \$70,075

2/27/11-12 renewal \$67,975

2/27/12-13 renewal \$67,750

Scott C. Farrell
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