STATE OF CONNECTICUT

BENJAMIN BARNES
SECRETARY
OFFICE OF POLICY & MANAGEMENT

DENISE L. NAPPIER
TREASURER

December 23, 2014

The Honorable Scott D. Jackson
Mayor, Town of Hamden
Hamden Government Center
2750 Dixwell Avenue
Hamden, CT 06518

Re: ***<u>Review of Hamden's Proposal to Issue Municipal Pension Deficit Funding Bonds</u>***

Dear Mayor Jackson:

Pursuant to Public Act 99-182, *An Act Concerning Pension Deficit Funding Bonds*, as amended and codified at Section 7-374c of the Connecticut General Statutes (hereinafter referred to as "the Act"), the Secretary and Treasurer have reviewed the materials supplied by the Town of Hamden ("the Town") with respect to the issuance of up to $125,000,000 of pension deficit funding bonds by the Town. Please note that the review is based solely on the materials provided in writing, as detailed in Attachment A.

In accordance with the Act, we, by this written letter of review: (i) verify that the Town has complied with the statutory provisions governing the issuance of municipal pension deficit funding bonds; and (ii) offer specific recommendations concerning said issuance.

The Act requires any municipality that issues pension obligation bonds ("POBs") to contribute its full actuarially recommended contribution ("ARC") to the plan on a deemed appropriated basis as long as the bonds remain outstanding. In the case of Hamden, special legislation (Public Act 14-217) was passed in May of 2014 which allows the Town to phase-in ("ramp-up") its required ARC pension payments over five years after the issuance of the POBs.

Public Act 14-217, section 219, authorizes any municipality in New Haven County with a population of less than sixty-five thousand, who issues pension deficit funding bonds prior to June 30, 2015 to phase in its ARC pension payments as follows;

a. FY 2015 -- contribution to the ARC shall be no less than 50 percent;
b. FY 2016 -- contribution to the ARC shall be no less than 55 percent or $5 million more than the FY 2015 contribution, whichever is less;
c. FY 2017 -- contribution to the ARC shall be no less than 70 percent or $5 million more than the FY 2016 contribution, whichever is less;
d. FY 2018 -- contribution to the ARC shall be no less than 80 percent or $5 million more than the FY 2017 contribution, whichever is less; and
e. FY 2019 and beyond -- contribution to the ARC shall be 100 percent.

Given that most Connecticut cities and towns seeking to issue POBs have low funding pension levels that have resulted from years of underfunding their annual pension contributions, the requirement that cities and towns that issue POBs fund 100 percent of the ARC going forward is a critical component of the State's authorizing statute for municipal POBs. It is designed to ensure that cities and towns do not take on hard debt, only to again fall behind in funding their long-term pension obligations. Thus, the 2014 special ramp-up ARC legislation, while it provides short-term budgetary relief, will make it more challenging for the Town of Hamden to achieve improved pension funding anytime soon.

Pension Obligation Bonds as a Financing Tool

The issuance of pension deficit funding bonds (known generally as "pension obligation bonds"), is one method by which governmental entities may reduce the unfunded actuarial accrued liability (UAAL) of their retirement plan(s). Such bonds have been used nationwide by a number of governmental entities at the municipal, county and state levels since the mid-eighties. The use of this financing tool can, if carefully planned and executed using conservative and realistic assumptions, succeed in achieving savings if the investment earnings on the bond proceeds exceed the cost of borrowing over the life of the bonds.

A principal benefit to the issuer should be a reduction in the total annual employer contribution that must be made to meet the annual funding requirements of the plan. This is achieved if the amount of debt service payments related to the pension deficit bonds, together with the remaining ARC needed to fund any remaining unfunded liabilities not eliminated by the bonds and to cover normal costs, are less than what the ARC would have been without the issuance of the bonds.

In light of the complex nature of the components of a proposed issue, the relationships between all of the assumptions, and the fact that there are no guarantees of future investment earnings, the issuance of POBs brings with it a degree of uncertainty and unpredictability. In addition, these bonds can also impact future financial flexibility, given that the "soft" debt of an ARC is converted to the "hard" debt of annual fixed debt service payments. A GFOA Advisory regarding the use of POBs states that "even if the analysis indicates that financial benefits appear to outweigh the risks, governments should evaluate other issues that may arise if the bonds are issued, such as the loss of flexibility in difficult economic times because of the need to make timely payments of principal and interest…"[1]

In addition, the Act requires any municipality that issues POBs to fund its full ARC to the plan on a deemed appropriated basis. While this contributes to improved pension funding levels over time for municipalities that issue POBs and who may not have fully funded obligations in the past, it also limits financial flexibility given that both debt service and the ARC must be funded each and every year that the bonds remain outstanding.

The Act also established a new category of debt for municipal pension deficit funding bonds within the statutory municipal debt limits. The total overall debt limit, however, remains unchanged. Consequently, the issuance of POBs can have a significant impact upon a municipality's ability to meet current and projected capital finance needs.

Hamden's Background and Overview

The Town has historically underfunded its ARC to the pension plan and as a result, the plan's funded ratio has dropped from 44 percent on July 1, 2002 to just over 10 percent on July 1, 2014. Because of the contribution underfunding, the use of the level percent of payroll method of calculating the ARC and changes in actuarial assumptions (including a decrease in the assumed investment rate of return on plan assets to the currently assumed 7.0 percent), the Town's ARC has increased from $19.9 million in fiscal year 2012 to $29.5 million in fiscal year 2015. The Town's pension costs — if further decreases in the funding ratio are to be avoided — are going to increase no matter if the traditional method of funding through contributing the ARC or if a combination of POBs and funding the ARC for the remaining unfunded liability is utilized. It should be noted that the Town's actuary has advised the Town that if no changes are made to its current funding assumptions, the pension plan will exhaust its assets in approximately five years.

The Town states that it is pursuing the issuance of POBs as a means of mitigating these increasing costs and improving the plan's funded ratio more rapidly. On July 29, 2013, the Legislative Council of the Town of Hamden adopted an ordinance authorizing the issuance of not more than $125 million in aggregate principal amount of general obligation pension bonds (federally taxable) to fund a portion of the Town's unfunded liability with respect to the retirement plan for employees of the Town. The Town's Charter requires that all bond issuances be structured with level annual principal payments and that the term not exceed 30 years. The Town's Charter was also revised in 2011 to allow for the issuance of bonds for non-capital projects including POBs, with a debt service limit of 4 percent of the current fiscal year budget.

As a result of the 2014 special legislation, the Town is allowed to phase-in the cost of fully funding the ARC over five years, and thus, according to the Town's plan, this approach will result in a more affordable transition towards fully funding the ARC beginning in fiscal year 2019. Once the phase-in is complete, according to the Town's plan, the POB approach will lead to larger budgetary costs than the traditional ARC approach through fiscal year 2025. Starting in fiscal year 2026, the POB approach is projected to result in lower budgetary costs compared to the ARC approach.

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[1] GFOA Advisory, *Evaluating the Use of Pension Obligation Bonds* (1997 and 2005) (Debt & CORBA).

As of July 1, 2014, there were 437 active members in the defined benefit plan, which was down from 509 members on July 1, 2012. Since the pension plan is now closed to new members, the proportion of those plan members who are retired and receiving benefit payments will continue to grow. As will be discussed, this has liquidity implications for the plan that will have to be considered when making asset allocation decisions related to the investment of plan assets.

Review and Recommendations

Based on our review of the submitted materials, set forth below are our conclusions and recommendations related thereto as required by the Act:

(A) The Actuarial valuation

Section 7-374c(a)(1) requires that the valuation be a "determination certified by an enrolled actuary, in a method and using assumptions meeting the parameters established by generally accepted accounting principles, of the normal cost, actuarial accrued liability, actuarial value of assets and related actuarial present values for a pension plan of a municipality as of a valuation date not more than thirty months preceding the date of issue of the pension deficit funding bonds, together with an actuarial update of such valuation as of a date not more than three months preceding the date of notification of the Secretary by the municipality…"

The actuarial valuation and the update of such valuation submitted by the Town meets the statute's substantive and time requirements. The Town's Actuarial Valuation Report conducted by Segal & Company as of July 1, 2014, which was completed on October 29, 2014, is well within the 30-month time frame. The Town did not submit the statutorily required update of the valuation through July 1, 2014, as the valuation itself was completed within one week of the Mayor's notification to the Secretary dated November 5, 2014.

The actuarial valuation estimates that the UAAL of Hamden's Pension Plan at July 1, 2014 was $405,738,681. According to the Town's information, the Town's proposed $125,000,000 issuance of POBs, after the costs of issuance are taken into account, will result in $123,000,000 available for deposit into its pension fund, and would increase its funded ratio from 10.3 percent to 37.2 percent.

Section 7-374c(a)(2) sets forth the following definition of ARC:

> "Actuarially recommended contribution' means the annual required contribution of the municipal employer to the pension plan of the municipality, as established by the actuarial valuation and determined by an enrolled actuary in a method and using assumptions meeting the parameters established by generally accepted accounting principles, provided the amortization schedule used to determine such contribution shall be fixed and shall have a term not longer than the longest of ten years, or thirty years from the date of issuance of the pension deficit funding bonds. In the event that the funding ratio of the pension plan, as determined immediately succeeding the deposit of the proceeds of the pension deficit

funding bonds in such pension plan, is reduced by 30 percent or more, the maximum permitted term of such amortization schedule shall be reduced by the same percentage."

The Town is using a level debt 30-year amortization for the POBs as required by its Town Charter for all of its debt. Many issuers of POBs choose an escalating debt service pattern to match the ARC calculation. Using level debt service for the POBs is more conservative and results in higher debt service in earlier years. The Town is using a less conservative level percent of payroll method for calculating its ARC each year as opposed to a level funding method used by some others which would allow the Town to achieve higher funded levels for its plan more quickly and higher savings in the longer-term.

The other actuarial assumptions all appear to be generally reasonable and standard within the industry. It should be noted that the Town has not completed an experience study in recent years. However, in conjunction with the 2012 actuarial valuation, the Town's actuary, Segal Consulting, adjusted several assumptions to better align with the Town's experience including lowering the investment rate of return from 8.0 percent to 7.0 percent and lowering the assumed payroll growth rate from 4 percent to 2 percent. The overall result of the changes in the assumptions increased the plan's liability by $6.7 million.

(B) Actuarial analysis of the UAAL remaining after the POBs

The proposed transaction would bring the pension plan to a funded ratio of 37.2 percent. The Town stated in its materials that it plans to amortize the remaining 62.8 percent UAAL through annual contributions to the plan, which contributions must be at least equal to the ARC as defined by PA 14-217. The Town included in its submittal an actuarial projection which demonstrates that with an assumed rate of return of 7.0 percent on the invested proceeds, and funding of the ARC on the remaining UAAL, the funded ratio will be 101.0 percent as of the valuation year 2044.

(C) Investment strategic plan, asset allocation plan

The Town's submittal assumes that the plan's current assets (approximately $50 million), coupled with the proceeds of the POBs ($123 million), will be invested for the long term at an expected return of 7.0 percent, which is the actuarial assumption for investment return. The Town has an additional performance goal of exceeding the model index, which is defined as a composite of passive indices over a rolling five-year time period.

The proposed plan includes the long-term return and risk assumptions used for the asset allocation analysis, as set forth below in Table 1:

TABLE 1: HAMDEN'S CAPITAL MARKET ASSUMPTIONS

Asset Class	Return	Risk
Large Cap Equity	11.12%	19.23%
SMID Cap Equity	12.61%	19.19%
International Equity	8.70%	21.03%
Real Estate Equity	9.43%	11.06%
Global Tactical Asset Allocation	8.08%	12.44%
Broad Market Bonds	5.85%	4.79%
Cash	2.88%	2.15%

These return assumptions are higher than the State's current assumptions.

Asset Allocation Study

There were 20 asset allocation proposals provided for each of the worst-case and mid-case scenarios, including the current allocation and current policy portfolios. The analysis shows the terminal values of the fund in 2034 at each allocation and their corresponding confidence levels.

The Town's Financial Advisor recommended proposal ten as the optimal allocation, with a 20 percent allocation to large cap equities; 10 percent to SMID cap equities; 10 percent to international equities; 10 percent to real estate equities; 10 percent to global tactical asset allocations; 40 percent to broad market bonds; and 0 percent to cash. This portfolio is expected to earn a return of 8.90 percent with a standard deviation of 8.88 percent. The current portfolio had an expected return of 9.06 percent with a standard deviation of 10.44 percent. Proposal ten was recommended due to its higher probability of reaching the 7.00 percent actuarial rate of return (over 61 percent), but with significantly less volatility. In addition, the new allocation minimized the exposure to less liquid asset classes and targeted allocations that would have included lower expected volatility of returns.

Investment Policy

The Town's Investment Policy Statement (IPS) outlines the retirement plan's long-term investment objectives, which are stated as: maintain sufficient liquidity to facilitate full and timely payment of benefits and expenses; earn a reasonable long-term rate of return that meets while attempting to control the volatility of the returns; and earn a long-term rate of return on each component of the retirement plan that that equals or exceeds the investments goals stated in the IPS. In addition, the IPS also includes discussions regarding investment purpose; responsibilities of the investment managers; investment objectives, goals/benchmarks, guidelines for equity and fixed income; securities lending; investment review and evaluation; asset allocation and proxy voting.

The Town's current and proposed allocation to cash is zero. We recommend the Town perform a comprehensive liquidity analysis and create a written plan of action given the various cash flow scenarios provided, especially in times of market turmoil where a plan would want to avoid liquidating long-term assets to meet short-term liabilities. In addition, the Town should carefully review its asset allocation plan and long term return assumptions with the understanding that this is a closed plan which will have different future cash flows than an active plan.

The Town, as shown in the IPS, is allowing its managers the authority to vote proxies for securities held by the plan. While there is limited control on proxy voting matters for any plan investments in commingled or mutual fund types of investments, we recommend that the Town consider establishing a more comprehensive written proxy voting policy statement for investments in the separate account manager relationships. This would provide consistency with each of the separate account managers and ensure that the managers are aligning with the Town in proxy voting matters.

(D) Six-year financial plan

The Town submitted a copy of its six-year financial plan as part of the documentation included with the Town's notice to issue pension deficit funding bonds. Subsequent to this submission, a revised six-year financial plan was submitted that provided additional disclosures as requested by our offices.

The plan is useful to the Town as a planning and budgeting tool; however, it is also recognized that assumptions were made in the development of the plan and unknown future events could affect one or more of these assumptions.

The Town's six-year financial plan commences with the 2014 fiscal year as the base year, and provides projections for fiscal years 2015 through 2020 as years one through six of the plan. The State's review of the six-year plan was done in relation to the issuance of $125 million in POBs in fiscal year 2015, for which the effects of the issuance is reflected in the six-year plan.

The plan meets statutory requirements and includes stated assumptions for certain major revenue and expenditure line items. The assumptions disclosed generally appear reasonable based upon a review of historical information available at the Office of the Secretary and the additional information provided to the State. We noted that the fiscal year 2015 budget indicated a $13.75 million contribution to the Town's defined benefit pension plan. This item should be reviewed to ensure that it meets the minimum 50% ARC requirement under PA 14-217.

According to the Town's six-year plan, fiscal year 2016 will require a 4.6 percent increase in the mill rate, with increased costs related to the pension plan, including POB debt service, being a major factor in this increase. The average projected annual mill rate increase as presented in the Town's 6-year plan is also 4.6%. Based upon recent historical data, this rate of increase is not out of line with prior years' increases to the mill rate. It would appear that significant contributing factors for not having a significant spike in the projected mill rate from issuing the POBs would include the flexibility provided to the Town for being able to ramp up to the full ARC within a 5-year phase-in period and the Town's restructuring of certain capital debt to reduce the impact of the POB issuance beginning in fiscal year 2018. It is important to note that the pension contributions in the 6-year plan is based upon the ARC as determined by the latest actuarial valuation at the time the financial plan was developed. Should the ARC increase significantly in the future as determined by future actuarial valuations, the willingness of the Town to adjust its budget and financial plan in a sound financial manner to absorb the increase in ARC payments is an important consideration in terms of addressing both the Town's pension liabilities and its overall fiscal and budgetary stability.

With POBs, the associated debt service and the legal requirements of the Act to pay the full ARC for any remaining unfunded pension liabilities converts the "soft" liability associated with the current ARC approach into a fixed cost. These increasing fixed costs will place pressure on other budgetary priorities, as such, significant expenditure items including education spending and medical insurance for current and retired employees should constantly be reviewed and evaluated to ensure that the projected expenditures are realistic and not based upon spending levels needed to offset increase costs from the POB issuance. In reviewing recent historical budgets as compared to actual results we also noted that there were several years where revenues were overestimated resulting in revenue shortfalls. Similarly to its major expenditure items, the Town should frequently review its major revenue assumptions to ensure that the revenue levels projected are appropriate. If the Town's projected results for 2014 are achieved it will have a fund balance of 1.1% of its annual expenditures as of June 30, 2014, which is below benchmarks recommended for this financial measure. We have noted that the Town's financial plan includes a fund balance contingency in each of its fiscal years 2016 to 2020 designed to increase the Town's fund balance reserves. Increasing the Town's fund balance reserves level is important in order to mitigate current and future risks such as unanticipated expenditures and revenue shortfalls.

We recommend that the Town continue to review its six-year financial plan including the accuracy of its 2014 unaudited financial results and its projected fiscal year 2015 budget results as more financial and actuarial information becomes available and make changes to the six-year plan presented if necessary based upon such current information.

Plan of Finance

According to documents submitted by the Town, the Town is planning to issue a $125 million taxable fixed rate bond. The 30-year bond issue will have serial maturities ranging from 2015 to 2024 with three term bonds maturing in 2029, 2034, and 2044 with mandatory sinking funds. Overall, this is a conservative bond structure with call flexibility and should serve the Town well. The Town plans to seek ratings on the POBs from Moody's, Fitch, and Standard & Poor's rating services.

The issuance of these POBs will significantly increase the outstanding debt of the Town. All existing outstanding bonds carry a total debt service of $157.2 million, and the new POBs would more than double that amount to a new total of approximately $400 million.

While the plan of finance is reasonable in today's market and conforms to current industry standards, it cannot be viewed in isolation. The plan of finance must be considered in conjunction with the investment return assumptions and the actuarial assumptions. The Town has certified to our offices that it plans to base the issuance of the POBs on the 7.00 percent return assumption. The plan of finance projects a true interest cost (TIC) on the bonds of 5.10 percent.

(E) Comparison of the funding of the UAAL via POBs and funding of the UAAL via the ARC

Based on the plan's funding ratio and amount of the plan's assets compared to its annual pension payroll, the Town appears to have two options: 1) Pay the full ARC or 2) Issue POBs and make ARC payments related to the remaining unfunded liability. Given that the Town is now paying less than one-half of its ARC, moving to the full ARC immediately poses a significant challenge for the Town. The Town, as indicated, is proposing to address this problem by "ramping-up" to contributing 100 percent of the ARC as part of its POB plan. While the Town has presented this ARC ramp-up approach in association with its POB proposal, the ARC ramp-up could also be used with an approach that relies on fully funding the ARC, with no POB. The potential benefits and risks of each of these two methods of addressing the plan's unfunded liability are outlined below.

Ramp-up to Full ARC, with No POB

Potential Benefits of this Approach:

- Would cost less than the POB-approach if long-term investment returns are below the projected 5.1 percent borrowing cost.
- The Town would retain flexibility in terms of its contributions to the plan; with POBs, full ARC payments are required by State Statute for the next 30 years (the life of the POB).
- The full ARC, no POB approach would soon lead to annual contributions nearly equal to annual pension payments made to retirees, which could provide more options for managing the budgetary impacts of substantial market downturns while maintaining appropriate funding for the plan. This approach eliminates or minimizes the need to reduce the plan's existing assets in order to cover annual pension payments.

Risks of this Approach

- Would cost more than the POB-approach if investment returns exceed the projected 5.1 percent borrowing cost.
- Would not involve an immediate infusion of funds into a plan that is at a less than 10 percent funding ratio.
- There would not be the statutory requirement to move to 100 percent funding of the ARC.

Ramp-up to Full ARC, with POB

Potential Benefits of this Approach:

- Would cost less than ARC-only approach if investment returns exceed the projected 5.1 percent borrowing cost.
- Would infuse funds into a plan that has a less than 10 percent funding ratio.
- Would create the statutory requirement to move to 100 percent funding of the ARC, although this requirement would not carry the strength of either a bond covenant or labor contract provision requiring full payment of the ARC.

Risks of this Approach:

- Would cost more than the ARC-only approach if investment returns are below the projected 5.1 percent borrowing cost.
- Creates timing risks associated with placing a large amount of bond proceeds into the fund within a short period of time. Currently, the stock market has been reaching historic highs.
- Would lose flexibility over the next 30 years (the life of the POB in terms of ARC contributions).

In terms of the numbers, Table 2 on the next page sets forth the cash flows associated with the proposed funding of the Town's UAAL with POBs, as compared with cash flows if the Town were to continue funding the UAAL through the annual ARC. All of the information in these tables assumes a 7.00 percent rate of return on plan assets, a funded ratio of 37.2 percent after deposit of the POB proceeds, and the ramp-up in the Town's ARC payment per PA 14-217. Column 5 shows annual cash flow savings with POBs, and projects total budget savings through fiscal year 2044 of approximately $49.6 million, as compared with the ARC without POBs (Column 1), as of July 1, 2014.

As noted previously, the Town is using a less conservative level percent of payroll method for calculating its actuarially recommended contributions each year as opposed to a level funding method used by many others. The level funding method would allow the Town to achieve higher funded levels for its plan more quickly and higher savings in the longer-term.

TABLE 2: CASH FLOW COMPARISON

POB TIC of 5.1%, Ramp-Up in ARC contribution over 5 years; annual investment return of 7.0%

Fiscal Year Ending 6/30	(1) ARC Without Pension Obligation Bond	(2) Ramp-Up ARC Contribution With Pension Obligation Bond	(3) POB Debt Service	(4) Ramp-up ARC + Debt Service	(5) Annual Savings with POB Issuance
2015	$ 14,800,000	$ 14,800,000	$ 1,500,000	$ 16,300,000	$ 1,500,000
2016	30,500,000	12,300,000	8,100,000	20,400,000	(10,100,000)
2017	30,800,000	16,200,000	8,100,000	24,300,000	(6,500,000)
2018	31,100,000	19,000,000	8,100,000	27,100,000	(4,000,000)
2019	31,400,000	24,300,000	8,100,000	32,400,000	1,000,000
2020	31,800,000	24,500,000	8,100,000	32,600,000	800,000
2021	32,200,000	24,800,000	8,100,000	32,900,000	700,000
2022	32,700,000	25,000,000	8,100,000	33,100,000	400,000
2023	33,100,000	25,300,000	8,100,000	33,400,000	300,000
2024	33,600,000	25,600,000	8,100,000	33,700,000	100,000
2025	34,000,000	26,000,000	8,100,000	34,100,000	100,000
2026	34,500,000	26,300,000	8,100,000	34,400,000	(100,000)
2027	35,000,000	26,600,000	8,100,000	34,700,000	(300,000)
2028	35,600,000	27,000,000	8,100,000	35,100,000	(500,000)
2029	36,100,000	27,400,000	8,100,000	35,500,000	(600,000)
2030	36,600,000	27,700,000	8,100,000	35,800,000	(800,000)
2031	37,200,000	28,100,000	8,100,000	36,200,000	(1,000,000)
2032	37,800,000	28,500,000	8,100,000	36,600,000	(1,200,000)
2033	38,400,000	28,900,000	8,100,000	37,000,000	(1,400,000)
2034	38,900,000	29,300,000	8,100,000	37,400,000	(1,500,000)
2035	39,500,000	29,700,000	8,100,000	37,800,000	(1,700,000)
2036	40,000,000	30,000,000	8,100,000	38,100,000	(1,900,000)
2037	40,500,000	30,300,000	8,100,000	38,400,000	(2,100,000)
2038	40,900,000	30,500,000	8,100,000	38,600,000	(2,300,000)
2039	41,300,000	30,600,000	8,100,000	38,700,000	(2,600,000)
2040	41,500,000	30,700,000	8,100,000	38,800,000	(2,700,000)
2041	41,600,000	30,500,000	8,100,000	38,600,000	(3,000,000)
2042	41,300,000	30,000,000	8,100,000	38,100,000	(3,200,000)
2043	40,300,000	28,800,000	8,100,000	36,900,000	(3,400,000)
2044	37,400,000	25,700,000	8,100,000	33,800,000	(3,600,000)
Total	$ 1,070,400,000	$ 784,400,000	$ 236,400,000	$ 1,020,800,000	$ (49,600,000)

Columns' Definitions:

(1) "ARC Without Pension Obligation Bond" – based on the Town's most recent actuarial valuation as of July 1, 2014
(2) "Ramp-Up ARC Contribution With Pension Obligation Bond" -- reflects the plan proposed by the Town
(3) "POB Debt Service" -- projected debt service due on the $125.0 million POBs
(4) "ARC + Debt Service" -- the sum of POB debt service, as proposed by the Town and the ARC needed to bring the funded ratio up to 100 percent funding 30 years following the issuance of the bonds, as required by Section 7-374c (2)
(5) "Annual Savings with POB Issuance" -- the annual budget savings achieved (reflected as negative) with the issuance of POBs

In terms of the funded ratios, as outlined in Table 3, the Town's pension obligation proposal, assuming an annual investment return of 7.0 percent, would raise the funded ratio to a projected 37.2 percent following the issuance of the bonds, and maintain the ratio higher than funding the ARC over the next 30 years. The last column demonstrates the impact of allowing the Town to "ramp-up" their actuarially required contribution over five years per PA 14-217. Under this scenario, the funded ratio is expected to fall to as low as 36.1% in 2017, and would not exceed 40% until 2022.

TABLE 3: FUNDED RATIO COMPARISON

POB TIC of 5.1%, Ramp-up ARC Contribution; Annual Investment Return of 7.0%

Fiscal Year Ending 6/30	Without Pension Obligation Bond-Pay ARC	With Pension Obligation Bond-Pay ARC	With Pension Obligation Bond-Ramp Up ARC
2015	9.8%	37.2%	37.2%
2016	11.6%	38.5%	36.3%
2017	13.4%	39.7%	36.1%
2018	15.0%	40.9%	36.3%
2019	16.6%	41.9%	37.5%
2020	18.0%	43.0%	38.6%
2021	19.5%	43.9%	39.6%
2022	20.8%	44.9%	40.7%
2023	22.2%	45.8%	41.7%
2024	23.6%	46.8%	42.7%
2025	24.9%	47.7%	43.7%
2026	26.3%	48.7%	44.7%
2027	27.7%	49.6%	45.8%
2028	29.2%	50.7%	46.9%
2029	30.8%	51.8%	48.1%
2030	32.5%	53.0%	49.4%
2031	34.4%	54.4%	50.8%
2032	36.5%	55.8%	52.4%
2033	38.8%	57.5%	54.2%
2034	41.4%	59.4%	56.2%
2035	44.4%	61.5%	58.5%
2036	47.8%	64.0%	61.1%
2037	51.8%	66.8%	64.2%
2038	56.4%	70.1%	67.7%
2039	61.7%	73.9%	71.8%
2040	67.7%	78.2%	76.4%
2041	74.7%	83.1%	81.6%
2042	82.6%	88.6%	87.6%
2043	91.5%	94.7%	94.2%
2044	101.0%	101.0%	101.0%

As a comparison, as outlined in Table 4, the Town's pension obligation proposal, assuming an annual investment return of 4.0 percent, would raise the funded ratio to a projected 36.5 percent following the issuance of the bonds, and maintain the ratio higher than funding the ARC over the next 30 years. The last column demonstrates the impact of allowing the Town to "ramp-up" their actuarially required contribution over five years per PA 14-217. It should be noted under this scenario, the funded ratio of the plan would not exceed the initial 36.5 percent following the issuance of the bonds until 2033 and does not exceed 40% until 2036, some 20 years to see even a 3% improvement in the funded ratio.

TABLE 4: FUNDED RATIO COMPARISON

POB TIC of 5.1%, Ramp-up ARC Contribution; Annual Investment Return of **4.0**%

Fiscal Year Ending 6/30	Without Pension Obligation Bond-Pay ARC	With Pension Obligation Bond-Pay ARC	With Pension Obligation Bond-Ramp Up ARC
2015	9.5%	36.5%	36.5%
2016	11.0%	36.7%	34.6%
2017	12.4%	36.8%	33.3%
2018	13.7%	36.8%	32.5%
2019	14.8%	36.8%	32.6%
2020	15.8%	36.7%	32.7%
2021	16.7%	36.5%	32.8%
2022	17.6%	36.4%	32.9%
2023	18.4%	36.3%	32.9%
2024	19.2%	36.1%	32.9%
2025	20.0%	36.0%	33.0%
2026	20.7%	36.0%	33.1%
2027	21.5%	36.0%	33.3%
2028	22.4%	36.0%	33.5%
2029	23.4%	36.2%	33.8%
2030	24.4%	36.5%	34.3%
2031	25.6%	37.0%	34.9%
2032	27.0%	37.7%	35.7%
2033	28.7%	38.5%	36.7%
2034	30.6%	39.7%	38.0%
2035	33.0%	41.3%	39.8%
2036	35.8%	43.3%	41.9%
2037	39.2%	45.9%	44.6%
2038	43.2%	49.1%	48.0%
2039	48.1%	53.1%	52.2%
2040	53.9%	58.0%	57.2%
2041	61.0%	64.1%	63.5%
2042	69.6%	71.6%	71.3%
2043	80.2%	81.1%	81.0%
2044	93.9%	93.7%	93.7%

As stated previously, when planning to issue POBs, multiple scenarios of projected investment earnings on the bond proceeds and the projected true interest cost of the bonds should be reviewed. The Town provided information reflecting the impact on costs if the long-run rate of return on plan assets over the 30-year period was to be 8.0 percent, 6.0 percent, or 4.0 percent. It should be noted that the Town did not provide a 6.0 percent ramp-up scenario that achieved the 100% funded level, and thus is not included in the table below.

Table 5 summarizes and combines some of the sensitivity analysis provided by the Town, and primarily considers the impact of different investment rates of return on cash flow savings over the first fifteen years, assuming the Town realizes its 5.1 percent projected true interest cost on its POBs. One can see that the Town will not see cash flow savings (except during the phase-in period at the beginning of the schedule) until 2026 under the current 7.0 percent investment return rate.

TABLE 5: COMBINED INVESTMENT EARNINGS SENSITIVITY ANALYSIS

POB TIC of 5.1% and Annual Investment Return of 7.0%

						Investment Rate of Return Sensitivity	
				Total		4.0% Return	8.0% Return
Fiscal Year Ending 6/30 of	Town Pension Payments No Bonds	Projected Annual Required Contribution	Estimated Bond Payments	Town Pension Payments w/Bonds	Projected Town Cash flow Change	Projected Town Cash flow Change	Projected Town Cash flow Change
2016	$30,500,000	$12,300,000	$ 8,100,000	$20,400,000	$(10,100,000)	$(10,100,000)	$(10,100,000)
2017	$30,800,000	$16,200,000	$ 8,100,000	$24,300,000	$(6,500,000)	$(6,400,000)	$(7,020,000)
2018	$31,100,000	$19,000,000	$ 8,100,000	$27,100,000	$(4,000,000)	$(3,700,000)	$(5,000,000)
2019	$31,400,000	$24,300,000	$ 8,100,000	$32,400,000	$1,000,000	$1,600,000	$(800,000)
2020	$31,800,000	$24,500,000	$ 8,100,000	$32,600,000	$800,000	$1,900,000	$(1,200,000)
2021	$32,200,000	$25,300,000	$ 8,100,000	$32,900,000	$700,000	$2,100,000	$(1,500,000)
2022	$32,700,000	$25,600,000	$ 8,100,000	$33,100,000	$400,000	$2,300,000	$(2,000,000)
2023	$33,100,000	$25,300,000	$ 8,100,000	$33,400,000	$300,000	$2,700,000	$(2,300,000)
2024	$33,600,000	$25,600,000	$ 8,100,000	$33,700,000	$100,000	$2,900,000	$(2,700,000)
2025	$34,000,000	$26,000,000	$ 8,100,000	$34,100,000	$100,000	$3,400,000	$(3,100,000)
2026	$34,500,000	$26,300,000	$ 8,100,000	$34,400,000	$(100,000)	$3,700,000	$(3,500,000)
2027	$35,000,000	$26,600,000	$ 8,100,000	$34,700,000	$(300,000)	$4,200,000	$(4,000,000)
2028	$35,600,000	$27,000,000	$ 8,100,000	$35,100,000	$(500,000)	$4,500,000	$(4,600,000)
2029	$36,100,000	$27,400,000	$ 8,100,000	$35,500,000	$(600,000)	$5,000,000	$(5,100,000)
2030	$36,600,000	$27,700,000	$ 8,100,000	$35,800,000	$(800,000)	$5,600,000	$(5,500,000)
TOTAL	$499,000,000	$358,000,000	$121,500,000	$479,500,000	$(19,500,000)	$19,700,000	$(58,420,000)

As the sensitively analysis shows, if the Fund earned only 4%, as shown in the above Table, that would result in actuarial losses each time a new valuation is completed and those losses would be amortized over the remaining fixed amortization period resulting in higher and higher ARCs each year as the Town's contribution would need to make up the lower investment earnings. The Town should consider this when evaluating the risks and cost associated with issuing POBs and potentially not earning the assumed rate of return over the amortization period especially given the requirement to fund the ARC each and every year the bonds are outstanding as required under the Statute.

It is once again recommended that the Town consider, and take into account, these and other possible scenarios as part of is planning and decision making. The GFOA Recommended Practice with respect to evaluating the issuance of POBs calls for "adequate disclosure that even if bonds are sold, governments could face an unfunded liability in the future from factors such as changes in benefit levels, investment returns, demographic and other factors not anticipated when the bonds were issued."[2] It is also recommended that the same disclosure be made with respect to changes in projected cash flow savings.

Generally, the cost to the Town will be less with the issuance of bonds if the investment return realized is greater than the interest paid on the bonds; however, as the investment return rate gets closer to the bond interest rate, the benefits associated with the issuance of the bonds may not be large enough to offset the potential risks. As a rule of thumb, the difference should be at least 2 percent between the interest on the bonds and the anticipated rate of return. It should be noted that the Town Plan could result in less than this 2% rule of thumb. It is recommended that the Town continue to establish and apply such guidelines as part of its decision making as to whether or not to issue POBs.

Finally, it is important to point out that part of the definition of the ARC, as set forth in Section 7-374c(2), states, with regard to the amortization period used to calculate the ARC, that in the event that "the funding ratio of the pension plan, as determined immediately succeeding the deposit of the proceeds of the pension deficit funding bonds in such pension plan, is reduced by thirty percent or more, the maximum permitted term of such amortization schedule shall be reduced by the same percentage." If such a decrease should occur, it should again be adequately disclosed that the Town's annual ARC payment could increase significantly.

(J) <u>Such other information and documentation as reasonably required by the Secretary or the Treasurer to carry out the provisions of this section</u>

The Town has provided additional information and documentation as set forth in Attachment A.

<u>Ongoing Requirements Under Section 7-374c</u>

Attachment B summarizes the key ongoing requirements for the Town while POBs remain outstanding.

[2] GFOA Advisory, *Evaluating the Use of Pension Obligation Bonds* (1997 and 2005) (Debt & CORBA).

Recommendations

Based upon the Town's submission and supplemental documentation and information, the Secretary of OPM and the Treasurer make the following recommendations.

1. That the Town carefully consider both the benefits and the loss of flexibility that arises from converting the unfunded pension liability to a fixed obligation to repay the bonds. Under the law, in addition to the debt service on the bonds, once the ramp-up period ends, the Town will be required to fund its ARC to the Plan, and should an unfunded liability in this plan arise in the future, the Town will be required to make the new higher ARC. This contribution, based on a number of factors, could be significantly different from that projected by the Town.

2. That the Town carefully review the various scenarios, including the probability of each occurring, and the risk/benefit analysis, which flows from each of them. The fact that the plan is now closed, with only 36 percent of its participants being active employees (which percentage is going down each year), results in much different cash flow needs and demographics than found with most open plans. An approach that involves annual Town contributions that are nearly equal to or greater than annual pension payments could help minimize these risks in the most cost-effective manner.

3. That the Town continue to apply guidelines or metrics in regard to its decision as to whether or not to issue POBs in the event of higher interest rates, such as a minimum spread between the borrowing cost and the 7.0 percent assumed rate of return on assets. An example of such metrics include a minimum targeted savings and/or some "rule of thumb" -- as described previously in this letter, such as 2 percent -- in terms of the spread between the cost of borrowing and the expected rate of return on assets.

4. That the Town distribute this review letter to local decision makers and make available to the public.

5. That the Town consider establishing a more comprehensive written proxy voting policy statement for investments in the separate account manager relationships to provide consistency with each of the separate account managers and ensure that the managers are aligning with the Town in proxy voting matters.

6. That the Town perform a comprehensive liquidity analysis and create a written plan of action, especially for times of market turmoil where the plan would want to avoid liquidating long-term assets to meet short-term liabilities. In addition, the Town should carefully review its asset allocation plan and long term return assumption with the understanding that this is a closed plan which will have different future cash flows than an active plan. In addition, the Town should consider the risks of a large investment into the market during a period of very high equity valuation levels.

7. That the Town complete an experience study before the issuance of POBs, or as soon as practicable.

8. That, in order to ensure compliance with the Act, the ARC calculation in the Town's annual actuarial valuation should be based on an amortization schedule that is a period of 30 years following the deposit of the POB proceeds into the pension fund.

9. That the Town continue to evaluate its six-year financial plan and make adjustments to the plan if necessary as more current financial information becomes available (including up-to-date fiscal year 2015 budget projections and future actuarial information that may impact the ARC) that could affect the assumptions made in regard to the plan.

10. That the Town review its 2015 budget to ensure that it incorporates the 50% ARC payment that is required by P.A. 14-217.

11. That the Town proceed with its plans to obtain ratings from Moody's, Fitch, and Standard & Poor's.

12. That financial arrangements, if any, which may exist between members of the Town's financing team, be fully disclosed.

13. That the Town's investment advisor, actuary, director of finance, and the Hamden Employees Retirement Board should closely monitor the performance of the fund and its impact upon the statutory requirements.

14. That the Town ensure compliance with the ongoing requirements of the Act, including those listed in Attachment B. If the Town believes that compliance with any of the ongoing requirements are not clear, that the Town work with the Office of Policy and Management and the Treasurer's Office to ensure compliance.

15. That the Town's charter include a provision requiring an actuarial analysis be conducted when pension plan enhancements are being considered.

Conclusion

The issuance of pension obligation bonds is a serious undertaking with potential benefits and risks to the Town. We urge the Town to consider carefully our recommendations and to call upon us if we can be of further assistance.

Finally, in accordance with the Act, the Town may not issue the pension deficit funding bonds if more than six months has elapsed since the receipt of this written final review. After this six-month period, the Town may notify the Secretary of its intention to issue pension deficit funding bonds and provide the Secretary with updated information and documentation in the manner and as described in the Act, and request an updated final review from the Secretary and the Treasurer.

Very truly yours,

Benjamin Barnes
Secretary, Office of Policy & Management

Denise L. Nappier
Treasurer, State of Connecticut

Attachments

cc: Christine Shaw, Deputy Treasurer, State of Connecticut
W. David LeVasseur, Undersecretary, Office of Policy and Management
Sarah K. Sanders, Assistant Treasurer of Debt Management, Office of the State Treasurer
Robert S. Dakers, Executive Finance Officer, Office of Policy and Management
Salvatore DeCola, Director of Finance, Town of Hamden
Members of the Municipal Finance Advisory Commission

ATTACHMENT A

The Office of Policy & Management and the Office of the State Treasurer received the following materials from the Town of Hamden on November 5, 2014:

1. Notice Pursuant to P.A. 99-182, as amended
2. Exhibit A- Employees Retirement Plan of the Town of Hamden- Actuarial Valuation and Review as of July 1, 2014, prepared by Segal & Company
3. Exhibit B – Actuarial Analysis of the Methods by Which the Town Proposes to Fund the Unfunded Pension Liability After Issuance of the Pension Bonds
4. Exhibit C-1 – An Explanation of the Town's Investment Strategic Plan for the Pension Plan
5. Exhibit C-2 – Town of Hamden Employees' Retirement Plan, Asset Allocation Study, dated October 2014, prepared by Dahab Associates, Inc.
6. Exhibit D – Six Year Financial Plans for the Fiscal Years Ending June 30, 2015 through 2020 (the "Six Year Financial Plans"). The Six Year Financial Plans are based on a "Current Benefits" scenario and an "Alternative" (COLA limited to 2% per year) scenario, depending on the results of restructuring the Town's retirement benefits, with year to date actual results for the Fiscal Year Ending June 30, 2015
7. Exhibit E – A Comparison of the Anticipated Effect of Funding the Pension Deficit Through the Issuance of Pension Deficit Funding Bonds versus Funding the Pension Deficit Through Annual Actuarially Recommended Contributions
8. Exhibit F-1- Certified Copy of the Ordinance of the Town's Legislative Council Approving the Issuance of Pension Deficit Funding Bonds and the Use of the Proceeds of the Pension Bonds (the "Pension Bond Ordinance"), as adopted by the Legislative Council on July 29, 2013
9. Exhibit F-2- Opinion of Robinson & Cole LLP, Bond Counsel to the Town, as to the Due Authorization of the Issuance of the Bonds
10. Exhibit G- Certified Copy of the Ordinance of the Town's Legislative Council Approving the Appropriation of Amounts Sufficient to Meet the Actuarially Required Contribution to the Pension Plan, as adopted by the Legislative Council on July 29, 2013 (See Section 5 of the Pension Bond Ordinance in Exhibit F-1)
11. Exhibit H- Methodology Used and Actuarial Assumptions Utilized to Calculate the Actuarially Recommended Contribution to the Pension Plan
12. Exhibit I- Draft Official Statement with Respect to the Pension Deficit Bonds

ATTACHMENT A--continued

In addition to the statutorily required information reflected in the exhibits described above, the Town also submitted on November 5, 2014 the following additional information requested by State officials and staff:

1. Exhibit J- Town's Pension Plan Ordinances
2. Exhibit K- Town Charter Debt Provisions
3. Exhibit L- Section 219 of Public Act 14-217, modifying the Pension Statute
4. Exhibit M- Pay-As-You-Go Alternative
5. Exhibit N- Scenarios Assuming 6% and 8% Investment Returns
6. Exhibit O- Plan Investment Returns for Past 20 Years
7. Exhibit P- Cash Flow Projection for Plan for 25 Years
8. Exhibit Q- CMERS Payment Projection for 10 Years
9. Exhibit R- Other Post-Employment Benefits (OPEB) Valuation Report dated August 25, 2014
10. Exhibit S- Council Approved Capital Plan
11. Exhibit T- Debt Service Schedules showing POB and Future Debt Service
12. Exhibit U- Projections for Pension Obligation Bond, dated October 30, 2014, prepared by Segal & company

OPM and the Treasury requested additional information on November 20, 2014. The Town's bond counsel, David Panico of Robinson and Cole, responded via email on November 26, 2014, to provide answers to the questions we raised. The Town also attached to its November 26, 2014 response the following additional information:

1. A cover letter from Mayor Scott Jackson dated November 26, 2014
2. A summary of Actuarial Assumptions for the Town's Pension Plan prepared by Segal & Company (Experience Review Memo)
3. "Projections for Pension Obligation Bond- Addendum", prepared by Segal & Company
4. Revised Six Year Financial Plans

OPM requested additional information on December 3, 2014. The Town's bond counsel, David Panico of Robinson and Cole, responded via email on December 5, 2014, to provide answers to the questions we raised. The Town also attached to its December 5, 2014 response the following additional information:

1. "Projections for Pension Obligation Bond- Addendum No. 2", prepared by Segal & Co.

ATTACHMENT B

Summary of Key Ongoing Requirements of Section 7-374c while POBs are Outstanding

Section	Requirement
Section 7-374c(c)(2)	Not later than ten days after the sale of the pension deficit funding bonds, the municipality shall provide the Secretary and the Treasurer with a final financing summary comparing the anticipated effects of funding the unfunded past benefit obligation through the issuance of the pension deficit funding bonds with the funding of the obligation through the annual actuarially recommended contribution, prepared in the manner prescribed by the Secretary;
Section 7-374c(c)(3)	(A) for each fiscal year of the municipality commencing with the fiscal year in which the bonds are issued, appropriate funds in an amount sufficient to meet the actuarially required contribution and contribute such amount to the plan, and (B) notify the Secretary annually, who shall in turn notify the Treasurer, of the amount or the rate of any such actuarially recommended contribution and the amount or the rate, if any, of the actual annual contribution by the municipality to the pension plan to meet such actuarially recommended contribution;
Section 7-374c(c)(3)	On an annual basis, the municipality shall provide the Secretary and the Treasurer with: (i) The actuarial valuation of the pension plan, (ii) a specific identification, in a format to be determined by the Secretary, of any changes that have been made in the actuarial assumptions or methods compared to the previous actuarial valuation of the pension plan, (iii) the footnote disclosure and required supplementary information disclosure required by GASB Statement Number 27 with respect to the pension plan, and (iv) a review of the investments of the pension plan including a statement of the current asset allocation and an analysis of performance by asset class;

ATTACHMENT B (continued)
Summary of Key Ongoing Requirements of Section 7-374c while POBs are Outstanding

Section	Requirement
Section 7-374c(c)(3)	In any fiscal year for which such municipality fails to appropriate sufficient funds to meet the actuarially required contribution in accordance with the provisions of this subdivision there shall be deemed appropriated an amount sufficient to meet such requirement, notwithstanding the provisions of any other general statute or of any special act, charter, special act charter, home-rule ordinance, local ordinance or local law;
Section 7-374c(g)	A municipality may authorize and issue refunding bonds to pay, fund or refund prior to maturity any of its pension deficit funding bonds in accordance with the provisions of section 7-370c, provided, or, with respect to a regional school district, the provision of section 10-60a, notwithstanding the provisions of said sections 7-370c and 10-60a, the weighted average maturity of such refunding bonds shall not exceed the weighted average maturity of the outstanding pension deficit funding bonds being paid, funded or refunded by such refunding bonds. The municipality shall notify the Secretary, who shall in turn notify the Treasurer, of its intention to issue refunding bonds pursuant to this subsection, not less than fifteen days prior to the issuance thereof, and shall provide the Secretary with a copy of the final official statement, if any, prepared for the refunding bonds, not more than fifteen days after the date of issue of such bonds.