

# **Pension Bonds Presentation**

**December 15, 2020**  
Revised 1/15/2021

## **Pension Bonds Working Group:**

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## **Why is the Administration Proposing This:**

1. Although the Town has made all Actuarially Determined Employer Contributions (ADEC) to the pension plan, the plan funded ratio has declined and the annual payments have increased at a rate higher than the rate of inflation.
2. Given the size of the unfunded liability in the pension plan, the annual increases in the ADEC payment are one of the main drivers of growth in the Town operating budget. The issuance of Pension Obligation Bonds (POB's) will allow the Town to fund its pension obligation at a lower annual cost, providing tax relief and a fully funded pension plan.
3. This will allow the Town to take advantage of historically low interest rates.
4. This overall funding plan will include an additional fiscal buffer to mitigate significant pension contribution increases during times of economic downturn in the form of a Pension Bond Reserve Fund.
5. The Town's Consulting Actuary has completed testing of a stochastic model which indicates that in less than 3% of 10,000 possible outcomes, the reserve fund will be depleted. This represents a 97% probability that reserve funds will be available to mitigate any significant increases in pension contributions over the bonds repayment period.

## **Why Pension Bonds Do Not Work for Some Communities:**

- Issued by distressed communities with pension cash flow issues and limited financial flexibility
- Issued when market conditions are not necessarily favorable
- Issued with aggressive asset growth assumptions
- Issued with no back-up plan to mitigate potential increases in pension contributions during times of economic downturn
- Historically issued without any stochastic analysis

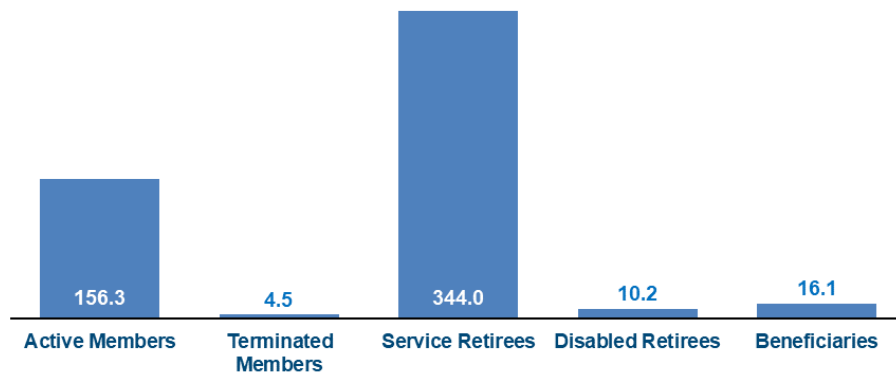
## **What Makes West Hartford Different:**

- West Hartford is a financially sound AAA rated community by both Moody's and Standard & Poor's
- This is a unique opportunity to take advantage of historically low interest rates
- The analysis performed is based on realistic asset growth assumptions
- A Pension Bond Reserve Fund will be created to mitigate potential contribution increases during times of economic downturn
- West Hartford has commissioned a rigorous stochastic analysis of 10,000 scenarios to ensure we are considering the full range of possible risks over the lifetime of the pension bonds

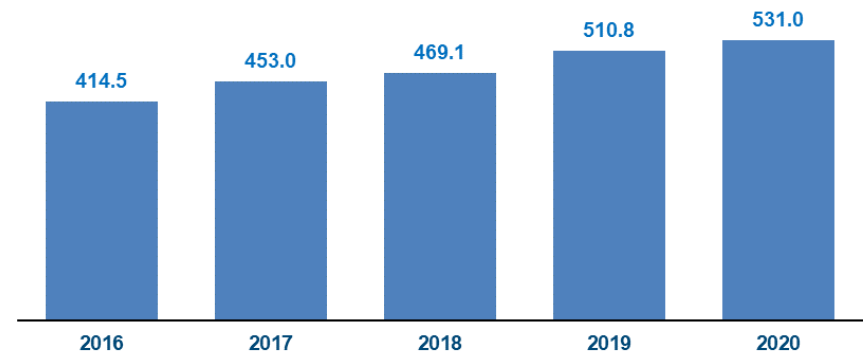
# History and Current Status of Pension Fund

# What is the Plan's Current Financial Picture?

The **Accrued Liability** as of July 1, 2020 is **\$531.0M**, which consists of the following amounts for the different classes of members covered by the plan:



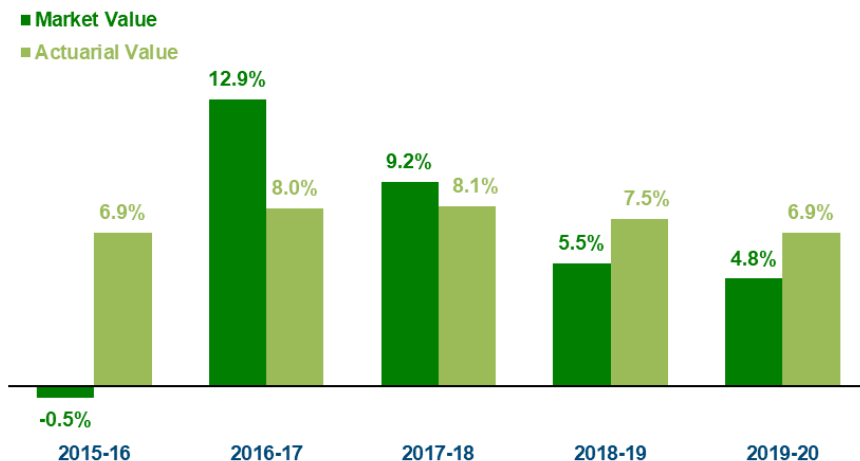
The Accrued Liability has been growing over the years, partly as active members have continued to accrue benefits but largely because the assumptions used to calculate the Accrued Liability have been strengthened:



# What is the Plan's Current Financial Picture?

The plan's **assets** have experienced typical year-over-year volatility; the actuaries use an asset smoothing technique to reduce the volatility in the Town's contribution:

At July 1, 2020 the plan's assets stood at \$214.8M on a market value basis and \$215.8M on a smoothed, actuarial value basis. The **Unfunded Accrued Liability** at July 1, 2020 is determined as follows:

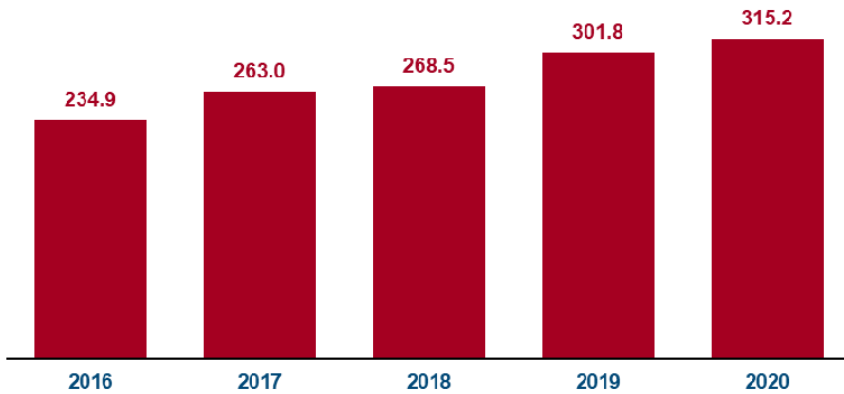


Accrued Liability	= \$531.0M
Actuarial Value of Assets	= \$215.8M
Unfunded Accrued Liability	= \$315.2M
Funded Ratio	= 40.6%

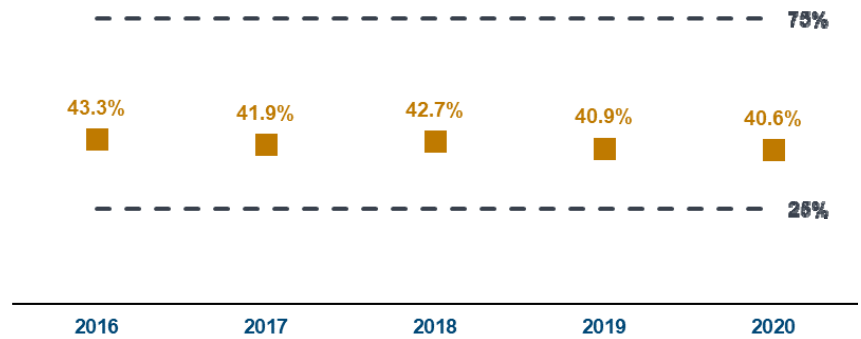
# What is the Plan's Current Financial Picture?

The **Unfunded Accrued Liability** has grown over the past five years and the **Funded Ratio** has declined:

Unfunded Accrued Liability (\$ millions)



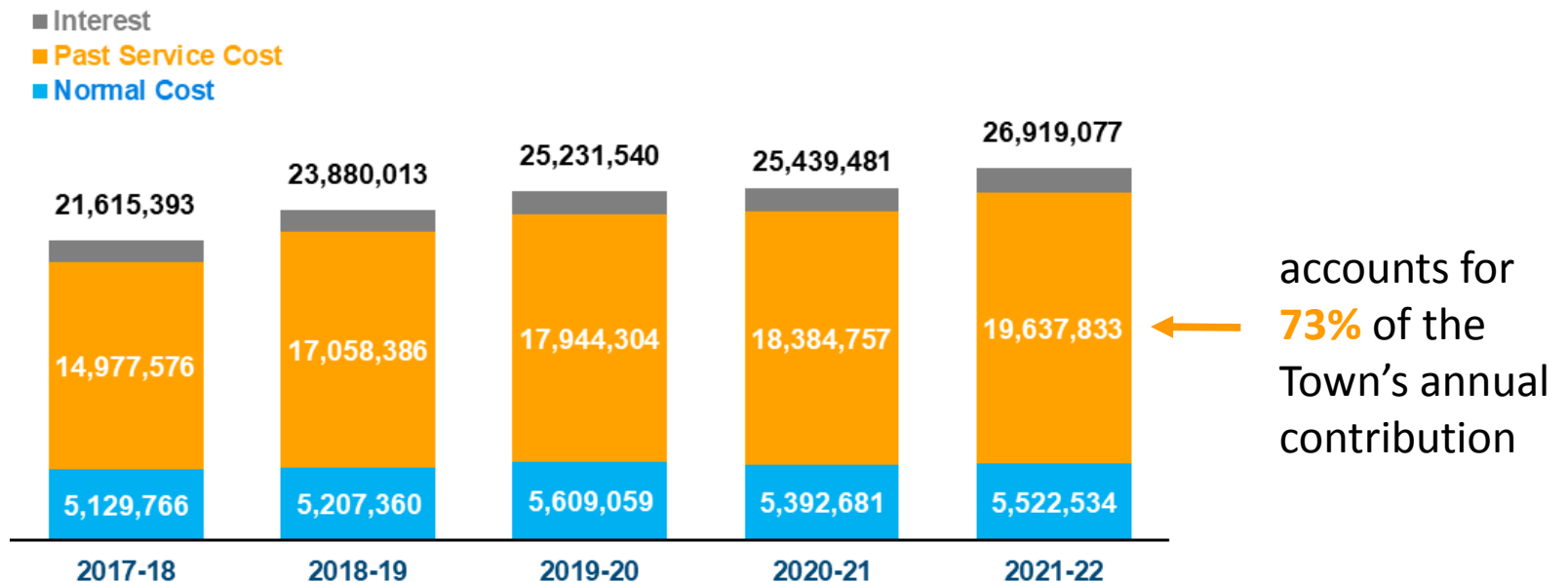
Funded Ratio





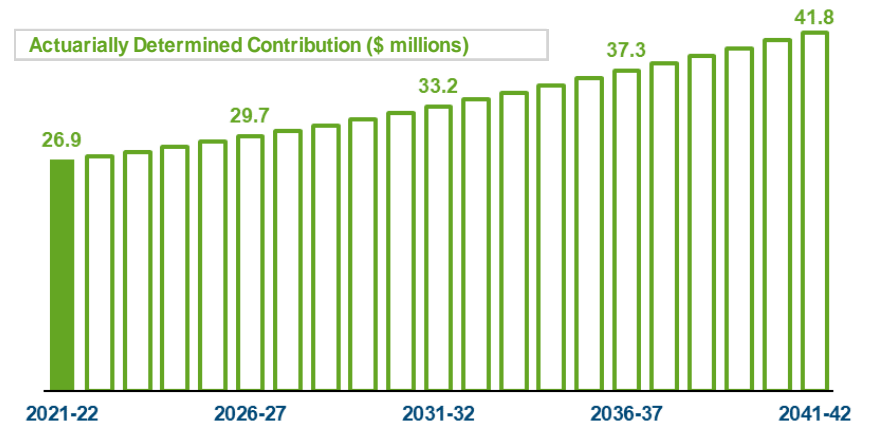
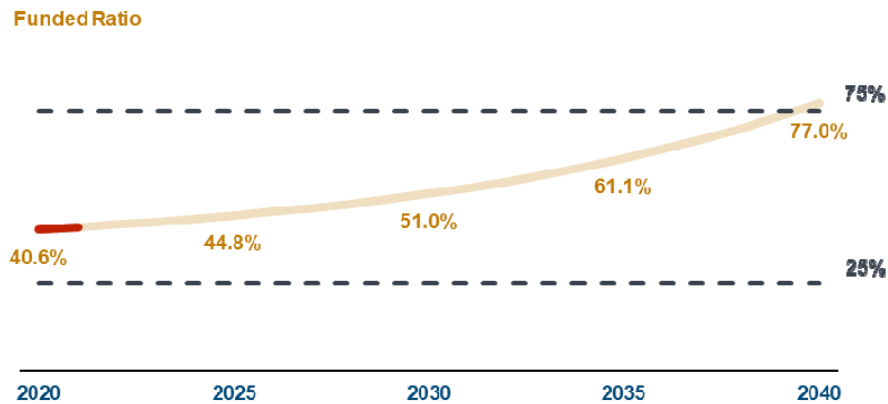
# What is the Plan's Current Financial Picture?

The Town's annual contribution, termed the **Actuarially Determined Contribution**, consists of three pieces: a **Normal Cost** payment to fund the benefits earned by active employees each year, a **Past Service Cost** to gradually pay off the Unfunded Accrued Liability, and **Interest** to reflect the timing of the contribution relative to the valuation date:



# What is the Plan's Future Financial Picture?

If the Town pays the Actuarially Determined Contribution each year, the investments earn exactly the assumed interest rate each year, and there are no changes in the plan provisions or in the actuarial methods and assumptions, then the actuaries project the following changes in the plan's funded status and the long-range contribution levels\*:



\*\* Based on the 6.99% interest rate assumption used for the July 1, 2020 valuation; the POB projections presented later are based on a 6.25% interest rate assumption starting on July 1, 2021.

# Pension Obligation Bonds

## What is a Pension Obligation Bond ?

***“A Pension Obligation Bond (POB) is an instrument of indebtedness issued by a municipal or State entity to fund all or a portion of the Unfunded Actuarially Accrued Liability (UAAL) for its pension plan.”***

Despite their name, POBs are obligations of the Town and not the Pension Fund. The Town will make a General Obligation pledge of its full faith and credit toward repayment. Because POB's are essentially arbitrage bonds, they must be issued as taxable bonds, which typically carry interest rates that are 75 to 100 basis higher than tax-exempt bonds.

## What is the Purpose of POB's ?

POB's are intended to take advantage of potential arbitrage opportunities. The bond proceeds, when invested as part of pension assets in higher yielding asset classes, should achieve a long-term rate of return that is greater than the interest rate owed over the term of the bonds.

Example: Expected Long-Term Asset Growth:	6.25%
Bond True Interest Cost:	<u>3.00%</u>
Variance (Arbitrage):	3.25%

## **What Component of the Overall Pension Liability will be Impacted ?**

The significant portion of the pension cost is funding the Unfunded Accrued Liability, or the cost associated with benefits that were earned in the past but are not currently matched with plan assets. Pension Obligation Bonds (POB's) are issued only to address this liability.

## **Primary Areas of Consideration:**

- Legal Implications**
- Short and Long Term Market Conditions**
- Credit Rating Implications**
- Proposed Financial Outcome**

**Legal Implications:**

**Matt Ritter, Bond Counsel**

**Shipman & Goodwin**



## What Role Does the State of CT Play ?

Connecticut General Statute 7-374c requires that the municipality seeking to issue pension deficit funding bonds notify the Secretary of OPM of the Town's intent and include the following documentation in that notice:

- a) An actuarial valuation
- b) An actuarial analysis of the method by which the municipality proposes to fund any unfunded past benefit obligation not defrayed by the pension deficit funding bonds
- c) An explanation of the municipality's investment strategic plan; including an asset allocation plan
- d) A three year financial plan, including the major assumptions and plan of finance of the pension deficit bonds
- e) A comparison between the effects of funding the unfunded past benefit obligation with pension deficit bonds as compared to maintaining the current funding process through the **Actuarially Determined Employer Contribution (ADEC).**
- f) Documentation and Bond Counsel's opinion of the municipality's authorization of the issuance of pension deficit funding bonds.
- g) Documentation that the municipality has adopted an ordinance, by two thirds vote of the Town Council, requiring the municipality to appropriate funds in an amount to meet the ADEC
- h) Identify the methodology used and actuarial assumptions that will be utilized to calculate the ADEC
- i) Prepare a draft Official Statement with respect to the issuance of pension deficit funding bonds
- j) Provide any other information as required by the OPM Secretary and State of Ct. Treasurer.

**Short and Long Term Market Conditions:**

**Chris Kachmar, Pension Investment Advisor**

**DiMeo Schneider & Associates, L.L.C.**

## Pension Plan – Background & Project Framework

- At December 31, 2020, the value of the invested assets supporting the pension plan stood at \$254.3 million.
- The asset allocation strategy currently in place today entails the following allocations: 65% to global equities, 30% to fixed income and 5% to real estate.
- The portfolio's annualized investment return for the ten (10) year period ending December 31, 2020 has been 9.5% (6.6% annualized for twenty (20) yr. period ending in Dec. 2020).
- The investing environment has become more unsettled in 2020/21 as efforts to manage the pandemic have impeded near term economic activity. Market resiliency aided by stimulus pledges and developments on the vaccination front.
- DSA updates its capital market projections at least annually and regularly models the return potential of the portfolio.
- Expectations for investment returns have been modifying more recently. We share this sentiment and our assumptions reflect this possibility.
- DSA uses proprietary allocation methodologies to inform our portfolio construction efforts and periodically validates our assumptions and approach against industry norms.
- Intent is to construct a portfolio demonstrating the potential for, at least, a 6.25% annualized return.

## Town Pension & POB Proceeds

- Bonds to be sold in late spring 2021 with proceeds of approximately \$360 million.
  - Current portfolio value is roughly \$254.3 million, combining for a total asset pool of roughly \$614 million.
- Dollar cost averaging strategy to be employed across six (6) quarters with roughly \$60 million invested each quarter.
- Current pension allocation models to 6.30% expected rate of return (POB target = 6.25%).
- Prior to being invested into the pension account, POB proceeds will be held in conservative, shorter duration bonds, which will, initially, bring down the expected rate of return of the combined asset pool.
- Utilizing this strategy (and all things being equal), we forecast an approximate \$10.4 MM opportunity cost loss over the six (6) quarter period versus investing all of the funds immediately upon their receipt.
- Over the remaining 23.5 years of the life of the bonds, that deficit can be made up by increasing the expected rate of return of the portfolio by 7.5 basis points to 6.375%.

## Dollar Cost Averaging Implications

- Dollar cost averaging divides the total amount of money to be invested over the course of multiple purchases in order to reduce the effects of market volatility.
- For the Town of West Hartford specifically, this would entail a DCA strategy over six (6) quarters rather than investing all of the POB proceeds up front.
- As a result, the asset allocation of the combined portfolio will initially shift to be far more conservative to protect the principal of the POB proceeds that have yet to be invested.
- Over the course of the six (6) quarters, funds will be invested in the main pension fund according to targets that will change as the DCA plan proceeds, eventually mirroring the original allocation once all proceeds have been invested.
- There is an opportunity cost to not investing all the proceeds up front which can be addressed by adjusting the allocation to have an increased expected rate of return for the remaining life of the bonds.
- There may also be times (i.e., a market downturn) where it makes sense to accelerate all or a portion of the next DCA investment in order to take advantage of an evolving market scenario.
- These factors will be taken into account when considering changes to the Investment Policy Statement for the pension plan.

# **Credit Rating Implications:**

**Bill Lindsay, Financial Advisor**

**Munistat Financial Advisors. LLC**

# Credit Implications of Pension Bonds

## General Considerations:

- Issuance of Pension Bonds would be neutral or negative to an issuer's credit rating. Degree of impact will depend on several factors including:
  - Size of bond issue
  - Issuer's current debt load (leverage)
  - Rationale for issuance
  - Level of future savings
- Issuance of Pension Bonds changes nature of liability and creates additional risk including:
  - Budgetary risk – related to future savings in annual contributions which may not materialize
  - Default risk – missed bond payment would constitute a default
  - Loss of flexibility – Would apply to both loss of budgetary flexibility as State statute requires full funding of ADEC post issuance and potential crowding out of future debt financed projects

# Credit Implications of Pension Bonds

## Concerns Specific to West Hartford:

- Loss of budgetary flexibility in context of COVID-19 impact on State and local budget. Potential State aid volatility and the State's own pension issues is a serious concern
- Already elevated debt burden including overlapping debt from MDC
- Weaker credit fundamentals relative to peer group

## Mitigating / Credit Positive Factors:

- Financial management has historically been strong as evidenced by:
  - Consistently funding at recommended contribution (ADEC)
  - Systematically reducing discount rate
  - Taking steps to constrain benefits (Hybrid Plan; increased employee contributions)
- Creation of POB reserve/stabilization fund will reduce budgetary and default risk



**Proposed Financial Outcome:**

**Becky Sielman, Consulting Actuary**

**Milliman, Inc.**

## Details of the Proposed POB Arrangement

- The amount of debt issued will bring the plan to approximately 100% funded as of July 1, 2021, based on an interest rate assumption of 6.25%
- The POB proceeds will be deposited immediately into the pension trust, and gradually invested over a period of time
- The contribution the Town is budgeting for FY 2021-22 (\$26.9M) will be deposited into a reserve fund, which will be invested in low-yielding cash-like investments
- The reserve fund will be used to shield the Town from contribution volatility by picking up any year-over-year increases in the Actuarially Determined Contribution (ADEC) of more than 5%
  - ADEC increases by 4% means the Town's budgeted contribution increases by 4%
  - ADEC increases by 6% means the Town's budgeted contribution increases by 5% and the reserve fund contributes the remaining increase
- So long as the pension plan is modestly overfunded (up to 150% funded ratio) the Town will continue to contribute the Normal Cost on an annual basis; if the funded ratio exceeds 150% then the Town can take a contribution "holiday" by using the surplus to cover the Normal Cost

## How Does a POB Affect the Risks Faced By The Pension Plan?

- The plan currently has a significant Unfunded Accrued Liability
- Much of the Town's annual contribution to the pension plan is devoted to fully funding this over a long period of time
- This is a “soft” debt: there is no requirement to fully fund the pension plan
- A POB is a “hard” debt: the Town must pay the debt service
- The POB adds hundreds of millions of dollars to the pension plan's assets in order to make it fully funded now
- In theory, borrowing at 3% and investing the proceeds at 6.25% should save the Town money over the long term
- But if there is adverse market performance (relative to the 6.25% assumption), the plan may become underfunded again, and the Town would face higher contributions on top of paying debt service

## **How Does a POB Affect the Risks Faced By The Pension Plan?**

- In order to analyze the trade-off between cost savings and increased investment risk, we constructed 10,000 scenarios of possible investment performance over the next 30 years
- For each scenario, we analyzed the pension plan's financial picture and the Town's contribution level over the 30 year period
- We sorted the scenarios by outcome and displayed them graphically so we could see the most favorable outcomes, the least favorable outcomes, and the middle-of-the-road outcomes

# How Does a POB Affect the Risks Faced By The Pension Plan?

## Town of West Hartford Pension Plan

1/8/2021

Stochastic analysis of 10,000 randomly generated investment performance 30-year scenarios

Question:

What is the overall Town cost over the life of the POB?

How high could the Town's cost be in any one year?

How well funded will the plan be in 30 years?

Metric used to address question:

Net Present Value of Town Cost (\$ millions)

Highest One Year Town Cost (\$ millions)

Funded Ratio 2049

Output from 10,000 scenarios:

95th percentile  
95% of outcomes are this amount or lower

75th percentile  
75% of outcomes are this amount or lower

Median  
50% of outcomes are this amount or lower

25th percentile  
25% of outcomes are this amount or lower

5th percentile  
5% of outcomes are this amount or lower



Scenarios where reserve fund is fully depleted

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# How Does a POB Affect the Risks Faced By The Pension Plan?

- We used the same stochastic analysis process to analyze how each of the elements of the POB package would impact the likely outcome:
  - ✓ Amount of POB to issue (conclusion: become 100% funded with the proceeds)
  - ✓ Length of bond term (conclusion: 25 years)
  - ✓ Interest rate on bond (TBD based on market conditions)
  - ✓ Amount to put into the reserve fund (conclusion: 100% of 2021-22 ADEC)
  - ✓ How the reserve fund is invested (conclusion: short-term cash equivalents)
  - ✓ Trigger for accessing the reserve fund to control ADEC volatility (conclusion: 5% of year-over-year ADEC increase)
  - ✓ Continuing to pay the Normal Cost when the plan is modestly overfunded (conclusion: 150% funded ratio threshold)

# Town of West Hartford Pension Plan

1/8/2021

Deterministic projections based on July 1, 2020 Valuation (in \$ millions) - 6.25% asset return scenario

Valuation 7/1	Return in Year Starting on Valuation Date for FYE	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio	Actuarially Determined Contribution	Reserve Fund Balance	ADC Paid from Reserve Fund	POB Debt Service	Town Cost w/POB: ADC - Reserve + Debt Svc	Town Cost, no POB: ADC only	Impact on Town Cost	
2019	2021	4.83%	\$510.8	\$209.1	\$301.8	41%	\$25.439	\$0.000	\$0.000	\$0.000	\$25.439	\$25.439	\$0.000
2020	2022	6.25%	531.0	215.8	315.2	41%	26.919	0.000	0.000	26.919	26.919	0.000	
2021	2023	5.37%	584.1	581.4	2.7	100%	7.454	26.919	0.823	20.961	27.592	29.074	1.482
2022	2024	6.19%	592.7	581.1	11.6	98%	7.963	27.708	0.137	20.961	28.787	29.738	0.951
2023	2025	6.25%	600.8	587.6	13.2	98%	8.087	27.673	0.000	20.961	29.048	30.369	1.321
2024	2026	6.25%	608.4	594.3	14.1	98%	8.164	28.343	0.000	20.961	29.125	30.998	1.873
2025	2027	6.25%	615.7	600.9	14.8	98%	8.260	29.173	0.000	20.961	29.221	31.668	2.447
2026	2028	6.25%	622.7	607.3	15.4	98%	8.378	30.028	0.000	20.961	29.339	32.382	3.043
2027	2029	6.25%	629.2	613.4	15.8	97%	8.465	30.908	0.000	20.961	29.426	33.085	3.659
2028	2030	6.25%	635.5	619.5	16.0	97%	8.590	31.813	0.000	20.961	29.551	33.847	4.296
2029	2031	6.25%	641.8	625.6	16.2	97%	8.731	32.745	0.000	20.961	29.692	34.645	4.953
2030	2032	6.25%	647.9	631.7	16.2	97%	8.885	33.705	0.000	20.961	29.846	35.478	5.632
2031	2033	6.25%	654.1	638.0	16.1	98%	9.047	34.692	0.000	20.961	30.008	36.340	6.332
2032	2034	6.25%	660.5	644.5	16.0	98%	9.180	35.709	0.000	20.961	30.141	37.193	7.052
2033	2035	6.25%	666.9	651.3	15.6	98%	9.322	36.755	0.000	20.961	30.283	38.076	7.793
2034	2036	6.25%	673.3	658.1	15.2	98%	9.457	37.832	0.000	20.961	30.418	38.973	8.555
2035	2037	6.25%	679.9	665.3	14.6	98%	9.598	38.940	0.000	20.961	30.559	39.898	9.339
2036	2038	6.25%	686.8	672.8	14.0	98%	9.748	40.081	0.000	20.961	30.709	40.853	10.144
2037	2039	6.25%	693.9	680.7	13.2	98%	9.886	41.256	0.000	20.961	30.847	41.817	10.970
2038	2040	6.25%	701.3	689.0	12.3	98%	10.034	42.465	0.000	20.961	30.995	42.816	11.821
2039	2041	6.25%	709.0	697.7	11.3	98%	10.178	43.709	0.000	20.961	31.139	43.835	12.696
2040	2042	6.25%	717.0	706.8	10.1	99%	10.355	44.990	0.000	20.961	31.316	44.912	13.596
2041	2043	6.25%	725.3	716.3	8.9	99%	10.519	46.308	0.000	20.961	31.480	46.002	14.522
2042	2044	6.25%	733.9	726.3	7.5	99%	10.697	47.665	0.000	20.961	31.658	47.132	15.474
2043	2045	6.25%	742.8	736.8	6.0	99%	10.881	49.061	0.000	20.961	31.842	48.294	16.452
2044	2046	6.25%	752.1	747.7	4.4	99%	11.047	50.499	0.000	20.961	32.008	49.465	17.457
2045	2047	6.25%	761.6	759.0	2.5	100%	11.256	51.978	0.000	20.961	32.217	50.707	18.490
2046	2048	6.25%	771.3	770.8	0.5	100%	11.470	53.501	0.000	0.000	11.470	51.983	40.513
2047	2049	6.25%	781.5	783.1	(1.6)	100%	9.842	55.069	0.000	0.000	9.842	9.842	0.000
2048	2050	6.25%	791.9	795.9	(4.0)	101%	10.075	56.682	0.000	0.000	10.075	10.075	(0.000)
2049	2051	6.25%	802.6	807.3	(4.6)	101%	10.318	58.343	0.000	0.000	10.318	10.318	0.000
2050	2052		813.9	819.3	(5.4)	101%	10.567	60.052	0.000	0.000	10.567	10.567	0.000
Net Present Value of Town Cost at fixed 3%										582.600	723.500	140.900	

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# Important Information About Milliman's Analysis

Milliman's stochastic analysis model is intended to give the Town a general idea of the potential impact of changes in the investment allocation and a potential Pension Obligation Bond on the future funded status of, and contributions to, the Pension Plan. This analysis is not intended to provide precise projections of current or future costs; Milliman will prepare annual actuarial valuations which will be the basis for the Town's actual contributions.

This analysis is based on the results of the July 1, 2019 actuarial valuation as well as the actual performance of the plan's assets during FY 2019-20, except that (a) the interest rate assumption for 2021 and beyond is 6.25%, and (b) the mortality assumption for 2020 and beyond is based on full adoption of the Pub-2010 mortality table with projection scale Ultimate MP-2019. The valuation results presented in this analysis were developed using models intended for valuations that use standard actuarial techniques. We also relied on Milliman's capital market assumptions and the investment return model maintained by Milliman's investment consultants for the investment return assumption recommendation and to generate the 10,000 investment return scenarios.

The stochastic analysis of the long-term expected return on plan assets is based on Milliman's capital market assumptions as of June 30, 2019 and assumes there are no future changes to the current target allocation.

As active members terminate or retire in future years, they are assumed to be replaced by new active members whose age, gender, and compensation are similar to that of new hires from the past several years. No replacement is assumed in the case of members who are in unions where new employees are not covered by the Pension Plan. The analysis assumes there are no future liability gains or losses and there are no future changes in the actuarial methods or assumptions or in the plan provisions, except as described herein.

The Town is assumed to pay the Actuarially Determined Contribution (ADEC) each year, except for FY 2021-22 when the POB proceeds will satisfy the ADEC and the funds that would have been budgeted to pay the ADEC will be placed in a reserve fund. The amortization of the Unfunded Accrued Liability is based on a closed 26-year amortization period starting on July 1, 2021 and continuing until the amortization period reaches 10 years, at which point the amortization method will change to 10-year layered bases. If the plan becomes significantly overfunded (defined as a funded ratio of 150% or higher), the surplus is assumed to be used to offset the Normal Cost. If the plan is less than 150% funded, the Town is assumed to continue to fund the Normal Cost even when the plan is overfunded.

The projections with the POB assume that the proceeds from the bond offering are deposited into the pension trust in early 2021 with the first debt repayment made on July 1, 2022 and annually thereafter. The debt schedule is based on an estimate of issuance expenses, a 25-year term, and a 3% interest rate on the debt, and assumes a level debt schedule.

The Town is assumed to establish a separate reserve fund on July 1, 2021 based on the amount that would have been budgeted for the FY 2021-22 ADEC were the POB not issued. The reserve fund is assumed to earn interest during the projection period based on stochastically generated returns for cash investments. The purpose of the reserve fund is to provide a cushion for the Town to use for pension contributions that are larger than expected. If the annual percentage increase in the ADEC is higher than 5%, the portion of the ADEC in excess of the threshold is assumed to be paid from the reserve fund.

The Net Present Value of the Town's annual costs is calculated using a discount rate of 3%.



# Important Information About Milliman's Analysis

The Government Finance Officers Association in their 2013 "Core Elements of a Pension Funding Policy" Best Practice stated that amortization periods should "never exceed 25 years, but ideally fall in the 15-20 year range". The Conference of Consulting Actuaries in their 2014 "Actuarial Funding Policies and Practices for Public Pension Plans" labels amortization periods longer than 25 years as a "Non-recommended Practice". A long amortization period coupled with level percent amortization produces a situation known as "negative amortization", where amortization payments are not sufficient to cover interest on the Unfunded Accrued Liability for a number of years. Absent a POB, the Town should be prepared for a period when the Unfunded Accrued Liability may potentially increase as a dollar amount and the funded ratio may potentially make very little progress towards 100%. Although extending the amortization period reduces Town contributions in the short term, this should not be considered a savings, but rather a deferral of contributions. Funding a pension plan is a "pay now or pay more later" proposition.

Differences between our projections and actual amounts depend on the extent to which future experience conforms to the assumptions made for this analysis. Actual experience will not conform exactly to the assumptions made for this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience. Future actuarial measurements may differ significantly from the current measurements presented in this analysis due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status), and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements.

Milliman's work is prepared solely for the internal business use of the Town of West Hartford. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: the Town may provide a copy of Milliman's work, in its entirety, to the Town's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Town; and the Town may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law. No third party recipient of Milliman's work product should rely upon Milliman's work product. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product. **If the results of Milliman's stochastic analysis are released, they must be released in their entirety including this slide and the previous slide.**

I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Rebecca A. Sielman, FSA

Principal and Consulting Actuary