

# Building Safeguards Into Pension Obligation Bonds

## Webinar

September 22, 2021

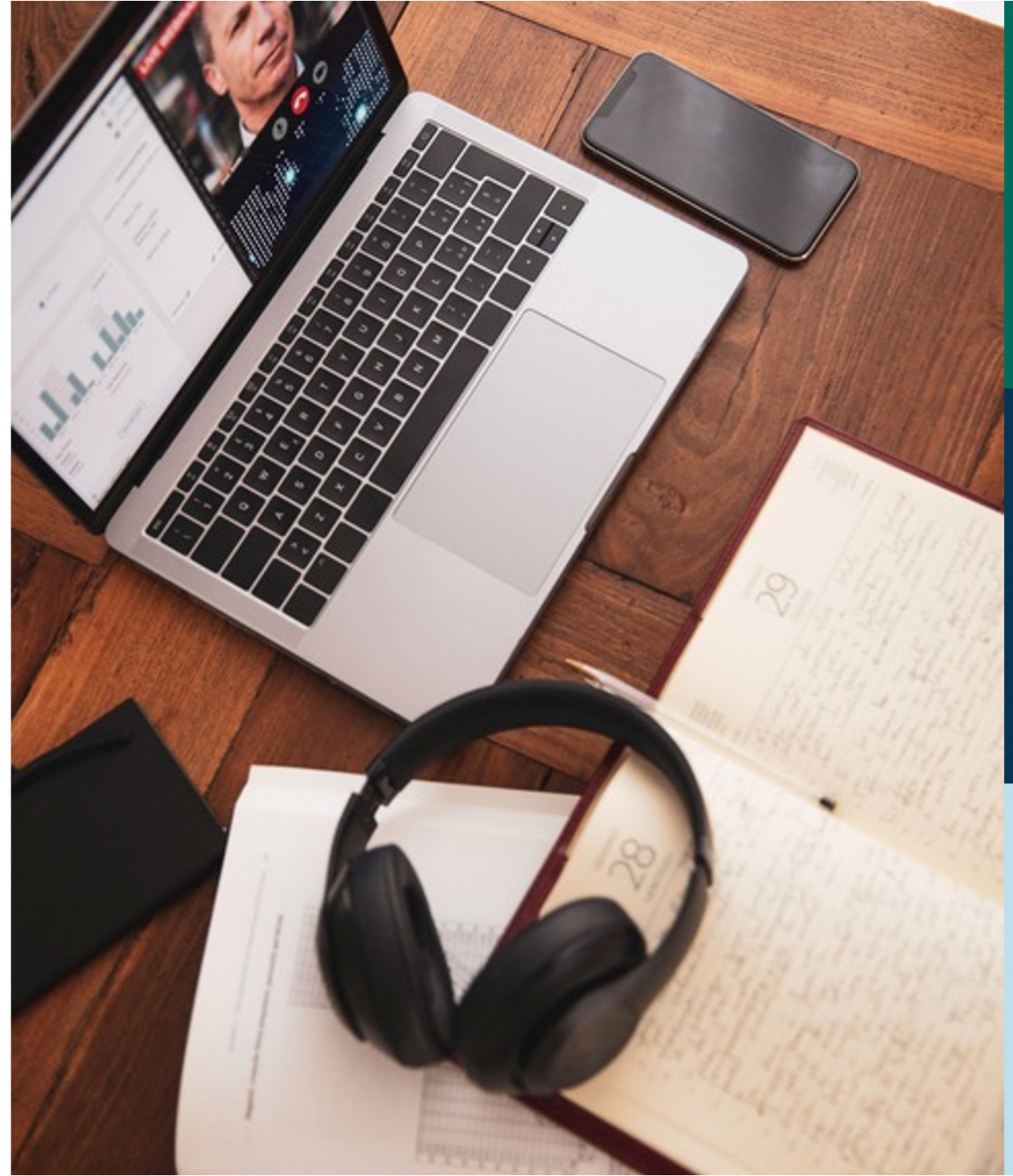


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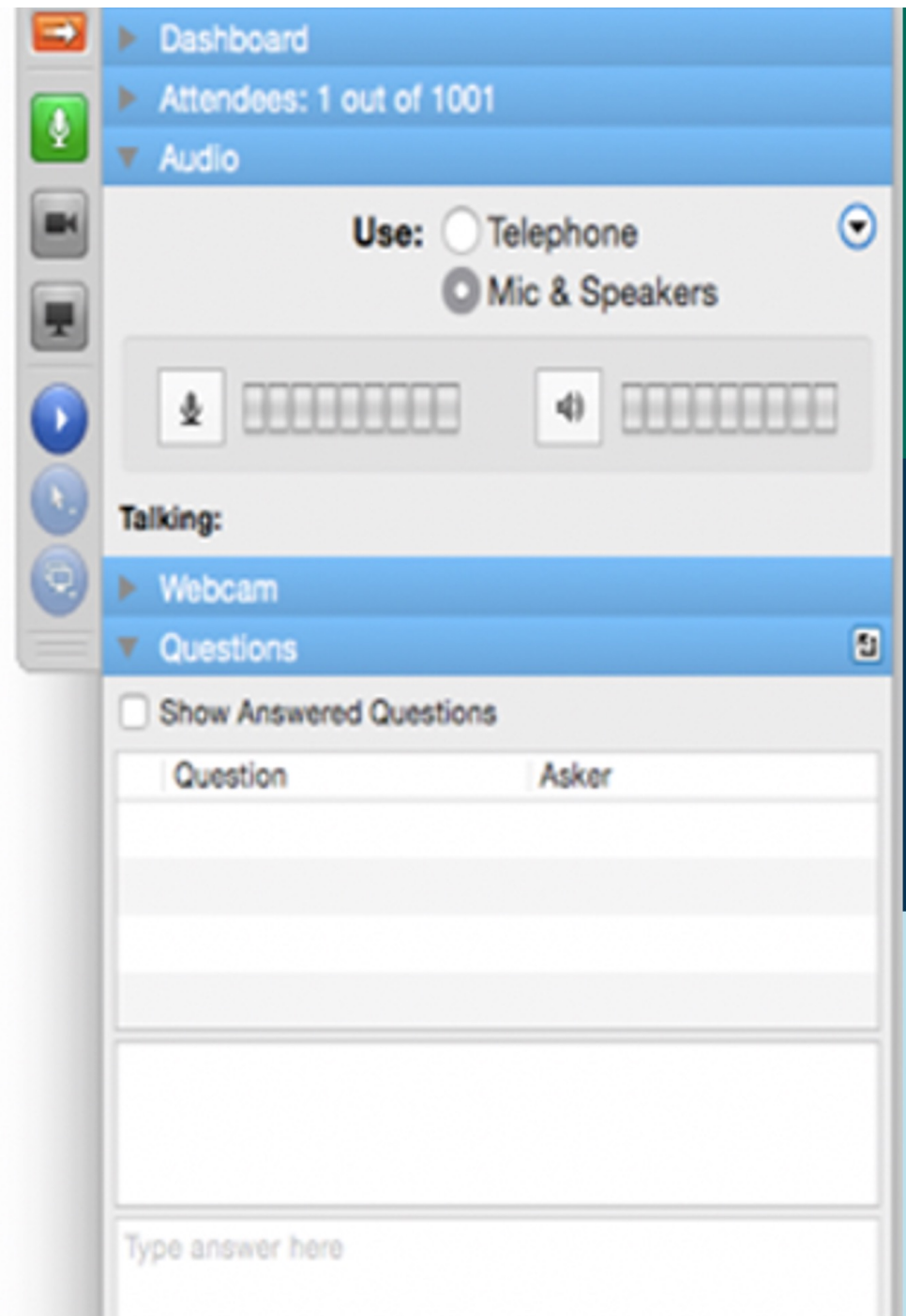
# Agenda

- Logistics and Introductions
- Review of POBs, Safeguards
- Q&A



# Logistics

- Attendees in listen only mode.
- Questions are welcome. Submit using “Question” function on control panel
- Audio/technical issues during webinar: call GoToWebinar at 1-800-263-6316
- Webinar replay and slides will be posted at [nirsonline.org/events](http://nirsonline.org/events).



# Speakers



**Dan Doonan**

NIRS Executive Director and Report Co-Author



**Becky Sielman, FSA**

Milliman Principal and Consulting Actuary

# What is a Pension Obligation Bond (POB)?

- Actuarially Determined Contributions to a pension plan consist of:
  - Normal Cost** = cost of benefits being earned each year by active members
  - Past Service Cost** = amount needed to fully fund plan over time

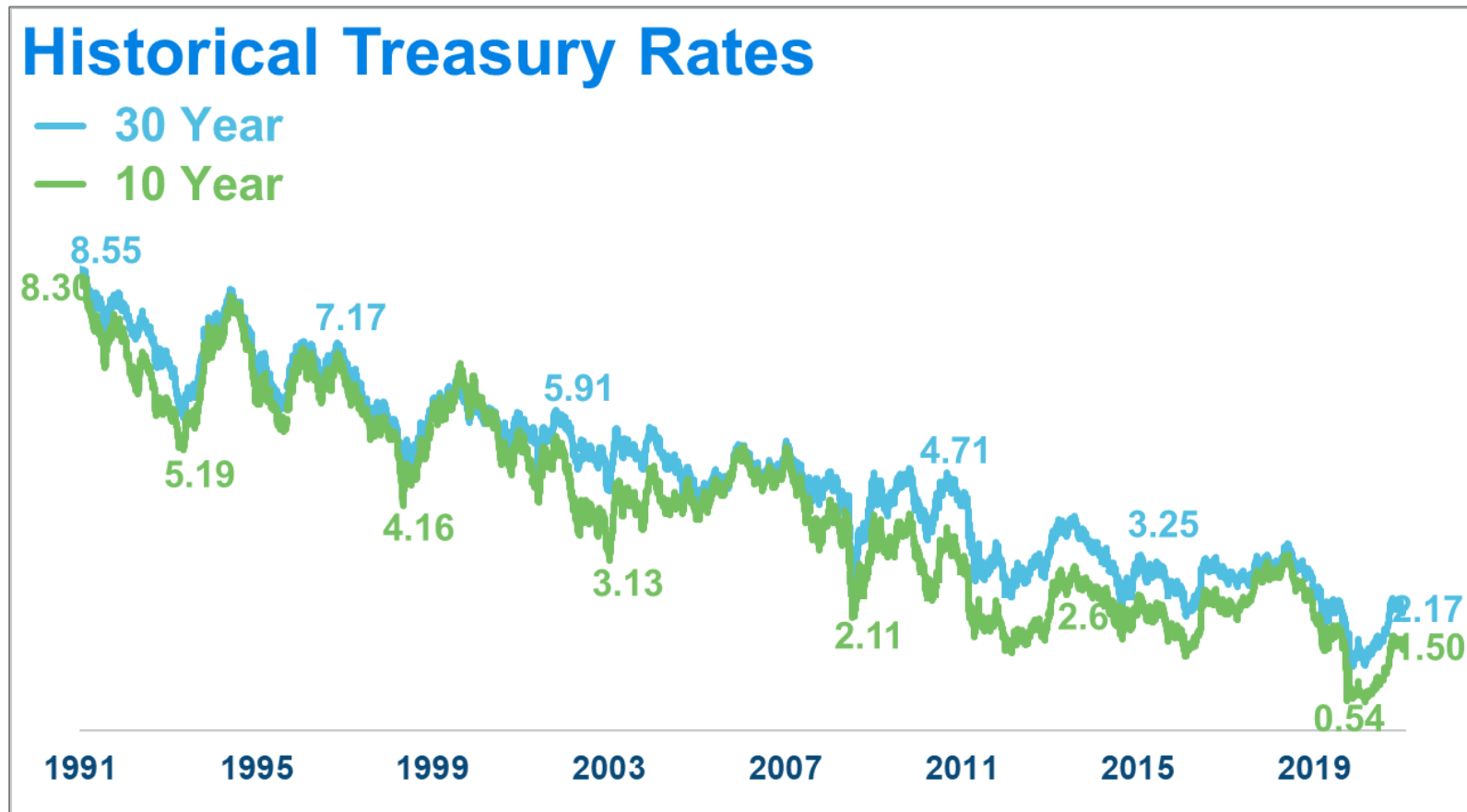


- Plan sponsor issues taxable municipal bonds to partially or fully fund the plan
- Bond proceeds (less issuance expenses) are deposited into the pension trust
- Unfunded accrued liability becomes smaller or zero, so **Past Service Cost** becomes smaller or zero
- But plan sponsor must pay **debt service** on the bonds (which is likely a smaller amount)



# Why the current interest in POBs?

- Bonds are at historically low interest rates
- Pension trusts typically earn higher long-term returns than bond rates

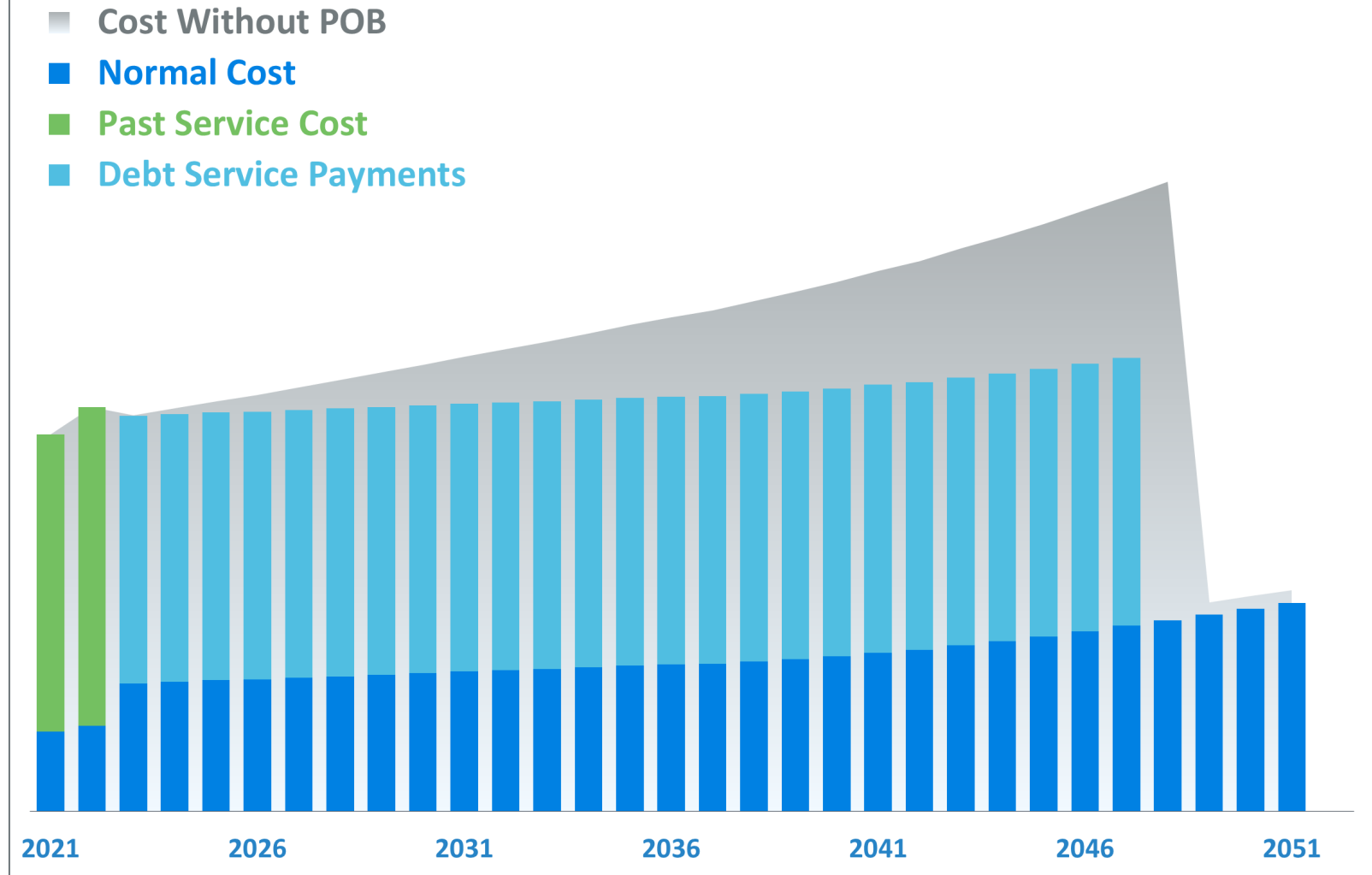


# Potential for savings over the term of the bond

Debt service on bonds replaces **past service cost** portion of annual contributions

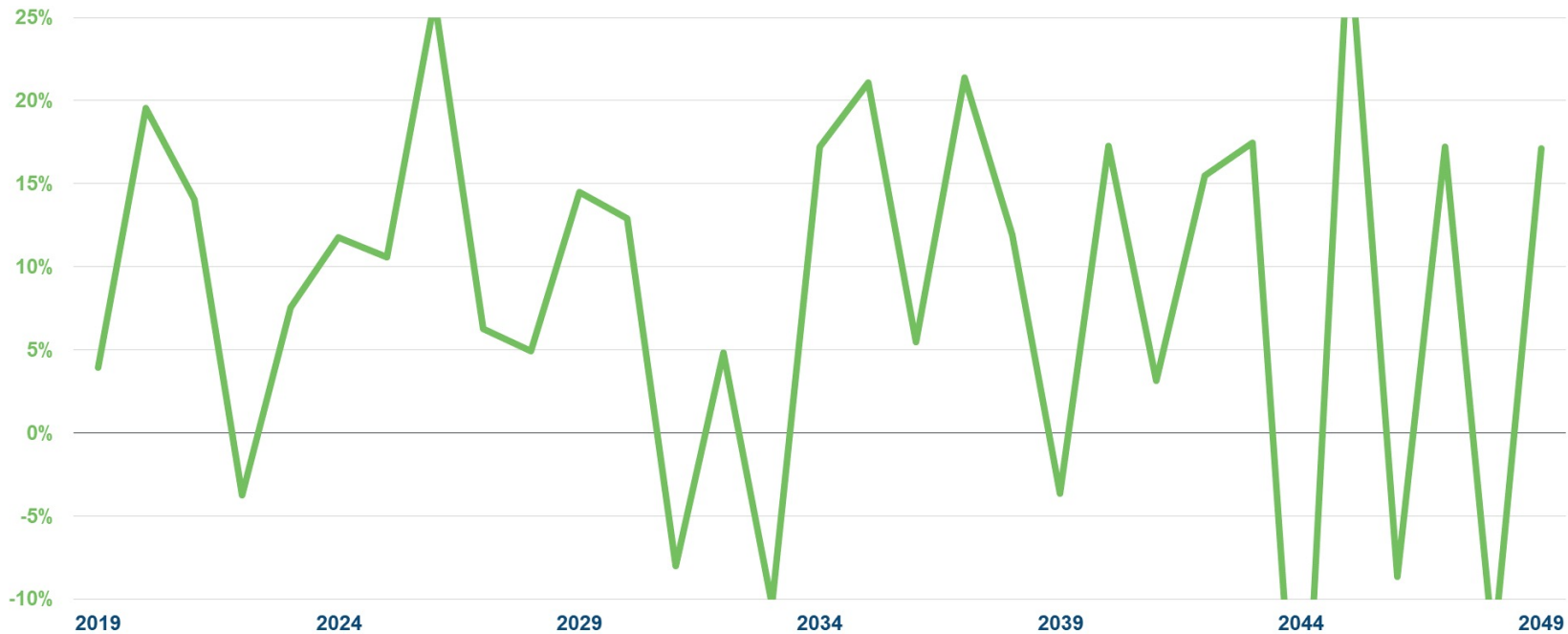
Earnings rate in pension trust *should* be higher than bond rate

## Long Range Forecast, 6.25% Investment Earnings



# What's the rub?

## Market returns are volatile



There is no guarantee that the pension trust *will* earn more than the bond rate

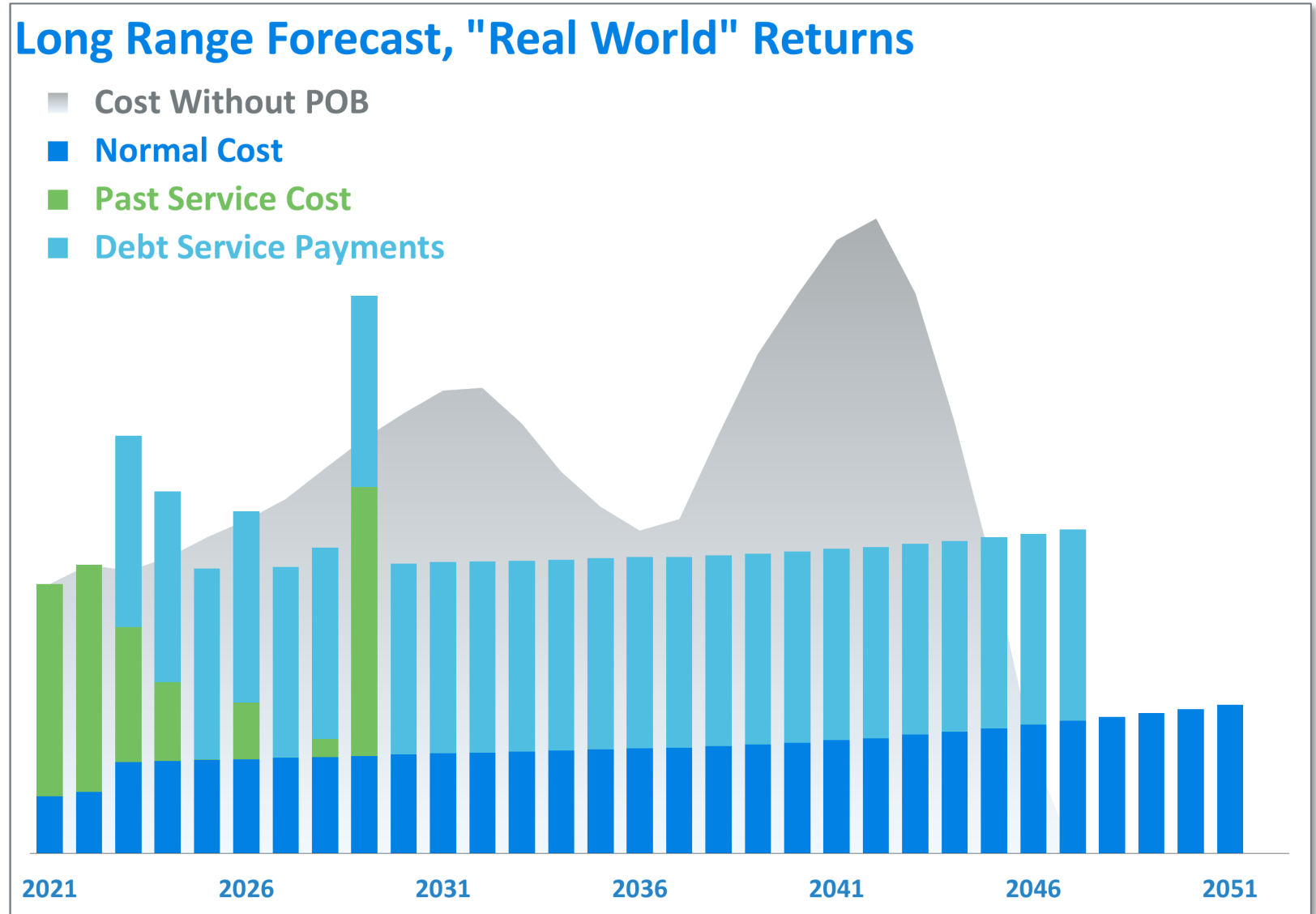
And a POB means there will be more assets that are subject to market risk



# Increased risk #1

Market downturns could cause plan to become underfunded; plan sponsor would face **past service cost** PLUS **debt service payments**

Overall cost to plan sponsor could be higher with the POB than without



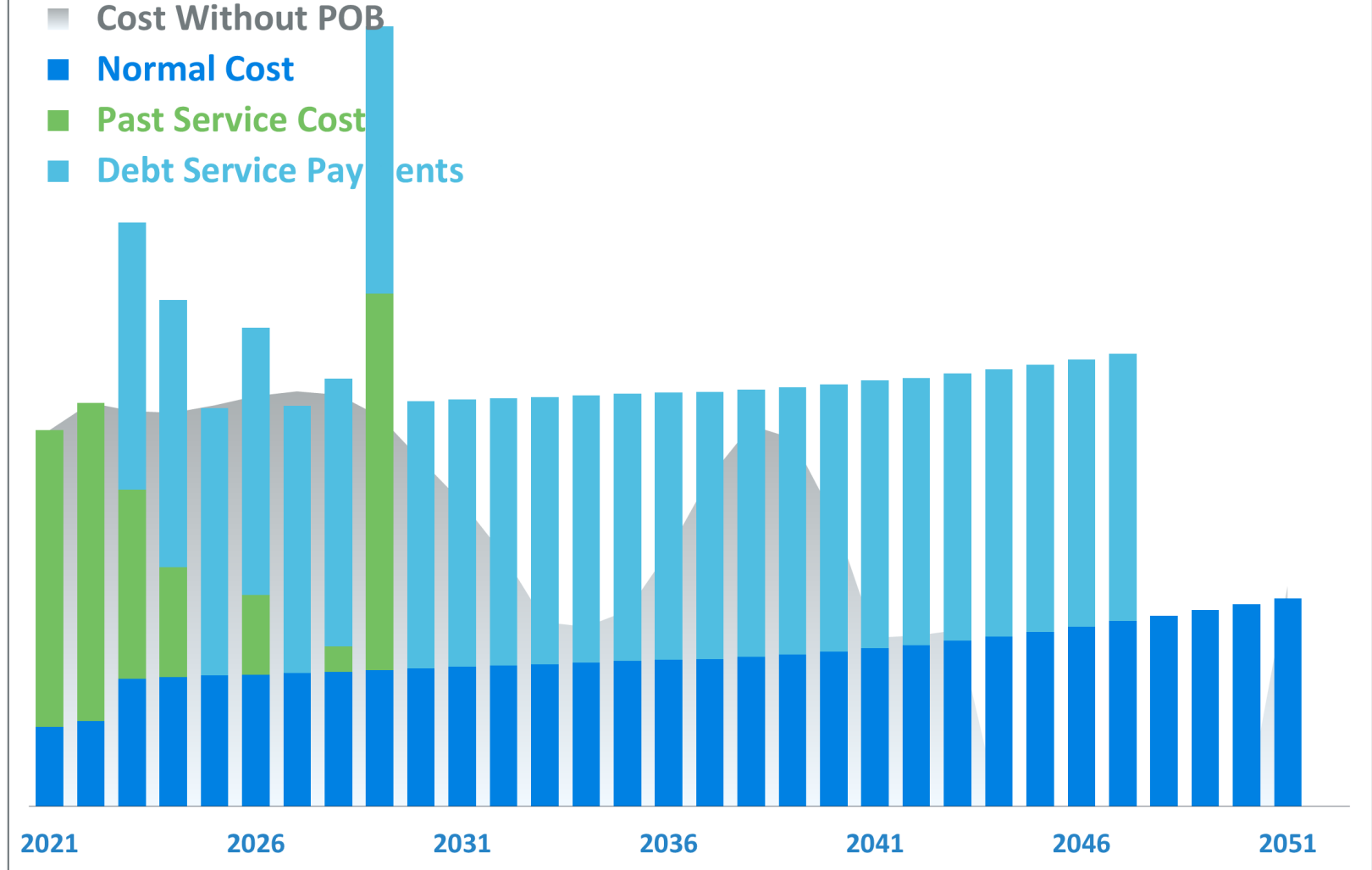
## Increased risk #2

Market could perform so strongly that the plan would have become fully funded **WITHOUT** a POB

Generally can't recover surplus from an overfunded plan

Overall cost to plan sponsor could be higher with the POB than without

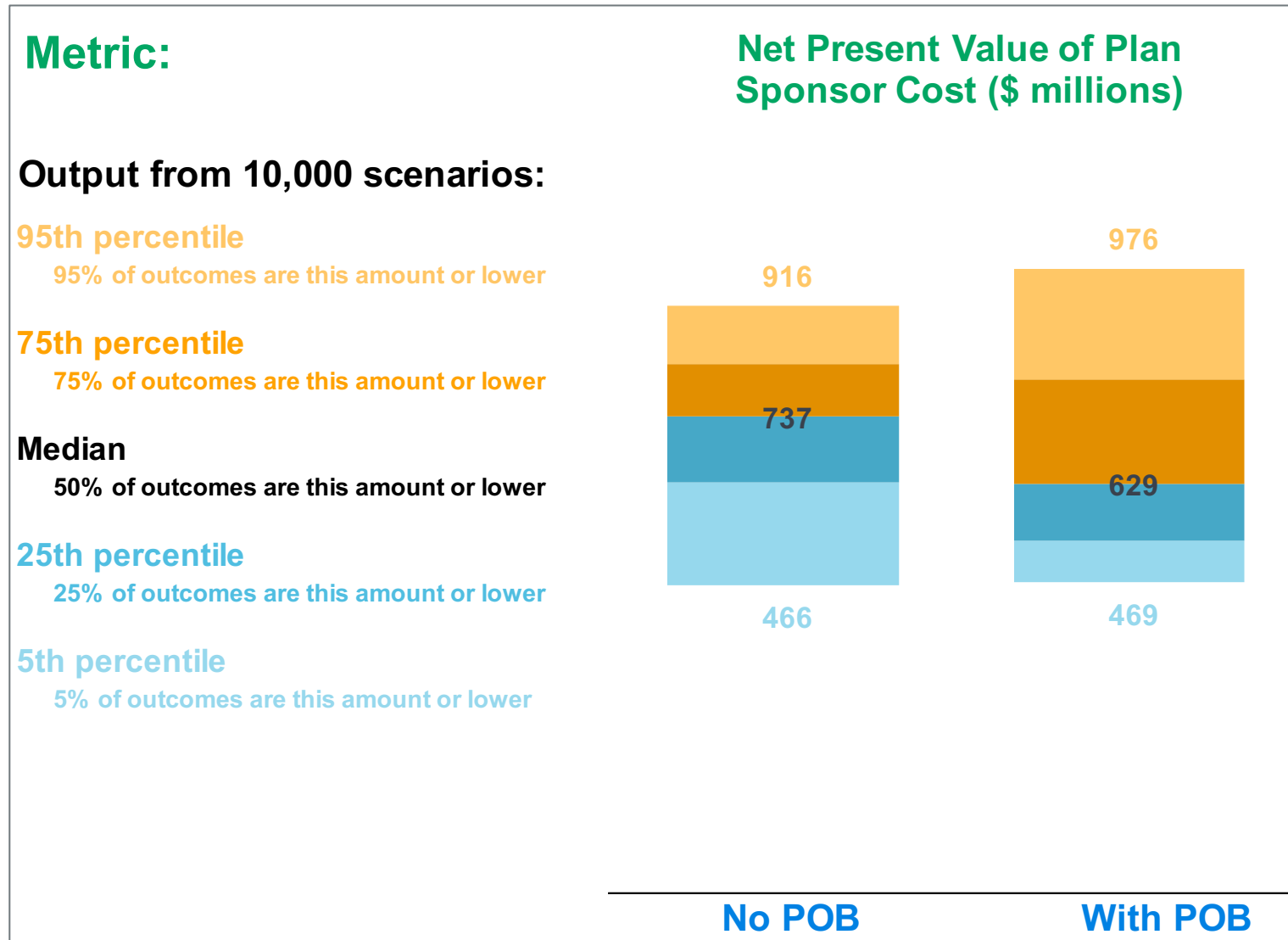
### Long Range Forecast, "Real World" Returns



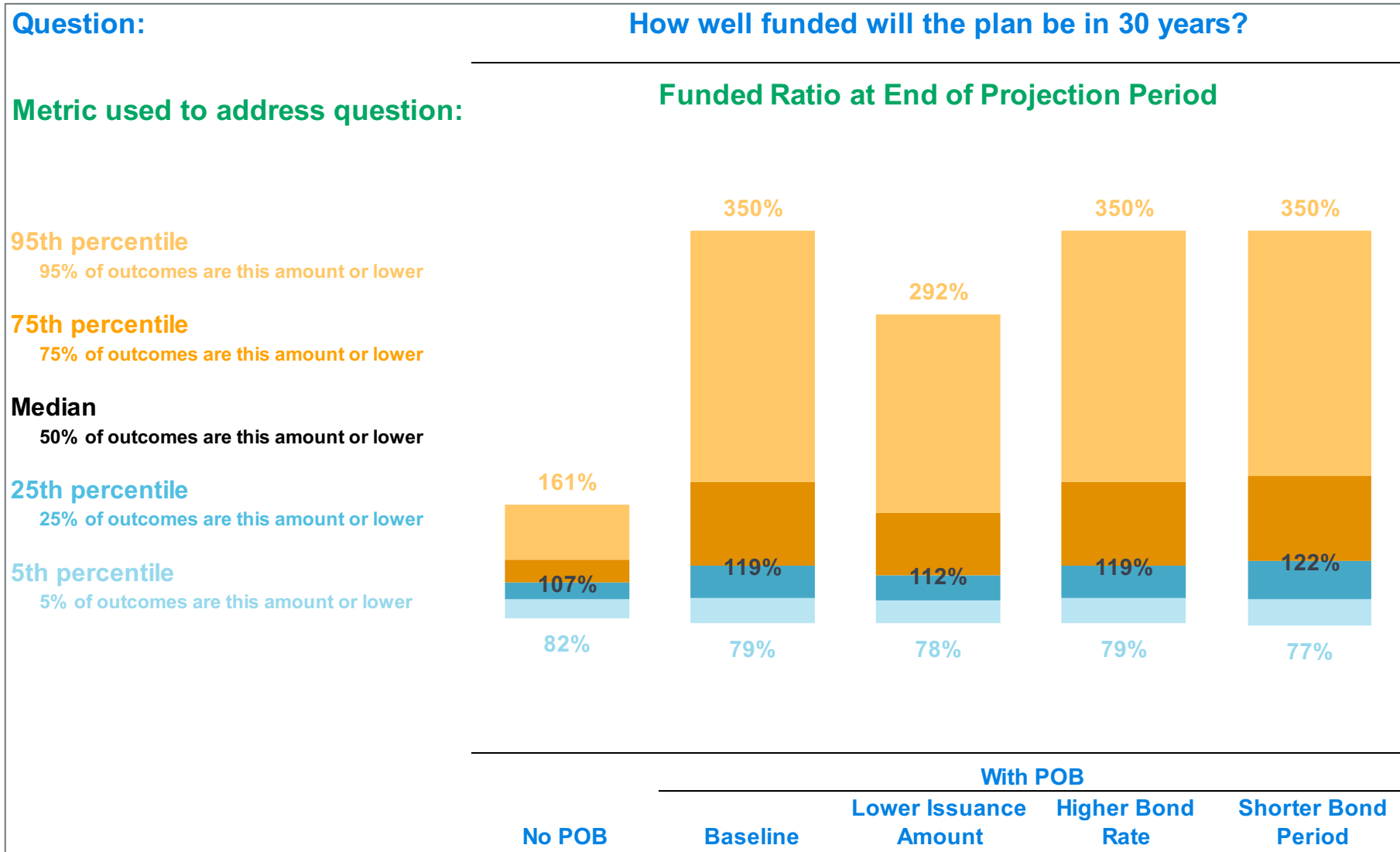
# Stochastic analysis is a must

- Run thousands of long-range “real world” investment return scenarios
- Quantify impact of market ups and downs on key financial metrics
- Measure risks versus rewards of a POB
- Explore how changes to the POB package impact the range of potential outcomes

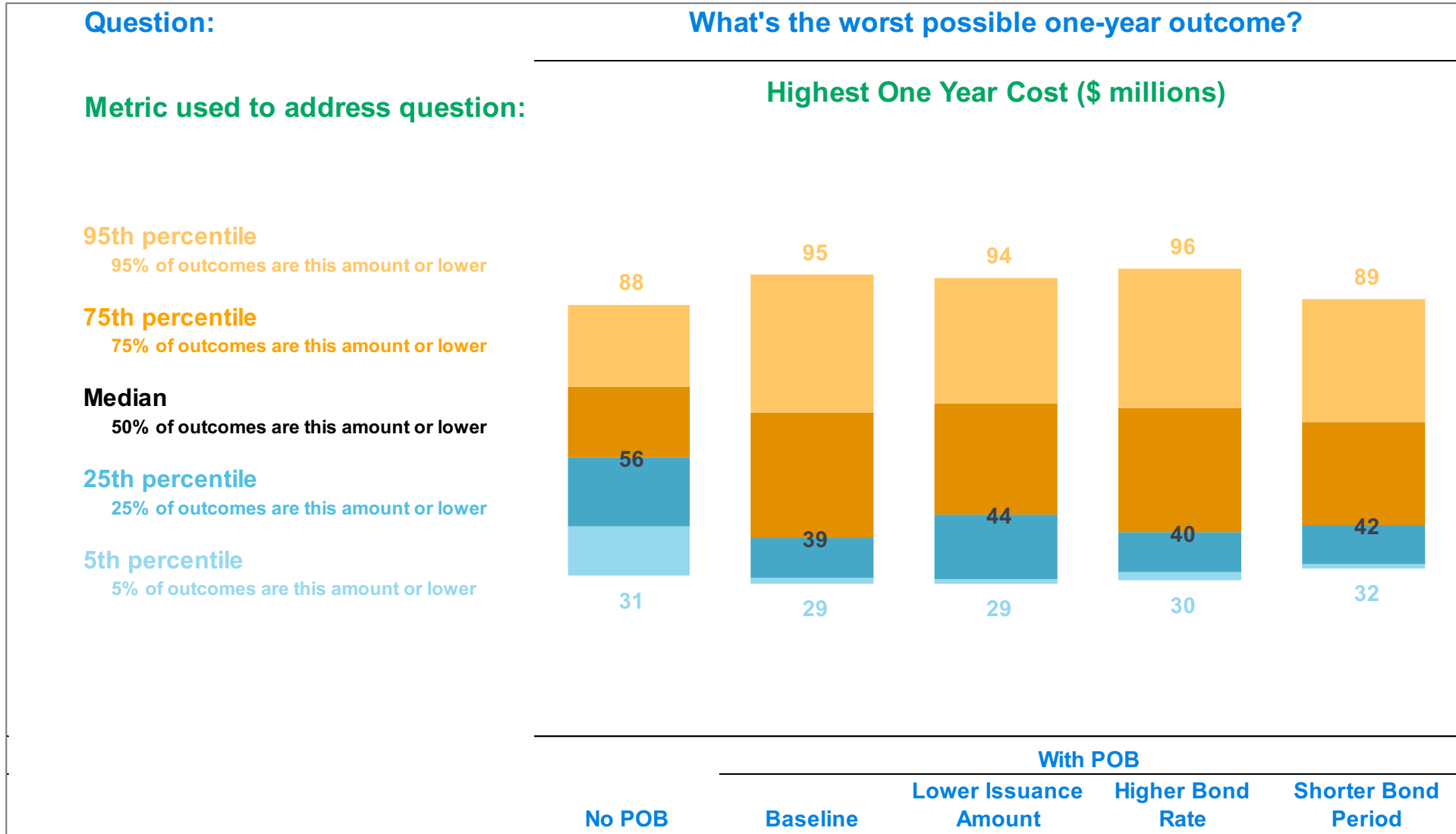
# Stochastic analysis: overall cost / savings



# Stochastic analysis: other metrics



# Stochastic analysis: other metrics



## Government Finance Officers Association recommends against POBs

1. The invested POB proceeds might fail to earn more than the interest rate owed over the term of the bonds, leading to increased overall liabilities for the government.
2. POBs are complex instruments that carry considerable risk. POB structures may incorporate the use of guaranteed investment contracts, swaps, or derivatives, which must be intensively scrutinized as these embedded products can introduce counterparty risk, credit risk and interest rate risk.
3. Issuing taxable debt to fund the pension liability increases the jurisdiction's bonded debt burden and potentially uses up debt capacity that could be used for other purposes. In addition, taxable debt is typically issued without call options or with "make-whole" calls, which can make it more difficult and costly to refund or restructure than traditional tax-exempt debt.
4. POBs are frequently structured in a manner that defers the principal payments or extends repayment over a period longer than the actuarial amortization period, thereby increasing the sponsor's overall costs.
5. Rating agencies may not view the proposed issuance of POBs as credit positive, particularly if the issuance is not part of a more comprehensive plan to address pension funding shortfalls.

# Safeguard #1: do your homework

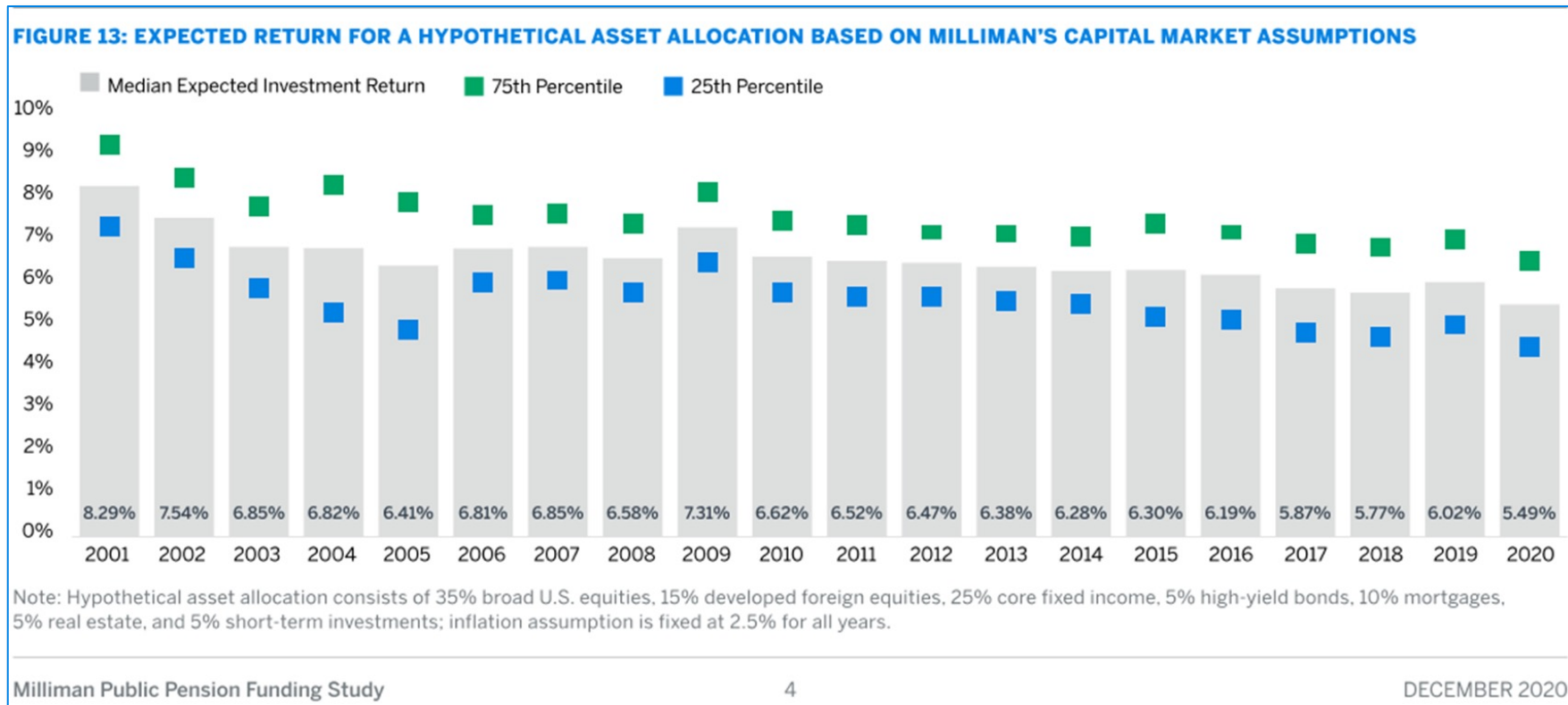
- Consult the experts
  - Actuaries
  - Financial advisors
  - Investment advisors
  - Bond counsel
- Quantify the risks
- Make sure all of the stakeholders fully understand the risks and the rewards
- Be thoughtful with the details



## Safeguard #2: plain vanilla bond structure

- Avoid “complex instruments”
- Level payment structure
- Match period of debt with period for amortizing unfunded accrued liability
- Avoid taking one-time funding holiday in year POBs are issued
- Don’t think of a POB as a way to solve short-term budget issues
- Limit the bond issuance to an amount that is well below the issuer’s debt capacity
- Consult with financial advisor regarding the likely credit rating implications

# Safeguard #3: conservative actuarial assumptions



- Expert thinking about future returns has been steadily dropping
- Adopt updated mortality tables
- Conduct an experience study

## **Safeguard #4: dollar cost averaging for bond proceeds**

- Gradually invest proceeds over a multi-quarter period
- Give up potential for near-term market upswing
- Avoid negative impact of near-term market downturn

## **Safeguard #5: pay the normal cost when modestly overfunded**

- An overfunded plan often may be able to use a surplus to partially or fully subsidize the normal cost and take a contribution holiday
- Change the funding policy to continue to pay the normal cost if the plan is more than 100% funded but less than some trigger threshold (e.g., 130%)
- Deliberately build up a cushion of surplus in “good times”
- May exacerbate likelihood that plan becomes extremely overfunded
- Surplus in the pension trust generally cannot be withdrawn for other uses

## Safeguard #6: establish a reserve fund for budget stability

- In the FY the POBs are issued, divert the contribution to a new reserve fund
- Invest the reserve fund in safe, low-yielding investments
- Use the reserve fund if a market downturn causes the contribution to go up by more than a trigger amount
  - Example: reserve fund trigger = 5%; Actuarially Determined Contribution climbs 8%
  - Operating budget pays first 5%
  - Reserve fund pays remaining 3%
- Add to the reserve fund if a market upswing causes the contribution to go down
- Reserve fund investments could be tapped for other purposes, unlike trust assets
- Give up potential for higher investment income
- Avoid budgetary volatility from market swings

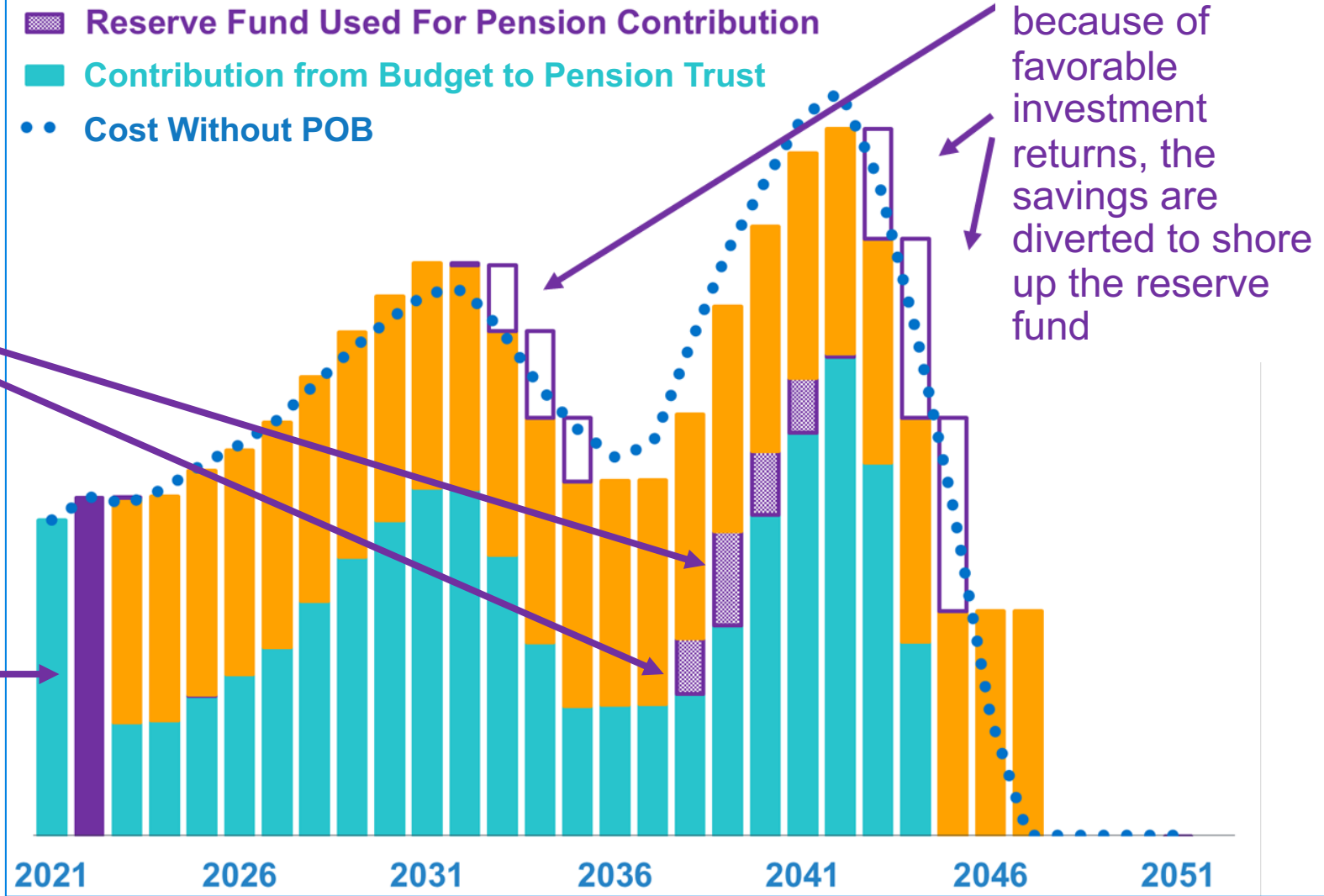
# Reserve fund in action

## Long Range Forecast, Scenario #2,398

- Initial Transfer to Reserve Fund
- Savings Diverted to Reserve Fund
- Debt Service Payments
- ▨ Reserve Fund Used For Pension Contribution
- Contribution from Budget to Pension Trust
- Cost Without POB

If the pension contribution goes up by more than x% from one year to the next because of market losses, the plan sponsor pays the first x% and the reserve fund pays the rest

The reserve fund is created with the contribution that would have been made the year the POBs are issued



If the pension contribution falls because of favorable investment returns, the savings are diverted to shore up the reserve fund

## Safeguard #7: safeguard the safeguards

- Ensure that funding policies are formally adopted
- Preserve the thought processes behind each safeguard
- Statutory oversight / regulations may exist
  - Connecticut law: plan sponsor is required to pay Actuarially Determined Contributions once a POB has been issued; cap on length of amortization period for Unfunded Accrued Liability

## Caveats

- The analyses shown herein are illustrative only. Each plan sponsor considering a Pension Obligation Bond should conduct their own rigorous analysis using their own professional advisors.
- There may be statutory limitations on the issuance of Pension Obligation Bonds, pre-issuance regulatory oversight, post-issuance conditions, and so forth; each plan sponsor should be aware of the applicable statutory environment.
- Each pension plan is different, so the impact of any of the “safeguards” described herein may have a greater or smaller impact.
- Using any or all of the “safeguards” may not protect a given pension plan from the impact of adverse market experience.
- The views expressed herein are those of the author, not of Milliman, Inc.



# Case Study: How one town quantified & mitigated the risks

<https://us.milliman.com/-/media/milliman/pdfs/2021-articles/4-1-21-pob-white-paper.ashx>

## Pension obligation bonds – a case study: How one town quantified and mitigated the risks

Yelena Pelletier, ASA, EA, MAAA



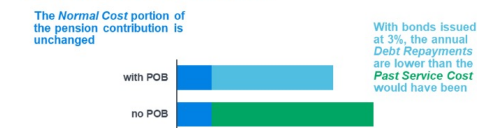
Pension obligation bonds are one tool a municipality or state may use to fund its defined benefit (DB) pension plan. Like most funding vehicles, they come with risks and possible rewards. This paper will outline the process that the Town of West Hartford, Connecticut, used to assess the associated risks and rewards, and the measures they put in place as part of their pension obligation bond package to reduce those risks.

### Pension obligation bond mechanics

A pension plan has assets and liabilities. Each year, the plan's actuary determines how much the plan sponsor needs to contribute to the pension plan in order to have enough assets to pay for the promised benefits. This amount is called the Actuarially Determined Contribution and it typically consists of two pieces: a Normal Cost to cover the value of the benefits being earned that year, plus a Past Service Cost to systematically pay off any unfunded accrued liability. The Past Service Cost is a payment toward the funding shortfall on any benefits that have already been accrued by plan members.

A pension obligation bond (POB) is a taxable bond issued by a municipal or state entity (in this paper we use the term "plan sponsor" for the governmental entity that is responsible for paying the cost of pension benefits). The plan sponsor uses the bond proceeds to fund some or all of the pension plan's unfunded accrued liability, and then pays off the debt created by the POB over several years. Essentially, the plan sponsor eliminates some or all of the Past Service Cost portion of its annual contribution to the pension trust fund while at the same time incurring an annual debt service payment on the bonds. In the current low interest rate environment, the interest rates on taxable municipal bonds are at or below 3%. This creates the opportunity to borrow at a rate that is significantly lower than the assumed returns that the pension plan investments might earn over the long term, thereby reducing the plan sponsor's long-term cost. See Figure 1 for an illustration of the potential annual cost savings.

FIGURE 1: ANNUAL TOTAL PLAN SPONSOR COST



One simple way to demonstrate the expected long-term outcome of offering a POB is to look at a deterministic projection. Such a projection shows relevant plan metrics over the lifetime of the bond based on a single fixed set of assumptions, including the future expected asset return. For example, it can show the plan sponsor's expected cost over the next 30 years in a hypothetical scenario where a bond is issued at 3.00% and the plan assets return 6.25% every year, as shown in Figure 2.

# Questions





# Thank you

[Becky.Sielman@milliman.com](mailto:Becky.Sielman@milliman.com)

(860) 331-0714