AN INTEGRATED APPROACH TO STRATEGIC PENSION LIABILITY MANAGEMENT

PART I: AUGUST 24, 2023

PART II: AUGUST 31, 2023

WEBINAR CONTENT

- **Part I: Management Strategies to Meet the Resurging Pension Challenge**
  - The Pension Challenge from Different Perspectives
  - Review of Pension Fundamentals
  - Introduction of Pension Management Strategies

- **Part II: Pension Management Strategies Applied**
  - Additional Detail and Analysis related to Pension Management Strategies
  - Considerations for Pension Funding Policies
  - Case Studies: City of Riverside, Orange County Fire Authority, and City of Arcata

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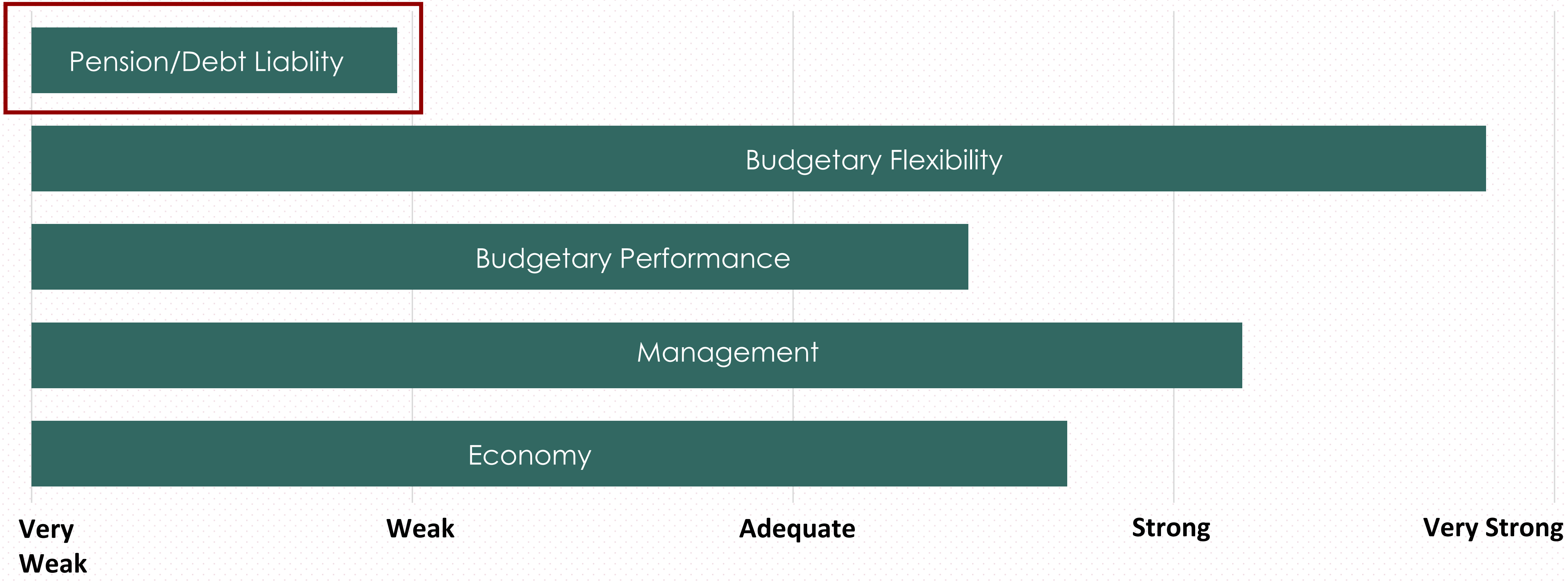
Part I: Management Strategies to Meet the Resurging Pension Challenge

The Pension Challenge from Different Viewpoints

(1) S&P Global: Credit Rating Agency

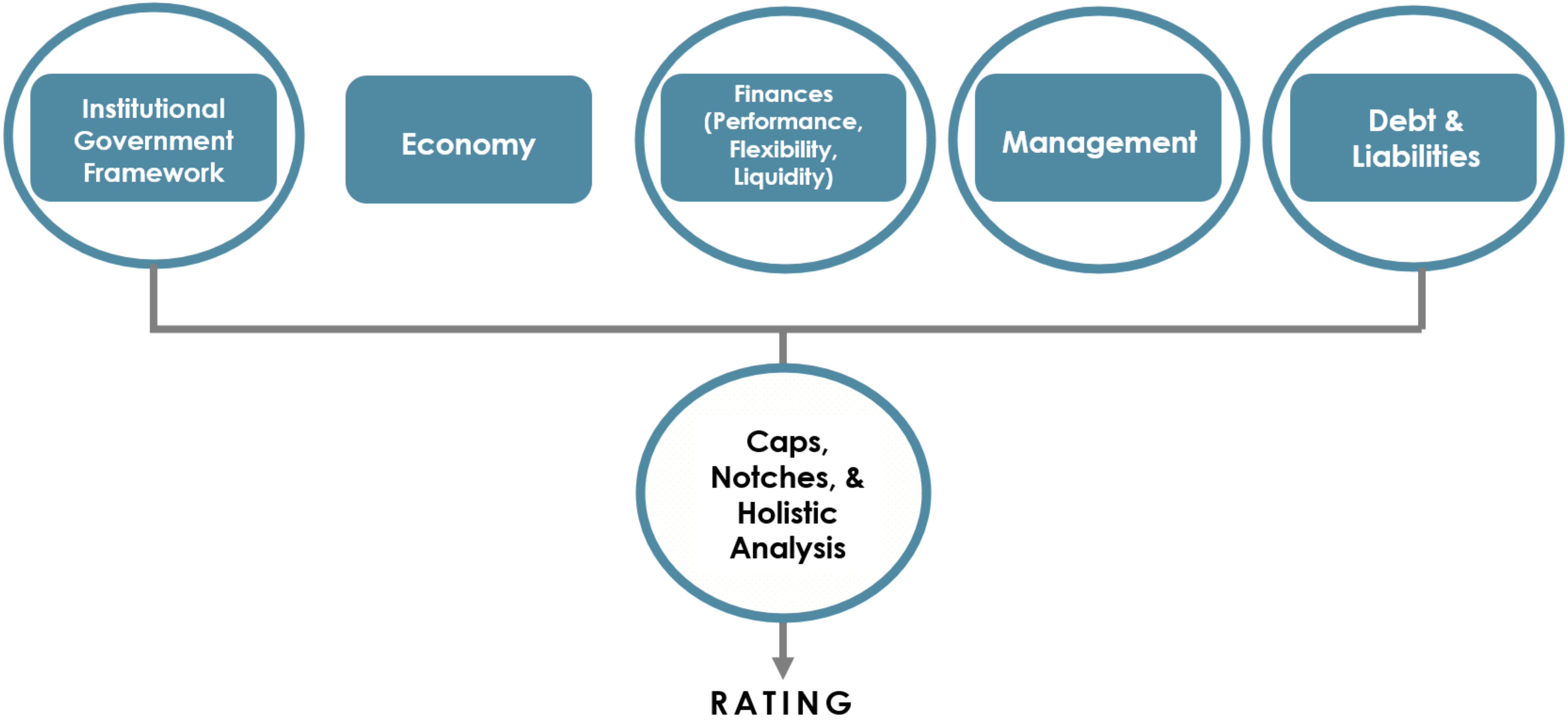
- 100 recent City general fund ratings randomly selected
  - Ratings range from BBB- to AAA; Average ICR: AA; Median ICR: A/A+
- **On average, California cities' Pension/Debt liability is "weak", whereas all other categories average "strong"**



The Pension Challenge from Different Viewpoints

(1) S&P Global: Credit Rating Agency

Pensions affect 4 of the 5 rating categories



Source – S&P Global Ratings "Quick Start Guide To S&P Global Ratings' Approach To U.S. State And Local Government Pensions"

S&P General Approach to Pensions

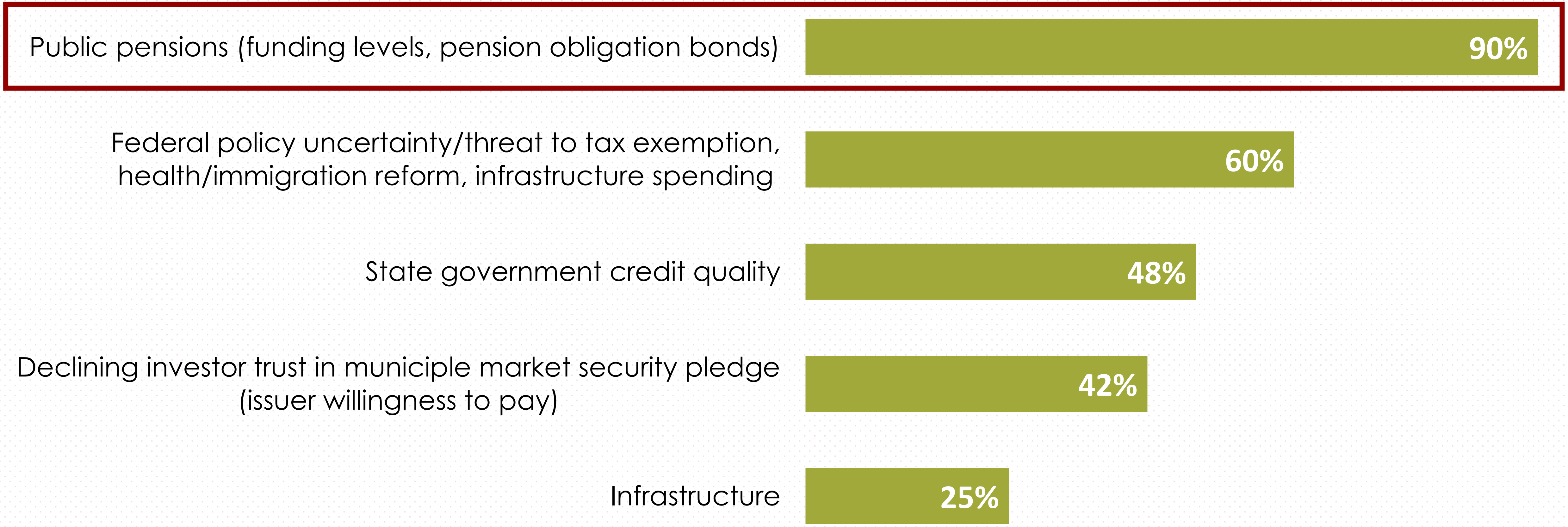
Has Evolved to a More Long-Term Focus on Funding Decisions

Source – S&P Global Ratings "Quick Start Guide To S&P Global Ratings' Approach To U.S. State And Local Government Pensions"

The Pension Challenge from Different Viewpoints

(2) Bond Investors – What Are They Concerned About?

Top Five Most Important Issues/Trends
Facing the Municipal Bond Market Today, 2018

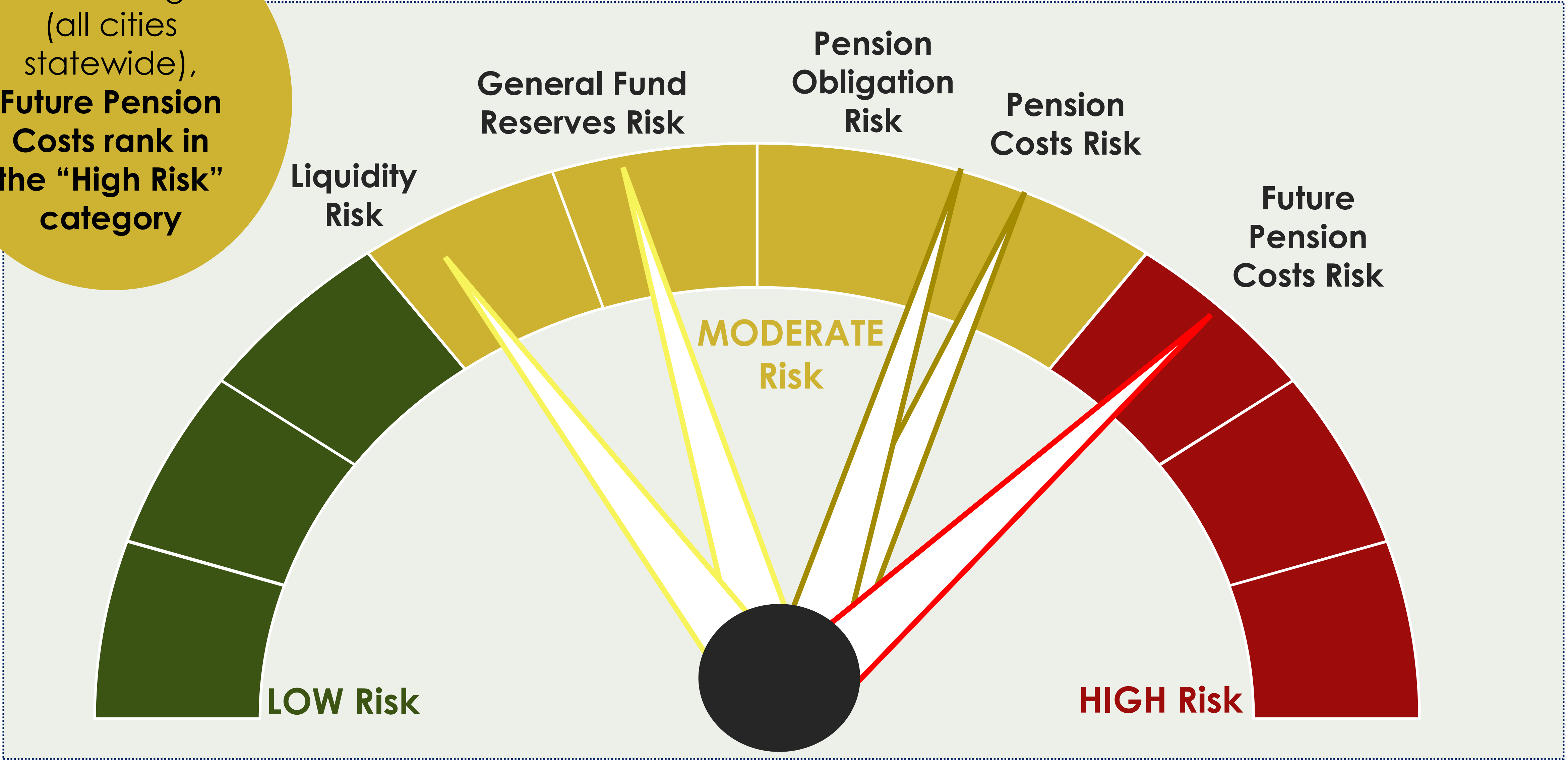


Source – PNC Municipal Bond Analyst Survey, March 2018

The Pension Challenge from Different Viewpoints

(3) State of CA Auditor – Fiscal Distress Risk Monitor

On average (all cities statewide), **Future Pension Costs rank in the "High Risk" category**



The California Pension Landscape

What Kind of Plans Do We Have?

- Statewide plans
- CalPERS, CalSTRS, UCRP
- County plans
- 20 CA counties run plans independently from CalPERS
- City plans
- Los Angeles, San Francisco, San Diego, San Jose, Fresno, etc.
- Other plans
- Transit Districts, Municipal Utilities, etc.

Pension Plan Basics

A Quick Review

Basic Retirement Calculation

Service Credit × **Benefit Factor** × **Final Compensation** = **Highest Pension Benefit** (Unmodified Allowance)

Service Credit

The number of years of service

Example:
2,087 hours = 1 year

Benefit Factor

Percentage of pay based on your age

Example:
General 2% @ 55
Safety 3% @ 50

Final Compensation

Your highest monthly average salary for a defined period

Example:
12 - 36 Consecutive Months

Highest Pension Benefit (Unmodified Allowance)

Your highest possible monthly benefit after you retire

Excerpt from CalPERS benefits description

Pension Plan Basics

A Quick Review

Calculating Benefits

Retirement Formula

SERVICE CREDIT
2,087 Hours = 1 Year

TIER 1
General 2% @ 55
Safety 3% @ 50

TIER 2
General 2.5% @ 67
Safety 2.7% @ 57

AGE
Ever ¼ Year Increases
Your Benefit Up To Max

Monthly Lifetime Benefit

FINAL AVERAGE COMPENSATION
Tier 1 – 12 Consecutive Months
Tier 2- 36 Consecutive Months

Excerpt from a County Retirement System's New Member Orientation

How Retirement Benefits Get Funded

Money Going In vs. Money Going Out

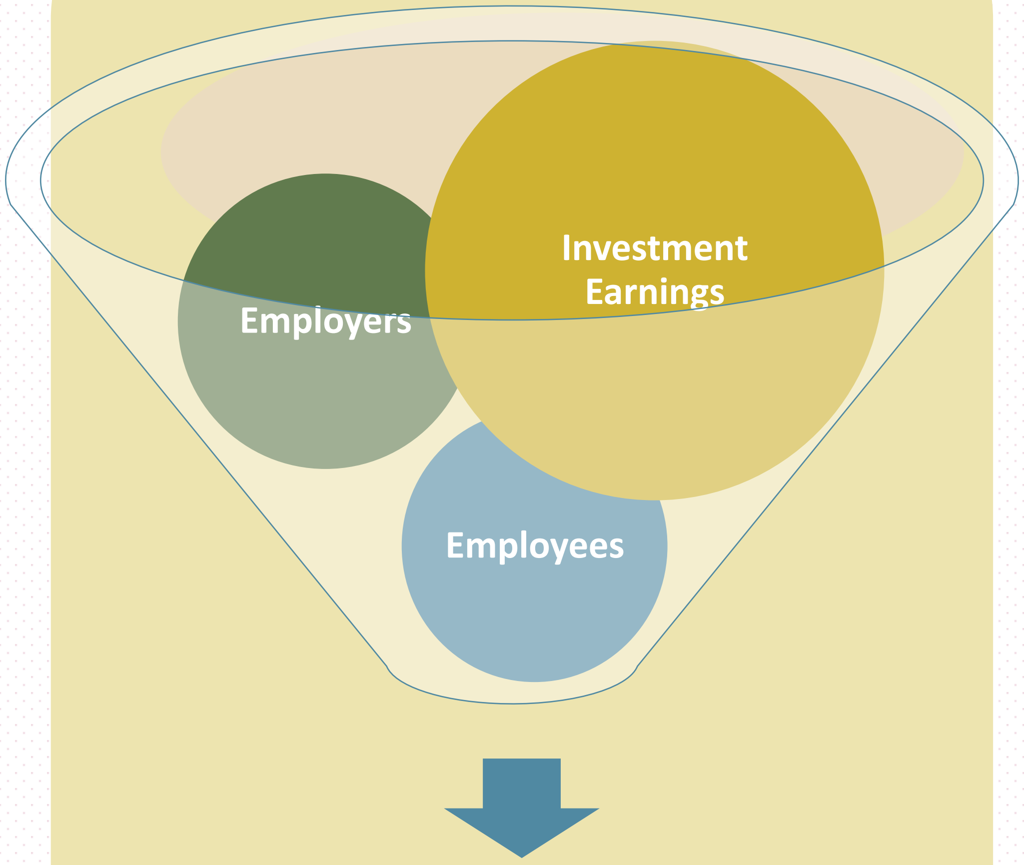
Employee Contributions: ≈11-13%

Employer Contributions: ≈29-32%

- Normal Cost: Payments to keep up with current employees
- UAL: Payments to amortize the Unfunded Accrued Liability

Investment Earnings: ≈55-60%

- Investment earnings used to make up a higher percentage (> 65-70%) of total contributions (pre-2008)
- As investments underperform assumptions, employers must make up the difference



Retirement Benefits & Plan Expenses

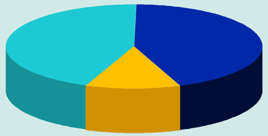
The Actuarial Valuation

Preparation Ingredients and How its Used


Member Data


Financial Data


Plan Provisions


Funding Policies

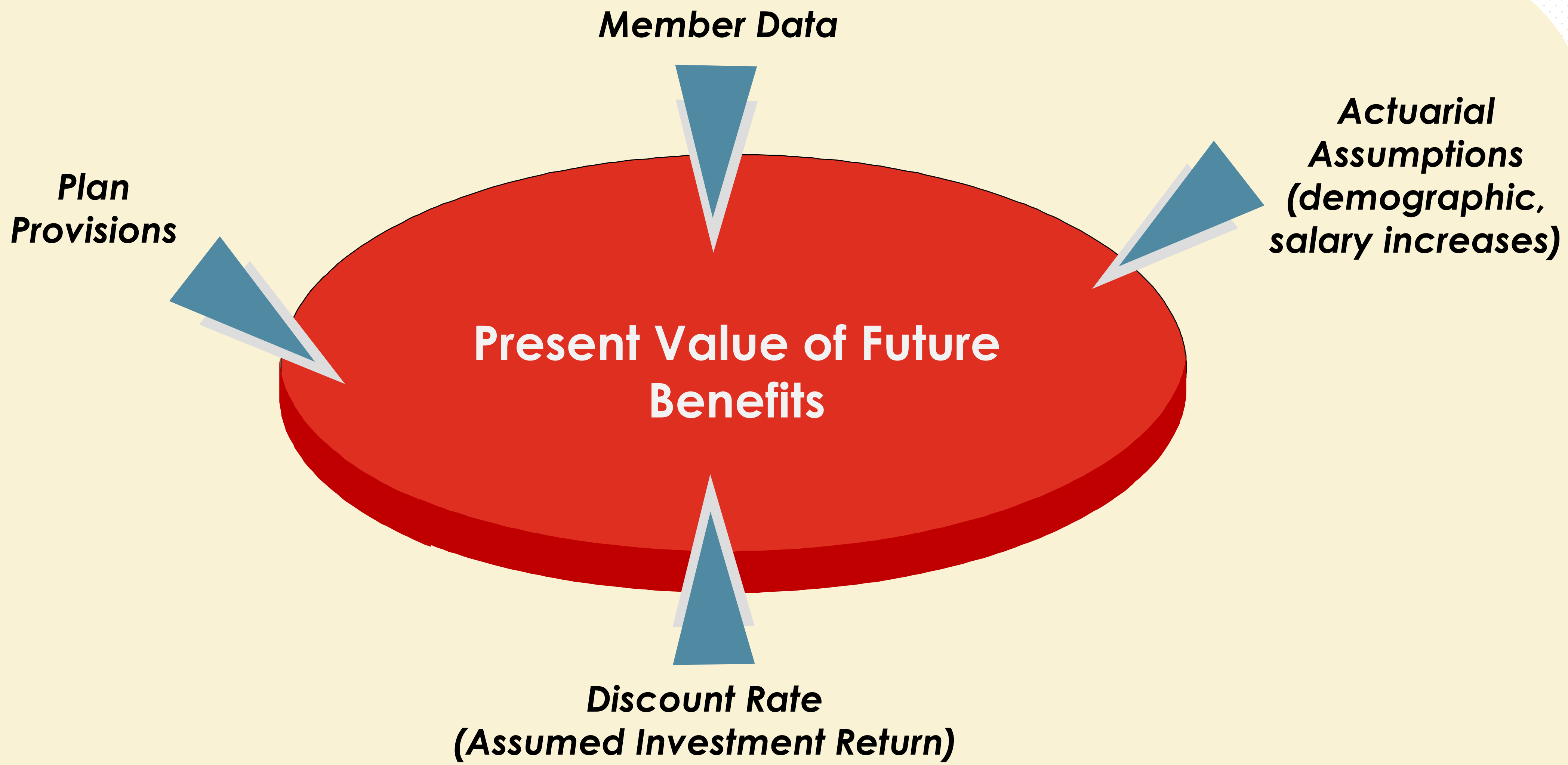

Actuarial Assumptions

→ **ACTUARIAL VALUATION** →

- Contribution requirements (employer and employee)
- Funded Status
- Analysis of financial and demographic experience
- Risk Assessment
- Disclosure Requirements
- Basis for Pricing any Plan Changes

Determining Contributions

Always Starts with the Total Present Value of Future Benefits

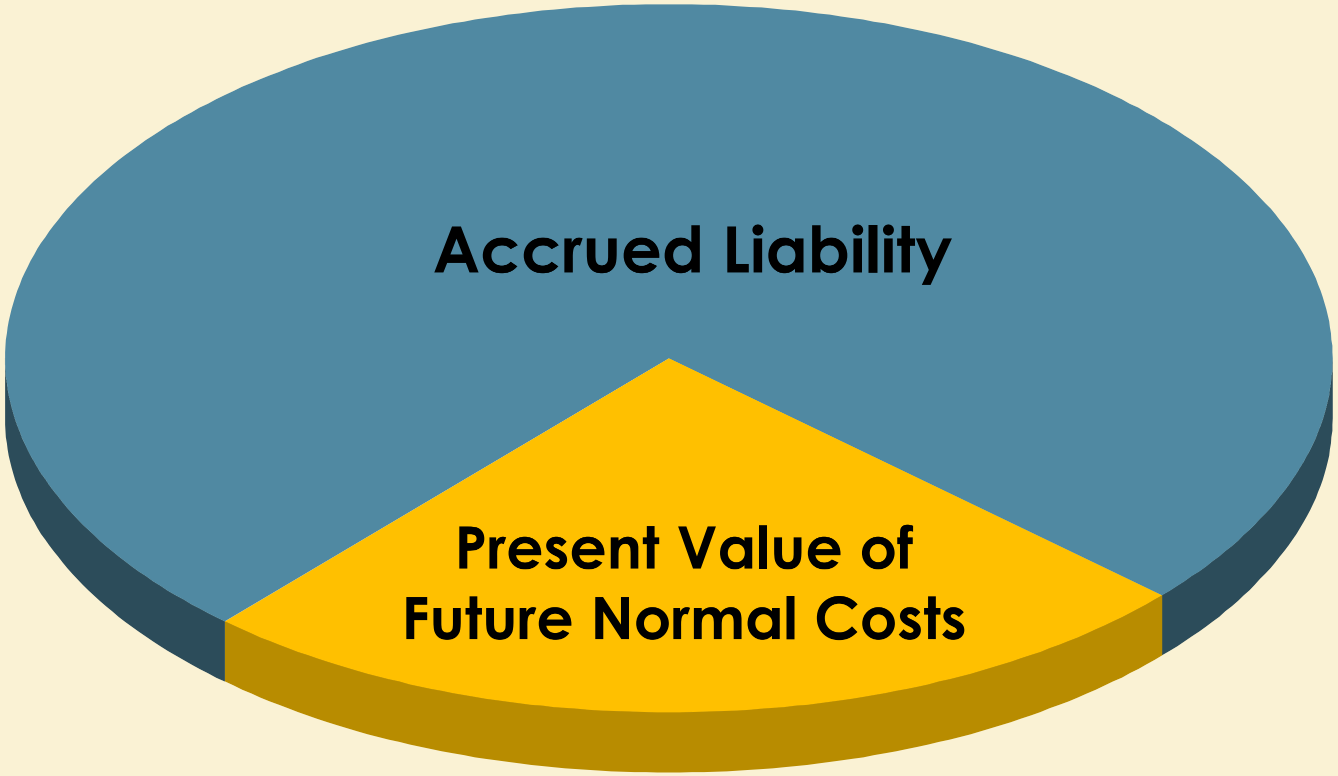


Determining Contributions

Accrued Liability and Future Normal Costs

Present Value of
Future Benefits

Accrued Liability
+ Present Value of Future Normal Costs
= Present Value of Future Benefits

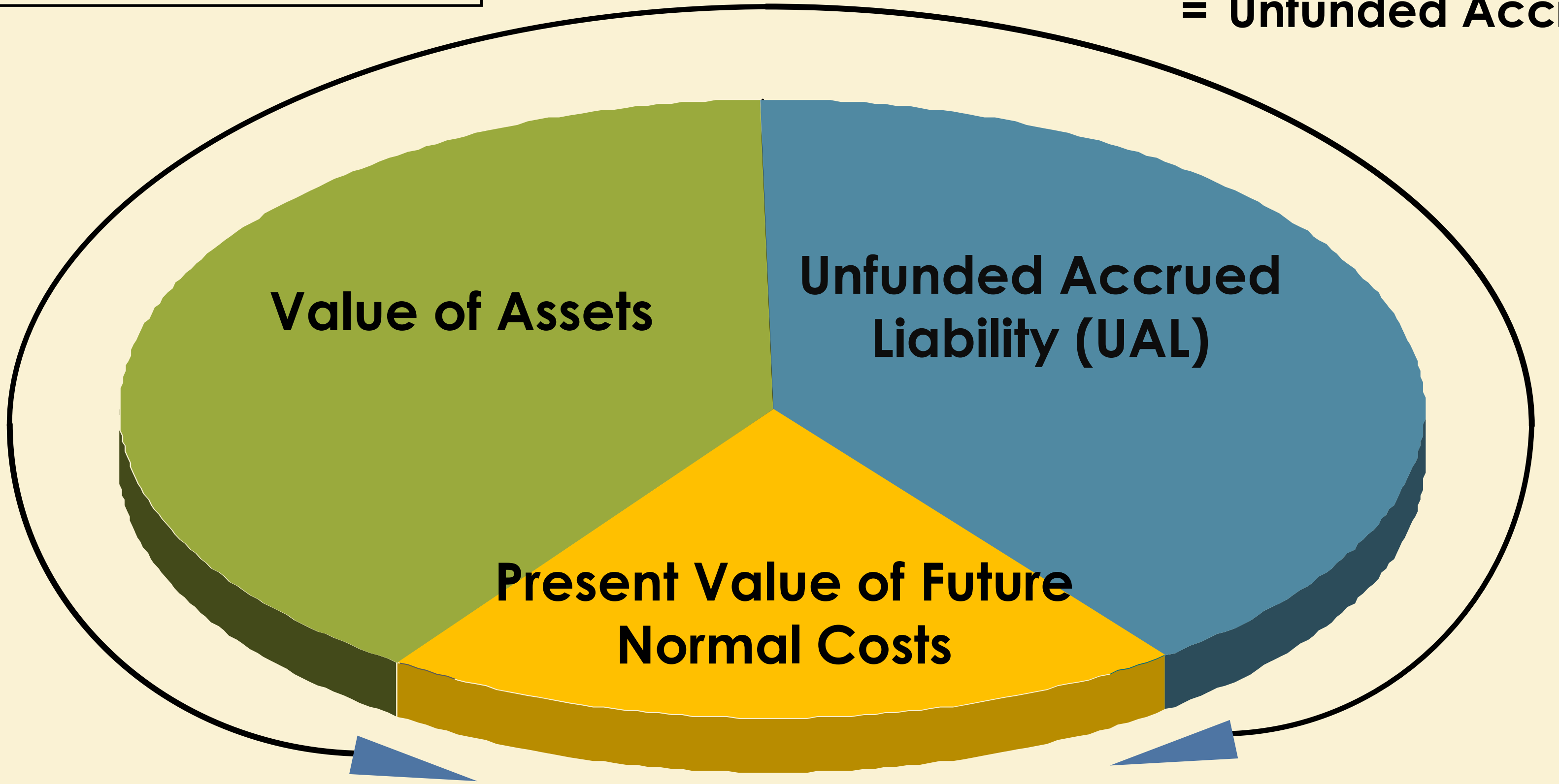


Determining Contributions

Assets and the Unfunded Accrued Liability

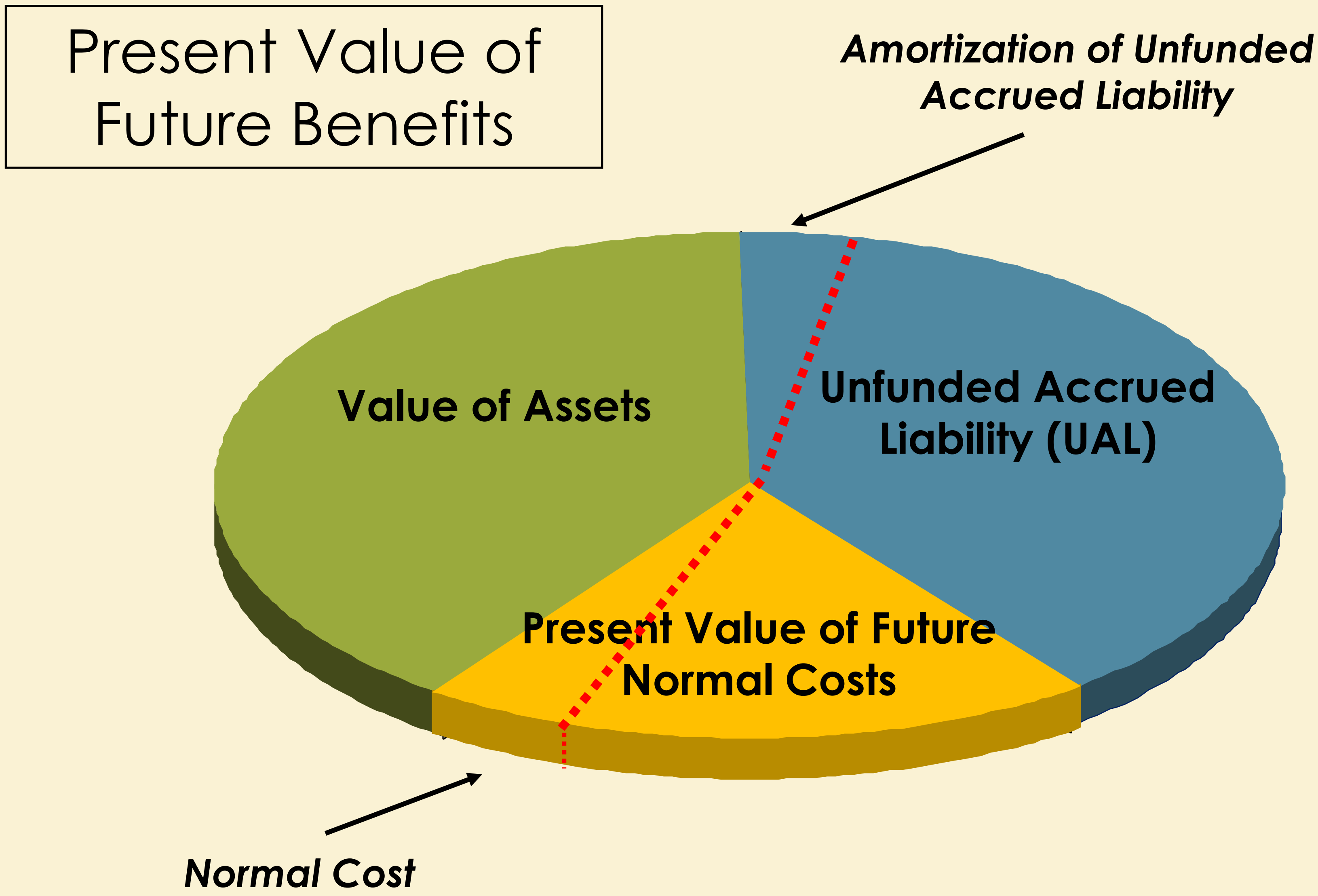
Present Value of Future Benefits

Accrued Liability
– Value of Assets
= Unfunded Accrued Liability



Determining Contributions

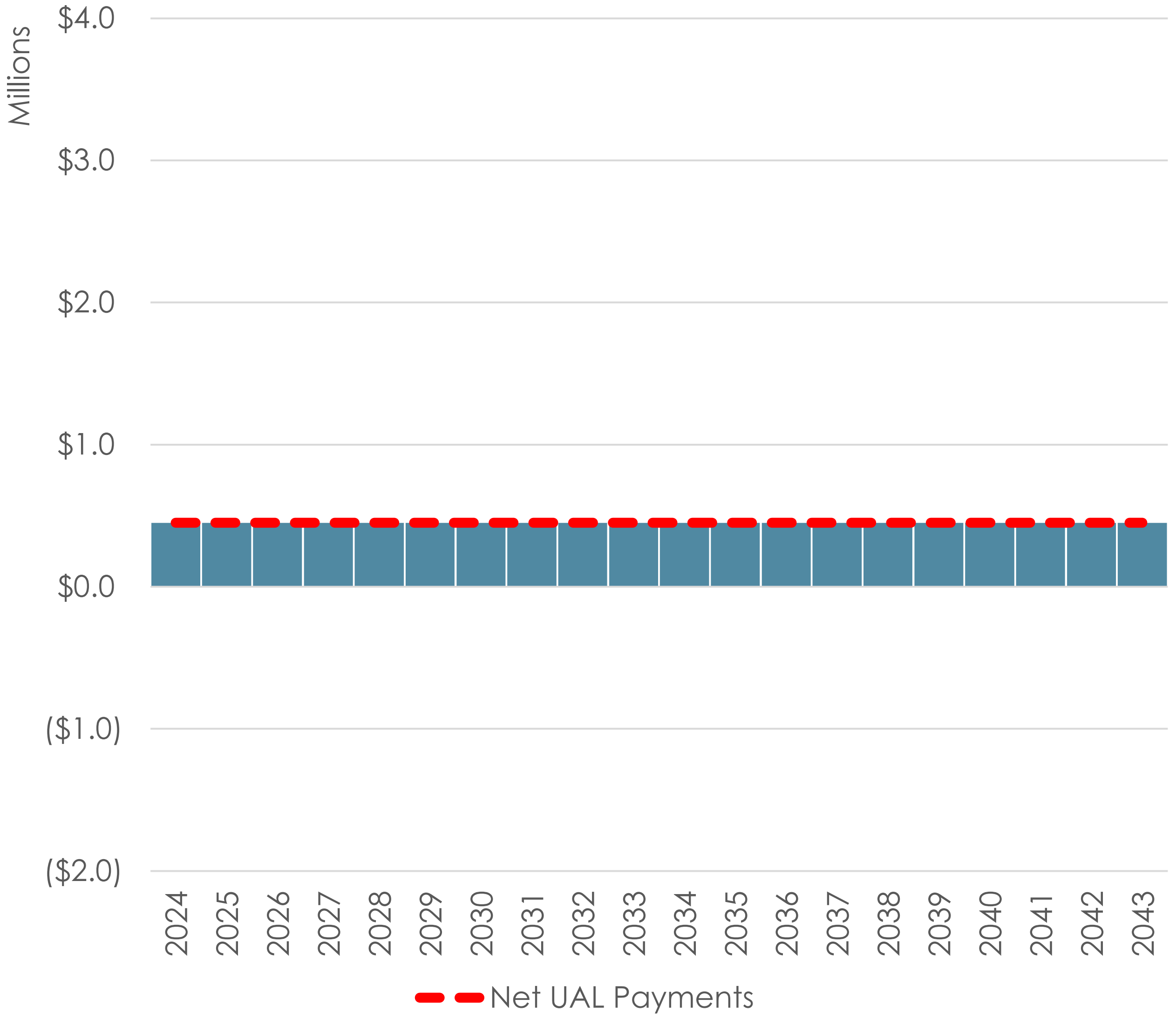
Final Step: Normal Cost + UAL payment



UAL Has Multiple Layers; Each With Own Size, Shape & Term

Layers Added Every Year; Impacting Overall Shape of Repayment

Reason for Base	Ramp Shape	Term	Size of Base
Assumption Change	No Ramp	20	$5,000,000



Please note that the amortization bases shown here have been simplified for presentation purposes. Most plans will have more amortization bases.

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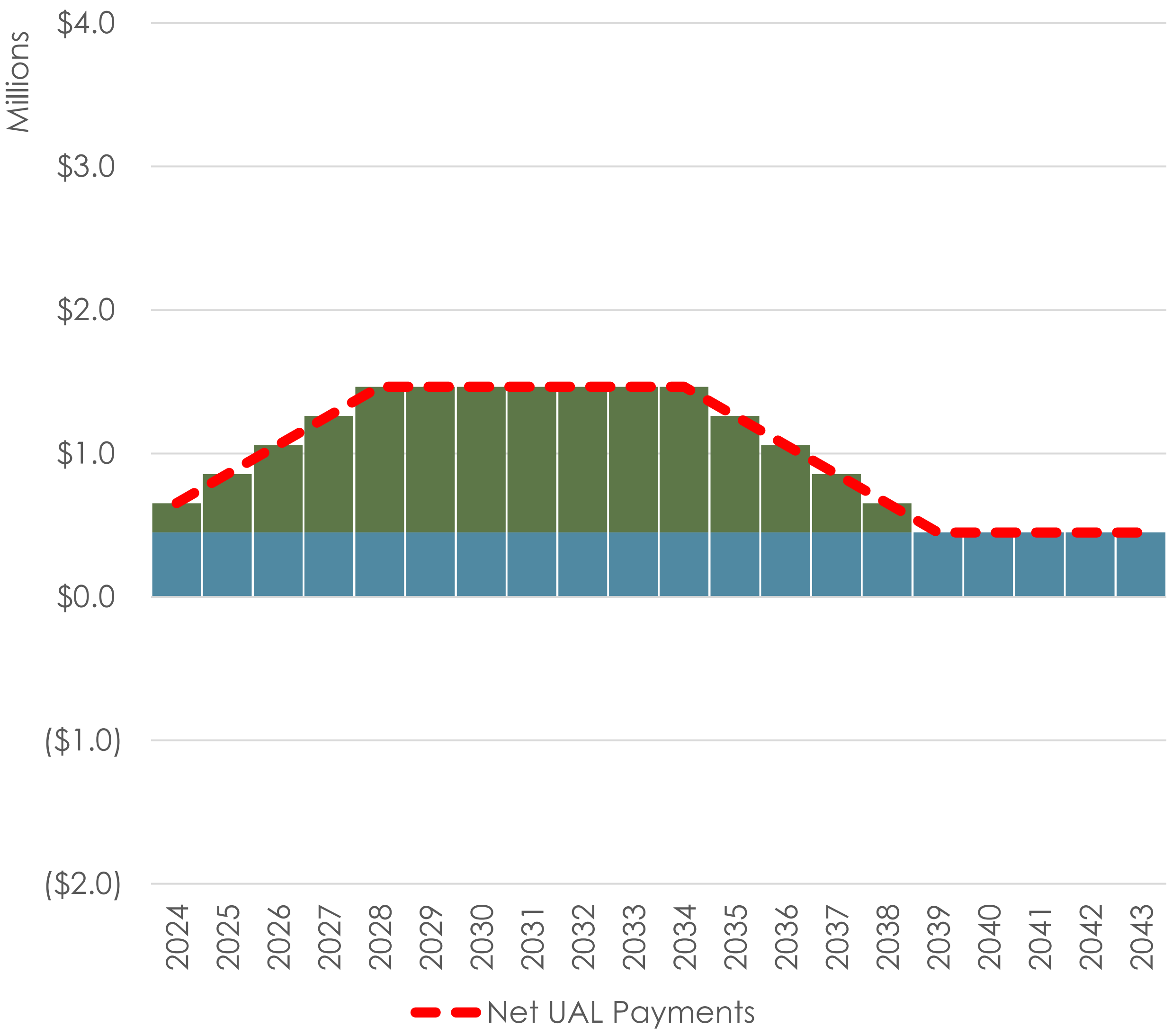
Layers Added Every Year; Impacting Overall Shape of Repayment

Reason for Base	Ramp Shape	Term	Size of Base
Assumption Change	No Ramp	20	$5,000,000
Method Change	Up/Down	15	$7,000,000



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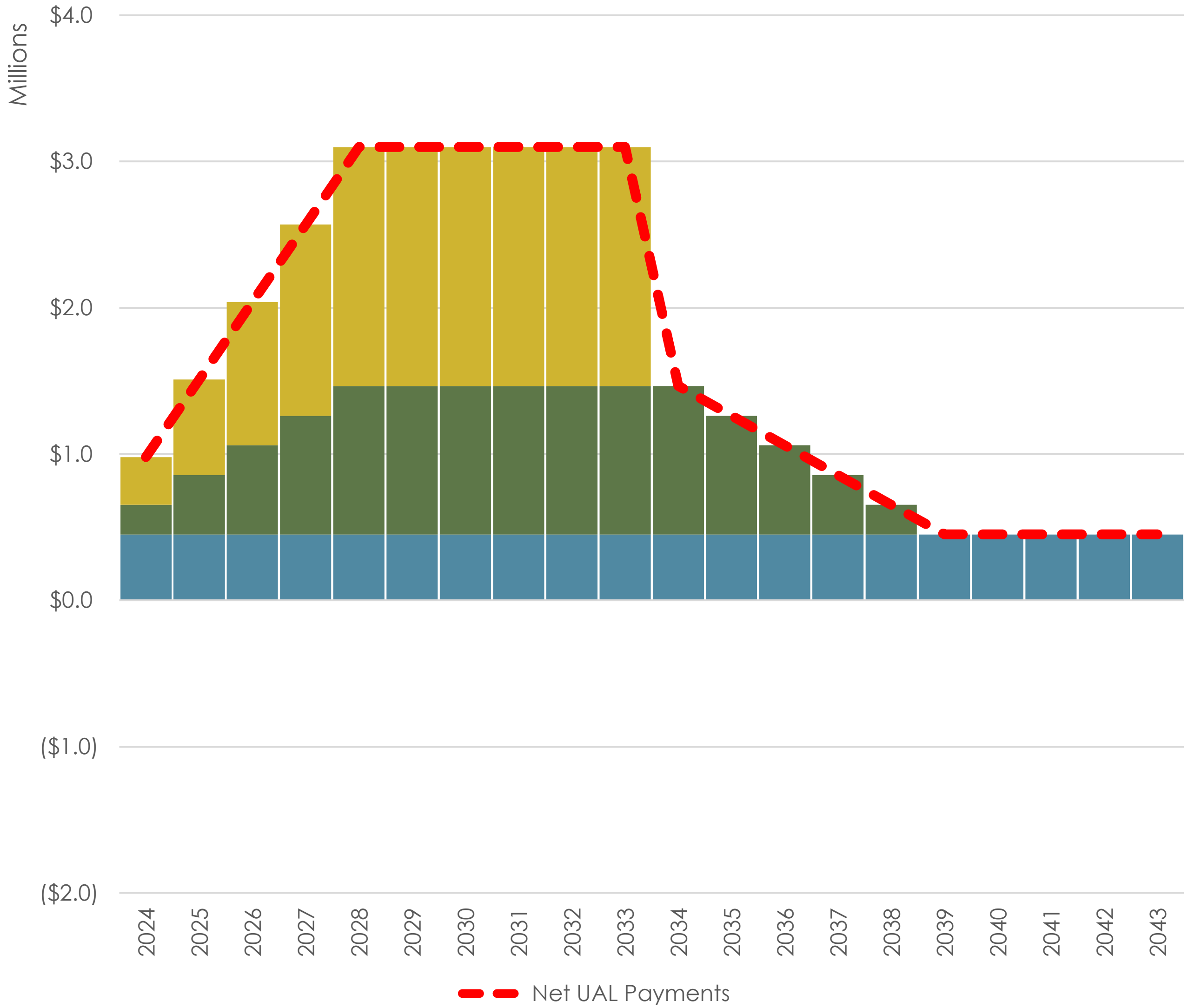
Method Change	Up/Down	15	$7,000,000
Investment Loss	Ramp Up	10	$9,000,000



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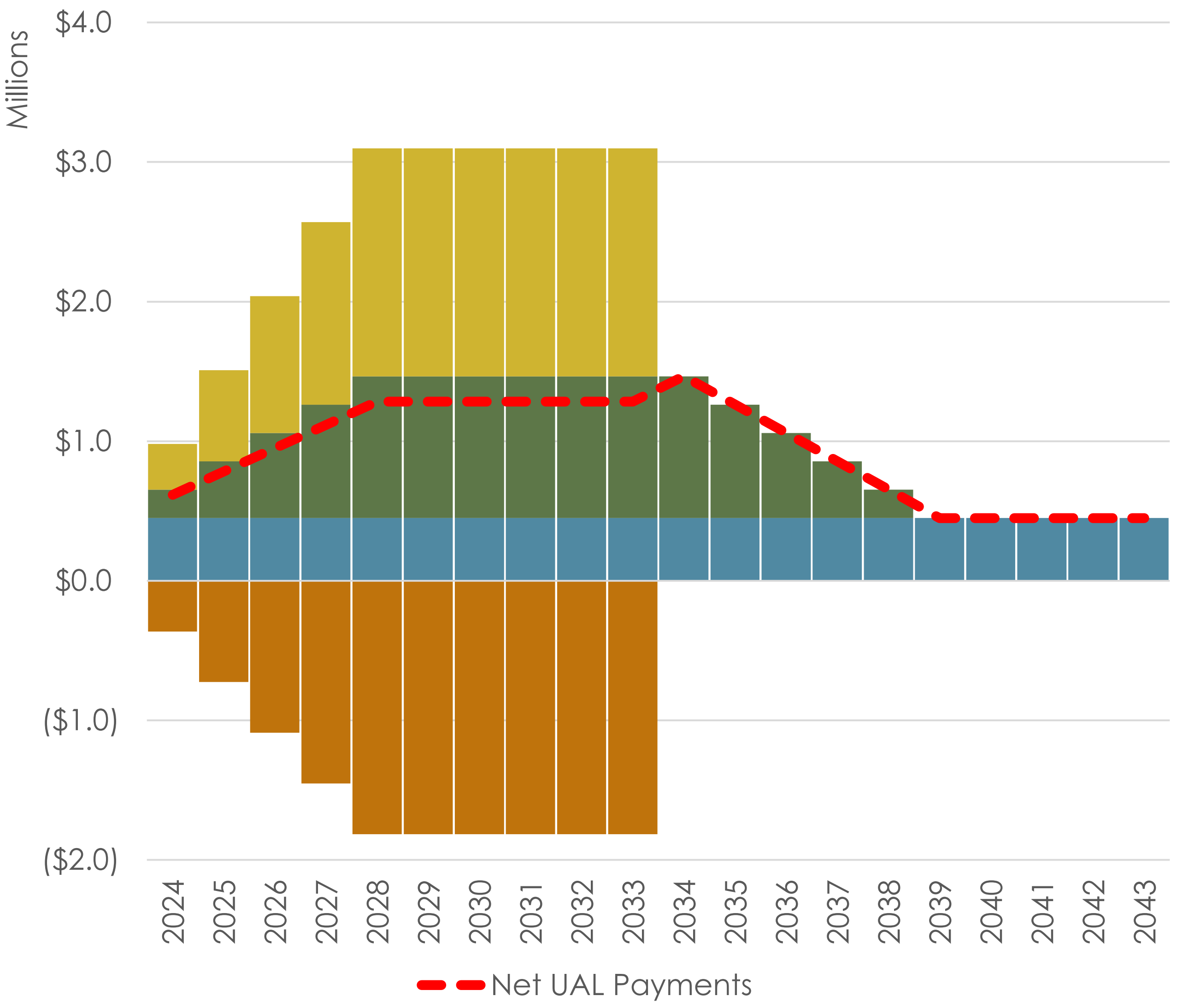
Investment Loss	Ramp Up	10	$9,000,000
Investment Gain	Ramp Up	10	($10,000,000)



Please note that the amortization bases shown here have been simplified for presentation purposes. Most plans will have more amortization bases.

Why Pension Costs have Trended Higher

Then & Now

Then…

- Robust investment returns (10%+)
  - Retirement plans were "Super-Funded" through the late 1990s
  - Earnings on funds were more than adequate to cover retirement costs
- Super-funded status induced widespread retirement benefits enhancements
- Past funding polices led to contribution holidays and "free" benefit improvements
- The surplus proved transient, the retrospective improvements not so much
- The dot-com bubble bursting along with the '07-'08 Financial Crisis were timed after improvements
- Old funding/smoothing policies were ineffective at managing UAL, compounding costs

Why Pension Costs have Trended Higher

Then & Now

Now…

- Sluggish investment returns (not meeting assumptions)
- Assumptions have changed/grown more conservative
  - Discount rate decreases
    - Most plans have come down from 8.0%-8.5% to 6.5%-7.0% over the last two decades
  - Inflation rate (prices going up)
  - Mortality rates (people living longer)
  - Actuarial Valuation → Market Valuation (CalPERS)
  - Shorter more conservative amortizations
    - Better for accelerating funding, but more impactful on Agency budgets

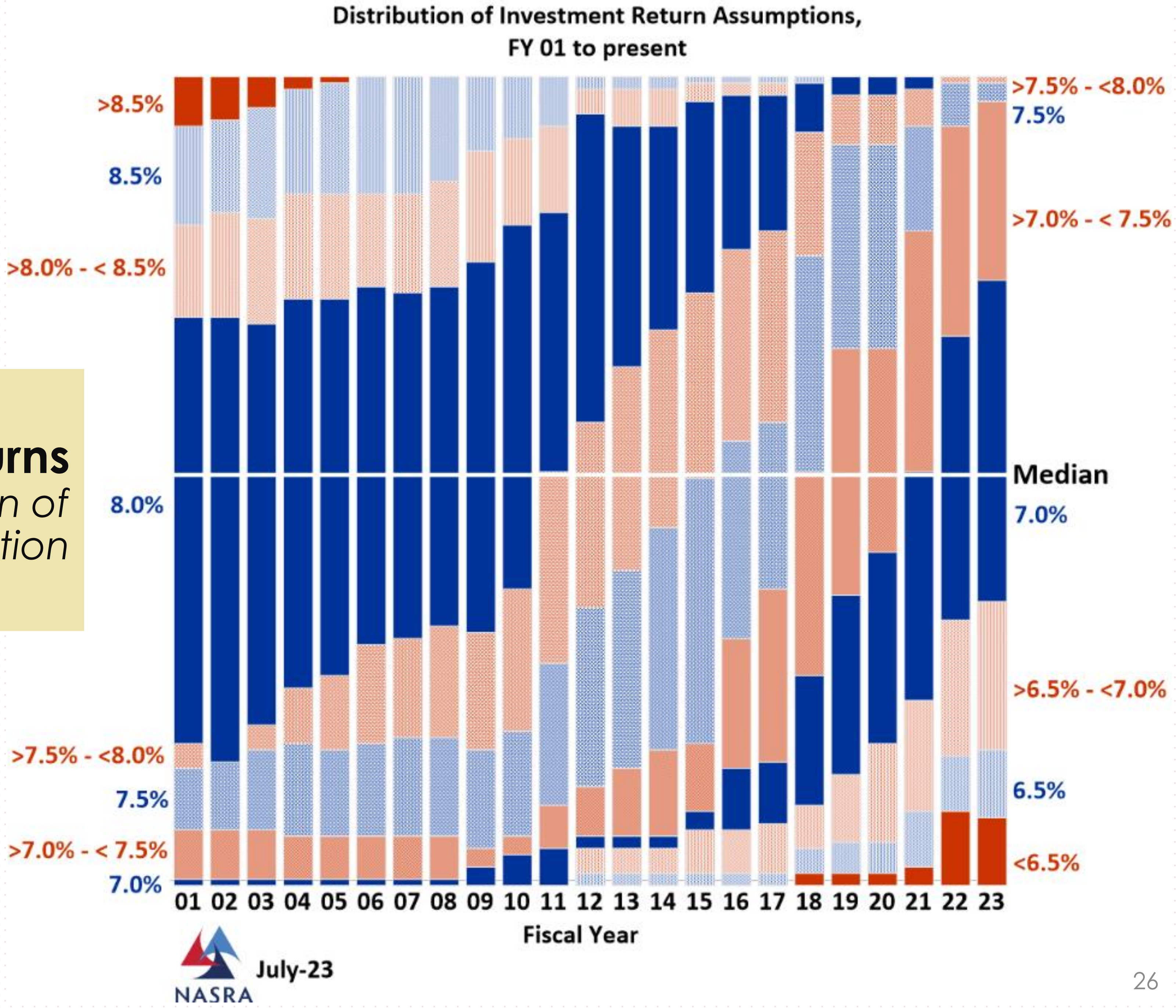
National Institute on Retirement Security Research identifies assumption changes as the primary headwind to the improvement of plan funded status

Figure 8: Actuarial Accrued Liability with Prior Economic and Mortality Assumptions ($ in millions)

Source: Segal

Lower Assumed Returns

Change in U.S. Plan Distribution of Investment Return Assumption



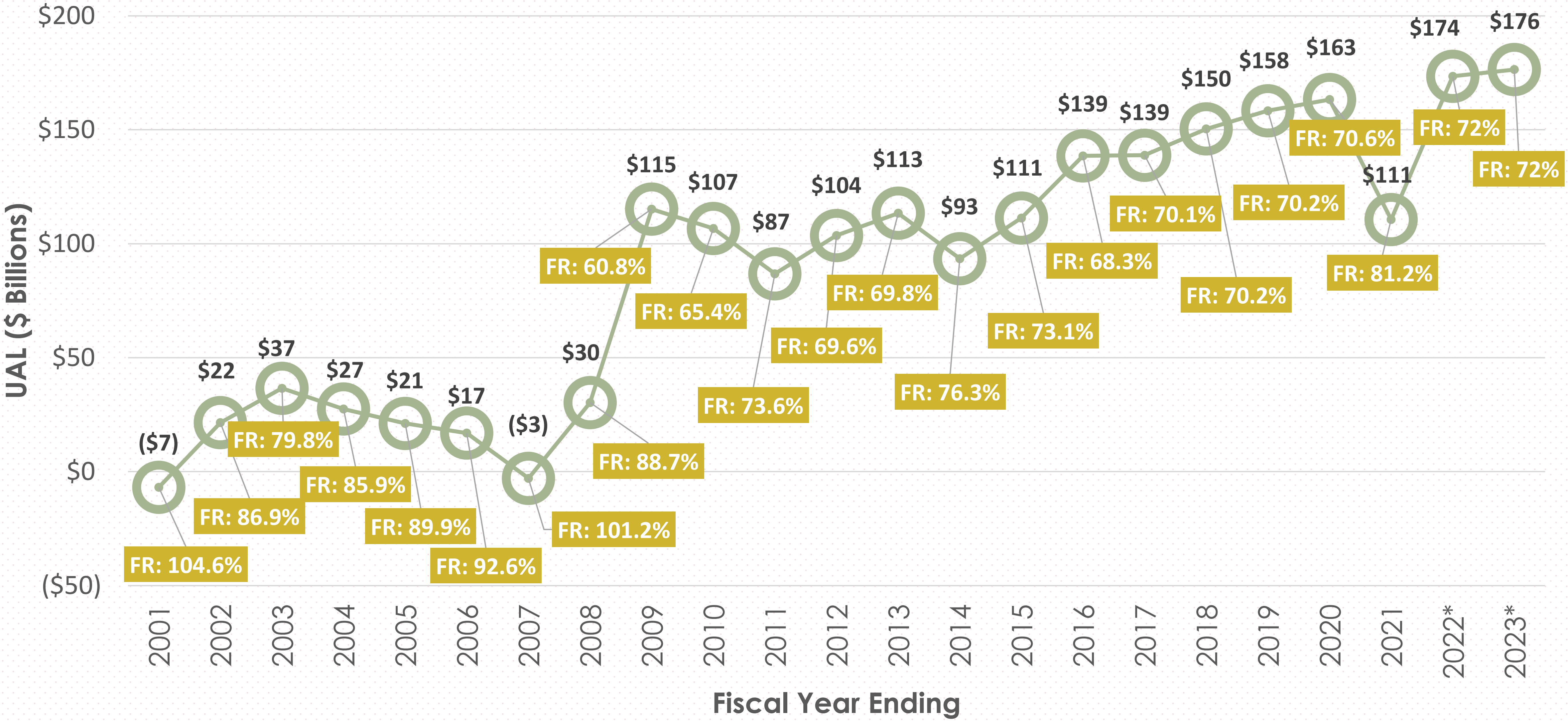
Lower Assumed Returns

The California Experience

System(s)	Assumption	Count
CalPERS	6.80%	
CalSTRS	7.00%	
University of California	6.75%	
1937 CERL Systems	7.25%	1
	7.00%	8
	6.75%	7
	6.50%	3
	6.25%	1
City Systems		
San Francisco	7.20%	
LACERS, LAFPP	7.00%	
LADWP	6.50%	
San Jose	6.625%	
San Diego	6.50%	

CalPERS Public Employees' Retirement Fund (PERF)

Historical UAL Balance & Funded Ratio (FR)



*The UAL and Funded Ratio for FYE 2022 and FYE 2023 is estimated using the CalPERS Pension Outlook Tool.

Sources: ***2001-2021:*** *CalPERS Annual Comprehensive Financial Reports.* ***2022-2023:*** *CalPERS Pension Outlook Tool.*

Where to Get Information for Your CalPERS Plan

New Tools Allow for Better Scenario Modeling

Actuarial Valuation Reports

Can be downloaded through the MyCalPERS portal or CalPERS public website

MyCalPERS

Portal for staff access to information on its pension plans

CalPERS Pension Outlook Tool

Free tool to project CalPERS pension costs under varying assumptions; outputs to user-friendly Excel spreadsheet

Managing Employer Contribution (MEC) Worksheets

Provided by each agency's CalPERS actuary by request; allows for more technical ADP and Fresh Start analysis

Addressing the Pension Liability Challenge

Overview of Common Strategies

These strategies are not mutually exclusive and are often paired together as part of a multi-pronged strategy

Annual UAL Prepayment	Pay entire FY UAL upfront (by July 31) instead of making monthly payments
Fresh Start / New Amortization	Request new amortization from CalPERS
Additional Discretionary Payment (ADP)	Directly pay off specific portions of UAL above and beyond what's required
Section 115 Trust	Set aside extra funds into a trust legally restricted to pension expenses
Internally Held Pension Reserve	Set aside funds into an internally held reserve earmarked for pensions costs
UAL Restructuring / Pension Bond	Restructure specific portion of the UAL by issuing debt

UAL Prepayment

- A lump-sum prepayment of your annual UAL by July 31st will provide a discount of approximately 3.24% vs. paying the UAL monthly throughout the year
  - Example: $12 million UAL payment for FY 2023-24
    - Monthly option: $1.0 million each month
    - Pre-pay option: ≈ $11.6 million if paid by July 31
      - $400K savings
- **In FY 2022-23, nearly 80% of CalPERS agencies did the prepayment**
    - Part 2 (8/31) webinar will include statistics for FY 2023-24

UAL Prepayment

PROS

- 3.24% discount
- May provide mechanism to dedicate more funds to pension strategies (i.e., putting discount amount into a Section 115 Trust)

CONS

- Reduced short-term liquidity and budgetary flexibility
- Actual benefit is lower than 3.24% when considering investment alternatives for use of same cash

Webinar Part II

- Is prepayment benefit worth it now given the higher interest rate environment?
- Analysis of actual benefit under varying market conditions

Fresh Start / New Amortization

- New level payment amortization for the current UAL balance
- Constraints:
  - Total payments must be lower than current amortization
    - Most often (not always), this requires a shorter final term than current
    - Couple of shorter-term options are shown in CalPERS reports, though many others are available if within constraints
  - Must fresh start all UAL for entire plan (all amortization bases for that plan collapsed into one)
- Voluntary fresh starts are **not common; less than 15 over recent 1-2 years estimated by CalPERS**
- Notes
  - Depending on the situation, sometimes alternative amortizations (not a traditional fresh start) can be developed on a case-by-case basis (should be discussed with actuary)

Fresh Start / New Amortization

PROS

- Lower cumulative payments
- Faster UAL amortization
- More level payments
- “Autopilot” higher payments vs. future discretionary contribution decisions

CONS

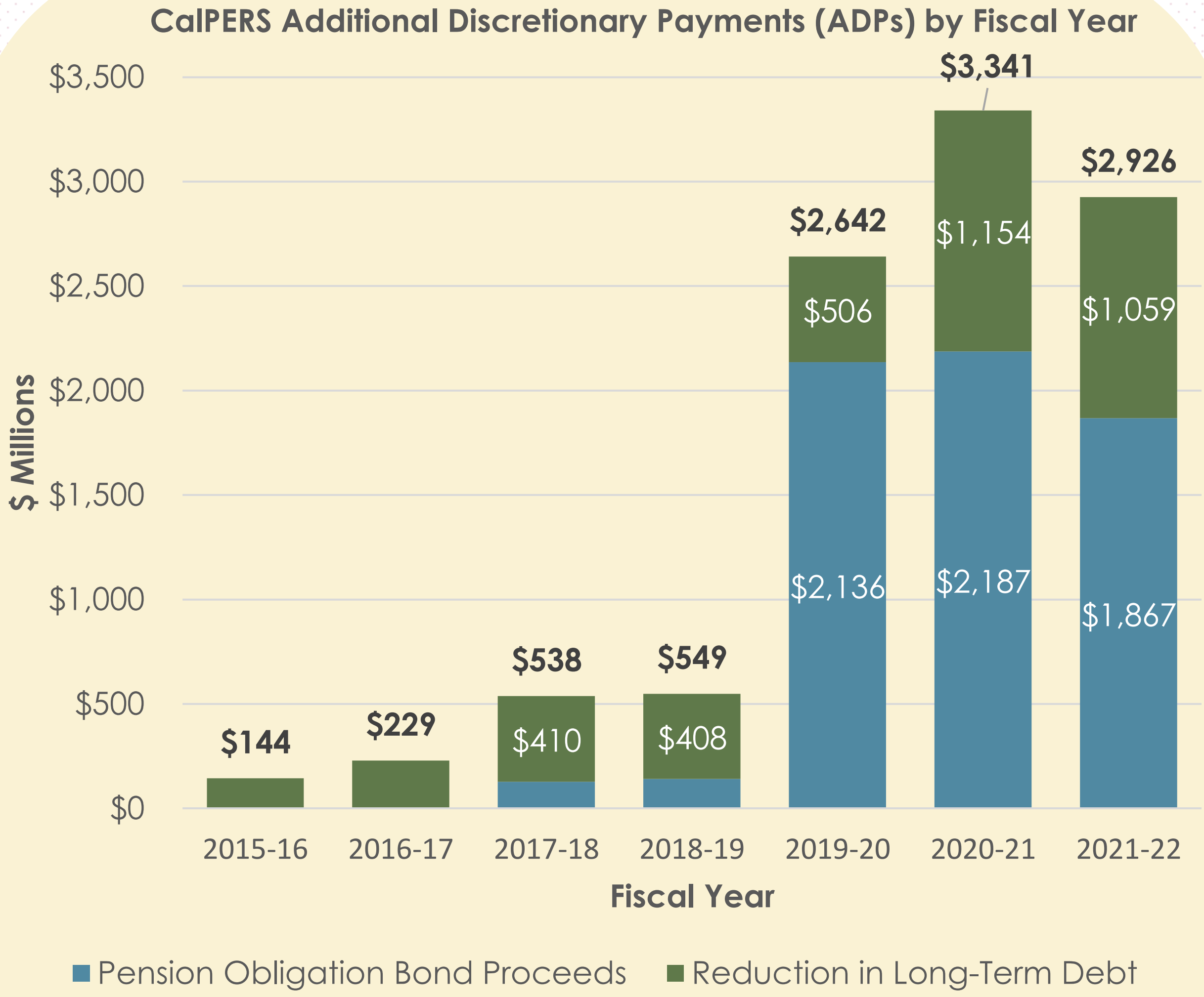
- Typically, higher payments in the near term
- No flexibility to “undo” the fresh start

Webinar Part II

- Sample fresh start analysis
- Why/when it could make sense for some agencies in today’s environment

Additional Discretionary Payment

- Pay off specific UAL amortization bases (or portions of)
  - Principal and interest (6.8%) payments associated with that UAL are eliminated
- **Very common:**
  - **FY 2022-23: 387 ADPs**
  - **FY 2021-22: 691 ADPs**
  - Big increase in ADP amounts directly related to spike in UAL restructuring (Pension Bond) issuance
    - Note that POB (blue) is likely understated as several large (over $700M) ADPs were made from Lease Revenue Bond proceeds that aren't reflected in the POB category



Source: CalPERS 2022 Annual Review of Funding Levels and Risks (Nov. 2022)

Additional Discretionary Payment

PROS

- Lower UAL
- Higher funding ratio
- Lower future payments

CONS

- Requires reserves / surplus to fund
- Less budgetary flexibility and investment control (vs. 115 trust option)
- Investment risk

Webinar Part II

- Sample analysis of ADP benefit
- Savings impact when choosing to pay off long term bases vs. short term bases

Section 115 Trust

- Dedicated (restricted to pension/OPEB) account managed by 3rd party
  - Investments not subject to CA Government Code Section 53601
- Funds can be used in a variety of ways; for example
  - Withdrawn in near and mid-term to help smooth the pension payment mountain peak
  - Left to grow over the long term and extinguish a large % of the UAL in the future
  - Agencies can typically be reimbursed for pension expenses already made (for a limited period) if there is immediate need for the cash
- **Very common strategy, > 500 CA agencies utilizing**

Section 115 Trust

PROS

- Potential for increased investment earnings (vs. internally held reserves)
- Added budgetary flexibility, liquidity, and investment control (vs. ADP)

CONS

- Doesn't directly reduce UAL
- Requires reserves / surplus to fund
- Investment risk
- Potential for lower returns than CalPERS if shorter time horizon for investments

Webinar Part II

- Considerations and options when choosing a provider
- Smoothing the pension payment mountain peak using a Section 115 Trust

Internally Held Pension Reserve

- Separate reserve earmarked for pension costs
  - Investments still subject to CA Government Code Section 53601
  - Some agencies use this as a first step, then utilize funds from this reserve to fund a Section 115 Trust or ADPs later
  - Could be an option for agencies that need to maintain more flexibility within internal reserves or do not like restrictions related to a Section 115 Trust

Internally Held Pension Reserve

PROS

- Prioritization of pension challenge
- Budgetary flexibility and liquidity
- *Funds could be re-purposed more easily than if in a Section 115 Trust*

CONS

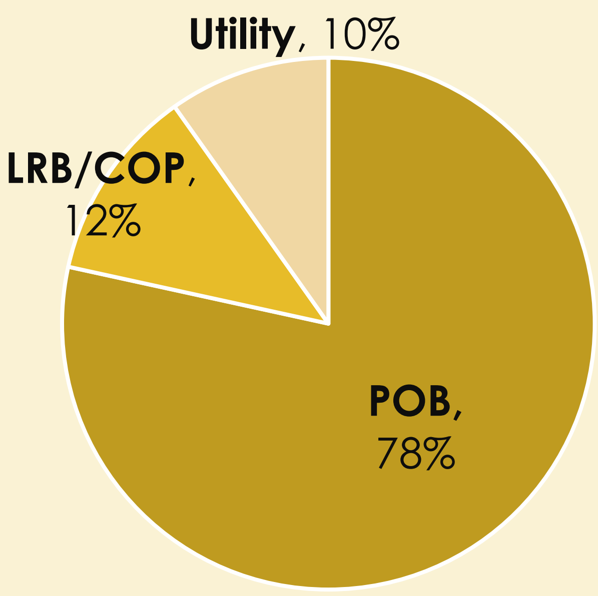
- Doesn't directly reduce UAL
- Investments limited by CA Govt. Code Section 53601 (potential lower earnings than 115 trust)
- *Funds could be re-purposed more easily than if in a 115 Trust*

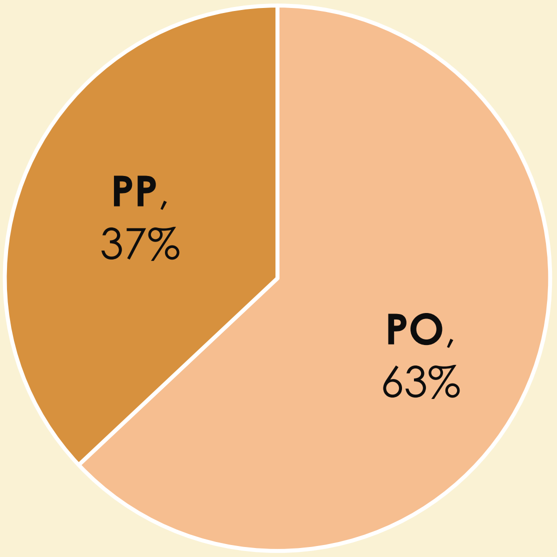
Webinar Part II

- Using the reserve to smooth the mountain peak in payments
- When an internal reserve might make sense

UAL Restructuring / Pension Bond

- Issue a bond/loan and use the proceeds to pay off all or a portion of the UAL
  - Typically, new debt is issued at a lower interest rate than CalPERS discount rate and payments structured to be more level/tailored
- **≈ 100 recent pension bond issues**
  - $7.6 billion issued between 2020 and 2022 given historically low rates and growing investor comfort/demand
  - Most agencies locked in rates between 2.5% and 4.5% during this time
    - 78% POB, 12% lease, 10% utility
    - 63% public offering; 37% private placement





UAL Restructuring / Pension Bond

PROS

- Potential for PV and cash flow savings
- More level/ sustainable repayment shape
- Guaranteed near-term savings can be deployed to other strategies (ADPs, 115 Trust, etc.)

CONS

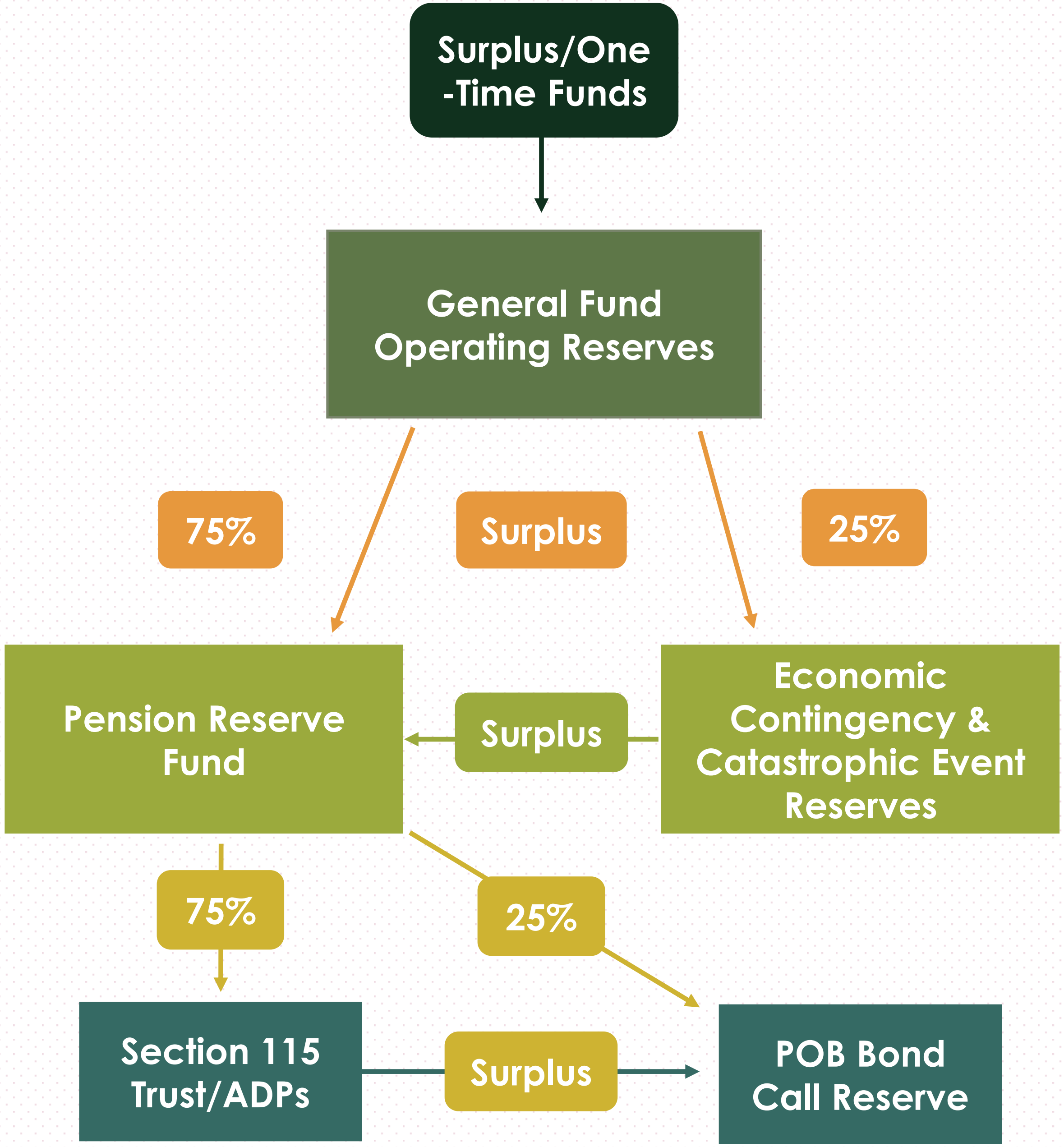
- Reinvestment and market timing risk
- Savings not guaranteed (dependent on future investment returns)
- Future UAL more volatile in early years after issuance

Webinar Part II

- Sample pension bond savings and stress testing analysis at different interest rates
- How to analyze risk
- Components of a thoughtful evaluation process

Addressing the Pension Liability Challenge
Pension Funding Policy

- Provides roadmap for managing long-term pension costs
- Policies can be tailored to each agency's unique situation
- Typically outlines goals/objectives, prioritization of surplus/one-time funds, and the how/why/when of using certain cost management strategies
- Often integrated into a comprehensive reserve policy
- Credit rating positive



Note that the chart above is hypothetical to demonstrate how a Pension Funding Policy could work

Q&A

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Part II: Pension Management Strategies Applied

August 31, 2023

10 AM – 11:30 AM

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