



**Commonwealth of Massachusetts**

**Executive Office for  
Administration and Finance**

# **Stabilization Fund & Long-Term Liability Financing Task Force**

November 17, 2025





# Agenda

- Roll Call
- 10/16 Meeting Recap
- Stabilization Fund Review
  - Stress Testing
  - Scenario Planning
- Pension Liability Financing
  - PERAC Overview
  - Pew Analysis
- Key Takeaways
- Next Meeting Preview



# 10/16 Meeting Recap

## Key Takeaways: Stabilization Fund

1. Current Stabilization Fund deposit policies – notably its excess capital gains rules – are relatively strong compared to other states
2. While our current reserve total meets most benchmarks for a healthy balance, the introduction of a regular stress test would help inform policymaking
3. Our state withdrawal parameters could be strengthened – even if by just establishing best practices – to ensure clear metrics guide fund use
4. Stabilization Fund planning should be paired with suite of other tools and consider prioritization of top state priorities



# Stabilization Fund Stress Testing

## Best Practices: Savings Targets

### Policy Question

How much money does the state need to save in the rainy day fund?

### Recommended Practice

Use budget stress tests to set savings targets

### Massachusetts' Approach

No formal savings target; stress test under development. The stabilization fund has a cap, but it isn't necessarily an evidenced-based target

### Considerations for following best practices:

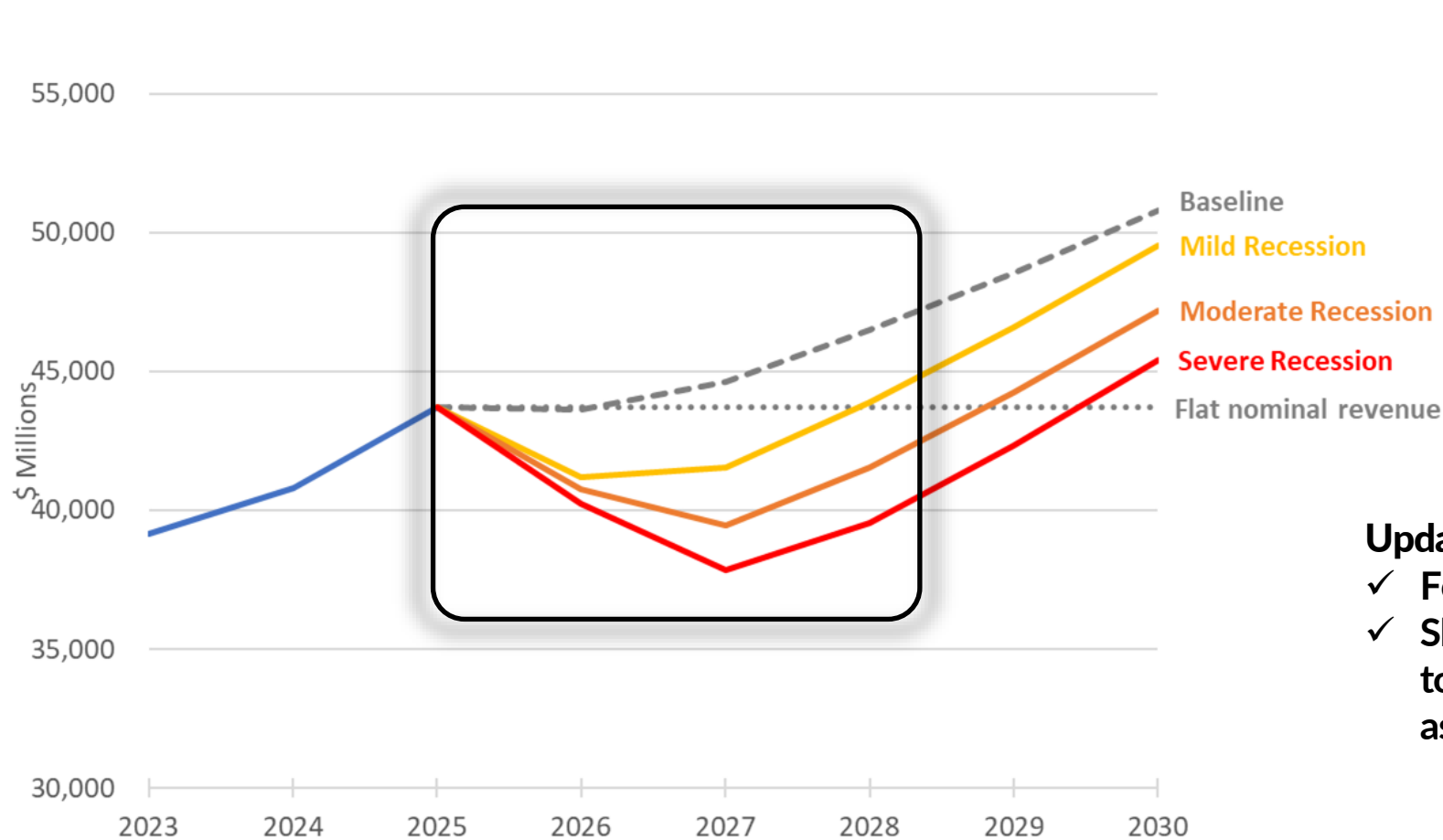
- Budget stress tests estimate the size of temporary budget shortfalls that would result from recessions and other economic events and then gauge how prepared states are to weather those events.
- The stress test required in the FY 2026 enacted budget offers an opportunity to set a savings target.

---

# How States Use Stress Tests to Inform Savings Targets

- A first stress test should allow Massachusetts to develop an initial target, but the target is likely to change over time.
- Pew recommends that states conduct stress tests regularly, prior to the development of each new budget.
- Minnesota and North Carolina are potential models for this approach: both use regular, statutorily-required stress tests to automatically adjust target balances for their rainy day funds.

# Massachusetts' Budget Stress Test – 3-Year Shortfalls



Scenario	Cumulative revenue shortfall below...	
	...baseline revenue	...flat revenue
Mild	16%	11%
Moderate	26%	21%
Severe	35%	31%

Cumulative shortfalls as a percent of 2025 total revenue

## Updates per October Task Force meeting:

- ✓ Focusing on first 3 years of gap
- ✓ Shortfalls below baseline are adjusted to reflect the different inflation assumptions in each recession.

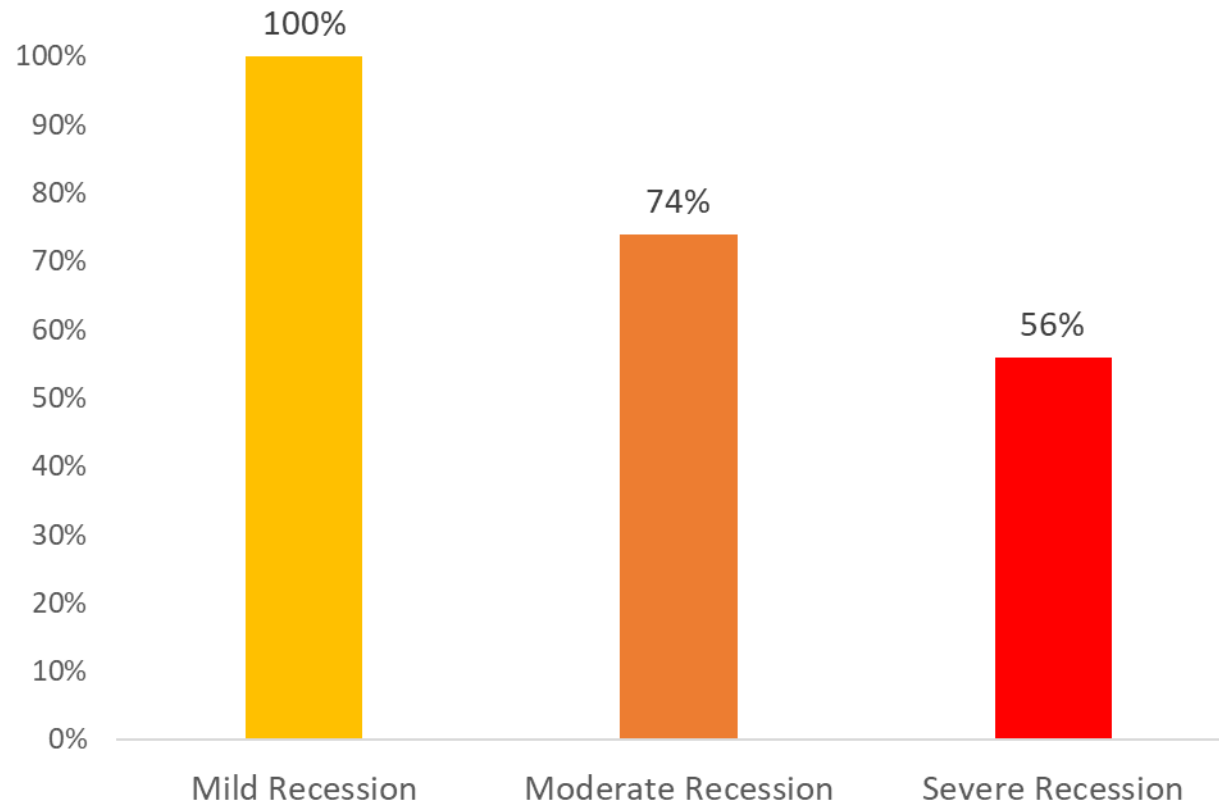
Source: Pew analysis of Department of Revenue calculations.

---

## Questions for Translating Stress Tests into Savings Targets

- What severity of recession/revenue decline should the state be prepared for?
- What are the state's goals for maintaining services during a recession?
- Beyond the stabilization fund, what budget tools are available to close gaps?
- How much savings are likely to result from different savings policies?

# What Percentage of the 3-Year Shortfall Below Baseline can be Covered by the Current Stabilization Fund Balance?

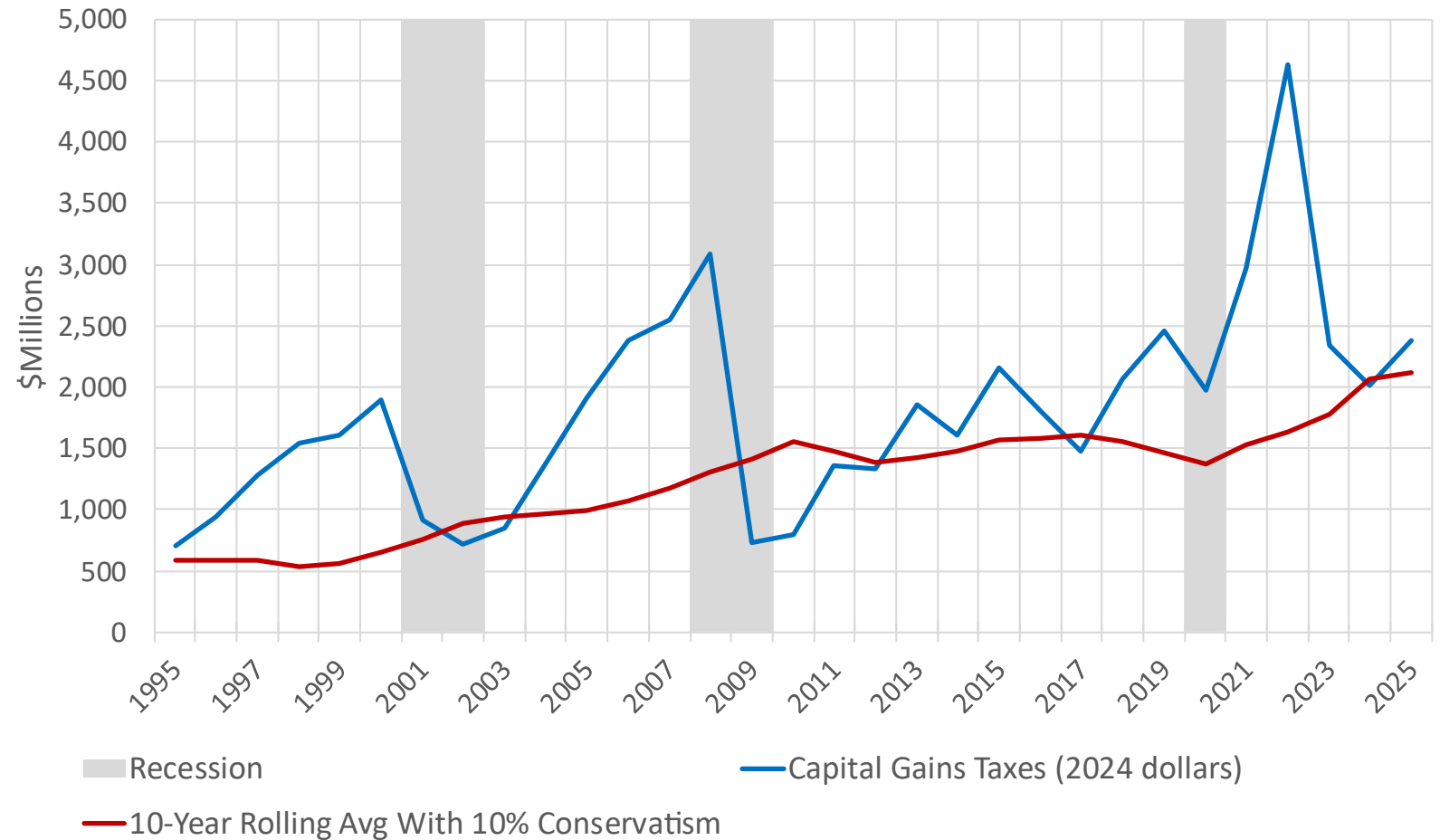


*Source: Pew analysis of Department of Revenue calculations.*

# Review of Excess Capital Gains Analysis

- Section 5G was intended to set aside excess cap gains.
- Pew simulated a policy designed with the same intent, setting aside revenue above the rolling 10-year average (with 10% conservatism in the threshold).
- Result: Cumulative sets-asides equal 13-16% of total state tax revenue during the previous two stock market surges.

Massachusetts Capital Gains Taxes, Inflation Adjusted

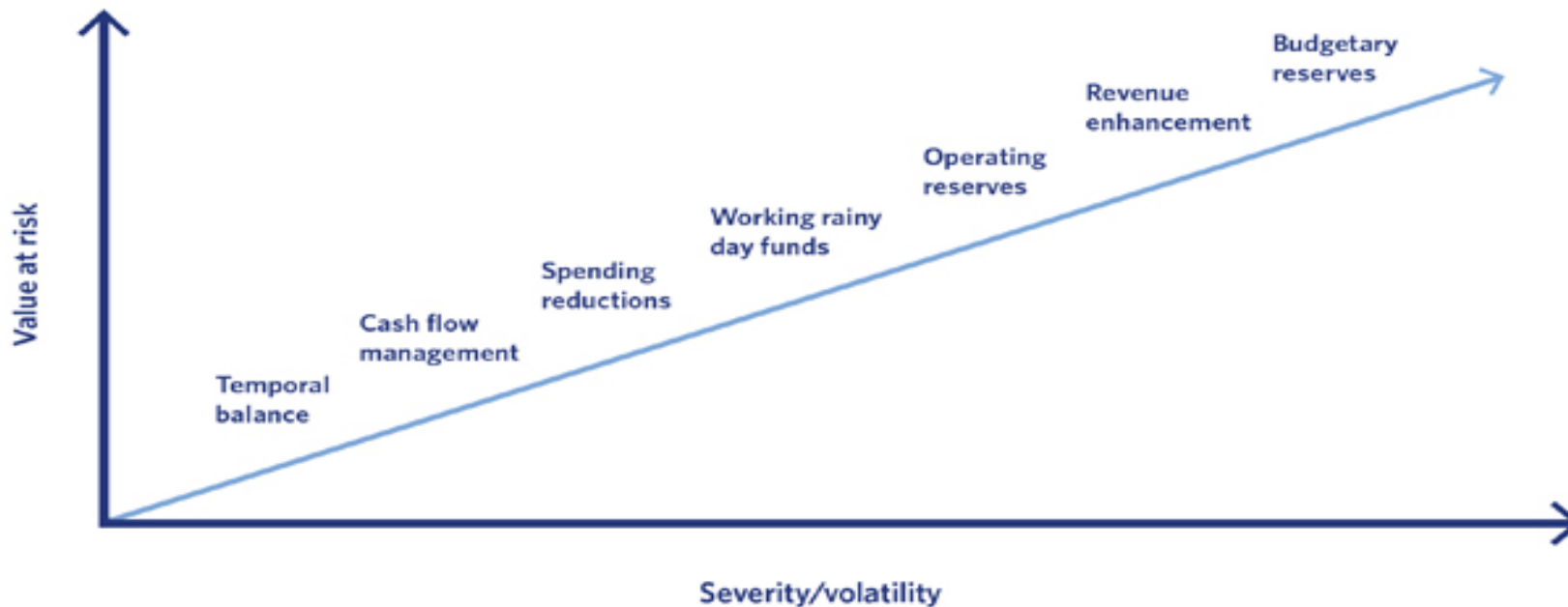


Source: Pew analysis

# Stress Tests and Other Budget Contingencies

## Utah's Fiscal Toolkit

Cataloging and ordering options help policymakers plan for different scenarios



Source: Utah's Office of the Legislative Fiscal Analyst

© 2022 The Pew Charitable Trusts

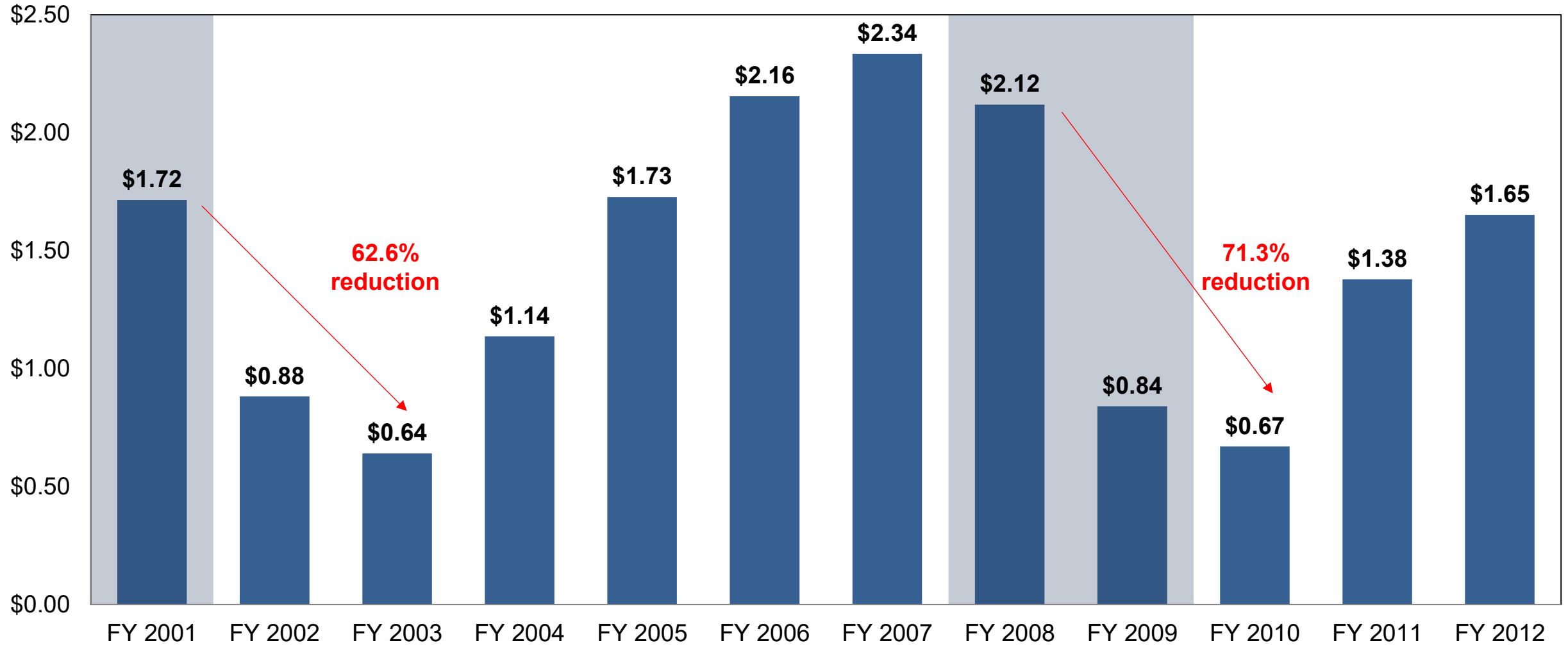


# Recession Toolkit/Case Studies



# Stabilization Fund History Through Recessions

## Stabilization Fund Balance (FY 2001-2012)





# Recession Response Goals

*Identifying primary goals for recession management will help direct planning and decision-making*

## **Maintain State Fiscal Health**

- Keep the budget in balance
- Retain strong credit rating
- Focus on balance between short-term response and long-term tradeoffs
- Sustainably utilize reserves throughout recession

## **Promote Economic Recovery**

- Support policies to help people and businesses weather recession
- Limited, targeted investments in education and workforce can accelerate recovery



# Recession Planning Tools

*Previous recessions have relied on similar “playbooks” for balancing the budget and mitigating regressive cuts to the extent possible*

## State Spending

- Hiring Controls
  - Hiring freeze, reduced hiring or layoffs
  - Early retirement incentive; voluntary separation incentive
  - Furloughs
- Pausing discretionary spending (e.g., out-of-state travel)
- Rate cuts/contract restructuring
- Agency restructuring/consolidation
- Pausing formulas (Ch. 70 for K-12; Ch. 257 for human service rates)
- Pension (adjusted schedule)
- Debt management (refinance; extend schedules)
- Shifting costs to capital temporarily

## State Resources

- Larger tax revenue increases (increasing income tax rate, broadening the sales tax base, etc.)
- Smaller tax revenue initiatives (amnesty programs; closing loopholes)
- Non-tax revenue maximization (fee, license, etc. increases)
- Off-budget resource reallocation (trusts, special revenue funds)
- Acceleration of revenue collections (federal reimbursements (limited); settlements)
- Contributions from quasi-state agencies (MassCEC, Mass. Convention Center, etc.)
- Sale of state assets (promotes facility consolidation/modernization)



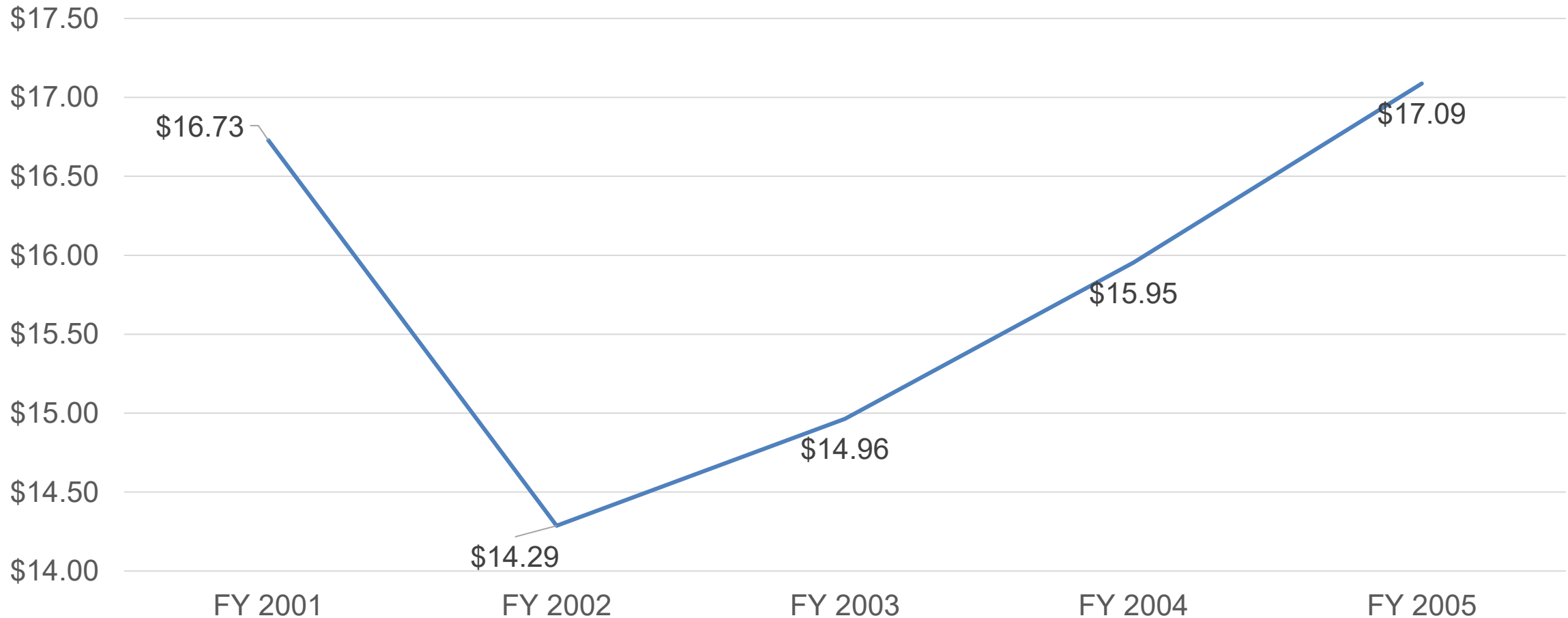
# 2001 Recession



# 2001 Recession Tax Impact and After Effects

*The 2001 Recession saw a sharp 14.6% tax revenue decline with a quicker recovery beginning in FY 2003*

**FY01-05 Actual Tax Collections (in billions)**





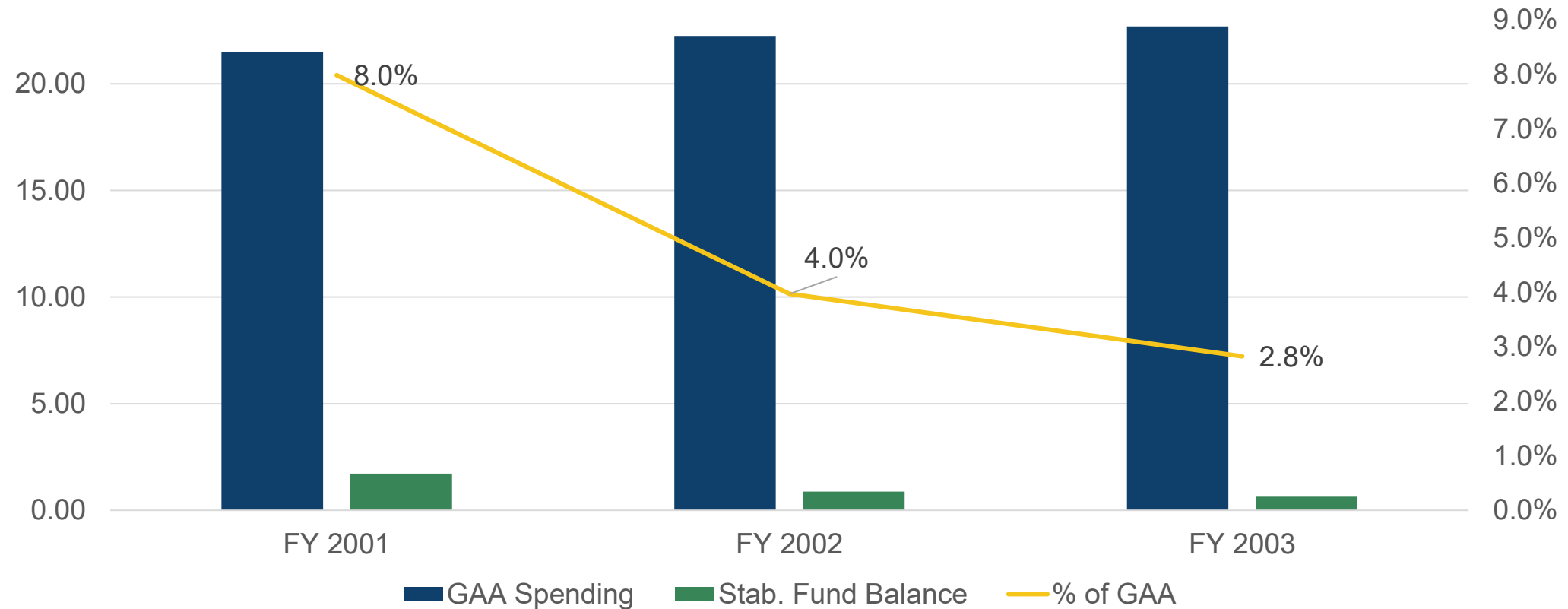
# 2001 Recession Tools

*The state maximized its reserves, increased taxes and reduced its workforce to cover lost revenue*

- \$1.55 B transferred from the Stabilization Fund in FY 2002 and 2003;
- \$1.2 B in additional revenue estimated in FY 2003 for taxes on cigarettes, the elimination of the charitable giving tax deduction, and decreasing other personal tax exemptions;
- \$422 M transferred from the Transitional Escrow Fund in FY 2002;
- \$176 M transferred from the Capital Projects Fund in FY 2002;
- Increased various fees;
- \$134 M savings in FY 2002 by pushing out the pension funding schedule by five years;
- \$120 M in FY 2002 and \$420 M in FY 2003 in 9C reductions;
- \$30.8 M savings in FY 2002 and \$165.8 M in FY 2003 for an early retirement program, impacting 3,953 employees;
- Additional staffing reductions, including layoffs;
- Refunded over \$4 B in older, higher interest debt to take advantage of lower interest rates.



# Stabilization Fund as Percentage of the GAA (2001 Recession)



<i>(in billions)</i>	FY 2001	FY 2002	FY 2003
GAA Spending	\$21.48	\$22.21	\$22.69
Stab. Fund Balance	\$1.72	\$0.88	\$0.64
% of GAA	8.0%	4.0%	2.8%



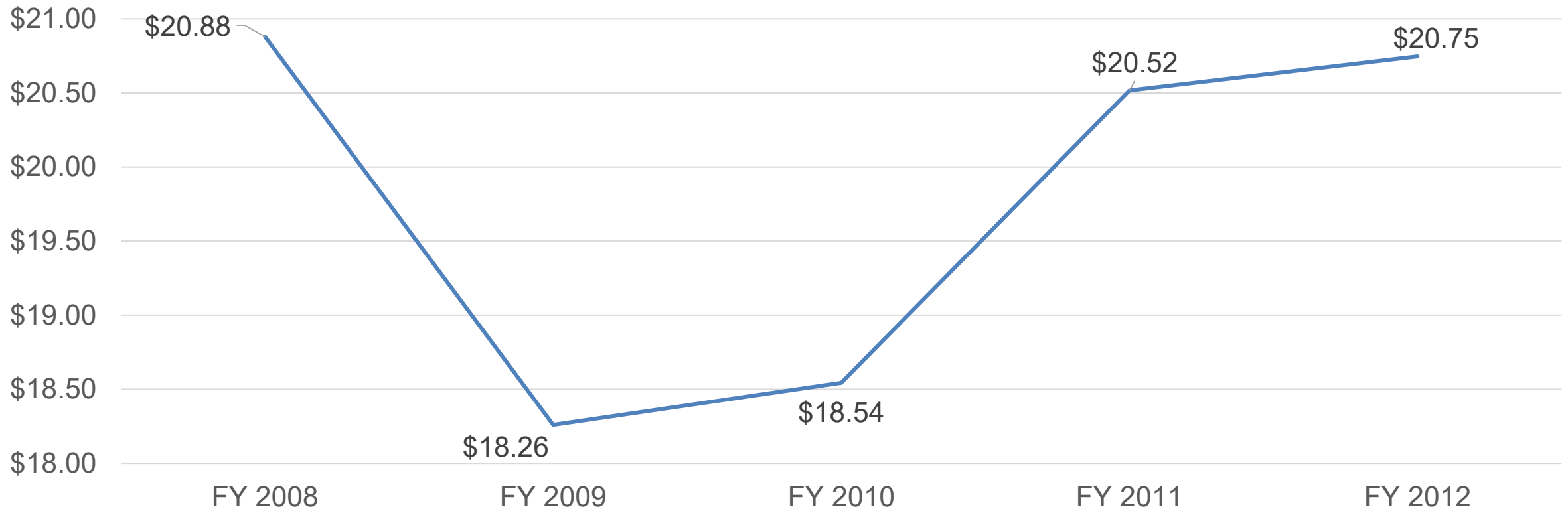
# Great Recession



# Great Recession Tax Impact and After Effect

*Tax collection during the Great Recession collapsed by 12.5% in the first year and effectively stayed flat in the second year*

**Great Recession Tax Impact and After Effect  
FY08-12 Actual Tax Collections (in billions)**





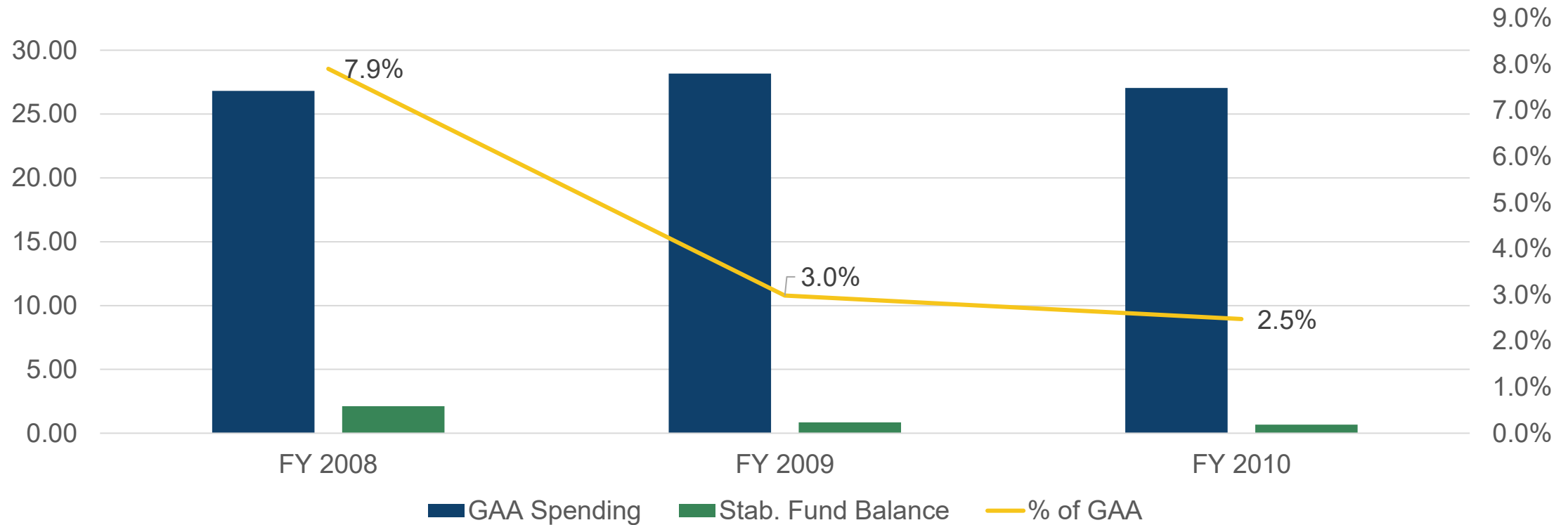
# Great Recession Tools

***Federal stimulus was the main support used during the Great Recession, though the state also made several rounds of 9C cuts and drew from the Stabilization Fund as well***

- \$7.3 B from various programs supported by the American Recovery and Reinvestment Act of 2009;
  - Examples: enhanced federal Medicaid reimbursement, K-12 school aid, and other programs to support economic stimulus.
- \$1.45 B transferred from the Stabilization Fund between FY 2009 and 2010;
- \$1.2 B generated from additional tax revenue measures, including \$900 M from increasing the sales tax from 5% to 6.25%, \$175 M from adding \$1 per pack to the cigarette tax, and \$95 M from eliminating the sales tax exemption for alcohol purchases
- \$854 M in 9C budgetary reductions between FY 2009 and 2010;
- \$187 M by suspending planned revenue transfers to the Stabilization Fund;
- \$95 M in reduced or eliminated transfers from quasi-state entities (Mass. Convention Center Authority, Mass. Clean Energy Center, etc.);
- Extension of the pension schedule by 2 years;
- Consolidation of DESE, EEC and the newly established DHE under the Executive Office of Education;
- Consolidation of multiple transportation agencies under the newly created MassDOT.



# Stabilization Fund as Percentage of the GAA (Great Recession)



(in billions)	FY 2008	FY 2009	FY 2010
GAA Spending	\$26.81	\$28.17	\$27.05
Stab. Fund Balance	\$2.12	\$0.84	\$0.67
% of GAA	7.9%	3.0%	2.5%



# Key Takeaways: Stabilization Fund

1. Regular stress testing allows state to create appropriate targets for Stabilization Fund balances – should include an understanding of priorities to preserve in case of economic downturn
2. States should also establish a broader toolkit to pair with their use of reserves
3. Prior recession case studies show that the Stabilization Fund has been primary tool deployed as a bridge to more sustainable solves for multi-year recovery



# Pension Review



# PERAC Overview

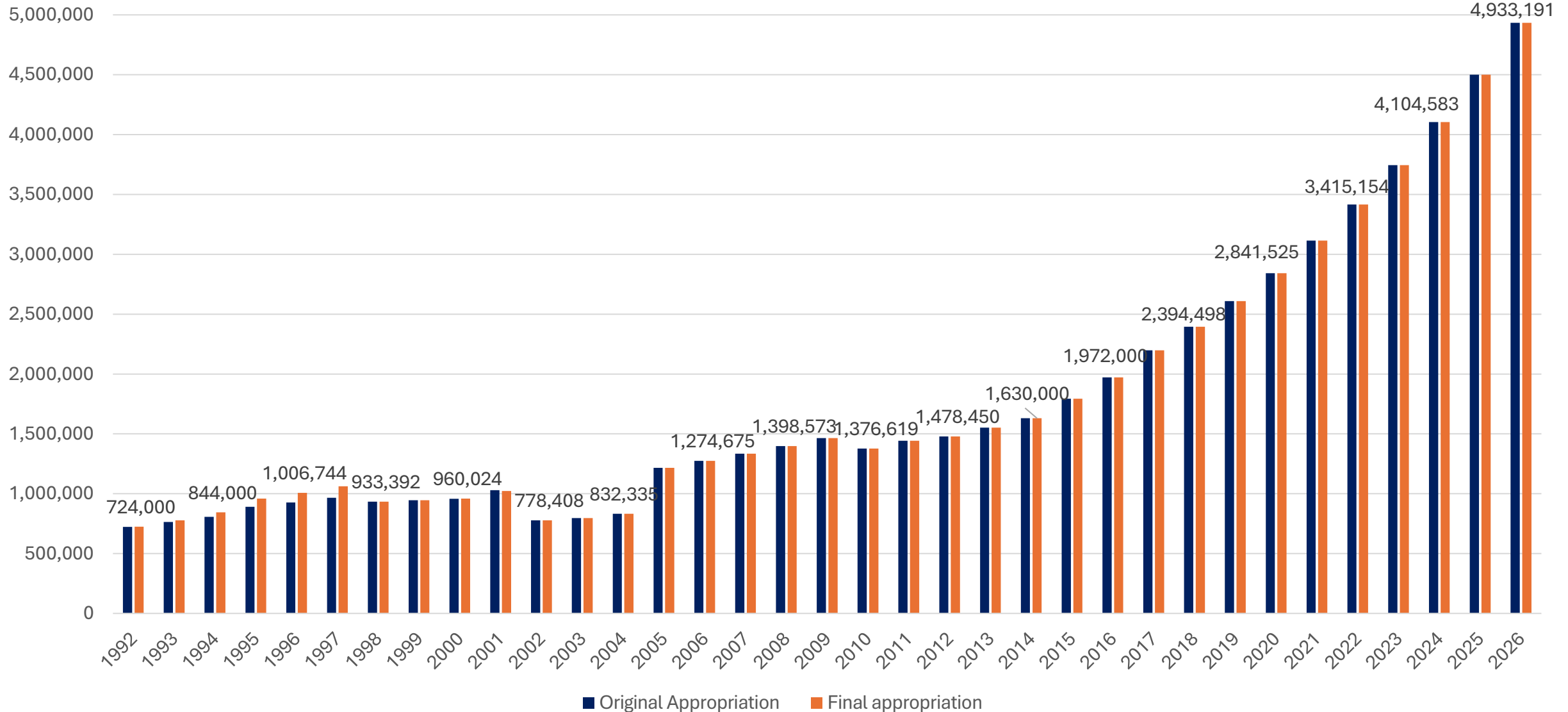


# Historical Unfunded Accrued Liabilities and Funded Ratios

Year	UAL (in 000's)	Funded Ratio
2009	22,084,452	62.7
2010	19,985,970	67.5
2011	18,588,628	71.1
2012	23,604,905	65.1
2013	28,348,334	60.6
2014	29,042,960	61.2
2015	33,429,141	59.0
2016	37,866,399	56.7
2017	39,621,792	56.7
2018	41,398,769	57.0
2019	43,989,368	56.3
2020		
2021	45,575,221	58.2
2022	40,026,888	64.3
2023	42,380,097	63.5
2024	41,973,213	65.2
2025	40,465,430	67.4



# Commonwealth Funding Schedule Appropriations (in thousands)



Source: PERAC

# Long-Term Liabilities in Massachusetts

## Pension Funding and Stress Testing

Stabilization Fund & Long-Term Liability Financing Task Force

November 17, 2025

Stephanie Connolly and David Draine

State Fiscal Policy

The Pew Charitable Trusts

Pew

---

## Pew's 50-State Pension Research

- More than a decade of research and technical assistance helping over 25 states and local governments manage long-term pension and retiree healthcare liabilities
- [Annual fiscal sustainability matrix](#) offers comparison of states across key actuarial, financial, and budgetary indicators
- [Best practices framework](#) offers insight into key practices used by successful retirement systems
- Pension [risk reporting guidance](#) provides a comprehensive starting point for risk assessments targeted to plan sponsors and budgetary decisionmakers, with state risk reporting practices documented in a [2023 review](#)

# Best Practices for State Pension Funding

Policy Goal	Key Concept	Standard of Practice
<b>Fiscal Sustainability</b>	Net Amortization	<p>Annual contributions under state policy are sufficient to reduce pension debt (aka “positive amortization”).</p> <p><b>Stated policy goal for PERAC. Tracked by Moody’s (“tread water” indicator).</b></p>
<b>Planning for Uncertainty</b>	Risk Reporting	<p>Routine stress testing to assess impact of investment risk on pension funding levels and the budget.</p> <p><b>28 states have adopted. Recommended practice by National Association of State Treasurers (NAST).</b></p>
<b>Cost Predictability</b>	Managing Contribution Volatility	<p>Funding policy is designed to respond to economic shocks, avoiding unaffordable spikes in annual required contributions.</p> <p><b>Conference of Consulting Actuaries (CCA) and Government Finance Officers Association (GFOA) have outlined best practices for predictable funding.</b></p>

---

## Overview

- Pension funding in Massachusetts
- Stress testing analysis – assessing investment risk and funding policy considerations
- Best practices for pension funding
  - Using **net amortization** as a measure of fiscal sustainability
  - Applying **stress testing** to manage risk
  - Utilizing **funding strategies** to contain volatility

# Pension Funding in Massachusetts

## Massachusetts Pension Funding

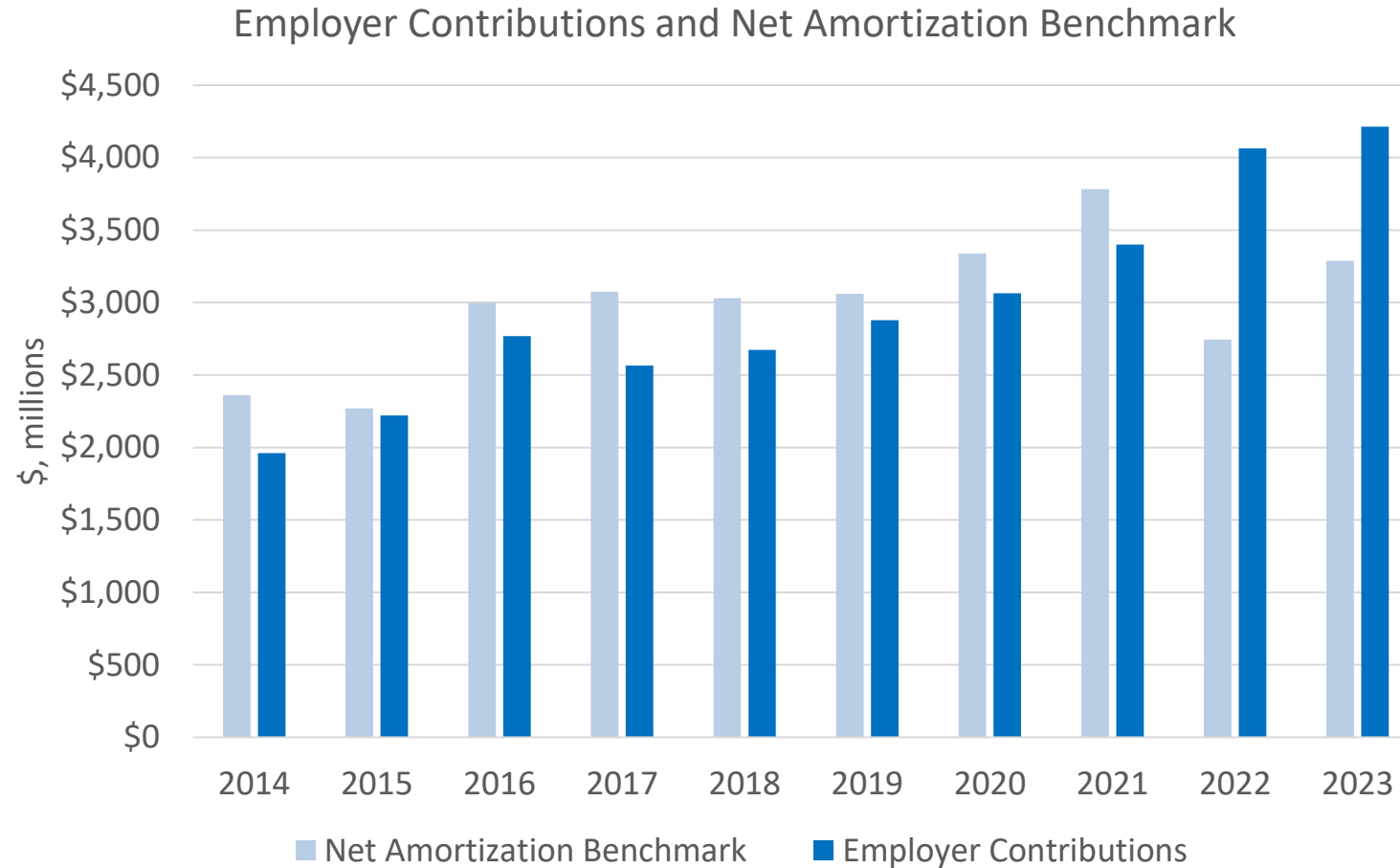
- Massachusetts has made significant progress on pension funding over the past decade, due largely to sustained higher contributions
- Improvement is shown in measures of debt reduction and cash flow:
  - Pew's estimates and PERAC's analysis indicate that MA is achieving positive amortization—an important measure for assessing whether contributions are sufficient to meet current obligations and pay down debt
  - The ratio of operating cash flow to plan assets—an indicator of plan solvency if investment returns fall short of plan assumptions—improved from -3.2% in FY14 to -1% in FY23
- Current policy has contributed to funding improvements, but also poses tradeoffs—in particular, the potential for swings in required future contributions if investments underperform

# Funding Progress: Key Indicators

## Massachusetts and 50-State Progress, 2014-23

	Massachusetts		US 50-State Aggregate	
	2014	2023	2014	2023
<b>Funded Ratio</b>	67.4%	63.9%	74.8%	74.1%
<b>Employer Cost (% of payroll)</b>	16.0%	26.3%	14.25%	19.95%
<b>Operating Cash Flow to Assets Ratio</b>	-3.2%	-1.0%	-3.3%	-2.1%
<b>Net Amortization</b>	Negative	Positive	Majority of states (33) with negative amortization	Majority of states (41) with positive or stable amortization
<b>Assumed Rate of Return</b>	8.0%	7.0%	7.75%	6.95%

# Funding Progress: MA Net Amortization Benchmark and Contributions



Notes: Net amortization benchmark is the sum of the employer normal cost and interest on the prior year net pension liability. Employer contributions have half a year of expected investment returns.

## Pension Funding Schedule Considerations

- Policymakers are beginning to consider a new pension funding schedule, due 1/15/2026, that will inform annual appropriations for the State Employees Retirement System, Massachusetts Teachers Retirement System, and Boston Teachers System for FY27-FY29
  - Currently, contributions are scheduled to increase by 9.63% annually through FY28, followed by 4% annual increases thereafter
  - State's approach is unique, but historical analysis and funding progress demonstrates that it is currently working
- **Under current policy, the state's retirement systems are scheduled to reach full funding in FY36 (with a statutory funding deadline of FY40)**
  - In contrast, many states are moving towards funding policies that allow for more flexible amortization of pension debt and/or that amortize future losses over separate periods as they are incurred

# Pension Stress Testing

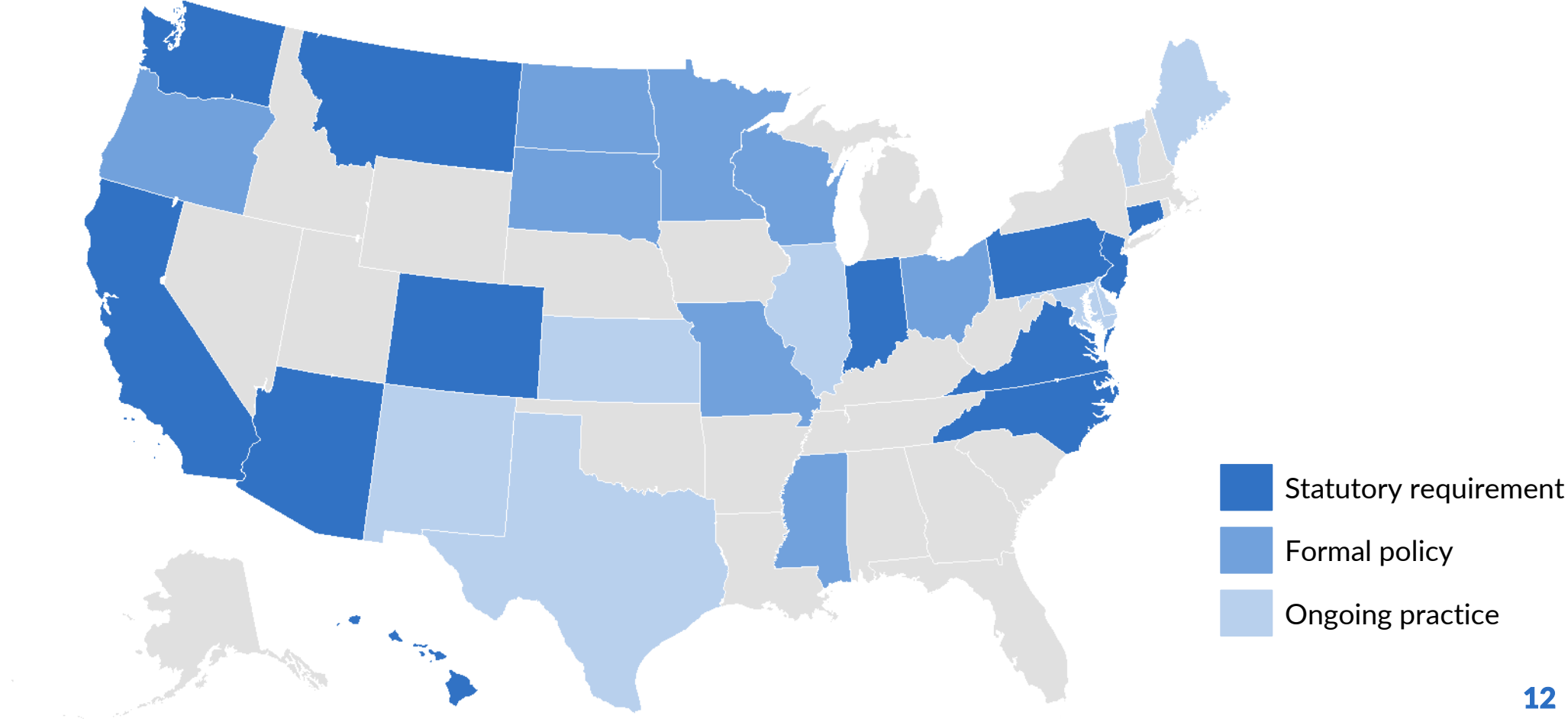
Investment risk and considerations for funding policy

# Pension Stress Testing

- Consists of forward-looking assessments of investment risk on plan funding levels and required contributions
- Should be routine, transparent, and policy-relevant
- Helps plan sponsors to assess the effects of economic scenarios on balance sheets and government budgets, which can help them plan for uncertainty

# State Stress Testing Practices

28 states produce assessments of risk on plan funding levels and costs



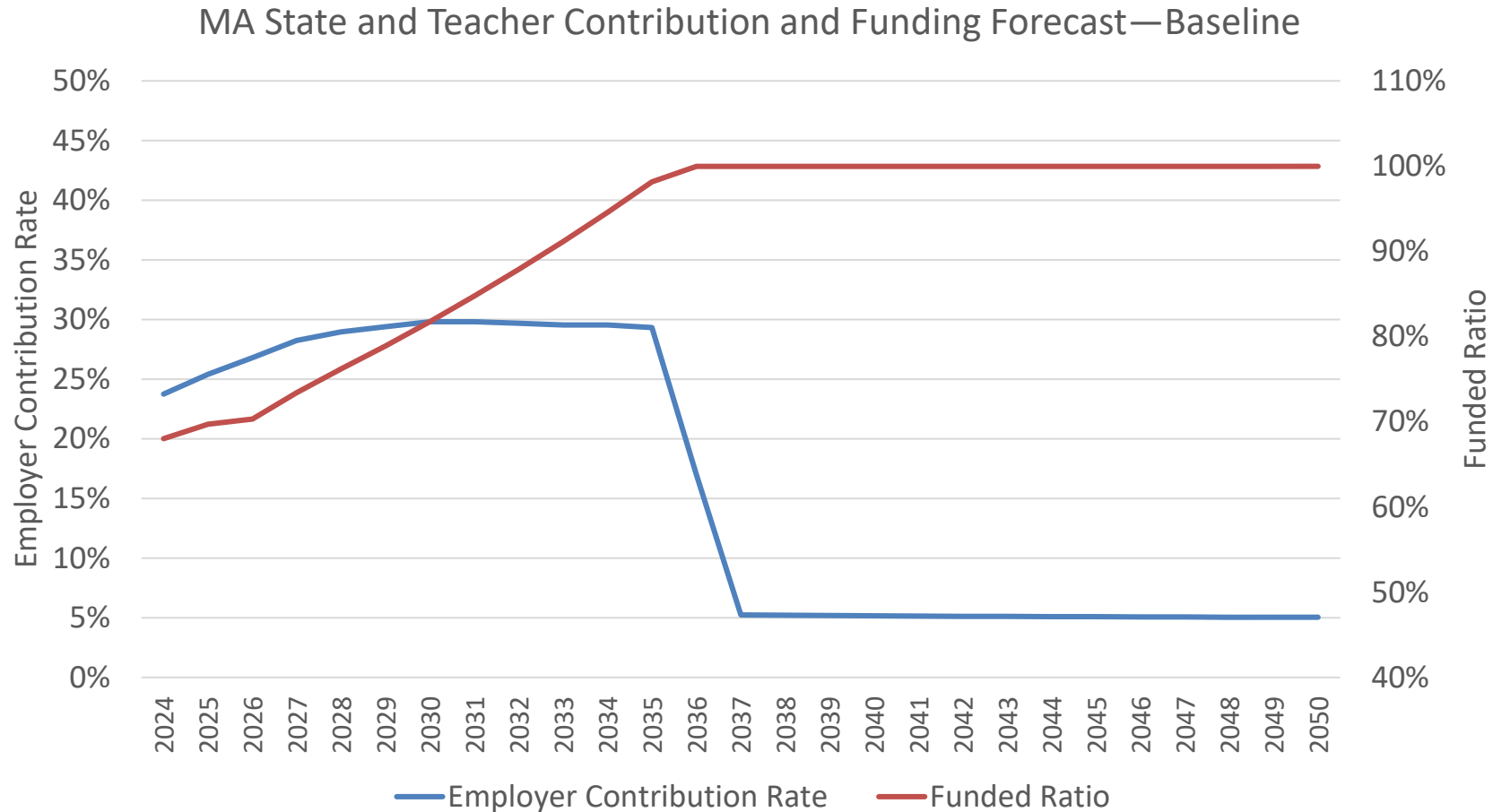
# Stress Testing in Massachusetts

## Application and Key Findings

- Analysis indicates that funding progress can be expected to continue if investment returns and other assumptions hold true
  - However, large swings in required contributions can be expected if investments underperform
  - Extending the amortization period for current liabilities and implementing new periods for future losses can mitigate volatility while maintaining funding progress
- Stress testing as a routine policy can help policymakers evaluate current and proposed funding policy, manage risk, and ensure long-term fiscal sustainability

# Baseline Forecast for State Employees and Teachers Systems

MA pensions are expected to hit full funding and contribution rates will drop under current policy and assumptions.



Source: Actuarial analysis produced by The Terry Group

# Stress Testing Contribution Rates: Scenarios and Assumptions

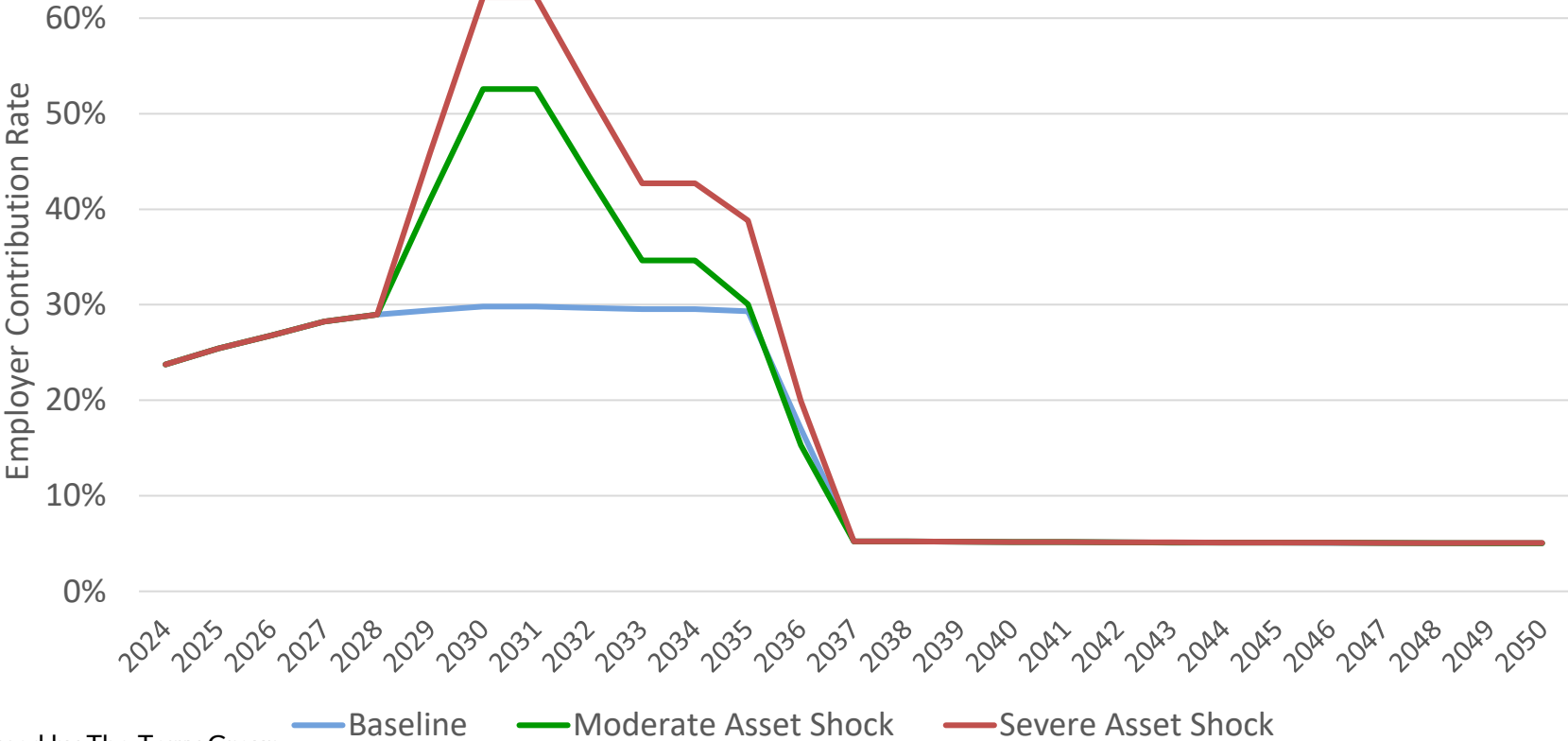
- Projections use the 1/1/2025 actuarial results as the starting point.
- The results show simplified asset shock scenarios to simulate volatility on required contributions.
- The moderate and severe shock scenarios modeled by Pew generally align with the Moody's moderate and severe (S3 and S4) scenarios used for budget stress testing.
- All other assumptions and methods are intended to match the actuarial practices used by PERAC.

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Baseline</b>	7.0%	7.0%	7.0%	7.0%	7.0%
<b>Moderate Shock</b>	-15.0%	0.0%	15.0%	15.0%	7.0%
<b>Severe Shock</b>	-20.0%	-5.0%	12.5%	15.0%	7.0%

# Stress Testing Contribution Rates

An asset shock in 2026 could lead to a 10-percentage point swing in contribution rates as the funding policy would be required to make up the losses over a relatively short time frame.

Combined State and Teacher, Current Policy

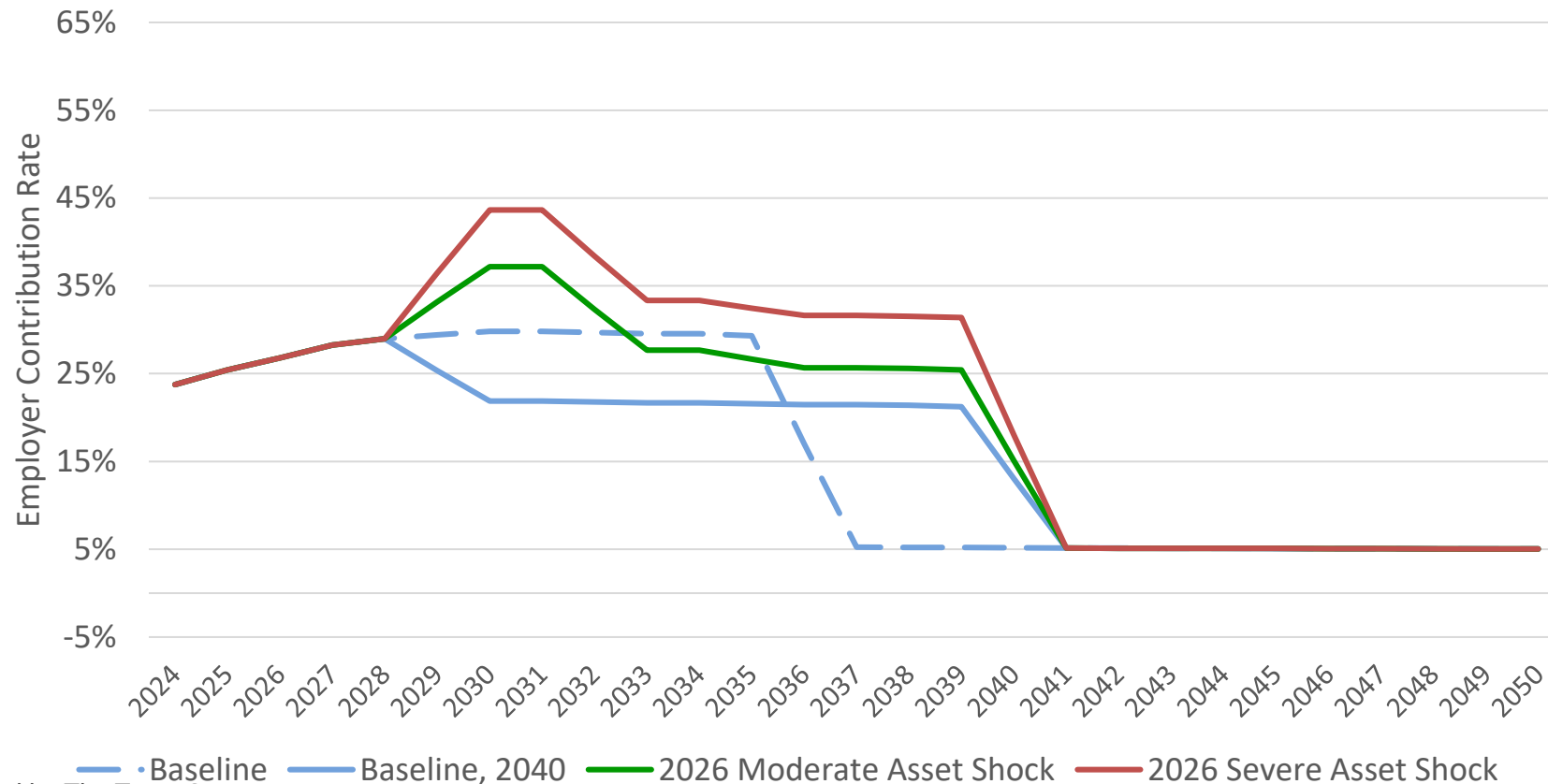


Source: Actuarial analysis produced by The Terry Group

# Stress Testing Contribution Rates—2040 Funding Target

Current statute allows for the amortization period to extend to 2040—policymakers can use this flexibility to mitigate some of the contribution increase from an asset shock occurring in 2026.

Combined State and Teacher, 2040 Amortization

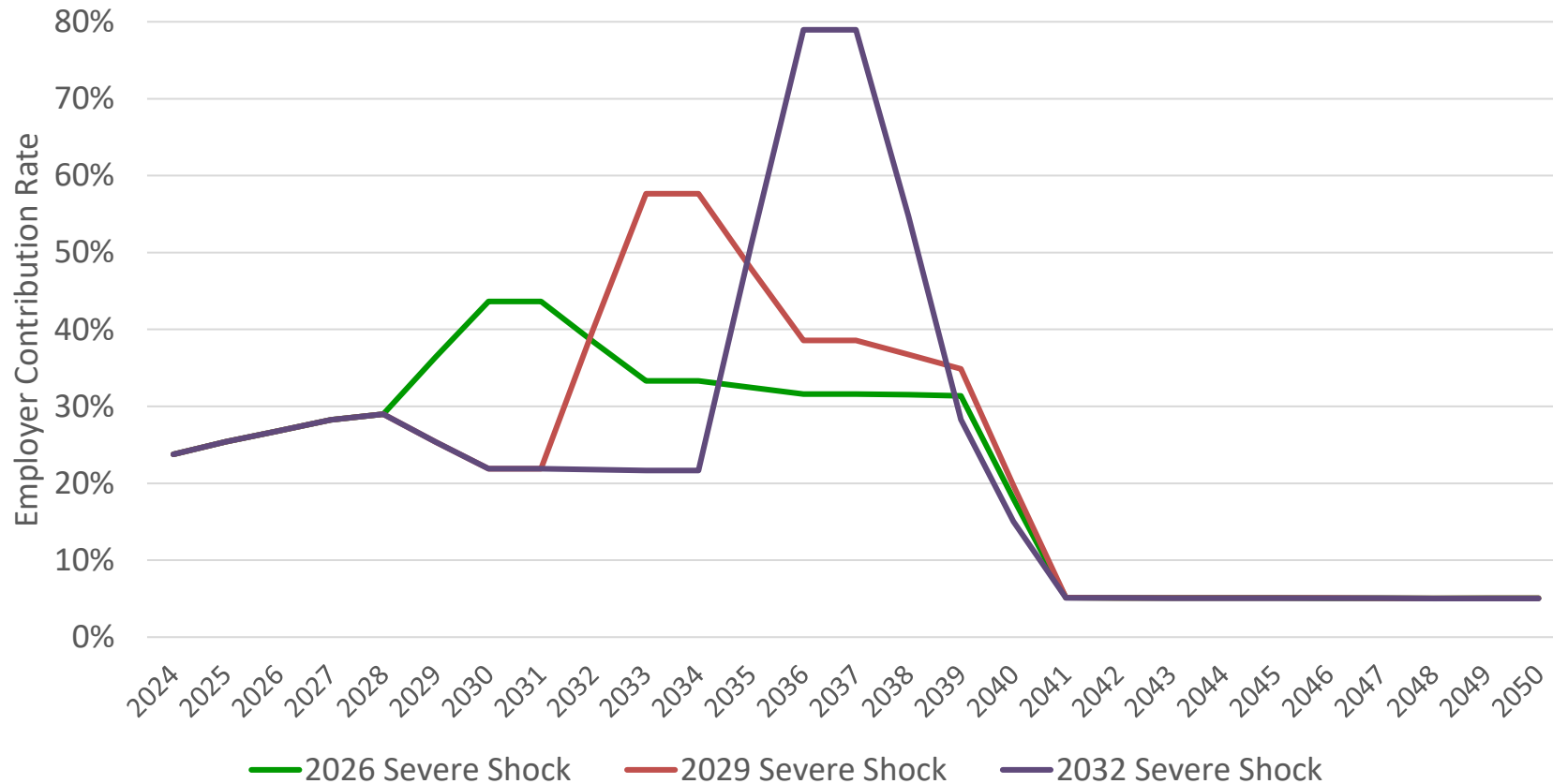


Source: Actuarial analysis produced by The Terry Group

# Stress Testing Contribution Rates—Asset Shock Timing

A severe asset shock later in the projection period will create significant contribution volatility, even with the amortization period extended in 2040.

Combined State and Teacher, Current Policy

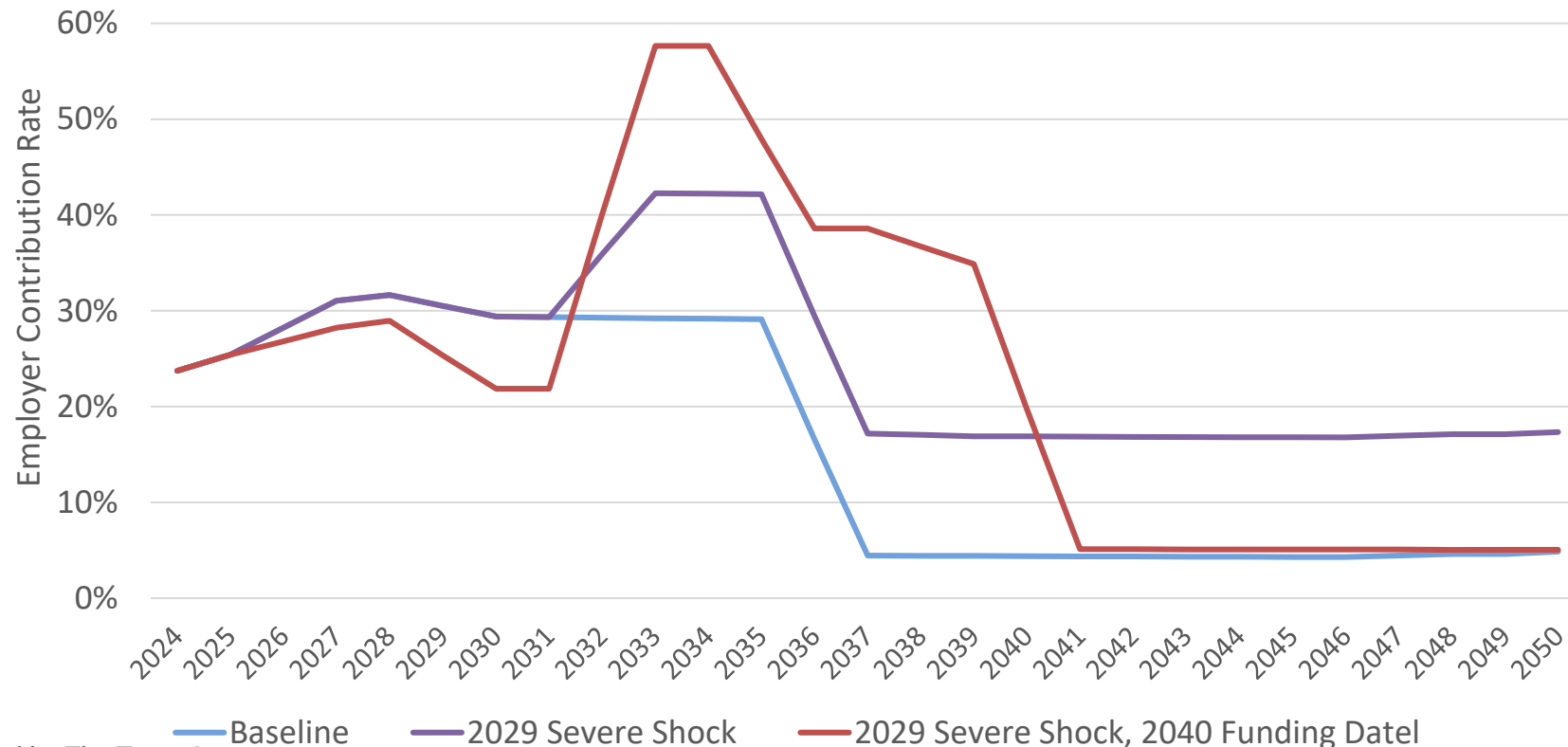


Source: Actuarial analysis produced by The Terry Group

# Stress Testing Contribution Rates—Layered Amortization

Layered amortization is an actuarial funding approach that ensures existing unfunded liabilities are paid for over a fixed timeframe but applies a fresh funding period to future losses.

Combined State and Teacher, Layered Amortization



Source: Actuarial analysis produced by The Terry Group

---

## What is layered amortization?

- Layered amortization pays down the actuarial and investment losses experienced in a given year over a fixed payment schedule. Losses or gains in subsequent years are assigned a new payment period rather than being funded over a decreasing number of years.
  - When adopting layered amortization, legacy unfunded liabilities can be kept on the existing payment schedule and the layered approach will apply to subsequent events.
- Layered amortization addresses shortfalls in both the open and closed approaches and is recommended by the Conference of Consulting Actuaries, among others.
  - Connecticut, Maryland, and Minnesota are states that have switched to layered approaches in the recent past.

## Lessons from States Switching to Layered Amortization

# Connecticut GO Debt Rating Raised To 'A+' From 'A' On Moderating Debt Burden

In explaining drivers of Connecticut's 2021 rating increase, S&P analysts cited the adoption of *“more conservative actuarial assumptions and methods for funding pension liabilities. Changes to funding of the states' unfunded pension liabilities include lowering its assumed rates of return from 8.0% to 6.9% for its two largest pension plans, a layered amortization method, and transitioning to a level-dollar funding method.”*

# Best Practices for State Pension Funding

Policy Goal	Key Concept	Policy Considerations and Recommendations
<b>Fiscal Sustainability</b>	Net Amortization	Include information on current and five-year projected levels of positive amortization (pension debt reduction) in actuarial reporting.
<b>Planning for Uncertainty</b>	Risk Reporting	Adopt routine and transparent stress testing to assess the impact of investment risk on pension funding levels and the budget.
<b>Cost Predictability</b>	Managing Contribution Volatility	Consider layered amortization to provide flexibility and keep costs stable as the state approaches full pension funding.



# Key Takeaways: Pension

1. More aggressive pension financing schedules have put Massachusetts in a much stronger position as the next triennial schedule is developed
2. Similar to general budget stress testing, pension fund stress testing is recommended to more regularly track risks and ensure sustainable decision making
3. Implementing a layered amortization method represents an opportunity for the state to evolve its pension funding approach



# Upcoming Schedule/Topics



## Upcoming Topics

- December 11 (3-4:30pm) – Other long-term liabilities (i.e., disaster relief funding); ratings agency considerations; key considerations/recommendations
- Early December – A&F share out draft report
- Mid-December/Early January – Meeting to discuss report recommendations
- Mid-January – File report



# Appendix



# Relevant Resources

- Task Force Enabling Statute (Section 5) – An Act to Provide for Competitiveness and Infrastructure Investments): <https://malegislature.gov/Laws/SessionLaws/Acts/2024/Chapter214>
- Capital Gains Threshold and Excess Capital Gains Transfer (Section 5G of Chapter 29 of the General Laws): <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleIII/Chapter29/Section5G>
- Initial FY 2011 Capital Gains Threshold Policy Brief: [https://budget.digital.mass.gov/bb/h1/fy11h1/exec\\_11/hbudbrief15.htm](https://budget.digital.mass.gov/bb/h1/fy11h1/exec_11/hbudbrief15.htm)
- PERAC Commonwealth Valuation Reports: <https://www.mass.gov/lists/commonwealth-valuation-reports>