



THE COMMONWEALTH OF MASSACHUSETTS

\$210,000,000*

General Obligation Bonds

Consolidated Loan of 2024, Series G

\$315,000,000*

General Obligation Bonds

Consolidated Loan of 2024, Series H

\$275,000,000*

General Obligation Bonds

Consolidated Loan of 2024, Series I

Investor Presentation

December 5th, 2024



*Preliminary, subject to change

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Transaction Summary*



General Obligation Bonds Consolidated Loan of 2024, Series G, H, I

Issuer	The Commonwealth of Massachusetts (the “Commonwealth”)		
Series	General Obligation Bonds Consolidated Loan of 2024, Series G	General Obligation Bonds Consolidated Loan of 2024, Series H	General Obligation Bonds Consolidated Loan of 2024, Series I
Par Amount*	\$210,000,000	\$315,000,000	\$275,000,000
Optional Redemption*	12/1/2034		
Ratings (F/M/S)	AA+ / Aa1 / AA+, all with stable outlook		
Tax Status	Federal and Commonwealth of Massachusetts Tax-Exempt		
Pricing Dates/Time*	December 12 th , 2024 10:00am	December 12 th , 2024 10:30am	December 12 th , 2024 11:00am
Delivery Date*	December 19 th , 2024		
Additional Information	www.massbondholder.com		

Plan of Finance*



New Money

- Finance or reimburse the Commonwealth for a variety of capital expenditures which are included within the Capital Investment Plan maintained by the Executive Office for Administration and Finance.



Maturity	Series 2024 G (12/1)*	Series 2024 H (12/1)*	Series 2024 I (12/1)*	Aggregate
2026	-	-	-	-
2027	-	-	-	-
2028	20,000,000	-	-	20,000,000
2029	15,000,000	-	-	15,000,000
2030	25,000,000	-	-	25,000,000
2031	25,000,000	-	-	25,000,000
2032	20,000,000	-	-	20,000,000
2033	40,000,000	-	-	40,000,000
2034	35,000,000	-	-	35,000,000
2035	30,000,000	-	-	30,000,000
2036	-	30,000,000	-	30,000,000
2037	-	35,000,000	-	35,000,000
2038	-	25,000,000	-	25,000,000
2039	-	25,000,000	-	25,000,000
2040	-	50,000,000	-	50,000,000
2041	-	25,000,000	-	25,000,000
2042	-	35,000,000	-	35,000,000
2043	-	25,000,000	-	25,000,000
2044	-	30,000,000	-	30,000,000
2045	-	35,000,000	-	35,000,000
2046	-	-	20,000,000	20,000,000
2047	-	-	20,000,000	20,000,000
2048	-	-	25,000,000	25,000,000
2049	-	-	25,000,000	25,000,000
2050	-	-	25,000,000	25,000,000
2051	-	-	40,000,000	40,000,000
2052	-	-	40,000,000	40,000,000
2053	-	-	40,000,000	40,000,000
2054	-	-	40,000,000	40,000,000
Total	210,000,000	315,000,000	275,000,000	800,000,000

*Preliminary, subject to change



What You Are Investing in When You Invest in Commonwealth Bonds

FY2025 Capital Investment Plan (CIP)



State Agencies' CIP Investment Goals

Agency	Bond Cap (in millions)
MassDOT	\$ 1,098.8
Capital Asset Management (DCAMM)	721.6
Housing & Liveable Communities (EOHLC)	398.7
Energy & Environmental Affairs (EOEEA)	302.6
Economic Development (EOED)	269.3
Technology Services & Security (EOTSS)	174.8
Administration & Finance	93.7
Public Safety ⁽¹⁾	31.8
Education ⁽²⁾	25.9
Total Bond Cap⁽³⁾	\$ 3,117.2

- MassDOT CIP centers around the safety and reliability of its system, the modernization of its assets, and the strategic enhancement of transportation options through the Commonwealth. It also incorporates strategies to align with the Commonwealth's goals to reduce greenhouse gas emissions.
- DCAMM CIP addresses facility needs for state agencies across all branches of government. Funding for state buildings including new construction, major renovations, minor improvements and building repairs, is provided through the DCAMM bond cap. A key focus to every major project in the Commonwealth portfolio is decarbonization.
- EOHLC CIP focuses on investments related to housing acquisition and rehabilitation, public housing investments, and housing vulnerable populations. These investments are designed to increase affordable and mixed-income housing, address problematic properties, and fund the needs of the state-aided housing portfolio.
- EOEEA CIP provides investments to help protect communities from extreme weather and rising sea levels, and to provide investments to grow our clean energy economy. The EOEEA CIP continues investments in programs that support communities as they plan for the future including the Municipal Vulnerability Program.
- EOED CIP represents a multi-faceted approach for promoting economic development and supporting economic opportunity in communities across Massachusetts by leveraging the capital budget to support key sectors and emerging opportunities through established programs including the Life Sciences Capital Program and strengthening communities with investments in capital programs that help municipalities advance local economic priorities including the MassWorks Infrastructure program and other Community One Stop for Growth grant programs.
- EOTSS CIP promotes standardization and consistency, aims to deliver citizen centric digital services, improve the performance of government technology, modernize IT infrastructure, protect data, enhance the Commonwealth's cybersecurity posture, and support the Commonwealth's equity and accessibility goals.

(1) Includes vehicles and equipment; does not include public safety facilities, which are funded by the Commonwealth through Capital Asset Management.

(2) Does not include higher education facilities' projects, which are funded by the Commonwealth through Capital Asset Management.

(3) Actual capital spending is subject to variance from budget due to the nature of the projects and the programs comprising the plan.

Massachusetts Credit Summary



Economy	<ul style="list-style-type: none">• Broad and diverse economy including significant strength in healthcare, technology and education sectors• Well-trained labor pool experiencing strong wage growth over the last 10 years• Statewide per capita income of \$90,596 was the highest among all states and was 130% of the national per capita income in 2023
Finances & Liquidity	<ul style="list-style-type: none">• Massachusetts' individual income taxes and sales taxes accounted for approximately 82% of total tax revenue in FY 2024• From \$2.0 billion in FY 2018, the Stabilization Fund balance has increased by roughly 325% to a projected \$8.5 billion for FY2025• The Commonwealth has access to a \$500 million line of credit through May 2026
Budget and Financial Management Controls	<ul style="list-style-type: none">• Strong financial, debt and budget management policies include: (i) estimating consensus revenue; (ii) forecasting multi-year financial plans; (iii) issuing annualized formal debt affordability statements and (iv) planning multi-year capital investments• Strong budget gap closing capacity – if there is a revenue shortfall, the Governor has the authority to cut expenses for executive agencies without legislative approval• Ongoing economic and revenue monitoring throughout the Commonwealth
Long-term Liabilities	<ul style="list-style-type: none">• There is an annual administrative limit on the amount of bond-funded capital expenditures, or “bond cap”, to keep the Commonwealth’s debt within affordable levels (FY 2025 bond cap is \$3.117 billion)• Debt is elevated compared to other states in part because of the Commonwealth’s practice of financing projects for highly-rated local governments• As of January 1, 2023, the funded ratio of the pension system based on the actuarial value was 63.5%• Under current law, the unfunded pension liability must be fully amortized by June 30, 2040. The current funding schedule fully amortizes the liability by June 30, 2037

Massachusetts Industry Mix Compared to US

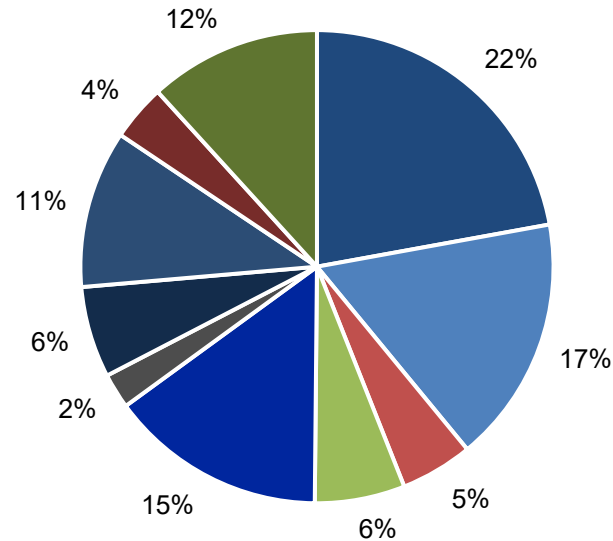


Key Takeaways

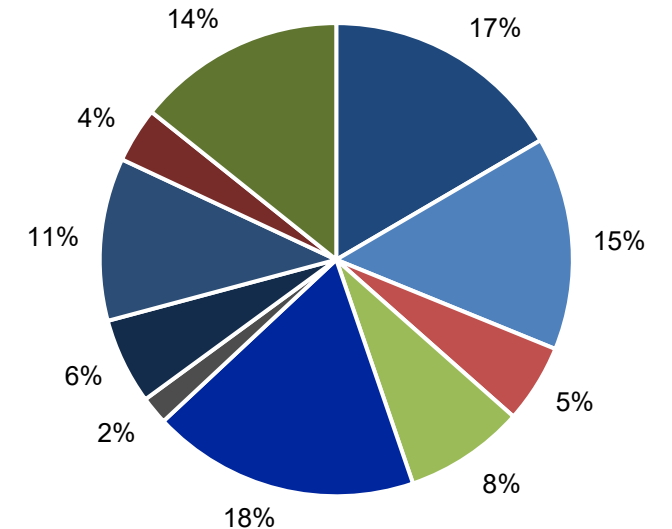
- Massachusetts' industry sector diversification is similar to that of the US with the top 5 sectors comprising approximately 77% of employment
- Education and Health Services sector has consistently been the top sector in the Commonwealth. The clusters of colleges, universities, and teaching hospitals contribute to Massachusetts being a hub for technology and research
- Professional & Business Services sector has been increasingly important in the Commonwealth, both as a share of employment and in terms of its contribution to state gross domestic product ("GDP")
- Several NAICS⁽¹⁾ service sectors (Education and Health Services, Professional Services, and Leisure and Hospitality) have grown to take the place of manufacturing in driving the Massachusetts economy

Employment Composition of Massachusetts and the United States as of August 2024

Massachusetts



United States



Industry Sector	MA	US
Educ. & Health Services	22%	17%
Prof & Business Services	17%	15%
Trade, Transp., Utilities	15%	18%
Government	12%	14%
Leisure & Hospitality	11%	11%
Top 5 Total	77%	75%

- Education and Health Services
- Professional and Business Services
- Construction
- Manufacturing
- Trade, Transportation, and Utilities
- Information
- Financial Activities
- Leisure and Hospitality
- Other Services
- Government

(1) North American Industry Classification System

Source: U.S. Bureau of Labor Statistics, as of August 2024 (<https://www.bls.gov/sae/data/>)

Source: U.S. Bureau of Labor Statistics, as of August 2024 (<https://www.bls.gov/web/empsit/ceseeb1b.htm>)

Notes: Not seasonally adjusted

Education and Health Services Concentration

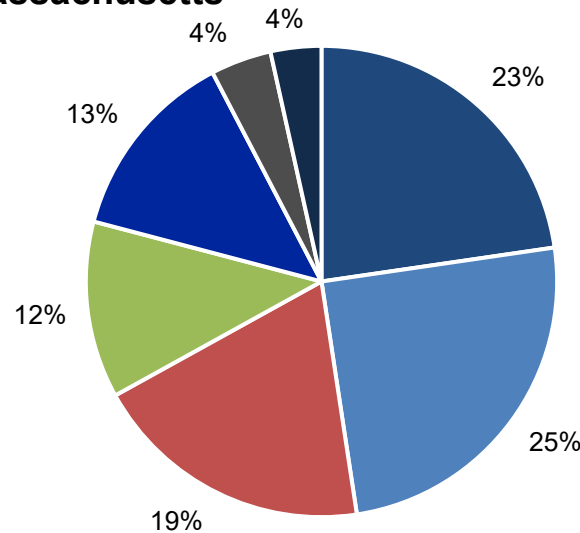


Key Takeaways

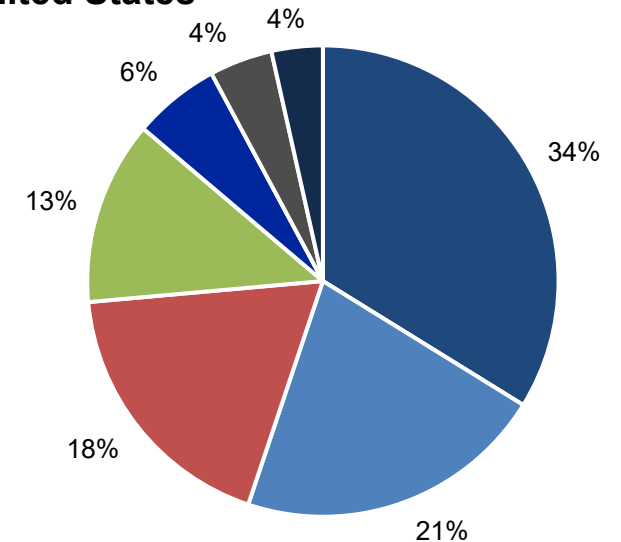
- As noted on the prior slide, the Education and Health Services sector comprises 22% of the Commonwealth's industry mix, which is a higher percentage than that of the US (17%), which provides a number of credit positives for the Commonwealth
 - Massachusetts is home to several of the top teaching hospitals in the world
 - Massachusetts surpasses the rest of the country in Private Colleges, Universities, and Professional Schools at 13%, compared to 6% in the US
 - Strong educational presence creates foundation for future economic growth

Breakdown of Education and Health Services Sector by Industry as of August 2024

Massachusetts



United States



Education & Health Services	MA	US
Hospitals	25%	21%
Ambulatory Health Care Services	23%	34%
Social Assistance	19%	18%
Priv. Colleges, Universities, Prof. Schools	13%	6%
Nursing & Residential Care Facilities	12%	13%
Top 5 Total	92%	92%

- Ambulatory Health Care Services
- Hospitals
- Social Assistance
- Nursing and Residential Care Facilities
- Private Colleges, Universities, and Professional Schools
- Private Elementary and Secondary Schools
- Other Private Educational Services



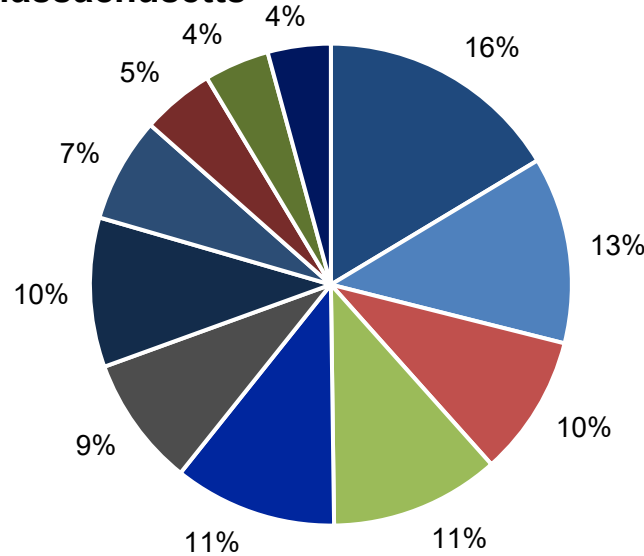
Professional and Business Services Concentration

Key Takeaways

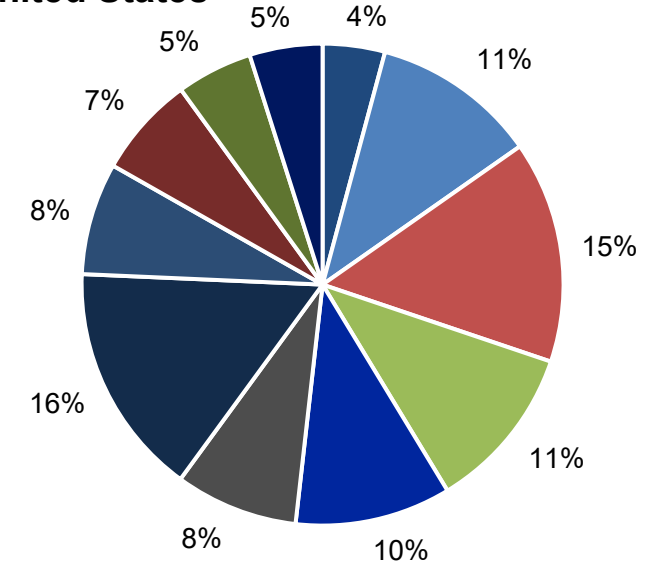
- Professional and Business Services sector has been increasingly important in the Commonwealth, both as a share of employment and in terms of its contribution to Commonwealth GDP
- In Massachusetts, the leading subsectors in terms of employees are Scientific Research & Development Services and Computer Systems Design
- During the pandemic, Professional & Business Services sector increased its prominence in the Commonwealth in terms of employment
- These subsectors benefit from the Commonwealth's well-established Higher Education and Healthcare sectors

Breakdown of Professional and Business Services Sector by Industry as of August 2024

Massachusetts



United States



Professional & Business Services	MA	US
Scientific R&D Services	16%	4%
Computer Systems Design	13%	11%
Mgmt of Companies & Enterprises	11%	11%
Services to Buildings & Dwellings	11%	10%
Employment Services	9%	15%
Top 5 Total	60%	51%

- Scientific research and development services
- Computer systems design and related services
- Employment Services
- Management of companies and enterprises
- Services to Buildings and Dwellings
- Management, scientific, and technical consulting services
- Other administrative and support and waste management and remediation services
- Architectural, engineering, and related services
- Other professional, scientific, and technical services
- Legal services
- Accounting, tax preparation, bookkeeping, and payroll services

Source: U.S. Bureau of Labor Statistics, as of August 2024 (<https://www.bls.gov/sae/data/>)
 Source: U.S. Bureau of Labor Statistics, as of August 2024 (<https://www.bls.gov/web/empsit/ceseeb1b.htm>)
 Notes: Not seasonally adjusted

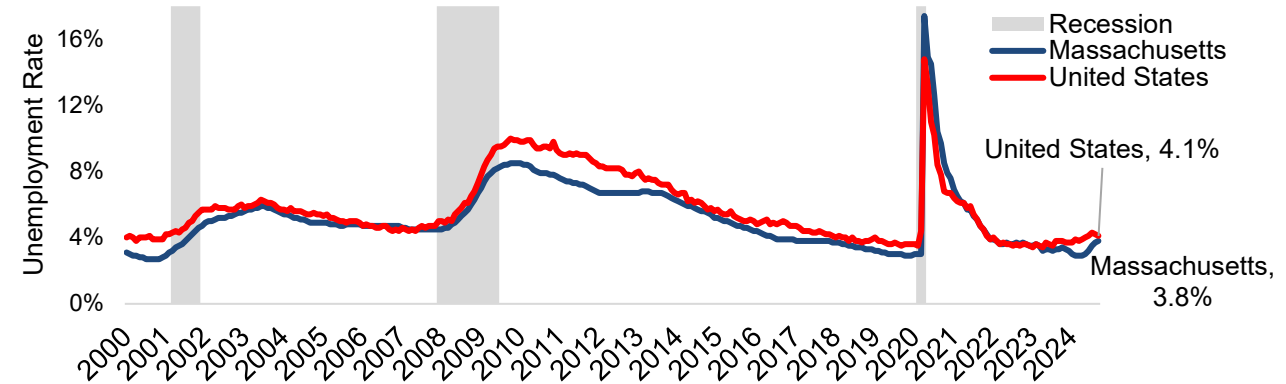
Strong, Diverse, and Resilient Economy



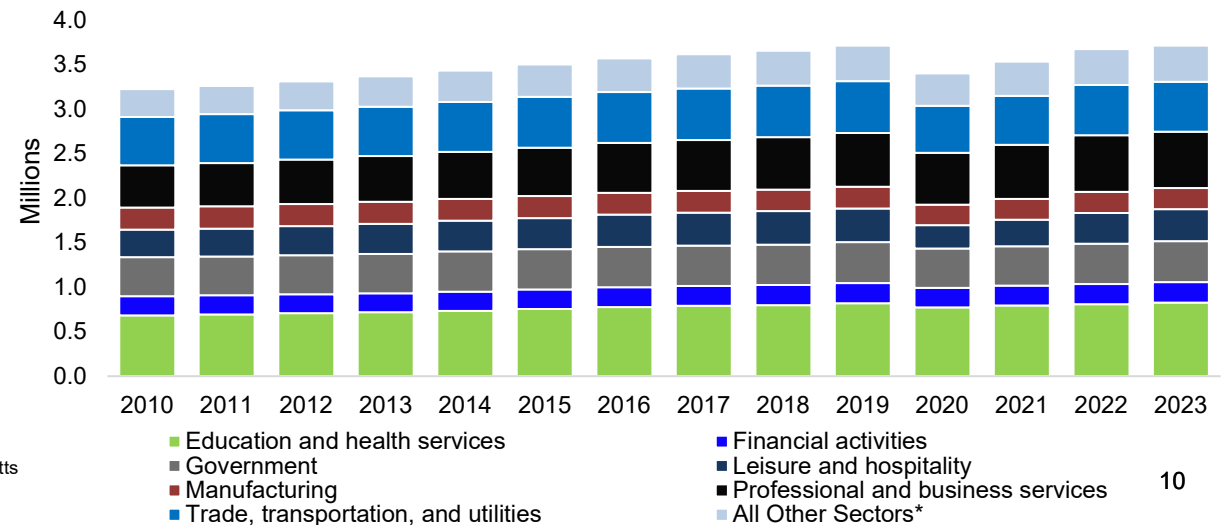
Key Takeaways

- The Massachusetts economy has generally performed better than the US economy, with the Commonwealth unemployment rate typically below the national rate – especially during and following the period of the Great Recession
- The Commonwealth’s mix of knowledge-based industries and a well-educated workforce, with over 47% of all residents 25 years of age or older earning a bachelor’s degree or higher, led to high levels of labor force participation and low levels of unemployment in the Commonwealth
- The early outbreak of COVID-19 in the northeastern part of the US, coupled with proactive social distancing efforts by the Commonwealth in the spring and summer of 2020, led to significant job losses
- Massachusetts’ unemployment rate peaked at 17.4% in April 2020, while US unemployment peaked at 14.8% in the same month
 - Unemployment increased in 2024 and stood at 3.8% in September 2024 for the Commonwealth and 4.1% for the US, surpassing pre-pandemic employment levels in the Commonwealth
- The higher-paying industries of Professional & Business Services have both returned to well above their respective pre-pandemic employment levels

Unemployment Rates in Massachusetts and the United States as of September 2024 (Seasonally Adjusted)



Annual Average Employment in Massachusetts, 2010-2023 by NAICS Supersector



Source: Commonwealth of Massachusetts Information Statement dated November 19, 2024 – Exhibit A Socioeconomic Indicators for Massachusetts
 *Includes Mining & Natural Resources, Construction, Information, and Other Services

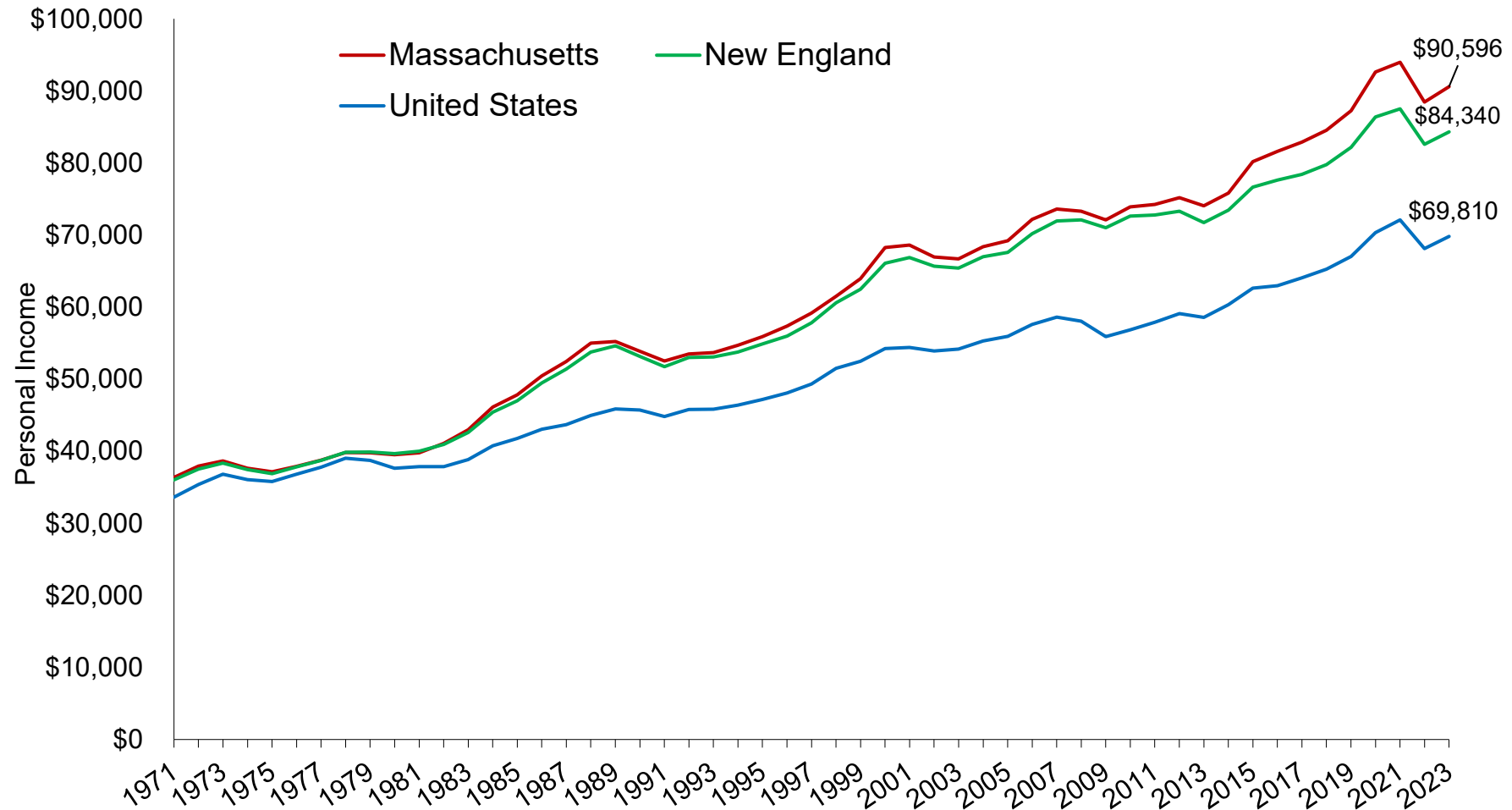
Consistent Per Capita Income Growth, Outpacing the Country



Key Takeaways

- Massachusetts has consistently been near the top of the nation in resident income and ranks as one of the wealthiest states based on mean household income and per capita income
- In 2023, the Commonwealth's real per capita personal income of \$90,596 was 130% of the US' real per capita personal income
- In 2023, the Commonwealth's real per capita personal income of \$90,596 was 107% of New England's real per capita personal income

Real Per Capita Personal Income in Massachusetts, New England, and the United States, 1971-2023



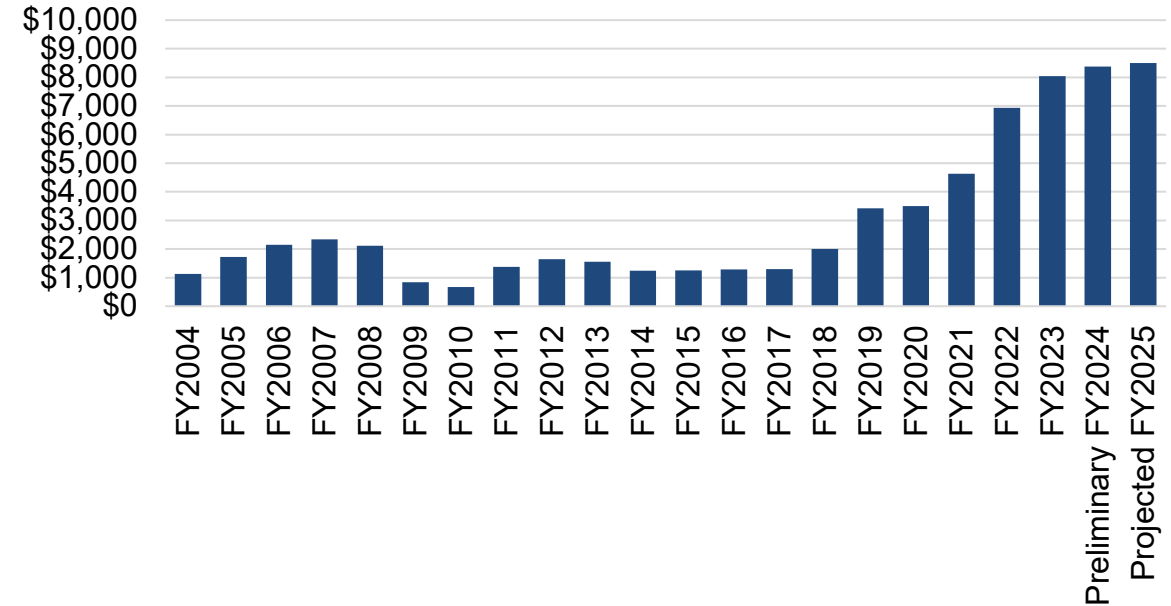
Commitment to Building the Stabilization Fund



Stabilization Fund Sources and Uses (\$ millions)⁽¹⁾

	FY2020	FY2021	FY2022	FY2023	Preliminary FY 2024 ⁽⁴⁾	Projected FY2025 ⁽⁴⁾
Beginning Fund Balance	\$3,424	\$3,501	\$4,626	\$6,938	\$8,036	\$8,378
Capital gain tax transfer ⁽³⁾	-	1,098	2,273	750	266	97
Investment income	62	9	-	266	-	-
Deposits of remaining consolidated net surplus	-	-	-	-	-	-
Other Revenues	15	18	39	82	76	28
Ending Fund Balances	\$3,501	\$4,626	\$6,938	\$8,036	\$8,378	\$8,502

Massachusetts Stabilization Fund Balance (\$ millions)⁽¹⁾⁽²⁾



⁽³⁾ Threshold adjusted annually for U.S. gross domestic product growth. A Legislative enactment in 2020 retained all fiscal 2020 capital gains tax revenue in the General Fund. The proposed supplemental budget to close out fiscal 2024 further adjusts the disposition of excess capital gains as shown in the preliminary fiscal 2024 and projected fiscal 2025 figures. The fiscal 2025 budget also permits \$375 million to be diverted for to be used for expenditures, if necessary.

⁽⁴⁾ Fiscal 2024 is preliminary and unaudited and fiscal 2025 is projected.

Key Takeaways

- From \$2.0 billion in FY 2018, the Stabilization Fund balance has increased by roughly 325% to a projected \$8.5 billion⁽¹⁾ for FY2025.
- On September 24, 2024, the Governor signed into law “An Act to Provide for Competitiveness and Infrastructure in Massachusetts” that provides for the use of interest earnings from the Stabilization Fund to fund a Commonwealth Federal Matching and Debt Reduction Fund that supports state match contributions for the purposes of competing for federal discretionary grant opportunities, as well as other capital investments.
- Interest can only be transferred out of the Stabilization Fund if (i) the balance of the Stabilization Fund for the most recently ended fiscal year increased over the balance of the Stabilization Fund at the close of the immediately preceding fiscal year as certified by the Comptroller, and (ii) the balance of the Stabilization Fund exceeds ten percent of budgeted revenues for all budgeted funds for the preceding fiscal year. The legislation sunsets on December 1, 2026.

⁽¹⁾Source for FY2024-2025 Commonwealth of Massachusetts Information Statement dated November 19, 2024

⁽²⁾Source for FY 2004-2023: Office of the Comptroller as of September 30th, 2024 (CTHRU Stabilization Rainy Day Fund | CTHRU (socrata.com))



Statutory Fiscal Discipline

Consensus Revenue Forecasting

- The Administration and Legislature must publicly collaborate on tax forecasting, with expert input. M.G.L. c. 29, s. 5B. The Commonwealth uses internal resources and outside economic forecasting firms to develop the consensus revenue forecast

Balanced Budget Requirement

- The Budget must be balanced at filing and enactment, and at the signing of any appropriation act. M.G.L. c. 29, s. 6E. The Legislature and the Governor approve a balanced budget each fiscal year
- The Administration must flag and address material revenue shortfalls within days of discovery. M.G.L. c. 29, s. 9C

Statutory Buffers to Revenue Volatility

- Capital gains tax revenues collected that exceed a specific threshold are transferred – 90% to SF, 5% to OPEB and 5% to Pension Liability
- Legislature must expressly intervene if there is a need to redirect funds away from reserves. M.G.L. c. 29, s. 5G

Cash Management

- Cash flow projections are prepared and submitted quarterly to the Legislature



Institutionalized Practices

Consistent and Disciplined Budgeting Approach

- Standardized approach to budgeting for essential and predictable costs
- Demonstrated commitment to strengthen pension and OPEB by consistently increasing funding

Created a Structural Surplus

- Aligned spending and revenue growth and eliminated reliance on non-recurring revenue sources
- Buffered the budget from volatility of capital gains and used surplus funds for tax relief instead of increasing spending to maintain structural balance

Prudent Capital Management

- Maintain statutory debt limit on debt issuance: for direct debt, the annual limit increases each year to 105% of the prior year's limit
- Established debt affordability policy sets limit on annual debt service of 8% of budgeted revenues and annual growth in bond cap to \$125 million
- Debt Affordability Committee provides an estimate of total amount of new Commonwealth debt that can be prudently issued for the next fiscal year
- Annually publish 5-year Capital Improvement Plan (includes annual capital budget)
- Track record of risk mitigation and actively managing the debt portfolio through various economic cycles



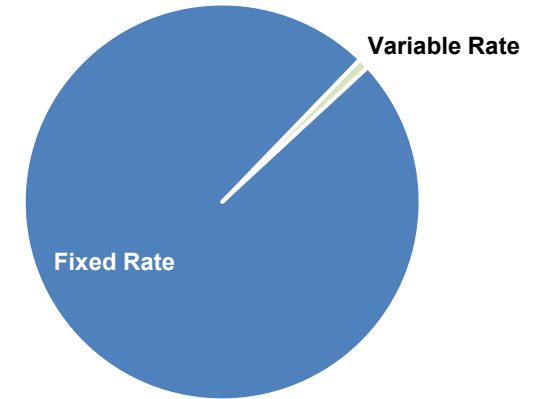
Conservatively Managed Debt Portfolio

Key Takeaways

- As of September 30, 2024, total GO debt outstanding was \$28.1 billion:
 - \$27.9 billion or 99.1% was fixed rate
 - \$256.0 million or 0.9% was variable rate
- 41% of outstanding principal amortizes through FY 2035
- The Commonwealth has actively managed its debt profile by increasing the ratio of fixed rate debt as interest rates have decreased and utilizing refundings to manage debt service
- There are no interest rate swaps outstanding as of September 30, 2024

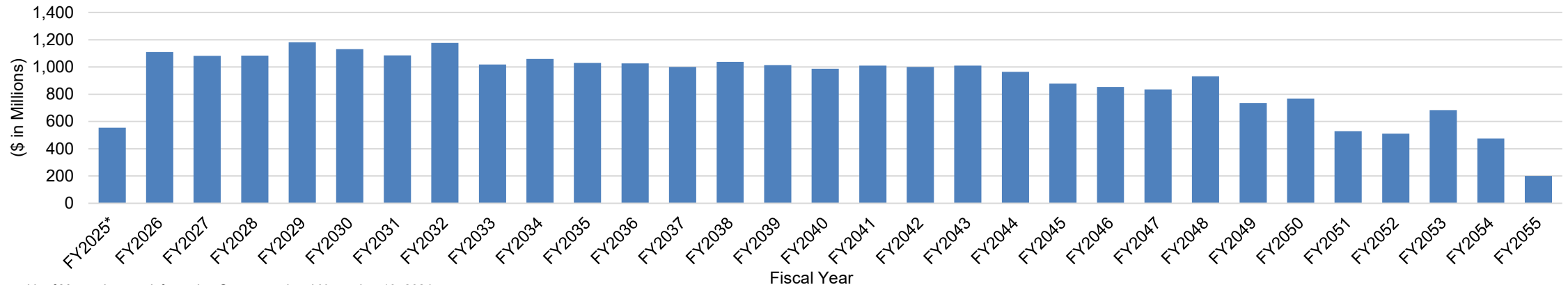
GO Debt Composition

99.1% of Debt in Fixed Rate Mode



GO Principal Amortization

41% of Outstanding Principal Amortizes Through FY 2035



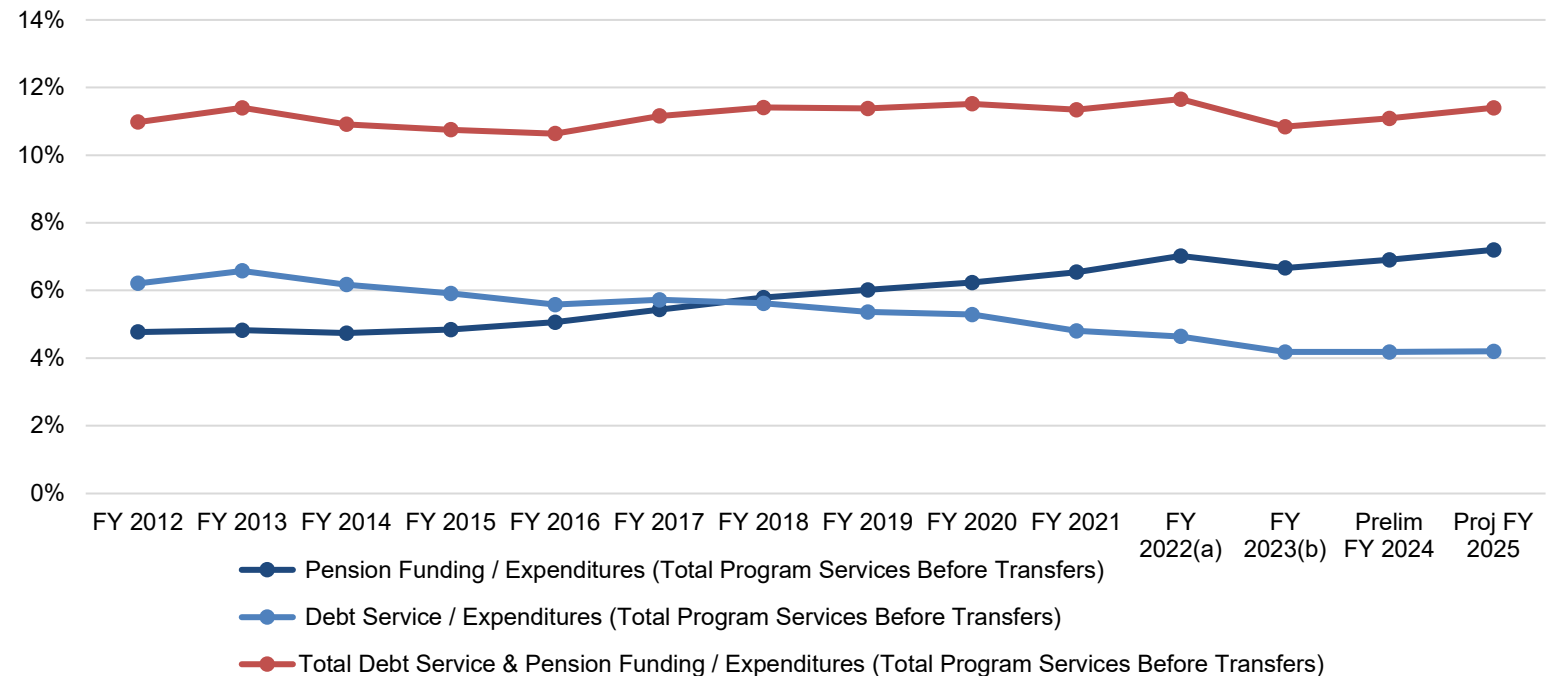


Long-Term Liabilities Have Been Manageable

Key Takeaways

- The Commonwealth is authorized to issue three types of direct debt:
 - General Obligation Debt
 - Special Obligation Debt
 - Federal Grant Anticipation Notes
- The Commonwealth's debt service represents 4.2% of total expenditures in FY 2024. This is a reduction from a high of 6.6% in FY 2013
- As debt service as a percent of expenditures decreased, pension funding as a percent of expenditures increased. Combined, these long-term liabilities remained relatively flat
- Historical stability of aggregate long-term liabilities enhances budgetary predictability

Pension Funding and Debt Service as % of Expenditures (Total Program Services Before Transfers)



(a) FY2022 Pension Funding includes a \$250 million supplemental transfer to the Pension Liability Fund.

(b) FY2023 Pension Funding includes a \$250 million supplemental transfer to the Pension Liability Fund and a further \$100 million to fully pay down pension liabilities attributable to the fiscal 2015 early retirement incentive program.

Source for Preliminary FY2024 and Projected FY2025 Pension Funding amounts is the Commonwealth of Massachusetts Information Statement (IS) dated November 19, 2024 – Current Funding Schedule for Pension Obligations table. Debt service and Expenditure amounts are sourced from Budgeted Operating Funds – Statutory Basis table

Source for FY2019 – FY2023 Pension Funding amounts is the IS dated May 9, 2024 – Annual Required Contributions and Other Pension Contributions table. Debt service and Expenditure amounts are sourced from Budgeted Operating Funds – Statutory Basis table

Source for FY2015 – FY2018 Pension Funding amounts is the IS dated November 29, 2018 – Annual Required Contributions and Other Pension Contributions table. Debt service and Expenditure amounts are sourced from Budgeted Operating Funds – Statutory Basis table

Source for FY2012 – FY2014 Pension Funding amounts is the IS dated November 13, 2015 – Annual Required Contributions and Other Pension Contributions table. Debt service and Expenditure amounts are sourced from Budgeted Operating Funds – Statutory Basis table

Transaction Timeline and Contacts



December 2024						
M	T	W	T	F	S	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Financing Schedule*	
Date	Event
Tuesday, December 12 th	Pricing
Thursday, December 19 th	Closing

Representatives from the Commonwealth are available for one-on-one discussions.

For additional information or to schedule a one-on-one call, please contact:

The Commonwealth of Massachusetts	
<p>Sue Perez <i>Deputy Treasurer</i> Tel.: 617-367-9333 x816 sperez@tre.state.ma.us</p>	<p>Christina Marin <i>Director of Investor Relations and Debt Management</i> Tel.: 617-367-9333 x494 christina.l.marin@tre.state.ma.us</p>

For more info, please visit: www.buymassbonds.com

*Preliminary, subject to change