



# THE COMMONWEALTH OF MASSACHUSETTS

\$850,000,000\*

General Obligation Bonds

Consolidated Loan of 2024, Series A

\$540,000,000\*

General Obligation Refunding Bonds

2024 Series A

## Investor Presentation

January 3, 2024

\*Preliminary, subject to change



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# Transaction Summary\*



## General Obligation Bonds Consolidated Loan of 2024, Series A and General Obligation Refunding Bonds 2024 Series A

|  |  |  |
|--|--|--|
| <b>Issuer</b>                                    | The Commonwealth of Massachusetts<br>(the "Commonwealth")  |  |
| <b>Series</b>                                    | General Obligation Bonds<br>Consolidated Loan of<br>2024, Series A   | General Obligation<br>Refunding Bonds<br>2024 Series A |
| <b>Par Amount*</b>                               | \$850,000,000  | \$540,000,000  |
| <b>Optional<br/>Redemption*</b>                  | January 1, 2034  | March 1, 2034  |
| <b>Ratings (F/M/S)</b>                           | AA+ / Aa1 / AA+, all with stable outlook   |  |
| <b>Tax Status</b>                                | Federal and Commonwealth of Massachusetts<br>Tax-Exempt  |  |
| <b>Pricing Dates*</b>                            | Retail Order Period: Wednesday, January 10, 2024<br>Institutional Order Period: Thursday, January 11, 2024 |  |
| <b>Delivery Date*</b>                            | Tuesday, January 23, 2024  |  |
| <b>Joint<br/>Bookrunning<br/>Senior Managers</b> | BofA Securities<br>Siebert Williams Shank & Co., LLC   |  |
| <b>Additional<br/>Information</b>                | <a href="http://www.massbondholder.com">www.massbondholder.com</a>   |  |

## General Obligation Bonds Consolidated Loan of 2024, Series A

| <b>Maturity (1/1)*</b> | <b>Par *</b> |
|------------------------|--------------|
| 2026                   | \$25,000,000 |
| 2027                   | 40,000,000   |
| 2028                   | 30,000,000   |
| 2029                   | -            |
| 2030                   | -            |
| 2031                   | -            |
| 2032                   | -            |
| 2033                   | -            |
| 2034                   | 25,000,000   |
| 2035                   | 40,000,000   |
| 2036                   | 15,000,000   |
| 2037                   | 20,000,000   |
| 2038                   | -            |
| 2039                   | -            |
| 2040                   | 25,000,000   |
| 2041                   | 42,000,000   |
| 2042                   | 43,000,000   |
| 2049 <sup>(1)</sup>    | 215,000,000  |
| 2054 <sup>(1)</sup>    | 330,000,000  |

## General Obligation Refunding Bonds 2024 Series A

| <b>Maturity (3/1)*</b> | <b>Par *</b> |
|------------------------|--------------|
| 2026                   | -            |
| 2027                   | \$7,490,000  |
| 2028                   | 7,365,000    |
| 2029                   | 32,230,000   |
| 2030                   | 57,095,000   |
| 2031                   | 66,945,000   |
| 2032                   | 66,795,000   |
| 2033                   | 56,635,000   |
| 2034                   | 41,465,000   |
| 2035                   | 16,290,000   |
| 2036                   | 16,105,000   |
| 2037                   | 15,910,000   |
| 2038                   | 15,705,000   |
| 2039                   | 18,490,000   |
| 2040                   | 18,265,000   |
| 2041                   | 18,030,000   |
| 2042                   | 34,780,000   |
| 2043                   | 24,520,000   |
| 2044                   | 25,885,000   |

# Massachusetts Credit Summary



|                                 |   |
|---------------------------------|---|
| <b>Economy</b>                  | <ul style="list-style-type: none"><li>• Broad and diverse economy including significant strength in healthcare, technology and education sectors</li><li>• Well-trained labor pool experiencing strong wage growth over the last 10 years</li><li>• Statewide per capita income of \$84,945 is the second highest among all states and is 130% of the national per capita income in 2022</li></ul>  |
| <b>Finances &amp; Liquidity</b> | <ul style="list-style-type: none"><li>• Massachusetts' individual income taxes and sales taxes accounted for approximately 80% of total tax revenue in FY 2023</li><li>• From FY 2017 to October 2023, the Stabilization Fund balance increased 630% to \$8.2 billion (as of October 31, 2023)</li><li>• The Commonwealth has access to a \$500 million line of credit through May 2026</li></ul>   |
| <b>Governance</b>               | <ul style="list-style-type: none"><li>• 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</li><li>• Strong budget gap closing capacity – the Governor has the authority to cut expenses for executive agencies without legislative approval if there is a revenue shortfall</li><li>• Ongoing economic and revenue monitoring throughout the Commonwealth</li></ul>  |
| <b>Long-term Liabilities</b>    | <ul style="list-style-type: none"><li>• 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 2024 bond cap is \$2.905 billion)</li><li>• Debt is elevated compared to other states in part because of the Commonwealth's practice of financing projects for highly-rated local governments</li><li>• As of January 1, 2023, the funded ratio of the pension system based on the actuarial value was 63.5%</li><li>• 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</li></ul> |

# Massachusetts Industry Mix Compared to US

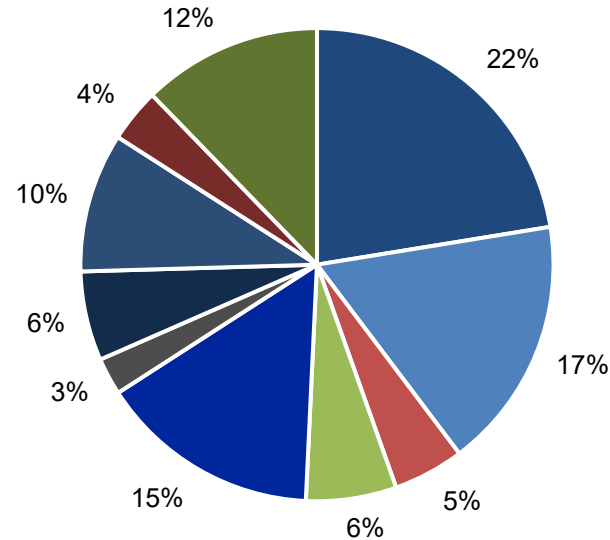


## Key Takeaways

- Massachusetts' industry sector diversification is similar to that of the US with the top 5 sectors comprising approximately 76% 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<sup>(1)</sup> 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

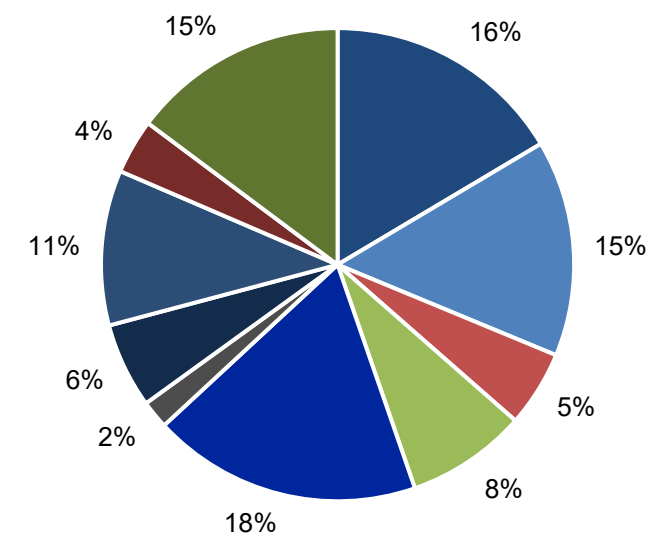
## Employment Composition of Massachusetts and the United States as of October 2023

### Massachusetts



| Industry Sector          | MA         | US         |
|--------------------------|------------|------------|
| Educ. & Health Services  | 22%        | 16%        |
| Prof & Business Services | 17%        | 15%        |
| Trade, Transp, Utilities | 15%        | 18%        |
| Government               | 12%        | 15%        |
| Leisure & Hospitality    | 10%        | 11%        |
| <b>Top 5 Total</b>       | <b>76%</b> | <b>75%</b> |

### United States



- 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 Oct. 2023 (<https://www.bls.gov/sae/data/>)

Source: U.S. Bureau of Labor Statistics, as of Oct. 2023 (<https://www.bls.gov/web/empsit/ceseeb1b.htm>)

Notes: Not seasonally adjusted

# Education and Health Services Concentration



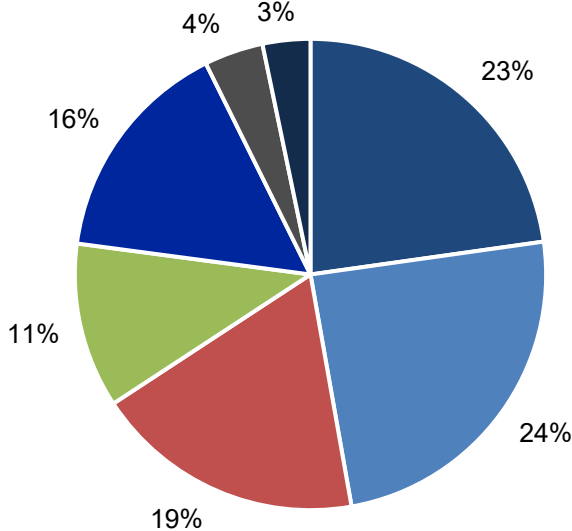
## Key Takeaways

- 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, 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 16%, compared to 8% in the US
  - Strong educational presence creates foundation for future economic growth

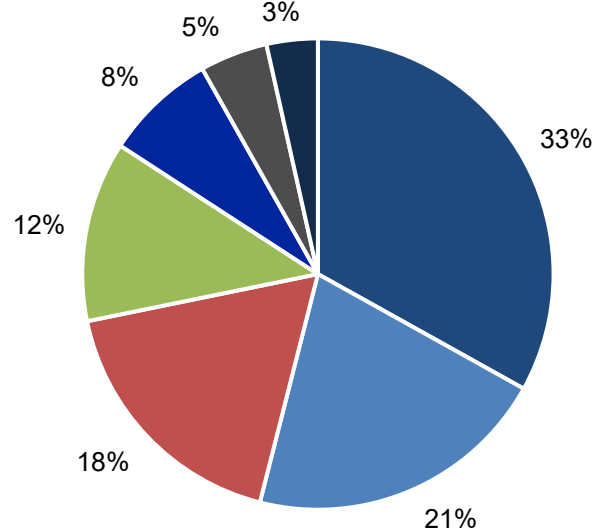


## Breakdown of Education and Health Services Sector by Industry as of October 2023

Massachusetts



United States



| Education & Health Services                | MA         | US         |
|--|------------|------------|
| Hospitals                                  | 24%        | 21%        |
| Ambulatory Health Care Services            | 23%        | 33%        |
| Social Assistance                          | 19%        | 18%        |
| Priv. Colleges, Universities, Prof Schools | 16%        | 8%         |
| Nursing & Residential Care Facilities      | 11%        | 12%        |
| <b>Top 5 Total</b>                         | <b>93%</b> | <b>92%</b> |

- 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

Source: U.S. Bureau of Labor Statistics, as of Oct. 2023 (<https://www.bls.gov/sae/data/>)  
Source: U.S. Bureau of Labor Statistics, as of Oct. 2023 (<https://www.bls.gov/web/empsit/ceseeb1b.htm>)  
Notes: Not seasonally adjusted

# Professional and Business Services Concentration

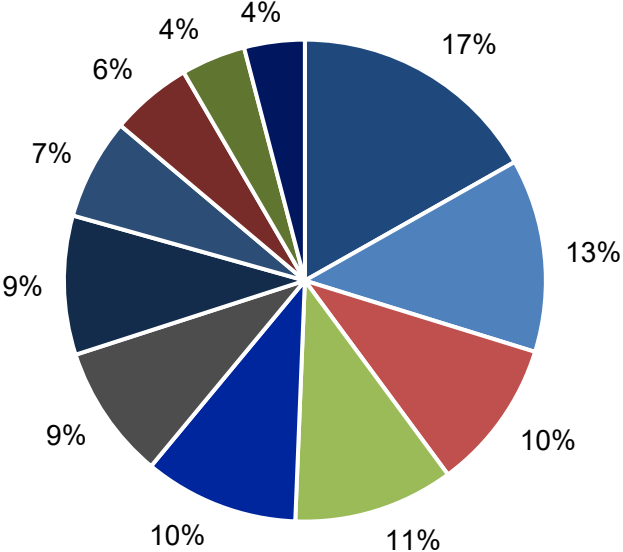


## Key Takeaways

- 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

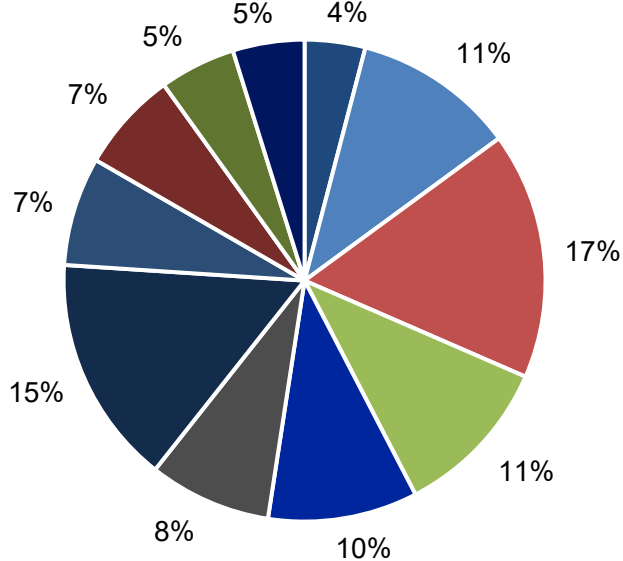
## Breakdown of Professional and Business Services Sector by Industry as of October 2023

### Massachusetts



| Professional & Business Services  | MA         | US         |
|-----------------------------------|------------|------------|
| Scientific R&D Services           | 17%        | 4%         |
| Computer Systems Design           | 13%        | 11%        |
| Mgmnt of Companies & Enterprises  | 11%        | 11%        |
| Employment Services               | 10%        | 17%        |
| Services to Buildings & Dwellings | 10%        | 10%        |
| <b>Top 5 Total</b>                | <b>61%</b> | <b>53%</b> |

### United States



- 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 Oct. 2023 (<https://www.bls.gov/sae/data/>)  
Source: U.S. Bureau of Labor Statistics, as of Oct. 2023 (<https://www.bls.gov/web/empsit/ceseeb1b.htm>)  
Notes: Not seasonally adjusted

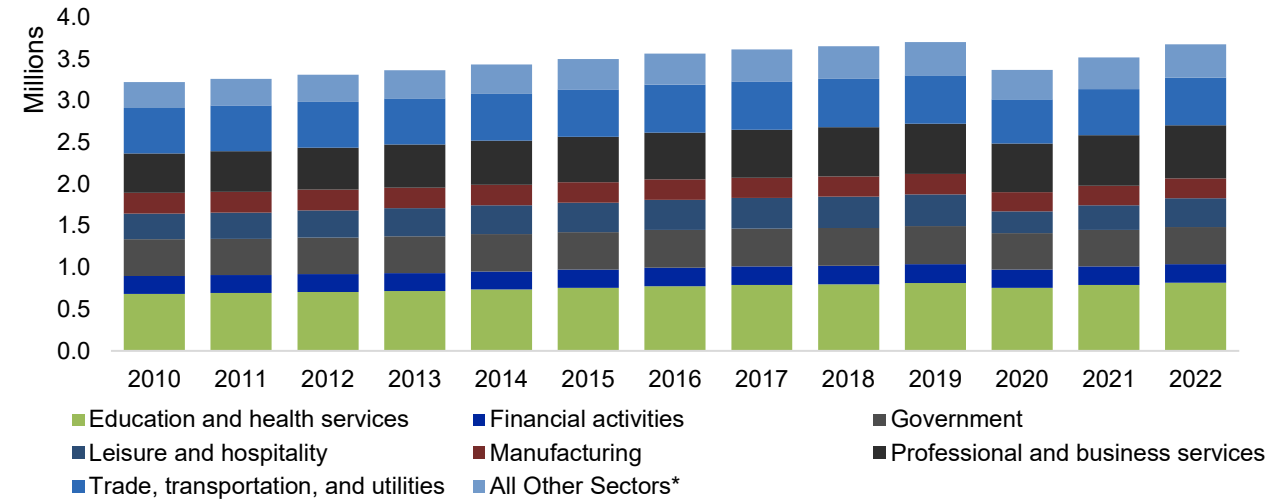
# Strong, Diverse, and Resilient Economy



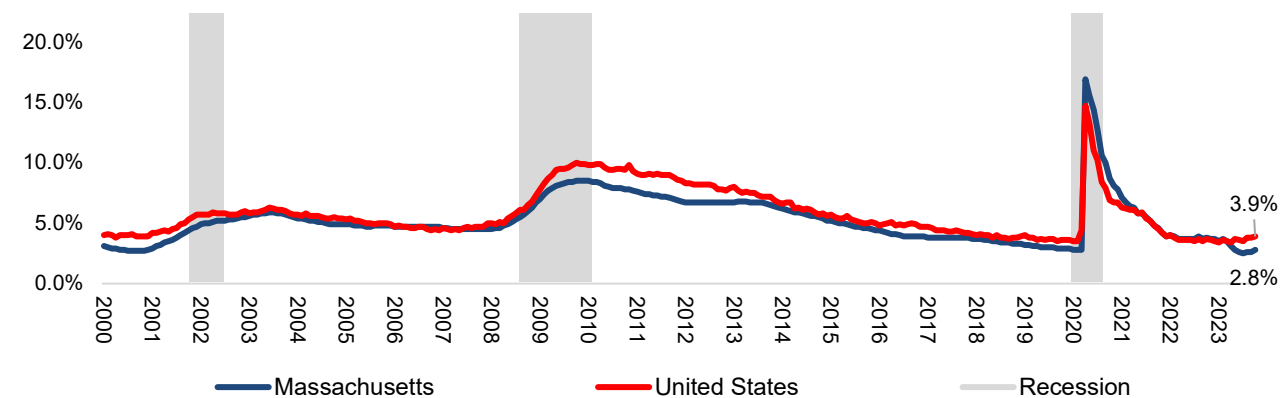
## Key Takeaways

- 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 46% 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 17.1% in April 2020, while US unemployment peaked at 14.7% in the same month
  - Unemployment continued to fall in 2023 and stood at 2.8% in October for the Commonwealth and 3.9% for the US, surpassing pre-pandemic employment levels in the Commonwealth
- The higher paying industries of Construction and Professional & Business Services have both returned to well above their respective pre-pandemic employment levels
  - Construction has seen growth that outpaces that of the US overall
- From the onset of the pandemic in 2020 through 2022, Professional & Business Services saw the largest gains in employment, including growth in Scientific Research & Development Services

## Annual Average Employment in Massachusetts, 2010-2022 by NAICS Supersector



## Unemployment Rates in Massachusetts and the United States as of October 2023 (Seasonally Adjusted)



# Consistent Per Capita Income Growth, Outpacing the Country

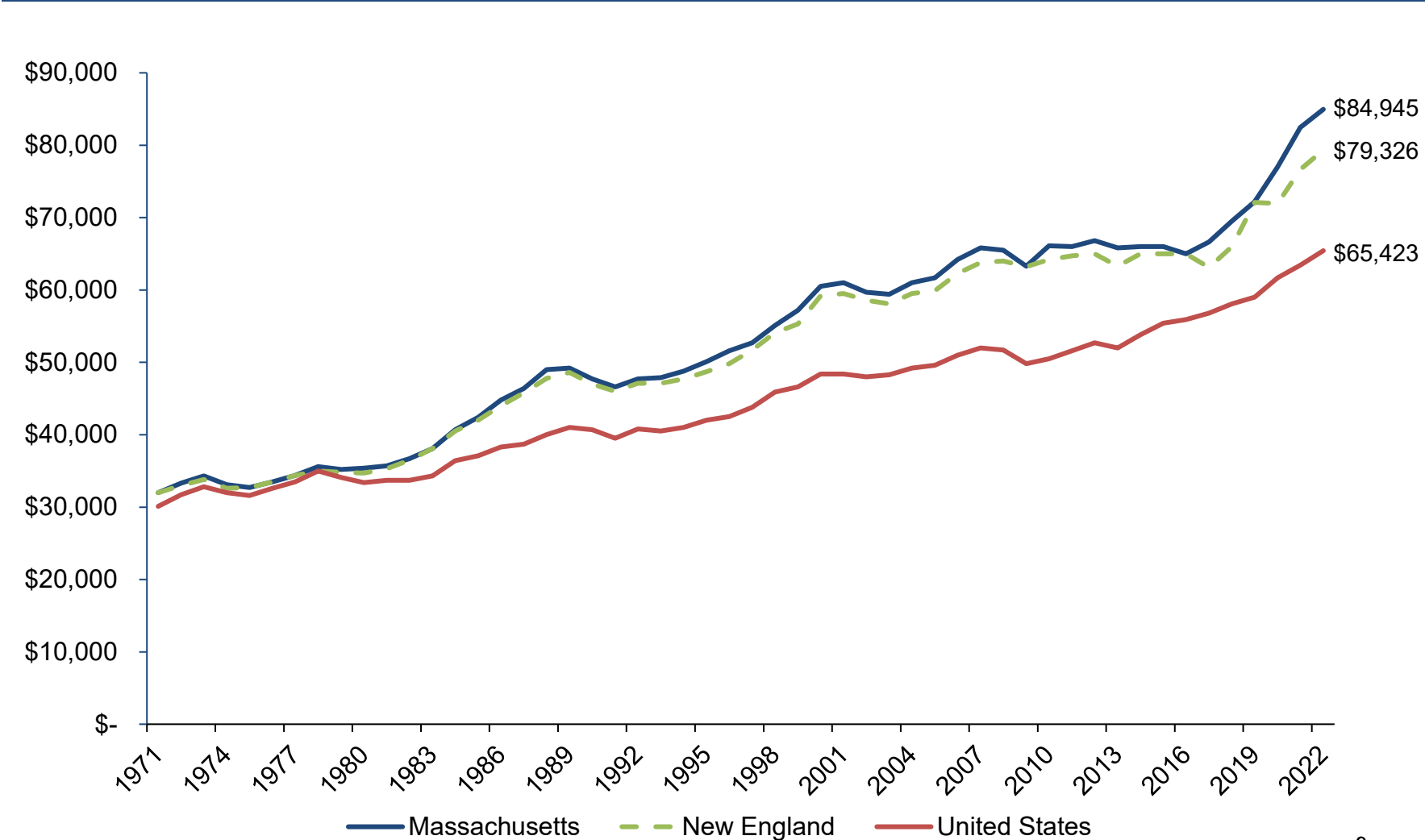


## Key Takeaways

- Massachusetts has consistently been near the top of the nation in resident income and ranks as one of the wealthiest among the states based on mean household income and per capita income
- In 2022, the Commonwealth's real per capita personal income of \$84,945 was 130% of the US' real per capita personal income
- In 2022, the Commonwealth's real per capita personal income of \$84,945 was 107% of New England's real per capita personal income



## Real Per Capita Personal Income in Massachusetts, New England, and the United States, 1971-2022



# Commitment to Building the Stabilization Fund

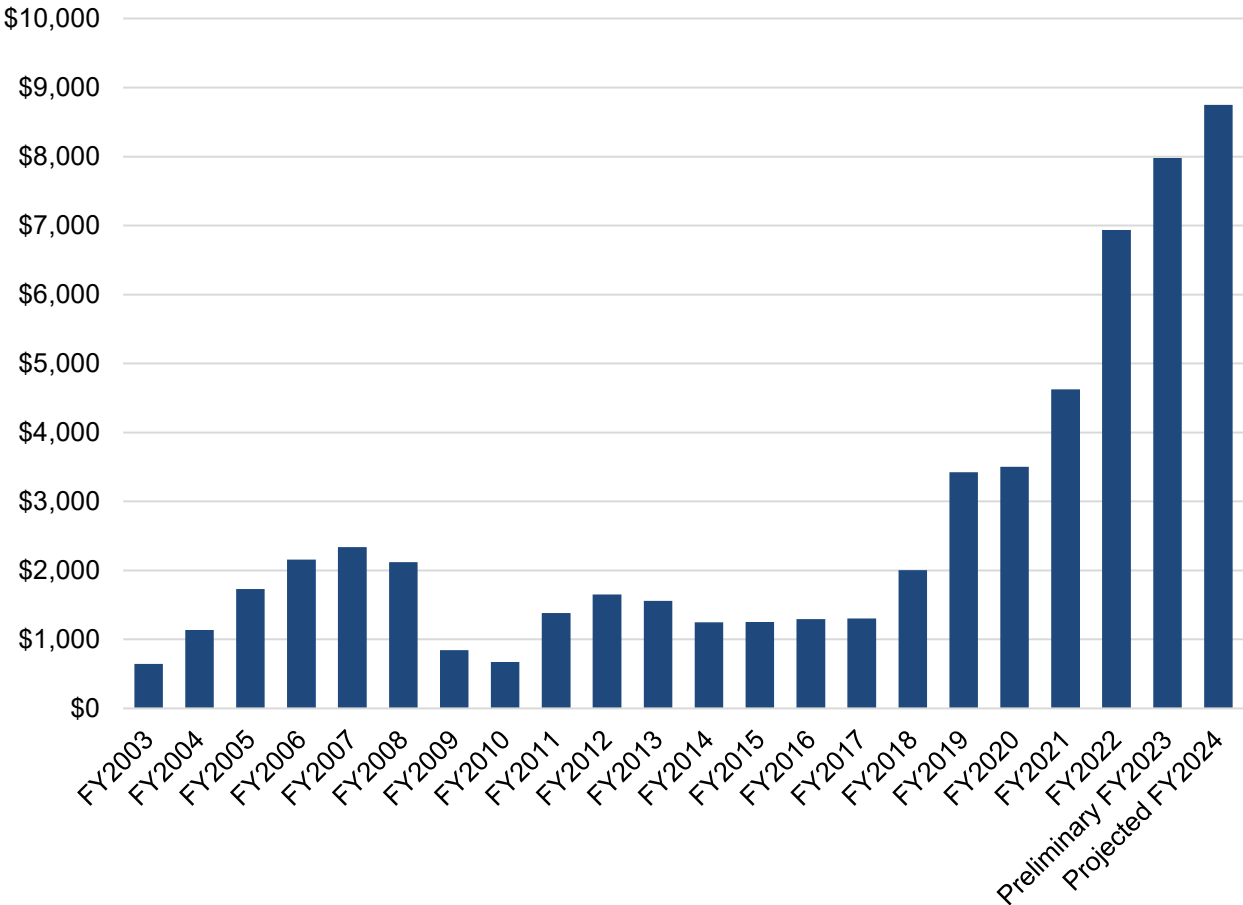


## Key Takeaways

- From \$1.3 billion in FY 2017, the Stabilization Fund (“SF”) balance has increased by roughly 630% to \$8.2 billion<sup>(1)</sup> in October 2023. The SF balance is projected to be \$8.7 billion by the end of FY 2024
- The Commonwealth has demonstrated its commitment to rebuild its reserves as stipulated through its own fiscal policies
- Capital gains tax revenues exceeding a specific threshold are required to be transferred as follows - 90% to SF, 5% to State Retiree Benefits Trust Fund (“SRBTF”) (OPEB) and 5% to Pension Liability Fund (“Pension”)

| Historical Transfers (\$ millions) |       |                     |                     |
|------------------------------------|-------|---------------------|---------------------|
| FY                                 | SF    | SRBTF               | Pension             |
| 2023                               | \$750 | \$42 <sup>(3)</sup> | \$42 <sup>(3)</sup> |
| 2022                               | 2,273 | 126                 | 126                 |
| 2021                               | 1,098 | 61                  | 61                  |
| 2020 <sup>(2)</sup>                | --    | --                  | --                  |
| 2019                               | 764   | 42                  | 43                  |

## Massachusetts Stabilization Fund Balance (\$ millions)



(1) Source: <https://cithru.data.socrata.com/stories/s/eqrd-tdvi>  
(2) Legislation enacted in 2020 retained all FY 2020 capital gains tax revenues in the General Fund due to COVID-19  
(3) Preliminary, subject to change

## Statutory Fiscal Discipline

### Consensus Revenue Forecasting

- The Administration and Legislature must publicly collaborate on tax forecasting, with expert input. M.C.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.C.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.C.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.C.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



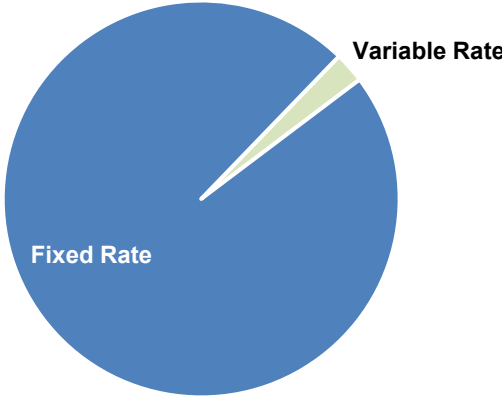
## Key Takeaways

- As of October 31, 2023, total GO debt outstanding was \$26.8 billion:
  - \$26.2 billion or 97.5% was fixed rate
  - \$658.2 million or 2.5% was variable rate
- 42% of outstanding principal amortizes through FY 2034
- The Commonwealth has actively managed its debt profile by increasing the ratio of fixed rate debt as interest rates have decreased and actively utilizing refundings to manage debt service
- There are no interest rate swaps outstanding as of October 31, 2023



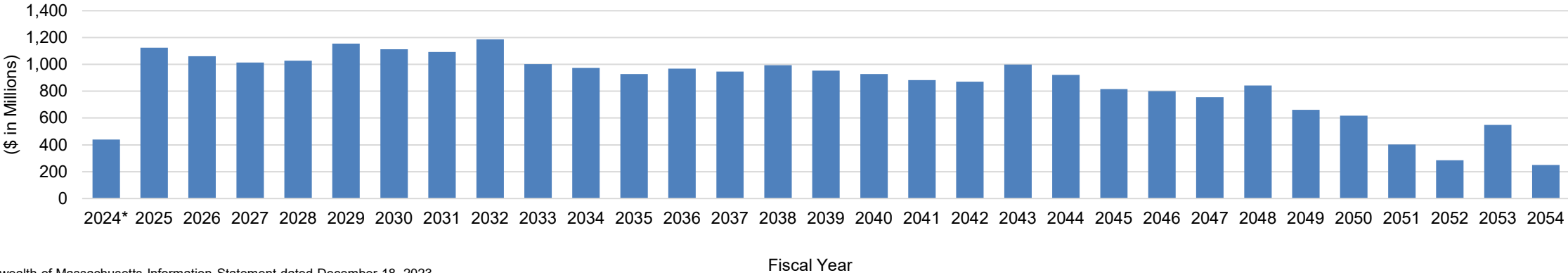
## GO Debt Composition

97.5% of Debt in Fixed Rate Mode



## GO Principal Amortization

42% of Outstanding Principal Amortizes Through FY 2034



Source: Commonwealth of Massachusetts Information Statement dated December 18, 2023  
\*Remaining principal payments in FY 2024

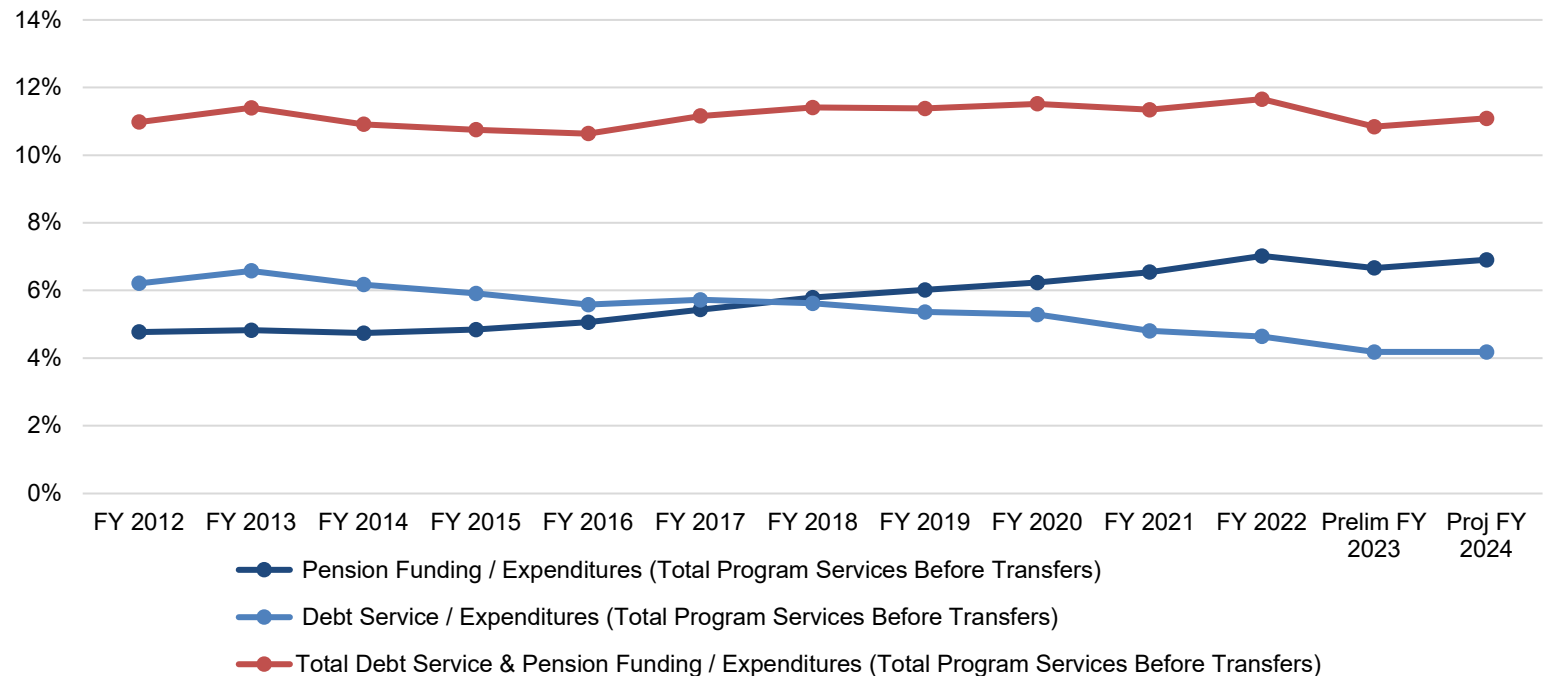
# Long-Term Liabilities Have Been Manageable



## 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 2023. 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)



Source for Proj FY2024 Pension Funding amounts is the Commonwealth of Massachusetts Information Statement dated December 18, 2023 – 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 Commonwealth of Massachusetts Information Statement dated December 18, 2023 – 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 Commonwealth of Massachusetts Information Statement 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 Commonwealth of Massachusetts Information Statement 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



| January 2024 |    |    |    |    |    |    |
|--------------|----|----|----|----|----|----|
| S            | M  | T  | W  | T  | F  | 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                               |
| Wednesday, January 3 <sup>rd</sup>  | Mail Preliminary Official Statement |
| Wednesday, January 10 <sup>th</sup> | Retail Order Period                 |
| Thursday, January 11 <sup>th</sup>  | Institutional Order Period          |
| Tuesday, January 23 <sup>rd</sup>   | 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  |   |
|--|---|
| <b>Sue Perez</b><br><i>Deputy Treasurer</i><br>Tel.: 617-367-9333 x816<br>sperez@tre.state.ma.us | <b>Kathy Bramlage</b><br><i>Senior Debt Analyst / Portfolio Manager</i><br>Tel.: 617-367-9333 x494<br>kbramlage@tre.state.ma.us |

For more info, please visit: [www.buymassbonds.com](http://www.buymassbonds.com)