

Replay Information

Please note that a replay of the investor broadcast associated with the following slides is available. The replay can be accessed by following the link below and will remain available until October 11, 2018.

<http://munios.com/live/CommonwealthOct2017>

The full slide deck for this call is found in the pages below. These slides as well as those of prior investor calls may also be accessed by visiting the Investor and Rating Agency Presentation Archive on the Commonwealth's investor website at:

www.massbondholder.com



The Commonwealth of Massachusetts Bond Financing Programs

October 11, 2017
Commonwealth Credit Review



Disclaimer

This presentation has been prepared by the Commonwealth of Massachusetts to provide summary information relative to the general obligation credit of the Commonwealth. The presentation is incomplete. The presentation is not part of the Commonwealth's Information Statement (Information Statement) and is qualified in all respects by reference to the most recently updated Information Statement that has been filed with the Municipal Securities Rulemaking Board through its Electronic Municipal Market Access (EMMA) system.

Investment decisions relating to Commonwealth general obligation bonds and notes should be based only upon the most recently updated Information Statement and the Official Statement of the Commonwealth relating to such bonds or notes. The provision of access to this presentation does not constitute an offer to sell or the solicitation of an offer to buy any bonds or notes that may be described or mentioned in the presentation. Commonwealth bonds and notes are sold only by means of an Official Statement and through registered broker-dealers.

The information set forth herein includes information obtained from non-Commonwealth sources that are believed to be reliable, but such information is not guaranteed as to accuracy or completeness and is not to be construed as a representation by the Commonwealth. All information and expressions of opinion herein are subject to change without notice. The Commonwealth undertakes no obligation to provide any additional information or to update any of the information or the conclusions contained herein or to correct any inaccuracies that may become apparent.

This presentation contains certain forward-looking statements that are subject to a variety of risks and uncertainties that could cause actual results to differ from the projected results, including without limitation general economic and business conditions, conditions in the financial markets, the financial condition of the Commonwealth and various state agencies and authorities, receipt of federal grants, litigation, arbitration, force majeure events and various other factors that are beyond the control of the Commonwealth and its various agencies and authorities. Because of the inability to predict all factors that may affect future decisions, actions, events or financial circumstances, what actually happens may be different from what is set forth in such forward-looking statements. Forward-looking statements are indicated by use of such words as "may," "will," "should," "intends," "expects," "believes," "anticipates," "estimates" and others.



TREASURER

DEBORAH B. GOLDBERG



Economic Update – Statistical Overview

| | <u>Massachusetts</u> | <u>United States</u> |
|----------------------------------------------------------|----------------------|----------------------|
| <u>Population</u> | | |
| July-16 Estimated 6-year percent change | 3.8% | 4.5% |
| <u>Personal Income, Consumer Prices, Poverty</u> | | |
| 2016 Per Capita Personal Income | \$65,137 | \$49,571 |
| 2015 Average Annual Pay, All Industries | \$66,692 | \$52,942 |
| 2015-16 Annual Percent Change in CPI-U | 1.5% | 1.3% |
| May-16 to May-17 Annual Percent Change in CPI-U | 2.1% | 1.9% |
| 2015 Poverty Rate | 11.5% | 14.7% |
| 2016 Average Weekly Earnings, Manufacturing Production | \$946 | \$856 |
| Annual Percent Change (2015-2016) | 4.5% | 1.6% |
| <u>Employment</u> | | |
| Jan-16 to Jan-17 Percent Change in Nonfarm Employment | 1.7% | 1.5% |
| 2016 Average Annual Unemployment Rate | 3.7% | 4.9% |
| May-17 Unemployment Rate | 4.1% | 4.1% |
| <u>Education</u> | | |
| 2014 Expenditure Per Pupil K-12, Public | \$15,296 | \$11,161 |
| 2015 Percent of Adults with at least a Bachelor's Degree | 41.5% | 30.6% |
| <u>Economic Base and Performance</u> | | |
| 2015-16 Percent Change in Gross Domestic Product | 2.0% | 1.5% |
| 2015-16 Percent Change in International Exports | 1.1% | -4.7% |
| 2015-16 Percent Change in Authorized Housing Permits | -6.5% | 2.0% |

Source: UMASS Donahue Institute



Economic Update – Unemployment

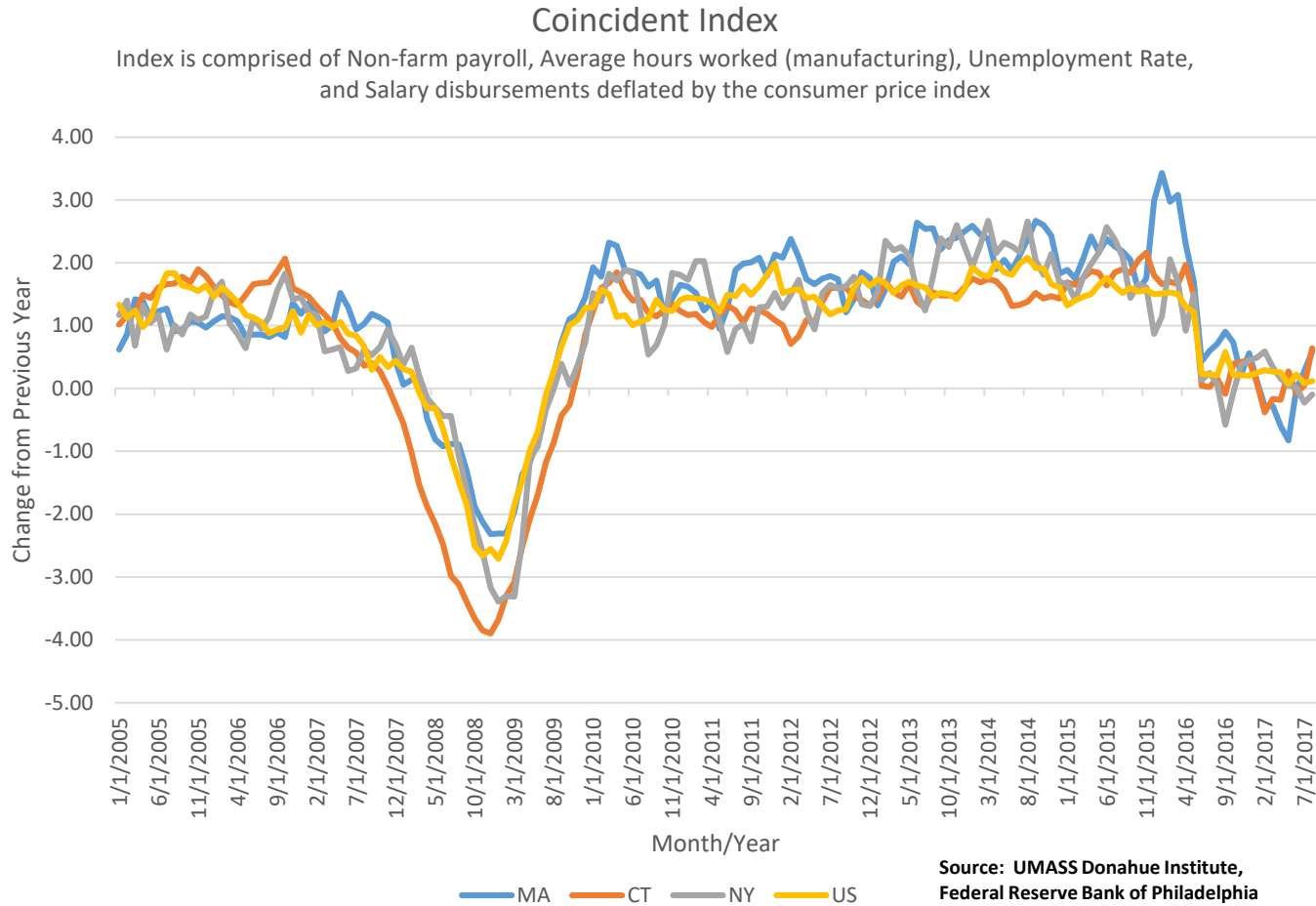
Average Annual Unemployment Rate
Massachusetts, New England and United States



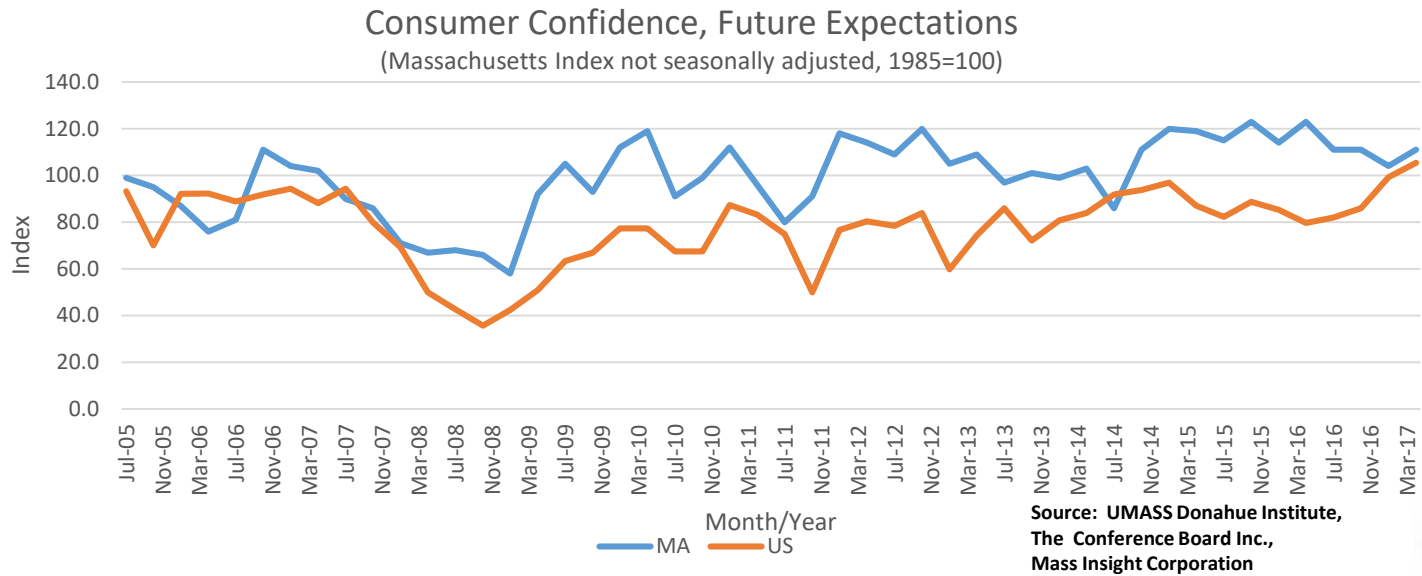
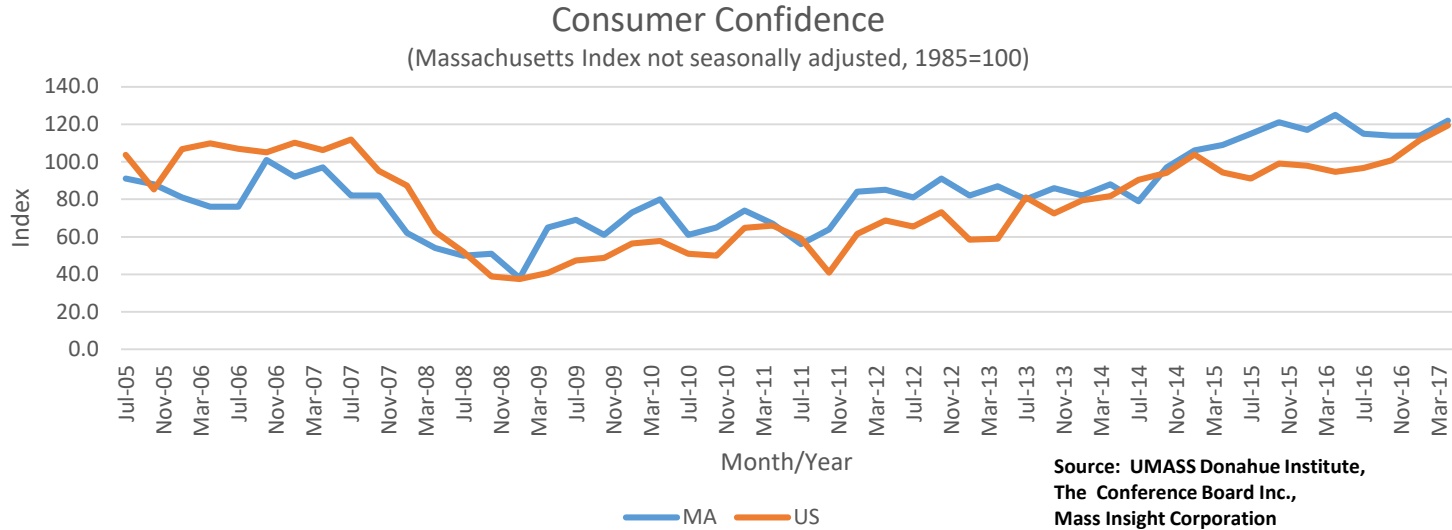
Source: UMASS Donohue Institute,
US Dept of Labor, Bureau of Labor Statistics



Economic Update – Coincident Index



Economic Update – Consumer Confidence



Department of Revenue

Kazim P. Özyurt

Chief Economist

Director, Office of Tax Policy & Analysis



Monthly year-over-year changes in collections:

MA State Tax Collections Year-Over-Year Changes by Month
April 2007 - September 2017



FY18 Year-to-Date (September) Tax Collections Update

September 2017 Tax Collection Summary (in \$ millions)

Preliminary as of October 4, 2017

| | Month of September | | | | | | FY18 YTD as of September | | | | | |
|-----------------------------------------|----------------------------|-----------------------------------|----------------------------------|--------------------------------------------|-------------------------------------------|--------------------------------------|--------------------------------|-------------------------------------------|------------------------------------------|------------------------------------------------|-----------------------------------------------|----------------------------------------------|
| | 09/2017 Actual Collections | 09/2017 v. 09/2016 \$ Fav/(Unfav) | 09/2017 v. 09/2016 % Fav/(Unfav) | 09/2017 Actual vs Benchmark \$ Fav/(Unfav) | 09/2017 Actual vs Benchmark % Fav/(Unfav) | 09/2017 v. 09/2016 Baseline % Change | 09/2017 YTD Actual Collections | 09/2017 YTD v. 09/2016 YTD \$ Fav/(Unfav) | 09/2017 YTD v. 09/2016 YTD % Fav/(Unfav) | 09/2017 YTD Actual vs Benchmark \$ Fav/(Unfav) | 09/2017 YTD Actual vs Benchmark % Fav/(Unfav) | 09/2017 YTD v. 09/2016 YTD Baseline % Change |
| Income | | | | | | | | | | | | |
| Income Withholding | 1,083 | 114 | +11.8% | 134 | +14.2% | +16.6% | 2,992 | 161 | +5.7% | 106 | +3.7% | +7.7% |
| Income Est. Payments | 516 | (10) | -2.0% | (17) | -3.2% | -2.2% | 571 | (14) | -2.3% | (16) | -2.7% | -1.7% |
| Income Returns/Bills | 42 | 4 | +9.8% | 3 | +7.9% | +9.0% | 114 | (1) | -1.2% | 12 | +11.7% | +11.2% |
| Income Refunds Net (outflow) | (47) | (17) | -58.3% | (17) | -54.4% | -59.0% | (144) | (47) | -48.7% | (33) | -30.1% | -36.9% |
| Subtotal Income | 1,594 | 90 | +6.0% | 104 | +7.0% | +9.0% | 3,533 | 99 | +2.9% | 69 | +2.0% | +5.4% |
| Sales & Use | | | | | | | | | | | | |
| Sales - Regular | 361 | 17 | +5.0% | 12 | +3.5% | +5.3% | 1,103 | 41 | +3.8% | 23 | +2.1% | +3.9% |
| Sales - Meals | 106 | 3 | +2.8% | (1) | -1.2% | +3.3% | 316 | 11 | +3.5% | (3) | -0.8% | +3.7% |
| Sales - Motor Vehicles | 73 | (6) | -8.1% | 2 | +2.4% | +1.4% | 203 | (20) | -9.2% | 1 | +0.6% | -0.2% |
| Subtotal Sales & Use | 540 | 14 | +2.6% | 12 | +2.4% | +4.3% | 1,622 | 31 | +2.0% | 21 | +1.3% | +3.3% |
| Corporate & Business - Total | 503 | (9) | -1.8% | 16 | +3.3% | +3.0% | 618 | 15 | +2.6% | 20 | +3.4% | +3.4% |
| All Other | 204 | 2 | +1.2% | 2 | +1.2% | +1.5% | 576 | 18 | +3.2% | 13 | +2.4% | +2.5% |
| Total Tax Collections | 2,840 | 97 | +3.5% | 135 | +5.0% | +6.4% | 6,349 | 164 | +2.6% | 124 | +2.0% | +4.4% |

Notes: (1) The figures above exclude Tax-Related Settlements & Judgments exceeding \$10 million each. These totaled \$0.0 million in September 2017 and \$0.0 million during FY18 YTD.

(2) The September benchmark reflects the full Fiscal Year 2018 benchmark of \$26.504 billion. The FY18 revenue benchmark of \$26.504 billion was used in building the signed FY18 General Appropriations Act.



FY18 Year-to-Date (September) Tax Collections Update

- Year-to-Date (through September) – modest growth – above benchmark
- Excluding tax related settlements and judgments exceeding \$10 million each:
 - Year-to-Date total: \$6.349 billion
 - +\$164 million, or +2.6%, from the same period in fiscal 2017
 - \$124 million above Year-to-Date benchmark
 - *More than expected income tax withholding, income returns/bills payments, sales & use tax, corporate & business taxes, and all other taxes*
 - *Less than offset by*
 - *Lower than expected income tax cash estimated payments, and unfavorable income tax cash refunds*



FY18 Year-to-Date (Through September) Tax Collections Update

- **Withholding:** \$2.992B, +\$161M, +5.7% actual, +7.7% baseline, \$106M above benchmark.
- **Income tax cash estimated payments:** \$571M, -\$14M, -2.3% actual, -1.7% baseline, \$16M below benchmark.
- **Income tax payments with bills and returns:** \$114M, -\$1M, -1.2% actual, +11.2% baseline, \$12M above benchmark.
- **Net Income tax refunds:** \$144M, +\$47M, +48.7% actual, +36.9% baseline, \$33M above benchmark.
- **Sales & use tax collections:** \$1.622B, +\$31M, +2.0% actual, +3.3% baseline, \$21M above benchmark.
- **Corporate and business tax collections:** \$618M, +\$15M, +2.6% actual, +3.4% baseline, \$20M above benchmark.
- **“All Other” tax categories (including estate tax):** \$576M, +\$18M, +3.2% actual, +2.5% baseline, \$13M above benchmark.



Executive Office for Administration & Finance

Michael Heffernan

Secretary

Jennifer Sullivan

*Assistant Secretary for
Capital Finance*

Catharine Hornby

*Assistant Secretary and Budget
Director*

Heath Fahle

Finance Director



Fiscal Year 2017: In Closing

Revenue:

- Fiscal 2017 tax collections totaled \$25.604 billion, which reflects an increase of \$334 million, or 1.3%, from fiscal 2016; these collections were approximately \$452 million below the benchmarks associated with the revised fiscal 2017 tax revenue estimate of \$26.056 billion (not including large tax settlements received) but does include the effect of a tax amnesty program that concluded in fiscal 2016.
- On August 30, 2017, the Department of Revenue certified that the fiscal 2017 inflation-adjusted baseline income tax revenue growth over fiscal 2016 was 0.059%, and, therefore, the 2.5% fiscal 2017 growth threshold needed to trigger a further tax rate reduction effective January 1, 2018 was not met.



Budget:

- On July 17, 2017, the Governor approved the fiscal 2018 budget, which assumed tax revenues of \$26.504 billion, based on the consensus estimate of \$27.072 billion adjusted down by \$749 million, and up by \$181 million for the incremental impact of various tax law changes.
- The fiscal 2018 budget, as approved by the Governor, totaled approximately \$39.4 billion, after accounting for \$193 million in net line-item vetoes, and excluding transfers to the Medical Assistance Trust Fund, which was approximately \$652 million, or 1.7%, greater than fiscal 2017 estimated spending levels at the time of its approval.
- The fiscal 2018 budget also projects a deposit of \$98.4 million to the Stabilization Fund in fiscal 2018. The Stabilization Fund's balance for the end of fiscal 2018 is projected at approximately \$1.38 billion.



Fiscal Year 2018

Update:

- Preliminary tax revenues (including large tax-related settlements) for the first two months of fiscal 2018, ended August 31, 2017, totaled \$3.509 billion, an increase of approximately \$66.3 million, or 1.9%, over the same period in fiscal 2017.
- On October 4, 2017, the Department of Revenue released preliminary revenue collections for September, totaling \$2.840 billion, which was \$135 million or 5.0% above the monthly benchmark, and \$97 million or 3.5% more than actual collections in September 2016. For the fiscal year-to-date through September, revenue collections were \$124 million more than the year-to-date benchmark.
- The Executive Office for Administration and Finance is currently reviewing spending and revenue projections for the current fiscal year and estimates that the variance between projected spending and projected revenue is less than 1%.
- Under state law, on or before October 15 of each year, the Secretary of Administration and Finance is required to submit to the Governor and to the House and Senate Committees on Ways and Means estimates of revenues available to meet appropriations and other needs in the current fiscal year and the following fiscal year.



Review of the 2017 Commonwealth Pension Actuarial Valuation Report

James Lamenzo

Actuary

Public Employee Retirement Administration Commission

James Lamenzo is a member of the American Academy of Actuaries and meets the Qualification Standards of the Academy to provide the enclosed material.



Commonwealth Membership

| Number of Members | State | Massachusetts Teachers | Boston Teachers | Total |
|------------------------------|---------|------------------------|-----------------|---------|
| Active | 90,014 | 92,128 | 6,479 | 188,621 |
| Vested Terminated | 4,094 | N/A | N/A | 4,094 |
| Retired/Beneficiaries | 62,259 | 65,036 | 4,688 | 131,983 |
| Total | 156,367 | 157,164 | 11,167 | 324,698 |

| | | | | |
|-------------------------------------|--------------------|--------------------|------------------|---------------------|
| Total Payroll (in thousands) | \$5,927,012 | \$6,583,871 | \$548,826 | \$13,059,709 |
|-------------------------------------|--------------------|--------------------|------------------|---------------------|



Funding Schedule

- Prior to 1990, pay as you go
- Original schedule 40 years (to 2028)
- Schedule updated at least every 3 years
- In good times, schedule reduced (2018); later extended to 2023 then 2025
- In wake of 2008 loss, schedule extended to 2040
- Latest funding schedule adopted in January 2017 (based on valuation as of January 2016)
 - Appropriation increases 8.94% each year until fiscal 2036

Current Funding Schedule for Pension Obligations (in thousands)

| <u>Fiscal Year</u> | <u>Payments</u> | <u>Fiscal Year</u> | <u>Payments</u> |
|--------------------|-----------------|--------------------|-----------------|
| 2018 | \$2,394,498 | 2028 | \$5,635,069 |
| 2019 | 2,608,453 | 2029 | 6,138,577 |
| 2020 | 2,841,525 | 2030 | 6,687,075 |
| 2021 | 3,095,422 | 2031 | 7,284,583 |
| 2022 | 3,372,006 | 2032 | 7,935,479 |
| 2023 | 3,673,304 | 2033 | 8,644,535 |
| 2024 | 4,001,523 | 2034 | 9,416,947 |
| 2025 | 4,359,070 | 2035 | 10,258,375 |
| 2026 | 4,748,564 | 2036 | 11,174,988 |
| 2027 | 5,172,860 | 2037 | 1,370,935 |



Commonwealth Actuarial Valuation Results (in millions)

- January 1, 2017 report
 - Available on the website www.mass.gov/perac

| Dollars in millions | 1/1/16 | 1/1/17 |
|------------------------------------------------------------------|---------------|---------------|
| Total Normal Cost | \$1,715 | \$1,802 |
| Employee Contributions | <u>1,212</u> | <u>1,251</u> |
| Net Normal Cost | \$ 503 | \$ 551 |
| Total Expenses & Transfers | <u>79</u> | <u>91</u> |
| Net Normal Cost Plus Expenses & Transfers | \$ 582 | \$ 642 |
| Actuarial Liability | \$87,402 | \$91,574 |
| Assets (Actuarial Value) | <u>49,535</u> | <u>51,952</u> |
| Unfunded Actuarial Liability (UAL) | \$37,866 | \$39,622 |
| Funded Ratio | 56.7% | 56.7% |
| Increase in UAL due to change in Assumptions and Plan Provisions | \$2,848 | \$1,584 |

The January 1, 2016 actuarial valuation reflected a decrease in the investment return assumption from 7.75% to 7.50% which increased the UAL by \$2.2 billion. An early retirement incentive program was adopted that increased the UAL by \$230 million. Members of the Optional Retirement Plan (ORP, a defined contribution plan for higher education employees) were offered a one-time opportunity to transfer to the State Retirement System and purchase service for the period while subject to the ORP. The increase in UAL was estimated to be \$400 million for this provision.

The January 1, 2017 actuarial valuation reflected an update to the mortality assumption. The increase in UAL was \$1.574 billion. An early retirement incentive program was adopted for toll takers that increased the UAL by \$10 million.

Total expenses and transfers reflect amounts to reimburse the trust fund for items paid from the fund. See page 3 of the valuation report for further detail.



Actuarial Assumptions

- Investment Return

- Reduced three times in recent years:

2013 8.00% (previously 8.25%)

2015 7.75%

2016 7.50%

- Maintained 7.50% assumption in 2017

Considered maintenance or further reduction—a case can be made for both

Maintenance: No Change in results of PRIM long-term expected return (7.8%)

NASRA most recent study of large public plans – 7.52%

Reduction: More reliance on short-term expectation (6.8%)

Nationally, plans continue to reduce this assumption

- 2018 Assumption to be reviewed early next year



Actuarial Assumptions

- Mortality
 - Adopted fully generational assumption in 2015 valuation
 - Reflects future mortality improvement (longer life expectancy)
 - 2-dimensional table (age and calendar year)
 - Updated assumption in 2017
 - Reflects analysis of 2015 and 2016 retiree mortality
 - State reflects RP-2014 table (blue collar)
 - Teachers' reflects RP-2014 (white collar)
- Other assumptions determined by experience studies
 - State and Teachers' studies released in 2014
- See page 8 of the valuation report for details regarding recent assumption and plan provision changes.



Office of the State Treasurer

Debt / Capital Presentation

Sue Perez

Deputy Treasurer

Drew Smith

*Deputy Assistant Treasurer
for Debt Management*



Financing Update

- The State Treasurer’s Office (TRE) continues to issue debt periodically to fund the state’s capital budget, following the guidelines of the Executive Office for Administration & Finance’s (A&F) Debt Affordability Analysis.
- Since the May call, the Commonwealth has sold \$782.6 million of GO new money and refunding bonds competitively, remarketed \$200 million of 2014 Series D2 multi-modal bonds, entered into a SBPA for \$136.9 million of 2006 Series A VRDB bonds, executed the replacement of a direct placement for \$163.9 million of 2001 Series B Refunding Bonds and issued \$1.5 billion of Revenue Anticipation Notes for cash flow financing.

| Series | Par Amount | Sale Date | Award/Bookrunner | Maturity Range | Avg Life | All-In-TIC |
|---------------------|------------|-----------|----------------------------|----------------|----------|------------|
| GO 2017 C, D, Ref D | \$782.6MM | 6/20/2017 | BAML, Citi, Morgan Stanley | 2022-2047 | ~16 yrs | 3.13% |
| GO 2014 D-2 | \$200MM | 8/1/2017 | Barclays | 2022 | ~5 yrs | 1.70% |
| GO 2006 A | \$136.9MM | 8/1/2017 | Barclays | 2021 | ~4 yrs | NA |
| GO 2001 B Ref | \$163.9MM | 8/1/2017 | TD Bank | 2021 | ~3 yrs | NA |
| GO RANS 2017 A-C | \$1,500MM | 8/2/2017 | Multiple | 2018 | <1 yr | 0.85% |



Upcoming Transactions*

Plan of Finance *

| Month | Par Amount* | Structure | Type | Credit | Method of Sale |
|--------------|----------------------------------------------------|---------------------------------------|---------------------|--------|----------------|
| Oct 18, 2017 | \$818MM (\$600MM New Money, \$218MM Refunding) | Fixed Rate Tax Exempt | New Money/Refunding | GO | Competitive |
| Nov 1, 2017 | \$142.6MM (\$75MM New Money, \$67.6MM Refunding) | Fixed Rate Tax Exempt GANS (ABP) | New Money/Refunding | GANS | Competitive |
| Nov 8 2017 | \$500.9MM (\$350MM New Money, \$150.9MM Refunding) | Fixed Rate Tax Exempt CTF (REP & ABP) | New Money/Refunding | CTF | Negotiated |

*Preliminary and subject to change



Upcoming Transaction Summaries*

General Obligation Bonds, 2017 Series E & F Bonds and Series 2017 E Refunding Bonds

- **Principal Amount:** GO New Money Series E \$300,000,000, Series F \$300,000,000, Refunding Series E \$218,125,000*
- **Interest Payment Dates:** May 1 and November 1, beginning May 1 2018
- **Current Ratings on Parity Bonds:** ____/Aa1/AA+ (S&P/Moody's/Fitch)
- **Optional Redemption:** To be determined at pricing

| Due | Preliminary Amortization by Maturity Year | | |
|--------------|-------------------------------------------|--------------------|--------------------|
| | 2017 E | 2017 F | 2017 E Ref |
| 2017 | | | |
| 2018 | 20,000,000 | | |
| 2019 | 20,000,000 | | |
| 2020 | 20,000,000 | | |
| 2021 | 40,000,000 | | |
| 2022 | | | 28,735,000 |
| 2023 | | | 48,620,000 |
| 2024 | | | 48,505,000 |
| 2025 | | | |
| 2026 | | | 46,135,000 |
| 2027 | | | 46,130,000 |
| 2028 | | | |
| 2029 | | | |
| 2030 | 25,000,000 | | |
| 2031 | 25,000,000 | | |
| 2032 | 30,000,000 | | |
| 2033 | 30,000,000 | | |
| 2034 | 30,000,000 | | |
| 2035 | 30,000,000 | | |
| 2036 | 30,000,000 | | |
| 2037 | | 30,000,000 | |
| 2038 | | 30,000,000 | |
| 2039 | | 30,000,000 | |
| 2040 | | 30,000,000 | |
| 2041 | | 30,000,000 | |
| 2042 | | 30,000,000 | |
| 2043 | | 30,000,000 | |
| 2044 | | 30,000,000 | |
| 2045 | | 30,000,000 | |
| 2046 | | 30,000,000 | |
| TOTAL | 300,000,000 | 300,000,000 | 218,125,000 |

*Preliminary and subject to change



GO Refunding Bonds, 2017 Series E*

Summary of Potential Bonds to be Refunded

| Series | Maturity | Par Amount | Call Date | CUSIP |
|--------|-----------|--------------|-----------|-----------|
| 2011D | 10/1/2022 | \$30,000,000 | 10/1/2021 | 57582PB33 |
| 2011D | 10/1/2027 | \$50,000,000 | 10/1/2021 | 57582PB82 |
| 2014F | 11/1/2023 | \$50,000,000 | 11/1/2022 | 57582RAA4 |
| 2014F | 11/1/2024 | \$50,000,000 | 11/1/2022 | 57582RAB2 |
| 2014F | 11/1/2026 | \$50,000,000 | 11/1/2022 | 57582RAD8 |

* Preliminary, subject to change



Upcoming Transaction Summaries*

Federal Highway Grant Anticipation Notes, 2017 Series A

- **Principal Amount:** \$142,640,000*
- **Interest Payment Dates:** June 15 and December 15, beginning June 15, 2018
- **Final Maturity Date:** Due June 15, 2027
- **Security:** Federal Highway Reimbursements and net amount credited to the Commonwealth Transportation Fund
- **Use of Proceeds:** Proceeds from the 2017A Notes will be used to fund additional costs of the Accelerated Bridge Program and to refund certain outstanding Prior GANS
- **Current Ratings on Parity Notes:** ___/___ (S&P/Moody's)
- **Optional Redemption:** Each maturity will be subject to redemption on any date on and after the June 15 immediately preceding the applicable maturity date at the option of the Commonwealth and as determined at pricing

| 2017 Series A – Preliminary Amortization by Maturity Year | |
|-----------------------------------------------------------|-------------|
| Due (06/15) | Amount |
| 2021 | \$9,675,000 |
| 2022 | 9,960,000 |
| 2023 | 10,255,000 |
| 2024 | 37,505,000 |
| 2025 | 24,240,000 |
| 2026 | 25,040,000 |
| 2027 | 25,965,000 |

* Preliminary, subject to change



Upcoming Transaction Summaries*

Commonwealth Transportation Fund Revenue Bonds, 2017 Series A

- **Principal Amount:** \$350,000,000*
- **Interest Payment Dates:** June 1 and December 1, beginning June 1, 2018
- **Final Maturity Date:** Due June 1, 2047
- **Security:** Amounts credited to the Commonwealth Transportation Fund, the primary sources of which are the Motor Fuels Tax and Registry Fees
- **Use of Proceeds:** Proceeds from the 2017A CTF Bonds will be used to fund costs of certain transportation projects of the Commonwealth under the:
 - Accelerated Bridge Program (\$50,000,000*)
 - Rail Enhancement Program (\$300,000,000*)
- **Current Ratings on Parity Bonds:** ____/____ (S&P/Moody's)
- **Optional Redemption:** Maturities from 2026 – 2035 will be subject to optional redemption on any date after June 1, 2024. Maturities on or after June 1, 2036 will be subject to redemption on any date after June 1, 2027.

| 2017 Series A – Preliminary Amortization by Maturity Year | | | |
|-----------------------------------------------------------|-------------|-------------|-----------------------|
| Due (06/01) | Amount | Due (06/01) | Amount |
| 2019 | \$3,270,000 | 2036 | \$14,130,000 |
| 2020 | 3,370,000 | 2037 | 13,825,000 |
| 2021 | 3,475,000 | | |
| 2022 | 3,610,000 | | 2042 Term Bond |
| 2023 | 7,410,000 | 2042 | \$80,740,000 |
| 2024 | 7,780,000 | | |
| 2025 | 8,125,000 | | 2047 Term Bond |
| 2026 | 8,490,000 | 2047 | \$93,005,000 |
| 2027 | 9,640,000 | | |
| 2028 | 10,065,000 | | |
| 2029 | 9,850,000 | | |
| 2030 | 10,935,000 | | |
| 2031 | 11,410,000 | | |
| 2032 | 11,915,000 | | |
| 2033 | 12,440,000 | | |
| 2034 | 12,975,000 | | |
| 2035 | 13,540,000 | | |

* Preliminary, subject to change



Upcoming Transaction Summaries*

Commonwealth Transportation Fund Revenue Refunding Bonds, 2017 Series A

- **Principal Amount:** \$150,860,000*
- **Interest Payment Dates:** June 1 and December 1, beginning June 1, 2018
- **Final Maturity Date:** Due June 1, 2043
- **Security:** Amounts credited to the Commonwealth Transportation Fund, the primary sources of which are the Motor Fuels Tax and Registry Fees
- **Use of Proceeds:** Proceeds from the 2017A CTF Refunding Bonds will be used to refund certain outstanding Prior CTF Bonds
- **Current Ratings on Parity Bonds:** ___/___ (S&P/Moody's)
- **Optional Redemption:** Maturities prior to 2027 are not subject to optional redemption. Maturities on and after 2028 will be subject to optional redemption on any date on and after June 1, 2027 at the option of the Commonwealth.

| 2017 Refunding Series A – Preliminary Amortization by Maturity Year | |
|---------------------------------------------------------------------|--------------|
| Due (06/01) | Amount |
| 2027 | \$12,605,000 |
| 2028 | 12,830,000 |
| 2030 | 6,695,000 |
| 2031 | 7,465,000 |
| 2032 | 8,310,000 |
| 2033 | 6,380,000 |
| 2034 | 10,300,000 |
| 2035 | 11,405,000 |
| 2036 | 12,600,000 |
| 2038 | 15,545,000 |
| 2039 | 7,095,000 |
| 2040 | 8,005,000 |
| 2041 | 8,990,000 |
| 2042 | 11,345,000 |
| 2043 | 11,290,000 |

* Preliminary, subject to change



Issuance Timeline*

- The Commonwealth expects to sell
 - 2017 Series E & F and Refunding Series E GO Bonds on October 18th
 - 2017 Series A Federal Highway Grant Anticipation Notes on November 1st
 - 2017 Series A and Refunding Series A CTF Bonds on November 8th
- Our current Information Statement is available at www.massbondholder.com. The Preliminary Official Statements will be also available on the website as they are released.

Questions, please contact:

Office of State Treasurer Division of Debt Management

Sue Perez
Deputy Treasurer
sperez@tre.state.ma.us
(617) 367-3900 ext. 816

Drew Smith
Deputy Assistant Treasurer
dsmith@tre.state.ma.us
(617) 367-3900 ext. 493

* Preliminary, subject to change



Debt/Capital

- Today's call represents the third and final investor call of 2017
- The 7th Annual Massachusetts Investor Conference, our final investor event of the year, will be held at the Boston Convention & Exhibition Center on November 15, 2017. Register quickly at www.massbondholder.com
- For more information on the Commonwealth's financing programs, please contact either Sue Perez or Drew Smith

Sue Perez

Deputy Treasurer

(617) 367-3900 ext. 816

sperez@tre.state.ma.us

Drew Smith

Deputy Asst. Treasurer for Debt Management

(617) 367-3900 ext. 493

dsmith@tre.state.ma.us

To receive e-mail notifications of our investor events please send us an email at: ***massbondholder@tre.state.ma.us*** or follow us on Twitter **@BuyMassBonds**



QUESTIONS

