

NEW ISSUE - BOOK-ENTRY-ONLY

In the opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Bond Counsel, under existing law, and assuming continued compliance with various requirements of the Internal Revenue Code of 1986, as amended, interest on the Bonds will not be included in the gross income of holders of the Bonds for federal income tax purposes. While interest on the Bonds will not constitute a preference item for purposes of computation of the alternative minimum tax imposed on certain individuals and corporations, interest on the Bonds will be included in the “adjusted current earnings” of corporate holders of the Bonds and therefore will be taken into account in computing the alternative minimum tax imposed on certain corporations. In the opinion of Bond Counsel, interest on the Bonds and any profit made on the sale thereof are exempt from Massachusetts personal income taxes, and the Bonds are exempt from Massachusetts personal property taxes. See “TAX EXEMPTION” herein.



\$600,000,000

THE COMMONWEALTH OF MASSACHUSETTS

\$150,000,000

**General Obligation Bonds
Consolidated Loan of 2016
Series H**

\$150,000,000

**General Obligation Bonds
Consolidated Loan of 2016
Series I**

\$300,000,000

**General Obligation Bonds
Consolidated Loan of 2016
Series J**

Dated: Date of Delivery

Due: As shown on the inside cover hereof

The General Obligation Bonds, Consolidated Loan of 2016, Series H (the “Series H Bonds”), General Obligation Bonds, Consolidated Loan of 2016, Series I (the “Series I Bonds”) and its General Obligation Bonds, Consolidated Loan of 2016, Series J (the “Series J Bonds” and together with the Series H Bonds and the Series I Bonds, the “Bonds”) will be issued by means of a book-entry-only system evidencing ownership and transfer of the Bonds on the records of The Depository Trust Company, New York, New York (“DTC”), and its participants. Details of payment of the Bonds are more fully described in this Official Statement. The Bonds will bear interest from their date of delivery and interest will be payable on June 1, 2017 and semiannually thereafter on December 1 and June 1 and at maturity, calculated on the basis of a 360-day year of twelve 30-day months. The Bonds are subject to redemption prior to maturity as more fully described herein.

The Bonds will constitute general obligations of The Commonwealth of Massachusetts (the “Commonwealth”), and the full faith and credit of the Commonwealth will be pledged to the payment of the principal of and interest on the Bonds. However, for information regarding the statutory limit on state tax revenue growth, see “SECURITY FOR THE BONDS” (herein) and the Information Statement (described herein) under the heading “COMMONWEALTH REVENUES AND EXPENDITURES – Limitations on Tax Revenues.”

The Bonds are offered when, as and if issued and received by the original purchasers, and subject to the unqualified approving opinion as to legality of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, Bond Counsel. Certain legal matters will be passed upon for the Commonwealth by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, Disclosure Counsel. Public Financial Management, Inc. is acting as financial advisor to the Commonwealth in connection with the issuance of the Bonds. Settlement of the issue is expected at DTC in New York, New York, on or about December 8, 2016.

November 30, 2016

THE COMMONWEALTH OF MASSACHUSETTS

**\$150,000,000
General Obligation Bonds
Consolidated Loan of 2016, Series H**

Dated: Date of Delivery

Due: as shown below

Maturity (December 1)	Amount	Interest Rate	Yield	CUSIP Number**
2022	\$25,000,000	5.00%	2.180%	57582RLM6
2023	25,000,000	5.00	2.340	57582RLN4
2024	25,000,000	5.00	2.520	57582RLP9
2025	25,000,000	5.00	2.670	57582RLQ7
2026	50,000,000	5.00	2.790	57582RLR5

**\$150,000,000
General Obligation Bonds
Consolidated Loan of 2016, Series I**

Dated: Date of Delivery

Due: as shown below

Maturity (December 1)	Amount	Interest Rate	Yield	CUSIP Number**
2027	\$15,000,000	5.00%	2.820% ^C	57582RLS3
2028	15,000,000	5.00	2.910 ^C	57582RLT1
2029	15,000,000	5.00	2.980 ^C	57582RLU8
2030	15,000,000	5.00	3.040 ^C	57582RLV6
2031	15,000,000	5.00	3.100 ^C	57582RLW4
2032	15,000,000	5.00	3.170 ^C	57582RLX2
2033	15,000,000	5.00	3.250 ^C	57582RLY0
2034	20,000,000	5.00	3.310 ^C	57582RLZ7
2035	25,000,000	5.00	3.340 ^C	57582RMA1

**\$300,000,000
General Obligation Bonds
Consolidated Loan of 2016, Series J**

Dated: Date of Delivery

Due: as shown below

Maturity (December 1)	Amount	Interest Rate	Yield	CUSIP Number**
2036	\$50,000,000	5.00%	3.420% ^C	57582RMB9
2037	25,000,000	5.00	3.450 ^C	57582RMC7
2038	25,000,000	5.00	3.470 ^C	57582RMD5
2039	25,000,000	4.00	4.000	57582RME3
2040	25,000,000	4.00	4.000	57582RMF0
2044	50,000,000	4.00	4.050	57582RMH6
2045	50,000,000	4.00	4.060	57582RMJ2
2046	50,000,000	4.00	4.070	57582RMG8

^C Priced at the stated yield to the December 1, 2026 optional redemption date at a redemption price of 100%. See "THE BONDS - Redemption" herein.

** CUSIP is a registered trademark of the American Bankers Association. CUSIP data herein is provided by CUSIP Global Services, managed on behalf of the American Bankers Association by S&P Global Market Intelligence. The CUSIP numbers are included solely for the convenience of owners of the Bonds, and the Commonwealth is not responsible for the selection or the correctness of the CUSIP numbers printed herein. CUSIP numbers assigned to securities may be changed during the term of such securities based on a number of factors, including, but not limited to, the refunding or defeasance of such securities or the use of secondary market financing products.

No dealer, broker, salesperson or other person has been authorized by The Commonwealth of Massachusetts or the original purchasers of the Bonds to give any information or to make any representations, other than those contained in this Official Statement, and if given or made, such other information or representations must not be relied upon as having been authorized by either of the foregoing. This Official Statement does not constitute an offer to sell or a solicitation of any offer to buy, nor shall there be any sale of the Bonds offered hereby by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale. The information set forth herein or included by reference herein has been furnished by the Commonwealth and includes information obtained from other sources which are believed to be reliable, but is not guaranteed as to accuracy or completeness and is not to be construed as a representation by the original purchasers of the Bonds or, as to information from other sources, the Commonwealth. The information and expressions of opinion herein or included by reference herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the Commonwealth, or its agencies, authorities or political subdivisions, since the date hereof, except as expressly set forth herein.

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THE COMMONWEALTH OF MASSACHUSETTS



CONSTITUTIONAL OFFICERS

Charles D. Baker..... Governor
Karyn E. Polito..... Lieutenant Governor
William F. Galvin..... Secretary of the Commonwealth
Maura T. Healey Attorney General
Deborah B. GoldbergTreasurer and Receiver-General
Suzanne M. Bump..... Auditor

LEGISLATIVE OFFICERS

Stanley C. Rosenberg President of the Senate
Robert A. DeLeo Speaker of the House

OFFICIAL STATEMENT

THE COMMONWEALTH OF MASSACHUSETTS

\$150,000,000
General Obligation Bonds
Consolidated Loan of 2016
Series H

\$150,000,000
General Obligation Bonds
Consolidated Loan of 2016
Series I

\$300,000,000
General Obligation Bonds
Consolidated Loan of 2016
Series J

INTRODUCTION

This Official Statement (including the cover page and Appendices A through D attached hereto) provides certain information in connection with the issuance by The Commonwealth of Massachusetts (the “Commonwealth”) of its \$150,000,000 aggregate principal amount of General Obligation Bonds, Consolidated Loan of 2016, Series H (the “Series H Bonds”), its \$150,000,000 aggregate principal amount of General Obligation Bonds, Consolidated Loan of 2016, Series I (the “Series I Bonds”) and its \$300,000,000 aggregate principal amount of General Obligation Bonds, Consolidated Loan of 2016, Series J (the “Series J Bonds,” together with the Series H Bonds and the Series I Bonds, the “Bonds”). The Bonds will be general obligations of the Commonwealth, and the full faith and credit of the Commonwealth will be pledged to the payment of the principal of and interest on the Bonds. However, for information regarding the statutory limit on state tax revenue growth, see “SECURITY FOR THE BONDS” and the Information Statement (described below) under the heading “COMMONWEALTH REVENUES AND EXPENDITURES – Limitations on Tax Revenues.”

The Bonds are being issued to finance certain authorized capital projects of the Commonwealth. See “THE BONDS – Application of Proceeds of the Bonds”.

Purpose and Content of Official Statement

This Official Statement describes the terms and use of proceeds of, and security for, the Bonds. This introduction is subject in all respects to the additional information contained in this Official Statement, including Appendices A through D. All descriptions of documents contained herein are only summaries and are qualified in their entirety by reference to each such document.

Specific reference is made to the Commonwealth’s Information Statement dated November 1, 2016 (the “Information Statement”), which is attached hereto as Appendix A. The Information Statement has been filed with the Municipal Securities Rulemaking Board (the “MSRB”) through its Electronic Municipal Market Access (“EMMA”) system. Subsequent filings by the Commonwealth to the EMMA system, prior to the sale of the Bonds, of continuing disclosure documents identified as “other financial/operating data” are hereby deemed to be included by reference in the Information Statement. The Information Statement contains certain fiscal, budgetary, financial and other general information concerning the Commonwealth. Exhibit A to the Information Statement contains certain economic information concerning the Commonwealth. Exhibit B to the Information Statement contains the financial statements of the Commonwealth for the fiscal year ended June 30, 2016, prepared on a statutory basis. Exhibit C to the Information Statement contains the financial statements of the Commonwealth for the fiscal year ended June 30, 2015, prepared on a GAAP basis. Specific reference is made to said Exhibits A, B and C, copies of which have been filed with EMMA. The financial statements are also available at the home page of the Comptroller of the Commonwealth located at <http://www.mass.gov/comptroller> by clicking on “Financial Reports” under the “Publications and Reports” tab. In addition, the financial statements are also posted on the Commonwealth’s investor website at www.massbondholder.com.

Appendix B attached hereto contains the proposed form of legal opinion of Bond Counsel with respect to the Bonds. Appendix C attached hereto contains the proposed form of the Commonwealth’s continuing disclosure undertaking to be included in the form of the Bonds to facilitate compliance by the

successful bidders of the Bonds with the requirements of paragraph (b)(5) of Rule 15c2-12 of the Securities and Exchange Commission. Appendix D attached hereto contains the Official Notices of Sale with respect to the Bonds.

THE BONDS

General

The Bonds will mature on the dates and in the aggregate principal amounts, and shall bear interest at the rates per annum (calculated on the basis of a 360-day year of twelve 30-day months), as set forth on the inside cover page of this Official Statement. The Bonds will be dated their date of delivery and will bear interest from such date. Interest on the Bonds will be payable semiannually on June 1 and December 1 of each year, and at maturity, commencing June 1, 2017, until the principal amount is paid. The record date for the Bonds will be the 15th day of the month immediately preceding each interest payment date. The Commonwealth will act as its own paying agent with respect to the Bonds. The Commonwealth reserves the right to appoint from time to time a paying agent or agents or bond registrar for the Bonds.

Book-Entry-Only System. The Bonds will be issued by means of a book-entry-only system, with one bond certificate for each maturity of each series bearing a particular interest rate immobilized at The Depository Trust Company, New York, New York (“DTC”). The certificates will not be available for distribution to the public and will evidence ownership of the Bonds in principal amounts of \$5,000 or integral multiples thereof. Transfers of ownership will be effected on the records of DTC and its participants pursuant to rules and procedures established by DTC and its participants. Interest and principal due on the Bonds will be paid in federal funds to DTC or its nominee as registered owner of the Bonds. As long as the book-entry-only system remains in effect, DTC or its nominee will be recognized as the owner of the Bonds for all purposes, including notices and voting. The Commonwealth will not be responsible or liable for maintaining, supervising or reviewing the records maintained by DTC, its participants or persons acting through such participants. See “BOOK-ENTRY-ONLY SYSTEM.”

Redemption

Optional Redemption. The Series H Bonds will not be subject to redemption prior to their stated maturity dates. The Series I Bonds and the Series J Bonds will be subject to redemption prior to their stated maturity dates on or after December 1, 2026 at the option of the Commonwealth from any monies legally available therefor, in whole or in part at any time, by lot, at 100% of the principal amount thereof, plus accrued interest to the redemption date.

Notice of Redemption. The Commonwealth shall give notice of redemption to the owners of the applicable Bonds not less than 30 days prior to the date fixed for redemption. Notice of redemption will be mailed to the registered owner as of the record date, which means, so long as the Bonds remain immobilized at DTC, Cede & Co., as nominee of DTC. Any failure on the part of DTC, any DTC participant or any nominee of a beneficial owner of any such Bond (having received notice from a DTC participant or otherwise) to notify the beneficial owner so affected, shall not affect the validity of the redemption.

On the specified redemption date, all Bonds called for redemption shall cease to bear interest, provided the Commonwealth has monies on hand to pay such redemption in full.

Selection for Redemption. In the event that less than all of any maturity of any series of Bonds is to be redeemed, and so long as the book-entry-only system remains in effect for such Bonds, the particular Bonds or portion of any such Bonds of a particular series and maturity to be redeemed will be selected by DTC by lot. If the book-entry-only system no longer remains in effect for the Bonds, selection for redemption of less than all of any one maturity within a series of Bonds will be made by the Commonwealth by lot in such manner as in its discretion it shall deem appropriate and fair. For purposes of selection by lot within a maturity, each \$5,000 of principal amount of a Bond will be considered a separate Bond.

Application of Proceeds of the Bonds

The Bonds are being issued pursuant to the provisions of Section 49 of Chapter 29 of the Massachusetts General Laws and specific bond authorizations enacted by the Massachusetts Legislature. The net proceeds of the sale of the Bonds, including any premium received by the Commonwealth upon original delivery of the Bonds, will be applied by the Treasurer and Receiver-General of the Commonwealth (the "State Treasurer") to the various purposes for which the issuance of bonds has been authorized pursuant to such bond authorizations, to pay bond anticipation notes or to reimburse the Commonwealth's treasury for expenditures previously made pursuant to such laws. Any remaining premium received by the Commonwealth upon original delivery of the Bonds and not applied to the various purposes for which bonds have been authorized will be applied to the costs of issuance thereof. The purposes for which the Bonds will be issued have been authorized by the Legislature under various bond authorizations.

The proceeds of the Bonds will be used to finance or reimburse the Commonwealth for a variety of capital expenditures which are included within the capital investment plan established by the Executive Office for Administration and Finance. See the Commonwealth Information Statement under the heading "Commonwealth Capital Investment Plan."

SECURITY FOR THE BONDS

The Bonds will be general obligations of the Commonwealth to which its full faith and credit will be pledged for the payment of principal and interest when due. However, it should be noted that Chapter 62F of the Massachusetts General Laws imposes a state tax revenue growth limit and does not exclude principal and interest payments on Commonwealth debt obligations from the scope of the limit. This statute is subject to amendment or repeal by the Legislature. Currently, actual tax revenue growth is below the statutory limit. See the Information Statement under the heading "COMMONWEALTH REVENUES AND EXPENDITURES – Limitations on Tax Revenues."

The Commonwealth has waived its sovereign immunity and consented to be sued on contractual obligations, including the Bonds, and all claims with respect thereto. However, the property of the Commonwealth is not generally subject to attachment or levy to pay a judgment, and the satisfaction of any judgment generally requires a legislative appropriation. Enforcement of a claim for payment of principal or interest on the Bonds may also be subject to the provisions of federal or state statutes, if any, hereafter enacted extending the time for payment or imposing other constraints upon enforcement, insofar as the same may be constitutionally applied. The United States Bankruptcy Code is not applicable to the Commonwealth. Under Massachusetts law, the Bonds have all of the qualities and incidents of negotiable instruments under the Uniform Commercial Code. The Bonds are not subject to acceleration.

LITIGATION

No litigation is pending or, to the knowledge of the Attorney General, threatened against or affecting the Commonwealth seeking to restrain or enjoin the issuance, sale or delivery of the Bonds or in any way contesting or affecting the validity of the Bonds.

There are pending in courts within the Commonwealth various suits in which the Commonwealth is a defendant. In the opinion of the Attorney General, no litigation is pending or, to the Attorney General's knowledge, threatened which is likely to result, either individually or in the aggregate, in final judgments against the Commonwealth that would materially affect its financial condition. For a description of certain litigation affecting the Commonwealth, see the Information Statement under the heading "LEGAL MATTERS."

BOOK-ENTRY-ONLY SYSTEM

The Depository Trust Company, New York, New York, will act as securities depository for the Bonds. The Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered Bond will be issued for each maturity and series set forth on the inside cover page hereof, each in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934, as amended. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC's records. The ownership interest of each actual purchaser of each Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of the Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Bonds, such as redemptions, defaults, and proposed amendments to the Bond documents. For example, Beneficial Owners of Bonds may wish to

ascertain that the nominee holding the Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners.

Redemption notices shall be sent to DTC. If less than all of the Bonds within a series and maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Commonwealth as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

THE COMMONWEALTH WILL NOT HAVE ANY RESPONSIBILITY OR OBLIGATION TO THE DIRECT PARTICIPANTS, THE INDIRECT PARTICIPANTS OR THE BENEFICIAL OWNERS WITH RESPECT TO THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC OR BY ANY DIRECT OR INDIRECT PARTICIPANT, THE PAYMENT OF OR THE PROVIDING OF NOTICE TO THE DIRECT PARTICIPANTS, THE INDIRECT PARTICIPANTS OR THE BENEFICIAL OWNERS OR WITH RESPECT TO ANY OTHER ACTION TAKEN BY DTC AS BOND OWNER.

The principal of and interest and premium, if any, on the Bonds will be paid to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC, as registered owner of the Bonds. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Commonwealth, on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with municipal securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC or the Commonwealth, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of the principal of and interest and premium, if any, to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Commonwealth, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

The Commonwealth cannot give any assurances that Direct Participants or others will distribute payments of principal of and interest on the Bonds paid to DTC or its nominee, as the registered owner, to the Beneficial Owners, or that they will do so on a timely basis or that DTC will serve and act in a manner described in this document.

Beneficial Owners of the Bonds will not receive or have the right to receive physical delivery of such Bonds and will not be or be considered to be the registered owners thereof. So long as Cede & Co. is the registered owner of the Bonds, as nominee of DTC, references herein to the holders or registered owners of the Bonds shall mean Cede & Co. and shall not mean the Beneficial Owners of the Bonds, except as otherwise expressly provided herein.

DTC may discontinue providing its services as depository with respect to the Bonds at any time by giving reasonable notice to the Commonwealth. Under such circumstances, in the event that a successor depository is not obtained, Bonds will be delivered and registered as designated by the Beneficial Owners. The Beneficial Owner, upon registration of Bonds held in the Beneficial Owner's name, will become the Bondowner. Bond certificates are required to be printed and delivered.

The Commonwealth may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In such event, Bond certificates will be printed, delivered and registered as designated by the Beneficial Owners.

THE INFORMATION IN THIS SECTION CONCERNING DTC AND DTC'S BOOK-ENTRY-ONLY SYSTEM HAS BEEN OBTAINED FROM SOURCES THAT THE COMMONWEALTH BELIEVES TO BE RELIABLE, BUT THE COMMONWEALTH TAKES NO RESPONSIBILITY FOR THE ACCURACY THEREOF.

RATINGS

The Bonds have been assigned long-term ratings of "AA+" (stable outlook), "Aa1" (stable outlook) and "AA+" (negative outlook) by Fitch Ratings, Moody's Investors Service, Inc., and Standard & Poor's Ratings Services, respectively.

Such ratings reflect only the respective views of such organizations, and an explanation of the significance of such ratings may be obtained from the rating agency furnishing the same. There is no assurance that a rating will continue for any given period of time or that a rating will not be revised or withdrawn entirely by any or all of such rating agencies, if, in its or their judgment, circumstances so warrant. Any downward revision or withdrawal of a rating could have an adverse effect on the market prices of the Bonds.

COMPETITIVE SALE OF BONDS

After competitive, electronic bidding on November 30, 2016, the Series H Bonds were awarded by the Commonwealth to Goldman, Sachs & Co., as purchaser. The purchaser of the Series H Bonds has supplied the information as to the public offering prices and public reoffering yields of the Series H Bonds set forth on the inside cover hereof. If all of the Series H Bonds were resold to the public at such prices and yields, the purchaser of the Series H Bonds has informed the Commonwealth that its total compensation is expected to be approximately 0.203% of the aggregate principal amount of the Series H Bonds. The purchaser of the Series H Bonds may change the public offering prices and public offering yields from time to time.

After competitive, electronic bidding on November 30, 2016, the Series I Bonds were awarded by the Commonwealth to Citigroup Global Markets, Inc., as purchaser. The purchaser of the Series I Bonds has supplied the information as to the public offering prices and public reoffering yields of the Series I Bonds set forth on the inside cover hereof. If all of the Series I Bonds were resold to the public at such prices and yields, the purchaser of the Series I Bonds has informed the Commonwealth that its total compensation is expected to be approximately 0.518% of the aggregate principal amount of the Series I Bonds. The purchaser of the Series I Bonds may change the public offering prices and public offering yields from time to time.

After competitive, electronic bidding on November 30, 2016, the Series J Bonds were awarded by the Commonwealth to Merrill Lynch, Pierce, Fenner & Smith Incorporated, as purchaser. The purchaser of the Series J Bonds has supplied the information as to the public offering prices and public reoffering yields of the Series J Bonds set forth on the inside cover hereof. If all of the Series J Bonds were resold to the public at such prices and yields, the purchaser of the Series J Bonds has informed the Commonwealth that its total compensation is expected to be approximately 0.875% of the aggregate principal amount of the Series J Bonds. The purchaser of the Series J Bonds may change the public offering prices and public offering yields from time to time.

TAX EXEMPTION

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Bond Counsel to the Commonwealth ("Bond Counsel") is of the opinion that, under existing law, interest on the Bonds will not be included in the gross income of holders of the Bonds for federal income tax purposes. This opinion is expressly conditioned upon continued compliance with certain requirements imposed by the Internal Revenue Code of 1986, as amended (the "Code"), which must be satisfied subsequent to the date of issuance of the Bonds in order to ensure that interest on the Bonds is and continues to be excludable from the gross income of holders of the Bonds. Failure to comply with certain of such requirements could cause interest on the Bonds to be included in the gross income of holders of the Bonds retroactive to the date of issuance of the Bonds. In particular, and without limitation, these requirements include restrictions on the use, expenditure and investment of Bond proceeds and

the payment of rebate, or penalties in lieu of rebate, to the United States, subject to certain exceptions. The Commonwealth has provided covenants and certificates as to continued compliance with such requirements.

In the opinion of Bond Counsel, under existing law, since the Bonds are not “private activity bonds” under the Code, interest on the Bonds will not constitute a preference item under Section 57(a)(5) of the Code for purposes of computation of the alternative minimum tax imposed on certain individuals and corporations under Section 55 of the Code. However, interest on the Bonds will be included in “adjusted current earnings” of corporate holders of the Bonds and therefore will be taken into account under Section 56(g) of the Code in the computation of the alternative minimum tax applicable to certain corporations.

Bond Counsel has not opined as to any other matters of federal tax law relating to the Bonds. However, prospective purchasers should be aware of certain collateral consequences which may result under federal tax law for certain holders of the Bonds: (i) Section 265 of the Code denies a deduction for interest on indebtedness incurred or continued to purchase or carry the Bonds or, in the case of a financial institution, that portion of a holder’s interest expense allocated to interest on the Bonds, (ii) with respect to insurance companies subject to the tax imposed by Section 831 of the Code, Section 832(b)(5)(B)(i) reduces the deduction for losses incurred by 15 percent of the sum of certain items, including interest on the Bonds, (iii) interest on the Bonds earned by certain foreign corporations doing business in the United States could be subject to a branch profits tax imposed by Section 884 of the Code, (iv) passive investment income, including interest on the Bonds, may be subject to federal income taxation under Section 1375 of the Code for an S Corporation that has Subchapter C earnings and profits at the close of the taxable year if greater than 25% of the gross receipts of such S Corporation is passive investment income, (v) Section 86 of the Code requires recipients of certain Social Security and certain Railroad Retirement benefits to take into account in determining gross income receipts or accruals of interest on the Bonds, and (vi) receipt of investment income, including interest on the Bonds, may, pursuant to Section 32(i) of the Code, disqualify the recipient from obtaining the earned income credit provided by Section 32(a) of the Code.

Interest paid on tax-exempt obligations such as the Bonds is generally required to be reported by payors to the IRS and to recipients in the same manner as interest on taxable obligations. In addition, such interest may be subject to “backup withholding” if the Bond holder fails to provide the information required on IRS Form W-9, Request for Taxpayer Identification Number and Certification, or the IRS has specifically identified the Bond holder as being subject to backup withholding because of prior underreporting. Neither the information reporting requirement nor the backup withholding requirement affects the excludability of interest on the Bonds from gross income for federal tax purposes.

In the opinion of Bond Counsel, under existing law, interest on the Bonds and any profit made on the sale thereof are exempt from Massachusetts personal income taxes, and the Bonds are exempt from Massachusetts personal property taxes. Bond Counsel has not opined as to other Massachusetts tax consequences arising with respect to the Bonds. Prospective purchasers should be aware, however, that the Bonds are included in the measure of Massachusetts estate and inheritance taxes, and the Bonds and the interest thereon are included in the measure of Massachusetts corporate excise and franchise taxes. Bond Counsel has not opined as to the taxability of the Bonds, their transfer and the income therefrom, including any profit made on the sale thereof, under the laws of any state other than Massachusetts.

For federal and Massachusetts income tax purposes, interest includes original issue discount, which with respect to a Bond is equal to the excess, if any, of the stated redemption price at maturity of such Bond over the initial offering price thereof to the public, excluding underwriters and other intermediaries, at which price a substantial amount of all such Bonds with the same maturity was sold. Original issue discount accrues based on a constant yield method over the term of a Bond. Holders should consult their own tax advisers with respect to the computations of original issue discount during the period in which any such Bond is held.

An amount equal to the excess, if any, of the purchase price of a Bond over the principal amount payable at maturity constitutes amortizable bond premium for federal and Massachusetts tax purposes. The required amortization of such premium during the term of a Bond will result in reduction of the holder’s tax basis on such Bond. Such amortization also will result in reduction of the amount of the stated interest on the Bond taken into account as interest for tax purposes. Holders of Bonds purchased at a premium should consult

their own tax advisers with respect to the determination and treatment of such premium for federal income tax purposes and with respect to the state or local tax consequences of owning such Bonds.

Bond Counsel has not undertaken to advise in the future whether any events after the date of issuance of the Bonds, including legislation, court decisions, or administrative actions, whether at the federal or state level, may affect the tax exempt status of interest on the Bonds or the tax consequences of ownership of the Bonds. No assurance can be given that future legislation, if enacted into law, will not contain provisions which could directly or indirectly reduce the benefit of the exclusion of the interest on the Bonds from gross income for federal income tax purposes or any state tax benefit. Tax reform proposals and deficit reduction measures, including the limitation of federal tax expenditures, are expected to be under ongoing consideration by the United States Congress. These efforts to date have included proposals to reduce the benefit of the interest exclusion from income for certain holders of tax-exempt bonds, including bonds issued prior to the proposed effective date of the applicable legislation. Future proposed changes could affect the market value or marketability of the Bonds, and, if enacted, could also affect the tax treatment of all or a portion of the interest on the Bonds for some or all holders. Holders should consult their own tax advisers with respect to any of the foregoing tax consequences.

OPINION OF COUNSEL

The unqualified approving opinion as to the legality of the Bonds will be rendered by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. of Boston, Massachusetts, Bond Counsel to the Commonwealth. The proposed form of the opinion of Bond Counsel relating to the Bonds is attached hereto as Appendix B. Certain legal matters will also be passed upon by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. of Boston, Massachusetts, as Disclosure Counsel to the Commonwealth.

CONTINUING DISCLOSURE

In order to assist the successful bidders in complying with paragraph (b)(5) of Rule 15c2-12, the Commonwealth will undertake in the Bonds to provide annual reports and notices of certain events. A description of this undertaking is set forth in Appendix C attached hereto.

For information concerning the Commonwealth's compliance with its undertakings under Rule 15c2-12, and the availability of certain other financial information from the Commonwealth, see the Information Statement under the heading "CONTINUING DISCLOSURE."

FINANCIAL ADVISOR

Public Financial Management, Inc. ("PFM") serves as financial advisor to the Commonwealth for debt management and other financial matters. PFM has acted as independent financial advisor to the Commonwealth with respect to the Bonds. PFM is not obligated to undertake, and has not undertaken, either to make an independent verification of or to assume responsibility for, the accuracy, completeness, or fairness of the information contained in this Official Statement and the appendices hereto. PFM is an independent financial advisory firm and is not engaged in the business of underwriting, trading or distributing securities.

MISCELLANEOUS

Any provisions of the constitution of the Commonwealth, of all general and special laws and of other documents set forth or referred to in this Official Statement are only summarized, and such summaries do not purport to be complete statements of any of such provisions. Only the actual text of such provisions can be relied upon for completeness and accuracy.

This Official Statement 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.

All estimates and assumptions in this Official Statement have been made on the best information available and are believed to be reliable, but no representations whatsoever are made that such estimates and assumptions are correct. So far as any statements in this Official Statement involve any matters of opinion, whether or not expressly so stated, they are intended merely as such and not as representations of fact. The various tables may not add due to rounding of figures.

The Commonwealth has prepared the prospective financial information set forth in this Official Statement in connection with its budgeting and appropriations processes. This prospective financial information was not prepared with a view toward complying with the guidelines established by the American Institute of Certified Public Accountants with respect to prospective financial information, but, in the view of the Commonwealth, was prepared on a reasonable basis, reflects the best currently available estimates and judgments, and presents, to the best knowledge and belief of the offices of the Commonwealth identified in this Official Statement as the sources of such information, the currently expected course of action and the currently expected future budgeted revenues and expenditures of the Commonwealth. However, this information is not fact and should not be relied upon as being necessarily indicative of future results, and readers of this Official Statement are cautioned not to place undue reliance on the prospective financial information.

Neither the Commonwealth’s independent auditors, nor any other independent accountants, have compiled, examined, or performed any procedures with respect to the prospective financial information contained herein, nor have they expressed any opinion or any other form of assurance on such information or its achievability, and assume no responsibility for, and disclaim any association with, the prospective financial information.

The information, estimates and assumptions and expressions of opinion in this Official Statement are subject to change without notice. Neither the delivery of this Official Statement nor any sale made pursuant to this Official Statement shall, under any circumstances, create any implication that there has been no change in the affairs of the Commonwealth or its agencies, authorities or political subdivisions since the date of this Official Statement, except as expressly stated.

AVAILABILITY OF OTHER INFORMATION

Questions regarding this Official Statement or requests for additional financial information concerning the Commonwealth should be directed to Susan E. Perez, Assistant Treasurer, Office of the Treasurer and Receiver-General, 3 Center Plaza, Suite 430, Boston, Massachusetts 02108, telephone (617) 367-3900, x. 816, or Jennifer Sullivan, Assistant Secretary for Capital Finance, Executive Office for Administration and Finance, State House, Room 373, Boston, Massachusetts 02133, telephone (617) 727-2040. Questions regarding legal matters relating to this Official Statement and the Bonds should be directed to John R. Regier, Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., One Financial Center, Boston, Massachusetts 02111, telephone (617) 348-1720.

THE COMMONWEALTH OF MASSACHUSETTS

By /s/ Deborah B. Goldberg
Deborah B. Goldberg
Treasurer and Receiver-General

By /s/ Kristen Lepore
Kristen Lepore
Secretary of Administration and Finance

November 30, 2016

**THE
COMMONWEALTH
OF
MASSACHUSETTS**



INFORMATION STATEMENT

Dated November 1, 2016

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THE COMMONWEALTH OF MASSACHUSETTS



CONSTITUTIONAL OFFICERS

Charles D. BakerGovernor
Karyn E. Polito..... Lieutenant Governor
William F. Galvin..... Secretary of the Commonwealth
Maura Healey Attorney General
Deborah B. Goldberg..... Treasurer and Receiver-General
Suzanne M. Bump Auditor

LEGISLATIVE OFFICERS

Stanley C. Rosenberg..... President of the Senate
Robert A. DeLeo..... Speaker of the House

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THE COMMONWEALTH OF MASSACHUSETTS

INFORMATION STATEMENT

November 1, 2016

This Information Statement, together with its Exhibits (included by reference as described below), is furnished by The Commonwealth of Massachusetts (the Commonwealth). It contains certain fiscal, financial and economic information concerning the Commonwealth and its ability to meet its financial obligations. This Information Statement contains information only through its date, or as otherwise provided for herein, and should be read in its entirety.

The ability of the Commonwealth to meet its obligations will be affected by future social, environmental and economic conditions, among other things, as well as by legislative policies and the financial condition of the Commonwealth. Many of these conditions are not within the control of the Commonwealth.

Exhibit A to this Information Statement is the Statement of Economic Information as of October 20, 2016. Exhibit A sets forth certain economic, demographic and statistical information concerning the Commonwealth.

Exhibit B and C, respectively, are the Commonwealth's Statutory Basis Financial Report for the year ended June 30, 2016 and the Commonwealth's Comprehensive Annual Financial Report (reported in accordance with generally accepted accounting principles (GAAP)) for the year ended June 30, 2015. The Commonwealth's independent auditor has not been engaged to perform, and has not performed, since the respective dates of its reports included herein, any procedures on the financial statements addressed in such reports, nor has said independent auditor performed any procedures relating to the official statement of which this Information Statement is a part.

Specific reference is made to said Exhibits A, B and C, copies of which are attached hereto and have also been filed with the Municipal Securities Rulemaking Board (MSRB) through its Electronic Municipal Market Access (EMMA) System. The financial statements are also available at the home page of the Comptroller of the Commonwealth located at <http://www.mass.gov/comptroller> by clicking on "Financial Reports" under the "Publications and Reports" tab.

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THE GOVERNMENT

The government of the Commonwealth is divided into three branches: the Executive, the bicameral Legislature and the Judiciary.

Executive Branch

Governor. The Governor is the chief executive officer of the Commonwealth. Other elected members of the executive branch are the Lieutenant Governor (elected with the Governor), the Treasurer and Receiver-General (State Treasurer), the Secretary of the Commonwealth (State Secretary), the Attorney General and the State Auditor. All are elected to four-year terms. The terms of the current office holders began in January, 2015.

The Executive Council, also referred to as the “Governor’s Council,” consists of eight members who are elected to two-year terms in even-numbered years. The Executive Council is responsible for the confirmation of certain gubernatorial appointments, particularly judges, and must approve all warrants prepared by the Comptroller for payment by the State Treasurer. The warrant requirement under state finance law does not apply to debt service appropriations.

Also within the Executive Branch are certain independent offices, each of which performs a defined function, such as the Office of the Comptroller, the Board of Library Commissioners, the Office of the Inspector General, the State Ethics Commission and the Office of Campaign and Political Finance.

Governor’s Cabinet. The Governor’s Cabinet, which assists the Governor in administration and policy making, is comprised of the secretaries who head the seven Executive Offices, which are the Executive Office for Administration and Finance, the Executive Office of Health and Human Services, the Executive Office of Public Safety and Security, the Executive Office of Housing and Economic Development, the Executive Office of Labor and Workforce Development, the Executive Office of Energy and Environmental Affairs and the Executive Office of Education. In addition, the Secretary of Transportation, who is the chief executive of the Massachusetts Department of Transportation (MassDOT) and chairs MassDOT’s board of directors, is a member of the Governor’s Cabinet. (MassDOT has a legal existence separate from the Commonwealth but houses several departments of state government.) Cabinet secretaries and executive department chiefs, including the Secretary of Transportation, serve at the pleasure of the Governor. Most other agencies are grouped under one of the seven Executive Offices for administrative purposes.

The Governor’s chief fiscal officer is the Secretary of Administration and Finance. The activities of the Executive Office for Administration and Finance fall within five broad categories: (i) administrative and fiscal supervision, including supervision of the implementation of the Commonwealth’s operating budget and capital investment plan, and monitoring of all agency expenditures during the fiscal year; (ii) enforcement of the Commonwealth’s tax laws and collection of tax revenues through the Department of Revenue; (iii) human resource management, including administration of the state personnel system, civil service system and employee benefit programs and negotiation of collective bargaining agreements with certain of the Commonwealth’s public employee unions; (iv) capital facilities management, including coordinating and overseeing the construction, management and leasing of all state facilities; and (v) administration of general services, including information technology services. The Secretary of Administration and Finance serves on numerous state boards and commissions.

State Treasurer. The State Treasurer has four primary statutory responsibilities: (i) oversight of the collection of all state revenues by state agencies, including tax revenues remitted by the Department of Revenue (other than small amounts of funds held by certain agencies); (ii) the management of both short-term and long-term investment of Commonwealth funds (other than the state employee and teacher pension funds), including all cash receipts; (iii) the disbursement of Commonwealth moneys and oversight of reconciliation of the state’s accounts; and (iv) the issuance of most debt obligations of the Commonwealth, including notes, commercial paper and long-term bonds.

In addition to these responsibilities, the State Treasurer chairs the Massachusetts Lottery Commission, the State Board of Retirement, the Pension Reserves Investment Management Board, the Massachusetts Clean Water Trust and the Massachusetts School Building Authority, and appoints the members of the Alcoholic Beverages Control Commission. The State Treasurer also serves as a member of numerous other state boards and commissions.

State Auditor. The State Auditor is charged with improving the efficiency of state government by auditing the administration and expenditure of public funds and reporting the findings to the public. The State Auditor reviews the activities and operations of approximately 750 state entities and potentially thousands of private contractors doing business with the Commonwealth. See “COMMONWEALTH BUDGET AND FINANCIAL MANAGEMENT CONTROLS.”

Attorney General. The Attorney General represents the Commonwealth in all legal proceedings in both the state and federal courts, including defending the Commonwealth in actions in which a state law or executive action is challenged. The Attorney General also brings actions to enforce environmental and consumer protection statutes, among others, and represents consumer interests in public utility rate-setting proceedings and in proceedings before the Division of Insurance and other administrative bodies. The Attorney General works in conjunction with the general counsel of the various state agencies and executive departments to coordinate and monitor all pending litigation.

State Secretary. The Secretary of the Commonwealth is responsible for collection and storage of public records and archives, securities regulation, state elections, administration of state lobbying laws, the registration of and reporting by corporations.

State Comptroller. Accounting policies and practices, publication of official financial reports and oversight of fiscal management functions are the responsibility of the Comptroller. The Comptroller also administers the Commonwealth’s annual state single audit and manages the state accounting system. The Comptroller serves as a member of the Massachusetts Lottery Commission, the Inspector General Council, the Records Conservation Board and the State Retirees Benefits Trust. The Comptroller is appointed by the Governor for a term coterminous with the Governor’s and may be removed by the Governor only for cause. The annual financial reports of the Commonwealth, single audit reports and any rules and regulations promulgated by the Comptroller must be reviewed by an advisory board. This board is chaired by the Secretary of Administration and Finance and includes the State Treasurer, the Attorney General, the State Auditor, the Court Administrator of the Trial Court and two persons with relevant experience appointed by the Governor for three-year terms.

The Commonwealth’s annual reports include financial statements on the statutory basis of accounting (the Statutory Basis Financial Report, or SBFR) and financial statements on a GAAP basis (the Comprehensive Annual Financial Report, or CAFR). The Statutory Basis Financial Report for the year ended June 30, 2016, attached hereto as Exhibit B, was reviewed, and the Comprehensive Annual Financial Report for the year ended June 30, 2015, attached hereto as Exhibit C, was audited, by KPMG LLP, as stated in its reports appearing therein. KPMG LLP has not been engaged to perform, and has not performed, since the respective dates of its reports included herein, any procedures on the financial statements addressed in such reports, nor has it performed any procedures relating to the official statement of which this Information Statement is a part. See “COMMONWEALTH BUDGET AND FINANCIAL MANAGEMENT CONTROLS.”

Legislative Branch

The Legislature (formally called the General Court) is the bicameral legislative body of the Commonwealth, consisting of a Senate of 40 members and a House of Representatives of 160 members. Members of both the Senate and the House are elected to two-year terms in even-numbered years. The Legislature meets every year. The joint rules of the House and Senate require all formal business to be concluded by the end of July in even-numbered years and by the third Wednesday in November in odd-numbered years.

All bills are presented to the Governor for approval or veto. The Legislature may override the Governor’s veto of any bill by a two-thirds roll-call vote of each house. The Governor also has the power to return a bill to the chamber of the Legislature in which it originated with a recommendation that certain amendments be made; such a bill is then before the Legislature and is subject to amendment or re-enactment by each branch, at which point the Governor has no further right to return the bill a second time with a recommendation to amend but may still veto the bill. The House of Representatives must originate any bill that imposes a tax. Once a tax bill is originated by the House and forwarded to the Senate for consideration, the Senate may amend it.

Judicial Branch

The judicial branch of state government is composed of the Supreme Judicial Court, the Appeals Court and the Trial Court. The Supreme Judicial Court has original jurisdiction over certain cases and hears appeals from both the Appeals Court, which is an intermediate appellate court, and in some cases, directly from the Trial Court. The Supreme Judicial Court is authorized to render advisory opinions on certain questions of law to the Governor, the Legislature and the Governor's Council. Judges of the Supreme Judicial Court, the Appeals Court and the Trial Court are appointed by the Governor, with the advice and consent of the Governor's Council, to serve until the mandatory retirement age of 70 years.

Independent Authorities and Agencies

The Legislature has established a number of independent authorities and agencies within the Commonwealth, the budgets of which are not included in the Commonwealth's annual budget. The Governmental Accounting Standards Board (GASB) Statements 14 and 34, as amended by Statement No. 61, *The Financial Reporting Entity: Omnibus—an amendment of GASB Statements No. 14 and No. 34*, articulate standards for determining significant financial or operational relationships between the primary government and its independent entities. In fiscal 2015, the Commonwealth had significant operational or financial relationships, or both, as defined by GASB Statements 14 and 34, as amended by 61, with 40 of these authorities. A discussion of these entities and the relationship to the Commonwealth is included in footnote 1 to the fiscal 2015 Basic Financial Statements in the CAFR, attached hereto as Exhibit C.

Local Government

The Commonwealth has 351 incorporated cities and towns that exercise the functions of local government, which include public safety, fire protection and public construction. Cities and towns or regional school districts established by them also provide elementary and secondary education. Cities are governed by several variations of the mayor-and-council or manager-and-council form. Most towns place executive power in a board of three or five selectmen elected to one- or three-year terms and retain legislative powers in the voters themselves, who assemble in periodic open or representative town meetings. Various local and regional districts exist for schools, water and wastewater administration and certain other governmental functions.

Municipal revenues consist of taxes on real and personal property, distributions from the Commonwealth under a variety of programs and formulas, local receipts (including motor vehicle excise taxes, local option taxes, fines, licenses and permits, charges for utility and other services and investment income) and appropriations from other available funds (including general and dedicated reserve funds). See "COMMONWEALTH REVENUES AND EXPENDITURES – Local Aid."

The cities and towns of the Commonwealth are also organized into 14 counties, but county government has been abolished in seven of those counties. The county governments that remain are responsible principally for the operation of courthouses and registries of deeds. Where county government has been abolished, the functions, duties and responsibilities of the government have been transferred to the Commonwealth, including all employees, assets, valid liabilities and debts.

Initiative Petitions

Under the Massachusetts constitution, legislation may be enacted in the Commonwealth pursuant to a voter initiative process. Initiative petitions which have been certified by the Attorney General as to proper form and as to which the requisite number of voter signatures has been collected are submitted to the Legislature for consideration. If the Legislature fails to enact the measure into law as submitted, the petitioner may place the initiative on the ballot for the next statewide general election by collecting additional voter signatures. If approved by a majority of the voters at the general election, the petition becomes law 30 days after the date of the election. Initiative petitions so approved by the voters do not constitute constitutional amendments and may be subsequently amended or repealed by the Legislature. Initiative petitions may not make appropriations.

Constitutional amendments also may be initiated by citizens, but they follow a longer adoption process, which includes gaining at least 25% of the votes of the House of Representatives and Senate jointly assembled in constitutional convention in two successive biennial legislative sessions before being decided by the voters.

On September 2, 2015, the Attorney General certified a petition to amend the state constitution to provide for an additional tax on certain income. See “COMMONWEALTH REVENUES AND EXPENDITURES – State Taxes; *Income Tax*.” On December 18, 2015, the Secretary of State certified that the petitioners had collected sufficient signatures for the petition to be transmitted to the Legislature. On May 18, 2016, the members of the Legislature jointly assembled in constitutional convention agreed to the amendment by a vote of 135-57. If the measure is similarly supported by at least 25% of the next Legislature, it will appear on the ballot at the November, 2018 statewide election.

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COMMONWEALTH BUDGET AND FINANCIAL MANAGEMENT CONTROLS

Operating Fund Structure

The Commonwealth's operating fund structure satisfies the requirements of state finance law and is in accordance with generally accepted accounting principles (GAAP), as defined by the Governmental Accounting Standards Board (GASB). The General Fund and other funds that are appropriated in the annual state budget receive most of the non-bond and non-federal grant revenues of the Commonwealth. These funds are referred to in this Information Statement as the "budgeted operating funds" of the Commonwealth. Budgeted operating funds are created and repealed from time to time through the enactment of legislation, and existing funds may become inactive when no appropriations are made from them. Budgeted operating funds do not include the capital projects funds of the Commonwealth, into which the proceeds of Commonwealth bonds are deposited. See "Capital Investment Process and Controls" below.

Two of the budgeted operating funds account for most of the Commonwealth's appropriated spending: the General Fund and the Commonwealth Transportation Fund (formerly the Highway Fund), from which approximately 98.4% of the statutory basis budgeted operating fund outflows in fiscal 2016 (preliminary and subject to change) were made. The remaining approximately 1.6% of statutory operating fund outflows occurred in other operating funds: the Commonwealth Stabilization Fund, the Intragovernmental Service Fund, the Inland Fisheries and Game Fund, the Marine Recreational Fisheries Development Fund, the Public Safety Training Fund, the Community First Trust Fund, the Massachusetts Tourism Fund, and the Gaming Local Aid Fund. There were also 15 budgeted funds which were authorized by law but had no activity: the Collective Bargaining Reserve Fund, the Tax Reduction Fund, the Dam Safety Trust Fund, the International Educational and Foreign Language Grant Program Fund, the Education Fund, the Gaming Economic Development Fund, the Temporary Holding Fund, the Substance Abuse Prevention and Treatment Fund, the Children and Families Protection Fund, the Home and Community-based Services Policy Lab Fund, the Regional Water Entity Reimbursement Fund, the Local Capital Projects Fund, the Local Aid Stabilization Fund, the Manufacturing Fund, and the Community College Fund.

At the end of a fiscal year, undesignated balances in the budgeted operating funds, unless excluded by law, are used to calculate the consolidated net surplus. Under state finance law, balances in the Stabilization Fund, the Tax Reduction Fund, the Inland Fisheries and Game Fund, the Marine Recreational Fisheries Fund, the Public Safety Training Fund, the Community First Trust Fund and the Local Aid Stabilization Fund are excluded from the consolidated net surplus calculation.

Overview of Operating Budget Process

Generally, funds for the Commonwealth's programs and services must be appropriated by the Legislature. The process of preparing a budget begins with the executive branch early in the fiscal year preceding the fiscal year for which the budget will take effect. The legislative budgetary process begins in late January (or, in the case of a newly elected Governor, not later than early March) with the Governor's budget submission to the Legislature for the fiscal year commencing in the ensuing July. The Massachusetts constitution requires that the Governor recommend to the Legislature a budget which contains a statement of all proposed expenditures of the Commonwealth for the upcoming fiscal year, including those already authorized by law, and of all taxes, revenues, loans and other means by which such expenditures are to be defrayed. State finance law requires the Legislature and the Governor to approve a balanced budget for each fiscal year, and the Governor may approve no supplemental appropriation bills that would result in an unbalanced budget. However, this is a statutory requirement that may be superseded by an appropriation act.

The House Committee on Ways and Means considers the Governor's budget recommendations and, with revisions, proposes a budget to the full House of Representatives. Once approved by the House, the budget is considered by the Senate Committee on Ways and Means, which in turn proposes a budget to be considered by the full Senate. In recent years, the legislative budget review process has included joint hearings by the Ways and Means Committees of the Senate and the House. After Senate action, a legislative conference committee develops a joint budget recommendation for consideration by both houses of the Legislature, which upon adoption is sent to the Governor. Under the Massachusetts constitution, the Governor may veto the budget in whole or disapprove or reduce specific line items (line item veto). The Legislature may override the Governor's veto or specific line-item

vetoes by a two-thirds roll-call vote of both the House and Senate. The annual budget legislation, as finally enacted, is known as the general appropriations act.

In years in which the general appropriations act is not approved by the Legislature and the Governor before the beginning of the applicable fiscal year, the Legislature and the Governor generally approve a temporary budget under which funds for the Commonwealth's programs and services are appropriated based upon the level of appropriations from the prior fiscal year budget.

State finance law requires the Commonwealth to monitor revenues and expenditures during a fiscal year. For example, the Comptroller publishes a quarterly report of planned and actual revenues. See "COMMONWEALTH REVENUES AND EXPENDITURES – Tax Revenue Forecasting." Department heads are required to notify the Secretary of Administration and Finance and the House and Senate Committees on Ways and Means of any anticipated decrease in estimated revenues for their departments from the federal government or other sources or if it appears that any appropriation will be insufficient to meet all expenditures required in the fiscal year by any law, rule, regulation or order not subject to administrative control. The Secretary of Administration and Finance must notify the Governor and the House and Senate Committees on Ways and Means whenever the Secretary determines that revenues will be insufficient to meet authorized expenditures. The Secretary of Administration and Finance is then required to compute projected deficiencies and, under Section 9C of Chapter 29 of the General Laws, the Governor is required to reduce allotments, to the extent lawfully permitted to do so, or submit proposals to the Legislature to raise additional revenues or to make appropriations from the Stabilization Fund to cover such deficiencies. The Supreme Judicial Court has ruled that, under current law, the Governor's authority to reduce allotments of appropriated funds extends only to appropriations of funds to state agencies under the Governor's control.

Cash and Budgetary Controls

The Commonwealth has in place controls designed to ensure that: (i) sufficient cash is available to meet the Commonwealth's obligations, (ii) state expenditures are consistent with periodic allotments of annual appropriations, and (iii) moneys are expended consistently with statutory and public purposes. Two independently elected Executive Branch officials, the State Treasurer and the State Auditor, conduct the cash management and audit functions, respectively. Regarding periodic allotments, at the beginning of each fiscal year the Executive Office for Administration and Finance schedules the rate at which agencies will have access to funds included in their appropriation through a published periodic allotment calendar. Under state finance law, monthly appropriation allotments are ordinarily one-twelfth of the annual amount, but the Executive Office for Administration and Finance may provide for greater or lesser monthly allotments in appropriate cases. This calendar is reviewed regularly, and depending on the fiscal climate, the Executive Office for Administration and Finance may choose to adjust the allotment schedule in order to tighten spending controls. In some cases agencies may request an ad hoc allotment in order to gain access to funds faster than the existing periodic allotment schedule would allow (*e.g.*, exceptional cases where unique payment concerns must be considered); such requests are carefully reviewed by the Executive Office for Administration and Finance before they are approved. The Comptroller conducts the expenditure control function.

Capital Investment Process and Controls

Capital expenditures are primarily financed with debt proceeds and federal grants. Authorization for capital spending requires approval by the Legislature, and the issuance of debt must be approved by a two-thirds roll-call vote of each house of the Legislature. The state constitution requires the Governor to recommend the terms of the authorized debt. The State Treasurer issues authorized debt at the request of the Governor, and the Governor, through the Secretary of Administration and Finance, controls the amount of capital expenditures through the allotment of funds pursuant to such authorizations. The Executive Office for Administration and Finance establishes a capital investment plan on or before July 1 each year pursuant to state law. The capital investment plan is an administrative guideline and is subject to amendment from time to time. See "COMMONWEALTH CAPITAL INVESTMENT PLAN."

The Comptroller has established various funds to account for financial activity related to the acquisition or construction of capital assets. In addition, accounting procedures and financial controls have been instituted to limit agency capital spending to the levels approved by the Governor. Capital spending is tracked against the capital

investment plan on both a cash and encumbrance accounting basis on the state's accounting system, and federal reimbursements are budgeted and monitored against anticipated receipts.

Cash Management Practices of State Treasurer

The State Treasurer is responsible for ensuring that all Commonwealth financial obligations are met on a timely basis. The Massachusetts constitution requires that all payments by the Commonwealth (other than debt service) be made pursuant to a warrant approved by the Governor's Council. The Comptroller prepares certificates which, with the advice and consent of the Governor's Council and approval of the Governor, become the warrant to the State Treasurer. Once the warrant is approved, the State Treasurer's office disburses the money.

The Cash Management Division of the State Treasurer's office utilizes approximately 900 operating accounts to track cash collections and disbursements for the Commonwealth. The Division relies primarily upon electronic receipt and disbursement systems.

The State Treasurer, in conjunction with the Executive Office for Administration and Finance, is required to submit quarterly cash flow projections for the then current fiscal year to the House and Senate Committees on Ways and Means on or before the last day of August, November, February and May. The projections must include estimated sources and uses of cash, together with the assumptions from which such estimates were derived and identification of any cash flow gaps. See "FISCAL 2016 AND FISCAL 2017 – Cash Flow." The State Treasurer's office, in conjunction with the Executive Office for Administration and Finance, is also required to develop quarterly and annual cash management plans to address any gap identified by the cash flow projections and variance reports. The State Treasurer's office oversees the issuance of short-term debt to meet cash flow needs, including the issuance of commercial paper and revenue anticipation notes. See "LONG-TERM LIABILITIES – General Obligation Debt."

Cash that is not needed for immediate funding needs is invested in the Massachusetts Municipal Depository Trust. The State Treasurer serves as trustee of the Trust and has sole authority pertaining to rules, regulations and operations of the Trust. The Trust has two investment options: a short-term liquidity vehicle or "cash portfolio" structured similarly to a money market fund and a short-term bond fund. For additional detail on the Massachusetts Municipal Depository Trust, see "FISCAL 2016 AND FISCAL 2017 – Cash Flows."

Fiscal Control, Accounting and Reporting Practices of Comptroller

The Comptroller is responsible for oversight of fiscal management functions, establishment of accounting policies and practices and publication of official financial reports. The Comptroller maintains the Massachusetts Management Accounting and Reporting System (MMARS), the centralized state accounting system that is used by all state agencies and departments for processing of all financial transactions. The University of Massachusetts, the state universities and community colleges process only some transactions on MMARS, and the independent state authorities do not use the system. MMARS provides a ledger-based system of revenue and expenditure accounts enabling the Comptroller to control obligations and expenditures effectively and to ensure that appropriations are not exceeded during the course of the fiscal year. The Commonwealth's statewide accounting system also has various modules for receivables, payables, capital assets and other processes management.

Expenditure Controls. The Comptroller requires that the amount of all obligations under purchase orders, contracts and other commitments for the expenditures of moneys be recorded as encumbrances. Once encumbered, these amounts are not available to support additional spending commitments. As a result of these encumbrances, spending agencies can use MMARS to determine at any given time the amount of their appropriations available for future commitments.

The Comptroller is responsible for compiling expenditure requests into the certificates for approval by the Governor's Council. The Council approves an estimated warrant giving the Treasurer authority to issue payments up to the amount on the warrant, as long as those payments are otherwise determined by the Comptroller to comply with state finance law. In preparing these certificates, which become the warrant, the Comptroller's office has systems in place to ensure that the necessary moneys for payment have been both appropriated by the Legislature and allotted by the Governor in each account and sub-account. By law, certain obligations may be placed upon the warrant even if the supporting appropriation or allotment is insufficient. These obligations include debt service,

which is specifically exempted by the state constitution from the warrant requirement, and Medicaid payments, which are mandated by federal law.

Although state finance law generally does not create priorities among types of payments to be made by the Commonwealth in the event of a cash shortfall, the Comptroller has developed procedures, in consultation with the State Treasurer and the Executive Office for Administration and Finance, for prioritizing payments based upon state finance law and sound fiscal management practices.

Internal Controls. The Comptroller establishes internal control policies and procedures in accordance with state finance law. Agencies are required to adhere to such policies and procedures. All unaccounted-for variances, losses, shortages or thefts of funds or property must be reported to the State Auditor, who is authorized to investigate and recommend corrective action.

Statutory Basis of Accounting. In accordance with state law, the Commonwealth adopts its budget and maintains financial information on a statutory basis of accounting. Under the statutory basis, tax and departmental revenues are accounted for on a modified cash basis by reconciling revenue to actual cash receipts confirmed by the State Treasurer. Certain limited revenue accruals are also recognized, including receivables from federal reimbursements with respect to paid expenditures. Expenditures are measured on a modified cash basis including actual cash disbursements and encumbrances for goods or services received prior to the end of a fiscal year.

For certain programs, such as Medicaid, expenditures are recognized under the statutory basis of accounting only to the extent of disbursements supported by current-year appropriations. Some prior year services billed after the start of a fiscal year have been paid from the new fiscal year's appropriation, in an amount determined by the specific timing of billings and the amount of prior year funds that remained after June 30 to pay the prior year's accrued billings, though this practice may vary from year to year.

GAAP Basis of Accounting. The Comptroller also prepares Commonwealth financial statements on a GAAP basis. In addition to the primary government, certain independent authorities and agencies of the Commonwealth are included as component units within the Commonwealth's reporting entity.

GAAP employs an economic resources management focus and a current financial resources management focus as two bases for accounting and reporting. Under the economic resources management focus (also called the "government-wide perspective") revenues and expenses (different from expenditures) are presented similarly to private-sector entities. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of cash flows. Grants and similar items are recognized as revenues as soon as all eligibility requirements imposed by the provider have been met. Capital assets, including infrastructure assets net of depreciation, and the long-term portion of all liabilities are reported on the statement of net position.

Under the current financial resources management focus of GAAP (also called the "fund perspective"), the primary emphasis is to demonstrate inter-period equity. Revenues are reported in the period in which they become both measurable and available. Revenues are considered available when they are expected to be collected within the current period or soon enough thereafter to be used to pay liabilities of the current period.

Significant revenues susceptible to accrual include income, sales and use, corporation and other taxes, federal revenues (including both grants and reimbursements) and reimbursements for the use of materials and services. Tax accruals, which include the estimated amounts due to the Commonwealth on previous filings, over- and under-withholdings, estimated payments on income earned and tax refunds and abatements payable, are all recorded as adjustments to statutory basis tax revenues.

Major expenditure accruals are recorded for the cost of Medicaid claims that have been incurred but not paid, claims and judgments and workers' compensation claims incurred but not reported and contract assistance and amounts due to municipalities and state authorities. See Exhibit C – Comprehensive Annual Financial Report for the year ended June 30, 2015; Page 3 and Notes to the Basic Financial Statements.

Audit Practices of State Auditor

The State Auditor is mandated under state law to conduct an audit at least once every three years of the accounts of all departments, offices, commissions, institutions and activities of the Commonwealth. This audit encompasses hundreds of state entities, including the court system and independent authorities. The State Auditor also has the authority to audit federally aided programs and vendors and their subcontractors under contract with the Commonwealth as well as to conduct special audit projects. Further, the State Auditor upon a ratified majority vote by the board of selectmen or school committee, may, in the Auditor's discretion, audit the accounts, programs, activities and other public functions of a town, district, regional school district, city or county. The State Auditor conducts both compliance and performance audits in accordance with generally accepted government auditing standards issued by the Comptroller General of the United States.

Within the State Auditor's office is the Division of Local Mandates, which evaluates proposed and actual legislation to determine the financial impact on the Commonwealth's cities and towns. In accordance with state law, the Commonwealth is required to reimburse cities and towns for any costs incurred through mandated programs established after the passage of Proposition 2½, the statewide tax limitation enacted by the voters in 1980, unless expressly exempted from those provisions, and the State Auditor's financial analysis is used to establish the amount of reimbursement due to the Commonwealth's cities and towns. See "COMMONWEALTH REVENUES AND EXPENDITURES – Local Aid; *Property Tax Limits*."

Also within the State Auditor's office is the Bureau of Special Investigations, which is charged with the responsibility of investigating fraud within public assistance programs.

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COMMONWEALTH REVENUES AND EXPENDITURES

This section contains a description of the major categories of Commonwealth revenues and expenditures, beginning with a table presenting combined revenues and expenditures in the budgeted operating funds, followed by descriptions of categories of revenues and expenditures.

In order to fund its programs and services, the Commonwealth collects a variety of taxes and receives revenues from other non-tax sources, including the federal government and various fees, fines, court revenues, assessments, reimbursements, interest earnings and transfers from its non-budgeted funds, which are deposited in the General Fund, the Commonwealth Transportation Fund (formerly the Highway Fund) and other budgeted operating funds. Revenues deposited in such funds will be referred to as budgeted operating revenues in this Information Statement. In fiscal 2016, on a statutory basis, approximately 57.8% of the Commonwealth's budgeted operating revenues and other financing sources were derived from state taxes. In addition, the federal government provided approximately 26.1% of such revenues, with the remaining 16.1% provided from departmental revenues and transfers from non-budgeted funds. The measurement of revenues for the budgeted operating funds on a statutory basis differs from governmental revenues on a GAAP basis. See "Selected Financial Data – GAAP Basis; Revenues – GAAP Basis." The Commonwealth's executive and legislative branches establish the Commonwealth's budget using the statutory basis of accounting.

Statutory Basis Distribution of Budgetary Revenues and Expenditures

The revenues and expenditures of the budgeted operating funds presented in the following table are derived from the Commonwealth's statutory basis financial statements for fiscal 2012 through 2016. Projections for fiscal 2017 have been prepared by the Executive Office for Administration and Finance. Except where otherwise indicated, these projections are based on the office's most recent estimate of tax revenue (as officially issued) and non-tax revenue, on enacted appropriations adjusted for projected reversions and on supplemental appropriations filed by the Governor that remain before the Legislature. The financial information presented includes all budgeted operating funds of the Commonwealth. See "COMMONWEALTH BUDGET AND FINANCIAL MANAGEMENT CONTROLS — Operating Fund Structure" for additional detail.

The following table sets forth the Commonwealth's budgeted operating funds revenues and expenditures for fiscal 2012 through fiscal 2016 and projected revenues and expenditures (as of October 31, 2016) for fiscal 2017. Figures for fiscal 2017 are preliminary and subject to change. See "FISCAL 2016 AND FISCAL 2017."

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Budgeted Operating Funds – Statutory Basis (in millions) (1)

	Fiscal 2012 (2)	Fiscal 2013	Fiscal 2014 (3)	Fiscal 2015	Fiscal 2016	Projected Fiscal 2017
<u>Beginning Fund Balances</u>						
Reserved or Designated	\$400.1	\$170.4	\$297.1	\$190.0	\$226.0	\$126.0
Stabilization Fund	1,379.1	1,652.1	1,556.7	1,248.4	1,252.4	1,291.5
Undesignated	121.7	167.2	20.6	12.1	92.3	64.5
Total	<u>\$1,900.8</u>	<u>\$1,989.7</u>	<u>\$1,874.4</u>	<u>\$1,450.5</u>	<u>\$1,570.7</u>	<u>\$1,482.0</u>
<u>Revenues and Other Sources</u>						
Alcoholic Beverages	76.1	76.3	78.8	80.8	83.4	84.8
Banks	266.6	78.0	135.8	51.9	23.5	(5.2)
Cigarettes	451.0	440.1	520.7	510.3	505.6	498.5
Corporations	1,771.1	1,821.9	2,049.1	2,172.1	2,312.0	2,219.8
Deeds	158.8	188.9	223.1	238.3	281.9	289.5
Income	11,911.4	12,830.9	13,201.6	14,448.7	14,393.7	14,987.1
Inheritance and Estate	293.3	313.4	401.5	340.9	399.4	395.0
Insurance	363.6	426.0	368.1	391.4	406.8	401.0
Motor Fuel	661.9	651.6	732.2	756.1	766.6	780.4
Public Utilities	(35.9)	(11.5)	9.8	3.4	(1.6)	-
Room Occupancy	121.6	129.2	138.3	150.7	162.2	170.1
Sales:						
Regular	3,544.4	3,595.9	3,810.6	3,986.6	4,156.9	4,225.7
Meals	868.8	901.2	948.9	998.8	1,063.8	1,107.7
Motor Vehicles	<u>646.1</u>	<u>666.9</u>	<u>736.4</u>	<u>789.1</u>	<u>833.9</u>	<u>856.8</u>
Sub-Total-Sales	5,059.3	5,163.9	5,495.9	5,774.4	6,054.6	6,190.3
Miscellaneous	15.9	14.2	15.1	12.8	36.4	44.7
Settlements and Judgments (4)	-	-	-	-	-	125.0
Total Tax Revenues (5)	<u>\$21,114.7</u>	<u>\$22,123.0</u>	<u>\$23,370.0</u>	<u>\$24,932.2</u>	<u>\$25,424.5</u>	<u>\$26,181.0</u>
MBTA Transfer (6)	(779.1)	(786.9)	(799.3)	(970.6)	(986.2)	(992.2)
MSBA Transfer	(670.5)	(682.0)	(727.5)	(764.1)	(798.5)	(813.2)
Workforce Training Fund Transfer (7)	<u>(21.4)</u>	<u>(22.2)</u>	<u>(21.2)</u>	<u>(23.6)</u>	<u>(22.8)</u>	<u>(23.1)</u>
Total Budgeted Operating Tax Revenues	<u>\$19,643.7</u>	<u>\$20,631.9</u>	<u>\$21,822.0</u>	<u>\$23,173.8</u>	<u>\$23,616.9</u>	<u>\$24,352.5</u>
Federal Reimbursements	7,971.7	8,228.4	8,372.1	9,480.4	10,642.7	10,928.9
Departmental and Other Revenues	3,175.0	3,370.5	3,712.4	3,852.8	4,257.2	4,164.1
Inter-fund Transfers from Non-budgeted Funds and other sources (8)	<u>1,756.1</u>	<u>1,548.1</u>	<u>1,555.2</u>	<u>1,729.5</u>	<u>1,848.7</u>	<u>2,257.9</u>
Budgeted Revenues and Other Sources	<u>\$32,546.5</u>	<u>\$33,778.9</u>	<u>\$35,461.7</u>	<u>\$38,236.5</u>	<u>\$40,365.5</u>	<u>\$41,703.4</u>
Inter-fund Transfers	<u>1,032.3</u>	<u>1,456.6</u>	<u>1,757.0</u>	<u>735.4</u>	<u>472.9</u>	<u>710.1</u>
Total Budgeted Revenues and Other Sources	<u>\$33,578.8</u>	<u>\$35,235.5</u>	<u>\$37,218.7</u>	<u>\$38,971.9</u>	<u>\$40,838.4</u>	<u>\$42,413.5</u>
<u>Expenditures and Uses</u>						
Direct Local Aid	4,929.5	5,115.7	5,292.5	5,420.4	5,567.7	5,728.8
Medicaid	10,431.1	10,799.7	11,900.8	13,655.2	14,851.0	15,435.2
Other Health and Human Services	4,710.5	4,768.9	4,979.5	5,300.8	5,433.0	5,732.0
Group Insurance	1,206.2	1,278.5	1,402.9	1,665.1	1,629.7	1,700.3
Department of Elementary and Secondary Education	435.9	489.2	515.3	514.9	539.3	621.1
Higher Education	937.1	990.8	1,091.5	1,161.6	1,194.3	1,163.5
Department of Early Education and Care	494.3	483.4	509.6	537.7	547.6	563.6
Public Safety	929.7	960.0	1,010.4	1,040.7	1,065.6	1,080.1
Energy and Environmental Affairs	186.8	201.8	215.0	225.0	221.4	239.7
Debt Service (9)	1,923.2	2,117.2	2,122.0	2,190.4	2,174.3	2,437.4
Post -Employment Benefits (10)	1,892.3	1,967.0	2,050.4	2,213.4	2,503.4	2,638.1
Other Program Expenditures	<u>2,898.7</u>	<u>3,006.7</u>	<u>3,293.7</u>	<u>3,113.1</u>	<u>3,240.7</u>	<u>3,039.7</u>
Total - Programs and Services before transfers to Non-budgeted funds	<u>\$30,975.3</u>	<u>\$32,178.7</u>	<u>\$34,383.6</u>	<u>\$37,038.3</u>	<u>\$38,968.0</u>	<u>\$40,379.5</u>

	<u>Fiscal 2012 (2)</u>	<u>Fiscal 2013</u>	<u>Fiscal 2014 (3)</u>	<u>Fiscal 2015</u>	<u>Fiscal 2016</u>	<u>Projected Fiscal 2017</u>
<u>Inter-fund Transfers to Non-budgeted Funds</u>						
Commonwealth Care Trust Fund (11)	614.9	661.2	390.1	-	-	-
Medical Assistance Trust Fund	220.9	390.9	395.0	71.0	665.6	736.2
Massachusetts Transportation Trust Fund	180.1	161.7	270.1	588.6	566.8	325.5
Other	466.4	501.8	446.7	418.4	253.8	490.3
Total Inter-Fund Transfers to Non-Budgeted Funds	<u>\$1,482.3</u>	<u>\$1,715.6</u>	<u>\$1,501.9</u>	<u>\$1,078.0</u>	<u>\$1,486.2</u>	<u>\$1,551.9</u>
Budgeted Expenditures and Other Uses	<u>\$32,457.6</u>	<u>\$33,894.3</u>	<u>\$35,885.5</u>	<u>\$38,116.3</u>	<u>\$40,454.2</u>	<u>\$41,931.5</u>
Inter-fund Transfers	1,032.3	1,456.6	1,757.0	735.4	472.9	710.1
Total Budgeted Expenditures and Other Uses (12)	<u>\$33,489.9</u>	<u>\$35,350.9</u>	<u>\$37,642.5</u>	<u>\$38,851.7</u>	<u>\$40,927.1</u>	<u>\$42,641.6</u>
Excess (Deficiency) of Revenues and Other Sources Over Expenditures and Other Uses (13)	<u>\$88.9</u>	<u>(\$115.4)</u>	<u>(\$423.8)</u>	<u>\$120.2</u>	<u>(\$88.7)</u>	<u>(\$228.1)</u>
<u>Ending Fund Balances</u>						
Reserved or Designated (14)	170.5	297.1	190.0	226.0	126.0	27.4
Stabilization Fund	1,652.1	1,556.7	1,248.4	1,252.4	1,291.5	1,302.9
Undesignated	167.1	20.6	12.1	92.3	64.5	(76.4)
Total	<u>\$1,989.7</u>	<u>\$1,874.4</u>	<u>\$1,450.5</u>	<u>\$1,570.7</u>	<u>\$1,482.0</u>	<u>\$1,253.9</u>

SOURCES: Fiscal 2012-2016, Office of the Comptroller; fiscal 2017, Executive Office for Administration and Finance.

- (1) Totals may not add due to rounding.
- (2) Some fiscal 2012 amounts were reclassified to conform to the fiscal 2013 presentation in the Statutory Basis Financial Report.
- (3) Some fiscal 2014 amounts were reclassified to conform to the fiscal 2015 presentation in the Statutory Basis Financial Report.
- (4) For fiscal 2012 through 2016, tax and non-tax revenue from judgments and settlements in excess of \$10 million is included in specific tax and non-tax revenue categories. Those amounts totaled approximately \$404.4 million in fiscal 2012, \$133.8 million in fiscal 2013, \$436.5 million in fiscal 2014, \$226.1 million in fiscal 2015 and \$155.3 million in fiscal year 2016. The Executive Office for Administration and Finance currently estimates that these revenues will total \$125 million in fiscal 2017, with that revenue being available for budget, as it is below the threshold above which such revenue must be transferred to the Stabilization Fund per M.G.L., Chapter 29, Section 2H.
- (5) The total tax revenues for fiscal 2016 were \$482 million below the benchmark estimate of \$25.751 billion, plus \$155.3 million in certain settlements and judgments that are not included in the consensus revenue estimate. See note 4 above, and "FISCAL 2016 AND FISCAL 2017."
- (6) Beginning in fiscal 2015, the annual amount of sales tax receipts statutorily credited to the MBTA was increased by \$160 million. See "COMMONWEALTH REVENUES AND EXPENDITURES – State Taxes – Sales and Use Tax."
- (7) The fiscal 2012 budget adopted changes to the Workforce Training Fund, which is funded annually through employer contributions for workforce training initiatives for incumbent workers in the private sector. Beginning in fiscal 2012 the Workforce Training Fund is not subject to annual appropriation, and the employer contributions are deposited directly in the Workforce Training Fund after their collection.
- (8) Inter-fund Transfers from Non-budgeted Funds and Other Sources include profits from the State Lottery, transfer of tobacco settlement funds through fiscal 2012, abandoned property proceeds as well as other inter-fund transfers.
- (9) Fiscal 2016 budgeted Debt Service excludes \$113 million in payments made from a non-budgeted fund that in prior fiscal years was made and in fiscal 2017 will be made from the budgeted funds.
- (10) Fiscal 2016 and fiscal 2017 Post-Employment Benefits include all budgeted pension transfers and transfers to the State Retiree Benefit Trust Fund (SRBTF). Fiscal 2013 through 2015 Post-Employment Benefits include all budgeted pension transfers and transfers to the SRBTF, excluding transfers to the SRBTF attributable to tobacco settlement payments of approximately \$25 million in fiscal 2013, \$56 million in fiscal 2014 and \$73 million in fiscal 2015.
- (11) The fiscal 2016 and later budgets do not include appropriations of funding for the Health Connector because they assume that increased dedicated revenues in the CCTF, federal grants and self-generated revenues will be able to cover the full program and administrative costs.
- (12) Fiscal 2016 spending assumes a spending reduction of \$189 million for estimated gross payroll savings due to the early retirement incentive program.
- (13) In fiscal year 2017, legislatively authorized spending after veto overrides and anticipated deficiencies in certain accounts is projected to exceed current revenue estimates. In addition, unspent appropriations authorized to be carried forward into fiscal 2017 contribute to the overall deficiency in fiscal 2017. The Executive Office for Administration and Finance will continue to monitor revenues and spending and implement measures as necessary to ensure that the Commonwealth's budget will achieve statutory balance. See "FISCAL 2016 AND FISCAL 2017 – FISCAL 2017."
- (14) Consists largely of appropriations authorized to be expended in following year.

State Taxes

The major components of state taxes are the income tax, which accounted for approximately 56.6% of total tax revenues in fiscal 2016, the sales and use tax, which accounted for approximately 23.8%, and the corporations and other business and excise taxes (including taxes on insurance companies and financial institutions), which accounted for approximately 10.6%. Other tax and excise sources accounted for the remaining 8.9% of total fiscal 2016 tax revenues.

The Governor annually files a “tax expenditure budget” that provides a list, description and revenue estimate of various tax credits, deductions and exemptions that represent departures from the basic provisions of the state tax code. See “Tax Credits and Other Incentives” below.

Income Tax. The Commonwealth assesses personal income taxes at flat rates, according to classes of income, after specified deductions and exemptions. A rate of 5.3% was applied to most types of income from January 1, 2002 to January 1, 2012. Under current law, the state personal income tax rate on most classes of taxable income is scheduled to be reduced gradually to 5.0%, contingent upon “baseline” state tax revenue growth (*i.e.*, revenue growth after factoring out the impact of tax law and administrative processing changes). Pursuant to this law, the state income tax rate on most classes of taxable income has been gradually reduced from 5.3% to its current rate of 5.1%. In order to trigger a reduction, baseline revenues are measured for fiscal year-over-fiscal year growth of at least 2.5 percentage points more than the rate of inflation, as measured by the consumer price index for all urban consumers in Boston. Inflation-adjusted baseline revenues must also demonstrate positive growth for consecutive three-month periods, beginning in August and ending in November, in comparison with the same three-month periods in the prior calendar year. If these triggers are met, the personal income tax rate on most classes of taxable income is reduced by 0.05% on the following January 1. Most recently, the state income tax rate on most classes of taxable income was reduced from 5.15% to 5.10%, effective January 1, 2016, as a result of satisfying these triggers. On August 30, 2016, the Department of Revenue certified that the fiscal 2016 inflation-adjusted baseline tax revenue growth over fiscal 2015 was 0.975%, and, therefore, the 2.5% fiscal 2016 growth threshold needed to trigger a further tax rate reduction was not met.

The Department of Revenue will undergo the same process during 2017 to determine whether the state income tax rate will be reduced further from 5.10% to 5.05%, effective January 1, 2018.

In the tax year following that in which the personal income tax rate is reduced to 5.0%, the charitable deduction, which was in effect for tax year 2000 but subsequently suspended, will be restored. Interest on obligations of the United States and of the Commonwealth and its political subdivisions is exempt from taxation.

The following table shows the Department of Revenue’s estimated impacts of the state income tax rate reductions described above in fiscal years 2013 through 2017, inclusive.

Impact of Income Tax Rate Reductions (millions)

<u>Decrease from:</u>	<u>Fiscal 2013</u>	<u>Fiscal 2014</u>	<u>Fiscal 2015</u>	<u>Fiscal 2016(1)</u>	<u>Fiscal 2017(1)</u>
5.3% to 5.25%	\$114	\$119	\$124	\$130	\$136
5.25% to 5.20%	-	65	133	138	145
5.20% to 5.15%	-	-	70	145	152
5.15% to 5.10%	-	-	-	74	152

Source: Department of Revenue.

(1) Income tax revenue impact in fiscal 2017 is projected and subject to change.

On September 2, 2015, the Attorney General certified an initiative petition to amend the state constitution to provide for an additional tax of 4.0% on that portion of annual taxable income in excess of \$1 million for tax years beginning on or after January 1, 2019. The \$1 million figure would be adjusted annually for inflation. See “THE GOVERNMENT – Initiative Petitions.”

Capital Gains Tax. The tax rate on gains from the sale of capital assets held for one year or less and from the sale of collectibles is 12%. The tax rate on gains from the sale of capital assets owned more than one year is currently 5.10% (effective January 1, 2016), and is equal to the state personal income tax rate. The 5.10% rate could further decline through the statutory mechanism described above. Current state finance law provides for tax revenues collected from capital gains income during a fiscal year that exceed a specified threshold to be transferred to the Commonwealth's Stabilization Fund, with 5% of the amount so deposited then transferred to the State Retiree Benefits Trust Fund and an additional 5% transferred to the Commonwealth's Pension Liability Fund. Each quarter, the Department of Revenue certifies the amount of tax revenues estimated to have been collected during the preceding quarter from capital gains income after each quarter, and, once the threshold has been exceeded, the excess is transferred to the Commonwealth Stabilization Fund. The final certification of capital gains tax revenues is done in November following the end of the fiscal year, but no adjustment is made to Stabilization Fund transfers if the final amount of capital gains taxes certified differs from the amount certified the preceding July. The threshold is subject to annual adjustment to reflect the average annual rate of growth in U.S. gross domestic product over the preceding five years and is certified annually by the Department of Revenue each December for the ensuing fiscal year as part of the consensus revenue process. In fiscal years 2015 through 2016, the Commonwealth temporarily suspended the requirement to transfer capital gains tax collections above the threshold to the Stabilization Fund.

The fiscal 2017 capital gains collections threshold has been determined to be approximately \$1.128 billion. The fiscal 2017 budget includes language that requires the Comptroller to transfer all capital gains tax collections that are above \$1.278 billion to the Stabilization Fund in fiscal 2017. Current tax revenue estimates would not result in any transfer of capital gains tax revenues to the Stabilization Fund in fiscal 2017 under this provision. See "COMMONWEALTH REVENUES AND EXPENDITURES – Tax Revenue Forecasting."

Sales and Use Tax. The sales tax rate imposed on retail sales of certain tangible property (including retail sales of meals) transacted in the Commonwealth and a corresponding use tax rate on the storage, use or other consumption of like tangible properties brought into the Commonwealth is 6.25%. Food, clothing, prescribed medicine, materials and produce used in food production, machinery, materials, tools and fuel used in certain industries and property subject to other excises (except for cigarettes) are exempt from sales taxation. The sales and use tax is also applied to sales of electricity, gas and steam for certain nonresidential use and to nonresidential and a portion of residential use of telecommunications services.

Certain sales tax receipts are required to be credited to the Convention Center Fund. The Convention Center Fund is not included in the calculation of revenues for budgeted operating funds. See "LONG-TERM LIABILITIES—Special Obligation Debt; *Convention Center Fund.*"

A portion of the Commonwealth's receipts from the sales tax (other than the tax on meals) is dedicated through non-budgeted special revenue funds to the Massachusetts Bay Transportation Authority (MBTA) and the Massachusetts School Building Authority (MSBA). The amount dedicated to the MSBA is the amount raised by a 1% sales tax (not including meals). The amount dedicated to the MBTA is a comparable amount, subject to an inflation-adjusted floor, plus \$160 million annually. Effective for fiscal 2015, the \$160 million adjustment was integrated into the inflation-adjusted floor, which was reset at \$970.6 million. The floor grows by the allowable base revenue growth (lesser of sales tax growth or inflation, but not greater than 3% and not less than 0%) thereafter.

The Commonwealth's receipts from the sales tax on account of motor vehicle sales (net of amounts required to be credited to the Convention Center Fund or dedicated to the MBTA or MSBA) are dedicated to the Commonwealth Transportation Fund.

Business Corporations Tax. Business corporations doing business in the Commonwealth, other than banks and other financial institutions, insurance companies, railroads and safe deposit companies, are subject to an excise that has a property measure and an income measure. The value of Massachusetts tangible property (not taxed locally) or net worth allocated to the Commonwealth is taxed at \$2.60 per \$1,000 of value. The net income allocated to Massachusetts, which is based on net income for federal taxes, is taxed at 8.0%. The minimum tax is \$456.

In general, corporations apportion their income to Massachusetts based on the proportion of payroll, property and sales within the Commonwealth, with sales being double-weighted. This general rule does not apply to manufacturing companies nor to mutual fund service corporations. The net income of such entities is apportioned only by the percentage of their Massachusetts sales.

Financial Institutions Tax. Financial institutions (which include commercial and savings banks) are subject to an excise tax. The net income allocated to Massachusetts is taxed at 9.0%.

Insurance Taxes. Life insurance companies are subject to a 2% tax on gross premiums. Domestic companies also pay a 14% tax on net investment income. Property and casualty insurance companies are subject to a 2.28% tax on gross premiums. Domestic companies also pay a 1% tax on gross investment income.

Public Utility Corporation Taxes. Prior to January 1, 2014, public utility corporations were subject to an excise tax of 6.5% on net income. Legislation enacted in 2013 repealed the separate excise tax for utility corporations, which are now subject to the corporate excise imposed on business corporations.

Other Taxes. Other tax revenues are derived by the Commonwealth from excise taxes on motor fuels, cigarettes and other tobacco products, alcoholic beverages, deeds, and hotel/motel room occupancy, as well as taxes on estates, among other tax sources.

Tax Credits and Other Incentives. Massachusetts law provides for a variety of tax credits that may be applied against corporate excise or personal income taxes due, as applicable under relevant law. These credits are designed as benefits for specified economic activities as a means to encourage such business in the state. Certain of these credits, to the extent not used to reduce a current tax liability, may be carried forward, transferred or refunded, as specified in the applicable statute. In addition, certain statutory provisions may also provide an exemption from sales and use taxes for qualifying expenditures, or other specified tax benefits.

The Governor annually publishes a “tax expenditure budget” that provides a list, description and revenue estimate of various tax credits, deductions and exemptions that represent departures from the basic provisions of the state tax code. A summary of the tax expenditure budget published on January 27, 2016 appears below:

Fiscal 2017 Tax Expenditure Budget Summary (in millions)

<u>Tax Type</u>	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016	Fiscal 2017
Personal Income Tax	\$6,003.3	\$6,059.5	\$6,490.5	\$6,658.2	\$7,111.9
Corporate and Other Business Excise	1,652.1	1,681.5	1,834.1	1,908.3	1,958.1
Sales and Use Tax	<u>4,585.2</u>	<u>4,685.0</u>	<u>4,726.4</u>	<u>4,886.5</u>	<u>4,958.3</u>
Total	\$12,240.6	\$12,426.0	\$13,051.0	\$13,453.0	\$14,028.3

Under legislation approved June 16, 2008, in support of the life sciences industry, up to \$25 million per year in tax incentives is available to certified life sciences companies over a ten-year period, commencing January 1, 2009 for an aggregate amount of \$250 million. The Department of Revenue estimates that this program resulted in revenue reductions of \$21.1 million in fiscal 2011, \$17.4 million in fiscal 2012, \$16.5 million in fiscal 2013, \$19.4 million in fiscal 2014 and \$22.5 million in fiscal 2015. The Massachusetts Life Sciences Center board has approved \$20 million in tax incentives that are expected to be utilized in fiscal 2017.

Tax Revenue Forecasting

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.

On or before January 15 of each year (January 31 in the first year of a new Governor), the Secretary is required to develop jointly with the House and Senate Committees on Ways and Means a consensus tax revenue forecast for the following fiscal year. State finance law requires that the consensus tax revenue forecasts be net of the amounts necessary to fully fund the pension system according to the applicable funding schedule, and to fulfill statutory commitments to the MBTA and the MSBA. These amounts are to be transferred without further appropriation from the General Fund. See “Sales and Use Tax,” above; “PENSION AND OPEB FUNDING” below.

An additional component of the consensus revenue process is the requirement that the consensus tax revenue forecast joint resolution include a benchmark for the estimated growth rate of Massachusetts potential gross state product, or PGSP. Health care cost control legislation requires that the Secretary and the House and Senate Committees on Ways and Means include a PGSP growth benchmark for the ensuing calendar year. The PGSP growth benchmark is used by the Massachusetts Health Policy Commission to establish the Commonwealth’s health care cost growth benchmark. See “Medicaid and the Health Connector; *Health Care Cost Containment*.”

The following table compares actual budgeted tax revenues to consensus tax revenue forecasts for fiscal 2012 to 2016. Figures for fiscal 2017 are projected. The figures include sales tax receipts dedicated to the MBTA and the MSBA and amounts transferred to the state pension system.

Tax Revenue Forecasting (in millions) (1)

	<u>Fiscal 2012</u>	<u>Fiscal 2013</u>	<u>Fiscal 2014</u>	<u>Fiscal 2015</u>	<u>Fiscal 2016</u>	<u>Projected Fiscal 2017</u>
Consensus forecast	\$20,525	\$21,950	\$22,334	\$24,337	\$25,479	\$26,860
Total taxes per enacted budget	<u>\$20,615</u>	<u>\$22,011</u>	<u>\$22,797</u>	<u>\$24,387</u>	<u>\$25,611 (3)</u>	<u>\$26,231 (4)</u>
October revision	21,010	21,496 (2)	-	-	-	26,056
January revision	-	-	23,200	24,325	25,751	-
Actual budgeted operating tax revenues	<u>\$21,115</u>	<u>\$22,123</u>	<u>\$23,370</u>	<u>\$24,932</u>	<u>\$25,425</u>	-
Actual revenues as a percentage of consensus forecast	103%	101%	105%	102%	99.8%	N/A
Actual revenues as a percentage of total taxes per enacted budget	102%	101%	103%	102%	98.7%	N/A

SOURCE: Executive Office for Administration and Finance; actual budgeted operating tax revenues, Office of the Comptroller.

- (1) Actual revenues through fiscal 2016 include tax-related settlements exceeding \$10 million each. Consensus forecasts for fiscal 2015 through 2017 do not include estimates for tax-related settlements and judgments exceeding \$10 million each.
- (2) Revised on December 4, 2012.
- (3) Consensus forecast adjusted for subsequent developments during fiscal 2016, other than tax-related settlements exceeding \$10 million each. See “Fiscal 2016 and Fiscal 2017 Tax Revenues; *Fiscal 2016*.”
- (4) Enacted budget, adjusted for veto overrides, assumes total taxes before transfers of \$26.231 billion, after resolving discrepancies between documents produced by the budget conference committee. This figure does not include \$125 million in assumed tax-related settlements exceeding \$10 million each.

The Secretary of Administration and Finance and the chairs of the House and Senate Committees on Ways and Means agreed in January, 2016 on a potential gross state product (PGSP) estimate of 3.6% for calendar year 2017, which is identical to the PGSP figure that was adopted for calendar year 2016. The estimate of PGSP was developed through consultation with the Health Policy Commission, the Executive Office for Administration and Finance, the Department of Revenue, the House and Senate Ways and Means Committees and outside economists. The PGSP growth benchmark is to be used by the Health Policy Commission to establish the Commonwealth’s health care cost growth benchmark. PGSP is a measure of the “full employment” output of the Commonwealth’s economy.

Fiscal 2016 and Fiscal 2017 Tax Revenues

Fiscal 2016. On January 30, 2015, a fiscal 2016 consensus tax revenue estimate of \$25.479 billion was agreed upon by the Secretary of Administration and Finance and the chairs of the House and Senate Committees on Ways and Means. The fiscal 2016 consensus tax revenue estimate represented revenue growth of 4.8% actual from the then-current fiscal 2015 estimate of \$24.325 billion. The tax estimate assumed a reduction in the Part B rate to 5.10%, effective January 1, 2016. The \$25.479 billion figure included off-budget transfers of \$3.783 billion,

including pension funding and dedicated sales tax for the MBTA and MSBA. On July 17, 2015, the Governor approved the fiscal 2016 budget, which assumed tax revenues of \$25.611 billion (excluding tax revenue from judgments and settlements exceeding \$10 million each), based on the consensus estimate of \$25.479 billion adjusted for the incremental impact of certain tax initiatives enacted as part of the budget.

In addition, the budget contained an earned income tax credit rate increase and other tax enhancements with no impact on fiscal 2016 revenues, but with expected impacts on fiscal 2017 and later years. Subsequent to the enactment of the budget, the legislature passed a two-day sales tax holiday.

Fiscal 2016 monthly tax revenue benchmarks for July through December, 2015, inclusive, were based on the \$25.611 billion estimate. That estimate was revised upward by \$140 million on January 14, 2016, and monthly benchmarks for the period of January through June, 2016, inclusive, were based on the revised estimate of \$25.751 billion.

The following table shows the tax collections for fiscal 2016 and the change from tax collections in the prior year, both in dollars and as a percentage. The table also notes the amount of tax collections during the fiscal year that are dedicated to the MBTA and the MSBA.

Fiscal 2016 Tax Collections (in millions)						
Month	Tax Collections	Change from Prior Year	Percentage Change	MBTA Portion	MSBA Portion	Tax Collections: Net of MBTA and MSBA
July	\$1,671.1	\$74.9	4.7%	\$85.8	\$72.5	\$1,512.8
August	1,728.4	98.1	6.0	79.2	65.8	1,583.4
September	2,551.5	85.1	3.5	81.6	63.5	2,406.5
October	1,663.5	48.0	3.0	81.8	68.5	1,513.2
November	1,673.0	84.1	5.3	76.9	63.6	1,532.6
December	2,427.0	120.6	5.2	87.9	64.6	2,274.5
January	2,588.7	12.7	0.5	92.1	78.7	2,417.9
February	1,273.1	(264.1)	(17.2)	71.4	58.1	1,143.6
March	2,271.7	236.2	11.6	83.1	59.5	2,129.1
April	2,946.7	(111.3)	(3.6)	80.5	67.1	2,799.1
May	1,864.5	30.5	1.7	80.1	66.8	1,717.7
June	2,765.2	77.5	2.9	86.0	69.9	2,609.3
Total (1)	\$25,424.5	\$492.4	2.0%	\$986.3	\$798.5	\$23,639.7

SOURCE: Executive Office for Administration and Finance.

(1) Totals may not add due to rounding.

The tax revenue increase of approximately \$492 million from fiscal 2015 to fiscal 2016 is attributable, in large part, to an increase of approximately \$364 million, or 3.3%, in withholding collections, an increase of approximately \$280 million, or 4.9%, in sales and use tax collections, an increase of approximately \$143 million, or 5.6%, in corporate and business tax collections, an increase of approximately \$124 million, or 5.8%, in tax collections other than income, sales, corporate and business tax collections, which were partly offset by a decrease of approximately \$214 million, or 9.5%, in income tax return and bill payments, a decrease of approximately \$42 million, or 1.7%, in income tax cash estimated payments, and an increase of approximately \$163 million, or 11.5%, in income cash refunds. Fiscal 2016 tax collections (not including the \$155.3 million in tax-related settlements) totaled \$25.269 billion, which reflects an increase of \$552 million, or 2.2%, from fiscal 2015 (not including large tax settlements received in such year); these collections were approximately \$482 million below the benchmarks associated with the revised fiscal 2016 tax revenue estimate of \$25.751 billion.

Capital Gains and Settlements. Under state law, fiscal 2016 tax revenues from realized capital gains exceeding \$1.087 billion would have been required to be transferred to the Stabilization Fund, but that transfer was suspended for fiscal 2016. On July 21, 2016, the Department of Revenue certified that the Commonwealth collected \$1.370 billion in capital gains tax during fiscal 2016.

On July 8, 2016, the Department of Revenue and the Office of the Attorney General jointly certified that fiscal 2016 tax-related settlement and judgment payments totaled \$155.3 million and there were no non-tax related settlement and judgment payments.

Tax Amnesty Programs. In fiscal 2016, the state implemented a two-month tax amnesty program. The program collected approximately \$136.3 million.

Fiscal 2017. On December 16, 2015, the Secretary of Administration and Finance and the House and Senate Ways and Means Committees conducted a hearing on state tax revenue estimates for fiscal 2017. On January 14, 2016, a fiscal 2017 consensus tax revenue estimate of \$26.860 billion was agreed upon by the Secretary of Administration and Finance and the chairs of the House and Senate Committees on Ways and Means. The fiscal 2017 consensus tax revenue estimate represented actual revenue growth of 4.3% from the revised fiscal 2016 estimate of \$25.751 billion. The \$26.860 billion estimate assumed that another income tax rate reduction trigger would go into effect January 1, 2017, lowering the state’s Part B personal income tax rate from 5.1% to 5.05%. Of the forecasted \$26.860 billion in fiscal 2017, an estimated \$1.484 billion was projected to come from taxes on capital gains. The \$26.860 billion figure included off-budget transfers of \$2.198 billion for pension funding, \$1.001 billion in dedicated sales tax receipts for the MBTA, \$867.1 million in dedicated sales tax receipts for the MSBA and \$21.4 million for the Workforce Training Fund. It did not include a previously legislated off-budget transfer of approximately \$44 million for the Massachusetts Tourism Fund. The total amount of off-budget transfers was \$4.088 billion excluding the allocation to the Tourism Fund. Accordingly, after taking into account these off-budget transfers, the Secretary and Committee chairs agreed that \$22.772 billion would be the maximum amount of tax revenue available for the fiscal 2017 budget, and that they would base their respective budget recommendations on that number.

As a result of the Commonwealth’s relatively slow tax filing season in the spring of 2016, and after consulting with the Secretary of Administration and Finance, the Department of Revenue and independent economists, the House and Senate budget conferees revised the estimate of tax collections for fiscal 2017 downward. The budget as signed by the Governor assumed total taxes before transfers of \$26.234 billion, or \$750 million less than the January consensus tax revenue estimate, plus \$124 million in other adjustments. Those adjustments reflected the revised expectations that another income tax rate reduction would not be triggered on January 1, 2017, that only \$7 million in room occupancy taxes would be credited to the Massachusetts Tourism Fund, and that the life sciences tax credit would be capped at \$20 million. *See “FISCAL 2016 AND FISCAL 2017–Fiscal 2017.”* After enactment of the budget and veto overrides, \$10 million of room occupancy taxes will be credited to the Massachusetts Tourism Fund. Accordingly, revenue benchmarks for fiscal 2017 will total \$26.231 billion, including revenues dedicated to the MBTA, the MSBA and the Workforce Training Fund.

Preliminary tax revenues (including large tax-related settlements) for the first three months of fiscal 2017, ended September 30, 2016, totaled \$6.198 billion, an increase of approximately \$246.7 million, or 4.1% over the same period in fiscal 2016. The following table shows the tax collections for the first three months of fiscal 2017 and the change from tax collections in the same period in the prior year, both in dollars and as a percentage. The table also notes the amount of tax collections during the fiscal year that are dedicated to the MBTA and the MSBA.

Fiscal 2017 Tax Collections (in millions)

<u>Month</u>	<u>Tax Collections</u>	<u>Change from Prior Year</u>	<u>Percentage Change</u>	<u>MBTA Portion</u>	<u>MSBA Portion</u>	<u>Tax Collections: Net of MBTA and MSBA</u>
July	\$1,705.4	\$34.3	2.1%	\$84.8	\$71.5	\$1,549.0
August	1,737.0	8.6	0.5	79.9	66.6	1590.6
September (1)	2,755.2	203.7	8.0	83.3	67.6	2,604.3
Total (2)	<u>6,197.7</u>	246.7	<u>4.1%</u>	<u>248.0</u>	<u>205.7</u>	<u>5,743.9</u>

SOURCE: Executive Office for Administration and Finance.

(1) Figures are preliminary.

(2) Totals may not sum due to rounding.

The year-to-date tax revenue increase of approximately \$246.7 million through September, 2016 from the same period in fiscal 2016 is attributable, in large part, to an increase of approximately \$156.6 million, or 5.9%, in withholding collections, an increase of approximately \$84.2 million, or 15.9%, in corporate and business tax collections, and an increase of approximately \$35.8 million, or 2.3%, in sales and use tax collections, which were partly offset by a decrease of approximately \$47.3 million, or 7.5% in income tax cash estimated payments. Year-to-date collections from large tax and non-tax related settlements and judgments exceeding \$10 million each totaled

\$13.5 million. Excluding these payments, year-to-date fiscal 2017 tax collections through September were approximately \$9.1 million below the year-to-date benchmark associated with the fiscal 2017 tax revenue estimate of \$26.231 billion.

On October 14, 2016, the Secretary of Administrative and Finance revised the tax revenue projection downward by \$175 million to \$26.056 billion to reflect slower-than-expected growth in sales tax collections.

Federal and Other Non-Tax Revenues

Federal revenues are collected through reimbursements for the federal share of entitlement programs such as Medicaid and through block grants for programs such as Transitional Assistance to Needy Families (TANF). The amount of federal reimbursements to be received is determined by state expenditures for these programs. The Commonwealth receives reimbursement for approximately 50% of its spending for Medicaid programs. Block grant funding for TANF is received quarterly and is contingent upon a maintenance-of-effort spending level determined annually by the federal government. Federal reimbursements for fiscal 2016 were \$10.643 billion and are projected to be \$10.929 billion in fiscal 2017.

Departmental and other non-tax revenues are derived from a large number of sources, including but not limited to fees and assessments for services, licenses, tuition and reimbursements. For fiscal 2016, departmental and other non-tax revenues were \$4.258 billion. The largest budgeted departmental revenues, assessments and miscellaneous revenues in fiscal 2016 included \$1.086 billion in drug rebates, recoveries and other fees, \$588.6 million for Registry of Motor Vehicles fees, fines and assessments, \$240.7 million from filing, registration and other fees paid to the Secretary of State's office and \$835.7 million in reimbursements from cities, towns and non-state entities for retiree benefits.

Lottery Revenues. For the budgeted operating funds, inter-fund transfers include transfers of net operating revenues from the State Lottery and Gaming Fund and the Arts Lottery Fund and reimbursements for the budgeted costs of the State Lottery Commission, which accounted for transfers from the Lottery of \$1.075 billion, \$1.050 billion, \$1.069 billion, \$1.086 billion and \$1.092 billion in fiscal 2012 through 2016, respectively. Under state law, the net balance in the State Lottery and Gaming Fund, as determined by the Comptroller on each September 30, December 31, March 31 and June 30, is to be used to fund monthly local aid payments to cities and towns.

The following table shows Lottery revenues and profits for fiscal 2017 to date.

Fiscal 2017 Monthly Lottery Revenues and Profits (in thousands) (1)

<u>Month</u>	<u>Revenues</u>	<u>Prizes</u>	<u>Subtotal Operating Expenses</u>	<u>Operating Revenues</u>	<u>Administrative Expenses</u>	<u>Net Profit before Distributions</u>
July	\$430,022	\$311,580	\$24,801	\$93,641	\$3,479	\$90,162
August	470,207	330,739	27,139	112,328	4,681	107,647
September	371,986	274,357	21,305	76,324	6,667	69,657
Total	\$1,272,215	\$916,676	\$73,245	\$282,293	\$14,826	\$267,466
YTD prize accrual		2,655		(2,655)		(2,655)
Adj Totals	\$1,272,215	\$919,332	\$73,245	\$279,638	\$14,826	\$264,811

Source: State Lottery Commission; Monthly values from the State Lottery Commission Statement of Operations.

(1) Figures are preliminary.

A five-year history of Lottery revenues and profits is shown in the following table as well as current projections for fiscal 2017.

Lottery Revenues and Profits
(amounts in thousands)

Fiscal Year	Revenues	Net Operating Revenues	Net Profits
2017 (1)	\$5,177,633	\$1,067,814	\$968,294
2016	5,233,931	1,092,130	989,411
2015	5,014,535	1,086,469	985,879
2014	4,863,373	1,069,958	974,562
2013	4,850,482	1,050,128	955,801
2012	4,741,417	1,074,927	983,786

Source: State Lottery Commission

(1) Fiscal 2017 figures are projected. Minor adjustments to Lottery revenues are reported several times a year based upon trends.

Tobacco Settlement. In November, 1998, the Commonwealth joined with other states in a master settlement agreement that resolved the Commonwealth’s and other states’ litigation against the cigarette industry. Under the agreement, cigarette companies have agreed to make both annual payments (in perpetuity) and five initial payments (for the calendar years 1999 to 2003, inclusive) to the settling states. Each payment amount is subject to applicable adjustments, reductions and offsets, including upward adjustments for inflation and downward adjustments for decreased domestic cigarette sales volume.

The Commonwealth’s allocable share of the base amounts payable under the master settlement agreement is approximately 4.04%, which equals more than \$8.962 billion through fiscal 2024, subject to adjustments, reductions and offsets. However, since fiscal 2006 certain amounts have been withheld from each year’s payments by tobacco manufacturers who claim that because of certain developments they are entitled to reduce such payments under the master settlement agreement. Those withheld amounts have ranged from \$21 million to \$35 million to the Commonwealth in the period from 2006 through 2012, inclusive. A smaller amount has been withheld for 2013 through 2016, inclusive. The Commonwealth believes it is due the full amount and is pursuing its claim to unreduced payments. See “LEGAL MATTERS – Other Revenues.” The Commonwealth was also awarded \$414.3 million from a separate Strategic Contribution Fund established under the master settlement agreement to reward certain states’ particular contributions to the national tobacco litigation effort. This additional amount, also subject to a number of adjustments, reductions and offsets, is payable in equal annual installments during the years 2008 through 2017, inclusive.

From fiscal 2003 through fiscal 2012, all payments received by the Commonwealth pursuant to the master settlement agreement were deposited in the General Fund. Since fiscal 2012, state law has stipulated that a portion of annual tobacco settlement revenues be deposited into the State Retiree Benefit Trust Fund. See “PENSION AND OPEB FUNDING – Other Post-Employment Benefit Obligations (OPEB).”

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The following table sets forth the tobacco settlement amounts received by the Commonwealth to date.

Payments Received Pursuant to the Tobacco Master Settlement Agreement (in millions) (1)

<u>Fiscal Year</u>	<u>Initial Payments</u>	<u>Annual Payments</u>	<u>Total Payments</u>
2000	\$186.6 (2)	\$139.6	\$326.2(2)
2001	78.2	164.2	242.5
2002	82.8	221.7	304.5
2003	86.4	213.6	300.0
2004	-	253.6	253.6
2005	-	257.4	257.4
2006	-	236.3	236.3
2007	-	245.4	245.4
2008	-	288.5	288.5
2009	-	315.2	315.2
2010	-	263.7	263.7
2011	-	248.7	248.7
2012	-	253.6	253.6
2013	-	253.5	253.5
2014	-	282.1	282.1
2015	-	245.8	245.8
2016	-	257.6	257.6
Total	<u>\$434.0</u>	<u>\$3,882.9</u>	<u>\$4,316.9</u>

SOURCE: Office of the Comptroller.

(1) Amounts are approximate. Totals may not add due to rounding.

(2) Payments received for both 1999 and 2000.

Settlements and Judgments. State finance law provides that any one-time settlement or judgment amounting to \$10 million or more is to be deposited in the Stabilization Fund to the extent that the total of all such settlements and judgments in a fiscal year exceeds the average of such totals for the five preceding fiscal years. The threshold applicable in fiscal 2017 is \$271 million (average of fiscal 2012 through fiscal 2016).

On September 6, 2016, the Commissioner of Revenue and the Attorney General certified that the Commonwealth had not received any settlement and judgment payments during the first two months of fiscal 2017. The next certification, which will be issued early November, will reflect settlements received through October 31, 2016.

Gaming. On November 22, 2011 the Governor approved legislation that authorized the licensing of up to three regional resort casinos (one per region) and one slot facility (up to 1,250 slots) in the Commonwealth. The legislation established an appointed, independent state gaming commission to oversee the implementation of the law and the regulation of the resultant gaming facilities. Licensing fees collected by the commission are to be applied to a variety of one-time state and local purposes, and gaming revenues received by the Commonwealth are to be applied to a variety of ongoing expenses, including local aid and education, with stipulated percentages also to be deposited in the Stabilization Fund and applied to debt reduction. The legislation stipulates that initial licensing fees, which are set by the gaming commission, must be at least \$85 million per casino (a “Category 1” license) and \$25 million for the slot facility (a “Category 2” license). According to the Massachusetts Gaming Commission, aggregate state tax revenues from gaming licenses are expected to total approximately \$300 million per year once the facilities are operational.

The Massachusetts Gaming Commission entered into agreements with the Category 1 licensees in two of the three regions, pursuant to which the licensees each received a license effective on November 7, 2014. The \$85 million license fees were paid by each licensee in November, 2014. The facility in Springfield is expected to be operational in 2018; the facility in Everett is expected to be operational in 2019. In March, 2016, the Mashpee Wampanoag tribe announced that it would commence construction of a tribal resort casino in the third region, based upon the assumed power of the U. S. Secretary of the Interior to take land into trust for the tribe. On April 28, 2016, the commission voted to deny an application for a Category 1 license in that region. On July 28, 2016, in the case of *Littlefield v. the U. S. Department of the Interior*, the U. S. District Court held that the Secretary of the Interior lacked the authority to take land into trust for the Mashpee Wampanoag tribe and remanded the matter back to the Secretary for further proceedings consistent with the opinion as well as the declaratory judgment entered. The

Bureau of Indian Affairs filed a motion for reconsideration, which was denied by the court, and the Mashpee Wampanoag filed a motion to intervene, which was granted. The Commission will continue to monitor this matter.

The Category 2 slot facility opened on June 24, 2015. In fiscal 2016, the facility generated approximately \$160.9 million in gross gaming revenue, resulting in \$64.4 million in budgetary fund taxes collected by the Commonwealth. Gross gaming revenue projections for fiscal 2017 are \$160 million.

Various municipalities have filed suit contesting certain aspects of the Massachusetts Gaming Commission’s issuance of one of the Category 1 licenses. Certain of these claims have been dismissed, either voluntarily or by order of the Superior Court. On August 24, 2016, the City of Somerville entered into a dismissal of claims against the Massachusetts Gaming Commission and agreed to dismiss all of its litigation pertaining to the Region A category 1 licensee. As of July, 2016, the Massachusetts Gaming Commission is defending the remaining intervenor claim filed by Mohegan Sun and the appeals filed by the City of Revere and the individuals who filed an open meeting law claim as part of the Revere litigation.

Limitations on Tax Revenues

Chapter 62F of the General Laws establishes a state tax revenue growth limit for each fiscal year equal to the average positive rate of growth in total wages and salaries in the Commonwealth, as reported by the federal government, during the three calendar years immediately preceding the end of such fiscal year. The growth limit is used to calculate “allowable state tax revenue” for each fiscal year. Chapter 62F also requires that allowable state tax revenues be reduced by the aggregate amount received by local governmental units from any newly authorized or increased local option taxes or excises. Any excess in state tax revenue collections for a given fiscal year over the prescribed limit, as determined by the State Auditor, is to be applied as a credit against the then-current personal income tax liability of all taxpayers in the Commonwealth in proportion to the personal income tax liability of all taxpayers in the Commonwealth for the immediately preceding tax year. The law does not exclude principal and interest payments on Commonwealth debt obligations from the scope of its tax limit. However, the preamble contained in Chapter 62F provides that “although not specifically required by anything contained in this chapter, it is assumed that from allowable state tax revenues as defined herein the Commonwealth will give priority attention to the funding of state financial assistance to local governmental units, obligations under the state governmental pension systems and payment of principal and interest on debt and other obligations of the Commonwealth.”

The following table sets forth the Commonwealth’s net state tax revenues and allowable state tax revenues, as defined in Chapter 62F, for fiscal 2012 through fiscal 2016. Pursuant to Chapter 62F, the State Auditor’s Office is expected to release its report for fiscal 2017 on or about the third Tuesday of September, 2017.

	<u>Net State Tax Revenues</u>	<u>Allowable State Tax Revenues</u>	<u>Net State Tax Revenues (under) Allowable State Tax Revenues</u>
2016	\$25,801,807,367.74	\$29,477,204,723.77	(\$3,675,397,356.03)
2015	25,239,065,862.40	28,071,638,151.40	(2,832,572,289.00)
2014	23,666,801,083.60	27,048,676,153.30	(3,381,875,069.70)
2013	22,397,185,748.50	26,074,941,365.50	(3,677,755,617.00)
2012	21,384,338,827.60	25,236,379,380.50	(3,852,040,552.90)

SOURCES: State Auditor’s Office.

Local Aid

Commonwealth Financial Support for Local Governments. The Commonwealth makes substantial payments to its cities, towns and regional school districts (local aid) to mitigate the impact of local property tax limits on local programs and services. See “Property Tax Limits” below. Local aid payments to cities, towns and regional school districts take the form of both direct and indirect assistance. Direct local aid consists of general

revenue sharing funds and specific program funds sent directly to local governments and regional school districts. The Commonwealth's budget for fiscal 2017 provides \$5.986 billion of state-funded local aid to municipalities.

A large portion of general revenue sharing funds is earmarked for public education and is distributed through a formula designed to ensure that each district reaches at least a minimum level of "foundation" spending per public education pupil. The fiscal 2017 budget includes state funding for so-called "Chapter 70" public education aid of \$4.63 billion. This level of funding brings all school districts to the foundation level, ensures that all local educational authorities receive an increase of funding of at least \$25 per pupil, and is an increase of \$111 million over fiscal 2016.

The other major component of direct local aid is unrestricted general governmental aid, which provides unrestricted funds for municipal use. The fiscal 2017 budget provides for \$1.022 billion in unrestricted general governmental aid, which was allocated to provide a 4.3% increase over fiscal 2016 levels to all municipalities.

Property Tax Limits. In November, 1980, voters in the Commonwealth approved a statewide tax limitation initiative petition, commonly known as Proposition 2½, to constrain levels of property taxation and to limit the charges and fees imposed on cities and towns by certain governmental entities, including county governments. Proposition 2½ is not a provision of the state constitution and accordingly is subject to amendment or repeal by the Legislature. Proposition 2½, as amended to date, limits the property taxes that may be levied by any city or town in any fiscal year to the lesser of (i) 2.5% of the full and fair cash valuation of the real estate and personal property therein or (ii) 2.5% over the previous year's levy limit plus any growth in the tax base from certain new construction and parcel subdivisions. The law contains certain voter override provisions and, in addition, permits debt service on specific bonds and notes and expenditures for identified capital projects to be excluded from the limits by a majority vote at a general or special election. Between fiscal 1981 and fiscal 2016, the aggregate property tax levy grew from \$3.347 billion to \$15.179 billion, a compound annual growth rate of 4.41%.

Medicaid and the Health Connector

MassHealth. The Commonwealth's Medicaid program, called MassHealth, provides health care to 1.9 million low-income children and families, low-income adults, disabled individuals and low-income elders. The program, administered by the Office of Medicaid within the Executive Office of Health and Human Services, generally receives 50% in federal reimbursement on most expenditures for adults, and 88% in federal reimbursement on most expenditures for children's benefits reimbursable under the Children's Health Insurance Program (CHIP). Under the federal Affordable Care Act (ACA), beginning January 1, 2014, MassHealth began receiving enhanced federal reimbursement for spending on newly eligible members and some existing members. In calendar 2015, the federal reimbursement rate for these members was 80%, and in calendar 2016, the federal reimbursement rate is 85%. The reimbursement rate for this population will increase each year through 2019, and then will level off at 90% in 2020 and beyond. These federal reimbursement rates are also known as Federal Medical Assistance Percentages (FMAP).

The fiscal 2017 budget as approved in July, 2016 includes \$15.9 billion in funding for non-administrative spending for the MassHealth program. The \$15.9 billion includes \$15.3 billion in programmatic spending, including costs related to the Hutchinson settlement, and approximately \$658 million to support supplemental payments to providers. See "LEGAL MATTERS – Programs and Services."

The MassHealth program is projecting a deficiency relative to the fiscal 2017 budget. This increase is primarily driven by higher caseload relative to what was assumed in the budget. See "FISCAL 2016 AND FISCAL 2017 – Fiscal 2017."

The Executive Office of Health and Human Services (EOHHS) has initiated a renewed push toward MassHealth-wide system transformation efforts that will help make Massachusetts a national leader in accountable, coordinated care. EOHHS is in the process of soliciting input on a payment innovation and accountable care strategy designed to improve patient experience and health outcomes while reducing long-term cost growth for MassHealth. The development and launch of initiatives stemming from this effort are supported in large part by a \$44 million federal State Innovation Model grant that is intended to support the transition away from fee-for-service payments towards alternative payment methodologies to promote better healthcare and better value for Massachusetts

residents. MassHealth is also seeking additional federal resources to support this restructuring through an 1115 waiver, as described below.

Budgeted Operating Funds Medicaid Expenditures and Enrollment (in millions)

	<u>Fiscal 2012</u>	<u>Fiscal 2013</u>	<u>Fiscal 2014 (1)</u>	<u>Fiscal 2015 (2)</u>	<u>Fiscal 2016</u>	<u>Fiscal 2017 (3)</u>
Medicaid program expenses	\$10,431.1	\$10,799.1	\$11,900.8	\$13,681.9	\$14,851.0	\$15,435.2
Medicaid administrative expenses	\$86.4	\$84.6	\$86.7	\$87.3	\$93.0	\$97.7
Total expenditures (4)	\$10,517.5	\$10,883.7	\$11,987.5	\$13,769.2	\$14,944.0	\$15,532.9
Annual percentage growth in total expenditures	1.9%	3.5%	10.1%	14.9%	8.5%	3.9%
Enrollment (in average member months) (5)	1,356,313	1,403,225	1,592,050	1,907,366	1,863,215	1,906,314
Annual percentage growth in enrollment	3.2%	3.5%	13.5%	19.8%	(2.3%)	2.3%

SOURCE: Fiscal 2012-2016 (excluding Medicaid administrative expense and enrollment), Office of the Comptroller; fiscal 2017 and fiscal 2012-2017 (Medicaid administrative expense and enrollment only), Executive Office of Health and Human Services.

(1) Fiscal 2014 figures include spending and enrollment growth for a half year of ACA implementation; enrollment figures include the temporary Medicaid coverage population starting January 1, 2014 through the end of the fiscal year.

(2) Fiscal 2015 figures include spending and enrollment coverage for a full year of ACA implementation; enrollment figures include the temporary Medicaid coverage population through February 23, 2015.

(3) Reflects estimated spending and enrollment as of October, 2016.

(4) Total expenditures exclude supplemental payments to providers.

(5) Enrollment in prior fiscal years changes due to the effects of redeterminations, retroactive eligibility, application verification, and eligibility appeals.

Commonwealth Health Insurance Connector Authority. State health care reform legislation enacted in 2006 created the Commonwealth Health Insurance Connector Authority (Health Connector). The Health Connector is governed by a board, of which the Secretary of Health and Human Services is the chairperson and the Secretary of Administration and Finance is also a member, each *ex officio*. Most of the funding to support the Health Connector and its programs is paid out of the Commonwealth Care Trust Fund (CCTF), which is supported by dedicated revenue sources. The Health Connector is also responsible for policy development relative to the Affordability Schedule and Minimum Credible Coverage rules and public education and outreach, including the ACA-required Navigator program. The Health Connector also administers the Massachusetts risk adjustment program, currently the only state-based program in the nation.

The Health Connector administers the Commonwealth’s Health Insurance Marketplace under the ACA. As the Commonwealth’s Marketplace, the Health Connector offers qualified health plans (QHPs) to individuals and small businesses. Individuals with incomes under 400% FPL are eligible for federal tax credits, and certain small businesses shopping through the Marketplace will have access to small business health care tax credits through 2016. Individuals with incomes between 133% and 300% FPL, as well as certain Aliens with Special Status (AWSS) with incomes between 0% and 300% FPL, have access to additional state and federal subsidies through a program called ConnectorCare. The state provides additional state subsidies via ConnectorCare to ensure that the premiums and point-of-service cost sharing for certain low-income members, after factoring in federal tax credits and cost sharing reductions, are similar to what was available through the Commonwealth Care program.

The fiscal 2017 budget for the Health Connector is expected to be fully funded from dedicated revenues in the CCTF. Total Health Connector gross spending in fiscal 2017 is projected to be \$230.3 million, an increase of \$12.2 million from fiscal 2016. Fiscal 2017 spending for the Health Connector, net of federal revenue, is projected to be \$163.8 million, a decrease of \$12.3 million compared to \$176.1 million in fiscal 2016.

Federal 1115 MassHealth Demonstration Waiver. Section 1115 of the Social Security Act gives the U.S. Secretary of Health and Human Services authority to waive provisions of major health and welfare programs,

including certain Medicaid requirements, and to allow a state to use federal Medicaid funds in ways that are not otherwise allowed under federal rules. The Commonwealth's 1115 waiver was renewed on October 30, 2014. The \$41.4 billion agreement preserves existing Medicaid eligibility and benefit levels and continues support for state and federal health care subsidies for low-and-middle income individuals to keep insurance affordable for them. This waiver includes more than \$20 billion in revenue to the Commonwealth through federal financial participation. Additionally, the waiver provides that successful programs that have been established under the waiver continue, including an Express Lane Eligibility renewal process for parents and caretakers of children receiving Supplemental Nutritional Assistance Program (SNAP) benefits.

Although the 1115 waiver was renewed for five years, funding for the majority of the Safety Net Care Pool (SNCP) was only authorized for three years (fiscal 2015 through fiscal 2017). MassHealth is currently in discussion with the federal government for a new five-year 1115 waiver, with a focus on restructuring toward Accountable Care Organization and value-based payments. The proposed waiver would include new funding to accelerate the transition through support for providers participating in new payment and care delivery models described above. See "Medicaid and the Health Connector—*MassHealth*." The SNCP funding supports Infrastructure and Capacity Building (ICB) grants and supplemental payments to critical safety net providers such as Boston Medical Center and Cambridge Health Alliance (CHA), including a new Public Hospital Transformation and Incentive Initiative payment totaling \$220 million annually for CHA. The SNCP also supports a portion of the Health Safety Net (HSN), which makes payments to hospitals and community health centers for providing certain health care services to their low-income patients who are not eligible for health insurance or cannot afford it; designated state health programs (DSHP) that provide comprehensive community-based health services for Medicaid-eligible individuals; and Health Connector subsidies for enrollees in the ConnectorCare program, whose incomes are up to 300% of the Federal Poverty Level.

Health Care Cost Containment. On August 6, 2012, the Governor signed Chapter 224 of the Acts of 2012, legislation designed to improve the quality of health care and reduce costs through increased transparency, efficiency, and innovation. This law seeks to move providers and payers away from fee-for-service payments toward alternative payment methodologies that are designed to support coordination of patient care, reduce costs, and improve quality. The law transferred the responsibilities of the Division of Health Care Finance and Policy to MassHealth, the Health Connector, and the newly-created Center for Health Information and Analysis (CHIA). CHIA was created as an independent state agency, funded through an industry assessment, to monitor the Massachusetts health care system through data collection and research and to release reliable information and meaningful analysis to a wide variety of audiences.

Chapter 224 also established the Health Policy Commission (HPC), an independent agency within, but not subject to the control of, the Executive Office for Administration and Finance. The HPC's mission is to advance a more transparent, accountable, and innovative health care system through independent policy leadership and investment programs, to achieve better health and better care at a lower cost across the Commonwealth.

The HPC is integral to the implementation of Chapter 224. Among other responsibilities, the HPC monitors health care spending trends and the Commonwealth's performance against an annual health care cost growth benchmark, promotes transparency around how provider organizations are organized to deliver care, monitors changes in the health care marketplace, and establishes standards for patient-centered medical homes and accountable care organizations. In addition, the HPC oversees the Office of Patient Protection, which administers an enrollment waiver process for consumers who want to buy non-group health insurance and provides information to consumers about health insurance appeal rights, waivers and other issues related to health insurance and health care.

The HPC has organized its work into four primary areas of focus for improving the health care system in Massachusetts: (a) fostering a value-based market in which payers and providers openly compete to provide services and in which consumers and employers have the appropriate information and incentives to make high-value choices for their care and coverage options; (b) promoting an efficient, high quality health care delivery system in which providers efficiently deliver coordinated, patient-centered, high quality health care that integrates behavioral and physical health and produces better outcomes and improved health; (c) advancing alternative payment methods that support and equitably reward providers for delivering high quality care while holding them accountable for slowing future health care spending increases; and (d) enhancing transparency and data availability necessary for providers, payers, purchasers and policymakers to successfully implement reforms and evaluate performance over time.

The HPC is governed by an 11-member board appointed by the Governor, the Attorney General and the State Auditor. From 2013 to 2016, the HPC was funded through a portion of a one-time assessment on health care payers and providers, as well as a portion of the fees from any casino licenses issued in Massachusetts. In addition to supporting HPC operations, the \$209 million one-time assessment (collected over four years) supports a community hospital grant program, a public health fund and a health information technology fund. The amount dedicated to HPC operations is equal to 5% of the total assessment (approximately \$10.5 million over the four-year period, or approximately \$2.6 million each year). Beginning in fiscal 2017, the HPC will be funded through an annual assessment on the health care industry, similar to CHIA's assessment.

HPC establishes the health care cost growth benchmark annually based on a calculation created by statute. For calendar years 2013 through 2017, the Commonwealth establishes the benchmark as equal to the growth rate of the Potential Gross State Product (PGSP). PGSP is designed to measure the long-run average growth rate of the Commonwealth's economy, ignoring fluctuations due to business cycles. Each year, CHIA releases a report on the Commonwealth's performance under the benchmark.

The benchmark has been established as 3.6% every year since 2013. In 2014, the Commonwealth exceeded the benchmark with 4.8% health care cost growth. CHIA postulates that several factors contributed to the Commonwealth surpassing the benchmark in 2014, including increased spending due to expanded MassHealth enrollment under the ACA and the significant rise in prescription drug costs. Preliminary reports from CHIA and HPC indicate that the 2015 growth rate is 4.1%. HPC is expected to conduct a further analysis of the 2015 data and growth rate by the end of calendar year 2016.

The statutory cost growth target from 2018 through 2022 will be equal to the growth rate of PGSP minus 0.5%, and from 2023 on, will be equal to the growth rate of PGSP. However, the HPC and the Legislature have some ability to change those growth targets after 2018.

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Other Health and Human Services

Other Health and Human Services—Budgeted Operating Funds (in millions)

<u>Expenditure Category</u>	<u>Fiscal 2012</u>	<u>Fiscal 2013</u>	<u>Fiscal 2014</u>	<u>Fiscal 2015</u>	<u>Fiscal 2016</u>	<u>Projected Fiscal 2017</u>
Office of Health Services						
Department of Mental Health	\$613.1	\$638.1	\$663.0	\$682.4	\$712.5	\$767.8
Department of Public Health	488.3	507.8	547.7	518.7	525.2	603.5
Division of Healthcare and Finance Policy (1)	<u>14.1</u>	<u>3.6</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Sub Total	\$1,115.5	\$1,149.6	\$1,210.7	\$1,201.2	\$1,237.7	\$1,371.3
Office of Children, Youth, and Family Services						
Department of Children and Families	\$741.6	\$748.8	\$795.5	\$876.4	\$920.0	\$963.3
Department of Transitional Assistance	733.6	723.3	693.8	660.9	630.2	657.4
Department of Youth Services	141.2	150.8	160.6	168.3	169.2	176.7
Office for Refugees and Immigrants	<u>0.4</u>	<u>0.4</u>	<u>0.9</u>	<u>1.1</u>	<u>1.1</u>	<u>0.4</u>
Sub Total	\$1,616.8	\$1,623.2	\$1,650.8	\$1,706.7	\$1,720.5	\$1,797.7
Office of Disabilities and Community Services						
Department of Developmental Services	\$1,314.6	\$1,352.2	\$1,466.8	\$1,678.9	\$1,735.4	\$1,827.2
Other (2)	<u>126.8</u>	<u>120.5</u>	<u>124.1</u>	<u>129.9</u>	<u>128.6</u>	<u>79.0</u>
Sub Total	\$1,441.4	\$1,472.6	\$1,590.9	\$1,808.8	\$1,864.0	\$1,906.2
Executive Office of Elder Affairs	\$265.8	\$248.2	\$260.1	\$291.7	\$312.0	\$291.5
Executive Office of Health and Human Services (3)	240.5 (3)	242.0 (3)	254.6	278.1	283.5	297.5
Department of Veterans' Services (4)	<u>30.5</u>	<u>33.3</u>	<u>12.6</u>	<u>14.4</u>	<u>15.3</u>	<u>67.8</u>
Sub Total	\$536.8	\$523.5	\$527.2	\$584.2	\$610.8	\$656.8
Budgeted Expenditures and Other Uses	\$4,710.5	\$4,768.9	\$4,979.5	\$5,300.8	\$5,433.0	\$5,732.0

SOURCES: Fiscal 2012-2016 Office of the State Comptroller; fiscal 2017, Executive Office for Administration and Finance.

(1) Cost containment legislation enacted in 2012 dissolved the Division and shifted its responsibilities to EHS, MassHealth and a newly created Center for Health Information and Analysis (CHIA). CHIA is an independent agency funded through an industry assessment beginning in fiscal 2014 and is no longer part of the Office of Health Services.

(2) Includes Massachusetts Rehabilitation Commission, Massachusetts Commission for the Blind, Massachusetts Commission for the Deaf and Hard of Hearing, and, prior to fiscal 2016, Chelsea Soldiers' Home, and Holyoke Soldiers' Home

(3) Includes Medicaid program administration.

(4) The fiscal 2015 budget transferred the Soldiers' Homes in Chelsea and Holyoke from the Office of Disabilities and Community Services to Veterans' Services. Fiscal 2016 and later years include Chelsea Soldiers' Home and Holyoke Soldiers' Home. Beginning in fiscal 2014, Veterans' Services spending does not include veterans' annuities spending, which is captured under local aid spending

Office of Health Services. The Office of Health Services encompasses programs and services from the Department of Public Health and the Department of Mental Health. Their goal is to promote healthy people, families, communities and environments through coordinated care. The departments work in unison to determine that individuals and families can live and work in their communities self-sufficiently and safely. The following are a few examples of programs and services provided by this office: substance abuse programs, immunization services, early intervention programs, environmental health services, youth violence programs, supportive housing and residential services for the mentally ill of all ages, and emergency and acute hospital services.

Office of Children, Youth and Family Services. The Office of Children, Youth and Family Services works to provide services to children and their families through a variety of programs and services. The programs and services are offered through the Department of Children and Families, the Department of Youth Services, the Department of Transitional Assistance and the Office of Refugees and Immigrants. The collaborative goal of this office is to work to ensure that individuals, children and families are provided with public assistance needed as well as access to programs that will allow for them to be safe and self-sufficient.

The Department of Children and Families (DCF) is charged with protecting children from abuse and neglect. DCF is currently undergoing an agency improvement initiative to review and update programmatic policies, review agency management structure, and address staffing needs.

Through the Department of Transitional Assistance (DTA), the Commonwealth funds three major programs of public assistance for eligible state residents: Transitional Aid to Families with Dependent Children (TAFDC); Emergency Aid to the Elderly, Disabled and Children (EAEDC); and the State Supplemental Program (SSP) for individuals enrolled in the federal Supplemental Security Income (SSI) program. In addition, DTA is responsible for administering the entirely federally funded Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp Program), as well as other smaller programs that assist DTA clients with completing their education, gaining career skills and finding employment.

Disabilities and Community Services. Programs and services provided by the Massachusetts Rehabilitation Commission, the Massachusetts Commission for the Deaf and Hard of Hearing, the Massachusetts Commission for the Blind, and the Department of Developmental Services assist some of the most disadvantaged residents of the Commonwealth. These agencies provide assistance to this population and create public awareness in the citizens of the Commonwealth, as well as promote inter-agency collaboration which attend to the needs of the community, disabled and multi-disabled population. This holistic approach is designed to ensure that those of all ages with disabilities are able to lead functionally equivalent lives despite limitations that they may face.

Executive Office of Elder Affairs. The Executive Office of Elder Affairs provides a variety of services and programs to eligible seniors and their families. The office administers supportive and congregate housing programs, regulates assisted living residences, provides home care and caregiver support services, and nutrition programs. Eligibility for services is based largely on age, income, and disability status. The Executive Office of Elder Affairs also administers a state-supported prescription drug program for seniors.

Department of Veterans' Services. The Department of Veterans' Services provides a variety of services, programs and benefits to eligible veterans and their families. The Department of Veterans' Services provides outreach services to help eligible veterans enroll in a variety of programs, administers supportive housing and homeless services, and provides approximately 24,000 veterans, veterans' spouses and parents with annuity and benefit payments. The Department also oversees the Chelsea Soldiers' Home and Holyoke Soldiers' Home, state-owned facilities providing long-term health care and domiciliary services to veterans.

Education

Executive Office of Education. The Executive Office of Education encompasses the Department of Early Education and Care, the Department of Elementary and Secondary Education (previously the Department of Education), the Department of Higher Education (previously the Board of Higher Education) and the University of Massachusetts system. The office is committed to advancing actions and initiatives that will improve achievement for all students, close persistent achievement gaps, and to create a 21st century public education system that prepares students for higher education, work and life in a world economy and global society.

Department of Elementary and Secondary Education. The Department of Elementary and Secondary Education serves the student population from kindergarten through 12th grade by providing support for students, educators, schools and districts and by providing state leadership. The Department of Elementary and Secondary Education is governed by the Executive Office of Education and by the Board of Education, which includes 12 members. There are 322 school districts in the Commonwealth, serving over 940,000 students.

Department of Higher Education. The Commonwealth's system of higher education includes the five-campus University of Massachusetts, nine state universities and 15 community colleges. The higher education system is coordinated by the Department of Higher Education, which has a governing board, the Board of Higher Education. Each institution of higher education is governed by a separate board of trustees; the University of Massachusetts has one board that governs its five campuses. The Board of Higher Education nominates, and the Secretary of Education appoints, a Commissioner of Higher Education, who is responsible for carrying out the policies established by the board at the Department of Higher Education.

The operating revenues of each institution consist primarily of state appropriations and of student fees that are set by the board of trustees of each institution. Tuition levels are set by the Board of Higher Education for the state universities and community colleges, while the University of Massachusetts board of trustees sets tuition levels for its campuses. The Massachusetts College of Art and Design, the Massachusetts Maritime Academy, and the University of Massachusetts ("UMass") have authority to retain tuition from all students. The other public higher

education institutions have authority to retain tuition received from out-of-state students and tuitions from self-supporting programs, such as colleges of continuing education and evening schools. Otherwise, tuition revenue is required to be remitted to the State Treasurer by each institution.

The fiscal 2017 budget is the first under an amended state law that allows UMass to establish its own tuition rates for all students and to retain all tuition it collects. This change resulted in a one-time reduction of approximately \$31.1 million in General Fund revenue that reflects that revenue now being retained by UMass and a corresponding reduction of approximately \$31.1 million in the annual appropriation from the Commonwealth to UMass.

The board of trustees of each institution submits annually audited financial statements to the Comptroller and the Board of Higher Education. The Department of Higher Education prepares annual operating budget requests on behalf of all institutions, which are submitted to the Executive Office of Education and subsequently to the Executive Office for Administration and Finance and to the House and Senate Committees on Ways and Means. The Legislature appropriates funds for the higher education system in the Commonwealth's annual operating budget in various line items for each institution.

Department of Early Education and Care. The Department of Early Education and Care provides support to children and families seeking a foundational education. Additionally, the Department strives to educate current and prospective early education and care providers in a variety of instructive aspects. Included within the Department's programs and services are supportive child care, TANF-related child care, low-income child care, Head Start grants, universal pre-kindergarten, quality enhancement programs, professional development programs, mental health programs, healthy families programs and family support and engagement programs. Two of these programs, the supportive and TANF-related child care, help children receiving or referred services by the Department of Children and Families or the Department of Transitional Assistance.

Public Safety

Twelve state agencies fall under the umbrella of the Executive Office of Public Safety and Security. The largest is the Department of Correction, which operates 18 correctional facilities and centers across the Commonwealth. Other public safety agencies include the State Police, Parole Board, the Department of Fire Services, the Military Division, the Office of the Chief Medical Examiner and six other public safety related agencies.

Energy and Environmental Affairs

The Executive Office of Energy and Environmental Affairs is responsible for policy development, environmental law enforcements services and oversight of agencies and programs. Six state agencies and numerous boards fall under the umbrella of the Executive Office of Energy and Environmental Affairs. The largest is the Department of Conservation and Recreation, which operates public parkland, recreational facilities, watersheds and forests across the Commonwealth. Other environmental agencies include the Department of Agricultural Resources, responsible for the state's agricultural and food safety programs, the Department of Environmental Protection, responsible for clean air, water, recycling and environmental remediation programs, and the Department of Fish and Game, responsible for the management and protection of endangered species, fisheries and habitat. Additional agencies include the Department of Public Utilities, responsible for oversight of electric, gas, water and transportation utilities and the Department of Energy Resources, responsible for energy planning, management and oversight.

Debt Service

Debt service expenditures relate to general obligation bonds and notes, special obligation bonds and federal grant anticipation notes issued by the Commonwealth. See "LONG-TERM LIABILITIES."

Employee Benefits

Group Insurance. The Group Insurance Commission (GIC) provides health insurance benefits to more than 430,000 people, including state and participating municipalities' employees, retirees, their spouses, and dependents,

and certain retired municipal teachers, their spouses and dependents. State employee contributions are currently based on date of hire; employees hired on or before June 30, 2003 contribute 20% of total premium costs, and employees hired after June 30, 2003 pay 25% of premium costs. Similarly, state retirees contribute either 10%, 15% or 20%, depending on their retirement date. The GIC also provides health insurance benefits for the employees and retirees of participating municipalities; the municipalities reimburse the state for their enrollees' premium costs. The contribution ratio(s) for municipal enrollees is set through a collective bargaining process within each community. As of July 1, 2016, the GIC provides health insurance to employees and retirees of 54 municipal entities: 10 cities, 33 towns, eight regional school districts, two regional districts and one educational collaborative.

Fiscal 2017 GIC appropriations total \$1.703 billion, approximately \$560 million of which are offset by municipal revenue and \$205 million of which are offset by non-state agency revenue to reimburse the state for providing health insurance benefits to the participating governmental units, including municipalities. In addition, the fiscal 2017 budget authorizes transfers of up to \$440 million to the State Retiree Benefits Trust Fund for the purpose of making expenditures for current state retirees and their dependents.

In keeping with the GIC's commitment to cost containment, the GIC approved a package of benefit changes for fiscal 2016 that is designed to encourage greater use of primary care physicians to coordinate healthcare and to lower the utilization of higher-cost services (the highest-cost hospitals and prescription drugs; the less-efficient and/or lower quality specialists). The average fiscal 2017 premium rates for GIC state and municipal members are projected to increase by 3.6% over fiscal 2016.

Pensions. The Commonwealth is responsible for the payment of pension benefits for Commonwealth employees and for teachers of the cities, towns and regional school districts throughout the state. See "PENSION AND OPEB FUNDING."

Other Post-Employment Benefit Obligations (OPEB). The Commonwealth is required under state law to provide certain health care and life insurance benefits for retired employees of the Commonwealth and certain other governmental agencies. See "PENSION AND OPEB FUNDING – Other Post-Employment Benefit Obligations (OPEB)."

The fiscal 2017 budget is consistent with Government Accounting Standards Board (GASB) Statement No. 45 and the state's intent to account separately for spending for current retirees with deposits towards the Commonwealth's non-pension retiree liability.

Other Program Expenditures

The remaining expenditures on other programs and services for state government include constitutional officers, the judiciary and district attorneys, sheriffs, the Executive Office for Administration and Finance, the Executive Office for Housing and Economic Development, the Executive Office of Labor and Workforce Development and various other programs.

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PENSION AND OPEB FUNDING

Retirement Systems

Almost all non-federal public employees in the Commonwealth participate in defined-benefit pension plans administered pursuant to state law by 104 public retirement systems. The Commonwealth is responsible for the payment of pension benefits for Commonwealth employees (members of the state employees' retirement system) and for teachers of the cities, towns and regional school districts throughout the state (including members of the Massachusetts teachers' retirement system and teachers in the Boston public schools, who are members of the State Boston retirement system but whose pensions are also the responsibility of the Commonwealth). The members of the retirement system do not participate in the Social Security System. Employees of certain independent authorities and agencies, such as the Massachusetts Water Resources Authority, and of counties, cities and towns (other than teachers) are covered by 102 separate retirement systems and the Commonwealth is not responsible for making contributions towards the funding of these retirement systems. Pension benefits for state employees are administered by the State Board of Retirement, and pension benefits for teachers are administered by the Teachers' Retirement Board. Investment of the assets of the state employees' and Massachusetts teachers' retirement systems is managed by the Pension Reserves Investment Management (PRIM) Board. In the case of all other retirement systems, the retirement board for the system administers pension benefits and manages investment of assets. Retirement board members are required to complete 18 hours of training and to file annual statements of financial interest with the Public Employee Retirement Administration Commission (PERAC). Many such retirement boards invest their assets with the PRIM Board, and the PRIM Board may take over the assets of local retirement systems that are less than 65% funded and have failed to come within 2% of the PRIM Board's performance over a ten-year period. With a very small number of exceptions, the members of these state and local retirement systems do not participate in the federal Social Security System.

The Massachusetts State Employees' Retirement System (MSERS) and the Massachusetts Teachers' Retirement System (MTRS) are the two largest plans of the public contributory retirement systems operated in the Commonwealth. Membership in MSERS and MTRS as of January 1, 2016, the date of the most recent combined valuation, is as follows:

Retirement Systems Membership

	<u>MSERS</u>	<u>MTRS</u>
Retirees and beneficiaries currently receiving benefits	61,377	63,744
Terminated employees entitled to benefits but not yet receiving them	4,350	N/A
Subtotal	65,727	63,744
Current Members	88,081	91,059
Total	153,808	154,803

SOURCE: Public Employee Retirement Administration Commission

The MSERS is a cost sharing, multiple-employer defined-benefit public employee retirement system. The MTRS is a defined-benefit public employee retirement system managed by the Commonwealth on behalf of municipal teachers and municipal teacher retirees. The Commonwealth is a non-employer contributor and is responsible for all contributions and future benefits of the MTRS. Members become vested after ten years of creditable service. For members who joined the system prior to April 2, 2012 superannuation retirement allowance may be received upon the completion of 20 years of service or upon reaching the age of 55 with ten years of service. Normal retirement for those employees who were system members before April 2, 2012 occurs at age 65; for certain hazardous duty and public safety positions, normal retirement is at age 55. Most members who joined the system after April 1, 2012 cannot retire prior to age 60.

The Commonwealth's retirement systems' funding policies have been statutorily established. The Legislature has the authority to amend these policies. The annuity portion of the MSERS and the MTRS retirement allowance is funded by employees, who contribute a percentage of their regular compensation. Costs of administering the plan are funded out of plan assets. The policies provide for uniform benefit and contribution requirements for all contributory public employee retirement systems. These requirements generally provide for superannuation retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation. For employees hired after April 1, 2012, retirement allowances are calculated on the basis of the last five years or any five consecutive years, whichever is greater in terms of compensation. Benefit payments are based upon a member's age, length of creditable service and group creditable service, and group classification.

Boston teachers are not included in the membership data shown above for the MTRS. Legislation approved in May, 2010 changed the methodology for the Commonwealth's funding of pension benefits paid to Boston teachers. Prior to this change, the Commonwealth reimbursed the City of Boston for pension benefits paid to Boston teachers as certified by the State Boston Retirement System (SBRS). Those costs were funded one fiscal year in arrears. The cost of pension benefits of the other participants of the SBRS is the responsibility of the City of Boston. The SBRS is a cost-sharing multiple-employer pension system that is not administered by the Commonwealth and is not part of the reporting entity of the Commonwealth for accounting purposes. The 2010 legislation clarified that the Commonwealth is responsible for all employer contributions and future benefit requirements for Boston teachers that are members of the SBRS. The Commonwealth's actuarially determined contribution to the SBRS was \$120.4 million for fiscal 2016.

Subject to legislative approval, annual increases in cost-of-living allowances are provided in an amount equal to the lesser of 3% or the previous year's percentage increase in the United States consumer price index on the first \$13,000 of benefits for members of the MSERS and MTRS. The Legislature approved the 3% increase in cost-of-living allowances for fiscal 2017. The Commonwealth pension funding schedule (discussed below) assumes that annual increases of 3% will be approved for its retirees.

The MSERS and the MTRS, in conjunction with the Commonwealth, are evaluating whether certain of the statutes governing the systems may be in conflict with the exclusive benefit rule of Section 401(a)(2) of the Internal Revenue Code or other federal tax law requirements relating to operation of tax-exempt pension plans. The activities being reviewed include (i) the statutorily directed funding of the budget for PERAC solely from the investment income accounts of MSERS and MTRS, (ii) the statutorily directed contributions made from the MSERS account in the PRIT Fund to a separate optional retirement plan available to certain employees of the Commonwealth's higher education system, (iii) the statutorily mandated reimbursements paid by the MSERS to local retirement systems for local cost-of-living allowances for certain participants of those systems, (iv) the deposit of reimbursement revenues received from local retirement systems to the Commonwealth's General Fund rather than to the MTRS and MSERS accounts in the PRIT Fund and (v) the deposit of federal grant fringe payments to the General Fund rather than to the MTRS and MSERS accounts in the PRIT Fund. The MSERS and the MTRS have engaged outside tax counsel to review these activities. Corrective actions, if necessary, could include administrative actions, amendments to state statutes, prospective corrections and/or retrospective corrections. PERAC and the Commonwealth have each engaged or are in the process of engaging separate legal counsel to review the issues presented.

Employee Contributions

The MSERS and MTRS are partially funded by employee contributions of regular compensation. The following tables indicate current employee contribution rates (figures are approximate):

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Employee Contribution Rates

MTRS (1)

<u>Hire Date</u>	<u>% of Compensation (1)</u>	<u>Active Members</u>	<u>% of Total Active</u>
Pre-1975	5%	176	0.2%
1975-1983	7	670	0.7
1984-June 30, 1996	8	7,373	8.1
July 1, 1996-Present	9	15,019	16.5
July 1, 2001-Present	11	<u>67,821</u>	<u>74.5</u>
Totals		<u>91,059</u>	<u>100.0%</u>

SOURCE: Public Employee Retirement Administration Commission. Membership data from Teachers' Retirement System January 1, 2015 Actuarial Valuation.

(1) Employees hired after January 1, 1979 (except those contributing 11%) contribute an additional 2% of any regular compensation in excess of \$30,000 annually. Legislation enacted in fiscal 2000 established an alternative superannuation retirement benefit program for teachers hired on or after July 1, 2001 (and others who opt in) with an 11% contribution requirement for a minimum of five years. The contribution rate for most employees hired after April 1, 2012 will be reduced to 6% after 30 years of creditable service.

MSERS (1)

<u>Hire Date</u>	<u>% of Compensation (1)</u>	<u>Active Members</u>	<u>% of Total Active</u>
Pre-1975	5%	651	0.7%
1975-1983	7	4,221	4.8
1984-June 30, 1996	8	18,071	20.5
July 1, 1996-Present	9	64,431	73.1
State Police 1996-Present	12	<u>707</u>	<u>0.8</u>
Totals		<u>88,081</u>	<u>100.0%</u>

SOURCE: Public Employee Retirement Administration Commission. Membership data from State Board of Retirement January 1, 2016 Actuarial Valuation.

(1) Employees hired after January 1, 1979 contribute an additional 2% of any regular compensation in excess of \$30,000 annually.

Funding Schedule

The retirement systems were originally established as “pay-as-you-go” systems, meaning that amounts were appropriated each year to pay current benefits, and no provision was made to fund currently the future liabilities already incurred. In fiscal 1988, the Commonwealth began to address the unfunded liabilities of the two state systems by making appropriations to pension reserves. Under current law such unfunded liability is required to be amortized to zero by June 30, 2040. The law also requires that the Secretary of Administration and Finance file a proposed funding schedule with the legislature every three years identifying the appropriations or transfers required to amortize the unfunded liability to zero, to meet the normal cost of all future benefits for which the Commonwealth is obligated and to meet any other component of the Commonwealth’s pension liability. Previously designated amounts can be adjusted based on a new funding schedule so long as the adjustments represent an increase in the scheduled amounts for those years. The law requires the funding schedule submitted by the Secretary to be based on actuarial valuation reports and requires the Secretary to provide the actuarial, economic and demographic assumptions upon which the reports are based. The funding schedule is filed with the House Committee on Ways and Means and is deemed approved if no action is taken by the committee within 45 days.

The most recently approved funding schedule for payments into the Commonwealth’s Pension Liability Fund was filed by the Secretary of Administration and Finance on January 14, 2014. The assumptions underlying the funding schedule include valuation of assets and liabilities as of January 1, 2013, an annual rate of return on assets of 8.0%, and appropriation increases of 10% per year until fiscal 2017 with 7% increases thereafter until the final amortization payment in fiscal 2036 (four years before the statutory requirement). In fiscal 2016, more than the required amount was appropriated, because of the employee retirement incentive program approved by the Governor on May 4, 2015. According to a PERAC report released in February, 2016, the program increased the actuarial accrued liability to the MSERS by approximately \$230 million, with an annual cost, when amortized on a 15-year level basis beginning in fiscal 2016, of approximately \$25.5 million. A slightly larger amount, \$29.1 million (based on an earlier estimate), was provided for in the fiscal 2016 budget. See “FISCAL 2016 AND FISCAL 2017 – Fiscal

2016.” Legislation approved in August, 2015 mandated an increased payment in fiscal 2017 as well to reflect this adjustment.

The next funding schedule is due to be filed by the Secretary of Administration and Finance in early 2017. It is expected to be based on the January 1, 2016 actuarial valuation report and to take into account, among other things, the full costs of the employee retirement incentive program described above. The funding schedule filed in early 2017 will govern payments in fiscal 2018 and beyond.

Current Funding Schedule for Pension Obligations (in thousands) (1)

<u>Fiscal Year</u>	<u>Payments</u>	<u>Fiscal Year</u>	<u>Payments</u>
2016 (2)	1,972,000	2027	\$4,267,000
2017 (3)	2,169,000	2028	4,566,000
2018	2,321,000	2029	4,886,000
2019	2,483,000	2030	5,228,000
2020	2,657,000	2031	5,594,000
2021	2,843,000	2032	5,986,000
2022	3,042,000	2033	6,405,000
2023	3,255,000	2034	6,853,000
2024	3,483,000	2035	7,333,000
2025	3,727,000	2036	4,436,342
2026	3,988,000	2037	835,369

SOURCE: Executive Office for Administration and Finance

- (1) Excludes the impact of the early retirement incentive program adopted in fiscal 2015 and to be reflected in the January 1, 2016 actuarial valuation.
- (2) The fiscal 2016 budget includes a \$29.1 million appropriation (in addition to the \$1.972 billion paid according to the schedule) to defray costs associated with the employee retirement incentive program.
- (3) Legislation approved in August, 2015 mandates a fiscal 2017 appropriation of \$2.198 billion, reflecting a \$29.1 million increase to defray costs associated with the employee retirement incentive program.

Actuarial Valuations

In August or September of each year, PERAC releases an updated actuarial valuation of the Commonwealth’s total pension obligation as of the preceding January 1 (based on member data and asset information as of December 31).

The most recently completed valuation report (as of January 1, 2016) was released on August 17, 2016. This valuation was based on the plan provisions in effect at the time and on member data and asset information as of December 31, 2015. In the report, the unfunded actuarial accrued liability for the Commonwealth’s total pension obligation as of January 1, 2016 is approximately \$37.866 billion, including approximately \$13.500 billion for the MSERS, \$21.969 billion for the MTRS, \$2.236 billion for Boston teachers that are members of the SBRS (“Boston Teachers”) and \$161.3 million for cost-of-living increases reimbursable to local systems. This valuation estimates the total actuarial accrued liability as of January 1, 2016 to be approximately \$87.402 billion (comprised of \$36.966 billion for MSERS, \$46.563 billion for MTRS, \$3.711 billion for Boston Teachers and \$161.3 million for cost-of-living increases reimbursable to local systems). Total assets were valued on an actuarial basis at approximately \$49.535 billion based on a five-year average valuation method, which equaled 101.2% of the December 31, 2015 total asset market value. During 2015 there was an overall actuarial loss of \$296 million. There was a non-investment related loss (loss on actuarial accrued liability) of \$30 million. There was a loss of \$266 million on the actuarial value of assets.

The January 1, 2016 actuarial valuation reflects a decrease in the investment return assumption from 7.75% to 7.50%. This change increased the actuarial accrued liability (and therefore the unfunded actuarial accrued liability) for the Commonwealth’s total pension obligation by approximately \$2.2 billion. Prior to the January 1, 2013 valuation, an 8.25% investment return assumption was used. For the January 1, 2013 and January 1, 2014 valuations, an 8.0% investment return assumption was used. The January 1, 2015 valuation used a 7.75% investment return assumption, which was reduced to 7.50% for the January 1, 2016 valuation. This change was based on

PERAC's analysis of the results of the most recent PRIM study, which analyzes expected long-term returns by asset class and general trends in public plans across the country.

The January 1, 2015 actuarial valuation also reflected a fully generational mortality assumption that takes into account all expected future mortality improvements (increasing life expectancy). This change increased the actuarial accrued liability (and therefore the unfunded actuarial accrued liability) for the Commonwealth's total pension obligation by approximately \$1.7 billion at that time. No change was made to the 2015 assumption in the January 1, 2016 actuarial valuation.

The MSERS unfunded actuarial liability increased from \$10.959 billion to \$13.500 billion (and the funded ratio decreased from 67.5% to 63.5%) from January 1, 2015 to January 1, 2016. Much of this increase was due to an assumption change and two plan amendments. The investment return assumption was reduced from 7.75% to 7.50% in this valuation. The actuarial accrued liability increased \$933 million (2.6%) on account of this change. As noted above, the adoption of an employee retirement incentive program in 2015 increased the actuarial liability by \$230 million. Finally, members of the Optional Retirement Plan (ORP, a defined contribution plan for higher education employees) were provided a one-time opportunity to transfer to the MSERS and purchase service for the period while subject to the ORP. In the 2016 valuation, approximately 1,450 members formerly in the ORP were included in the valuation data. Ultimately, approximately 1,600 will be transferred. The increase in actuarial liability for these transfers is estimated to be \$400 million. The January 1, 2016 report does not reflect any ORP assets except for approximately \$20 million that were transferred prior to December 31, 2015. Ultimately, PERAC estimates that \$170 - \$200 million may be transferred.

PERAC issued detailed experience analyses in 2014 for MSERS and MTRS. These experience studies encompassed the years 2006-2011 and reviewed salary increases and rates of retirement, disability, turnover and mortality. PERAC more recently performed an experience analysis of mortality for retirees of MSERS and MTRS from January 1, 2012 to January 1, 2015. That analysis was the basis for the adoption of a generational mortality assumption described above.

The Actuarial Cost Method which is used to determine pension liabilities in the Commonwealth's valuations is known as the Entry Age Normal Cost Method. Under this method, the Normal Cost for each active member on the valuation date is determined as the level percent of salary, which, if paid annually from the date the employee first became a retirement system member, would fully fund by retirement, death, disability or termination, the projected benefits which the member is expected to receive. The actuarial accrued liability for each member is determined as the present value as of the valuation date of all projected benefits which the member is expected to receive, minus the present value of future annual Normal Cost payments expected to be made to the fund. Since only active members have a Normal Cost, the actuarial accrued liability for inactive members, retirees and survivors is simply equal to the present value of all projected benefits. The unfunded actuarial accrued liability is the actuarial accrued liability less current assets.

The Normal Cost for a member will remain a level percent of salary for each year of membership, except for changes in provisions of the plan or the actuarial assumptions employed in projection of benefits and present value determinations. The Normal Cost for the entire system will also be changed by the addition of new members or the retirement, death, disability, or termination of members. The actuarial accrued liability for a member will increase each year to reflect the additional accrual of Normal Cost. It will also change if the plan provisions or actuarial assumptions change.

Differences each year between the actual experience of the plan and the experience projected by the actuarial assumptions are reflected by adjustments to the unfunded actuarial accrued liability. An experience difference which increases the unfunded actuarial accrued liability is an actuarial loss and one which decreases the unfunded actuarial accrued liability is an actuarial gain.

The actuarial value of assets is determined in accordance with the deferred recognition method under which 20% of the gains or losses occurring in the prior year are recognized, 40% of those occurring two years prior are recognized, etc., so that 100% of gains and losses occurring five years ago are recognized. This has the effect of smoothing the short-term volatility of market values over a five-year period. The actuarial value of assets will be adjusted, if necessary, in order to remain between 90% and 110% of market value. In valuations prior to 1998, plan

assets were determined at market value. As part of the 1998 valuation, this methodology was adjusted to reduce the potential volatility in the market value approach from year to year. The actuarial value of assets as of January 1, 2016 is 101.2% of the market value. This figure was 95.7% as of January 1, 2015.

The following table shows, with respect to the Commonwealth's aggregate pension obligations, a ten-year comparison of the actuarial value of assets to the market values, the ratio of the actuarial value to market value, and the funded ratio based on actuarial value compared to the funded ratio based on the market value of assets:

Ten Year Comparison of Actuarial and Market Values of Pension Assets (in millions)

<u>Valuation Date (Jan. 1)</u>	<u>Actuarial Value of Assets (1)</u>	<u>Market Value of Assets</u>	<u>% of Actuarial Value to Market Value</u>	<u>Funded Ratio (Actuarial Value)</u>	<u>Funded Ratio (Market Value)</u>
2016	\$49,535	\$48,943	101.2%	56.7%	56.0%
2015	48,106	50,290	95.7	59.0	61.7
2014	45,894	48,351	94.9	61.2	64.5
2013	43,517	43,760	99.4	60.6	60.9
2012	43,942	39,947	110.0	65.1	59.1
2011	45,631	41,482	110.0	71.1	64.6
2010	41,589	37,809	110.0	67.5	61.4
2009	37,058	33,689	110.0	62.7	57.0
2008	44,532	49,235	90.4	78.6	86.9
2007	40,412	44,902	90.0	75.2	83.5

SOURCE: Public Employee Retirement Administration Commission.

(1) Based on five-year average smoothing methodology.

The following tables show, for each of the MSERS and the MTRS and for Commonwealth obligations in the aggregate (including Boston Teachers and cost-of-living allowances as well as MSERS and MTRS), the historical funded status for the most recent ten years, based on actuarial values and market values of assets:

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Historical Pension Funding Progress for the Last Ten Fiscal Years- Actuarial Value

(Amounts in thousands except for percentages)

	<u>Actuarial Value of Plan Assets</u>	<u>Actuarial Accrued Liability</u>	<u>Unfunded Actuarial Accrued Liability (UAAL)</u>	<u>Funded Ratio</u>	<u>Annual Covered Payroll</u>	<u>UAAL as % of Covered Payroll</u>
State Employees' Retirement System						
Actuarial Valuation as of Jan. 1						
2016	\$23,465,963	\$36,966,278	\$13,500,315	63.5%	\$5,792,288	233.1%
2015	22,720,160	33,679,150	10,958,990	67.5	5,591,911	196.0
2014	21,581,133	30,679,600	9,098,467	70.3	5,344,510	170.2
2013	20,317,389	29,385,442	9,068,053	69.1	5,183,195	175.0
2012	20,507,604	27,784,731	7,277,127	73.8	4,922,388	185.7
2011	21,244,900	26,242,776	4,997,876	81.0	4,808,250	103.9
2010	19,019,062	24,862,421	5,843,359	76.5	4,711,563	124.0
2009	16,992,214	23,723,240	6,731,026	71.6	4,712,655	142.8
2008	20,400,656	22,820,502	2,419,846	89.4	4,574,233	52.9
2007	18,445,225	21,670,810	3,225,585	85.1	4,391,891	73.4
Teachers' Retirement System						
Actuarial Valuation as of Jan. 1						
2016	\$24,593,787	\$46,562,807	\$21,969,020	52.8%	\$6,388,732	343.9%
2015	23,946,759	44,115,769	20,169,010	54.3	6,204,274	325.1
2014	22,940,196	40,741,695	17,801,499	56.3	5,962,650	298.6
2013	21,787,470	39,135,218	17,347,748	55.7	5,783,294	300.0
2012	22,141,475	36,483,027	14,341,552	60.7	5,655,353	253.6
2011	23,117,952	34,890,991	11,773,039	66.3	5,558,311	211.8
2010	21,262,462	33,738,966	12,476,504	63.0	5,509,698	226.4
2009	18,927,731	32,543,782	13,616,051	58.2	5,389,895	252.6
2008	22,883,553	30,955,504	8,071,951	73.9	5,163,498	156.3
2007	20,820,392	29,320,714	8,500,322	71.0	4,969,092	171.1
Aggregate Commonwealth Pension Obligations						
Actuarial Valuation as of Jan. 1						
2016	\$49,535,323	\$87,401,722	\$37,866,399	56.7%	\$12,702,727	298.1%
2015	48,105,862	81,535,003	33,429,141	59.0	12,302,162	271.7
2014	45,894,034	74,936,994	29,042,960	61.2	11,793,788	246.3
2013	43,517,498	71,865,832	28,348,334	60.6	11,408,407	248.5
2012	43,941,682	67,546,587	23,604,905	65.1	11,011,466	214.4
2011	45,630,507	64,219,135	18,588,628	71.1	10,811,975	171.9
2010	41,589,706	61,575,676	19,985,970	67.5	10,655,881	187.6
2009	37,057,703	59,142,155	22,084,452	62.7	10,537,212	209.6
2008	44,531,652	56,636,710	12,105,058	78.6	10,156,252	119.2
2007	40,411,920	53,761,095	13,349,175	75.2	9,766,122	136.7

SOURCE: Public Employee Retirement Administration Commission.

Historical Pension Funding Progress for the Last Ten Fiscal Years- Market Value

(Amounts in thousands except for percentages)

	<u>Market Value of Plan Assets</u>	<u>Actuarial Accrued Liability</u>	<u>Unfunded Actuarial Accrued Liability (UAAL)-Market Value</u>	<u>Funded Ratio</u>	<u>Annual Covered Payroll</u>	<u>UAAL as % of Covered Payroll</u>
State Employees' Retirement System						
Actuarial Valuation as of Jan. 1						
2016	\$23,176,451	\$36,966,278	\$13,789,827	62.7%	\$5,792,288	238.1%
2015	23,739,487	33,679,150	9,939,663	70.5	5,591,911	177.8
2014	22,721,053	30,679,600	7,958,547	74.1	5,344,510	148.9
2013	20,405,004	29,385,442	8,980,438	69.4	5,183,195	173.3
2012	18,643,313	27,784,731	9,141,418	67.1	4,922,388	147.8
2011	19,313,545	26,242,776	6,929,231	73.6	4,808,250	144.1
2010	17,290,056	24,862,421	7,572,365	69.5	4,711,563	160.7
2009	15,447,467	23,723,240	8,275,773	65.1	4,712,655	175.6
2008	22,538,610	22,820,502	281,892	98.8	4,574,233	6.2
2007	20,494,694	21,670,810	1,176,116	94.6	4,391,891	26.8
Teachers' Retirement System						
Actuarial Valuation as of Jan. 1						
2016	\$24,308,553	\$46,562,807	\$22,254,254	52.2%	\$6,388,732	348.3%
2015	25,046,692	44,115,769	19,069,077	56.8	6,204,274	307.4
2014	24,183,391	40,741,695	16,558,304	59.4	5,962,650	277.7
2013	21,934,211	39,135,218	17,201,007	56.0	5,783,294	297.4
2012	20,128,614	36,483,027	16,354,413	55.2	5,655,353	289.2
2011	21,016,320	34,890,991	13,874,671	60.2	5,558,311	249.6
2010	19,329,511	33,738,966	14,409,455	57.3	5,509,698	261.5
2009	17,207,028	32,543,782	15,336,754	52.9	5,389,895	284.5
2008	25,316,044	30,955,504	5,639,460	81.8	5,163,498	109.2
2007	23,133,769	29,320,714	6,186,945	78.9	4,969,092	124.5
Aggregate Commonwealth Pension Obligations						
Actuarial Valuation as of Jan. 1						
2016	\$48,943,080	\$87,401,722	\$38,458,642	56.0%	\$12,702,727	302.8%
2015	50,289,770	81,535,003	31,245,233	61.7	12,302,162	254.0
2014	48,350,920	74,936,994	26,586,074	64.5	11,793,788	225.4
2013	43,760,381	71,865,832	28,105,451	60.9	11,408,407	246.4
2012	39,946,984	67,546,587	27,599,603	59.1	11,011,466	250.6
2011	41,482,279	64,219,135	22,736,856	64.6	10,811,975	210.3
2010	37,808,823	61,575,676	23,766,853	61.4	10,655,881	223.0
2009	33,688,821	59,142,155	25,453,334	57.0	10,537,212	241.3
2008	49,234,569	56,636,710	7,402,141	86.9	10,156,252	72.9
2007	44,902,133	53,761,095	8,858,962	83.5	9,766,122	90.7

SOURCE: Public Employee Retirement Administration Commission.

Annual Required Contributions

The following table sets forth the annual required contribution (ARC) by the Commonwealth for each of the fiscal years indicated and the actual contributions made. The ARC was determined annually through fiscal 2014, based on the most recent Commonwealth valuation, under Governmental Accounting Standards Board (GASB) Statement No. 27. GASB 27 is no longer applicable with the implementation of GASB 67/68, as described below, but the Commonwealth expects to continue calculating the ARC under GASB 27 principles for comparison. Actuarial valuations have been performed annually since January 1, 2000. As noted above, the Commonwealth also

develops a revised funding schedule by statute at least every three years, and the Commonwealth made the full contribution required, under the then-current funding schedule, for each year displayed in the table. The decrease from fiscal 2016 to fiscal 2017 shown below in the percentage of the ARC funded reflects the assumptions and plan changes described in the January 1, 2016 valuation report that increased plan liabilities.

The calculation of the Commonwealth's ARC assumes amortization of the unfunded actuarial liability on a 4.0% annual increasing basis to fiscal 2040. (This is the minimum allowable funding schedule for local systems under state pension law.) The amount shown in the table below for contributions made in the current fiscal year is the amount required by the current funding schedule. The amounts shown for contributions made in fiscal 2016 and fiscal 2017 include the costs associated with the early retirement incentive program (ERIP).

Annual Required Contributions and Other Pension Contributions
(amounts in thousands)

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Annual required contribution (ARC) (1)	\$1,923,150	\$2,011,147	\$2,217,130	\$2,600,000	\$3,060,000
Contributions made	<u>\$1,552,000</u>	<u>\$1,630,000</u>	<u>\$1,793,000</u>	<u>\$2,001,093</u>	<u>\$2,198,093</u>
% of ARC funded for the fiscal year	81%	81%	75%	77%	72%
ARC as ratio of total government expenditures (2)	5.4%	5.3%	5.7%	6.4%	7.2%

SOURCE: Public Employee Retirement Administration Commission.

- (1) The ARC calculations for fiscal 2013 and fiscal 2014 differ from those disclosed in prior Information Statements, because the ARC calculation in prior disclosures did not take into account amounts required to be contributed for Boston Teachers and local cost-of-living allowances. The ARC calculation for fiscal 2016 does not include costs associated with the ERIP because such costs had not yet been identified at the time the calculation was made.
- (2) Based on Total Budgeted Expenditures and Other Uses.

On June 25, 2012, GASB voted to approve two new standards that modify the accounting and financial reporting of the Commonwealth's pension obligations, GASB Statement No. 67, *Financial Reporting for Pension Plans*, which was effective for the Commonwealth's fiscal 2014 CAFR, and GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, which was effective for the Commonwealth's fiscal 2015 CAFR. GASB 67 established new standards for defined benefit pension plan accounting and reporting, while GASB 68 required changes to governments' reporting of and inclusion of pension assets and liabilities in their annual CAFRs. GASB 68 requires governments to report in their statements of net position (or balance sheet) a net pension liability, defined as the difference between the total pension liability (the present value of projected benefit payments to employees based on their past service) and the assets (mostly investments reported at fair value) set aside in a trust and restricted to paying benefits to current employees, retirees, and their beneficiaries. The new standard requires recognition in the financial statements of pension expense, unlike GASB 27. The rate used to discount projected benefit payments to their present value is based on a single rate that reflects (a) the long-term expected rate of return on plan investments as long as the plan net position is projected under specified conditions to be sufficient to pay pensions of current employees and retirees and the pension plan assets are expected to be invested using a strategy to achieve that return and (b) a yield or index rate on tax-exempt 20-year AA-or-higher rated municipal bonds to the extent that the conditions for use of the long-term expected rate of return are not met. Under the new standards, as noted above, the ARC calculation, and the requirement to fund the ARC under GAAP, have been eliminated.

The tables that follow show pension-related information for both the MTRS and the MSERS as required by GASB 67 and GASB 68 and as shown in the Commonwealth's fiscal 2015 CAFR. The MTRS and MSERS tables subtitled "Schedule of Changes in the Net Pension Liability and Related Ratios" show the beginning and ending liabilities and assets for the MTRS and MSERS, as well as both systems' unfunded pension liability, or net pension liability (NPL), with the NPL being the amount that the Commonwealth records on its Statement of Net Position as its unfunded pension liability. The table also shows the components of the change in the NPL between the beginning (July 1) and end (June 30) of fiscal 2014 and fiscal 2015.

The tables subtitled “Pension Expense and Deferred Outflows/Inflows of Resources,” “Deferred Outflows/Inflows of Resources,” “Deferred Outflows/Inflows of Resources” and “Projected Recognition of Deferred Outflows/Inflows)” show pension expenses that, under GASB 68, are recognized in the fiscal 2015 CAFR as well as the inflows and outflows that under GASB 68 are recognized either in the fiscal 2015 CAFR or are deferred and projected to be recognized in future fiscal year CAFRs.

The methodology required by GASB 68 to calculate the Commonwealth’s NPL and other pension-related measures (as reflected in the tables below) is in several respects different from the methodology used by PERAC in calculating the Commonwealth’s unfunded pension liability in its annual actuarial valuation. The most important difference between the two methodologies is that GASB 68 requires the value of pension plan assets be recorded at market value as of June 30 of each fiscal year, meaning that investment gains and losses are recognized immediately, while the actuarial value of assets used by PERAC in calculating the Commonwealth’s unfunded liability is measured using a five-year smoothing methodology, meaning that investment gains and losses are amortized over five years. Therefore, the NPL information set out in the tables below based on GASB 68 requirements is not strictly comparable to the unfunded liability and other pension-related information in PERAC’s annual actuarial valuations.

Under GASB 68, in order to provide adequate time for pension plans to distribute pension-related information to pension plan participants (which include state authorities, local school collaboratives, and municipal governments) for use in their annual CAFRs, governments are permitted to use the prior year’s NPL and other pension-related measures in the current year’s CAFR. In conformance with GASB 68, the Commonwealth determined that for the fiscal 2015 CAFR it would use the pension valuation information as of June 30, 2014. The Commonwealth will use the June 30, 2015 pension information for its fiscal 2016 CAFR.

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GASB 67 Information for the Massachusetts Teachers' Retirement System

Schedule of Changes in the Net Pension Liability and Related Ratios

Fiscal 2015 and Fiscal 2014

(Amounts in thousands, except for percentages)

	<u>Fiscal 2015</u>	<u>Fiscal 2014 (1)</u>
Total pension liability (as of July 1)	\$41,435,000	\$ 39,931,000
Service cost	768,032	720,712
Interest	3,166,728	3,227,025
Differences between expected and actual experience	153,000	-
Changes of assumptions (2)	1,890,000	108,000
<u>Benefit payments, including refunds of member contributions</u>	<u>(2,684,049)</u>	<u>(2,551,737)</u>
Net change in total pension liability	\$3,293,711	\$1,504,000
Total pension liability (as of June 30)	\$44,728,711	\$ 41,435,000
Plan fiduciary net position (as of July 1)	\$25,538,646	\$ 22,697,302
Contributions:		
Non-employer - Commonwealth	1,021,930	930,079
Plan members	669,941	653,328
<u>Other additions</u>	<u>190,925</u>	<u>178,998</u>
Total contributions	1,882,796	1,762,405
Net investment income	845,503	3,771,883
Benefit payments, including refunds of plan member contributions	(2,684,049)	(2,551,737)
Administrative expense	(23,444)	(20,499)
<u>Other changes</u>	<u>(130,384)</u>	<u>(120,708)</u>
Net change in plan fiduciary net position	(\$109,578)	\$2,841,344
Plan fiduciary net position (as of June 30)	\$25,429,068	\$25,538,646
Plan net pension liability/(asset) (as of June 30)	\$19,299,643	\$15,896,354
Plan fiduciary net position as a percentage of the total pension liability	56.9%	61.6%
<u>Covered employee payroll (3)</u>	<u>\$6,204,274</u>	<u>\$ 5,962,650</u>
Net pension liability/(asset) as a percentage of covered employee payroll	311.1%	266.6%

SOURCE: Office of the Comptroller

- (1) Fiscal 2014 amounts were reclassified to conform to current year presentation.
- (2) The changes in assumptions in fiscal 2015 were due to (i) a decrease in the investment rate of return of 0.25% to 7.75% in the January 1, 2015 actuarial valuation and (ii) improved future mortality.
- (3) Reflects compensation in the January 1 actuarial valuation for each fiscal year.

GASB 68 Information for the Massachusetts Teachers' Retirement System (1)

Pension Expense and Deferred Outflows/Inflows of Resources

(Amounts in thousands)

Pension Expense for Fiscal 2015 (7/1/13- 6/30/14)

Service cost	\$720,712
Interest	3,227,025
Employee contributions	(653,328)
Projected earnings on plan investments	(1,778,563)
Recognized portion of difference in projected and actual earnings on investments	(398,664)
Recognized portion of plan benefit changes	-
Transfers and reimbursements from other systems	(39,413)
Member make up, redeposit and payments from rollovers	(29,277)
Administrative expense	41,675
<u>Other additions (net)</u>	<u>(3,476)</u>
Pension expense	\$1,104,396

Deferred Outflows/Inflows of Resources

	<u>Deferred Outflows</u>	<u>Deferred Inflows</u>	<u>Original Amount</u>	<u>Amortization Period (years)</u>	<u>Amortization</u>
Difference between expected and actual experience	\$0	-	\$0	6.1	\$0
Assumption changes	90,295	-	108,000	6.1	17,705
Net difference between projected and actual earnings on investments	-	<u>(1,594,656)</u>	<u>(1,993,320)</u>	<u>5</u>	<u>(398,664)</u>
Total	90,295	(1,594,656)	-	-	
Net	-	(\$1,504,361)	(\$1,885,320)	-	(\$380,959)

Projected Recognition of Deferred Outflows/(Inflows)

Deferred Inflows/(outflows) recognized in Future Pension Expense
(fiscal years ending June 30)

	2016	2017	2018	2019	2020	2021
Difference between expected and actual experience	\$0	\$0	\$0	\$0	\$0	\$0
Assumption changes	17,705	17,705	17,705	17,705	17,705	1,770
Net difference between projected and actual earnings on investments	<u>(398,664)</u>	<u>(398,664)</u>	<u>(398,664)</u>	<u>(398,664)</u>	<u>0</u>	<u>0</u>
Total	(380,959)	(380,959)	(380,959)	(380,959)	\$17,705	\$1,770

(1) Fiscal 2014 information is used in the fiscal 2015 CAFR; fiscal 2015 information is to be used in the fiscal 2016 CAFR.

GASB 67 Information for the State Retirement System
Schedule of Changes in the Net Pension Liability and Related Ratios

Fiscal 2015 and Fiscal Y2014

(Amounts in thousands, except for percentages)

	<u>Fiscal 2015</u>	<u>Fiscal 2014 (1)</u>
Total pension liability (as of July 1)	\$31,355,000	\$ 29,988,000
Service cost	700,012	631,634
Interest	2,411,551	2,405,204
Changes in benefit terms (2)	230,302	-
Differences between expected and actual experience	275,000	-
Changes of assumptions (3)	1,397,000	102,000
<u>Benefit payments, including refunds of member contributions</u>	<u>(1,876,451)</u>	<u>(1,771,838)</u>
Net change in total pension liability	3,137,414	\$1,367,000
 Total pension liability (as of June 30)	 \$34,492,414	 \$ 31,355,000
 Plan fiduciary net position (as of July 1)	 \$23,930,895	 \$ 21,084,958
Contributions:		
Employers – Commonwealth and MassDOT	606,376	550,438
Non-employer contributions – Commonwealth	13,595	21,293
Employers and non-employers – other	15,808	6,048
Plan members	549,493	501,106
<u>Other additions</u>	<u>92,503</u>	<u>68,967</u>
Total contributions	1,277,775	1,147,897
Net investment income	800,886	3,551,012
Benefit payments, including refunds of plan member contributions	(1,876,451)	(1,771,838)
Administrative expense	(15,966)	(12,705)
<u>Other changes</u>	<u>(74,554)</u>	<u>(68,429)</u>
Net change in plan fiduciary net position	111,690	\$2,845,937
 Plan fiduciary net position (as of June 30)	 \$24,042,585	 \$23,930,895
 Plan net pension liability/(asset) (as of June 30)	 \$10,449,829	 \$7,424,105
 Plan fiduciary net position as a percentage of the total pension liability	 69.7%	 76.3%
<u>Covered employee payroll (4)</u>	<u>\$ 5,591,911</u>	<u>\$ 5,344,510</u>
Net pension liability/(asset) as a percentage of covered employee payroll	186.9%	138.9%

SOURCE: Office of the Comptroller

- (1) Fiscal 2014 amounts were reclassified to conform to current year presentation
- (2) Reflects costs associated with the retirement incentive program approved in May, 2015.
- (3) The changes in assumptions in fiscal 2015 were due to (1) a decrease in the investment rate of return of 0.25% to 7.75% in the January 1, 2015 actuarial valuation and (2) improved future mortality.
- (4) Reflects compensation in the January 1 actuarial valuation for each fiscal year.

GASB 68 Information for the State Retirement System (1)
Pension Expense and Deferred Outflows/Inflows of Resources
(Amounts in thousands)

Pension Expense for Fiscal 2015 (7/1/13- 6/30/14)

Service cost	\$631,634
Interest	2,405,204
Employee contributions	(501,106)
Projected earnings on plan investments	(1,658,120)
Recognized portion of difference in projected and actual earnings on investments	(380,947)
Recognized portion of assumption change	18,545
Transfers and reimbursements from other systems	(25,464)
Member make up, redeposit and payments from rollovers	(7,536)
COLA reimbursements	(21,104)
Other reimbursements	(719)
Administrative expense	36,057
<u>Other expenses that do not reduce the total pension liability</u>	<u>53,177</u>
Pension expense	\$549,621

Deferred Outflows/Inflows of Resources

	<u>Deferred Outflows</u>	<u>Deferred Inflows</u>	<u>Original Amount</u>	<u>Amortization Period (years)</u>	<u>Amortization</u>
Difference between expected and actual experience	\$0	\$ -	\$0	5.5	\$0
Assumption changes	83,455	-	102,000	5.5	18,545
Net difference between projected and actual earnings on investments	-	<u>(1,523,789)</u>	<u>(1,904,736)</u>	<u>5</u>	<u>(380,947)</u>
Total	83,455	(1,523,789)	-	-	-
Net	-	(\$1,440,334)	(\$1,802,736)	-	(\$362,402)

Projected Recognition of Deferred Outflows/(Inflows)

Deferred Inflows/(outflows) recognized in Future Pension Expense
(fiscal years ending June 30)

	2016	2017	2018	2019	2020	2021
Difference between expected and actual experience	\$0	\$0	\$0	\$0	\$0	\$0
Assumption changes	18,545	18,545	18,545	18,545	9,274	0
Net difference between projected and actual earnings on investments	<u>(380,947)</u>	<u>(380,947)</u>	<u>(380,947)</u>	<u>(380,947)</u>	<u>0</u>	<u>0</u>
Total	(362,402)	(362,402)	(362,402)	(362,402)	\$9,274	\$0

(1) Fiscal 2014 information is used in the fiscal 2015 CAFR; fiscal 2015 information is to be used in the fiscal 2016 CAFR.

Prospective Funded Status of the Pension System

The following tables project the funded status of the Massachusetts State Employees Retirement System's, Massachusetts Teachers' Retirement System's, Boston Teachers' Retirement System's (BTRS) and the Commonwealth's aggregate pension liabilities through fiscal 2020. The fiscal 2015 actuarial results reflect assumptions outlined in the January 1, 2015 actuarial valuation report. The tables are expected to be updated when the next funding schedule is prepared in early 2017. All projections are estimates and will vary based on actual investment returns and plan experience. The projections in this table assume that all assumptions will be realized exactly. The actuarially determined contribution for fiscal 2014 was the ARC identified in the January 1, 2013 actuarial valuation report (4.0% annually increasing amortization of the unfunded actuarial liability to fiscal 2040) brought forward for fiscal 2014. The actuarially determined contribution for fiscal 2015 and beyond reflects the Commonwealth's most recently adopted funding schedule. The revised schedule increases the total appropriation by 10% in fiscal 2015, fiscal 2016, and fiscal 2017, and by 7% each year until fully-funded (fiscal 2036 based on the January 1, 2013 valuation). Although the appropriation under the adopted schedule will be less than the actuarial determined contribution for several years, the annual increases in the schedule are significant and will allow the Commonwealth to be fully funded in approximately 20 years. Actuarial figures other than the actuarially determined contribution reflect January 1 estimates of the fiscal year shown. The actuarial value of assets on January 1, 2014 was 94.9% of the market value of assets. The actuarial value of assets on January 1, 2015 was 95.7% of the market value of assets. The actuarial value of assets on January 1, 2016 is assumed to be 97% of the market value of assets. The actuarial value of assets on January 1, 2017, 2018, 2019 and 2020 is assumed to be 98%, 99%, 100%, and 100% of the market value of assets, respectively. The actuarial value of assets is projected using the past history of PRIT Fund cash flows to estimate future cash flows. The actuarial liability is projected from January 1, 2015 to January 1, 2016 using standard methodology. Projections beyond January 1, 2016 reflect slightly decreasing percentage increases to reflect the impact of pension reform legislation enacted in 2011 as well as employee contribution increases as a percentage of pay. Funding schedule information is based on the funding schedule filed by the Secretary of Administration and Finance on January 14, 2014.

For the purpose of calculating the actuarially determined contribution as a percentage of total budgeted operating funds expenditures, the Executive Office for Administration and Finance used the 4.42% compound annual growth rate of budgeted revenues from fiscal 2006 to estimated fiscal 2016. This measure is also used in the Commonwealth's debt affordability analysis. This does not represent an official forecast of the growth in Total Budgeted Expenditures and Other Uses by the Executive Office for Administration and Finance. The actuarial liability and actuarially determined contributions below exclude the impact of the early retirement incentive program adopted in fiscal 2015 and reflected in the January 1, 2016 actuarial valuation.

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Prospective Funded Status of the Pension System (dollars in millions) (1)

<u>Fiscal Year</u>	<u>Actuarially Determined Contribution (ADC)</u>	<u>Actuarial Value of Assets</u>	<u>Actuarial Accrued Liability</u>	<u>Unfunded Actuarial Liability</u>	<u>Funded Ratio</u>	<u>ADC as a % of Total Budgeted Operating Funds Expenditures</u>
State Employees' Retirement System						
2015	\$631	\$22,720	\$33,679	\$10,959	67.5%	1.6%
2016	694	23,955	35,151	11,196	68.1	1.7
2017	763	25,192	36,662	11,471	68.7	1.8
2018	817	26,506	38,202	11,696	69.4	1.8
2019	874	27,903	39,769	11,865	70.2	1.9
2020	935	29,162	41,359	12,197	70.5	1.9
Massachusetts Teachers' Retirement System						
2015	\$1,030	\$23,947	\$44,116	\$20,169	54.3%	2.7%
2016	1,132	25,060	45,575	20,515	55.0	2.8
2017	1,245	26,120	47,170	21,050	55.4	2.9
2018	1,332	27,228	48,774	21,545	55.8	3.0
2019	1,426	28,388	50,383	21,995	56.3	3.1
2020	1,525	29,342	51,996	22,654	56.4	3.2
Boston Teachers' Retirement System						
2015	\$109	\$1,439	\$3,554	\$2,115	40.5%	0.3%
2016	120	1,511	3,661	2,150	41.3	0.3
2017	132	1,579	3,804	2,225	41.5	0.3
2018	141	1,647	3,948	2,301	41.7	0.3
2019	151	1,715	4,094	2,380	41.9	0.3
2020	162	1,754	4,242	2,488	41.4	0.3
Aggregate Commonwealth Pension System						
2015	\$1,793	\$48,106	\$81,535	\$33,429	59.0%	4.6%
2016 (2)	1,972	50,527	84,554	34,027	59.8	4.8
2017 (3)	2,169	52,891	87,787	34,895	60.2	5.1
2018	2,321	55,381	91,060	35,678	60.8	5.2
2019	2,483	58,007	94,368	36,362	61.5	5.4
2020	2,657	60,258	97,706	37,448	61.7	5.5

SOURCE: Executive Office for Administration and Finance and Public Employee Retirement Administration Commission.

- (1) All figures as of January 1, 2015.
- (2) The fiscal 2016 budget included a \$29 million appropriation (in addition to the \$1.972 billion paid according to the schedule) to defray costs associated with the employee retirement incentive program.
- (3) Legislation approved in August, 2015 mandates a fiscal 2017 appropriation of \$2,198,092,616, reflecting a \$29.1 million increase to defray costs associated with the employee retirement incentive program.

PRIT Fund Investments

The mission of the PRIM Board is to manage the PRIT Fund so as to ensure that pension assets are well invested so that current and future benefit obligations are adequately funded in a cost-effective manner. The PRIM Board therefore seeks to maximize the total return on investment, within acceptable levels of risk and cost for an approximately 60% funded public pension fund. Under current law, by the year 2040 the PRIT Fund will have grown, through annual payments in accordance with a legislatively approved funding schedule and through the total return of the fund, to an amount sufficient to meet the then existing pension obligations of the Commonwealth. The funding schedule of state pension appropriations that is currently in place assumes a long-term actuarial rate of return for the PRIT Fund of 8.0%. As of January 1, 2015, the rate of return assumption was reduced to 7.75%, and it is expected to be reduced to 7.5% for the January 1, 2016 valuation report.

The PRIM Board recognizes that over the long-term, asset allocation is the single greatest contributor of return and risk to the PRIT Fund. The asset allocation plan adopted by the Board embodies its decisions about what proportions of the Fund are to be invested in domestic and international equity and fixed income securities, alternative investments such as real estate, private equity and hedge funds, and, where appropriate the various sub-asset classes of each category. At reasonable intervals of not more than three to five years, the Board conducts a comprehensive review of its asset allocation plan and its underlying assumptions, including the Commonwealth's current and projected pension assets and liabilities, long-term capital markets rate of return assumptions, and the Board's risk tolerances. The comprehensive review identifies a reasonable time horizon and investment strategy for matching assets and liabilities, a fund-level total return target, and an optimal allocation among available asset classes and sub-asset classes. The Board examines the asset allocation plan annually and makes adjustments to the plan as may be appropriate given the plan's long-term nature and objectives.

The actual asset allocation mix invariably deviates from the plan's targets due to market movement, cash flows, and manager performance. Material deviations from the asset allocation targets can alter the expected return and risk of the PRIT Fund. The following table sets forth the actual PRIT Fund asset allocation for each of the most recent five fiscal years, as well as the current targets. The actual allocation figures are as of June 30 for each of the years indicated. The targets are those contained in the asset allocation plan, which was most recently reviewed on February 2, 2016. The Board expects to review the current targets in February, 2017.

PRIT Fund Asset Allocation

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>Target</u>
Domestic Equity	19.2%	20.8%	19.0%	19.2%	18.7%	18.0%
International Equity	16.7	18.0	17.1	16.9	16.5	16.0
Emerging Markets Equity	6.7	6.5	7.0	6.6	7.0	6.0
Core Fixed Income	13.0	12.6	13.9	13.7	13.9	13.0
Value-Added Fixed Income	8.6	8.9	8.5	8.3	8.4	10.0
Private Equity	12.1	11.7	11.1	11.3	11.1	10.0
Real Estate	9.7	8.2	8.9	10.0	10.4	10.0
Timber/Natural Resources	3.9	4.0	3.9	3.8	3.3	4.0
Hedge Funds	9.9	9.2	9.6	9.1	8.6	9.0
Portfolio Completion Strategies	n/a	n/a	0.0	0.2	1.2	4.0

SOURCE: Pension Reserves Investment Management Board.

The following table sets forth the investment rates of return for the assets in the PRIT Fund for the last ten fiscal years:

PRIT Fund Rates of Return (Gross of Fees)

<u>Fiscal Year</u>	<u>Rate of Return</u>	<u>Fiscal Year</u>	<u>Rate of Return</u>
2016	2.29%	2011	22.30%
2015	3.86	2010	12.82
2014	17.53	2009	(23.87)
2013	12.69	2008	(1.81)
2012	(0.08)	2007	19.92
	3yr average		7.68%
	5yr average		7.05%
	10yr average		5.69%
	Assumed Rate		7.50%

SOURCE: Pension Reserves Investment Management Board.

Other Post-Employment Benefit Obligations (OPEB)

In addition to providing pension benefits, the Commonwealth is statutorily required to provide certain health care and life insurance benefits (“other post-employment benefits” or “OPEB”) for retired employees of the Commonwealth, as well as retired employees of housing authorities, redevelopment authorities and certain other governmental agencies (offline agencies). Substantially all of the Commonwealth’s employees may become eligible for these benefits if they reach retirement age and eligibility while working for the Commonwealth. Eligible retirees are required to contribute a specified percentage of the health care/benefit costs. The Commonwealth is reimbursed for the cost of benefits to retirees of the eligible authorities and non-state agencies. (Although, as noted above, the Commonwealth is required to pay pensions to retired municipal teachers, the Commonwealth has no OPEB obligations with respect to retired municipal teachers.)

The GIC manages the Commonwealth’s other post-employment benefits for all state and certain agency employees and retirees. The GIC has representation on the Board of Trustees of the State Retiree Benefits Trust (SRBT). The SRBT is set up to pay for former state employees’ OPEB benefits and to invest state and certain municipalities funds that have been set aside to pay for OPEB benefits and the cost to administer those funds and can only be dissolved when all such health care and other non-pension benefits, current and future, have been paid or defeased.

The Commonwealth also oversees the management and administration of the Massachusetts Turnpike Authority Retiree Benefits Trust, which is restricted for OBEP benefits of the retirees of the former Massachusetts Turnpike Authority.

Employer and employee contribution rates are set by statute. The Commonwealth recognizes its share of the costs on an actuarial basis. As of June 30, 2016, Commonwealth participants contributed 10% to 25% of premium costs, depending on the date of hire and whether the participant is active, retiree or survivor status. The GIC had 157,741 state enrollees as of the end of fiscal 2014.

Accounting standards promulgated in 2004 by the Governmental Accounting Standards Board (GASB) required the Commonwealth to begin disclosing its OPEB liability in its fiscal 2008 financial reports.

The January 1, 2016 actuarial valuation was issued on October 24, 2016. According to the report, the Commonwealth’s actuarial accrued OPEB liability, assuming no pre-funding and using a discount rate of 4.5%, was approximately \$16.323 billion as of January 1, 2016. The 4.5% discount rate (which is the approximate rate of return since its inception of the Massachusetts Municipal Depository Trust) is intended to approximate the Commonwealth’s rate of return on non-pension (liquid) investments over the long term. Assuming pre-funding, the study estimated the Commonwealth’s liability to be approximately \$10.155 billion using a discount rate of 7.50%. In order to qualify its OPEB liabilities as pre-funded, the Commonwealth must deposit annual contributions in a qualifying trust in accordance with the requirements of GASB Statement No. 45 (and similar to the program for funding the Commonwealth’s unfunded actuarial liability for pensions).

A liability for the difference between the amount funded and the actuarially required contribution is reflected on the Commonwealth’s statement of net position, as presented on a GAAP basis. The liability increases or decreases each year depending on the amount funded, investment return and changes in amortization and assumptions. This change is reflected either as a revenue or expense item in the Commonwealth’s statement of activities as presented on a GAAP basis, dependent on these factors. As of June 30, 2015, this net OPEB obligation as reflected on the Commonwealth’s statement of net position is \$5.605 billion.

The independent actuarial report covers only the Commonwealth’s OPEB obligations for Commonwealth employees and their survivors. Municipalities and authorities of the Commonwealth, even if their health care coverage is administered by the Group Insurance Commission, perform their own valuations, as the Commonwealth acts only as an agent for the entities that participate in the GIC with respect to providing OPEB health insurance benefits and does not assume the risk or financial burden of their health care costs.

GASB Statement No. 45 requires that OPEB obligations be recalculated at two-year intervals. Such calculations may be affected by many factors, including changing experience and assumptions regarding future

health care claims, coverage levels and retiree contribution requirements. Accordingly, the actuarial accrued liability of the Commonwealth for OPEB liabilities may fluctuate.

The State Retiree Benefits Trust Fund was created to consolidate the state's retiree funding efforts and better project future liabilities, and beginning in fiscal 2008, expenses for current state retirees' healthcare were paid from the fund. Also in fiscal 2008, the fund benefited from a one-time transfer of approximately \$329 million from the Health Care Security Trust. The fiscal 2012 budget included a requirement that, beginning in fiscal 2013, 10% of the annual tobacco payments be transferred to the State Retiree Benefits Trust Fund, with the amount deposited to the State Retiree Benefits Trust Fund to increase by 10% increments annually thereafter until 100% of all payments would be transferred to that Fund. Pursuant to this requirement, in May, 2013, tobacco settlement proceeds in the amount of \$25.3 million were transferred to the State Retiree Benefits Trust Fund.

The fiscal 2014 budget included a provision that funded the scheduled transfer to the State Retiree Benefits Trust Fund from unspent appropriations, to the extent that they were available, with any balance to be made up through a transfer of tobacco settlement proceeds. In fiscal 2014, pursuant to that provision, unspent appropriations in the amount of \$56.4 million were transferred to the State Retirees Benefits Trust Fund, and approximately \$15 million of tobacco proceeds were used to fund the balance of the transfer.

The fiscal 2015 budget contained a similar provision requiring the transfer of tobacco settlement funds, equal to approximately \$73.7 million, to be funded from unspent appropriations, to the extent that they were available, with any balance to be made up through a transfer of tobacco settlement proceeds. In fiscal 2015, pursuant to that provision, unspent appropriations in the amount of \$44 million were transferred to the State Retirees Benefits Trust Fund, and approximately \$29.7 million of tobacco proceeds were used to fund the balance of the transfer.

The fiscal 2016 budget contained a similar provision requiring that transfers be made equivalent to 30% of fiscal 2016 tobacco settlement proceeds (the same percentage required in fiscal 2015), or approximately \$77 million, to be funded from unspent appropriations, to the extent they were available, with any balance to be made up through a transfer of fiscal 2016 tax revenues exceeding \$100 million generated by a tax amnesty program that was also authorized in the fiscal 2016 budget. In fiscal 2016, pursuant to the budget, unexpended appropriations in the amount of \$77.3 million were transferred to the State Retirees Benefits Trust Fund.

The fiscal 2017 budget enacted by the Legislature requires that transfers be made equivalent to 10% of fiscal 2017 tobacco settlement proceeds, or approximately \$25.2 million. That transfer is contingent on the availability of unexpended appropriations, and if those are insufficient to fund the 10% transfer, the balance of the 10% will be funded by tobacco settlement revenues. The Governor returned that section of the Legislature's proposal with an amendment, proposing instead to require a 30% transfer, as in fiscal 2016, which would result in approximately \$76 million. That proposal has not yet been acted upon by the Legislature.

State finance law also provides for annual deposits in to the State Retiree Benefits Trust Fund in the amount of 5% of any capital gains tax revenues transferred to the Stabilization Fund in excess of the statutory capital gains threshold. This resulted in deposits to the State Retiree Benefits Trust Fund of \$23.4 million in fiscal 2013 and \$2.3 million in fiscal 2014. This requirement was suspended by the legislature for fiscal years 2015 and 2016.

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The actuarial value of plan assets as of January 1, 2016 was approximately \$760 million.

State Retiree Benefits Trust
(amounts in thousands)

Actuarial Valuation as of January 1:	Actuarial Value of <u>Plan Assets</u>	Actuarial <u>Liability</u>	Accrued Unfunded Liability <u>(UAAL)</u>	Actuarial Ratio <u>Covered</u>	<u>Funded Payroll</u>	Annual Covered Payroll as % <u>of UAAL</u>
2016	\$760,400	\$17,082,900	\$16,322,500	4.5%	\$5,792,288	281.8%
2015	610,000	16,502,800	15,892,800	3.7	5,591,911	284.2
2014	511,200	15,670,200	15,159,000	3.3	5,344,500	283.6
2013	406,700	15,784,100	15,377,400	2.6	5,183,195	296.7
2012	360,500	16,559,400	16,298,900	2.2	4,922,388	331.1
2011	350,500	16,568,600	16,218,100	2.1	4,808,250	337.3
2010	309,800	15,166,300	14,856,500	2.0	4,711,563	315.3
2009	273,500	15,305,100	15,031,600	1.8	4,712,655	319.0
2008	-	9,812,000	9,812,000	0.0	4,574,233	214.5

SOURCE: Office of the Comptroller and Public Employee Retirement Administration Commission

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STATE WORKFORCE

The following table sets forth information regarding the Commonwealth's workforce as of the end of the last five fiscal years.

	<u>June 2012</u>	<u>June 2013</u>	<u>June 2014</u>	<u>June 2015 (2)</u>	<u>June 2016 (3)</u>
Executive Office	69	68	70	75	75
Office of the Comptroller	108	111	113	109	107
Executive Departments					
Administration and Finance	2,784	2,823	2,882	2,983	2,595
Energy and Environmental Affairs	1,950	1,915	1,900	1,907	1,773
Health and Human Services	19,397	19,379	19,699	20,096	19,556
Board of Library Commissioners	10	10	10	11	-
Housing and Economic Development	677	684	702	699	673
Labor and Workforce Development	262	236	250	234	236
Executive Office of Education	322	359	523	399	370
Public Safety and Security	8,534	8,626	8,815	8,627	8,380
Elder Affairs	<u>37</u>	<u>38</u>	<u>39</u>	36	-
Subtotal under Governor's Authority	34,151	34,249	35,004	35,173	33,765
Judiciary	7,085	7,217	7,188	7,256	7,257
Higher Education	12,539	12,957	13,840	14,111	14,678
Other (1)	<u>10,084</u>	<u>10,356</u>	<u>10,606</u>	<u>10,701</u>	<u>10,747</u>
Subtotal funded by the Operating Budget	<u>63,859</u>	<u>64,779</u>	<u>66,638</u>	<u>67,241</u>	<u>66,447</u>
Federal Grant, Trust and Capital Funded (4)	<u>20,654</u>	<u>20,650</u>	<u>19,963</u>	<u>20,597</u>	<u>19,811</u>
Total (5)	<u>84,513</u>	<u>85,429</u>	<u>86,601</u>	<u>87,839</u>	<u>86,258</u>

SOURCE: Executive Office for Administration and Finance.

- (1) Other includes members of the Legislature and their staff, the offices of the State Treasurer, Secretary of the Commonwealth, Auditor and Attorney General, the eleven District Attorneys, the seven former county sheriffs that have become state agencies, and other agencies independent from the Governor.
- (2) June, 2015 figures do not include the approximately 2,500 executive branch employees who took advantage of the Early Retirement Incentive Program and left the state workforce as of July 1, 2015.
- (3) June, 2016 figures include the Board of Library Commissioners in Other and Elder Affairs in Health and Human Services.
- (4) The Massachusetts Department of Transportation is included in Federal Grant, Trust, and Capital Funded.
- (5) Totals may not add due to rounding

Unions and Labor Negotiations

Under Massachusetts law, all employees of the Commonwealth, with the exception of managerial and confidential employees and employees of the Legislature, have the right to bargain collectively with the Commonwealth through certified employee organizations recognized as exclusive bargaining representatives for appropriate bargaining units. The Human Resources Division of the Executive Office for Administration and Finance conducts the collective bargaining negotiations with all employees of the Commonwealth (except those noted below). Such negotiations may cover wages, hours and other terms and conditions of employment, but may not include the levels of pension and group insurance benefits. All labor agreements negotiated by the Human Resources Division are subject to approval by the Secretary of Administration and Finance and, once approved, are forwarded to the Legislature for funding approval. Labor contracts are often funded by supplemental appropriations or advance-funded through reserve accounts.

The Trial Court, the Lottery Commission, state sheriffs, the Registries of Deeds under the control of the Secretary of the Commonwealth, public higher education management and the Personal Care Attendant Workforce Council negotiate directly with their respective employee representatives, but all wage increases and other economic provisions contained in such agreements are subject to the review of the Governor and to funding approval by the Legislature. If the Governor does not recommend the requested appropriation to fund contractual increases, he may refer the contracts back to the parties for further negotiation.

Approximately 35,576 executive branch full-time-equivalent state employees are organized in 13 bargaining units, the employees of the Commonwealth's colleges and universities are organized in 30 bargaining units, and the employees of the judicial branch, MassDOT, the Lottery Commission, the Registries of Deeds,

sheriffs, Personal Care Attendants at MassHealth, and family child care providers at the Department of Early Education and Care are organized in 67 bargaining units. Public employees of the Commonwealth do not have a legal right to strike or otherwise withhold services.

The following is a description of certain terms of the most recent agreements with the collective bargaining units within the responsibility of the Human Resources Division. Negotiations have either concluded or are underway to finalize new contracts.

(1) The contract with the National Association of Government Employees, representing Units 1, 3 and 6, runs from July, 2014 to June, 2017 and provides increases of 3%, 3% and 3% in January, 2015, October, 2015 and July, 2016, respectively. The total estimated cost of the contract is \$96.3 million.

(2) The contract with the Service Employees International Union, representing employees in units 8 and 10, runs from December 31, 2013 through December 31, 2016 and provides semi-annual salary increases of 1.5% each January and July (equal to an annualized increase of 3.0%) in the years 2014, 2015 and 2016, respectively. The total estimated cost of the contract is \$107.1 million.

(3) The contract with the American Federation of State, County and Municipal Employees, representing unit 2, runs from July, 2014 through June, 2017 and provides semi-annual salary increases of 1.5% each July and January (equal to an annualized increase of 3.0%) in the years 2015, 2016 and 2017, respectively. The total estimated cost of the contract is \$53.3 million.

(4) The contract with the Massachusetts Organization of State Engineers and Scientists, representing unit 9, runs from July, 2014 through June, 2017 and provides semi-annual salary increases of 1.5% in each September and February (equal to an annualized increase of 3.0% in the years 2014, 2015 and 2016, respectively). The total estimated cost of the contract is \$20.0 million.

(5) The contract with the New England Police Benevolent Association, representing unit 4A, runs from July 1, 2014 through June 30, 2017 and provides semi-annual increases of 1.5% each July and January. The total estimated cost of the contract is \$1.2 million.

(6) The contract with the Massachusetts Nurses Association runs from January 1, 2015 through December 31, 2017 and provides semi-annual increases of 1.5%, 1.5% and 1.5% effective each January and July, (equal to an annualized increase of 3.0%) in the years 2015, 2016 and 2017, respectively. The total estimated cost of the contract is \$25.95 million.

(7) The contract with the State Police Association of Massachusetts runs from January 1, 2015 through December 31, 2017 and provides annual increases of 2%, 3.75%, and 3.75% respectively. The total estimated cost of the contract is \$38.5 million.

(8) The contract with the Massachusetts Correction Officers Federated Union runs from July 1, 2015 through June 30, 2018 and provides annual increases of 2%, 3.75% and 3.75%, effective July 1, 2015, 2016 and 2017, respectively. The total estimated cost of the contract is \$46.9 million.

(9) The contract with the Coalition of Public Safety ran from July 1, 2013 through June 30, 2015 and provided for semi-annual increases of 1.5%. The total cost of the contract was \$1.0 million. This contract has now expired and negotiations are ongoing.

(10) The contract with the International Association of Fire Fighters runs from January 1, 2015 through December 31, 2017, and provides annual increases of 2%, 3.5%, 3.5%, respectively. The total estimated cost of the contract is \$0.5 million.

The following table sets forth information regarding the 13 bargaining units that are within the responsibility of the Human Resources Division.

Human Resources Division Bargaining Units (1)

<u>Contract Unit</u>	<u>Bargaining Union</u>	<u>Type of Employee</u>	<u>FTEs</u>	<u>Contract Expiration Dates</u>
1, 3, 6	National Association of Government Employees	Clerical, Skilled Trades, Administrative Professionals	9,654	6/30/17
2	Alliance/American Federation of State, County & Municipal Employees and Service Employees International Union	Institutional services	8,085	6/30/17
4	Massachusetts Correction Officers Federated Union	Corrections	3,868	6/30/18
4A	New England Police Benevolent Association	Corrections	79	6/30/17
5	Coalition of Public Safety	Law enforcement	186	6/30/15 (2)
5A	State Police Association of Massachusetts	State Police	2,078	12/31/17
7	Massachusetts Nurses Association	Health professionals	1,539	12/31/17
8, 10	Alliance/Service Employees International Union	Social workers, Secondary Education	8,317	12/31/16
9	Massachusetts Organization of State Engineers and Scientists	Engineers/scientists	1,711	6/30/17
11	International Association of Fire Fighters	Fire fighters	59	12/31/17
		Total	35,576	

SOURCE: Executive Office for Administration and Finance.

- (1) Numbers represent full-time equivalent filled positions (FTEs) in the standard workforce as of July 9, 2016 whose positions are established in accounts funded by all sources (the annual operating budget, capital projects funds, direct federal grants and expendable trusts and other non-appropriated funds).
- (2) This contract has expired, and negotiations are ongoing.

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SELECTED FINANCIAL DATA

Stabilization Fund

The Stabilization Fund is established by state finance law as a reserve of surplus revenues to be used for the purposes of covering revenue shortfalls, covering state or local losses of federal funds or for any event which threatens the health, safety or welfare of the people or the fiscal stability of the Commonwealth or any of its political subdivisions. The fund is sometimes referred to as the state's "rainy day fund," serving as a source of financial support for the state budget in times of slow or declining revenue growth and as the primary source of protection against having to make drastic cuts in state services in periods of economic downturns.

Required Deposits and Allowable Stabilization Fund Balance. From fiscal 2005 through fiscal 2013, state finance law provided that (i) 0.5% of current year net tax revenues from each fiscal year be deposited into the Stabilization Fund at fiscal year-end, (ii) 0.5% of current-year net tax revenues be made available for the next fiscal year and (iii) any remaining amount of the year-end surplus be transferred to the Stabilization Fund. Since fiscal 2014, state finance law has required that the entire year-end surplus be transferred to the Stabilization Fund. Since fiscal 2011, state finance law has required that tax revenue from capital gains exceeding \$1 billion in a fiscal year (adjusted annually, beginning in fiscal 2014, for U. S. gross domestic product growth) be deposited into the Stabilization Fund, with 5% of such amount to be transferred to the State Retiree Benefits Trust Fund and, beginning in fiscal 2013, with an additional 5% of such amount to be transferred to the Commonwealth's Pension Liability Fund. However, all of these requirements may be modified or superseded by individual appropriation acts. Legislative enactments in 2015 retained all fiscal 2015 and fiscal 2016 capital gains tax revenues in the General Fund.

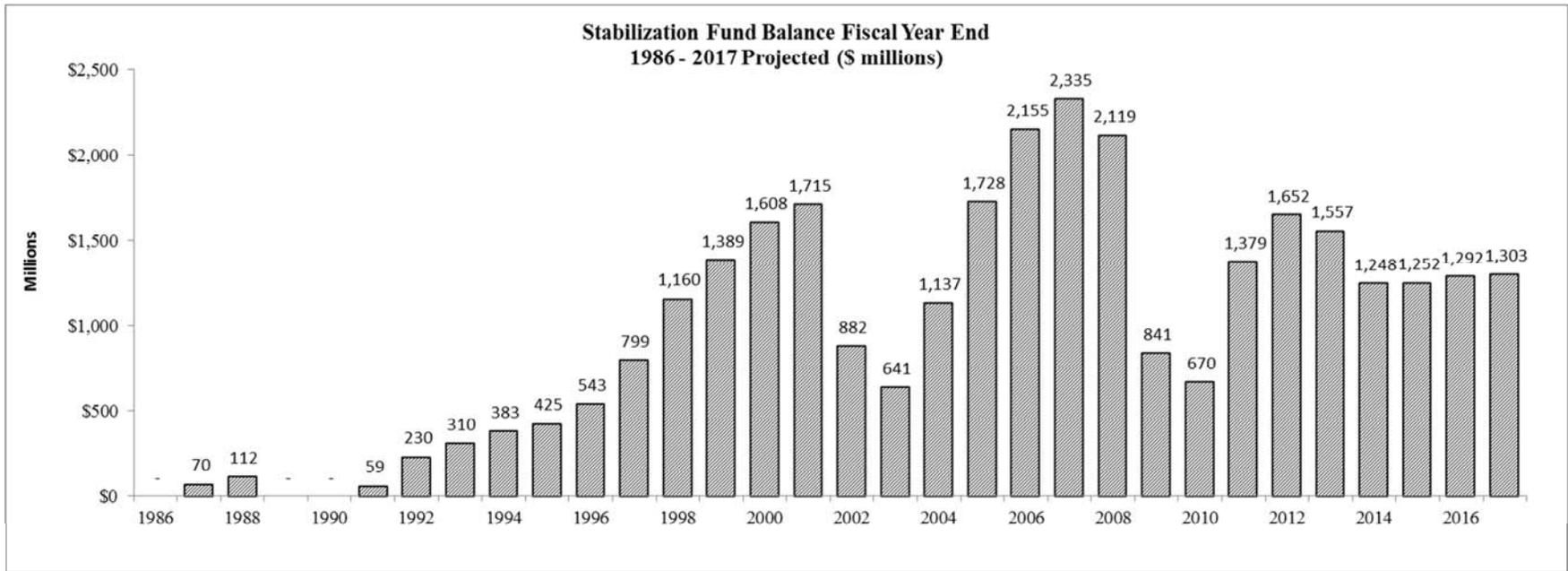
State finance law requires the Comptroller to transfer 75% of the growth in unclaimed property revenue relative to the prior year to the Stabilization Fund. In fiscal 2016, this provision resulted in a transfer of \$27.1 million to the Stabilization Fund.

The fiscal 2015 budget included a provision modifying the law with respect to settlements and judgments such that settlements and judgments in excess of \$10 million would be deposited in the Stabilization Fund only to the extent that the total of all such settlements and judgments exceeded the average of such total for the five preceding fiscal years. See "COMMONWEALTH REVENUES AND EXPENDITURES – Federal and Other Non-Tax Revenues - *Settlements and Judgments.*"

The allowable Stabilization Fund balance at fiscal year-end is 15% of total revenues for that year. If the Stabilization Fund balance exceeds the allowable limit, the excess amounts are to be transferred to the Tax Reduction Fund.

The following chart shows the Stabilization Fund balance from fiscal 1986 through fiscal 2016 (actual) and fiscal 2017 (projected).

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SOURCE: Fiscal 1986-fiscal 2016, Office of the Comptroller; fiscal 2017 (projected), Executive Office for Administration and Finance.

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The following table shows the sources and uses of the Stabilization Fund during fiscal 2012 through fiscal 2016:

Stabilization Fund Sources and Uses (in thousands)

	<u>Fiscal 2012</u>	<u>Fiscal 2013</u>	<u>Fiscal 2014</u>	<u>Fiscal 2015</u>	<u>Fiscal 2016</u>
Beginning fund balances	\$1,379,071	\$1,652,118	\$1,556,657	\$1,248,435	\$1,252,429
<u>Revenues and Other Sources</u>					
Deposit of the remaining consolidated net surplus	116,673	-	-	123,507	-
Deposits made directly during fiscal year	-	-	-	20,000 (1)	27,100 (2)
Capital gains tax transfers in excess of \$1 billion	-	467,500	45,457	-	-
Deposits due to judgments and settlements in excess of \$10 million	375,021	32,498	414,310	-	-
Lottery transfer taxes	1,353	1,291	867	647	744
Investment income	10,408	5,322	7,259	4,646	11,241
Excess permissible tax revenue	-	-	-	-	-
Total Revenues and Other Sources	<u>503,455</u>	<u>506,611</u>	<u>467,893</u>	<u>148,800</u>	<u>39,085</u>
<u>Total Expenditures and Other Uses</u>					
	<u>230,408</u>	<u>602,072</u>	<u>776,115</u>	<u>144,806</u>	<u>-</u>
Excess (Deficiency) of Revenues and Other Sources Over Expenditures and Other Uses	<u>273,047</u>	<u>(95,461)</u>	<u>(308,222)</u>	<u>3,994</u>	<u>39,085</u>
Ending fund balances	<u>\$1,652,118</u>	<u>\$1,556,657</u>	<u>\$1,248,435</u>	<u>\$1,252,429</u>	<u>\$1,291,514</u>
Allowable Stabilization Fund Balance	<u>\$4,881,982</u>	<u>\$5,066,844</u>	<u>\$5,320,973</u>	<u>\$5,735,471</u>	<u>\$6,047,764</u>

SOURCE: Office of the Comptroller.

(1) Represents repayment of Massachusetts Gaming Commission start-up funds.

(2) Represents transfer equal to 75% of the growth in abandoned property receipts from the prior fiscal year.

GAAP Basis

The Commonwealth's GAAP financial statements for the year ended June 30, 2015, incorporated herein by reference as Exhibit C, are prepared in accordance with reporting standards first established by GASB Statements 34 and 35, as amended. See "COMMONWEALTH BUDGET AND FINANCIAL MANAGEMENT CONTROLS - Fiscal Control, Accounting and Reporting Practices of Comptroller." The GAAP financial statements present a government-wide perspective, including debt, capital assets and accrual activity on a comprehensive statement of net position. All capital assets, including road and bridge infrastructure and all long-term liabilities, including outstanding debt and commitments of long-term assistance to municipalities and authorities, are part of the statements. The Commonwealth's statement of revenues, expenditures and changes in fund balances are presented as a statement of activities.

The table below presents the transition from the Commonwealth's statutory basis budgetary fund balance to the "fund perspective" balance, as depicted in the fund financial statements, and then to the Commonwealth's "entity-wide" governmental financial position. Differences between statutory and GAAP basis can be summarized in five major adjustments. Those adjustments are for Medicaid (as well as the somewhat related liability for uncompensated care), taxes, projected amounts due to the Commonwealth in the next fiscal year under the master tobacco settlement agreement, claims and judgments and amounts due to authorities. As evidenced in the trend line of fund balance (deficit) over time, however, these adjustments connect the GAAP basis measurement when viewed using a fund perspective under GAAP and the statutory basis measurement. While the difference in fund balances may vary in a given fiscal year, both balances generally trend in the same direction. To convert to a full accrual

basis, major adjustments are made for the net book value of the Commonwealth's assets, inclusive of infrastructure, the realizable value of long-term deferred revenues (largely from tax payment plans) and the amount of the Commonwealth's outstanding long-term debt and other liabilities.

Governmental Funds-Statutory to GAAP-Fund Perspective and to Governmental Net Position

(Amounts in Millions of Dollars)

Governmental Funds-Statutory Basis, June 30, 2015	
Budgeted Fund Balance	\$1,570.7
Non-budgeted special revenue fund balance	2,125.3
Capital Projects Fund Balance	<u>(524.9)</u>
Governmental Fund Balance-Statutory Basis, June 30, 2015	\$3,171.1
Plus: Expendable Trust and similar fund statutory balances that are considered governmental funds for GAAP reporting purposes	567.3
Less: Massachusetts Department of Transportation Funds	<u>(1,289.5)</u>
Adjusted Statutory Governmental Fund Balance	\$2,448.9
Short term accruals, net of allowances and deferrals for increases/(decreases):	
Taxes, net of refunds and abatements	1,967.1
Tobacco settlement agreement receivable	122.0
Medicaid	(517.0)
Assessments and other receivables	268.1
Amounts due to authorities and municipalities, net	(673.2)
Claims, judgments and other risks	(11.8)
Amounts due to healthcare providers and insurers	(30.5)
Workers' compensation and group insurance	(145.2)
Compensated absences	(11.1)
Other accruals, net	<u>366.4</u>
Net increase to governmental funds balances	\$1,334.8
Massachusetts School Building Authority fund balance	<u>1,521.5</u>
Total changes to governmental funds	\$2,856.3
Governmental fund balance (fund perspective)	5,305.2
Plus: Capital assets including infrastructure, net of accumulated depreciation	4,602.3
Deferred revenue, net of other eliminations	556.1
Long term accruals:	
Net pension liability	(24,532.0)
Net deferred (inflows)/outflows related to pensions	(1,141.9)
Post-employment benefits other than pensions cumulative over/(under) funding	(5,605.0)
Environmental remediation liability	(208.0)
Massachusetts School Building Authority debt and school construction payables	(7,690.2)
Long term debt, unamortized premiums and deferred losses on debt refundings	(24,853.1)
Compensated Absences	(566.2)
Capital leases	(42.9)
Accrued interest on bonds	(367.8)
Other long term liabilities	<u>(309.9)</u>
Total governmental net position/(deficit) (government-wide perspective)	<u>(\$54,853.4)</u>

SOURCE: Office of the Comptroller

The deficit of \$54.853 billion in government-wide net position can be largely attributed to two factors: first, the implementation of GASB Statement No. 68 which was effective for the fiscal year ending June 30, 2015. This Statement required, among other things, the Commonwealth to include for the first time the long-term net pension liability on Government-wide Statement of Net Position. As of June 30, 2015 the Commonwealth reported a net pension liability of approximately \$24.532 billion. Also contributing to the deficit was the Commonwealth's policy decision to finance the construction of assets owned by other governmental entities, particularly Commonwealth roads and bridges, which as a result of transportation reform completed during fiscal 2010 shifted these assets from the books of the Commonwealth to the Massachusetts Department of Transportation (MassDOT), a component unit

of the Commonwealth. At the end of fiscal 2015, MassDOT held \$23.637 billion in road, bridge and other transportation-related assets (excluding assets of the MBTA), net of related depreciation, the vast majority of which were formerly held by the Commonwealth. Those assets were financed by the Commonwealth, and the debt remains a long-term obligation of the Commonwealth. In addition, the Commonwealth has a net liability of \$6.128 billion in debt and grant obligations for the school building assistance program that finances construction of schools for the Commonwealth's cities and towns.

Change in Statement of Net Position

(amounts in thousands of dollars)

	<u>Governmental Activities</u>	<u>Business Type Activities</u>	<u>Government Wide</u>
Total net position:			
Fiscal 2014 (1)	(\$52,451,790)	\$5,061,186	(\$47,390,604)
Fiscal 2015	(54,853,441)	5,292,285	(49,561,156)
Change in net position	<u>(\$2,401,651)</u>	<u>\$231,099</u>	<u>(\$2,170,552)</u>

SOURCE: Office of the Comptroller

- (1) During fiscal 2015, the beginning net position of the governmental activities and business type activities were restated by approximately \$23.492 billion and \$426 million, respectively due to the implementation of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, and other various restatements; see footnote 1 of the CAFR.

During the fiscal year, approximately \$1.320 billion in restricted net position was set aside for unemployment benefits and an additional approximate \$1.164 billion was restricted for debt retirement.

Revenues – GAAP Basis. The measurement of revenues for the budgeted operating funds from a statutory basis differs from governmental revenues on a GAAP basis in that certain funds that are not governmental for statutory purposes are included on a GAAP basis, including revenue accruals for Medicaid and taxes, which are included on a GAAP basis but not on a statutory basis. In addition, internal transfers are eliminated under GAAP from an entity-wide perspective. The following table shows the distribution of major sources of revenue in fiscal 2015:

Comparison of Fiscal 2015 Governmental Revenues (in millions)

	<u>Governmental Funds</u>	<u>GAAP Basis – Governmental</u>	
	<u>Statutory Basis</u>	<u>Fund Perspective</u>	<u>Entity-wide Perspective</u>
Taxes	\$25,239	\$25,258	\$25,210
Federal Revenue	12,555	14,045	14,032
Departmental and Miscellaneous Revenue	<u>19,043</u>	<u>21,355</u>	<u>10,833</u>
Total	<u>\$56,837</u>	<u>\$60,658</u>	<u>\$50,075</u>

SOURCE: Office of the Comptroller

The following table provides financial results on a GAAP basis for all governmental operating funds of the Commonwealth for fiscal 2011 through fiscal 2015.

Governmental Fund Operations – GAAP Basis – Fund Perspective (in millions)

	<u>Fiscal 2011</u>	<u>Fiscal 2012</u>	<u>Fiscal 2013</u>	<u>Fiscal 2014</u>	<u>Fiscal 2015</u>
Beginning fund balances	\$4,585.7	\$5,267.6	\$6,318.9	\$4,869.9	\$4,619.4
Revenues and Financing Sources	53,898.4	54,370.1	55,289.9	57,210.0	60,658.6
Expenditures and Financing Uses	53,216.5	53,318.8	56,738.9	57,460.5	59,972.8
Excess/(deficit)	681.9	1,051.3	(1,449.0)	(250.5)	685.8
Ending fund balances—GAAP fund perspective	<u>\$5,267.6</u>	<u>\$6,318.9</u>	<u>\$4,869.9</u>	<u>\$4,619.4</u>	<u>\$5,305.2</u>

SOURCE: Office of the Comptroller.

Financial Reports. The Commonwealth issues annual reports, including financial statements on the statutory basis of accounting (reviewed not audited) and the GAAP basis audited financial statements. These financial statements are issued as two separate reports, the Statutory Basis Financial Report (SBFR) and the Comprehensive Annual Financial Report (CAFR). The SBFR is usually published by the Comptroller by October 31 and the CAFR is usually published by the Comptroller by the second Wednesday in January. Publication of the CAFR for the year ended June 30, 2015 was delayed until May 20, 2016 because of delays in the preparation of audited financial statements for such year by the MBTA Retirement Fund, the MBTA and MassDOT. The SBFR for the year ended June 30, 2015 and the CAFR for the year ended June 30, 2015 are attached hereto as Exhibits B and C, respectively. Copies of these financial reports are also available at the address provided under “CONTINUING DISCLOSURE.” The SBFR for fiscal 1997 through fiscal 2015 and the CAFR for fiscal 1995 through fiscal 2015 are also available on the web site of the Comptroller of the Commonwealth located at <http://www.mass.gov/comptroller> by clicking on “Financial Reports” under the “Publications and Reports” tab.

The Comptroller retains an independent certified public accounting firm to audit the Commonwealth’s financial statements and issue certain other reports required by the single audit. As part of the single audit, the independent auditors render a report on all programs involving federal funding for compliance with federal and state laws and regulations and assess the adequacy of internal control systems. For fiscal 1990 through 2015 the independent auditors’ opinions were unqualified.

For each year beginning in fiscal 1990, the Commonwealth CAFRs, from which certain information contained in this Information Statement has been derived, have been awarded the Certificate of Achievement for Excellence in Financial Reporting by the Government Finance Officers Association of the United States and Canada (GFOA). The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting. Fiscal 2015 marked the 26th consecutive year that the Commonwealth has received this award.

Discussion of Financial Condition

As the annual operating budget of the Commonwealth is adopted in accordance with the statutory basis of accounting, public and governmental discourse on the financial affairs of the Commonwealth has traditionally followed the statutory basis. Consequently, the financial information set forth in this document follows the statutory basis, except where otherwise noted. Since fiscal 1990, the Commonwealth has prepared separate audited financial reports on the statutory basis and on a GAAP basis. See “COMMONWEALTH BUDGET AND FINANCIAL MANAGEMENT CONTROLS – Fiscal Control, Accounting and Reporting Practices of Comptroller; *Financial Reports.*” Without limiting the generality of the references to the SBFR for the year ended June 30, 2015 and the CAFR for the year

ended June 30, 2015, attention is called in particular to the portion of the CAFR under the heading “Management’s Discussion and Analysis.”

Auditors’ Report on Fiscal 2015 CAFR

The basic financial statements included in the CAFR of the Commonwealth for the year ended June 30, 2015 were audited by KPMG LLP (KPMG). The KPMG audit report dated May 18, 2016 on the general purpose financial statements included in the CAFR for the year ended June 30, 2015 contained an unqualified opinion. A copy of the audit report of KPMG dated May 18, 2016 has been filed with EMMA and is included within Exhibit C to this Information Statement. KPMG has not been engaged to perform, and has not performed, since the respective dates of its reports included herein, any procedures on the financial statements addressed in such reports, nor has said independent auditor performed any procedures relating to any official statement of which this Information Statement may be a part.

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FISCAL 2016 AND FISCAL 2017

Fiscal 2016

On January 30, 2015, a fiscal 2016 consensus tax revenue estimate of \$25.479 billion was agreed upon by the Secretary of Administration and Finance and the chairs of the House and Senate Committees on Ways and Means. After accounting for statutorily required transfers for pensions, to the MBTA, the MSBA and the Workforce Training Fund, and including expected capital gains tax revenue in excess of the fiscal 2016 threshold, the Secretary and Committee chairs agreed that \$21.396 billion would be the maximum amount of tax revenue available for the fiscal 2016 budget. See “COMMONWEALTH REVENUES AND EXPENDITURES – Fiscal 2016 and 2017 Tax Revenues; *Fiscal 2016.*”

An interim budget for the first month of fiscal 2016 was approved by the Governor on June 23, 2015. The fiscal 2016 budget was enacted by the Legislature on July 8, 2015 and approved by the Governor on July 17, 2015. Total spending in the fiscal 2016 budget approved by the Governor amounted to approximately \$38.2 billion, after accounting for \$162.8 million in vetoes.

The fiscal 2016 budget was approximately 3.4% greater than fiscal 2015 estimated spending levels at the time of its approval. This calculation assumed that a \$565.5 million transfer from the General Fund to the Medical Assistance Trust Fund, which was delayed into fiscal 2016 to await necessary federal approval, counted as fiscal 2015 actual spending. The fiscal 2016 budget relied on approximately \$629 million in fiscal initiatives, including retaining projected \$300 million above-threshold capital gains tax revenues in the General Fund (rather than transferring to the Stabilization Fund), projected \$100 million from a non-filer tax amnesty program, \$67 million transfer from the Commonwealth Care Trust Fund, \$46 million from FAS 109 delay and projected savings resulting from cash management in the MassHealth program. The fiscal 2016 budget also assumed savings for fiscal 2016 debt service attributable to the \$113.2 million debt defeasance included in the final fiscal 2015 supplemental appropriation bill.

The fiscal 2016 budget also assumed gross payroll related savings of approximately \$200 million due to an early retirement incentive program (“ERIP”) signed into law by the Governor on May 4, 2015. The ERIP was projected to increase the Commonwealth’s annual required contribution to the pension fund for the next 15 years by approximately \$29.2 million annually. The fiscal 2016 budget provides for this additional contribution. See “PENSION AND OPEB FUNDING – Funding Schedule.”

Legislation that was approved as part of the fiscal 2016 budget established a Fiscal Management and Control Board to focus specifically on improving management of the MBTA and allowed the University of Massachusetts to retain all the tuition it collects. See “COMMONWEALTH REVENUES AND EXPENDITURES – Education; *Department of Higher Education.*”

On July 28, 2015, the Legislature passed overrides to the Governor’s vetoes in the amount of \$97.9 million. On August 6, 2015, the Governor approved legislation that authorized a two-day suspension of the sales tax on August 15 and 16, 2015, which resulted in approximately \$25.5 million in foregone revenue.

On October 15, 2015, the Secretary of Administration and Finance maintained the fiscal 2016 tax revenue estimate of \$25.611 billion without change and reduced the non-tax revenue estimate by \$145 million.

On January 14, 2016, the Secretary of Administration and Finance revised the fiscal 2016 tax revenue estimate upwards by \$140 million, for a revised estimate of \$25.751 billion. On the same day, the Governor reduced spending allotments pursuant to his Section 9C authority by \$47 million. The Governor also identified non-tax revenue solutions worth \$56 million. This combination of revenue and spending adjustments resulted in a remaining statutory budget gap of approximately \$75 million.

On April 1, 2016, the Governor approved a supplemental budget for fiscal 2016 including \$167.6 million in supplemental appropriations. The bill consisted of routine midyear appropriations for identified deficiencies, including emergency assistance and shelter diversion costs (\$44 million), representation of indigent defendants (\$26 million), recognized sheriffs’ deficiencies (\$18 million), collective bargaining costs (\$16 million), settlement

and judgments (\$13 million), MassHealth (\$11 million), and labor costs at the University of Massachusetts (\$10.9 million).

On July 21, 2016, the Governor approved a supplemental budget for fiscal 2016 including \$24 million in appropriations. The bill consisted of routine mid-year appropriations recommended by the Governor in February for representation of indigent defendants (\$14 million) and sheriffs' deficiencies (\$10 million). It also authorized transferability between MassHealth line items, and continued certain prior appropriations.

On October 6, 2016, the Governor approved a final supplemental budget for fiscal 2016 containing \$187 million in fiscal 2016 appropriations (\$23 million net state cost), which provided funding for certain caseload-driven accounts, such as representation of indigent defendants, and which provided funding for two time-sensitive fiscal 2017 needs (student assessments and substance abuse services). The bill extended into fiscal 2017 certain spending authorizations which would otherwise have expired at the end of fiscal 2016 and appropriated \$5 million for newly identified fiscal 2017 spending needs. Outside sections effectuated certain year-end transfers intended to close the fiscal year in balance, and made other technical or corrective changes in law.

Fiscal 2017

On January 14, 2016, a fiscal 2017 consensus tax revenue estimate of \$26.860 billion was agreed upon by the Secretary of Administration and Finance and the chairs of the House and Senate Committees on Ways and Means. The fiscal 2017 consensus tax revenue estimate represented actual revenue growth of 4.3% from the revised fiscal 2016 estimate of \$25.751 billion. After accounting for statutorily required transfers for pensions, to the MBTA, the MSBA, and the Workforce Training Fund, the Secretary and Committee chairs agreed that \$22.772 billion would be the maximum amount of tax revenue available for the fiscal 2017 budget. See "COMMONWEALTH REVENUES AND EXPENDITURES – Fiscal 2016 and 2017 Tax Revenues; *Fiscal 2017*."

As a result of the Commonwealth's relatively slow tax filing season in the spring of 2016, the tax revenue estimates on which the fiscal 2017 budget was based were revised to approximately \$26.231 billion (after overrides) by the budget conferees, resulting in approximately \$24.372 billion as the maximum amount of tax revenue available for the budget, after accounting for transfers and other adjustments. See "COMMONWEALTH REVENUES AND EXPENDITURES – Fiscal 2016 and Fiscal 2017 Tax Revenues; *Fiscal 2017*."

An interim budget of approximately \$5.3 billion for the first month of fiscal 2017 was enacted by the Legislature on June 23, 2016 and approved by the Governor on June 27, 2016. The interim budget was immediately superseded by the fiscal 2017 budget when it went into effect. The fiscal 2017 budget was enacted by the Legislature on June 30, 2016 and approved by the Governor on July 8, 2016. Total authorized line item spending in the fiscal 2017 budget approved by the Governor amounted to approximately \$38.92 billion, after accounting for \$264 million in line item vetoes. Excluding spending from beginning balances and excluding certain transfers in both years, the fiscal 2017 budget as signed was approximately \$489 million, or 1.3%, greater than fiscal 2016 estimated spending levels at the time of its approval. An increase in the pension transfer represented an additional \$226 million in increased spending over fiscal 2016 levels.

At the time he approved the budget, the Governor filed a supplemental budget for fiscal 2017, which proposed additional appropriations for identified deficiencies totaling \$177 million, net of offsetting revenues.

Through July 31, 2016, the Legislature passed overrides to the Governor's vetoes in the aggregate amount of \$219 million, net of offsetting revenue impacts and increased caseload exposures, including approximately \$112.7 million for the MassHealth program.

On October 14, 2016, the Secretary of Administration and Finance revised the tax revenue projection downward by \$175 million to \$26.056 billion, to reflect slower-than-expected growth in sales tax collections. Also on October 14, 2016, the Secretary of Administration and Finance reported to the Governor a budget shortfall of \$294 million. The projected deficiency reflects both the tax revenue reduction of \$175 million and non-discretionary spending obligations for indigent defendants' legal costs, projected snow and ice costs, shelter and settlement and judgment costs, approximately \$106 million of which had previously been recognized in the fiscal 2017 supplemental budget filed by the Governor in July. On October 27, 2016, the Secretary of Administration and

Finance reported to the House and Senate Committees on Ways and Means that she had identified solutions to close the announced gap. These solutions include unneeded trust balances and other budget closing measures identified but not ultimately needed to close fiscal 2016, increased non-tax revenue, decreased transfers to the MBTA and MSBA due to the lower sales tax projection, and payroll savings. The Secretary also communicated that the Executive Office for Administration and Finance is tracking additional deficiencies, including approximately \$100 million in additional MassHealth spending net of projected reimbursements, and is in the process of identifying solutions within the MassHealth program to manage spending within appropriated amounts, but further reductions or other actions may ultimately be necessary. See “COMMONWEALTH REVENUES AND EXPENDITURES – Medicaid and the Health Connector.”

The Executive Office for Administration and Finance will continue to monitor revenues and spending and will actively manage the Commonwealth’s budget in fiscal 2017. The Secretary for Administration and Finance expects to implement measures to ensure that the Commonwealth’s budget will achieve statutory balance. Those measures include, but are not limited to, reducing allotments, maintaining payroll caps and other hiring limitations and otherwise imposing spending controls.

Cash Flow

The State Treasurer is responsible for cash management and ensuring that all Commonwealth financial obligations are met on a timely basis. See “COMMONWEALTH BUDGET AND FINANCIAL MANAGEMENT CONTROLS – Cash Management Practices of State Treasurer.” The Commonwealth does not engage in inter-fund borrowing. Cash flow management incorporates the periodic use of short-term borrowing to meet cash flow needs for both capital and operating expenditures. All revenue anticipation notes, including those issued as commercial paper, must be repaid by the end of the fiscal year. The state currently has liquidity support for a \$400 million commercial paper program for general obligation notes. The Commonwealth has relied upon the commercial paper program for additional liquidity since 2002.

The Commonwealth ended fiscal 2016 with a non-segregated cash balance of approximately \$2.398 billion. Fiscal 2017 is projected to end with a balance of approximately \$2.287 billion.

The fiscal 2016 and 2017 cash flow statements prepared by the State Treasurer as of September 1, 2016 are summarized in the tables below. Fiscal 2016 is based on actual spending and revenue through June, 2016. The fiscal 2017 statement is based upon the fiscal 2017 budget approved by the Governor on July 8, 2016 and subsequent overrides of the Governor’s vetoes. Quarterly cash flow statements, as submitted by the State Treasurer to the House and Senate Committees on Ways and Means, are posted on the cash management page of the State Treasurer’s website.

Commonwealth cash deposits are held in insured or collateralized bank accounts and with the Massachusetts Municipal Depository Trust (MMDT), the Commonwealth’s investment pool for governmental entities. MMDT is comprised of two portfolios, professionally managed by Federated Investors Inc., the Cash Portfolio and the Short Term Bond Fund. The Cash Portfolio investments are carried at amortized cost, which approximates fair value and the Short Term Bond Fund investments are carried at fair value. General operating cash is invested in the cash portfolio, and moneys in the Stabilization Fund, which are not used by the Commonwealth for liquidity, are invested in both the cash portfolio and the short-term bond fund.

The Cash Portfolio invests in a diversified portfolio of high quality United States dollar-denominated money market instruments (eligible under Rule 2a-7 of the Securities and Exchange Commission) of domestic and foreign issuers, United States government securities and repurchase agreements. As of September 30, 2016, the Cash Portfolio holdings were made up of commercial paper and notes (50.4 %), variable rate instruments (12.1 %), repurchase agreements (15.4 %) and bank instruments (22.1 %). As of September 30, 2016 the Cash Portfolio’s monthly weighted average life was 64 days, and the monthly weighted average maturity was 54 days. The three objectives for the cash portfolio are safety, liquidity and yield. The cash portfolio maintains a stable net asset value of one dollar and is marked to market daily. The Cash Portfolio is fully compliant with GASB 79 as of July 1, 2016.

The Short Term Bond Fund invests in a diversified portfolio of investment grade debt securities. As of August 31, 2016, the Short Term Bond Fund holdings were made up of U. S. Treasury securities (55.1%), Financial

Institution – Banking (6.3%), FNMA MBS (2.3%), Technology (3.4%), FHLMC MBS (3.1%), Utility – Electric (3.2%), Commercial MBS (1.5%), Consumer Non-Cyclical Food/Beverage (1.8%), Energy – Integrated (1.4%), Consumer Cyclical – Pharmaceuticals (1.4%), Other (20.5%). The Other (20.1%) is composed of over 30 sub-sectors, ranging from 1.1% to 0.02%, which broadly can be classified as the following: Financial (3.4%); Consumer non-cyclical (2.9%); Energy (2.6%); Communications (2.3%); Consumer Cyclical (2.1%); Capital Goods (1.8%); FHLMC Agency (1.1%); FNMA Agency (1.1%); Transportation (1.0%); Basic Industry (0.4%); and Utility (0.3%). The short-term bond fund seeks to obtain the highest possible level of current income consistent with preservation of capital and liquidity. The portfolio is required to maintain an average credit rating of A-. The duration of the portfolio is managed to within +/- one half year duration of the benchmark. The benchmark for the short-term bond fund is the Barclays Capital 1-to-5-year Government/Credit Index, which includes all medium and larger issues of United States government, investment-grade corporate and investment-grade international dollar-denominated bonds.

The fiscal 2016 capital plan projected \$3.963 billion of spending on capital projects, including \$2.125 billion of bond cap spending, approximately \$374.6 million of spending authorized under the accelerated bridge program (ABP), approximately \$353.0 million in special obligation spending for rail enhancement projects (REP), approximately \$657.1 million in federal reimbursements and grants, approximately \$64.0 million of spending on projects funded by anticipated savings or revenues, approximately \$144.1 million from non-commonwealth sources such as contributions from campuses, and approximately \$245.0 million in pay-as-you-go capital funded by operating funds, including tolls.

For cash flow needs for fiscal year 2017, the State Treasurer issued \$1.5 billion in RANs on August 30, 2016. As in previous years, the RANs are scheduled to mature in April, May and June of the same fiscal year.

The fiscal 2017 capital plan currently projects \$4.146 billion of spending on capital projects, including \$2.19 billion of bond cap spending, approximately \$472.4 million of special obligation bond spending authorized under the accelerated bridge program (ABP) and for rail enhancement projects (REP), approximately \$877.5 million in federal reimbursements and grants, approximately \$77.7 million of spending on projects funded by anticipated savings or revenues, approximately \$330.0 million from non-commonwealth sources such as contributions from campuses, and approximately \$198.4 million in pay-as-you-go capital funded by operating funds, including tolls.

The next official, quarterly cash flow statement is expected to be released on or about November 30, 2016.

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The following table provides General Fund ending cash balances by month for fiscal 2013 through fiscal 2017.

Month End General Fund Cash Balances (in millions)
(as of September 1, 2016)

	<u>Fiscal 2013</u>	<u>Fiscal 2014</u>	<u>Fiscal 2015</u>	<u>Fiscal 2016</u>	<u>Fiscal 2017</u>
July	\$ 1,944.4	\$ 1,253.7	\$ 768.9	\$1,380.2	\$1,864.0
August	1,505.4	1,065.1	948.9	551.4	2,029.9 (1)
September	675.8	1,918.9	1,762.7	1,951.6	2,375.6 (1)
October	2,175.8	1,744.4	1,453.2	1,421.0	2,447.9 (1)
November	1,625.7	1,272.2	1,240.7	787.7	2,100.1 (1)
December	1,018.4	1,437.6	991.5	1,029.8	2,060.8 (1)
January	1,597.6	1,186.3	953.9	1,487.5	2,411.3 (1)
February	1,334.9	603.2	414.1	862.0	1,701.8 (1)
March	368.3	749.5	743.0	1,280.0	1,975.3 (1)
April	2,001.3	1,204.6	1,860.9	2,044.2	2,283.8 (1)
May	1,829.7	703.9	1,691.2	2,276.6	2,019.9 (1)
June	2,276.6	1,340.8	2,140.5	2,397.8	2,286.6 (1)

SOURCE: Office of the Treasurer and Receiver-General.

(1) Fiscal 2017 ending balances are estimated for August to June.

The following tables provide cash flow detail for fiscal 2016 and fiscal 2017.

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Overview of Fiscal 2016 Non-Segregated Operating Cash Flow (in millions) (1)
(as of September 1, 2016)

	<u>Jul-15</u>	<u>Aug-15</u>	<u>Sep -15</u>	<u>Oct-15</u>	<u>Nov -15</u>	<u>Dec-15</u>	<u>Jan-16</u>	<u>Feb-16</u>	<u>Mar-16</u>	<u>Apr-16</u>	<u>May-16</u>	<u>June-16</u>	Total FY 2016
Opening Non-Segregated Operating Cash Balance	\$2,140.6	\$1,380.2	\$551.4	\$1,951.6	\$1,421.0	\$787.7	\$1,029.8	\$1,487.5	\$862.0	\$1,280.0	\$2,044.2	\$2,276.6	\$2,140.6
Operating Activities:													
Budgetary Funds:													
<i>Transfer from/(to) Stabilization Fund</i>	0.0	0.0	(0.1)	0.0	(123.5)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(123.6)
Total Budgetary Revenue/Inflows	3,233.8	3,137.5	3,479.1	2,931.1	3,208.0	3,587.7	3,776.7	3,001.1	3,736.9	4,637.2	3,372.7	4,282.8	42,384.6
Total Budgetary Expenditures/Outflows	3,950.0	3,366.9	3,065.9	3,569.7	3,280.2	2,990.1	3,181.4	3,289.8	3,257.9	3,401.4	3,045.7	2,712.3	39,111.4
Net Budgetary Funds	(716.2)	(229.4)	413.3	(638.6)	(72.3)	597.6	595.4	(288.7)	479.0	1,235.8	327.0	1,570.5	3,273.2
Non Budgetary Funds (Non Budgetary, Higher Ed and Trust Funds):													
Total Non Budgetary Revenue/Inflows	1,243.6	855.1	776.9	1,030.4	915.7	752.7	949.5	671.9	816.3	818.2	1,313.0	584.6	10,727.8
Total Non Budgetary Expenditures/Outflows	1,166.8	1,145.8	1,040.5	923.8	1,684.1	1,274.0	1,048.3	1,049.4	1,158.7	964.0	943.4	1,473.9	13,872.9
Net Non Budgetary Funds	76.8	(290.7)	(263.6)	106.5	(768.4)	(521.4)	(98.8)	(377.6)	(342.4)	(145.8)	369.6	(889.4)	(3,145.1)
Net Undesignated Revenue/Inflows and Expenditures/Outflows	1.3	1.7	15.9	1.6	1.6	2.1	0.8	3.5	2.4	4.3	2.5	4.1	41.7
Net Operating Activities	(\$638.2)	(\$518.4)	\$165.5	(\$530.5)	(\$839.1)	\$78.3	\$497.4	(\$662.8)	\$139.0	\$1,094.3	\$699.0	\$685.2	\$169.8
Federal Grants:													
Total Federal Grants Revenue/Inflows	155.5	177.8	200.3	143.0	103.9	155.3	204.8	250.2	249.4	192.1	243.1	329.9	2,405.3
Total Federal Grants Expenditures/Outflows	193.1	203.8	139.3	166.7	196.8	211.6	189.2	203.5	218.3	186.8	237.2	233.0	2,379.2
Net Federal Grants	(\$37.7)	(\$25.9)	\$61.0	(\$23.7)	(\$92.9)	(\$56.3)	\$15.6	\$46.7	\$31.2	\$5.3	\$5.9	\$96.9	\$26.1
Capital Funds:													
Total Capital Revenue/Inflows	284.3	123.7	281.3	268.0	403.2	521.4	171.8	218.1	491.1	270.8	183.5	270.6	3,487.9
Total Capital Expenditures/Outflows	368.8	408.3	307.7	244.4	304.5	301.4	227.1	227.4	243.3	201.7	250.8	325.3	3,410.6
Net Capital Funds	(\$84.5)	(\$284.5)	(\$26.4)	\$23.6	\$98.7	\$220.0	(\$55.2)	(\$9.4)	\$247.8	\$69.2	(\$67.3)	(\$54.8)	\$77.2
Financing Activities:													
Cash Flow Financing Activities Inflows:													
<i>Commercial Paper</i>	0.0	0.0	0.0	0.0	200.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	200.0
<i>Revenue Anticipation Notes (RANS)</i>	0.0	0.0	1,200.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,200.0
Total Cash Flow Financing Activities Inflows	0.0	0.0	1,200.0	0.0	200.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,400.0
Cash Flow Financing Activities Outflows:													
<i>Commercial Paper – (Principal + Interest)</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	200.2	200.3
<i>RANS – (Principal + Interest)</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	404.6	405.2	405.8	1,215.7
Total Cash Flow Financing Activities Outflows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	404.6	405.3	606.0	1,415.9
Net Financing Activities	\$0.0	\$0.0	\$1,200.0	\$0.0	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$404.6)	(\$405.3)	(\$606.0)	(\$15.9)
Ending Non-Segregated Operating Cash Balance	\$1,380.2	\$551.4	\$1,951.6	\$1,421.0	\$787.7	\$1,029.8	\$1,487.5	\$862.0	\$1,280.0	\$2,044.2	\$2,276.6	\$2,397.8	\$2,397.8

SOURCE: Office of the Treasurer and Receiver-General.

(1) Totals may not add due to rounding.

Overview of Fiscal 2017 Non-Segregated Operating Cash Flow (in millions) (1)
(as of September 1, 2016)

	<u>Jul-16</u>	<u>Aug-16 (2)</u>	<u>Sep-16 (2)</u>	<u>Oct-16 (2)</u>	<u>Nov-16 (2)</u>	<u>Dec-16 (2)</u>	<u>Jan-17 (2)</u>	<u>Feb-17 (2)</u>	<u>Mar-17 (2)</u>	<u>Apr-17 (2)</u>	<u>May-17 (2)</u>	<u>June-17 (2)</u>	<u>Total FY 2017 (2)</u>
Opening Non-Segregated Operating Cash Balance	\$2,397.8	\$1,864.0	\$2,029.9	\$2,375.6	\$2,447.9	\$2,100.1	\$2,060.8	\$2,411.3	\$1,701.8	\$1,975.3	\$2,283.8	\$2,019.9	\$2,397.8
Operating Activities:													
Budgetary Funds:													
<i>Transfer from/(to) Stabilization Fund</i>	0.0	0.0	0.0	0.0	(35.7)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(35.7)
Total Budgetary Revenue/Inflows	3,142.5	3,290.5	3,653.6	2,941.7	3,123.4	3,563.0	3,880.1	2,937.6	3,927.0	4,564.8	3,547.9	4,156.1	42,728.0
Total Budgetary Expenditures/Outflows	4,126.3	4,333.2	3,023.4	3,179.5	3,314.1	3,143.7	3,305.7	3,424.1	3,457.4	3,442.7	3,060.0	3,097.2	40,907.1
Net Budgetary Funds	(983.8)	(1,042.7)	630.2	(237.8)	(190.7)	419.3	574.4	(486.5)	469.6	1,122.1	487.8	1,058.9	1,820.9
Non Budgetary Funds (Non Budgetary, Higher Ed and Trust Funds):													
Total Non Budgetary Revenue/Inflows	1,373.2	922.0	974.5	1,198.5	917.8	1,039.3	917.4	894.5	926.6	889.1	951.3	970.5	11,974.9
Total Non Budgetary Expenditures/Outflows	1,146.7	1,126.0	1,248.2	1,082.7	1,094.1	1,480.3	1,126.1	1,138.2	1,120.5	1,134.1	1,185.6	1,194.0	14,076.6
Net Non Budgetary Funds	226.5	(204.0)	(273.7)	115.8	(176.3)	(441.0)	(208.7)	(243.7)	(193.9)	(245.0)	(234.3)	(223.4)	(2,101.7)
Net Undesignated Revenue/Inflows and Expenditures/Outflows	2.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	15.6
Net Operating Activities	(\$754.9)	(\$1,245.5)	\$357.7	(\$120.8)	(\$365.7)	(\$20.5)	\$366.9	(\$729.0)	\$276.9	\$878.4	\$254.7	\$836.7	(\$265.2)
Federal Grants:													
Total Federal Grants Revenue/Inflows	77.9	220.0	180.0	170.0	195.0	190.0	180.0	190.0	200.0	180.0	180.0	210.0	2,172.9
Total Federal Grants Expenditures/Outflows	197.1	204.1	176.8	193.9	198.3	223.8	195.2	191.8	214.9	198.3	203.8	210.2	2,408.0
Net Federal Grants	(\$119.2)	\$15.9	\$3.2	(\$23.9)	(\$3.3)	(\$33.8)	(\$15.2)	(\$1.8)	(\$14.9)	(\$18.3)	(\$23.8)	(\$0.2)	(\$235.1)
Capital Funds:													
Total Capital Revenue/Inflows	656.5	282.8	314.1	525.5	312.5	295.8	255.5	254.2	228.4	233.9	307.8	274.1	3,941.2
Total Capital Expenditures/Outflows	316.3	387.3	329.3	308.5	291.3	280.8	256.7	233.0	216.9	279.0	295.3	335.8	3,530.2
Net Capital Funds	\$340.3	(\$104.5)	(\$15.2)	\$217.0	\$21.2	\$15.0	(\$1.2)	\$21.2	\$11.5	(\$45.1)	\$12.5	(\$61.7)	\$411.0
Financing Activities:													
Cash Flow Financing Activities Inflows:													
<i>Commercial Paper</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Revenue Anticipation Notes (RANS)</i>	0.0	1,500.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,500.0
Total Cash Flow Financing Activities Inflows	0.0	1,500.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,500.0
Cash Flow Financing Activities Outflows:													
<i>Commercial Paper – (Principal + Interest)</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>RANS – (Principal + Interest)</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	506.5	507.3	508.2	1,522.0
Total Cash Flow Financing Activities Outflows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	506.5	507.3	508.2	1,522.0
Net Financing Activities	\$0.0	\$1,500.0	\$0.0	(\$506.5)	(\$507.3)	(\$508.2)	(\$22.0)						
Ending Non-Segregated Operating Cash Balance	\$1,864.0	\$2,029.9	\$2,375.6	\$2,447.9	\$2,100.1	\$2,060.8	\$2,411.3	\$1,701.8	\$1,975.3	\$2,283.8	\$2,019.9	\$2,286.6	\$2,286.6

SOURCE: Office of the Treasurer and Receiver-General.

(1) Totals may not add due to rounding.

(2) Figures for are estimated.

LONG-TERM LIABILITIES

General Authority to Borrow

Under its constitution, the Commonwealth may borrow money (a) for defense or in anticipation of receipts from taxes or other sources, any such loan to be paid out of the revenue of the year in which the loan is made, or (b) by a two-thirds vote of the members of each house of the Legislature present and voting thereon. The constitution further provides that borrowed money shall not be expended for any other purpose than that for which it was borrowed or for the reduction or discharge of the principal of the loan. In addition, the Commonwealth may give, loan or pledge its credit by a two-thirds vote of the members of each house of the Legislature present and voting thereon, but such credit may not in any manner be given or loaned to or in aid of any individual, or of any private association, or of any corporation which is privately owned or managed.

The Commonwealth has waived its sovereign immunity and consented to be sued on contractual obligations, which includes bonds and notes issued by it and all claims with respect thereto. However, the property of the Commonwealth is not subject to attachment or levy to pay a judgment, and the satisfaction of any judgment generally requires legislative appropriation. Enforcement of a claim for payment of principal of or interest on bonds and notes of the Commonwealth may also be subject to the provisions of federal or Commonwealth statutes, if any, hereafter enacted extending the time for payment or imposing other constraints upon enforcement, insofar as the same may be constitutionally applied. The United States Bankruptcy Code is not applicable to states.

Commonwealth Debt. The State Treasurer is statutorily responsible for the borrowing needs of the Commonwealth, including short-term cash flow needs and long-term borrowing needs for the capital budget. Borrowing is accomplished through the sale of short-term notes and long-term bonds. The Commonwealth is authorized to issue three types of direct debt – general obligation debt, special obligation debt and federal grant anticipation notes. General obligation debt is secured by a pledge of the full faith and credit of the Commonwealth. See “General Obligation Debt” below. Special obligation debt may be secured either with a pledge of receipts credited to the Commonwealth Transportation Fund (formerly the Highway Fund) or with a pledge of receipts credited to the Convention Center Fund. See “Special Obligation Debt” below. Federal grant anticipation notes are secured by a pledge of federal highway construction reimbursements. See “Federal Grant Anticipation Notes” below.

Other Long-Term Liabilities. The Commonwealth is also authorized to pledge its credit in aid of and provide contractual support for certain independent authorities and political subdivisions within the Commonwealth. These Commonwealth liabilities are classified as general obligation contract assistance liabilities or contingent liabilities. In addition, the Commonwealth is authorized to pledge its credit in support of scheduled, periodic payments to be made by the Commonwealth under interest rate swaps and other hedging agreements related to bonds or notes of the Commonwealth.

General obligation contract assistance liabilities arise from statutory requirements for (i) payments by the Commonwealth to the Massachusetts Clean Water Trust, the Massachusetts Department of Transportation and the Massachusetts Development Finance Agency that are used by such entities to pay a portion of the debt service on certain of their outstanding bonds and (ii) payments from the Social Innovation Financing Trust Fund on “pay for success” contracts, as described below. Such liabilities constitute a pledge of the Commonwealth’s credit for which a two-thirds vote of the Legislature is required. See “General Obligation Contract Assistance Liabilities” below.

Contingent liabilities relate to debt obligations of certain independent authorities and agencies of the Commonwealth that are expected to be paid without Commonwealth assistance, but for which the Commonwealth has some kind of liability if expected payment sources do not materialize. These liabilities consist of guaranties and similar obligations with respect to which the Commonwealth’s credit has been or may be pledged, as in the case of certain debt obligations of the MBTA (pre-2000), the Woods Hole, Martha’s Vineyard and Nantucket Steamship Authority, and the higher education building authorities. The Commonwealth has certain statutorily contemplated payment obligations with respect to which the Commonwealth’s credit has not been pledged, as in the case of the Commonwealth’s obligation to fund debt service, solely from moneys otherwise appropriated for the affected institution, owed by certain community colleges and state universities on bonds issued by the former Massachusetts

Health and Educational Facilities Authority (now the Massachusetts Development Finance Agency) and the Massachusetts State College Building Authority. See “Contingent Liabilities” below.

Statutory Limit on Direct Debt. Since December, 1989, state finance law has included a limit on the amount of outstanding “direct” bonds of the Commonwealth. For fiscal 2012, the debt limit was \$18.944 billion under the statute in place during fiscal 2012. In August, 2012, state finance law was amended, effective January 1, 2013, to specify that the debt limit be calculated for fiscal years starting in fiscal 2013 using a fiscal 2012 base value of \$17,070,000,000 and increasing the limit for each subsequent fiscal year to 105% of the previous fiscal year’s limit. Based on this calculation, the statutory limit on “direct” bonds during fiscal 2017 is \$21,786,126,272. Prior to June 10, 2013, this limit was calculated using a statutory definition that differed from GAAP in that the principal amount of outstanding bonds included the amount of any premium and was measured net of any discount, costs of issuance and other financing costs (“net proceeds”). On June 10, 2013, state finance law was amended, effective January 1, 2013, to change the statutory definition of outstanding debt from net proceeds to principal outstanding, a change that brings the outstanding debt definition in conformance with GAAP.

The debt limit law provides that bonds to be refunded from the proceeds of Commonwealth refunding bonds are to be excluded from outstanding “direct” bonds upon the issuance of the refunding bonds. Pursuant to special legislation enacted over the years, certain outstanding Commonwealth debt obligations are not counted in computing the amount of bonds subject to the limit, including Commonwealth refunding/restructuring bonds issued in September and October, 1991, federal grant anticipation notes, bonds issued to pay operating notes issued by the MBTA or to reimburse the Commonwealth for advances to the MBTA, bonds payable from the Central Artery and Statewide Road and Bridge Infrastructure Fund, bonds issued to finance the Massachusetts School Building Authority and bonds issued to finance the Commonwealth’s Accelerated Bridge Program. On August 10, 2016, the Governor approved legislation that exempts from the statutory debt limit bonds that are issued to finance the Commonwealth’s rail enhancement program.

The outstanding Commonwealth debt, the amounts of such outstanding debt excluded from the statutory debt limit, the net amounts of such outstanding Commonwealth debt subject to the statutory debt limit and the statutory debt limit as of the end of each of the last five fiscal years are shown in the following table on a statutory basis. Previous versions of this table published in Commonwealth Information Statements and in the corresponding schedules to the Commonwealth’s Comprehensive Annual Financial Reports contained incorrect information for fiscal 2012. That information has been corrected in this table. For fiscal 2012, the table below shows the calculation of the debt limit prior to the passage of the legislation approved on June 10, 2013, as described above, and is presented showing net proceeds. For fiscal 2013 and thereafter the limit calculations are presented showing principal amounts as required by the amended law.

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Calculation of the Debt Limit
(in thousands)

	<u>Fiscal 2012</u>	<u>Fiscal 2013 (4)</u>	<u>Fiscal 2014 (5)</u>	<u>Fiscal 2015</u>	<u>Fiscal 2016 (6)</u>	<u>Fiscal 2017 (7)</u>
Principal balance	\$21,433,553	\$21,513,039	\$22,419,852	\$23,826,301	\$25,079,591	\$25,356,895
Plus/ (less) amounts excluded:						
Net unamortized (discount)/premium and issuance costs	<u>477,815</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Total net proceeds/principal	21,911,368	21,513,039	22,419,852	23,826,301	25,079,591	25,356,895
Less: net proceeds/principal of direct debt excluded from the statutory debt limit:						
Special obligation debt (1)	(986,050)	(935,095)	(888,405)	(829,340)	(768,365)	(768,365)
Accelerated bridge program	(1,035,859)	(988,605)	(1,403,850)	(1,495,150)	(1,535,890)	(1,535,890)
Rail enhancement program (2)	-	-	-	-	-	(450,000)
Federal grant anticipation notes (1)	(628,290)	(449,100)	(530,935)	(699,855)	(657,040)	(657,040)
Assumed county debt	(75)	-	-	-	-	-
MBTA forward funding	(207)	(207)	(207)	(207)	(207)	(207)
Transportation Infrastructure Fund	(1,345,406)	(1,303,013)	(1,241,263)	(1,197,127)	(1,150,296)	(1,131,096)
School Building Assistance (SBA)	<u>(811,088)</u>	<u>(764,338)</u>	<u>(723,917)</u>	<u>(689,446)</u>	<u>(652,197)</u>	<u>(632,734)</u>
Outstanding direct debt, net proceeds/principal (3)	<u>\$17,104,393</u>	<u>\$17,072,681</u>	<u>\$17,631,275</u>	<u>\$18,915,176</u>	<u>\$20,315,596</u>	<u>\$20,181,563</u>
Statutory Debt Limit	<u>\$18,944,152</u>	<u>\$17,923,500</u>	<u>\$18,819,675</u>	<u>\$19,760,659</u>	<u>\$20,748,692</u>	<u>\$21,786,126</u>

SOURCE: Office of the Comptroller.

- (1) Includes federal grant anticipation notes issued as crossover refunding bonds. The refunding escrows funded by these bonds and related premiums are used to pay interest on the refunding bonds until the refunded bonds are callable and then to redeem the refunded bonds. Interest on the refunded bonds prior to redemption continues to be paid from pledged revenues as before.
- (2) Exempt from the debt limit, effective August 10, 2016.
- (3) Includes capital appreciation bonds reported at original net proceeds.
- (4) For 2012, debt outstanding was defined in state finance law as net proceeds of debt issued. State finance law was amended, effective January 1, 2013, to change the statutory definition of outstanding debt from net proceeds to principal. Therefore, fiscal years prior to 2013 are calculated using net proceeds; fiscal 2013 and thereafter are calculated using principal.
- (5) In accordance with GAAP, includes \$200 million in principal related to commercial paper bond anticipation notes (BANs) which were retired subsequent to year-end upon the issuance of long-term general obligation bonds on July 11, 2014.
- (6) Amounts are unaudited.
- (7) Amounts are as of September 30, 2016 and are unaudited.

General Obligation Debt

As of September 30, 2016, the Commonwealth had approximately \$21.9 billion in general obligation bonds outstanding, of which \$18.0 billion, or approximately 82% was fixed rate debt and \$3.9 billion, or 18%, was variable rate debt. The Commonwealth's outstanding general obligation variable rate debt consists of several variable rate structures. These structures include floating rate notes in various interest rate modes, direct purchase agreements in various interest rate modes, multi-modal bonds currently in the Term Mode, and variable rate demand bonds. Variable rate demand bonds, which account for \$636.1 million of outstanding general obligation debt as of September 30, 2016, are supported by liquidity facilities that require the bonds to be tendered by a specified date if the facility is not replaced or the bonds are not otherwise refinanced. See "Liquidity Facilities." For the purpose of reporting general obligation debt outstanding and variable rate debt outstanding, future compounded interest on the Commonwealth's variable rate College Opportunity Bonds, as discussed in greater detail below, is included as debt outstanding. Additionally, any outstanding commercial paper, bond anticipation notes, or revenue anticipation notes, as more fully described below, are not reported in general obligation debt outstanding calculations.

Of all Commonwealth variable rate debt outstanding, the interest rates on \$2.2 billion, or approximately 10% of total general obligation debt, have been synthetically fixed by means of floating-to-fixed interest rate swap agreements. These agreements are used as hedges to mitigate the risk associated with variable rate bonds.

Under state finance law, scheduled, periodic payments to be made by the Commonwealth pursuant to swap agreements in existence on August 1, 2008 or entered into after such date constitute general obligations of the Commonwealth to which its full faith and credit are pledged. The remaining variable rate debt of \$1.7 billion or approximately 8% of the total outstanding general obligation debt, is unhedged and, accordingly, floats with interest rates re-set on a periodic basis.

The Commonwealth has announced its intention to implement a multi-year asset/liability management strategy. The intent of the asset/liability strategy is to better balance the Commonwealth's interest rate exposure between its cash assets and debt liabilities by increasing the portion of its outstanding debt issued as unhedged, floating rate bonds. The Commonwealth intends to achieve this balance over a number of years, in part by issuing additional variable rate debt.

As of September 30, 2016, the Commonwealth had outstanding approximately \$145.0 million (\$78.1 million principal and including a discount equal to \$66.9 million) of variable rate "U. Plan" bonds, sold in conjunction with a college savings program administered by the Massachusetts Educational Financing Authority (MEFA), which bear deferred interest at a rate equal to the percentage change in the consumer price index plus 2%, together with current interest at the rate of 0.5%. This debt is held directly by MEFA and has no secondary market.

The Commonwealth is authorized to issue short-term general obligation debt as revenue anticipation notes or bond anticipation notes. Fixed-rate revenue anticipation notes (RANs) are issued by the State Treasurer annually in anticipation of revenue receipts for the same fiscal year. Revenue anticipation notes must be repaid no later than the close of the fiscal year in which they are issued. Bond anticipation notes may be issued by the State Treasurer in anticipation of the issuance of bonds, including, in some circumstances special obligation bonds. See "Special Obligation Debt" below. In addition, as of September 30, 2016 the Commonwealth had liquidity support for a \$400 million commercial paper program which it utilizes for cash flow purposes.

Special Obligation Debt

Commonwealth Transportation Fund. Section 20 of Chapter 29 of the General Laws, as amended, authorizes the Commonwealth to issue special obligation bonds secured by all or a portion of revenues accounted to the Commonwealth Transportation Fund (formerly the Highway Fund). Revenues which are accounted to the Commonwealth Transportation Fund are primarily derived from taxes and fees relating to the operation or use of motor vehicles in the Commonwealth, including the motor fuels excise tax and registry of motor vehicles fees. In addition, a portion of the Commonwealth's receipts from the sales tax is dedicated to the Commonwealth Transportation Fund (see "COMMONWEALTH REVENUES AND EXPENDITURES – State Taxes; *Sales and Use Tax*"), and state finance law currently provides for a series of substantial transfers from the General Fund to the Commonwealth Transportation Fund through fiscal 2020; none of the sales tax receipts or General Fund transfers has been pledged to secure Commonwealth special obligation bonds.

Between 1992 and 2005, the Commonwealth issued special obligation bonds secured by a lien on a specified portion of the motor fuels excise tax. As of September 30, 2016, the Commonwealth had outstanding approximately \$170.7 million of such special obligation bonds secured by a pledge of 6.86¢ of the 24¢ motor fuels excise tax. In December, 2010, the trust agreement securing such bonds was closed to further issuance of additional debt, with the exception of refunding bonds.

The Commonwealth is also authorized to issue approximately \$1.876 billion of special obligation bonds secured by a pledge of all or a portion of revenues accounted to the Commonwealth Transportation Fund ("CTF Bonds") to fund a portion of the Commonwealth's accelerated structurally-deficient bridge program ("Accelerated Bridge Program" or "ABP"). Additionally, in April, 2014, the Commonwealth was authorized to issue up to \$6.7 billion in general obligation debt, special obligation debt, or a combination of both, for the purpose of funding capital expenditures of MassDOT, for the benefit of the MBTA and for other rail improvement projects ("Rail Enhancement Program" or "REP"). As of September 30, 2016, the Commonwealth had outstanding approximately \$2.0 billion of CTF Bonds, which are secured by a pledge of registry fees and a specified portion of the motor fuels

excise tax, \$1.5 billion of which have been issued in support of the ABP and \$450 million of which have been issued in support of the REP. Not included in these figures are \$136.6 million of CTF Bonds issued on October 6, 2016, \$51.2 million of which were issued in support of the ABP and \$85.4 million of which were issued in support of the REP.

Convention Center Fund. Chapter 152 of the Acts of 1997, as amended, authorized \$694.4 million of special obligation bonds to be issued for the purposes of building a new convention center in Boston (\$609.4 million), the Springfield Civic Center (\$66 million) and the Worcester convention center (\$19 million). The bonds are payable from moneys credited to the Convention Center Fund created by such legislation, which include certain hotel tax receipts from hotels in Boston, Cambridge, Springfield and Worcester, a surcharge on car rentals in Boston, a parking surcharge at all three facilities, a surcharge on sightseeing tours and cruises in Boston and sales tax receipts from certain hotels and other retail establishments in Boston, Cambridge and Springfield. The legislation requires a capital reserve fund to be maintained at a level equal to maximum annual debt service and provides that if the fund falls below its required balance, the 2.75% convention center financing fee in Boston is to be increased (though the overall hotel tax in Boston, including the fee, cannot exceed 14%). In June, 2004, the Commonwealth issued \$686.7 million of special obligation bonds secured solely by the pledge of receipts of tax revenues within the special districts surrounding the centers and other special revenues connected to such facilities, and in June, 2005, the Commonwealth issued \$527.6 million of special obligation refunding bonds, which advance refunded, in part, the 2004 issue. Of the 2004 and 2005 special obligation bonds secured solely by the pledge of receipts of tax revenues in the Convention Center Fund, approximately \$597.6 million remained outstanding as of September 30, 2016.

On July 29, 2014, the Governor approved legislation authorizing the Commonwealth to issue an additional \$1.1 billion in special obligation bonds to finance an expansion of the convention center in Boston, to finance costs of issuance and fund a debt service reserve fund. Such bonds would be secured by and payable from the Convention Center Fund, with the State Treasurer and Secretary of Administration and Finance having the authority to pledge additional state hotel/motel room occupancy excises to the new bonds. The expansion project is currently on hold.

Federal Grant Anticipation Notes

The Commonwealth is also authorized to issue \$1.1 billion of grant anticipation notes (“GANs”) secured by future federal funds to fund a portion of the Commonwealth’s accelerated structurally deficient bridge program (“ABP”). Such notes are secured by a back-up pledge of net amounts in the Commonwealth Transportation Fund after application of such amounts in accordance with the trust agreement securing the CTF Bonds and previously issued bonds secured by motor fuels excise taxes. The Commonwealth expects to pay interest on the notes supporting the ABP from state appropriations. As of September 30, 2016, \$657.0 million of GANs was outstanding. Not included in this figure is \$125.4 million of GANs in support of the ABP which the Commonwealth issued on October 6, 2016.

Build America Bonds

The Commonwealth has issued bonds in the form of Build America Bonds (BABs) and as Recovery Zone Economic Development Bonds (RZEDBs). BABs and RZEDBs were authorized under the federal American Recovery and Reinvestment Act of 2009 (ARRA). Pursuant to ARRA, the Commonwealth is entitled to receive cash subsidy payments from the federal government equal to 35% of the debt service payable on the BABs and 45% of the debt service payable on the RZEDBs, provided, in both cases, that the Commonwealth makes certain required filings in accordance with applicable federal rules. Such interest subsidy payments are treated under federal law as overpayments of tax and, accordingly, are subject to offset against certain amounts that may be owed by the Commonwealth to the federal government or its agencies. In federal fiscal year 2016, such payments were subject to a sequestration reduction of 6.8%, with the Bipartisan Budget Act of 2015, approved by the President on November 2, 2015, extending the sequestration provisions through federal fiscal year 2025. For federal fiscal year 2017, this reduction will increase to 6.9%. Beginning in fiscal 2012, such subsidy payments received by the Commonwealth are required to be deposited in a Build America Bonds Subsidy Trust Fund and used, without further legislative appropriation, to pay debt service on the related BABs and RZEDBs. The Commonwealth is obligated to make payments of principal and interest on the BABs and RZEDBs whether or not it receives interest subsidy payments. As of September 30 2016, \$2.1 billion of the Commonwealth’s outstanding general obligation debt was comprised of BABs, \$419.8 million of the outstanding CTF bonds were comprised of BABs, \$156.4 million of the outstanding

CTF bonds were comprised of RZEDBs and \$88.6 million of the outstanding grant anticipation notes were comprised of BABs.

The following table shows long-term debt of the Commonwealth issued and retired from fiscal 2012 through fiscal 2016, exclusive of unamortized bond premiums:

General and Special Obligation Long-Term Debt Issuance and Repayment Analysis (in thousands) (1)

	<u>Fiscal 2012</u>	<u>Fiscal 2013</u>	<u>Fiscal 2014 (4)</u>	<u>Fiscal 2015</u>	<u>Fiscal 2016 (5)</u>
Beginning Balance as of July 1	\$20,875,055	\$21,433,553	\$21,513,039	\$22,419,852	\$23,826,301
Debt Issued	1,759,627	1,470,473	2,359,899	2,918,817	2,766,419
Subtotal	<u>22,634,682</u>	<u>22,904,026</u>	<u>23,672,983</u>	<u>25,338,669</u>	<u>26,592,720</u>
Debt retired or defeased, exclusive of refunded debt	(1,202,094)	(1,386,527)	(1,434,511)	(1,486,243)	(1,446,444)
Refunding debt issued, net of refunded debt (3)	965	(4,460)	(18,575)	(26,125)	(66,685)
Ending Balance June 30 (2)	<u>\$21,433,553</u>	<u>\$21,513,039</u>	<u>\$22,419,852</u>	<u>\$23,826,301</u>	<u>\$25,079,591</u>

SOURCE: Office of the Comptroller.

(1) Including premium, discount and accretion of capital appreciation bonds.

(2) Includes federal grant anticipation notes issued as crossover refunding bonds. The refunding escrows funded by these bonds and related premiums are used to pay interest on the refunding bonds until the refunded bonds are callable and then to redeem the refunded bonds. Interest on the refunded bonds prior to redemption continues to be paid from pledged revenues as before.

(3) Amounts may be negative due to defeasances of debt of authorities from the issuance of Commonwealth debt as afforded under General Laws.

(4) In accordance with GAAP, includes \$200 million in principal related to commercial paper bond anticipation notes (BANs) which were retired subsequent to year-end upon the issuance of long-term general obligation bonds on July 11, 2014.

(5) Amounts are unaudited.

The following table sets forth the amounts of Commonwealth long-term general obligation debt, special obligation debt and federal grant anticipation notes outstanding, exclusive of unamortized bond premiums, as of the end of the last five fiscal years.

Outstanding Long Term Commonwealth Debt (in thousands)

	<u>Fiscal 2012</u>	<u>Fiscal 2013</u>	<u>Fiscal 2014 (1)</u>	<u>Fiscal 2015</u>	<u>Fiscal 2016 (2)</u>
General Obligation Debt	\$18,851,538	\$19,140,239	\$19,596,662	\$20,801,956	\$21,668,296
Special Obligation Debt	1,971,630	1,923,700	2,292,255	2,324,490	2,754,255
Federal Grant Anticipation Notes	<u>610,385</u>	<u>449,100</u>	<u>530,935</u>	<u>699,855</u>	<u>657,040</u>
TOTAL	<u>\$21,433,553</u>	<u>\$21,513,039</u>	<u>\$22,419,852</u>	<u>\$23,826,301</u>	<u>\$25,079,591</u>

SOURCE: Office of the Comptroller.

(1) In accordance with GAAP, includes \$200 million in principal related to commercial paper bond anticipation notes (BANs) which were retired subsequent to year-end upon the issuance of long-term general obligation bonds on July 11, 2014.

(2) Amounts are unaudited.

Debt Service Requirements

The following table sets forth, as of September 30, 2016, the annual fiscal year debt service requirements on outstanding Commonwealth general obligation bonds, special obligation bonds and federal grant anticipation notes. For variable-rate bonds with respect to which the Commonwealth is a fixed-rate payor under an associated interest rate swap agreement, the debt service schedule assumes payment of the fixed rate due under such agreement. For other variable-rate bonds, the schedule assumes a 5% interest rate.

Debt Service Requirements on Commonwealth Bonds as of September 30, 2016 through Maturity (in thousands)

Period Ending	<u>General Obligation Bonds</u>						<u>Federal Highway Grant Anticipation Notes</u>				
	Principal	Gross Interest	CABs	Build America Bond Subsidies	Net Interest	Debt Service	Principal	Gross Interest	Build America Bond Subsidies	Net Interest	Debt Service
6/30/2017	\$982,930	\$659,685	-	(\$24,658)	\$635,027	\$1,617,957	\$44,440	\$31,582	(\$1,302)	\$30,280	\$74,720
6/30/2018	1,360,605	915,588	4,958	(36,557)	879,031	2,239,637	47,150	29,776	(1,147)	28,629	75,779
6/30/2019	1,241,150	864,519	4,852	(36,557)	827,962	2,069,111	49,300	27,606	(973)	26,634	75,934
6/30/2020	1,162,029	813,625	4,410	(36,300)	777,325	1,939,354	51,615	25,261	(782)	24,479	76,094
6/30/2021	1,211,278	755,087	4,265	(35,014)	720,074	1,931,352	54,125	22,724	(577)	22,147	76,272
6/30/2022	1,132,285	700,475	4,436	(32,698)	667,777	1,800,062	56,780	20,053	(357)	19,696	76,476
6/30/2023	985,461	649,655	4,054	(31,412)	618,243	1,603,704	65,470	17,236	(122)	17,114	82,584
6/30/2024	975,627	600,550	3,871	(31,412)	569,138	1,544,765	67,725	14,371	-	14,371	82,096
6/30/2025	969,750	554,696	3,924	(31,177)	523,519	1,493,269	70,190	10,991	-	10,991	81,181
6/30/2026	893,288	511,365	4,033	(30,776)	480,589	1,373,877	73,425	7,492	-	7,492	80,917
6/30/2027	777,625	471,056	4,231	(30,203)	440,853	1,218,478	76,820	3,828	-	3,828	80,648
6/30/2028	780,471	435,484	4,324	(28,953)	406,530	1,187,001	-	-	-	-	-
6/30/2029	815,515	399,869	3,891	(26,687)	373,182	1,188,697	-	-	-	-	-
6/30/2030	774,195	363,668	3,586	(22,892)	340,776	1,114,971	-	-	-	-	-
6/30/2031	753,358	322,882	3,402	(16,808)	306,074	1,059,432	-	-	-	-	-
6/30/2032	642,374	294,549	3,141	(14,776)	279,773	922,147	-	-	-	-	-
6/30/2033	446,625	270,029	2,361	(12,440)	257,589	704,214	-	-	-	-	-
6/30/2034	441,941	250,436	1,590	(11,068)	239,368	681,309	-	-	-	-	-
6/30/2035	445,027	231,975	921	(9,647)	222,327	667,355	-	-	-	-	-
6/30/2036	473,660	211,824	485	(8,177)	203,647	677,308	-	-	-	-	-
6/30/2037	448,707	190,005	214	(6,654)	183,351	632,057	-	-	-	-	-
6/30/2038	463,565	169,477	-	(5,077)	164,400	627,965	-	-	-	-	-
6/30/2039	469,255	148,284	-	(3,445)	144,839	614,094	-	-	-	-	-
6/30/2040	465,500	126,675	-	(1,609)	125,066	590,566	-	-	-	-	-
6/30/2041	469,630	105,736	-	-	105,736	575,366	-	-	-	-	-
6/30/2042	558,140	85,452	-	-	85,452	643,592	-	-	-	-	-
6/30/2043	570,130	61,984	-	-	61,984	632,114	-	-	-	-	-
6/30/2044	497,725	37,627	-	-	37,627	535,352	-	-	-	-	-
6/30/2045	322,485	23,375	-	-	23,375	345,860	-	-	-	-	-
6/30/2046	293,320	10,691	-	-	10,691	304,011	-	-	-	-	-
6/30/2047	55,000	825	-	-	825	55,825	-	-	-	-	-
Totals (1)	\$21,878,651	\$11,237,148	\$66,949	(\$524,998)	\$10,712,149	\$32,590,800	\$657,040	\$210,919	(\$5,259)	\$205,659	\$862,699

SOURCE: Office of the Comptroller.

(1) Totals may not add due to rounding.

Special Obligation Revenue Bonds
(Convention Center)

Special Obligation Revenue Bonds
(CTF- Accelerated Bridge Program)

Period Ending	Principal	Interest	Debt Service	Principal	Gross Interest	Build America Bond Subsidies	Net Interest	Debt Service
6/30/2017	\$22,210	\$16,165	\$38,375	\$9,840	\$76,664	(\$12,314)	\$64,350	\$74,190
6/30/2018	23,310	31,164	54,474	10,635	76,172	(12,314)	63,858	74,493
6/30/2019	24,475	30,126	54,601	11,460	75,641	(12,314)	63,326	74,786
6/30/2020	23,380	28,842	52,222	12,530	75,068	(12,314)	62,753	75,283
6/30/2021	24,610	27,673	52,283	13,660	74,441	(12,314)	62,127	75,787
6/30/2022	25,970	26,380	52,350	19,480	73,758	(12,314)	61,444	80,924
6/30/2023	27,440	24,952	52,392	29,500	72,784	(12,314)	60,470	89,970
6/30/2024	28,990	23,443	52,433	39,005	71,309	(12,314)	58,995	98,000
6/30/2025	30,625	21,848	52,473	50,825	69,348	(11,937)	57,410	108,235
6/30/2026	32,360	20,164	52,524	53,415	66,761	(11,529)	55,232	108,647
6/30/2027	34,190	18,384	52,574	56,100	64,073	(11,065)	53,008	109,108
6/30/2028	36,125	16,504	52,629	50,975	61,179	(10,575)	50,603	101,578
6/30/2029	38,170	14,517	52,687	53,240	58,661	(10,058)	48,604	101,844
6/30/2030	40,330	12,418	52,748	50,555	56,100	(9,512)	46,588	97,143
6/30/2031	42,610	10,199	52,809	58,125	53,527	(8,935)	44,592	102,717
6/30/2032	45,020	7,856	52,876	60,865	50,536	(8,316)	42,220	103,085
6/30/2033	47,565	5,380	52,945	63,825	47,325	(7,661)	39,664	103,489
6/30/2034	50,250	2,764	53,014	66,850	44,053	(6,970)	37,084	103,934
6/30/2035	-	-	-	65,065	40,587	(6,239)	34,349	99,414
6/30/2036	-	-	-	68,455	37,196	(5,466)	31,729	100,184
6/30/2037	-	-	-	77,035	33,618	(4,650)	28,968	106,003
6/30/2038	-	-	-	75,625	29,778	(3,718)	26,060	101,685
6/30/2039	-	-	-	79,565	25,836	(2,546)	23,289	102,854
6/30/2040	-	-	-	83,665	21,735	(1,308)	20,427	104,092
6/30/2041	-	-	-	87,995	17,408	-	17,408	105,403
6/30/2042	-	-	-	91,665	13,740	-	13,740	105,405
6/30/2043	-	-	-	95,935	9,470	-	9,470	105,405
6/30/2044	-	-	-	100,000	5,000	-	5,000	105,000
6/30/2045	-	-	-	-	-	-	-	-
6/30/2046	-	-	-	-	-	-	-	-
Totals (1)	\$597,630	\$338,779	\$936,409	\$1,535,890	\$1,401,767	(\$219,000)	\$1,182,767	\$2,718,657

SOURCE: Office of the Comptroller.
(1) Totals may not add due to rounding.

Special Obligation Revenue Bonds
(Gas Tax)

Special Obligation Revenue Bonds
(Rails)

Period Ending	Principal	Interest	Debt Service	Principal	Interest	Debt Service
6/30/2017	\$42,465	\$8,811	\$51,276	\$15,870	\$20,466	\$36,336
6/30/2018	23,040	6,785	29,825	18,395	19,673	38,068
6/30/2019	24,300	5,518	29,818	18,970	18,806	37,776
6/30/2020	25,640	4,182	29,822	19,355	17,923	37,278
6/30/2021	26,905	2,916	29,821	19,690	17,020	36,710
6/30/2022	28,385	1,436	29,821	22,265	16,054	38,319
6/30/2023	-	-	-	16,870	14,966	31,836
6/30/2024	-	-	-	9,425	14,132	23,557
6/30/2025	-	-	-	-	13,696	13,696
6/30/2026	-	-	-	-	13,696	13,696
6/30/2027	-	-	-	-	13,696	13,696
6/30/2028	-	-	-	7,620	13,696	21,316
6/30/2029	-	-	-	7,955	13,315	21,270
6/30/2030	-	-	-	7,820	12,917	20,737
6/30/2031	-	-	-	8,505	12,682	21,187
6/30/2032	-	-	-	8,875	12,257	21,132
6/30/2033	-	-	-	9,265	11,813	21,078
6/30/2034	-	-	-	9,660	11,350	21,010
6/30/2035	-	-	-	10,585	10,867	21,452
6/30/2036	-	-	-	10,860	10,523	21,383
6/30/2037	-	-	-	10,785	9,980	20,765
6/30/2038	-	-	-	12,035	9,441	21,476
6/30/2039	-	-	-	12,530	8,847	21,377
6/30/2040	-	-	-	13,040	8,228	21,268
6/30/2041	-	-	-	13,565	7,585	21,150
6/30/2042	-	-	-	14,135	7,011	21,146
6/30/2043	-	-	-	14,735	6,413	21,148
6/30/2044	-	-	-	15,760	5,790	21,550
6/30/2045	-	-	-	121,430	5,123	126,553
6/30/2046	-	-	-	-	-	-
Totals (1)	\$170,735	\$29,648	\$200,383	\$450,000	\$357,963	\$807,963

SOURCE: Office of the Comptroller.
(1) Totals may not add due to rounding.

Interest Rate Swaps

The Commonwealth has entered into interest rate swap agreements for the sole purpose of hedging changes in the interest rates on a portion of its outstanding variable rate bonds, predicated on the assumption that the interest on such bonds, combined with the cost of the associated interest rate swaps, would produce lower aggregate interest costs than fixed-rate bonds. As of September 30, 2016, approximately \$2.2 billion of the Commonwealth's outstanding variable-rate debt is synthetically fixed via floating-to-fixed interest rate swap hedge agreements. Not included in this figure is an additional \$142.0 million in synthetically fixed debt associated with special obligation issues as shown in the table below.

Under the terms of these floating-to-fixed rate hedge agreements, the counterparties to the swaps are obligated to pay the Commonwealth an amount equal or approximately equal to the variable-rate payment on the related bonds or a payment based on a market index, and the Commonwealth is obligated to pay the counterparties a stipulated fixed rate. The floating rate received by the Commonwealth from swap counterparties is used to offset the variable rate paid to bondholders. Only the net difference in interest payments is actually exchanged with the counterparty. The net payments made or received on these agreements are reported as part of interest expense in the Commonwealth's basic financial statements. In all cases, the Commonwealth remains responsible for making interest payments to the variable-rate bondholders.

The intended effect of these agreements is essentially to fix the Commonwealth's interest rate obligations with respect to its variable-rate bonds in order to hedge or mitigate the Commonwealth's exposure to changes in interest rates on these bonds. For example, during a period when interest rates rise, the Commonwealth would receive higher payments from swap counterparties that would be used to offset higher payments to bondholders of the outstanding variable rate bonds. During a period when interest rates decline, the reduction in interest payments to bondholders would offset the higher payments made to swap counterparties. In both scenarios, the net obligation of the Commonwealth is essentially fixed through the life of the swap and bonds. This allows the Commonwealth to finance its capital budget using floating rate bonds, which, combined with interest rate swaps, are assumed to be less costly than fixed-rate bonds, while hedging the risk of rising interest rates on those bonds to provide long-term budget certainty. As of June 30, 2015, all of the Commonwealth's interest rate swaps were floating-to-fixed rate agreements and were deemed effective hedges, as provided for in GASB Statement No. 53.

The bonds and related swap agreements have final maturities ranging from 2018 to 2037. The total notional value of approximately \$2.3 billion effectively matches the par amount of the related variable-rate bonds. Under the swap agreements, the Commonwealth pays the relevant counterparties fixed rates ranging from 3.672% to 5.250% and receives variable-rate payments equal to or approximately equal to the amount of variable rate payments the Commonwealth pays on the related variable-rate refunding bonds or a payment based on a market index.

All of the Commonwealth's counterparties are required to post collateral in certain circumstances. The Commonwealth is not required to post collateral under any of its existing swap agreements.

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The following table describes the interest rate swap agreements, all of which are floating-to-fixed rate hedges that the Commonwealth has entered into in connection with certain of its outstanding variable rate bond issues as of September 30, 2016.

Associated Bond Issue	Outstanding Notional Amount (thousands)	Bond Floating Rate	Swap Fixed Rate Paid (Range)	Swap Variable Rate Received	Effective Date	Termination Date	Fair value as of 7/31/2016	Counterparty
<i>General Obligation Bonds:</i>								
Series 2001B & C	421,000	VRDB	4.150%	Cost of Funds	2/20/2001	1/1/2021	(34,101,594)	Morgan Stanley Capital Services
			3.672%					
Series 2013A, 2014E, 2015B & 2015C (refunding)	475,000	SIFMA	4.004%	SIFMA	3/15/2005	2/1/ 2028	(85,439,115)	Wells Fargo Bank
			-					
Series 2006C (refunding)	100,000	CPI	3.73%-3.85%	CPI-based formula	1/1/2007	11/1/2020	(2,314,941)	Wells Fargo Bank
Series 2007A	400,000	LIBOR	4.420%	67% 3-Month LIBOR + 0.57%	10/8/2008	5/1/2037	(9,797,737)	Barclays Bank PLC
Series 2007A (refunding) (1)	31,665	LIBOR	3.936%	67% 3-Month LIBOR + 0.46%	10/8/2008	11/1/2020	(3,502,156)	Wells Fargo Bank
Series 2007A (refunding)	414,130	LIBOR	4.083%	67% 3-Month LIBOR + 0.55%	10/8/2008	11/1/2025	(70,099,061)	Bank of NY Mellon
Series 2000A	22,917	VRDB	3.942%	SIFMA - 3 basis points	8/16/2007	8/1/2018	(1,100,074)	Merrill Lynch Capital Services
Series 2000A	11,083	VRDB	3.942%	SIFMA - 3 basis points	8/16/2007	8/1/2018	(533,343)	JP Morgan formerly Bear Stearns
Series 2006B, Series 2000D	<u>\$294,000</u>	VRDB/ARS	4.515%	67% 3-Month LIBOR	4/2/2009	6/15/2033	<u>(\$99,491,737)</u>	Barclays Bank PLC
Subtotal	<u>\$2,169,795</u>						<u>(\$306,381,758)</u>	

Associated Bond Issue	Outstanding Notional Amount (thousands)	Bond Floating Rate	Swap Fixed Rate Paid (Range)	Swap Variable Rate Received	Effective Date	Termination Date	Fair value as of 7/31/2016	Counterparty
<i>Special Obligation Dedicated Tax Revenue Bonds</i>								
Series 2004 (Convention Ctr)	15,173	CPI	4.45% - 5.25%	CPI-based formula	6/29/2004	1/1/2018	(261,904)	Goldman Sachs Capital Markets
Series 2004 (Convention Ctr)	15,174	CPI	4.45% - 5.25%	CPI-based formula	6/29/2004	1/1/2018	(251,589)	JP Morgan formerly Bear Stearns
Series 2004 (Convention Ctr)	15,173	CPI	4.45% - 5.25%	CPI-based formula	6/29/2004	1/1/2018	(252,273)	JPMorgan Chase Bank
Series 2005A (Gas Tax)	<u>96,490</u>	CPI	4.771% - 5.059%	CPI-based formula	1/12/2005	6/1/2022	<u>(3,981,017)</u>	Merrill Lynch Capital Services
<u>Subtotal</u>	<u>\$142,010</u>						<u>(\$4,746,783)</u>	
<u>Total</u>	<u>\$2,311,805</u>						<u>(\$311,128,541)</u>	

SOURCE: Office of the Treasurer and Receiver General.

- (1) The Series 1998A Refunding, 2006A, 2000A, 2000B and 2007A Refunding swaps with Deutsche Bank were terminated as part of the novation of the Commonwealth's swaps with Deutsche Bank to Wells Fargo on December 23, 2015.

Liquidity Facilities

Some of the Commonwealth's outstanding variable rate debt consists of variable rate demand bonds whose interest rates re-set daily or weekly through a remarketing process. Because these bonds offer a "put" or tender feature, they are supported by standby bond purchase agreements with commercial banks which require the applicable bank to purchase any bonds that are tendered and not successfully remarketed. The following table describes the liquidity facilities that the Commonwealth had with respect to such bonds as of September 30, 2016.

<u>Variable Rate Bonds</u>	<u>Outstanding Principal Amount (in thousands)</u>	<u>Bank</u>	<u>Termination Date</u>
2000 Series A	\$200,000	Citibank	4/24/2018
2000 Series B	75,590	Bank of America	4/24/2018
2001 Series C (Refunding)	210,500	State Street Bank	4/17/2017
2006 Series A	150,000	Wells Fargo Bank	8/08/2017

SOURCE: Office of the Treasurer and Receiver General.

The Commonwealth also has liquidity support for three series of commercial paper totaling \$400 million.

<u>Commercial Paper Series</u>	<u>Outstanding Principal Amount (in thousands)</u>	<u>Bank</u>	<u>Termination Date</u>
Series I (tax-exempt) and Series K (taxable) (1)	\$200,000	TD Bank	4/17/2018
Series L (tax-exempt)	200,000	State Street Bank	1/29/2019

SOURCE: Office of the Treasurer and Receiver General.

(1) One or both series may be outstanding as long as the total amount outstanding does not exceed \$200 million.

Direct Purchase Agreements

Certain of the Commonwealth's variable rate bonds have been directly purchased by a bank. The following table lists the Commonwealth's direct purchase agreements, as of September 30, 2016.

<u>Direct Purchase Bonds</u>	<u>Outstanding Principal Amount (in thousands)</u>	<u>Mandatory Tender Date</u>
2001 Series B (Refunding)	\$210,500	8/01/2017
2006 Series B	200,000	5/31/2019
2015 Series B Refunding (1)	125,000	2/01/2018
2015 Series C Refunding (1)	125,000	2/01/2019
2016 Series B	100,000	4/01/2021
2016 Series C	200,000	4/01/2021

SOURCE: Office of the Treasurer and Receiver General.

(1) Dates provided represent hard maturities rather than mandatory tenders.

General Obligation Contract Assistance Liabilities

Massachusetts Department of Transportation, as successor to the Massachusetts Turnpike Authority. On February 19, 1999, the Commonwealth and the Massachusetts Turnpike Authority entered into a contract which provides for the Commonwealth to make annual operating assistance payments to the Massachusetts Department of Transportation (MassDOT), as successor to the Authority, which are capped at \$25 million annually and extend until the end of the 40th fiscal year following the transfer of certain facilities associated with the Commonwealth's Central Artery/Ted Williams Tunnel Project (CA/T) to MassDOT. On June 30, 2009, the Commonwealth and the Turnpike Authority entered into a contract for financial assistance which provides for the payment by the Commonwealth to MassDOT, as successor to the Authority, of \$100 million per fiscal year, commencing July 1, 2009 until June 30, 2039. Payments under both contracts constitute a general obligation pledge of the Commonwealth for which the full faith and credit of the Commonwealth are pledged.

Massachusetts Clean Water Trust. The Massachusetts Clean Water Trust (the "Trust") manages the Commonwealth's state revolving fund program under the federal Clean Water Act and the federal Safe Drinking Water Act. The Trust is authorized to apply for and accept federal grants and associated Commonwealth matching grants to capitalize the revolving funds and to issue debt obligations to make loans to local governmental units and others to finance eligible water pollution abatement and drinking water projects. Under state law, loans made by the Trust are required to provide for subsidies or other financial assistance to reduce the debt service expense on the loans. Currently, most new loans made by the Trust bear interest at 2%. Other loans made by the Trust may bear interest at lower rates, including a zero rate of interest, and a portion of the principal of certain loans has also been subsidized by the Trust. To provide for a portion of the subsidy on most of its loans, the Trust receives contract assistance payments from the Commonwealth. Under the Trust's enabling act, the aggregate annual contract assistance payment for the Trust's programs may not exceed \$138 million. The Commonwealth's agreement to provide contract assistance constitutes a general obligation of the Commonwealth for which its full faith and credit are pledged, and the Commonwealth's contract assistance payments are pledged as security for repayment of the Trust's debt obligations. As of September 30, 2016 the Trust had approximately \$2.8 billion of bonds outstanding. Approximately 7.00% of the Trust's aggregate debt service is covered by Commonwealth contract assistance. Prior to August, 2014, the Trust was known as the Massachusetts Water Pollution Abatement Trust.

Massachusetts Development Finance Agency. Under the infrastructure investment incentive program, known as "I-Cubed," up to \$600 million of public infrastructure improvements to support significant new private developments may be financed by bonds issued by the Massachusetts Development Finance Agency (MassDevelopment) that are secured by and payable from a general obligation pledge of contract assistance from the Commonwealth. Until a related new private development is completed and occupied, the developer's property is assessed by the municipality in which the development is located in amounts equal to the debt service cost on the bonds to reimburse the Commonwealth for such cost. After each phase of the private development is completed and occupied, the municipality is required to reimburse the Commonwealth for any portion of the debt service cost on the bonds that is not covered by new state tax revenues generated from the related private development. The municipality's reimbursement obligation is secured by a general obligation pledge of the municipality, a local aid intercept and a reserve fund which must be funded in an amount equal to or greater than two years of debt service on the bonds. The obligation of the municipality ends when the Commonwealth has collected revenues sufficient to pay principal and interest payments to date, or in some cases to the next redemption date, plus all remaining principal payments due. Pursuant to this program, MassDevelopment has issued tax-exempt contract assistance bonds to finance and refinance infrastructure projects associated with the Fan Pier development in Boston, the Assembly Row project in Somerville, the Chestnut Hill Square project in Newton, the Boston Landing project in Boston and the Boylston West project in Boston and the University Station project in Westwood. As of September 30, 2016, total "I-Cubed" program bonds were outstanding in the amount of approximately \$101.9 million.

Legislation approved by the Governor on August 8, 2008 included an authorization to finance up to \$43 million of the costs of a parkway at the former South Weymouth naval air base to support the development of the former base. Similar to the I-Cubed program financing model, the bonds issued by MassDevelopment to finance the parkway are secured by and payable from a general obligation pledge of contract assistance from the Commonwealth. As of September 30, 2016, approximately \$25.8 million of such bonds were outstanding.

Social Innovation Financing Trust Fund. Legislation approved in 2012 established a Social Innovation Financing Trust Fund for the purpose of funding contracts to improve outcomes and lower costs for contracted government services, referred to as “pay for success contracts.” The legislation authorized the Secretary of Administration and Finance to enter into pay for success contracts in which a substantial portion of Commonwealth payments, from amounts appropriated by the Legislature to the Trust Fund, would be conditioned on the achievement of specified performance outcomes. The Commonwealth’s obligation to make such payments is a general obligation for which the Commonwealth’s full faith and credit are pledged. The first such contract was entered into in January, 2014, to help young men leaving the juvenile justice system or on probation avoid re-offending. The contract obligates the Commonwealth to make up to \$28 million in success payments, in the aggregate, through fiscal 2020. In September, 2016, the Commonwealth entered into a side letter to permit the parties to negotiate a contract amendment to extend the period in which young men may be referred to the project without changing the timing or maximum amount of success payments. The Commonwealth entered into a second such contract in December, 2014, to address chronic individual homelessness through permanent stable, supportive housing. The contract obligates the Commonwealth to make up to \$6 million in success payments, in the aggregate, through fiscal 2021. The Commonwealth entered into a third such contract in June, 2016, to assist individuals in Adult Basic Education (ABE) or English for Speakers of Other Languages (ESOL) programs transition to employment, higher wage jobs, and higher education. The contract obligates the Commonwealth to make up to \$15 million in success payments, in the aggregate, through fiscal 2023.

The following table sets forth the Commonwealth’s general obligation contract assistance requirements for all of fiscal 2017 and each fiscal year thereafter pursuant to contracts with the Massachusetts Clean Water Trust, the Massachusetts Department of Transportation (as successor to the Massachusetts Turnpike Authority) and Massachusetts Development Finance Agency (including the I-Cubed Program and the South Weymouth naval air base contract assistance requirements) and contracts associated with the Social Innovation Financing Trust Fund.

General Obligation Contract Assistance Requirements
(in thousands)

<u>Fiscal Year</u>	<u>Massachusetts Clean Water Trust</u>	<u>Massachusetts Department of Transportation</u>	<u>Massachusetts Development Finance Agency</u>	<u>Social Innovation Financing Trust Fund (3)</u>	<u>Total</u>
2017	\$57,379	\$125,000	\$8,371	\$2,387	\$193,137
2018	45,018	125,000	8,372	15,397	193,787
2019	44,609	125,000	8,366	4,968	182,943
2020	39,102	125,000	8,365	13,595	186,062
2021	32,085	125,000	8,371	5,442	170,898
2022	22,723	125,000	8,371	4,583	160,677
2023	22,939	125,000	8,367	-	156,306
2024	14,704	125,000	8,368	-	148,072
2025	10,577	125,000	8,373	-	143,950
2026	8,245	125,000	8,369	-	141,614
2027 through 2049	31,895 (1)	1,875,000	146,203	-	2,053,098
Total (4)	\$329,276	\$3,125,000 (2)	\$229,897	\$46,371	\$3,730,544

SOURCES: Massachusetts Clean Water Trust column – Office of the Treasurer and Receiver-General; MassDOT, Massachusetts Development Finance Agency and Social Innovation Financing Trust Fund columns - Executive Office for Administration and Finance.

- (1) Current contract assistance payments end in fiscal 2046.
- (2) Represents \$25 million per year for fiscal years 2027 to 2049, inclusive and \$100 million per year for fiscal years 2027 to 2039, inclusive.
- (3) Projected payment schedule. The actual amount and timing of payments will be based on the achievement of specified performance outcomes. Up to \$10,770,000 of these payments may be funded through a grant from the U. S. Department of Labor.
- (4) Totals may not add due to rounding.

Long-Term Operating Leases and Capital Leases

In addition to Commonwealth-owned buildings and facilities, the Commonwealth leases additional space from private parties. In certain circumstances, the Commonwealth has acquired certain types of capital assets under long-term capital leases; typically, these arrangements relate to computer and telecommunications equipment and to motor vehicles. Minimum future rental expenditure commitments of the Commonwealth under operating leases and long-term principal and interest obligations related to leases in effect as of June 30, 2015 are set forth in the table below.

Long-Term Leases (in thousands)

<u>Fiscal Year</u>	<u>Leases (1)</u>
2016	\$203,419
2017	144,719
2018	125,043
2019	101,318
2020	69,139
2021	41,186
2022	29,065
2023	23,533
2024	20,855
2025	13,631
2026	5,490
2027 through 2044	<u>37,313</u>
Total	<u>\$814,711</u>

SOURCES: Office of the Comptroller

(1) Includes operating and capital leases. Leases with the institutions of higher education that are supported by tuition and fees are not included.

Contingent Liabilities

Massachusetts Bay Transportation Authority. The MBTA issues its own bonds and notes. Prior to July 1, 2000, the Commonwealth supported MBTA bonds, notes and other obligations through guaranties of the debt service on its bonds and notes, contract assistance generally equal to 90% of the debt service on outstanding MBTA bonds and payment of the MBTA's net cost of service (current expenses, including debt service, minus current income). Beginning July 1, 2000, the Commonwealth's annual obligation to support the MBTA for operating costs and debt service is limited to a portion of the revenues raised by the Commonwealth's sales tax, but the Commonwealth remains contingently liable for the payment of MBTA bonds and notes issued prior to July 1, 2000 and for MBTA payment obligations related to leases, reimbursement obligations, interest exchange agreements and other financing obligations entered into prior to July 1, 2000. The Commonwealth's obligation to pay such prior bonds is a general obligation for which its full faith and credit have been pledged. As of September 30, 2016, the MBTA had approximately \$206.5 million of such prior bonds outstanding. Such bonds are currently scheduled to mature annually through fiscal 2030.

Massachusetts Development Finance Agency. Under legislation approved in 2010 and amended in 2011, the Massachusetts Development Finance Agency (MassDevelopment) is authorized to issue bonds for the benefit of nonprofit community hospitals and nonprofit community health centers. Such bonds are to be secured by capital reserve funds funded at the time of bond issuance in an amount equal to the maximum annual debt service on the bonds. The legislation provides that MassDevelopment is to notify the Governor if any such capital reserve fund needs to be replenished, and that the Legislature is to appropriate the amount necessary to restore the fund to its required level. The legislation contains no limit on the amount of such bonds that may be issued. Any project to be financed by such bonds must be approved by the Secretary of Health and Human Services, and any loan to a community hospital or community health center (and the issuance and terms of the related bonds) must be approved by the Secretary of Administration and Finance. If any such institution defaults on a loan, any moneys in the custody of the Commonwealth that are payable to the institution may be withheld by the Commonwealth and used to pay debt service or to replenish the applicable capital reserve fund. If, following a Commonwealth transfer to replenish a

capital reserve fund, the applicable institution fails to reimburse the Commonwealth within six months, the Commonwealth may withhold funds payable to the institution, and all contracts issued by the Group Insurance Commission, the Commonwealth Health Insurance Connector Authority and MassHealth to a third party for the purposes of providing health care insurance paid for by the Commonwealth are to provide that the third party is to withhold payments to the institution and transfer the withheld amounts to the Commonwealth. No bonds have ever been issued pursuant to this legislation.

Woods Hole, Martha’s Vineyard and Nantucket Steamship Authority. The Steamship Authority operates passenger and vehicle ferries to Martha’s Vineyard and Nantucket. The Steamship Authority issues its own bonds and notes. Commonwealth support of the bonds and notes of the Steamship Authority includes a Commonwealth guaranty pursuant to statutory provisions requiring the Commonwealth to provide the Authority with funds sufficient to meet the principal of and interest on their bonds and notes as they mature to the extent that funds sufficient for this purpose are not otherwise available to the Authority and the Commonwealth’s payment, under applicable statutory provisions, of the net cost of service of the Steamship Authority (current expenses, including debt service, minus current income). The Steamship Authority is currently self-supporting, requiring no net cost of service or contract assistance payments. As of November 1, 2016 the Steamship Authority had approximately \$66.3 million of bonds outstanding. The Commonwealth’s obligations to the Steamship Authority are general obligations for which its full faith and credit have been pledged.

University of Massachusetts Building Authority. This authority, created to assist the University of Massachusetts, is permitted by its enabling act to have outstanding up to \$200 million in Commonwealth-guaranteed debt. The Commonwealth’s guaranty of principal and interest is a general obligation of the Commonwealth for which its full faith and credit are pledged. In addition to such guaranty, certain revenues of the Authority, including dormitory rental income and student fees, are pledged to pay the Authority’s bonds. As of August 1, 2016, the Authority had approximately \$117.4 million of Commonwealth-guaranteed debt outstanding.

Authorized and Unissued Debt

General obligation bonds of the Commonwealth are authorized to correspond with capital appropriations. See “COMMONWEALTH BUDGET AND FINANCIAL MANAGEMENT CONTROLS – Capital Investment Process and Controls.” Over the last decade, the Commonwealth has typically had a large amount of authorized and unissued debt. However, the Commonwealth’s actual expenditures for capital projects in a given year relate more to the capital needs which the Commonwealth determines it can afford to finance in such year than to the total amount of authorized and unissued debt. The table below presents authorized and unissued debt at year end:

Authorized and Unissued Debt (in thousands)

<u>Fiscal Year</u>	<u>Authorized and Unissued Debt</u>
2012	\$13,893,469
2013	13,762,257
2014	26,255,768
2015	29,071,339
2016 (1)	26,145,997

SOURCE: Office of the Comptroller.
 (1) Unaudited

Authorized and unissued debt is measured in accordance with the statutory basis of accounting, which is different from GAAP. Only the net proceeds of bonds issued (exclusive of underwriters’ discount, costs of issuance and other financing costs) are deducted from the amount of authorized and unissued debt. Therefore, the change in authorized and unissued debt at the end of any fiscal year is not intended to correlate to the change in the principal amount of debt outstanding as measured and reported in conformity with GAAP.

The Legislature has enacted various bond authorizations to fund the Commonwealth’s capital investment plan. See “COMMONWEALTH CAPITAL INVESTMENT PLAN.” Capital spending and subsequent debt issuance is constrained by the debt affordability policy and the statutory debt limit, and will be published annually in the five-year capital investment plan.

COMMONWEALTH CAPITAL INVESTMENT PLAN

The Executive Office for Administration and Finance annually updates its five-year capital investment plan on a rolling basis. The five-year plan coordinates capital expenditures by state agencies and authorities that are funded primarily by Commonwealth debt and federal reimbursements. The capital investment plan for fiscal 2017 through fiscal 2021 provides resources for various Commonwealth facilities and programs.

The Executive Office for Administration and Finance also sets an annual administrative limit on the amount of bond-funded capital expenditures. The purpose of the administrative limit, known as the “bond cap,” is to keep Commonwealth debt within affordable levels. On May 19, 2016, the Governor announced the five-year capital investment plan for fiscal 2017 through fiscal 2021 and an administrative bond cap of \$2.19 billion. This increase represents a 3% increase over fiscal 2016, a smaller increase than projected growth in tax revenues.

The following table shows the allocation of administrative bond cap spending by agency and the allocation of total capital spending from all sources of funding for fiscal 2017:

Fiscal Year 2017 Capital Budget (in millions)

<u>Agency</u>	<u>Bond Cap</u>	<u>Project- Financed</u>	<u>Federal Funds</u>	<u>Other Funds</u>	<u>Total</u>
Administration and Finance	\$126.2	\$10.0	-	\$70.0	\$206.2
Capital Asset Management	492.8	24.2	1.4	58.3	576.8
Education	19.0				19.0
Energy and Environmental Affairs	200.7	-	2.2	21.8	224.7
Housing and Community Development	200.2	-	3.0	10.0	213.2
Housing and Economic Development	142.5	-	-	4.9	147.4
MassIT	169.0	42.3	111.4	14.8	337.4
Public Safety	18.7	1.2	-	-	21.0
MassDOT	<u>816.0</u>	<u>-</u>	<u>759.6</u>	<u>820.1</u>	<u>2,489.4</u>
Total (1)	\$2,190.0	\$77.7	\$877.6	\$1,000.7	\$4,146.0

SOURCE: Executive Office for Administration and Finance as of Executive Office for Administration and Finance as of May 19, 2016.

(1) Totals may not add due to rounding

The different sources of funding for the capital program, as reflected in the table above, include:

- Administrative Bond Cap – Commonwealth general obligation borrowing to support the regular capital program.
- Project Financed – General obligation bonds, the debt service for which is supported by savings or revenue related to the project; for example, energy efficiency improvements to Commonwealth facilities, the capital costs for which are expected to be reimbursed through operating savings as a result of reduced energy consumption.
- Federal Funds – Federal reimbursements for capital expenditures.
- Other Funds:
 - Accelerated Bridge Program (ABP) – Commonwealth special obligation bonds secured by revenues credited to the Commonwealth Transportation Fund (CTF) or federal grant anticipation notes secured by federal highway reimbursements issued to fund capital improvements to structurally deficient bridges through the ABP.
 - Rail Enhancement Program (REP) – Commonwealth special obligation bonds to be secured by revenues credited to the CTF to finance certain transit infrastructure projects through the REP, previously referred to as Special Obligation Transit Bonds.
 - Pay-As-You-Go – Funding from current revenue for capital projects, including toll revenue.

- Contributions made by third parties to capital projects being carried out by the Commonwealth, including the I-Cubed program, contributions from campuses for higher education projects, and capital projects funded by assessments.

The administrative bond cap is reviewed and subject to revision annually. Actual capital spending is subject to variance from budget due to the nature of capital projects and programs comprising the plan. In addition, debt affordability analysis and the assumptions and methodology that inform the analysis are subject to periodic review and are updated annually. These and other factors are expected to affect the out-years of the current five-year plan.

The Commonwealth aggregates its capital expenditures into seven major categories based primarily on the agencies responsible for spending and carrying out capital projects: information technology, infrastructure and facilities, environment, housing, public safety, transportation and other. The following table sets forth capital spending in fiscal 2012 through fiscal 2017 (fiscal 2017 is preliminary and subject to change) according to these categories.

Commonwealth Historical Capital Spending (in millions) (1)

Investment Category:	<u>Fiscal 2012</u>	<u>Fiscal 2013</u>	<u>Fiscal 2014</u>	<u>Fiscal 2015</u>	<u>Fiscal 2016</u>	<u>Fiscal 2017 (2)</u>
Information technology	\$ 129	\$133	\$190	\$207	\$169	\$305
Infrastructure/facilities	518	452	457	449	526	517
Environment	131	130	138	221	238	202
Housing	185	183	182	188	185	200
Public safety	17	17	22	26	18	20
Transportation	1,618	1,528	1,790	2,041	2,081	1,892
Other	<u>125</u>	<u>183</u>	<u>227</u>	<u>242</u>	<u>215</u>	<u>297</u>
Total (3)	<u>\$2,724</u>	<u>\$2,626</u>	<u>\$3,006</u>	<u>\$3,374</u>	<u>\$3,432</u>	<u>\$3,433</u>

SOURCE: Fiscal 2012-2016, Office of the State Comptroller; fiscal 2017, Executive Office for Administration and Finance.

- (1) Includes all spending funded by capital appropriations, including General Obligation, Special Obligation, project financed, and federal spending.
- (2) Preliminary and subject to change.
- (3) Totals may not add due to rounding.

One project for which capital spending is anticipated during fiscal 2017 is the extension of the MBTA's Green Line from Cambridge into Somerville and Medford. MassDOT and the MBTA recently completed a comprehensive review of the project, following a preliminary analysis that projected a cost increase ranging from \$700 million to \$1 billion, as compared to the prior estimate. In the course of this review, the MBTA and MassDOT paused additional contracting for the project, analyzed the source of the cost overrun, considered a redesign of the project, and sought additional sources of funding. Following this review, a revised project scope with a new cost estimate of \$2.3 billion, and pledged contributions for the project totaling approximately \$227 million from corridor municipalities and the metropolitan planning organization, the MBTA's Fiscal and Management Control Board (FMCB) voted on May 9, 2016 to approve the resubmission of the project to the Federal Transit Authority (FTA). MassDOT, the MBTA and the FMCB will only issue final approval of the project once a revised finance plan is approved by the FTA and certified bids come in within the revised cost estimate. Special obligation bonds funded from the Commonwealth Transportation Fund as well as municipal contributions may be used to finance additional project costs. See "LONG-TERM LIABILITIES – Special Obligation Debt."

Debt Affordability Policy

The Executive Office for Administration and Finance has established a debt affordability policy for the Commonwealth. Pursuant to the debt affordability policy, the Executive Office for Administration and Finance has set an annual borrowing limit at a level designed to keep debt service on the Commonwealth's direct debt within 8% of budgeted revenues.

For this purpose, debt service includes programs expected to be funded both within and outside of the bond cap, including principal and interest payments on all general obligation debt, special obligation gas tax debt, ABP debt, projected debt service for REP, general obligation contract assistance payment obligations and budgetary contract assistant payment obligations on certain capital lease financings. This inclusive definition ensures that while some programs are expected to be funded outside of the bond cap, the related debt service costs of the programs should be fully accounted for under the debt affordability policy in setting the bond cap at appropriate levels.

For the purpose of the debt affordability analysis, budgeted revenue includes all Commonwealth taxes and other revenues available to pay Commonwealth operating expenses, including debt service, pensions and other budgetary obligations. It does not include off-budget revenues dedicated to the MBTA, the MSBA and the Massachusetts Convention Center Authority (MCCA).

For the fiscal 2016 capital budget, the Governor maintained the administrative bond cap at \$2.125 billion. The fiscal 2016 debt affordability analysis was based on debt service as described above and assumed growth of budgeted revenues at a rate of 4% annually. The compound annual growth rate in budgeted revenues from fiscal 2006 through fiscal 2016 (estimated) is 4.42%. In addition to keeping debt service within 8% of budgeted revenues, the debt management policy limits future annual growth in the bond cap for the regular capital program to not more than \$125 million.

The following table shows the projected total annual debt service payment obligations for the five-year capital investment plan period from fiscal 2016 through fiscal 2020, projected budgetary revenues and the resulting projected debt service as a percentage of projected budgeted revenues within 8% as prescribed by the Debt Affordability Policy.

Affordability of Commonwealth Indebtedness (in thousands)

	<u>Fiscal 2016</u>	<u>Fiscal 2017</u>	<u>Fiscal 2018</u>	<u>Fiscal 2019</u>	<u>Fiscal 2020</u>
Total Debt Service (1)	\$2,756,808	\$3,057,899	\$3,035,931	\$3,059,112	\$3,307,630
Estimated Budgeted Revenues (2)	\$40,041,900	\$41,643,576	\$43,309,319	\$45,041,692	\$46,843,359
Debt Service as % of Net Budgeted Revenues	6.88%	7.34%	7.01%	6.79%	7.06%

SOURCE: Executive Office for Administration and Finance.

- (1) For purposes of Debt Affordability Analysis, debt service includes principal and interest payments on all general obligation debt, special obligation debt, accelerated bridge program debt, general obligation contract assistance and budgetary contract assistant obligations. Projected general obligation borrowings assume level funding of administrative bond cap throughout the five-year capital plan period, special obligation transit spending and remaining authorized accelerated bridge program spending in fiscal years 2016-2020. Interest on new debt obligations is assumed to be payable at an annual rate of 4.5% for 30 year bonds, increasing annually by 0.10%. Debt structure is assumed to be level annual principal and interest payments. Projections are for planning purposes only and assumptions are subject to change. New debt service is added to existing debt service in the information statement, and does not take into account Treasury's active debt service management. Debt service projections will therefore exceed actual debt service in the short term.
- (2) Budgeted revenues are projected to grow at a rate of 4% annually. For purposes of Debt Affordability Analysis, budgeted revenues include all Commonwealth taxes and other revenues available to pay Commonwealth operating expenses, including debt service, pensions and other budgetary obligations. Budgeted revenues do not include off-budget revenues dedicated to the MBTA, the MSBA and the MCCA.

The Capital Debt Affordability Committee is charged with reviewing on a continuing basis the amount and condition of the Commonwealth's tax-supported debt, as well as the debt of certain state authorities. The Committee is also responsible for providing an estimate of the total amount of new Commonwealth debt that can prudently be authorized for the next fiscal year, taking into account certain criteria, to the Governor and Legislature on or before December 15 of each year. The committee's estimates are advisory and not binding on the Governor or the Legislature. The Legislature is responsible for authorizing Commonwealth debt. The Governor determines the total amount capital spending for each fiscal year and the amount of new Commonwealth debt that he considers advisable to finance such spending. The Committee consists of seven voting members – the Secretary of Administration and Finance (who chairs the committee), the State Treasurer, the Comptroller, the Secretary of Transportation, one appointee of the Governor and two appointees of the State Treasurer – and eight legislative leaders who are non-voting members. For fiscal 2017, the committee determined that up to \$2.19 billion of capital debt issuance could be prudently authorized. The committee is expected to release its recommendation regarding fiscal 2018 on or about December 15, 2016.

LEGAL MATTERS

There are pending in state and federal courts within the Commonwealth and in the Supreme Court of the United States various suits in which the Commonwealth is a party. In the opinion of the Attorney General, no litigation is pending or, to her knowledge, threatened which is likely to result, either individually or in the aggregate, in final judgments against the Commonwealth that would affect materially its financial condition.

Programs and Services

From time to time actions are brought against the Commonwealth by the recipients of governmental services, particularly recipients of human services benefits, seeking expanded levels of services and benefits and by the providers of such services challenging the Commonwealth's reimbursement rates and methodologies. To the extent that such actions result in judgments requiring the Commonwealth to provide expanded services or benefits or pay increased rates, additional operating and capital expenditures might be needed to implement such judgments.

Rosie D., et al. v. The Governor, United States District Court, Western Division. In a memorandum of decision dated January 26, 2006, the District Court ruled in favor of a class of Medicaid-recipient children that the Commonwealth fails to provide the home- and community-based services required under the Early and Periodic Screening, Diagnosis and Treatment ("EPSDT") provisions of the Medicaid Act. In February 2007, the District Court adopted the defendants' proposed remedial plan, with some modifications, and, in July 2007, entered judgment in accordance with that plan, as modified. The Commonwealth did not appeal from that judgment and has undertaken implementation of its remedial plan. The plan originally contemplated full implementation by June 30, 2009, but, on the Commonwealth's motion, the court modified the judgment to extend the date for full implementation to November 30, 2009. MassHealth estimates that its implementation of program changes in compliance with the remedy order will increase its costs, including administrative costs, prospectively by over \$20 million annually. The Court has extended the monitoring period several times, most recently through December 31, 2016. The Commonwealth maintains that it is in full compliance with the court's judgment. A status conference is scheduled for November 8, 2016.

SEIU v. Department of Mental Health, Supreme Judicial Court. The Service Employees International Union ("SEIU") has challenged the Department of Mental Health's contracts for the provision of Community Based Flexible Supports ("CBFS") as unlawful privatization contracts under the so-called Pacheco Law. The union seeks declaratory relief invalidating portions of the CBFS contracts as well as reinstatement of and back pay for up to 100 former Department case managers who the union claims were laid off in 2009 as a result of these allegedly unlawful contracts. On August 15, 2012, the Department of Mental Health ("Department") filed a motion for judgment on the pleadings seeking to dismiss the case due to lack of subject matter jurisdiction based on SEIU's lack of standing to pursue the action and its failure to include as defendants in the action the private contractors whose contracts would be partially invalidated were the requested relief granted. By Memorandum of Decision and Order dated March 8, 2013, the Superior Court allowed the Department's motion, and on March 24, 2013, judgment entered dismissing the case. SEIU subsequently appealed. On August 15, 2014, the Supreme Judicial Court issued a decision affirming the Superior Court's determination that the complaint was deficient for failing to name the state contractors in the CBFS program as parties. It remanded the case to the Superior Court for the sole purpose of allowing SEIU to move to amend its complaint to add as necessary parties the DMH contractors. In its August 15, 2014 decision, the Supreme Judicial Court reversed the Superior Court's separate determination that, based on the pleadings, SEIU lacked direct standing to seek enforcement of the Pacheco Law. The union filed an amended complaint naming the CBFS contractors on October 8, 2014. After the Department moved to dismiss this amended complaint, the Superior Court in late August, 2015 issued a memorandum of decision dismissing SEIU's complaint for lack of jurisdiction on the ground that the only extant contracts are renewal contracts, which are expressly excluded from the purview of the Pacheco Law. A judgment dismissing the case with prejudice was entered on August 28, 2015. SEIU filed a notice of appeal and, on January 13, 2016, the Supreme Judicial Court allowed SEIU's application for direct appellate review. The Supreme Judicial Court heard oral arguments on September 6, 2016, and a decision is expected by early 2017. If the Court rejects DMH's arguments, the case will likely be remanded for trial. The Department believes that the potential costs associated with rehiring the laid-off case managers, if such relief were ultimately ordered, could reach \$10 million annually. This would be in addition to whatever back pay might be awarded if the plaintiff prevails.

Hutchinson et al. v. Patrick et al., United States District Court, Massachusetts. This is a class action, commenced in 2007, brought by two organizations and five individuals with brain injuries who are residents of various nursing facilities. Plaintiffs claim that they and a class of between 2,000 and 4,000 brain-injured individuals are entitled to, among other things, placement in community settings. Plaintiffs asserted claims under the Americans with Disabilities Act, the Rehabilitation Act and the Medicaid Act; they sought declaratory and injunctive relief. After the court certified a class in October 2007, the parties engaged in an intensive period of settlement negotiations. In May, 2008, the parties entered into a settlement agreement which was subsequently amended in July, 2013 (“Agreement”). Under the terms of the Agreement, the defendants will use the Massachusetts Money Follows the Person Demonstration Project (“MFP Project”) and various waiver programs to provide community residential and non-residential supports in an integrated setting to Massachusetts Medicaid-eligible persons with an acquired brain injury who are in nursing and long-term rehabilitation facilities (“Class Members in Facilities”). Over the six-year term of the Agreement, the defendants will provide between 905 and 1,174 waiver slots for Class Members in Facilities. The exact number of slots to be added will depend on the level of demand for waiver services.

The cost of implementing these programs was originally projected to be approximately \$386 million, phased in over six years, with approximately half of that amount expected to be reimbursed by the federal government. The fiscal 2015 budget provided a new, \$34.3 million line item at EHS/MassHealth specifically for the purposes of funding the Hutchinson Settlement. The fiscal 2016 budget increased the appropriation to \$49.4 million. The fiscal 2017 appropriation is approximately \$71.6 million. The majority of this funding will be allocated to the Department of Developmental Services and the Massachusetts Rehabilitation Commission to fund Hutchinson-related services, while the residual EHS/MassHealth funding will pay for the development of the IT systems necessary to support and track these services. By year six of the agreement, fiscal 2019, when the program will be fully implemented, the annualized cost of the program as initially projected will be approximately \$112 million (gross) or \$56 million (net) state cost.

Massachusetts Council of Human Service Providers, Inc., et al. v. Secretary of the Executive Office of Health and Human Services (Suffolk Superior Court). A coalition of providers of social services has brought suit against EOHHS, alleging that EOHHS has failed to promulgate new (higher) rates of reimbursement to providers of various behavioral health services, and to reimburse those providers consistent with such rates, notwithstanding statutory requirements which set a timetable by which such rates were required to be promulgated and to become effective. The plaintiffs argue that EOHHS had a non-discretionary statutory duty to promulgate the new rates, and to reimburse providers consistent with such rates, but has failed to do so in a timely manner. Plaintiffs have brought an action seeking relief under the mandamus and declaratory judgment statutes. In their complaint, plaintiffs allege that, if EOHHS is ordered promptly to set and pay according to all rates that have not yet been promulgated, EOHHS would be liable for approximately \$52 million in higher rate payments (*i.e.*, the difference between the currently extant rates and the new rates required to be set) in fiscal 2015 alone. The complaint was filed on or about June 30, 2014; on July 29, 2014, EOHHS filed its answer denying some allegations and asserting several affirmative defenses. The plaintiffs filed a motion for judgment on the pleadings on October 30, 2014. On January 12, 2015, the court granted the Plaintiffs’ motion for judgment on the pleadings, but permitted the parties to attempt to negotiate a schedule for rate promulgation and implementation. After negotiations, the court granted a joint motion for entry of judgment in the form proposed by the parties on May 14, 2015. Pursuant to this interim, agreed-upon resolution, the promulgation of new rates will be delayed up to two years – but, in the meanwhile, service providers will benefit from interim supplemental payments representing some fraction of the liability plaintiffs had alleged in their complaint.

Fowler, et al., for themselves and others similarly situated v. Thomas Turco, in his official capacity as the Commissioner of the Massachusetts Department of Correction, and the Massachusetts Partnership for Correctional Healthcare, LLC, United States District Court, Massachusetts. Four state prisoners have filed a class action suit relating to treatment of the Hepatitis C virus (HCV) among prisoners in the custody of the Massachusetts Department of Correction. The suit alleges that the Department of Correction and its healthcare services provider, the Massachusetts Partnership for Correctional Healthcare (MPCH), have failed to provide HCV-positive prisoners with access to new medications that, plaintiffs claim, enjoy higher success rates, fewer side effects, and shorter treatment duration than prior treatments. Employing the uppermost range estimate for the rate of HCV infection among prisoners nationwide—41.1%—to the Massachusetts prison population, the number of HCV-infected individuals in Massachusetts custody could be as high as 4,800. (At present, approximately 1,500 prisoners have

been identified as HCV-positive.) The State Office of Pharmacy Services, which procures the medications for MPCH, pays between approximately \$39,000 and \$75,000 per patient, depending on the specific medication, for the typical 12-week course of treatment. Based on these figures, if the defendants are required to provide the medications to all HCV-infected prisoners in Department custody, the total cost could reach \$150-\$350 million dollars.

Medicaid Audits and Regulatory Reviews

In re: Centers for Medicare and Medicaid Services regulations (Uncompensated Care Pool/Health Safety Net Trust Fund). The federal Health Care Financing Administration (now CMS) asserted in June, 2000 that the portion of the Medicaid program funded by the Commonwealth's Health Safety Net Trust Fund (formerly the Uncompensated Care Pool) might violate federal regulations regarding permissible taxes on health care providers. Since 1993, MassHealth has sought federal waivers for the Commonwealth's assessment on acute care hospitals and surcharge payers, respectively, which fund the Uncompensated Care Pool and its successor, the Health Safety Net Trust Fund. Federal responses to the Commonwealth's most recent waiver submissions have been pending since 2000. The Commonwealth believes that the assessments are within the federal law pertaining to health care-related taxes. Under federal regulations, if the Commonwealth were ultimately determined to have imposed an impermissible health care-related tax, the federal government could seek retroactive repayment of federal Medicaid reimbursements. Updated federal regulations on health care-related taxes took effect June 30, 2010. By the end of Health Safety Net fiscal year 2016, the Commonwealth will have collected an estimated \$5.811 billion in acute hospital assessments since 1990 and an estimated \$2.692 billion in surcharge payments since 1998.

In re: Office of the Inspector General Report Number: A-01-12-0006 (Claiming the correct Federal medical assistance percentage for claim adjustments made to the Form CMS-64). On April 6, 2012, the federal Office of the Inspector General (OIG) initiated an audit of MassHealth's federal reporting of certain claims with dates of service between January 1, 2006 and December 31, 2010. The OIG issued a draft report on June 3, 2014. MassHealth responded on July 3, 2014. The OIG draft report concludes that during the audit period MassHealth over-claimed \$105 million in FFP due to timing issues associated with the temporary FMAP increase due to ARRA and EOHHS' "void and replace" claiming system. EOHHS' response to the draft report states that MassHealth worked closely with the federal Centers for Medicare and Medicaid Services (CMS) to develop the system it uses to submit claims and adjustments for federal matching funds on the CMS form since June 2009, and that CMS validated and accepted the "void and replace" claims adjustment system EOHHS used. The OIG's audit focused on a specific time period that, based on its calculations, resulted in a federal overpayment. Based on the OIG's methodology, there was a \$108 million federal underpayment to the Commonwealth for the subsequent period of January, 2011 through September, 2013. Based on the OIG's audit report, MassHealth has implemented the OIG's interpretation of the claiming rules after the audit period, and has requested increased federal reimbursement totaling approximately \$108.2 million from CMS, which will offset OIG's recommended adjustment. In its response to the OIG's report, EOHHS advised the OIG that if CMS agrees with the OIG's interpretation of federal claiming rules and the rules are applied consistently, EOHHS has no objection to the OIG's recommended finding. The OIG issued its final report in September, 2014. The OIG did not accept EOHHS' position. EOHHS is pursuing this matter further with CMS. CMS has not taken any action to disallow the \$108.2 million that the OIG insists is an overpayment.

In re: Centers for Medicare and Medicaid Financial Management Review: 01-MS-2012-MA-01 (Massachusetts Medicaid Nursing Facility User Fees – Federal Fiscal Year 2010). In 2011, the Centers for Medicare and Medicaid Services (CMS) Office initiated a financial review of Massachusetts' Nursing Facility User Fees for federal fiscal year 2010. In September 2013, CMS issued a draft audit report. In its report, CMS referenced that the Commonwealth collected \$220.7 million in federal fiscal year 2010 in nursing facility user fees and that non-compliance with requirements for federal funding could result in recoupment of federal funds. The findings and recommendations included a request to submit a new application for a waiver of federal requirements applicable to the user fee. EOHHS responded to CMS's draft report agreeing to seek new waiver authority from CMS. In June, 2014, CMS issued a final audit report accepting EOHHS' response and stating it would work with EOHHS to implement a new waiver. EOHHS is now working with CMS to gain approval of modifications to its nursing facility user fee structure, which may require a change in state law.

Taxes

Comcast of Massachusetts I, Inc. v. Commissioner of Revenue, Appellate Tax Board. On June 7, 2016, the Appellate Tax Board (the “Board”) issued a Decision in favor of the Commissioner in these ten consolidated corporate excise tax cases for the years 2003-2008. The case presented a variety of issues, including: (a) whether the taxpayers were entitled to a re-computation of the sales factor of various members of the combined group based on the costs of performance rule under G.L. c. 63, section 38(f), as in effect during the years at issue; (b) whether the taxpayers were entitled to a refund of corporate excise attributable to final IRS determinations adjusting the income of the taxpayers; (c) whether the taxpayers may properly claim interest expense deductions that they had added back under the Massachusetts Add Back Statute, G.L. c. 63, § 31J, on their originally filed returns; (d) whether the taxpayers improperly treated as sales within the meaning of G.L. c. 63, § 38(f), certain intercompany reimbursements made at cost, and (e) whether the taxpayers’ position that investment expenses were apportionable to Massachusetts, when these same expenses were associated with dividend income that the parties agreed was properly allocable 100% to Pennsylvania, was without legal merit. The potential refund claims total approximately \$195 million. The Board issued its decision following a seven-day trial that started on October 13, 2015 and terminated on November 20, 2015, and which was followed by the filing of post-trial and reply briefs by the parties. The Commissioner has requested that the Board issue Findings of Fact and a Report explaining the reasoning for its Decision. On September 2, 2016, the taxpayers filed a Motion to Alter, Amend or Clarify Decision, which was heard on September 29, 2016. The taxpayers contend that during the course of proceedings of the case, the Commissioner conceded five issues and that the Board’s decision should therefore be in favor of the taxpayers on those five issues. By Order dated September 30, 2016, the Board denied the motion without a hearing and indicated that, to the extent necessary, it will take the taxpayers’ motion into consideration when issuing its Report.

Northeastern University, et al. v. Commissioner of Revenue (Appeals Court, Suffolk Superior Court) and related Brownfields Credits Claims. The plaintiffs in a consolidated Superior Court case, three Massachusetts universities and one corporation, allege that the Commissioner of Revenue (“Commissioner”) wrongfully denied their requests for Brownfields Tax Credits and, in the case of the corporate plaintiff, the request to transfer or sell tax credits already obtained. Legislation in 2006 made not-for-profit institutions eligible, for the first time, to claim tax credits for work those institutions performed to remediate an environmentally contaminated site. (Because not-for-profits do not typically pay corporate excise taxes, against which such a credit may be applied, the legislation also made it possible, for the first time, for taxpayers granted such a credit to “sell” that credit to individuals or corporations who do incur tax liability, so that the buyer can make use of the credit. The law specifies that any unused portion of a credit, as reduced from year to year, can be carried over and applied to a tax liability for any subsequent year, not to exceed five years.) The sole issue in the *Northeastern University* litigation, filed in August, 2014, is whether the nonprofits may receive a Brownfields Tax Credit for site-remediation work performed prior to the taxable year commencing on or after June 24, 2006 (*i.e.*, the effective date of the legislative amendment). The Commissioner denied the plaintiffs’ applications for the credit because the site remediation work had been achieved prior to the taxable year commencing on or after June 24, 2006. But the plaintiffs have prevailed in the Superior Court and, if all other application conditions are met, they would be entitled to tax credits in the cumulative amount of \$17.7 million. Additionally, other entities may now be bolstered in claims for credits that they have not yet asserted; those claims may be worth tens of millions of dollars. The Commonwealth has appealed the adverse Superior Court judgment. On June 17, 2016, the court dismissed the appeal with respect to 131 Willow Ave. LLC only, following the filing of a partial motion to dismiss under Rule 29(b) of the MA Rules of Appellate Procedure by the Commissioner on June 15, 2016, reflecting the agreement of the Commissioner and 131 Willow Ave. LLC that the appeal be dismissed with respect to 131 Willow Ave. LLC only. The Commissioner filed his initial appellate brief on June 28, 2016. The taxpayers filed their brief on August 22, 2016. The Commissioner filed his reply brief on September 30, 2016, and the appeal is now ready to be scheduled for oral argument. There is also an unrelated Superior Court case filed in February, 2016 by Arborway Corporation, which likewise presents a Brownfields Credit claim; the potential revenue loss in that case is estimated at \$1.7 million. In the category of Brownfields Credits claims not yet docketed at the Appellate Tax Board, the Department of Revenue estimates \$20.3 million worth of potential revenue loss (even though none of the individual credit amounts exceeds \$10 million).

Film Credits Claims. Under the provisions of General Laws chapter 63, § 38X, personal income tax and corporate excise credits and sales tax exemptions are available to qualifying taxpayers in the motion picture industry (commonly referred to as “Film Credits”). In summary, a taxpayer engaged in the making of a motion picture shall be allowed a credit against the taxes imposed by the General Laws in chapter 63 for the employment of persons

within the Commonwealth in connection with the filming or production of one or more motion pictures in the Commonwealth within any consecutive 12-month period. The Department of Revenue is reviewing applications from various taxpayers for Film Credits, against taxable income, in amounts that total approximately \$54.1 million. All applications are currently pending action within the Department's Audit Division.

Other Revenues

Commonwealth of Massachusetts v. Philip Morris Inc., RJ Reynolds Tobacco Company, Lorillard Tobacco Company, et al., Supreme Judicial Court, Middlesex Superior Court (a/k/a the Tobacco Master Settlement Agreement, Nonparticipating Manufacturer ("NPM") Adjustment Disputes)

These matters arise under the Tobacco Master Settlement Agreement ("MSA"), entered into in 1998, that settled litigation and claims by Massachusetts and 51 other states or dependencies (collectively the "States") against the major tobacco manufacturers. Under the MSA, yearly payments made by the Original Participating Manufacturers ("OPMs") and Subsequent Participating Manufacturers (collectively the Participating Manufacturers or "PMs") are subject to a number of adjustments. One such adjustment is the Non-Participating Manufacturer ("NPM") Adjustment, which can be triggered if the PMs suffer a specified market share loss as compared to their market share during the base year 1997. Under the MSA, a nationally recognized economic firm selected jointly by the States and the PMs must make a determination that "the disadvantages experienced" by the PMs as a result of complying with the MSA were "a significant factor contributing to the Market Share Loss" for a given year. Even if such a determination is made, the States can still avoid the NPM adjustment if it is determined that the States "diligently enforced" their individual NPM Escrow Statutes.

(a) (2004 NPM Adjustment) The PMs seek to reduce, by approximately \$1.1 billion, the MSA payments they made to the States for 2004 sales and so they deposited a portion of this amount into an escrow account pending a resolution of this claim. A determination has been made that the PMs suffered a market share loss and that the disadvantages experienced by the PMs as a result of complying with the MSA were a significant factor contributing to the market share loss. The PMs notified the States of their intent to arbitrate the issue of whether each state diligently enforced its NPM Escrow Statute during 2004 following the conclusion of the 2003 NPM Adjustment Arbitration proceedings. If the Commonwealth does not prevail, future MSA payments to Massachusetts would be reduced by an amount yet to be determined, between \$17 million, plus interest, up to but not exceeding the full amount of the state's MSA payment for 2004 sales, depending upon the outcome of similar NPM proceedings against other states. An arbitration to resolve the 2004 NPM Adjustment Dispute has been commenced. The arbitrators have been selected and proceedings are currently underway.

(b) (2005 NPM Adjustment) In the same manner as described above, the PMs seek to reduce, by approximately \$753 million, the MSA payments they made to the States for 2005 sales. A determination has been made that the PMs suffered a market share loss and that the disadvantages experienced by the PMs as a result of complying with the MSA were a significant factor contributing to the market share loss. The PMs notified the States of their intent to arbitrate the issue of whether each state diligently enforced its NPM Escrow Statute during 2005 following the conclusion of the 2003 NPM Adjustment Arbitration proceedings. If the Commonwealth does not prevail, future MSA payments to Massachusetts would be reduced by an amount yet to be determined, between \$30 million, plus interest, up to but not exceeding the full amount of the state's MSA payment for 2005 sales, depending upon the outcome of similar NPM proceedings against other states.

(c) (2006 NPM Adjustment) In the same manner as described above, the PMs seek to reduce, by approximately \$704 million, the MSA payments they made to the States for 2006 sales. A determination has been made that the PMs suffered a market share loss and that the disadvantages experienced by the PMs as a result of complying with the MSA were a significant factor contributing to the market share loss. The PMs notified the States of their intent to arbitrate the issue of whether each state diligently enforced its NPM Escrow Statute during 2006 following the conclusion of the 2003 NPM Adjustment Arbitration proceedings. If the Commonwealth does not prevail, future MSA payments to Massachusetts would be reduced by an amount yet to be determined, between \$7 million, plus interest, up to but not exceeding the full amount of the state's MSA payment for 2006 sales, depending upon the outcome of similar NPM proceedings against other states.

(d) (2007 NPM Adjustment) In the same manner as described above, the PMs seek to reduce, by approximately \$791 million, the MSA payments they made to the States for 2007 sales. A determination has been made that the PMs suffered a market share loss and that the disadvantages experienced by the PMs as a result of complying with the MSA were a significant factor contributing to the market share loss. The PMs notified the States of their intent to arbitrate the issue of whether each state diligently enforced its NPM Escrow Statute during 2007 following the conclusion of the 2003 NPM Adjustment Arbitration proceedings. If the Commonwealth does not prevail, future MSA payments to Massachusetts would be reduced by an amount yet to be determined, between \$8.8 million, plus interest, up to but not exceeding the full amount of the state's MSA payment for 2007 sales, depending upon the outcome of similar NPM proceedings against other states.

(e) (2008 NPM Adjustment) In the same manner as described above, the PMs seek to reduce, by approximately \$888 million, the MSA payments they made to the States for 2008 sales. A determination has been made that the PMs suffered a market share loss and that the disadvantages experienced by the PMs as a result of complying with the MSA were a significant factor contributing to the market share loss. The PMs notified the States of their intent to arbitrate the issue of whether each state diligently enforced its NPM Escrow Statute during 2008 following the conclusion of the 2003 NPM Adjustment Arbitration proceedings. If the Commonwealth does not prevail, future MSA payments to Massachusetts would be reduced by an amount yet to be determined, between \$900,000, plus interest, up to but not exceeding the full amount of the state's MSA payment for 2008 sales, depending upon the outcome of similar NPM proceedings against other states.

(f) (2009 NPM Adjustment) In the same manner as described above, the PMs seek to reduce, by approximately \$859 million, the MSA payments they made to the States for 2009 sales. A determination has been made that the PMs suffered a market share loss and that the disadvantages experienced by the PMs as a result of complying with the MSA were a significant factor contributing to the market share loss. The PMs have not yet notified the States of their intent to arbitrate the issue of whether each state diligently enforced its NPM Escrow Statute during 2009. If the matter is arbitrated and the Commonwealth does not prevail, future MSA payments to Massachusetts would be reduced by an amount yet to be determined, between \$1.3 million, plus interest, up to but not exceeding the full amount of the state's MSA payment for 2009 sales, depending upon the outcome of similar NPM proceedings against other states.

(g) (2010 NPM Adjustment) In the same manner as described above, the PMs seek to reduce, by approximately \$873 million, the MSA payments they made to the States for 2010 sales. A determination has been made that the PMs suffered a market share loss and that the disadvantages experienced by the PMs as a result of complying with the MSA were a significant factor contributing to the market share loss. The PMs have not yet notified the States of their intent to arbitrate the issue of whether each state diligently enforced its NPM Escrow Statute during 2010. If the matter is arbitrated and the Commonwealth does not prevail, future MSA payments to Massachusetts would be reduced by an amount yet to be determined, between \$500,000, plus interest, up to but not exceeding the full amount of the state's MSA payment for 2010 sales, depending upon the outcome of similar NPM proceedings against other states.

(h) (2011 NPM Adjustment) In the same manner as described above, the PMs seek to reduce, by approximately \$728 million, the MSA payments they made to the States for 2011 sales. This amount is subject to revision until a Final Calculation in March, 2016. A determination has been made that the PMs suffered a market share loss and that the disadvantages experienced by the PMs as a result of complying with the MSA were a significant factor contributing to the market share loss. The PMs have not yet notified the States of their intent to arbitrate the issue of whether each state diligently enforced its NPM Escrow Statute during 2011. If the matter is arbitrated and the Commonwealth does not prevail, future MSA payments to Massachusetts would be reduced by an amount yet to be determined, between \$500,000, plus interest, up to but not exceeding the full amount of the state's MSA payment for 2011 sales, depending upon the outcome of similar NPM proceedings against other states.

(i) (2012 NPM Adjustment) In the same manner as described above, the PMs seek to reduce by approximately \$789 million, the MSA payments they made to the States for 2012 sales. This amount is subject to revision until a Final Calculation in March, 2017. A determination has been made that the PMs suffered a market share loss and that the disadvantages experienced by the PMs as a result of complying with the MSA were a significant factor contributing to the market share loss. The PMs have not yet notified the States of their intent to arbitrate the issue of whether each state diligently enforced its NPM Escrow Statute during 2012. If the matter is

arbitrated and the Commonwealth does not prevail, future MSA payments to Massachusetts would be reduced by an amount yet to be determined, between \$200,000, plus interest, up to but not exceeding the full amount of the state's MSA payment for 2012 sales, depending upon the outcome of similar NPM proceedings against other states.

(j) (2013 NPM Adjustment) In the same manner as described above, the PMs seek to reduce by approximately \$814 million, the MSA payments they made to the States for 2013 sales. This amount is subject to revision until a Final Calculation in March, 2018. A determination has been made that the PMs suffered a market share loss and that the disadvantages experienced by the PMs as a result of complying with the MSA were a significant factor contributing to the market share loss. The PMs have not yet notified the States of their intent to arbitrate the issue of whether each state diligently enforced its NPM Escrow Statute during 2013. The largest PMs have not yet had an opportunity to designate funds related to 2013 sales as disputed and place the funds in escrow. Until they have had such an opportunity and Final Calculations are received in March, 2018, the Commonwealth's potential exposure cannot be determined.

(k) (2014 NPM Adjustment) In the same manner as described above, the PMs seek to reduce by approximately \$816 million, the MSA payments they made to the States for 2014 sales. This amount is subject to revision until a Final Calculation in March, 2019. A determination has been made that the PMs suffered a market share loss and that the disadvantages experienced by the PMs as a result of complying with the MSA were a significant factor contributing to the market share loss. The PMs have not yet notified the States of their intent to arbitrate the issue of whether each state diligently enforced its NPM Escrow Statute during 2014. The largest PMs have not yet had an opportunity to designate funds related to 2014 sales as disputed and place the funds in escrow. Until they have had such an opportunity and Final Calculations are received in March, 2019, the Commonwealth's potential exposure cannot be determined.

(l) (2015 NPM Adjustment) In the same manner as described above, the PMs seek to reduce by approximately \$890 million, the MSA payments they made to the States for 2015 sales. This amount is subject to revision until a Final Calculation in March, 2020. A determination has been made that the PMs suffered a market share loss and that the disadvantages experienced by the PMs as a result of complying with the MSA were a significant factor contributing to the market share loss. The PMs have not yet notified the States of their intent to arbitrate the issue of whether each state diligently enforced its NPM Escrow Statute during 2015. The largest PMs have not yet had an opportunity to designate funds related to 2015 sales as disputed and place the funds in escrow. Until they have had such an opportunity and Final Calculations are received in March, 2020, the Commonwealth's potential exposure cannot be determined.

Environment

In re Massachusetts Military Reservation (pre-litigation). The Commonwealth, through the Executive Office of Energy and Environmental Affairs, the Department of Environmental Protection and the Attorney General's office, were engaged in discussions with federal Natural Resource Trustees, including the United States Army and Air Force, the Department of the Interior and the National Oceanic and Atmospheric Administration, and private contractors regarding natural resource damages at the Massachusetts Military Reservation on Cape Cod. Federal Trustees and private contractors claim that the Commonwealth and others are liable for natural resource damages due to widespread contamination primarily from past military activities at the Reservation and are responsible for response actions and related clean-up activities. The assessment process for natural resource damages is set out in federal regulations and has not been completed. While no recent comprehensive estimate of natural resource damages and response actions is available, it is expected that the damages and response actions may cost at least tens of millions of dollars. In 2013, the state and federal trustees reopened preliminary discussions per a Trustee Council resolution on a potential settlement framework.

Other

Drug Testing Laboratory disputes. In August, 2012, Annie Dookhan, a chemist formerly employed at the state's drug testing laboratory in Boston, admitted to several types of misconduct involving her handling of laboratory samples, which were used in criminal cases. The Attorney General's office conducted a criminal investigation, and in December, 2012 Ms. Dookhan was indicted by a statewide grand jury on charges in connection with altering drug evidence during the testing process and obstructing justice; she pled guilty in 2013 and was

sentenced to 3-to-5 years in state prison. In advance of oral argument in follow-on litigation scheduled for November 8, 2016, the Supreme Judicial Court requested amicus briefs on the following question:

Whether the persons who were convicted of drug-related charges and in whose cases former Hinton Drug Lab Assistant Analyst Annie Dookhan signed the certificate of drug analysis as the analyst, who are collectively referred to as the “Dookhan defendants,” are entitled to a comprehensive remedy, including whether all cases involving misconduct by Dookhan should be dismissed or subjected to a court-imposed deadline.

Meanwhile, in January, 2013, Sonja Farak, a chemist formerly employed at the state’s Amherst drug testing laboratory was arrested for theft of a controlled substance and tampering with evidence. In January, 2014, Ms. Farak pled guilty to charges that she removed drug samples for her own use and mixed drug evidence samples with counterfeit drugs to hide the theft, and she was given a split sentence of 2.5 years in a house of correction with 18 months to serve. The Attorney General’s Office conducted an investigation into the full scope and timing of Ms. Farak’s misconduct and the operations of the Amherst laboratory, issuing a report dated April 1, 2016, to the Hampden County Superior Court. It is now anticipated that there will be litigation to determine whether any criminal cases over the course of Ms. Farak’s employment at the Amherst laboratory were so tainted by malfeasance or affected by alleged delay in disclosure of her misconduct as to warrant relief to criminal defendants. Court hearings on motions for new trials or to dismiss filed by a small, initial group of defendants are expected to take place in Hampden Superior Court prior to the end of 2016. Given the thousands of cases from both laboratories potentially affected, there likely will be continuing significant, but as yet undetermined, state costs to remedy alleged malfeasance, including costs to defend civil complaints alleging state liability in both state and federal court and for potential judgments.

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MISCELLANEOUS

Any provisions of the constitution of the Commonwealth, of general and special laws and of other documents set forth or referred to in this Information Statement are only summarized, and such summaries do not purport to be complete statements of any of such provisions. Only the actual text of such provisions can be relied upon for completeness and accuracy.

This Information Statement 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.

All estimates and assumptions in this Information Statement have been made on the best information available and are believed to be reliable, but no representations whatsoever are made that such estimates and assumptions are correct. So far as any statements in this Information Statement involve any matters of opinion, whether or not expressly so stated, they are intended merely as such and not as representations of fact. The various tables may not add due to rounding of figures.

Neither the Commonwealth’s independent auditors, nor any other independent accountants, have compiled, examined, or performed any procedures with respect to the prospective financial information contained herein, nor have they expressed any opinion or any other form of assurance on such information or its achievability, and assume no responsibility for, and disclaim any association with, the prospective financial information.

The information, estimates and assumptions and expressions of opinion in this Information Statement are subject to change without notice. Neither the delivery of this Information Statement nor any sale made pursuant to any official statement of which this Information Statement is a part shall, under any circumstances, create any implication that there has been no change in the affairs of the Commonwealth or its agencies, authorities or political subdivisions since the date of this Information Statement, except as expressly stated.

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CONTINUING DISCLOSURE

The Commonwealth prepares its Statutory Basis Financial Report and its Comprehensive Annual Financial Report with respect to each fiscal year ending June 30. The Statutory Basis Financial Report usually becomes available on or around October 31 of the following fiscal year and the Comprehensive Annual Financial Report becomes available in January of the following fiscal year. Copies of such reports and other financial reports of the Comptroller referenced in this document may be obtained by requesting the same in writing from the Office of the Comptroller, One Ashburton Place, Room 909, Boston, Massachusetts 02108. The financial statements are also available at the Comptroller's web site located at <http://www.mass.gov/comptroller> by clicking on "Financial Reports" under the "Publications and Reports" tab.

The Department of the State Auditor audits all agencies, departments and authorities of the Commonwealth at least every two years. Copies of audit reports may be obtained from the State Auditor, State House, Room 229, Boston, Massachusetts 02133.

On behalf of the Commonwealth, the State Treasurer will provide to the Municipal Securities Rulemaking Board (MSRB), through its Electronic Municipal Market Access (EMMA) System no later than 270 days after the end of each fiscal year of the Commonwealth, certain financial information and operating data relating to such fiscal year, as provided in said Rule 15c2-12, together with audited financial statements of the Commonwealth for such fiscal year. Except as noted below, the Commonwealth has not failed in the last five years to comply with its continuing disclosure undertakings with respect to any of its debt.

The Commonwealth failed to file an event notice in October, 2013 when the Moody's rating on outstanding junior-lien GANs was upgraded from Aa2 to Aa1, and failed to file an event notice in March, 2014 when the S&P rating on certain insured special obligation bonds payable from the Convention Center Fund was upgraded from A to AA-. The Commonwealth has filed notices of all such rating changes with respect to the bonds that are currently outstanding.

The fiscal 2012 and fiscal 2013 annual financial information filed by the Commonwealth pursuant to its continuing disclosure undertakings related to its grant anticipation note program contained incorrect information concerning the amounts of CTF pledged funds. Amended filings have been posted with EMMA.

The fiscal 2012 annual financial information filed by the Commonwealth on March 26, 2013 pursuant to its continuing disclosure undertakings related to its general obligation bond program contained incorrect information about the amount of outstanding direct debt subject to the statutory debt limit and the amount of the limit. An amended filing for fiscal 2012 has been posted with EMMA, and a corrected table is included in this Information Statement. See "LONG-TERM LIABILITIES – General Authority to Borrow; *Statutory Limit on Direct Debt.*"

The fiscal 2014 annual financial information was filed by the Commonwealth on March 27, 2015 pursuant to its continuing disclosure undertakings with respect to its general obligation bonds; however, there was a failure to link the filing to certain CUSIP numbers for Commonwealth general obligation bonds issued from October 29, 2014 through December 31, 2014. In addition, certain annual financial information was not properly linked to certain Commonwealth contract assistance bonds and certain CTF Bonds. Corrective filings have since been posted on EMMA.

In the course of substituting liquidity facilities in connection with certain Commonwealth general obligation variable rate demand bonds, supplements to the respective official statements for such bonds were posted in a timely manner to EMMA setting forth detailed information regarding the substituted liquidity facilities; however, separate event notices were not posted at the time. Event notices of the liquidity substitutions have since been posted.

In the course of reviewing its event notice filings, the Commonwealth discovered that bond call notices were not posted in a timely manner to EMMA in connection with certain advance refunding transactions and that a notice of defeasance was not timely posted to EMMA until approximately three and a half months after the defeasance occurred. The Commonwealth has posted such notices with respect to all Commonwealth bonds that have been advance refunded, where the funds to redeem or pay the bonds remain held in escrow.

The State Treasurer also regularly files information with EMMA beyond the documents required by the Commonwealth's continuing disclosure undertakings, including updated Information Statements. In addition, information of interest to investors may be posted on the Commonwealth's investor website at www.massbondholder.com, on twitter at twitter.com/BuyMassBonds and on the Commonwealth's "Mass. Investor Disclosure" mobile app.

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AVAILABILITY OF OTHER FINANCIAL INFORMATION

Questions regarding this Information Statement or requests for additional information concerning the Commonwealth should be directed to Susan E. Perez, Assistant Treasurer, Office of the Treasurer and Receiver-General, 3 Center Plaza, Suite 430, Boston, Massachusetts 02108, telephone (617) 367-3900, or to Jennifer Sullivan, Assistant Secretary for Capital Finance, Executive Office for Administration and Finance, State House, Room 373, Boston, Massachusetts 02133, telephone (617) 727-2040. Questions regarding legal matters relating to this Information Statement should be directed to John R. Regier, Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., One Financial Center, Boston, Massachusetts 02111, telephone (617) 348-1720.

THE COMMONWEALTH OF MASSACHUSETTS

By /s/ Deborah B. Goldberg
Deborah B. Goldberg
Treasurer and Receiver-General

By /s/ Kristen Lepore
Kristen Lepore
Secretary of Administration and Finance

November 1, 2016

The Entire Information Statement, including its Exhibits, has been filed on
EMMA.

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PROPOSED FORM OF OPINION OF BOND COUNSEL

Upon delivery of the Bonds described below, Bond Counsel proposes to deliver an opinion in substantially the following form:

MINTZ LEVIN

One Financial Center
Boston, MA 02111
617-542-6000
617-542-2241 fax
www.mintz.com

[Date of Closing]

Honorable Deborah B. Goldberg
Treasurer and Receiver-General
State House, Room 227
Boston, MA 02133

We have acted as bond counsel to The Commonwealth of Massachusetts (the “Commonwealth”) in connection with the issuance by the Commonwealth of its \$150,000,000 General Obligation Bonds, Consolidated Loan of 2016, Series H, its \$150,000,000 General Obligation Bonds, Consolidated Loan of 2016, Series I and its \$300,000,000 General Obligation Bonds, Consolidated Loan of 2016, Series J, each dated the date of delivery (collectively, the “Bonds”). In such capacity, we have examined such law and such certified proceedings and other documents as we have deemed necessary to render this opinion.

As to questions of fact material to our opinion, we have relied upon the certified proceedings and other certifications of public officials and others furnished to us without undertaking to verify the same by independent investigation.

Based upon the foregoing, we are of the opinion that, under existing law:

(a) The Bonds are valid and binding general obligations of the Commonwealth, and the full faith and credit of the Commonwealth are pledged to the payment of the principal of and interest on the Bonds. It should be noted, however, that Chapter 62F of the Massachusetts General Laws establishes a state tax revenue growth limit and does not exclude principal and interest payments on Commonwealth debt obligations from the scope of the limit.

(b) Interest on the Bonds, including any accrued original issue discount, will not be included in the gross income of the holders of the Bonds for federal income tax purposes. This opinion is rendered subject to the condition that the Commonwealth comply with certain requirements of the Internal Revenue Code of 1986, as amended, which must be satisfied subsequent to the issuance of the Bonds in order that interest thereon is and continues to be excluded from gross income for federal income tax purposes. Failure to comply with certain of such requirements could cause interest on the Bonds to be included in the gross income of holders of the Bonds retroactive to the date of issuance of the Bonds. While interest on the Bonds will not constitute a preference item for purposes of computation of the alternative minimum tax imposed on certain individuals and corporations, interest on the Bonds will be included in the “adjusted current earnings” of corporate holders of the Bonds and therefore will be taken into account in the computation of the alternative minimum tax applicable to certain corporations. We express no opinion as to other federal tax consequences resulting from holding the Bonds.

(c) Interest on the Bonds and any profit made on the sale thereof are exempt from Massachusetts personal income taxes, and the Bonds are exempt from Massachusetts personal property taxes. We express no opinion as to other Massachusetts tax consequences arising with respect to the Bonds nor as to the taxability of the Bonds, their transfer and the income therefrom, including any profit made on the sale thereof, under the laws of any state other than Massachusetts.

This opinion is given as of the date hereof, and we assume no obligation to revise or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur.

MINTZ, LEVIN, COHN, FERRIS, GLOVSKY & POPEO, P.C.

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The Commonwealth of Massachusetts

\$150,000,000
 General Obligation Bonds
 Consolidated Loan of 2016,
 Series H

\$150,000,000
 General Obligation Bonds
 Consolidated Loan of 2016,
 Series I

\$300,000,000
 General Obligation Bonds
 Consolidated Loan of 2016,
 Series J

Continuing Disclosure Undertaking
 [to be included in bond form]

On behalf of the Commonwealth, the Treasurer and Receiver-General of the Commonwealth hereby undertakes for the benefit of the owners of the Bonds to provide the Municipal Securities Rulemaking Board (the “MSRB”) through its Electronic Municipal Market Access (“EMMA”) system pursuant to the requirements of Rule 15c2-12 of the Securities and Exchange Commission (the “Rule”), no later than 270 days after the end of each fiscal year of the Commonwealth, commencing with the fiscal year ending June 30, 2017, (i) the annual financial information described below relating to such fiscal year, together with audited financial statements of the Commonwealth for such fiscal year if audited financial statements are then available; provided, however, that if audited financial statements of the Commonwealth are not then available, such audited financial statements shall be delivered to EMMA when they become available (but in no event later than 350 days after the end of such fiscal year) or (ii) notice of the Commonwealth’s failure, if any, to provide any such information. The annual financial information to be provided as aforesaid shall include financial information and operating data, in each case updated through the last day of such fiscal year unless otherwise noted, relating to the following information contained in the Commonwealth’s Information Statement dated November 1, 2016 (the “Information Statement”), and substantially in the same level of detail as is found in the referenced section of the Information Statement. The Information Statement has been filed with EMMA.

Financial Information and Operating Data Category	Reference to Information Statement for Level of Detail
1. Summary presentation on statutory accounting and five-year comparative basis of selected budgeted operating funds operations, revenues and expenditures, concluding with prior fiscal year, plus estimates for current fiscal year	“COMMONWEALTH REVENUES AND EXPENDITURES – Statutory Basis Distribution of Budgetary Revenues and Expenditures”
2. Summary presentation on GAAP and five-year comparative basis of governmental funds operations, concluding with prior fiscal year	“SELECTED FINANCIAL DATA – GAAP Basis”

Financial Information and Operating Data Category	Reference to Information Statement for Level of Detail
3. Summary presentation on a five-year comparative basis of lottery revenues and profits	“COMMONWEALTH REVENUES AND EXPENDITURES – Federal and Other Non-Tax Revenues; <i>Lottery Revenues</i> ”
4. Summary presentation of payments received pursuant to the tobacco master settlement agreement	“COMMONWEALTH REVENUES AND EXPENDITURES – Federal and Other Non-Tax Revenues; <i>Tobacco Settlement</i> ”
5. So long as Commonwealth statutes impose limits on tax revenues, information as to compliance therewith in the prior fiscal year	“COMMONWEALTH REVENUES AND EXPENDITURES – Limitations on Tax Revenues”
6. Summary description of the retirement systems for which the Commonwealth is responsible, including membership and contribution rates	“PENSION AND OPEB FUNDING – Retirement Systems” and “PENSION AND OPEB FUNDING – Employee Contributions.”
7. Summary presentation of the then-current, statutorily imposed funding schedule for future Commonwealth pension liabilities, if any	“PENSION AND OPEB FUNDING – Funding Schedule.”
8. Summary presentation on a ten-year comparative basis of actuarial valuations of pension fund assets, liabilities and funding progress	“PENSION AND OPEB FUNDING – Actuarial Valuations.”
9. Summary presentation on a five-year comparative basis of annual required pension contributions under GAAP and pension contributions made	“PENSION AND OPEB FUNDING – Annual Required Contributions.”
10. Summary presentation on a five-year comparative basis of PRIT Fund asset allocation and investment returns	“PENSION AND OPEB FUNDING – PRIT Fund Investments.”
11. Summary presentation of actuarial valuations of OPEB assets, liabilities and funding progress	“PENSION AND OPEB FUNDING – Other Post-Employment Benefit Obligations (OPEB).”
12. If and to the extent otherwise updated in the prior fiscal year, summary presentation of the size of the state workforce	“STATE WORKFORCE”
13. Five-year summary presentation of actual capital project expenditures	“COMMONWEALTH CAPITAL INVESTMENT PLAN”
14. Statement of general and special obligation long-term debt issuance and repayment analysis on a five-year comparative basis through the end of the prior fiscal year	“LONG-TERM LIABILITIES – General and Special Obligation Long-Term Debt Issuance and Repayment Analysis”
15. Statement of outstanding Commonwealth debt on a five-year comparative basis through the end of the prior fiscal year	“LONG-TERM LIABILITIES – Outstanding Long Term Commonwealth Debt”

Financial Information and Operating Data Category	Reference to Information Statement for Level of Detail
16. Annual fiscal year debt service requirements for Commonwealth general obligation and special obligation bonds, beginning with the current fiscal year	“LONG-TERM LIABILITIES – Debt Service Requirements”
17. Annual fiscal year contract assistance requirements for Commonwealth general obligation contract assistance, beginning with the current fiscal year	“LONG-TERM LIABILITIES – General Obligation Contract Assistance Liabilities”
18. Annual fiscal year long-term leasing liabilities for Commonwealth, beginning with the current fiscal year	“LONG-TERM LIABILITIES – Long-Term Operating Leases and Capital Leases”
19. Five-year summary presentation of authorized but unissued general obligation debt	“LONG-TERM LIABILITIES – Authorized And Unissued Debt”
20. So long as Commonwealth statutes impose a limit on the amount of outstanding “direct” bonds, information as to compliance therewith as of the end of the prior fiscal year	“LONG-TERM LIABILITIES – General Authority to Borrow; <i>Statutory Limit on Direct Debt</i> ”
21. Summary presentation of the then-current, Commonwealth interest rate swap agreements	“LONG-TERM LIABILITIES – Interest Rate Swaps”
22. Summary presentation of the then-current, Commonwealth liquidity facilities	“LONG-TERM LIABILITIES – Liquidity Facilities”

Any or all of the items listed above may be included by reference to other documents, including official statements pertaining to debt issued by the Commonwealth, which have been submitted to EMMA. The Commonwealth’s annual financial statements for each fiscal year shall consist of (i) combined financial statements prepared in accordance with a basis of accounting that demonstrates compliance with the Massachusetts General Laws and other applicable state finance laws, if any, in effect from time to time and (ii) general purpose financial statements prepared in accordance with generally accepted accounting principles in effect from time to time and shall be audited by a firm of certified public accountants appointed by the Commonwealth.

On behalf of the Commonwealth, the Treasurer and Receiver-General of the Commonwealth hereby further undertakes for the benefit of the owners of the Bonds to provide in a timely manner, not in excess of ten business days after occurrence of the event, to EMMA notice of any of the following events with respect to the Bonds (numbered in accordance with the provisions of the Rule):

- (i) principal and interest payment delinquencies;
- (ii) non-payment related defaults, if material;
- (iii) unscheduled draws on debt service reserves reflecting financial difficulties;⁽¹⁾
- (iv) unscheduled draws on credit enhancements reflecting financial difficulties;
- (v) substitution of credit or liquidity providers, or their failure to perform;

⁽¹⁾ Not applicable to the Bonds, since there is no debt service reserve fund securing the Bonds.

- (vi) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds;
- (vii) modifications to the rights of security holders, if material;
- (viii) bond calls, if material;
- (ix) defeasances;
- (x) release, substitution or sale of property securing repayment of the Bonds, if material;⁽²⁾
- (xi) rating changes;
- (xii) tender offers;
- (xiii) bankruptcy, insolvency, receivership or similar event of the Commonwealth;⁽³⁾
- (xiv) the consummation of a merger, consolidation, or acquisition or the sale of all or substantially all of the assets of the Commonwealth, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and
- (xv) appointment of a successor or additional trustee or the change of name of a trustee, if material.⁽⁴⁾

Nothing herein shall preclude the Commonwealth from disseminating any information in addition to that required hereunder. If the Commonwealth disseminates any such additional information, nothing herein shall obligate the Commonwealth to update such information or include it in any future materials disseminated.

To the extent permitted by law, the foregoing provisions of this Bond related to the above-described undertakings to provide information shall be enforceable against the Commonwealth in accordance with the terms thereof by any owner of a Bond, including any beneficial owner acting as a third-party beneficiary (upon proof of its status as a beneficial owner reasonably satisfactory to the Treasurer and Receiver-General). To the extent permitted by law, any such owner shall have the right, for the equal benefit and protection of all owners of Bonds, by mandamus or other suit or proceeding at law or in equity, to enforce its rights against the Commonwealth and to compel the Commonwealth and any of its officers, agents or employees to perform and carry out their duties under the foregoing provisions as aforesaid, provided; however, that the sole remedy in connection with such undertakings shall be limited to an action to compel specific performance of the obligations of the Commonwealth in connection with such undertakings and shall not include any rights to monetary damages. The Commonwealth's obligations in respect of such undertakings shall terminate if no Bonds remain outstanding (without regard to an economic defeasance) or if the provisions of the Rule concerning continuing disclosure are no longer effective, whichever occurs first. The provisions of this Bond relating to such undertakings may be

⁽²⁾ Not applicable to the Bonds, since there is no property securing repayment of the Bonds that could be released, substituted or sold.

⁽³⁾ As noted in the Rule, this event is considered to occur when any of the following occur: (i) the appointment of a receiver, fiscal agent or similar officer for the Commonwealth in a proceeding under the U.S. Bankruptcy Code or in any proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the Commonwealth, or if such jurisdiction has been assumed by leaving the existing governing body and officials in possession but subject to the supervision and orders of a court or governmental authority, or (ii) the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the Commonwealth.

⁽⁴⁾ Not applicable to the Bonds.

amended by the Treasurer and Receiver-General of the Commonwealth, without the consent of, or notice to, any owners of the Bonds, (a) to comply with or conform to the provisions of the Rule or any amendments thereto or authoritative interpretations thereof by the Securities and Exchange Commission or its staff (whether required or optional), (b) to add a dissemination agent for the information required to be provided by such undertakings and to make any necessary or desirable provisions with respect thereto, (c) to add to the covenants of the Commonwealth for the benefit of the owners of Bonds, (d) to modify the contents, presentation and format of the annual financial information from time to time as a result of a change in circumstances that arises from a change in legal requirements, or (e) to otherwise modify the undertakings in a manner consistent with the provisions of state legislation establishing a state information depository or otherwise responding to the requirements of the Rule concerning continuing disclosure; provided, however, that in the case of any amendment pursuant to clause (d) or (e), (i) the undertaking, as amended, would have complied with the requirements of the Rule at the time of the offering of the Bonds, after taking into account any amendments or authoritative interpretations of the Rule, as well as any change in circumstances, and (ii) the amendment does not materially impair the interests of the owners of the Bonds, as determined either by a party unaffiliated with the Commonwealth (such as Commonwealth disclosure counsel or Commonwealth bond counsel) or by the vote or consent of owners of a majority in outstanding principal amount of the Bonds affected thereby at or prior to the time of such amendment.

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OFFICIAL NOTICE OF SALE

THE COMMONWEALTH OF MASSACHUSETTS



\$150,000,000*
General Obligation Bonds
Consolidated Loan of 2016
Series H

November 18, 2016

NOTICE IS HEREBY GIVEN that electronic bids will be received by Deborah B. Goldberg, Treasurer and Receiver-General of The Commonwealth of Massachusetts (the “State Treasurer”), for the purchase of General Obligation Bonds, Consolidated Loan of 2016, Series H (the “Series H Bonds”), of The Commonwealth of Massachusetts (the “Commonwealth”) to be sold in an aggregate principal amount of \$150,000,000*. Bids for the purchase of the Series H Bonds will be submitted via Parity. No other method of submitting bids will be accepted. The bids will be received via Parity up to the time described below under the captions “Time” and “Procedures for Electronic Bidding.”

The Series H Bonds will constitute general obligations of the Commonwealth, and the full faith and credit of the Commonwealth are pledged to the payment of the principal of and interest on the Series H Bonds. The Preliminary Official Statement referred to below contains certain information regarding statutory limits on state tax revenue growth and should be read in conjunction herewith.

Time. Bids will be received by the Commonwealth via Parity at 10:00 a.m. (Boston, Massachusetts time) on November 30, 2016 (subject to the provisions described below under the caption “Procedures for Electronic Bidding”) or at such later date and/or other time as shall be established by the State Treasurer and communicated on Thomson Municipal Market Monitor News (www.tm3.com) (“TM3”), as described herein under the caption “Change of Bid Date or Time.” If no legal bid or bids are received for the Series H Bonds on November 30, 2016, an alternative date and time may be designated by the State Treasurer and communicated on TM3.

Details of the Series H Bonds. The Series H Bonds will be dated and bear interest, calculated on the basis of 30-day months and a 360-day year, from the date of delivery, at the rate per annum per maturity specified by the successful bidder, payable semiannually on June 1 and December 1 in each year and at maturity, beginning June 1, 2017. The Series H Bonds shall mature or come due through mandatory sinking fund redemptions on the dates shown below, subject to change as set forth in this Notice of Sale, in the principal amounts specified by the successful bidder:

<u>Maturity Date*</u>	<u>Principal Amounts</u>	<u>Maturity Date*</u>	<u>Principal Amounts</u>
December 1, 2022	\$25,000,000	December 1, 2025	\$25,000,000
December 1, 2023	25,000,000	December 1, 2026	50,000,000
December 1, 2024	25,000,000		

The Series H Bonds will be issued as serial bonds or as a combination of serial bonds and term bonds in accordance with the bid submitted by the successful bidder (see “Bidding Parameters” below).

The Series H Bonds will be delivered as registered bonds and issued by means of a book-entry-only system evidencing ownership therein, in principal amounts of \$5,000 or integral multiples thereof, and transfer thereof on

* Preliminary, subject to change.

the records of The Depository Trust Company (“DTC”) and its participants. The book-entry-only system is more fully described in the Preliminary Official Statement.

Redemption.

Optional Redemption.

The Series H Bonds are not subject to optional redemption prior to maturity.

Mandatory Sinking Fund Redemption. If any Series H Bonds are specified as term bonds by the successful bidder, such Series H Bonds will be subject to mandatory sinking fund redemption on December 1 in the years and amounts so specified by the successful bidder.

Adjustments to Principal Amount.

Changes Prior to Bidding. The preliminary aggregate principal amount of the Series H Bonds and the preliminary annual principal amounts as set forth in this Notice of Sale (the “Preliminary Aggregate Principal Amount” and the “Preliminary Annual Principal Amounts,” respectively; collectively, the “Preliminary Amounts”) may be revised before the receipt of electronic bids for the purchase of the Series H Bonds. Any such revisions (the “Revised Aggregate Principal Amount” and the “Revised Annual Principal Amounts,” respectively; collectively, the “Revised Amounts”) will be ANNOUNCED on TM3 not later than 8:30 a.m. (Boston, Massachusetts time) on ANY ANNOUNCED DATE FOR RECEIPT OF BIDS. In the event that no such revisions are made, the Preliminary Amounts will constitute the Revised Amounts. Bidders shall submit bids BASED ON THE REVISED AMOUNTS.

Changes to the Winning Bid. After selecting the winning bid, the Commonwealth will determine the final aggregate principal amount of the Series H Bonds and each final annual principal amount (the “Final Aggregate Principal Amount” and the “Final Annual Principal Amounts,” respectively; collectively, the “Final Amounts”). In determining the Final Amounts, the Commonwealth will not reduce or increase the Revised Aggregate Principal Amount by more than ten percent of such amount. THE SUCCESSFUL BIDDER MAY NOT WITHDRAW ITS BID OR CHANGE THE INTEREST RATES BID OR THE INITIAL REOFFERING PRICES (AS HEREIN DEFINED) AS A RESULT OF ANY CHANGES MADE TO THE REVISED AMOUNTS WITHIN THESE LIMITS.

The dollar amount bid by the successful bidder will be adjusted to reflect any adjustments in the aggregate principal amount of the Series H Bonds. Such adjusted bid price will reflect changes in the dollar amount of the underwriter’s discount and original issue discount/premium, if any, but will not change the selling compensation per \$1,000 of par amount of the Series H Bonds from the selling compensation that would have been received based on the purchase price in the winning bid and the initial reoffering prices. The interest rate specified by the successful bidder for each maturity as the initial reoffering prices will not change. The Final Amounts and the adjusted bid price will be communicated to the successful bidder by 10:00 a.m. (Boston, Massachusetts time) on the business day following the sale.

Bidding Parameters. Bids must be for all of the Series H Bonds offered and must offer to pay an aggregate price for all maturities of not less than 100% of the aggregate principal amount of the Series H Bonds.

Bids may provide for all the Series H Bonds to be issued as serial bonds only, or may designate consecutive annual principal amounts (bearing interest at the same rate) to be combined into no more than two term bonds. The Series H Bonds will be issued as serial bonds or as serial bonds and term bonds in accordance with the bid submitted by the successful bidder. Series H Bonds issued as term bonds shall be subject to mandatory sinking fund redemption commencing on December 1 of the first year in which maturities have been combined to form such term bond and continuing on December 1 in each year thereafter until the stated maturity date of such term bond.

Bids must state a single fixed interest rate for the Series H Bonds of each maturity. The rate of interest stated for any given maturity shall be in a multiple of one-twentieth or one-eighth of one percent per annum. No maturity may have an interest rate of more than 5.00%. The highest such interest rate specified for a maturity and the lowest interest rate specified for any other maturity may not differ by more than two percentage points.

Bids may not include any conditions not otherwise expressly provided for herein.

Procedures for Electronic Bidding. A prospective electronic bidder must register electronically to bid for the Series H Bonds via Parity pursuant to this Official Notice of Sale. By submitting its bid for the Series H Bonds, a prospective bidder represents and warrants to the Commonwealth that such bidder's bid for the purchase of the Series H Bonds is submitted for and on behalf of such prospective bidder by an officer or agent who is duly authorized to bind the prospective bidder to a legal, valid and enforceable contract for the purchase of the Series H Bonds.

Each prospective electronic bidder shall be solely responsible to register to bid via Parity. Each qualified prospective electronic bidder shall be solely responsible to make necessary arrangements to access Parity for the purpose of submitting its bid in a timely manner and in compliance with the requirements of this Official Notice of Sale. Neither the Commonwealth nor Parity shall have any duty or obligation to undertake such registration to bid for any prospective bidder or to provide or assure such access to any qualified prospective bidder, and neither the Commonwealth nor Parity shall be responsible for a bidder's failure to register to bid or for proper operation of, or have any liability for any delays or interruptions of, or any damages caused by Parity. The Commonwealth is using Parity as a communication mechanism, and not as the Commonwealth's agent, to conduct the electronic bidding for the Series H Bonds. The Commonwealth is not bound by any advice and determination of Parity to the effect that any particular bid complies with the terms of this Official Notice of Sale. All costs and expenses incurred by prospective bidders in connection with their registration and submission of bids via Parity are the sole responsibility of the bidders, and the Commonwealth is not responsible, directly or indirectly, for any such costs or expenses. To the extent that any instructions or directions set forth in Parity conflict with this Official Notice of Sale, the terms of this Official Notice of Sale shall control. If a prospective bidder encounters any difficulty in registering to bid or submitting, modifying or withdrawing a bid for the Series H Bonds, such bidder should telephone Parity's new issues desk at (212) 849-5021 and notify the Commonwealth's financial advisor, Public Financial Management, Inc. by telephone at (617) 330-6914.

Electronic bids must be submitted for the purchase of the Series H Bonds (all or none) via Parity by 10:00 a.m. (Boston, Massachusetts time) on November 30, 2016. Bids submitted after such time will not be deemed received via Parity for the purposes of this bidding process. Bids will be communicated electronically to the Commonwealth at 10:00 a.m. (Boston, Massachusetts time), on November 30, 2016. Prior to that time, an eligible prospective bidder may (i) input the proposed terms of its bid via Parity, (ii) modify the proposed terms of its bid, in which event the proposed terms as last modified will (unless the bid is withdrawn as described herein) constitute its bid for the Series H Bonds, or (iii) withdraw its proposed bid. Once the bids are communicated electronically via Parity to the Commonwealth, each bid will constitute an irrevocable offer to purchase the Series H Bonds on the terms therein provided. For purposes of the electronic bidding process, the time as maintained on Parity shall constitute the official time. For information purposes only, bidders are requested to state in their bids the true interest cost to the Commonwealth, as described under "Basis of Award" set forth below, represented by the rate or rates of interest and the bid price specified in their respective bids.

Good Faith Deposit. Upon notification from the Commonwealth, the successful bidder shall wire transfer to the State Treasurer an amount equal to \$1,000,000 (the "Good Faith Deposit"), in immediately available funds, no later than 2:00 p.m. (Boston, Massachusetts time) on the bid date. The Commonwealth will provide wiring instructions for the Good Faith Deposit to the successful bidder upon verification and award. In the event that the State Treasurer has not received such funds by the time stated, the State Treasurer may revoke acceptance of the bid. No interest on the Good Faith Deposit will accrue to the successful bidder. The Good Faith Deposit will be applied to the purchase price of the Series H Bonds. If the successful bidder fails to honor its accepted bid, the Good Faith Deposit will be retained by the Commonwealth.

Basis of Award. The Series H Bonds will be awarded to the eligible bidder (as determined by the State Treasurer) offering to purchase all of the Series H Bonds at the lowest true interest cost ("TIC") to the Commonwealth. The TIC (expressed as an annual interest rate) will be determined as being twice that factor or discount rate, compounded semiannually, which, when applied against each semiannual debt service payment (interest, or principal and interest, as due) for the Series H Bonds, will cause the sum of such discounted semiannual payments to be equal to the total purchase price. The TIC shall be calculated from the expected settlement date of the Series H Bonds (December 8, 2016).

The Commonwealth reserves the right to reject any or all proposals and to waive any irregularity or informality with respect to any proposal. Without limiting the generality of the foregoing, the Commonwealth expressly reserves the right to reject a bid in accordance with the provisions of a vote of the State Finance and

Governance Board waiving compliance with the requirements of Section 53 of Chapter 29 of the Massachusetts General Laws. Any award by the State Treasurer to a successful bidder is subject to the approval of the Governor.

Official Statement. The Preliminary Official Statement dated November 18, 2016 and the information contained therein have been deemed final by the Commonwealth as of its date within the meaning of Rule 15c2-12 of the Securities and Exchange Commission (“Rule 15c2-12”) with permitted omissions, but are subject to change without notice and to completion or amendment in the Official Statement in final form (the “Final Official Statement”). The Preliminary Official Statement may be viewed and downloaded from the Commonwealth’s website: www.massbondholder.com. In addition, the Preliminary Official Statement will be available via the Electronic Municipal Market Access (“EMMA”) system established by the Municipal Securities Rulemaking Board (the “MSRB”) at www.emma.msrb.org.

The Commonwealth will make available to the successful bidder, within seven business days of the date of sale but no later than two business days prior to settlement, a reasonable number of copies of the Final Official Statement for delivery (at the expense of the successful bidder or bidders) to each potential investor requesting a copy of the Final Official Statement and to each person to whom such bidder and members of its bidding group initially sell the Series H Bonds, provided that the successful bidder cooperates in providing the information required to complete the Final Official Statement. The successful bidder shall comply with the requirements of Rule 15c2-12 and the rules of the MSRB, including an obligation, if any, to update the Final Official Statement.

Reoffering Price Certification. On or prior to the date of delivery of the Series H Bonds, the successful bidder shall furnish to the Commonwealth a certificate acceptable to Bond Counsel to the Commonwealth generally to the effect that (i) as of November 30, 2016 (the “Sale Date”), the successful bidder had offered or reasonably expected to offer all of the Series H Bonds to the general public (excluding bond houses, brokers, or similar persons acting in the capacity of underwriters or wholesalers) in a bona fide public offering at the prices set forth in such certificate, plus accrued interest, if any, (ii) such prices represent fair market prices of the Series H Bonds as of the Sale Date, and (iii) as of the date of such certificate, all of the Series H Bonds have been offered to the general public in a bona fide offering at the prices set forth in such certificate, and at least ten percent of each maturity of the Series H Bonds actually has been sold to the general public at such prices. To the extent the certifications described in the preceding sentence are not factually accurate with respect to the reoffering of the Series H Bonds, Bond Counsel should be consulted by the bidder as to alternative certifications that will be suitable to establish the “issue price” of the Series H Bonds for federal tax law purposes. If a municipal bond insurance policy or similar credit enhancement is obtained with respect to the Series H Bonds by the successful bidder, such bidder will also be required to certify as to the net present value savings on the Series H Bonds resulting from payment of insurance premiums or other credit enhancement fees.

Continuing Disclosure. To assist bidders in complying with paragraph (b)(5) of Rule 15c2-12, the Commonwealth will undertake in the Series H Bonds to provide annual reports and notices of certain events. A description of this undertaking is set forth in Appendix C of the Preliminary Official Statement and will also be set forth in the Final Official Statement.

Expenses. Each bid will be deemed to be an all-in bid. The successful bidder will be under no obligation to pay the Commonwealth’s issuance costs. The Commonwealth will not pay any expenses of the successful bidder in connection with the purchase of the Series H Bonds.

Settlement. The Series H Bonds will be delivered on December 8, 2016, in New York, New York, at DTC against payment of the purchase price therefor (less the amount of the Good Faith Deposit). The successful bidder must make payment of the purchase price of the Series H Bonds by 10:00 a.m. (Boston, Massachusetts time) on December 8, 2016 in immediately available funds in Boston, Massachusetts.

There will also be furnished the usual closing papers, including (a) a certificate signed by the Attorney General of the Commonwealth stating that no litigation of any kind is now pending or, to her knowledge, threatened seeking to restrain or enjoin the issuance or delivery of the Series H Bonds or the levy or collection of a material portion of the taxes or other revenues of the Commonwealth, or in any manner questioning the proceedings or authority under which the Series H Bonds are issued, or affecting the validity of the Series H Bonds, or contesting in any way the completeness, accuracy or fairness of the Preliminary Official Statement or Final Official Statement or contesting the title to the office of any official signing the Series H Bonds or the Final Official Statement; and (b) a certificate signed by the State Treasurer and the Secretary of Administration and Finance to the effect that, except for

the initial offering prices or yields of the Series H Bonds on the inside cover page of the Final Official Statement and any other information concerning the reoffering of the Series H Bonds included therein at the request of the successful bidder and the information in the Preliminary Official Statement and Final Official Statement under the heading “Book-Entry-Only System” and in any Appendix other than Appendices A and B, to the best of their respective knowledge and belief, the Preliminary Official Statement, as of the date of sale of the Series H Bonds, and the Final Official Statement, both as of the date of sale and the date of settlement of the Series H Bonds, did not contain any untrue statement of a material fact and did not omit to state a material fact necessary to make the statements made therein, in light of the circumstances under which they were made, not misleading.

Legal Opinions. The approving opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, Bond Counsel, in substantially the form set forth in the Preliminary Official Statement, will be furnished to the successful bidder. The Preliminary Official Statement contains a discussion of the effect of the Internal Revenue Code of 1986, as amended, on the exclusion from gross income of interest on the Series H Bonds and a discussion of Bond Counsel’s opinion insofar as it concerns such exclusion. An opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, Bond Counsel, will also be furnished to the successful bidder to the effect that (i) the information contained in the Preliminary Official Statement and the Final Official Statement under the headings “The Bonds,” “Security for the Bonds” and in Appendix B, insofar as such information constitutes summaries of certain provisions of the Series H Bonds and applicable Massachusetts law, presents a fair summary of such provisions and that the statements in the Preliminary Official Statement and the Final Official Statement under the caption “Tax Exemption” and in the summary tax opinion contained on the cover of the Preliminary Official Statement and the Final Official Statement, insofar as such statements purport to summarize certain provisions of the Internal Revenue Code of 1986 or purport to summarize such counsel’s opinion regarding the Bonds, are correct in all material respects, and (ii) in the course of such counsel’s participation in the preparation of the Preliminary Official Statement and the Final Official Statement, no facts came to such counsel’s attention that have caused it to conclude that the Preliminary Official Statement, as of its date, or the Final Official Statement, as of the date of sale or the date of settlement of the Series H Bonds (except for the financial and statistical data included therein, the initial offering prices or yields of the Series H Bonds on the inside cover page of the Final Official Statement, any other information concerning the reoffering of the Series H Bonds included therein at the request of the successful bidder and the stabilization clause, if any, and the information in the Preliminary Official Statement and the Final Official Statement under the headings “Book-Entry-Only System,” “Ratings” and “Competitive Sale of Bonds” and in any other document specifically referenced therein, including any Appendix other than Appendix B, as to which no opinion need be expressed) contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements made therein, in light of the circumstances under which they were made, not misleading. An opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, Disclosure Counsel, will also be furnished to the successful bidder to the effect that in the course of such counsel’s participation in the preparation of the Commonwealth Information Statement (as defined in the Preliminary Official Statement), and as it may have been further supplemented as of the date of sale of the Series H Bonds, no facts came to such counsel’s attention that have caused it to conclude that the Commonwealth Information Statement as of November 1, 2016 or, as it may have been supplemented as of the date of sale of the Series H Bonds, as of said date of sale or as of the date of settlement of the Series H Bonds (except for the financial and statistical data included therein and the information contained in the Exhibits thereto, as to which no opinion need be expressed), contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements made therein, in light of the circumstances under which they were made, not misleading.

CUSIP Numbers. CUSIP numbers will be applied for by the successful bidder with respect to the Series H Bonds, and the Commonwealth will assume no obligation for the assignment or printing of such numbers on the Series H Bonds or for the correctness of such numbers. Neither failure to print such numbers on any Series H Bond nor any error with respect thereto shall constitute cause for a failure or refusal by the successful bidder to accept delivery of and make payment for the Series H Bonds. The CUSIP Service Bureau charge for the assignment of CUSIP numbers on the Series H Bonds shall be the responsibility of and shall be paid for by the successful bidder.

Right to Modify or Amend Notice of Sale. The Commonwealth reserves the right to modify or amend this Official Notice of Sale prior to the bid date. If any modifications occur, supplemental information with respect to the Series H Bonds will be communicated by posting on TM3 not later than 8:30 a.m. (Boston, Massachusetts time) on any announced date for receipt of bids, and bidders shall bid upon the Series H Bonds based upon the terms thereof set forth in this Official Notice of Sale, as so modified by such supplemental information.

Change of Bid Date or Time. The Commonwealth reserves the right to change the date and/or time established for the receipt of bids. Any such change will be announced by posting on TM3 no later than 8:30 a.m. (Boston, Massachusetts time) on the announced bid date. If any date and/or time fixed for the receipt of bids and the sale of the Series H Bonds is changed, an alternative sale date and time will be announced at least one business day prior to such alternative sale date. On any such alternative sale date and time, any bidder may submit bids electronically as described above for the purchase of the Series H Bonds in conformity in all respects with the provision of this Official Notice of Sale, except for the date and/or time of sale and except for any changes announced by posting on TM3 at the time the sale date and/or time are announced.

Minority/Women Business Enterprises. It is the policy of the Commonwealth that appropriate consideration be given to firms who (a) are minority business enterprises and women's business enterprises and (b) have significant local ownership or presence. The State Treasurer requests and strongly urges bidders to make a good-faith effort to meet this goal by including such firms in their management group or syndicate and/or in the provision of legal services or other advisory services.

Additional Information. Further information concerning the Commonwealth and the Bonds is contained in the Preliminary Official Statement dated November 18, 2016, to which prospective bidders are directed, and to which this Official Notice of Sale is attached. The Preliminary Official Statement is provided for informational purposes only and is not a part of this Official Notice of Sale. Copies of the Preliminary Official Statement and this Official Notice of Sale may be viewed and downloaded at the Commonwealth's website: www.massbondholder.com and at the EMMA website, www.emma.msrb.org. Additional information may be obtained from Susan E. Perez, Assistant Treasurer, Office of the Treasurer and Receiver-General (617-367-3900, ext. 816).

The Commonwealth of Massachusetts

/s/ Deborah B. Goldberg
Treasurer and Receiver-General

OFFICIAL NOTICE OF SALE

THE COMMONWEALTH OF MASSACHUSETTS



\$150,000,000*
General Obligation Bonds
Consolidated Loan of 2016
Series I

November 18, 2016

NOTICE IS HEREBY GIVEN that electronic bids will be received by Deborah B. Goldberg, Treasurer and Receiver-General of The Commonwealth of Massachusetts (the “State Treasurer”), for the purchase of General Obligation Bonds, Consolidated Loan of 2016, Series I (the “Series I Bonds”), of The Commonwealth of Massachusetts (the “Commonwealth”) to be sold in an aggregate principal amount of \$150,000,000*. Bids for the purchase of the Series I Bonds will be submitted via Parity. No other method of submitting bids will be accepted. The bids will be received via Parity up to the time described below under the captions “Time” and “Procedures for Electronic Bidding.”

The Series I Bonds will constitute general obligations of the Commonwealth, and the full faith and credit of the Commonwealth are pledged to the payment of the principal of and interest on the Series I Bonds. The Preliminary Official Statement referred to below contains certain information regarding statutory limits on state tax revenue growth and should be read in conjunction herewith.

Time. Bids will be received by the Commonwealth via Parity at 10:30 a.m. (Boston, Massachusetts time) on November 30, 2016 (subject to the provisions described below under the caption “Procedures for Electronic Bidding”) or at such later date and/or other time as shall be established by the State Treasurer and communicated on Thomson Municipal Market Monitor News (www.tm3.com) (“TM3”), as described herein under the caption “Change of Bid Date or Time.” If no legal bid or bids are received for the Series I Bonds on November 30, 2016, an alternative date and time may be designated by the State Treasurer and communicated on TM3.

Details of the Series I Bonds. The Series I Bonds will be dated and bear interest, calculated on the basis of 30-day months and a 360-day year, from the date of delivery, at the rate per annum per maturity specified by the successful bidder, payable semiannually on June 1 and December 1 in each year and at maturity, beginning June 1, 2017. The Series I Bonds shall mature or come due through mandatory sinking fund redemptions on the dates shown below, subject to change as set forth in this Notice of Sale, in the principal amounts specified by the successful bidder:

<u>Maturity Date*</u>	<u>Principal Amounts</u>	<u>Maturity Date*</u>	<u>Principal Amounts</u>
December 1, 2027	\$15,000,000	December 1, 2032	\$15,000,000
December 1, 2028	15,000,000	December 1, 2033	15,000,000
December 1, 2029	15,000,000	December 1, 2034	20,000,000
December 1, 2030	15,000,000	December 1, 2035	25,000,000
December 1, 2031	15,000,000		

The Series I Bonds will be issued as serial bonds or as a combination of serial bonds and term bonds in accordance with the bid submitted by the successful bidder (see “Bidding Parameters” below).

* Preliminary, subject to change.

The Series I Bonds will be delivered as registered bonds and issued by means of a book-entry-only system evidencing ownership therein, in principal amounts of \$5,000 or integral multiples thereof, and transfer thereof on the records of The Depository Trust Company (“DTC”) and its participants. The book-entry-only system is more fully described in the Preliminary Official Statement.

Redemption.

Optional Redemption. The Series I Bonds will be subject to redemption prior to their stated maturity dates on or after December 1, 2026 * at the option of the Commonwealth from any monies legally available therefor, in whole or in part at any time, by lot, at 100% of the principal amount thereof, plus accrued interest to the redemption date.

Mandatory Sinking Fund Redemption. If any Series I Bonds are specified as term bonds by the successful bidder, such Series I Bonds will be subject to mandatory sinking fund redemption on December 1 in the years and amounts so specified by the successful bidder.

Adjustments to Principal Amount.

Changes Prior to Bidding. The preliminary aggregate principal amount of the Series I Bonds and the preliminary annual principal amounts as set forth in this Notice of Sale (the “Preliminary Aggregate Principal Amount” and the “Preliminary Annual Principal Amounts,” respectively; collectively, the “Preliminary Amounts”) may be revised before the receipt of electronic bids for the purchase of the Series I Bonds. Any such revisions (the “Revised Aggregate Principal Amount” and the “Revised Annual Principal Amounts,” respectively; collectively, the “Revised Amounts”) will be ANNOUNCED on TM3 not later than 8:30 a.m. (Boston, Massachusetts time) on ANY ANNOUNCED DATE FOR RECEIPT OF BIDS. In the event that no such revisions are made, the Preliminary Amounts will constitute the Revised Amounts. Bidders shall submit bids BASED ON THE REVISED AMOUNTS.

Changes to the Winning Bid. After selecting the winning bid, the Commonwealth will determine the final aggregate principal amount of the Series I Bonds and each final annual principal amount (the “Final Aggregate Principal Amount” and the “Final Annual Principal Amounts,” respectively; collectively, the “Final Amounts”). In determining the Final Amounts, the Commonwealth will not reduce or increase the Revised Aggregate Principal Amount by more than ten percent of such amount. THE SUCCESSFUL BIDDER MAY NOT WITHDRAW ITS BID OR CHANGE THE INTEREST RATES BID OR THE INITIAL REOFFERING PRICES (AS HEREIN DEFINED) AS A RESULT OF ANY CHANGES MADE TO THE REVISED AMOUNTS WITHIN THESE LIMITS.

The dollar amount bid by the successful bidder will be adjusted to reflect any adjustments in the aggregate principal amount of the Series I Bonds. Such adjusted bid price will reflect changes in the dollar amount of the underwriter’s discount and original issue discount/premium, if any, but will not change the selling compensation per \$1,000 of par amount of the Series I Bonds from the selling compensation that would have been received based on the purchase price in the winning bid and the initial reoffering prices. The interest rate specified by the successful bidder for each maturity as the initial reoffering prices will not change. The Final Amounts and the adjusted bid price will be communicated to the successful bidder by 10:30 a.m. (Boston, Massachusetts time) on the business day following the sale.

Bidding Parameters. Bids must be for all of the Series I Bonds offered and must offer to pay an aggregate price for all maturities of not less than 100% of the aggregate principal amount of the Series I Bonds.

Bids may provide for all the Series I Bonds to be issued as serial bonds only, or may designate consecutive annual principal amounts (bearing interest at the same rate) to be combined into no more than two term bonds. The Series I Bonds will be issued as serial bonds or as serial bonds and term bonds in accordance with the bid submitted by the successful bidder. Series I Bonds issued as term bonds shall be subject to mandatory sinking fund redemption commencing on December 1 of the first year in which maturities have been combined to form such term bond and continuing on December 1 in each year thereafter until the stated maturity date of such term bond.

Bids must state a single fixed interest rate for the Series I Bonds of each maturity. The rate of interest stated for any given maturity shall be in a multiple of one-twentieth or one-eighth of one percent per annum. No

maturity may have an interest rate of more than 5.00%. The highest such interest rate specified for a maturity and the lowest interest rate specified for any other maturity may not differ by more than two percentage points.

Bids may not include any conditions not otherwise expressly provided for herein.

Procedures for Electronic Bidding. A prospective electronic bidder must register electronically to bid for the Series I Bonds via Parity pursuant to this Official Notice of Sale. By submitting its bid for the Series I Bonds, a prospective bidder represents and warrants to the Commonwealth that such bidder's bid for the purchase of the Series I Bonds is submitted for and on behalf of such prospective bidder by an officer or agent who is duly authorized to bind the prospective bidder to a legal, valid and enforceable contract for the purchase of the Series I Bonds.

Each prospective electronic bidder shall be solely responsible to register to bid via Parity. Each qualified prospective electronic bidder shall be solely responsible to make necessary arrangements to access Parity for the purpose of submitting its bid in a timely manner and in compliance with the requirements of this Official Notice of Sale. Neither the Commonwealth nor Parity shall have any duty or obligation to undertake such registration to bid for any prospective bidder or to provide or assure such access to any qualified prospective bidder, and neither the Commonwealth nor Parity shall be responsible for a bidder's failure to register to bid or for proper operation of, or have any liability for any delays or interruptions of, or any damages caused by Parity. The Commonwealth is using Parity as a communication mechanism, and not as the Commonwealth's agent, to conduct the electronic bidding for the Series I Bonds. The Commonwealth is not bound by any advice and determination of Parity to the effect that any particular bid complies with the terms of this Official Notice of Sale. All costs and expenses incurred by prospective bidders in connection with their registration and submission of bids via Parity are the sole responsibility of the bidders, and the Commonwealth is not responsible, directly or indirectly, for any such costs or expenses. To the extent that any instructions or directions set forth in Parity conflict with this Official Notice of Sale, the terms of this Official Notice of Sale shall control. If a prospective bidder encounters any difficulty in registering to bid or submitting, modifying or withdrawing a bid for the Series I Bonds, such bidder should telephone Parity's new issues desk at (212) 849-5021 and notify the Commonwealth's financial advisor, Public Financial Management, Inc. by telephone at (617) 330-6914.

Electronic bids must be submitted for the purchase of the Series I Bonds (all or none) via Parity by 10:30 a.m. (Boston, Massachusetts time) on November 30, 2016. Bids submitted after such time will not be deemed received via Parity for the purposes of this bidding process. Bids will be communicated electronically to the Commonwealth at 10:30 a.m. (Boston, Massachusetts time), on November 30, 2016. Prior to that time, an eligible prospective bidder may (i) input the proposed terms of its bid via Parity, (ii) modify the proposed terms of its bid, in which event the proposed terms as last modified will (unless the bid is withdrawn as described herein) constitute its bid for the Series I Bonds, or (iii) withdraw its proposed bid. Once the bids are communicated electronically via Parity to the Commonwealth, each bid will constitute an irrevocable offer to purchase the Series I Bonds on the terms therein provided. For purposes of the electronic bidding process, the time as maintained on Parity shall constitute the official time. For information purposes only, bidders are requested to state in their bids the true interest cost to the Commonwealth, as described under "Basis of Award" set forth below, represented by the rate or rates of interest and the bid price specified in their respective bids.

Good Faith Deposit. Upon notification from the Commonwealth, the successful bidder shall wire transfer to the State Treasurer an amount equal to \$1,500,000 (the "Good Faith Deposit"), in immediately available funds, no later than 2:00 p.m. (Boston, Massachusetts time) on the bid date. The Commonwealth will provide wiring instructions for the Good Faith Deposit to the successful bidder upon verification and award. In the event that the State Treasurer has not received such funds by the time stated, the State Treasurer may revoke acceptance of the bid. No interest on the Good Faith Deposit will accrue to the successful bidder. The Good Faith Deposit will be applied to the purchase price of the Series I Bonds. If the successful bidder fails to honor its accepted bid, the Good Faith Deposit will be retained by the Commonwealth.

Basis of Award. The Series I Bonds will be awarded to the eligible bidder (as determined by the State Treasurer) offering to purchase all of the Series I Bonds at the lowest true interest cost ("TIC") to the Commonwealth. The TIC (expressed as an annual interest rate) will be determined as being twice that factor or discount rate, compounded semiannually, which, when applied against each semiannual debt service payment (interest, or principal and interest, as due) for the Series I Bonds, will cause the sum of such discounted semiannual

payments to be equal to the total purchase price. The TIC shall be calculated from the expected settlement date of the Series I Bonds (December 8, 2016).

The Commonwealth reserves the right to reject any or all proposals and to waive any irregularity or informality with respect to any proposal. Without limiting the generality of the foregoing, the Commonwealth expressly reserves the right to reject a bid in accordance with the provisions of a vote of the State Finance and Governance Board waiving compliance with the requirements of Section 53 of Chapter 29 of the Massachusetts General Laws. Any award by the State Treasurer to a successful bidder is subject to the approval of the Governor.

Official Statement. The Preliminary Official Statement dated November 18, 2016 and the information contained therein have been deemed final by the Commonwealth as of its date within the meaning of Rule 15c2-12 of the Securities and Exchange Commission (“Rule 15c2-12”) with permitted omissions, but are subject to change without notice and to completion or amendment in the Official Statement in final form (the “Final Official Statement”). The Preliminary Official Statement may be viewed and downloaded from the Commonwealth’s website: www.massbondholder.com. In addition, the Preliminary Official Statement will be available via the Electronic Municipal Market Access (“EMMA”) system established by the Municipal Securities Rulemaking Board (the “MSRB”) at www.emma.msrb.org.

The Commonwealth will make available to the successful bidder, within seven business days of the date of sale but no later than two business days prior to settlement, a reasonable number of copies of the Final Official Statement for delivery (at the expense of the successful bidder or bidders) to each potential investor requesting a copy of the Final Official Statement and to each person to whom such bidder and members of its bidding group initially sell the Series I Bonds, provided that the successful bidder cooperates in providing the information required to complete the Final Official Statement. The successful bidder shall comply with the requirements of Rule 15c2-12 and the rules of the MSRB, including an obligation, if any, to update the Final Official Statement.

Reoffering Price Certification. On or prior to the date of delivery of the Series I Bonds, the successful bidder shall furnish to the Commonwealth a certificate acceptable to Bond Counsel to the Commonwealth generally to the effect that (i) as of November 30, 2016 (the “Sale Date”), the successful bidder had offered or reasonably expected to offer all of the Series I Bonds to the general public (excluding bond houses, brokers, or similar persons acting in the capacity of underwriters or wholesalers) in a bona fide public offering at the prices set forth in such certificate, plus accrued interest, if any, (ii) such prices represent fair market prices of the Series I Bonds as of the Sale Date, and (iii) as of the date of such certificate, all of the Series I Bonds have been offered to the general public in a bona fide offering at the prices set forth in such certificate, and at least ten percent of each maturity of the Series I Bonds actually has been sold to the general public at such prices. To the extent the certifications described in the preceding sentence are not factually accurate with respect to the reoffering of the Series I Bonds, Bond Counsel should be consulted by the bidder as to alternative certifications that will be suitable to establish the “issue price” of the Series I Bonds for federal tax law purposes. If a municipal bond insurance policy or similar credit enhancement is obtained with respect to the Series I Bonds by the successful bidder, such bidder will also be required to certify as to the net present value savings on the Series I Bonds resulting from payment of insurance premiums or other credit enhancement fees.

Continuing Disclosure. To assist bidders in complying with paragraph (b)(5) of Rule 15c2-12, the Commonwealth will undertake in the Series I Bonds to provide annual reports and notices of certain events. A description of this undertaking is set forth in Appendix C of the Preliminary Official Statement and will also be set forth in the Final Official Statement.

Expenses. Each bid will be deemed to be an all-in bid. The successful bidder will be under no obligation to pay the Commonwealth’s issuance costs. The Commonwealth will not pay any expenses of the successful bidder in connection with the purchase of the Series I Bonds.

Settlement. The Series I Bonds will be delivered on December 8, 2016, in New York, New York, at DTC against payment of the purchase price therefor (less the amount of the Good Faith Deposit). The successful bidder must make payment of the purchase price of the Series I Bonds by 10:30 a.m. (Boston, Massachusetts time) on December 8, 2016 in immediately available funds in Boston, Massachusetts.

There will also be furnished the usual closing papers, including (a) a certificate signed by the Attorney General of the Commonwealth stating that no litigation of any kind is now pending or, to her knowledge, threatened

seeking to restrain or enjoin the issuance or delivery of the Series I Bonds or the levy or collection of a material portion of the taxes or other revenues of the Commonwealth, or in any manner questioning the proceedings or authority under which the Series I Bonds are issued, or affecting the validity of the Series I Bonds, or contesting in any way the completeness, accuracy or fairness of the Preliminary Official Statement or Final Official Statement or contesting the title to the office of any official signing the Series I Bonds or the Final Official Statement; and (b) a certificate signed by the State Treasurer and the Secretary of Administration and Finance to the effect that, except for the initial offering prices or yields of the Series I Bonds on the inside cover page of the Final Official Statement and any other information concerning the reoffering of the Series I Bonds included therein at the request of the successful bidder and the information in the Preliminary Official Statement and Final Official Statement under the heading "Book-Entry-Only System" and in any Appendix other than Appendices A and B, to the best of their respective knowledge and belief, the Preliminary Official Statement, as of the date of sale of the Series I Bonds, and the Final Official Statement, both as of the date of sale and the date of settlement of the Series I Bonds, did not contain any untrue statement of a material fact and did not omit to state a material fact necessary to make the statements made therein, in light of the circumstances under which they were made, not misleading.

Legal Opinions. The approving opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, Bond Counsel, in substantially the form set forth in the Preliminary Official Statement, will be furnished to the successful bidder. The Preliminary Official Statement contains a discussion of the effect of the Internal Revenue Code of 1986, as amended, on the exclusion from gross income of interest on the Series I Bonds and a discussion of Bond Counsel's opinion insofar as it concerns such exclusion. An opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, Bond Counsel, will also be furnished to the successful bidder to the effect that (i) the information contained in the Preliminary Official Statement and the Final Official Statement under the headings "The Bonds," "Security for the Bonds" and in Appendix B, insofar as such information constitutes summaries of certain provisions of the Series I Bonds and applicable Massachusetts law, presents a fair summary of such provisions and that the statements in the Preliminary Official Statement and the Final Official Statement under the caption "Tax Exemption" and in the summary tax opinion contained on the cover of the Preliminary Official Statement and the Final Official Statement, insofar as such statements purport to summarize certain provisions of the Internal Revenue Code of 1986 or purport to summarize such counsel's opinion regarding the Bonds, are correct in all material respects, and (ii) in the course of such counsel's participation in the preparation of the Preliminary Official Statement and the Final Official Statement, no facts came to such counsel's attention that have caused it to conclude that the Preliminary Official Statement, as of its date, or the Final Official Statement, as of the date of sale or the date of settlement of the Series I Bonds (except for the financial and statistical data included therein, the initial offering prices or yields of the Series I Bonds on the inside cover page of the Final Official Statement, any other information concerning the reoffering of the Series I Bonds included therein at the request of the successful bidder and the stabilization clause, if any, and the information in the Preliminary Official Statement and the Final Official Statement under the headings "Book-Entry-Only System," "Ratings" and "Competitive Sale of Bonds" and in any other document specifically referenced therein, including any Appendix other than Appendix B, as to which no opinion need be expressed) contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements made therein, in light of the circumstances under which they were made, not misleading. An opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, Disclosure Counsel, will also be furnished to the successful bidder to the effect that in the course of such counsel's participation in the preparation of the Commonwealth Information Statement (as defined in the Preliminary Official Statement), and as it may have been further supplemented as of the date of sale of the Series I Bonds, no facts came to such counsel's attention that have caused it to conclude that the Commonwealth Information Statement as of November 1, 2016 or, as it may have been supplemented as of the date of sale of the Series I Bonds, as of said date of sale or as of the date of settlement of the Series I Bonds (except for the financial and statistical data included therein and the information contained in the Exhibits thereto, as to which no opinion need be expressed), contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements made therein, in light of the circumstances under which they were made, not misleading.

CUSIP Numbers. CUSIP numbers will be applied for by the successful bidder with respect to the Series I Bonds, and the Commonwealth will assume no obligation for the assignment or printing of such numbers on the Series I Bonds or for the correctness of such numbers. Neither failure to print such numbers on any Series I Bond nor any error with respect thereto shall constitute cause for a failure or refusal by the successful bidder to accept delivery of and make payment for the Series I Bonds. The CUSIP Service Bureau charge for the assignment of CUSIP numbers on the Series I Bonds shall be the responsibility of and shall be paid for by the successful bidder.

Right to Modify or Amend Notice of Sale. The Commonwealth reserves the right to modify or amend this Official Notice of Sale prior to the bid date. If any modifications occur, supplemental information with respect to the Series I Bonds will be communicated by posting on TM3 not later than 8:30 a.m. (Boston, Massachusetts time) on any announced date for receipt of bids, and bidders shall bid upon the Series I Bonds based upon the terms thereof set forth in this Official Notice of Sale, as so modified by such supplemental information.

Change of Bid Date or Time. The Commonwealth reserves the right to change the date and/or time established for the receipt of bids. Any such change will be announced by posting on TM3 no later than 8:30 a.m. (Boston, Massachusetts time) on the announced bid date. If any date and/or time fixed for the receipt of bids and the sale of the Series I Bonds is changed, an alternative sale date and time will be announced at least one business day prior to such alternative sale date. On any such alternative sale date and time, any bidder may submit bids electronically as described above for the purchase of the Series I Bonds in conformity in all respects with the provision of this Official Notice of Sale, except for the date and/or time of sale and except for any changes announced by posting on TM3 at the time the sale date and/or time are announced.

Minority/Women Business Enterprises. It is the policy of the Commonwealth that appropriate consideration be given to firms who (a) are minority business enterprises and women's business enterprises and (b) have significant local ownership or presence. The State Treasurer requests and strongly urges bidders to make a good-faith effort to meet this goal by including such firms in their management group or syndicate and/or in the provision of legal services or other advisory services.

Additional Information. Further information concerning the Commonwealth and the Bonds is contained in the Preliminary Official Statement dated November 18, 2016, to which prospective bidders are directed, and to which this Official Notice of Sale is attached. The Preliminary Official Statement is provided for informational purposes only and is not a part of this Official Notice of Sale. Copies of the Preliminary Official Statement and this Official Notice of Sale may be viewed and downloaded at the Commonwealth's website: www.massbondholder.com and at the EMMA website, www.emma.msrb.org. Additional information may be obtained from Susan E. Perez, Assistant Treasurer, Office of the Treasurer and Receiver-General (617-367-3900, ext. 816).

The Commonwealth of Massachusetts

/s/ Deborah B. Goldberg
Treasurer and Receiver-General

OFFICIAL NOTICE OF SALE

THE COMMONWEALTH OF MASSACHUSETTS



\$300,000,000*
General Obligation Bonds
Consolidated Loan of 2016
Series J

November 18, 2016

NOTICE IS HEREBY GIVEN that electronic bids will be received by Deborah B. Goldberg, Treasurer and Receiver-General of The Commonwealth of Massachusetts (the “State Treasurer”), for the purchase of General Obligation Bonds, Consolidated Loan of 2016, Series J (the “Series J Bonds”), of The Commonwealth of Massachusetts (the “Commonwealth”) to be sold in an aggregate principal amount of \$300,000,000*. Bids for the purchase of the Series J Bonds will be submitted via Parity. No other method of submitting bids will be accepted. The bids will be received via Parity up to the time described below under the captions “Time” and “Procedures for Electronic Bidding.”

The Series J Bonds will constitute general obligations of the Commonwealth, and the full faith and credit of the Commonwealth are pledged to the payment of the principal of and interest on the Series J Bonds. The Preliminary Official Statement referred to below contains certain information regarding statutory limits on state tax revenue growth and should be read in conjunction herewith.

Time. Bids will be received by the Commonwealth via Parity at 11:00 a.m. (Boston, Massachusetts time) on November 30, 2016 (subject to the provisions described below under the caption “Procedures for Electronic Bidding”) or at such later date and/or other time as shall be established by the State Treasurer and communicated on Thomson Municipal Market Monitor News (www.tm3.com) (“TM3”), as described herein under the caption “Change of Bid Date or Time.” If no legal bid or bids are received for the Series J Bonds on November 30, 2016, an alternative date and time may be designated by the State Treasurer and communicated on TM3.

Details of the Series J Bonds. The Series J Bonds will be dated and bear interest, calculated on the basis of 30-day months and a 360-day year, from the date of delivery, at the rate per annum per maturity specified by the successful bidder, payable semiannually on June 1 and December 1 in each year and at maturity, beginning June 1, 2017. The Series I Bonds shall mature or come due through mandatory sinking fund redemptions on the dates shown below, subject to change as set forth in this Notice of Sale, in the principal amounts specified by the successful bidder:

<u>Maturity Date*</u>	<u>Principal Amounts</u>	<u>Maturity Date*</u>	<u>Principal Amounts</u>
December 1, 2036	\$50,000,000	December 1, 2040	\$25,000,000
December 1, 2037	25,000,000	December 1, 2044	50,000,000
December 1, 2038	25,000,000	December 1, 2045	50,000,000
December 1, 2039	25,000,000	December 1, 2046	50,000,000

The Series J Bonds will be issued as serial bonds or as a combination of serial bonds and term bonds in accordance with the bid submitted by the successful bidder (see “Bidding Parameters” below).

* Preliminary, subject to change.

The Series J Bonds will be delivered as registered bonds and issued by means of a book-entry-only system evidencing ownership therein, in principal amounts of \$5,000 or integral multiples thereof, and transfer thereof on the records of The Depository Trust Company (“DTC”) and its participants. The book-entry-only system is more fully described in the Preliminary Official Statement.

Redemption.

Optional Redemption. The Series J Bonds will be subject to redemption prior to their stated maturity dates on or after December 1, 2026 * at the option of the Commonwealth from any monies legally available therefor, in whole or in part at any time, by lot, at 100% of the principal amount thereof, plus accrued interest to the redemption date.

Mandatory Sinking Fund Redemption. If any Series J Bonds are specified as term bonds by the successful bidder, such Series J Bonds will be subject to mandatory sinking fund redemption on December 1 in the years and amounts so specified by the successful bidder.

Adjustments to Principal Amount.

Changes Prior to Bidding. The preliminary aggregate principal amount of the Series J Bonds and the preliminary annual principal amounts as set forth in this Notice of Sale (the “Preliminary Aggregate Principal Amount” and the “Preliminary Annual Principal Amounts,” respectively; collectively, the “Preliminary Amounts”) may be revised before the receipt of electronic bids for the purchase of the Series J Bonds. Any such revisions (the “Revised Aggregate Principal Amount” and the “Revised Annual Principal Amounts,” respectively; collectively, the “Revised Amounts”) will be ANNOUNCED on TM3 not later than 8:30 a.m. (Boston, Massachusetts time) on ANY ANNOUNCED DATE FOR RECEIPT OF BIDS. In the event that no such revisions are made, the Preliminary Amounts will constitute the Revised Amounts. Bidders shall submit bids BASED ON THE REVISED AMOUNTS.

Changes to the Winning Bid. After selecting the winning bid, the Commonwealth will determine the final aggregate principal amount of the Series J Bonds and each final annual principal amount (the “Final Aggregate Principal Amount” and the “Final Annual Principal Amounts,” respectively; collectively, the “Final Amounts”). In determining the Final Amounts, the Commonwealth will not reduce or increase the Revised Aggregate Principal Amount by more than ten percent of such amount. THE SUCCESSFUL BIDDER MAY NOT WITHDRAW ITS BID OR CHANGE THE INTEREST RATES BID OR THE INITIAL REOFFERING PRICES (AS HEREIN DEFINED) AS A RESULT OF ANY CHANGES MADE TO THE REVISED AMOUNTS WITHIN THESE LIMITS.

The dollar amount bid by the successful bidder will be adjusted to reflect any adjustments in the aggregate principal amount of the Series J Bonds. Such adjusted bid price will reflect changes in the dollar amount of the underwriter’s discount and original issue discount/premium, if any, but will not change the selling compensation per \$1,000 of par amount of the Series J Bonds from the selling compensation that would have been received based on the purchase price in the winning bid and the initial reoffering prices. The interest rate specified by the successful bidder for each maturity as the initial reoffering prices will not change. The Final Amounts and the adjusted bid price will be communicated to the successful bidder by 11:00 a.m. (Boston, Massachusetts time) on the business day following the sale.

Bidding Parameters. Bids must be for all of the Series J Bonds offered and must offer to pay an aggregate price for all maturities of not less than 100% of the aggregate principal amount of the Series J Bonds.

Bids may provide for all the Series J Bonds to be issued as serial bonds only, or may designate consecutive annual principal amounts (bearing interest at the same rate) to be combined into no more than two term bonds. The Series J Bonds will be issued as serial bonds or as serial bonds and term bonds in accordance with the bid submitted by the successful bidder. Series J Bonds issued as term bonds shall be subject to mandatory sinking fund redemption commencing on December 1 of the first year in which maturities have been combined to form such term bond and continuing on December 1 in each year thereafter until the stated maturity date of such term bond.

Bids must state a single fixed interest rate for the Series J Bonds of each maturity. The rate of interest stated for any given maturity shall be in a multiple of one-twentieth or one-eighth of one percent per annum. No

maturity may have an interest rate of more than 5.00%. The highest such interest rate specified for a maturity and the lowest interest rate specified for any other maturity may not differ by more than two percentage points.

Bids may not include any conditions not otherwise expressly provided for herein.

Procedures for Electronic Bidding. A prospective electronic bidder must register electronically to bid for the Series J Bonds via Parity pursuant to this Official Notice of Sale. By submitting its bid for the Series J Bonds, a prospective bidder represents and warrants to the Commonwealth that such bidder's bid for the purchase of the Series J Bonds is submitted for and on behalf of such prospective bidder by an officer or agent who is duly authorized to bind the prospective bidder to a legal, valid and enforceable contract for the purchase of the Series J Bonds.

Each prospective electronic bidder shall be solely responsible to register to bid via Parity. Each qualified prospective electronic bidder shall be solely responsible to make necessary arrangements to access Parity for the purpose of submitting its bid in a timely manner and in compliance with the requirements of this Official Notice of Sale. Neither the Commonwealth nor Parity shall have any duty or obligation to undertake such registration to bid for any prospective bidder or to provide or assure such access to any qualified prospective bidder, and neither the Commonwealth nor Parity shall be responsible for a bidder's failure to register to bid or for proper operation of, or have any liability for any delays or interruptions of, or any damages caused by Parity. The Commonwealth is using Parity as a communication mechanism, and not as the Commonwealth's agent, to conduct the electronic bidding for the Series J Bonds. The Commonwealth is not bound by any advice and determination of Parity to the effect that any particular bid complies with the terms of this Official Notice of Sale. All costs and expenses incurred by prospective bidders in connection with their registration and submission of bids via Parity are the sole responsibility of the bidders, and the Commonwealth is not responsible, directly or indirectly, for any such costs or expenses. To the extent that any instructions or directions set forth in Parity conflict with this Official Notice of Sale, the terms of this Official Notice of Sale shall control. If a prospective bidder encounters any difficulty in registering to bid or submitting, modifying or withdrawing a bid for the Series J Bonds, such bidder should telephone Parity's new issues desk at (212) 849-5021 and notify the Commonwealth's financial advisor, Public Financial Management, Inc. by telephone at (617) 330-6914.

Electronic bids must be submitted for the purchase of the Series J Bonds (all or none) via Parity by 11:00 a.m. (Boston, Massachusetts time) on November 30, 2016. Bids submitted after such time will not be deemed received via Parity for the purposes of this bidding process. Bids will be communicated electronically to the Commonwealth at 11:00 a.m. (Boston, Massachusetts time), on November 30, 2016. Prior to that time, an eligible prospective bidder may (i) input the proposed terms of its bid via Parity, (ii) modify the proposed terms of its bid, in which event the proposed terms as last modified will (unless the bid is withdrawn as described herein) constitute its bid for the Series J Bonds, or (iii) withdraw its proposed bid. Once the bids are communicated electronically via Parity to the Commonwealth, each bid will constitute an irrevocable offer to purchase the Series J Bonds on the terms therein provided. For purposes of the electronic bidding process, the time as maintained on Parity shall constitute the official time. For information purposes only, bidders are requested to state in their bids the true interest cost to the Commonwealth, as described under "Basis of Award" set forth below, represented by the rate or rates of interest and the bid price specified in their respective bids.

Good Faith Deposit. Upon notification from the Commonwealth, the successful bidder shall wire transfer to the State Treasurer an amount equal to \$3,000,000 (the "Good Faith Deposit"), in immediately available funds, no later than 2:00 p.m. (Boston, Massachusetts time) on the bid date. The Commonwealth will provide wiring instructions for the Good Faith Deposit to the successful bidder upon verification and award. In the event that the State Treasurer has not received such funds by the time stated, the State Treasurer may revoke acceptance of the bid. No interest on the Good Faith Deposit will accrue to the successful bidder. The Good Faith Deposit will be applied to the purchase price of the Series J Bonds. If the successful bidder fails to honor its accepted bid, the Good Faith Deposit will be retained by the Commonwealth.

Basis of Award. The Series J Bonds will be awarded to the eligible bidder (as determined by the State Treasurer) offering to purchase all of the Series J Bonds at the lowest true interest cost ("TIC") to the Commonwealth. The TIC (expressed as an annual interest rate) will be determined as being twice that factor or discount rate, compounded semiannually, which, when applied against each semiannual debt service payment (interest, or principal and interest, as due) for the Series J Bonds, will cause the sum of such discounted semiannual

payments to be equal to the total purchase price. The TIC shall be calculated from the expected settlement date of the Series J Bonds (December 8, 2016).

The Commonwealth reserves the right to reject any or all proposals and to waive any irregularity or informality with respect to any proposal. Without limiting the generality of the foregoing, the Commonwealth expressly reserves the right to reject a bid in accordance with the provisions of a vote of the State Finance and Governance Board waiving compliance with the requirements of Section 53 of Chapter 29 of the Massachusetts General Laws. Any award by the State Treasurer to a successful bidder is subject to the approval of the Governor.

Official Statement. The Preliminary Official Statement dated November 18, 2016 and the information contained therein have been deemed final by the Commonwealth as of its date within the meaning of Rule 15c2-12 of the Securities and Exchange Commission (“Rule 15c2-12”) with permitted omissions, but are subject to change without notice and to completion or amendment in the Official Statement in final form (the “Final Official Statement”). The Preliminary Official Statement may be viewed and downloaded from the Commonwealth’s website: www.massbondholder.com. In addition, the Preliminary Official Statement will be available via the Electronic Municipal Market Access (“EMMA”) system established by the Municipal Securities Rulemaking Board (the “MSRB”) at www.emma.msrb.org.

The Commonwealth will make available to the successful bidder, within seven business days of the date of sale but no later than two business days prior to settlement, a reasonable number of copies of the Final Official Statement for delivery (at the expense of the successful bidder or bidders) to each potential investor requesting a copy of the Final Official Statement and to each person to whom such bidder and members of its bidding group initially sell the Series J Bonds, provided that the successful bidder cooperates in providing the information required to complete the Final Official Statement. The successful bidder shall comply with the requirements of Rule 15c2-12 and the rules of the MSRB, including an obligation, if any, to update the Final Official Statement.

Reoffering Price Certification. On or prior to the date of delivery of the Series J Bonds, the successful bidder shall furnish to the Commonwealth a certificate acceptable to Bond Counsel to the Commonwealth generally to the effect that (i) as of November 30, 2016 (the “Sale Date”), the successful bidder had offered or reasonably expected to offer all of the Series J Bonds to the general public (excluding bond houses, brokers, or similar persons acting in the capacity of underwriters or wholesalers) in a bona fide public offering at the prices set forth in such certificate, plus accrued interest, if any, (ii) such prices represent fair market prices of the Series J Bonds as of the Sale Date, and (iii) as of the date of such certificate, all of the Series J Bonds have been offered to the general public in a bona fide offering at the prices set forth in such certificate, and at least ten percent of each maturity of the Series J Bonds actually has been sold to the general public at such prices. To the extent the certifications described in the preceding sentence are not factually accurate with respect to the reoffering of the Series J Bonds, Bond Counsel should be consulted by the bidder as to alternative certifications that will be suitable to establish the “issue price” of the Series J Bonds for federal tax law purposes. If a municipal bond insurance policy or similar credit enhancement is obtained with respect to the Series J Bonds by the successful bidder, such bidder will also be required to certify as to the net present value savings on the Series J Bonds resulting from payment of insurance premiums or other credit enhancement fees.

Continuing Disclosure. To assist bidders in complying with paragraph (b)(5) of Rule 15c2-12, the Commonwealth will undertake in the Series J Bonds to provide annual reports and notices of certain events. A description of this undertaking is set forth in Appendix C of the Preliminary Official Statement and will also be set forth in the Final Official Statement.

Expenses. Each bid will be deemed to be an all-in bid. The successful bidder will be under no obligation to pay the Commonwealth’s issuance costs. The Commonwealth will not pay any expenses of the successful bidder in connection with the purchase of the Series J Bonds.

Settlement. The Series J Bonds will be delivered on December 8, 2016, in New York, New York, at DTC against payment of the purchase price therefor (less the amount of the Good Faith Deposit). The successful bidder must make payment of the purchase price of the Series J Bonds by 10:30 a.m. (Boston, Massachusetts time) on December 8, 2016 in immediately available funds in Boston, Massachusetts.

There will also be furnished the usual closing papers, including (a) a certificate signed by the Attorney General of the Commonwealth stating that no litigation of any kind is now pending or, to her knowledge, threatened

seeking to restrain or enjoin the issuance or delivery of the Series J Bonds or the levy or collection of a material portion of the taxes or other revenues of the Commonwealth, or in any manner questioning the proceedings or authority under which the Series J Bonds are issued, or affecting the validity of the Series J Bonds, or contesting in any way the completeness, accuracy or fairness of the Preliminary Official Statement or Final Official Statement or contesting the title to the office of any official signing the Series J Bonds or the Final Official Statement; and (b) a certificate signed by the State Treasurer and the Secretary of Administration and Finance to the effect that, except for the initial offering prices or yields of the Series J Bonds on the inside cover page of the Final Official Statement and any other information concerning the reoffering of the Series J Bonds included therein at the request of the successful bidder and the information in the Preliminary Official Statement and Final Official Statement under the heading "Book-Entry-Only System" and in any Appendix other than Appendices A and B, to the best of their respective knowledge and belief, the Preliminary Official Statement, as of the date of sale of the Series J Bonds, and the Final Official Statement, both as of the date of sale and the date of settlement of the Series J Bonds, did not contain any untrue statement of a material fact and did not omit to state a material fact necessary to make the statements made therein, in light of the circumstances under which they were made, not misleading.

Legal Opinions. The approving opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, Bond Counsel, in substantially the form set forth in the Preliminary Official Statement, will be furnished to the successful bidder. The Preliminary Official Statement contains a discussion of the effect of the Internal Revenue Code of 1986, as amended, on the exclusion from gross income of interest on the Series J Bonds and a discussion of Bond Counsel's opinion insofar as it concerns such exclusion. An opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, Bond Counsel, will also be furnished to the successful bidder to the effect that (i) the information contained in the Preliminary Official Statement and the Final Official Statement under the headings "The Bonds," "Security for the Bonds" and in Appendix B, insofar as such information constitutes summaries of certain provisions of the Series J Bonds and applicable Massachusetts law, presents a fair summary of such provisions and that the statements in the Preliminary Official Statement and the Final Official Statement under the caption "Tax Exemption" and in the summary tax opinion contained on the cover of the Preliminary Official Statement and the Final Official Statement, insofar as such statements purport to summarize certain provisions of the Internal Revenue Code of 1986 or purport to summarize such counsel's opinion regarding the Bonds, are correct in all material respects, and (ii) in the course of such counsel's participation in the preparation of the Preliminary Official Statement and the Final Official Statement, no facts came to such counsel's attention that have caused it to conclude that the Preliminary Official Statement, as of its date, or the Final Official Statement, as of the date of sale or the date of settlement of the Series J Bonds (except for the financial and statistical data included therein, the initial offering prices or yields of the Series J Bonds on the inside cover page of the Final Official Statement, any other information concerning the reoffering of the Series J Bonds included therein at the request of the successful bidder and the stabilization clause, if any, and the information in the Preliminary Official Statement and the Final Official Statement under the headings "Book-Entry-Only System," "Ratings" and "Competitive Sale of Bonds" and in any other document specifically referenced therein, including any Appendix other than Appendix B, as to which no opinion need be expressed) contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements made therein, in light of the circumstances under which they were made, not misleading. An opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, Disclosure Counsel, will also be furnished to the successful bidder to the effect that in the course of such counsel's participation in the preparation of the Commonwealth Information Statement (as defined in the Preliminary Official Statement), and as it may have been further supplemented as of the date of sale of the Series J Bonds, no facts came to such counsel's attention that have caused it to conclude that the Commonwealth Information Statement as of November 1, 2016 or, as it may have been supplemented as of the date of sale of the Series J Bonds, as of said date of sale or as of the date of settlement of the Series J Bonds (except for the financial and statistical data included therein and the information contained in the Exhibits thereto, as to which no opinion need be expressed), contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements made therein, in light of the circumstances under which they were made, not misleading.

CUSIP Numbers. CUSIP numbers will be applied for by the successful bidder with respect to the Series J Bonds, and the Commonwealth will assume no obligation for the assignment or printing of such numbers on the Series J Bonds or for the correctness of such numbers. Neither failure to print such numbers on any Series J Bond nor any error with respect thereto shall constitute cause for a failure or refusal by the successful bidder to accept delivery of and make payment for the Series J Bonds. The CUSIP Service Bureau charge for the assignment of CUSIP numbers on the Series J Bonds shall be the responsibility of and shall be paid for by the successful bidder.

Right to Modify or Amend Notice of Sale. The Commonwealth reserves the right to modify or amend this Official Notice of Sale prior to the bid date. If any modifications occur, supplemental information with respect to the Series J Bonds will be communicated by posting on TM3 not later than 8:30 a.m. (Boston, Massachusetts time) on any announced date for receipt of bids, and bidders shall bid upon the Series J Bonds based upon the terms thereof set forth in this Official Notice of Sale, as so modified by such supplemental information.

Change of Bid Date or Time. The Commonwealth reserves the right to change the date and/or time established for the receipt of bids. Any such change will be announced by posting on TM3 no later than 8:30 a.m. (Boston, Massachusetts time) on the announced bid date. If any date and/or time fixed for the receipt of bids and the sale of the Series J Bonds is changed, an alternative sale date and time will be announced at least one business day prior to such alternative sale date. On any such alternative sale date and time, any bidder may submit bids electronically as described above for the purchase of the Series J Bonds in conformity in all respects with the provision of this Official Notice of Sale, except for the date and/or time of sale and except for any changes announced by posting on TM3 at the time the sale date and/or time are announced.

Minority/Women Business Enterprises. It is the policy of the Commonwealth that appropriate consideration be given to firms who (a) are minority business enterprises and women's business enterprises and (b) have significant local ownership or presence. The State Treasurer requests and strongly urges bidders to make a good-faith effort to meet this goal by including such firms in their management group or syndicate and/or in the provision of legal services or other advisory services.

Additional Information. Further information concerning the Commonwealth and the Bonds is contained in the Preliminary Official Statement dated November 18, 2016, to which prospective bidders are directed, and to which this Official Notice of Sale is attached. The Preliminary Official Statement is provided for informational purposes only and is not a part of this Official Notice of Sale. Copies of the Preliminary Official Statement and this Official Notice of Sale may be viewed and downloaded at the Commonwealth's website: www.massbondholder.com and at the EMMA website, www.emma.msrb.org. Additional information may be obtained from Susan E. Perez, Assistant Treasurer, Office of the Treasurer and Receiver-General (617-367-3900, ext. 816).

The Commonwealth of Massachusetts

/s/ Deborah B. Goldberg
Treasurer and Receiver-General

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