



Executive Office for Administration & Finance

COMMONWEALTH OF MASSACHUSETTS

STATE HOUSE ▪ BOSTON, MA 02133

(617) 727-2040

CHARLES D. BAKER
GOVERNOR

MICHAEL HEFFERNAN
SECRETARY

KARYN E. POLITO
LIEUTENANT GOVERNOR

The Honorable Charles D. Baker, Governor
State House, Room 360
Boston, MA 02133

Michael D. Hurley, Clerk of the Senate
State House, Room 335
Boston, MA 02133

Steven T. James, Clerk of the House
State House, Room 145
Boston, MA 02133

Dear Sirs:

Pursuant to Section 60B(f) of Chapter 29 of the General Laws, as amended, the Capital Debt Affordability Committee (the "Committee"), shall by December 15 of each year submit to the Governor and the General Court the Committee's estimate of the total amount of new Commonwealth debt that prudently may be authorized for the next fiscal year. The Committee has determined that \$2.53 billion of general obligation debt may prudently be issued by the Commonwealth for fiscal year 2021.

In making this determination, the Committee examined the factors required by statute, including the amount of bonds that are and will be outstanding, the Commonwealth's capital program, projections of debt service requirements during the next 10 years, the Commonwealth's bond ratings, pertinent debt ratios, comparisons to other states, and the outlook for interest rates. In addition, the Committee reviewed policy and analysis used by the Administration in its preparation of the annual five-year capital investment plan.

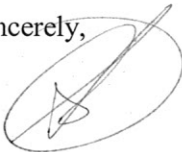
To assess the affordability of debt to be issued by the Commonwealth, the Committee has adopted a three-part test, each part of which must be met for the Committee to consider the debt affordable. First, over the next ten years the maximum annual projected debt service, including projected additional debt, as a percent of projected budgetary revenue should be targeted at 7

percent as a benchmark debt ratio. In addition to the benchmark, debt service as a percent of budgetary revenue should not exceed 8% percent as a debt ratio cap. Second, new debt issuance subject to the debt limit imposed by Section 60A of said Chapter 29 must be within that limit, which is equal to \$26.48 billion for fiscal year 2021. Third, the amount of additional general obligation borrowing undertaken by the Commonwealth on a fiscal year-over-fiscal year basis should not exceed \$125 million per year.

The Committee analyzed the Commonwealth's proposed general obligation issuance and applied the three-part test described above. From this analysis, the Committee concluded that the Commonwealth may prudently issue the amount of general obligation bonds proposed for fiscal year 2021 and recommended a cap of \$2.53 billion. This represents a 4.12 percent increase in the bond cap over fiscal 2020, which allows for targeted investments in the Commonwealth's infrastructure while keeping growth in debt service and outstanding principal within long-term revenue growth projections.

Changing conditions or events during the fiscal year, such as increases or decreases in budgetary revenue, changing interest rates, or specific emerging capital needs, may warrant borrowing more or less during the year than is initially recommended by the Committee. Any such potential change would be subject to the limit on outstanding qualifying debt of \$26.48 billion for fiscal year 2021.

Sincerely,

A handwritten signature in dark ink, appearing to be 'Mark Attia', enclosed within a large, loopy oval shape.

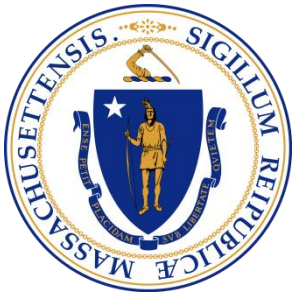
Mark Attia
Assistant Secretary
Executive Office for Administration and Finance
Designee of Secretary Michael J. Heffernan, Chair

Voting Committee Members

Mark Attia	Designee of the Secretary of Administration & Finance, Michael Heffernan
Sue Perez	Designee of the Treasurer and Receiver-General, Deborah Goldberg
Howard Merkowitz	Designee of the Comptroller, Andrew W. Maylor
Michelle Ho	Designee of the Secretary of Transportation, Stephanie Pollack
Catherine Walsh	Appointee of Governor Charles D. Baker
Michael Butler	Appointee of Treasurer and Receiver-General, Deborah Goldberg

Non-voting Committee Members

Michael J. Rodrigues	Chair, Senate Committee on Ways and Means
Aaron Michlewitz	Chair, House Committee on Ways and Means
Michael O. Moore	Chair, Senate Committee on Bonding, Capital Expenditures and State Assets
Antonio F. D. Cabral	Chair, House Committee on Bonding, Capital Expenditures and State Assets
Todd M. Smola	Ranking Member, House Committee on Ways and Means
David T. Vieira	Ranking Member, House Committee on Bonding, Capital Expenditures and State Assets
Donald F. Humason Jr.	Ranking Member, Senate Committee on Bonding, Capital Expenditures and State Assets



Commonwealth of Massachusetts

Capital Debt Affordability Committee

Advisory Recommendation for Fiscal 2021

December 13, 2019



Capital Debt Affordability Committee: Overview

Enabling Act

- The Capital Debt Affordability Committee was established by **Chapter 165 of the Acts of 2012, Section 60B** for the purposes of 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.

Roles and Responsibilities

- The Committee is 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 Committee resides within the Executive Office for Administration and Finance, **but is not subject to its supervision or control.**
- ❖ *The Legislature is responsible for authorizing Commonwealth debt. The Governor determines the total amount of capital spending for each fiscal year and the amount of new Commonwealth debt that he considers advisable to finance such spending.*

Membership

- The Committee consists of **seven voting members**, including 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.
- The Committee also includes **nonvoting members**, including the House and Senate chairs and the ranking minority members of the Committees on Bonding, Capital Expenditures and State Assets, and the Committees on Ways and Means.



Debt Limits: Statutory and Administrative Limits on Direct Debt

Statutory Debt Limit

- Since 1989, state finance law has included a limit on the amount of outstanding “direct” bonds of the Commonwealth.
- In 2012, state finance law was amended to specify that the debt limit be calculated for fiscal years starting in fiscal 2013 using a base value of \$17.070 billion and increasing the limit for each subsequent fiscal year to **105%** of the previous fiscal year’s limit.
- In 2013, state finance law was amended 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.

Debt Affordability Policy

- In fiscal 2009, the Executive Office for Administration and Finance (A&F) established a debt affordability policy for the Commonwealth.
- The policy set an annual borrowing limit at a level designed to keep **debt service** on the Commonwealth’s direct debt within **8% of budgeted revenues**.
- The policy also limits future annual **growth in the bond cap** for the regular capital program to not more than **\$125 million**.



The Committee Considers the Following to Inform its Estimate (1 of 2)

State Debt Outstanding	➤ Amount of state bonds that, during the next fiscal year, will be (1) outstanding and, (2) authorized but unissued
Capital Plan Spending	➤ The Commonwealth's Capital Investment Plan (CIP) prepared by the Secretary of Administration and Finance (A&F)
MSBA	➤ Massachusetts School Building Assistance Authority (MSBA) capital improvement and school construction needs during the next 5 fiscal years
10 Year Debt Service	➤ Projections of debt service requirements during the next 10 fiscal years
Credit Ratings	➤ The criteria that bond rating agencies use to judge the quality of issues of state bonds



The Committee Considers the Following to Inform its Estimate (2 of 2)

Authorization	➤ The effect of authorizations of new state debt on each of the factors in this subsection
Debt Ratios Analysis	➤ Identification of pertinent debt ratios, such as debt service to General Fund revenues, debt to personal income, debt to estimated full-value of property, and debt per capita.
State Comparisons	➤ A comparison of the debt ratios for the 5 other states in New England, New York and 5 other states the committee determines to offer a fair comparison to the commonwealth
Fixed, Variable, and Hedged Debt	➤ A description of the percentage of the state's outstanding general obligation bonds constituting fixed rate bonds, variable rate bonds, bonds that have effective rates through a hedging contract
Other Tax Supported Debt	➤ The amount of issuances, debt outstanding, and debt service requirement of other classes of commonwealth tax supported debt as well as other debt of commonwealth units



Debt Affordability and Revenue Analysis: A Conservative Approach

Debt Service Included in Affordability Analysis

- For the purposes of the debt affordability analysis, **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 bonds secured by a specified portion of the motor fuels excise tax;
 - ✓ Special obligation bonds issued to fund the Accelerated Bridge Program and the Rail Enhancement Program;
 - ✓ General obligation contract assistance payment obligations; and
 - ✓ Budgetary contract assistant payment obligations on certain capital lease financings.

Budgeted Revenues Included in 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).
- ❖ *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 limits.*



Rating Agency Comments: Selected Notes on Debt Affordability

Moody

- “The Commonwealth's governance policies and practices are strong... The Commonwealth also conducts a debt affordability analysis and reports its audited financial results on a timely basis.” *Moody's Report, August 2018*
- “Debt and pension liabilities are among the highest in the nation, though these figures include borrowing and benefits for local governments” *Moody's Report, August 2019*

S&P

- “Strong financial, debt, and budget management policies, including annualized formal debt affordability statements, and multiyear capital investment planning,” *S&P Report, August 2018*
- “Deep and diverse economy, which continues to outperform the nation on several economic indicators... timely monitoring of revenues and expenditures and swift action when needed to make adjustments” *S&P Report, August 2019*

Fitch

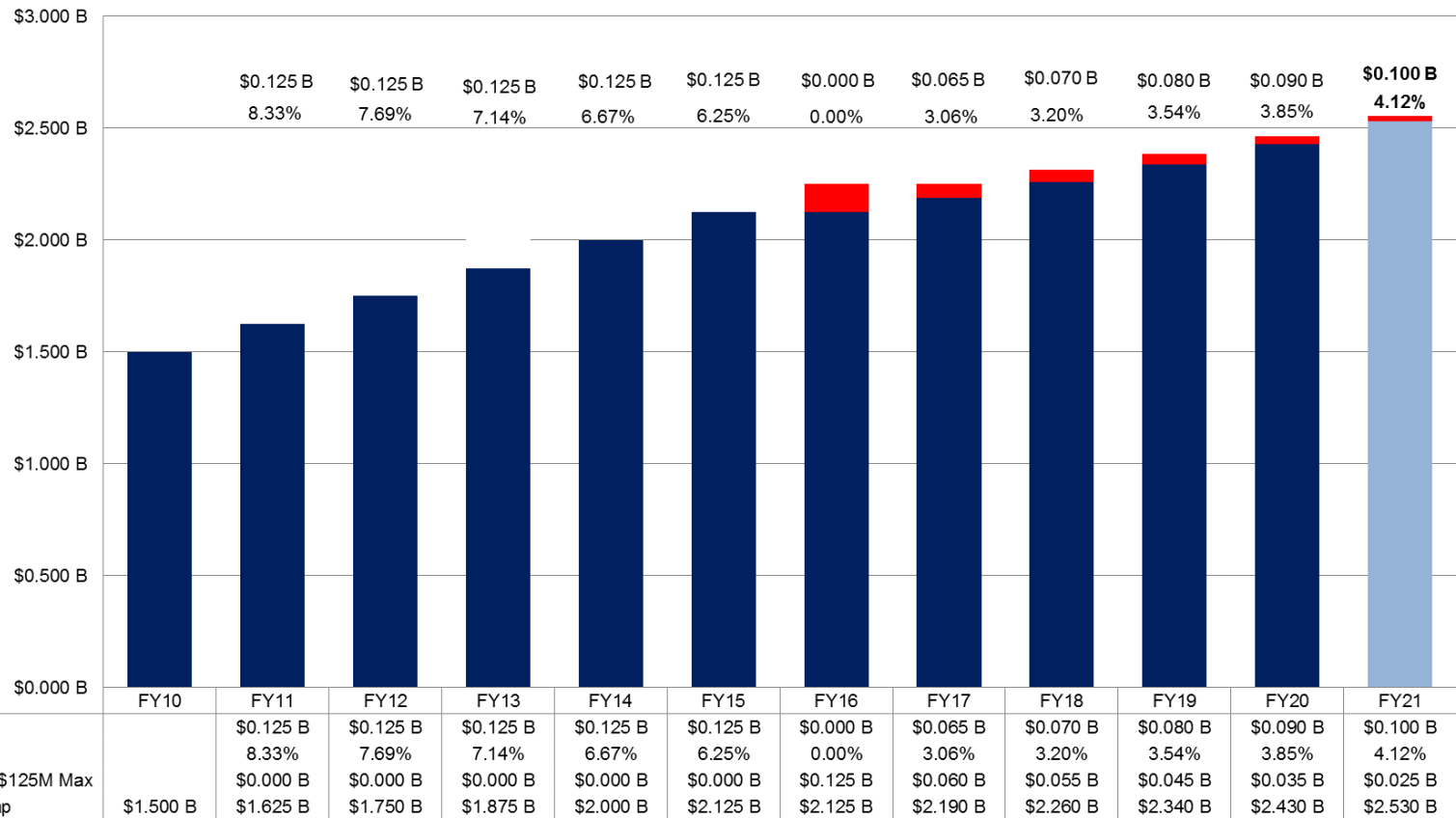
- “Massachusetts' 'AA+' reflects considerable economic resources, strong budget controls and a record of careful financial management. The Commonwealth carries a long-term liability burden that is well above average for a U.S. state but remains a moderate burden on resources.” *Fitch Report, August 2018*
- “The comparatively high direct debt level is partially explained by the Commonwealth's above-average role in funding local government capital needs, relative to most other states.” *Fitch Report, August 2019*



Advisory Recommendation for Fiscal 2021

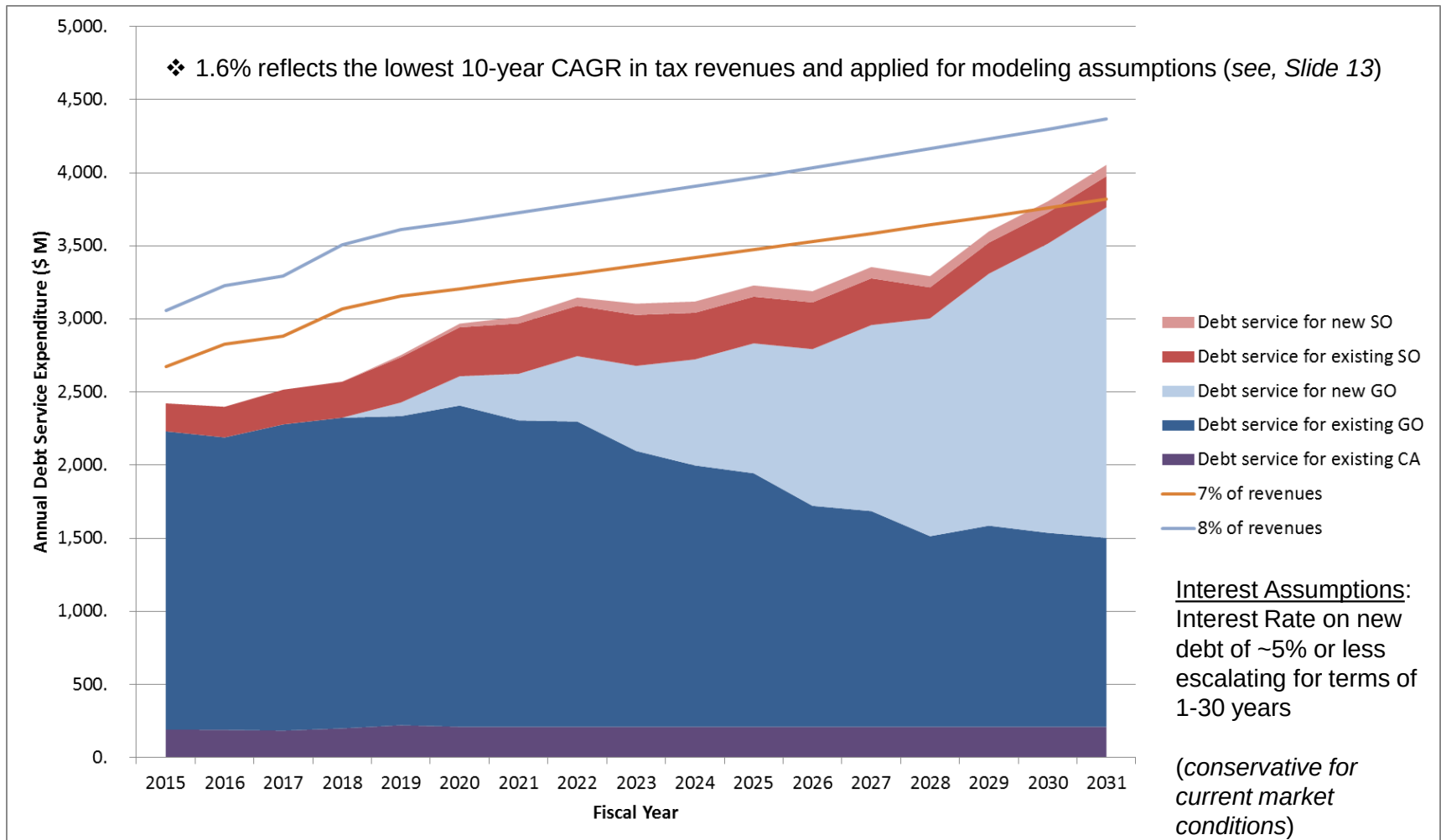


Bond Cap: FY21 Advisory Recommendation of a \$100M Increase to Cap



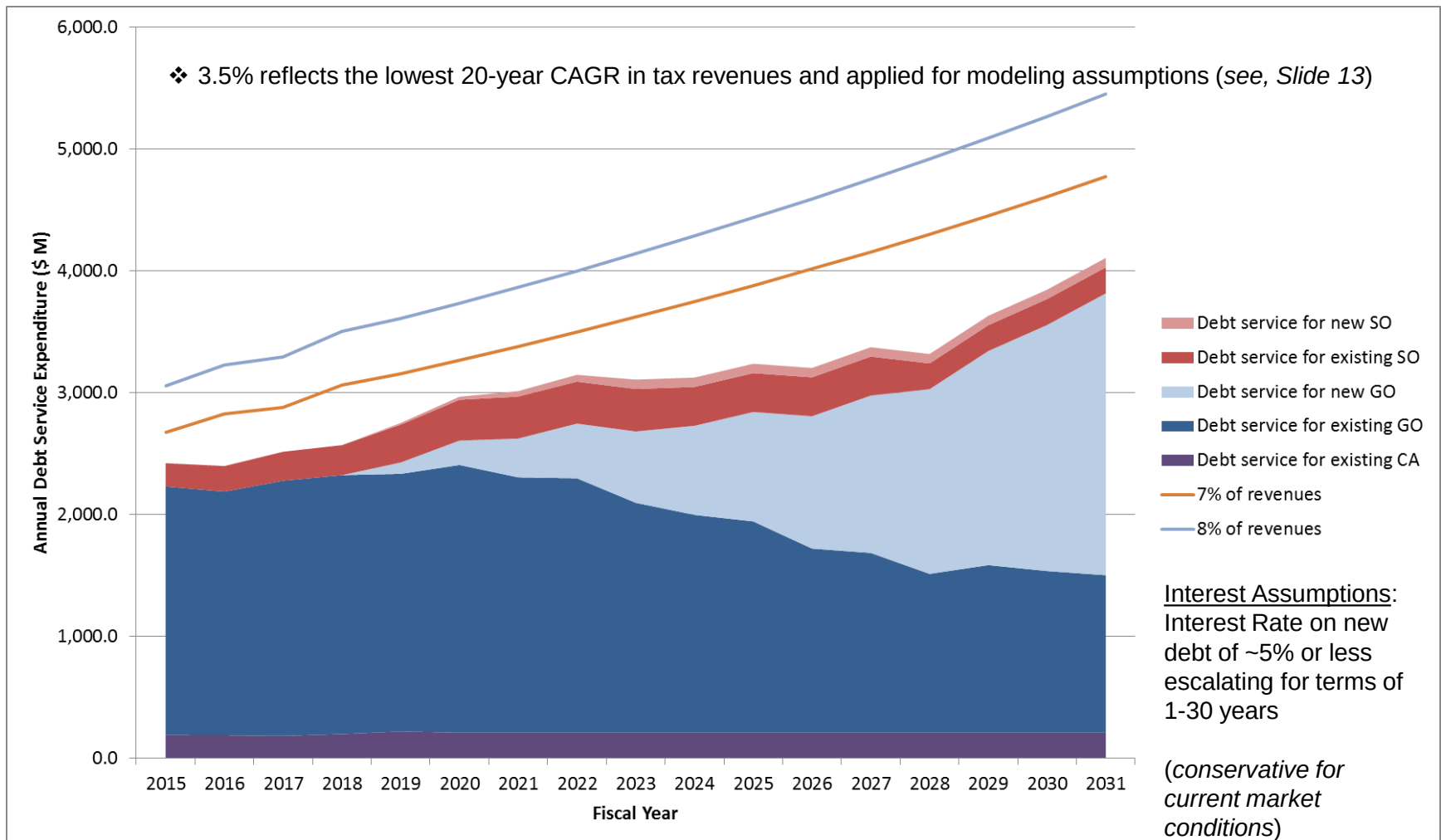


Modeling Scenario #1: \$100M/Year Increase to Cap, 1.6% Revenue Growth



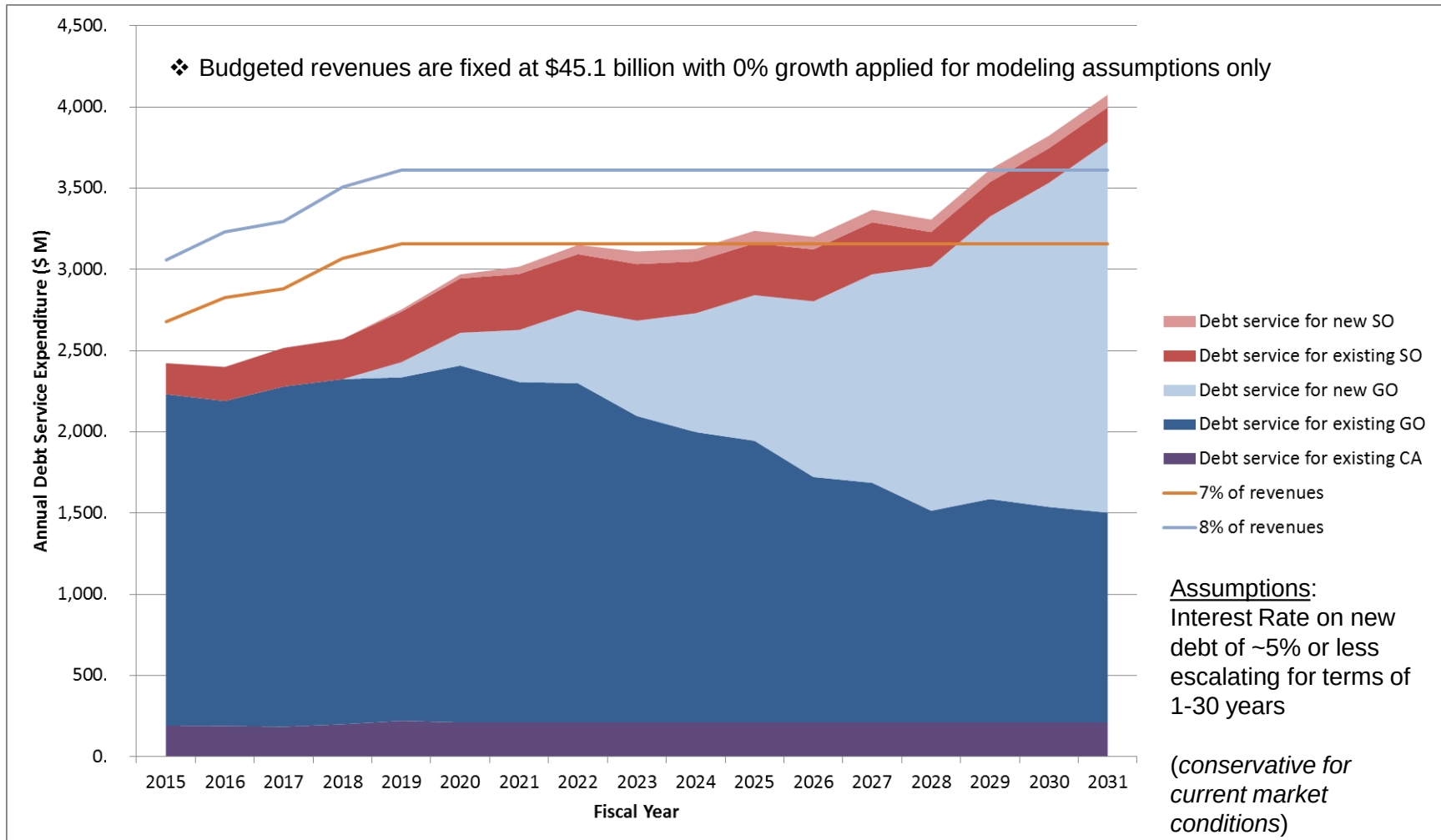


Modeling Scenario #2: \$100M/Year Increase to Cap, 3.5% Revenue Growth





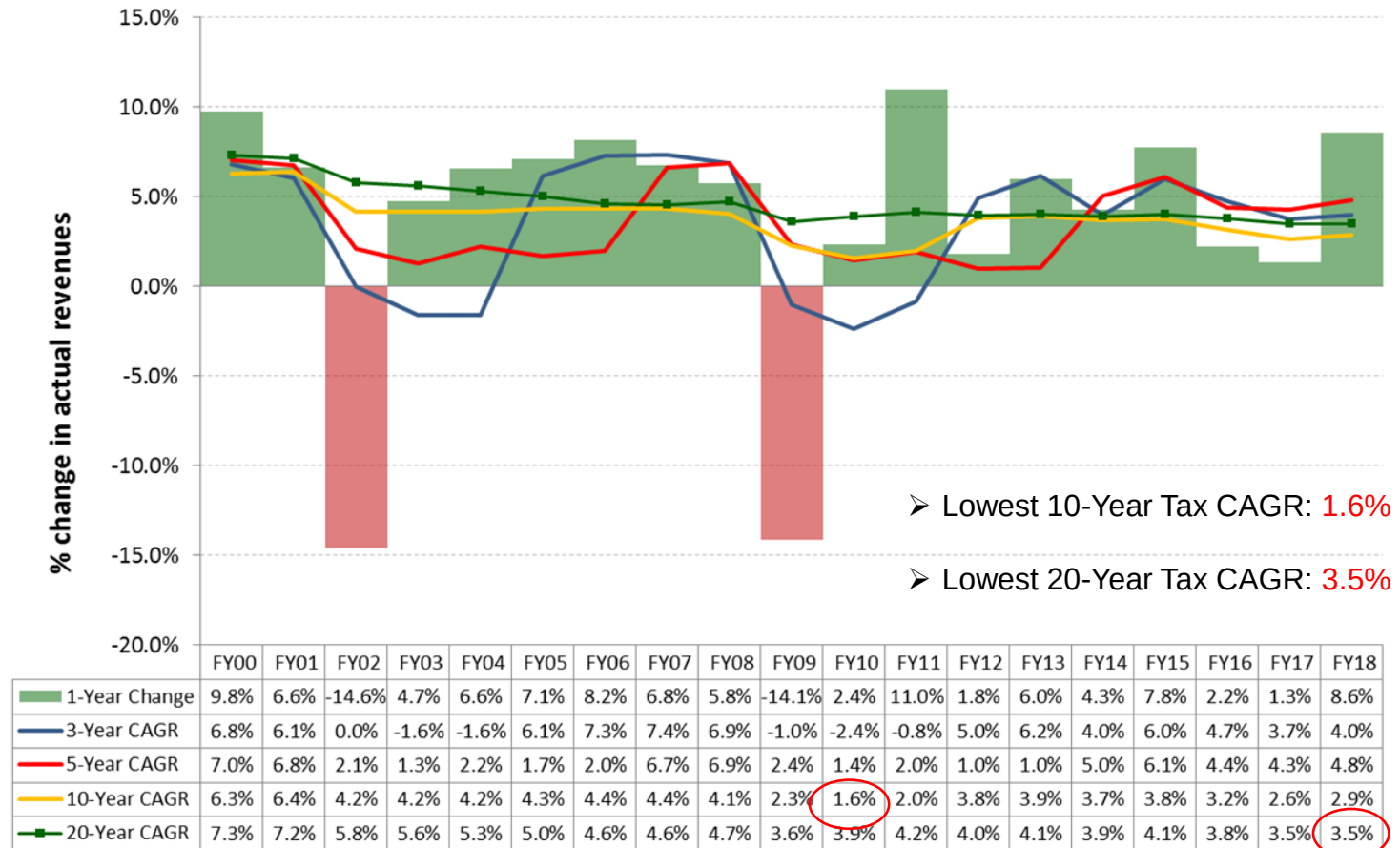
Modeling Scenario #3: \$100M/Year Increase to Cap, 0% Revenue Growth





Long Term Tax Revenue Growth: CAGR Method

- ❖ CAGR (Compound Annual Growth Rate) is the geometric average annual growth over a given period. It is generally accepted as an accurate way to compare growth rates over different timelines.



Source: DOR reports on annual revenue. Analysis for DAC purposes only.



Debt Issued and Outstanding: Fiscal 2015 to Fiscal 2019

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

	<u>Fiscal 2015</u>	<u>Fiscal 2016</u>	<u>Fiscal 2017</u>	<u>Fiscal 2018</u>	<u>Fiscal 2019 (4)</u>
Beginning Balance as of July 1	\$22,419,852	\$23,826,301	\$25,079,591	\$26,445,665	\$27,360,819
Debt Issued	<u>2,918,817</u>	<u>2,766,419</u>	<u>2,877,265</u>	<u>2,391,763</u>	<u>1,814,564</u>
Subtotal	<u>25,338,669</u>	<u>26,592,720</u>	<u>27,956,856</u>	<u>28,837,428</u>	<u>29,175,383</u>
Debt retired or defeased, exclusive of refunded debt	(1,486,243)	(1,446,444)	(1,389,581)	(1,389,419)	(1,295,322)
Refunding debt issued, net of refunded debt (3)	<u>(26,125)</u>	<u>(66,685)</u>	<u>(121,610)</u>	<u>(87,190)</u>	<u>(140,840)</u>
Ending Balance June 30 (2)	<u>\$23,826,301</u>	<u>\$25,079,591</u>	<u>\$26,445,665</u>	<u>\$27,360,819</u>	<u>\$27,739,221</u>

SOURCE: Office of the Comptroller.

- (1) Including 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) Unaudited.

Outstanding Long Term Commonwealth Debt (in thousands)

	<u>Fiscal 2015</u>	<u>Fiscal 2016</u>	<u>Fiscal 2017</u>	<u>Fiscal 2018</u>	<u>Fiscal 2019 (1)</u>
General Obligation Debt	\$20,801,956	\$21,668,296	\$22,716,695	\$23,143,374	\$23,676,096
Special Obligation Debt	2,324,490	2,754,255	2,990,960	3,469,000	3,378,380
Federal Grant Anticipation Notes	<u>699,855</u>	<u>657,040</u>	<u>738,010</u>	<u>748,445</u>	<u>684,745</u>
<u>TOTAL</u>	<u>\$23,826,301</u>	<u>\$25,079,591</u>	<u>\$26,445,665</u>	<u>\$27,360,819</u>	<u>\$27,739,221</u>

SOURCE: Office of the Comptroller.

- (1) Unaudited.

Source: Commonwealth Information Statement (August 9, 2019)



Additional Resources



Outstanding Debt of Component and Self Supporting Units

Commonwealth Debt: Long-Term	Outstanding Debt (FY18, millions)	Comments
General Obligation (GO)	\$ 23,143	Borrowing for the Capital Investment Plan (CIP), College Opportunity Bonds
Special Obligation (SO)	\$ 3,469	Includes the ABP & Rail, Gas Tax, Convention Center
Federal Grant Anticipation Notes (GANS)	\$ 748	Annual reimbursement of principal of federal highway grants
Subtotal	\$ 27,360	
Mass. School Building Authority (MSBA)	\$ 5,990	Sales tax secured (1%), construction costs of municipal schools
Total	\$ 33,350	

Political Subdivisions Outstanding Debt Profiles	Outstanding Debt (FY18, millions)	Comments
Mass. Bay Transportation Authority (MBTA)	\$ 5,348	Primarily revenue bonds, secured by sales tax (1%), fares, state appropriation
Mass. Department of Transportation (MassDOT)	\$ 1,794	Turnpike/MHS revenue bonds, secured by \$125m of annual GO Contract Assistance
Total	\$ 7,142	

Self Supporting Component Debt Profiles	Outstanding Debt (FY18, millions)	Comments
Mass. Water Resources (MWRA)	\$ 5,337	Rate revenue from 61 metro Boston communities
Mass. Housing Finance Agency (MassHousing)	\$ 4,220	Interest generating working capital and bond funds for affordable housing
UMass Building Authority (UMBA)	\$ 2,871	Secured by campus revenues generated from tuition and fees
Massport	\$ 1,680	Secured by dedicated passenger/lease operating funds
Mass. State College Building Authority (MSCBA)	\$ 1,230	Secured by fees from revenue generating buildings
Steamship Authority	\$ 82	Secured by passenger fares, but with Commonwealth Guaranty
Mass. Development Finance Agency (MassDevelopment)	\$ 7	Property and interest income
Total	\$ 15,427	



Commonwealth Bond Program Descriptions: Transportation Related

Program	Revenue Pledged	Description	Outstanding (09.30.2019)	Ratings (Fitch, Moody's, S&P, Kroll)
General Obligation ("Mass. Bonds")	Full Faith & Credit	Largest active debt program, with 42% of Commonwealth's annual bond cap spending (\$1 billion) planned for MassDOT	\$24 billion	AA+ Aa1 AA
Commonwealth Transportation Fund ("CTF") Bonds	Primarily Motor Fuels (e.g., 24¢ Gas Tax) Registry Fees	Funds the Accelerated Bridge Program (ABP) and Rail Enhancement Program (REP) bonds (CTF credit structure replaced the prior Gas Tax bond program, last issued in 2005)	\$2.9 billion (include \$105 million of Gas Tax bonds)	- Aa1 AA+ AAA
Federal Highway Grant Anticipation Notes ("GANs")	Federal Highway Reimbursements, backed by CTF	Funds the Accelerated Bridge Program (ABP) and prior transportation program debt service	\$684 million	- Aa2 AAA



Rating Scale: The 'Big 3' Rating Agencies Use Similar Scales

Class	Moody's	S&P	Fitch
Prime	Aaa	AAA	AAA
High Investment Grade	Aa1	AA+	AA+
	Aa2	AA	AA
	Aa3	AA-	AA-
Upper Medium Grade	A1	A+	A+
	A2	A	A
	A3	A-	A-
Lower Medium Grade	Baa1	BBB+	BBB+
	Baa2	BBB	BBB
	Baa3	BBB-	BBB-

Massachusetts Ratings (Green)

S&P

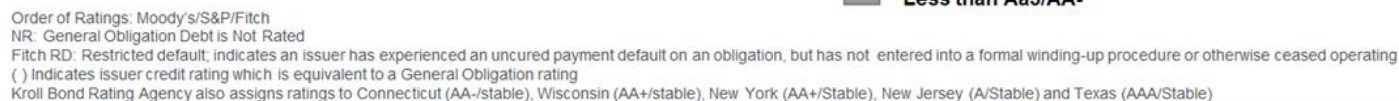
- Lowered to 'AA' in 2017, which had been 'AA+' since 2012

Split-Ratings

- When all three ratings are not aligned
- 42% split-ratings** among those states rated by three agency ratings

Outlook is Stable

- Change is not expected during the next **12-months**



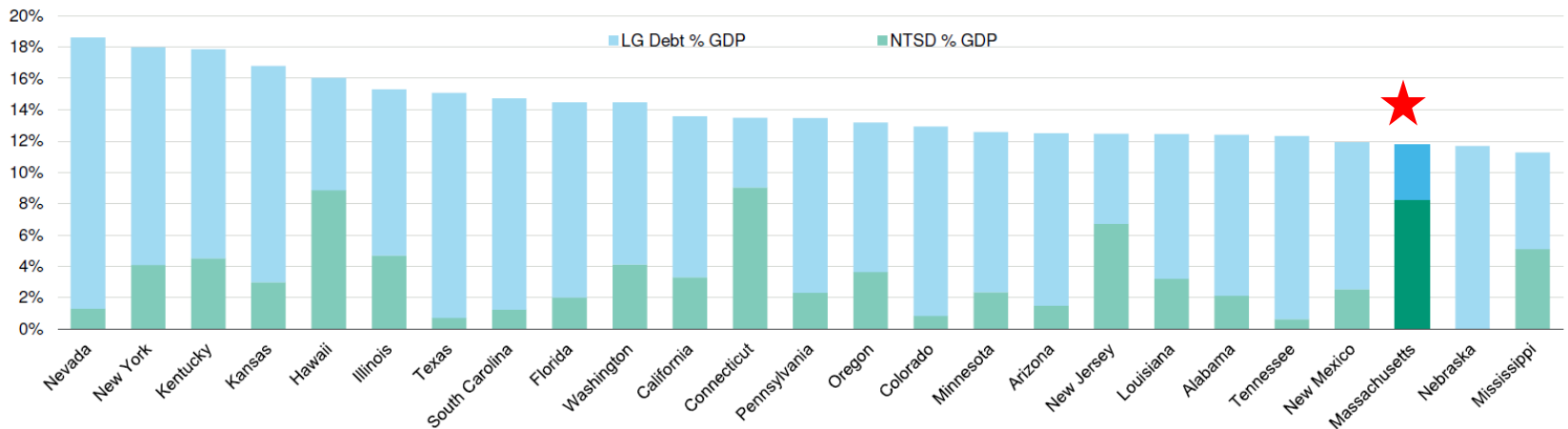


Moody's: Combined state and local government debt burden in line with peers

1. Massachusetts has one of the highest debt burdens in the nation, **third highest** net tax supported debt (NTSD) burden and **sixth highest** combined debt and adjusted net pension liability (ANPL) burden
2. However, liabilities have been a manageable burden across the whole tax base - 2017 tax supported debt equaled 8.3% of its GDP, but is significantly higher than the sector median of 2.1%
3. These **figures reflect borrowing for school construction and mass transit** that other states account for at the local level. When factoring in debt issued by local governments Massachusetts' leverage is more moderate. State and local debt represents 11.8% of Massachusetts' GDP, ranking the state 23rd and approximating the sector median of 11.2%

Massachusetts' total state and local government debt burden more in line with peers

State NTSD + local government debt as a % of GDP



*State NTSD debt data as of fiscal 2017 as reported by Moody's; Local Government debt data as of fiscal 2016 as reported by US Census; GDP data as of 2016

Source: State NTSD data from Moody's Investors Service; Local Government debt data from US Census; GDP from US Bureau of Economic Analysis

Source: Moody's, May 10, 2018

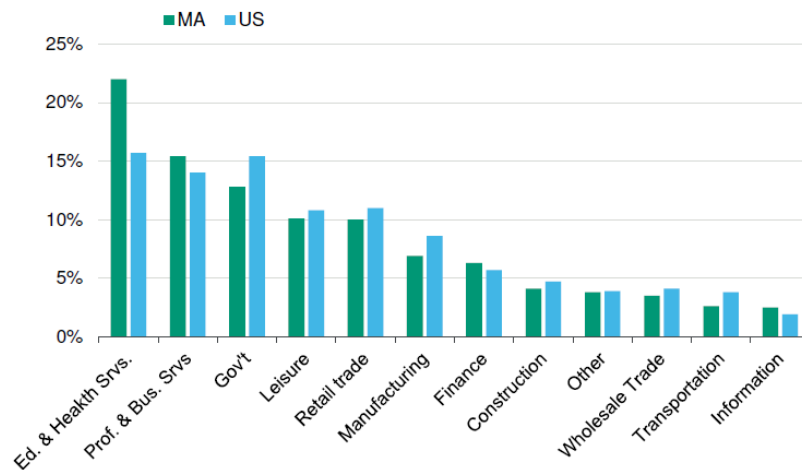


Moody's: Strong economy positions state to keep pace with long-term liabilities

1. Since 2000, economic growth has been stronger than the national average
2. During this period the state experienced a shift away from manufacturing jobs dominating employment, to jobs in **education, healthcare and professional services**. These **three sectors now make up almost 40%** of total state nonfarm employment, **up from 31% in 2000**, according to the Bureau of Labor Statistics (BLS)
3. Between 2007 and 2016, average annual wage and salary growth in the commonwealth was 1.7%, exceeding the national average annual rate of 1.2%

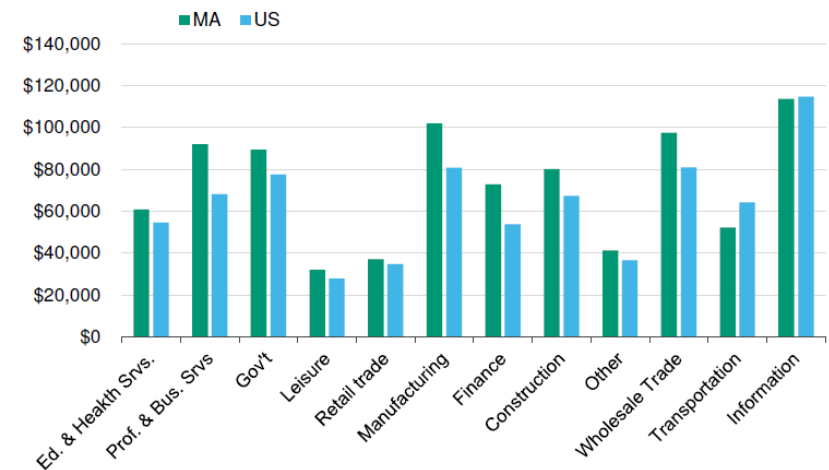
Eds, meds and white collar jobs dominate Massachusetts employment

Percentage of total employment



Source: Bureau of Labor Statistics

Wages in almost every Massachusetts industry outpace the US
Average industry wages



Industries are ordered based on percentage of Massachusetts total employment.

Source: Bureau of Labor Statistics

Source: Moody's, May 10, 2018

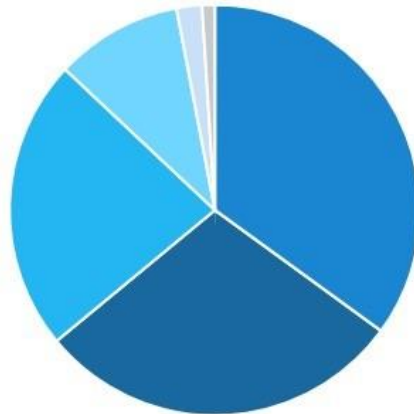


Municipality Credit in Massachusetts: S&P Ratings (2018)

How they rate in Massachusetts

Local governments' rating distribution

- AAA, 29%
- AA-plus, 35%
- AA, 23%
- AA-minus, 10%
- A-plus, 2%
- A, 1%

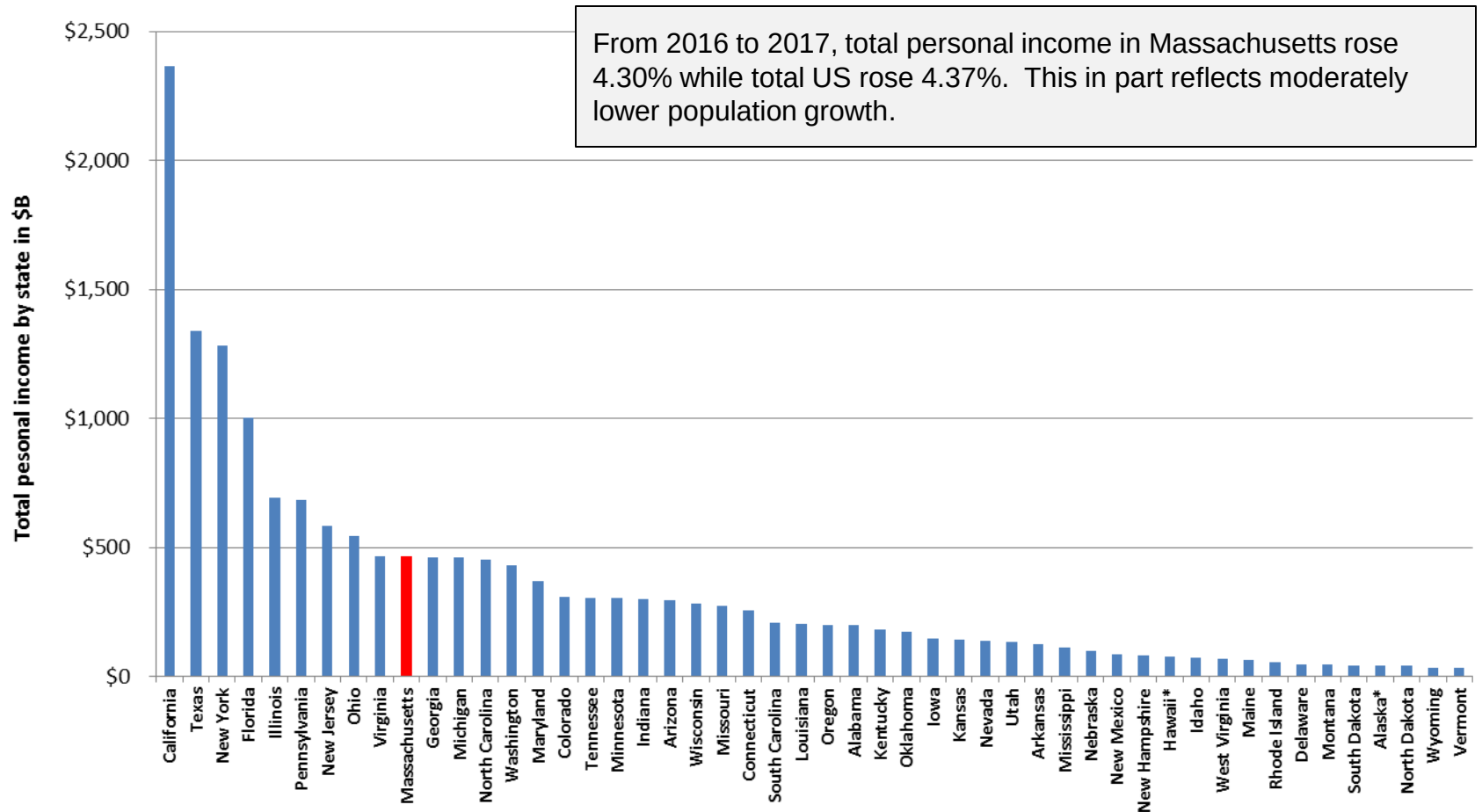


Source: S&P Global Ratings

- **Massachusetts remains among the states with the most AAA-rated local governments**
 - *87% of S&P's 205 municipality ratings are AA to AAA*
- S&P attributes recent (2015-2016) higher fund balance levels to strong motor-vehicle excise tax collections and a surge in building permits
 - *Two revenue streams that are correlated to economic swings*
- Credit quality will likely remain unaffected for those municipalities that have prepared for higher retirement costs with robust forecasts, modest spending, and strong reserves, or for communities with a tax base that supports higher taxes
- At risk are those with lowest pension-funded ratios, highest unfunded retirement benefits and limited budget flexibility



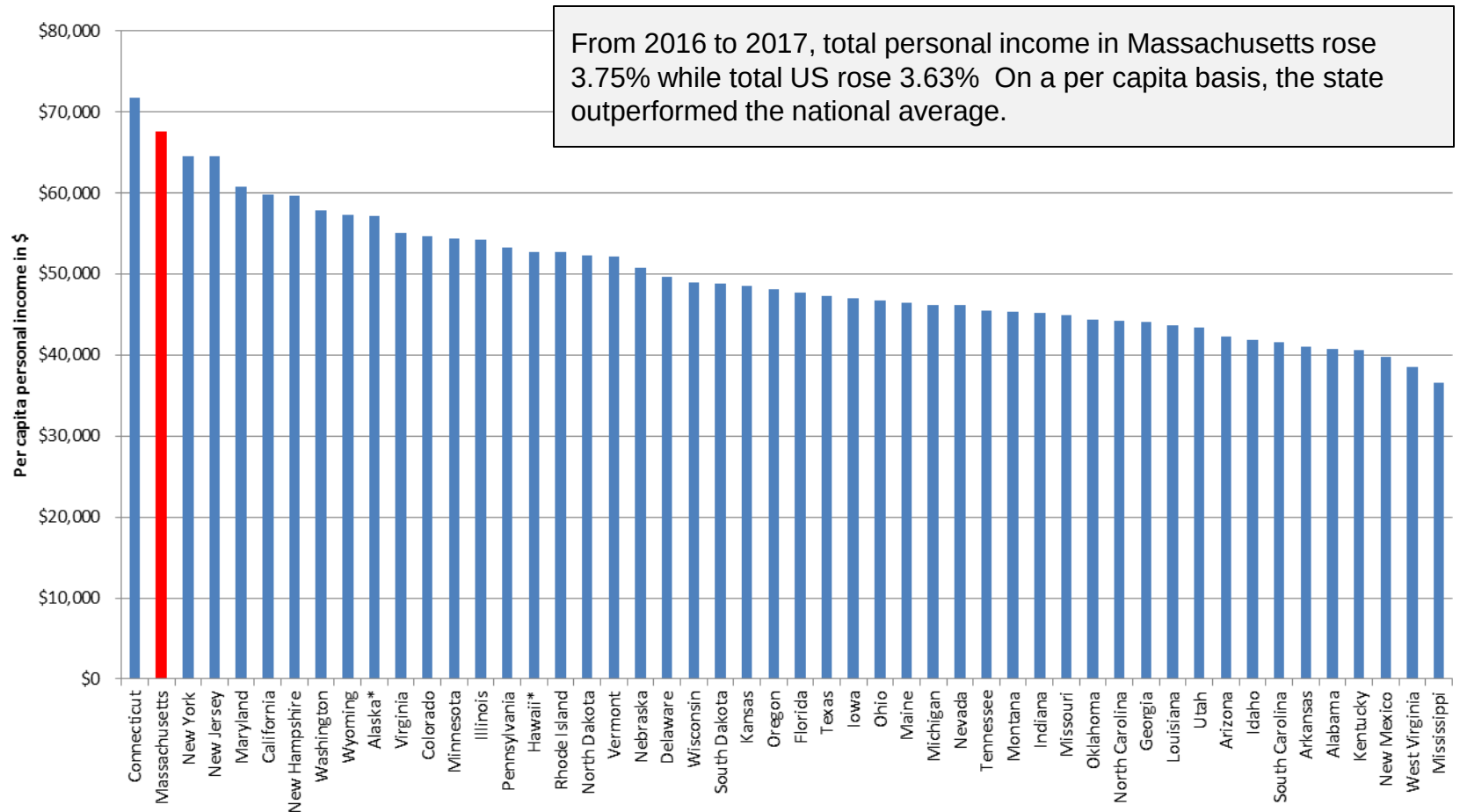
Total Personal Income



Source: U.S. Bureau of Economic Analysis



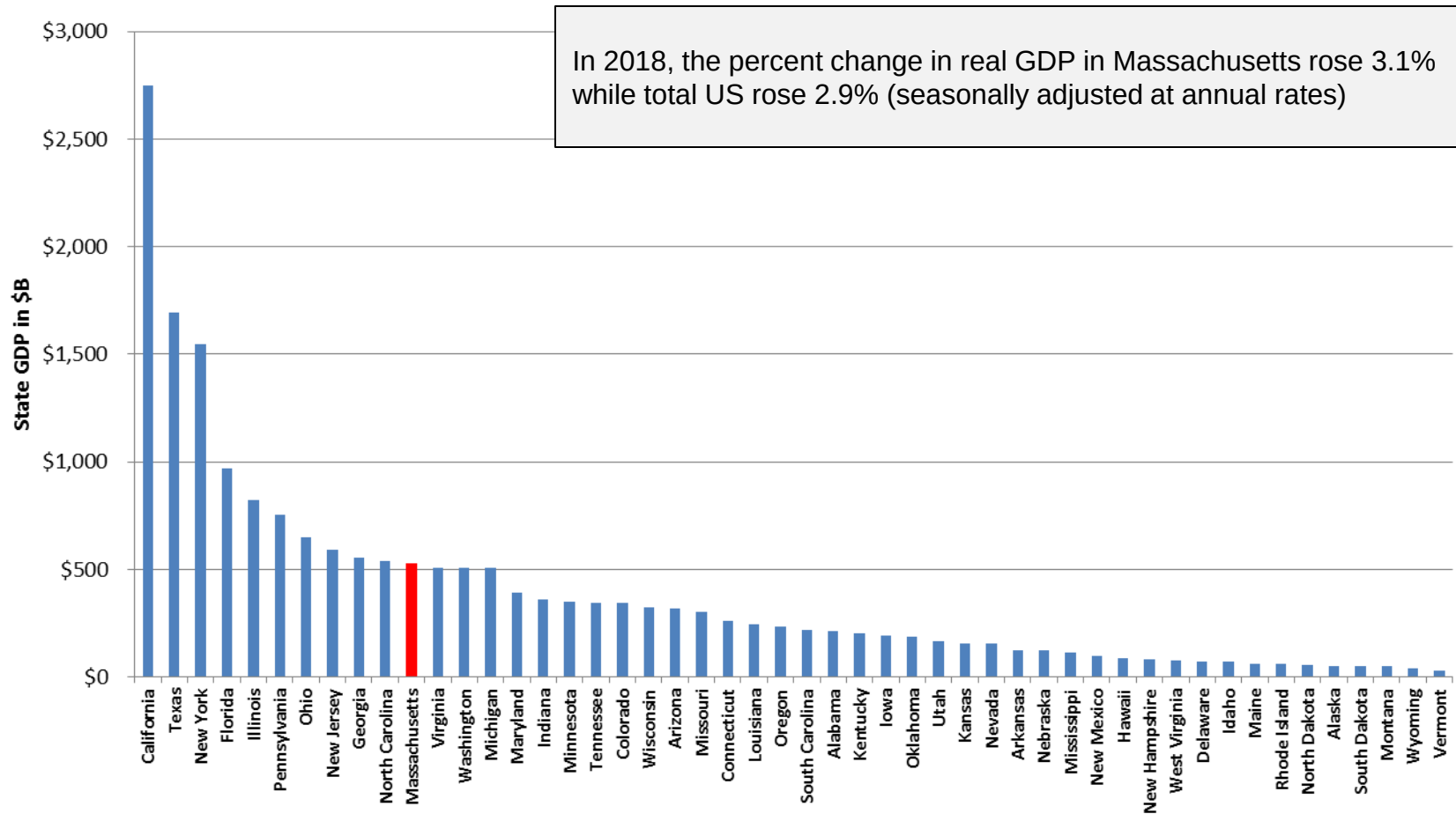
Per Capita Personal Income



Source: U.S. Bureau of Economic Analysis



State Gross Domestic Product (GDP)



Source: U.S. Bureau of Economic Analysis



Ten-Year Per Capita: General Long-Term Bonded Debt and Capital Leases

Fiscal Year Ended June 30	Governmental Activities		Business-Type Activities		Total Primary Government	Prior Year Personal Income	Massachusetts Resident Population (4)	Debt as a Percentage of Personal Income	Amount of Debt Per Capita
	Bonded Debt (1)	Capital Leases (2)	Bonded Debt (3)	Capital Leases					
2018	\$ 27,360,819	\$ 22,492	\$ 4,438,502	\$ 9,825	\$ 31,831,638	\$ 450,961,579	6,860	7.1%	\$ 4.64
2017	26,445,665	30,856	4,529,353	8,979	31,014,853	442,500,000	6,824	7.0%	4.54
2016	25,079,591	41,302	4,438,282	9,887	29,569,062	415,636,000	6,794	7.1%	4.35
2015	23,826,301	42,928	4,553,105	9,895	28,432,229	396,206,000	6,758	7.2%	4.21
2014	22,419,852	55,878	4,243,731	14,529	26,733,990	381,271,000	6,711	7.0%	3.98
2013	21,513,039	50,831	3,736,432	19,299	25,319,601	363,943,750	6,660	7.0%	3.80
2012	21,907,683	60,457	3,370,389	23,327	25,361,856	352,242,750	6,612	7.2%	3.84
2011	20,875,055	60,975	3,277,413	31,105	24,244,548	336,399,750	6,565	7.2%	3.69
2010	19,726,507	76,608	2,731,124	40,924	22,575,163	324,680,250	6,518	7.0%	3.46
2009	19,264,569	109,765	2,103,675	58,885	21,536,894	335,721,500	6,469	6.4%	3.33

- (1) Excludes Massachusetts School Building Authority debt. Amounts of bonded debt for governmental activities are the amount of debt for statutory debt calculation purposes. For fiscal 2009 through 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.
- (2) Governmental capital leases exclude the lease between the Commonwealth and the Route 3 North Transportation Improvement Association, a discretely presented component unit.
- (3) Business-type activities bond debt includes notes payable of the Institutions of Higher Education.
- (4) Population estimates have been restated to most current United States Census Bureau Data. Population data is reported as of July 1 of the previous year. *Source: - [HTTP://www.fedstats.gov](http://www.fedstats.gov) (US Census Bureau.)*

Source: Commonwealth Information Statement (August 9, 2019)



Long Term Interest Rate Projections: 2018

