NEW ISSUE – BOOK-ENTRY ONLY

Ratings:	Fitch:	AA-
	Moody's:	Aa3
	S&P Global Ratings:	A+
	(See "Ratings" herein)	

In the opinion of Co-Bond Counsel, assuming continuing compliance by the commonwealth with the requirements of the Internal Revenue Code of 1986, as amended (the "Code"), and all regulations applicable thereunder, and subject to the conditions described in "TAX MATTERS" herein, interest on the First Series Bonds is excludable from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax.

Interest on the First Refunding Series Bonds is not excludable from gross income for federal income tax purposes.

Co-Bond Counsel are also of the opinion that under the laws of the Commonwealth of Pennsylvania as presently enacted and construed, the interest on the Bonds is exempt from Pennsylvania personal income tax and Pennsylvania corporate net income tax.

Other provisions of the Code may affect the purchasers of the Bonds. See "TAX MATTERS" herein.

$1,045,525,000
Commonwealth of Pennsylvania
General Obligation Bonds,
$550,000,000 First Series of 2021
$495,525,000 First Refunding Series of 2021 (Federally Taxable)

Dated: Date of Issuance and Delivery **Due: As shown on inside front cover**

The commonwealth of Pennsylvania's General Obligation Bonds will be issued only in book-entry only form and initially registered in the name of Cede & Co., as nominee for The Depository Trust Company ("DTC"), New York, New York. DTC will act as securities depository for the Bonds. Interest on the Bonds will be payable semi-annually on May 15 and November 15, commencing November 15, 2021 for the First Series of 2021 Bonds (the "First Series Bonds") and on February 1 and August 1, commencing August 1, 2021 for the First Refunding Series of 2021 Bonds (Federally Taxable) (the "First Refunding Series Bonds", together with the First Series Bonds, the "Bonds"). Manufacturers and Traders Trust Company, a New York banking corporation, Harrisburg, Pennsylvania, is the Loan and Transfer Agent for the Bonds. Principal of and interest and redemption premium, if any, on the Bonds are payable to Cede & Co. See "THE BONDS – Book-Entry Only System." and Appendix D "INFORMATION REGARDING THE DEPOSITORY TRUST COMPANY AND ITS BOOK-ENTRY SYSTEM."

The Bonds are subject to redemption as set forth herein. See "THE BONDS – Redemption."

The Bonds are direct and general obligations of the commonwealth and the full faith and credit of the commonwealth are pledged for the payment of principal of and interest on the Bonds. See "SECURITY AND SOURCE OF PAYMENT FOR BONDS."

This cover page contains certain information for quick reference only. This page does not provide a complete summary of the issue. Investors must read the entire Official Statement to obtain information essential to the making of an informed investment decision regarding the Bonds.

The Bonds are offered when, as and if issued, and are subject to the receipt of the legal opinions of the Office of Attorney General of the commonwealth and, McNees Wallace & Nurick LLC of Harrisburg, Pennsylvania, Frannie Reilly LLC of Swarthmore, Pennsylvania, and the Law Office of Nathanial M. Holmes of Harrisburg, Pennsylvania. Certain legal matters will be passed upon for the commonwealth by Greenberg Traurig, LLP and Andre C. Dasent, P.C., both of Philadelphia, Pennsylvania, serving as Co-Disclosure Counsel to the commonwealth. The commonwealth expects that the Bonds will be available in definitive form for delivery through the facilities of DTC on or about May 20, 2021.

Dated: May 5, 2021

$1,045,525,000
Commonwealth of Pennsylvania
General Obligation Bonds,

$550,000,000 First Series of 2021

MATURITY SCHEDULE

(Base CUSIP Number†: 70914P)

Due May 15	Principal Amount	Interest Rate	Yield	CUSIP Number†	Due May 15	Principal Amount	Interest Rate	Yield		CUSIP Number†
2022	$16,985,000	5.000%	0.120%	T44	2032	$27,075,000	4.000%	1.280%	*	U67
2023	$17,455,000	5.000%	0.140%	T51	2033	$28,430,000	4.000%	1.330%	*	U75
2024	$18,325,000	5.000%	0.230%	T69	2034	$29,850,000	3.000%	1.540%	*	U83
2025	$19,245,000	5.000%	0.370%	T77	2035	$31,345,000	3.000%	1.600%	*	U91
2026	$20,205,000	5.000%	0.510%	T85	2036	$32,910,000	3.000%	1.650%	*	V25
2027	$21,215,000	5.000%	0.660%	T93	2037	$34,555,000	2.000%	1.920%	*	V33
2028	$22,275,000	5.000%	0.820%	U26	2038	$36,285,000	2.000%	1.960%	*	V41
2029	$23,390,000	5.000%	0.980%	U34	2039	$38,100,000	2.000%	2.000%		V58
2030	$24,560,000	5.000%	1.120%	U42	2040	$40,005,000	2.000%	2.040%		V66
2031	$25,785,000	5.000%	1.190%	U59	2041	$42,005,000	2.000%	2.080%		V74

$495,525,000 First Refunding Series of 2021 (Federally Taxable)

MATURITY SCHEDULE

(Base CUSIP Number†: 70914P)

Due August 1	Principal Amount	Interest Rate	Yield	CUSIP Number†	Due August 1	Principal Amount	Interest Rate	Yield	CUSIP Number†
2021	$36,635,000	0.125%	0.125%	V82	2027	$49,340,000	1.450%	1.450%	W65
2022	$5,675,000	0.250%	0.250%	V90	2028	$112,735,000	1.625%	1.625%	W73
2023	$5,700,000	0.400%	0.400%	W24	2029	$71,190,000	1.850%	1.850%	W81
2024	$5,105,000	0.600%	0.600%	W32	2030	$74,015,000	1.950%	1.950%	W99
2025	$5,170,000	0.950%	0.950%	W40	2031	$124,700,000	2.050%	2.050%	X23
2026	$5,260,000	1.200%	1.200%	W57					

†The above CUSIP (Committee on Uniform Securities Identification Procedures) numbers have been assigned by an organization not affiliated with the commonwealth and the commonwealth is not responsible for the selection or use of the CUSIP numbers. The CUSIP numbers are included solely for the convenience of bondholders and no representation is made as to the correctness of such CUSIP numbers. 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 issue or the use of secondary market financial products. The commonwealth has not agreed to, and there is no duty or obligation to, update this Official Statement to reflect any change or correction in the CUSIP numbers set forth above.

* Yield to first optional redemption date of May 15, 2031.

THE ISSUING OFFICIALS

Governor …………………………………………… TOM WOLF
State Treasurer……………………………...STACY GARRITY
Auditor General……………………TIMOTHY DeFOOR

OFFICE OF THE BUDGET

Secretary………………………………………Jen Swails

Attorney General of the Commonwealth of Pennsylvania:

Josh Shapiro

Co-Bond Counsel:

McNees Wallace & Nurick LLC
Harrisburg, Pennsylvania

Law Office of Frannie Reilly LLC
Swarthmore, Pennsylvania

Law Office of Nathanial M. Holmes
Harrisburg, Pennsylvania

Co-Disclosure Counsel:

Greenberg Traurig, LLP
Philadelphia, Pennsylvania

Andre C. Dasent, P.C.
Philadelphia, Pennsylvania

No dealer, broker, salesperson or other person has been authorized to give any information or to make any representations, other than as contained in this Official Statement, in connection with the offering contained herein, and, if given or made, such other information or representations must not be relied upon as having been authorized by the commonwealth of Pennsylvania. This Official Statement does not constitute an offer to sell, or a solicitation of an offer to buy, nor shall there be any sale of the Bonds by any person in any jurisdiction where such sale would be unlawful.

Except as otherwise noted, the information herein speaks as of its date and is as of the date of this Official Statement and is subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, in any circumstances, create any implication that there has been no change in the affairs of the Commonwealth of Pennsylvania since the date hereof.

The order and placement of the information this Official Statement, including the Appendices hereto and the information incorporated herein by reference, are not to be deemed to be a determination of relevance, materiality or importance, and this Official Statement, including the Appendices, and the information incorporated herein by reference, must be considered in its entirety.

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SUMMARY INFORMATION

THIS SUMMARY STATEMENT IS SUBJECT IN ALL RESPECTS TO THE MORE COMPLETE INFORMATION CONTAINED IN THIS OFFICIAL STATEMENT. OFFERING OF THE BONDS TO THE POTENTIAL PURCHASERS IS MADE ONLY BY MEANS OF THIS ENTIRE OFFICIAL STATEMENT, INCLUDING THE COVER AND APPENDICES HERETO AND THE INFORMATION INCORPORATED BY REFERENCE.

Issuer...................................... Commonwealth of Pennsylvania (the "commonwealth")

Offering .... $1,045,525,000 commonwealth of Pennsylvania, General Obligation Bonds, consisting of $550,000,000 First Series of 2021 (the "First Series Bonds") and $495,525,000 First Refunding Series of 2021 (Federally Taxable) (the "First Refunding Series Bonds" and collectively with the First Series Bonds, the "Bonds").

Dated Date............................. Date of issuance and delivery

Security.................................. General obligation of the commonwealth; full faith and credit pledged (See "SECURITY AND SOURCE OF PAYMENT FOR BONDS" herein)

Estimated Use of Proceeds.... The commonwealth is issuing the Bonds for the following purposes:

Purpose	
First Series Bonds	**Amount**
Capital Facilities Projects	$550,000,000
Paying all or a portion of the costs of issuance.	
First Refunding Series Bonds	
Refunding	$495,525,000
Paying all or a portion of the costs of issuance.	

Redemption .... The First Series Bonds maturing on and after May 15, 2032 are subject to optional redemption in whole or in part (and if in part, in part within one or more maturities) at any time on and after May 15, 2031 at a redemption price equal to the principal amount thereof, plus accrued interest to the date fixed for redemption.

The First Refunding Series Bonds will be subject to redemption at any time, at the option of the commonwealth, in whole or in part (on a pro rata basis with respect to the First Refunding Series Bonds to be redeemed). See the Notice of Sale relating to redemption attached hereto as Appendix I (see "REDEMPTION" herein).

Authorized Denominations ... $5,000 or integral multiples thereof.

Form of Bonds....................... The Bonds are issued in fully registered form through a book-entry only system.

Loan & Transfer Agent......... Manufacturers and Traders Trust Company, Harrisburg, Pennsylvania.

Legal Opinions .... McNees Wallace & Nurick LLC, Law Office of Frannie Reilly, LLC and Law Office of Nathanial M. Holmes, Co-Bond Counsel.
Greenberg Traurig, LLP and Andre C. Dasent, P.C., Co-Disclosure Counsel.
Josh Shapiro, Attorney General of the Office of Attorney General of the Commonwealth.

Bond Ratings .... Fitch Ratings, Inc. .... AA- (outlook "Stable")
Moody's Investors Service, Inc. .... Aa3 (outlook "Stable")
S&P Global Ratings .... A+ (outlook "Negative")

See "RATINGS" herein.

Official Statement

$1,045,525,000
Commonwealth of Pennsylvania
General Obligation Bonds,
$550,000,000 First Series of 2021
$495,525,000 First Refunding Series of 2021 (Federally Taxable)

INTRODUCTION

This Official Statement of the commonwealth of Pennsylvania (the "commonwealth"), including the cover page, inside front cover page and appendices hereof, presents certain information in connection with the issuance of $1,045,525,000 commonwealth of Pennsylvania, General Obligation Bonds, consisting of $550,000,000 First Series of 2021 (the "First Series Bonds") and $495,525,000 First Refunding Series of 2021 (Federally Taxable) (the "First Refunding Series Bonds" and collectively with the First Series Bonds, the "Bonds"). The Bonds are being issued to provide funds for and toward the costs of various capital projects and the refunding of certain previously issued bonds. See "ESTIMATED USE OF PROCEEDS."

The Bonds are general obligations of the commonwealth to which the full faith and credit of the commonwealth are pledged. See "SECURITY AND SOURCE OF PAYMENT FOR BONDS." Principal of and interest payments on the Bonds will be paid from the General Fund. See "COMMONWEALTH FINANCIAL PERFORMANCE" and "COMMONWEALTH FINANCIAL STRUCTURE AND PROCEDURES."

The Bonds will be initially registered in the name of Cede & Co., as nominee for The Depository Trust Company, securities depository for the Bonds under a book-entry only registration system. See "THE BONDS — Book-Entry Only System" and Appendix D.

The Bonds are authorized investments for fiduciaries and personal representatives, as defined in the Probate, Estates and Fiduciaries Code within the commonwealth; are legal investments for Pennsylvania banks, trust companies, bank and trust companies, savings banks, and insurance companies; and are acceptable as security for deposits of the funds of the commonwealth. See "LEGALITY FOR INVESTMENT."

Except where otherwise expressly noted, the financial and other information provided in this Official Statement is generally derived from the records of the commonwealth. Financial information and other data provided herein are derived from the best information available as of the date of this Official Statement. Because agencies of the commonwealth have different reporting periods, "as of" dates of certain financial and other information presented herein may vary. All financial information should be considered as unaudited unless otherwise specifically identified. All estimates and assumptions are based on the best information available to the commonwealth but do not constitute factual information. All estimates of future performance or events constituting "forward-looking statements" may or may not be realized because of a wide variety of economic and other circumstances. Included in such forward-looking statements are numbers and other information from budgets for current and future fiscal years. The references to, and summaries of, constitutional and statutory provisions of the commonwealth and to bond resolutions and other documents are qualified in their entirety by reference to the complete text of such documents and to any judicial interpretations thereof.

If and when included in this Official Statement, the words "expects," "forecasts," "projects," "intends," "anticipates," "estimates," "assumes," and analogous expressions are intended to identify forward looking statements. Any such statements inherently are subject to a variety of risks and uncertainties, certain of which are beyond the control of the commonwealth, including the impacts of the COVID-19 pandemic, that could cause actual results to differ materially from those that have been projected. Moreover, certain financial and operating data as well as demographic information provided in this Official Statement and Appendix B are based on projections and estimates or compiled prior to the outbreak of the COVID-19 pandemic, and the measures and executive orders issued to mitigate the spread of COVID-19. Accordingly, such financial, operating data and other information are not indicative of the impacts of COVID-19 pandemic on the commonwealth. Due to the unprecedented nature of the pandemic and the mitigation measures implemented, prior fiscal year, interim and year-end results may not be indicative of current or future fiscal year, interim and year-end results.

THE BONDS

Description of the Bonds

The First Series Bonds will be dated the date of issuance and delivery, will bear interest initially from such date, at the rate per annum for each maturity as specified on the inside cover page hereof. Such interest will be payable semi-annually on each May 15 and November 15, commencing November 15, 2021, calculated on the basis of a 360-day year of twelve 30-day months, and will mature in the amounts and on the dates as set forth on the inside cover page hereof.

The First Refunding Series Bonds will be dated the date of issuance and delivery, will bear interest initially from such date, at the rate per annum for each maturity as specified on the inside cover page hereof. Such interest will be payable semi-annually on each February 1 and August 1, commencing August 1, 2021, calculated on the basis of a 360- day year of twelve 30-day months, and will mature in the amounts and on the dates as set forth on the inside cover page hereof.

The resolutions adopted by the Governor, State Treasurer and Auditor General dated April 28, 2021 and May 5, 2021 (collectively, the "Resolutions") and all provisions thereof are incorporated by reference in the text of the Bonds, including, without limitation, those provisions setting forth the conditions under which the Resolutions may be modified. The Bonds provide that each registered owner, Beneficial Owner, DTC Participant or Indirect Participant (as hereinafter defined) in DTC, by acceptance of a Bond (including receipt of a book-entry credit evidencing an interest therein), assents to all of such provisions as an explicit and material portion of the consideration running to the commonwealth to induce it to adopt the Resolutions and to issue such Bonds.

Copies of the Resolutions, including the full text of the forms of the Bonds, are on file at the designated office in Harrisburg, Pennsylvania of Manufacturers and Traders Trust Company ("Loan and Transfer Agent").

Interest on the Bonds will be payable by check or draft mailed or other transfer made to the persons in whose names the Bonds shall be registered at the close of business on the fifteenth day (whether or not a business day) of the calendar month next proceeding each interest payment date (the "Record Date"). Any interest on any Bond not timely paid or duly provided for shall cease to be payable to the person who is the registered owner as of the regular Record Date, and shall be payable to the person who is the registered owner at the close of business on a special record date for the payment of such defaulted interest. A special record date shall be a date not more than fifteen nor less than ten days prior to the date of the proposed payment and shall be fixed by the Loan and Transfer Agent whenever moneys become available for payment of the defaulted interest. Notice of a special record date shall be given to registered owners of the Bonds not less than fifteen days prior thereto.

Whenever the due date for payment of interest on or principal of the Bonds or the date fixed for redemption of any Bond shall be on a Saturday, a Sunday, a legal holiday or a day on which banks in the commonwealth are required or authorized by law (including by executive order) to close, then payment of such interest, principal or redemption price need not be made on such date, but may be made on the next succeeding day which is not a Saturday, a Sunday, a legal holiday, or a day upon which banks in the commonwealth are required or authorized by law (including by executive order) to close, with the same force and effect as if made on the due date for such payment of principal, interest or redemption price, and no interest shall accrue thereon for any period after such due date.

Book-Entry Only System

The Depository Trust Company, New York, New York ("DTC") will act as securities depository for the Bonds pursuant to a book-entry only system. Information regarding DTC and its book-entry system, provided by DTC, appears as Appendix D. Such information has been provided by DTC, and the commonwealth does not assume any responsibility for the accuracy or completeness of such information. The commonwealth may decide to discontinue use of the system of book-entry transfers through DTC (or another securities depository). In that event, Bond certificates will be printed and delivered.

For so long as the Bonds are registered in the name of DTC, or its nominee Cede & Co., the commonwealth and the Loan and Transfer Agent will treat Cede & Co. as the registered owner of the Bonds for all purposes, including payments, notices and voting.

Neither the commonwealth nor the Loan and Transfer Agent shall have any responsibility or obligation to any Direct or Indirect Participant or Beneficial Owner (as defined in Appendix D) with respect to (i) the accuracy of any records maintained by DTC or any Direct or Indirect Participant with respect to any beneficial ownership interest in any Bonds; (ii) the payment by any Direct or Indirect Participant of any amount due to any Beneficial Owner in respect of the principal of, premium, if any, and interest on the Bonds; (iii) the delivery or timeliness of delivery by any Direct or Indirect Participant of any notice to any Beneficial Owner with respect to the Bonds, including, without limitation, any notice of redemption; or (iv) other action taken by DTC or Cede & Co., including the effectiveness of any action taken pursuant to an Omnibus Proxy.

Payments made by or on behalf of the commonwealth to DTC or its nominee shall satisfy the commonwealth's payment obligations with respect to the Bonds to the extent of such payments.

REDEMPTION

<u>First Series Bonds</u>

Optional Redemption

The First Series Bonds, or portions thereof in integral multiples of $5,000, maturing on and after May 15, 2032 are subject to redemption at the option of the commonwealth prior to scheduled maturity on and after May 15, 2031, as a whole or in part (and if in part, within one or more maturities) at any time and from time to time, in any order of maturity determined by the commonwealth and by lot within a maturity in such manner as the commonwealth in its discretion may determine, on at least 30 days (but not more than 60 days) notice, at a redemption price equal to par (100% of stated principal amount) plus accrued interest to the date fixed for redemption.

<u>First Refunding Series Bonds</u>

The First Refunding Series Bonds will be subject to redemption at any time, at the option of the Commonwealth, in whole or in part (on a pro rata basis with respect to the First Refunding Series Bonds to be redeemed as described below), at a redemption price equal to the greater of:

(i) 100% of the principal amount of the First Refunding Series Bonds to be redeemed, or

(ii) the sum of the present values of the remaining scheduled payments of principal and interest on the First Refunding Series Bonds to be redeemed to the applicable maturity date (exclusive of interest accrued to the date fixed for redemption) discounted to the date of redemption on a semiannual basis (assuming a 360-day year consisting of twelve (12) 30-day months) at the Treasury Rate plus (i) ten basis points (0.10%) for the First Refunding Series Bonds maturing August 1, 2021 through August 1, 2027, (ii) fifteen basis points (0.15%) for the First Refunding Series Bonds maturing August 1, 2028 through August 1, 2030, and (iii) twenty basis points (0.20%) for the First Refunding Series Bonds maturing August 1, 2031; plus accrued unpaid interest on the First Refunding Series Bonds being redeemed to the date fixed for redemption.

"Treasury Rate" means, with respect to any redemption date for any particular First Refunding Series Bonds maturity, the greater of:

(i) the yield to maturity as of such redemption date of the United States Treasury securities with a constant maturity (as compiled and published in the most recent Federal Reserve Statistical Release H.15 (519) that has become publicly available at least two business days prior to the redemption date (excluding inflation indexed securities) (or, if such Statistical Release is no longer published, any publicly available source of similar market data)) most nearly equal to the period from the redemption date to maturity; provided, however, that if the period from the redemption date to maturity is less than one year, the weekly average yield on actually traded United States Treasury securities adjusted to a constant maturity of one year will be used; all as will be determined by an independent accounting firm, investment banking firm or financial advisor retained by the commonwealth at the commonwealth's expense and such determination shall be conclusive and binding on the owners of the First Refunding Series Bonds, or

(ii) the rate per annum, expressed as a percentage of the principal amount, equal to the semiannual equivalent yield to maturity or interpolated maturity of the Comparable Treasury Issue (defined below), assuming that the Comparable Treasury Issue is purchased on the redemption date for a price equal to the Comparable Treasury Price (defined below), as calculated by the Designated Investment Banker (defined below).

"Comparable Treasury Issue" means, with respect to any redemption date for a particular First Refunding Series Bonds maturity, the United States Treasury security or securities selected by the Designated Investment Banker that has an actual or interpolated maturity comparable to the remaining average life of the First Refunding Series Bonds maturity to be redeemed.

"Comparable Treasury Price" means, with respect to any redemption date for a particular First Refunding Series Bonds maturity, (i) if the Designated Investment Banker receives at least four Reference Treasury Dealer Quotations (defined below), the average of such quotations for such redemption date, after excluding the highest and lowest Reference Treasury Dealer Quotations, or (ii) if the Designated Investment Banker obtains fewer than four Reference Treasury Dealer Quotations, the average of all such quotations.

"Designated Investment Banker" means one of the Reference Treasury Dealers (as defined below) appointed by the Commonwealth.

"Reference Treasury Dealer" means each of the four firms, specified by the commonwealth, from time to time, that are primary United States government securities dealers in the City of New York (each a "Primary Treasury Dealer"); provided, however, that if any of them ceases to be a Primary Treasury Dealer, the Commonwealth will substitute another Primary Treasury Dealer.

"Reference Treasury Dealer Quotations" means, with respect to each Reference Treasury Dealer and any redemption date for a particular First Refunding Series Bonds maturity, the average, as determined by the Designated Investment Banker, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Designated Investment Banker by such Reference.

Notice of Redemption

As long as the Bonds are registered pursuant to a book-entry only system, notice of redemption will be given, as required by DTC's (or any successor depository's) procedures, to DTC, its nominee, or successor securities depository, as registered owner of the Bonds. So long as Cede & Co. is the registered owner of the Bonds, the commonwealth will not be responsible for mailing notices of redemption to anyone other than DTC or its nominee.

Notice of redemption shall be given by the Loan and Transfer Agent via first-class mail not less than 30 days, nor more than 60 days, prior to the date fixed for redemption to the persons in whose names the Bonds to be redeemed are registered at the close of business on the fifth (5^{th}) business day prior to such mailings; provided, however, that any defect in the notice or in the mailing thereof with respect to any registered owner shall not affect the validity of the proceedings for such redemption as to any other registered owner. Deposit of any such notice in the United States mail shall constitute constructive receipt of such notice by the registered owner to whom such notice is sent. Notice having been given as aforesaid and provision having been made for redemption from funds on deposit with the Loan and Transfer Agent, no interest on the Bonds, or portions thereof, called for redemption shall accrue after the date fixed for redemption, and the registered holders of the Bonds, or portions thereof, called for redemption shall thereafter have no further right except to receive payment of the redemption price plus accrued interest to the redemption date.

If at the time of the notice of optional redemption, there shall not be on deposit in a restricted account with the State Treasurer money sufficient to redeem all the Bonds called for redemption, such notice shall state, unless the Commonwealth specifically directs otherwise in writing, that it is conditional, that is, subject to the deposit of the redemption money with the State Treasurer not later than the redemption date, and such notice shall be of no effect unless such money is so deposited.

In addition to the notice of redemption to the registered owners of the Bonds, the Loan and Transfer Agent shall cause copies of the original redemption notice to be sent by facsimile transmission, overnight delivery or certified mail with return receipt requested (or other similar means that can provide evidence of receipt) to all registered securities depositories then in the business of holding obligations similar to the Bonds, and to two or more national information services that disseminate redemption information; provided however, that failure to send such copies of the original redemption notice or any defect therein shall not affect the validity of the redemption proceedings.

SECURITY AND SOURCE OF PAYMENT FOR BONDS

The Bonds are direct and general obligations of the commonwealth to which the full faith and credit of the commonwealth have been pledged for the payment of the interest thereon as it becomes due and the payment of the principal thereof at maturity or prior redemption. The various acts authorizing the incurrence of debt by the commonwealth require the General Assembly to appropriate annually the moneys necessary to pay such interest and principal for which other provisions are not made. See the statutes described in the subsection "Authorization" below. Principal of and interest payments on the Bonds will be made from the General Fund.

The Constitution of the commonwealth of Pennsylvania (the "Constitution") places a claim on certain revenues of the commonwealth for the payment of principal of and interest on all debt of the commonwealth. Article VIII, Section 7(d) of the Constitution provides that, if sufficient funds are not appropriated for the timely payment of the interest on and principal of all commonwealth debt, the State Treasurer shall set apart from the first revenues thereafter received applicable to the appropriate fund, a sum sufficient to pay such interest and principal, and shall so apply the money so set apart.

The State Treasurer may be required to set aside and apply such revenues at the suit of any holder of commonwealth obligations.

For a description of the constitutional provisions relating to the Bonds, see Appendix E. The proposed form of the opinion of the Office of Attorney General is set forth in Appendix F and the proposed form of the opinion of Co-Bond Counsel is set forth in Appendix G.

Authorization

The Bonds are authorized and issued pursuant to and in full compliance with the provisions, restrictions and limitations of Section 7 of Article VIII of the Constitution; the laws of the commonwealth, including but not limited to the Capital Facilities Debt Enabling Act, Act No. 1999-1, approved February 9, 1999, as amended by: Act No. 2002-130, approved October 28, 2002; Act No. 2003-49, approved December 23, 2003; Act No. 2004-67, approved July 4, 2004; Act No. 2005-87, approved December 22, 2005; Act No. 2008-48, approved July 4, 2008; Act No. 2010-48, approved July 7, 2010; Act No. 2013-77, approved October 25, 2013; Act No. 2017-45, approved October 30, 2017; Act No. 2019-43, approved July 2, 2019; Act No. 2020-25, approved may 29, 2020 (as so amended, the "Capital Facilities Debt Enabling Act") and, annual capital budget bills and various bond authorization bills enacted by the General Assembly and the Resolutions.

Debt Limits

The Constitution (Article VIII, Section 7(a)) permits debt to be incurred (i) for purposes itemized in law and approved by voter referendum, (ii) without approval of the electorate for the rehabilitation of areas affected by man-made or natural disasters, and (iii) without approval of the electorate for capital facilities projects specifically itemized in a capital budget if such debt does not cause the amount of all net debt outstanding (as defined for purposes of that Section) to exceed one and three quarters times (1.75x) the average of the annual tax revenues of the commonwealth deposited in all funds in the previous five fiscal years, as certified by the Auditor General (the "Constitutional Debt Limit"). The most recent semi-annual computation of the Constitutional Debt Limit and the amount of net debt outstanding subject to such limit are shown in Table 1.

Table 1

Constitutional Debt Limit[(a)]

February 28, 2021

(In Millions)

Average Annual Tax Revenues FYs ended June 30, 2016-2020..	$ 41,212.1
Times 1.75..	72,121.2
Less: Net Debt Outstanding[(b)]	9,695.3
Debt Issuable Within Limit	$ 62,425.9

[(a)] As certified by the Auditor General on February 28, 2021 (See Appendix A to this Official Statement).

[(b)] After credit for refunded debt.

The capital debt authorizations for the various categories of capital facilities projects are shown in Table 2 below.

Table 2
Pro Forma Remaining Debt Authorized After Issuance of the Bonds
(In Millions)

Capital Facilities Projects Category	Debt Authorized	Issued[(a)]	Remaining Debt Authorized	Remaining Debt Authorized After Issuance Of The Bonds*
Buildings and Structures..............	$ 54,113.4	$ 12,948.4	$ 41,165.0	$ 40,615.0
Furniture and Equipment............	2,136.2	546.5	1,589.7	1,589.7
Transporation Assistance...........	15,568.4	4,561.9	11,006.5	11,006.5
Redevelopment Assistance.........	64,798.8	5,199.8	59,599.0	59,599.0
Community Colleges..................	35.8	28.0	7.8	7.8
Highway and Highway Bridge......	43,341.3	3,287.5	40,053.8	40,053.8
Flood Control............................	1,143.1	65.8	1,077.3	1,077.3
Total..................................	$ 181,137.0	$ 26,637.9	$ 154,499.2	$ 153,949.2

(a) Original issuance amounts; not all are presently outstanding.

The amount of debt that may be issued in any given fiscal year for capital projects authorized in current or previous capital budgets is enacted annually by the General Assembly and approved by the Governor. The maximum principal amount of debt currently authorized by the fiscal year 2019-2020 capital budget is as shown in Table 3 below.

Table 3
Pro Forma Remaining Debt After Issuance of the Bonds[(a)]
(In Millions)

Capital Facilities Projects Category	Limits	Debt Issued To Date	Remaining Issuable Within Limit	Remaining Debt Authorized After Issuance Of The Bonds*
Buildings and Structures..............	$ 550.0	$0.0	$550.0	$0.0
Furniture and Equipment.............	10.0	0.0	10.0	10.0
Transporation Assistance...........	175.0	175.0	0.0	0.0
Redevelopment Assistance..........	275.0	275.0	0.0	0.0
Flood Control.............................	0.0	0.0	0.0	0.0
Total....................................	$1,010.0	$450.0	$560.0	$10.0

(a) The Bonds are being issued under the fiscal year 2019-2020 capital budget debt limits, which became effective on May 29, 2020.

After issuance of the Bonds under the fiscal year 2019-2020 capital budget, approximately $10 million principal amount of debt will remain authorized and unissued thereunder. See "ESTIMATED USE OF PROCEEDS-Capital Facilities Projects."

For a discussion of the commonwealth's outstanding debt and projected future issuance of general obligation debt, see "OUTSTANDING INDEBTEDNESS OF THE COMMONWEALTH."

ESTIMATED USE OF PROCEEDS

The commonwealth is issuing the Bonds for the following purposes:

(i) $550,000,000 of the First Series Bonds will be used to provide for the construction, acquisition and major rehabilitation of capital facilities projects, as described below under "Capital Facilities Projects",

(ii) $495,525,000 of the First Refunding Series Bonds, if issued, will be used to refund prior issues of bonds of the commonwealth. See "Plan of Refunding" herein.

(iii) $500,000 (approximately) will be used to pay all or a portion of the costs of issuance for the Bonds.

Capital Facilities Projects

A portion of the proceeds of the Bonds will be deposited into the Capital Facilities Fund and applied: 1) to pay a portion of the costs of issuance of the Bonds and 2) to the financial costs of various capital facilities projects of the commonwealth. The $550,000,000 aggregate principal amount of the Bonds shall be allocated to the Department of General Services and used to fund the construction and major rehabilitation of public buildings for the commonwealth and its institutions, approximately $20,000,000 of which shall be applied to pay capital costs relating to public improvement projects administered by the Department of General Services, as provided for in the Capital Facilities Debt Enabling Act, including costs of administration, salaries and expenses of administrators, reviewing architects and engineers, construction inspectors, accountants and legal counsel of the commonwealth and its agencies or authorities, incurred solely for the proper planning and supervision of such capital projects. Pending application for the above purposes, the aforementioned proceeds of the Bonds will be held by the State Treasurer in the Capital Facilities Fund and invested in accordance with applicable state and federal laws.

Plan of Refunding

The Bonds refunded with the First Refunding Series of Bonds (the "Refunded Bonds") are as follows:

Principal Amount to be Refunded	Designated Name	Issue Date	Bonds Maturing On	Date of Redemption
$2,755,000	Third Series C of 2010	December 23, 2010	July 15, 2022, 2023, 2027, 2030	May 20, 2021
$133,485,000	First Series of 2011	October 27, 2011	November 15, 2027, 2028, 2031	November 15, 2021
$44,370,000	First Series of 2012	April 26, 2012	June 1, 2022	June 1, 2022 *
$269,095,000	First Series of 2012	April 26, 2012	June 1, 2029-2032	June 1, 2022
$22,175,000	First Series of 2014	May 15, 2014	June 15, 2021	June 15, 2021 *

*Maturity.

The refunding of the Refunded Bonds will be accomplished by applying a portion of the proceeds from the sale of the First Refunding Series Bonds to the purchase of certain direct obligations of the United States Government to be held in escrow (the "Escrow Obligations"), in an aggregate principal amount which at all times shall be sufficient, together with the interest to accrue thereon, to pay the principal of such Refunded Bonds, the redemption premium, if any, and the interest due and to become due thereon before and on the respective redemption dates or maturity dates as shown above (the "Required Deposit"). Such Escrow Obligations will be deposited with the State Treasurer of the commonwealth of Pennsylvania, to be applied solely to the payment of the principal and interest on such Refunded Bonds on the maturity or redemption dates shown above. Initially, the Escrow Obligations are expected to consist of United States Treasury obligations. Applicable law and the Resolutions permit the State Treasurer to substitute new Escrow Obligations meeting the requirements of the Required Deposit at the time of any such substitution upon fulfillment of certain conditions, including the receipt of an opinion of Co-Bond Counsel and certain certifications.

The refunding of the Refunded Bonds will take place as described above only if the First Refunding Series Bonds are issued. The commonwealth will cause to be provided the requisite notices of redemption in accordance with the documentation relating to the Refunded Bonds, as appropriate, and holders of the Refunded Bonds should rely solely on such redemption notices for purposes of the redemption of the Refunded Bonds.

COMMONWEALTH GOVERNMENT

The commonwealth of Pennsylvania (the "commonwealth" or the "State" or "Pennsylvania") is organized into three separate branches of government — executive, legislative and judicial — as defined in the State Constitution. Five officials of the commonwealth's executive branch are elected in Statewide elections for four-year terms expiring on the dates shown below.

Name	Office	Term Expires
Tom Wolf	Governor	January 15, 2023
John Fetterman	Lieutenant Governor	January 15, 2023
Josh Shapiro	Attorney General	January 21, 2025
Stacy Garrity	State Treasurer	January 21, 2025
Timothy DeFoor	Auditor General	January 21, 2025

Commonwealth Employees

Employees are permitted to organize and bargain collectively. As of June 30, 2020, 80.6% of full-time salaried employees, under the Governor's jurisdiction, were covered by collective bargaining agreements or memoranda of understanding, with approximately 39.6% of State employees represented by the American Federation of State, County and Municipal Employees (AFSCME). The commonwealth reached four-year pacts commencing July 1, 2019 with AFSCME and most of the other 19 unions representing over 60% of the workforce. These contracts provide a general pay increase in each contract year which totals 10% and service increments in three of the four contract years for a maximum total of 16.75% over the contract term.

Interest arbitration awards typically dictate the employee salary increases and employee/employer health care contributions to be provided to, or on behalf of, employees covered by six public safety unions who possess the statutory right under Act 111 (1968) or Act 195 (1970) to have a neutral arbitrator decide the terms of a contract when parties are unable to agree. The Pennsylvania State Rangers Association is currently working under the terms of a two-year contract issued by an interest arbitrator which expires on June 30, 2021. Said contract provides a general pay increase in each contract year totaling 5% and annual service increments for a maximum total of 9.8% over the contract term. Fraternal Order of Police (FOP) Lodge 85, who represents the Capitol Police, are working under the terms of a four-year negotiated contract commencing on July 1, 2019. This contract provides a general pay increase in three of the four contract years totaling 7% and annual service increments for a maximum total of 17% over the contract term.

In order to avoid interest arbitration proceedings and to preserve stability for unions representing emergency responders who have worked through the current pandemic, the commonwealth negotiated one-year contracts with the Pennsylvania State Troopers Association (PSTA); Pennsylvania State Corrections Officers Association (PSCOA) and FOP Lodge 114 (representing two separate and distinct law enforcement units in the Pennsylvania Fish & Boat Commission and Pennsylvania Game Commission) commencing on July 1, 2020. Pursuant to contract terms, said employees will receive a general pay increase of 2.5% and a service increment.

The commonwealth is currently in negotiations with each of the referenced public safety interest arbitrations units (except for FOP Lodge 85) to reach agreements on long-term successor contracts to those that expire on June 30, 2021.

Table 4
Filled Salaried Positions and Employees
Under Governor's Jurisdiction[(a)]
2016–2020

As of July 1	Total Full and Part Time Filled Salaried Positions	Total Full Time Salaried Positions	Union Positions	Union Positions As a % of Total Filled Salaried Positions
2016	72,984	72,793	59,347	81.3
2017	72,815	72,560	58,926	80.9
2018	72,074	71,848	58,315	80.9
2019	72,429	72,244	58,482	80.7
2020	72,420	72,209	58,220	80.4

Source: Office of Administration, 2021 State Government Workforce Statistics.
[(a)]Excludes employees of the legislative and judicial branches, the Department of the Auditor General, the Treasury Department, the State System of Higher Education and independent agencies, boards and commissions.

COMMONWEALTH FINANCIAL STRUCTURE AND PROCEDURES

The Constitution and the laws of the commonwealth require all payments from the State Treasury except for refunds of taxes, licenses, fees and other charges to be made only by duly enacted appropriations. Amounts appropriated from a fund may not exceed its actual and estimated revenues for the fiscal year, plus any unappropriated surplus available. Appropriations from the principal operating funds of the commonwealth (the General Fund, the Motor License Fund and the State Lottery Fund) are generally made for one fiscal year and are returned to the unappropriated surplus of the fund categorized as a lapse, if not spent or encumbered by the end of the fiscal year. The commonwealth's fiscal year begins July 1 and ends June 30. (Fiscal year 2020 refers to the fiscal year ended June 30, 2020.)

Description of Funds

The commonwealth utilizes the fund method of accounting. For purposes of governmental accounting, a "fund" is defined as an independent fiscal and accounting entity with a self-balancing set of accounts. Each fund records the cash and/or other resources together with all related liabilities and equities that are segregated for the purpose of the fund. In the commonwealth, funds are established by legislative enactment or in certain limited cases by administrative action. Over 150 funds have been established and currently exist for the purpose of recording the receipt and disbursement of moneys received by the commonwealth. Annual budgets are adopted each fiscal year for the principal operating funds of the commonwealth and several other special revenue funds. Expenditures and encumbrances against these funds may be made only pursuant to appropriation measures enacted by the General Assembly and approved by the Governor.

The General Fund, the commonwealth's largest operating fund, receives all tax revenues, non-tax revenues and federal grants and entitlements that are not specified by law to be deposited elsewhere. Most of the commonwealth's operating and administrative expenses are payable from the General Fund. Debt service on all bond indebtedness of the commonwealth, except that issued for highway purposes or for the benefit of other special revenue funds, is payable from the General Fund.

The Motor License Fund receives all tax and fee revenues relating to motor fuels and vehicles. All revenues relating to motor fuels and vehicles are required by the Constitution to be used only for highway purposes. Most federal aid revenues designated for transportation programs and tax revenues relating to aviation fuels are also deposited in the Motor License Fund. Operating and administrative costs for the Department of Transportation and other commonwealth departments conducting transportation related programs, including the highway patrol activities of the Pennsylvania State Police, are also paid from the Motor License Fund. Debt service on certain bonds issued by the commonwealth for highway purposes is payable from the Motor License Fund.

Other special revenue funds have been established by law to receive specified revenues that are appropriated to departments, boards and/or commissions for payment of their operating and administrative costs. Such funds include the Game, Fish, Boat, Banking Department, Milk Marketing, State Farm Products Show, Environmental Stewardship, State Racing and Tobacco Settlement Funds. Some of these special revenue funds are required to transfer excess revenues to the General Fund. Some receive funding, in addition to their specified revenues, through appropriations from the General Fund.

The Tobacco Settlement Fund is a special revenue fund established to receive tobacco litigation settlement payments paid to the commonwealth. The commonwealth is one of forty-six states that settled certain smoking-related litigation in a November 1998 master settlement agreement with participating tobacco product manufacturers (the "Tobacco MSA"). Under the Tobacco MSA, the commonwealth is entitled to receive a portion of payments made pursuant to the Tobacco MSA by tobacco product manufacturers participating in the Tobacco MSA. Most revenues deposited to the Tobacco Settlement Fund are subject to annual appropriation by the General Assembly and approval by the Governor.

The Budget Stabilization Reserve Fund is a special revenue fund designated to receive a statutorily determined portion of the budgetary basis fiscal year-end surplus of the General Fund, as was its predecessor fund, the Tax Stabilization Reserve Fund. The Budget Stabilization Reserve Fund was established in July 2002 after the Tax Stabilization Reserve Fund was abolished and its balance transferred to the General Fund for the 2002 fiscal year budget. The Budget Stabilization Reserve Fund is used for emergencies threatening the health, safety or welfare of citizens or during downturns in the economy that result in significant unanticipated revenue shortfalls not able to be addressed through the normal budget process. Assets of the Budget Stabilization Reserve Fund may be used upon recommendation by the Governor and an approving vote by two-thirds of the members of each chamber of the General Assembly. For GAAP (as defined below) reporting purposes, the Budget Stabilization Reserve Fund (previously designated the Tax Stabilization Reserve Fund) has been reported as a fund balance reservation in the General Fund (governmental fund category) since fiscal year 1999. Prior to that fiscal year, the Tax Stabilization Reserve Fund was reported, on a GAAP basis, as a designation of the General Fund unreserved fund balance. See “Budget Stabilization Reserve Fund” below.

The commonwealth maintains trust and agency funds that are used to administer funds received pursuant to a specific bequest or as an agent for other governmental units or individuals.

Enterprise funds are maintained for departments or programs operated like private enterprises. Two of the largest of such funds are the State Stores Fund and the State Lottery Fund. The State Stores Fund is used for the receipts and disbursements of the commonwealth’s liquor store system. Sale and distribution of all liquor within Pennsylvania is a government enterprise. The State Lottery Fund is also an enterprise fund for the receipt of all revenues from lottery ticket sales and lottery licenses and fees. Its revenues, after payment of prizes and all other costs, are dedicated to paying the costs of programs benefiting the elderly and handicapped in Pennsylvania.

In addition, the commonwealth maintains funds classified as working capital, bond and sinking funds for other specified purposes.

Accounting Practices

Financial information for the principal operating funds of the commonwealth is maintained on a budgetary basis of accounting. The commonwealth also prepares annual financial statements in accordance with generally accepted accounting principles (“GAAP”). Annual financial statements prepared in accordance with GAAP are audited jointly by the Department of the Auditor General and an independent public accounting firm.

Budgetary Basis

A budgetary basis of accounting is used for ensuring compliance with the enacted operating budget and is governed by applicable statutes of the commonwealth and by administrative procedures. The Constitution provides that operating budget appropriations shall not exceed the actual and estimated revenues and unappropriated surplus available in the fiscal year for which funds are appropriated. Annual budgets are enacted for the General Fund and certain special revenue funds that together represent most expenditures of the commonwealth. The annual budget classifies fund revenues as commonwealth revenues, augmentations, federal revenues or restricted receipts and revenues. commonwealth revenues are revenues from taxes and from non-tax sources such as licenses and fee charges, penalties, interest, investment income and other miscellaneous sources. Augmentations consist of departmental and institutional billings that supplement an appropriation of commonwealth revenues, thereby increasing authorized spending. For example, patient billings for services at commonwealth-owned institutions are augmentations that supplement commonwealth revenues appropriated to each institution for operating costs. Federal revenues are those federal aid receipts that pay for or reimburse the commonwealth for funds disbursed for federally assisted programs. Restricted receipts and revenues are funds that are restricted to a specific use or uses by State law, administrative decision, or the provider of the funds. Only commonwealth revenues and expenditures from these revenues are included in the computation made to determine whether an enacted budget is constitutionally balanced. Augmenting revenues and federal revenues are considered self-balancing with expenditures from their respective revenue sources.

The commonwealth’s budgetary basis financial reports for its governmental funds are based on a modified cash basis of accounting as opposed to the modified accrual basis prescribed by GAAP. Under the commonwealth’s budgetary basis of accounting, tax receipts, non-tax revenues, augmentations and all other receipts are recorded at the time cash is received. An adjustment is made at fiscal year-end to include accrued unrealized revenue, that is, revenues earned but not collected. Revenues accrued include estimated receipts from (i) sales and use, personal income, realty transfer, inheritance, cigarette, liquor, liquid fuel, fuels, and oil company franchise taxes, and interest earnings, and (ii) federal government commitments to the commonwealth. Expenditures are recorded at the time payment requisitions and invoices are submitted to the Treasury Department for payment. Appropriated amounts are reserved for payment of contracts for the delivery of goods or services to the commonwealth through an encumbrance process. Unencumbered appropriated funds are automatically lapsed at fiscal year-end and are available for re-appropriation. Estimated encumbrances are established at fiscal year-end to pay certain direct expenditures for salaries, wages, travel and utility costs payable against current year appropriations but disbursed in the subsequent fiscal year. Recording of the applicable expenditure liquidates the encumbered amount. Over-estimates of fiscal year-end encumbrances are lapsed in the subsequent fiscal year and under-estimates are charged to a subsequent fiscal year appropriation. Appropriation encumbrances are shown on the commonwealth's balance sheet as a reservation of fund balance.

Other reservations of fund balance include (i) the unexpended balance of continuing appropriations (that is, appropriations that do not lapse at fiscal year-end), and (ii) requested appropriation supplements and deficiency appropriations. Revenues dedicated for specific purposes and remaining unexpended at the fiscal year-end are likewise reserved.

GAAP Financial Reporting

At fiscal year-end, budgetary basis financial information, both revenues and expenditures, are adjusted to reflect appropriate accruals for financial reporting in conformity with GAAP. The commonwealth is not required to prepare GAAP financial statements and does not prepare them on an interim basis. GAAP financial reporting for governmental funds requires a modified accrual basis of accounting, while proprietary and fiduciary funds are reported on the accrual basis of accounting.

Financial statements of the commonwealth's government funds prepared under GAAP differ from those traditionally prepared on a budgetary basis for several reasons. Among other differences, the GAAP financial statements for government funds (i) generally recognize revenues when they become measurable and available rather than when cash is received, (ii) report expenditures when goods and services are received and a liability incurred rather than when cash is disbursed, (iii) include a combined balance sheet for the commonwealth presented by GAAP fund type rather than by commonwealth fund, and (iv) include activities of all funds in the reporting entity, including agencies and authorities usually considered as independent of the commonwealth for budgetary purposes. Adjustments to budgetary basis revenues and expenditures required to conform to GAAP accounting generally require including (i) corporation, sales, and personal income tax accruals, (ii) tax refunds payable and tax credits, and (iii) expenditures incurred but not yet posted as expenditures or not covered by appropriations.

An independent public accounting firm and the Department of the Auditor General jointly audit the commonwealth's annual GAAP basis financial statements. The audited Basic Financial Statements are a component of the commonwealth's Annual Comprehensive Financial Report ("ACFR"). The ACFRs for recent fiscal years, including the fiscal year ended June 30, 2020, have been filed with the Municipal Securities Rulemaking Board via its Electronic Municipal Market Access system ("EMMA") and are available from EMMA (http://www.emma.msrb.org) and at the Publication & Reports – Annual Financial Report section of the Office of the Budget's website – (www.budget.state.pa.us). The ACFRs for the years ended June 30, 2019 and 2020 are incorporated herein by reference. See also "COMMONWEATLH FINANCIAL PERFORMANCE – Financial Statements Introduction" below.

Investment of Funds

The Treasury Department is responsible for the deposit and investment of most funds belonging to the commonwealth, including the proceeds of the commonwealth's bonds and the funds held for the payment of interest on and maturing principal of the commonwealth's bonds. The commonwealth's Fiscal Code contains statutory limitations on the investment of funds by the Treasury Department. The Board of Finance and Revenue, a three-member board of State officials chaired by the State Treasurer, is authorized to establish the aggregate amount of funds that may be invested in some of the various categories of permitted investments. The State Treasurer ultimately determines the asset allocation and selects the investments within the parameters of the law.

The commonwealth's Fiscal Code permits investments in the following types of securities: (i) United States Treasury securities and United States Agency securities maturing within two years of issue; (ii) commercial paper issued by industrial, common carrier or finance companies rated "Prime One" or its equivalent; (iii) certificates of deposit of Pennsylvania-based commercial banks, savings banks or savings and loans; (iv) repurchase obligations secured by Federal obligations; (v) banker's acceptances written by domestic commercial banks with a Moody's Investors Service "AA" rating or the equivalent rating by Standard & Poor's Financial Services or Fitch's Rating Service; and (vi) other non-equity investments not to exceed ten percent of assets subject to a "prudent investor" test. The Treasury Department maintains additional investment restrictions contained in its Investment Policy Guidelines. A summary of the Investment Policy Guidelines and a report on investment activity and performance of funds invested by the Treasury Department are contained in a report periodically prepared and publicly distributed by the Treasury Department.

The State Treasurer has been legislatively authorized to invest commonwealth moneys in securities under the "prudent investor" standard since June 1999. The common investment pool operated by the State Treasurer for the investment of operating funds of the commonwealth maintains a portion of its investments in securities subject to this test. Act 20 of 2019 - extends this authority to December 31, 2024.

Budget Stabilization Reserve Fund

Balances in the Budget Stabilization Reserve Fund are to be used only when emergencies involving the health, safety or welfare of the residents of the commonwealth or downturns in the economy resulting in significant unanticipated revenue shortfalls cannot be dealt with through the normal budget process. Funds in the Budget Stabilization Reserve Fund may be appropriated only upon the recommendation of the Governor and the approval of a separate appropriation bill by a vote of two-thirds of the members of both chambers of the General Assembly. Any funds appropriated from the Budget Stabilization Reserve Fund that are not spent are returned to the Budget Stabilization Reserve Fund. As of April 14, 2021, after a withdraw of $100 million per enacted legislation as part of the final fiscal year 2020-2021 budget, the Budget Stabilization Reserve Fund had a balance of approximately $243 million.

COVID-19 PANDEMIC

General

On March 6, 2020, Governor Wolf declared a disaster emergency in the commonwealth to help the state respond to a novel strain of coronavirus identified as COVID-19. On March 11, 2020, the World Health Organization declared the COVID-19 outbreak to be a global pandemic, and on March 13, 2020, the federal government declared a national state of emergency. Since then, tens of millions of cases of COVID-19 have been diagnosed across the country, resulting in hundreds of thousands of deaths. Like many other states and local governments, the commonwealth has implemented and revised from time to time, restrictions on mass gatherings and operational limitations on government, businesses, universities and schools. The COVID-19 pandemic caused a severe decline in economic activity commencing in the Spring of 2020 that ended a record period of economic expansion. As of this time, large sectors of the state economy are still adversely impacted.

Federal Assistance

The federal government has provided temporary assistance to support the commonwealth's response to the COVID-19 pandemic, including through funding made available under the Coronavirus Aid, Relief and Economic Security Act (the "CARES Act"). Pennsylvania received $3.9 billion in CARES Act funding in 2020, and as of the date of this Official Statement, the commonwealth has appropriated such CARES Act funds as follows:

Pennsylvania CARES Appropriations

Department	Act 2A Funding	Act 17A Funding	Total
Agriculture	$ 40,000,000		$ 40,000,000
Education	9,000,000		9,000,000
Commission on Crime and Delinquency	150,000,000		150,000,000
Criminal Justice		$ 1,063,000,000	1,063,000,000
Health	20,000,000	14,000,000	34,000,000
Human Services	1,106,000,000	30,000,000	1,136,000,000
State Police		225,970,000	225,970,000
Community and Economic Development	930,000,000		930,000,000
Housing Finance Agency	175,000,000		175,000,000
Emergency Management Agency	100,000,000		100,000,000
Higher Education Assistance Agency	42,200,000		42,200,000
State System of Higher Education	30,000,000		30,000,000
Total	$ 2,602,200,000	$ 1,332,970,000	$ 3,935,170,000

As of the date of this Official Statement, the commonwealth has expended, or the costs have been incurred for the majority of the $3.9 billion received in CARES Act funds. Notably, additional federal assistance is expected to be forthcoming to state and local governments through the American Rescue Plan Act of 2021 ("ARPA"), which was signed into law on March 11, 2021. Preliminary estimates, which will be refined over time, suggest that ARPA will provide approximately $7.3 billion of funding to the commonwealth and $6.1 billion to local governments in the state. In addition, preliminary estimates indicate that additional funding may be forthcoming for state programs and direct relief to individuals, families, schools, higher education and other local assistance programs. These estimates do not include the potential effects of certain tax credits or exemptions provided under ARPA and additional relief for small businesses and restaurants.

Fiscal Impact

The COVID-19 pandemic has disrupted and is expected to continue to disrupt the state and national economy. Due to the uncertainty associated with COVID-19, Pennsylvania initially passed a five-month budget (the "5/12 Budget") to allow time to determine the effects of the COVID-19 pandemic on state revenues and expenditures. The final fiscal year 2021 budget was adopted on November 23, 2020. Prudent fiscal management has enabled the commonwealth to respond to the ongoing challenges of the COVID-19 pandemic. However, there continue to be budget risks as the consequences of the COVID-19 pandemic are expected to continue to unfold into the foreseeable future.

The commonwealth continues to monitor and assess the effects of the COVID-19 pandemic and its impact on the commonwealth's financial position and results of operations. The complete fiscal impact of COVID-19 on the commonwealth is likely to change as the situation further develops and cannot be fully quantified at this time.

COMMONWEALTH FINANCIAL PERFORMANCE

Fiscal Year 2021 Budget

The Pennsylvania legislature approved, and the Governor signed a final fiscal year budget on November 23, 2020. The enacted budget contains $33.1 billion in state General Fund spending and appropriates $1.3 billion in CARES Act funding for commonwealth public safety and health care costs incurred due to the COVID-19 pandemic. The budget level-funds education at all levels and preserves funding for core state government functions and services. The fiscal year 2021 budget can be viewed at the Governor's Budget Office website at: www.budget.state.pa.us.

Financial Statements Introduction

The most recent commonwealth audited financial statements are available in the ACFR of the commonwealth for the fiscal year ended June 30, 2020, which was issued on December 12, 2020. Copies of the ACFRs beginning with fiscal year 2007 through fiscal year 2020 issued by the commonwealth are available from (i) the Secretary of the Budget, Attn: Mr. Mike Higgins, 555 Walnut Street, 9th Floor, Harrisburg, Pennsylvania 17101 (Telephone (717) 425-6736), and (ii) Publication & Reports – Annual Financial Report section of the Office of the Budget's website at www.budget.state.pa.us, which ACFRs are incorporated herein by reference. The audited Basic Financial Statements for fiscal year 2019 included in the ACFR for fiscal year 2020 are incorporated herein by reference. This means that (i) the incorporated information is considered part of this Official Statement, and (ii) such information should be reviewed by prospective purchasers of the Bonds as a part of their review of this entire Official Statement.

Government-Wide Financial Data (GAAP Basis)

Government-wide financial statements report financial position and results of activity for the commonwealth as a whole. Government-wide statements do not report information on a fund-by-fund basis; rather, they reveal information for all governmental activities and all business-type activities in separate columns. In government-wide statements, for both governmental and business-type activities, the economic resources measurement focus, and accrual basis of accounting are used, with revenues and expenses recognized when they occur, rather than when cash is received or paid. This treatment results in including in assets an estimate of the total amount of receivables due at fiscal year-end that are expected to be collected in the future. Capital assets are reported with acquisition or construction costs being reported when the assets are placed in service less accumulated depreciation. Reported liabilities include all liabilities, regardless of when payment is due, including bond principal, employee disability claims liability, and employee compensated absence liabilities.

Table 5, below, presents condensed comparative financial information derived from the commonwealth's government-wide June 30 Statements of Net Position for the fiscal years indicated.

Table 5
Government-Wide Condensed Statement of Net Position
As of June 30, 2019-2020
(In Millions)

	Governmental Activities		Business-Type Activities		Total Primary Government	
	2020	2019	2020	2019	2020	2019
Assets:						
Cash and investments	$ 10,508	$ 10,880	$ 7,326	$ 9,205	$ 17,834	$ 19,552
Capital assets (net)	40,905	40,207	752	708	41,657	39,452
All other assets	14,304	11,316	6,526	1,525	20,830	12,581
Total assets	65,717	62,403	14,604	11,439	80,321	71,585
Total deferred outflows	4,122	4,708	198	270	4,320	4,978
Liabilities:						
Accounts payable	11,170	8,932	6,096	857	17,266	9,789
All other current liabilities	7,971	4,769	943	1,198	8,914	5,968
Bonds payable, non-current	10,674	11,673	4,281	4,535	14,955	16,208
All other long-term liabilities	34,788	39,877	3,886	4,397	38,674	44,274
Total liabilities	64,603	65,252	15,206	10,987	79,809	76,239
Total deferred inflows	11,862	7,862	647	409	12,509	8,270
Net position:						
Net invested in capital assets	34,889	34,262	753	707	35,642	34,969
Restricted	3,194	2,664	2,896	4,994	6,090	7,658
Deficit	(44,709)	(42,927)	(4,700)	(5,387)	(49,409)	(48,314)
Total net position	$ (6,626)	$ (6,001)	$ (1,051)	$ 314	$ (7,677)	$ (5,687)

Source: ACFR, fiscal year ended June 30, 2020 (GAAP).

Net position is one way of monitoring the health of the commonwealth's finances. Total net position is the difference between total assets and total deferred outflows of resources less total liabilities and total deferred inflows of resources as reported on the statement of net position. Total net position is reported in three distinct components: Net investment in capital assets; restricted net position; and unrestricted net position.

Net investment in capital assets represents total capital assets less accumulated depreciation and the outstanding liability (excluding unspent proceeds) for debt specifically related to the construction and acquisition of the capital assets. At June 30, 2020, governmental and business-type activities, respectively, reported net investment in capital assets of $34,889 million and $753 million.

Restricted net position is reported based on constraints imposed by either: 1) creditors, grantors, contributors, or laws or regulations of the Federal or other governments; or 2) commonwealth enabling legislation. At June 30, 2020, governmental and business-type activities, respectively, reported $3,194 million and $2,896 million of restricted net position.

Unrestricted net position represents total net position less the amounts of net investment in capital assets and restricted net position. At June 30, 2020, governmental and business-type activities, respectively, reported unrestricted net position deficits of $44,709 million and $4,700 million.

Financial Data for Governmental Fund Types (GAAP Basis)

Governmental fund financial statements provide fund-specific information about the General Fund, the Motor License Fund, and for other commonwealth funds categorized as Governmental funds and reported as such in the Basic Financial Statements of prior fiscal years. Where government-wide financial statements cover the entirety of the commonwealth, fund financial statements provide a more detailed view of the major individual funds established by the commonwealth. Fund financial statements further differ from government-wide statements in the use by the latter of the current financial resources' measurement focus and the modified accrual basis of accounting.

The governmental funds balance sheet reports total fund balances for all governmental funds. Assets of the commonwealth's governmental funds (the General Fund, and the Motor License Fund are major governmental funds) as of June 30, 2020, were $25,380.1 million. Liabilities for the same date totaled $17,847.7 million and deferred inflows of resources totaled $3,353.1 million resulting in a fund balance of $4,179.2 million, a decrease of $2,418.3 million from the fund balance at June 30, 2019. On a fund specific basis, in comparison to fiscal year 2019 ending fund balances, the fund balance for the General Fund increased by $2,762.6 million, the fund balance for the Motor License Fund decreased by $281.7 million and the fund balance for aggregated non-major funds increased by $43.6 million. See "General Fund – Fiscal Year 2020 Financial Results" and "Motor License Fund – Fiscal Year 2020 Financial Results" herein.

To help understand the relationship between the commonwealth's GAAP fund balance (fund perspective) for governmental funds and the commonwealth's governmental net assets (government-wide perspective) under the presentation of financial information, the following reconciliation is presented in Table 6 below:

Table 6
Reconciliation of the Balance Sheet
Governmental Funds (Fund Perspective) to
the Statement of New Position – Governmental Activities
June 30, 2020
(In Thousands)

Fund Balances - Governmental Funds		
General Fund	$	(1,525,203)
Motor License Fund		595,346
Nonmajor Funds		5,109,079
Total Fund Balance - Governmental Funds	$	4,179,222
Plus: Capital Assets, including infrastructure	$	74,194,442
Less: Accumulated depreciation		(33,336,920)
Plus: Deferred revenue		3,353,111
Plus: Deferred outflows of resources		(131,987)
Plus: Other miscellaneous adjustments		-
Plus: Net assets of internal service funds		(30,681)
Plus: Inventories		110,456
Less: Net pension liabilities		(14,103,310)
Less: Other postemployment benefit liabilities		(24,693,788)
Less: Other asset retirement obligations		(12,200)
Less: Long-term liabilities		(16,154,198)
Total Net Position - Governmental Activities	$	(6,625,853)

Source: Annual Comprehensive Financial Report, fiscal year ended June 30, 2020.

More detailed information with respect to the General Fund and the Motor License Fund, major operating funds that are categorized as governmental funds, is presented in Table 7 (General Fund) and in Table 9 (Motor License Fund).

The financial tables and the textual discussions that follow containing GAAP basis financial data are unaudited but are derived from the commonwealth's audited financial statements for fiscal years 2016-2020 and unaudited budgetary basis financial data for fiscal year 2019 and 2020. The discussion of financial performance on a budgetary basis for prior fiscal years is based on an analysis of budget numbers and not on numbers prepared in accordance with GAAP. Likewise, the discussion of the fiscal year 2021 enacted budget reflects a budgetary basis analysis rather than a GAAP basis analysis.

General Fund

The General Fund is the commonwealth's largest operating fund. All tax revenue, non-tax revenue and federal grants and entitlements not specified by law to be deposited elsewhere are deposited into the General Fund. The General Assembly makes appropriations of specific amounts from tax revenue and certain non-tax revenue of the General Fund.

Financial Results for Fiscal Years 2016-2020

The following five-year table presents information on a GAAP basis taken from the ACFR for fiscal years June 30, 2016 through June 2020.

GAAP Basis. During the five-year period from fiscal year 2016 through fiscal year 2020, total revenues and other sources increased by an average annual rate of 4.5 percent. Tax revenues during this same period increased by an annual average rate of 2.0 percent. Expenditures and other uses during fiscal years 2016 through 2020 rose at an average annual rate of 5.1 percent. Expenditures for the protection of persons and property during this period increased at an average annual rate of 1.8 percent; public education expenditures during this period increased at an average annual rate of 3.4 percent; health and human services expenditures increased at an average annual rate of 5.5 percent; and capital outlays decreased at an average annual rate of 1.8 percent. Commonwealth expenditures for direction and support services (State employees and government administration) increased at an average annual rate of 15.0 percent during fiscal years 2016 through 2020.

Table 7 presents a summary of revenues, expenditures and fund balance (GAAP basis) for the General Fund for fiscal years 2016 through 2020.

Table 7
Results of Operations – General Fund
GAAP Basis - Unaudited

(In Thousands)

	Fiscal Year Ended June 30				
	2016	**2017**	**2018**	**2019**	**2020**
Fund Balance — Beginning of Period	$ 273,553	$ 90,197	$ (697,568)	$ 813,710	$ 835,414
Restatements	-	-	-	-	-
Fund Balance — Beginning of Period, as Restated	$ 273,553	$ 90,197	$ (697,568)	$ 813,710	$ 835,414
Revenues:					
Taxes	$29,629,553	$30,072,951	$31,131,530	$ 33,074,546	$ 32,687,322
Licenses and fees	551,565	586,815	812,100	854,757	613,793
Intergovernmental	24,405,051	26,964,688	26,476,775	28,215,760	33,325,865
Charges for sales and services	1,807,964	2,749,478	2,991,557	3,356,759	3,703,708
Other revenues	347,373	364,994	283,828	301,908	386,825
Other Financing Sources:					
Operating transfers in	480,332	1,342,969	2,459,826	1,207,913	508,058
Premium on debt issuance	-	-	15,535	0	0
Other financing agreements	-	-	201,115	0	0
Bonds issued and bond premiums	-	-	-	-	-
Other additions	-	-	-	1,578	3,460
TOTAL REVENUES AND OTHER SOURCES	$57,221,838	$62,081,895	$64,372,266	$ 67,013,221	$ 71,229,031
Expenditures:					
Direction and supportive services	$ 629,484	$ 669,491	$ 907,813	$ 908,473	$ 1,267,988
Protection of persons and property	4,241,572	4,540,329	4,514,633	4,806,069	4,647,132
Health and human services	36,116,515	39,688,917	39,447,145	42,633,941	47,128,172
Public education	14,233,462	15,705,958	15,832,100	16,295,404	16,824,044
Recreation and cultural enrichment	291,359	305,531	308,792	324,364	341,621
Economic development	425,765	487,300	406,499	493,406	1,400,678
Transportation	65,942	28,400	62,969	57,473	58,193
Capital outlay	116,497	158,177	99,552	127,394	106,233
Debt service	15,273	22,794	28,083	30,760	65,186
Other Uses:					
Operating transfers out	1,269,413	1,262,763	1,253,402	1,314,257	1,750,401
TOTAL EXPENDITURES AND OTHER USES	$57,405,282	$62,869,660	$62,860,988	$ 66,991,541	$ 73,589,648
REVENUES AND OTHER SOURCES OVER (UNDER) EXPENDITURE AND OTHER USES	(183,444)	(787,765)	1,511,278	21,680	(2,360,617)
Fund Balance — End of Period	$ 90,109	$ (697,568)	$ 813,710	$ 835,390	$ (1,525,203)
Components of Fund Balance					
Nonspendable	$ 284,398	$ 218,343	$ 201,500	$ 183,102	$ 170,248
Restricted	45	78	1,378	8,791	21,779
Committed	1,486,831	2,321,358	2,737,182	2,820,739	3,181,608
Assigned	-	-	-	-	-
Unassigned deficit	(1,681,165)	(3,237,347)	(2,126,350)	(2,177,242)	(4,898,838)
TOTAL FUND BALANCE	$ 90,109	$ (697,568)	$ 813,710	$ 835,390	$ (1,525,203)

Source: Compiled from Office of the Budget, Annual Comprehensive Financial Reports for fiscal years ended June 30, 2016 through 2020 (GAAP).

Fiscal Year 2016 Financial Results

GAAP Basis. At June 30, 2016, the General Fund reported a fund balance of $90.1 million, a decrease to fund balance of $183.4 million from the $273.6 million fund balance at June 30, 2015 as expenditures and other uses increased by $3,027.7 million and revenues and other sources increased by $2,004.7 million.

Tax revenues decreased by $300.6 million. Health and human services increased $3,045.5 million primarily due to increased expenditures for the Medical Assistance program of the Department of Human Services. Expenditures for education increased $449.2 million and occurred primarily due to ready-to-learn block grants and State contributions for school employee pension costs. Protection of persons and property programs experienced an increase largely due to an increase in commonwealth employers' share of retirement contributions. This increase was offset by a decrease in federally funded grant programs administered by the Pennsylvania Emergency Management Agency and the Department of Insurance.

Budgetary Basis. General Fund revenues of the commonwealth were above the certified estimate by $29.9 million or 0.1 percent during fiscal year 2016. Final commonwealth General Fund revenues for the fiscal year totaled $30,901.6 million. Total expenditures, net of appropriation lapses and including public health and human services assessments and expenditures from additional sources, were $30,127.2 million. After accounting for a positive fiscal year 2016 beginning balance of $256.6 million, the commonwealth ended fiscal year 2016 with an unappropriated surplus balance of $2 million.

General Fund revenues increased $309.1 million or 1.0 percent during fiscal year 2016 when measured on a year-over-year basis as compared to fiscal year 2015. Tax revenue collections increased $765.5 million or 2.6 percent on a year-over-year basis from fiscal year 2015 to fiscal year 2016 while non-tax revenue collections decreased $456.4 million or down 41.5 percent from fiscal year 2015 to fiscal year 2016. Corporate tax receipts were $20.9 million higher than fiscal year 2015 levels. The year-over-year increase in corporate taxes was 0.4 percent during fiscal year 2016 as corporate net income tax collections increased 1.1 percent and financial institutions tax increased 12.2 percent. Personal income taxes were $398.6 million above fiscal year 2015 actual collection and the year-over-year growth in personal income tax receipts was 3.3 percent. Personal income tax collections attributable to withholding increased by 3.5 percent or $319.3 million during fiscal year 2016 and tax collections from the non-withholding portion of the personal income tax increased 2.6 percent or $79.3 million on a year-over-year basis. Sales and use tax receipts were $302.1 million greater during fiscal year 2016 than during the prior fiscal year, a growth rate of 3.2 percent. Sales tax collections increased during fiscal year 2016 as non-motor vehicle sales tax collections grew 3.4 percent and motor vehicle sales tax receipts increased 1.6 percent during fiscal year 2016. Cigarette tax collections declined 1.7 percent during fiscal year 2016 and inheritance tax collections declined 4.0 percent. Realty transfer tax revenues grew 16.4 percent during fiscal year 2016.

Commonwealth General Fund appropriations for fiscal year 2016 totaled $30,023.8 million, an increase of $974.4 million or 3.3 percent from fiscal year 2015 levels.

Fiscal Year 2017 Financial Results

GAAP Basis. At June 30, 2017, the General Fund reported a fund deficit of $697.6 million, a decrease to fund balance of $787.7 million from the $90.1 million fund balance at June 30, 2016 as expenditures and other uses increased by $5,454.4 million and revenues and other sources increased by $4,860.1 million.

Budgetary Basis. General Fund revenues of the commonwealth were below the certified estimate by $1,106.7 million or 3.4 percent during fiscal year 2017. Final commonwealth General Fund revenues for the fiscal year totaled $31,669 million. Total expenditures, net of appropriation lapses and including public health and human services assessments and expenditures from additional sources, were $31,941.8 million. After accounting for a positive fiscal year 2017 beginning balance of $5.1 million, the commonwealth ended fiscal year 2017 with a deficit balance of $1,539.3 million.

General Fund revenues increased $767.4 million or 2.5 percent during fiscal year 2017 when measured on a year-over-year basis as compared to fiscal year 2016. Tax revenue collections increased $495.2 million or 1.6 percent on a year-over-year basis from fiscal year 2016 to fiscal year 2017 while non-tax revenue collections increased $272.9

million or 42.4 percent from fiscal year 2016 to fiscal year 2017. Corporate tax receipts were $319.3 million lower than fiscal year 2016 levels. The year-over-year decrease in corporate taxes was 6.2 percent during fiscal year 2017 as corporate net income tax collections decreased 3.2 percent and financial institutions tax decreased 2.3 percent. Personal income taxes were $158.4 million above fiscal year 2016 actual collection and the year-over-year growth in personal income tax receipts was 1.3 percent. Personal income tax collections attributable to withholding increased by 2.4 percent or $223.5 million during fiscal year 2017 and tax collections from the non-withholding portion of the personal income tax decreased 2.1 percent or $65.1 million on a year-over-year basis. Sales and use taxes receipts were $210 million greater during fiscal year 2017 than during the prior fiscal year, a growth rate of 2.1 percent. Sales tax collections increased during fiscal year 2017 as non-motor vehicle sales tax collections grew 2.3 percent and motor vehicle sales tax receipts increased 1.5 percent during fiscal year 2017. Cigarette tax collections increased 38.4 percent during fiscal year 2017 and inheritance tax collections increased 1.6 percent. Realty transfer tax revenues declined 0.8 percent during fiscal year 2017.

Commonwealth General Fund appropriations for fiscal year 2017 totaled $31,941.8 million, an increase of $1,814.6 million or 6.0 percent from fiscal year 2016 levels. The ending unappropriated balance was a deficit of $1,539.3 million for fiscal year 2017.

Fiscal Year 2018 Financial Results

GAAP Basis. At June 30, 2018, the General Fund reported a fund balance of $813.7 million, an increase to fund balance of $1,511.3 million from the $697.6 million fund deficit balance at June 30, 2017 as expenditures and other uses decreased by $8.7 million and revenues and other sources increased by $2,290.4 million.

Budgetary Basis. General Fund revenues of the commonwealth were below the certified estimate by $137.2 million or 0.4 percent during fiscal year 2018. Final commonwealth General Fund revenues for the fiscal year totaled $34,567 million. Total expenditures, net of appropriation lapses and including public health and human services assessments and expenditures from additional sources, were $31,948.1 million. After accounting for a deficit balance in fiscal year 2018 beginning balance of ($1.5) billion, the commonwealth ended fiscal year 2018 with an unappropriated surplus balance of $22.4 million.

General Fund revenues increased $2,897.4 million or 9.2 percent during fiscal year 2018 when measured on a year-over-year basis as compared to fiscal year 2017. Tax revenue collections increased $1,251.1 million or 4.1 percent on a year-over-year basis from fiscal year 2017 to fiscal year 2018 while non-tax revenue collections increased $1,646.9 million or 180 percent from fiscal year 2017 to fiscal year 2018. Corporate tax receipts were $107.7 million higher than fiscal year 2017 levels. The year-over-year increase in corporate taxes was 2.3 percent during fiscal year 2018 as corporate net income tax collections increased 4.6 percent and financial institutions tax increased 15.1 percent. Personal income taxes were $734.6 million above fiscal year 2017 actual collection and the year-over-year growth in personal income tax receipts was 5.8 percent. Personal income tax collections attributable to withholding increased by 4.4 percent or $422.1 million during fiscal year 2018 and tax collections from the non-withholding portion of the personal income tax increased 10.2 percent or $312.5 million on a year-over-year basis. Sales and use taxes receipts were $376.9 million greater during fiscal year 2018 than during the prior fiscal year, a growth rate of 3.8 percent. Sales tax collections increased during fiscal year 2018 as non-motor vehicle sales tax collections grew 4.1 percent and motor vehicle sales tax receipts increased 1.9 percent during fiscal year 2018. Cigarette tax collections decreased 5 percent during fiscal year 2018 and inheritance tax collections increased 4.2 percent. Realty transfer tax revenues increased 7.6 percent during fiscal year 2018.

Commonwealth General Fund appropriations for fiscal year 2018 totaled $31,948.1 million, an increase of $6.3 million or .02 percent from fiscal year 2017 levels. The ending unappropriated balance was $22.4 million for fiscal year 2018.

Fiscal Year 2019 Financial Results

GAAP Basis. At June 30, 2019, the General Fund reported a fund balance of $835.4 million, an increase to fund balance of $21.7 million from the $813.7 million fund balance at June 30, 2018 as expenditures and other uses increased by $4,130.6 million and revenues and other sources increased by $2,641 million.

Budgetary Basis. General Fund revenues of the commonwealth were above the certified estimate by $883 million or 2.6 percent during fiscal year 2019. Final commonwealth General Fund revenues for the fiscal year totaled $34,857.9 million. Total expenditures, net of appropriation lapses and including public health and human services assessments and expenditures from additional sources, were $33,401.5 million. The commonwealth ended fiscal year 2019 with a zero-balance due to a transfer of $316.9 million to the Budget Stabilization Reserve Fund.

General Fund revenues increased $290.9 million or 0.8 percent during fiscal year 2019 when measured on a year-over-year basis as compared to fiscal year 2018. Tax revenue collections increased $2,052.9 million or 6.4 percent on a year-over-year basis from fiscal year 2018 to fiscal year 2019 while non-tax revenue collections decreased $1,761.9 million or negative 68.7 percent from fiscal year 2018 to fiscal year 2019. Corporate tax receipts were $622.1 million higher than fiscal year 2018 levels. The year-over-year increase in corporate taxes was 12.7 percent during fiscal year 2019 as corporate net income tax collections increased 18 percent. Personal income taxes were $696.6 million above fiscal year 2018 actual collection and the year-over-year growth in personal income tax receipts was 5.2 percent. Personal income tax collections attributable to withholding increased by 4.1 percent or $407.4 million during fiscal year 2019 and tax collections from the non-withholding portion of the personal income tax increased 8.6 percent or $289.2 million on a year-over-year basis. Sales and use taxes receipts were $718.3 million greater during fiscal year 2019 than during fiscal year 2018, a growth rate of 6.9 percent. Sales tax collections increased during fiscal year 2019 as non-motor vehicle sales tax collections grew 7 percent and motor vehicle sales tax receipts increased 6.5 percent during fiscal year 2019. Cigarette tax collections decreased 6.6 percent during fiscal year 2019 and inheritance tax collections increased 3.4 percent. Realty transfer tax revenues increased 3.4 percent during fiscal year 2019.

Commonwealth General Fund appropriations for fiscal year 2019 totaled $33,401.5 million, an increase of $1,453.4 million or 4.5 percent from fiscal year 2018 levels. The ending unappropriated balance was zero after transferring $316.9 million to the Budget Stabilization Reserve Fund.

The following budgetary basis information is derived from the commonwealth's unaudited budgetary basis financial statements for fiscal years 2019 and 2020 and the enacted fiscal year 2021 budget.

Fiscal Year 2020 Financial Results

GAAP Basis. At June 30, 2020, the General Fund reported a negative fund balance of $1,525.2 million, a decrease to fund balance of $2,360.5 million from the $835.4 million fund balance at June 30, 2019. The majority of this decrease was due to the shifting of tax filing dates for personal and corporate taxes because of the COVID-19 PANDEMIC.

Budgetary Basis. General Fund revenues of the commonwealth were below the certified estimate by $3,221 million or 9.1 percent during fiscal year 2020. The majority of this difference was due to the commonwealth shifting the filing date for personal and corporate income tax by 90 days. Final commonwealth General Fund revenues for the fiscal year totaled $30,871.7 million. Total expenditures, net of appropriation lapses and including public health and human services assessments and expenditures from additional sources, were $34,090.2 million. After accounting for a positive fiscal year 2020 beginning balance of $30.3 million, the commonwealth ended fiscal year 2020 with an unappropriated negative balance of $2,734.1 million. (See "Table 8").

General Fund revenues decreased $2,582.1 million or 7.4 percent during fiscal year 2020 when measured on a year-over-year basis as compared to fiscal year 2019. Tax revenue collections decreased $2,445.5 million or 7.2 percent on a year-over-year basis from fiscal year 2019 to fiscal year 2020 while non-tax revenue collections decreased $136.6 million or 17.0 percent from fiscal year 2019 to fiscal year 2020. Corporate tax receipts were $671.8 million lower than fiscal year 2019 levels. The year-over-year decrease in corporate taxes was 12.2 percent during fiscal year 2020 as corporate net income tax collections decreased 16.8 percent and financial institutions tax increased 5.1 percent. Personal income taxes were $1,260.5 million below fiscal year 2019 actual collection and the year-over-year decrease in personal income tax receipts was 8.9 percent. Personal income tax collections attributable to withholding increased by 0.9 percent or $98.9 million during fiscal year 2020 and tax collections from the non-withholding portion of the personal income tax decreased 59.3 percent or $1,359.4 million on a year-over-year basis. Sales and use taxes receipts were $281.8 million less during fiscal year 2020 than during the prior fiscal year, a decrease of 2.5 percent. Cigarette tax collections declined 17.4 percent during fiscal year 2020 and inheritance tax collections increased 2.7 percent. Realty transfer tax revenues decreased by 6.8 percent during fiscal year 2020.

Commonwealth General Fund appropriations for fiscal year 2020 totaled $34,120.2 million, an increase of $718.7 million or 2.1 percent from fiscal year 2019 levels. The ending unappropriated negative balance was $2,734.1 million for fiscal year 2020.

Table 8
Sources, Uses and Changes in Unappropriated Balance
General Fund and Other Funding Sources – Unaudited Budgetary Basis
Commonwealth Revenues Only

(In Thousands)

	Actual	Actual	Enacted
Sources:	**Fiscal Year 2019**	**Fiscal Year 2020**	**Fiscal Year 2021**
Beginning Balance (Plus Adjustments)………………	$ (33,485)	$ 30,373	$ (2,734,070)
Revenue Receipts……………………………….…	34,857,878	32,275,785	37,490,200
Refunds…………………………………………….	(1,306,000)	(1,150,000)	(1,295,000)
Prior Year Lapses……………………………….…	200,000	200,000	220,000
Funds Available………………………………	$ 33,718,393	$ 31,356,158	$ 33,681,130
Uses:			
Appropriations……………………………………….	$ 33,401,521	$ 34,120,228	$ 33,914,552
Supplemental Appropriations/Current Year Lapses	0	(30,000)	0
Total Expenditures…………………………..	$ 33,401,521	$ 34,090,228	$ 33,914,552
Preliminary Balance……………………………….	$ 316,872	$ (2,734,070)	$ (233,422)
Transfer to Budget Stabilization Fund………………	(316,872)	0	0
Ending Unappropriated Balance………………	$ -	$ (2,734,070)	$ (233,422)

Source: Office of the Budget

Fiscal Year 2021 Enacted Budget

The enacted fiscal year 2021 budget appropriates $32.1 billion in state funds and $3.4 billion in federal stimulus funding. Schools, higher education, public health, and community safety remain fully funded without any new taxes, or additional debt. The budget document and related information are available on the Office of the Budget's website at www.budget.state.pa.us and incorporated herein by reference. The precise impact of the COVID-19 pandemic on revenues for fiscal year 2021 will not be known until the end of the fiscal year.

The General Fund is the primary funding source for most State agencies and institutions supported by the commonwealth. More than 77 cents of every dollar are returned to individuals, local governments, institutions, school districts, and others in the form of grants and subsidies. The remainder pays operating expenses and debt service. Major program expenditures occur in the areas of education, public health and human services, and the State correctional institutions.

Motor License Fund

The Constitution requires all proceeds of motor fuels taxes, vehicle registration fees, license taxes, operators' license fees and other excise taxes imposed on products used in motor transportation to be used exclusively for construction, reconstruction, maintenance and repair of and safety on highways and bridges and for debt service on obligations incurred for these purposes. The Motor License Fund is the fund through which most such revenues are accounted for and expended. Portions of certain taxes whose receipts are deposited into the Motor License Fund are legislatively restricted to specific transportation programs. These receipts are accounted for in restricted accounts in the Motor License Fund and are not included in the budgetary basis presentations or discussions on the Motor License Fund. The Motor License Fund budgetary basis includes only unrestricted revenue available for annual appropriation for highway and bridge purposes. In contrast, the GAAP basis presentations include all the restricted account revenues and expenditures.

Financial Results for Fiscal Years 2016-2020

The following five-year table presents information on a GAAP basis taken from the fiscal year 2020 ACFR.

GAAP Basis. The fund balance at June 30, 2020, of the Motor License Fund was $595.3 million, a $276.6 million or 31.7 percent decrease from the June 30, 2019 fund balance. Over five fiscal years, 2016 through 2020, revenues and other sources averaged an annual 3.2 percent increase. Expenditures and other uses during the same period averaged a 4.3 percent annual increase.

Overall, total revenues and other sources decreased by $741.2 million during the fiscal year that ended June 30, 2020, a 10.5 percent decrease over the prior fiscal year. Tax revenues decreased $412.3 million primarily due to the decrease in the liquid fuels tax. Licenses and fees increased $60.9 million due to increased vehicle registrations and REAL ID fees. Act 89 of 2013 provided drivers the option of a two-year vehicle renewal effective December 31, 2016.

Total expenditures and other uses decreased by $372.5 million during fiscal year ended June 30, 2020, representing a 5.4 percent decrease over the prior fiscal year. Transportation expenditures decreased by $116.1 million in part due to the mild winter, requiring less winter road maintenance. Capital outlay decreased by $217.2 million. The impact of the COVID-19 pandemic reduced all highway construction work being performed.

Table 9 below sets forth a condensed summary of revenues and expenditures (presented on a GAAP basis) for the Motor License Fund for fiscal years 2016 through 2020.

Table 9
Results of Operations – Motor License Fund
GAAP Basis - Unaudited
(In Thousands)

	Fiscal Year Ended June 30				
	2016	**2017**	**2018**	**2019**	**2020**
Fund Balance — Beginning of Period	$ 988,548	$ 884,742	$1,009,113	$1,003,959	$ 872,037
Revenues:					
Taxes..	$3,268,270	$3,548,156	$3,811,035	$3,795,265	$3,382,948
Licenses and fees...	963,338	1,005,954	1,033,368	1,015,010	1,075,920
Intergovernmental..	1,884,139	1,895,792	1,877,278	1,917,103	1,731,505
Other revenues..	99,593	138,170	122,080	58,393	73,180
Other Financing Sources:					
Operating transfers in..	212,124	223,349	20,797	24,860	28,697
Capital lease and installment purchase obligations	-	-	749	57	1,145
Other additions..	-	-	-	-	-
TOTAL REVENUES AND OTHER SOURCES......	$6,427,464	$6,811,421	$6,865,307	$6,810,688	$6,293,395
Expenditures:					
Direction and supportive services........................	$ 23,196	$ 38,814	$ 36,218	$ 34,692	$ 36,991
Protection of persons and property.....................	942,966	963,705	1,028,494	1,021,772	991,348
Health and human services..................................				1	0
Public education..	494	252	365	290	328
Economic development.......................................	945	378	267	163	4,886
Recreation and cultural enrichment.....................	5,959	6,695	7,225	5,416	171
Transportation...	2,645,657	2,911,619	2,702,039	2,911,380	2,795,235
Capital outlay...	2,838,090	2,632,571	2,989,777	2,840,569	2,623,360
Interest and fiscal charges....................................	-	-	9	18	171
Other Uses:					
Operating transfers out..	73,963	133,016	106,067	128,309	117,596
TOTAL EXPENDITURES AND OTHER USES	$6,531,270	$6,687,050	$6,870,461	$6,942,610	$6,570,086
REVENUES AND OTHER SOURCES OVER (UNDER) EXPENDITURE AND OTHER USES....	(103,806)	124,371	(5,154)	(131,922)	(276,691)
Fund Balance — End of Period	$ 884,742	$1,009,113	$1,003,959	$ 872,037	$ 595,346
Components of Fund Balance					
Restricted..	884,742	1,009,113	1,003,959	872,037	595,346
TOTAL FUND BALANCE..................................	$ 884,742	$1,009,113	$1,003,959	$ 872,037	$ 595,346

Source: Compiled from Office of the Budget, Annual Comprehensive Financial Reports for fiscal years ended June 30, 2016 through 2020.

The following budgetary basis information is derived from the commonwealth's unaudited budgetary basis financial statement for fiscal years 2016 through 2020 and the enacted budget for fiscal year 2021 budget.

Fiscal Year 2016 Financial Results

Budgetary Basis. Commonwealth revenues to the Motor License Fund totaled $2,657.5 million, an increase of $46 million or 1.8 percent over fiscal year 2015 revenues. Receipts from liquid fuels taxes increased by 6.2 percent while license and fee revenue increased by 1.2 percent from the previous year. Other revenue receipts decreased by 63.7 percent over the previous fiscal year. Fiscal year 2016 Motor License Fund appropriations and executive authorizations totaled $2,766.9 million, an increase of 6 percent from fiscal year 2015. The Motor License Fund concluded fiscal year 2016 with an unappropriated surplus of $40.1 million, a net decrease of 69.3 percent.

Fiscal Year 2017 Financial Results

Budgetary Basis. Commonwealth revenues to the Motor License Fund totaled $2,758.5 million, an increase of $101 million or 3.8 percent over fiscal year 2016 revenues. Receipts from liquid fuels taxes increased by 4.4 percent while license and fee revenue increased by 3.9 percent from the previous year. Other revenue receipts decreased by 29 percent over the previous fiscal year. Fiscal year 2017 Motor License Fund appropriations and executive authorizations totaled $2,762.1 million, a decrease of 0.2 percent from fiscal year 2016. The Motor License Fund concluded fiscal year 2017 with an unappropriated surplus of $73.1 million, a net increase of 82.4 percent.

Fiscal Year 2018 Financial Results

Budgetary Basis. Commonwealth revenues to the Motor License Fund totaled $2,948.5 million, an increase of $189 million or 6.9 percent over fiscal year 2017 revenues. Receipts from liquid fuels taxes increased by 6.6 percent while license and fee revenues increased by 4.5 percent over the previous year. Other revenue receipts increased by 122.9 percent over the previous fiscal year. Fiscal year 2018 Motor License Fund appropriations and executive authorizations totaled $2,886.2 million, an increase of 4.5 percent over fiscal year 2017. The Motor License Fund concluded fiscal year 2018 with an unappropriated surplus of $216.4 million, a net increase of 196.1 percent.

Fiscal Year 2019 Financial Results

Budgetary Basis. Commonwealth revenues to the Motor License Fund totaled $2,849.2 million, a decrease of $99.2 million or 3.5 percent over fiscal year 2018 revenues. Receipts from liquid fuels taxes decreased by 0.5 percent while license and fee revenues decreased by 5.4 percent over the previous year. Other revenue receipts decreased by 187.1 percent over the previous fiscal year. Fiscal year 2019 Motor License Fund appropriations and executive authorizations totaled $3,066 million, an increase of 5.9 percent over fiscal year 2018. The Motor License Fund concluded fiscal year 2019 with an unappropriated surplus of $29 million, a net decrease of $187 million from the 2018 unappropriated surplus of $216 million.

Fiscal Year 2020 Financial Results

Budgetary Basis. Commonwealth revenues to the Motor License Fund totaled $2,663.3 million, a decrease of $186.6 million or 6.5 percent over fiscal year 2019 revenues. Receipts from liquid fuels taxes decreased by 4.6 percent while license and fee revenues decreased by 5.4 percent over the previous year. Fiscal year 2020 Motor License Fund appropriations and executive authorizations totaled $2,767.0 million, a decrease of 9.8 percent over fiscal year 2019. The Motor License Fund concluded fiscal year 2020 with a negative unappropriated balance of $51.2 million, a net decrease of $80.2 million from the 2019 unappropriated surplus of $29.0 million.

Fiscal Year 2021 Enacted Budget

Commonwealth revenues to the Motor License Fund are budgeted to be $2,806.1 million, an increase of $142.7 million or 5.3 percent from fiscal year 2020 revenues. Receipts from the liquid fuels tax are budgeted to increase 1.1 percent from the prior year, while license and fee revenues are budgeted to increase by 12 percent. Additionally, other revenue receipts are budgeted to increase by 1052 percent. Fiscal year 2021 Motor License Fund appropriations and executive authorizations are budgeted to equal $2,751.7 million, a decrease of 0.5 percent over fiscal year 2020 appropriations. The Motor License Fund is budgeted to conclude fiscal year 2021 with an unappropriated balance of $2.7 million, an increase of $53 million from the fiscal year 2020 negative unappropriated fund balance of $51.2 million. The precise impact of COVID-19 will not be known until the end of the fiscal year.

State Lottery Fund

The commonwealth operates a Statewide lottery program that consists of various lottery games using computer sales terminals located throughout the State and instant games using preprinted tickets. The net proceeds of all lottery game sales, less sales commissions and directly paid prizes, are deposited into the State Lottery Fund.

State Lottery Fund receipts support programs to assist elderly and handicapped individuals, primarily through property tax and rent rebate assistance and a pharmaceutical assistance program to recipients who meet specified income limits, and the provision of free mass transit rides during off-peak hours.

Financial Results for Fiscal Years 2016-2020

GAAP Basis. During the fiscal year ending June 30, 2020, the net year-over-year increase in total revenues and other sources was $93.8 million. Total operating revenues: Sales and services decreased $26.5 million. Overall lottery revenue remained in line with the prior year revenues. The small decrease in revenues can be attributed to the fact that no new games were introduced in FY19-20 and the COVID-19 pandemic caused a decrease in overall lottery activity during the last quarter of the fiscal year.

Table 10 sets forth a condensed summary of revenues and expenditures (presented on a GAAP basis) for the State Lottery Fund for fiscal years 2016 through 2020.

Table 10
Results of Operations – State Lottery Fund
GAAP Basis - Unaudited
(In Thousands)

	Fiscal Year Ended June 30				
	2016	**2017**	**2018**	**2019**	**2020**
Net Position -					
Beginning of Period	$ (297,209)	$ (231,428)	$ (323,127)	$ (393,436)	$ (407,866)
Restatements..	-	-	(91,622)		
Net Position					
Beginning of Period, as Restated................	$ (297,209)	$ (231,428)	$ (414,749)	$ (393,436)	$ (407,866)
Revenues:					
Lottery revenues...	4,135,245	4,002,544	4,212,974	4,587,499	4,560,904
Intergovernmental..	-	-	-	-	-
Investment income...	939	1,308	2,913	3,598	2,552
Other revenues..	1,407	3,367	336	2,338	-
Other Financing Sources:					
Operating transfers in......................................	166,800	148,000	145,700	141,700	265,500
TOTAL REVENUES AND OTHER SOURCES	$4,304,391	$4,155,219	$4,361,923	$4,735,135	$4,828,956
Expenditures:					
Costs of sales and services...............................	$3,898,987	$3,978,049	$4,083,523	$4,485,905	$4,308,501
Depreciation and amortization.........................	3,617	3,923	4,378	5,324	6,750
Other expenses..	65,099	39	1,802	7,429	-
Other Uses:					
Operating transfers out....................................	270,907	264,907	250,907	250,907	235,907
TOTAL EXPENDITURES AND OTHER USES	$4,238,610	$4,246,918	$4,340,610	$4,749,565	$4,551,158
REVENUES AND OTHER SOURCES OVER (UNDER) EXPENDITURE AND OTHER USES	65,781	(91,699)	21,313	(14,430)	277,798
Net Position - End of Period..........................	$ (231,428)	$ (323,127)	$ (393,436)	$ (407,866)	$ (130,068)
Components of Net Position					
Invested in capital assets, net of debt................	$ 21,621	$ 23,953	$ 23,024	$ 31,234	$ 37,345
Deficit...	(253,049)	(347,080)	(416,460)	(439,100)	(167,413)
TOTAL NET POSITION..................................	$ (231,428)	$ (323,127)	$ (393,436)	$ (407,866)	$ (130,068)

Source: Compiled from Office of the Budget, Annual Comprehensive Financial Reports for fiscal years ended June 30, 2016 through 2020.

The following budgetary basis information is derived from the commonwealth's unaudited budgetary basis financial statements for fiscal years 2016 through 2020 and the enacted budget for fiscal year 2021 budget.

Fiscal Year 2016 Financial Results

Budgetary Basis. Fiscal year 2016 net revenues from lottery sources, including instant ticket sales and the State's participation in the multi-state Powerball game, increased by 10.5 percent. Total funds available, including prior year lapses and net revenues received by the Lottery Fund during fiscal year 2016, were $1,903.7 million, including a temporary $50 million General Fund loan to the Lottery Fund to address cash flow requirements that was repaid. Total appropriations, net of current year lapses, were $1,915 million. Additionally, fiscal year 2016 expenditures included a transfer of approximately $184.1 million in long-term care costs from the commonwealth's General Fund to the State Lottery Fund. The fiscal year-end unappropriated balance and reserve was $26.9 million, an increase of 81.8 percent.

Fiscal Year 2017 Financial Results

Budgetary Basis. Fiscal year 2017 net revenues from lottery sources, including instant ticket sales and the State's participation in the multi-state Powerball game, decreased by 10.2 percent. Total funds available, including prior year lapses and net revenues received by the Lottery Fund during fiscal year 2017, were $1,709.2 million. Total appropriations, net of current year lapses, were $1,852.5 million. Additionally, fiscal year 2017 expenditures included a transfer of approximately $184.1 million in long-term care costs from the commonwealth's General Fund to the State Lottery Fund. The fiscal year-end unappropriated balance and reserve had a deficit of $18.2 million, a decrease of 167.6 percent.

Fiscal Year 2018 Financial Results

Budgetary Basis. Fiscal year 2018 net revenues from lottery sources, including instant ticket sales and the state's participation in the multi-state Powerball game, increased by 4.7 percent. Total funds available, including prior year lapses and net revenues received by the Lottery Fund during fiscal year 2018, were $1,789.4 million. Total appropriations, net of current-year lapses, were $1,797.3 million. The fiscal year-end unappropriated balance and reserve had a surplus of $4.2 million, an increase of 123.3 percent.

Fiscal Year 2019 Financial Results

Budgetary Basis. Fiscal year 2019 net revenues from lottery sources, including instant ticket sales and the state's participation in the multi-state Powerball game, increased by 8.8 percent. Total funds available, including prior year lapses and net revenues received by the Lottery Fund during fiscal year 2019, were $1,930.6 million. Total appropriations, net of current-year lapses, were $1,952.1 million. The fiscal year-end unappropriated balance and reserve had a surplus of $4.2 million, an increase of 0.12 percent.

Fiscal Year 2020 Financial Results

Budgetary Basis. Fiscal year 2020 net revenues from lottery sources, including instant ticket sales and the state's participation in the multi-state Powerball game, decreased by 6.1 percent. Total funds available, including prior year lapses and net revenues received by the Lottery Fund during fiscal year 2020, were $1,943.8 million. Total appropriations, net of current-year lapses, were $2,088.1 million. The fiscal year-end unappropriated balance and reserve had a negative balance of $119.8 million, a decrease of 2,919.5 percent.

Fiscal Year 2021 Enacted Budget

The enacted fiscal year 2021 budget anticipates a 9 percent decrease in revenues from all lottery sources, including instant-ticket sales and the State's participation in the multi-state Powerball game. Continued revenue growth is anticipated from the implementation of Act 42 of 2017, which contained extensive revisions to the commonwealth's gaming provisions, including the implementation of new iLottery, Keno and Virtual Sports lottery products that will increase sales and profits. State Lottery Funds available, including lapses, are estimated to be $1,755.8 million in fiscal year 2021, a decrease of $203.2 million. Budgeted Appropriations and Executive Authorizations total $1,660.3 million, which represents a decrease of $418.5 million or a 20.1 percent decrease from fiscal year 2020. The fiscal year-end balance reflects a surplus of $20.5 million, an increase of $139.8 million from the fiscal year 2020 ending balance. The precise impact of COVID-19 will not be known until the end of the fiscal year.

COMMONWEALTH REVENUES AND EXPENDITURES

Recent Receipts and Forecasts

Table 11 presents the commonwealth revenue receipts, including net revenues accrued but not deposited, on a budgetary basis, for the major operating funds of the commonwealth as actually received for fiscal years 2016 through 2020.

Table 11
Commonwealth Revenues [(a)]
General Fund, Motor License Fund and State Lottery Fund – Unaudited
Fiscal Year 2016 – Fiscal Year 2020
(In Millions)

	2016	2017	2018	2019	2020
General Fund					
Tax Revenues:					
Sales and use	$ 9,795.2	$ 10,004.5	$ 10,381.4	$ 11,099.6	$ 10,817.8
Personal income	12,506.0	12,664.4	13,399.0	14,095.5	12,835.0
Corporate (b)	2,993.0	2,784.5	2,879.0	3,397.5	2,826.9
Public utility (c)	1,344.1	1,270.7	1,183.8	1,286.3	1,142.0
Inheritance	962.2	977.9	1,019.3	1,053.6	1,082.0
Financial and insurance (d)	794.6	756.0	822.2	824.4	866.5
Cigarette	911.5	1,261.6	1,198.3	1,118.8	924.3
Other Tobacco Products	*	83.9	119.1	129.9	127.3
Realty transfer	481.7	478.0	514.4	534.0	497.8
Alcoholic beverages (e)	373.0	386.3	395.6	405.4	388.9
Other	101.0	84.6	91.4	111.1	102.3
TOTAL TAX REVENUES	$ 30,262.3	$ 30,752.4	$ 32,003.5	$ 34,056.1	$ 31,610.7
Non-Tax Revenues:					
Liquor store profits	**	$ 216.4	$ 185.1	$ 185.1	$ 185.1
Licenses, fees and miscellaneous	571.8	621.0	2,303.1	543.6	411.8
Fines, penalties and interest	72.0	79.3	75.4	72.9	68.0
TOTAL NON-TAX REVENUES	$ 643.8	$ 916.7	$ 2,563.6	$ 801.6	$ 664.9
TOTAL GENERAL FUND	$ 30,906.1	$ 31,669.1	$ 34,567.1	$ 34,857.7	$ 32,275.6
Motor License Fund					
Tax Revenues:					
Liquid fuels	$ 822.3	$ 828.8	$ 828.0	$ 665.4	$ 635.1
Fuels use	0.0	0.0	0.0	0.0	0.0
Oil company franchise	836.9	903.9	1,018.4	1,005.6	931.4
Motorbus & alt fuels	0.0	0.0	148.9	150.9	141.9
Minor and Repealed					(0.2)
TOTAL TAX REVENUES	$ 1,659.2	$ 1,732.7	$ 1,995.3	$ 1,821.9	$ 1,708.2
Non-Tax Revenues:					
Licenses and fees	$ 962.7	$ 1,000.5	$ 1,045.6	$ 1,008.6	$ 954.0
Other and miscellaneous	35.7	25.3	56.5	19.4	1.0
TOTAL NON-TAX REVENUES	$ 998.4	$ 1,025.8	$ 1,102.1	$ 1,028.0	$ 955.0
TOTAL MOTOR LICENSE FUND	$ 2,657.6	$ 2,758.5	$ 3,097.4	$ 2,849.9	$ 2,663.3
State Lottery Fund					
Non-Tax Revenues:					
Lottery revenues	$ 1,676.0	$ 1,559.9	$ 1,641.0	$ 1,785.4	$ 1,676.0
Other and miscellaneous	167.7	149.3	148.4	145.2	267.9
TOTAL NON-TAX REVENUES	$ 1,843.7	$ 1,709.2	$ 1,789.4	$ 1,930.6	$ 1,943.8
TOTAL STATE LOTTERY FUND	$ 1,843.7	$ 1,709.2	$ 1,789.4	$ 1,930.6	$ 1,943.8

Source: Office of the Budget. Totals may not add due to rounding.
[(a)] Budgetary basis including taxes and interest accrued but not deposited by the commonwealth by June 30 of each fiscal year.
[(b)] Includes the corporate net income and the capital stock and franchise taxes.
[(c)] Includes the utility gross receipts and utility property tax.
[(d)] Includes the financial institution and insurance premium taxes.
[(e)] Includes the liquor and malt beverage taxes.
* Act 84 of 2016 imposed tax on Other Tobacco Products.
** Act 10A of 2015 appropriates $100 million Liquor Store Profits directly from the State Store Fund.

Table 12 presents a comparison of the actual revenues on a budgetary basis to the official revenue estimate used for budget enactment for the General Fund and the Motor License Fund for fiscal years 2016 through 2020.

Table 12
Commonwealth Revenues – Official Estimate vs. Actual [(a)]
General Fund and Motor License Fund – Unaudited
Fiscal Year 2016 – Fiscal Year 2020
(In Millions)

	General Fund			Motor License Fund		
Fiscal Year Ended June 30	Official Estimate[(b)]	Actual	Variance	Official Estimate [(b)]	Actual	Variance
2016	$30,871.7	$30,901.5	$29.8	$2,680.1	$2,657.5	($22.6)
2017	32,776.4	31,669.7	(1,106.7)	2,751.0	2,758.5	7.5
2018	34,704.1	34,566.9	(137.2)	2,948.5	2,896.5	(52.0)
2019	33,974.8	34,857.9	883.1	2,907.2	2,849.3	(57.9)
2020	35,496.8	32,275.8	(3,221.0)	2,849.9	2,663.5	(186.4)

Source: Office of the Budget.
(a) Budgetary basis including taxes and interest accrued but not deposited by the commonwealth by June 30 of each fiscal year.
(b) As certified for budget enactment.

Tax Revenues (Unaudited Budgetary Basis)

General Fund

Tax revenues constituted approximately 97.9 percent of commonwealth revenues in the General Fund for the fiscal year ended June 30, 2020 (hereafter, fiscal year 2020). The major tax sources for the General Fund of the commonwealth are shown in the following table:

TAX TYPE	COLLECTIONS ($M)
Sales and Use	$10,817.8
Personal Income	12,835.0
Corporate Net Income	2,826.9
Gross Receipts	1,104.3
Inheritance	1,082.0

Together, these five taxes produced 90.7 percent of General Fund tax revenues for the fiscal year 2020.

Motor License Fund

The major tax source for the Motor License Fund is the Oil Company Franchise Tax, which produced 58.8 percent of non-restricted Motor License Fund revenues in fiscal year 2020. Portions of certain taxes whose receipts are deposited into the Motor License Fund are legislatively restricted to specific transportation programs. These receipts are accounted for in restricted accounts in the Motor License Fund and are not included in the budgetary basis discussions of the tax revenues of the Motor License Fund.

General Fund Revenue Detail

The major revenue sources (those representing more than 1% of total revenues) for the General Fund are described briefly below. For additional information, please refer to the Tax Compendium on the Pennsylvania Department of Revenue's website (https://www.revenue.pa.gov/GeneralTaxInformation/News%20and%20Statistics/ReportsStats/TaxCompendium/Pages/default.aspx). The receipt amounts in the descriptions are on a budgetary basis.

Corporate Net Income Tax

$2,826.9 million in fiscal year 2020 (8.8 percent of total General Fund revenues)

This tax is paid by all domestic and foreign business corporations for the privilege of doing business, carrying on activities, or employing or owning capital or property in Pennsylvania and is levied on Federal taxable income with Pennsylvania modifications. When the entire business of any corporation is not transacted within Pennsylvania, taxable income is usually determined by a single sales factor apportionment formula for tax years 2013 and beyond.

The current tax rate of 9.99% has been in effect since January 1, 1995.

Gross Receipts Tax

$1,104.3 million in fiscal year 2020 (3.4 percent of total General Fund revenues)

This tax is levied on the gross receipts from business transacted within Pennsylvania by specified companies owned, operated or leased by corporations, associations, or individuals. Various gross receipts taxes are imposed upon private bankers; pipeline, conduit, steamboat, canal, slack water navigation and transportation companies; telephone, telegraph and mobile telecommunications companies; electric light, water power and hydroelectric companies; express companies; palace car and sleeping car companies; and freight and oil transportation companies.

The current tax rate on gross receipts from sales of electric energy within Pennsylvania is 59 mills and has been in effect since 2003. The current tax rate on other gross receipts is 50 mills and has been in effect since 1991.

Insurance Premiums Tax

$473.6 million in fiscal year 2020 (1.5 percent of total General Fund revenues)

This tax is levied on the gross premiums from all business transacted within the commonwealth during each calendar year by domestic and foreign insurance companies.

The current tax rate is 2 percent of gross premiums plus a retaliatory fee where applicable.

Bank Shares Tax

$369.8 million in fiscal year 2020 (1.1 percent of total General Fund revenues)

The bank and trust company shares tax is imposed on every bank and trust company having capital stock and doing business in Pennsylvania. The tax is imposed annually on the value of shares as of January 1. Beginning January 1, 2014, the taxable value of shares is computed on the most recent year-end value of an institution's total bank equity capital, adjusted to allow a deduction for certain types of goodwill and United States obligations. The Pennsylvania share of total bank equity capital is determined by a single receipts factor.

The current tax rate of 0.95 percent of the capital stock of banks has been in effect since January 1, 2017.

Sales & Use Tax

$10,817.8 million in fiscal year 2020 (33.5 percent of total General Fund revenues)

This tax is levied on the sale at retail, including rental, of tangible personal property and certain services, or upon the use with Pennsylvania of tangible personal property, or taxable services purchased at retail if the tax was not paid at time of purchase. A tax on the occupancy of hotel rooms is imposed as part of the sales and use tax law.

Listed below are the transfers made from Sales and Use Tax in fiscal year 2020 (figures shown above are net of these transfers):

- Commonwealth Financing Authority – $156.7 million
- Public Transportation Assistance Fund – $111.1 million (0.947% of gross collections)
- Public Transportation Trust Fund – $516.2 million (4.4% of gross collections)
- Tobacco Debt Service - $115.3 million
- Transit Revitalization Investment District Fund - $0.7 million

The current tax rate uses a bracket system based on 6 percent of purchase price. This rate has been in effect since 1968.

Cigarette Tax

$924.3 million in fiscal year 2020 (2.9 percent of total General Fund revenues)

This tax is imposed and assessed on the sale or possession of cigarettes and little cigars weighting less than 4 pounds per 1,000 sticks within Pennsylvania.

Listed below are the transfers made from Cigarette Tax in fiscal year 2019 (figures shown above are net of these transfers):

- Agricultural Conservation Easement Purchase Fund - $25.5 million
- Children's Health Insurance Program - $30.7 million
- Tobacco Debt Service - $115.3 million
- Local Cigarette Tax Fund –$18.2 million. If collections from the additional Philadelphia Cigarette Tax ($0.10 per cigarette) fall below $58.0 million in a fiscal year, a transfer is made from the General Fund to the Local Cigarette Tax Fund to make up the difference.

The current tax rate of $0.13 per cigarette has been in effect since August 2016.

Liquor Tax

$365.7 million in fiscal year 2020 (1.1 percent of total General Fund revenues)

The distribution of liquor is a state enterprise under the auspices of the Pennsylvania Liquor Control Board (LCB). All liquors sold by the LCB are subject to this tax, which is calculated on the price paid by the consumer including mark-up, handling charge and federal tax. The first sale of liquor also is subject to the sales and use tax at the time of purchase.

The current tax rate of 18% has been in effect since 1968.

Personal Income Tax

$12,835.0 million in fiscal year 2020 (39.8 percent of total General Fund revenues)

The tax is paid by all residents, resident trusts and estates on eight separate classes of income:

- Compensation
- Net profits
- Interest
- Dividends
- Income from the disposition of property
- Rents and royalties
- Gambling and lottery winnings, including cash prizes of the Pennsylvania Lottery
- Income from estates and trusts.

The tax is also paid by non-resident individuals, estates and trusts on the following income from sources within the commonwealth:

- Compensation for personal services performed in Pennsylvania unless the taxpayer is a resident of a state with which there is a reciprocal agreement
- Net profits from activity conducted in Pennsylvania
- Income from the rental, ownership or disposition of any real or personal property
- Income from gambling activity in Pennsylvania including cash prizes of the Pennsylvania Lottery.

A loss in one class of income may not be offset against income in another class, nor may gains or losses be carried back or forward from year to year. A credit is available to those individuals receiving tax forgiveness under the special provisions for poverty.

The following transfers were made from Personal Income Tax in fiscal year 2020:

- State Employees' Retirement System - $3.9 million
- School Safety and Security Fund - $45.0 million
- Environmental Stewardship Fund - $20.0 million
- Farm Show Complex restricted account - $13.2 million

The current tax rate of 3.07% has been in effect since 2004.

Realty Transfer Tax

$497.8 million in fiscal year 2020 (1.5 percent of total General Fund revenues)

The tax is levied on the value of the real estate transferred by a deed, instrument, or other writing. Other taxable transfers include long-term leases greater than 30 years, transfers of real estate from industrial development authorities that will not be used primarily for industrial purposes, and “deemed” transfers of real estate because of the acquisition of companies which are not in the business of holding or selling real estate.

The following transfers were made from Realty Transfer Tax in fiscal year 2019:

- Keystone Recreation, Park, and Conservation Fund – $99.0 million (15% of gross collections)
- Pennsylvania Housing Affordability and Rehabilitation Enhancement Fund - $40 million. This transfer is to be the lesser of $40 million or 40 percent of the difference between the total dollar amount of the realty transfer tax collected in the prior fiscal year and the total dollar amount of the realty transfer tax official estimate for fiscal year 2015 ($447.5 million).

The current tax rate for the Pennsylvania share of the Realty Transfer Tax is 1% of the actual consideration or price of the property represented in the deed. Pennsylvania realty transfer tax is collected, often along with an additional local realty transfer tax, by county Recorders of Deeds. The Recorders of Deeds remit the commonwealth's 1 percent to the Department of Revenue, and the locals have the option to share their realty transfer tax among school districts and municipalities.

Inheritance Tax

$1,082.0 million in fiscal year 2020 (3.4 percent of total General Fund revenues)

This tax is imposed on the value of property transferred to beneficiaries of a deceased person and certain transfers made during the decedent’s lifetime. The value of the transfer is established on the date of the decedent’s death.

Rates are based on the relationship of the decedent and the beneficiary. Transfers of non-jointly held property to spouses are taxed at a rate of 0 percent. Transfers to parents of decedents 21 years of age or younger are taxed at a rate of 0 percent. Transfers to decedents 21 years of age or younger from their parents are taxed at a rate of 0 percent (effective January 1, 2020). Transfers to other lineal beneficiaries are taxed at 4.5 percent. Transfers to siblings of the decedents are subject to a 12 percent tax rate. Transfers to all other beneficiaries are taxed at 15 percent.

Non-Tax Revenues

$664.9 million in fiscal year 2020 (2.1 percent of total General Fund revenues)

This category is made up of the following major components:

- Liquor Store Profits
- Licenses and Fees
- Miscellaneous Non-Tax Revenues
- Fines, Penalties, and Interest

Motor License Fund Revenue Detail

The major tax sources (those representing more than 1% of total non-restricted revenues) for the Motor License Fund are described briefly below. For additional information, please refer to the Tax Compendium on the Pennsylvania Department of Revenue’s website (https://www.revenue.pa.gov/GeneralTaxInformation/News%20and%20Statistics/ReportsStats/TaxCompendium/Pages/default.aspx). The tax receipt amounts in the descriptions are on a budgetary basis.

Motor Carriers Road Tax / IFTA

$128.9 million in fiscal year 2020 (4.8 percent of total non-restricted Motor License Fund revenues)

The Motor Carriers Road Tax/IFTA is imposed on fuel consumed by qualified motor vehicles operated within Pennsylvania. Qualified motor vehicles operated exclusively in Pennsylvania are subject to fuel taxation under the Motor Carriers Road Tax. Credit is granted for tax paid on fuel purchases.

The tax rate is equivalent to the rate per gallon currently in effect on liquid fuels, fuels, or alternative fuels.

Annual decal fees indicating vehicle registration in Pennsylvania are also included in these taxes. The cost is $12 per vehicle per calendar year. The decals must be displayed on both sides of each qualified vehicle operated in Pennsylvania.

Oil Company Franchise Tax

$1,566.5 million in fiscal year 2020 (58.8 percent of total non-restricted Motor License Fund revenues)

The oil company franchise tax is imposed on all taxable liquid fuels and fuels on a cents-per-gallon equivalent basis, and it is remitted by distributors of liquid fuels and fuels.

The following are exempt from the tax:

- fuels sold and delivered to the U.S. government, the commonwealth, and any of its political subdivisions; volunteer fire companies
- volunteer ambulance services and volunteer rescue squads
- second class county port authorities
- nonpublic, nonprofit schools (K-12)

In addition to these exemptions, reimbursements are made for certain agricultural purposes and for fuel consumed in truck-mounted refrigerator units.

The following table shows the tax rates in effect for calendar year 2020:

Aviation gasoline	$0.059/gallon
Jet fuel	$0.019/gallon
Liquid fuels (motor gasoline and gasohol)	$0.576/gallon
Fuels (undyed diesel and undyed kerosene)	$0.741/gallon

Licenses and Fees

$954.0 million in fiscal year 2020 (35.8 percent of total non-restricted Motor License Fund revenues)

This category is made up of the following major components:

- Special Hauling Permits
- Pennsylvania's share of registration fees from other states
- Operator's Licenses
- Vehicle Registration and Titling

Federal Revenues

Receipts by the Commonwealth in its General Fund, Motor License Fund and Tobacco Settlement Fund from the federal government during fiscal year 2019 totaled $30,409 million and during fiscal year 2020 totaled $38,302 million. The 26.0% increase in 2020 funding is attributed to the COVID-19 pandemic. Anticipated receipts from the federal government included in the fiscal year 2021 enacted budget is $42,159 million, of which $8,244 million is attributable to the COVID-19 pandemic. Approximately $24,084 million, or 79.2 percent, of total federal revenue to the Commonwealth for fiscal year 2019 was attributable to public health and welfare programs, the largest of which are for the Medical Assistance and Temporary Assistance to Needy Families programs. In fiscal year 2020, $27,763 million, or 72.5 percent, of federal revenues were attributable to these types of programs, of which 10.4% is attributed to the COVID-19 pandemic. In the fiscal year 2021 enacted budget, approximately $30,239 million or 71.7 percent of federal revenues are expected to be attributable to public health and welfare programs.

Major Commonwealth Expenditures

The commonwealth's major operating funds—the General Fund, the Motor License Fund and the State Lottery Fund—provide financial resources to operate programs and fund grants. Trends in expenditures from those funds for various program areas are discussed below based on budgetary basis financial statements for fiscal year 2020 and fiscal year 2021 and the enacted budget for fiscal year 2021.

Education

In fiscal year 2020, expenditures from Commonwealth revenues for education purposes were more than $14,779 million. The enacted budget for fiscal year 2021 includes over $14,838 million in education funding, an increase of approximately .40 percent over fiscal year 2020. The proposed budget for fiscal year 2022 includes over $16,620 million in education funding.

Elementary and Secondary Education. The financing of public elementary and secondary education in Pennsylvania is shared by the Commonwealth and local school districts. There are 500 local school districts in the State. With certain exceptions, each is governed by a locally elected school board responsible for the administration of the public schools in the school district with the authority to levy taxes within the limits prescribed by the Public School Code of 1949, as amended. Funds supplied by the Commonwealth supplement the funds raised locally. Local school districts receive various subsidy payments for basic instruction, vocational education, debt service, pupil transportation, employee retirement programs including Social Security and various special education programs. The largest such subsidy is the Basic Education subsidy. The enacted budget for fiscal year 2021 levels the State Basic Education subsidy at $6,255 million. The basic education funding appropriation includes $555.31 million appropriated as School Employees' Social Security, which must be used for School Employees' Social Security payments to school districts, as well as the $6,255 million subsidy. The education funding is distributed to school districts, based on local wealth, existing tax burden, district size and certain student characteristics. The recommended budget for fiscal year 2022 includes more than $8,133 million in Basic Education Funding appropriation, including $526.639 million in School Employees' Social Security payments. The proposed increase in Basic Education subsidy is over $1,352 million or a 21.62 percent increase.

Certain specialized education programs are operated and administered in Pennsylvania by 29 intermediate units established by the component local school districts. These intermediate units are funded from contributions from member school districts. Programs operated by intermediate units generally are special education programs for the gifted, for individuals with mental and physical disabilities and for support of nonpublic schools through the provision of auxiliary services and the lending of instructional materials such as textbooks to children attending nonpublic schools in Pennsylvania.

Total Commonwealth expenditures for basic education programs in fiscal year 2020 were more than $12,879 million, representing 87.15 percent of all Commonwealth expenditures for education in fiscal year 2020. Total Commonwealth expenditures for basic education programs in fiscal year 2021 are more than $12,942 million, representing 87.22 percent of all Commonwealth expenditures for education in fiscal year 2021. The recommended budget for fiscal year 2022 includes more than $14,717 million for basic education programs.

Table 13 presents student enrollment in Pennsylvania's public and non-public elementary schools and secondary schools for years ending June 30, 2015 through 2019.

Table 13
Fall Enrollment in Pennsylvania Public and
Non-Public Elementary Schools and Secondary Schools
School Years 2016-2020
(In Thousands)

	School Year Ended June 30				
	2016	**2017**	**2018**	**2019**	**2020**
Elementary Schools					
Public	919	913	913	913	910
Nonpublic	157	155	152	148	147
Secondary Schools					
Public	813	810	806	810	815
Nonpublic	73	72	71	68	64
Total					
Public	1,732	1,723	1,719	1,723	1,725
Nonpublic	230	227	223	216	211
Total	1,962	1,950	1,942	1,939	1,936

Source: Pennsylvania Department of Education.

Higher Education. Higher education in Pennsylvania is provided through 220 degree-granting institutions, which include the fourteen universities of the State System of Higher Education (PASSHE), four State-related universities, community colleges, independent colleges and universities and specialized degree-granting institutions.

PASSHE, established by statute in 1983 from the fourteen State-owned colleges, is administered by a 20-member Board of Governors, of which 11 members are appointed by the Governor and confirmed by the Senate. Over $1,799 million was expended by the Commonwealth in the 2020 fiscal year for these institutions and student financial assistance. The enacted budget for fiscal year 2021 levels the appropriations at $1,799 million for higher education. The recommended budget for fiscal year 2022 includes over $1,803 million for higher education.

Table 14
Full-Time Equivalent Enrollment at State-Supported Institutions of Higher Education
School Years 2015-2019
(In Thousands)

	School Year Ended June 30				
	2015	**2016**	**2017**	**2018**	**2019**
State System of Higher Education.	102	100	97	90	88
State-Related Universities	164	166	170	174	160
Community Colleges.....................	91	87	83	81	76
Total...	357	353	350	345	324

Source: Pennsylvania Department of Education.

Public Health and Human Services

Fiscal year 2020 public health and human services expenditures were $45,200 million (budgetary basis) and are projected to be $49,104 million in fiscal year 2021. With regards to fiscal year 2020 expenditures, nearly $12,842 million was funded from the General Fund, while $13,855 million is estimated to be provided from the General Fund for fiscal year 2021. Federal funds are expected to increase by $2,191 million and augmentations are expected to increase by $718 million for fiscal year 2021. Public health and human service programs are the largest single component of combined State and federal spending in the Commonwealth’s operating budget. The overall budget increase reflects the impact of caseload increases, federal mandates, litigation and continued support of county operated programs for child welfare, mental health and intellectual disabilities.

The fiscal year 2021 budget includes $320 million of receipts from the Tobacco Settlement Fund to be expended for health care related programs. Federal funds matching the State Tobacco Master Settlement Agreement (MSA) funds are also expected to be provided. However, under the terms of the 1998 settlement that created the Tobacco Settlement Fund, payments by the tobacco companies may, in certain circumstances be reduced, reflecting a decline in cigarette sales and such payments also may be limited, delayed or terminated as a result of bankruptcy or insolvency of tobacco companies or legal challenges to the settlement or to amounts due thereunder. In June 2018, a settlement was reached with various tobacco companies resolving 20 years of disputes and future disputes related to the non-participating manufacturer adjustment. The settlement resulted in a payment of which $346 million was used to offset health care related costs in fiscal year 2019.

Programs providing temporary financial assistance and medical assistance comprise the largest portion of public health and human services expenditures. General Fund expenditures for these assistance programs by the Commonwealth amounted to $9,398 million in fiscal year 2020, while $10,520 million is budgeted from the General Fund for fiscal year 2021. In addition, a nursing home assessment fee provided a General Fund offset (meaning a reduction in required General Fund appropriations) of $181 million in fiscal year 2020 and is expected to provide a $221 million offset in fiscal year 2021. A Managed Care Organization assessment provided a General Fund offset of $1,003 million in fiscal year 2020 and in fiscal year 2021 the offset is projected at $1,225 million. Also, a Statewide Quality Care assessment provided a $295 million offset in fiscal year 2020 and is expected to provide a $295 million offset in fiscal year 2021. In 2021, approximately 28.22 percent of the total cost of assistance to the economically needy is proposed to be supported by Commonwealth funds appropriated from the General Fund. The balance is expected to be provided from reimbursements by the federal government and through various program collection activities conducted by the Commonwealth.

Medical assistance, including long-term living home and community-living programs and the intellectual disability waiver program, continues to be a growing component of public health and human services expenditures. Despite implementation of Commonwealth initiatives to restrain costs, the program continues to grow due to expanding caseloads, technology improvements and general medical cost inflation. Expenditures for medical assistance increased during the period from fiscal years 2010 through 2020 by an average annual rate of 8.69 percent. Fiscal year 2020 expenditures from Commonwealth funds were $9,299 million (budgetary basis) are projected to be $10,377 million in fiscal year 2021, an increase of 11.60 percent from the prior fiscal year. Income maintenance cash assistance payments to families in transition to independence were $816 million for fiscal year 2020, of which $120 million was from the General Fund. The enacted budget for fiscal year 2021 includes a total of $813 million, for such purpose with $124 million provided from the General Fund.

Transportation

The Commonwealth is responsible for the construction, restoration and maintenance of the highways and bridges in the 40,000-mile State highway system, including certain city streets that are a part of the State highway system. Assistance for the maintenance and construction of local roads and bridges is provided to municipalities through grants of financial aid. Highway maintenance costs, construction costs and assistance grants are paid from the Motor License Fund. Other special funds, including the Public Transportation Assistance Fund, the Public Transportation Trust Fund, the Multimodal Transportation Fund and the State Lottery Fund provide funding for mass transit and other modes of transportation.

Act 89 of 2013 provided dedicated additional funding for highways and bridges through the incremental uncapping of the Oil Company Franchise Tax (OCFT) and the indexing of vehicle and driver services fees. Act 89 also restructured Act 44 of 2007 Pennsylvania Turnpike Commission payment distributions. Since fiscal year 2015, the annual $200 million highway and bridge distribution of payments received from the Pennsylvania Turnpike Commission has been redirected to transit, resulting in annual distributions to mass transit of $450 million.

In addition to its unrestricted State funds, the Motor License Fund includes five restricted revenue accounts funded by State revenues legislatively dedicated to these specific purposes. Some of the restricted purposes, funded from these accounts, also receive funding by annual appropriations of unrestricted Motor License Fund revenues. Programs receiving funds from a restricted account include highway bridges, highway construction and maintenance, grants to municipalities for highways and bridges and airport development.

Total funding for the Commonwealth's highway and bridge program for fiscal year 2019 was $3,019 million (budgetary basis). The funding was decreased to $2,757 million (budgetary basis) in fiscal year 2020. The enacted fiscal year 2021 budget reflects a further decrease to $2,543 million (budgetary basis). Support of highway and bridge expenditures by local governments through grants paid from the Motor License Fund and restricted revenues was $673 million in fiscal year 2019 and $630 million in fiscal year 2020. In the fiscal year 2021 enacted budget, grants to local governments decreased to $589 million.

In addition to its support of the highway system, the Commonwealth provides subsidies for mass transit systems including passenger rail and bus service.

In fiscal year 2008, the funding mechanisms for mass transit in the Commonwealth were changed with the enactment of Act 44. Mass transit funding was shifted from the General Fund to a combination of sources of revenue primarily going into a Public Transportation Trust Fund established by Act 44. The Public Transportation Trust Fund was created to provide a long-term, predictable and growing source of revenues for public transportation systems. Act 89 increased funding and revenue sources for the Public Transportation Trust Fund. Revenues are provided by scheduled payments by the Pennsylvania Turnpike Commission, a portion of the Sales and Use Tax, certain motor vehicle fees, vehicle code fines and surcharges, and transfers from the Public Transportation Assistance Fund and the Lottery Fund. This funding supports mass transit programs Statewide, providing financial assistance for operating costs, capital costs, and certain administrative costs for the Department of Transportation. For fiscal year 2019, Commonwealth funding available for mass transit was $1,880 million (budgetary basis). Funding for mass transit was decreased in fiscal year 2020 to $1,838 million (budgetary basis). The enacted fiscal year 2021 budget for mass transit is $2,339 million.

Act 89 created the Multimodal Transportation Fund to provide additional funding for freight and passenger rail, ports, aviation, bicycle and pedestrian facilities, and other modes of transportation. Revenues deposited into the Multimodal Transportation Fund include payments from the Pennsylvania Turnpike Commission, a portion of certain motor vehicle fees and a portion of the Oil Company Franchise Tax. For fiscal year 2019, Commonwealth funding available for multimodal transportation was $151 million (budgetary basis). The fiscal year 2020 funding was $147 million (budgetary basis), and the enacted budget for fiscal year 2021 is $134 million.

The Commonwealth's current aviation program funds the development of public airport facilities through grants providing for airport development, runway rehabilitation, and real estate tax rebates for public use airports. Taxes levied on aviation and jet fuel provide revenues for a restricted account for aviation programs in the Motor License Fund. In fiscal year 2019, $9.7 million was expended from aviation restricted accounts. In fiscal year 2020, $13 million was available for such purposes. A total of $10.6 million is enacted for fiscal year 2021.

Taxes on motor fuels provides approximately 63 percent of total non-restricted Motor License Fund revenues annually. While the COVID pandemic has tapered motor license fuels receipts, estimates indicate they will return to traditional levels in fiscal year 2022. License and fee revenues represent the other major source of revenues for the Motor License Fund. The COVID pandemic initially created delays in these receipts but estimates show that any delayed receipts will be realized within the current year. To offset Coronavirus revenue loses, the Commonwealth received federal stimulus funds within the Coronavirus Aid, Relief, and Economic Security (CARES) Act of 2021 and is anticipating receipt of additional funds from the American Rescue Plan Act of 2021. Coronavirus federal stimulus funds received so far will replace losses in surface transportation ($407.2 million), public transit ($147.2 million) and aviation ($67.6 million).

The Commonwealth is not responsible for toll roads and bridges in Pennsylvania. These are under the jurisdiction of various authorities and commissions. See "GOVERNMENT AUTHORITIES AND OTHER ORGANIZATIONS" herein.

OUTSTANDING INDEBTEDNESS OF THE COMMONWEALTH

General

The Constitution permits the commonwealth to incur the following types of debt: (i) debt to suppress insurrection or rehabilitate areas affected by disaster, (ii) electorate-approved debt, (iii) debt for capital projects subject to the Constitutional Debt Limit, and (iv) tax anticipation notes payable in the fiscal year of issuance. All debt, except debt incurred through the issuance of tax anticipation notes, must be amortized in substantial and regular amounts.

Debt service on commonwealth general obligation debt is paid from appropriations out of the General Fund except for debt issued for highway purposes, which is paid from Motor License Fund appropriations.

Table 15
General Obligation Debt Outstanding[(a)]
Fiscal Years 2011-2020
(In Millions)

At June 30	General Obligation Debt Outstanding
2011	$9,872.1
2012	10,727.5
2013	10,860.3
2014	11,408.9
2015	12,074.8
2016	11,578.5
2017	12,009.0
2018	12,455.4
2019	11,559.0
2020	10,750.3

(a) Net of sinking fund balances.

Net outstanding general obligation debt totaled $10,750.3 million at June 30, 2020, a decrease of $808.7 million over June 30, 2019. Over the 10-year period ending June 30, 2020, total net outstanding general obligation debt increased at an annual rate of 0.8 percent. Over the 5-year period ending June 30, 2020, total net outstanding general obligation debt has decreased at an annual rate of 2.3 percent.

General obligation debt for non-highway purposes of $9,740.3 million was outstanding on June 30, 2020. Outstanding debt for these purposes decreased by a net $766.2 million since June 30, 2019. For the period ending June 30, 2020, the 10-year and 5-year average annual compound growth rate for total outstanding debt for non-highway purposes has been 0.3 percent and -2.8 percent, respectively. In its current debt financing plan, commonwealth infrastructure investment projects include improvement and rehabilitation of existing capital facilities and construction of new facilities, such as public buildings, prisons and parks, transit facilities, economic development and community facilities, and environmental remediation projects.

Outstanding general obligation debt for highway purposes was $1,010.0 million on June 30, 2020, a decrease of $42.6 million from June 30, 2019. Highway outstanding general obligation debt grew over the 10-year and 5-year periods ending June 30, 2020, at the annual average rates of 8.6 percent and 3.3 percent, respectively. A previous decline in outstanding highway debt was due to the policy that began in 1980 of funding highway capital projects with current revenues, except for very limited exceptions. However, beginning with fiscal year 2009, the commonwealth initiated a multi-year plan to issue an average of $200 million in general obligation bonds annually to accelerate the rehabilitation of a portion of the commonwealth's 6,000 structurally deficient bridges. Funding to support such debt issuance was initially provided from an existing restricted account rather than from general revenues of the Motor License Fund or the General Fund. During the 2010 fiscal year, the commonwealth issued $200 million in general obligation bonds to jumpstart its bridge rehabilitation program. During fiscal years 2011, 2012, 2013 and 2014 the commonwealth issued $130 million, $120 million, $85 million and $40 million, respectively, in general obligation debt for the bridge rehabilitation program.

Table 16, on the next page, shows selected debt ratios for the commonwealth for fiscal year 2011 and for fiscal years 2016 through 2020. Table 16 contains corrections to certain prior fiscal year data as well as a revision in the methodology to have debt service payments include funding from all sources rather than show debt service solely as paid from appropriations (resulting in some information in Table 16 being different from that appearing in previous Official Statements of the commonwealth).

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Table 16
Selected Debt Ratios
Fiscal Years 2011 and 2016 through 2020
(In Millions)

	2011	2016	2017	2018	2019	2020
Net Outstanding Debt (Millions)						
General Obligation Debt(a)...	$ 9,872	$ 11,578	$ 12,009	$ 12,455	$ 11,559	$ 10,750
Lease Payment Obligations(b)...................................	2,210	2,319	2,981	3,289	3,428	3,393
Total..	$ 12,082	$ 13,897	$ 14,990	$ 15,744	$ 14,987	$ 14,143
% Increase (Decrease) over prior year......................	2.7%	-3.9%	7.9%	5.0%	-4.8%	-5.6%
Population (Thousands)	12,743	12,782	12,788	12,807	12,802	12,799
Per Capita Debt...	$ 948	$ 1,087	$ 1,172	$ 1,229	$ 1,171	$ 1,105
Personal Income (Millions)..	$ 548,345	$ 656,000	$ 679,731	$ 720,073	$ 752,430	$ 792,641
Debt as a % of Personal Income..............................	2.2%	2.1%	2.2%	2.2%	2.0%	1.8%
Debt Service (Millions)(c)						
Highway Bonds(d)..	$ 46	$ 52	$ 49	$ 48	$ 51	$ 57
All Other Bonds...	1,129	1,237	1,221	1,174	1,251	1,274
Lease Payments...	127	155	149	150	151	165
Total...	$ 1,302	$ 1,444	$ 1,419	$ 1,372	$ 1,453	1,496
Increase (Decrease) Over Prior Year	15.8%	3.4%	(1.7%)	(3.3%)	5.9%	3.0%
Cash Revenues (Millions)(e)						
Motor License Fund..	$ 2,521	$ 2,657	$ 2,758	$ 2,897	$ 2,849	$ 2,633
General Fund...	27,497	30,901	31,669	34,567	33,975	32,276
Total...	$ 30,018	$ 33,558	$ 34,427	$ 37,464	$ 36,824	34,909
% Increase (Decrease) over prior year.....................	(0.9%)	1.1%	2.6%	8.8%	(1.7%)	(5.2%)
Highway Bond Debt Service as a % of Motor License Fund Revenues..	1.8%	2.0%	1.8%	1.7%	1.8%	2.2%
All Other Bond Debt Service and Lease Payments as % of General Fund Revenues....................................	4.6%	4.5%	4.3%	3.8%	4.1%	4.5%
Total Debt Service and Lease Payments as a % of Motor License and General Fund Revenues..............	4.3%	4.3%	4.1%	3.7%	4.0%	4.3%

Prior fiscal year debt ratios can be found in previous Official Statements under Investor Information at www.budget.pa.gov.
(a) Net of all sinking fund balances. Includes bond anticipation notes.
(b) Includes unduplicated data of issues contained in Table 20.
(c) As paid from appropriations, available funds and/or sinking fund balances.
(d) Highway Bonds and Highway Bridge Improvement Bonds.
(e) Commonwealth revenues only.
Population and personal income numbers based upon calendar year-end data.

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General Obligation Debt Outstanding

As of June 30, 2020, the commonwealth had the following amount of general obligation debt outstanding:

Table 17
General Obligation Debt Outstanding as of June 30, 2020
(In Thousands)

	Debt Outstanding	Less: Refunding Escrow[(a)]	Less: Sinking Funds[(b)]	Net Debt Outstanding
Capital Projects Debt:				
Capital Facilities Bonds	$ 6,409,030	$ (947,175)	$ (3,647)	$ 5,458,208
Highway Bonds	830,315	(184,000)	-	646,315
Refunding Bonds	3,717,335	-	-	3,717,335
Total Capital Projects Debt Outstanding	$ 10,956,680	$ (1,131,175)	$ (3,647)	$ 9,821,858
Electorate Approved Debt:				
PA Economic Revitalization Bonds	-	-	-	-
Land & Water Development Bonds	-	-	-	-
Nursing Home Loan Development Bonds	-	-	-	-
Volunteer Companies' Loan Bonds	-	-	-	-
Vietnam Veterans Compensation Bonds	-	-	-	-
Water Facilities Restoration-1981 Referendum	-	-	-	-
Pennvest—1988 Referendum Bonds	-	-	-	-
Pennvest—1992 Referendum Bonds	101,050	(38,910)	(1,061)	61,079
Agricultural Conservation Easement Bonds	-	-	-	-
Local Criminal Justice Bonds	-	-	-	-
Keystone Recreation, Parks & Conservation Bonds	-	-	-	-
Growing Greener Bonds	165,545	(35,400)	(5)	130,140
Water Supply and Wastewater Treatment Bonds	49,080	(18,340)	-	30,740
Persian Gulf Conflict Veterans	-	-	-	-
Water and Sewer Assistance	186,595	(113,825)	(2)	72,768
Total Electorate Approved Debt Outstanding	$ 502,270	$ (206,475)	$ (1,068)	$ 294,727
Other Bonded Debt:				
Disaster Relief Bonds	-	-	-	-
Refunding Bonds	633,680	-	-	633,680
Total Other Bonded Debt Outstanding	$ 633,680	-	-	$ 633,680
Total General Obligation Debt Outstanding	$ 12,092,630	$ (1,337,650)	$ (4,715)	$ 10,750,265

[(a)] Principal amount of bonds refunded to be paid from escrowed bond proceeds in State Treasurer escrow account.
[(b)] Funds already deposited in sinking funds.

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Debt service payable during each fiscal year on outstanding general obligation debt, net of refunding escrow amounts, as of June 30, 2020, for the years shown is set forth in Table 18.

Table 18
General Obligation Bond Debt Service
(In Thousands)

Fiscal Year Ending June 30	Principal	Interest	Total
2021	$823,140	$488,713	$1,311,853
2022	848,125	446,831	1,294,956
2023	828,370	404,264	1,232,634
2024	838,635	363,066	1,201,701
2025	810,550	322,368	1,132,918
2026	852,720	280,669	1,133,389
2027	831,630	240,718	1,072,348
2028	764,330	202,338	966,668
2029	695,580	166,712	862,292
2030	683,955	136,000	819,955
2031	521,145	109,092	630,237
2032	538,140	86,782	624,922
2033	437,045	63,919	500,964
2034	384,005	45,440	429,445
2035	298,675	30,997	329,672
2036	233,170	19,626	252,796
2037	179,705	12,061	191,766
2038	90,760	7,204	97,964
2039	95,300	3,574	98,874
Total	$10,754,980	$3,430,372	$14,185,352

Notes: Does not include general obligation bonds issued during fiscal year 2021.
Totals may not add due to rounding.

Nature of Commonwealth Debt

Capital Projects Debt. The commonwealth may incur debt to fund capital projects for community colleges, highways, bridge projects, public improvements, transportation assistance, flood control, and redevelopment assistance. Before a project may be funded, it must be itemized in a capital budget bill adopted by the General Assembly. An annual capital budget bill states the maximum amount of debt for capital projects that may be incurred during the current fiscal year for projects authorized in the current or previous years' capital budget bills. Capital projects debt is subject to the Constitutional Debt Limit.

Once capital projects debt has been authorized by the necessary legislation, issuance authority rests with at least two of the three Issuing Officials (the Governor, the State Treasurer and the Auditor General), one of whom must be the Governor.

Electorate Approved Debt. The issuance of electorate approved debt is subject to the enactment of legislation that places on the ballot the question of whether debt shall be incurred. The legislation authorizing the referendum must state the purposes for which the debt is to be authorized and, as a matter of practice, includes a maximum amount of funds to be borrowed. Upon electorate approval and enactment of legislation implementing the proposed debt-funded program, bonds may be issued. All such authorizing legislation to date has given issuance authority to at least two of the Issuing Officials, one of whom must be the Governor.

Other Bonded Debt. Debt issued to rehabilitate areas affected by disasters is authorized by specific legislation. Authorizing legislation has given issuance authority to at least two of the three Issuing Officials, one of whom must be the Governor.

Tax Anticipation Notes. Due to the timing of major tax payment dates, the commonwealth's General Fund cash receipts are generally concentrated in the last four months of the fiscal year, from March through June. Disbursements are distributed more evenly throughout the fiscal year. As a result, operating cash shortages can occur during certain months of the fiscal year. When necessary, the commonwealth engages in short-term borrowing to fund expenses within the fiscal year through the sale of tax anticipation notes. The authority to issue such notes rests with the Issuing Officials.

The commonwealth may issue tax anticipation notes only for the account of the General Fund or the Motor License Fund or both such funds. The principal amount issued, when added to already outstanding amounts, may not exceed in the aggregate 20 percent of the revenues estimated to accrue to the appropriate fund or funds in the fiscal year.

Tax anticipation notes must mature within the fiscal year in which they are issued. The commonwealth is not permitted to fund deficits between fiscal years with any form of debt. Any year-end deficit balances must be funded in the succeeding fiscal year budget.

The commonwealth established a $2.5 billion tax anticipation note in fiscal year 2020-21. The commonwealth borrowed $800 million in October 2020 and repaid the tax anticipation note on April 1, 2021. As of the date of this Official Statement, the commonwealth does not expect any further draws for the remainder of the 2020-21 fiscal year.

Line of Credit (General Fund). The commonwealth has entered into an agreement with the Pennsylvania Treasury Department that allows the commonwealth to engage in short-term borrowing of governmental monies on deposit with the Treasury to fund General Fund expenses within the fiscal year (the "STIP Facility"). The commonwealth borrowed and repaid $1,000 million in fiscal year 2016, $2,200 million in fiscal year 2017, $1,200 million in fiscal year 2018, $650 million in fiscal year 2019 and $1,700 million in fiscal year 2020. All STIP Facility borrowings are repaid with interest within the fiscal year.

Line of Credit (Capital Facilities Fund). The commonwealth has entered into an agreement with the Pennsylvania Treasury Department which allows the commonwealth to engage in short-term borrowing of governmental monies on deposit with the Treasury to fund capital expenses within the fiscal year. As of April 14, 2021, the commonwealth had a zero-borrowing balance. If funds are borrowed, they are repaid with interest at settlement of the next general obligation bond issue.

Bond Anticipation Notes. Pending the issuance of general obligation bonds, the commonwealth may issue bond anticipation notes subject to the same statutory and constitutional limitations generally imposed on general obligation bonds. The term of such borrowings may not exceed three years. Issuing authority rests with the Issuing Officials. No bond anticipation notes are outstanding.

Projected Issuance of Long-Term Debt

Table 19, on the next page, shows actual and projected future issuance of new-money general obligation bonds (or bond anticipation notes) through fiscal year 2024 as currently estimated, based on current authorizations. Included below in Table 19 are bonds expected to be issued under three bond referenda proposed by the Governor and enacted by the General Assembly in 2004, 2005 and 2008. Not included however, are bonds authorized under the economic stimulus program and other programs of the commonwealth Financing Authority. Actual issuance of bonds will be affected by several economic and other factors and may vary significantly from the projections contained in the table below.

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Table 19
General Obligation Bond Issuance and Principal Retirements
Fiscal Years 2020-2024[a]

(In Millions)

(In Millions)

	Fiscal Year Ending June 30				
	2021	**2022**	**2023**	**2024**	**2025**
Capital Facilities[b]					
Buildings and Structures………………………..	$550	$550	$550	$550	$550
Furniture and Equipment……………………….	10	10	10	10	10
Transportation Assistance………………………	175	175	175	175	175
Redevelopment Assistance………………………	275	275	275	275	275
Flood Control………………………………...	0	0	0	0	0
Highway and Bridge Projects……………………	0	0	0	0	0
Special Purpose:					
Pennvest — 1988, 1992 & 2008 Referenda[a]…………………………………	20	0	0	0	0
Water and Wastewater Referendum…………	0	0	0	0	0
Growing Greener II Referendum………..…….	0	0	0	0	0
Total Projected Issuance…………………….	$1,030	$1,010	$1,010	$1,010	$1,010
Principal Retirement[c] ……........................…	$773	$832	$860	$919	$943

Totals may not add due to rounding.
[a] As set forth in the fiscal year 2021 enacted budget.
[b] Includes issuance for new projects and for projects previously authorized.
[c] On bonded debt, outstanding and pro forma for projected bond issuances.

OTHER STATE-RELATED OBLIGATIONS

Pennsylvania Housing Finance Agency ("PHFA")

The PHFA is a State-created agency that provides financing for housing for low and moderate-income families, and people with special housing needs in the commonwealth. The bonds, but not the notes, of the PHFA are partially secured by a capital reserve fund required to be maintained by the PHFA in an amount equal to the minimum capital reserve fund required for such fund. If there is a potential deficiency in the capital reserve fund or if funds are necessary to avoid default on interest, principal or sinking fund payments on bonds or notes of PHFA, the statute creating PHFA directs the Governor, upon notification from PHFA, to include in the proposed executive budget of the commonwealth for the next succeeding year an amount sufficient to fund such deficiency to avoid such default. The budget as finally adopted by the General Assembly may or may not include the amount so requested by the Governor. PHFA is not permitted to borrow additional funds so long as any deficiency exists in the Capital Reserve Fund. No deficiency exists currently.

According to PHFA, as of June 30, 2020, PHFA had $3,035.8 million of revenue bonds outstanding.

Lease Financing

The commonwealth, through several of its departments and agencies, leases various real property and equipment. Some leases and the lease payments thereunder are, with the commonwealth's approval, pledged as security for debt obligations issued by certain public authorities or other entities within the commonwealth. All lease payments payable by commonwealth departments and agencies are subject to and dependent upon an annual spending authorization being approved by the legislature through the commonwealth's annual budget process. The commonwealth is not required by law to appropriate or otherwise provide moneys to pay lease payments. The obligations to be paid from such lease payments do not constitute bonded debt of the commonwealth.

Table 20, below, contains summary information on material obligations secured by annual appropriations of commonwealth departments, agencies and authorities payable from the General Fund or other budgeted special funds.

Table 20
Obligations Secured by Commonwealth
Annual Appropriations as of June 30, 2020

(In Thousands)

Entity	Purpose	Maximum Annual Principal	Principal Amount Outstanding as of 6/30/2020	Final Maturity
Harristown Development Corporation	Office Space	$5,685	$26,055	May 1, 2024
Sports & Exhibition Authority of Pittsburgh and Allegheny County	Public Auditorium	18,465	252,130	Nov. 1, 2039
NORESCO, LLC	Equipment	2,070	10,725	Oct. 1, 2026
NORESCO, LLC	Equipment	1,455	7,920	Oct. 1, 2026
NORESCO/Johnson Controls	Equipment	4,195	38,785	Oct. 1, 2026
Pennsylvania Economic Development Finance Authority	Convention Center	23,680	197,335	June 15, 2039
Commonwealth Financing Authority	General Government	409,765	4,320,300	June 1, 2043
Pennsylvania Economic Development Finance Authority	Office Space	17,580	102,600	Mar. 1, 2034
Pennsylvania Economic Development Finance Authority	Rapid Bridge Replacement	43,290	666,455	June 30, 2042
Department of General Services	Lease/Lease Back	12,745	197,370	June 30, 2046
Pennsylvania Economic Development Finance Authority	County Voting Apparatus	8,487	68,995	June 1, 2030

In 2009, the commonwealth executed an annually renewable lease purchase agreement with CAFCO-PA Leasing I, LLC, a Colorado limited liability company, to assist the commonwealth, acting through its Department of Corrections, to acquire certain modular prison dormitory facilities. Certificates of participation in the amount of $19.3 million were issued in December 2009. The certificates of participation are payable from lease payments made by the commonwealth from and subject to annual appropriation to its Department of Corrections.

In 2010, the commonwealth executed an installment purchase agreement with Noresco, LLC, a Massachusetts limited liability company ("Noresco"). The purpose of the installment purchase agreement is to assist the commonwealth, acting through its Department of Human Services, to acquire certain energy-savings improvements at its Ebensburg facility. Certificates of participation in the amount of $15.6 million were issued in March 2010 and are payable from lease payments made by the commonwealth from and subject to annual appropriation to its Department of Human Services. The commonwealth has also entered into additional installment purchase agreements with Noresco and Johnson Controls. Certificates of participation in the amount of $86.9 million were issued in October 2010 and are payable by the commonwealth from and subject to annual appropriations to its Departments of General Services, Corrections and Human Services. Certificates of participation in the amount of $12.4 million were issued in December 2010 and are payable by the commonwealth from and subject to annual appropriations to its Departments of General Services and Human Services. The purpose of the additional installment purchase agreements was to assist the commonwealth, acting through various departments, to acquire certain energy-savings improvements. As it relates to certain of these certificates of participation, the commonwealth filed a notice (the "Notice") on the Municipal Securities Rulemaking Board's Electronic Municipal Market Access system ("EMMA"), for purposes of Securities and Exchange Commission Rule 15c2-12 (the "Rule"), of its failure to make timely installment payments due on October 1, 2017 as it relates to those series of certificates as specified in the Notice. The payment for the 2010H Series was made on October 13, 2017 and the payments for the 2010C and 2010D Series were made on October 19, 2017.

On March 1, 2009, the commonwealth entered into a 25-year master lease agreement for certain office space within the Forum Place complex in the City of Harrisburg. The master lease covered 375,000 square feet of office space and had a term through February 28, 2034. In January 2012, the Pennsylvania Economic Development Financing

Authority ("PEDFA") issued lease revenue bonds in the principal amount of $107.4 million to acquire the Forum Place complex from the then-controlling majority holder of the defaulted 1998 Dauphin County General Authority bonds. Contemporaneous with the issuance of the PEDFA bonds to acquire the Forum Place, the Capital Region Economic Development Corporation (CREDC) entered into an agreement with both the commonwealth and PEDFA pursuant to which the commonwealth leases approximately 375,000 square feet of office space and 500,000 square feet of parking space in the Forum Place complex from CREDC. The PEDFA Bonds are payable from lease payments made by the commonwealth to CREDC from and subject to annual appropriations authorizing payments to various commonwealth agencies occupying the leased space.

Lease for Pittsburgh Penguins Arena

In October 2007, the commonwealth and the Sports and Exhibition Authority of Pittsburgh and Allegheny County (the "SEA") entered into a lease agreement (the "Arena Lease") that, while not creating indebtedness of the commonwealth, creates a "subject to appropriation" obligation of the commonwealth. The SEA, a joint public benefit authority, issued in October 2007 its $313.3 million commonwealth Lease Revenue Bonds (the "Arena Bonds") to finance a multi-purpose arena (the "Arena"), to serve as the home of the Pittsburgh Penguins (the "Penguins"), a hockey team in the National Hockey League. The Arena Bonds are not debt of the commonwealth but are limited obligations of the SEA payable solely from the special revenues pledged therefor. These special revenues include annually (1) $4.1 million from a lease with the Penguins, (2) not less than $7.5 million from the operator of a casino located in the City of Pittsburgh, and (3) $7.5 million from the commonwealth's Economic Development and Tourism Fund (the "Development and Tourism Fund"). The Development and Tourism Fund is funded with an assessment of five percent of the gross terminal revenue of all total wagers received by all slot machines in the commonwealth less cash payments.

While the special revenues were projected to be adequate to pay all debt service on the Arena Bonds, the revenues have not been able to fully cover the debt service. To the extent such revenues are in any year inadequate to cover debt service, the commonwealth is obligated under the Arena Lease to fund such deficiency, subject in all cases to appropriation by the General Assembly. The maximum annual amount payable by the commonwealth under the Arena Lease is $18.6 million. In December 2009, the commonwealth was notified by the SEA that an additional $2.8 million would be required in fiscal year 2010 to support debt service. In compliance with its obligations under the Arena Lease, the commonwealth included an appropriation request for $2.8 million from the Pennsylvania Gaming and Economic Development Tourism Fund in its fiscal year 2010 budget. Subsequent to the fiscal year 2010 budget, the commonwealth has been annually notified by the SEA that additional funds are required to support debt service. In each subsequent year, the commonwealth included the appropriation request in the appropriate fiscal year budget. In fiscal year 2013, the actual amount appropriated to support the SEA debt service was $736,852.71; in fiscal year 2014, it was $625,131.51; in fiscal year 2015 it was $357,712.30; in fiscal year 2016 it was $640,624.36; in fiscal year 2017 it was $222,129.79; in fiscal year 2018 it was $754,059.60; in fiscal year 2019 the debt service was $695,000.00; and in fiscal year 2020 the debt service was $783,144.78.

During April 2010, the SEA issued $17.4 million in additional commonwealth Lease Revenue Bonds (the "Supplemental Arena Bonds") to complete the Arena. The Supplemental Arena Bonds do not constitute debt of the commonwealth but are limited obligations of the SEA payable solely from the special revenues pledged therefor. As with the Arena Bonds, the commonwealth is obligated under the Arena Lease, as amended, to fund any deficiency in special revenues necessary to pay debt service on the Supplemental Arena Bonds, subject in all cases to appropriation by the General Assembly.

Pennsylvania Convention Center

In April 2010, the commonwealth acquired (through ownership and a long-term leasehold interest) the Pennsylvania Convention Center located in Philadelphia, Pennsylvania and the expansion thereto in 2011. Such acquisition was financed through the issuance by PEDFA of $281.1 million of revenue bonds (the "Convention Center Bonds"). The commonwealth, the City of Philadelphia (the "City") and the Pennsylvania Convention Center Authority (the "Convention Center Authority") entered into an Operating Agreement (the "Operating Agreement") in connection with the issuance of the Convention Center Bonds and the acquisition of the Pennsylvania Convention Center which provides for the operation of the Pennsylvania Convention Center by the Convention Center Authority (which also leases the facility), for the City to make an annual payment of $15 million plus a percentage of its Hotel Room Rental

Tax and Hospitality Promotion Tax revenues to support operations of the Pennsylvania Convention Center and for the commonwealth to make payments to finance operating deficits and operating and capital reserve deposits of the Pennsylvania Convention Center and to pay debt service on the Convention Center Bonds. The commonwealth also entered into a Grant Agreement (the "Grant Agreement") with PEDFA and U.S. Bank National Association, as trustee for the Convention Center Bonds, with respect to the obligations of the commonwealth to make the payments required under the Operating Agreement and related amounts due with respect to the Pennsylvania Convention Center and the Convention Center Bonds.

The obligations of the commonwealth under the Operating Agreement and the Grant Agreement do not create indebtedness of the commonwealth but are payable from (1) funds available in the Gaming Economic Development and Tourism Fund and (2) other funds of the commonwealth, subject to annual appropriation by the State legislature. Payments from the Gaming Economic Development and Tourism Fund of up to $64 million per year for up to 30 years (but not exceeding $880 million in the aggregate) have been appropriated by the General Assembly (by Act 53 of 2007, ("Act 53")) for the payment of debt issued with regard to the Pennsylvania Convention Center and for operating expenses of the Pennsylvania Convention Center; however, there is no requirement in Act 53 or otherwise that funds in the Gaming Economic Development and Tourism Fund be so applied. Moneys in the Gaming Economic Development and Tourism Fund have also been appropriated by the General Assembly to several other projects and could be appropriated to additional projects in the future. The Gaming Economic Development and Tourism Fund is funded with an assessment of five percent of the gross terminal revenue of all total wagers received by all slot machines in the commonwealth less cash payments. While the Gaming Economic Development and Tourism Fund is projected to continue to have sufficient revenues to pay its current appropriated obligations, there can be no absolute assurance that the Gaming Economic Development and Tourism Fund in any future fiscal year will receive sufficient receipts to pay its appropriated obligations.

Any payments due from the commonwealth under the Operating Agreement and the Grant Agreement and which are not paid from the Gaming Economic Development and Tourism Fund are subject to annual appropriation by the General Assembly. The commonwealth currently projects that payments materially in excess of the aggregate $880 million appropriated from the Gaming Economic Development and Tourism Fund will be required to be paid by it to satisfy the commonwealth's obligations under the Operating Agreement and the Grant Agreement over the terms of such agreements.

Commonwealth Financing Authority ("CFA")

The CFA was established in April 2004 with the enactment of legislation establishing the CFA as an independent authority and an instrumentality of the commonwealth. The CFA is authorized to issue limited obligation revenue bonds and other types of limited obligation revenue financing for the purposes of promoting the health, safety, employment, business opportunities, economic activity and general welfare of the commonwealth and its citizens through loans, grants, guarantees, leases, lines and letters of credit and other financing arrangements to benefit for-profit, non-profit and various government entities. The CFA's bonds and financings are to be secured by revenues and accounts of the CFA, including funds appropriated to CFA from general and other revenues of the commonwealth for repayment of CFA obligations. The obligations of the CFA do not constitute a debt or liability of the commonwealth.

In Act 85 of 2016, the General Assembly enacted a new Section 1753.1-E of the Fiscal Code that obligates the State Treasurer, in consultation with the commonwealth's Secretary of the Budget, to transfer the monies necessary for payment of CFA's debt service each fiscal year, beginning July 1, 2016 from sales tax receipts deposited in the General Fund to a restricted revenue account within the General Fund which may only be used to pay that debt service.

Debt service for Authority debt (other than the Tobacco Bonds (defined below)) is currently payable from continuing appropriations pursuant to Section 1753.1-E of the Fiscal Code while debt service for Tobacco Bonds is currently payable from continuing appropriations pursuant to Sections 2805 and 2809 of the Tax Reform Code.

Since November 2005, the CFA has completed multiple bond issues to fund programs established by its original economic stimulus mission of April 2004 (the "Original Programs"). Currently, there are no plans to issue additional debt for the Original Programs.

As part of the enactment process for the fiscal year 2009 budget, the General Assembly enacted and on July 9, 2008, the Governor signed into law Act 63 of 2008 ("Act 63") and Act 1 of Special Session 1 of 2008 ("Act 1"). Combined, these two acts provided the CFA with additional bond issuance authority of up to an additional $1,300 million. Act 63 provides the CFA with authority to issue up to $800 million in limited obligation revenue bonds in order to fund water or sewer projects, storm water projects, flood control projects and high hazard unsafe dam projects. Act 63 also provides for the use of Pennsylvania Gaming and Economic Development and Tourism Fund revenues to support debt service costs associated with the $800 million in additional CFA debt authority. Act 1 provides the CFA with authority to issue up to $500 million in limited obligation revenue bonds to fund the development of alternative sources of energy. As of 2020, the CFA has issued $461 million in limited obligation revenue bonds authorized by Act 1 and $757 million in limited obligation revenue bonds authorized by Act 63. Other than bonds for refunding purposes, there currently are no plans to issue additional debt for these programs.

As of December 31, 2020, the CFA had $4,273.6 million in outstanding bond debt (including Tobacco Bonds). With respect thereto, a restricted revenue account is funded annually through a Sales and Use Tax Transfer as the source used to service approximately $3,653.6 million of outstanding debt and the Pennsylvania Gaming and Economic Development and Tourism Fund has been the source used to service approximately $620.0 million of such outstanding debt.

Pursuant to Act 25 of 2016 ("Act 25"), the CFA is authorized to issue debt related to the commonwealth's share of school district construction costs referred to as the PlanCon process. Act 25 established a new funding mechanism to pay school districts for construction reimbursements due to them and to fund capital grants to school districts as part of the PlanCon process. The CFA is authorized to issue up to $2,500 million in appropriation backed debt in connection with the commonwealth's share of school construction costs; debt in excess of $2,500 million may be incurred by CFA for this purpose if CFA and the Department of Education determine that $2,500 million is insufficient to carry out the purposes of Act 25 and if the Secretary of the Budget approves such determination. The expectation is that the borrowings (other than refunding bonds) will occur from time to time through fiscal year 2025 based on statue as authorized by Act 25. As of May 31, 2020, the CFA has issued $1,560 million for construction reimbursement purposes under Act 25.

In addition, the CFA pursuant to Article XXVIII of the Tax Reform Code, added by the Act of October 30, 2017, No. 43 ("Act 43"), issued Tobacco Master Settlement Payment Revenue Bonds, (the "Tobacco Bonds") on February 13, 2018, in a principal amount necessary to fund a deposit of $1,500 million in the General Fund of the commonwealth to provide General Fund budgetary relief. Currently, there are no plans to issue additional Tobacco Bonds (other than for refunding purposes).

Pensions and Retirement Systems

General Information

The commonwealth maintains contributory benefit pension plans covering all State employees, public school employees and employees of certain State-related organizations. State employees and employees of certain State-related organizations are members of the Pennsylvania State Employees' Retirement System (SERS). Public school employees are members of the Public School Employees' Retirement System ("PSERS"). With certain exceptions, membership in the applicable retirement system is mandatory for covered employees.

History of Retirement System Participants

	PSERS			SERS		
Year[a]	Total Annuitants, Beneficiaries and Survivor Annuitants	Active Members	Total Membership	Total Annuitants and Beneficiaries	Active Members	Total Membership[b]
2016	224,828	257,080	481,908	127,338	104,632	231,970
2017	230,014	255,945	485,959	129,473	102,978	232,451
2018	233,288	256,362	489,650	131,007	103,007	234,014
2019	237,339	255,749	493,088	132,731	102,850	235,581
2020	239,614	256,246	495,860	133,334	100,965	234,299

[a] PSERS data as of June 30, 2020, SERS data based upon calendar year 2020.
[b] Does not include inactive plan members entitled to but not yet receiving benefits.

SERS and PSERS are established by State law as independent administrative boards of the commonwealth, each directed by a governing board that exercises control and management of its system, including the investment of its assets. The board of the SERS consists of eleven members, five appointed by the Governor, two members each from the Senate and House of Representatives, the Secretary of Banking and Securities, and the State Treasurer. The PSERS board has fifteen members, including the commonwealth's Secretary of Education, the commonwealth's Secretary of Banking and Securities, the State Treasurer, the Executive Director of the Pennsylvania School Boards Association, one member appointed by the Governor, six elected members (three from among the System's certified members, one from among the System's noncertified members, one from among the System's annuitants, and one from among school board members in Pennsylvania), two members from the Senate, and two members from the House of Representatives. The PSERS and SERS audited financial statements, investment policies, board personnel and other data regarding the respective pension plans are available electronically at the following respective websites: www.psers.pa.gov and www.sers.pa.gov.

The retirement plans of SERS and PSERS are contributory defined benefit plans for which the benefit payments to members and contribution rates by employees are specified in State law. Changes in benefit and contribution provisions for each retirement plan must be made by legislation enacted by the General Assembly. Under statutory provisions established in 1981, all legislative bills and amendments proposing to change a public employee pension or retirement plan are to be accompanied with an actuarial note prepared by an enrolled pension actuary providing an estimate of the cost and actuarial effect of the proposed change.

The commonwealth's retirement programs are funded by contributions from both the employer and employee. The contribution rate for PSERS members who enrolled in the pension plan on or after January 1, 2002 and before July 1, 2011 is 7.5 percent of compensation. The contribution rate for PSERS members who enrolled on or after July 1, 2011 and before June 30, 2019 is 7.5 percent or 10.3 percent, depending upon elections made by each employee member. The contribution rates for PSERS members who enrolled prior to January 1, 2002 range from 5.25 percent to 7.5 percent of compensation, depending upon the date of commencement of employment and elections made by each employee member. The SERS' employee contribution rate is 6.25 percent for most member employees. Interest on each employee's accumulated contributions is credited annually at a 4 percent rate mandated by State statute. Accumulated contributions plus interest credited are refundable to covered employees upon termination of their employment for most members.

Act 5 of 2017

On June 12, 2017, the Governor signed Act 5 of 2017 into law ("Act 5") which established three new pension plan design options for most State employees hired on or after January 1, 2019 and for most school employees hired on or after July 1, 2019.

The new plan design options include two hybrid options, which have both a defined benefit (DB) component and a defined contribution (DC) component, as well as a stand-alone DC plan option. New Pennsylvania State Police officers, corrections officers and other hazardous duty personnel hired on or after January 1, 2019, are exempt from participation in the new plan options. New judges and legislators beginning State service after January 1, 2019, would be included under the new plan designs. The following table provides a brief outline of the new plan designs for SERS and PSERS. The PSERS and SERS information regarding Act 5 are available electronically at the following respective websites: www.psers.pa.gov and www.sers.pa.gov.

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Act 5 of 2017

	Hybrid (SERS Class A-5, PSERS Class T-G)	Alternate Hybrid (SERS Class A-6, PSERS Class T-H)	Defined Contribution (DC)[(a)]
Annual Benefit Accrual Rate	1.25%	1.0%	N/A
New Employee Contribution Rate			
SERS	**8.25%** (DB 5.0%, DC 3.25%)	**7.5%** (DB 4.0%, DC 3.5%)	7.5%
PSERS	**8.25%** (DB 5.5%, DC 2.75%)	**7.5%** (DB 4.5%, DC 3.0%)	7.5%
DC Employer Contribution Rate[(a)]			
SERS	2.25%	2.0%	3.5%
PSERS	2.25%	2.0%	2.0%
Vesting Years	DB 10/DC 3	DB 10/DC 3	3
Final Average Salary	Highest 5 Years	Highest 5 Years	N/A
Normal Retirement Age (Unreduced Pension)	**Age 67/3 years** of service; Rule of 97 and 35 eligibility points	**Age 67/3 years** of service; Rule of 97 and 35 eligibility points for SERS only	N/A
Early Retirement Milestone	**Age 57/25 years** of service	**Age 62/25 years** of service for SERS; ***Age 55/25 years** of service for PSERS	N/A
Early Retirement Reduction	**If reach milestone:** 3% reduction for each year under age 67 **OR** **Age 62/10 years of service for SERS:** Actuarial reduction for each year under age 67 **OR** **10 years of service but NOT age 62:** Standard Actuarial reduction from 62-67 plus special 7.375% rate actuarial reduction for each year under 62 for SERS: PSERS special rate has yet to be determined	**If reach milestone:** 3% reduction for each year under age 67 **OR** **Age 62/10 years of service for SERS:** Actuarial reduction for each year under age 67 **OR** **10 years of service but NOT age 62:** Standard Actuarial reduction from 62-67 plus special 7.375% rate actuarial reduction for each year under 62 for SERS: *PSERS special rate has yet to be determined	N/A

* PSERS special rate is 7.25%.

[(a)] In addition, there is a defined benefit employer contribution rate that is actuarially determined.

Investment Performance

SERS returns for the calendar years 2016, 2017, 2018, 2019 and 2020 were 6.5 percent, 15.1 percent, -4.6 percent, 18.8 percent and 11.1 percent respectively. PSERS' fiscal years 2016, 2017, 2018, 2019 and 2020 investment performance were 1.29 percent, 10.14 percent, 9.27 percent, 6.68 percent and 1.11%, respectively. See "Actuarial Calculations and Unfunded Actuarial Accrued Liability" below regarding investment rate of return assumptions for PSERS and SERS.

Plan Assets

Contributions to the PSERS and SERS pension plans by the commonwealth including medical premium assistance payments, employee contributions, interest earnings and benefit payments are shown in the following tables, which have been prepared by the respective staffs of PSERS and SERS.

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Table 21
Public School Employees' Retirement Fund [a]

(In Millions)

Year Ended June 30	Employer Contributions		Employee Contributions[a]	Net Investment Income (Loss)	Total Deductions From Plan Net Assets[b]	Plan Net Assets[c]
2016	$ 3,303		$ 989	$ 474	$ 6,515	$ 49,957
2017	3,943		1,014	4,996	6,631	53,279
2018	4,288	(d)	1,026	4,716	6,816	56,493
2019	4,608		1,064	3,631	6,928	58,868
2020	4,801		1,076	1,004	7,041	58,708

[a] Excludes PSERS Health Options Plan activity.
[b] Includes PSERS administrative expenses.
[c] For the fiscal year ended June 30, 2014, PSERS adopted GASB Statement 67 (Plans) which replaces requirements of Statement 25. This new standard impacts the accounting treatment of pension plans in which state and local governments participate. Except as noted, the presentations above include the effects of financial activity related to the administration of the PSERS healthcare insurance premium assistance program and Health Options Program. As required with the adoption of GASB Statement No. 26, separate financial presentations for these programs are made in PSERS financial statements. For the fiscal year ended June 30, 2017, PSERS adopted GASB Statement 74, Financial Reporting for Postemployment Benefit Plans other than Pension Plans. This statement requires changes in presentation of the financial statements and required supplementary information for PSERS' Premium Assistance Plan.
(d) Includes the Effect of change in accounting principle of ($80)

Table 22
State Employees' Retirement Fund

(In Millions)

Year Ended December 31	Employer Contributions		Employee Contributions		Net Investment Income/Loss[a]		Total Deductions From Fiduciary Net Position[b]		Fiduciary Net Position[c]	
2016	$ 1,622		$ 375		$ 1,587		$ 3,251		$ 26,388	
2017	1,898		383		4,066		3,330		29,405	
2018	2,049		394		(1,442)		3,469	(d)	26,937	
2019	2,115		405		5,175		3,536		31,096	
2020	3,183	* (e)	410	*	3,352	*	3,588	*	34,453	*

[a] Includes net appreciation (depreciation) in fair value of investments.
[b] Includes SERS administrative costs.
[c] Market value of investment assets. For the fiscal year ended December 31, 2014, SERS adopted GASB Statement No. 67, which replaces requirements of GASB Statement No. 25. These require that investments be reported at their fair value. Also includes securities lending collateral pool pursuant to GASB Statement No. 28.
[d] The Governmental Accounting Standards Board (GASB) issued GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions (OPEB) (GASB 75). This required SERS to record its proportionate share of net OPEB liability, ($48), resulting in a restated beginning balance of $29,357.
[e] In April 2020, Penn State University submitted a payment of $1.06 billion toward its unfunded liability. In return, the university will receive an annual credit against its contributions for 30 years. The credit totals nearly $93.3 million for twenty years and then decreases over the final 10 years beginning at nearly $72.6 million and ending at approximately $2.3 million in 2049. The 2020 employer contributions includes this lump sum payment.
* Unaudited estimate

Actuarial Calculations and Unfunded Actuarial Accrued Liability

Annual actuarial valuations are required by State law to determine the employer contribution rates necessary to accumulate sufficient assets and provide for payment of future benefits. Actuarial assessments are "forward-looking" information that reflect the judgment of the fiduciaries of the pension plans, and are based upon a variety of assumptions, one or more of which may prove to be inaccurate or be changed in the future. Actuarial assessments will change with the future experience of the pension plans. The actuary's recommendations for employer contribution rates represent a funding plan for meeting current and future retirement obligations. The employer's contribution rate is computed to fully amortize the unfunded actuarial accrued liability of a plan as determined by the actuary. The unfunded accrued liability is a measure of the present value of benefits estimated to be due in the future for current employees under specified assumptions as to mortality, pay levels, retirement experience and employee turnover, less the present value of assets available to pay those benefits, under specified assumptions of normal cost, supplemental annuity amortization, employer contribution levels and employee contributions. The unfunded actuarial accrued liability for recent years with completed valuations is shown in Table 23 below for both SERS and PSERS.

The Boards of PSERS and SERS hire their actuarial firms through a competitive Request for Proposal process generally for a five-year term. PSERS current actuary is Buck Global, LLC, and SERS actuary is Korn Ferry Hay Group. The Boards of PSERS and SERS periodically review their respective system actuarial assumptions with actuaries, investment consultants and staff and determine whether to make any prospective changes to these assumptions. Both Boards have adopted changes to their respective system actuarial assumptions. In January 2009, the PSERS Board of Trustees decreased PSERS' actuarial investment rate of return assumption from 8.5 percent to 8.25 percent, effective for the June 30, 2008 actuarial valuation, and further decreased the rate of return assumption from 8.25 percent to 8 percent for the June 30, 2009 valuation. In March 2011, the PSERS Board decreased the actuarial investment rate of return for a third time from 8 percent to 7.5 percent for the June 30, 2011 actuarial valuation based on a further reduction in the long-term capital market rate of return assumptions of its investment consultant. In June 2016, the PSERS Board decreased the actuarial rate of return for a fourth time in eight years from 7.5 percent to 7.25 percent for the June 30, 2016 actuarial valuation based on a further reduction in expected long term capital market return assumptions. In April 2009, the State Employees' Retirement Board decreased SERS' assumed rate of return on investments from 8.5 percent to 8 percent effective for the December 31, 2008 valuation. In May 2012, SERS' Board decreased the actuarial rate of return from 8 percent to 7.5 percent for the December 31, 2011 valuation. The SERS Board decreased the actuarial rate of return from 7.5 percent to 7.25 percent for the December 31, 2016 valuation. The SERS Board decreased the actuarial rate of return from 7.25 percent to 7.125 percent for the December 31, 2019 valuation. The SERS Board decreased the actuarial rate of return from 7.125 percent to 7.0 percent for the December 31, 2020 valuation. These changes to SERS' and PSERS' investment return assumptions bring both Fund's return assumptions below the median assumption used by public pension funds nationally.

In July 2020, SERS Actuary (Korn Ferry) and Investment Consultant (Callan) presented to the SERS Board recommendations from the Five-Year Actuarial Study which is a periodic review of actual versus expected actuarial experience of a retirement system in order to ensure that the system is financed on a sound basis. This is the nineteenth in a series of investigations of actuarial experience that have been performed based upon economic and demographic experience from January 1, 2015 through December 31, 2019. The study developed recommended assumptions for use in the upcoming and subsequent valuations. The SERS Board approved several recommended actuarial assumption changes which include, but are not limited to, lowering the assumed rate of return to 7.0%, lowering the annual inflation assumption from 2.6% to 2.5% and reducing the total salary/career growth from 5.6% to 4.8%. The aggregate impact of all assumption changes increased SERS unfunded actuarial liability by approximately $1.1 billion. At this time, the precise impact of the COVID-19 Pandemic on unfunded pension liabilities is unknown. See "COVID-19 PANDEMIC" herein.

Table 23
Unfunded Actuarial Accrued Liability
2016-2020
(In Millions)

Valuation Year Ended In	SERS [a]		PSERS [b]
2016…………………………	$ 19,923		$ 42,724
2017…………………………	19,662		44,512
2018…………………………	22,793		44,855
2019…………………………	23,039		44,134
2020…………………………	22,208	*	44,034

[a] The fiscal year for SERS ends on December 31 of each year.
[b] The fiscal year for PSERS ends on June 30 of each year. Amounts presented are for Pension only and excludes Premium Assistance.
* Unaudited estimate

For PSERS, its funded ratios as of June 30, 2016 were 57.3 percent and 50.1 percent on an actuarial and market value basis, respectively. For PSERS, its funded ratios as of June 30, 2017 were 56.3 percent and 51.8 percent on an actuarial and market value basis, respectively. As of June 30, 2018, PSERS funded ratios were 56.5 percent and 54.0 percent on an actuarial and market value basis, respectively. As of June 30, 2019, PSERS funded ratios were

58.1% and 55.7% on an actuarial and market value basis, respectively. As of June 30, 2020, PSERS funded ratios were 59.2% and 54.4% on an actuarial and market value basis, respectively.

For SERS, its funded ratios as of December 31, 2016 were 58.1 percent and 55.5 percent on an actuarial and market value basis, respectively. For SERS, its funded ratios as of December 31, 2017 were 59.4 percent and 60.7 percent on an actuarial and market value basis, respectively. For SERS, its funded ratios as of December 31, 2018 were 56 percent and 52 percent on an actuarial and market value basis, respectively. As of December 31, 2019, SERS funded ratios were 56.5 percent and 58.7 percent on an actuarial and market value basis, respectively. As of December 31, 2020, SERS funded ratios were estimated to be 59.4 percent and 63.0 percent on an actuarial and market value basis, respectively.

Changes in the SERS unfunded actuarial liability are attributable to several factors that include investment returns as well as differences between actual and expected results. Additionally, the estimated 2020 unfunded actuarial liability was also impacted by the change in actuarial assumptions resulting from the most recent five year experience study and the receipt of the $1.06 billion lump sum payment from Penn State University pursuant to Act 109-105.

Changes in the unfunded actuarial accrued liability are attributable to investment returns as well as differences between expected and actual experience.

Previously for financial reporting purposes, both PSERS and SERS adopted the Governmental Accounting Standards Board's ("GASB") Statement No. 25. Statement No. 25 required a specific method of accounting and financial reporting for defined benefit pension plans. Among other things, Statement No. 25 required a comparison of employer contributions to "annual required contributions" ("ARC"). GASB Statement No. 25 is superseded by GASB's Statement No. 67 and is only provided for informational purposes. Currently for financial reporting purposes starting with December 31, 2014 for SERS and June 30, 2014 for PSERS, both systems adopted GASB Statement No. 67, which is discussed in the following section under "New Accounting Standards".

Table 24
Comparison of Employer Contributions to Actuarially Determined Contribution ("ADC")/Annual Required Contribution
(In Thousands)

Public School Employees' Retirement Fund

Year Ended June 30	ADC or ARC[(a)]	Actual Employer Contributions	Percentages Contributed
2020…………	$4,671,931	$4,671,931	100%
2019…………	4,478,236	4,782,326	100
2018…………	4,243,328	4,243,328	100
2017…………..	3,824,908	3,824,908	100
2016…………..	3,976,798	3,181,438	80

State Employees' Retirement Fund

Year Ended December 31	ADC or ARC[(b)]	Actual Employer Contributions	Percentages Contributed
2020…………	$2,123,130 *	$3,183,130 (c) *	150%
2019…………	2,106,138	2,106,138	100
2018…………	2,040,434	2,040,434	100
2017…………..	1,883,541	1,883,541	100
2016…………..	1,613,626	1,613,626	100

[(a)] Amounts presented are for Pension only and excludes Premium Assistance. The ADC or ARC presented above was determined as part of the actuarial valuation as of two years prior to the dates indicated (i.e., the ADC for the fiscal year ended June 30, 2018 was determined by the valuation completed as of June 30, 2016 which was based on a 7.25 percent interest rate).
[(b)] The ARC is calculated as part of SERS funding valuation using Governmental Accounting Standards Board Statement No. 25 (GASB 25) requirements. Starting in 2014, GASB 25 was superseded by Governmental Accounting Standards Board Statement No. 67 (GASB 67) for accounting purposes. GASB 67 replaces the ARC with an actuarially determined contribution (ADC).

[c] The 2020 Actual Employer Contributions includes a $1.06 billion one-time contribution from Penn State University towards its unfunded liability that was made possible by Act 2019-105.
* Unaudited estimate

The following table provides the State's projected employer contribution rates expressed as a percentage of the actuarially determined covered payroll for PSERS and SERS for the current fiscal year and the next four fiscal years.

Table 25
Projected Employer Contribution Rates

Fiscal Year[a]	PSERS[b]	SERS[c]
2020	34.29%	33.45%
2021	34.51	33.10
2022	34.95	33.36
2023	35.62	32.21
2024	36.50	30.85

[a] The fiscal year 2020 employer contribution rates are actual rates which began on July 1, 2019.
[b] The projection of contribution rates is an assumption that there are no changes in demographic assumptions, no changes in benefit provisions, and no actuarial gains or losses other than gains or losses on the actuarial value of assets that result from recognizing currently deferred gains or losses on the market value of assets. In addition, a constant active population is assumed with future new members to be Class T-E members with the same demographic characteristics of new members during the period 7/1/2015 to 6/30/2018.
[c] This projection is based upon three assumptions: a projected investment return of 7.0 percent in 2020 and after; average total salary/career growth of 4.8 percent; inflation rate of 2.5%; and no future cost of living adjustments ("COLAs").

New Accounting Standards

In June 2012, GASB issued Statement No. 67 (GASB 67) (Financial Reporting for Pension Plans), which replaces requirements of GASB Statement No. 25 (effective for fiscal years beginning after June 15, 2013) and Statement No. 68 (Accounting and Financial Reporting for Pension Plans by Employers), which replaces the requirements of Statements No. 27 and No. 50 (effective for fiscal years beginning after June 15, 2014). These new standards impact the accounting treatment of pension plans in which state and local governments participate. Major changes are: 1) the inclusion of unfunded pension liabilities on the government's balance sheet (such unfunded liabilities were typically included as notes to the government's financial statements); 2) full pension costs are to be shown as expenses regardless of actual contribution levels; 3) lower actuarial discount rates may be required to be used for most plans for certain purposes of the financial statements, resulting in increased liabilities and pension expenses; and 4) shorter amortization periods for unfunded liabilities will be required to be used for certain purposes of the financial statements, which generally would increase pension expenses.

PSERS implemented GASB 67 in fiscal year 2013-14. For PSERS as of June 30, 2020 and 2019, the employer net pension liability was $49,239 million and $46,783 million, respectively, while plan fiduciary net position as a percentage of the total pension liability was 54.32% and 55.66%, respectively. PSERS' employer net pension liability has decreased for three fiscal years in a row and its plan fiduciary net position as a percentage of the total pension liability has improved for three fiscal years in a row. For PSERS as of June 30, 2020, actuarially determined contribution (ADC) and contributions in relation to the ADC were both $4,672 million. For PSERS as of June 30, 2019, actuarially determined contribution (ADC) and contributions in relation to the ADC were both $4,478 million.

SERS is the administrator of a cost-sharing multiple-employer defined benefit pension plan and reports required items per GASB 67 in Notes to Financial Statements as well as in Required Supplementary Information starting with its 2014 Annual Comprehensive Financial Report. SERS implemented GASB 67 as of December 31, 2014 but also retroactively reported as of December 31, 2013. For SERS as of December 31, 2020, net pension liability and plan fiduciary net position as a percentage of fiduciary net position is currently unavailable. For SERS as of December 31, 2019 and 2018, net pension liability was $18.2 billion and $20.8 billion, respectively, while plan fiduciary net position as a percentage of the total pension liability was 63.1 percent and 56.4 percent, respectively. For SERS as of December 31, 2020, actuarially determined contributions are $2.1 billion and contributions in relation to ADC are estimated to be $3.2 billion. Actual contributions for 2020 include the $1.06 billion lump sum payment received from Penn State University as previously mentioned. For SERS as of December 31, 2019, actuarially determined contribution

(ADC) and contributions in relation to the ADC were both $2.1 billion. For SERS as of December 31, 2018, actuarially determined contribution (ADC) and contributions in relation to the ADC were both $2.0 billion.

As noted in a press-release issued by PSERS on April 8, 2021, PSERS has been served with a grand jury subpoena for documents and is cooperating fully with the request made by the U.S. Attorney's Office in the Eastern District of Pennsylvania. To protect the interests of its members, the Board of Trustees has hired outside legal counsel to respond to the document subpoena and to conduct an investigation into the calculation of the shared risk rate and the basis for the subpoena. PSERS is an independent board outside of the purview of the Office of General Counsel of the commonwealth.

Other Post-Employment Benefits

In addition to a defined benefit pension plan for State employees and employees of certain State-related organizations, the commonwealth also provides health care plans for its eligible retirees and their qualifying dependents. These and similar plans are commonly referred to as "other post-employment benefits" or "OPEBs." The commonwealth provides OPEBs under two plans. The Retired Pennsylvania State Police Program (RPSPP) provides collectively bargained benefits to retired State enlisted members and their dependents. The Retired Employee Health Program (REHP) provides commonwealth-determined benefits to other retired State employees and their dependents.

The General Assembly, based upon the Governor's request, annually appropriates funds to meet the obligation to pay current retiree health care benefits on a "pay-as-you-go" basis. Retiree health care expenditures are currently funded by the Commonwealth's General Fund (approximately 41 percent), and by Federal, Other and Special Funds. commonwealth costs for such benefits totaled $725 million in fiscal year 2015, $895 million in fiscal year 2016, $818 million in 2017, $594 million in 2018, $694 million in 2019 and $579 million in fiscal year 2020.

Governmental Accounting Standards Board Statements #74/75

In June 2015, the GASB released Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* and GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions ("Statements No. 74/75").* Statements No. 74/75 establish standards for the measurement, recognition and display in the financial reports of state and local governments of OPEBs liabilities, when provided separately from a pension plan, and related expense or expenditures. Under Statements No. 74/75, governments are required to: (i) recognize the actuarial liabilities of promised benefits associated with past service net of any assets held in trust for the payment of those benefits (the net OPEB liability) and the related expense on the accrual basis of accounting; (ii) provide plan information on the membership, benefits, trusted assets, actuarial assumptions, and changes to the net OPEB liability (NOL) from the previous valuation; and (iii) provide information useful in assessing trends and potential demands on the employer's future cash flows.

In fiscal year 2008, the commonwealth's Office of Budget entered into an Interagency Agreement with the independent Pennsylvania Department of Treasury to establish irrevocable trust accounts for the purpose of providing advance funding to both the REHP and RPSPP programs. The commonwealth had previously established restricted receipt accounts for the REHP and RPSPP programs in order to accumulate funds to pay retiree health care costs on a "pay-as-you-go" basis while maintaining an adequate reserve balance.

In fiscal year 2020, $50 million was transferred to the REHP Trust Account and $1 million was transferred to the RPSPP Trust Account from the pre-existing restricted receipt accounts. No additional transfers have been made to the trust accounts. At the end of fiscal year 2020, the combined balance in the trust accounts and restricted receipt accounts was $1,359 million.

The commonwealth has retained Deloitte Consulting, LLP, a multinational professional services firm, to provide actuarial services for GASB 75 implementation and reporting. The Deloitte Consulting's 2019 OPEB valuation for the REHP and RPSPP programs is updated to reflect the following:

> The combined NOL measured as of June 30, 2019 was $16,027 million. The NOL for the REHP was $10,341 million comprised of an actuarial accrued liability of $10,745 million less $404 million of plan assets. The NOL for the RPSPP was $5,686 million comprised of an actuarial accrued liability of $5,787 million less $101 million of plan assets.

GOVERNMENT AUTHORITIES AND OTHER ORGANIZATIONS

Certain State-created organizations have statutory authorization to issue debt for which State appropriations to pay debt service thereon are not required. The debt of these organizations is funded by assets of, or revenues derived from, the various projects financed and is not a statutory or moral obligation of the commonwealth. However, some of these organizations are indirectly dependent upon commonwealth operating appropriations. In addition, the commonwealth may choose to take action to financially assist these organizations. These organizations, their purposes and their outstanding debt, as computed by each organization, (excluding swap obligations) are as follows:

Delaware River Joint Toll Bridge Commission ("DRJTBC"). The DRJTBC, a public corporation of the commonwealth and New Jersey, owns and operates toll and non-toll bridges across the Delaware River north of the toll bridges operated by DRPA (defined below). Debt service on bonds is paid from tolls and other revenues of DRJTBC. DRJTBC had $709.2 million in bonds outstanding as of June 30, 2020.

Delaware River Port Authority ("DRPA"). The DRPA, a public corporation of the commonwealth and New Jersey, operates several toll bridges over the Delaware River within and near Philadelphia, and promotes the use of the Philadelphia-Camden port and promotes economic development in the port district. Debt service on bonds is paid from toll revenues and other revenues pledged by DRPA to repayment of bonds. The DRPA had $1,314.3 million in revenue bond debt outstanding as June 30, 2020.

Pennsylvania Economic Development Financing Authority. PEDFA was created in 1987 to offer pooled bond and other bond issues of both taxable and tax-exempt bonds on behalf of local industrial and commercial development authorities for economic development projects. Bonds may be payable from and secured by loan repayments and all other revenues of the PEDFA. The PEDFA had $5,381.1 million of debt outstanding as of June 30, 2020.

Pennsylvania Energy Development Authority ("PEDA"). The PEDA was created in 1982 to finance energy research projects, demonstration projects promoting the production or conservation of energy and the promotion, utilization and transportation of Pennsylvania energy resources. The authority's funding is from appropriations and project revenues. Debt service on bonds is paid from project revenues and other revenues pledged by PEDA to repayment of bonds. The PEDA had no bonds outstanding as of June 30, 2020.

Pennsylvania Higher Education Assistance Agency ("PHEAA"). The PHEAA makes or guarantees student loans to students or parents, or to lending institutions or post-secondary institutions. Debt service on the bonds is paid by loan interest and repayments and other agency revenues. The PHEAA had $3,255.6 million in bonds outstanding as of June 30, 2020.

Pennsylvania Higher Educational Facilities Authority ("PHEFA"). The PHEFA is a public corporation of the commonwealth established to finance college facilities. As of June 30, 2020, the PHEFA had $6,038.9 million in revenue bonds and notes outstanding payable from the lease rentals or loan repayments of the projects financed. Some of the lessees or borrowers, although private institutions, receive grants and subsidies from the commonwealth.

Pennsylvania Industrial Development Authority ("PIDA"). The PIDA is a public corporation of the commonwealth established for the purpose of financing economic development. The PIDA had $109.5 million in revenue bond debt outstanding on June 30, 2020, to which all its revenues are pledged.

Pennsylvania Infrastructure Investment Authority ("Pennvest"). Pennvest was created in 1988 to provide low-interest rate loans and grants for the purpose of constructing new and improving existing water supply and sewage disposal systems to protect the health and safety of the citizens of the commonwealth and to promote economic development within the commonwealth. Loans and grants are available to local governments and, in certain circumstances, to private companies. The Pennvest bonds are secured by principal repayments and interest payments on Pennvest loans. Pennvest had $95.9 million of revenue bonds outstanding as of June 30, 2020.

Pennsylvania Turnpike Commission ("PTC"). The PTC operates the Pennsylvania Turnpike System ("System"). Its outstanding indebtedness, $13,709.9 million as of June 30, 2020, is payable from the net revenues of the System, primarily toll revenues, or from certain taxes dedicated to the System.

State Public School Building Authority ("SPSBA"). The SPSBA finances public school projects and community college capital projects. Bonds issued by the SPSBA are supported by the lease rental payments or loan repayments made to the SPSBA by local school districts and the community colleges. A portion of the funds appropriated annually by the commonwealth as aid to local school districts and community colleges may be used by them to pay a portion of such lease rental payments or loan repayments. The SPSBA had $2,585.1 million of revenue bonds outstanding as of June 30, 2020.

City of Philadelphia – PICA

The Pennsylvania Intergovernmental Cooperation Authority ("PICA") was created by commonwealth Act No. 1991-6, approved June 5, 1991 to assist the City of Philadelphia (the "City"), the commonwealth's largest city, in remedying its fiscal emergencies. PICA is authorized to provide financial assistance to the City through the issuance of debt, and to make factual findings and recommendations to the City concerning its budgetary and fiscal affairs. This financial assistance has included grants used by the City for defeasance of certain City general obligation bonds, funding of capital projects, and the liquidation of the cumulative general fund deficit of the City, as of June 30, 1992, of $224.9 million. Currently the City is operating under a five-year financial plan that covers fiscal years 2020 through 2024 which was approved by PICA.

No further bonds may be issued by PICA for the purpose of financing capital projects or an operating deficit, as the authority for such bond issuance expired December 31, 1994. PICA's authority to issue debt for the purpose of financing a cash flow deficit expired on December 31, 1996. Its ability to refund existing outstanding debt is unrestricted. PICA had $78.91 million in special tax revenue bonds outstanding as of December 15, 2019. The final maturity date for PICA's bonds is June 15, 2023. Neither the taxing power nor the credit of the commonwealth is pledged to pay debt service on PICA's bonds.

LITIGATION

The Commonwealth's Office of Attorney General and Office of General Counsel have reviewed the status of pending litigation against the Commonwealth, its officers and employees, and have provided the following brief descriptions of certain cases affecting the Commonwealth.

In 1978, the General Assembly approved a limited waiver of sovereign immunity with respect to lawsuits against the Commonwealth. This cap does not apply to tax appeals, such as *Nextel Communications* as detailed below. Damages for any loss are limited to $250,000 for each person and $1,000,000 for each accident. The Supreme Court of Pennsylvania has held that this limitation is constitutional. Approximately 1,142 suits against the Commonwealth remain open. Tort claim payments for the departments and agencies, other than the Department of Transportation, are paid from departmental and agency operating and program appropriations. Tort claim payments for the Department of Transportation are paid from an appropriation from the Motor License Fund. The Commonwealth also represents and indemnifies employees who have been sued under Federal civil rights statutes for actions taken in good faith in carrying out their employment responsibilities. There are no caps on damages in civil rights actions. The Commonwealth's self-insurance program covers damages in these civil cases up to $250,000 per incident. Damages in excess of $250,000 are paid from departmental and agency operating and program appropriations.

Pennsylvania Professional Liability Joint Underwriting Association v. Wolf, Nos. Nos. 18-2297, 18-2323, 19-1057 & 19-1058 (Third Cir. Ct. of Appeals); 1:19-cv-01121 (U.S.D.C., M.D. Pa.)

The Pennsylvania Professional Liability Joint Underwriting Association ("JUA") first initiated an action against Governor Wolf on May 18, 2017, case no. 1:17-cv-00886-CCC (M.D. Pa.). The JUA challenged, on various federal constitutional grounds, a provision of Act 85 of 2016 that directed (1) the transfer of $200,000,000 from the JUA to the General Fund and (2) repayment of the transferred sum over a five-year period commencing July 1, 2018. The contemplated transfer did not take place. During the pendency of case no. 1:17-cv-00886-CCC, Act 44 of 2017 became law. Act 44 of 2017 again mandated the transfer of $200,000,000 from the JUA to the General Fund and, if such transfer was not made by December 1, 2017, mandated the abolishment of the JUA. The JUA challenged Act 44 of 2017 at case no. 1:17-cv-02041-CCC (M.D. Pa.). To date, no transfer of funds from the JUA to the General Fund has taken place. On November 30, 2017, the Court stayed case no. 1:17-cv-00886-CCC pending the outcome of 1:17-cv-02041-CCC. On May 17, 2018, the Court held that the sections of Act 44 of 2017 pertaining to the JUA are an unconstitutional taking of private property under the 5th and 14th Amendments to the U.S. Constitution. Act 41 of 2018 folded the JUA into the Department of Insurance and shifted control of the JUA and its assets to that Department. The JUA challenged Act 41 of 2018 at case no. 1:18-cv-01308-CCC (M.D. Pa.). On December 18, 2018, the Court held that Act 41 of 2018 also violated the 5th and 14th Amendments to the U.S. Constitution. Governor Wolf and the other defendants have appealed the trial court orders to the Third Circuit Court of Appeals, which has consolidated the cases for appeal. The appellate briefing is finished and the Third Circuit scheduled argument. During the pendency of the appeal, the General Assembly enacted Act 15 of 2019. This act, among other things, places the JUA under the purview of the Right-To-Know Law, the Commonwealth Attorneys Act, the Pennsylvania Web Accountability and Transparency Act, and the Commonwealth Procurement Code. Act 15 of 2019 also newly requires the JUA to submit annual budget requests to the Secretary of the Budget and to be funded via appropriations from the General Assembly. Aside from these requirements, Act 15 of 2019 does not implicate any transfer of funds to or from the JUA or the General Fund. The JUA brought a new action challenging the constitutionality of the law, case no. 1:19-cv-1121 (U.S.D.C., M.D. Pa), seeking, in part, a preliminary injunction. On July 17, 2019, the district court denied the request for injunctive relief, finding that the JUA had failed to establish irreparable harm. Because of the enactment of Act 15 and initiation of case no. 1:19-cv-1121, the Third Circuit canceled oral argument and placed the appeal on its *curia advisor vult* (CAV) list, requiring the parties to inform the Court every 120 days of the status of case no. 1:19-cv-1121, and any additional legislative enactments. The appeal is stayed pending adjudication of the challenge to Act 15 in the district court. A scheduling order has been issued for the case filed at No. 1:19-cv-1121. Discovery has ended and dispositive motions were filed on April 15, 2020. The Court issued a ruling on December 22, 2020, holding Act 15 unconstitutional in part. Particularly, the Court ruled that Act 15 is unconstitutional insofar as it resources the entity, and requires it to comply with the budgetary process, because it restricts the use of its private funds. It ruled that it is unconstitutional as a violation of the First Amendment and procedural due process insofar as it applies the Commonwealth Attorneys Act, because it restricts JUA's choice of counsel. The Court did grant summary judgment with respect to JUA's claims against the application of the Sunshine Act, and Right-to-Know Law, holding that these provisions are constitutional as rational.

All parties appealed the District Court's order on Act 15 to the Third Circuit, which consolidated the three appeals. The opening brief for the Designated Appellants--the General Assembly and Governor Wolf--is due March 29, 2021.

United States of America v. Com. of Pa., Pennsylvania State Police Civil Action, 1:14-cv-01474 (U.S.D.C., M.D. Pa.)

On July 29, 2014, the U.S. Department of Justice (DOJ) filed a complaint alleging disparate impact discrimination against the Pennsylvania State Police ("PSP"), based on the female cadet hiring rates. This was based on an investigation undertaken by the DOJ from 2009 – 2014 and occurred after several months of mediation with DOJ on a possible settlement. DOJ attributes the alleged discrimination to the failure rate of female cadets on the Physical Readiness Test, or PRT. In addition to injunctive relief regarding the administration of the test, DOJ seeks back pay with interest for women who failed the PRT, offers of employment, retroactive seniority and other monetary and non-monetary benefits to women who suffered loses or will suffer losses in the future based on the alleged discriminatory practices. Enjoining the administration of the current PRT will require the development of a new test. Costs associated with an adverse result are difficult to assess but could range in the tens of millions depending upon the scope of any order issued by the Court and the number of women who may have to be compensated for lost salary, seniority and other benefits.

The trial court denied PSP's Motion for Summary Judgment and granted plaintiff's Motion for Partial Summary Judgment. On April 4, 2018, the trial court continued its scheduled bench trial pending mediation among the parties. The parties have reached a settlement in principle which must be approved by the Court.

RB Alden Corp. v. Commonwealth of PA (Pennsylvania Supreme Court)

This matter raises the same net operating loss deduction ("NOL Deduction") issue that was raised in *Nextel Communications of the Mid-Atlantic*, except that the statutory provision in *RB Alden* limits the deduction to $2 million (rather than $3 million in *Nextel*), and does not allow for an alternative deduction amount based on a percentage (12.5%) of taxable income. On June 15, 2016, a panel of the Commonwealth Court of Pennsylvania held that, in accordance with its decision in *Nextel*, the cap on the NOL Deduction was unconstitutional and should be eliminated in its entirety. On Exceptions, the decision was affirmed by the Commonwealth Court sitting *en banc*. Both decisions were handed down by the Commonwealth Court before the Pennsylvania Supreme Court decided in *Nextel* to sever the $3 million flat deduction, leaving intact the deduction consisting of 12.5% of taxable income.

The Commonwealth appealed to the Pennsylvania Supreme Court. RB Alden filed a cross appeal because Commonwealth Court rejected RB Alden's argument that the Tax Benefit Rule applied to remove all caps on the NOL Deduction. This Rule provides that recovery of a previously deducted loss is not included in taxable income to the extent that the earlier deduction did not reduce the amount of tax owed in the year the initial deduction was taken. Commonwealth Court determined that the Tax Benefit Rule, operating to remove all caps on the NOL Deduction, is contrary to the statute which expressly limited the NOL Deduction to $2 million. On September 21, 2018, the Supreme Court vacated the Commonwealth Court's order and remanded the case to Commonwealth Court for reconsideration in light of the Supreme Court's decision in *Nextel v. Commonwealth*, 171 A.3d 682 (Pa. 2017). This matter was argued before a panel in Commonwealth Court on September 10, 2019. On November 21, 2019, the Commonwealth Court issued its opinion in 73 F.R. 2011. The parties agreed, and the Court held, that the $2,000,000 NOL cap violated the Uniformity Clause of the Pennsylvania Constitution. The Court concluded that the NOL cap could be severed and retroactively applied that remedy. The Commonwealth filed exceptions on December 20, 2019 and, as part of those exceptions, asked that Commonwealth Court's order be deemed final. An appeal to the Pennsylvania Supreme Court was filed on February 20, 2020. Briefing in the Pennsylvania Supreme Court was completed in September 2020, after which the appeal was held pending final disposition of *General Motors v. Commonwealth*.

General Motors Corporation v. Commonwealth of Pennsylvania (Pennsylvania Supreme Court)

This matter raises the same issue as *R.B. Alden Corp.* The Supreme Court in *Nextel* held that the statutory dollar cap on the net loss deduction ("NOL Deduction") is unconstitutional. With the elimination of the dollar cap, the issue now is whether the NOL Deduction is unlimited or if there is no deduction at all for a tax year in which the statute does not provide for an alternative deduction amount based on a percentage of taxable income. In addition, this case raises the issue of whether the Due Process and Equal Protection Clauses of the U.S. Constitution and the Remedies Clause of the Pennsylvania Constitution require backward-looking relief that might result in a refund granted to General Motors. On November 21, 2019, the Commonwealth Court issued its opinion in 869 F.R. 2012. As with *RB Alden Corp.*, no. 73 F.R. 2011, the Court held that the NOL cap violated the Uniformity Clause of the Pennsylvania Constitution. The Court concluded that the NOL cap could be severed and retroactively applied that remedy. The Commonwealth filed exceptions on December 20, 2019 and, as part of those exceptions, asked that Commonwealth Court's order be deemed final. An appeal to the Pennsylvania Supreme Court was filed on February 27, 2020. Briefing in the Pennsylvania Supreme Court was completed in September 2020 and oral argument was conducted on March 10, 2021.

Alcatel-Lucent USA, Inc. v. Commonwealth of Pennsylvania (Commonwealth Court)

Following the *Nextel* decision, the Department of Revenue issued Corporation Tax Bulletins 2017-10 and 2018-02 to announce that the flat-dollar cap on the net loss deduction would no longer be available for tax years beginning in 2017 and thereafter. Alcatel-Lucent challenges those Bulletins and argues that the Department of Revenue has violated the uniformity, equal protection, due process, and remedies clauses in its failure to retroactively apply *Nextel* and assess taxpayers who took the flat-dollar net loss deduction beginning with the 2014 tax year. Initial briefing was completed on August 12, 2019. On June 3, 2020, the Commonwealth Court ordered supplemental briefing to address the impact of the *General Motors* decision on this matter. Oral argument before the Commonwealth Court was conducted on September 17, 2020. The Commonwealth's potential exposure could exceed $100 million. Matter remains pending.

Synthes USA HQ, Inc. v. Commonwealth of Pennsylvania (Commonwealth Court)

Synthes filed its tax return using the statutory method for reporting service receipts and now seeks a refund based on the Department of Revenue's historical interpretation of the statute, which sources service receipts to the customer location. Synthes argues that the Department of Revenue is violating the Uniformity Clause by unequally enforcing the statute. The Office of Attorney General argues that Synthes is required to report its sales in accordance with the statutory method, which is inconsistent with the requested methodology of sourcing to the customer location, and that the Department of Revenue has been uniform in its enforcement of the statute. Initial briefing was completed on February 4, 2020. On February 11, 2020, the Department of Revenue filed an Application to Intervene. Oral argument before the Commonwealth Court occurred on June 11, 2020. On July 24, 2020, the Commonwealth Court ruled in favor of Synthes. The Commonwealth filed exceptions to the Commonwealth Court's decision on August 24, 2020. The Commonwealth Court's July 24, 2020 order was entered as final on January 21, 2021. The Commonwealth filed an appeal to the Pennsylvania Supreme Court on February 16, 2021.

***Pennsylvania Environmental Defense Foundation (PEDF) v. Commonwealth of PA*, No. 228 MD 2012 (Pennsylvania Commonwealth Court); 64 MAP 2019 (Pennsylvania Supreme Court)**

PEDF filed a petition for review involving Article I, § 27 of the Pennsylvania Constitution ("the environmental rights amendment"), the Conservation and Natural Resources Act, and the Oil and Gas Lease Fund Act. PEDF argues that rentals and bonus bid payments for oil and gas leases constitute corpus of the trust under the environmental rights amendment. On June 20, 2017, the Supreme Court held that the Commonwealth owes a fiduciary duty to the people of Pennsylvania to preserve natural resources. The Court ruled that proceeds from the sale of oil and gas must remain in the corpus of the trust and cannot be used on general budgetary items, but remanded to Commonwealth Court regarding the nature of rentals and bonus bid payments. Commonwealth Court held that (1) rents and bonuses were not received in consideration for permanent severance of natural resources; (2) two-thirds of the proceeds of rents and bonuses constitute trust principal, with one-third of the proceeds constituting income; and (3) the income portion may be used for non-conservation purposes. On August 12, 2019, PEDF appealed the ruling to the Pennsylvania Supreme Court. Oral argument was held before the Court on September 17, 2020.

Pennsylvania Environmental Defense Foundation (PEDF) v. Commonwealth of PA, No. 358 MD 2018

PEDF has challenged the Department of Conservation and Natural Resources (DCNR)'s use of money from the Oil & Gas Lease Fund to cover DCNR's general operating costs. If PEDF is successful, DCNR's operating costs going forward will have to be accounted for by appropriation from the General Fund. The parties have filed cross applications and briefs in support of summary relief. On September 11, 2019, Commonwealth Court *en banc* held oral argument. A decision on October 20, 2020, the Court held that (1) the use of Oil & Gas Lease Fund money for DCNR's general operating costs is not unconstitutional as it is related to the trust purposes of environmental conservation and maintenance, (2) there is no requirement that oil and gas lease funds from the Marcellus Shale region be used within that region, and (3) the Commonwealth must maintain accurate records of the Lease Fund and track trust principal as part of its trustee duties. PEDF filed an appeal to the Pennsylvania Supreme Court.

Munchinski v. Warman, et al (U.S.D.C., W.D. Pa.)

This is a case alleging due process violations by a now-deceased Pennsylvania State Police (PSP) officer. It arises from the alleged malicious prosecution and failure to disclose exculpatory evidence in a 1986 murder trial and at a Post-Conviction Relief Act proceeding. The former inmate was released after spending 20-plus years in State prison. Dispositive motions were partially successful, leaving the malicious prosecution claim for trial. The Third Circuit had ordered the court to require additional briefing on the immunity claims. The briefing has been completed, and the parties await the court's rulings. The Commonwealth's estimated exposure exceeds $2,000,000. On April 16, 2020, the District Court issued on opinion denying the County Defendants' request for summary judgment on matters identified by the Third Circuit for resolution on remand. This opinion also determined that Defendant Kopas (a former Assistant District Attorney) would not be reinstated as a defendant. Plaintiff sought reconsideration of certain aspects of this opinion which has been denied. The parties participated in an ADR session on September 22, 2020; however, no resolution was achieved. PSP has nonetheless expressed interest in resolving the case and is awaiting a renewed demand from Plaintiff. Presumably, a trial date will be set if ADR is not successful.

William Penn Sch. Dist. v. Commonwealth, (Pa Cmwlth. Ct.)

The Petitioners (including School Districts, parents, and other interested parties) filed a Petition for Review in the Nature of an Action for Declaratory and Injunctive Relief in Commonwealth Court against, inter alia, the Department of Education, the Governor, and members of the General Assembly, seeking to mandate that the Respondents provide adequate funding that would result in equal opportunity for children throughout the Commonwealth to obtain an adequate education. Petitioners ask the Court to enter permanent injunctions compelling the Respondents to establish, fund, and maintain a thorough and efficient system of public education that provides all students in Pennsylvania with an equal opportunity to obtain an adequate education. This matter was previously dismissed by the Commonwealth Court, which found that it presented a nonjusticiable political question. Petitioners filed an appeal with the Pennsylvania Supreme Court, which reversed the Commonwealth Court and ordered the Commonwealth Court to address Petitioners' claims. The Executive Branch would not be solely responsible for funding and relief, and Petitioners have not yet articulated an amount that they would consider to be adequate funding. Previous studies, however, indicate that Petitioners may seek education investments totaling up to $4 million.

Knight v. PSP (U.S.D.C., W.D. Pa.)

This case involves the fatal shooting of a 50-year-old man by Pennsylvania State Police troopers. Discovery closed November 30, 2016. A summary judgment motion has been filed and argued. We await the trial court's decision. Given the nature of the litigation, the Commonwealth's estimated exposure could exceed $1,000,000. On May 17, 2019, the Court granted our Motion for Summary Judgment; however, an appeal was filed. On April 22, 2020, the order of the District Court entered on May 17, 2019, was affirmed.

Geness v. Commonwealth of Pennsylvania (USDC, Western District of Pennsylvania)

This is a case where the plaintiff, a middle-aged man with a diagnosis of mental retardation, was charged with homicide in Fayette County. He was incarcerated for over 9 years before the criminal case was dismissed. He alleges that the Commonwealth, essentially through the actions of the Fayette county Judges, violated the Americans with Disabilities Act by not giving him a prompt determination of his ability to be competent to stand trial. Both the Department of Human Services (DHS) and the Administrative Office of Pennsylvania Courts (AOPC) have become involved in the case as additional defendants. DHS came to terms on a settlement and finalized the agreement. AOPC successfully pursued an interlocutory appeal and is out of the case (although Plaintiff filed a cert petition which is pending). A motion for summary judgment by the Commonwealth was denied and trial is scheduled for July 6, 2021. Given the nature of the case, the Commonwealth's estimated exposure is $4 million.

Hall v. Millersville University (U.S.D.C., E.D. Pa.)

In this case, claims are made against Millersville University and a dorm resident assistant under Title IX and the Due Process Clause (State created danger theory) in a case where a student at Millersville was found dead in her room. Also sued in the case is the fraternity that hosted a party that evening and individual members of the fraternity. The District Court has dismissed the due process claim, and summary judgment on the Title IX claim is currently pending. Total damages in this case, if recoverable, may exceed $1,000,000. On September 5, 2019, the Court entered summary judgment in favor of the Defendants, including Millersville University. Plaintiff has filed an appeal which remains pending.

Netflix, Inc. and Sirius XM Radio, Inc, 1017 F.R. 2017; 766 F.R. 2018. (Commonwealth Court)

Netflix provides video streaming service and Sirius XM provides commercial-free radio programming to customers across the country. Between January 2012 and July 2016, neither entity charged sales tax on services sold to Pennsylvania customers. The Department of Revenue audited and assessed Netflix's video services and Sirius XM's radio services as taxable premium cable or premium video programming services. Netflix was assessed sales tax of $26.2 million and Sirius was assessed sales tax of $45.4 million. In *Netflix, Inc.*, Commonwealth Court issued an order on January 22, 2020 directing the filing of a stipulation for judgment or a stipulation of facts. Nothing further has been filed in this case. In *Sirius XM Radio, Inc.*, Commonwealth Court issued an order on February 19, 2020 directing the filing of a joint status report on or before June 19, 2020. In *Netflix*, Stipulations of Fact are being drafted and discovery (Interrogatories) have been served on the Commonwealth. In *Sirius*, the taxpayer rejected a settlement offer and intends to litigation. The taxpayer is seeking 100% relief on the DOR assessment plus the ability to restate NOLs from prior years.

Walker v. Department of Corrections ("DOC"), et al. (U.S.D.C., W.D. Pa)

This was a deliberate indifference and negligence claim against the DOC, three nurses, and several non-medical corrections personnel, as well as a contracted doctor and medical provider. After motions practice, summary judgment, and voluntary dismissals, trial was set for January 2019 on one deliberate indifference claim against two nurses. The plaintiff, an inmate at SCI-Fayette, jumped out of bed, got tangled in his bedsheets, and hit his head on the floor. At some point, he became a quadriplegic and claimed that two nurses caused his injury through their deliberate indifference. There were two issues for trial: (1) whether the plaintiff was a quadriplegic before the nurses arrived, so eliminating any causation; and (2) whether the nurses' actions were merely negligent or whether they rose to deliberate indifference. After jury selection, the case settled for $5 million. This included a disbursement of $1,000,000 for Plaintiff's special needs trust, and two further disbursements for a lump-sum payment to Plaintiff and reimbursement of a DHS loan. The three of those disbursements together equal approximately $3 million. The remainder of the settlement amount is for attorneys' fees.

Benner, et al. v. Wolf, et al., 20-cv-775 (U.S.D.C., M.D. Pa)

Plaintiffs are a collection of business owners and a political candidate who challenge the business closure orders issued by Governor Wolf and Secretary Levine in response to COVID-19. They seek monetary damages for the violation of their constitutional rights, the uncompensated taking of their real property, and attorneys' fees. We have a motion to dismiss pending. At this point, the Commonwealth believes the risk of an adverse verdict is small.

Schulmerich Bells, LLC v. Wolf, 20-cv-1637 (U.S.D.C., E.D. Pa)

Plaintiffs are a collection of business owners and individuals who bring a putative class action who challenge the business closure orders issued by Governor Wolf and Secretary Levine in response to COVID-19. They seek monetary damages for the violation of their constitutional rights, the uncompensated taking of their real property, and attorneys' fees. This action has been voluntarily dismissed.

Siehl vs. Troopers Brant and Ermlick; WDPA No. 3:18-cv-00077-LPL

Plaintiff was incarcerated for 25 years for the murder of his spouse. Plaintiff secured post-conviction relief based on irregularities in the handling of the evidence used to obtain Plaintiff's conviction. As a result, the conviction was vacated and it was later determined that Plaintiff would not be retried. The claims for relief include 42 U.S.C. §1983 Malicious Prosecution, Fabrication of Evidence; Violation of Brady vs. Maryland. Given the nature of the litigation and the facts that have come out during discovery, the risk of exposure is well over $1,000,000. Discovery is ongoing.

McLee vs. Brown; WDPA No. 2:18-cv-01630-RCM

In this case, Plaintiff was arrested and charged with various offenses related to an officer involved shooting (no injuries were inflicted). Plaintiff was acquitted after being held in custody for approximately one year. Given the nature of the litigation, the Commonwealth's estimated exposure is expected to possibly exceed $1,000,000. Fact discovery has closed and cross-motions for summary judgment were both denied. A post-discovery status conference was held on April 18, 2021. A follow-up call will be scheduled to discuss the scheduling of a settlement conference.

Weimer vs. County of Fayette; WDPA No. 2:17-cv-01265-MPK

Plaintiff was arrested and convicted of Criminal Homicide after a state trooper assigned to a cold case squad assisted in a local police investigation. Plaintiff was subsequently released after two key witnesses recanted their testimony. Nevertheless, Plaintiff served approximately 10 years in custody. Given the nature of the litigation, the Commonwealth's estimated exposure is expected to possibly exceed $1,000,000. Fact discovery continues and there is a Status Conference scheduled for May 14, 2021. The parties will return to mediation on April 22, 2021.

Anglemeyer, et al. v. Ammons, et al., No. 19-3714 (E,D.Pa.)

This is a § 1983 excessive force lawsuit brought by four of nine residents of a home that was raided by Pennsylvania State Police's ("PSP") Special Emergency Response Team pursuant to a search warrant. Each plaintiff asserts they were subjected to excessive force resulting in injury. Medical records confirm that two of the plaintiffs, including the elderly homeowner, suffered significant injuries. There are currently 19 PSP defendants. Discovery has closed and the commonwealth is preparing a motion for summary judgement on behalf of all the PSP defendants. It is possible that total exposure (after accounting for the fact that plaintiff's attorney's fees are recoverable) may exceed $1,000,000.

***Lewis James Fogle v. Pennsylvania State Troopers John Sokol, Michael Steffee, Donald Beckwith, John Bardroff, Andrew Mollura, and Glenn Walp* 17-194 (U.S.D.C., W.D. Pa)**

Plaintiff was incarcerated for 35 years for the murder of a 15 year old victim. While Plaintiff was not charged with rape, there were allegations at the criminal trial that she was raped. In 2014, DNA specimen collected from the victim was tested and it did not match Plaintiff. As a result, the conviction was vacated. The claims for relief include 42 U.S.C. §1983 Malicious Prosecution in violation of the Fourth and Fourteenth Amendments; 42 U.S.C. §1983 Deprivation of Liberty without Due Process of Law and Denial of a Fair Trial by Withholding of Material Exculpatory and Impeachment Evidence; 42 U.S.C. §1983 Civil Rights Conspiracy; and 42 U.S.C. §1983 Failure to Intervene. Given the nature of the litigation and the facts that have come out during discovery, the risk of exposure is well over $1,000,000 dollars. Discovery is ongoing. The Court has yet to rule on whether to allow additional depositions.

Plaintiff has made a demand of $24 million and has signaled openness to court-arranged mediation prior to expending resources on DNA expert analysis, more depositions (should they be allowed), and motions for summary judgment.

***Brian Bolus, Jr., et al. v. Carnicella, et al.*, No. 4:15-CV-01062-MWB (U.S.D.C., M.D. Pa.)**

In December 2017, Brian Bolus, his family, and several of his businesses, filed an Amended Complaint seeking $50 million in damages on the allegation that the defendants maliciously prosecuted him and his businesses, causing them to enter bankruptcy. An attempt by the Plaintiffs to file a Second Amended Complaint was denied in October 2020. The remaining allegations are search/seizure violations under the Fourth, Fifth, and Fourteenth Amendments and state law claims of malicious prosecution, false arrest, detainment, and loss of consortium. Discovery has closed and dispositive motions will be due in April 2021. The trial court indicated that a resulting order will not be issued for at least six months.

***Greenwood Gaming and Entertainment, Inc., et al. v. Department of Revenue, et al.* 571 MD 2018 (Commonwealth Court)**

Group of Pennsylvania casinos challenge the Pennsylvania Lottery's internet instant games alleging they simulate interactive casino-style games in violation of Act 42 of 2017, which amended the Pennsylvania Race Horse Development and Gaming Act. Petitioners seek to either shut down the entire iLottery system or strip the games of certain features. If the Court grants the relief sought it could potentially result in the loss of significant revenue to the Lottery, which over time could be in the millions of dollars. A bench trial was held in this matter in October 2020 and we are waiting the Court's decision.

***Saucon Valley Manor, et al. v. Miller, et al.*, C.A. No. 17-2568 (E.D. Pa.)**

This case involves four Department of Human Services defendants in this federal lawsuit over DHS's 2015 downgrading of plaintiffs' personal care home license due to evidence of caregiver neglect resulting in death of a resident. In short, plaintiffs allege that the downgrading was based on the defendants' personal animus against them rather than the (well-documented) violations cited. A two-week jury trial was scheduled to begin in June of 2019. On 6/6/19, Judge Smith issued an opinion and order granting the Commonwealth's Motion for Summary Judgment in large part and denying it in part. In short, summary judgment was granted as to plaintiffs' procedural due process claims based on pre-deprivation procedures and bias, substantive due process, Equal Protection "class of one," and Section 1983 civil conspiracy. The Commonwealth's motion was denied as to post-deprivation procedural due process and First Amendment retaliation. After the court's decision, plaintiffs agreed to dismiss *with prejudice* their remaining due process claims so that they can fully adjudicated in DHS's Bureau of Hearings and Appeals and to place the sole remaining claim (First Amendment retaliation) into Civil Suspense pending exhaustion of all state appellate remedies as to the license downgrade. Those state administrative proceedings remain pending. Plaintiffs claim actual damages of $2 million -- although, even if plaintiffs prevail, most of that amount cannot be tied to the sole remaining federal claim --as well as more than an additional $1,000,000 in attorneys' fees. Each side has retained experts on damages and liability. A status conference with Judge Smith was held on March 16, 2021. Counsel have been engaged in protracted settlement negotiations since June of 2020 and are required to definitively report to Judge Smith by 4/14/21 whether the case is settling or should be listed for trial.

Lee v. Lamas, No. 19-cv-241 (E.D. Pa.)

Plaintiff brings a putative collective action under the Fair Labor Standards Act and class action under the Pennsylvania Minimum Wage Law alleging that Corrections Officer Trainees and Corrections Officer 1s at SCI-Chester prison were not paid for post-shift work. Specifically, Plaintiff avers that he was forced to wait at his post at the end of a shift change for the next shift's officer to arrive, and he was not paid for this time. The case is currently in discovery. If a class or large collective action is certified, and if Plaintiff's allegations are true, the total damages owed by the Commonwealth may exceed $1,000,000.

LeadingAge PA, et al. v. Com. of PA, Dep't of Human Serv., No. 637 MD 2020 (Commonwealth Court)

In this original jurisdiction action, Petitioners are three trade associations representing >900 nursing care facilities which participate in the jointly-funded Medical Assistance Program (Medicaid). By statute, nursing facilities pay an assessment to PA-DHS each year. To simplify several steps: after the federal government pays its share of Medicaid expenses to the state, PA-DHS pays into the managed care organization which then pays back the facilities. As part of the Covid Relief & Recovery Act, Congress increased the federal share of Medicaid funds in 2020 and made enhanced payments to the states. Petitioners allege this means PA-DHS must use all such funds received as direct supplemental payments to the nursing facilities and seek a declaratory judgment and writ of mandamus. Petitioners seek in excess of $150 million although the potential liability is closer to $75 million. Discovery has just begun and no motion/pretrial deadlines have been set.

RATINGS

Fitch Ratings, Inc. (“Fitch”) has assigned its municipal bond rating of “AA-” (outlook “Stable”) to the Bonds. Moody’s Investor Service, Inc. (“Moody’s”) has assigned its municipal bond rating of “Aa3” (outlook “Stable”) to the Bonds. S&P Global Ratings (“S&P”) has assigned its municipal bond rating of “A+” (outlook “Negative”) to the Bonds.

The ratings reflect only the views of the respective rating agencies.

The ratings described in the first paragraph of this section are based upon current information furnished by the commonwealth or obtained from other sources considered reliable by the rating agencies, which do not perform any audit in connection with any rating and may, on occasion, rely on unaudited financial information. Reference is made to the rating agencies’ manuals for complete descriptions of their respective rating procedures and other rating categories, and to S&P’s, Moody’s and Fitch’s written analyses of commonwealth finances released upon release of their respective ratings.

A security rating is not a recommendation to buy, sell or hold securities. There is no assurance that such ratings will continue for any given period of time or that they will not be revised downward or withdrawn entirely if, in the opinion of the rating agencies, circumstances warrant such revision or withdrawal. Any such downward revision or withdrawal could have an adverse effect on the marketability or market price of the Bonds. The commonwealth has not undertaken any responsibility after issuance of the Bonds to assure the maintenance of the ratings, to oppose any revision or withdrawal of the ratings by S&P, Moody’s or Fitch or to inform the holders of the Bonds of any such revision or withdrawal, except as set forth under “CONTINUING DISCLOSURE.”

TAX MATTERS

Federal Income Tax Treatment

In the opinion of Co-Bond Counsel, under existing law, and assuming continuing compliance by the Commonwealth with certain certifications and agreements relating to the use of the First Series Bond proceeds and covenants to comply with provisions of the Internal Revenue Code of 1986, as amended (the “Code”) and all applicable regulations thereunder, now or hereafter enacted, interest on the First Series Bonds is excludable from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax.

The opinion of Co-Bond Counsel on federal tax matters will be based upon and will assume the accuracy of certain representations and certifications, and compliance with certain covenants, of the commonwealth to be contained in the transcript of proceedings for the issuance of the First Series Bonds and that are intended to evidence and assure that the First Series Bonds are and will remain obligations the interest on which is excludable from gross income for federal income tax purposes. Co-Bond Counsel will not independently verify the accuracy of those certifications and representations or covenants.

The Code prescribes a number of qualifications and conditions for the interest on state and local obligations to be and to remain excludable from gross income for federal income purposes, some of which require future or continued compliance after issuance of the obligations in order for the interest to be and to continue to be so excluded from the date of issuance. Noncompliance with these requirements by the commonwealth may cause the interest on the First Series Bonds to be included in gross income for federal income tax purposes and thus to be subject to federal income tax retroactively to their date of issuance. The commonwealth has covenanted to take the actions required of it for the interest on the First Series Bonds to be and to remain excludable from gross income for federal income tax purposes and not to take any actions that would adversely affect that exclusion. Co-Bond Counsel have not undertaken to evaluate, determine or inform any person, including any holder of the First Series Bonds, whether any actions taken or not taken, events, events occurring or not occurring, or other matters that might come to attention of Co-Bond Counsel, would adversely affect the value of, or tax status of the interest on, the First Series Bonds.

The opinion of Co-Bond Counsel is based on current legal authority, covers certain matters not directly addressed by such authorities and represents Co-Bond Counsel's judgment as to the proper treatment of the First Series Bonds for federal income tax purposes. It is not a guarantee of any result, and is not binding on the Internal Revenue Service or the courts.

Interest on the First Refunding Series Bonds is not excludable from gross income for federal income tax purposes.

Co-Bond Counsel are not rendering any opinion as to any federal tax matters other than those described under this caption "**Federal Income Tax Treatment**" and expressly stated in the proposed form of the opinion of Co-Bond Counsel included as Appendix G hereto. PROSPECTIVE PURCHASERS OF THE BONDS SHOULD CONSULT THEIR INDEPENDENT TAX ADVISORS WITH REGARD TO ALL FEDERAL TAX MATTERS.

Co-Bond Counsel's engagement with respect to the Bonds ends with the issuance of the Bonds.

Risk of Future Legislative Changes and/or Court Decisions

Under the provisions of the Code, the Treasury Department is authorized and empowered to promulgate regulations implementing the intent of Congress under the Code which could affect the tax exemption and/or tax consequences of holding tax-exempt obligations, such as the First Series Bonds. In addition, legislation may be introduced and enacted in the future which could change the provisions of the Code relating to the First Series Bonds of a state or local governmental unit, such as the commonwealth, or the taxability of interest in general.

Proposals to alter or eliminate the exclusion of interest on tax-exempt bonds from gross income for some or all taxpayers have been made in the past and may be made again in the future. Future legislation, if enacted into law, or clarification of the Code may cause interest on the First Series Bonds to be subject, directly or indirectly, to federal income taxation, or otherwise prevent Beneficial Owners from realizing the full current benefit of the tax status of such interest. The introduction or enactment of any such future legislation or clarification of the Code may also affect the market price for, or marketability of, the First Series Bonds. PROSPECTIVE PURCHASERS OF THE FIRST SERIES BONDS SHOULD CONSULT THEIR OWN TAX ADVISERS REGARDING ANY PROPOSED FEDERAL TAX LEGISLATION, AS TO WHICH BOND COUNSEL EXPRESSES NO OPINION.

No representation is made or can be made by the commonwealth or any other party associated with the issuance of the First Series Bonds as to whether or not any other legislation now or hereafter introduced and enacted will be applied retroactively so as to subject interest on the First Series Bonds to federal income taxes or so as to otherwise affect the marketability or market value of the First Series Bonds.

Original Issue Discount and Original Issue Premium

The First Series Bonds maturing on May 15, 2040 through May 15, 2041 are offered at a discount ("original issue discount") equal generally to the difference between public offering price and principal amount. For federal income tax purposes, original issue discount on a First Series Bond accrues periodically over the term of the First Series Bond as interest with the same tax exemption and alternative minimum tax status as regular interest. The accrual of original issue discount increases the holder's tax basis in a First Series Bond for determining taxable gain or loss from sale or from redemption prior to maturity. Holders should consult their tax advisers for an explanation of the accrual rules.

The First Series Bonds maturing on May 15, 2022 through May 15, 2038 are offered at a premium ("original issue premium") over their principal amount. For federal income tax purposes, original issue premium is amortizable periodically over the term of a First Series Bond through reductions in the holder's tax basis for the First Series Bond for determining taxable gain or loss from sale or from redemption prior to maturity. Amortization of premium does not create a deductible expense or loss. Holders should consult their tax advisers for an explanation of the amortization rules.

State Tax Exemption

Under the laws of the commonwealth as presently enacted and construed, the interest on the Bonds is exempt from Pennsylvania personal income tax and Pennsylvania corporate net income tax.

The Bonds and the interest thereon may be subject to state or local taxes in jurisdictions other than the Commonwealth under applicable state or local tax laws.

Other

THE ABOVE SUMMARY OF POSSIBLE TAX CONSEQUENCES IS NOT EXHAUSTIVE OR COMPLETE. ALL PURCHASERS OF BONDS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE POSSIBLE FEDERAL, STATE AND LOCAL INCOME TAX CONSEQUENCES OF OWNERSHIP OF THE BONDS AND ANY CHANGES IN THE STATUS OF PENDING OR PROPOSED FEDERAL TAX LEGISLATION. ANY STATEMENT REGARDING TAX MATTERS HEREIN CANNOT BE RELIED UPON BY ANY PERSON TO AVOID TAX PENALTIES.

UNDERWRITING

After competitive bidding on May 5, 2021, the Bonds were awarded to a selling group represented by Bank of America Merrill Lynch (the “Underwriters”) for a purchase price of $1,117,115,389.42 which is equivalent to the principal amount of such Bonds, less Underwriters’ discount of $3,419,642.73 plus net original issue premium of $75,010,032.15. The Underwriters have supplied the public offering yields and prices of the Bonds shown on the inside cover hereof. If all of the Bonds are resold to the public at such yields, the underwriters’ discount will approximate 0.3270742 percent of the aggregate principal amount of the Bonds. The Underwriters may change the public offering yields from time to time.

LEGALITY FOR INVESTMENT

Under the Pennsylvania Probate, Estates and Fiduciaries Code, the Bonds are authorized investments for fiduciaries, as defined in that code, within the commonwealth of Pennsylvania. The Bonds are legal investments for Pennsylvania savings banks, banks, bank and trust companies, and insurance companies and are acceptable as security for deposits of funds of the commonwealth. The Bonds are eligible for purchase, dealing in, underwriting and unlimited holding by national banking associations pursuant to regulations promulgated by the Comptroller of the Currency set forth in the Code of Federal Regulations, Title 12—Banks and Banking, Sections 1.3(c) and 1.4.

CO-FINANCIAL ADVISORS

PFM Financial Advisors LLC, Philadelphia, Pennsylvania, and Sustainable Capital Advisors, LLC, Washington DC, are serving as independent co-financial advisors to the commonwealth with respect to the Bonds (the “Co-Financial Advisors”). The Co-Financial Advisors’ fees in connection with the issuance of the Bonds are expected to be paid from Bond proceeds. The Co-Financial Advisors are not obligated to undertake, and have not undertaken to make, an independent verification or to assume responsibility for the accuracy, completeness, or fairness of the information contained in the Official Statement. PFM Financial Advisors LLC, is an independent advisory firm and is not engaged in the business of underwriting, trading or distributing municipal securities or other public securities. Sustainable Capital Advisors, LLC is an independent advisory firm and is not engaged in the business of underwriting, trading or distributing municipal securities or other public securities.

LEGAL MATTERS

All legal matters incident to the authorization and issuance of the Bonds are subject to the approval of the Office of Attorney General of the commonwealth of Pennsylvania, McNees Wallace & Nurick LLC of Harrisburg, Pennsylvania, Law Office of Frannie Reilly, LLC of Swarthmore, Pennsylvania, and Law Office of Nathanial M. Holmes of Harrisburg, Pennsylvania, Co-Bond Counsel. A copy of the opinion of Co-Bond Counsel will accompany the Bonds delivered to DTC. Copies of the opinion of the Office of Attorney General, together with additional copies of the opinions of Co-Bond Counsel, will be available at the time of delivery of the Bonds. Proposed forms of these opinions are included as Appendices F and G respectively.

Certain legal matters will be passed upon for the commonwealth by Greenberg Traurig, LLP and Andre C. Dasent, P.C., both of Philadelphia, Pennsylvania, serving as Co-Disclosure Counsel for the commonwealth.

ADDITIONAL INFORMATION

Periodic public reports relating to the financial condition of the commonwealth are prepared by the Office of the Budget. These reports and additional information may be obtained upon request from the office of the Secretary of the Budget, Attn.: Mr. Steven Heuer, 18th Floor, Harristown 2, 333 Market Street, Harrisburg, Pennsylvania 17101-2210 (Telephone (717) 787-7342). Recent annual Annual Comprehensive Financial Report summaries of enacted fiscal year budgets and certain other information are available in the Budget and Financial Reports section of the Office of the Budget's web site, http://www.budget.state.pa.us.

CONTINUING DISCLOSURE

In order to assist the Underwriters in complying with the Rule as in effect on the date hereof (the "Rule"), simultaneously with the issuance of the Bonds, the commonwealth will enter into a written agreement (the "Continuing Disclosure Agreement") for the benefit of the Beneficial Owners of the Bonds in substantially in the form attached hereto as "APPENDIX H – FORM OF CONTINUING DISCLOSURE AGREEMENT." The commonwealth, as an "obligated person" under the Rule, has covenanted in the Continuing Disclosure Agreement to provide: (a) certain financial information and operating data relating to the commonwealth and the Bonds in each year (the "Annual Report"); and (b) notice of the occurrence of certain enumerated events as described in the Continuing Disclosure Agreement (each, a "Listed Event Notice"). The Annual Report and each Listed Event Notice, if applicable, will be filed by or on behalf of the commonwealth, with the repository designated by the SEC, presently the Municipal Securities Rulemaking Board (the "MSRB") through its Electronic Municipal Market Access system in an electronic format prescribed by the MSRB. The specific nature and timing of filing the Annual Report and each Listed Event Notice, and other details of the commonwealth's undertakings are more fully described in "APPENDIX H – CONTINUING DISCLOSURE AGREEMENT" attached hereto.

The following disclosure is being provided by the commonwealth for the sole purpose of assisting the Underwriters in complying with the Rule: The commonwealth previously entered into continuing disclosure undertakings, as an "obligated person" under the Rule (the "Undertakings"). In the previous five year period beginning on June 30, 2015 and ending on June 30, 2020 (the "Compliance Period"), the commonwealth has, in several instances during the Compliance Period, failed to comply with certain provisions of the Undertakings, including: (a) failing to timely file certain annual financial information and/or operating data, (b) failing to provide certain required annual financial information and operating data in its annual filings, and (c) failing to file or timely file certain notices. The foregoing description of instances of non-compliance by the commonwealth with the Undertakings should not be construed as an acknowledgement by the commonwealth that any such instance was material.

AUTHORIZATION

The execution of this Official Statement has been authorized in the Resolutions and may be executed in any number or counterparts and by different parties hereto in separate counterparts, each of which when so executed and delivered shall be deemed to be an original and all of which taken together shall constitute but one and the same document.

/s/ Tom Wolf
Tom Wolf, Governor

/s/ Stacy Garrity
Stacy Garrity, State Treasurer

/s/ Timothy L. Defoor
Timothy L. DeFoor, Auditor General

APPENDIX A

CERTIFICATE OF THE AUDITOR GENERAL
Pursuant to
ARTICLE VIII, SECTION 7(a)(4) and (c)
of the
CONSTITUTION OF PENNSYLVANIA
and
Section 304 of the Capital Facilities Debt Enabling Act

To the Governor and the General Assembly:

I, Timothy L. DeFoor, Auditor General of the commonwealth of Pennsylvania, pursuant to Article VIII, Section 7(a)(4) of the Pennsylvania Constitution and Section 304 of Capital Facilities Debt Enabling Act (Act 1 of 1999, as amended) certify as follows:

	The average annual tax revenues deposited in all funds in the five fiscal years ended preceding the date of February 28, 2021	$ 41,212,144,284
(i)	The amount of outstanding net debt as of the end of the preceding fiscal year	$ 9,821,858,229
(ii)	The amount of such net debt as of February 28, 2021	$ 9,695,339,267
(iii)	The difference between the limitation upon all net debt outstanding as provided in Article VIII, Section 7 (a) (4) of the Constitution of Pennsylvania and the amount of such net debt as of the date of February 28, 2021	$ 62,425,913,229
(iv)	The amount of such debt scheduled to be repaid during the remainder of the current fiscal year	$ 192,985,000
(v)	The amount of debt authorized by law to be issued, but not yet incurred	$154,499,018,968
(vi)	The amount of outstanding obligations excluded from outstanding debt as self-sustaining pursuant to Article VIII, Section 7(c)(1), (2) and (3) of the Constitution of Pennsylvania	$ 8,031,027,256

IN TESTIMONY WHEREOF, I have set my hand and affixed the seal of the Auditor General, this 28th day of February 2021.

/s/ Timothy L. DeFoor
Auditor General
Commonwealth of Pennsylvania

(Seal)

APPENDIX B

SELECTED DATA ON THE COMMONWEALTH OF PENNSYLVANIA

General

The commonwealth is one of the nation's most populous states, ranking fifth behind California, Texas, Florida and New York. Pennsylvania stakes claim to a diverse economy and many thriving industries. At different times throughout its history, the commonwealth has been the nation's principal producer of ships, iron, chemicals, lumber, oil, textiles, glass, coal and steel. This led Pennsylvania to be identified, historically, as a heavy industrial state. That reputation has changed over the last several decades as the coal, steel and railroad industries have declined. The commonwealth's business environment readjusted with a more diversified economic base. Currently, the major sources of growth in Pennsylvania are in the service sector, including healthcare, leisure-hospitality, transport and storage.

However, development of natural gas continues to be one of the biggest factors in Pennsylvania's economic outlook. Although direct employment in natural resources and mining is a small part of total jobs in the state, its rapidly rising location quotient helps to illustrate the growth seen in the last few years. More important to the economy at all levels are the related jobs created in other sectors, such as construction, transportation, and professional services. State manufacturers have already benefitted from demand for steel and equipment being used to drill the wells and get them connected to demand centers via pipelines. Pennsylvania's competitiveness in manufacturing should be enhanced by the decreased costs of energy and petrochemical feedstocks coming from beneath the state.

Pennsylvania's export merchandise value increased 3.3% in 2019, settling at $42.5 billion. That puts the state in 10th place in terms of export value. Chemicals remain Pennsylvania's top export category. This category includes pharmaceuticals, a key output of the state economy. Computers and electronic products, machinery, and primary metals each accounted for around $4 billion in exports in 2019. Most of the major categories registered increased in 2019, while machinery posted a narrow decline. Canada remained the state's primary export destination, receiving 26.3% of total export value.

Technology firms are steadily gaining a significant presence in the Pittsburgh region due to the young and talented workforce emerging from schools like Carnegie Mellon and the University of Pittsburgh. Tech giants Google and eBay have recently moved into the area, while Westinghouse, which recently completed a deal to construct nuclear power facilities in China, is in the process of expanding headquarters in the region. Investment by Westinghouse in nuclear engineering and research will propel this sector through the next several years.

Finally, the State's geographic location makes it a prime corridor for the transportation of goods. From its extensive rail service and ports to its grid of interstate highways, Pennsylvania remains an integral part of the northeast region's economic activity.

Population

The commonwealth is highly urbanized. The largest Metropolitan Statistical Areas ("MSAs") in the commonwealth are those that include the cities of Philadelphia and Pittsburgh, which together contain most of the State's total population. The population of Pennsylvania, 12.8 million people in 2019, according to the U.S. Bureau of the Census, represents a population growing slower than the nation with a higher portion than the nation or the Middle Atlantic region comprised of persons 45 or over. The following tables present the population trend from 2015 to 2019 and the age distribution of the population for 2019.

Population Trends
Pennsylvania, Middle Atlantic Region and the United States
2015-2019

	Total Population (In Thousands)				Total Population as a % of 2015 base		
As of July 1	PA	Middle Atlantic Region[a]	United States		PA	Middle Atlantic Region[a]	United States
2015.................	12,785	41,307	320,635		100.0%	100.0%	100.0%
2016.................	12,782	41,287	322,941		100.0%	100.0%	100.7%
2017.................	12,788	41,263	324,986		100.0%	99.9%	101.4%
2018.................	12,801	41,217	326,688		100.1%	99.9%	101.9%
2019.................	12,802	41,138	328,240		100.1%	99.8%	102.4%

[a] Middle Atlantic Region: Pennsylvania, New York and New Jersey. Source: U.S. Department of Commerce, Bureau of the Census

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[a] Middle Atlantic Region: Pennsylvania, New York and New Jersey. Source: U.S. Department of Commerce, Bureau of the Census

Population by Age Group - 2019
Pennsylvania, Middle Atlantic Region and the United States

Age	PA	Middle Atlantic Region[a]	United States
Under 5 Years..	5.4%	5.7%	5.9%
5-24 Years..	24.0%	24.1%	25.6%
25-44 Years..	25.2%	26.3%	26.7%
45-64 years..	26.7%	26.5%	25.4%
65 years and over..	18.7%	17.4%	16.5%

[a] Middle Atlantic Region: Pennsylvania, New York and New Jersey. Source: U.S. Department of Commerce, Bureau of the Census

Employment

Non-agricultural employment in Pennsylvania over the five years ending in 2020 increased at an average annual rate of -1.07 percent compared with a -1.33 percent rate for the Middle Atlantic Region and -0.31 percent rate for the U.S. The following table shows employment trends from 2016 through 2020.

Non-Agricultural Establishment Employment Trends
Pennsylvania, Middle Atlantic Region and the United States
2016-2020*

	Total Establishment Employment (thousands)			Total Establishment Employment as a % of 2016 base		
Calendar Year	PA	Middle Atlantic Region [a]	U.S.	PA	Middle Atlantic Region [a]	U.S.
2016........................	5,883	19,382	144,333	100%	100%	100%
2017........................	5,941	19,620	146,595	101%	101%	102%
2018........................	6,010	19,854	148,893	102%	102%	103%
2019........................	6,065	20,059	150,900	103%	103%	105%
2020........................	5,619	18,298	142,259	96%	94%	99%

[a]Middle Atlantic Region: Pennsylvania, New York and New Jersey
* December 2020 Preliminary

Non-manufacturing employment in Pennsylvania has increased in recent years and reached 90 percent of total non-agricultural employment by 2020. Consequently, manufacturing employment constitutes a diminished share of total employment within the commonwealth. Manufacturing, contributing 10 percent of 2020 non-agricultural employment, has fallen behind the services sector, the trade sector and the government sector as the 4th largest single source of employment within the commonwealth. In 2020, the services sector accounted for 49 percent of all non-agricultural employment while the trade sector accounted for 14 percent. The following table shows trends in employment by sector for Pennsylvania from 2016 through 2020.

Non-Agricultural Establishment Employment by Sector
Pennsylvania
2016-2020

(In Thousands)

	Calendar Year									
	2016		2017		2018		2019		2020*	
	Employees	%	Employees	%	Employees	%	Employees	%	Employees	%
Manufacturing:										
Durable..	336.1	6%	335.9	6%	343.0	6%	346.1	6%	327.0	5%
Non-Durable.......................................	223.5	4%	227.1	4%	227.9	4%	228.9	4%	215.9	4%
Total Manufacturing.	559.5	10%	562.9	9%	570.9	9%	575.0	9%	542.9	10%
Non-Manufacturing:										
Trade[a]	852.8	14%	838.8	14%	835.9	14%	825.6	14%	760.7	14%
Finance[b]...	317.2	5%	321.1	5%	325.6	5%	329.5	5%	330.7	6%
Services[c]..	2,913.2	50%	2,958.0	50%	2,999.3	50%	3,039.0	50%	2,735.7	49%
Government.......................................	703.4	12%	703.5	12%	703.0	12%	706.7	12%	691.0	12%
Utilities..	274.9	5%	281.9	5%	290.7	5%	299.5	5%	290.6	5%
Construction......................................	239.1	4%	249.0	4%	255.7	4%	260.9	4%	243.0	4%
Mining...	25.0	0%	26.7	0%	28.7	0%	29.1	0%	24.9	0%
Total Non-Manufacturing....................	5,325.5	90%	5,379.0	91%	5,438.9	91%	5,490.3	91%	5,076.6	90%
Total Employees[de]……....................	5,885.0	100%	5,941.9	100%	6,009.8	100%	6,065.3	100%	5,619.5	100%

[a]Wholesale Trade
[b]Finance, insurance and real estate
[c]Includes transportation, communications, electric, gas and sanitary services
[d]Discrepencies due to rounding
[e]Does not include workers involved in labor-management disputes
Source: US Bureau of Labor and Statistics
* 12/31/2020 Preliminary

The following table presents the percentages of non-agricultural employment in various sectors in Pennsylvania and the United States in 2020.

Non-Agricultural Establishment Employment by Sector
Pennsylvania and the United States

	2020* Calendar Year	
	Pennsylvania	United States
Manufacturing	9.7%	8.6%
Trade[a]	13.5	14.4
Finance[b]	5.9	6.1
Services	48.7	45.7
Government	12.3	15.4
Utilities[c]	5.2	4.0
Construction	4.3	5.1
Mining	0.4	0.4
Total	100.0%	100.0%

[a]Wholesale and retail trade.

[b]Finance, insurance and real estate.

[c]Includes transportation, communications, electric, gas and sanitary services.
Source: U.S. Department of Labor, Bureau of Labor Statistics.

* 12/31/2020 Preliminary

Within the manufacturing sector of Pennsylvania's economy, which now accounts for about one-tenth of total non-agricultural employment in Pennsylvania, the fabricated metals industries employed the largest number of workers. Employment in the fabricated metals industries is 14 percent of Pennsylvania manufacturing employment but only 1.4 percent of total Pennsylvania non-agricultural employment in 2020. The following table shows trends in manufacturing employment by industry for Pennsylvania from 2016 through 2020.

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Manufacturing Establishment Employment by Industry
Pennsylvania
2016-2020
(In Thousands)

	Calendar Year									
	2016	**%**	**2017**	**%**	**2018**	**%**	**2019**	**%**	**2020***	**%**
Durable Goods:										
Primary Metals..	35.3	6.3	35.0	6.2	35.7	6.3	36.1	6.3	32.6	6.0
Fabricated Metals..	79.5	14.2	80.2	14.2	82.4	14.4	83.2	14.5	79.3	14.6
Machinery (excluding electrical)..................	44.1	7.9	43.7	7.8	45.7	8.0	46.2	8.0	43.1	7.9
Electrical Equipment.....................................	26.2	4.7	26.3	4.7	26.9	4.7	27.2	4.7	26.6	4.9
Transportation Equipment............................	36.8	6.6	36.6	6.5	37.5	6.6	39.0	6.8	34.4	6.3
Furniture Related Products..........................	16.2	2.9	16.4	2.9	16.3	2.9	15.7	2.7	15.2	2.8
Other Durable Goods...................................	98.0	17.5	97.7	17.4	98.5	17.3	98.7	17.2	95.6	17.6
Total Durable Goods....................................	336.1	60.1	335.9	59.7	343.0	60.1	346.1	60.2	327.0	60.2
Non-Durable Goods:										
Pharmaceutical/ Medicine............................	18.6	3.3	18.6	3.3	18.3	3.2	19.0	3.3	18.6	3.4
Food Products...	70.2	12.5	71.7	12.7	73.0	12.8	73.5	12.8	70.7	13.0
Chemical Products.......................................	41.1	7.3	41.3	7.3	41.1	7.2	42.4	7.4	41.4	7.6
Printing and Publishing.................................	23.9	4.3	23.7	4.2	23.1	4.0	22.4	3.9	20.1	3.7
Plastics/Rubber Products............................	38.8	6.9	40.0	7.1	40.2	7.0	40.5	7.0	38.9	7.2
Other Non-Durable Goods...........................	30.9	5.5	31.8	5.6	32.3	5.7	31.1	5.4	26.2	4.8
Total Non-Durable Goods............................	223.5	39.9	227.1	40.3	227.9	39.9	228.9	39.8	215.9	39.8
Total Manufacturing Employees[a].............	559.5	100.0	562.9	100.0	570.9	100.0	575.0	100.0	542.9	100.0

[a]Discrepancies due to rounding. Source: U.S. Department of Labor, Bureau of Labor Statistics

* 12/31/2020 Preliminary

Unemployment

During 2019, Pennsylvania had an annual unemployment rate of 4.4 percent. This represents a significant drop since 2015 when the unemployment rate was 5.3 percent. The following table represents the annual unemployment rate in Pennsylvania, the Middle Atlantic Region, and the United States from 2015 through 2019.

Annual Average Unemployment Rate
Pennsylvania, Middle Atlantic Region and the United States
2015-2019

Calendar Year	PA	Middle Atlantic Region[a]	United States
2015..	5.3%	5.5%	5.3%
2016..	5.4	5.0	4.9
2017..	4.9	4.7	4.4
2018..	4.2	4.2	3.9
2019..	4.4	4.0	3.7

[a]Middle Atlantic Region: Pennsylvania, New York, New Jersey. Source: U.S. Department of Labor, Bureau of Labor Statistics (BLS).

The following table presents the thirty largest non-governmental employers in Pennsylvania:

Commonwealth of Pennsylvania
Thirty Largest Non-Governmental Employers
2nd Quarter, 2020

Company	Rank	Company	Rank
Wal-Mart Associates Inc	1	Giant Eagle Inc	16
Trustees of the University of PA	2	Vanguard Group Inc	17
Giant Food Stores LLC	3	Merck Sharp & Dohme Corporation	18
Pennsylvania State University	4	Saint Luke's Hospital	19
United Parcel Service Inc	5	Western Penn Allegheny Health	20
UPMC Presbyterian Shadyside	6	Milton S Hershey Medical Center	21
PNC Bank NA	7	Waw a Inc	22
Low e's Home Centers LLC	8	Sheetz Inc	23
University of Pittsburgh	9	Universal Protection Service LLC	24
Amazon.com DEDC LLC	10	Wegmans Food Markets	25
The Children's Hospital of Pennsylvania	11	Lehigh Valley Hospital	26
Home Depot USA Inc	12	FedEx Ground Package System Inc	27
Weis Markets Inc	13	East Penn Manufacturing Company	28
Comcast Cablevision Corp (PA)	14	Temple University	29
Target Corporation	15	Thomas Jefferson University Hospital	30

Source: Pennsylvania Department of Labor & Industry

Personal Income

Personal income in the commonwealth for 2019 was $742,924 million, an increase of 3.6 percent over the previous year. During the same period, national personal income increased by 3.9 percent. Based on the 2019 personal income estimates, per capita income was at $58,032 in the commonwealth compared to per capita income in the United States of $51,424. The following tables represent annual personal income data and per capita income from 2015 through 2019.

Personal Income
Pennsylvania, Mideast Region and the United States
2015-2019

	Total Personal Income Dollars in Millions			Total Personal Income As a % of 2015 Base		
Year	PA	Mideast Region [a]	U.S. [b]	PA	Mideast Region [a]	U.S. [b]
2015	644,120	2,787,184	15,709,242	100%	100%	100%
2016	659,803	2,872,497	16,111,636	102%	103%	103%
2017	679,731	3,010,538	16,870,106	106%	108%	107%
2018	717,255	3,147,619	17,839,255	111%	113%	114%
2019	742,924	3,266,720	18,542,262	115%	117%	118%

[a]Mideast Region: Pennsylvania, New York, New Jersey, Maryland, District of Columbia, and Delaware
[b]Sum of States
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Per Capita Income
Pennsylvania, Mideast Region and the United States
2015-2019

	Per Capita Income			As a % of U.S.	
		Mideast			Mideast
Calendar Year	PA	Region [a]	U.S.	PA	Region [a]
2015	50,382	55,022	48,994	103%	112%
2016	51,619	56,684	49,890	103%	114%
2017	53,155	59,410	51,910	102%	114%
2018	56,032	65,341	54,606	103%	120%
2019	58,032	67,622	51,424	113%	131%

[a]Mideast Region: Average of Pennsylvania, New York, New Jersey, Maryland, District of Columbia, and Delaware. Source: U.S. Department of Commerce, Bureau of Economic Analysis.

The commonwealth's average hourly wage rate of $26.23 for manufacturing and production workers is below the national average of $27.70 for 2019. The following table presents the average hourly wage rates for 2015 through 2019.

Average Hourly Wages
Production Workers on Manufacturing Payrolls
Pennsylvania and the United States
2015-2019

Calendar Year	PA	U.S.
2015	$ 24.02	$ 25.25
2016	$ 24.51	$ 25.99
2017	$ 25.52	$ 26.59
2018	$ 25.74	$ 27.05
2019	$ 26.23	$ 27.70

Source: U.S. Department of Labor, Bureau of Labor and Statistics

Market and Assessed Valuation of Real Property

Annually, the State Tax Equalization Board, Tax Equalization Division (the "STEB") determines an aggregate market value of all taxable real property in the commonwealth. The STEB determines the market value by applying assessment to sales ratio studies to assessment valuations supplied by local assessing officials. The market values certified by the STEB do not include property that is tax exempt but do include an adjustment correcting the data for preferential assessments granted to certain farm and forestlands.

The table below shows the assessed valuation as determined and certified by the counties and the market value and the assessed to market value ratio determined by the STEB for real property from 2015-2019. In computing the market values for uneven-numbered years, the STEB is statutorily restricted to certifying only those changes in market value that result from properties added to or removed from the assessment rolls. The STEB is permitted to adjust the market valuation to reflect any change in real estate values or other economic change in value only in even-numbered years.

Valuations of Taxable Real Property
2015-2019

Year	Market Value[a]	Assessed Valuation	Rate of Assessed Valuation to Market Value[a]
2015............................	801,633,782,130	591,554,200,204	73.8%
2016............................	839,594,528,100	599,849,032,792	71.4%
2017............................	847,630,312,124	628,417,398,959	74.1%
2018............................	877,385,372,915	642,305,663,711	73.2%
2019............................	922,018,498,396	677,415,063,122	73.5%

[a]Market Value difference between Regular Assessment and Preferential Assessment under Act 319 of 1974.
Source: Annual Certifications by the State Tax Equalization Board.

APPENDIX C

COMMONWEALTH GOVERNMENT AND FISCAL ADMINISTRATION

The government of the commonwealth is composed of three separate branches. A general organization chart of the commonwealth's government is shown on the following page.

Legislative Branch

The legislative branch consists of the General Assembly and its staff. The General Assembly is bicameral, composed of the Senate and the House of Representatives. The 50 members of the Senate serve staggered four-year terms and the 203 Representatives serve identical two-year terms. The General Assembly meets in regular session biannually beginning on the first Tuesday of January following general elections. Special sessions may be called by the Governor on petition from the majority of members in each chamber or whenever the Governor determines that public interest so requires. Legislative leadership includes majority and minority leaders in each chamber, a President Pro Tempore of the Senate and a Speaker of the House of Representatives.

Executive Branch

The Executive Branch is headed by five elected officials and encompasses 17 departments and 36 independent commissions, boards, authorities and agencies.

The five elected officials are the Governor, the Lieutenant Governor, the Attorney General, the State Treasurer and the Auditor General. The Governor and the Lieutenant Governor are elected on the same ballot and serve a four-year term. The Governor is eligible to succeed himself or herself for one term. The Auditor General, the Attorney General and the State Treasurer are elected for four-year terms in an even-year election held between gubernatorial elections.

The Governor is the chief executive officer of the commonwealth. All departments except those of the State Treasurer, the Attorney General and the Auditor General are under the direct jurisdiction of the Governor. The head of each of the remaining departments is a Secretary who is appointed by the Governor and confirmed by a majority vote of the Senate. Each Secretary serves at the Governor's pleasure and is a member of the Governor's Cabinet.

The Lieutenant Governor presides over the Senate and serves as Acting Governor during the disability of the Governor and becomes Governor in the case of death, conviction or impeachment, failure to qualify or resignation of the Governor.

The Attorney General is the chief law enforcement officer of the commonwealth and is responsible for upholding and defending the constitutionality of all statutes. He is also responsible for reviewing the form and legality of all proposed rules and regulations, deeds, leases and contracts to be executed by commonwealth agencies. The Office of Attorney General is under the Attorney General's direct jurisdiction.

The State Treasurer is charged with receiving, depositing and investing all commonwealth funds and is responsible for the pre-audit approval of all requisitions for the disbursements of monies in the State Treasury. The Treasury Department is under the State Treasurer's direct jurisdiction.

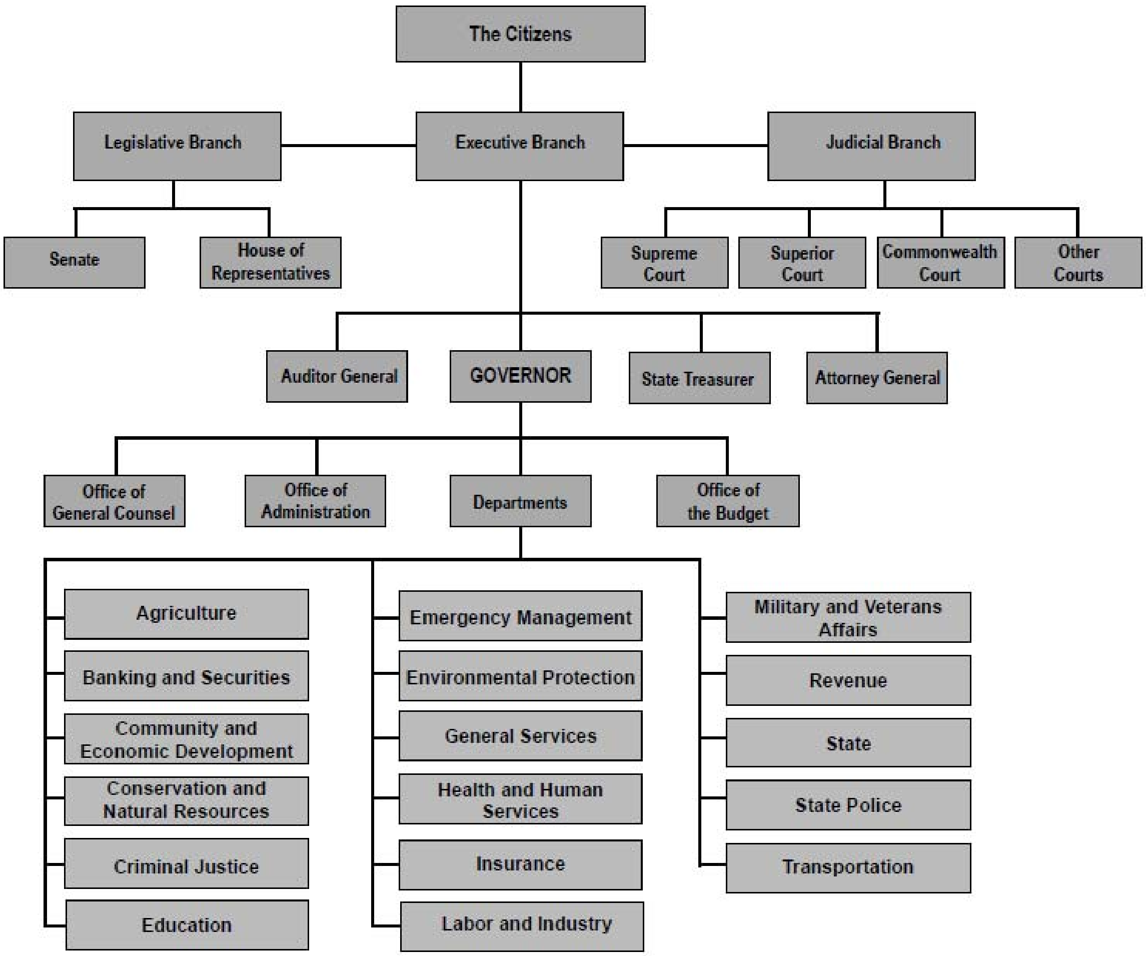
The Auditor General is charged with making audits of completed financial transactions. The Department of the Auditor General is under the Auditor General's direct jurisdiction.

Activities of State government are also conducted by various independent commissions, boards, authorities and agencies created by statute and not under the direct jurisdiction of the executive and legislative branches.

Judicial Branch

The judicial power of the commonwealth is vested in a unified judicial system consisting of a Supreme Court and various other courts of original and appellate jurisdiction which are under the supervision and authority of the Supreme Court. All justices, judges and district justices are elected to office.

Commonwealth of Pennsylvania
Organization Chart



AGENCIES

Higher Education Assistance
Interstate Agencies

AUTHORITIES

Automobile Theft Prevention
Commonwealth Financing
Economic Development Financing
Energy Development
Higher Education Facilities
Industrial Development
Infrastructure Investment
Insurance Fraud Prevention
Minority Business Development
Patient Safety
Public School Building

BOARDS

Claims
Environmental Hearing
Gaming Control
Finance and Revenue
Liquor Control
Milk Marketing
Municipal Retirement
Pardons
Public School Employees' Retirement
State Employees' Retirement
Tax Equalization

COMMISSIONS

Civil Service
Crime and Delinquency
Ethics
Fish and Boat
Game
Harness Racing
Historical and Museum
Horse Racing
Human Relations
Juvenile Court Judges
Public Utility
Turnpike

Fiscal Organization

Each branch of the commonwealth's government is responsible for its respective fiscal operations subject to restrictions embodied in the Constitution, the Administrative Code and the Fiscal Code. Such restrictions are enforced, and other central administrative functions are provided by five departments: the Office of the Budget ("OB"), the Office of Administration ("OA"), the Treasury Department, the Department of Revenue and the Department of the Auditor General. OB and OA are administrative offices within the Governor's offices. The Secretary of the Budget and the Secretary of Administration are appointed by the Governor and are responsible for the operations of their respective offices. The Department of Revenue is led by the Secretary of Revenue, who is appointed by the Governor subject to the advice of the Senate. The Treasury Department and the Department of the Auditor General are headed by the respective elected officials.

OB monitors the operation of the commonwealth's departments, operates a central accounting system, compiles and publishes the commonwealth's financial reports, assists in the preparation and publication of the budget, coordinates capital improvements and is responsible for the issuance of the commonwealth's debt. OA is responsible for personnel policy and programs, management policy and organizational structure, data processing service, and electronic data processing policy and planning. The Treasury Department receives, invests and disburses all funds and maintains central cash records. The Department of Revenue administers the collection of most taxes. The Department of the Auditor General oversees the examination of most financial transactions.

Commissions, authorities and agencies that are both independent by statute and financially self-supporting, operate autonomously although their capital projects and financing are reviewed by OB and included in the capital budget.

The Budgetary Process

The commonwealth operates on a fiscal year beginning July 1 and ending June 30. For example, "fiscal year 2020" refers to the fiscal year ended on June 30, 2020.

The budget process commences in September, nine months prior to the beginning of the fiscal year, as departments formulate their initial budgets in response to Program Policy Guidelines issued by the Governor and hold preliminary hearings with OB and other members of the Governor's staff. By November 1, formal budget requests are submitted to OB by all government departments and other institutions requesting appropriations. OB, under the direction of the Secretary of Budget, reviews the requests through November and December and may hold formal hearings.

The Department of Revenue, in conjunction with OB, prepares revenue estimates. In the preparation of such estimates, internal analysis, information from selected departments and econometric analysis are utilized. The commonwealth subscribes to economic forecasts prepared by the economic forecasting company Global Insight for national and Pennsylvania economic data that are used to estimate economically sensitive commonwealth revenues. Other econometric forecasts are also consulted.

The Constitution requires that the Governor submit annually to the General Assembly a budget consisting of three parts:

(a) a balanced operating budget for the ensuing fiscal year setting forth proposed expenditures and estimated revenues from all sources and, if estimated revenues and available surplus are less than proposed expenditures, recommending specific additional sources of revenue enough to pay the deficiency;

(b) a capital budget for the ensuing fiscal year setting forth in detail proposed expenditures to be financed from the proceeds of obligations of the commonwealth or of its agencies or authorities or from operating funds; and

(c) a financial plan for not less than the succeeding five fiscal years, which includes for each year (i) projected operating expenditures classified by department or agency and by program, and estimated revenues by major categories from existing and additional sources, and (ii) projected expenditures for capital projects specifically itemized by purpose and their proposed sources of financing.

All funds received by the commonwealth are subject by statute to appropriation in specific amounts by the General Assembly or by executive authorizations by the Governor. The Governor's budget encompasses both annual appropriations and executive authorizations.

The Governor is required to submit the proposed budget as soon as possible after the organization of the General Assembly, but not later than the first full week in February, except in his/her first year of office. The Governor's submission begins with the Budget Message delivered in joint session. The budget, in the form of a proposed bill, is delivered to the appropriations committee of one of the chambers. Hearings are held on the bills constituting the budget. In an iterative process, bills are reported from committee to floor and considered in and between chambers.

The operating budget is considered in the form of the General Appropriations Bill and its supplements. The Bill is limited to appropriations for debt service, public schools and the executive, legislative and judicial branches. Its supplements cover appropriations from special revenue funds not included in the General Appropriations Bill and for such subjects as capital projects funded from current revenues. The operating budget also includes single subject bills covering appropriations made to any charitable or educational institutions not under the absolute control of the commonwealth, other than certain State-owned schools ("non-preferred appropriations").

The Constitution mandates that total operating budget appropriations made by the General Assembly may not exceed the sum of (a) the actual and estimated revenues in a given year, and (b) the surplus of the preceding year. The Constitution further specifies that a surplus of operating funds, at the end of the fiscal year, shall be appropriated. That is, if funds remain from the end of a fiscal year they must be appropriated for the ensuing year. Also, if a deficit occurs at year-end, funds must be provided for such a deficit.

Pursuant to the Administrative Code, the executive branch establishes the revenue estimates used in the budget. In practice, the revenue estimates used to balance the operating budget consist of the appropriate fund's available surplus and its estimated cash receipts for the fiscal year, as well as net accruals. Appropriation lapses estimated to occur during the year or at year-end are not included; lapses are not available for re-appropriation until they occur.

Under this budgetary process, a deficit can occur if revenues are less than those estimated in the budget and the shortfall is not offset by any unappropriated surplus or by appropriation lapses during or at the end of the year or by legislative action to increase revenues or reduce appropriation.

The Administrative Code was amended in 1978 to provide for stronger executive control of expenditures. All departments under the Governor's jurisdiction may be required to submit estimates of expenditures during the ensuing month, quarter or any other such period as requested by the Governor. These estimates are subject to the approval of the Secretary of Budget. The Governor is empowered to request the State Treasurer to withhold funds from any such department not spending within such estimates. The Secretary of Budget is empowered to set personnel levels for departments. Departments are required to provide personnel data monthly so that the commonwealth's computerized data file on personnel levels can be maintained and used to monitor the commonwealth's largest operating expense.

The proposed capital budget is considered in the form of the Capital Budget Bill and its supplements. The capital budget determines limits for the amount of debt that can be issued in that fiscal year for categories of capital projects, itemizes for funding all capital projects not previously itemized, authorizes the issuance of debt to finance these projects and appropriates the proceeds from the issuance of debt.

All appropriations require the majority vote of all members in each chamber except for non-preferred appropriations, appropriations from the Budget Stabilization Reserve Fund and the Health Endowment Account portion of the Tobacco Settlement Fund, which require passage by a two-thirds vote. During the legislative process, the General Assembly may add, change or delete any items in the budget proposed by the Governor. Once the bills constituting the budget have passed both chambers and are returned to the Governor, he/she may either veto bills or line item veto appropriations within bills. A gubernatorial veto can be overridden only by a two-thirds majority of all members of each chamber.

In the event that the General Assembly fails to pass, or the Governor fails to sign an appropriations act prior to July 1 of any fiscal year, the Pennsylvania Constitution, the laws of Pennsylvania and certain State and federal court decisions provide that the commonwealth may continue during such un-budgeted fiscal year to make debt service payments, payments for mandated federal programs such as cash assistance and payments related to the health and safety of the citizens of the commonwealth such as police and correctional services.

Accounting and Budgetary Controls

Every department of the executive branch that receives appropriations from the commonwealth, with the exception of the Treasury Department and the Departments of the Auditor General and the Attorney General, shares a centralized encumbrance-based accounting system supervised by OB. Executive departments operating separate additional accounting systems include the Department of Transportation for the Motor License Fund, the Liquor Control Board for the State Stores Fund and the Department of Labor and Industry for the payment of unemployment compensation benefits. Officials within the Treasury Department, the Departments of the Auditor General, the Attorney General and the judicial and legislative branches administer individual operations under the jurisdiction of their respective areas.

Expenditure control occurs at two levels. The first is by appropriations, which is enforced by the State Treasurer and the second is by allocations and allotments, which is enforced by OB for all departments receiving appropriations, except for the legislative branch.

Departments receive authorization to spend and commit funds in the form of appropriations for a specific amount, purpose and time period. Funds appropriated to a single department may be in one or more appropriations as the General Assembly determines. When multiple appropriations to a department are enacted, separate appropriations are made for general operating expenses, special outlays and for specific programs or groupings thereof. The degree to which a department's total appropriations are itemized may vary, but control is exercised over both total and individual appropriations.

The Constitution requires that with the exceptions named, monies may be paid from the Treasury only if appropriated by law. Accordingly, when a voucher is submitted to the State Treasurer, a check will not be issued unless the amount is within the balance of the agency's total appropriation.

Departments are prevented by the centralized comptroller from incurring obligations in excess of their unexpended individual appropriations by an encumbrance system. Encumbrance control prevents spending beyond remaining individual appropriation balances. When a commitment or obligation is incurred, for example, when a contract or purchase order is signed, the required portion of the corresponding appropriation is reserved. This reserving of funds is called the encumbrance procedure. All obligations anticipating future disbursement of cash in the fiscal year require an encumbrance, except for debt service payments. Since a debt service appropriation is used for no purpose other than debt service, an encumbrance is not necessary.

All individual appropriations are allocated by OB to departments by major object groups. For example, a department's appropriation for operating expenses may be broken down into such major object groups as personnel service, operating expenses and supplies, etc. Additionally, major object groups are subdivided into minor object groups. For example, personnel service would be broken down into salaries, benefits, overtime, etc. Department expenditures are monitored to ensure that expenditures within an allocation do not exceed the designated totals. The departments, however, are free to adjust their expenditures between minor object groups as long as they do not exceed the major object group allocation. OB can monitor department expenditures against their allocations on a continuing basis, as the records of departments under the Governor's jurisdiction can be accessed from the central system, while those of most other departments and branches are provided monthly.

In addition to the preceding controls, another check is provided by the financial reporting process. All department records are reconciled by OB on a monthly basis with the Treasury Department's records of cash transactions and with the Department of Revenue's records of cash collections.

Audits

The Constitution requires that the financial affairs of any entity receiving appropriations and all department boards, commissions, agencies, instrumentalities, authorities and institutions of the commonwealth be subject to audits made in accordance with generally accepted auditing standards. Any commonwealth officer whose approval is necessary for any transaction may not be charged with the function of auditing that transaction after its occurrence.

The Department of the Auditor General has the responsibility for auditing all State-related financial transactions except its own, those of the legislative and judicial branches, and boards and commissions on which the Auditor General serves and those of certain funds. At least one audit must be made annually of the fiscal affairs of the executive branch. Audits of the commonwealth General Purpose Financial Statements, since fiscal 1985, have been performed jointly by the Department of the Auditor General and an independent public accounting firm.

The Treasury Department is required to pre-audit all requests for expenditures to ensure that they are in accordance with law. In addition, OB conducts, as a matter of administrative policy, periodic audits of departments under the Governor’s jurisdiction and performance audits of State and federal programs.

APPENDIX D

INFORMATION REGARDING THE DEPOSITORY TRUST COMPANY AND ITS BOOK-ENTRY SYSTEM

The information that follows concerning The Depository Trust Company, New York, New York ("DTC") and the book-entry only system described below is based solely on information furnished by DTC and is not, and should not be construed as, a representation by the commonwealth as to its accuracy, completeness or otherwise.

DTC 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 certificate will be issued for each maturity of each series of the Bonds, 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. DTC holds and provides asset servicing for over 3.6 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, but Beneficial Owners are 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 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 requested by an authorized representative of DTC. The deposit of 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 the 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, tenders, defaults, and proposed amendments to the Bond documents. 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, or in the alternative, Beneficial Owners may wish to provide their names and addresses to the Loan and Transfer Agent and request that copies of notices be provided directly to them.

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

Neither DTC nor Cede & Co. (nor such other DTC nominee) will consent or vote with respect to the Bonds. Under its usual procedures, DTC will mail 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).

Payments of principal or redemption price of and interest on the Bonds will be made to Cede & Co. or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the commonwealth or its agent, on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Direct and Indirect Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Direct and Indirect Participants and not of DTC (nor its nominee), the Loan and Transfer Agent, or the commonwealth, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal or redemption price of and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the commonwealth or the Loan and Transfer Agent, disbursement of such payments to Direct Participants is the responsibility of DTC, and disbursement of such payments to the Beneficial Owners is the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as securities depository with respect to the Bonds at any time by giving reasonable notice to the commonwealth or the Loan and Transfer Agent. Under such circumstances, in the event that a successor securities depository is not obtained, Bond certificates are required to be printed and delivered.

The foregoing information concerning DTC and DTC's book-entry system has been obtained from information furnished by DTC. No representation or warranty is made by the commonwealth as to the accuracy or completeness of such information.

The commonwealth may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, Bond certificates will be printed and delivered.

For so long as the Bonds are registered in the name of DTC, or its nominee Cede & Co., the commonwealth and the Loan and Transfer Agent will treat Cede & Co. as the registered owner of the Bonds for all purposes, including payments, notices and voting.

Neither the commonwealth nor the Loan and Transfer Agent shall have any responsibility or obligation to any Direct or Indirect Participant or Beneficial Owner with respect to (a) the accuracy of any records maintained by DTC or any Direct or Indirect Participant with respect to any beneficial ownership interest in any Bonds; (b) the payment by any Direct or Indirect Participant of any amount due to any Beneficial Owner in respect of the principal of, premium, if any, and interest on the Bonds; (c) the delivery or timeliness of delivery by any Direct or Indirect Participant of any notice to any Beneficial Owner of any notice with respect to the Bond, including, without limitation any notice of redemption; or (d) other action taken by DTC or Cede & Co., including the effectiveness of any action taken pursuant to an Omnibus Proxy.

APPENDIX E

SELECTED CONSTITUTIONAL PROVISIONS RELATING TO THE FINANCES OF THE COMMONWEALTH

Article VIII — TAXATION AND FINANCE

Commonwealth Indebtedness

Section 7. (a) No debt shall be incurred by or on behalf of the commonwealth except by law and in accordance with the provisions of this section.

(1) Debt may be incurred without limit to suppress insurrection, rehabilitate areas affected by man-made or natural disaster, or to implement unissued authority approved by the electors prior to the adoption of this article.

(2) The Governor, State Treasurer and Auditor General, acting jointly, may (i) issue tax anticipation notes having a maturity within the fiscal year of issue and payable exclusively from revenues received in the same fiscal year, and (ii) incur debt for the purpose of refunding other debt, if such refunding debt matures within the term of the original debt.

(3) Debt may be incurred without limit for purposes specifically itemized in the law authorizing such debt, if the question whether the debt shall be incurred has been submitted to the electors and approved by a majority of those voting on the question.

(4) Debt may be incurred without the approval of the electors for capital projects specifically itemized in a capital budget, if such debt will not cause the amount of all net debt outstanding to exceed one and three-quarters times the average of the annual tax revenues deposited in the previous five fiscal years as certified by the Auditor General. For the purposes of this subsection, debt outstanding shall not include debt incurred under clauses (1) and (2)(i), or debt incurred under clause (2)(ii) if the original debt would not be so considered, or debt incurred under subsection (3) unless the General Assembly shall so provide in the law authorizing such debt.

(b) All debt incurred for capital projects shall mature within a period not to exceed the estimated useful life of the projects as stated in the authorizing law, and when so stated shall be conclusive. All debt, except indebtedness permitted by clause (2)(i), shall be amortized in substantial and regular amounts, the first of which shall be due prior to the expiration of a period equal to one-tenth the term of the debt.

(c) As used in this section, debt shall mean the issued and outstanding obligations of the commonwealth and shall include obligations of its agencies or authorities to the extent they are to be repaid from lease rentals or other charges payable directly or indirectly from revenues of the commonwealth. Debt shall not include either (1) that portion of obligations to be repaid from charges made to the public for the use of the capital projects financed, as determined by the Auditor General, or (2) obligations to be repaid from lease rentals or other charges payable by a school district or other local taxing authority, or (3) obligations to be repaid by agencies or authorities created for the joint benefit of the commonwealth and one or more other State governments.

(d) If sufficient funds are not appropriated for the timely payment of the interest upon and installments of principal of all debt, the State Treasurer shall set apart from the first revenues thereafter received applicable to the appropriate fund a sum sufficient to pay such interest and installments of principal, and shall so apply the money so set apart. The State Treasurer may be required to set aside and apply such revenues at the suit of any holder of commonwealth obligations.

Commonwealth Credit Not to be Pledged

Section 8. The credit of the commonwealth shall not be pledged or loaned to any individual, company, corporation or association nor shall the commonwealth become a joint owner or stockholder in any company, corporation or association.

Municipal Debt Not to be Assumed by Commonwealth

Section 9. The commonwealth shall not assume the debt, or any part thereof, of any county, city, borough, incorporated town, township or any similar general purpose unit of government unless such debt shall have been incurred to enable the commonwealth to suppress insurrection or to assist the commonwealth in the discharge of any portion of its present indebtedness.

Audit

Section 10. The financial affairs of any entity funded or financially aided by the commonwealth, and all departments, boards, commissions, agencies, instrumentalities, authorities and institutions of the commonwealth, shall be subject to audits made in accordance with generally accepted auditing standards.

Any commonwealth officer whose approval is necessary for any transaction relative to the financial affairs of the commonwealth shall not be charged with the function of auditing that transaction after its occurrence.

Gasoline Taxes and Motor License Fees Restricted

Section 11. (a) All proceeds from gasoline and other motor fuel excise taxes, motor vehicle registration fees and license taxes, operators' license fees and other excise taxes imposed on products used in motor transportation after providing therefrom for (a) cost of administration and collection, (b) payment of obligations incurred in the construction and reconstruction of public highways and bridges shall be appropriated by the General Assembly to agencies of the State or political subdivisions thereof; and used solely for construction, reconstruction, maintenance and repair of and safety on public highways and bridges and costs and expenses incident thereto, and for the payment of obligations incurred for such purposes, and shall not be diverted by transfer or otherwise to any other purpose, except that loans may be made by the State from the proceeds of such taxes and fees for a single period not exceeding eight months, but no such loan shall be made within the period of one year from any preceding loan, and every loan made in any fiscal year shall be repayable within one month after the beginning of the next fiscal year.

(b) All proceeds from aviation fuel excise taxes, after providing therefrom for the cost of administration and collection, shall be appropriated by the General Assembly to agencies of the State or political subdivisions thereof and used solely for: the purchase, construction, reconstruction, operation, and maintenance of airports and other air navigation facilities; aircraft accident investigation; the operation, maintenance and other costs of aircraft owned or leased by the commonwealth; any other purpose reasonably related to air navigation including but not limited to the reimbursement of airport property owners for property tax expenditures; and costs and expenses incident thereto and for the payment of obligations incurred for such purposes, and shall not be diverted by transfer or otherwise to any other purpose.

Governor's Budgets and Financial Plan

Section 12. Annually, at the times set by law, the Governor shall submit to the General Assembly:

(a) A balanced operating budget for the ensuing fiscal year setting forth in detail (i) proposed expenditures classified by department or agency and by program and (ii) estimated revenues from all sources. If estimated revenues and available surplus are less than proposed expenditures, the Governor shall recommend specific additional sources of revenue sufficient to pay the deficiency and the estimated revenue to be derived from each source;

(b) A capital budget for the ensuing fiscal year setting forth in detail proposed expenditures to be financed from the proceeds of obligations of the commonwealth or of its agencies or authorities or from operating funds; and

(c) A financial plan for not less than the next succeeding five fiscal years, which plan shall include for each such fiscal year:

(i) Projected operating expenditures classified by department or agency and by program, in reasonable detail, and estimated revenues, by major categories, from existing and additional sources; and

(ii) Projected expenditures for capital projects specifically itemized by purpose, and the proposed sources of financing each.

Appropriations

Section 13. (a) Operating budget appropriations made by the General Assembly shall not exceed the actual and estimated revenues and surplus available in the same fiscal year.

(b) The General Assembly shall adopt a capital budget for the ensuing fiscal year.

Surplus

Section 14. All surplus of operating funds at the end of the fiscal year shall be appropriated during the ensuing fiscal year by the General Assembly.

Project "70"

Section 15. In addition to the purposes stated in article eight, section seven of this Constitution, the commonwealth may be authorized by law to create debt and to issue bonds to the amount of seventy million dollars ($70,000,000) for the acquisition of land for State parks, reservoirs and other conservation and recreation and historical preservation purposes and for participation by the commonwealth with political subdivisions in the acquisition of land for parks, reservoirs and other conservation and recreation and historical preservation purposes, subject to such conditions and limitations as the General Assembly may prescribe.

Land and Water Conservation and Reclamation Fund

Section 16. In addition to the purposes stated in article eight, section seven of this Constitution, the commonwealth may be authorized by law to create debt and issue bonds in the amount of five hundred million dollars ($500,000,000) for a Land and Water Conservation and Reclamation Fund to be used for the conservation and reclamation of land and water resources of the commonwealth, including the elimination of acid mine drainage, sewage, and other pollution from the streams of the commonwealth, the provision of State financial assistance to political subdivisions and municipal authorities of the commonwealth of Pennsylvania for the construction of sewage treatment plants, the restoration of abandoned strip-mined areas, the control and extinguishment of surface and underground mine fires, the alleviation and prevention of subsidence resulting from mining operations, and the acquisition of additional lands and the reclamation and development of park and recreational lands acquired pursuant to the authority of Article VIII, section 15 of this Constitution, subject to such conditions and liabilities as the General Assembly may prescribe.

APPENDIX F

PROPOSED FORM OF OPINION OF
THE OFFICE OF ATTORNEY GENERAL
THE COMMONWEALTH OF PENNSYLVANIA

_______, 2021

TO THE GOVERNOR, THE STATE TREASURER AND THE AUDITOR GENERAL AS THE ISSUING OFFICIALS OF THE COMMONWEALTH:

Re: Commonwealth of Pennsylvania General Obligation Bonds, First Series and First Refunding Series of 2021

This opinion is furnished to you in connection with the issuance and sale by the Commonwealth of Pennsylvania (the "Commonwealth") on the date hereof of $550,000,000 aggregate principal amount of Commonwealth of Pennsylvania General Obligation Bonds, First Series of 2021 (the "First Series Bonds"), and the $495,525,000 aggregate principal amount of the Commonwealth of Pennsylvania General Obligation Bonds, First Refunding Series of 2021 (Federally Taxable) (the "First Refunding Series Bonds" and together with the First Series Bonds, the "Bonds"). The Bonds are dated the date of issuance and delivery. The Bonds are issued as fully registered bonds without coupons in the denomination of $5,000 or any integral multiple thereof within a maturity and will bear interest from the date of issuance and delivery, payable semi-annually on May 15 and November 15 of each year commencing November 15, 2021 with respect to the First Series Bonds, and payable semi-annually February 1 and August 1 of each year commencing August 1, 2021 with respect to the First Refunding Series Bonds, until the obligation with respect to the payment of such principal shall have been discharged.

The Bonds are authorized and issued pursuant to and in full compliance with the provisions, restrictions and limitations of Section 7 of Article VIII of the Constitution of the Commonwealth of Pennsylvania (the "Constitution"); the laws of the Commonwealth, including the Capital Facilities Debt Enabling Act, Act No. 1999-1, approved February 9, 1999, as amended, annual capital budget bills and various bond authorization bills enacted by the General Assembly. The Bonds are also authorized and issued pursuant to resolutions adopted by the Governor, the State Treasurer and the Auditor General (the "Issuing Officials") on April 28, 2021 and May 5, 2021 (collectively, the "Resolutions").

The Resolutions, among other things, authorize the issuance and sale of the Bonds, and prescribe the forms thereof, the manner of bidding therefor and the forms of the bidding documents used in connection with the issuance and sale of the Bonds.

I have examined Article VIII, Section 7 of the Constitution and the statutes referred to above, specimens of the Bonds, the Resolutions, and the other certificates delivered today at the Closing and such other matters and documents as I deemed necessary or appropriate.

I am of the opinion that:

1. Section 7 of Article VIII of the Constitution has been duly approved and adopted and has become part of the Constitution, and the statutes referred to above have been duly and properly enacted.

2. Pursuant to full and adequate legal power conferred upon them by the Constitution and the statutes referred to above, the Governor, the State Treasurer and the Auditor General have duly adopted the Resolutions and have validly taken all other necessary and proper action to issue and sell the Bonds, and the Bonds have been validly authorized, issued and sold pursuant to proper and appropriate action of such officials.

3. The Bonds are lawful, valid, direct and general obligations of the Commonwealth, and the full faith and credit of the Commonwealth is pledged for the payment of interest thereon as the same shall become due and for the payment of the principal thereof at maturity.

4. Under the provisions of Section 2901 of the Tax Reform Code of 1971, as amended, the Bonds and the interest thereon are exempt from taxation for state and local purposes within the Commonwealth, but this exemption does not extend to (a) gift, estate, succession or inheritance taxes or (b) any other taxes not levied or assessed directly on the Bonds or the interest thereon.

5. The Commonwealth has the power to provide for the payment of the principal of and interest on the Bonds (as defined above) by levying unlimited ad valorem taxes upon all taxable property within the Commonwealth and excise taxes upon all taxable transactions within the Commonwealth, uniform on the same class of subjects, except gasoline and other motor fuel excise taxes, motor vehicle registration fees and license taxes, and operators' license fees and other excise taxes imposed on products used in motor transportation, and aviation fuel excise taxes, the proceeds of which are limited to certain special purposes by Section 11 of Article VIII of the Constitution.

6. If sufficient funds are not appropriated for timely payment of interest on and installments of principal of the Bonds, the Constitution requires the State Treasurer to set apart from the first revenues thereafter received applicable to the appropriate fund, a sum sufficient to pay such interest and installments of principal and to apply said sum to such purposes, and the State Treasurer may be required to set aside and apply such revenues at the suit of the holder of any of the Bonds.

Very truly yours,

Josh Shapiro
Attorney General
Office of Attorney General of the
Commonwealth of Pennsylvania

APPENDIX G

BELOW IS THE PROPOSED FORM OF OPINION OF CO-BOND COUNSEL EXPECTED TO BE DELIVERED IN CONNECTION WITH THE ISSUANCE OF THE BONDS

May 20, 2021

Commonwealth of Pennsylvania 333 Market Street, 18th Floor Harrisburg, PA 17101-2210	BofA Securities, Inc. Bank of America Tower One Bryant Park, 9th Floor New York, NY 10036

Manufacturers and Traders Trust Company,
As Loan and Transfer Agent
213 Market Street
Harrisburg, PA 17101

RE: Commonwealth of Pennsylvania General Obligation Bonds,
$550,000,000 First Series of 2021
$495,525,000 First Refunding Series of 2021 (Federally Taxable)

Ladies and Gentlemen:

We have served as Co-Bond Counsel to the Commonwealth of Pennsylvania (the "commonwealth") in connection with the issuance of its $550,000,000 General Obligation Bonds, First Series of 2021 (the "First Series Bonds") and its $495,525,000 First Refunding Series of 2021 (Federally Taxable) (the "First Refunding Series Bonds" and together with the First Series Bonds, the "Bonds"). The Bonds are issued under and pursuant to (i) Section 7 of Article VIII of the Constitution of the commonwealth, (ii) the laws of the commonwealth, including the Capital Facilities Debt Enabling Act, Act No. 1991-1 (the "Constitution"), approved February 9, 1999, as amended (the "Act"), and annual capital budget bills and various bond authorization bills enacted by the General Assembly, as amended, and (iii) bond resolutions adopted by the Governor, State Treasurer and Auditor General of the commonwealth (collectively, the "Issuing Officials") on April 28, 2021 and May 5, 2021 (collectively, the "Resolutions"). Capitalized terms used but not otherwise defined herein have the meanings set forth in the Resolutions.

The Bonds are being issued by the commonwealth to provide funds (i) to finance various capital projects as detailed in the Resolutions, (ii) to refund on a current and advanced basis all or a portion of the following Commonwealth of Pennsylvania General Obligation Bonds: Third Series C of 2010 Pennworks, First Series of 2011, First Series of 2012, and First Series of 2014 (the "Refunded Bonds"); and (iii) to pay all or a portion of the costs of issuance for the Bonds.

In our capacity as Co-Bond Counsel, we have examined and relied on the proceedings relating to the authorization and issuance of the Bonds, including, among other things: (i) the Constitution, the Act and certain of the annual capital budget bills and bond authorization bills referenced above; (ii) certified copies of the Resolutions; (iii) an opinion of the Office of the Attorney General of the commonwealth dated May 20, 2021; (iv) certificates executed by the commonwealth and its Loan and Transfer Agent for the Bonds as to the execution and authentication of the Bonds; (v) the verification report prepared by BondResource Partners, LP, certifying among other things that proceeds of the First Refunding Series

Bonds in the amount of $494,439,569.26 (the "Advance Refunding Proceeds"), together with investment earnings thereon, to be deposited with the State Treasurer of the commonwealth and applied solely to the maturity or redemption of the Refunded Bonds, shall be sufficient to provide for the payment of principal of and interest on the Refunded Bonds as described in such report; (vi) a certificate of the Auditor General of the commonwealth regarding the commonwealth's compliance with the debt limitation contained in Section 7(a)(4) of Article VIII of the Constitution; (vii) various other certificates executed by the commonwealth, including a Non-Arbitrage Certificate dated the date of issuance of the Bonds (the "Tax Certificate"), pursuant to which the commonwealth has, among other things, covenanted that it will make no use of the proceeds of the Bonds that would cause the Bonds to be "arbitrage bonds" or "private activity bonds," as those terms are defined in the Internal Revenue Code of 1986, as amended (the "Code"), and the applicable regulations thereunder, and that it will comply with the applicable requirements of Sections 103 and 141 through 150 of the Code and the applicable regulations thereunder throughout the term of the Bonds; and (viii) a completed and executed Form 8038-G of the commonwealth with respect to the Bonds to be filed with the Internal Revenue Service.

In rendering our opinion, we have assumed the accuracy of, and not undertaken to verify, the factual matters set forth in such certificates and other documents by independent investigation, and we have relied on the covenants, warranties and representations made by the commonwealth in such certificates and in the Resolutions and other financing documents. In addition, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity with originals of all documents submitted to us as copies and the accuracy of certificates of public officials.

From our examination of the foregoing and such other items as we deem relevant, we are of the opinion that:

1. The principal amount of the Bonds is within all applicable debt and other limitations fixed by the Constitution and the laws of the commonwealth.

2. The Bonds have been duly authorized, executed and delivered by the commonwealth pursuant to all necessary action of the Issuing Officials and constitute valid and binding general obligations of the commonwealth, enforceable against the commonwealth in accordance with the terms thereof, except as enforcement may be limited by laws relating to bankruptcy, insolvency, reorganization, arrangement, moratorium or similar laws affecting creditors' rights generally and subject to limitations on legal remedies against public entities in the commonwealth, to general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law) and to the exercise of judicial discretion.

3. The full faith and credit of the commonwealth are pledged for the payment of the interest due on the Bonds and the principal thereof due at maturity. If sufficient funds are not appropriated for the timely payment of interest on and installments of principal of the Bonds, the Constitution requires the State Treasurer to set apart from the first revenues thereafter received applicable to the appropriate fund a sum sufficient to pay such interest and installments of principal and to apply said sum to such purposes, and the State Treasurer may be required to set aside and apply such revenues at the suit of the holder of any of the Bonds.

4. Under the laws of the commonwealth as presently enacted and construed, the interest on the Bonds is exempt from Pennsylvania personal income tax and corporate net income tax; however, under the laws of the commonwealth enacted and construed on the date hereof, any profits, gains, or income derived from the sale, exchange or other disposition of the Bonds will be subject to taxes of the commonwealth and local taxes within the commonwealth.

5. For the First Series Bonds, interest on the First Series Bonds (including original issue discount) is excludable from gross income under existing laws as enacted and construed on the date hereof. Interest on the First Series Bonds is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals. The opinions set forth in the preceding sentences are subject to the condition that the commonwealth comply with all requirements of the Code that must be satisfied subsequent to the issuance of the First Series Bonds in order that the interest thereon be, or continue to be, excluded from gross income for federal income tax purposes. The commonwealth has covenanted to comply with all such requirements. Our opinion assumes compliance with such covenants, and we do not undertake to determine (or to inform any person) whether any actions taken (or not taken) or events occurring (or not occurring) after the date hereof may affect the tax status of interest on the First Series Bonds. Failure to comply with certain of such requirements may cause interest on the First Series Bonds to be included in gross income for federal income tax purposes retroactive to the date of issuance of the First Series Bonds.

Ownership of tax-exempt obligations, including the First Series Bonds, may result in collateral federal income tax consequences to certain taxpayers, including financial institutions, property and casualty insurance companies, individual recipients of Social Security or Railroad Retirement benefits, S corporations with “excess net passive income” and taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry such obligations. Other than as expressly set forth herein, we express no opinion as to any such collateral federal income tax consequences.

6. The Bonds are exempt from registration under the provisions of the Securities Act of 1933, as amended.

We express no opinion on the adequacy, completeness or accuracy of any official statement, placement memorandum or other disclosure document pertaining to the offering of the Bonds.

This opinion letter is limited to the matters expressly stated herein. This opinion letter is subject to future changes in applicable law, and we do not undertake any obligation to update any of the opinions expressed in this letter. No opinion may be inferred or implied beyond the matters expressly stated herein, and our opinions expressed herein must be read in conjunction with the assumptions, limitations, exceptions and qualifications set forth herein. The law covered by the opinions expressed herein is limited to the laws of the commonwealth and the federal law of the United States of America. Our engagement as Co-Bond Counsel concludes with the issuance of the Bonds.

Very truly yours,

APPENDIX H

CONTINUING DISCLOSURE AGREEMENT

This CONTINUING DISCLOSURE AGREEMENT dated _____, 2021 (the "**Agreement**"), is executed and delivered by the commonwealth of Pennsylvania ("**commonwealth**") in connection with the issuance and delivery of $550,000,000 commonwealth of Pennsylvania General Obligation Bonds, First Series of 2021 (the "First Series Bonds") and its $495,525,000 First Refunding Series of 2021 (Federally Taxable) (the "First Refunding Series Bonds' and together with the First Series Bonds, the "**Bonds**").

The Bonds are being issued pursuant to the initial and final resolutions of the commonwealth adopted by the Governor, State Treasurer and Auditor General to provide funds to current refund and advance refund certain prior issues or portions of prior issues of bonds of the commonwealth.

The commonwealth hereby covenants and agrees as follows:

Section 1. Purpose. This Agreement is being executed and delivered by the commonwealth for the benefit of the holders and the beneficial owners of the Bonds and in order to assist the underwriters purchasing the Bonds to comply with the provisions of Section (b)(5)(i) of Rule 15c2-12 (the "**Rule**") promulgated by the Securities and Exchange Commission (the "**SEC**") by undertaking to provide certain annual financial information and material event notices required by the Rule (collectively, "**Continuing Disclosure**").

Section 2. Annual Disclosure.

(a) So long as any Bonds are outstanding, the commonwealth annually shall provide financial information and operating data in accordance with the provisions of Section (b)(5)(i) of the Rule as follows:

(i) Audited financial statements of the commonwealth, prepared in accordance with generally accepted accounting principles; and

(ii) Unless included in such financial statements, operating data with respect to the commonwealth and its operations of the type found in the following tables in the Official Statement for the Bonds dated May 5, 2021: (a) Tables 5 through 10 under the heading "COMMONWEALTH FINANCIAL PERFORMANCE"; (b) Tables 11 and 12 under the heading "COMMONWEALTH REVENUES AND EXPENDITURES"; (c) Tables 15 through 18 under the heading "OUTSTANDING INDEBTEDNESS OF THE COMMONWEALTH"; and (d) Tables 20 through 24 under the heading "OTHER STATE RELATED OBLIGATIONS". If any of the tables listed above reflect information that is no longer calculated and available or relevant because of changes in operations, the commonwealth will provide notice of such change in the first annual filing of annual operating data after such changes are undertaken. The format of such information may be altered from that set forth in the Official Statement.

If the audited financial statements to be filed pursuant to Section 2(a)(i) are not available by the date of the required filing, the commonwealth may instead file unaudited statements by such date and file audited statements when available.

(b) The commonwealth shall provide annually the financial information and operating data described in subsection (a) above (collectively, the "**Annual Disclosure**") within 240 days after the end of the commonwealth's fiscal year, commencing with the commonwealth's fiscal year ending June 30, 2021, to the Municipal Securities Rulemaking Board (the "**MSRB**") via the Electronic Municipal Market Access system, or any successor thereto ("**EMMA**").

(c) The Annual Disclosure may be included by specific reference to other documents available to the public on the MSRB internet website (presently www.msrb.org) or filed with the SEC.

(d) The commonwealth shall provide in a timely manner to the MSRB via EMMA notice specifying any failure of the commonwealth to provide the Annual Disclosure by the date specified.

Section 3. Event Disclosure. So long as any Bonds are outstanding, the commonwealth shall provide in a timely manner, not in excess of ten business days after the occurrence of the event, to the MSRB notice of the occurrence of any of the following events with respect to the Bonds:

(a) Principal and interest payment delinquencies;

(b) Non-payment related defaults, if material;

(c) Unscheduled draws on debt service reserves reflecting financial difficulties;

(d) Unscheduled draws on credit enhancements reflecting financial difficulties;

(e) Substitution of credit or liquidity providers, or their failure to perform;

(f) 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;

(g) Modifications to rights of holders of the Bonds, if material;

(h) Bond calls, if material, and tender offers;

(i) Defeasances;

(j) Release, substitution, or sale of property securing repayment of the Bonds, if material;

(k) Rating changes;

(l) Bankruptcy, insolvency, receivership or similar event of the commonwealth;

(m) The consummation of a merger, consolidation, or acquisition involving the commonwealth 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;

(n) Appointment of a successor or additional trustee or the change of name of a trustee, if material;

(o) Incurrence of a financial obligation of the commonwealth, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a financial obligation of the commonwealth, any of which affect security holders, if material;

(p) Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of the financial obligation of the commonwealth, any of which reflect financial difficulties; and

For the purposes of the event identified in paragraph (l) above, the event is considered to occur when any of the following occur: 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 other 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 or officers in possession but subject to the supervision and orders of a court or governmental authority, or 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.

Section 4. Termination. The obligations of the commonwealth hereunder will terminate upon the redemption, defeasance (within the meaning of the Rule) or payment in full of all the Bonds.

Section 5. Amendment. The commonwealth may modify their respective obligations hereunder without the consent of Owners of the Bonds, provided that this Agreement as so modified complies with the Rule as it exists at the time of modification. The commonwealth, as applicable, shall within a reasonable time thereafter send to the MSRB a description of such modification(s).

Section 6. Defaults.

(a) If the commonwealth fails to comply with any covenant or obligation regarding Continuing Disclosure specified in this Agreement, any holder (within the meaning of the Rule) of Bonds then outstanding may, by notice to the commonwealth, proceed to protect and enforce its rights and the rights of the holders by an action for specific performance of such covenant to provide the Continuing Disclosure; provided that any holder seeking to require compliance by the commonwealth with this Agreement shall first provide to the commonwealth's Office of the Budget at least 30 days' prior written notice of the commonwealth's failure, giving reasonable details of such failure, following which notice, the commonwealth shall have 30 days to comply.

(b) Notwithstanding anything herein to the contrary, any failure of the commonwealth to comply with any obligation regarding Continuing Disclosure specified in this Agreement (i) shall not be deemed to constitute an event of default under the Bonds or the resolutions or other documents providing for the issuance of the Bonds and (ii) shall not give rise to any right or remedy other than that described in Section 6(a) above.

Section 7. Additional Disclosure. The commonwealth may from time to time disclose certain information and data in addition to the Continuing Disclosure. Notwithstanding anything herein to the contrary, the commonwealth shall not incur any obligation to continue to provide, or to update, such additional information or data.

Section 8. Filing Format. Any information, document, data and/or notice submitted to the MSRB via EMMA hereunder shall be submitted in electronic format and shall be accompanied by identifying information, all as prescribed by the MSRB.

Section 9. Governing Law. This Agreement shall be construed and enforced in accordance with the laws of the commonwealth of Pennsylvania.

Section 10. Successors and Assigns. All of the covenants, promises and agreements contained in this Continuing Disclosure Agreement by or on behalf of the commonwealth shall bind and inure to the benefit of its successors and assigns, whether so expressed or not.

Section 11. Headings for Convenience Only. The descriptive headings in this Continuing Disclosure Agreement are inserted for convenience of reference only and shall not control or affect the meaning or construction of any of the provisions hereof.

IN WITNESS WHEREOF this Agreement is executed as of the date and year first above written.

COMMONWEALTH OF PENNSYLVANIA

By:____