

In the opinion of Sherman & Howard L.L.C., Bond Counsel, assuming continuous compliance with certain covenants described herein, interest on the Series 2017A Notes is excluded from gross income under federal income tax laws pursuant to Section 103 of the Internal Revenue Code of 1986, as amended to the date of delivery of the Series 2017A Notes (the "Tax Code"), and interest on the Series 2017A Notes is excluded from alternative minimum taxable income as defined in Section 55(b)(2) of the Tax Code, except that such interest is required to be included in calculating the "adjusted current earnings adjustment" applicable to corporations for purposes of computing the alternative minimum taxable income of corporations; and interest on the Series 2017A Notes is excluded from Colorado taxable income and Colorado alternative minimum taxable income under Colorado income tax laws in effect as of the date of delivery of the Series 2017A Notes as described herein. See "TAX MATTERS" herein.



**\$600,000,000**  
**STATE OF COLORADO**  
**GENERAL FUND TAX AND REVENUE ANTICIPATION NOTES**  
**SERIES 2017A**



Dated: Date of Delivery

Maturity Date: June 27, 2018

The Series 2017A Notes are being issued for the purpose of funding anticipated cash flow shortfalls in the State's General Fund in the State's July 1, 2017 - June 30, 2018 Fiscal Year and paying the costs of issuing the Series 2017A Notes, as described herein.

The Series 2017A Notes will be issued in fully registered form and registered initially in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York, the securities depository for the Series 2017A Notes. Beneficial Ownership Interests in the Series 2017A Notes, in non-certificated book-entry only form, may be purchased in integral multiples of \$5,000 by or through participants in the DTC system. Beneficial Ownership Interests will be governed as to receipt of payments, notices and other communications, transfers and various other matters with respect to the Series 2017A Notes by the rules and operating procedures applicable to the DTC book-entry system as described herein.

The principal of and interest on the Series 2017A Notes, at the rates per annum specified below, is payable on the maturity date of the Series 2017A Notes specified above. The Series 2017A Notes are *not* subject to redemption prior to maturity.

<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Price</u>	<u>Reoffering Yield</u>	<u>CUSIP No.*</u>
\$ 40,000,000	2.50%	101.484%	0.910%	196729 CE5
10,000,000	3.00	101.941	0.920	196729 CF2
250,000,000	4.00	102.876	0.919	196729 CC9
150,000,000	4.00	102.874	0.921	196729 CC9
50,000,000	5.00	103.847	0.880	196729 CD7
100,000,000	5.00	103.818	0.910	196729 CD7

The Series 2017A Notes are special, limited obligations of the State payable solely from and secured by a pledge of Pledged Revenues consisting of cash income or other cash receipts duly credited to the General Fund for Fiscal Year 2017-18 that are subject to appropriation for Fiscal Year 2017-18 and not credited to the General Fund as of the date of issuance of the Series 2017A Notes, unexpended proceeds, if any, of the Series 2017A Notes and any parity obligations that may be issued hereafter and, to the extent permitted by law, proceeds of internal borrowing from other State funds, all as described herein. The Series 2017A Notes do not constitute a debt, indebtedness or multiple fiscal year financial obligation of the State or any political subdivision thereof within the meaning of any applicable provision of the constitution or laws of the State.

**An investment in the Series 2017A Notes involves risk. Prospective investors are urged to read this Official Statement in its entirety, giving particular attention to the matters discussed in "INVESTMENT CONSIDERATIONS," in order to obtain information essential to the making of an informed investment decision.**

The Series 2017A Notes are offered when, as and if issued, subject to the approving opinion of Sherman & Howard L.L.C., Denver, Colorado, as Bond Counsel. Certain legal matters will be passed upon for the State by the Attorney General of the State and by Kline Alvarado Veio, P.C., Denver, Colorado, as special counsel to the State. It is expected that the Series 2017A Notes will be available for delivery through the facilities of DTC on or about July 18, 2017.

Dated: July 11, 2017

\* CUSIP is a registered trademark of the American Bankers Association. The CUSIP data included herein has been provided by CUSIP Global Services operated by the CUSIP Service Bureau, which is managed on behalf of the American Bankers Association by Standard & Poor's, a business unit of McGraw-Hill Financial, and is provided solely for the convenience of the purchasers of the Series 2017A Notes and only as of the issuance of the Series 2017A Notes. The State takes no responsibility for the accuracy of such data now or at any time in the future.

## NOTICES

This Official Statement does not constitute an offer to sell the Series 2017A Notes in any jurisdiction to any person to whom it is unlawful to make such offer in such jurisdiction. No dealer, salesman or other person has been authorized by the State, the State Treasurer or the Financial Advisor to give any information or to make any representation other than those contained herein and, if given or made, such other information or representation must not be relied upon as having been authorized by the State or any other person.

The information and expressions of opinion in this Official Statement are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create the implication that there has been no change in the matters described in this Official Statement since the date hereof.

The information in this Official Statement has been obtained from officers, employees and records of the State and other sources believed to be reliable, but this Official Statement is not to be construed as the promise or guarantee of the State, the State Treasurer or the Financial Advisor.

The order and placement of materials in this Official Statement, including the appendices, are not to be deemed a determination of relevance, materiality or importance, and this Official Statement, including the appendices, must be considered in its entirety. The captions and headings in this Official Statement are for convenience only and in no way define, limit or describe the scope or intent, or affect the meaning or construction, of any provisions or sections of this Official Statement. The offering of the Series 2017A Notes is made only by means of this entire Official Statement.

This Official Statement is submitted in connection with the initial offering and sale of the Series 2017A Notes and may not be reproduced or used, in whole or in part, for any other purpose.

The Series 2017A Notes have not been recommended by any federal or state securities commission or regulatory authority. Furthermore, the foregoing authorities have neither confirmed the accuracy nor determined the adequacy of this Official Statement. Any representation to the contrary is unlawful.

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### CAUTIONARY STATEMENTS REGARDING PROJECTIONS, ESTIMATES AND OTHER FORWARD LOOKING STATEMENTS IN THIS OFFICIAL STATEMENT

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This Official Statement, including but not limited to the material set forth in “BORROWABLE RESOURCES,” “DEBT AND CERTAIN OTHER FINANCIAL OBLIGATIONS,” “APPENDIX A – THE STATE GENERAL FUND,” “APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST” and “APPENDIX E – STATE PENSION SYSTEM,” contains statements relating to future results that are “forward looking statements.” When used in this Official Statement, the words “estimate,” “anticipate,” “forecast,” “project,” “intend,” “propose,” “plan,” “expect” and similar expressions identify forward looking statements. The achievement of certain results or other expectations contained in forward looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements described to be materially different from any future results, performance or achievements expressed or implied by the forward looking statements. The State Treasurer does not plan to issue any updates or revisions to those forward looking statements if or when its expectations or events, conditions or circumstances on which these statements are based occur.

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## OFFICIAL STATEMENT

Relating to

**\$600,000,000**

**STATE OF COLORADO**

**GENERAL FUND TAX AND REVENUE ANTICIPATION NOTES  
SERIES 2017A**

### INTRODUCTION

This Official Statement, which includes the cover page, inside cover, prefatory information and the appendices, furnishes information in connection with the issuance and sale by the State of Colorado (the “State”) of its \$600,000,000 State of Colorado General Fund Tax and Revenue Anticipation Notes, Series 2017A (the “Series 2017A Notes”). See “THE SERIES 2017A NOTES” and “THE STATE.”

*This introduction is not a summary of this Official Statement. It is only a summary description of and guide to, and is qualified by, more complete and detailed information contained in the entire Official Statement and the documents summarized or described herein. A full review should be made of the entire Official Statement. The offering of Series 2017A Notes to potential investors is made only by means of the entire Official Statement.*

*This Official Statement contains information that was either not available or differs from that contained in the Preliminary Official Statement dated July 6, 2017, including, without limitation, the interest rates, prices, reoffering yields, CUSIP numbers, original purchasers of and the purchase price paid by the original purchasers for the Series 2017A Notes. Accordingly, prospective investors should read this Official Statement in its entirety.*

### Authority and Purpose

The Funds Management Act of 1986 (the “Funds Management Act”), being Title 24, Article 75, Part 9, Colorado Revised Statutes, as amended (“C.R.S.”), authorizes the State Treasurer to issue and sell notes from time to time payable from the anticipated revenues of any one or more funds or groups of accounts to which State moneys are credited in order to accomplish any of the purposes of such Act, including the alleviation of cash flow shortfalls in any such fund or group of accounts.

The Funds Management Act provides a means of compensating for the fluctuations in revenues and expenditures that occur in the State’s General Fund, which is the State’s principal operating fund, during the “Fiscal Year” (July 1-June 30), and result in temporary cash flow shortfalls in the General Fund. The Series 2017A Notes are being issued for the purpose of funding anticipated cash flow shortfalls in the General Fund in the Fiscal Year beginning July 1, 2017, and ending June 30, 2018 (“Fiscal Year 2017-18”), and paying the costs of issuing the Series 2017A Notes. See “APPLICATION OF PROCEEDS OF THE SERIES 2017A NOTES.”

### The Series 2017A Notes

**Authorization.** The Series 2017A Notes are issued under the authority of the Constitution of the State of Colorado (the “State Constitution”) and laws of the State, particularly the Funds Management Act and the Supplemental Public Securities Act, being Title 11, Article 57, Part 2, C.R.S. (the “Supplemental

Public Securities Act”); and pursuant to a resolution (the “Authorizing Resolution”) adopted by the Treasurer of the State (the “State Treasurer”). See “THE SERIES 2017A NOTES – Authorization.”

**General Provisions.** The Series 2017A Notes will be dated the date of issuance and delivery to the original purchasers thereof (the “Closing Date”) and will mature on June 27, 2018 (the “Maturity Date”). Interest on the Series 2017A Notes, at the rates per annum set forth on the cover page hereof (computed on the basis of a 360-day year of twelve 30-day months), will accrue from the Closing Date and will be payable on the Maturity Date. The Series 2017A Notes are not subject to redemption prior to maturity. See “THE SERIES 2017A NOTES – General Provisions.”

**Book-Entry Only System.** The Series 2017A Notes will be issued in fully registered form (*i.e.*, registered as to payment of both principal and interest) and registered initially in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York (“DTC”), which will serve as securities depository for the Series 2017A Notes. Ownership interests in the Series 2017A Notes (“Beneficial Ownership Interests”), in non-certificated book-entry only form, may be purchased in integral multiples of \$5,000 by or through participants in the DTC system (“DTC Participants”). Beneficial Ownership Interests will be recorded in the name of the purchasers thereof (“Beneficial Owners”) on the books of the DTC Participants from whom they are acquired, and will be governed as to the receipt of payments, notices and other communications, transfers and various other matters with respect to the Series 2017A Notes by the rules and operating procedures applicable to the DTC book-entry system as described in “THE SERIES 2017A NOTES – General Provisions” and “APPENDIX F – DTC BOOK-ENTRY SYSTEM.” As used in this Official Statement, the term “Owners” of the Series 2017A Notes means the persons or entities in whose names the Series 2017A Notes are registered on the registration books kept by the Deputy State Treasurer as the registrar for the Series 2017A Notes (such Owner initially being Cede & Co. or such other nominee as may be designated by DTC), and does not mean the Beneficial Owners.

**Security and Sources of Payment.** The Series 2017A Notes are special, limited obligations of the State payable solely from and secured by a pledge of the “Pledged Revenues,” consisting of the following, which the State Treasurer believes will be sufficient for the repayment of the Series 2017A Notes:

- Any cash income or other cash receipts duly credited to the General Fund for Fiscal Year 2017-18 that are subject to appropriation for Fiscal Year 2017-18 and not yet credited to the General Fund as of the Closing Date (“Current General Fund Revenues”). Current General Fund Revenues are comprised generally of receipts from corporate and individual income taxes, sales and use taxes, certain excise taxes, insurance taxes, federal funds, interest on investments of certain State funds and revenues from pari-mutuel wagering, courts, charges for services and other sources.
- Unexpended proceeds, if any, of the Series 2017A Notes and any additional general fund tax and revenue anticipation notes issued pursuant to the Funds Management Act and in accordance with the Authorizing Resolution that are payable from and secured by a pledge of all or any portion of the Pledged Revenues on parity with the Series 2017A Notes (“Additional Notes”).
- To the extent permitted by law, proceeds of internal borrowing from other State funds (“Borrowable Resources”).

Pursuant to the Authorizing Resolution, a restricted account within the General Fund (the “Note Payment Account”) established by the State Controller (the “State Controller”) is pledged to the Owners of the Series 2017A Notes and to the registered owners of any Additional Notes. The State Treasurer

covenants in the Authorizing Resolution to credit the Pledged Revenues to the Note Payment Account so that the amount therein will be sufficient to pay the principal of and interest on the Series 2017A Notes and any Additional Notes due on the Maturity Date, and to take certain measures required by the Authorizing Resolution if and to the extent that the Note Payment Account contains less than the required amount. The Owners of the Series 2017A Notes will be equally and ratably secured by a first lien on the Note Payment Account and the moneys and investments deposited therein, which lien will be on parity with the lien thereon in favor of the registered owners of any Additional Notes that may be issued hereafter.

The Series 2017A Notes do not constitute a debt, indebtedness or multiple fiscal year financial obligation of the State within the meaning of any applicable provision of the State Constitution or State statutes. The Owners and Beneficial Owners of the Series 2017A Notes may not look to any source other than the Pledged Revenues for payment of the Series 2017A Notes.

See generally “THE SERIES 2017A NOTES – Security and Sources of Payment – Additional Notes,” “STATE FINANCIAL INFORMATION – State Funds – *The General Fund*,” “BORROWABLE RESOURCES,” “APPENDIX A – THE STATE GENERAL FUND” and “APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST.”

### **Legal and Tax Matters**

Sherman & Howard L.L.C., Denver, Colorado, is serving as bond counsel (“Bond Counsel”) in connection with the issuance of the Series 2017A Notes and will deliver its opinion substantially in the form appended to this Official Statement. Certain legal matters will be passed upon for the State by the Attorney General of the State and by Kline Alvarado Veio, P.C., Denver, Colorado, as special counsel to the State. See “LEGAL MATTERS.”

In the opinion of Sherman & Howard L.L.C., Bond Counsel, assuming continuous compliance with certain covenants described herein, interest on the Series 2017A Notes is excluded from gross income under federal income tax laws pursuant to Section 103 of the Internal Revenue Code of 1986, as amended to the date of delivery of the Series 2017A Notes (the “Tax Code”), and interest on the Series 2017A Notes is excluded from alternative minimum taxable income as defined in Section 55(b)(2) of the Tax Code, except that such interest is required to be included in calculating the “adjusted current earnings adjustment” applicable to corporations for purposes of computing the alternative minimum taxable income of corporations; and interest on the Series 2017A Notes is excluded from Colorado taxable income and Colorado alternative minimum taxable income under Colorado income tax laws in effect as of the date of delivery of the Series 2017A Notes as described herein. See also “LEGAL MATTERS,” “TAX MATTERS” and “APPENDIX G – FORM OF OPINION OF BOND COUNSEL.”

### **Continuing Disclosure**

In accordance with Subsection (d)(3) of Securities and Exchange Commission Rule 15c2-12, promulgated under the Securities Exchange Act of 1934, as amended (“Rule 15c2-12”), which Subsection applies to offerings of municipal securities having a stated maturity of 18 months or less, such as the Series 2017A Notes, the State will not undertake to provide on an ongoing basis either audited annual financial statements or annual financial information or operating data of the type presented in this Official Statement, but will undertake in the Authorizing Resolution to provide notice of the occurrence of certain events as described in “THE SERIES 2017A NOTES – Security and Sources of Payment – *Note Payment Account*” and “CONTINUING DISCLOSURE.”

For a discussion of the recent compliance by the State and certain State departments and agencies that utilize the State’s credit with the various continuing disclosure undertakings of such entities, see

“CONTINUING DISCLOSURE – Compliance With Other Continuing Disclosure Undertakings – MCDC Settlement Order with the Securities and Exchange Commission.”

### **State Economic and Demographic Information**

This Official Statement contains economic and demographic information about the State prepared by Development Research Partners, Inc. for use by the State. See “APPENDIX D – CERTAIN STATE ECONOMIC AND DEMOGRAPHIC INFORMATION.” Development Research Partners, Inc. has consented to the inclusion of such information in this Official Statement. The State does not assume responsibility for the accuracy, completeness or fairness of such information. The information in such Appendix has been included in the Official Statement in reliance upon the authority of Development Research Partners, Inc. as experts in the preparation of economic and demographic analyses. Potential investors should read such Appendix in its entirety for information with respect to the economic and demographic status of the State.

### **Additional Information**

Brief descriptions of the Series 2017A Notes, the State, the Authorizing Resolution, the Funds Management Act and certain other statutes, reports, documents and instruments are included in this Official Statement. The descriptions of the statutes, reports, documents or other instruments included herein do not purport to be comprehensive or definitive and are qualified in their entirety by reference to each such statute, report, document or other instrument. Copies of the Authorizing Resolution and certain other documents referred to herein may be obtained from George K. Baum & Company (the “Financial Advisor”), 1400 Wewatta Street, Suite 800, Denver, Colorado 80202, Attention: Robyn Moore, telephone number (303) 292-1600.

### **Investment Considerations**

An investment in the Series 2017A Notes involves risk. Prospective investors are urged to read this Official Statement in its entirety, giving particular attention to the matters discussed in “INVESTMENT CONSIDERATIONS,” in order to obtain information essential to the making of an informed investment decision.

### **Forward Looking Statements**

See the preliminary notices in this Official Statement regarding forward-looking statements.

### **Miscellaneous**

The cover page, inside cover, prefatory information and appendices to this Official Statement are integral parts hereof and must be read together with all other parts of this Official Statement.

Information contained in this Official Statement has been obtained from officers, employees and records of the State and from other sources believed to be reliable, but this Official Statement is not to be construed as the promise or guarantee of the State, the State Treasurer or the Financial Advisor. The information herein is subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create the implication that there has been no change in the matters described in this Official Statement since the date hereof. So far as any statements made in this Official Statement involve matters of opinion, forecasts, projections or estimates, whether or not expressly stated, they are set forth as such and not as representations of fact.

This Official Statement shall not be construed as a contract or agreement between the State and the Owners or Beneficial Owners of the Series 2017A Notes.

### **APPLICATION OF PROCEEDS OF THE SERIES 2017A NOTES**

The Series 2017A Notes are being issued for the purpose of funding anticipated cash flow shortfalls in the General Fund in Fiscal Year 2017-18 and paying the costs of issuing the Series 2017A Notes.

Timing differences between revenue collections and disbursements have caused the State to engage in interfund borrowing and the issuance of General Fund tax and revenue anticipation notes from time to time in order to meet the obligations of the General Fund in a timely manner. Without interfund borrowing or the issuance of the Series 2017A Notes, the State forecasts that the General Fund would incur cumulative cash shortfalls in Fiscal Year 2017-18. The proceeds of the Series 2017A Notes after payment of costs and expenses relating to the issuance and sale of the Series 2017A Notes, or approximately \$617,894,300, will be deposited in the General Fund and used both to alleviate cash flow shortfalls and finance the State's daily operations in anticipation of taxes and other revenues to be received later in Fiscal Year 2017-18. The costs and expenses relating to the issuance and sale of the Series 2017A Notes, including underwriting discount, are approximately \$135,900.

See "THE SERIES 2017A NOTES – Authorization," "STATE FINANCIAL INFORMATION – State Funds – *The General Fund*," "BORROWABLE RESOURCES," "UNDERWRITING," "APPENDIX A – THE STATE GENERAL FUND" and "APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST."

### **THE SERIES 2017A NOTES**

The following is a summary of certain provisions of the Series 2017A Notes during such time as the Series 2017A Notes are subject to the DTC book-entry system. Reference is hereby made to the Authorizing Resolution in its entirety for the detailed provisions pertaining to the Series 2017A Notes, including provisions applicable upon discontinuance of participation in the DTC book-entry system.

#### **Authorization**

The Series 2017A Notes are being issued under the authority of the State Constitution and State laws, particularly the Funds Management Act and the Supplemental Public Securities Act, and pursuant to the Authorizing Resolution.

The Funds Management Act authorizes the State Treasurer to issue and sell notes from time to time payable from the anticipated revenues of any one or more funds or groups of accounts to which State moneys are credited to accomplish any of the purposes of such Act, including the alleviation of cash flow shortfalls in any such fund or group of accounts. The aggregate principal amount of outstanding notes payable from any fund or group of accounts is limited to 50% of the amount of revenues of such fund or group of accounts anticipated but not yet credited to the fund or group of accounts for the applicable Fiscal Year, excluding the proceeds of notes or other borrowing credited to such fund or group of accounts and any income from the investment of revenues or the proceeds of such borrowings. It is forecast that approximately \$10,999.0 million in revenues (excluding the proceeds of the Series 2017A Notes or other borrowings and investment income of revenues and such proceeds) will be credited to the General Fund for Fiscal Year 2017-18, thereby imposing a limit of approximately \$5,499.5 million in General Fund notes for Fiscal Year 2017-18. See "APPENDIX A – THE STATE GENERAL FUND – General Fund Cash Flow" and "Additional Notes" below.

## General Provisions

The Series 2017A Notes will be issued in fully registered form (*i.e.*, registered as to payment of both principal and interest) and registered initially in the name of Cede & Co., as nominee of DTC, which will serve as securities depository for the Series 2017A Notes. Beneficial Ownership Interests in the Series 2017A Notes, in non-certificated book-entry only form, may be purchased in integral multiples of \$5,000 by or through DTC Participants. Such Beneficial Ownership Interests will be recorded in the name of the Beneficial Owners on the books of the DTC Participants from whom they are acquired, and will be governed as to payment of principal and interest and the receipt of notices and other communications, transfers and various other matters with respect to the Series 2017A Notes by the rules and operating procedures applicable to the DTC book-entry system as described in “APPENDIX F – DTC BOOK-ENTRY SYSTEM.”

The Series 2017A Notes will be dated as of the Closing Date, mature on the Maturity Date and bear interest at the rates per annum (computed on the basis of a 360-day year consisting of twelve 30-day months) specified on the cover page of this Official Statement. Interest on the Series 2017A Notes will accrue from the Closing Date and will be payable on the Maturity Date. The principal of and interest on the Series 2017A Notes will be payable by the State Treasurer, as paying agent for the Series 2017A Notes, on the Maturity Date to Cede & Co., as the Owner of the Series 2017A Notes, for subsequent credit to the accounts of the Beneficial Owners. See “APPENDIX F – DTC BOOK-ENTRY SYSTEM.” Interest on the Series 2017A Notes will cease to accrue on the Maturity Date.

The Series 2017A Notes are not subject to redemption prior to the Maturity Date.

The Deputy State Treasurer will serve as the registrar for the Series 2017A Notes, subject to the provisions of the DTC book-entry system.

*Neither the State, the State Treasurer, the Deputy State Treasurer, the Chief Financial Officer of the Department of the Treasury nor the Financial Advisor has any responsibility or obligation to any Beneficial Owner with respect to (i) the accuracy of any records maintained by DTC or any DTC Participant, (ii) the distribution by DTC or any DTC Participant of any notice that is permitted or required to be given to the Owners of the Series 2017A Notes under the Authorizing Resolution, (iii) the payment by DTC or any DTC Participant of any amounts received under the Authorizing Resolution with respect to the Series 2017A Notes, (iv) any consent given or other action taken by DTC or its nominee as the owner of Series 2017A Notes or (v) any other related matter.*

## Security and Sources of Payment

**Limited Obligations.** The Series 2017A Notes are special, limited obligations of the State payable solely from the Pledged Revenues, which the State Treasurer believes will be sufficient for the repayment of the Series 2017A Notes. The State pledges to the payment of principal of and interest on the Series 2017A Notes Pledged Revenues in an amount sufficient to pay the principal of and interest on the Series 2017A Notes on the Maturity Date. The Series 2017A Notes do not constitute a debt, indebtedness or multiple fiscal year financial obligation of the State within the meaning of any applicable provision of the State Constitution or State statutes. The Owners and Beneficial Owners of the Series 2017A Notes may not look to any source other than the Pledged Revenues for payment of the Series 2017A Notes.

**The Pledged Revenues.** The Pledged Revenues consist of (i) Current General Fund Revenues, (ii) the unexpended proceeds, if any, of the Series 2017A Notes and any Additional Notes and (iii) Borrowable Resources.

**Current General Fund Revenues.** Current General Fund Revenues are comprised of any cash income or other cash receipts duly credited to the General Fund for Fiscal Year 2017-18 that are subject to appropriation for Fiscal Year 2017-18 and not yet credited to the General Fund as of the Closing Date. Current General Fund Revenues include, generally, receipts from corporate and individual income taxes, sales and use taxes, certain excise taxes, insurance taxes, interest on investments of certain State funds and revenues from pari-mutuel wagering, courts, charges for services and other sources.

Current General Fund Revenues do not include the proceeds of the Series 2017A Notes or Additional Notes or certain moneys that are legally required to be paid to other funds, including, among others: (i) those moneys or revenues that are required to be credited to the Old Age Pension Fund and the State Education Fund, except to the extent determined to be in excess of the requirements of such funds and transferred to the General Fund; and (ii) moneys received from the federal government that are not subject to appropriation or are restricted to a particular purpose or use. In addition, the Series 2017A Notes are not payable from General Fund or other State revenues that are subject to accrual to the General Fund in any Fiscal Year after Fiscal Year 2017-18. See “APPENDIX A – THE STATE GENERAL FUND” and “APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST.”

**Borrowable Resources.** The Pledged Revenues also include Borrowable Resources, being, to the extent permitted by law, proceeds of internal borrowing from other State funds. These State funds consist of over 600 funds and accounts of the State other than the General Fund. See “BORROWABLE RESOURCES” for a more detailed discussion of the State funds constituting the Borrowable Resources.

**Note Payment Account.** The Note Payment Account of the General Fund is created pursuant to the Authorizing Resolution and is to be held by the State Treasurer on behalf of the State and used solely to pay the Series 2017A Notes and any Additional Notes. The Note Payment Account is pledged to the payment of the principal of and interest on the Series 2017A Notes and any Additional Notes on the Maturity Date, and the Owners of the Series 2017A Notes and the registered owners of any Additional Notes are equally and ratably secured by an exclusive first lien on the Note Payment Account and the moneys deposited therein. Moneys held in the Note Payment Account may be commingled for investment purposes with other moneys in the General Fund but are not available for the payment of other General Fund expenditures or interfund transfers.

In order to provide for the payment of the principal of and interest on the Series 2017A Notes and any Additional Notes, the State Treasurer covenants to credit Pledged Revenues to the Note Payment Account in such amount as will cause the balance in the Note Payment Account on June 15, 2018, to be at least equal to the principal of and interest on the Series 2017A Notes and any Additional Notes due on the Maturity Date.

If on June 15, 2018, the balance in the Note Payment Account is less than the amount required, the State Treasurer covenants to: (i) give notice of such deficiency to the Municipal Securities Rulemaking Board (the “MSRB”) via its Electronic Municipal Market Access (“EMMA”) system and to DTC or any successor depository; and (ii) until the balance in the Note Payment Account satisfies such requirement, (a) credit to the Note Payment Account all Current General Fund Revenues then available and thereafter received, and (b) borrow (to the extent permitted by law) for credit to the Note Payment Account from other State funds. Such notice is to be given by electronic transmission unless the designated recipient thereof has otherwise requested the State Treasurer to use another means of transmission. In the event the designated recipient does not utilize electronic transmission and has not otherwise requested a specific means of transmission from the State Treasurer, such notice is to be by first-class mail, postage prepaid.

The State Treasurer covenants that moneys in the Note Payment Account not immediately needed will be invested only in investments maturing on or before the Maturity Date and authorized by (i) the

Funds Management Act, (ii) Title 24, Article 36, C.R.S., or (iii) to the extent applicable, Title 24, Article 75, Part 6, C.R.S. Investment earnings on moneys held in the Note Payment Account are to be retained in the Note Payment Account until the balance therein equals or exceeds the principal of and interest due on the Series 2017A Notes and Additional Notes, if any, on the Maturity Date. See “FINANCIAL INFORMATION – Investment and Deposit of State Funds” and “APPENDIX A – THE STATE GENERAL FUND – Investment Policies – Investment of the State Pool.”

The State Treasurer covenants to prepare, on or about the 25<sup>th</sup> day of October 2017, January 2018 and April 2018, written projections of Current General Fund Revenues, Current General Fund Expenditures, General Fund balances and legally available amounts in other State funds for each month remaining in the Current Fiscal Year, which projections are to be based on the quarterly revenue projections approved by the Governor’s Office of State Planning and Budgeting (“OSPB”) or any successor in function. See “STATE FINANCIAL INFORMATION – Budget Process and Other Considerations” and “APPENDIX A – THE STATE GENERAL FUND – Revenue Estimation; OSPB Revenue and Economic Forecasts.”

If at any time such projections show that Current General Fund Revenues will be insufficient to permit the required credits to the Note Payment Account, the State Treasurer covenants in the Authorizing Resolution to: (i) immediately give notice of such determination to the MSRB (via EMMA) and to DTC or any successor securities depository; and (ii) until there has been credited to the Note Payment Account an amount equal to the amount by which the required credits are projected to be insufficient, (a) credit all Current General Fund Revenues then available and thereafter received to the Note Payment Account to the extent required, and (b) transfer from other State funds (to the extent permitted by law) for credit to the Note Payment Account to the extent required. The State Treasurer also covenants in the Authorizing Resolution to make no repayment of moneys transferred from any other funds of the State unless after taking into account the amount of the repayment, the amount credited to the Note Payment Account will equal or exceed the principal and interest due on the Series 2017A Notes on the Maturity Date. See also “CONTINUING DISCLOSURE.”

For a discussion of the anticipated cash flow to the General Fund, the sources thereof and the procedures to be followed for and the limitations on interfund borrowing, see generally “STATE FINANCIAL INFORMATION – State Funds – *The General Fund*,” “BORROWABLE RESOURCES” and “APPENDIX A – THE STATE GENERAL FUND.”

### **Additional Notes**

Subject to the limitation on the amount of General Fund notes that may be issued pursuant to the Funds Management Act as discussed in “Authorization” above, the Authorizing Resolution authorizes the State Treasurer to issue Additional Notes payable from and secured by a pledge of all or a portion of the Pledged Revenues on parity with (but not superior to) the pledge in favor of the Owners of the Series 2017A Notes. The Additional Notes may have such details as the State Treasurer may determine; provided, however, that the Additional Notes are required to be (i) non-redeemable prior to the Maturity Date, (ii) due and payable as to both principal and interest on the Maturity Date and (iii) payable from the Note Payment Account. The State Treasurer currently does not anticipate issuing any Additional Notes, but reserves the right to do so.

### **Defaults and Remedies**

Each of the following constitutes an “Event of Default” under the Authorizing Resolution:

- Payment of the principal of or interest on any of the Series 2017A Notes is not made on the Maturity Date;

- The balance credited to the Note Payment Account on June 15, 2018, is less than the principal and interest due on the Series 2017A Notes and Additional Notes, if any, on the Maturity Date; or
- The State fails to observe or perform any condition, agreement or covenant contained in the Authorizing Resolution or the Series 2017A Notes and such failure continues for 15 days after receipt of written notice by the State Treasurer from any Owner of the Series 2017A Notes.

Upon the occurrence of any Event of Default, the Authorizing Resolution provides that any Owner of the Series 2017A Notes may: (i) sue or commence an action or proceeding to collect sums due and owing on the Series 2017A Notes or to enforce and protect such Owner's rights under the Authorizing Resolution and the Series 2017A Notes; (ii) compel, to the extent permitted by law, by mandamus or otherwise, the performance by the State of any covenant in the Authorizing Resolution or the Series 2017A Notes; or (iii) examine the books and records of the State and require the State Treasurer to account for all moneys and investments constituting the Pledged Revenues as if the State Treasurer were the trustee of an express trust. Neither principal of nor interest on the Series 2017A Notes may be accelerated as a consequence of any Event of Default.

If on the Maturity Date the moneys in the Note Payment Account are not sufficient to pay the principal of and interest on the Series 2017A Notes and Additional Notes, if any, the State Treasurer is to ratably apply the moneys in the Note Payment Account to the payment of the principal and interest then due and unpaid upon the Series 2017A Notes and Additional Notes, if any, without preference or priority of principal over interest or of interest over principal, or of any Series 2017A Note or Additional Notes, if any, over any other Series 2017A Note or Additional Notes, if any, according to the amounts due, respectively, for principal and interest to the persons entitled thereto without any discrimination or preference.

### **Tax Covenant**

The State Treasurer covenants in the Authorizing Resolution for the benefit of the Owners of the Series 2017A Notes that the State Treasurer will not take any action or omit to take any action with respect to the Series 2017A Notes, the proceeds thereof or other funds of the State if such action or omission would (i) cause the interest on the Series 2017A Notes to lose its exclusion from gross income for federal income tax purposes under the Internal Revenue Code of 1986, as amended (the "Tax Code"), (ii) cause interest on the Series 2017A Notes to lose its exclusion from alternative minimum taxable income as defined in Section 55(b)(2) of the Tax Code except to the extent such interest is required to be included in the adjusted current earnings adjustment applicable to corporations under Section 56 of the Tax Code in calculating corporate alternative minimum taxable income or (iii) cause interest on the Series 2017A Notes to lose its exclusion from State taxable income or State alternative minimum taxable income under present State law. This covenant is to remain in full force and effect notwithstanding the payment in full of the Series 2017A Notes until the date on which all obligations of the State Treasurer in fulfilling such covenant under the Tax Code and State law have been met. See also "TAX MATTERS."

## **INVESTMENT CONSIDERATIONS**

An investment in the Series 2017A Notes involves certain investment risks that are discussed throughout this Official Statement. Each prospective investor should make an independent evaluation of all information presented in this Official Statement in order to make an informed investment decision. Particular attention should be given to the factors described below that, among others, could affect the payment of the principal of and interest on the Series 2017A Notes.

## Limited Obligations

The Series 2017A Notes are special, limited obligations of the State payable solely from and secured by a pledge of the Pledged Revenues, consisting of (i) Current General Fund Revenues, (ii) the unexpended proceeds, if any, of the Series 2017A Notes and any Additional Notes and (iii) Borrowable Resources. The State has not pledged its General Fund, taxing power or revenues, other than the Pledged Revenues, to the payment of the Series 2017A Notes. The Series 2017A Notes do not constitute a debt, indebtedness or multiple fiscal year financial obligation of the State or any political subdivision thereof within the meaning of any applicable provision of the State Constitution or State laws, and no governmental entity has pledged its faith and credit for the payment of the Series 2017A Notes. If an Event of Default under the Authorizing Resolution should occur, the State may not have sufficient Pledged Revenues to pay the principal of and/or the interest on the Series 2017A Notes. See “THE SERIES 2017A NOTES – Security and Sources of Payment – Defaults and Remedies.”

## Budgets and Revenue Forecasts

The State Constitution requires that expenditures for any Fiscal Year not exceed revenues for such Fiscal Year. In addition, Section 24-75-201.1(1)(d), C.R.S., provides that for each Fiscal Year, a portion of the unrestricted General Fund year-end balance is to be retained as a reserve (the “Unappropriated Reserve”), and Section 24-75-201.1, C.R.S., provides that General Fund appropriations for each Fiscal Year, with certain exceptions, may not exceed specified amounts, as discussed in “STATE FINANCIAL INFORMATION – Budget Process and Other Considerations – *Revenues and Unappropriated Amounts – Expenditures; The Balanced Budget and Statutory Spending Limitation.*”

The State relies on revenue estimation as the basis for budgeting and establishing aggregate funds available for expenditure for its appropriation process. By statute, the OSPB is responsible for developing the General Fund revenue estimate. The most recent OSPB revenue forecast was issued on June 20, 2017 (the “OSPB June 2017 Revenue Forecast”), and is included in its entirety in this Official Statement. See “STATE FINANCIAL INFORMATION,” “APPENDIX A – THE STATE GENERAL FUND – Revenue Estimation; OSPB Revenue and Economic Forecasts” and “APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST.” The Colorado Legislative Council also prepares quarterly revenue forecasts which are released on the same dates as the OSPB revenue forecasts.

The State’s Fiscal Year budgets are not prepared on a cash basis, but rather are prepared using the modified accrual method of accounting in accordance with the standards promulgated by the Governmental Accounting Standards Board (“GASB”), with certain statutory exceptions. The State could experience temporary and cumulative cash shortfalls as the result of differences in the timing of the actual receipt of revenues and payment of expenditures by the State compared to the inclusion of such revenues and expenditures in the State’s Fiscal Year budgets on a modified accrual basis, which does not take into account the timing of when such amounts are received or paid. If an unanticipated cash shortfall were to occur in late Fiscal Year 2017-18, it may adversely affect the State’s ability to repay the Series 2017A Notes. See “STATE FINANCIAL INFORMATION – Budget Process and Other Considerations,” “APPENDIX A – THE STATE GENERAL FUND – Revenue Estimation; OSPB Revenue and Economic Forecasts” and “APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST.”

The OSPB June 2017 Revenue Forecast projects that General Fund revenues in Fiscal Year 2016-17 will increase by \$340.7 million, or 3.4%, over Fiscal Year 2015-16, and that General Fund revenues in Fiscal Year 2017-18 will increase by \$686.9 million, or 6.7%, over Fiscal Year 2016-17. The OSPB June 2017 Revenue Forecast indicates that the State ended Fiscal Year 2015-16 with reserves of \$48.8 million above the Unappropriated Reserve requirement, but will end Fiscal Years 2016-17 and 2017-18 with reserves of \$142.7 million and \$285.4 million below the applicable Unappropriated Reserve

requirement, respectively, although not to the level that would trigger budget-balancing actions by the Governor as discussed in “APPENDIX A – THE STATE GENERAL FUND – Revenue Estimation; OSPB Revenue and Economic Forecasts – *Revenue Shortfalls*.” These figures are based on revenue and budget information available when the OSPB June 2017 Revenue Forecast was completed and are subject to change in subsequent OSPB revenue forecasts based on new information on revenue and expenditures.

The next OSPB revenue forecast will be released in September of 2017. General Fund revenue projections in this and subsequent OSPB revenue forecasts may be materially different from the OSPB June 2017 Revenue Forecast. If a revenue shortfall is projected for Fiscal Year 2017-18 and subsequent forecasted years, budget cuts and/or actions to increase the amount of money in the General Fund will be necessary to ensure a balanced budget. A revenue shortfall in Fiscal Year 2017-18 may adversely affect the State’s ability to repay the Series 2017A Notes. See “STATE FINANCIAL INFORMATION – Budget Process and Other Considerations,” “APPENDIX A – THE STATE GENERAL FUND – Revenue Estimation; OSPB Revenue and Economic Forecasts” and “APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST.”

Prospective investors are cautioned that any forecast is subject to uncertainties, and inevitably some assumptions used to develop the forecasts will not be realized, and unanticipated events and circumstances may occur. Therefore, there are likely to be differences between forecasted and actual results, and such differences may be material. No representation or guaranty is made herein as to the accuracy of the forecasts. See the preliminary notices in this Official Statement regarding forward-looking statements.

#### **Additional Notes**

The Authorizing Resolution permits the State to issue Additional Notes upon satisfaction of certain conditions provided therein and in the Funds Management Act. If Additional Notes are issued, they would be payable from and secured by a pledge of the Pledged Revenues on parity with the pledge securing the Series 2017A Notes and could therefore adversely impact the investment security for the Series 2017A Notes. The State Treasurer currently does not anticipate issuing any Additional Notes, but reserves the right to do so. See “THE SERIES 2017A NOTES – Authorization – Additional Notes.”

#### **Loss of Tax Exemption**

As discussed in “TAX MATTERS,” the interest on the Series 2017A Notes could become includable in gross income for federal income tax purposes and/or become includable in Colorado taxable income or Colorado alternative minimum taxable income as a result of a failure of the State to comply with certain covenants contained in the Authorizing Resolution.

#### **Future Changes in Laws**

Various State laws and constitutional provisions apply to the operations of and availability and appropriation of funds by the State. There is no assurance that there will not be any changes in, interpretation of or addition to such laws that would have a material adverse effect, directly or indirectly, on the affairs of the State, the availability of and appropriation of funds by the State or the ability of the State to repay the Series 2017A Notes. See also “LITIGATION, GOVERNMENTAL IMMUNITY AND SELF-INSURANCE – Current Litigation” for a discussion of certain pending litigation the outcome of which could potentially have a material adverse impact on the State’s finances.

## THE STATE

### General Profile

Colorado became the 38<sup>th</sup> state of the United States of America when it was admitted to the union in 1876. Its borders encompass 103,718 square miles of the high plains and the Rocky Mountains, with elevations ranging from 3,315 to 14,433 feet above sea level. The current population of the State is approximately 5.5 million. The State's major economic sectors include agriculture, professional and business services, manufacturing, technology, tourism, energy production and mining. Considerable economic activity is generated in support of these sectors by government, wholesale and retail trade, transportation, communications, public utilities, finance, insurance, real estate and other services. See also "APPENDIX C – STATE OF COLORADO COMPREHENSIVE ANNUAL FINANCIAL REPORT FOR THE FISCAL YEAR ENDED JUNE 30, 2016" and "APPENDIX D – CERTAIN STATE ECONOMIC AND DEMOGRAPHIC INFORMATION" for additional information about the State.

### Organization

The State maintains a separation of powers utilizing three branches of government: executive, legislative and judicial. The executive branch comprises four major elected officials: the Governor, State Treasurer, Attorney General and Secretary of State. The chief executive power is allocated to the Governor, who has responsibility for administering the budget and managing the executive branch. The State Constitution empowers the State legislature, known as the General Assembly, to establish up to 20 principal departments in the executive branch. Most departments of the State report directly to the Governor; however, the Departments of Treasury, Law and State report to their respective elected officials, and the Department of Education reports to the elected State Board of Education. The elected officials serve four year terms. The current term of such officials commenced in January of 2015 (following the general election held in November of 2014) and will expire on the second Tuesday in January of 2019. No elected executive official may serve more than two consecutive terms in the same office.

The General Assembly is bicameral, consisting of the 35-member Senate and 65-member House of Representatives. Senators serve a term of four years and representatives serve a term of two years. No senator may serve more than two consecutive terms, and no representative may serve more than four consecutive terms. The State Constitution allocates to the General Assembly legislative responsibility for, among other things, appropriating State moneys to pay the expenses of State government. The General Assembly meets annually in regular session beginning no later than the second Wednesday of January of each year. Regular sessions may not exceed 120 calendar days. Special sessions may be convened by proclamation of the Governor or by written request of two-thirds of the members of each house to consider only those subjects for which the special session is requested.

## STATE FINANCIAL INFORMATION

### The State Treasurer

The State Constitution provides that the State Treasurer is to be the custodian of public funds in the State Treasurer's care, subject to legislative direction concerning safekeeping and management of such funds. The State Treasurer is the head of the statutorily created Department of the Treasury (the "State Treasury"), which receives all State moneys collected by or otherwise coming into the hands of any officer, department, institution or agency of the State (except certain institutions of higher education). The State Treasurer deposits and disburses those moneys in the manner prescribed by law. Every officer, department, institution and agency of the State (except for certain institutions of higher education)

charged with the responsibility of collecting taxes, licenses, fees and permits imposed by law and of collecting or accepting tuition, rentals, receipts from the sale of property and other moneys accruing to the State from any source is required to transmit those moneys to the State Treasury under procedures prescribed by law or by fiscal rules promulgated by the Office of the State Controller. The State Treasurer and the State Controller may authorize any department, institution or agency collecting or receiving State moneys to deposit such moneys to a depository to the State Treasurer's credit in lieu of transmitting such moneys to the State Treasury.

The State Treasurer has discretion to invest in a broad range of interest bearing securities described by statute. See "Investment and Deposit of State Funds" under this caption and "APPENDIX A – THE STATE GENERAL FUND – Investment of the State Pool." All interest derived from the deposit and investment of State moneys must be credited to the General Fund unless otherwise expressly provided by law.

### **Tax and Revenue Anticipation Notes**

The Funds Management Act authorizes the State Treasurer, on behalf of the State, to issue and sell notes payable from the anticipated revenues of any one or more funds or groups of accounts to meet temporary cash flow shortfalls. Since 1984, with the exception of each of Fiscal Years 1990-91, 1991-92 and 1998-99, the State has issued tax and revenue anticipation notes, such as the Series 2017A Notes, pursuant to the Funds Management Act in order to fund cash flow shortfalls in the General Fund. For each of Fiscal Years 1990-91, 1991-92 and 1998-99, the State funded cash flow shortfalls by use of Borrowable Resources. All tax and revenue anticipation notes issued by the State have been paid in full when due. See also "THE SERIES 2017A NOTES."

### **Taxpayer's Bill of Rights**

*General.* Article X, Section 20 of the State Constitution, entitled the Taxpayer's Bill of Rights and commonly known as "TABOR," imposes various fiscal limits and requirements on the State and its local governments, excluding "enterprises," which are defined in TABOR as government-owned businesses authorized to issue their own revenue bonds and receiving less than 10% of their annual revenues in grants from all State and local governments combined. Certain limitations contained in TABOR may be exceeded with prior voter approval.

TABOR provides a limitation on the amount of revenue that may be kept by the State in any particular Fiscal Year, regardless of whether that revenue is actually spent during the Fiscal Year. This revenue limitation is effected through a limitation on "fiscal year spending" as discussed hereafter. Any revenue received during a Fiscal Year in excess of the limitations provided for in TABOR must be refunded to the taxpayers during the next Fiscal Year unless voters approve a revenue change.

TABOR also requires prior voter approval for the following, with certain exceptions: (i) any new State tax, State tax rate increase, extension of an expiring State tax or State tax policy change directly causing a net revenue gain to the State; or (ii) the creation of any State "multiple fiscal year direct or indirect ... debt or other financial obligation."

Thirdly, TABOR requires the State to maintain an emergency reserve equal to 3% of its fiscal year spending (the "TABOR Reserve"), which may be expended only upon: (i) the declaration of a State emergency by passage of a joint resolution approved by a two-thirds majority of the members of both houses of the General Assembly and subsequently approved by the Governor; or (ii) the declaration of a disaster emergency by the Governor. The annual Long Appropriation Bill (the "Long Bill") designates the resources that constitute the TABOR Reserve, which historically have consisted of portions of various

State funds plus certain State real property. The amounts of the TABOR Reserve for Fiscal Years 2016-17 and 2017-18 have been estimated in the OSPB June 2017 Revenue Forecast to be \$389.5 million and \$393.1 million, respectively.

***Fiscal Year Revenue and Spending Limits; Referendum C.*** As noted above, unless otherwise approved by the voters, TABOR limits annual increases in State revenues and fiscal year spending, with any excess revenues required to be refunded to taxpayers. Fiscal year spending is defined as all expenditures and reserve increases except those for refunds made in the current or next Fiscal Year or those from gifts, federal funds, collections for another government, pension contributions by employees and pension fund earnings, reserve transfers or expenditures, damage awards or property tax sales.

The maximum annual percentage change in State fiscal year spending is limited by TABOR to inflation (determined as the percentage change in U.S. Bureau of Labor Statistics Consumer Price Index for Denver, Boulder and Greeley, all items, all urban consumers, or its successor index) plus the percentage change in State population in the prior calendar year, adjusted for revenue changes approved by voters after 1991, being the base year for calculating fiscal year spending. TABOR provides for an automatic decrease in the State fiscal year spending limit when State TABOR revenues decline without a corresponding automatic increase in State fiscal year spending limit when State TABOR revenues increase. This can result in what is commonly referred to as the “ratchet down effect” whenever there is a decline in TABOR revenues. The ratchet down effect occurs because each year’s TABOR limit is calculated based on the lesser of the prior year’s TABOR revenues or the prior year’s TABOR limit. In a year in which the State’s TABOR revenues are below the existing TABOR limit, the lesser amount is required to be used to calculate the following year’s TABOR limit. Unlike this automatic reduction, the only means of increasing the TABOR limit is with the approval of State voters. The State experienced the ratchet down effect when TABOR revenues declined by 13.1% between Fiscal Years 2000-01 and 2002-03, followed by an increase of 8.0% in Fiscal Year 2003-04.

Several measures were passed by the General Assembly during the 2005 legislative session in an effort to relieve State budget challenges, including statutory changes designed to mitigate the ratchet down effect of TABOR on the State’s finances. One of two measures that were referred by the General Assembly to a statewide vote in November of 2005, designated “Referendum C,” was approved by State voters and thereafter codified as Sections 24-77-103.6 and 106.5, C.R.S. The immediate impact of Referendum C was to preclude any ratchet down effect on the State beginning in Fiscal Years 2005-06. It also authorized the State to retain and spend any amount in excess of the TABOR limit in Fiscal Years 2005-06 through 2009-10. For Fiscal Years 2010-11 and thereafter, Referendum C created an Excess State Revenues Cap, or “ESRC,” as a voter-approved revenue change under TABOR that now serves as the limit on the State’s fiscal year revenue retention. The base for the ESRC was established as the highest annual State TABOR revenues received in Fiscal Years 2005-06 through 2009-10. This amount, being the revenues received in Fiscal Year 2007-08, is then adjusted for each subsequent Fiscal Year for inflation, the percentage change in State population, the qualification or disqualification of enterprises and debt service changes, each having their respective meanings under TABOR and other applicable State law. However, per SB 17-267, the ESRC for Fiscal Year 2017-18 is to be an amount equal to (i) the ESRC for Fiscal Year 2016-17 calculated as provided above (ii) less \$200 million. For subsequent fiscal years, the ESRC is to be calculated as provided above utilizing the ESRC for Fiscal Year 2017-18 as the base amount.

SB 17-267, also (i) replaces the Hospital Provider Fee with the Healthcare Affordability and Sustainability Fee, which fee will be exempt from TABOR as it will be collected by a new enterprise created by SB 17-267 within the Department of Health Care Policy and Financing; (ii) exempts retail marijuana from the 2.9% State sales tax, which will result in less revenue subject to TABOR in Fiscal Years 2017-18 and thereafter; and (iii) extends and expands the income tax credit for business personal property taxes paid, which is projected to reduce income tax collections in Fiscal Years 2018-19 and

thereafter, but will be offset in part by the distribution of a portion of the special sales tax on retail marijuana sales to the General Fund on an ongoing basis.

As a result of Referendum C, the State was able to retain the following amounts in excess of the previously applicable TABOR limit: \$1.116 billion in Fiscal Year 2005-06, \$1.308 billion in Fiscal Year 2006-07 and \$1.169 billion in Fiscal Year 2007-08. TABOR revenues did not exceed the TABOR limit in either of Fiscal Years 2008-09 or 2009-10. TABOR revenues exceeded the TABOR limit by \$0.771 billion in Fiscal Year 2010-11, \$1.473 billion in Fiscal Year 2011-12, \$1.860 billion on Fiscal Year 2012-13 and \$2.125 billion in Fiscal Year 2013-14, although no refunds were required because such revenues were below the applicable ESRC. TABOR revenues exceeded the TABOR limit by \$2.384 billion in Fiscal Year 2014-15, resulting in the State being \$169.7 million above the applicable ESRC and triggering a refund in Fiscal Year 2015-16.

The OSPB June 2017 Revenue Forecast states that TABOR revenues exceeded, or are forecast to exceed, the TABOR limit by \$2.397 billion in Fiscal Year 2015-16, \$2.295 billion in Fiscal Year 2016-17 and \$1.931 billion in Fiscal Year 2017-18, resulting in the State being \$122.1 million below the ESRC in Fiscal Year 2015-16, \$302.3 million below the projected ESRC in Fiscal Year 2016-17 and \$582.8 million below the projected ESRC in Fiscal Year 2017-18.

The means by which revenues in excess of the ESRC may be refunded to taxpayers under current law include: (i) a sales tax refund to all taxpayers, (ii) the earned income tax credit to qualified taxpayers, (iii) a temporary income tax rate reduction and (iv) beginning with Fiscal Year 2017-18, per SB 17-267, the amount reimbursed by the State Treasurer to county treasurers in the year of the TABOR refund for local property tax revenue losses attributable to the senior homestead and disabled veterans property tax exemptions pursuant to Section 39-3-207(4), C.R.S. The particular refund mechanism used is determined by the amount that needs to be refunded. See also “APPENDIX A – THE STATE GENERAL FUND – General Fund Overview.”

Referendum C also creates the “General Fund Exempt Account” within the General Fund, to which there is to be credited moneys equal to the amount of TABOR revenues in excess of the TABOR limit that the State retains for a given Fiscal Year pursuant to Referendum C. Such moneys may be appropriated or transferred by the General Assembly for the purposes of: (i) health care; (ii) public elementary, high school and higher education, including any related capital construction; (iii) retirement plans for firefighters and police officers if the General Assembly determines such funding to be necessary; and (iv) strategic transportation projects in the Colorado Department of Transportation (“CDOT”) Strategic Transportation Project Investment Program.

***Voter Approval to Retain and Spend Certain Marijuana Taxes Associated with Proposition AA.***

At the general election held on November 3, 2015, the State’s voters authorized the State to retain and spend \$66.1 million in sales and excise taxes on the sale of marijuana and marijuana products (“Marijuana Taxes”) authorized by Proposition AA approved by the State’s voters in November of 2013 that otherwise would have been subject to a required refund to taxpayers in Fiscal Year 2015-16 pursuant to TABOR. HB 15-1367, which referred the measure (Proposition BB) to the State’s voters, also provides for the allocation of the retained amount for public school capital construction, for various purposes such as law enforcement, youth programs and marijuana education and prevention programs and for use by the General Fund for any purpose. For more information on how these amounts are treated in the General Fund, see the discussion in “General Fund and State Education Fund Budget” in the OSPB June 2017 Revenue Forecast. SB 17-267 increased the special sales tax on retail marijuana sales from 10% to 15% effective July 1, 2017.

***Effect of TABOR on the Series 2017A Notes.*** Voter approval under TABOR is not required for the issuance of the Series 2017A Notes as they are both issued and payable within the same Fiscal Year and as such do not constitute a “multiple fiscal year direct or indirect ... debt or other financial obligation” within the meaning of TABOR. Further, the revenue and spending limits of TABOR are not expected to affect the ability of the State to collect and spend the Pledged Revenues for the payment of the principal of and interest on the Series 2017A Notes and any Additional Notes.

## **State Funds**

***The General Fund.*** The principal operating fund of the State is the General Fund. All revenues and moneys not required by the State Constitution or statutes to be credited and paid into a special State fund are required to be credited and paid into the General Fund. The General Fund is discussed in detail in “APPENDIX A – THE STATE GENERAL FUND.”

***Other Funds.*** The State also maintains a large number of statutorily created special funds for which specific revenues are designated for specific purposes. Some of these special funds are considered Borrowable Resources available to pay the principal of and interest on the Series 2017A Notes and on education loan anticipation notes issued by the State. See “BORROWABLE RESOURCES” and “DEBT AND CERTAIN OTHER FINANCIAL OBLIGATIONS – Note Issues of the State.”

## **Budget Process and Other Considerations**

***Phase I (Executive).*** The budget process begins in June of each year when State departments reporting to the Governor prepare both operating and capital budgets for the Fiscal Year beginning 13 months later. In August, these budgets are submitted to the OSPB, a part of the Governor’s office, for review and analysis. The OSPB advises the Governor on departmental budget requests and overall budgetary status. Budget decisions are made by the Governor following consultation with affected departments and the OSPB. Such decisions are reflected in the first budget submitted in November for each department to the Joint Budget Committee of the General Assembly (the “JBC”), as described below. In January, the Governor makes additional budget recommendations to the JBC for the budget of all branches of the State government, except that the elected executive officials, the judicial branch and the legislative branch may also make recommendations to the JBC for their own budgets.

***Phase II (Legislative).*** The JBC, consisting of three members from each house of the General Assembly, develops the legislative budget proposal embodied in the Long Bill, which is introduced in and approved by the General Assembly. Following receipt of testimony by State departments and agencies, the JBC marks up the Long Bill and directs the manner in which appropriated funds are to be spent. The Long Bill includes: (i) General Fund appropriations, supported by general purpose revenue such as taxes; (ii) General Fund Exempt appropriations primarily funded by TABOR-exempt or excess TABOR revenues retained under Referendum C; (iii) cash fund appropriations supported primarily by grants, transfers and departmental charges for services; (iv) reappropriated amounts funded by transfers and earnings appropriated elsewhere in the Long Bill; and (v) estimates of federal funds to be expended that are not subject to legislative appropriation. The Long Bill usually is reported to the General Assembly in March or April with a narrative text. Under current practice, the Long Bill is reviewed and debated in party caucuses in each house. Amendments may be offered by each house, and the JBC generally is designated as a conference committee to reconcile differences. The Long Bill always has been adopted prior to commencement of the Fiscal Year in July. Specific bills creating new programs or amending tax policy are considered separately from the Long Bill in the legislative process. The General Assembly takes action on these specific bills, some of which include additional appropriations separate from the Long Bill. The Long Bill for Fiscal Year 2017-18 (SB 17-254) was adopted by the General Assembly in May of 2017.

**Phase III (Executive).** The Governor may approve or veto the Long Bill or any specific bills. In addition, the Governor may veto line items in the Long Bill or any other bill that contains an appropriation. The Governor’s vetoes are subject to override by a two-thirds majority of each house of the General Assembly. The Long Bill for Fiscal Year 2017-18 was approved and signed by the Governor in May of 2017.

**Phase IV (Legislative).** During the Fiscal Year for which appropriations have been made, the General Assembly may increase or decrease appropriations through supplemental appropriations. Any supplemental appropriations are considered amendments to the Long Bill and are subject to the line item veto of the Governor.

**Revenues and Unappropriated Amounts.** For each Fiscal Year, a statutorily defined amount of unrestricted General Fund year-end balances is required to be retained as a reserve (as previously defined, the “Unappropriated Reserve”), which may be used for possible deficiencies in General Fund revenues. Unrestricted General Fund revenues that exceed the required Unappropriated Reserve, based upon revenue estimates, are then available for appropriation, unless they are obligated by statute for another purpose. In response to economic conditions and their effect on estimated General Fund revenues, the General Assembly periodically modifies the required amount of the Unappropriated Reserve. Set forth in the following table are the Unappropriated Reserve requirements for Fiscal Years 2011-12 and thereafter. See also “APPENDIX A – THE STATE GENERAL FUND – General Fund Overview.”

<b>State of Colorado</b>	
<b>Unappropriated Reserve Requirement</b>	
<u>Fiscal Years</u>	<u>Unappropriated Reserve Requirement<sup>1,2</sup></u>
2011-12	4.0%
2012-13 and 2013-14	5.0
2014-15	6.5
2015-16	5.6
2016-17	6.0 <sup>3</sup>
2017-18 and thereafter	6.5

<sup>1</sup> The Unappropriated Reserve requirement, which is codified as Section 24-75-201.1(1)(d), C.R.S., is a percentage of the amount appropriated for expenditure from the General Fund in the applicable Fiscal Year. Per HB 16-1419 and SB 16-218, for Fiscal Year 2015-16 only, the percentage is of the amount subject to the appropriations limit minus the amount of income tax revenue required by to be diverted to a reserve fund to fund severance tax refunds resulting from the ruling of the Colorado Supreme Court on April 25, 2016, in *BP America Production Company v. Colorado Department of Revenue*. See “General Fund Overview” table in “APPENDIX A – THE STATE GENERAL FUND – General Fund Overview,” and the section of the OSPB June 2017 Revenue Forecast captioned “CASH FUND REVENUE FORECAST – Severance Tax Revenue.”

<sup>2</sup> Per SB 15-251, starting in Fiscal Year 2015-16, General Fund appropriations for lease-purchase agreement payments made in connection with certificates of participation sold to fund certain capital projects were made exempt from the reserve calculation requirement. See “DEBT AND CERTAIN OTHER FINANCIAL OBLIGATIONS – The State, State Departments and Agencies.”

<sup>3</sup> The Unappropriated Reserve requirement for Fiscal Year 2016-17 was reduced from 6.5% to 6.0% per SB 17-266.

The OSPB June 2017 Revenue Forecast indicates that the State ended Fiscal Year 2015-16 with reserves of \$48.8 million above the Unappropriated Reserve requirement, but will end Fiscal Years 2016-17 and 2017-18 with reserves of \$142.7 million and \$285.4 million below the applicable Unappropriated Reserve requirement, respectively, although not to the level that would trigger budget-balancing actions by the Governor as discussed in “APPENDIX A – THE STATE GENERAL FUND – Revenue Estimation; OSPB Revenue and Economic Forecasts – *Revenue Shortfalls*.” These figures are based on revenue and budget information available when the OSPB June 2017 Revenue Forecast was completed and are subject to change in subsequent OSPB revenue forecasts based on new information on revenue and expenditures.

See also generally “APPENDIX A – THE STATE GENERAL FUND – General Fund Overview – Revenue Estimation; OSPB Revenue and Economic Forecasts” and “APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST.”

***Expenditures; The Balanced Budget and Statutory Spending Limitation.*** The State Constitution mandates that expenditures for any Fiscal Year may not exceed available resources for such Fiscal Year. Total unrestricted General Fund appropriations for each Fiscal Year are limited as provided in Section 24-75-201.1, C.R.S. For the Fiscal Years 2009-10 and thereafter, total General Fund appropriations are limited to: (i) such moneys as are necessary for reappraisals of any class or classes of taxable property for property tax purposes as required by Section 39-1-105.5, C.R.S., plus (ii) an amount equal to 5% of Colorado personal income (as reported by the U.S. Bureau of Economic Analysis for the calendar year preceding the calendar year immediately preceding a given Fiscal Year).

Excluded from this appropriations limit are: (i) any General Fund appropriation that, as a result of any requirement of federal law, is made for any new program or service or for any increase in the level of service for any existing program beyond the existing level of service; (ii) any General Fund appropriation that, as a result of any requirement of a final State or federal court order, is made for any new program or service or for any increase in the level of service for an existing program beyond the existing level of service; or (iii) any General Fund appropriation of any moneys that are derived from any increase in the rate or amount of any tax or fee that is approved by a majority of the registered electors of the State voting at any general election.

The limitation on the level of General Fund appropriations may be exceeded for a given Fiscal Year upon the declaration of a State fiscal emergency by the General Assembly, which may be declared by the passage of a joint resolution approved by a two-thirds majority vote of the members of both houses of the General Assembly and approved by the Governor.

See “Taxpayer’s Bill of Rights” above for a discussion of fiscal year spending and revenue limits imposed on the State by TABOR and changes to these limits as the result of the approval of Referendum C.

***Fiscal Year Spending and Emergency Reserves.*** Through TABOR, the State Constitution imposes restrictions on increases in fiscal year spending without voter approval and requires the State to maintain the TABOR Reserve. See “Taxpayer’s Bill of Rights” under this caption for a discussion of the effects of the State Constitution on the State’s financial operations.

## **Fiscal Controls and Financial Reporting**

No moneys may be disbursed to pay any appropriations unless a commitment voucher has been prepared by the agency seeking payment and submitted to the central accounting system, which is managed by the Office of the State Controller, a division of the Department of Personnel & Administration. The State Controller is the head of the Office of the State Controller. The State Controller or his delegate have statutory responsibility for reviewing each commitment voucher submitted to determine whether the proposed expenditure is authorized by appropriation, whether the appropriation contains sufficient funds to pay the expenditure and whether the prices are fair and reasonable. All payments from the State Treasury are made by warrants checks signed by the State Controller and countersigned by the State Treasurer, or by electronic funds transfer. The signature of the State Controller on a warrant or check is full authority for the State Treasurer to pay the warrant or check upon presentation.

The State Controller is appointed by the Executive Director of the Department of Personnel & Administration. Except for certain institutions of higher education which have elected to establish their own fiscal rules, the State Controller has statutory responsibility for coordinating all procedures for financial administration and financial control in order to integrate them into an adequate and unified system, conducting all central accounting and issuing warrants or checks for payment of claims against the State. The State Controller prepares a Comprehensive Annual Financial Report, or “CAFR,” in

accordance with generally accepted accounting principles (“GAAP”) applicable to governmental entities, with certain statutory exceptions for budget compliance and reporting. The State’s CAFR for Fiscal Year 2015-16 (the “Fiscal Year 2015-16 CAFR”) is appended to this Official Statement and includes the most current annual financial statements for the State.

The State implemented a new integrated financial system in July 2014 and has been experiencing various issues, including the labor allocation process which continues to utilize the State’s legacy payroll system. The longer time period to complete labor allocation, the first time closing in the new system and developing financial statement reports caused delays in closing the books and producing the State’s financial statements. This resulted in delays in the release of the State’s CAFRs for Fiscal Years 2014-15 and 2015-16 and the inability of the State to timely submit its audited financial statements for posting on EMMA as required by various continuing disclosure undertakings entered into by the State, the State Treasurer and certain State departments and agencies that utilize the State’s credit. See “CONTINUING DISCLOSURE – Compliance With Other Continuing Disclosure Undertakings.”

### **Basis of Accounting**

For a detailed description of the State’s basis of accounting, see Note 5 to the audited financial statements included in the State’s Fiscal Year 2015-16 CAFR appended to this Official Statement.

### **Basis of Presentation of Financial Results and Estimates**

The financial reports and financial schedules contained in this Official Statement are based on principles that may vary based on the requirements of the report or schedule. The cash flow schedules include all financial activity reported specifically in the General Purpose Revenue Fund on a cash basis, while the Fund level financial statements and revenue estimates are primarily prepared on the modified accrual basis of accounting. Revenue estimates are prepared for those revenues that are related primarily to the general taxing powers of the State and to a lesser degree include intergovernmental transactions, charges for services and receipts from the federal government. The General Fund as defined in the financial statements includes revenues and expenditures for certain special cash receipts that are related to fees, permits and other charges rather than to the general taxing power of the State. See also “APPENDIX A – THE STATE GENERAL FUND – General” for a discussion of the distinction between the statutory General Fund and the GAAP General Fund.

### **Financial Audits**

Financial and post-performance audits of all State agencies are performed by the State Auditor (the “Auditor”) through the Auditor’s staff as assisted by independent accounting firms selected solely by the Auditor. The Auditor is an employee of the legislative branch and is appointed for a term of five years by the General Assembly based on the recommendations of the Legislative Audit Committee of the General Assembly. The present Auditor has been appointed to a term expiring on June 30, 2021. The Legislative Audit Committee is comprised of members of both houses of the General Assembly and has responsibility to direct and review audits conducted by the Auditor.

The Office of the State Auditor, being the State’s independent auditor, has not been engaged to perform and has not performed since the date of its report included herein, any procedures on the financial statements presented in the Fiscal Year 2015-16 CAFR, nor has the State Auditor performed any procedures relating to this Official Statement.

## **Investment and Deposit of State Funds**

The State Treasurer is empowered by Articles 36 and 75 of Title 24, C.R.S., as well as other State statutes, to invest State funds in certain public and non-public fixed income securities. In making such investments, the State Treasurer is to use prudence and care to preserve the principal and to secure the maximum rate of interest consistent with safety and liquidity. The State Treasurer is also required to formulate investment policies regarding the liquidity, maturity and diversification appropriate to each fund or pool of funds in the State Treasurer's custody available for investment. In accordance with this directive, the State Treasurer has developed standards for each portfolio to establish the asset allocation, the level of liquidity, the credit risk profile, the average maturity/duration and performance monitoring measures appropriate to the public purpose and goals of each State fund.

The State Treasurer is also authorized to deposit State funds in national or state chartered banks and savings and loan associations having a principal office in the State and designated as an eligible public depository by the State Banking Board or the State Commissioner of Financial Services, respectively. To the extent that the deposits exceed applicable federal insurance limits, they are required to be collateralized with eligible collateral (as defined by statute) having a market value at all times equal to at least 100% of the amount of the deposit that exceeds federal insurance (102% for banks).

See also Notes 14 and 15 to the State's Fiscal Year 2015-16 CAFR appended to this Official Statement and "APPENDIX A – THE STATE GENERAL FUND – Investment of the State Pool."

## **BORROWABLE RESOURCES**

The Pledged Revenues include, to the extent permitted by law, any Borrowable Resources, which consist of over 600 State funds and accounts other than the General Fund. By constitutional or statutory provision and judicial decision, certain State funds, such as the Public School Permanent Fund, the State Education Fund, the Highway Users Tax Fund and the TABOR Emergency Reserve Fund, are not Borrowable Resources. Borrowable Resources are considered to be moneys in the State pool, and as such are invested as described in "APPENDIX A – THE STATE GENERAL FUND – Investment of the State Pool."

The ability of the State Treasurer to pay the Series 2017A Notes from Borrowable Resources will depend upon the availability of funds in the State Treasury that are eligible for investment. See "APPENDIX A – THE STATE GENERAL FUND – General Fund Cash Flow." In addition, the availability of Borrowable Resources may be affected by the State's statutory obligation to assure the timely payment of certain school district bonds and lease obligations pursuant to Section 22-41-110, C.R.S., commonly referred to as the "State Intercept Act."

The following tables set forth the actual and estimated Borrowable Resources for Fiscal Years 2016-17 and 2017-18. The estimates in the tables are based on various assumptions made by the State Treasurer's office, which are subject to uncertainties. Inevitably, some assumptions used to develop the forecasted amounts will not be realized, and unanticipated events and circumstances may occur. Therefore, there are likely to be differences between the forecasted amounts in the tables and the amounts ultimately realized, and such differences may be material. See also the preliminary notices in this Official Statement regarding forward-looking statements. See also "STATE FINANCIAL INFORMATION – Fiscal Controls and Financial Reporting."

**State of Colorado**  
**Actual and Estimated Borrowable Resources**  
**Fiscal Year 2016-17<sup>1,2,3</sup>**

(Amounts expressed in millions; totals may not add due to rounding)

	Actual											Estimated
	July 2016	Aug 2016	Sept 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	June 2017
Aviation Fund	\$ 19.8	\$ 20.2	\$ 20.5	\$ 19.7	\$ 20.8	\$ 20.6	\$ 20.0	\$ 21.1	\$ 22.0	\$ 21.1	\$ 20.9	\$ 21.3
Capital Construction Fund	111.1	117.1	115.0	108.9	101.1	95.9	83.3	66.5	58.2	71.0	45.0	45.8
College Scholarship Fund	36.4	39.0	14.0	14.0	35.4	139.9	137.8	92.9	35.0	37.7	36.9	25.5
Colorado Student Obligation Bond Authority – Administration	41.8	42.6	52.6	51.1	49.0	40.4	42.9	42.0	42.2	41.8	42.4	54.3
Hazardous Substance Fund	15.3	15.2	15.6	15.6	15.5	15.2	15.5	15.3	15.2	15.4	15.5	16.0
Higher Education Funds <sup>4</sup>	1,353.7	1,665.9	1,837.3	1,779.3	1,708.3	1,633.0	1,815.3	1,886.2	1,886.4	1,808.4	1,692.5	1,788.4
Hospital Provider Fee	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limited Gaming Fund	2.9	0.2	0.3	0.5	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.8
Lottery Fund	40.4	44.6	30.4	38.3	45.0	36.6	43.3	46.2	30.8	39.0	47.4	32.9
Mineral Impact Fund	100.9	111.4	68.8	83.2	94.5	80.6	89.8	100.3	91.6	106.1	118.4	91.0
School Capital Construction Assistance	264.7	304.6	296.8	292.1	305.6	314.7	323.2	368.1	342.5	344.5	369.2	373.6
State and Local Severance Tax Funds	122.6	122.1	114.9	119.2	111.3	118.3	120.3	122.6	127.2	134.4	139.2	138.1
State Public School Fund	18.0	9.6	22.1	12.2	2.5	12.6	4.1	0.5	15.4	7.6	4.8	1.6
Tobacco Tax Funds	2.5	2.7	2.3	2.6	2.8	2.5	2.8	2.9	2.5	2.7	2.8	0.2
Water Conservation Construction Fund	189.5	193.5	222.6	219.1	214.3	226.0	220.4	213.0	222.6	237.8	243.6	251.1
Workers' Compensation Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Borrowable Resources	2,232.9	2,220.3	2,519.3	2,160.6	2,378.1	2,359.2	2,257.3	2,265.8	2,229.3	2,133.8	2,358.6	1,405.8
<b>Total Borrowable Resources</b>	<b>4,552.5</b>	<b>4,908.9</b>	<b>5,332.6</b>	<b>4,916.5</b>	<b>5,085.0</b>	<b>5,096.3</b>	<b>5,177.2</b>	<b>5,244.8</b>	<b>5,122.4</b>	<b>5,003.4</b>	<b>5,139.7</b>	<b>4,248.2</b>
Total General Fund	178.0	23.2	(454.9)	(144.0)	20.4	(1,024.4)	(329.3)	(320.9)	(1,113.2)	(284.8)	67.6	441.6
Less: Notes Issued and Outstanding	(600.0)	(600.0)	(600.0)	(600.0)	(600.0)	(600.0)	(600.0)	(600.0)	(600.0)	(600.0)	(600.0)	--
<b>Net Borrowable Resources</b>	<b>\$4,130.5</b>	<b>\$4,332.1</b>	<b>\$4,277.7</b>	<b>\$4,172.5</b>	<b>\$4,505.5</b>	<b>\$3,472.0</b>	<b>\$4,247.9</b>	<b>\$4,324.0</b>	<b>\$3,409.2</b>	<b>\$4,118.5</b>	<b>\$4,607.2</b>	<b>\$4,689.9</b>

<sup>1</sup> This table shows monthly balances for 16 individual funds plus over 600 other funds and accounts of the State constituting Borrowable Resources. Such funds do not represent State funds with the largest fund balances and are included in this table to be consistent with the Borrowable Resources disclosures provided by the State in the last several years.

<sup>2</sup> The information in this table is presented on a cash basis, and is not directly comparable to similar information included in the State's CAFRs, which is presented on the modified accrual and accrual basis.

<sup>3</sup> Amounts in this table shown as estimates have been made by the State Treasurer's office based on various assumptions and are subject to change. No representation or guaranty is made herein that such estimates will be realized. See also the preliminary notices in this Official Statement regarding forward-looking statements.

<sup>4</sup> The amounts shown for Higher Education primarily represent cash balances in institutions of higher education other than certain institutions that have statutory authority to operate their own Treasury.

Source: State Treasurer's Office

**State of Colorado**  
**Estimated Borrowable Resources**  
**Fiscal Year 2017-18**<sup>1,2,3</sup>

(Amounts expressed in millions; totals may not add due to rounding)

	<b>July 2017</b>	<b>Aug 2017</b>	<b>Sept 2017</b>	<b>Oct 2017</b>	<b>Nov 2017</b>	<b>Dec 2017</b>	<b>Jan 2018</b>	<b>Feb 2018</b>	<b>Mar 2018</b>	<b>Apr 2018</b>	<b>May 2018</b>	<b>June 2018</b>
Aviation Fund	\$ 18.4	\$ 18.8	\$ 19.1	\$ 18.3	\$ 19.3	\$ 19.1	\$ 18.6	\$ 19.6	\$ 20.4	\$ 19.6	\$ 19.4	\$ 19.8
Capital Construction Fund	115.9	122.2	120.0	113.6	105.5	100.0	86.9	69.4	60.7	74.1	47.0	47.7
College Scholarship Fund	37.5	40.2	14.5	14.5	36.5	144.2	142.1	95.7	36.1	38.8	38.0	26.3
Colorado Student Obligation Bond Authority – Administration	43.8	44.5	55.0	53.5	51.2	42.2	44.9	43.9	44.1	43.8	44.3	56.7
Hazardous Substance Fund	14.9	14.8	15.2	15.2	15.1	14.8	15.1	14.9	14.8	15.0	15.1	15.6
Higher Education Funds <sup>4</sup>	1,347.6	1,658.4	1,828.9	1,771.2	1,700.6	1,625.5	1,807.0	1,877.7	1,877.8	1,800.2	1,684.8	1,780.3
Hospital Provider Fee	72.0	21.3	22.7	30.5	37.5	44.2	55.6	68.9	67.8	77.7	87.1	23.0
Limited Gaming Fund	2.8	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.7	2.0	2.3	2.7
Lottery Fund	46.4	51.2	34.9	44.0	51.7	42.0	49.6	53.0	35.3	44.7	54.4	37.7
Mineral Impact Fund	97.1	107.2	66.2	80.1	91.0	77.6	86.4	96.5	88.2	102.2	114.0	87.7
School Capital Construction Assistance	268.1	308.5	300.6	295.8	309.5	318.8	327.4	372.9	346.9	348.9	373.9	378.4
State and Local Severance Tax Funds	119.5	119.0	112.0	116.2	108.5	115.4	117.3	119.5	124.0	131.0	135.7	134.6
State Public School Fund	17.0	9.0	20.9	11.5	2.4	11.9	3.9	0.4	14.5	7.2	4.6	1.5
Tobacco Tax Funds	2.5	2.7	2.3	2.6	2.8	2.5	2.8	2.9	2.5	2.7	2.8	0.2
Water Conservation Construction Fund	181.8	185.6	213.5	210.2	205.6	216.8	211.5	204.3	213.5	228.1	233.7	240.9
Workers' Compensation Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Borrowable Resources	2,197.6	2,185.2	2,479.5	2,126.5	2,340.5	2,359.2	2,257.3	2,265.8	2,229.3	2,133.8	2,358.6	1,405.8
<b>Total Borrowable Resources</b>	<b>4,582.8</b>	<b>4,888.8</b>	<b>5,305.7</b>	<b>4,904.2</b>	<b>5,078.4</b>	<b>5,135.1</b>	<b>5,227.4</b>	<b>5,307.0</b>	<b>5,177.6</b>	<b>5,069.8</b>	<b>5,215.8</b>	<b>4,258.9</b>
Total General Fund	145.3	(13.3)	(499.8)	(170.2)	(2.6)	(1,079.1)	(353.3)	(352.3)	(1,176.0)	(324.5)	16.5	390.0
Less: Notes Issued and Outstanding	(600.0)	(600.0)	(600.0)	(600.0)	(600.0)	(600.0)	(600.0)	(600.0)	(600.0)	(600.0)	(600.0)	
<b>Net Borrowable Resources</b>	<b>\$4,128.2</b>	<b>\$4,275.5</b>	<b>\$4,205.9</b>	<b>\$4,134.0</b>	<b>\$4,475.8</b>	<b>\$3,456.0</b>	<b>\$4,274.1</b>	<b>\$4,354.7</b>	<b>\$3,401.6</b>	<b>\$4,145.2</b>	<b>\$4,632.4</b>	<b>\$4,648.9</b>

<sup>1</sup> This table shows monthly balances for 16 individual funds plus over 600 other funds and accounts of the State constituting Borrowable Resources. Such funds do not represent State funds with the largest fund balances and are included in this table to be consistent with the Borrowable Resources disclosures provided by the State in the last several years.

<sup>2</sup> The information in this table is presented on a cash basis estimate, and is not directly comparable to similar information to be included in the State's CAFR, which will be presented on the modified accrual and accrual basis.

<sup>3</sup> Amounts in this table are estimates made by the State Treasurer's office based on various assumptions and are subject to change. No representation or guaranty is made herein that such estimates will be realized. See also the preliminary notices in this Official Statement regarding forward-looking statements.

<sup>4</sup> The amounts shown for Higher Education primarily represent cash balances in institutions of higher education other than certain institutions that have statutory authority to operate their own Treasury.

Source: State Treasurer's Office

## DEBT AND CERTAIN OTHER FINANCIAL OBLIGATIONS

### The State, State Departments and Agencies

The State Constitution prohibits the State from incurring debt except for limited purposes, for limited periods of time and in inconsequential amounts. The State courts have defined debt to mean any obligation of the State requiring payment out of future years' general revenues. The State currently has, and upon issuance of the Series 2017A Notes will have, no outstanding general obligation debt.

The State is authorized to and has entered into lease-purchase agreements in connection with various public projects, some of which have been financed by the sale of certificates of participation in the revenues of the related lease-purchase agreements. The obligations of the State to make lease payments under such agreements each Fiscal Year are contingent upon annual appropriations by the General Assembly. See Notes 24 and 25 to the State's Fiscal Year 2015-16 CAFR appended to this Official Statement for a discussion of the outstanding lease-purchase agreements entered into by the State as of June 30, 2016, as well as the aggregate minimum lease payments due under such lease-purchase agreements entered into by the State for Fiscal Years 2015-16 and thereafter. See also Note 45 to the State's Fiscal Year 2015-16 CAFR appended to this Official Statement for a discussion of lease-purchase agreements entered into by the State after June 30, 2016, but before publication of the Fiscal Year 2015-16 CAFR.

In addition to lease-purchase agreements, the State is authorized to enter into lease or rental agreements for buildings and/or equipment, all of which contain a stipulation that continuation of the lease is subject to funding by the General Assembly. Historically, these agreements have been renewed in the normal course of business and are therefore treated as non-cancelable for financial reporting purposes. In addition, these agreements generally are entered into through private negotiation with lessors, banks or other financial institutions rather than being publicly offered. See Notes 22 and 25 to the State's Fiscal Year 2015-16 CAFR appended to this Official Statement for a discussion of the outstanding lease/rental agreements entered into by the State as of June 30, 2016, as well as the aggregate minimum payment obligations under such agreements in Fiscal Years 2015-16 and thereafter.

The Colorado Department of Transportation ("CDOT") has issued Transportation Revenue Anticipation Notes for the purpose of financing qualified federal aid transportation projects in the State. At June 30, 2016, CDOT had outstanding approximately \$126.1 million in aggregate principal amount of such notes. The notes are payable solely from certain federal and State funds that are allocated on an annual basis by the State Transportation Commission, in its sole discretion. The allocated funds are expected to be comprised of highway moneys paid directly to CDOT by the U.S. Department of Transportation, and appropriations of revenues from the Highway Users Tax Fund allocated by statute to CDOT.

CDOT financed the relocation and consolidation of its main headquarters and District 1 Regional headquarters facilities into a single building by the sale on December 29, 2016, of \$70 million in principal amount of certificates of participation in an annually renewable lease-purchase agreement entered into by CDOT in connection with the new facility. CDOT also sold \$58,665,000 in principal amount of certificates of participation on April 26, 2017, for the purpose of funding the costs, or reimbursing CDOT for the prior payment of the costs, of the acquisition, construction, improvement and equipping of CDOT's Pueblo and Greeley Headquarters Buildings and Aurora Platteville Maintenance Facilities.

State departments and agencies, including State institutions of higher education, also issue revenue bonds for business type activities, as well as bonds and/or notes for the purchase of equipment and construction of facilities and infrastructure. With the exception of the University of Colorado, which is governed by an elected Board of Regents, the institutions of higher education are governed by boards whose members are appointed by the Governor with the consent of the State Senate. See Notes 24, 25 and 44 to

the State's Fiscal Year 2015-16 CAFR appended to this Official Statement for a discussion of such bonds and notes outstanding as of June 30, 2016, and of those issued after June 30, 2016, but before publication of the Fiscal Year 2015-16 CAFR. The revenue bonds and certificates of participation listed in such Notes have in most cases been publicly offered, while the notes payable listed in such Notes have generally been private financings directly with banks or other financial institutions. The State has contingent moral obligations to intercept revenue and make certain debt payments on notes and bonds issued by State school districts in the event they fail to make a required payment to the holders of such notes and bonds. See Note 43 to the State's Fiscal Year 2015-16 CAFR appended to this Official Statement.

See also the Statistical Section of the State's Fiscal Year 2015-16 CAFR appended to this Official Statement for a ten year history of the total outstanding debt and related debt service expenditures of the State.

### **State Tax and Revenue Anticipation Notes**

Under State law, the State Treasurer is authorized to issue and sell notes payable from the anticipated revenues of any one or more State funds or groups of accounts to meet temporary cash flow shortfalls. Since Fiscal Year 1984-85, the State has issued tax and revenue anticipation notes, such as the State Series 2017A General Fund Notes, in order to fund cash flow shortfalls in the General Fund. For certain Fiscal Years, the State has also funded cash flow shortfalls by use of Borrowable Resources. Since Fiscal Year 2003-04, the State has also issued education loan anticipation notes, such as the Series 2017A Notes, for local school districts in anticipation of local school district revenues to be collected at a later date. All tax and revenue anticipation notes previously issued by the State have been paid in full and on time.

See Notes 23 and 44 to the State's Fiscal Year 2015-16 CAFR appended to this Official Statement for a discussion of State tax and revenue anticipation notes outstanding as of June 30, 2016, and of such notes issued after June 30, 2016, but before publication of the Fiscal Year 2015-16 CAFR. The State plans to issue approximately \$290 million of Education Loan Program Tax and Revenue Anticipation Notes, Series 2017A, in July of 2017.

See also the Statistical Section of the State's Fiscal Year 2015-16 CAFR appended to this Official Statement for a ten year history of the total outstanding debt and related debt service expenditures of the State.

### **State Authorities**

A number of State authorities have issued financial obligations to support activities related to the special purposes of such entities. Such obligations do not constitute a debt or liability of the State and the State Treasurer has no responsibility for such issuances, although pursuant to Section 22-30.5-408, C.R.S., the State may, but is not obligated to, appropriate moneys to cure unreplenished draws on debt service reserve funds for certain bonds issued by the Colorado Educational and Cultural Facilities Authority to fund facilities for charter schools. Generally, State authorities are legally separate, independent bodies governed by their own boards, some including ex-officio State officials and/or members appointed by the Governor or ranking members of the General Assembly (in most cases with the consent of the State Senate).

### **Pension and Post-Employment Benefits**

*General.* The State provides post-employment benefits to its employees based on their work tenure and earnings history through a defined benefit pension plan (as more particularly defined in "APPENDIX E – STATE PENSION SYSTEM," the "State Division Plan"). State employees hired after 2005 may, in lieu of participating in the State Division Plan, elect to participate in a defined contribution

plan (the “State Division DC Plan”), although the majority of State employees participate in the State Division Plan. State employees may also elect to participate in a limited healthcare plan. Each plan is administered by the Public Employees’ Retirement Association (“PERA”), which is a statutorily created legal entity that is separate from the State. PERA also administers plans for school districts, local governments and other entities, each of which is considered a separate division of PERA and for which the State has no obligation to make contributions or fund benefits. The State does not participate in the federal Old-Age, Survivors and Disability Insurance (Social Security) program.

For a general description of the State Division Plan and PERA, see “APPENDIX D – STATE PENSION SYSTEM.” For a detailed discussion of the State Division Plan, the State Division DC Plan, the limited healthcare plan and PERA, see Notes 18, 19 and 20 to the State’s Fiscal Year 2015-16 CAFR appended to this Official Statement, as well as PERA’s Comprehensive Annual Financial Report for calendar year 2016 (the “PERA 2016 CAFR”). The information in the State’s Fiscal Year 2015-16 CAFR regarding PERA is derived from PERA’s Comprehensive Annual Financial Report for calendar year 2015, while the information in this Official Statement is derived from the PERA 2016 CAFR. See also “*Future Accounting Standards*” hereafter.

***The State Division Plan.*** The State Division Plan is funded with contributions made by the State and by each participating State employee at rates that are established by statute. The State has consistently made all statutorily required contributions to the State Division Plan. Nevertheless, at December 31, 2016, the PERA 2016 CAFR reports that the State Division Plan had an unfunded actuarial accrued liability of approximately \$11.6 billion and a funded ratio of only 54.6%. This UAAL would amortize over a 65-year period based on contribution rates as of the date of calculation and scheduled employer contributions, as well as an investment rate of return on Plan assets and discount rate on actuarially accrued liabilities of 7.25%. The PERA Board revised the actuarial investment assumption rate from 7.50% to 7.25% effective for the 2016 actuarial valuation, which contributed to the increase in the State’s pension liability.

The actuarial value of assets for the State Division Plan uses an asset valuation method of smoothing the difference between the market value of assets and the actuarial value of assets to prevent extreme fluctuations that may result from short-term or cyclical economic and market conditions. Accordingly, the full effect of recent fluctuations in the assets of the State Division Plan as a result of economic and market conditions is not reflected in the aforementioned funded ratio. Based on the market value of assets of the State Division Plan, at December 31, 2016, the Plan had an unfunded accrued liability of approximately \$12.1 billion and a funded ratio of 52.7%.

The funding status of the State Division Plan summarized above reflect the implementation by PERA in 2014 of GASB Statement No. 67, “Financial Reporting for Pension Plans – An Amendment of GASB Statement No. 25” (“GASB 67”), which establishes new standards for financial reporting and note disclosure by defined benefit pension plans administered through qualified trusts, such as the State Division Plan, and note disclosure requirements for defined contribution pension plans administered through qualified trusts, such as the State Division DC Plan.

Because the State’s annual contributions with respect to the State Division Plan are set by statute and funded in the State’s annual budget, such contributions are not affected in the short term by changes in the actuarial valuation of the Plan assets or the funding ratio of the Plan.

See generally “APPENDIX E – STATE PENSION SYSTEM” for further information regarding the State Division Plan.

***The Health Care Trust Fund.*** The State also currently offers other post-employment health and life insurance benefits to its employees. The post-employment health insurance to State employees is

provided through PERA's Health Care Trust Fund, in which members from all divisions of PERA are eligible to participate. The Health Care Trust Fund is a cost-sharing, multiple employer plan under which PERA subsidizes a portion of the monthly premium for health insurance coverage for certain State retirees and the remaining amount of the premium is funded by the benefit recipient through an automatic deduction from the monthly retirement benefit. The Health Care Trust Fund is funded by a statutory allocation of moneys consisting of portions of, among other things, the employer statutorily required contributions, the amount paid by members and the amount of any reduction in the employer contribution rates to amortize any overfunding in each Division's trust fund. At December 31, 2016, the Health Care Trust Fund had an unfunded actuarial accrued liability of approximately \$1.3 billion, a funded ratio of 17.4% and a 37-year amortization period. Because the Health Care Trust Fund is a cost-sharing, multiple employer plan, PERA's actuary has not determined the portion of the unfunded actuarial accrued liability that applies to each Division participant. The benefit provided by the Health Care Trust Fund is a fixed limited subsidy of the retiree's health care insurance premium payment, and the retiree bears all risk of medical cost inflation. See Notes 9 and 11 to the PERA 2016 CAFR for additional information regarding the Health Care Trust Fund.

***Implementation of Changes in Pension Accounting Standards Applicable to the State – GASB 68.*** GASB Statement No. 68, "Accounting and Financial Reporting for Pensions" ("GASB 68"), which is related to GASB 67 but is applicable to the State, is effective for fiscal years beginning after June 15, 2014, and accordingly was first implemented in the State's Comprehensive Annual Financial Report for Fiscal Year 2014-15 (the "Fiscal Year 2014-15 CAFR"). GASB 68 revises and establishes new financial reporting requirements for most governments, such as the State, that provide their employees with pension benefits. GASB 68 requires cost-sharing employers participating in defined benefit plans to record their proportionate share of the unfunded pension liability. PERA reports that the State Division had an unfunded actuarial accrued liability of approximately \$10.2 billion as of December 31, 2015, and \$11.6 billion as of December 31, 2016. The State reported a liability in the State's Fiscal Year 2015-16 CAFR of approximately \$10.3 billion, consisting of approximately \$10.1 billion for the State Division and \$0.2 billion for the Judicial Division, at June 30, 2016, for its proportionate share of the net pension liability, compared to a reported liability in the State's Fiscal Year 2014-15 CAFR of approximately \$9.1 billion, consisting of approximately \$9.0 billion for the State Division and \$0.1 billion for the Judicial Division, at June 30, 2015, for its proportionate share of the net pension liability. Schedules presenting the State's proportionate share of the net pension liability for its retirement plan as of June 30, 2014 through 2016, and a ten year history of the State's contribution to PERA for the State and Judicial Divisions, are set forth in Note RSI-2 to the Required Supplementary Information in the State's Fiscal Year 2015-16 CAFR. See also "Overall Financial Position and Results of Operations" in the Management's Discussion and Analysis, as well as the introduction to Notes 1-7 and Notes 18-20 to the Financial Statements, in the State's Fiscal Year 2015-16 CAFR and "APPENDIX E – STATE PENSION SYSTEM" and particularly the section thereof entitled "Implementation of Changes in Pension Accounting Standards Applicable to the State – GASB 68."

***Effect of Pension Liability on the Series 2017A Notes.*** The Series 2017A Notes are short-term obligations maturing on June 27, 2018. Therefore, the State's current pension liability is not expected to adversely affect the State's ability to pay the Series 2017A Notes. See also the discussion of the State's pension liability in the Management's Discussion and Analysis in the State's Fiscal Year 2015-16 CAFR appended to this Official Statement, and particularly the section thereof captioned "CONDITIONS EXPECTED TO AFFECT FUTURE OPERATIONS – Pension Plan Contributions."

## LITIGATION, GOVERNMENTAL IMMUNITY AND SELF-INSURANCE

### No Litigation Affecting the Series 2017A Notes

There is no litigation pending, or to the knowledge of the State threatened, either seeking to restrain or enjoin the issuance or delivery of the Series 2017A Notes or questioning or affecting the validity of the Series 2017A Notes or the proceedings or authority under which they are to be issued. There is also no litigation pending, or to the State's knowledge threatened, that in any manner questions the right of the State Treasurer to adopt the Authorizing Resolution and to secure the Series 2017A Notes in the manner provided in the Authorizing Resolution and the Funds Management Act.

### Governmental Immunity

The Colorado Governmental Immunity Act, Article 10 of Title 24, C.R.S. (the "Immunity Act"), provides that public entities and their employees acting within the course and scope of their employment are immune from liability for tort claims under State law based on the principle of sovereign immunity, except for those specifically identified events or occurrences defined in the Immunity Act. Whenever recovery is permitted, the Immunity Act also generally limits the maximum amount that may be recovered. For incidents occurring prior to July 1, 2013, the limits are \$150,000 for injury to one person in a single occurrence and an aggregate of \$600,000 for injury to two or more persons in a single occurrence, except that no one person may recover in excess of \$150,000; and for incidents occurring on and after July 1, 2013, the maximum amounts that may be recovered under the Immunity Act are \$350,000 for injury to one person in a single occurrence and an aggregate of \$990,000 for injury to two or more persons in a single occurrence, except that no one person may recover in excess of \$350,000. These limits are subject to adjustment on January 1, 2018, and every four years thereafter based on the percentage change in the Consumer Price Index. In individual cases the General Assembly may authorize the recovery from the State of amounts in excess of these limits by legislative action initiated either directly by the General Assembly or upon recommendation of the State Claims Board. The Immunity Act does not limit recovery against an employee who is acting outside the course and scope of his/her employment. The Immunity Act specifies the sources from which judgments against public entities may be collected and provides that public entities are not liable for punitive or exemplary damages. The Immunity Act does not prohibit claims in Colorado state court against public entities or their employees based on contract and may not prohibit such claims based on other common law theories. However, the Immunity Act does bar certain federal actions or claims against the State or State employees sued in their official capacities under federal statutes when such actions are brought in state court. The Eleventh Amendment to the U.S. Constitution bars certain federal actions or claims against the State or its employees sued in their official capacities under federal statutes when such actions are brought in federal court.

HB 12-1361 amended the Immunity Act by waiving sovereign immunity of the State in an action for injuries resulting from a prescribed fire started or maintained by the State or any of its employees on or after January 1, 2012. A prescribed fire is defined as the application of fire in accordance with a written prescription for vegetative fuels, but excluding a controlled burn used in farming industry to clear land of existing crop residue, kill weeds and weed seeds or to reduce fuel build-up and decrease the likelihood of a future fire.

### Self-Insurance

In 1985, the General Assembly passed legislation creating a self-insurance fund, the Risk Management Fund, and established a mechanism for claims adjustment, investigation and defense, as well as authorizing the settlement and payment of claims and judgments against the State. The General Assembly also utilizes the self-insurance fund for payment of State workers' compensation liabilities.

The State currently maintains self-insurance for claims arising on or after September 15, 1985, under the Immunity Act and claims against the State, its officials or its employees arising under federal law. See Notes 6H, 21, 43 and General Fund Components (in Supplementary Information) in the State's Fiscal Year 2015-16 CAFR appended to this Official Statement. Judgments awarded against the State for which there is no insurance coverage or that are not payable from the Risk Management Fund ordinarily require a legislative appropriation before they may be paid.

### **Current Litigation**

For a description of pending material litigation in which the State is a defendant, see Note 43 to the State's Fiscal Year 2015-16 CAFR appended to this Official Statement. The State believes that it has a reasonable possibility of favorable outcomes for the actions discussed in Note 43, but the ultimate outcome cannot presently be determined. Except as otherwise noted, no provision for a liability has been made in the financial statements related to the contingencies discussed in such Note.

## **RATINGS**

Moody's Investors Service, Inc. and Standard & Poor's, a division of The McGraw-Hill Companies, Inc., have assigned to the Series 2017A Notes the ratings set forth on the cover page of this Official Statement. No other ratings have been applied for.

A rating reflects only the views of the rating agency assigning such rating, and an explanation of the significance of such rating may be obtained from each such rating agency. The State has furnished to the rating agencies certain information and materials relating to the Series 2017A Notes, the State and its financial condition and operations, including certain information and materials which have not been included in this Official Statement. Generally, rating agencies base their ratings on such information and materials and on investigations, studies and assumptions by the rating agencies. There is no assurance that any of the ratings will continue for any given period of time or that any of the ratings will not be revised downward, suspended or withdrawn entirely by any such rating agency if, in its judgment, circumstances so warrant. Any such downward revision, suspension or withdrawal of any such rating may have an adverse effect on the market price of the Series 2017A Notes. The State has not undertaken any responsibility to oppose any such revision, suspension or withdrawal.

## **CONTINUING DISCLOSURE**

### **Series 2017A Notes**

In accordance with the exemption set forth in paragraph (d)(3) of Rule 15c2-12 promulgated by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended, which exemption applies to offerings of municipal securities having a stated maturity of 18 months or less, such as the Series 2017A Notes, the State Treasurer will not undertake to provide on an ongoing basis either audited annual financial statements or annual financial information or operating data of the type presented in this Official Statement. However, the State Treasurer will undertake in the Authorizing Resolution, for the benefit of the Owners and Beneficial Owners of the Series 2017A Notes, that during such time as any of the Series 2017A Notes are outstanding, the State Treasurer will provide to the MSRB: (a) notice of any actual or projected deficiency in the Note Payment Account, as discussed in "THE SERIES 2017A NOTES – Security and Sources of Payment – *Note Payment Account*"; and (b) in a timely manner, not in excess of ten Business Days after the occurrence of the event, notice of the occurrence of any of the events enumerated in Subsection (b)(5)(i)(C) of Rule 15c2-12 with respect to the Series 2017A Notes, including: (i) principal and interest payment delinquencies; (ii) nonpayment related defaults, if material;

(iii) 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 security, or other material events affecting the tax status of the Series 2017A Notes; (iv) modifications to rights of owners of the Series 2017A Notes, if material; (v) defeasances; and (vi) rating changes; as well as the following events to the extent applicable to the Series 2017A Notes: (a) unscheduled draws on debt service reserves reflecting financial difficulties; (b) unscheduled draws on credit enhancements reflecting financial difficulties; (c) substitution of credit or liquidity providers, or their failure to perform; (d) Series 2017A Note calls, if material, and tender offers; (e) release, substitution or sale of property securing repayment of the Series 2017A Notes, if material; (f) bankruptcy, insolvency, receivership or similar event of the State; (g) the consummation of a merger, consolidation or acquisition involving the State or the sale of all or substantially all of the assets of the State, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and (h) appointment of a successor or additional trustee or the change of name of a trustee, if material.

The obligations of the State Treasurer pursuant to the undertaking are for the benefit of the Owners and Beneficial Owners of the Series 2017A Notes, and, if necessary, may be enforced by such Owners and Beneficial Owners by specific performance of such obligations by any judicial proceeding available. However, breach of the State Treasurer's obligations of the undertaking does not constitute an Event of Default under the Authorizing Resolution, and none of the rights and remedies provided in the Authorizing Resolution for Events of Default will be available to the Owners or Beneficial Owners of the Series 2017A Notes in the event of a breach of such continuing disclosure undertaking.

### **Compliance With Other Continuing Disclosure Undertakings**

From January 2011 to May 2011, the State Treasurer failed to file with the MSRB monthly cash flow schedules for the State's General Fund Tax and Revenue Anticipation Notes, Series 2010A, which were issued on December 14, 2010, and paid in full at maturity. Although such filings were not required by Rule 15c2-12, the authorizing resolution for such notes included an affirmative covenant by the State Treasurer to do so.

The State Treasurer has determined that both prior to and during the previous five years, the State Treasurer and certain other State departments or agencies have not complied in all material respects with other continuing disclosure undertakings entered into by such entities pursuant to Rule 15c2-12 in connection with municipal securities issued by or for the benefit of such entities by failing to file, or to file on a timely basis, on the EMMA website and its predecessor repositories, certain annual financial information, audited financial statements and/or notices of material events as required by those continuing disclosure undertakings. For example, CDOT failed to file annual financial information and audited financial statements in respect of its outstanding obligations for Fiscal Years 2008-09 through 2012-13. In addition, the State failed to file notices of bond insurer rating downgrades relating to certain outstanding obligations over the last five years, although such bond insurer downgrades did not affect the underlying rating of the State, and failed to file notices of an upgrade in the State's rating by Moody's from "Aa3" to "Aa2" as a result of a global recalibration of ratings by Moody's in May 2010. The State failed to timely file annual financial information and audited financial statements for certain obligations from Fiscal Year 2009-10 through Fiscal Year 2011-12, and failed to file on EMMA notices of such failures. Corrective actions have been taken with regard to these matters as discussed below.

Partially in response to the foregoing, the State Treasurer requested and the General Assembly enacted legislation in 2012 to provide the State Treasurer with statutory authority over debt issuance and post-issuance compliance with continuing disclosure undertakings entered into by the State, the State Treasurer and certain State departments and agencies that utilize the State's credit (collectively, the

“Included Entities”) in connection with financial obligations issued by or for the benefit of such the Included Entities. Consistent with this authorization, the responsibility for compliance with the continuing disclosure undertakings entered into by the Included Entities has been centralized with the State Treasurer, which is intended to ensure future compliance with such continuing disclosure undertakings.

In early 2013, the State Treasurer retained Digital Assurance Certification, LLC (“DAC Bond”), as its disclosure dissemination agent for the purpose of assisting it with auditing past compliance, making remedial filings and ensuring ongoing compliance with its continuing disclosure filing requirements with the MSRB of all information required in the continuing disclosure undertakings entered into by the Included Entities, and plans to implement other procedures intended to ensure future material compliance with such continuing disclosure undertakings.

In addition, consistent with its statutory authorization and as a result of the circumstances described above, the State Treasurer’s office commenced, and is continuing to carry out, a comprehensive review of compliance by the State with the continuing disclosure undertakings entered into by the Included Entities for the purpose of determining whether there are other instances of material noncompliance with such continuing disclosure undertakings. Instances of material noncompliance discovered by the State Treasurer’s office to date have been addressed by making appropriate corrective filings or taking other remedial actions, either directly or by DAC Bond, and may include corrective action and participation in the SEC’s Municipal Continuing Disclosure Cooperation Initiative.

Due to various issues that were experienced by the State in connection with the implementation of a new integrated financial system as described in “STATE FINANCIAL INFORMATION – Fiscal Controls and Financial Reporting,” the State’s unaudited Basic Financial Statements for Fiscal Year 2014-15 and the State’s Fiscal Year 2014-15 CAFR were not completed and released until late January 2016 and late April 2016, respectively. As a result, the State was unable to post its Fiscal Year 2014-15 audited financial statements on EMMA by December 31, 2015, as required by numerous continuing disclosure undertakings entered into by the Included Entities. Notice of such noncompliance was posted on EMMA on January 25, 2016, and the State’s unaudited Basic Financial Statements for Fiscal Year 2014-15 and the State’s Fiscal Year 2014-15 CAFR were subsequently posted on EMMA on February 1, 2016, and May 2, 2016, respectively. The State was also unable to post its Fiscal Year 2015-16 audited financial statements on EMMA by December 31, 2016, as required by such continuing disclosure undertakings. The State’s unaudited Basic Financial Statements for Fiscal Year 2015-16 and the State’s Fiscal Year 2015-16 CAFR were posted on EMMA on January 16, 2017, and March 8, 2017, respectively.

In addition to the State’s financial statements for Fiscal Years 2014-15 and 2015-16 discussed above, certain operating data for the Department of Human Services for Fiscal Years 2011-12, 2014-15 and 2015-16 was not timely posted on EMMA (within 200 days of the end of the Fiscal Year) in connection with the Colorado State Department of Human Services (Division of State and Veterans Nursing Homes) Enterprise System Revenue Anticipation Warrants, Series 2002A. Notices of failure to file such information for Fiscal Years 2014-15 and 2015-16 were posted on EMMA on January 21, 2016, and January 19, 2017, respectively. The State’s unaudited Basic Financial Statements and CAFRs for Fiscal Years 2014-15 and 2015-16 were eventually posted on EMMA as discussed above, and the operating data for the Department of Human Services for Fiscal Year 2011-12 and for both Fiscal Years 2014-15 and 2015-16 was posted on EMMA on January 29, 2013, and on March 28, 2017, respectively.

The OSPB March 2016 revenue forecast was not timely posted on EMMA in connection with the State’s Higher Education Federal Mineral Lease Certificates of Participation, Series 2014A. Both a notice of failure to timely file such revenue forecast, together with the revenue forecast, were posted on EMMA on May 17, 2016.

## **MCDC Settlement Order with the Securities and Exchange Commission**

In March of 2014, the SEC announced its Municipal Continuing Disclosure Cooperation Initiative (the “MCDC”) pursuant to which underwriters and municipal issuers could self-report instances where official statements of municipal issuers failed to report instances in which the issuer failed to comply in all material respects with its continuing disclosure undertakings. Pursuant to the MCDC, on or about November 26, 2014, the State Treasurer reported certain prior failures to the SEC.

In May of 2016, the State Treasurer, on behalf of CDOT, executed an Offer of Settlement (the “Offer”) with the SEC under the MCDC, which Offer was accepted by the SEC on August 24, 2016, and became an order of the SEC (the “Order”). As described in the Order, CDOT participated in one negotiated offering in 2011 in which the final official statement stated in relevant part that during the past five years, CDOT had complied in all material respects with its continuing disclosure undertakings. Notwithstanding such statement, however, CDOT’s audited financial statements for 2006, 2007, 2008, 2009 and 2010 were not filed until 2014 when it was discovered that such financial statements had not been filed previously with the Nationally Recognized Municipal Securities Information Repositories or the MSRB through the EMMA system, as applicable.

Pursuant to the Order, the State Treasurer has agreed to (i) within 180 days of the entry of the Order, establish written policies and procedures and undertake periodic training regarding continuing disclosure obligations, including designation of an individual or officer responsible for ensuring compliance with such policies and procedures, (ii) within 180 days of the entry of the Order, comply with existing continuing disclosure undertakings, and, if not currently in compliance, update past delinquent filings, (iii) disclose in clear and conspicuous fashion the terms of the Offer in any official statement for an offering through the State Treasurer within five years of the institution of the proceedings, (iv) cooperate with any subsequent investigation by the SEC regarding false statements and/or material omissions and (v) not later than one year from the date of the institution of the proceedings, certify, in writing, compliance with the foregoing undertakings.

The State Treasurer has updated its continuing disclosure procedures in order to ensure filings are done in accordance with its continuing disclosure agreements.

Additional information concerning the matters discussed in this section may be obtained from the Colorado Attorney General’s Office, 1300 Broadway, 6<sup>th</sup> Floor, Denver, Colorado 80203, Attention: Lori Ann F. Knutson, Esq., First Assistant Attorney General, telephone number (720) 508-6153.

## **LEGAL MATTERS**

All legal matters incident to the validity and enforceability of the Series 2017A Notes, as well as the treatment of interest on the Series 2017A Notes for purposes of federal and State income taxation, are subject to the approving legal opinion of Sherman & Howard L.L.C., Denver, Colorado, as Bond Counsel. The substantially final form of the opinion of Bond Counsel is appended to this Official Statement. Certain legal matters will be passed upon for the State by the Office of the Attorney General of the State and by Kline Alvarado Veio, P.C., Denver, Colorado, as special counsel to the State in connection with the preparation of this Official Statement. Payment of legal fees to Bond Counsel and special counsel are contingent upon the sale and delivery of the Series 2017A Notes.

## TAX MATTERS

### Federal Tax Treatment of Interest on the Series 2017A Notes

In the opinion of Sherman & Howard L.L.C., Bond Counsel, assuming continuous compliance with certain covenants described below, interest on the Series 2017A Notes is excluded from gross income under federal income tax laws pursuant to Section 103 of the Internal Revenue Code of 1986, as amended to the date of delivery of the Series 2017A Notes (the “Tax Code”), and interest on the Series 2017A Notes is excluded from alternative minimum taxable income as defined in Section 55(b)(2) of the Tax Code, except that such interest is required to be included in calculating the “adjusted current earnings” adjustment applicable to corporations for purposes of computing the alternative minimum taxable income of corporations as described below.

The Tax Code imposes several requirements which must be met with respect to the Series 2017A Notes in order for the interest thereon to be excluded from gross income and alternative minimum taxable income (except to the extent of the aforementioned adjustments applicable to corporations). Certain of these requirements must be met on a continuous basis throughout the term of the Series 2017A Notes. These requirements include: (a) limitations as to the use of proceeds of the Series 2017A Notes; (b) limitations on the extent to which proceeds of the Series 2017A Notes may be invested in higher yielding investments; and (c) a provision, subject to certain limited exceptions, that requires all investment earnings on the proceeds of the Series 2017A Notes above the yield on the Series 2017A Notes to be paid to the United States Treasury. The State Treasurer has covenanted and represented in the Authorizing Resolution not to take or omit to take any action with respect to the Series 2017A Notes, the proceeds thereof or any other funds of the State if such action or omission would cause the interest on the Series 2017A Notes to lose its exclusion from gross income and alternative minimum taxable income (except to the extent of the aforementioned adjustments applicable to corporations) under the Tax Code. Bond Counsel’s opinion as to the exclusion of interest on the Series 2017A Notes from gross income and alternative minimum taxable income (to the extent described above) is rendered in reliance on these covenants, and assumes continuous compliance therewith. The failure or inability of the State Treasurer to comply with these requirements could cause the interest on the Series 2017A Notes to be included in gross income and alternative minimum taxable income from the date of issuance. Bond Counsel’s opinion also is rendered in reliance upon certifications of the State Treasurer and other certifications and representations furnished to Bond Counsel. Bond Counsel has not undertaken to verify such certifications or representations by independent investigation.

Section 55 of the Tax Code contains a 20% alternative minimum tax on the alternative minimum taxable income of corporations. Under the Tax Code, 75% of the excess of a corporation’s “adjusted current earnings” over the corporation’s alternative minimum taxable income (determined without regard to this adjustment and the alternative minimum tax net operating loss deduction) is included in the corporation’s alternative minimum taxable income for purposes of the alternative minimum tax applicable to the corporation. “Adjusted current earnings” includes interest on the Series 2017A Notes.

The Tax Code contains numerous provisions which may affect an investor’s decision to purchase the Series 2017A Notes. Owners of the Series 2017A Notes should be aware that the ownership of tax-exempt obligations by particular persons and entities, including, without limitation, financial institutions, insurance companies, recipients of Social Security or Railroad Retirement benefits, taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry tax-exempt obligations, foreign corporations doing business in the United States and certain “subchapter S” corporations may result in adverse federal consequences. Certain of the Series 2017A Notes may be sold at a premium, representing a difference between the original offering price of those Series 2017A Notes and the principal amount thereof payable at maturity. Under certain circumstances, an initial owner of such Series 2017A Notes (if any) may realize a taxable gain upon their disposition, even though such

Series 2017A Notes are sold or redeemed for an amount equal to the owner's acquisition cost. Under Section 3406 of the Tax Code, backup withholding may be imposed on payments on the Series 2017A Notes made to any owner who fails to provide certain required information, including an accurate taxpayer identification number, to certain persons required to collect such information pursuant to the Tax Code. Backup withholding may also be applied if the owner underreports "reportable payments" (including interest and dividends) as defined in Section 3406, or fails to provide a certificate that the owner is not subject to backup withholding in circumstances where such a certificate is required by the Tax Code. Certain of the Series 2017A Notes may be sold at a premium, representing a difference between the original offering price of those Series 2017A Notes and the principal amount thereof payable at maturity. Under certain circumstances, an initial owner of such Series 2017A Notes may realize a taxable gain upon their disposition, even if such Series 2017A Notes are sold or redeemed for an amount equal to the owner's acquisition cost.

### **IRS Audit Program**

The Internal Revenue Service (the "Service") has an ongoing program of auditing tax-exempt obligations to determine whether, in the view of the Service, interest on such tax-exempt obligations is includable in the gross income of the owners thereof for federal income tax purposes. No assurances can be given as to whether or not the Service will commence an audit of the Series 2017A Notes. If an audit is commenced, the market value of the Series 2017A Notes may be adversely affected. Under current audit procedures, the Service will treat the State as the taxpayer and the owners may have no right to participate in such procedures. The State Treasurer has covenanted in the Authorizing Resolution not to take any action that would cause the interest on the Series 2017A Notes to lose its exclusion from gross income for federal income tax purposes. None of the State, the Financial Advisor or Bond Counsel is responsible for paying or reimbursing any Owner or Beneficial Owner for any audit or litigation costs relating to the Series 2017A Notes.

### **Colorado Tax Treatment of Series 2017A Notes**

In the opinion of Bond Counsel, interest on the Series 2017A Notes is excluded from Colorado taxable income and Colorado alternative minimum taxable income under Colorado income tax laws in effect as of the date of delivery of the Series 2017A Notes.

### **Other**

Bond Counsel's opinion relates only to the exclusion of interest on the Series 2017A Notes from gross income and alternative minimum taxable income under federal and Colorado income tax laws as described above and will state that no opinion is expressed regarding other federal or state tax consequences arising from the receipt or accrual of interest on or ownership or disposition of the Series 2017A Notes. Owners of the Series 2017A Notes should consult their own tax advisors as to the applicability of these consequences.

The opinions expressed by Bond Counsel are based on existing law as of the delivery date of the Series 2017A Notes. No opinion is expressed as of any subsequent date nor is any opinion expressed with respect to pending or proposed legislation. Amendments to federal and state tax laws may be pending now or could be proposed in the future which, if enacted into law, could adversely affect the value of the Series 2017A Notes, the exclusion of interest on the Series 2017A Notes from gross income, alternative minimum taxable income, Colorado taxable income, Colorado alternative minimum taxable income or any combination thereof from the date of issuance of the Series 2017A Notes or any other date, or which could result in other adverse tax consequences. In addition, future court actions or regulatory decisions could affect the market value of the Series 2017A Notes. Owners of the Series 2017A Notes are advised to consult with their own tax advisors with respect to such matters.

## **UNDERWRITING**

The Series 2017A Notes will be purchased from the State by Wells Fargo Bank, National Association, Morgan Stanley & Co. LLC, Barclays Capital Inc. and J.P. Morgan Securities LLC (the “Underwriters”), pursuant to a competitive sale conducted by the State, for an aggregate purchase price of \$618,013,800, being the principal amount of the Series 2017A Notes plus an aggregate original issue premium of \$18,030,200 and less an aggregate underwriting discount of \$16,400.

Morgan Stanley, parent company of Morgan Stanley & Co., LLC, an underwriter of the Series 2017A Notes, has entered into a retail distribution arrangement with Morgan Stanley Smith Barney LLC. As part of the distribution arrangement, Morgan Stanley & Co., LLC, may distribute municipal securities to retail investors through the financial advisor network of Morgan Stanley Smith Barney LLC. As part of this arrangement, Morgan Stanley & Co., LLC, may compensate Morgan Stanley Smith Barney LLC for its selling efforts with respect to the Series 2017A Notes.

## **FINANCIAL ADVISOR**

George K. Baum & Company, Denver, Colorado, is acting as Financial Advisor to the State in connection with the issuance of the Series 2017A Notes, and in such capacity has assisted in the preparation of this Official Statement and other matters relating to the planning, structuring, rating and execution and delivery of the Series 2017A Notes. However, the Financial Advisor is not obligated to undertake, and has not undertaken, either to make an independent verification of or to assume responsibility for the accuracy or completeness of the information contained in this Official Statement. The Financial Advisor will act as an independent advisory firm and will not be engaged in underwriting or distributing the Series 2017A Notes.

## **MISCELLANEOUS**

The cover page, inside cover, prefatory information and appendices to this Official Statement are integral parts hereof and must be read together with all other parts of this Official Statement. The descriptions of the documents, statutes, reports or other instruments included herein do not purport to be comprehensive or definitive and are qualified in the entirety by reference to each such document, statute, report or other instrument. During the offering period of the Series 2017A Notes, copies of the Authorizing Resolution and certain other documents referred to herein may be obtained from the Financial Advisor at George K. Baum & Company, 1400 Wewatta Street, Suite 800, Denver, Colorado 80202, Attention: Robyn Moore, telephone number (303) 292-1600. So far as any statements made in this Official Statement involve matters of opinion, forecasts, projections or estimates, whether or not expressly stated, they are set forth as such and not as representations of fact.

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**OFFICIAL STATEMENT CERTIFICATION**

The preparation and distribution of this Official Statement have been authorized by the State Treasurer. This Official Statement is hereby approved by the State Treasurer as of the date set forth on the cover page hereof.

By: /s/ Ryan Parsell \_\_\_\_\_  
Deputy State Treasurer

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## APPENDIX A

### THE STATE GENERAL FUND

The Series 2017A Notes are being issued for the purpose of funding anticipated cash flow shortfalls in the State's General Fund in Fiscal Year 2017-18. The Series 2017A Notes are special, limited obligations of the State payable solely from the Pledged Revenues, which include, without limitation, Current General Fund Revenues. See generally "THE SERIES 2017A NOTES." This Appendix contains a discussion of the General Fund, including the estimated cash flows for the General Fund for Fiscal Year 2017-18. See also "APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST."

#### **The General Fund**

The General Fund is the principal operating fund of the State. All revenues and moneys not required by the State Constitution or statutes to be credited and paid into a special State fund are required to be credited and paid into the General Fund. As required by recent changes in GAAP, the General Fund reported in the State's Fiscal Year 2010-11 CAFR and subsequent CAFRs includes a large number of statutorily created special State funds that do not meet the GAAP requirements to be presented as Special Revenue Funds. To make the distinction between the statutory General Fund and the GAAP General Fund, the CAFR refers to the statutory General Fund as the General Purpose Revenue Fund. The revenues in the General Purpose Revenue Fund are not collected for a specific statutory use but rather are available for appropriation for any purpose by the General Assembly. The following discussion of the General Fund represents the legal and accounting entity referred to in the State's Fiscal Year 2015-16 CAFR as the General Purpose Revenue Fund.

#### **General Fund Revenue Sources**

The major revenue sources to the General Fund are individual and corporate income taxes and sales and use taxes. The State also imposes excise taxes on the sale of cigarettes, tobacco products and liquor, and receives revenues from a diverse group of other sources such as insurance taxes, pari-mutuel taxes, interest income, court receipts and gaming taxes. The following table sets forth the State's receipts from major revenue sources for the past five Fiscal Years, as well as current OSPB estimates for Fiscal Years 2016-17 and 2017-18. See also "Revenue Estimation; OSPB Revenue and Economic Forecasts" in this Appendix and "APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST," as well as the preliminary notices in this Official Statement regarding forward-looking statements.

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**State of Colorado**  
**General Fund Revenue Sources<sup>1</sup>**  
(Accrual basis; dollar amounts expressed in millions)

Revenue Source	Actual										OSPB June 2017 Revenue Forecast			
	Fiscal Year 2011-12		Fiscal Year 2012-13		Fiscal Year 2013-14		Fiscal Year 2014-15		Fiscal Year 2015-16		Fiscal Year 2016-17		Fiscal Year 2017-18	
	Amount	% Change	Amount	% Change	Amount	% Change	Amount	% Change	Amount	% Change	Amount	% Change	Amount	% Change
<b>Excise Taxes:</b>														
Sales Tax <sup>2</sup>	\$2,093.2	2.4%	\$2,211.7	5.7%	\$2,425.3	9.7%	\$2,619.2	8.0%	\$2,652.6	1.3%	\$ 2,824.5	6.5%	\$ 3,037.4	7.5%
Use Tax	200.6	5.6	242.7	21.0	241.3	(0.6)	260.3	7.8	241.2	(7.3)	257.3	6.7	274.8	6.8
	2,293.8	2.7	2,454.4	7.0	2,666.6	8.6	2,879.5	8.0%	2,893.8	0.5	3,081.8	6.5	3,312.2	7.5
Cigarette Tax	39.5	0.5	38.3	(3.1)	36.6	(4.5)	37.9	3.6	37.2	(1.8)	36.4	(2.2)	34.0	(6.6)
Tobacco Products <sup>3</sup>	16.0	16.1	15.6	(2.9)	16.9	8.5	17.8	5.3	21.1	18.5	22.5	6.9	22.4	(0.5)
Liquor Tax	38.4	5.3	39.2	2.2	40.3	2.9	41.5	2.8	43.6	5.0	45.0	3.3	45.2	0.5
	93.9	4.9	93.1	(0.9)	93.8	0.8	97.2	3.6	101.9	4.8	103.9	2.0	101.6	(2.2)
Total Excise Taxes	2,387.7	2.8	2,547.5	6.7	2,760.4	8.4	2,976.7	7.8	2,995.7	0.6	3,185.7	6.3	3,413.8	7.2
<b>Income Taxes:</b>														
Net Individual Income Tax	5,011.6	11.5	5,596.3	11.7	5,696.1	1.8	6,350.1	11.5	6,526.5	2.8	6,795.6	4.1	7,207.3	6.1
Net Corporate Income Tax	486.5	23.5	636.3	30.8	720.7	13.3	692.9	(3.9)	652.3	(5.8)	532.0	(18.5)	610.5	14.8
Total Income Taxes	5,498.1	12.4	6,232.6	13.4	6,416.8	3.0	7,043	9.8	7,178.8	1.9	7,327.6	2.1	7,817.8	6.7
Less State Education Fund Diversion <sup>3</sup>	(407.5)	10.0	(486.3)	19.3	(478.8)	(1.6)	(519.8)	8.6	(522.6)	0.5	(535.4)	2.5	(574.4)	7.3
Total Income Taxes to the General Fund	5,090.6	12.6	5,746.2	12.9	5,938.0	3.3	6,523.1	9.9	6,656.2	2.0	6,792.2	2.0	7,243.4	6.6
<b>Other Revenues:</b>														
Estate	0.3	--	(0.1)	--	--	--	--	--	--	--	--	--	--	--
-- Insurance	197.2	4.0	210.4	6.7	239.1	13.6	256.7	7.4	280.3	9.2	287.0	2.4	301.5	5.1
Interest Income	13.6	71.5	17.4	28.6	15.2	(12.8)	8.9	(41.7)	12.4	40.3	13.5	8.3	15.9	18.3
Pari-Mutuel	0.6	14.4	0.7	10.3	0.6	(8.8)	0.6	0.2	0.6	0.5	0.6	(3.0)	0.6	(2.0)
Court Receipts	2.6	(27.6)	2.3	(9.0)	2.6	9.5	2.6	0.3	3.5	34.5	2.9	(15.2)	2.8	(3.4)
Other Income	23.1	8.8	18.1	(21.6)	21.3	17.9	34.0	59.3	22.6	(33.7)	30.3	34.1	20.9	(30.9)
Total Other	237.3	6.5	249.0	4.9	279.2	12.1	302.7	8.4	319.4	5.5	334.3	4.6	341.8	2.2
<b>Gross General Fund</b>	<b>\$7,715.7</b>	<b>9.2%</b>	<b>\$8,542.7</b>	<b>10.7%</b>	<b>\$8,977.7</b>	<b>5.1%</b>	<b>\$9,802.6</b>	<b>9.2%</b>	<b>\$9,971.4</b>	<b>1.7%</b>	<b>\$10,312.1</b>	<b>3.4%</b>	<b>\$10,999.0</b>	<b>6.7%</b>

<sup>1</sup> Historically, gaming revenue was reported by OSPB as a source of revenue to the General Fund. The "Other Revenues" in this table for Fiscal Years 2011-12 and 2012-13 have been restated to reflect a change in OSPB's reporting of gaming revenue to the General Fund that began with the OSPB September 2014 Revenue Forecast. Because revenue from gaming is transferred to the General Fund annually from a cash fund, the money is more appropriately reflected in "Transfers to the General Fund" in the General Fund overview table hereafter rather than as a General Fund revenue source in this table. This change does not affect the overall amount of "Total General Fund Revenue Available for Expenditure" in the General Fund overview table.

<sup>2</sup> State voters approved Proposition AA in November of 2013, which included the imposition by the State of a sales tax of 10% on sales of retail marijuana and retail marijuana products effective January 2014. Per SB 17-267, this tax is increased to 15% effective July 1, 2017. The revenue derived from this sales tax is shared by the State and local governments where such sales occur. Through Fiscal Years 2016-17, the entire State share of this revenue is first credited to the General Fund and then transferred to the Marijuana Tax Cash Fund. Per SB 17-267, for Fiscal Year 2017-18, 28.15% of the State share of this revenue, less \$30 million, is to be retained in the General Fund, 71.85% is to be transferred to the Marijuana Tax Cash Fund and \$30 million is to be credited to the Public School Fund and distributed to rural school districts. Proposition AA also approved the imposition by the State of an excise tax of 15% on certain sales of unprocessed retail marijuana effective January 2014 that does not flow through the General Fund but is mostly credited directly to a cash fund for public school capital construction projects. See "STATE FINANCIAL INFORMATION – Taxpayers' Bill of Rights – Voter Approval to Retain and Spend Certain Marijuana Taxes Associated with Proposition AA."

<sup>3</sup> All individual and corporate income tax revenues are deposited to the General Fund and then a portion of the amount is diverted by law to the State Education Fund. See Note 12 to the table in "General Fund Overview" hereafter.

Source: Office of State Planning and Budgeting

## General Fund Overview

The following table summarizes the actual revenues, expenditures and changes in fund balances for the General Fund for Fiscal Years 2011-12 through 2015-16, as well as the forecasts for Fiscal Years 2016-17 and 2017-18 from the OSPB June 2017 Revenue Forecast. The overview incorporates the budget under current law as of the publication of the OSPB June 2017 Revenue Forecast for Fiscal Years 2016-17 and 2017-18. Any new budget information will be incorporated in subsequent OSPB revenue forecasts. The format of the following table is used by the State in developing its annual budget, as discussed in "STATE FINANCIAL INFORMATION – Budget Process and Other Considerations." See also "Revenue Estimation; OSPB Revenue and Economic Forecasts" in this Appendix and "APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST," as well as the preliminary notices in this Official Statement regarding forward-looking statements.

**State of Colorado**  
**General Fund Overview**  
**Fiscal Years 2011-12 through 2017-18**

(Dollar amounts expressed in millions; totals may not add due to rounding)

	Actual (Unaudited) <sup>1</sup>					OSPB June 2017 Revenue Forecast	
	Fiscal Year 2011-12	Fiscal Year 2012-13	Fiscal Year 2013-14	Fiscal Year 2014-15	Fiscal Year 2015-16	Fiscal Year 2016-17	Fiscal Year 2017-18
<b>REVENUE:</b>							
Beginning Reserve	\$ 156.6	\$ 795.8	\$ 373.0	\$ 435.9	\$ 689.6	\$ 512.7	\$ 441.6
Gross General Fund Revenue <sup>2</sup>	7,715.7	8,542.7	8,977.7	9,802.6	9,971.4	10,312.1	10,999.0
Transfers to the General Fund <sup>2</sup>	162.4	12.4	14.1	64.9	24.1	45.0	89.2
<b>TOTAL GENERAL FUND REVENUE AVAILABLE FOR EXPENDITURE</b>	<b>8,034.7</b>	<b>9,351.0</b>	<b>9,364.8</b>	<b>10,303.4</b>	<b>10,685.1</b>	<b>10,869.8</b>	<b>11,529.8</b>
<b>EXPENDITURES:</b>							
Appropriation Subject to Limit <sup>3</sup>	7,027.8	7,459.2	8,218.7	8,869.0	9,335.6	9,784.5	10,438.1
Dollar Change From Prior Year	216.7	431.5	759.5	650.3	466.6	448.9	653.6
Percent Change From Prior Year	3.2%	6.1%	10.2%	7.9%	5.3%	4.8%	6.7%
Spending Outside Limit:	189.0	452.3	545.5	785.7	895.1	643.7	701.7
TABOR Refund under Subsection (7)(d) <sup>4</sup>	--	--	--	169.7	--	--	--
TABOR Refund under Subsection (3)(c) <sup>5</sup>	--	--	--	58.0	(58.0)	--	--
Rebates and Expenditures <sup>6</sup>	134.8	380.9	250.2	257.4	281.3	282.5	293.4
Transfer to Capital Construction <sup>7</sup>	49.3	61.4	186.7	248.5	271.1	84.5	109.2
Transfers to Highway Users Tax Fund <sup>7</sup>	N/A	N/A	--	--	199.2	79.0	79.0
Transfers to State Education Fund per SB 13-234 <sup>8</sup>	N/A	N/A	45.3	25.3	25.3	25.3	25.3
Transfers to Other Funds <sup>9</sup>	5.0	4.6	30.9	42.2	176.2	172.4	194.8
Other Expenditures Exempt from General Fund Appropriations Limit <sup>10</sup>	--	5.4	32.4	0.5	--	--	--
<b>TOTAL GENERAL FUND OBLIGATIONS</b>	<b>7,216.8</b>	<b>7,911.5</b>	<b>8,764.3</b>	<b>9,654.7</b>	<b>10,230.7</b>	<b>10,428.2</b>	<b>11,139.8</b>
Percent Change from Prior Year	3.7%	9.6%	10.8%	10.2%	5.7%	1.9%	6.8%
Reversions and Accounting Adjustments	36.9	7.1	(50.4)	(60.6)	(58.3)	--	--
<b>RESERVES</b>							
Year-End General Fund Balance	854.8	1,446.5	650.9	709.2	512.7	441.6	390.0
Year-End General Fund as a % of Appropriations	12.2%	19.4%	7.9%	8.0%	5.5%	4.5%	3.7%
General Fund Statutory Reserve Amount <sup>11</sup>	281.1	373.0	410.9	576.5	463.9	584.3	675.4
Unappropriated Reserve Percentage <sup>11</sup>	4.0%	5.0%	5.0%	6.5%	5.6%	6.0%	6.5%
Amount Above (Below) Statutory Reserve	573.7	1,073.5	240.0	132.7	48.8	(142.7)	(285.4)
Transfer of Excess Reserve to State Education Fund/ Other Funds <sup>12</sup>	(59.0)	(1,073.5)	(215.0)	--	--	--	--
Balance After Any Funds Above Statutory Reserve are Allocated <sup>13</sup>	795.8	--	435.9	132.7	48.8	(142.7)	(285.4)

<sup>1</sup> This table is unaudited, although some of the figures reported in these columns are identified by the OSPB from the State's CAFRs which are audited for the applicable Fiscal Years.

<sup>2</sup> Historically, gaming revenue was reported by OSPB as a source of revenue to the General Fund. The amounts in these line items for Fiscal Years 2011-12 and 2012-13 have been restated to reflect a change in OSPB's reporting of gaming revenue to the General Fund that began with the OSPB September 2014 Revenue Forecast. Because revenue from gaming is transferred to the General Fund annually from a cash fund, the money is more appropriately reflected in this table as a transfer to the General Fund rather than as General Fund revenue. This change does not affect the overall amount of Total General Fund Revenue Available for Expenditure.

<sup>3</sup> Total State appropriations during this period have been limited to such moneys as are necessary for reappraisals of any class or classes of taxable property for property tax purposes as required by Section 39-1-105.5, C.R.S., plus an amount equal to 5.0% of Colorado personal income.

<sup>4</sup> Current law requires TABOR refunds to be accounted for in the year the excess revenue is collected. No TABOR refunds are forecast for Fiscal Years 2016-17 or 2017-18. See "STATE FINANCIAL INFORMATION – Taxpayers' Bill of Rights – Fiscal Year Revenue and Spending Limits; Referendum C" and "APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST – Taxpayer's Bill of Rights: Revenue Limit."

<sup>5</sup> The amount shown in Fiscal Year 2014-15 reflects the amount that was set aside by HB 15-1367 in a special account to cover a potential TABOR refund relating to Proposition AA. HB 15-1367 also submitted to the State's voters at the November 3, 2015, general election the question of authorizing the State to retain and expend such amount. The question, designated Proposition BB, was approved by the voters and permitted the State to use the money for the uses specified in HB 15-1367. Consequently, a reversal of the \$58 million set aside is shown in Fiscal Year 2015-16. See "STATE FINANCIAL INFORMATION – Taxpayers' Bill of Rights – Voter Approval to Retain and Spend Certain Marijuana Taxes Associated with Proposition AA," as well as Note 4 to this table and Note 2 to the table in "General Fund Revenue Sources" above.

[Notes continued on next page]

- <sup>6</sup> This generally includes the Cigarette Rebate, which distributes money from a portion of State cigarette tax collections to local governments that do not impose their own taxes or fees on cigarettes; the Marijuana Rebate, which distributes 15% of the retail marijuana sales tax to local governments based on the percentage of retail marijuana sales in local areas; the Old Age Pension program, which provides assistance to low-income elderly individuals who meet certain eligibility requirements; the Property Tax, Heat and Rent Credit, which provides property tax, heating bill or rent assistance to qualifying low-income disabled or elderly individuals; and the Homestead Property Tax Exemption, which reduces property-tax liabilities for qualifying seniors and disabled veterans. The homestead exemption for qualified seniors was suspended for Fiscal Years 2009-10 through 2011-12. The homestead exemption for qualified disabled veterans was not affected by this suspension.
- <sup>7</sup> Section 24-75-219, C.R.S., requires certain transfers from the General Fund to the Highway Users Tax Fund and the Capital Construction Fund, commonly referred to as “228” transfers based on SB 09-228 which originally provided for the transfers. The amounts of the 228 transfers have been revised per HB 16-1416 and SB 17-262. The current required 228 transfers to the Highway Users Tax Fund are \$199.2 million in Fiscal Year 2015-16 and \$79.0 million in each of Fiscal Years 2016-17 and 2017-18, and the required 228 transfers to the Capital Construction Fund are \$49.8 million in Fiscal Year 2015-16 and \$52.7 million in Fiscal Year 2016-17. Currently there is no required 228 transfer to the Capital Construction Fund in Fiscal Year 2017-18. The amount of the capital construction transfers in Fiscal Years 2015-16, 2016-17 and 2017-18 also includes transfers of General Fund money in addition to the required 228 transfers.
- <sup>8</sup> Annual General Fund transfers to the State Education Fund are required to be made in Fiscal Years 2013-14 through 2018-19 per SB 13-234.
- <sup>9</sup> State law requires transfers of General Fund money to various State cash funds. Commencing in Fiscal Year 2013-14, this line item includes transfers of amounts credited to the General Fund from the retail marijuana sales tax to a cash fund. See Note 1 to the table in “General Fund Revenue Sources” above. However, for Fiscal Year 2015-16 only, \$40.0 million of the transfer to other funds amount is a transfer to public school capital construction related to the passage of Proposition BB. The Fiscal Years 2015-16 and 2016-17 amounts also include a diversion of income tax revenue out of the General Fund to a separate severance tax fund pursuant to SB 16-218, which was passed in response to the April 2016 Colorado Supreme Court’s decision in *BP America Production Company v. Colorado Department of Revenue* that allows for taxpayers to claim additional severance tax deductions. SB 16-218 creates a reserve fund and diverts income tax revenue to the fund to help pay the refunds. However, the legislation does not distinguish between severance tax refunds related to the court decision and severance tax refunds that would have occurred regardless of the court decision. For Fiscal Year 2015-16, \$56.8 million in income tax revenue was diverted to such reserve fund to pay for severance tax refunds. The OSPB June 2017 Revenue Forecast projects that approximately \$54.0 million in income tax revenue will be diverted from the General Fund to the reserve fund to pay severance tax refunds in Fiscal Year 2016-17. This amount may change materially in subsequent forecasts as new information becomes available. See also “STATE FINANCIAL INFORMATION – Budget Process and Other Considerations – *Revenues and Unappropriated Amounts*” and the sections of the OSPB June 2017 Revenue Forecast captioned “CASH FUND REVENUE FORECAST – Severance Tax Revenue” and “GENERAL FUND AND STATE EDUCATION FUND BUDGET – General Fund Overview Table – Expenditures.”
- <sup>10</sup> Spending by the Medicaid program above the appropriated amount, called “Medicaid Overexpenditures,” is usually the largest amount in this line.
- <sup>11</sup> The Unappropriated Reserve requirement, codified as Section 24-75-201.1(1)(d), C.R.S., is a percentage of the amount appropriated for expenditure from the General Fund in the applicable Fiscal Year. For Fiscal Year 2015-16 only, the percentage is of the amount subject to the appropriations limit minus the amount of income tax revenue required by to be diverted to a reserve fund to fund severance tax refunds as discussed in Note 9 above. Starting in Fiscal Year 2015-16, General Fund appropriations for lease-purchase agreement payments made in connection with certificates of participation sold to fund certain capital projects were made exempt from the reserve calculation requirement. These appropriations amount to \$37.8 million in Fiscal Year 2015-16, \$46.60million in Fiscal Year 2016-17 and \$48.1 million in Fiscal Year 2017-18. See “STATE FINANCIAL INFORMATION – Budget Process and Other Considerations – *Revenues and Unappropriated Amounts*” and “DEBT AND CERTAIN OTHER FINANCIAL OBLIGATIONS – The State, State Departments and Agencies.”
- <sup>12</sup> In recent years, all or a portion of the amount in excess of the statutory reserve was required by law to be credited to other State funds, primarily the State Education Fund. For example, all of the Fiscal Year 2012-13 excess was required to be transferred to the State Education Fund. All of the Fiscal Year 2013-14 excess, except for \$25 million that remained in the General Fund, was transferred to various other State funds in a specified order of priority per HB 14-1339, HB 14-1342 and SB 14-223. The amount remaining in the General Fund became part of the beginning reserve and funds available in Fiscal Year 2014-15. Under current law, all amounts remaining in the General Fund in excess of the statutory reserve in Fiscal Years 2015-16 through 2017-18 have or will become part of the beginning reserve and funds available in the following Fiscal Year.
- <sup>13</sup> The Fiscal Year 2016-17 and 2017-18 ending balances are projected to be below the required reserve level under current law, although not to the level that would trigger budget-balancing actions by the Governor as discussed hereafter in “Revenue Estimation; OSPB Revenue and Economic Forecasts – *Revenue Shortfalls*.”

Source: Office of State Planning and Budgeting

## Revenue Estimation; OSPB Revenue and Economic Forecasts

**Revenue Estimating Process.** The State relies on revenue estimation as the basis for establishing aggregate funds available for expenditure for its appropriation process. By statute, the OSPB is responsible for developing a General Fund revenue estimate. No later than June 20<sup>th</sup> prior to the beginning of each Fiscal Year, and no later than September 20<sup>th</sup>, December 20<sup>th</sup> and March 20<sup>th</sup> within each Fiscal Year, the Governor, with the assistance of the State Controller and the OSPB, is required to make an estimate of General Fund revenues for the current and certain future years. The revenue estimates are not binding on the General Assembly in determining the amount of General Fund revenues available for appropriation for the ensuing Fiscal Year. The revenue estimates may be subject to more frequent review and adjustment in response to significant changes in economic conditions, policy decisions and actual revenue flow.

The most recent OSPB Revenue Forecast was issued on June 20, 2017, and is included in this Official Statement as “APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST.” The OSPB June 2017 Revenue Forecast projects revenues for Fiscal Years 2016-17 through 2018-19. The amounts forecast for Fiscal Years 2016-17 and 2017-18 are summarized in “General Fund Revenue Sources” and “General Fund Overview” above in this Appendix.

The OSPB begins estimating revenue by obtaining macroeconomic forecasts for national and State variables. The national forecast for the OSPB June 2017 Revenue Forecast was provided by Moody’s Economy.com. The OSPB forecasts the State economy using a model originally developed partly in-house and partly by consultants to the State.

The model of the State economy is updated quarterly. This model is comprised of numerous dynamic regression equations and identities. Moody’s Economy.com’s forecasts for national variables are inputs to many of the Colorado equations. The model of the State economy generates forecasts of key indicators such as employment, retail sales, inflation and personal income. These forecasts are then used as inputs to revenue forecasts for income tax receipts, corporate collections, sales tax receipts, etc.

The econometric model used to forecast General Fund revenue relies on the economic data estimated using the model of the State economy discussed above. The models used for forecasting General Fund revenues incorporate changes in policy, both State and federal, as well as changes in the economic climate and historical patterns. The General Fund models are comprised of regression equations for many of the revenue categories. There are three main categories of tax revenues: excise tax receipts, income tax receipts and other tax receipts. The General Fund models forecast the majority of the categories of General Fund receipts separately. For example, the model forecasts each type of income tax receipt (withholding, estimated payments, cash with returns and refunds) individually and then aggregates the numbers to arrive at a net individual income tax receipts forecast. However, for corporate income tax receipts and sales tax collections, the model forecasts only the aggregate amount for these revenues. For many of the smaller tax revenue categories, simple trend analyses are generally utilized to derive a forecast.

***Revenue Shortfalls.*** The State’s Fiscal Year budgets are prepared and surplus revenues are determined using the modified accrual basis of accounting in accordance with the standards promulgated by GASB, with certain statutory exceptions. As a result, although the Fiscal Year budgets are balanced and, based upon the current forecast, there is anticipated to be an Unappropriated Reserve, the State may experience temporary and cumulative cash shortfalls. This is caused by differences in the timing of the actual receipt of cash revenues and payment of cash expenditures by the State compared to the inclusion of such revenues and expenditures in the State’s Fiscal Year budgets on an accrual basis, which does not take into account the timing of when such amounts are received or paid. Also, prior forecasts of General Fund revenue may have overestimated the amount the State would receive for the Fiscal Year.

Whenever the Governor’s revenue estimate for the current Fiscal Year indicates that General Fund expenditures for such Fiscal Year, based on appropriations then in effect, will result in the use of one-half or more of the Unappropriated Reserve, the Governor is required to formulate a plan for the General Fund expenditures so that the Unappropriated Reserve as of the close of the Fiscal Year will be at least one-half of the required amount. The Governor is required by statute to notify the General Assembly of the plan and to promptly implement it by: (i) issuing an executive order to suspend or discontinue, in whole or in part, the functions or services of any department, board, bureau or agency of the State government; (ii) approving the action of other State officials to require that heads of departments set aside reserves out of the total amount appropriated or available (except the cash funds of the Department of Education); or (iii) after a finding of fiscal emergency by a joint resolution of the General Assembly approved by the Governor, taking such actions necessary to be utilized by each principal department and institution of higher education to reduce State personnel expenditures.

The next OSPB revenue forecast will be released in September of 2017. General Fund revenue projections in this and subsequent OSPB revenue forecasts may be materially different from the OSPB June 2017 Revenue Forecast if economic conditions change markedly. If a revenue shortfall is projected for Fiscal Year 2017-18 and subsequent forecasted years, which would result in a budgetary shortfall, budget cuts and/or actions to increase the amount of money in the General Fund will be necessary to ensure a balanced budget. See “SELECTED STATE FUNDS ELIGIBLE FOR INVESTMENT IN DISTRICT NOTES IN THE EVENT OF DEFAULT IN THE REPAYMENT OF PROGRAM LOANS” and “INVESTMENT CONSIDERATIONS – Budgets and Revenue Forecasts.”

### Investment of the State Pool

**General.** The investment of public funds by the State Treasurer is subject to the general limitations discussed in “STATE FINANCIAL INFORMATION – Investment and Deposit of State Funds.” The State Treasurer has adopted investment policies further restricting the investment of State pool moneys, which includes the General Fund. The purpose of these investment policies is to limit investment risk by limiting the amount of the portfolio that may be invested in particular types of obligations, or in obligations of particular issuers or in particular issues, by imposing rating or financial criteria for particular types of investments more restrictive than those required by law, and by limiting the maximum term of certain types of investments. A minimum of 10% of the portfolio is required to be held in U.S. Treasury securities. Any reverse repurchase agreements may be for interest rate arbitrage only, and not for liquidity or leverage purposes. Each reverse repurchase agreement and the total investment it is arbitrated against must be closely matched in both dollar amount and term.

**Fiscal Years 2015-16 and 2016-17 Investments of the State Pool.** The following tables set forth the investment by category of the moneys in the State Pool as of the end of each month in Fiscal Years 2015-16 and 2016-17 for which information is available.

**State of Colorado  
State Pool Portfolio Mix  
Fiscal Year 2015-16  
(Amounts expressed in millions)<sup>1</sup>**

	<b>July 2015</b>	<b>Aug 2015</b>	<b>Sept 2015</b>	<b>Oct 2015</b>	<b>Nov 2015</b>	<b>Dec 2015</b>	<b>Jan 2016</b>	<b>Feb 2016</b>	<b>Mar 2016</b>	<b>Apr 2016</b>	<b>May 2016</b>	<b>June 2016</b>
Agency CMOs	\$ 9.3	\$ 8.5	\$ 8.1	\$ 7.7	\$ 7.3	\$ 7.2	\$ 6.6	\$ 6.2	\$ 6.1	\$ 5.5	\$ 5.2	\$ 4.9
Commercial Paper	786.9	789.9	694.9	959.8	980.8	670.8	1,014.6	384.7	463.7	963.4	591.5	846.3
U.S. Treasury Notes	909.2	894.4	894.4	894.4	879.8	849.9	849.9	785.2	770.3	846.3	1,205.0	1,179.8
Federal Agencies	2,877.1	2,907.1	3,065.8	2,461.2	2,321.4	2,351.3	2,826.5	3,480.9	3,454.8	3,659.8	3,749.7	2,425.0
Asset-Backed Securities	1,382.8	1,348.2	1,318.8	1,289.0	1,255.9	1,176.0	1,168.2	1,142.5	1,127.0	1,086.2	1,048.7	1,022.0
Money Market	360.0	265.0	435.0	435.0	320.0	304.8	492.9	488.0	438.0	300.0	170.0	230.0
Corporates	1,693.3	1,708.1	1,708.7	1,704.9	1,695.5	1,697.1	1,675.2	1,647.2	1,632.6	1,617.3	1,636.2	1,646.6
Certificates of Deposit	5.0	6.5	0.0	6.5	6.5	6.5	4.5	2.5	0.5	0.5	0.5	0.5
<b>Totals</b>	<b>\$8,023.6</b>	<b>\$7,927.7</b>	<b>\$8,125.7</b>	<b>\$7,758.5</b>	<b>\$7,467.2</b>	<b>\$7,063.6</b>	<b>\$8,038.4</b>	<b>\$7,937.2</b>	<b>\$7,893.0</b>	<b>\$8,479.0</b>	<b>\$8,406.8</b>	<b>\$7,355.1</b>

<sup>1</sup> This table includes all moneys in the State Pool, which includes the General Fund, Borrowable Resources and other moneys that are invested by the State Treasurer.

Source: State Treasurer’s Office

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**State of Colorado**  
**State Pool Portfolio Mix**  
**Fiscal Year 2016-17**  
(Amounts expressed in millions)<sup>1</sup>

	July 2016	Aug 2016	Sept 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017
Agency CMOs	\$ 4.6	\$ 4.4	\$ 4.0	\$ 3.8	\$ 3.5	\$ 3.3	\$ 3.0	\$ 2.8	\$ 2.6	\$ 2.4	\$ 2.3
Commercial Paper	1,030.2	1,135.0	1,208.1	912.3	915.4	843.3	959.2	664.4	484.6	865.0	756.8
U.S. Treasury Notes	1,179.7	1,106.7	978.8	933.7	983.9	954.3	954.6	875.4	875.0	874.7	874.3
Federal Agencies	2,842.3	2,442.4	2,240.1	2,235.1	1,935.2	1,845.9	2,300.5	2,040.5	2,359.8	1,780.5	1,945.2
Asset-Backed Securities	975.5	921.9	876.2	832.8	768.8	742.7	717.8	698.5	729.4	678.6	603.8
Money Market	251.0	381.0	450.0	455.0	410.0	410.0	410.0	350.0	295.0	525.0	290.0
Corporates	1,658.2	1,752.3	1,856.7	2,018.6	1,989.9	1,991.1	2,364.2	2,699.7	2,830.5	3,325.1	3,542.0
Certificates of Deposit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Totals</b>	<b>\$7,941.5</b>	<b>\$7,743.7</b>	<b>\$7,613.9</b>	<b>\$7,391.3</b>	<b>\$7,006.7</b>	<b>\$6,790.6</b>	<b>\$7,709.3</b>	<b>\$7,331.3</b>	<b>\$7,576.9</b>	<b>\$8,051.3</b>	<b>\$8,014.4</b>

<sup>1</sup> This table includes all moneys in the State Pool, which includes the General Fund, Borrowable Resources and other moneys that are invested by the State Treasurer.

Source: State Treasurer's Office

### General Fund Cash Flow

General Fund cash flow deficits are attributable to several categories of loans and expenditures by the State throughout each Fiscal Year, including public school distributions, medical assistance and grants and contract purchased services. The State Treasurer has certain administrative powers to remedy negative cash balances, including the ability to issue tax and revenue anticipation notes in anticipation of the receipt of revenues in the General Fund and to use Borrowable Resources. The Governor also has authority to impose spending restrictions, and the General Assembly may defer certain payments from one Fiscal Year to the next, if necessary, to ensure that the General Fund will not end any Fiscal Year with a negative fund balance. See "THE SERIES 2017A NOTES – Authorization" and "STATE FINANCIAL INFORMATION – The State Treasurer."

The following tables present on a cash basis the actual and estimated cash flows of the General Fund for Fiscal Years 2016-17 and 2017-18 by total categories of receipts and disbursements. The tables are based on revenue and expenditure projections prepared on the modified accrual basis of accounting, with accounting adjustments made by the State Treasurer to arrive at a cash basis presentation, and should be read in conjunction with the information set forth above in this Appendix. See also "STATE FINANCIAL INFORMATION – Fiscal Controls and Financial Reporting."

Monthly cash flow projections for Fiscal Years 2016-17 and 2017-18 are based upon (i) the General Fund appropriations for Fiscal Years 2016-17 and 2017-18 adopted by the General Assembly, (ii) historical experience as adjusted to reflect economic conditions, (iii) statutory and administrative changes and anticipated payment dates for payrolls and (iv) the OSPB June 2017 Revenue Forecast discussed in "Revenue Estimation; OSPB Revenue and Economic Forecasts" above. Unforeseen events or variations from underlying assumptions may cause an increase or decrease in receipts and/or disbursements from those projected for a given month, which may adversely affect the projections of estimated cash flows. Additionally, the timing of transactions from month to month may vary from the forecasts. Therefore, there are likely to be differences between the forecasted and actual results, and such differences may be material. See the preliminary notices in this Official Statement regarding forward-looking statements.

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**State of Colorado**  
**Actual and Estimated General Fund Cash Flow**  
**Fiscal Year 2016-17**  
**Current Law<sup>1</sup>**

(Amounts expressed in millions; totals may not add due to rounding)

	Actual											Estimated	
	July 2016	Aug 2016	Sept 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	June 2017	Total
Beginning Cash and Investments Balance	\$ 473.4											\$ 473.4	
Revenues:													
General Fund Revenue:													
Sales and Use Tax	215.7	\$ 266.2	\$ 276.9	\$ 267.0	\$ 251.0	\$ 254.4	\$ 305.0	\$ 231.0	\$ 234.4	\$ 259.5	\$ 251.0	\$ 269.6	3,081.8
Individual Income Tax	372.2	444.5	622.9	569.2	507.3	538.6	721.9	199.2	276.8	769.7	532.7	705.1	6,260.2
Corporate Income Tax	13.1	4.7	112.0	42.0	(32.3)	45.6	38.5	6.1	62.8	107.1	21.8	110.5	532.0
Other	52.0	(4.3)	6.3	(51.7)	(27.5)	(51.0)	(1.0)	65.3	53.9	241.1	(42.1)	197.2	438.2
Total General Fund Revenue	653.0	711.2	1,018.1	826.5	698.5	787.6	1,064.5	501.6	627.9	1,377.4	763.4	1,282.5	10,312.1
Federal Revenue	447.0	544.0	696.0	443.1	595.2	688.0	573.8	590.7	709.4	506.7	598.6	1,250.1	7,642.7
Total Revenues	1,100.0	1,255.2	1,714.1	1,269.6	1,293.7	1,475.6	1,638.3	1,092.4	1,337.3	1,884.1	1,362.0	2,532.6	17,954.8
Expenditures:													
Payroll	137.3	148.8	148.7	149.6	148.3	138.3	145.3	140.2	142.1	137.7	139.5	151.2	1,726.8
Medical Assistance	459.4	547.7	398.1	392.8	593.9	503.0	339.6	545.1	432.1	723.1	720.3	482.1	6,137.1
Public School Distribution	794.1	(13.0)	833.9	0.2	1.8	828.8	3.0	0.3	829.1	0.3	0.2	2.2	3,280.9
Higher Education Distribution	3.2	45.1	2.1	4.1	4.2	42.6	0.3	0.4	0.4	0.4	0.4	(0.8)	106.4
Grants and Contracts	43.5	271.0	321.8	215.0	248.9	307.2	262.0	251.6	285.1	248.9	255.8	288.2	2,998.9
Other	459.5	431.0	488.8	175.8	130.3	695.7	221.0	129.3	451.9	(102.5)	(179.5)	333.0	3,234.4
Total Expenditures:	(1,896.9)	(1,430.5)	(2,193.4)	(937.5)	(1,127.4)	(2,515.6)	(971.3)	(1,067.0)	(2,140.7)	(1,007.9)	(936.7)	(1,255.8)	(17,480.6)
Total Revenues and Beginning Cash and Investments Minus Total Expenditures	(323.5)	(175.3)	(479.3)	332.1	166.3	(1,040.0)	667.0	25.4	(803.4)	876.2	425.3	1,276.8	947.7
Revenue Accrual Adjustment	130.6	(20.1)	2.1	6.5	(32.1)	4.5	2.0	(0.3)	(1.9)	10.2	(52.5)	(17.6)	31.4
Expenditure Accrual Adjustment	(144.6)	40.6	(0.9)	(27.8)	30.2	(9.3)	26.1	(16.7)	13.0	67.9	(20.4)	(282.8)	(324.6)
Extraordinary Items Impacting Cash:													
TABOR Refund	--	--	--	--	--	--	--	--	--	--	--	--	--
Net Transfer In/Out – From/To Cash Funds Per Statute	--	--	--	--	--	--	--	--	--	--	--	--	--
Homestead Exemption	--	--	--	--	--	--	--	--	--	(126.0)	--	--	(126.0)
General Fund Notes – Including Interest	600.0	--	--	--	--	--	--	--	--	--	--	(602.4)	(2.4)
Capital Construction Transfer	(84.5)	--	--	--	--	--	--	--	--	--	--	--	(84.5)
General Fund Reserve Transfer to Highway Users Tax Fund	--	--	--	--	--	--	--	--	--	--	--	--	--
State Education Fund Transfer	--	--	--	--	--	--	--	--	--	--	--	--	--
Actual/Projected Monthly Cash Change	178.0	(154.8)	(478.1)	310.9	164.4	(1,044.8)	695.1	8.4	(792.3)	828.4	352.4	374.0	441.6
<b>General Fund Cash Balance End of Month</b>	<b>\$ 178.0</b>	<b>\$ 23.2</b>	<b>\$ (454.9)</b>	<b>\$ (144.0)</b>	<b>\$ 20.4</b>	<b>\$ (1,024.4)</b>	<b>\$ (329.3)</b>	<b>\$ (320.9)</b>	<b>\$ (1,113.2)</b>	<b>\$ (284.8)</b>	<b>\$ 67.6</b>	<b>\$ 441.6</b>	

<sup>1</sup> General Fund revenues in this table are derived from the OSPB June 2017 Revenue Forecast. All other amounts are estimates made by the State Treasurer's office based on various assumptions and are subject to change. No representation or guaranty is made herein that such forecasted amounts will be realized. See the preliminary notices in this Official Statement regarding forward-looking statements.

Source: State Treasurer's Office

**State of Colorado**  
**Estimated General Fund Cash Flow**  
**Fiscal Year 2017-18<sup>1</sup>**  
**Current Law**

(Amounts expressed in millions; totals may not add due to rounding)

	July 2017	Aug 2017	Sept 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	June 2018	Total
Beginning Cash and Investments Balance	\$ 441.6												\$ 441.6
Revenues:													
General Fund Revenue:													
Sales and Use Tax	222.0	\$ 286.4	\$ 297.8	\$ 287.2	\$ 270.0	\$ 273.6	\$ 328.1	\$ 248.5	\$ 252.1	\$ 281.6	\$ 272.3	\$ 292.5	3,312.2
Individual Income Tax	379.5	467.3	654.9	598.4	533.3	566.2	761.0	210.5	291.0	832.3	576.0	762.5	6,632.9
Corporate Income Tax	13.2	5.6	132.1	49.5	(38.0)	53.8	45.4	7.2	74.1	119.7	24.4	123.5	610.5
Other	52.0	(3.8)	(3.3)	(57.1)	(23.2)	(57.0)	(3.7)	66.8	49.8	256.2	(47.1)	208.6	438.1
Total General Fund Revenue	672.0	755.5	1,081.5	878.0	742.0	836.7	1,130.8	532.9	667.1	1,489.8	825.7	1,387.1	10,999.0
Federal Revenue	460.0	536.2	686.0	436.7	586.6	678.1	565.5	582.2	699.2	499.4	590.0	1,232.2	7,552.2
Total Revenues	1,132.1	1,291.7	1,767.5	1,314.7	1,328.6	1,514.8	1,696.4	1,115.1	1,366.3	1,989.1	1,415.7	2,619.2	18,551.3
Expenditures:													
Payroll	141.2	156.4	155.8	156.8	155.4	144.2	152.3	147.0	148.9	144.3	146.2	159.0	1,807.4
Medical Assistance	472.8	547.7	398.1	392.8	593.9	503.0	339.6	545.1	432.1	723.1	720.3	482.1	6,150.5
Public School Distribution	817.3	(13.4)	858.6	0.2	1.9	853.4	3.1	0.3	853.7	0.3	0.2	2.2	3,377.9
Higher Education Distribution	3.3	45.1	2.1	4.1	4.2	42.6	0.3	0.4	0.4	0.4	0.4	(0.8)	106.4
Grants and Contracts	44.7	273.5	324.9	217.1	251.2	310.1	264.5	254.0	287.8	251.2	258.3	290.9	3,028.3
Other	472.9	461.5	515.7	193.0	152.6	733.1	238.9	150.2	478.1	(41.5)	(123.6)	409.6	3,640.5
Total Expenditures:	(1,952.1)	(1,470.9)	(2,255.2)	(963.9)	(1,159.2)	(2,586.5)	(998.6)	(1,097.1)	(2,201.1)	(1,077.8)	(1,001.8)	(1,343.0)	(18,107.1)
Total Revenues and Beginning Cash and Investments Minus Total Expenditures	(378.5)	(179.2)	(487.7)	350.8	169.5	(1,071.7)	697.7	18.1	(834.8)	911.3	413.9	1,276.3	885.8
Revenue Accrual Adjustment	155.6	(20.1)	2.1	6.5	(32.1)	4.5	2.0	(0.3)	(1.9)	10.2	(52.5)	(17.6)	56.4
Expenditure Accrual Adjustment	(122.6)	40.6	(0.9)	(27.8)	30.2	(9.3)	26.1	(16.7)	13.0	67.9	(20.4)	(282.8)	(302.6)
Extraordinary Items Impacting Cash:													
TABOR Refund	--	--	--	--	--	--	--	--	--	--	--	--	--
Net Transfer In/Out – From/To Cash Funds Per Statute	--	--	--	--	--	--	--	--	--	--	--	--	--
Homestead Exemption	--	--	--	--	--	--	--	--	--	(138.0)	--	--	(138.0)
General Fund Notes – Including Interest	600.0	--	--	--	--	--	--	--	--	--	--	(602.4)	(2.4)
Capital Construction Transfer	(109.2)	--	--	--	--	--	--	--	--	--	--	--	(109.2)
General Fund Reserve Transfer to Highway Users Tax Fund	--	--	--	--	--	--	--	--	--	--	--	--	--
State Education Fund Transfer	--	--	--	--	--	--	--	--	--	--	--	--	--
Projected Monthly Cash Change	145.3	(158.7)	(486.5)	329.6	167.6	(1,076.5)	725.8	1.1	(823.7)	851.5	341.1	373.5	390.0
<b>General Fund Cash Balance End of Month</b>	<b>\$ 145.3</b>	<b>\$ (13.3)</b>	<b>\$ (499.8)</b>	<b>\$ (170.2)</b>	<b>\$ (2.6)</b>	<b>\$ (1,079.1)</b>	<b>\$ (353.3)</b>	<b>\$ (352.3)</b>	<b>\$ (1,176.0)</b>	<b>\$ (324.5)</b>	<b>\$ 16.5</b>	<b>\$ 390.0</b>	

<sup>1</sup> General Fund revenues in this table are derived from the OSPB June 2017 Revenue Forecast. All other amounts are estimates made by the State Treasurer's office based on various assumptions and are subject to change. No representation or guaranty is made herein that such forecasted amounts will be realized. See the preliminary notices in this Official Statement regarding forward-looking statements.

Source: State Treasurer's Office

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## **APPENDIX B**

### **OSPB JUNE 2017 REVENUE FORECAST**

As discussed in “APPENDIX A – THE STATE GENERAL FUND – Revenue Estimation; OSPB Revenue and Economic Forecasts,” the OSPB prepares quarterly revenue estimates and is currently forecasting for Fiscal Years 2016-17 through 2018-19. The forecasts include projections of General Fund revenues available for spending and end-of-year reserves through the forecast period. Budgeted General Fund spending levels are also included. The forecasts are based on historical patterns, with economic and legislative changes explicitly included in the models that forecast revenue growth, and include both State and national economic forecasts.

The most recent OSPB Revenue Forecast was issued on June 20, 2017, and is presented in its entirety in this Appendix. The pagination of this Appendix reflects the original printed document.

Prospective investors are cautioned that any forecast is subject to uncertainties, and inevitably some assumptions used to develop the forecasts will not be realized, and unanticipated events and circumstances may occur. Therefore, there are likely to be differences between forecasted and actual results, and such differences may be material. No representation or guaranty is made herein as to the accuracy of the forecasts. See also the preliminary notices in this Official Statement regarding forward looking statements.

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# The Colorado Outlook

## Economic and Fiscal Review





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### Summary

- After an increase of just 1.7 percent in FY 2015-16, General Fund revenue is expected to increase a modest 3.4 percent in FY 2016-17. General Fund revenue is forecast to increase at a stronger rate of 6.7 percent in FY 2017-18. Relative to the March projections, the FY 2016-17 General Fund revenue forecast is lower by \$62.1 million, or 0.6 percent. The forecast for FY 2017-18 is essentially unchanged.
- Although sales taxes and individual income taxes are recovering from the oil and gas downturn and weaker economic growth during 2015 and 2016, General Fund revenue growth overall this fiscal year was weighed down by a few factors. Notably, it appears some taxpayers delayed income from investment gains in anticipation of federal tax changes. Also, the continued decline in corporate income tax revenue impacted General Fund revenue growth. However, these factors will not reduce growth in FY 2017-18, which will allow for the stronger rate of increase.
- With this forecast and the budget for FY 2016-17, the State’s General Fund reserve is projected to be \$142.7 million below the required statutory reserve amount. The State’s General Fund reserve for FY 2017-18 is projected to be \$285.4 million below the required reserve amount. This is \$52.3 million above the level that would trigger budget-balancing actions by the Governor.
- Cash fund revenue in FY 2016-17 is projected to be \$153.2 million, or 5.2 percent, lower than FY 2015-16, as a decrease in revenue from the Hospital Provider Fee and miscellaneous cash funds will offset modest growth in revenue from other major categories of cash funds. Cash fund revenue will decrease 17.3 percent in FY 2017-18 as the Hospital Provider Fee is replaced with the Healthcare Affordability and Sustainability Fee program, which is a TABOR-exempt enterprise in accordance with SB 17-267. The forecast for FY 2017-18 is \$913.5 million, or 28.5 percent, lower compared with projections in March mostly as a result of SB 17-267.
- TABOR revenue is projected to be \$302.3 million under the Referendum C cap in FY 2016-17. With this forecast and SB 17-267, TABOR revenue is expected to be below the cap by \$582.8 million in FY 2017-18 and by \$665.2 million in FY 2018-19.
- Economic activity in Colorado overall remains positive, with the lowest unemployment in the nation. However, tight labor and housing market conditions are limiting the state’s economic expansion. Colorado’s technology-related sectors remain robust, and continue to fuel much of the state’s growth. Less populated areas continue to experience lower job and income growth than along the Front Range. Furthermore, regions of the state that are dependent on agriculture continue to struggle with subdued farm income and continued low commodity prices. Economic growth for the nation overall has also improved in 2017, but remains more modest than in Colorado. U.S. financial conditions remain generally supportive of expansion. However, financial markets are signaling less robust expectations for the economy than when the March 2017 Colorado Outlook was published
- Although underlying growth in the economy looks solid and recession risk appears low, events can develop that could result in an economic downturn. For example, uncertainty surrounding the resolution of the federal government’s debt ceiling later this year could result in disruptions in financial markets. In addition, further tightening in monetary policy in the current modest economic growth and low inflation environment may result in slowing economic conditions.

## The Economy: Issues, Trends, and Forecast

The following section discusses overall economic conditions in Colorado, nationally, and around the world. The OSPB forecast for economic conditions is largely unchanged from the March 2017 Colorado Outlook. The economy has performed as expected in recent months, and there have been no major new developments that would affect the expected future path of the economy. This section includes an analysis of:

- Economic and labor market conditions in Colorado (page 5)
- Economic, financial, and labor market conditions for the nation (page 15)
- Housing market conditions (page 25)
- International economic conditions and trade (page 30)

***Trends and forecasts for key economic indicators***— A summary of key economic indicators with their recent trends and statistics, as well as forecasts, is provided at the end of this section. The summary of indicators is intended to provide a snapshot of the economy’s performance and OSPB’s economic projections, which are informed by the following analysis of the economy.

***Summary***— Colorado’s economic growth has accelerated in the first half of 2017, and the expansion is expected to continue at a moderate pace through the forecast period. Colorado’s technology-related sectors remain robust, and continue to fuel much of the state’s growth. Further, the oil and gas industry is now modestly adding to the expansion rather than weighing on economic activity. There is also renewed vigor in new business formation, which will contribute to continued economic growth.

Although Colorado has the lowest unemployment rate in the nation, tight labor and housing market conditions are constraining the state’s economic expansion. Less populated areas continue to experience lower job and income growth than along the Front Range. Furthermore, regions of the state that are dependent on agriculture continue to struggle with subdued farm income and continued low commodity prices.

Economic growth for the nation overall has also improved in 2017, but remains more modest than in Colorado. Business contacts across the country report modest to moderate economic growth, with tightening labor market conditions. Further, leading economic indicators point to continued expansion in the coming months. Importantly, U.S. financial conditions remain generally supportive of expansion. However, financial markets are signaling less robust expectations for the economy — an important factor in its actual future performance — than when the March 2017 Colorado Outlook was published, due mainly to lower expectations for pro-growth policies from the federal government.

***Economic risks***— Although underlying growth in the economy looks solid and recession risk appears low, events could develop that would change this outlook. For example, the federal government’s debt ceiling will be reached later this year, and uncertainty surrounding the resolution of this issue could result in disruptions in financial markets. In addition, there are concerns that equity markets are excessively valued. A large enough market correction could cause investors, businesses, and households to reduce spending in the economy. Further, changes in monetary policy can have a large influence on economic conditions. The Federal Reserve has signaled that monetary tightening will continue, including through a reduction in the assets held on its balance sheet. Further tightening in monetary policy in the current modest economic growth and low inflation environment may result in slowing economic conditions.



## Colorado Economy

Economic activity in Colorado overall remains positive, with the lowest unemployment rate in the nation. However, tight labor and housing market conditions are limiting the state's economic expansion. Colorado's technology-related sectors remain robust, and continue to fuel much of the state's growth. Further, the oil and gas industry is now modestly adding to the expansion rather than weighing on economic activity as it did in 2015 and 2016. There is also renewed vigor in new business formation, which will contribute to continued economic growth.

Although unemployment across the state is low, areas outside of Colorado's Front Range have fewer of the elements that are fueling the expansion, and thus have slower job and income growth. Further, regions of the state that are dependent on agriculture continue to struggle with subdued farm income and continued low commodity prices.

**Economic activity in Colorado overall remains positive, with the lowest unemployment rate in the nation.**

Housing construction is growing, but remains at low levels as the industry continues to struggle with several challenges. The low inventory of homes for sales amidst strong demand from the state's growing population continues to put upward pressure on home values and raises increasing affordability concerns. Nonresidential construction remains robust, though new development is likely to slow in the future as financing for new development has tightened.

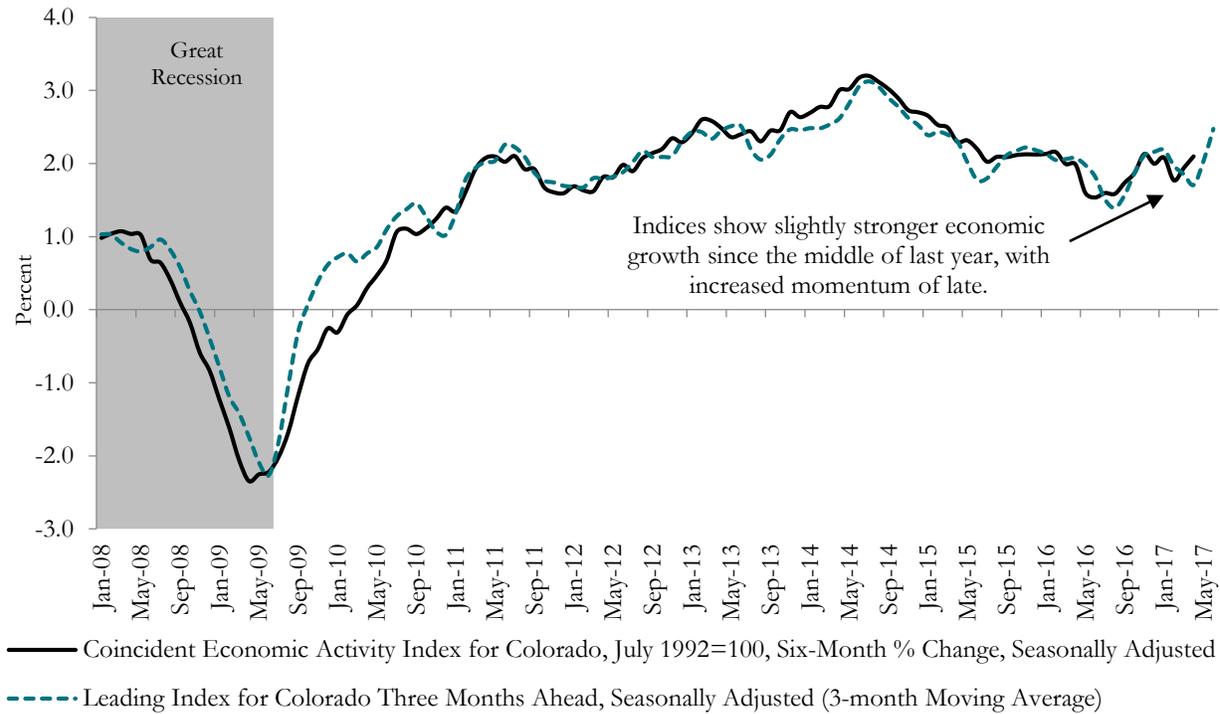
***Indices that measure Colorado's overall economy show slightly stronger economic growth*** – As shown in Figure 1, the Federal Reserve Bank of Philadelphia's monthly State Coincident Economic Activity Index is indicating modestly higher growth for Colorado's economy in recent months. The monthly index provides an up-to-date broad measure of state economic activity and matches growth in a state's gross domestic product (GDP) over time. It combines four state-level indicators to track current economic conditions – employment, average hours worked in manufacturing, the unemployment rate, and inflation-adjusted wage and salary disbursements. The coincident index also shows the slowdown in the state's economy over 2015 and 2016 that was due mostly to the contraction in the oil and gas industry and tight labor market conditions.

**Economic indices that measure broad economic activity show slightly stronger growth for Colorado, with increased momentum of late.**

Another index of broad economic activity for Colorado shows that economic growth is likely to experience increased momentum in the near term. The Philadelphia Federal Reserve Branch's Leading Index for Colorado predicts the growth rate of the state's coincident index. To show this relationship, Figure 1 overlays the leading index, advanced three months, with the coincident index. Among the activities used to create the leading index are housing permits, initial unemployment insurance claims, and delivery times from vendors to producers. These economic indicators have been found to precede changes in momentum in the overall economy.



**Figure 1. Colorado Leading and Coincident Economic Indices**



Source: Federal Reserve Bank of Philadelphia

**Colorado’s dynamic economy continues to generate a stronger economic expansion than the U.S. overall** – Despite the slowdown in growth starting in 2015, Colorado’s economy has continued to perform better than the nation overall. Much of this stronger performance is due to the state’s economy being more dynamic than that of the nation, with higher rates of new business creation, a greater proportion of young businesses, higher labor force participation, and a more flexible labor market. All of these characteristics enable the state’s economy to adapt to changing conditions and move resources to more productive activities, which generate larger gains in income and spending.

Economic Innovation Group, a bipartisan policy and advocacy organization that works to foster economic growth and dynamism, recently released an Index of State Dynamism based on the aforementioned characteristics of dynamic economies. The index ranked Colorado as the fourth most dynamic state in the U.S. Nevada, Utah, and Florida ranked the highest. However, according to the index report, Colorado’s economic dynamism has declined over time, as it has for the U.S economy overall.

**New business formation is showing renewed vigor** – Trends in business formation are important for assessing the underlying momentum in the economy. Increased levels of business formation indicate that individuals are seeing more opportunities in the economy, and new businesses, on net, add the most new jobs to an economy over time.

**Renewed growth in new business formation is supporting continued economic growth for the state.**

As shown in Figure 2, data from the Colorado Secretary of State indicates that filings of new entities formed to do business in the state, which mostly consist of limited liability companies and corporations, increased by 2,750, or 9.5 percent, in the first quarter of 2017 compared with the year prior. This higher level of new business activity will help



support continued economic growth for the state. New entity filings slowed in 2015 and the first part of 2016, contributing to the slowdown in the economy.

**Figure 2. Year-over-Year Change in New Entity Filings to Do Business in Colorado**



Source: Colorado Secretary of State

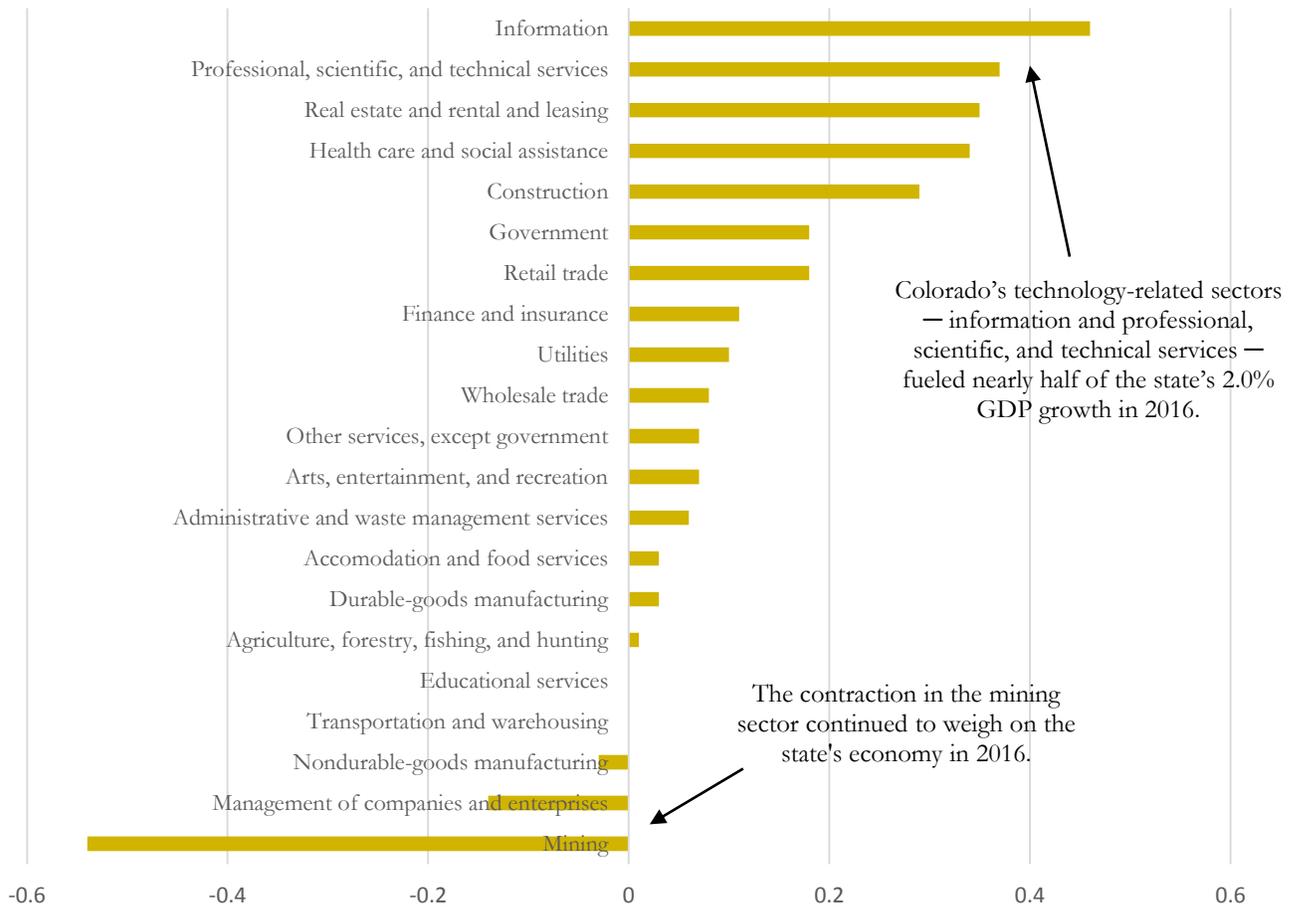
The Kauffman Foundation, a leading organization for entrepreneurship research and advocacy, recently ranked Colorado 5th among the 25 largest states in its 2017 Index of Startup Activity, which measures startup business activity by assessing the percentage of people becoming entrepreneurs, the percentage of new entrepreneurs driven primarily by "opportunity" vs "necessity," and the amount of new employer businesses.

**Colorado’s technology-related sectors are fueling much of the state’s economic expansion** – Colorado’s technology sectors are a main element in the state’s higher level of dynamism than the U.S. overall and continue to fuel much of the economic expansion for the state. Figure 3 shows the percentage point contribution from various sectors to Colorado’s growth in real, or inflation-adjusted, gross domestic product in 2016.

**Colorado’s technology sectors contributed nearly half of the state’s 2.0 percent overall GDP growth in 2016.**

The information and professional, scientific, and technical services industries – which comprise most technology sectors, such as computing and software development, data processing, communications, architecture, and engineering – contributed nearly half, or 0.8 percentage points, of the 2.0 percent overall GDP growth in 2016. Real estate, health care, and construction were also leading contributors to growth. As shown in Figure 3, the mining sector continued to weigh on the state’s economic growth in 2016, when it subtracted 0.5 percentage points from GDP. This means that state GDP growth would have been 0.5 percentage points higher were it not for the mining industry’s continued contraction last year. The 2.0 percent overall GDP growth rate was the state’s slowest since 2011, with the mining sector’s contraction and tight labor and housing market conditions constraining growth.

**Figure 3. Percentage Contribution to GDP Growth in Colorado in 2016**



Source: Bureau of Economic Analysis

***New business formation in technology sectors is an important source of Colorado's growth and dynamism*** — Colorado's technology sectors continue to be robust, aided by a maturing ecosystem that is fostering the growth of technology businesses, including new business startups. The industry continues to attract capital and high-skilled workers to the region, which is generating growth and income gains in the state.

Technology sectors sell much of their products outside the region, generating new income for the state. They are also involved with innovative activities and have high-paying jobs. As a result, growth in technology sectors leads to job growth in other sectors, from doctors and lawyers to services jobs such as restaurants and personal services. Economic research has found that for every technology-related job created, five additional jobs are created over time in other sectors.<sup>1</sup>

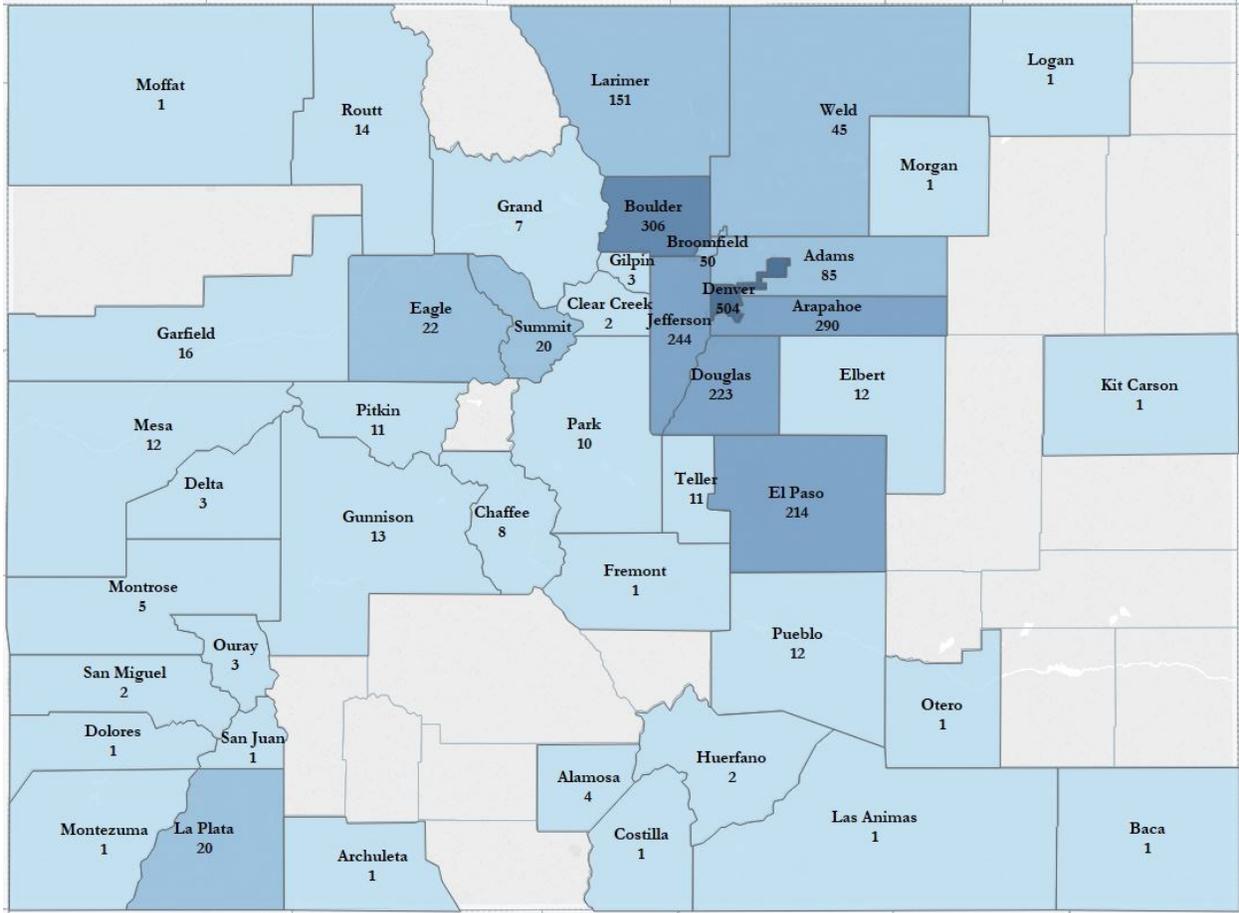
**There were over 2,400 new business formations in Colorado's technology sectors in 2016. This startup activity is a main element in Colorado's economic expansion.**

New business formation in technology sectors was strong in 2016, helping generate continued economic momentum and job and income gains for the state. New businesses in technology sectors represented approximately 10 percent of all new business formations in 2016.

<sup>1</sup> Moretti, Enrico. *The New Geography of Jobs*. Boston: Houghton Mifflin Harcourt, 2012.

Figure 4 shows the location of the approximately 2,400 new firms in technology formed in 2016. Large numbers of these businesses are forming in densely populated areas, but as shown, activity in technology sectors is occurring across the state. About 80 percent of the new business formation in the technology-related sectors occurred in the following industries: software publishers, data processing, engineering, computer programming, and computer systems design.

**Figure 4. New Technology Businesses Formed in Colorado, 2016**



Source: Colorado Department of Labor and Employment and OSPB

***A prolonged downturn in the agricultural industry continues to weigh on economic activity in the state’s rural areas*** — Agricultural conditions remain weak due to subdued farm income and continued low commodity prices. These conditions result in challenging economic conditions in rural economies, especially due to the prolonged downturn in the corn, cattle, and wheat markets. Many farmers and ranchers face financial stress. Farmland values continue to fall and credit conditions continue to worsen, with increased farm loan demand to maintain operations, increasing debt burdens, and weakening loan repayment rates.

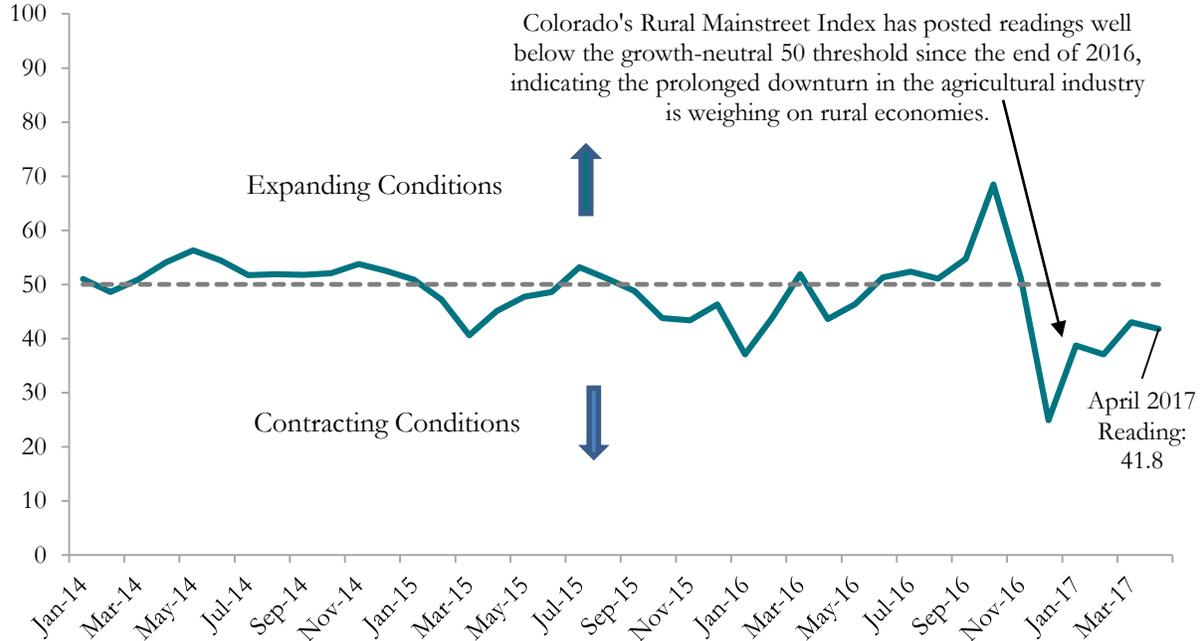
**Farmland values continue to fall and credit conditions continue to worsen for farmers and ranchers as a result of the prolonged downturn in the agricultural industry.**

Colorado’s rural economies, as measured by Colorado’s Rural Mainstreet Index published by Creighton University, are experiencing contracting economic conditions. The index has mostly posted weak readings since the end of 2014, as shown in Figure 5, though conditions temporarily improved during the last half of



2016. The index measures economic activity in rural areas by surveying community banks on current economic conditions and their economic outlooks. Index readings above 50 signify growth. The index decreased in April to 41.8, due mostly to weakening farming and ranching prices and lower expectations for hiring.

**Figure 5. Colorado’s Rural Mainstreet Index**



Source: Creighton University

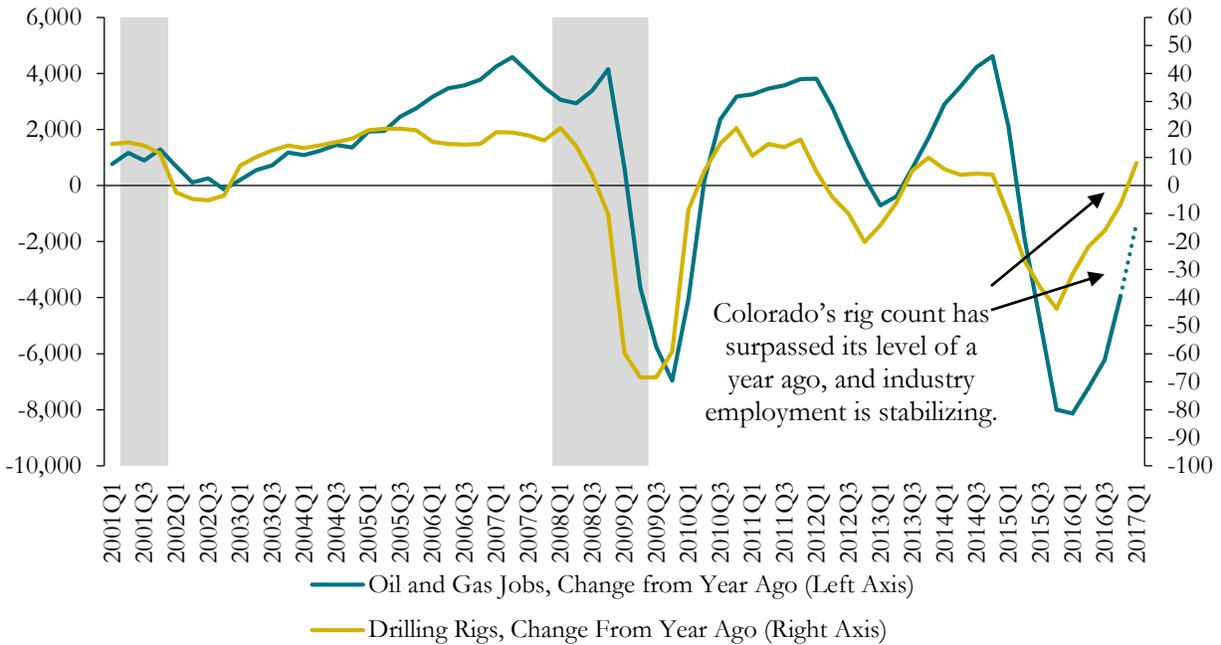
**Oil and gas industry activity continues to improve, though it remains at a relatively low level** – Regional oil and gas activity expanded in the first quarter of 2017, according to a survey of regional energy producers by the Federal Reserve Bank of Kansas City, recording the second-strongest expansion since the survey began at the beginning of 2014. Oil prices have increased modestly, allowing producers to expand activity and hire more workers. The survey also revealed that revenues, profits, wages, and employment are all expected to increase over the next six months.

**Regional oil and gas producers recorded their second-strongest quarter of business activity since measurement began in 2014.**

The growth in regional energy activity is credited to increased global demand, along with OPEC’s (Organization of the Petroleum Exporting Countries) production cuts. The increased activity is reflected in the higher rig count and employment data for Colorado, shown in Figure 6, as the industry continues to recover from the sharp drop in energy prices and activity that began in late 2014.



**Figure 6. Year-over-Year Change in Oil and Gas Industry Employment and Rig Counts\***



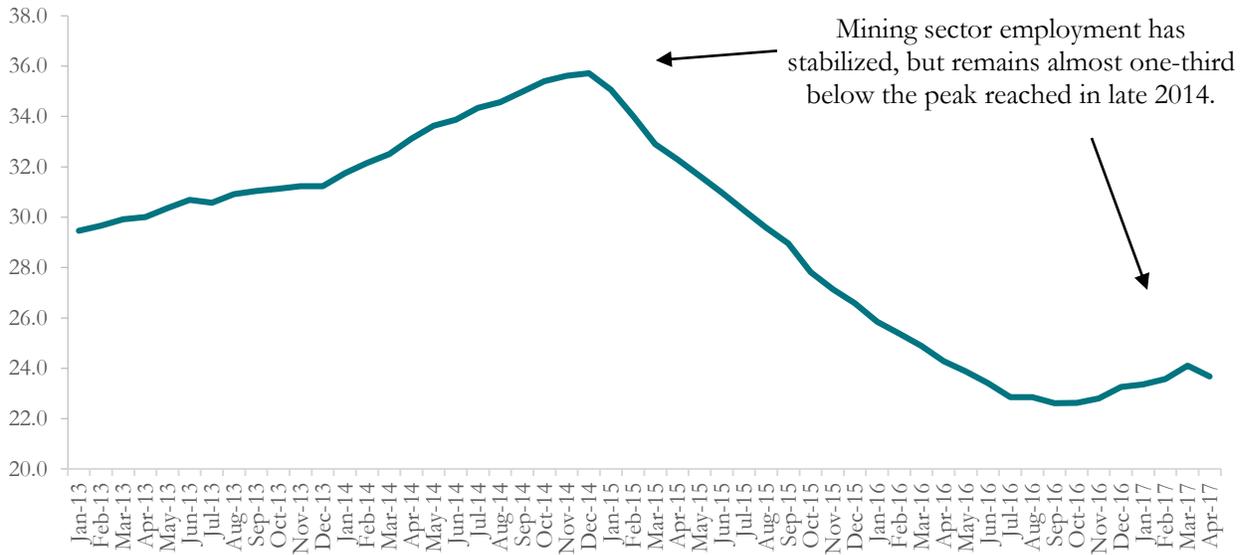
\*Dotted portion of line based on preliminary estimates  
 Source: Baker Hughes, U.S. Bureau of Labor Statistics

Employment in the mining and logging sector seems to be stabilizing. Figure 7 shows statewide employment in the mining and logging sector since early 2013. While still far below the boom-period highs of late 2014, industry employment has been growing since fall 2016. According to the Kansas City Fed's survey of regional energy producers, only 13 percent of regional energy firms expect to employ fewer people in 6 months than they do today, while 29 percent expect to employ more.

**Twenty-nine percent of regional energy firms expect to employ more people in 6 months than they do today, while only 13 percent expect to employ less.**



**Figure 7. Colorado Mining and Logging Industry Employment**



Source: U.S. Bureau of Labor Statistics

**U.S. oil producers are expanding production in response to OPEC production cuts** – In November of 2016, OPEC members agreed to reduce oil production in an attempt to limit oil supply and increase prices. This agreement was extended in May for a further nine months. While participating nations have managed a high rate of compliance with the cuts, the resulting higher prices have induced U.S. oil producers to expand their production, limiting the effectiveness of OPEC’s agreement. Global demand for oil has also been weaker than expected, largely due to slowing activity in the Chinese manufacturing sector. Overall, the U.S. Energy Information Administration expects global consumption to slightly exceed production in 2017, leading to minor reductions in oil inventories.

**U.S. oil producers are increasing production in response to OPEC’s agreement to cut output, limiting the effectiveness of the agreement’s ability to boost prices.**

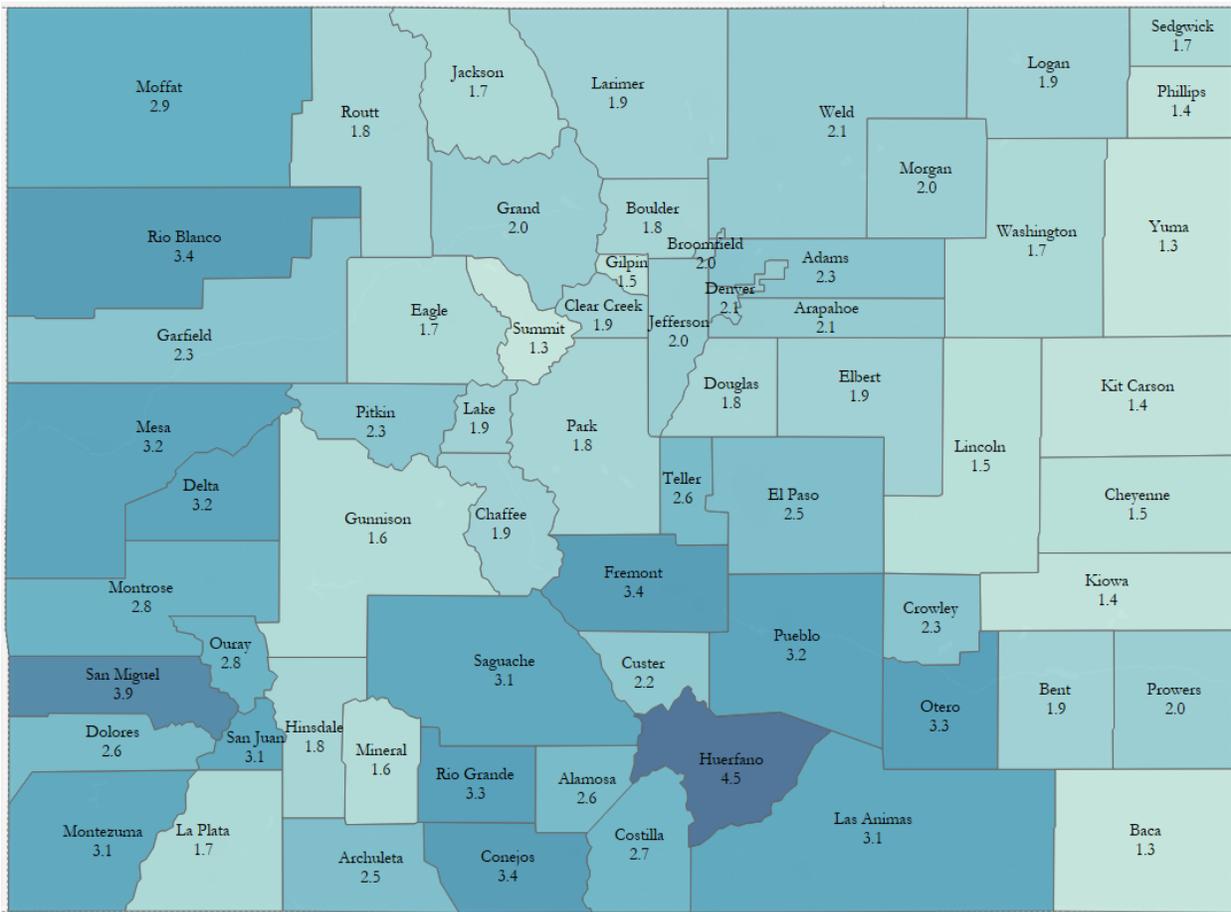
**Colorado’s unemployment rate remains at historically low levels** – The unemployment rate in Colorado hit its lowest level since measurement began in 1976, at 2.4 and 2.3 percent in March and April, respectively. Colorado’s statewide unemployment rate was the lowest in the U.S. in both months.

**Colorado has the lowest unemployment rate among states, while Denver has the lowest unemployment rate among cities with more than 1 million people.**

The broadest measure of unemployment – the “U-6” rate, which also counts individuals who would like to work but have not looked for a job in the prior four weeks, as well as part-time workers who would like full-time employment – was at 6.9 percent in the first quarter of 2017, below the pre-recession low of 7.3 percent in 2007. While this is a positive environment for job seekers, the state’s low unemployment is likely acting as a constraint on economic growth by making it difficult for employers to find qualified candidates to fill open positions.

On a county level, the highest unemployment rates are in the counties of south-central Colorado and along the western slope, as shown in Figure 8. Only one of Colorado’s 64 counties – Huerfano, at 4.5 percent – had a non-seasonally adjusted unemployment rate above the national average of 4.1 percent in April.

**Figure 8. Unemployment Rate by County, April 2017, Non-seasonally Adjusted**

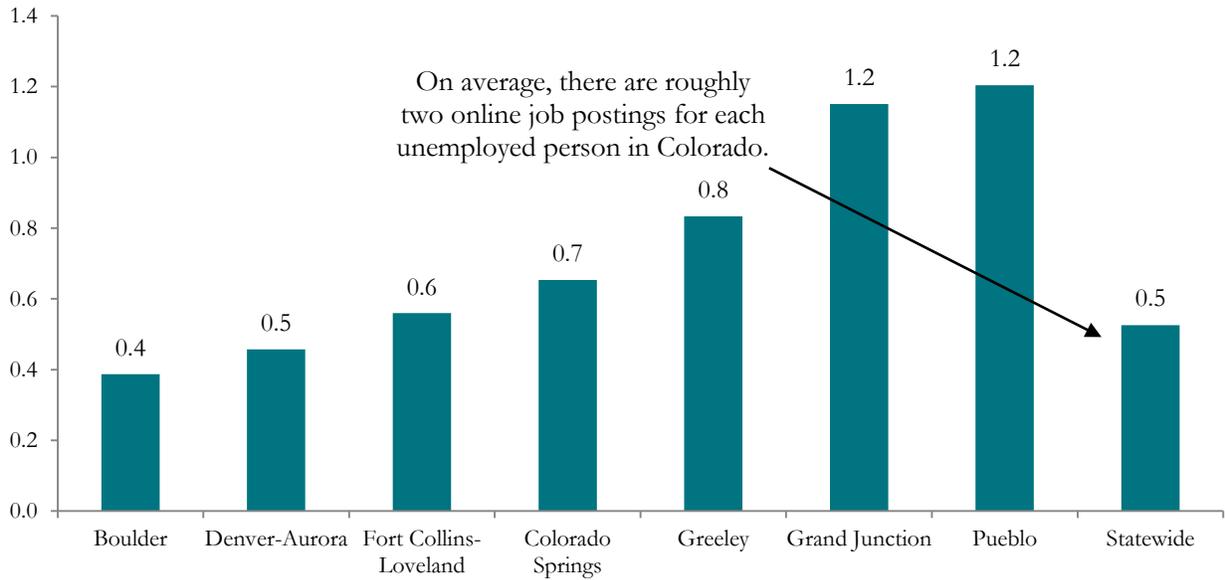


Source: U.S. Bureau of Labor Statistics

**Colorado’s tight labor market is slowing job growth** – Colorado’s year-over-year job growth was 1.8 percent in April, down from 2.5 percent a year ago. This slowing is likely at least partially due to the lack of available workers, as the state had only 0.6 unemployed people per online job posting in May according to the Conference Board. This is the lowest ratio in the country and well below the national average of 1.5 unemployed people per online job posting.

The ratio of the number of unemployed to online job postings provides a measure of the tightness of the labor market. Figure 9 shows the ratio of unemployed people to online job openings in April for each metro area in Colorado. Every metro area is below the national average, and only Grand Junction and Pueblo have more than one unemployed person per job opening.

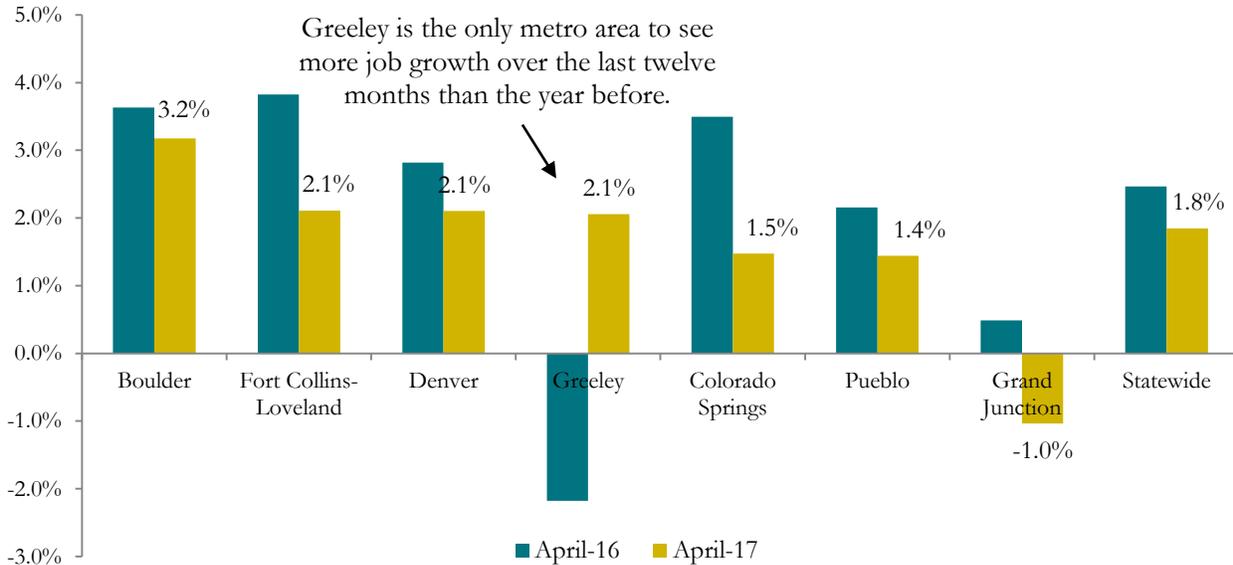
**Figure 9. Supply and Demand of Jobs by Metro Area, April 2017**



Source: The Conference Board, U.S. Bureau of Labor Statistics

Among metro areas, Boulder has experienced the most job growth over the last twelve months, at 3.2 percent, followed by Fort Collins, Denver, and Greeley, all at 2.1 percent job growth. Grand Junction was the only metro area to lose jobs over the last twelve months, while Greeley was the only metro area to experience faster job growth than the prior year, as shown in Figure 10.

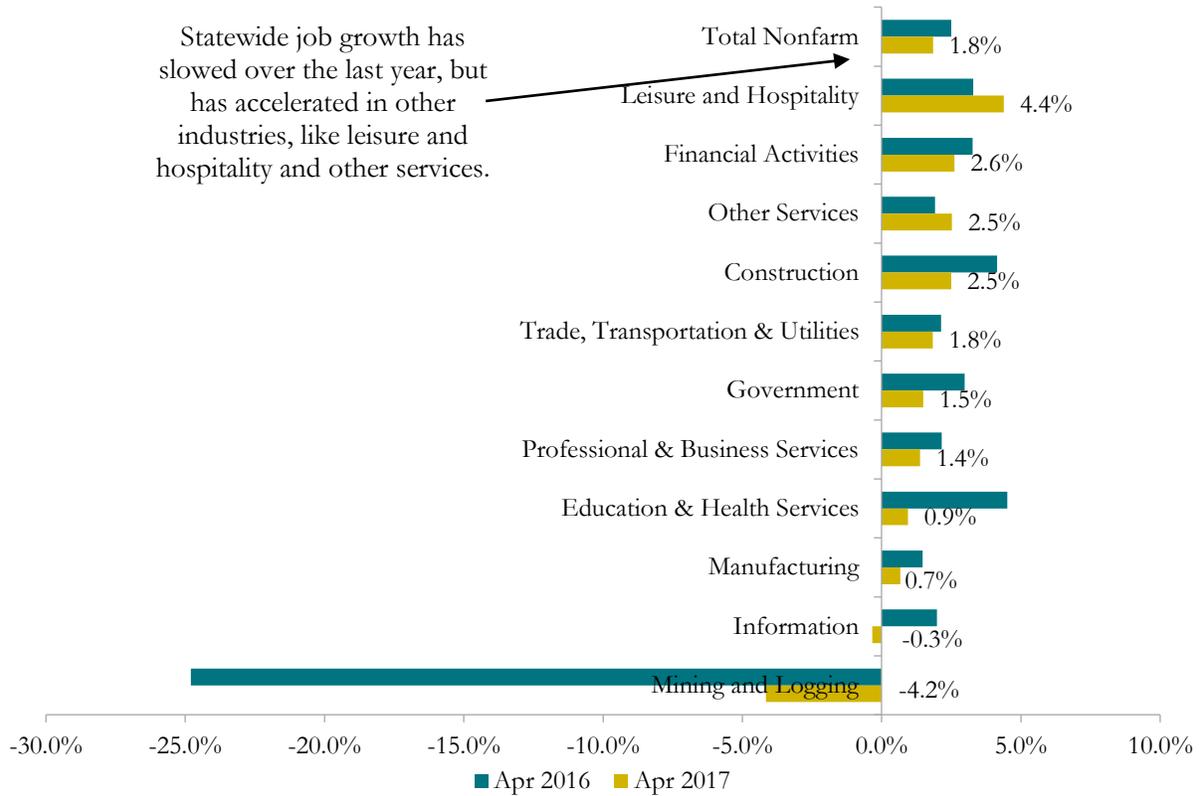
**Figure 10. Year-over-Year Job Growth by Metro Area**



Source: Colorado Department of Labor and Employment modified estimates

As seen in Figure 11, leisure and hospitality was the industry that posted the largest year-over-year job growth, growing by more than four percent. Information and mining were the only industries to have fewer jobs in April than a year ago.

**Figure 11. Colorado Year-over-Year Job Growth by Industry**



Source: Colorado Department of Labor and Employment modified estimates

**U.S. Economic Conditions**

**The U.S economic expansion continues at a modest pace**— The U.S. economy expanded at an annualized rate of 1.2 percent in the first quarter of 2017. The modest growth was driven primarily by business investment, with a slight increase in consumer spending. The current expansion is now in its 96<sup>th</sup> month, making it the third longest in U.S. history. Leading economic indicators point to further expansion in the coming months. Business and consumer confidence measures continue to reflect stable to modest growth expectations.

**The US economy, now in the eighth year of sustained economic growth, grew at a modest 1.2 percent annualized rate in the first quarter of 2017.**

The labor market has recorded 80 straight months of job growth. The headline unemployment rate of 4.3 percent is the lowest in 16 years, although wage growth at an aggregate level continues to increase only gradually.

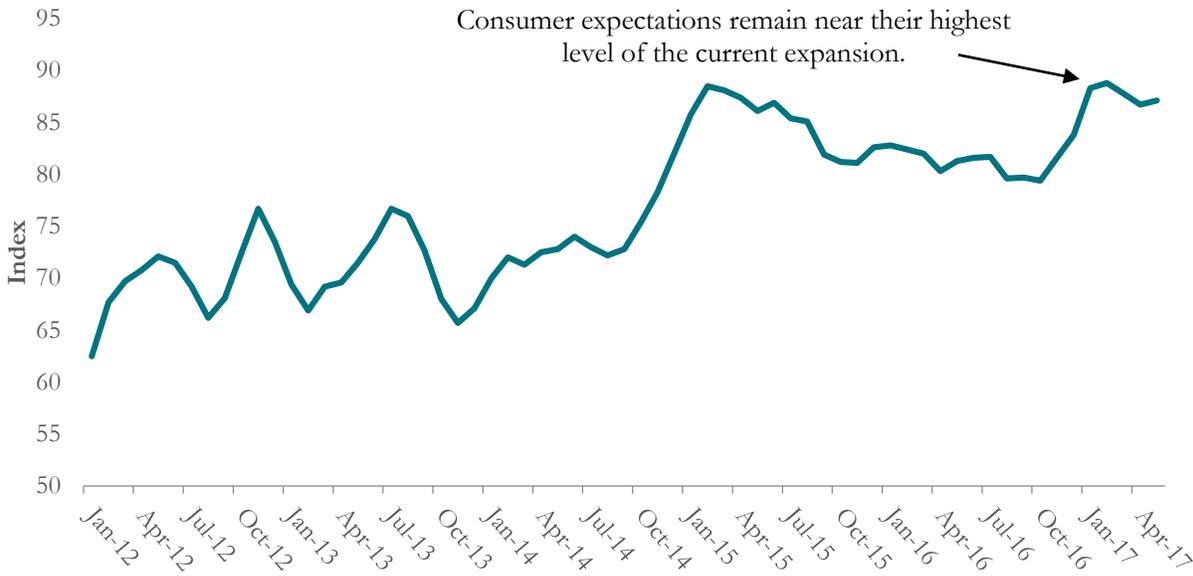
**Business contacts from across the nation report modest growth**— The Federal Reserve beige book survey of business and other contacts around the nation reported that economic activity continued to expand in April and May with most of the Federal Reserve’s 12 districts reporting modest to moderate economic growth. Consumer spending softened across most districts as auto sales continue to slow. Modest growth was reported in the manufacturing and non-financial services sectors while construction activity expanded at modest to moderate rates.

Bank lending continues to match overall economic activity. Although most districts report tightening labor market conditions that are limiting the ability of firms to attract and retain qualified workers, employment and wage growth continued at modest to moderate paces.

**Business contacts across the country report modest to moderate economic growth, with tightening labor market conditions.**

**Consumer confidence remains high, but is leveling off** – As shown in Figure 12, the Michigan Index of Consumer Expectations remains near its highest level of the current economic expansion. The recent higher values for the index signal optimism about the economy going forward, especially in the job market.

**Figure 12. Index of Consumer Expectations**



Source: University of Michigan

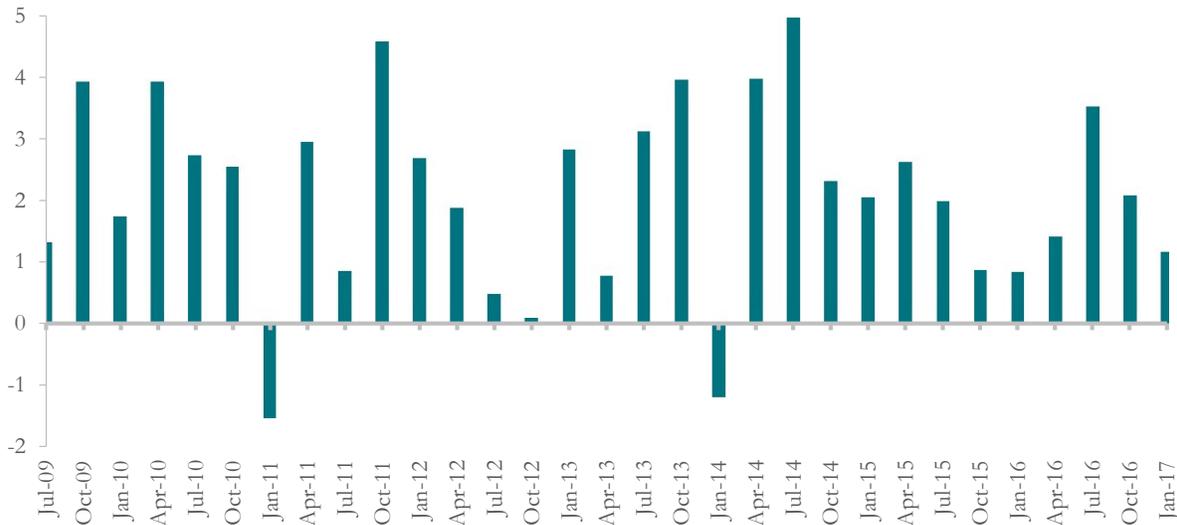
**Gross domestic product growth remains modest** – Figure 13 shows the quarter-over-quarter growth rate in U.S. gross domestic product (GDP) in real, or inflation-adjusted, terms. This indicator is important to monitor as a broad measure of economic activity as it represents the change in the real value of goods and services produced in the economy. The 1.2 percent increase in real GDP in the first quarter of 2017 is attributed to increases in both residential and non-residential investment, consumer spending, and goods exported to other countries.

**Despite the recent improvement in economic activity, overall growth remains at a low level compared with previous expansions.**

Growth has been more tepid during the current expansion than during previous economic expansions. An aging population and lower productivity gains are two of the main factors in the weak growth. This weak growth leaves the economy more vulnerable to adverse shocks that may cause a broad pullback in hiring, spending, and investment. However, growth is forecast to continue at a modest 2.2 percent for 2017 and 2.3 percent in 2018.



**Figure 13. Annualized Percent Changes in Inflation-Adjusted Gross Domestic Product**



Source: Bureau of Economic Analysis

**Other measures show economic activity expanding at a higher rate thus far in 2017**— The Manufacturing Composite Index and the Non-Manufacturing Composite Index, both published by the Institute for Supply Management (ISM), report the momentum of economic activity as assessed by businesses across the country and in most industries. The May indices show that both the manufacturing and non-manufacturing sectors continue to expand. These indices use data collected from business surveys that gauge activity by tracking key behaviors, such as placing new orders, increasing production volume, hiring new employees, and making deliveries. An average of the two indices, reported in Figure 14, provides a reliable barometer of overall U.S. economic activity.

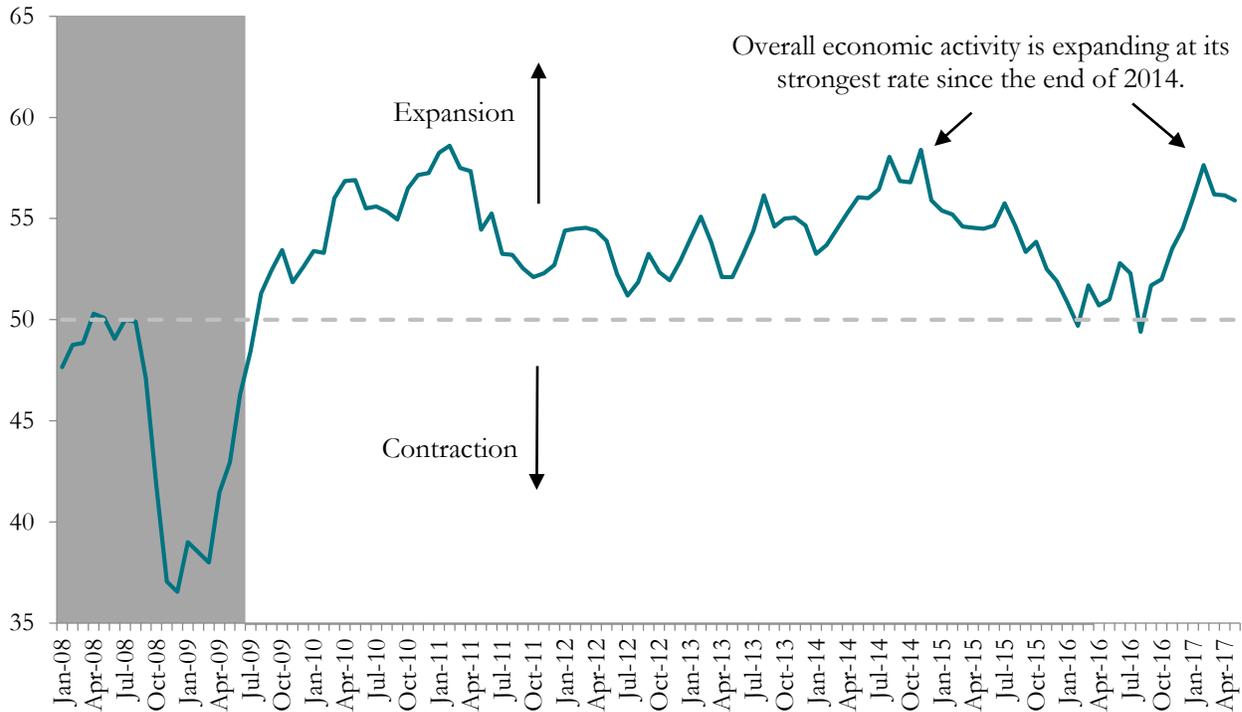
**The ISM non-manufacturing index, which tracks the largest portion of U.S. economic activity, continues to show modest expansion, driven by strong growth in the employment component of the index.**

The non-manufacturing index, which tracks the largest portion of economic activity in the U.S., covering wide ranging industries such as agriculture, professional, scientific, and technical services, retail, and construction, registered 56.9 in May, representing the eighty-ninth month of continued growth. The index remains above the

50 threshold, indicating that the non-manufacturing sector of the economy is continuing to grow at a slightly faster pace thus far in 2017 than last year. Further, the employment component of the index increased 6.4 percentage points with all but one industry reporting employment gains, echoing continued confidence in the economy in 2017.

The ISM manufacturing sector index registered 54.9 in May, a 0.1 percentage point increase over April with fifteen of the eighteen manufacturing industries surveyed reporting higher production activity with only the apparel and textiles industries reporting a slowdown.

**Figure 14. Average of ISM Manufacturing and Non-Manufacturing Indices\***



\*Readings above 50 indicate expansion in the industry while readings below 50 indicate contraction.  
Source: Institute for Supply Management

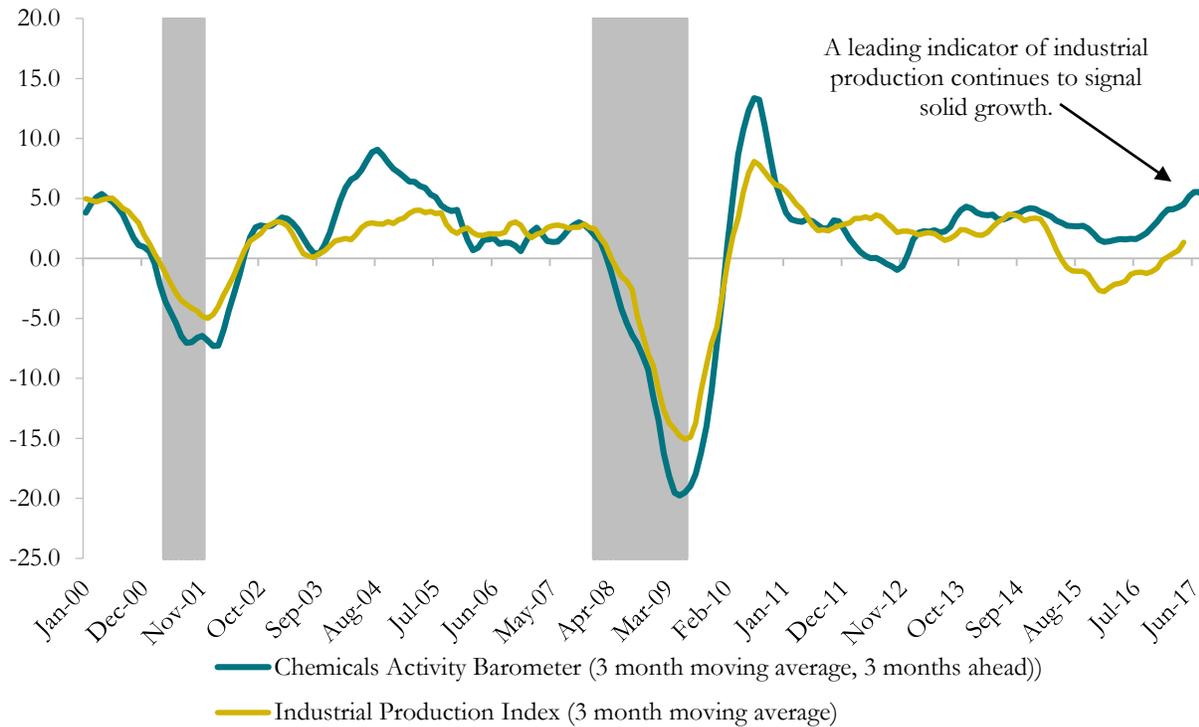
**Industrial production continues to recover from its downturn** — Total industrial production in the U.S., which includes the output of the mining, manufacturing, and utilities industries, has improved modestly over the past year, growing 1.3 percent in April over a year ago.

A leading indicator of industrial production in the U.S., called the Chemical Activity Barometer (CAB) published by the American Chemistry Council, has been indicating stronger growth, though the signal has moderated of late. The CAB was up 5.0 percent in May over a year ago.

**A leading indicator of U.S. industrial production signals continued growth in the coming months.**

Conditions in the chemical industry help anticipate the future trajectory of industrial production. This is due to the use of chemicals as inputs in industrial production processes. Figure 15 shows the recent trends in the CAB, as well as its relationship with industrial production for the U.S. The CAB is derived from a composite of indicators of the chemical industry, including prices, equity values, and business activity. The CAB also contains broader measures of the economy that tend to be leading indicators of overall economic activity, including building permits and new business orders.

**Figure 15. Year-over-Year Percent Change in Chemical Activity Barometer and Industrial Production**



Source: American Chemistry Council, Board of Governors of the Federal Reserve System

**Corporate earnings show renewed strength**—According to Factset, a financial data and analysis firm, the earnings of companies within the S&P 500 stock market index grew at a solid rate in the first quarter of 2017, posting a 12.5 percent increase over the prior year. Further, analysts expect continued growth. The estimated earnings growth rate for companies is 6.6 percent in the second quarter of 2017 compared to a year ago.

**Global economic expansion and the recovery in the energy sector are fueling increases in corporate earnings.**

This continued growth in corporate earnings is led by the rebounding energy sector with expected growth in earning of 17.5 percent in the second quarter of 2017. Stronger growth internationally, a softening in the value of the U.S. dollar, and the stabilization of oil prices have all boosted corporate earnings.

**Financial markets are signaling expectations for stable, yet subdued economic growth**— U.S. financial conditions continue to be generally supportive of expansion. A pickup in global economic growth has helped bolster financial markets, especially equities. However, the markets are signaling less robust expectations for the economy than when the March Colorado Outlook was published, due mainly to lower expectations for pro-growth policies from the federal government and the continuation of only modest U.S. economic growth.

Figure 16 shows trends in key financial indicators that tend to be associated with future economic growth – the S&P 500 stock market index, five-year Treasury inflation-protected securities (TIPS) spreads, copper prices, three-month Treasury bill yields, two-year Treasury yields, the U.S. dollar index, and oil price futures.

The combination of mostly stable equity values, interest rates, expected inflation, commodity prices, and the value of the dollar currently signal expectations for steady, yet mostly subdued growth in the economy.



However, this signal can change quickly based on new information and updated assessments on the expected path of the economy.

OSP utilizes financial market information to help inform its forecast. Financial markets are mostly forward looking, reflecting expectations of the future path of the economy — an important factor in how the economy will actually perform. In addition, financial conditions determine the level of businesses' access to funding to meet their needs for operations and expansion. Further, financial markets incorporate sound forecasting principles. They reflect the many different perspectives of investors and risk managers who are evaluating a large amount of information, and as such financial markets are powerful aggregators of information on the condition of the economy. Moreover, financial market indicators are continually updated based on new information, and investors have an incentive to make accurate assessments.

**Financial markets are signaling expectations for continued stable, yet modest economic growth. Expectations are an important factor in how the economy will actually perform.**

*The stance of monetary policy, which can exert a large influence on economic conditions, appears appropriate and supportive of continued expansion* — Indications from financial markets can also be used to determine the appropriate stance of monetary policy. Monetary policy can have a large influence on economic conditions by helping ensure a stable flow of money in the economy and through setting expectations for future nominal growth. Monetary policy tightened recently as the U.S. Federal Reserve has raised its target for the federal funds rate in December of last year and twice again this year in March and June. It also signaled further gradual tightening, dependent upon future economic data.

**The stance of monetary policy appears generally appropriate and supportive of continued expansion.**

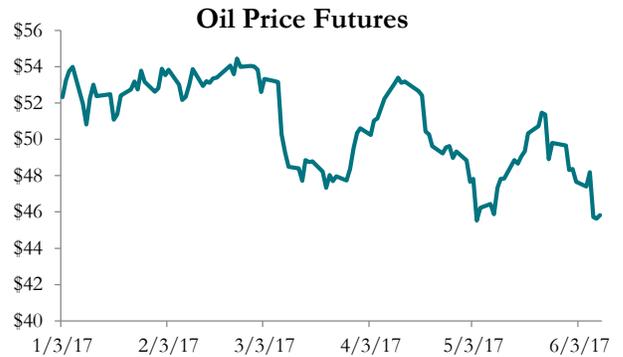
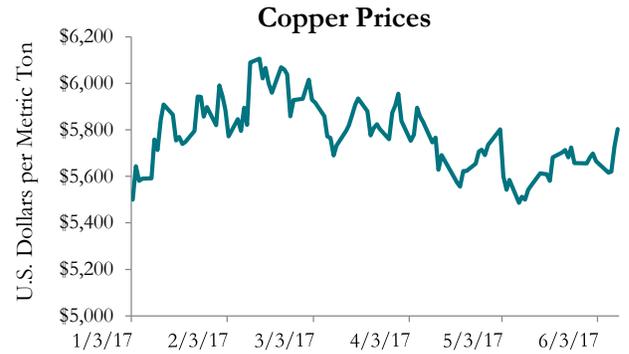
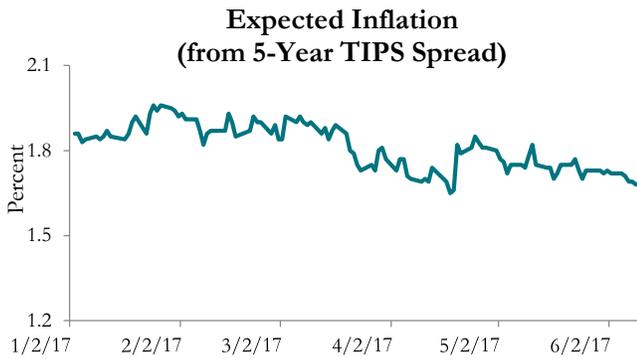
Continued positive financial conditions amidst the recent monetary policy tightening indicates that the stance of policy has generally been appropriate given current and expected economic conditions. Therefore, monetary policy appears to be supportive of continued economic expansion. However, the recent softening in expected inflation shown in Figure 16 suggests that the Federal Reserve should be cautious in further tightening monetary policy.



**Figure 16. Key Financial Market Indicators on Expectations for Economic Growth, Daily since January 2017**



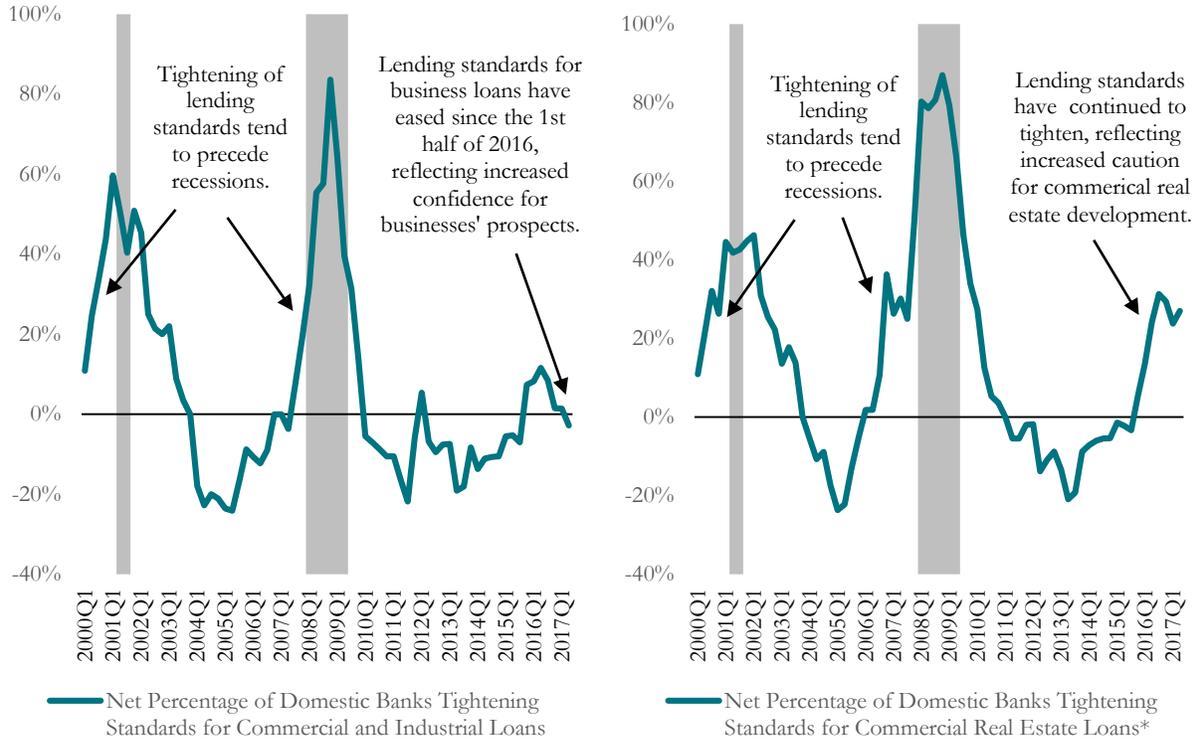
Trends in equity values and interest rates currently signal expectations for stable modest growth in the economy, though expected inflation has softened, as have oil prices, reflecting the continuing oil supply glut. Combined, these indicators can be reliable predictors of future economic activity.



Source: Board of Governors of the Federal Reserve System and Bloomberg

**Lending standards for businesses are mixed, with loosening lending practices for business operations, but tightening standards for commercial real estate** – Lending standards for business operations overall have continued to loosen since the middle of 2016. This indicates that lenders see more positive growth prospects and less risk for businesses, which will help fuel continued expansion. However, banks are raising lending standards for commercial real estate development. Lending standards are important to monitor to assess economic conditions and the prospects for continued growth. They provide information on the economic expectations of banks and risk assessment managers as well as the availability of funding for businesses. Bank lending standards for commercial real estate loans are shown in Figure 17.

**Figure 17. Measures of Commercial Lending Conditions**



\*Data on lending standards for commercial real estate loans overall was discontinued in 2013, thus the data in the figure starting in the last quarter of 2013 represents an average of bank lending standards for loans with construction and land development purposes, loans secured by nonfarm nonresidential structures, and loans secured by multifamily residential structures.

Source: Board of Governors of the Federal Reserve System

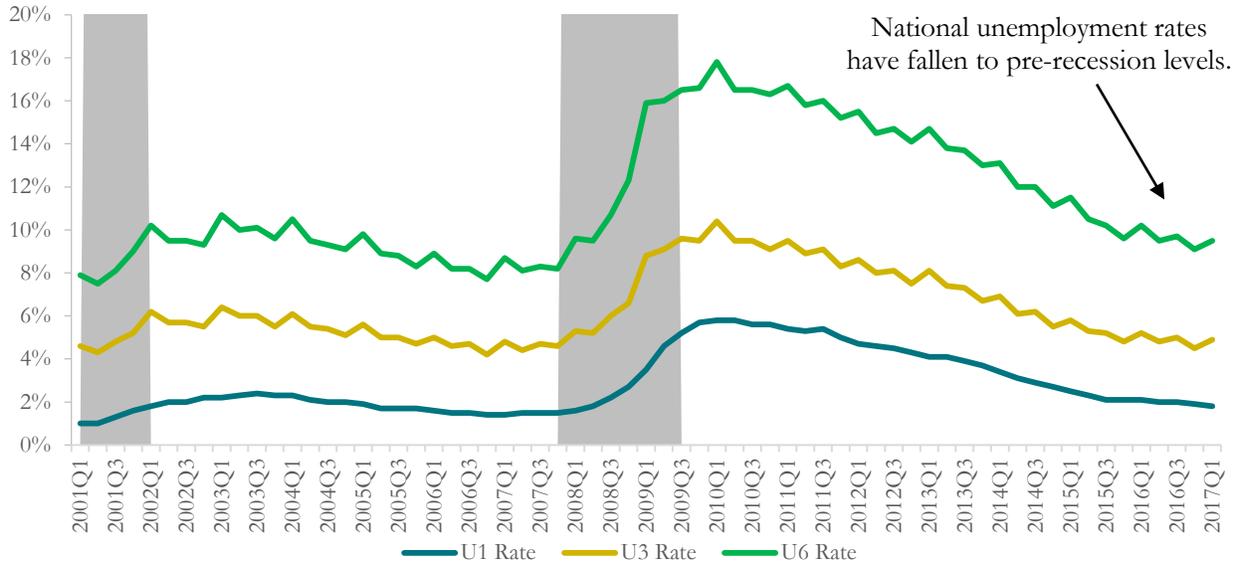
**Labor market momentum remains solid as the economy approaches full employment** – The U.S. labor market remains strong as the official unemployment rate – or the “U-3” rate, at 4.3 percent in May – has reached its lowest level in 16 years. The low unemployment rate indicates the U.S. labor market is close to its full employment level, or the level of employment that can be sustained without causing increased inflation.

A broader measure of unemployment – the “U-6” rate, which also counts individuals who would like to work but have not looked for a job in the prior four weeks, as well as part-time workers who would like full-time employment – was 8.4 percent in May, its lowest level since October 2007. The gap between the two rates continues to

**Unemployment rates have fallen to pre-recession levels, signaling that the labor market may be near full employment.**

narrow as workers return to the work force. The “U-1” rate, which measures people unemployed for longer than 15 weeks, is also at its lowest level since the Great Recession, at 1.8 percent.

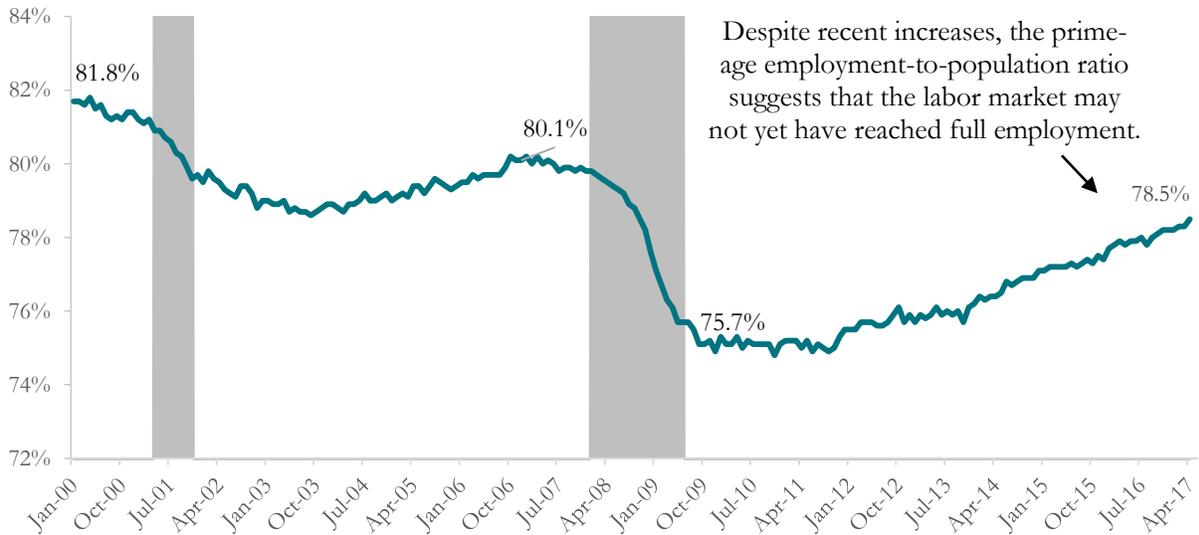
**Figure 18. National Unemployment Rates**



Source: U.S. Bureau of Labor Statistics

**Prime-age employment ratio is recovering but remains lower than the previous expansion** – A more direct and perhaps better measure of tightness in the labor market is the employment to population ratio for prime-age (25-54) workers. This ratio has been increasing but remains below its pre-Great Recession peak in 2007. This may indicate that there is still slack in the labor market, and thus helps explain the continued modest growth in wages.

**Figure 19. Prime-Age Employment-to-Population Ratio**

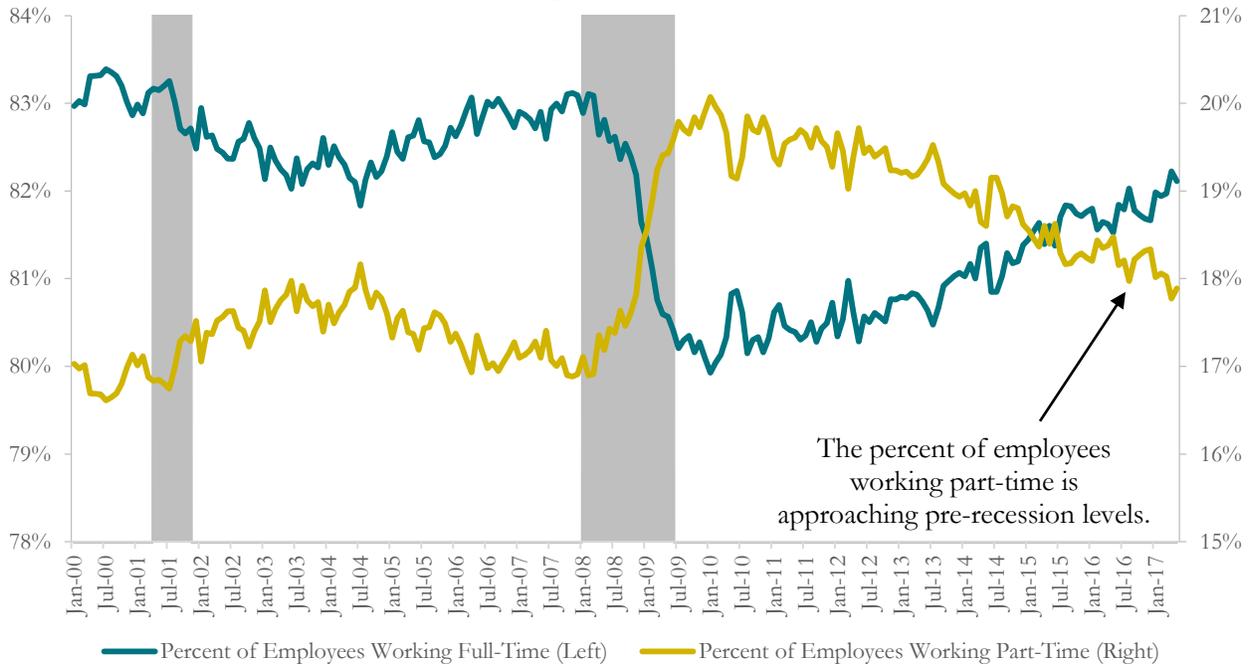


Source: U.S. Bureau of Labor Statistics

**Job growth continues in 2017 at a slower rate**—The U.S. economy added 138,000 jobs in May, which is less than the 181,000 average monthly job gain experienced over the last year. This signals that the labor market may be losing some momentum as it nears full employment. Although job growth has been broad based, the largest gains were in business and professional services with 38,000 new jobs, health care with 24,000 additional jobs, and mining which added 6,000 jobs. As shown in Figure 20, the US economy continues to add more full time jobs (working greater than 35 hours per week) than part time jobs, which is a reversal of the labor market experienced during the Great Recession.

**While job growth is slowing, the economy is now adding more full-time jobs than part-time jobs.**

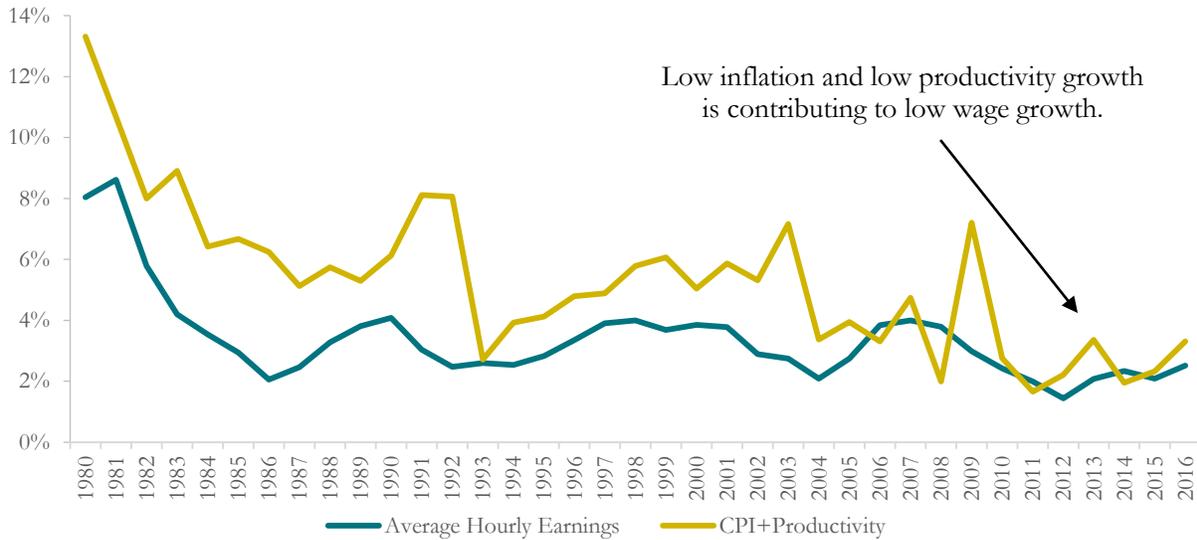
**Figure 20. Percent of Employees Working Full- and Part-Time**



Source: U.S. Bureau of Labor Statistics

**Wage growth shows slight improvement in 2017 but lags inflation and productivity**—As labor markets tighten, firms tend to raise wages to attract workers to fill positions. Wage growth has increased as unemployment has fallen in recent years. However, wage growth remains lower than in previous expansions. Two factors influencing wage growth are the low inflation and productivity growth that have occurred in the current expansion. Figure 21 shows the annual growth in average hourly earnings and the measure of core inflation plus productivity.

**Figure 21. Wage Growth vs. Inflation and Productivity Growth**



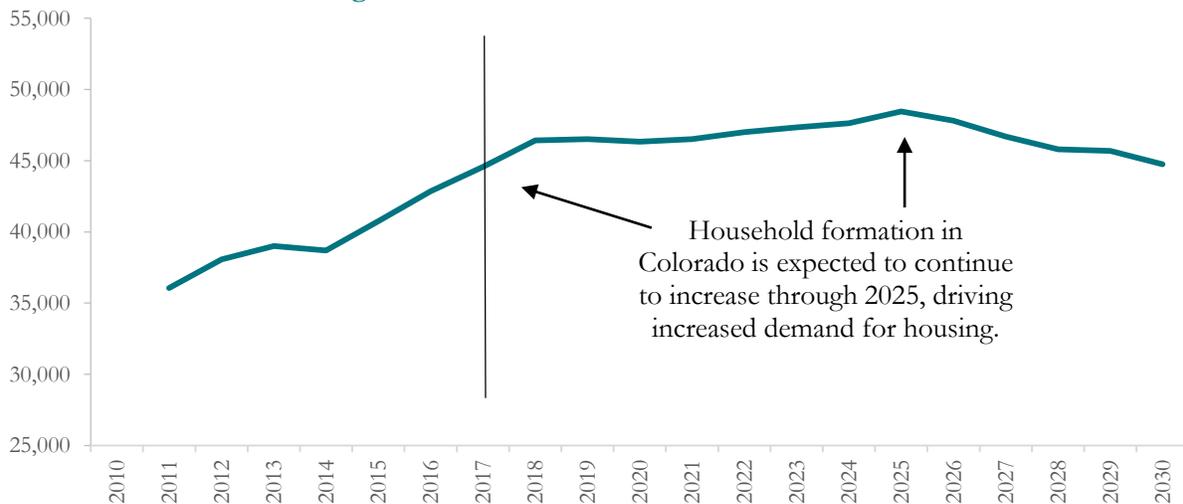
Source: U.S. Bureau of Labor Statistics

### Housing Market Conditions

The housing market is an important factor in an economy’s performance. Homebuilding, as well as a home buying and selling, generate economic activity in a region. Also, housing costs affect a regional economy’s performance and influence its ability to attract individuals and businesses. Furthermore, growth in housing construction has historically tended to be a reliable leading indicator of economic growth.

Strong demand for housing in Colorado is expected to continue for several years due to projected growth in household formation, especially along the Front Range. This will generate continued upward pressure on housing costs, unless the supply of housing units grows at a higher rate. Demographic trends at the national level overall are also expected to fuel growth in housing market activities, including home purchases. Household formation for Colorado is shown in Figure 22.

**Figure 22. Household Formation in Colorado**



Source: State Demographer’s Office



**Several supply constraints are weighing on the housing market** – Despite the strong demand in the housing market, there are several supply constraints that are weighing on the industry that is preventing it from creating more housing supply and from generating larger gains for the economy.

**The home building industry continues to have diminished capacity in the aftermath of its contraction that began in 2006, resulting in housing demand greatly outpacing supply.**

The home building industry both in Colorado and the U.S. overall continues to have diminished capacity in the aftermath of its contraction that began in 2006. The industry reports labor shortages and faces other barriers, such as high building costs, tighter financing for housing development, shortages of lots for development, and restrictive land use in some areas.

Financing for mortgages for home purchasers also remains constrained in the aftermath of the housing contraction.

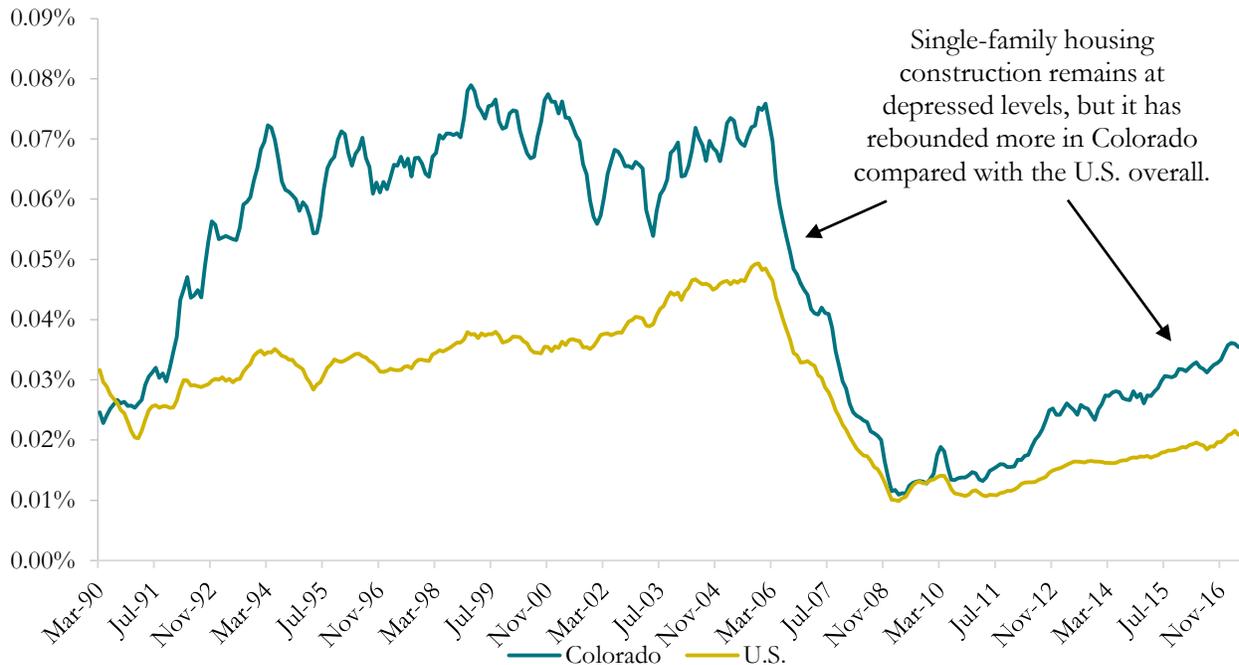
As a result of these challenges, both the Colorado and U.S. housing markets overall remain tight, especially for home purchases. In April of this year, the state had less than a two-month supply of homes for sale, while there was a four-month supply for the U.S. overall. Generally, a six-month supply of homes signifies a housing market with a supply-demand balance.

The low supply level indicates that buyers continue to dominate the market, outpacing the number of sellers. The supply-demand imbalance is placing upward pressure on home values and reducing home purchase options for buyers. This dynamic is constraining economic growth as it slows net migration to the state and reduces home buying and selling activities. The constraints that are weighing on new housing construction will take time to unwind. Therefore, the low level of inventory that is constraining the state's housing market is unlikely to improve materially in the near term.

**The state's tight housing market is constraining economic growth as it slows in-migration to the state and reduces home buying and selling activities.**

New housing construction, especially for single-family homes, has only gradually increased, and remains at depressed levels. Multi-family construction, especially for apartments, has grown at stronger levels, both in Colorado and in the U.S. overall, however. Figure 23 shows the trends in single family housing permits issued statewide compared with single-family permits for the U.S. overall.

**Figure 23. Colorado and U.S. Monthly Single-Family Housing Permits as a Percent of Population**



Source: U.S. Census Bureau; State Demographer’s Office

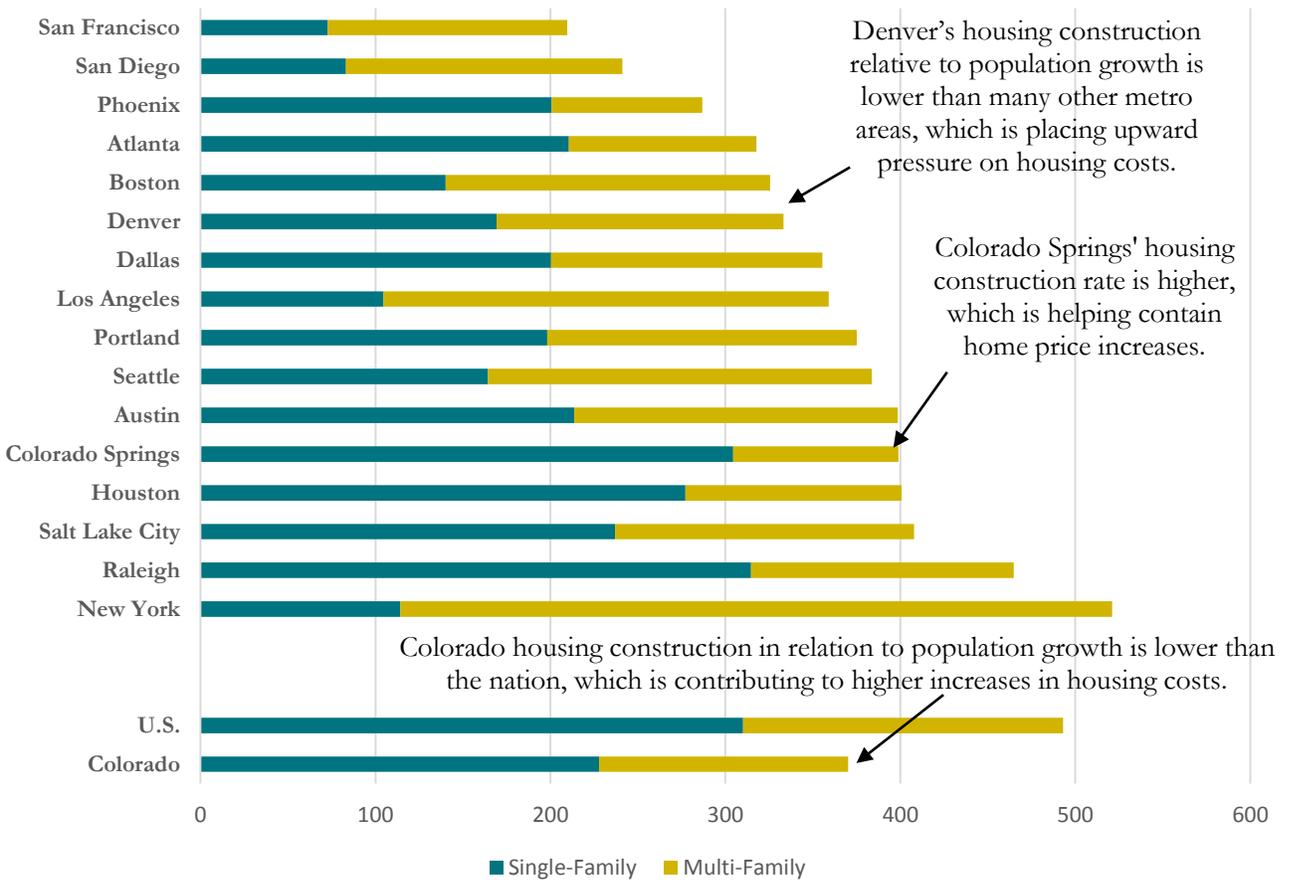
**Colorado has lower housing permits in relation to population growth than the U.S. overall.**

*New housing construction is not keeping pace with population growth in many areas* — Although Colorado’s housing construction has rebounded at a stronger rate than the U.S. overall, it is lower when compared with population growth. Figure

24 shows housing permit rates per 1,000 growth in population for select U.S. and Colorado metro areas, as well as for Colorado and the U.S. overall, during the current economic expansion. The figure breaks out single-family and multi-family permits.

Colorado has lower housing permits in relation to population growth than the U.S. overall. Further, among metro areas, Denver has had lower housing construction than several other major growing metro area economies. However, Colorado Springs has had stronger housing construction, especially for single-family housing.

**Figure 24. Housing Permit Rate per 1,000 Population Growth, 2010 to First Quarter 2017**

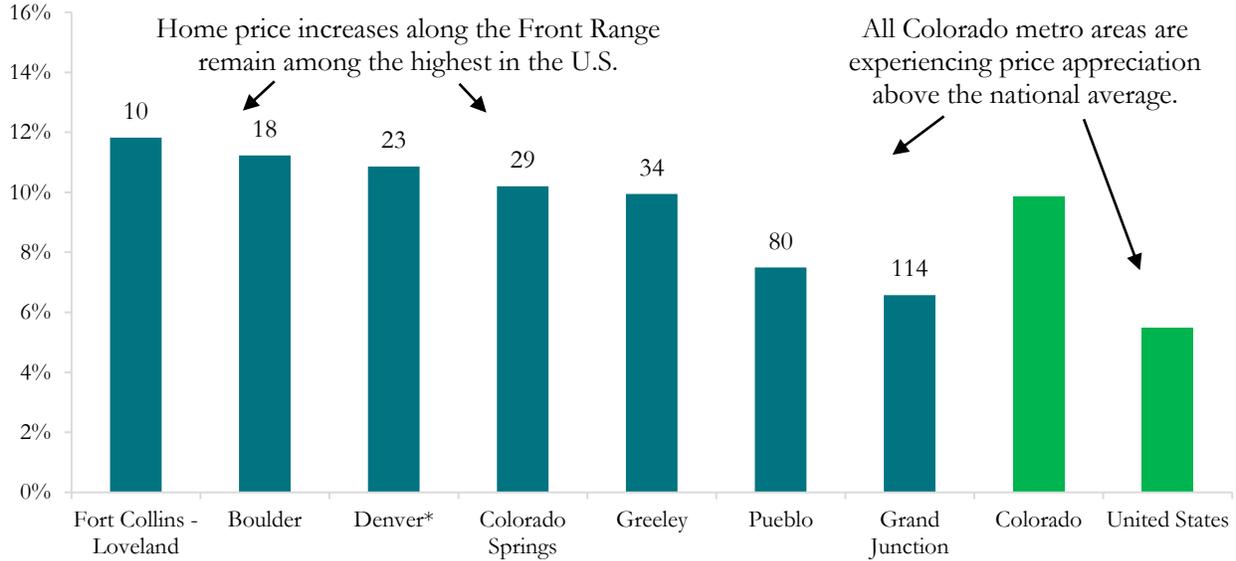


Source: U.S. Census Bureau; State Demographer’s Office

***Housing costs continue to increase, though rent growth remains more moderate***— The constrained supply of homes for sale amidst strong demand has placed continued upward pressure on housing costs. The Federal Housing Finance Agency’s House Price Index shows that home values in Colorado are growing at among the fastest rates in the nation. Every metro area in Colorado experienced home price appreciation above the national average, and five of Colorado’s seven metro areas were in the top 10 percent nationally, as shown in Figure 25. Home prices appreciation remains strongest along the northern Front Range.

**The constrained supply of homes for sale amidst strong demand has placed continued upward pressure on home prices.**

**Figure 25. Home Price Appreciation, First Quarter 2016 to First Quarter 2017, Rank among 402 metro areas shown above bars**

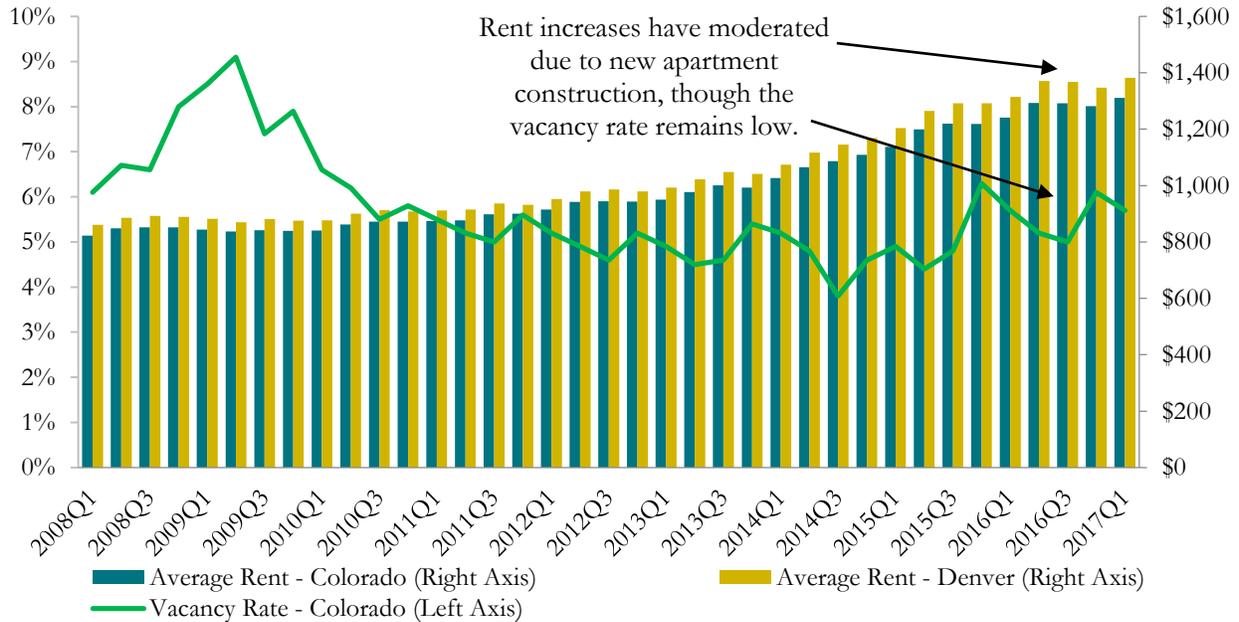


\*Includes Aurora and Lakewood

Source: Federal Housing Finance Agency

Colorado rents continue to increase at a slower rate, due primarily to the large number of new rental units coming online. The Denver area is leading the growth in rental units, with more than 25,000 new units currently under construction. As a result of strong economic and population growth, however, the new units have been quickly absorbed in the market as the increase has not lowered rents or increased vacancy rates, as shown in Figure 26.

**Figure 26. Average Monthly Rent and Vacancy Rate by Quarter**



Source: Colorado Division of Housing

### International Economic Conditions

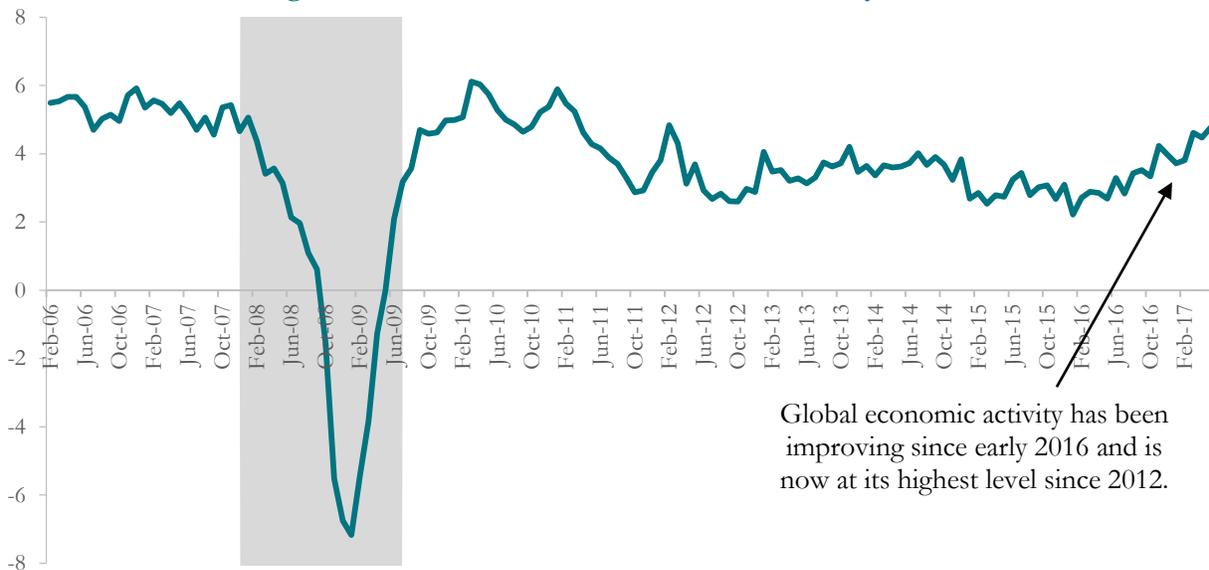
**The global economy continues to strengthen** – Global economic growth is expected to strengthen from 2.3 percent in 2016 to 2.7 percent and 2.9 percent in 2017 and 2018, respectively, according to the World Bank.

**Global economic growth is expected to strengthen over the next few years, led by growth in emerging market economies.**

This increase will be largely due to faster growth in manufacturing and trade, as well as stabilizing commodity prices. Emerging market economies are expected to grow the most, at 4.1 percent in 2017, while advanced economies are expected to experience only 1.9 percent growth.

While the outlook is improving, risks to the forecast include uncertainty surrounding the future path of trade policy, as well as rising debt levels, especially in China. The improving global economy is captured by the Goldman Sachs Global Current Activity Index, which is a measure of real-time economic activity that indicates that current global economic growth is at its highest level since 2012.

**Figure 27. Goldman Sachs Global Current Activity Index**



Global economic activity has been improving since early 2016 and is now at its highest level since 2012.

Source: Goldman Sachs

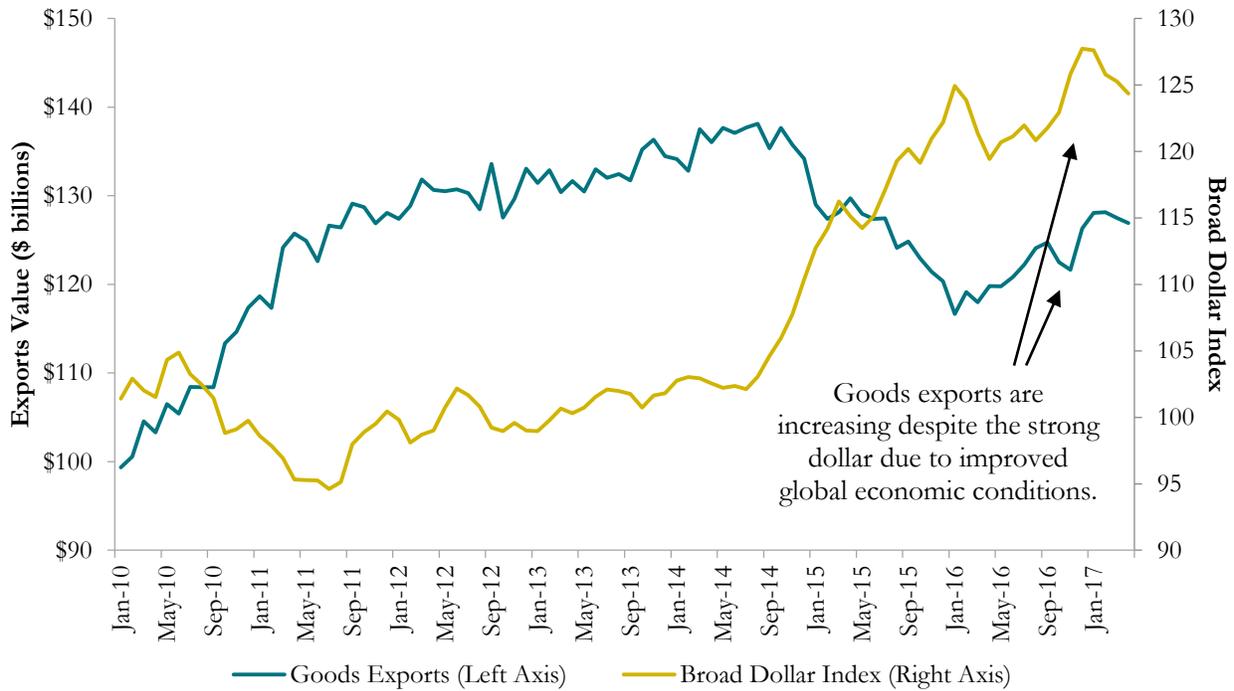
**U.S. goods exports are increasing again, but policy uncertainty remains** –After declining from late 2014 through early 2016, U.S. goods exports have begun growing again as shown in Figure 28. Services exports declined from mid-2015 to early 2016, but have also returned to growth. This is happening due to stronger global economic growth, especially in China. This export growth is also occurring despite the strong dollar, which remains elevated in relation to other currencies despite some recent weakening. While a strong dollar increases the cost of U.S. exports to foreign buyers, reducing their demand, economic growth in trading partner nations is generally a more important factor in determining export volumes. Therefore trade growth is expected to continue as global economic activity continues to strengthen.

The main risk to trade growth is uncertainty regarding the direction of U.S. trade policy. Higher tariffs on imports would likely lead to retaliation by trading partners, which could reduce exports. In Colorado, the agriculture, manufacturing, and natural gas industries are the most export-dependent industries. For example, while Colorado natural gas producers do not export directly to Mexico, the country imports significant amounts



of U.S. natural gas. If exports to Mexico are reduced, excess supply will cause U.S. natural gas prices to fall and reduce natural gas-related industry activity in the state.

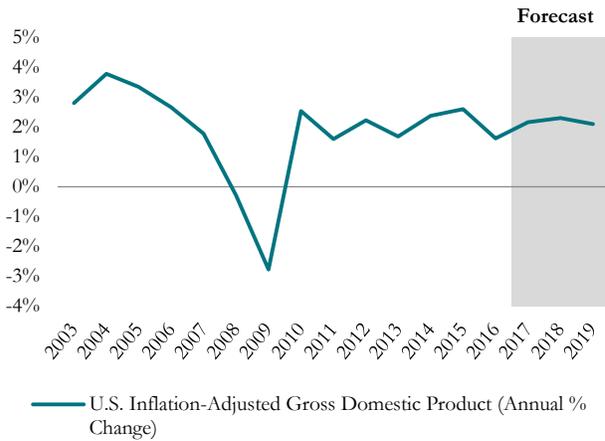
**Figure 28. U.S. Goods Exports and Broad Dollar Index**



Source: U.S. Bureau of Economic Analysis, U.S. Census Bureau

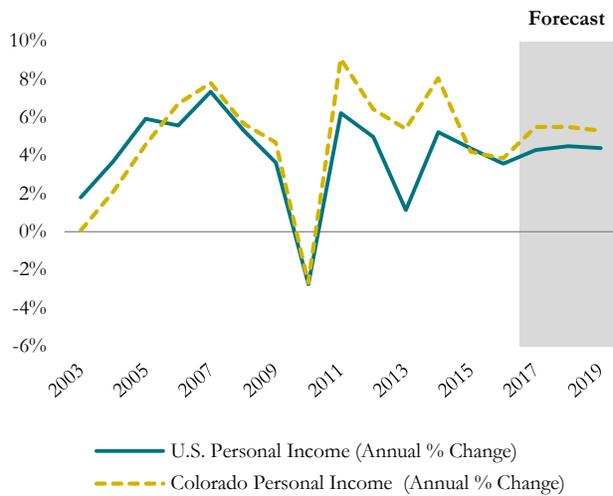
## Summary of Key Economic Indicators Actual and Forecast

### U.S. Gross Domestic Product (GDP)



- GDP is a standard barometer for the economy’s overall performance and reflects the value of final output produced in the U.S.
- U.S. GDP posted a modest 1.6 percent expansion in 2016. The pace of growth is forecast to reach 2.2 percent in 2017 and 2.3 percent in 2018.

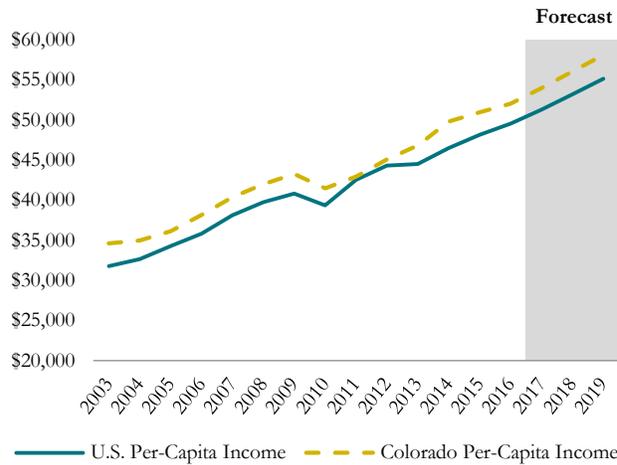
### U.S. and Colorado Personal Income



- Personal income growth in Colorado slowed to 3.9 percent in 2016 largely due to slowing employment growth, especially in the oil and gas industry. Personal income growth will expand in 2017 as the energy sector recovers; statewide personal income will increase by 5.5 percent in both 2017 and 2018.
- Nationwide, personal income increased 3.6 percent in 2016, and will grow by 4.3 percent in 2017. A tight labor market and gradual wage increases will allow personal income growth to pick up through 2018.

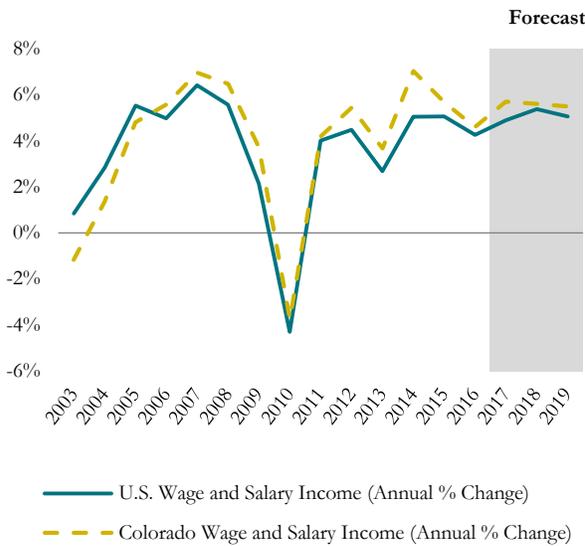


### U.S. and Colorado Per-Capita Income



- After growing by 2.1 percent in 2016, per-capita income in Colorado is expected to resume growing faster than the nation overall, increasing by 3.7 percent to \$54,000 in 2017.
- In the U.S., per-capita income increased 2.9 percent to \$49,552 in 2016 and will grow by 3.5 percent to \$51,298 in 2017.

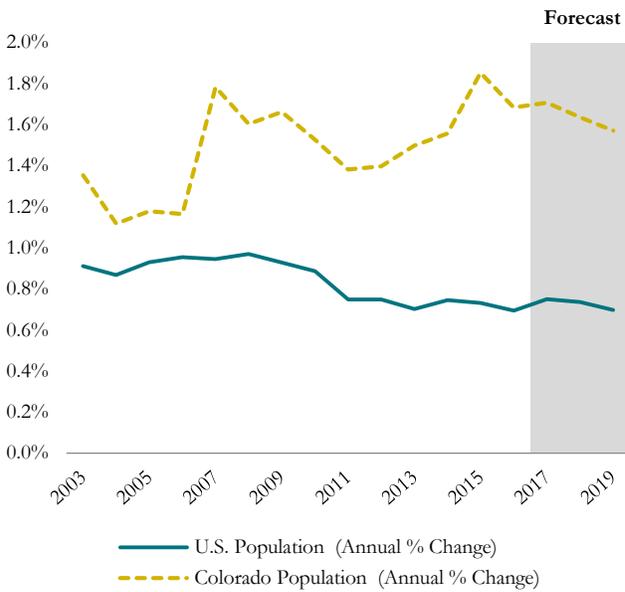
### U.S. and Colorado Wage and Salary Income



- Wage and salary growth in Colorado slowed in 2016 with 4.6 percent growth, largely due to the loss of relatively high-paying oil and gas jobs. Growth is expected to recover in 2017 to a 5.7 percent increase and then moderate slightly in 2018 and 2019.
- Wage and salary income for the nation increased 4.3 percent in 2016. Continued employment growth and recovery in the industrial and energy sectors will result in wage and salary growth of 4.9 percent in 2017 expanding to 5.4 percent in 2018.

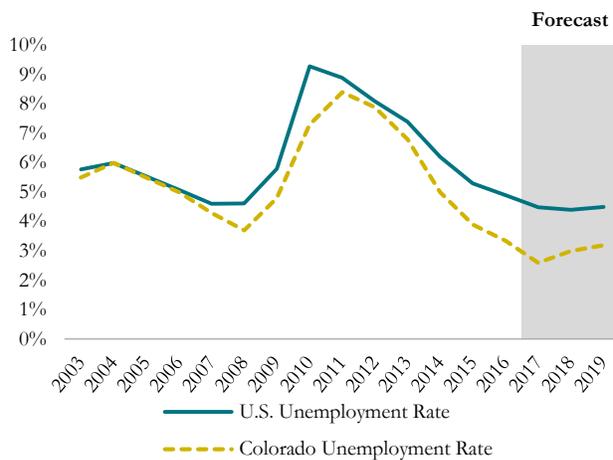


### U.S. and Colorado Population



- High in-migration rates pushed Colorado’s population growth rate to 1.7 percent in 2016, over double the national rate. A similar trend will continue in 2017, as the state is expected to add 64,000 people through net migration alone. The state’s total population is expected to reach 5.82 million by 2019.
- The nation’s population growth rate will remain steady at about 0.7 percent per year, as the population reaches 330.0 million by 2019.

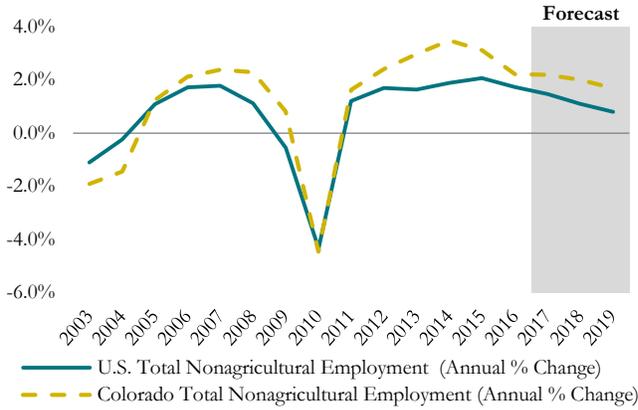
### U.S. and Colorado Unemployment



- The unemployment rate in Colorado averaged 3.3 percent in 2016, down over 1.5 percentage points from 2014 despite the oil and gas slowdown. Unemployment is expected to remain among the lowest in the nation, averaging 2.6 percent in 2017 and increasing slightly to 3.0 percent in 2018.
- The national unemployment rate followed a similar trend in 2016, but remained more than a 1.5 percentage points higher than in Colorado, averaging 4.9 percent. Continued improvements in the labor market will cause the rate to drop to 4.5 percent in 2017 and 4.4 percent in 2018.

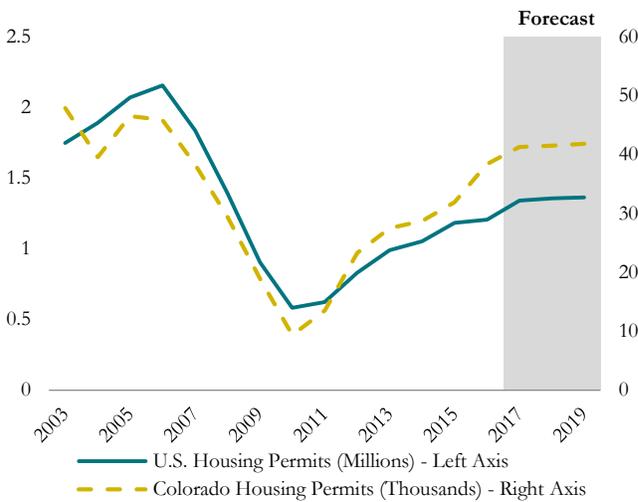


### U.S. and Colorado Total Nonagricultural Employment



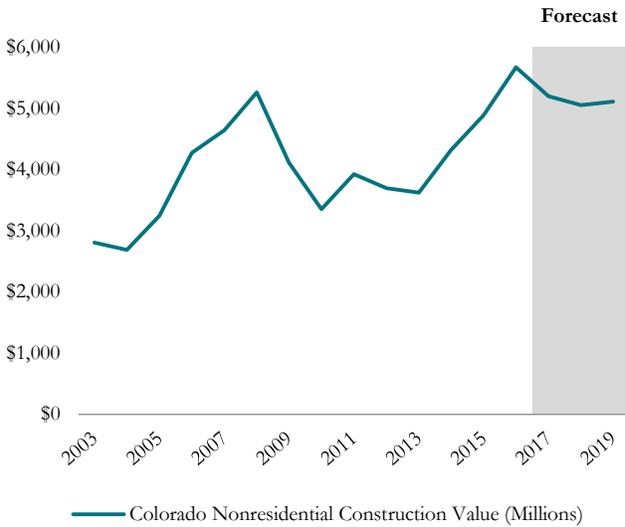
- Employment in Colorado grew 2.2 percent in 2016. Job growth will remain modest in 2017 due to the tight labor market before slowing further in 2018 as a result of slower labor force growth.
- Similar to Colorado, the growth rate of U.S. nonfarm payroll jobs slowed in 2016. Job growth will continue to slow nationwide as the labor market approaches full employment. Employment is forecast to increase 1.5 percent in 2017 and 1.1 percent in 2018.

### U.S. and Colorado Housing Permits Issued



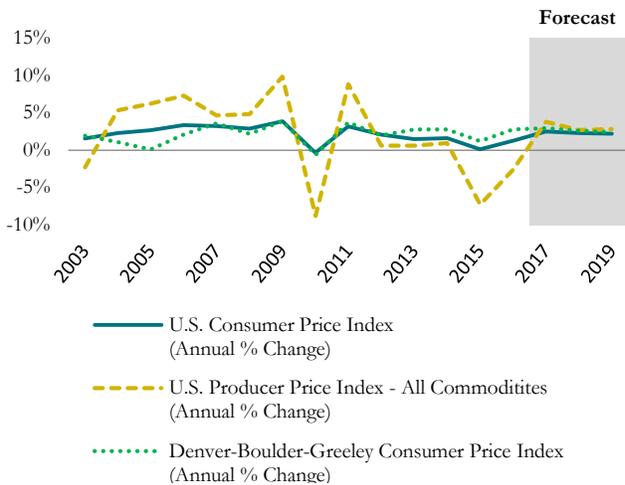
- In 2016, Colorado housing permits increased 20.5 percent with 38,400 permits issued; 41,300 permits are projected for 2017. The increases continue to be driven by population growth and strength in the state’s metro housing markets.
- U.S. housing permits posted growth of just 2.0 percent in 2016 compared to the more robust growth rate of 12.4 percent in 2015, but will rebound with 11.0 percent growth in 2017. OSPB forecasts a return to more modest growth in 2018 and 2019.

### Colorado Nonresidential Construction Value



- Nonresidential construction value in Colorado increased by 16.1 percent in 2016. The value of nonresidential construction will decline slightly over 2017 and 2018.

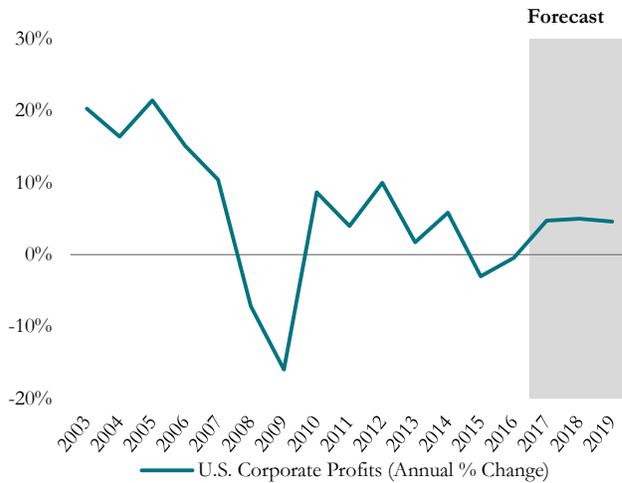
### Consumer Price Index and Producer Price Index



- Consumer prices nationally increased by 1.3 percent in 2016. OSPB expects the U.S. CPI to rise 2.5 percent in 2017, but decrease to 2.3 percent in 2018 and 2.2 percent in 2019.
- Producer prices fell another 2.6 percent in 2016, mostly due to low fuel and commodity prices. This trend will not continue in 2017; the index will rise 3.8 percent before moderating to 2.7 percent growth in 2018.
- The Denver-Boulder-Greeley CPI increased by 2.8 percent in 2016, which is more than twice the national average. Price increases will remain above the national average in 2017 before moderating over the forecast period.

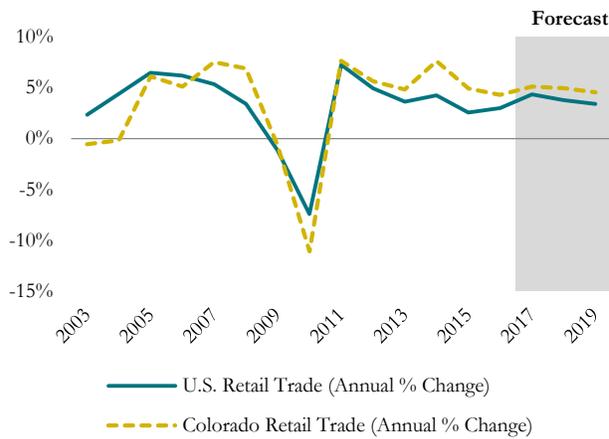


### U.S. Corporate Profits



- U.S. corporate profits fell by a modest 0.4 percent in 2016 as a weak global economy and a strong dollar impacted earnings early in the year.
- Profit growth of 4.8 percent is expected in 2017, followed by 5.0 percent growth in 2018.

### Retail Trade



- Retail sales in Colorado will grow 5.1 percent in 2017 after posting 4.3 percent growth in 2016; sales growth will moderate over the remainder of the forecast period with increases of 5.0 percent in 2018 and 4.6 percent in 2019.
- Nationwide retail trade increased a modest 3.0 percent in 2016. Sales are forecast to grow 4.4 percent in 2017 due to the continuing economic expansion but moderate to 3.8 percent growth in 2018.



## General Fund and State Education Fund Revenue Forecast

Relative to the March projections, the FY 2016-17 General Fund revenue forecast is lower by \$62.1 million, or 0.6 percent. The forecast for FY 2017-18 is essentially unchanged. After an increase of just 1.7 percent in FY 2015-16, General Fund revenue is expected to increase a modest 3.4 percent in FY 2016-17. General Fund revenue is forecast to increase at a stronger rate of 6.7 percent in FY 2017-18.

Although sales taxes and individual income taxes are recovering from the oil and gas downturn and weaker economic growth during 2015 and 2016, General Fund revenue growth overall this fiscal year was weighed down by a few factors. However, these factors will not reduce revenue growth in FY 2017-18, which will allow for the stronger rate of increase.

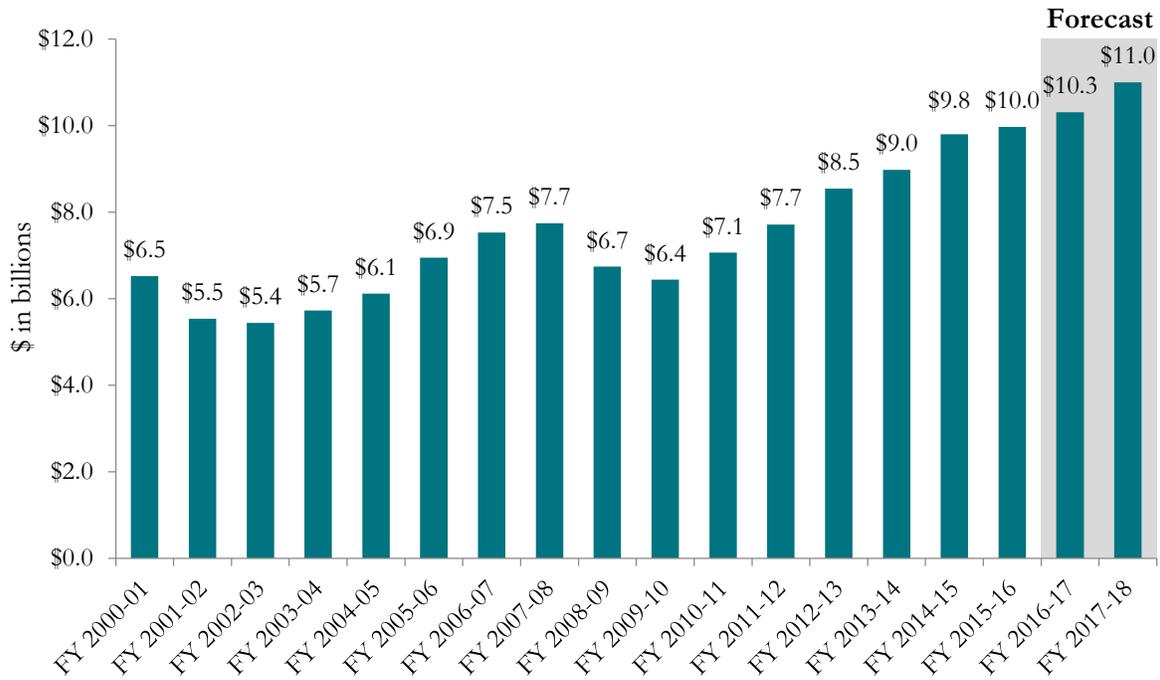
As expected in the March forecast, it appears some taxpayers delayed income gains from investments in tax year 2016 in anticipation of a reduction in federal income tax rates. This weighed on income tax collections this fiscal year, but is expected to boost collections in FY 2017-18 as taxpayers realize some of the deferred gains. In addition, a portion of the modest growth in income tax collections this fiscal year was due to eligible taxpayers being able to claim the State Earned Income Tax Credit (EITC) as a regular income tax credit for the first time in tax year 2016.

**General Fund revenue this fiscal year is growing at a slightly higher rate from its weak growth in FY 2015-16. General Fund revenue is forecast to increase at a stronger rate in FY 2017-18 with continued economic expansion and without the factors that weighed on revenue growth this fiscal year.**

Corporate income tax revenue is declining for the third consecutive year in FY 2016-17 mostly due to weak earnings experienced through much of last year. However, earnings have rebounded, which will generate an increase in corporate income tax revenue in FY 2017-18.

Figure 29 shows actual and projected total General Fund revenue from FY 2000-01 through FY 2017-18. A more detailed forecast of General Fund revenue by source is provided in Table 3 in the Appendix. For more details on the economy, the main determinant of General Fund revenue, see “The Economy: Issues, Trends, and Forecast” section of this forecast, which starts on page 4.

**Figure 29. General Fund Revenue**



Source: Office of the State Controller and OSPB forecast

**Discussion of Forecasts for Major General Fund Revenue Sources**

The following section discusses the forecasts for the three major General Fund revenue sources that together make up 95 percent of the total fund: individual income taxes, corporate income taxes, and sales and use taxes. General Fund revenue from the remaining group of miscellaneous sources — such as interest earnings, taxes paid by insurers on premiums, and excise taxes on tobacco products and liquor — will grow slightly over the forecast period.

**Individual income tax** – Individual income tax collections are rebounding modestly in FY 2016-17 with growth of 4.1 percent after an increase of 2.8 percent in FY 2015-16. Collections in FY 2017-18 are forecast to increase at a stronger rate of 6.1 percent.

Individual income tax collections from wage withholdings are growing at a higher rate with the end of the downturn in the oil and gas industry. However, other income tax collections this fiscal year from estimated payments and April tax filings were weak. This weakness was mostly a result of factors that will not reduce revenue growth through the remainder of the forecast period.

**Individual income tax collections were weighed down in FY 2016-17 by taxpayers deferring investment income and as eligible taxpayers claimed the State EITC. Individual income tax collections will grow at a stronger rate in FY 2017-18 with a projected increase of 6.1 percent.**

Although the stock market began to rebound in 2016, it appears some of the weakness in income tax revenue is a result of investors delaying the realization of gains in anticipation of federal income tax reductions. This forecast assumes that some of the deferred gains will be realized in tax year 2017, which will boost collections



for FY 2017-18. Estimated income tax payments are forecast to grow 6.8 percent in FY 2016-17, and increase 14.1 percent in FY 2017-18. Estimated income tax payments are taxes paid on income that is not subject to withholding, such as earnings from self-employment, rents, and investments.

There is a high degree of uncertainty surrounding the forecast on tax collections from investment gains. The amount of investment gains that were delayed and that will be realized in the future is unknown and difficult to predict. Further, the timing of major federal tax legislation which could affect the realization of gains is uncertain. Thus, the forecast for income tax revenue may materially change as new information becomes available.

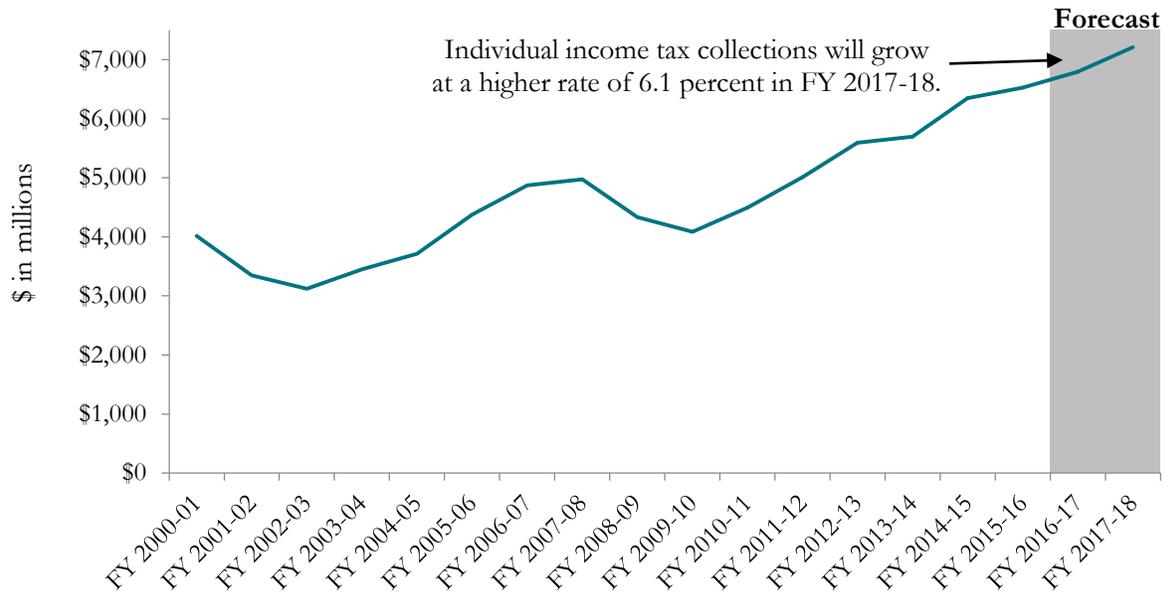
Eligible taxpayers claiming the State Earned Income Tax Credit (EITC) in tax year 2016 also weighed on income tax growth this fiscal year. In tax year 2015, the credit was used as a TABOR refund mechanism, but it is now a regular income tax credit that is reducing General Fund revenue through reduced tax liabilities and higher tax refunds. This credit is projected to have reduced FY 2016-17 income tax collections by approximately \$80 million. The credit will lower collections by a similar amount in FY 2017-18.

Other changes in tax deductions and credits also are impacting revenue collections over the forecast period; notably, the Low-Income Housing Tax Credit, which is available for qualified low-income housing developments, is reducing income tax revenue by roughly \$20 million in FY 2016-17 and \$30 million in FY 2017-18.

Additionally, 2017 legislation expanded existing tax credits. SB 17-267 extended and expanded the income tax credit for business personal property taxes paid, which is projected to reduce income tax collections by about \$10 million in FY 2018-19 and \$20 million in FY 2019-20. However, as discussed in the following section on the forecast for sales tax revenue, SB 17-267 also distributes a portion of the special sales tax on retail marijuana sales to the General Fund on an ongoing basis which offsets the revenue reduction from the business personal property tax credit provisions in SB 17-267. In addition, HB 17-1356 allows the Colorado Economic Development Commission to allow for certain economic development-related tax credits to be transferable to other taxpayers, which will reduce income tax revenue by approximately \$6 million in FY 2018-19 and \$9 million in FY 2019-20.



**Figure 30. Individual Income Tax Revenue**



Source: Office of the State Controller and OSPB forecast

**Corporate income tax** – Corporate income tax collections are projected to decrease 18.5 percent in FY 2016-17. However, some of the large decline this fiscal year is a result of expected end-of-year accrual accounting adjustments. Corporate income tax revenue is forecast to increase 14.8 percent in FY 2017-18, the first increase in corporate income tax collections since FY 2013-14.

Corporate income tax revenue is among the most volatile General Fund revenue sources as it is influenced by special economic factors and the structure of the corporate income tax code. Trends in corporate profits are the main determinant of corporate income tax collections.

**Corporate income taxes are projected to rebound with 14.8 percent growth in FY 2017-18, the first increase since FY 2013-14. However, corporate tax collections are expected to remain below their levels from earlier in the economic expansion.**

Corporate earnings weakened starting in 2015 after jumping to high levels earlier in the economic expansion. Sluggish global economic conditions, the decline in commodity prices, and the strong appreciation in the dollar weighed on the profits of multinational corporations. However, earnings have improved since the last half of 2016 with stronger

growth internationally, a softening in the value of the dollar, and the stabilization of oil prices. Expectations are for continued earnings growth with the ongoing economic expansion.

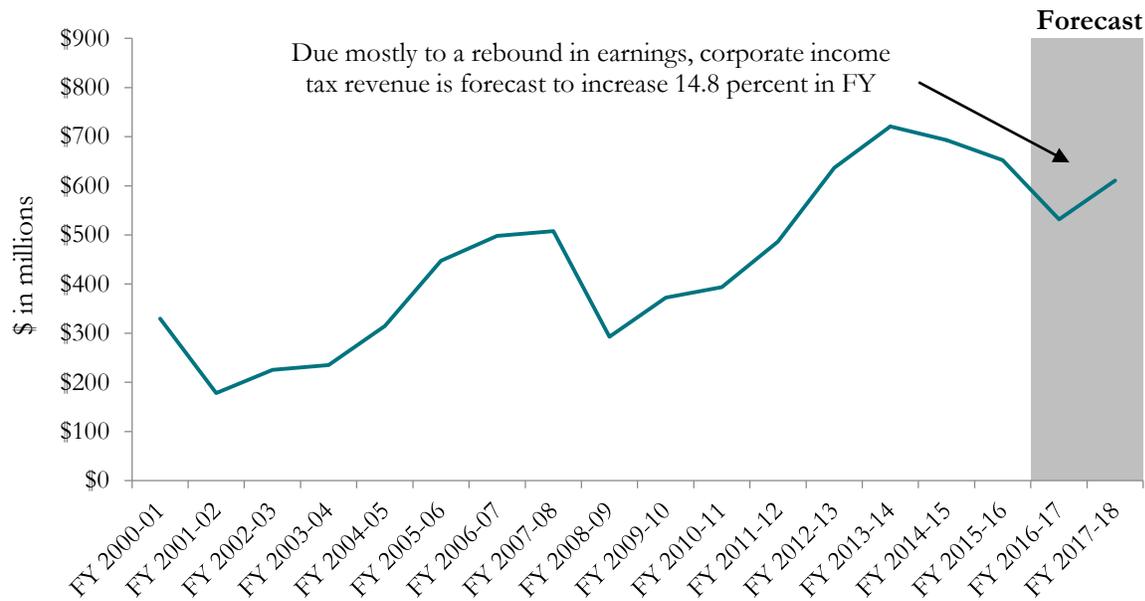
The structure of the tax code can also have a large influence on tax collections. Notably, state legislation passed in response to the budget challenges in the aftermath of the Great Recession placed a cap on the amount of net operating losses corporations could deduct from taxable income. This temporarily increased revenue collections from FY 2010-11 to FY 2012-13. However, corporations could carryforward their deferred losses to claim them in future tax years. The elimination of the cap on losses, which started with tax year 2014, contributed materially to the weakness in corporate income tax collections over the past few fiscal years.



However, a smaller amount of carryforward losses is expected to place less downward pressure on corporate income tax collections going forward.

Although renewed growth in corporate income tax collections is forecast, the increases are expected to be constrained by higher business costs, especially for labor and debt payments, that will reduce profit margins and result in larger tax deductions and lower tax liabilities.

**Figure 31. Corporate Income Tax Revenue, Actual and Forecast**



Source: Office of the State Controller and OSPB forecast

**Sales and use tax** – Sales tax revenue is forecast to increase 6.5 percent in FY 2016-17 and increase an additional 7.5 percent in FY 2017-18.

Sales tax revenue rebounded this fiscal year from the slowdown in FY 2015-16, which resulted from the drop in spending tied to the oil and gas industry’s contraction as well as the weakness in retail prices. These conditions have partially abated, boosting collections as the state’s economic expansion continues to generate job and wage gains and thus taxable spending.

**Sales tax revenue is forecast to increase 6.5 percent in FY 2016-17 and 7.5 percent in FY 2017-18. These growth rates are being bolstered by non-economic factors and do not reflect the modest growth in consumer and business spending.**

The 6.5 percent increase for FY 2016-17 is being bolstered by an accrual accounting adjustment and the strong growth in collections from the special sales tax on retail marijuana. This fiscal year’s growth is also boosted by sales tax collections from the online retailer Amazon. Collections from Amazon are expected to increase State sales tax revenue by \$22.0 million in FY 2016-17. Without these factors, sales tax collections are growing about 4.0 percent, consistent with recent data that shows similar modest growth in consumer and business spending.

A portion of FY 2017-18’s 7.5 percent projected increase is due to the higher tax rate for the special sales tax on retail marijuana sales pursuant to SB 17-267. This legislation increased the tax rate from 10 percent to 15



percent starting July 1, 2017. However, SB 17-267 also exempted retail marijuana from the state’s 2.9 percent sales tax, making the net tax increase 2.1 percentage points. The FY 2017-18 projected increase in sales tax revenue would be a more modest 4.4 percent without including the revenue from the special tax on retail marijuana sales that is bolstered by the tax rate increase.

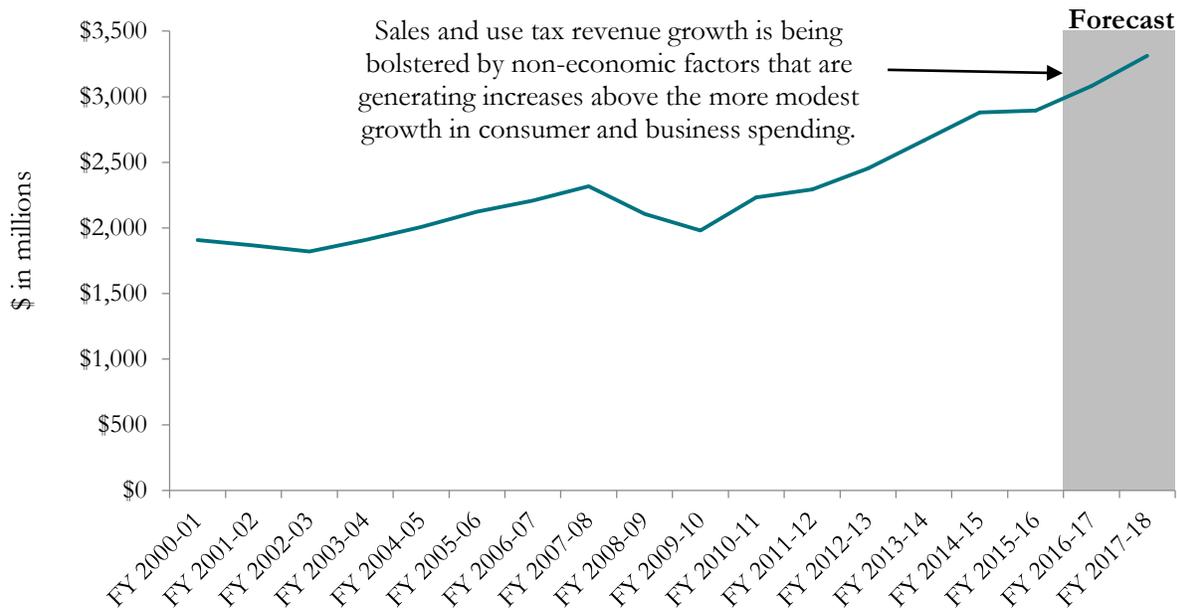
SB 17-267 also modified the distribution of the revenue from the special sales tax on retail marijuana. Starting with FY 2017-18, in addition to being distributed to the Marijuana Tax Cash Fund and local governments, a portion will also go the State Public School Fund and the General Fund. The General Fund is projected to receive \$18.5 million in revenue from the special sales tax in FY 2017-18 and \$30.3 million in FY 2018-19.

The use tax is a companion to the sales tax and is paid by Colorado residents and businesses on purchases that did not include a Colorado sales tax. Use taxes bring in a much smaller amount of revenue than sales taxes and are often more volatile. Much of the State’s use tax revenue comes from Colorado businesses paying the tax on transactions involving out-of-state sellers.

Use tax revenue also rebounded this fiscal year after decreasing 7.3 percent in FY 2015-16. Without the oil and gas industry contraction and with less weakness in retail prices, collections are increasing 6.7 percent in FY 2016-17. Use tax revenue is projected to increase another 6.8 percent in FY 2017-18.

A portion of the FY 2017-18 increase in use tax collections is due to the implementation of reporting requirements for online sales, pursuant to House Bill 10-1193. This law requires out-of-state retailers that do not collect Colorado sales tax to notify the purchasers of their tax liability as well as the Colorado Department of Revenue. Implementation of this law was delayed due to litigation that has now been resolved. Implementation will begin in FY 2017-18 when it is estimated to increase use tax collections by approximately \$6 million.

**Figure 32. Sales and Use Tax Revenue**



Source: Office of the State Controller and OSPB forecast



### State Education Fund Revenue Forecast

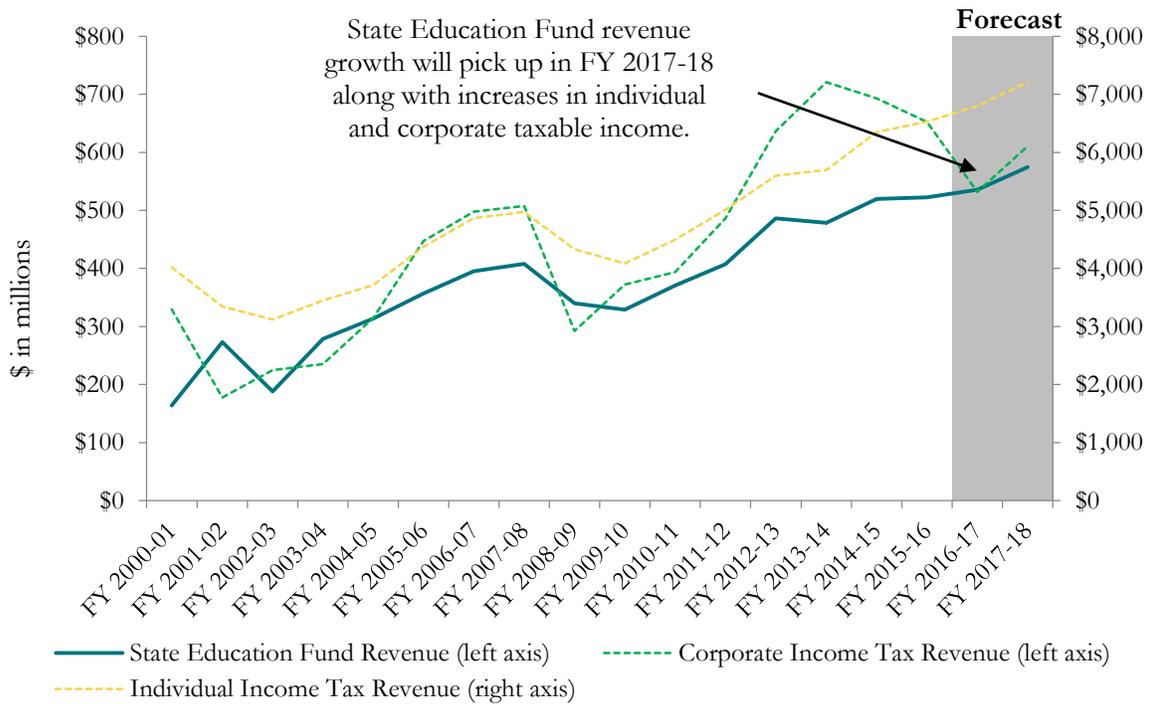
Tax revenue to the State Education Fund will increase 2.5 percent and 7.3 in FY 2016-17 and FY 2017-18, respectively.

Because State Education Fund revenue is derived from taxable income, it follows the trends in individual income and corporate income tax revenue collections discussed above. The modest growth rate this fiscal year is due in part to taxpayers deferring investment income as well as the ongoing weakness in corporate taxable income. However, these factors are not expected to occur in FY 2017-18, and with continued economic expansion will allow for higher State Education Fund revenue growth.

**Tax revenue to the State Education Fund will increase 2.5 percent and 7.3 percent in FY 2016-17 and FY 2017-18, respectively.**

The Colorado Constitution requires that one-third of one percent of taxable income from Colorado taxpayers be credited to the State Education Fund. In addition to this revenue, policies enacted over the past several years have transferred other General Fund money to the State Education Fund.

**Figure 33. State Education Fund Revenue from One-Third of One Percent of Taxable Income**



Source: Office of the State Controller and OSPB forecast



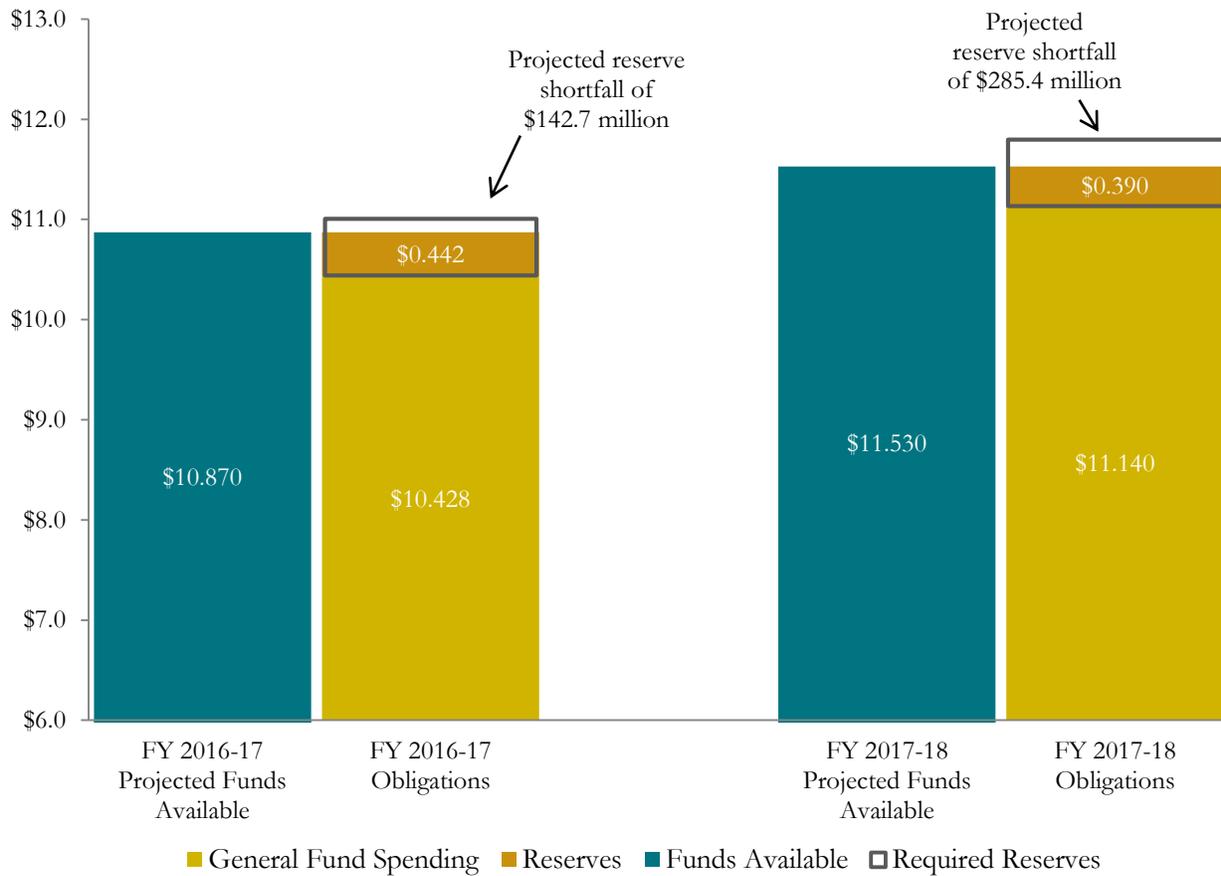
## General Fund and State Education Fund Budget

**General Fund** – As discussed in the “General Fund and State Education Fund Revenue Forecast” section starting on page 38, the General Fund revenue forecast for FY 2016-17 is lower by \$62.1 million, or 0.6 percent, compared to the March 2017 forecast. The forecast for FY 2017-18 is essentially unchanged.

With this forecast and the budget for FY 2016-17, the State’s General Fund reserve is projected to be \$142.7 million below the required statutory reserve amount of 6.0 percent of appropriations. This amount is not far enough below the required reserve to trigger budget-balancing actions by the Governor. The Governor is required to take such actions when the ending balance is projected to be under half of its required amount. The State’s General Fund reserve for FY 2017-18 is projected to be \$285.4 million below the 6.5 percent required reserve amount. This is \$52.3 million above the level which would trigger budget-balancing actions by the Governor.

Figure 34 summarizes total projected General Fund revenue available, total obligations, and reserve levels for FY 2016-17 and FY 2017-18. The appropriations amounts for FY 2016-17 and FY 2017-18 reflect current law.

**Figure 34. General Fund Available, Obligations, and Reserves, \$ in Billions**





It should be noted that the General Assembly did not enact a budget for FY 2017-18 with the intention of falling short of the reserve. The budget package was based on the Colorado Legislative Council Staff’s March 2017 forecast, which was \$324 million higher than OSPB’s June forecast for General Fund revenue for FY 2016-17 and FY 2017-18 combined.

**Senate Bill 17-267** – The passage of SB 17-267 during the 2017 session changed a number of factors that affect the State budget. The legislation replaced the Hospital Provider Fee with a new TABOR-exempt enterprise fee and lowered the Referendum C cap by \$200 million in FY 2017-18. The cap increases by population growth and inflation from the lower amount in subsequent years.

SB 17-267 superseded and eliminated the need for SB 17-256, which restricted Hospital Provider Fee revenue in FY 2017-18 by \$264.1 million. SB 17-256 was initially passed as a budget balancing measure to eliminate the General Fund obligation for a projected TABOR refund in FY 2017-18. By restricting Hospital Provider Fee revenue by \$264.1 million, SB 17-256 would have also lowered federal matching money to hospitals by the same amount, resulting in a total reduction of \$528.2 million.

SB 17-267 also increased the business personal property tax income tax credit, repealed the 2.9 percent sales tax on retail marijuana, which is subject to TABOR, and increased the special sales tax on marijuana, which is exempt from TABOR, from 8 percent to 15 percent in FY 2017-18. In addition, it authorized lease-purchase agreements on State facilities to raise money for transportation and capital construction projects, and repealed scheduled General Fund transfers to the Highway Users Tax Fund. Further, the legislation made the General Fund obligation for the senior and disabled veteran property tax exemption program the first TABOR refund mechanism in years in which a TABOR refund is required.

As a result of its provisions, SB 17-267 generated additional resources and flexibility for the operating budget in the General Fund. Figure 35 compares the level of General Fund appropriations for FY 2018-19 that can be supported by projected revenue while maintaining the General Fund’s required reserve under current law with SB 17-267, as well as without the provisions of SB 17-267.

**Figure 35. Comparison of Funds Available for FY 2018-19 General Fund Appropriations Subject to Limit under Current Law and without SB 17-267**

Current Law	Without SB 17-267	Difference
\$10,661.0 million	\$10,463.4 million	\$197.6 million

There are a few reasons that a higher level of appropriations can be supported in FY 2018-19 with the enactment of SB 17-267. First, the replacement of the Hospital Provider Fee with a new fee exempt from TABOR, along with the repeal of the 2.9 percent sales tax on retail marijuana, reduces cash fund revenue subject to TABOR under the Referendum C cap. This eliminates TABOR rebates that would have been required to be paid from the General Fund.

In addition, the legislation distributes a portion of the special sales tax on retail marijuana to the General Fund as an offset for the reduction in General Fund revenue from the expansion of the income tax credit for business personal property tax. Furthermore, the legislation repealed the \$160 million required General Fund transfer to the Highway Users Tax Fund in FY 2018-19 and FY 2019-20. However, this reduction in General Fund

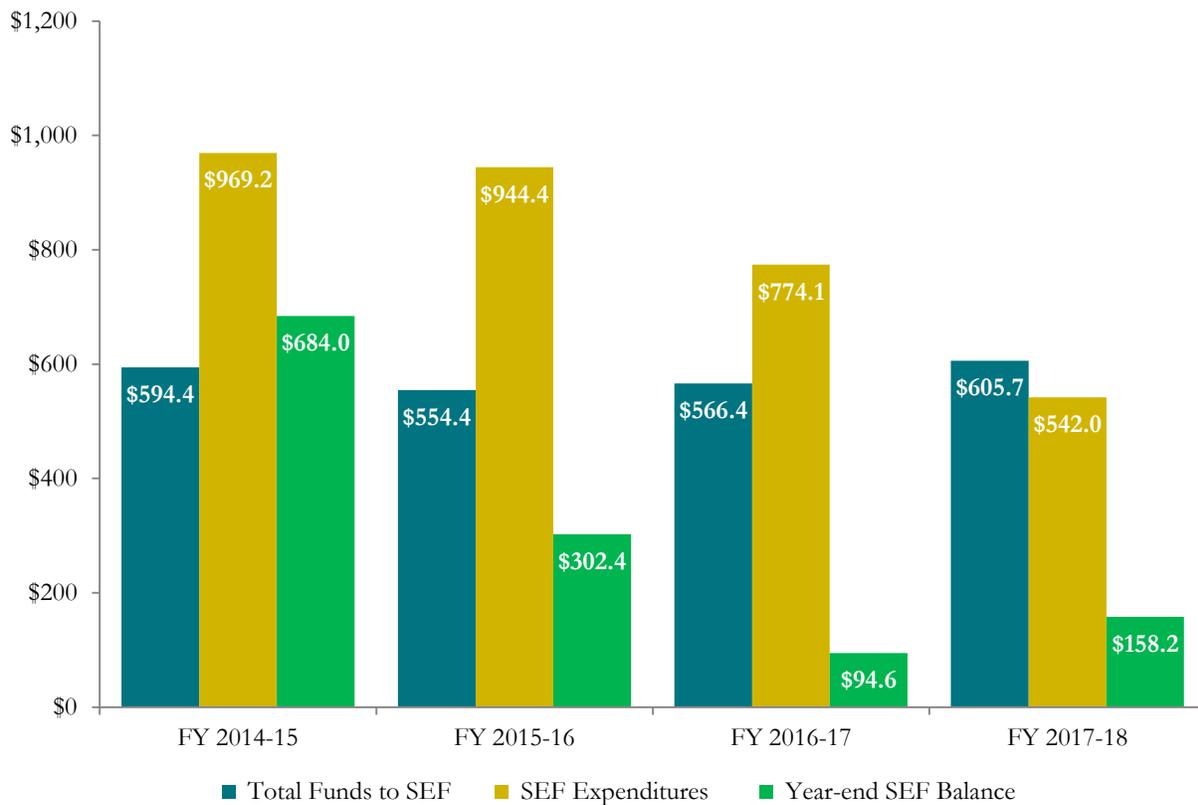


obligations will be partially offset by lease-purchase payments from the General Fund for transportation and capital construction projects.

**State Education Fund** – The State Education Fund has supported a larger share of education funding in recent years than it has historically, which has drawn down its balance. Figure 36 summarizes total State Education Fund revenue available, total spending, and balance levels from FY 2014-15 through FY 2017-18.

In FY 2016-17, the year-end balance in the fund is expected to drop 68.7 percent to approximately \$95 million from its level in FY 2015-16. However, a lower level of expenditures from the State Education Fund in FY 2017-18 will enable the fund balance to increase to a projected \$158 million.

**Figure 36. State Education Fund Money, Spending, and Reserves, \$ in Millions**



**Detailed Overview Tables** – A detailed overview of the amount of money available in the General Fund and State Education Fund, expenditures, and end-of-year reserves is provided in the overview tables in the Appendix at the end of this document beginning on page 65.

**Spending by Major Department or Program Area**

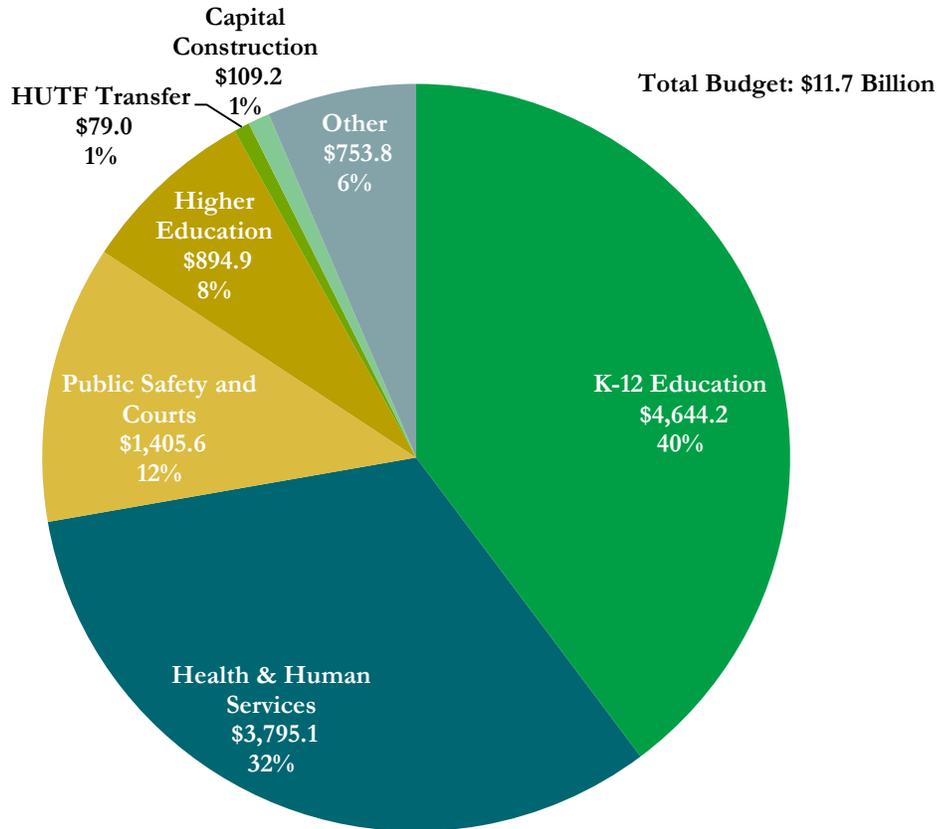
The General Fund provides funding for the State’s core programs and services, such as preschool through 12<sup>th</sup> grade education, higher education, services for low-income populations, including the disabled and elderly, courts, and public safety. It also helps fund capital construction and maintenance needs for State facilities and, in some years, transportation projects. Under the state constitution, the State Education Fund helps fund



preschool through 12<sup>th</sup> grade education and annually receives one-third of one percent of taxable income. In recent years, it has also received supplemental money from the General Fund as authorized by statute.

In Figure 37, the major areas of the General Fund and their share of the FY 2017-18 budget request are noted. Some 92 percent of General Fund and State Education Fund spending is found in the following areas: Preschool-12 education, Medicaid and related costs at the Department of Health Care Policy and Financing, human services, public safety, the correctional system, courts, and higher education.

**Figure 37. Composition of FY 2017-18 General Fund and State Education Fund Budget under Current Law**



***Risks to the Outlook and Budget Implications***

This budget outlook is based on OSPB’s economic analysis and forecast, discussed in more detail in the section titled “The Economy: Issues, Trends, and Forecast,” beginning on page 4. Changes in the Colorado economy determine revenue to the General Fund and State Education Fund. In addition to revenue, changes in economic conditions impact the budget outlook through associated changes in the use of many state services, such as higher education and Medicaid.

As noted previously in this document, Colorado’s economic growth has accelerated in the first half of 2017, and the expansion is expected to continue at a moderate pace through the forecast period. Although recession risk appears low at this time, unforeseen events can develop that could result in an economic downturn, which



often causes declines in General Fund revenue. At the same time, demand for State services tends to increase during periods of economic weakness and higher unemployment. With the state constitution requiring a balanced budget, the combination of lower revenue and higher demand for services generates very difficult budgeting conditions.

Furthermore, as noted above, the General Fund reserve in FY 2017-18 is projected by this forecast to be near its level that would trigger budget balancing actions by the Governor. This could occur in a future forecast with only minor revisions downward in the projection for General Fund revenue.

**General Fund Overview Table**

Table 4 in the Appendix presents the General Fund Overview under current law for the June 2017 OSPB revenue forecast, providing details on forecasts for available General Fund money, expenditures, and end-of-year-reserves. The following section discusses the information presented in Table 4 in the Appendix.

**Revenue**

The top portion of the overview, shown in Figure 38, indicates the amount of General Fund money available for spending. The forecast for General Fund revenue is discussed in further detail in the “General Fund and State Education Fund Revenue Forecast” section starting on page 38. In addition to General Fund revenue, the General Fund receives money transferred from other State funds each fiscal year, although these transfers generally account for less than 1 percent of total revenue (shown in line 3 below).

**Figure 38. General Fund Revenue Available, \$ in Millions**

Table 4 Line No.		FY 2015-16	FY 2016-17	FY 2017-18
1	Beginning Balance	\$689.6	\$512.7	\$441.6
2	General Fund Revenue	\$9,971.4	\$10,312.1	\$10,999.0
3	Transfers to the General Fund	\$24.1	\$45.0	\$89.2
4	<b>Total General Funds Available</b>	<b>\$10,685.1</b>	<b>\$10,869.8</b>	<b>\$11,529.8</b>
	<i>Dollar Change from Prior Year</i>	\$381.7	\$184.7	\$660.0
	<i>Percent Change from Prior Year</i>	3.7%	1.7%	6.1%

**Expenditures**

**Spending subject to the appropriations limit** – The middle portion of the General Fund overview in Table 4 shows General Fund spending. Each year, by statute, most General Fund spending cannot exceed 5 percent of the aggregate level of personal income received by Coloradans. This limit is projected to be \$13.3 billion in FY 2016-17 and \$13.9 billion in FY 2018-19. Therefore, the General Fund appropriations shown in Figure 39 (and on line 5 of Table 4) are about \$3.5 billion under the limit for both years. The amounts subject to the limit shown below and in Table 4 for FY 2016-17 and FY 2017-18 reflect current law.



**Figure 39. General Fund Spending Subject to the Appropriations Limit, \$ in Millions**

Table 4 Line No.		FY 2015-16	FY 2016-17	FY 2017-18
<b>5</b>	<b>Appropriations</b>	<b>\$9,335.6</b>	<b>\$9,784.5</b>	<b>\$10,438.1</b>
6	Dollar Change from Prior Year	\$466.6	\$448.9	\$653.6
7	Percent Change from Prior Year	5.3%	4.8%	6.7%

**Spending and outlays not subject to the appropriations limit** – Figure 40 summarizes General Fund spending that does not count under the General Fund appropriations limit. More information about each line item is presented below the table.

**Figure 40. General Fund Spending Not Subject to the Appropriations Limit, \$ in Millions**

Table 4 Line No.		FY 2015-16	FY 2016-17	FY 2017-18
<b>8</b>	<b>Total</b>	<b>\$895.1</b>	<b>\$643.7</b>	<b>\$701.7</b>
	<i>Dollar Change from Prior Year</i>	\$86.6	-\$251.4	\$58.0
	<i>Percent Change from Prior Year</i>	10.7%	-28.1%	9.0%
9	TABOR Refund under Art. X, Section 20, (7) (d)	\$0.0	\$0.0	\$0.0
10	Set Aside for Potential TABOR Refund under Art. X, Section 20, (3) (c)	-\$58.0	\$0.0	\$0.0
	<i>Cigarette Rebate to Local Governments</i>	\$10.5	\$9.3	\$8.7
	<i>Marijuana Rebate to Local Governments</i>	\$10.1	\$15.2	\$19.1
	<i>Old-Age Pension Fund/Older Coloradans Fund</i>	\$118.3	\$106.2	\$105.4
	<i>Aged Property Tax &amp; Heating Credit</i>	\$9.3	\$6.9	\$6.8
	<i>Homestead Exemption</i>	\$127.1	\$136.4	\$144.8
	<i>Interest Payments for School Loans</i>	\$1.2	\$3.4	\$3.5
	<i>Fire/Police Pensions</i>	\$3.7	\$4.3	\$4.3
	<i>Amendment 35 General Fund Expenditure</i>	\$0.9	\$0.8	\$0.8
<b>11</b>	<b>Total Rebates and Expenditures</b>	<b>\$281.3</b>	<b>\$282.5</b>	<b>\$293.4</b>
12	Transfers to Capital Construction	\$271.1	\$84.5	\$109.2
13	Transfers to Highway Users Tax Fund	\$199.2	\$79.0	\$79.0
14	Transfers to State Education Fund per SB 13-234	\$25.3	\$25.3	\$25.3
15	Transfers to Other Funds	\$176.2	\$172.4	\$194.8
16	Other	\$0.0	\$0.0	\$0.0
19	Reversions and Accounting Adjustments	-\$58.3	\$0.0	\$0.0

**Lines 9:** Revenue exceeded the Referendum C cap in FY 2014-15 but is not projected to exceed the cap again during the forecast period. Spending not subject to the limit includes any TABOR refunds funded by the General Fund, which occur when State revenue exceeds its cap as defined in Article X, Section 20 (7) of the Colorado Constitution (“TABOR”) and Section 24-77-103.6, C.R.S. (“Referendum C”).

**Line 11:** “Rebates and Expenditures” account for a large portion of General Fund spending not subject to the appropriations limit. The primary programs under rebates and expenditures are: (1) the Cigarette Rebate, which distributes money from a portion of State cigarette tax collections to local governments that do not impose their own taxes or fees on cigarettes; (2) the Marijuana Rebate, which distributes 15 percent of the retail marijuana sales tax through FY 2016-17 and 10 percent thereafter to local governments based on the percentage of retail marijuana sales in local areas; (3) the Old-Age Pension program, which provides assistance to low-income elderly individuals who meet certain eligibility requirements; (4) the Aged Property Tax, Heat, and Rent



Credit, which provides property tax, heating bill, and rent assistance to qualifying low-income, disabled, or elderly individuals; and (5) the Homestead Property Tax Exemption, which reduces property-tax liabilities for qualifying seniors and disabled veterans.

**Lines 12 and 13:** Transfers to transportation (Highway Users Tax Fund) and a portion of the transfers to capital construction (Capital Construction Fund) shown in these lines are commonly referred to as “228” transfers because they were put into law by SB 09-228. The 228 transfers originally amounted to a certain portion of General Fund revenue, but could be reduced or eliminated in a fiscal year based on the size of any TABOR refund. However, legislation passed during the 2016 and 2017 legislative sessions set the transfers at fixed amounts. SB 17-267 eliminated the scheduled transfers to the HUTF starting with FY 2018-19.

In addition to the 228 transfers, the capital construction transfer amounts shown in line 12 also include other transfers of General Fund money. Figure 41 shows the detail of the transfers for capital construction by fiscal year.

**Figure 41. Capital Construction Fund Transfers, \$ in Millions**

Table 4 Line No.		FY 2015-16	FY 2016-17	FY 2017-18
	Fixed “228” Transfers under HB 16-1416 and SB 17-262	\$49.8	\$52.7	\$0.0
	Additional Transfers	\$221.3	\$31.8	\$109.2
<b>12</b>	<b>Total</b>	<b>\$271.1</b>	<b>\$84.5</b>	<b>\$109.2</b>

**Line 14:** Senate Bill 13-234 requires annual General Fund transfers to the State Education Fund from FY 2013-14 through FY 2018-19. The transfer is \$25.3 million for FY 2017-18 and \$25.0 million for FY 2018-19.

**Line 15:** State law requires transfers of General Fund money to various other State cash funds. Generally, the largest transfer in this line is money from the special sales tax on retail marijuana that is credited to the General Fund.

SB 17-267 modified the distribution of the revenue from the special sales tax on retail marijuana. Starting with FY 2017-18, in addition to being distributed to the Marijuana Tax Cash Fund and local governments, a portion will go the State Public School Fund and a portion will remain in the General Fund. The General Fund is projected to receive \$18.5 million in revenue from the special sales tax in FY 2017-18 and \$30.3 million in FY 2018-19. Figure 48 on page 61 in this report provides more detail on the distribution of marijuana tax revenue.

The FY 2015-16 and FY 2016-17 transfers to other funds amounts in line 15 also include a diversion of income tax revenue out of the General Fund to a separate severance tax fund pursuant to Senate Bill 16-218. This bill was passed in response to the April 2016 Colorado Supreme Court’s decision in *BP America v. Colorado Department of Revenue* that allows for taxpayers to claim additional severance tax deductions. Senate Bill 16-218 creates a reserve fund and diverts income tax revenue to the fund to help pay the refunds. However, the legislation does not distinguish between severance tax refunds related to the court decision and severance tax refunds that would have occurred regardless of the decision.

For FY 2015-16, \$56.8 million in income tax revenue was diverted to the aforementioned reserve fund to pay for severance tax refunds. This forecast projects that about \$54.0 million in income tax revenue will be diverted



from the General Fund to the reserve fund to pay severance tax refunds in FY 2016-17. More discussion on Senate Bill 16-218 and the impacts of the court decision can be found starting on page 58 in this report.

**Line 19:** This line includes any General Fund money that was not expended out of appropriations each fiscal year that was “reverted” back to the General Fund. It also includes various accounting adjustments made by the State Controller’s office each year.

**Reserves**

The final section of the overview table in the Appendix (“Reserves”) shows the amount of General Fund money remaining at the end of each fiscal year — the “Year-End General Fund Balance.” This amount reflects the difference between total funds available and total expenditures. The section shows the statutorily determined reserve requirement and whether the amount of funds is above or below the requirement, titled, “Money Above/Below Statutory Reserve” in the General Fund overview in Table 4.

The FY 2015-16 reserve was required to be 5.6 percent of General Fund appropriations subject to the appropriations limit (excluding Certificates of Participation payments), minus diversions of income tax revenue pursuant to Senate Bill 16-218. As discussed above, \$56.8 million in income tax revenue was diverted, and thus the required reserve was lowered by the same amount. The required reserve is 6.0 percent of appropriations (excluding Certificates of Participation payments) for FY 2016-17 pursuant to SB 17-266 and 6.5 percent for subsequent fiscal years.

The FY 2016-17 ending balance is projected by this forecast to be \$142.7 million below the required reserve level under current law. This amount is not sufficiently enough below the required reserve to trigger budget-balancing actions by the Governor. The Governor is required to take such actions when the ending balance is projected to be under half of its required amount.

For FY 2016-17, half of the required reserve amounts to \$292.2 million, or \$149.5 million lower than the currently projected balance. In FY 2017-18, the ending balance is projected to be \$285.4 million below the required reserve level, \$52.3 million above the level that would trigger budget-balancing actions by the Governor.

Starting in FY 2015-16, General Fund appropriations for “lease-purchase” payments, called Certificates of Participation, for certain capital projects were made exempt from the reserve calculation requirement by Senate Bill 15-251. These appropriations amount to \$37.8 million in FY 2015-16, \$46.0 million in FY 2016-17, and \$48.1 million in FY 2017-18. Figure 42 provides information on the General Fund ending balance.

**Figure 42. General Fund Reserves, \$ in Millions**

Table 4 Line No.		FY 2015-16	FY 2016-17	FY 2017-18
20	Year-End General Fund Balance	\$512.7	\$441.6	\$390.0
21	Balance as a % of Appropriations	5.5%	4.5%	3.7%
22	<b>General Fund Statutory Reserve</b>	<b>\$463.9</b>	<b>\$584.3</b>	<b>\$675.4</b>
23	Money Above/Below Statutory Reserve	\$48.8	-\$142.7	-\$285.4



**State Education Fund Overview**

Figure 43 summarizes State Education Fund annual revenue and spending. It also includes projected beginning and ending fund balances. Reduced funding to the State Education Fund as well as higher appropriations have lowered the available balance. By the end of FY 2016-17, the ending balance is projected to be approximately \$95 million, a decrease of more than \$200 million from its level a year earlier. However, a lower level of expenditures from the State Education Fund in FY 2017-18 will enable the fund balance to increase to a projected \$158 million.

**Figure 43. State Education Fund Revenue, Spending, and Reserves, \$ in Millions**

State Education Fund (\$ in Millions)			
	FY 2015-16	FY 2016-17	FY 2017-18
<i>One-third of 1% of State Taxable Income</i>	\$522.6	\$535.4	\$574.4
<i>Transfers under SB 13-234</i>	\$25.9	\$25.3	\$25.3
<i>Other</i>	\$6.0	\$5.6	\$6.0
<b>Total Funds to State Education Fund</b>	<b>\$554.4</b>	<b>\$566.4</b>	<b>\$605.7</b>
<b>State Education Fund Expenditures</b>	<b>\$944.4</b>	<b>\$774.1</b>	<b>\$542.0</b>
<b>Year-end Balance</b>	<b>\$302.4</b>	<b>\$94.6</b>	<b>\$158.2</b>

The State Education Fund plays an important role in the State’s General Fund budget. Under the state constitution, the State Education Fund helps fund preschool through 12th-grade education, the largest General Fund program. Therefore, higher or lower spending from the State Education Fund affects General Fund appropriations in order to support the targeted level of school funding. Decisions in one year affect the range of choices in the next year because they impact the available balance in the State Education Fund for future spending and General Fund availability for other programs.

Table 5 in the Appendix incorporates all of the same information from the General Fund overview in Table 4, but also includes spending, revenue, and fund-balance information for the State Education Fund. Given the budget implications of the balance of funding between the State Education Fund and General Fund, a unified and multi-year view provides important insight into the sustainability of budgeting decisions.



## Cash Fund Revenue Forecast

A wide array of state programs collect taxes, fees, fines, and interest to fund services and operations. When fees or other revenue sources are designated for a particular program, they are typically credited to a cash fund which is used to fund that program. OSPB’s forecast of cash fund revenue subject to TABOR and the Referendum C cap on revenue to the State is shown in Table 6 in the Appendix.

Cash fund revenue in FY 2016-17 is projected to be \$153.2 million, or 5.2 percent, lower than FY 2015-16, as a decrease in revenue from the Hospital Provider Fee and miscellaneous cash funds will offset modest growth in revenue from other major categories of cash funds. The forecast for FY 2016-17 is \$19.4 million, or 0.7 percent, lower than projections in the March forecast. This downward adjustment is mostly the result of lower expectations for severance tax revenue.

Cash fund revenue will decrease 17.3 percent in FY 2017-18 as the Hospital Provider Fee is replaced with the Healthcare Affordability and Sustainability Fee program, which is a TABOR-exempt enterprise in accordance with SB 17-267. The forecast for FY 2017-18 is \$913.5 million, or 28.5 percent, lower compared with projections in March. In addition to the change in the Hospital Provider Fee, the exemption of retail marijuana sales from the 2.9 percent state sales tax pursuant to SB 17-267 and lower expectations for severance tax revenue also reduced cash fund revenue projections in relation to the March forecast.

**Transportation-related cash funds** — Transportation-related cash fund revenue is forecast to grow 2.4 percent in FY 2016-17 and 1.7 percent in FY 2017-18. This is the same forecast as in March for FY 2016-17, but the forecast is 0.6 percent, or \$7.6 million, lower than in March for FY 2017-18.

Transportation-related cash funds include the Highway Users Tax Fund (HUTF), the State Highway Fund (SHF), and several smaller cash funds. HUTF collections are distributed by statutory formula to the Colorado Department of Transportation, local counties and municipalities, and the Colorado State Patrol. The primary revenue source for the transportation-related cash funds is from motor fuel taxes, followed by registration fees. Specific ownership taxes paid on vehicles are retained by local governments in a manner similar to property taxes.

**Gas tax revenue received per mile driven is falling as vehicles become increasingly fuel-efficient.**

More than 75 percent of motor fuel tax revenue comes from state gasoline taxes, which have been 22 cents per gallon in Colorado since 1991. Fuel tax revenue to the HUTF have averaged 2.0 percent growth per year during the current economic expansion.

Growth is expected to continue at a modest rate, as increasingly fuel-efficient vehicles consume fewer gallons of gasoline and reduce fuel tax collections.

Vehicle registration revenue growth is a function of auto sales and in-migration to the state. Sales have been growing steadily since the end of the Great Recession in 2009. As the pent-up demand experienced since the 2008-09 recession decreases, new auto sales are beginning to decline nationally. In Colorado however, vehicle sales remain strong, though sales are expected to slow over the forecast period.

Because registration fees are based largely on vehicle age and weight, the continuing shift in consumer preference towards SUVs and light trucks is expected to partially offset less registration revenue due to the lower growth in new vehicle sales. This trend is also expected to contribute to increased revenue from vehicle fuel taxes. As a result of these trends, HUTF revenue growth is expected to average 2.5 percent over the next three fiscal years.



**Figure 44. Transportation Funds Forecast by Source**

Transportation Funds Revenue	Actual FY 15-16	Forecast FY 16-17	Forecast FY 17-18	Forecast FY 18-19
<b>Highway Users Tax Fund (HUTF)</b>				
Motor and Special Fuel Taxes	\$609.7	\$625.6	\$633.1	\$645.5
Change	2.1%	2.6%	1.2%	2.0%
Total Registrations	\$242.6	\$253.9	\$258.3	\$265.0
Change	2.6%	4.7%	1.7%	2.6%
Other HUTF Receipts	\$177.9	\$182.1	\$186.7	\$193.5
Change	2.7%	2.4%	2.5%	3.6%
<b>Total HUTF</b>	<b>\$1,030.2</b>	<b>\$1,061.6</b>	<b>\$1,078.1</b>	<b>\$1,103.9</b>
Change	2.3%	3.0%	1.6%	2.4%
<b>State Highway Fund</b>	<b>\$52.2</b>	<b>\$36.2</b>	<b>\$47.2</b>	<b>\$48.9</b>
Change	23.1%	-30.6%	30.2%	3.7%
<b>Other Transportation Funds</b>	<b>\$98.8</b>	<b>\$110.1</b>	<b>\$114.9</b>	<b>\$116.7</b>
Change	-7.6%	11.5%	4.4%	1.5%
<b>Total Transportation Funds*</b>	<b>\$1,184.7</b>	<b>\$1,213.7</b>	<b>\$1,234.6</b>	<b>\$1,260.7</b>
Change	2.2%	2.4%	1.7%	2.1%

\*Totals may not sum due to adjustments from recent policy changes that impact revenue.

**Limited gaming revenue** – The forecast for limited gaming revenue is unchanged from the March forecast. Gaming revenue is forecast to grow by \$2.1 million, or 2.0 percent, to \$120.4 million in FY 2016-17. Revenue from gaming in FY 2017-18 will grow an additional \$3.2 million, or 2.7 percent, to \$123.6 million.

The Colorado gaming industry has experienced mostly modest growth in the aftermath of the Great Recession, with expected FY 2016-17 limited gaming revenue remaining slightly below the pre-recession peak of \$122 million in FY 2006-07. Continued economic expansion is expected to contribute to further modest increases in limited gaming revenue over the forecast period.

**Limited gaming revenue is expected to surpass its pre-recession peak of \$122 million, with projected revenue of \$123.6 million in FY 2017-18.**

Of the total expected limited gaming revenue of \$120.4 million in FY 2016-17, \$104.8 million will be subject to TABOR, as reflected in Figure 45. Of this amount, \$103.0 million is classified as “base limited gaming revenue” as designated by State law after the passage of Amendment 50 in 2008. This revenue is distributed by statutory formula to the State General

Fund, the State Historical Society, cities and counties affected by gaming activity, and economic development-related programs.

Gaming revenue attributable to Amendment 50, which is not subject to TABOR, is distributed mostly to community colleges, with a smaller portion going to local governments with communities affected by gaming. These distributions grow along with overall gaming revenue and will total \$13.5 million and \$13.7 million in FY 2016-17 and FY 2017-18, respectively. Figure 45 shows the distribution of limited gaming revenues in further detail.



**Figure 45. Distribution of Limited Gaming Revenue**

Distribution of Limited Gaming Revenues	Actual FY 15-16	Forecast FY 16-17	Forecast FY 17-18	Forecast FY 18-19
<b>A. Total Limited Gaming Revenues</b>	<b>\$118.0</b>	<b>\$120.4</b>	<b>\$123.6</b>	<b>\$126.7</b>
Annual Percent Change	6.0%	2.0%	2.7%	2.5%
<b>B. Base Limited Gaming Revenues (max 3% growth)</b>	<b>\$101.0</b>	<b>\$103.0</b>	<b>\$105.8</b>	<b>\$108.4</b>
Annual Percent Change	3.0%	2.0%	2.7%	2.5%
<b>C. Gaming Revenue Subject to TABOR</b>	<b>\$102.7</b>	<b>\$104.8</b>	<b>\$107.6</b>	<b>\$110.3</b>
Annual Percent Change	3.5%	2.0%	2.7%	2.5%
<b>D. Total Amount to Base Revenue Recipients</b>	<b>\$91.1</b>	<b>\$92.5</b>	<b>\$94.6</b>	<b>\$97.3</b>
Amount to State Historical Society	\$25.5	\$25.9	\$26.5	\$27.2
Amount to Counties	\$10.9	\$11.1	\$11.4	\$11.7
Amount to Cities	\$9.1	\$9.2	\$9.5	\$9.7
Amount to Distribute to Remaining Programs (State Share)	\$45.6	\$46.2	\$47.3	\$48.6
Amount to Local Government Impact Fund	\$5.0	\$5.0	\$5.0	\$5.0
Colorado Tourism Promotion Fund	\$15.0	\$15.0	\$15.0	\$15.0
Creative Industries Cash Fund	\$2.0	\$2.0	\$2.0	\$2.0
Film, Television, and Media Operational Account	\$0.5	\$0.5	\$0.5	\$0.5
Advanced Industries Acceleration Fund	\$5.5	\$5.5	\$5.5	\$5.5
Innovative Higher Education Research Fund	\$2.1	\$2.1	\$2.1	\$2.1
Transfer to the General Fund	\$15.5	\$16.1	\$17.2	\$18.5
<b>E. Total Amount to Amendment 50 Revenue Recipients</b>	<b>\$12.5</b>	<b>\$13.5</b>	<b>\$13.7</b>	<b>\$14.1</b>
Community Colleges, Mesa and Adams State (78%)	\$9.8	\$10.5	\$10.7	\$11.0
Counties (12%)	\$1.5	\$1.6	\$1.6	\$1.7
Cities (10%)	\$1.3	\$1.3	\$1.4	\$1.4

**Hospital Provider Fee** — The forecast for Hospital Provider Fee revenue in FY 2016-17 is essentially unchanged from the March forecast. Hospital Provider Fee collections are decreasing 18.3 percent, or \$147.2 million, to \$656.8 million in FY 2016-17. This decrease is due to the limit on Hospital Provider Fee revenue adopted for the FY 2016-17 budget under HB 16-1405.

Hospital Provider Fee revenue is reduced to zero in FY 2017-18 and FY 2018-19 as the Hospital Provider Fee will be replaced with the Healthcare Affordability and Sustainability Fee. This fee revenue, collected by the Colorado Healthcare Affordability and Sustainability Enterprise within the Department of Health Care Policy and Financing (HCPF), will be exempt from TABOR as the program is designated as an enterprise in accordance with SB 17-267. As with the Hospital Provider Fee, this new fee is paid by Colorado hospitals and is used, together with matching federal funds, to help cover the cost of the Medicaid program and enhance payments to health care providers.

Replacing the Hospital Provider fee with the new fee that is exempt from TABOR under SB 17-267 reduces cash fund revenue subject to TABOR by \$865.3 million in FY 2017-18 and \$859.8 million in FY 2018-19. This reduction is partially offset by \$15.7 million in annual fee revenue that will be used by HCPF for other programs



that are not part of the new enterprise that will thus be subject to TABOR. This revenue is included in the miscellaneous cash fund category starting in FY 2017-18.

**Severance tax revenue** — Severance tax revenue will increase to \$51.5 million in FY 2016-17, after \$18.9 million in revenue was collected in FY 2015-16. There are several factors contributing to the continued low level of collections. The ad valorem tax credit for State severance taxes is a contributing factor, as are persistently low oil and natural gas prices and amended returns filed in response to the Colorado Supreme Court ruling discussed below.

Severance tax collections in FY 2017-18 are expected to rebound due to slightly higher oil and gas prices, reduced ad valorem credits, and a smaller impact from the Supreme Court ruling. Total severance tax revenue will increase to \$156.3 million in FY 2017-18.

The level of oil and natural gas prices are a main determinant of severance tax collection levels. After falling below \$30 a barrel in early 2016, the West Texas Intermediate crude oil price has gradually recovered to around \$50 a barrel. Prices are likely to remain near \$50 a barrel through the end of 2017; natural gas prices are also expected to rise only slightly.

The ongoing imbalance between the high levels of supply in relation to weakened demand is expected to persist. Although the November OPEC agreement to limit production was extended in May, U.S. producers have increased production in response to the recent uptick in prices, limiting the effectiveness of the agreement. Continued modest increases in demand combined with large supply levels are expected to prevent prices from rising materially.

**Severance tax revenue will increase to \$51.5 million in FY 2016-17. Severance tax collections will rebound to \$156.3 million in FY 2017-18.**

However, there is a high degree of uncertainty in the trajectory of oil and gas prices as the world energy market is subject to international political developments and other difficult-to-predict factors. For example, oil prices have recently dropped below the \$50 a barrel level due to concerns that increased production in the U.S. will prolong the supply glut. Therefore, the actual amount of severance tax revenue could materially differ from this forecast depending on the direction of future energy prices. More discussion of the oil and gas industry is included in “The Economy: Issues, Trends, and Forecast” section of this forecast, which starts on page 4.

In addition to persistent low oil and gas prices, ad valorem tax credits are weighing on State severance tax revenue. Severance taxpayers claim ad valorem tax credits based on the local property taxes they pay on the value of mineral extraction in the prior year. The impact of these credits was especially pronounced in FY 2015-16, when the incomes of taxpayers, and thus their tax liabilities, were greatly reduced due to plummeting energy prices. At the same time, large ad valorem credits were being claimed that were based on a much higher value of oil and gas from the prior year. In some cases, the difference in the size of the ad valorem credit in relation to gross severance tax liabilities caused net tax liabilities to fall to zero.

For FY 2016-17, gross liabilities will remain low due to persistent soft energy prices and decreased oil and gas production, but ad valorem credits will be smaller than the previous year, causing severance tax revenue to increase modestly. However, the Supreme Court ruling discussed below that began reducing severance tax collections in FY 2015-16 is also weighing on FY 2016-17 revenue. Modestly higher oil and gas prices in 2017, combined with less of an impact on collections from the court ruling and reduced ad valorem credits will cause severance tax revenue to rebound to a greater extent in FY 2017-18.

As a result of the April 2016 Colorado Supreme Court’s decision in *BP America v. Colorado Department of Revenue* (DOR), taxpayers can claim additional severance tax deductions related to their transportation, manufacturing,



and processing costs incurred in their oil and gas extraction activities. In addition to lowering the severance tax collections in the future, this decision is also increasing the refunds being made to severance taxpayers for the current and past tax years.

Senate Bill 16-218 was passed in the 2016 legislative session to account for these severance tax refunds. The bill created a reserve fund and diverts income tax revenue to the fund to help pay the refunds. However, the legislation does not distinguish between severance tax refunds related to the court decision and severance tax refunds that would have occurred regardless of the decision. Therefore, income tax revenue is currently being used to cover some severance tax refunds that would have occurred regardless of the decision.

Under Senate Bill 16-218, \$56.8 million in income tax revenue was diverted in FY 2015-16 to the aforementioned reserve fund to pay for severance tax refunds. This amount is included in the “Transfers to Other Funds” line in Table 4 in the Appendix of this forecast.

Also under Senate Bill 16-218, in FY 2016-17, during any month in which severance tax refunds are larger than 15 percent of gross severance revenue, income tax is diverted to the reserve to pay the portion of the refund amount that exceeds the 15 percent threshold. This forecast assumes that \$54.0 million in income taxes will be diverted from the General Fund to the reserve fund to cover severance tax refunds paid out in FY 2016-17. This amount is also included in the “Transfers to Other Funds” line in Table 4 in the Appendix. Therefore, a total of \$110.8 million in General Fund is projected to be used to cover severance tax refunds under Senate Bill 16-218 over FY 2015-16 and FY 2016-17.

The above refund amounts are related to past tax year impacts of the Supreme Court ruling. Taxpayers will also claim more deductions for future tax years, which will reduce severance tax collections on an ongoing basis. This forecast assumes that the additional deductions will reduce annual severance tax collections by roughly \$20 to \$30 million each year. However, the estimated amount of the reduction to ongoing severance tax revenue in the future may change materially as more information becomes available regarding the revenue impacts of the deductions.

**Federal Mineral Leasing revenue** — Colorado’s share of Federal Mineral Lease (FML) revenue will rise 1.1 percent to \$93.9 million in FY 2016-17. FML revenue continues to be weakened due to ongoing low energy prices. In addition, the refund of FML “bonus” payments to mineral extraction leaseholders on the Roan Plateau is causing reduced collections. As commodity prices gradually increase, FML revenue is expected to rebound modestly, increasing 9.8 percent to \$103.1 million in FY 2017-18. The impact of lower energy prices on FML revenue is much smaller than the impact on severance taxes because the revenue stream is not affected by the ad valorem tax credits that impact severance tax gross liabilities. Note that while FML revenue is exempt from TABOR, it is included here because a portion of the money is used for the State’s share of K-12 school finance.

FML royalties are derived from a percentage of the value of resources produced on leased federal lands. FML activity includes production of natural gas and oil as well as propane, carbon dioxide, coal, and other mineral resources. The Bureau of Land Management (BLM) sells leases to extract mineral resources from federal lands. Producers then remit royalties and other payments to the federal government that are shared with the state where production occurred.

**FML revenue is reduced by a total of \$23.4 million between FY 2015-16 and FY 2017-18 due to refunded bonus payments on cancelled leases on the Roan Plateau.**

A portion of the reduced levels in FML revenue in FY 2015-16 through FY 2017-18 are a result of refunds to holders of cancelled leases on land for mineral extraction on the Roan Plateau in Colorado. The BLM carried out auctions for leases to produce natural gas on the Roan Plateau in 2008,



collecting significant “bonus” payments. The BLM later revisited these leases and determined a need to renegotiate or cancel several of them. As a result, the Bureau is refunding nearly \$50 million of the bonus payments that were originally made.

Colorado’s share of this amount, which amounts to \$23.4 million, is being recouped from the State’s share of FML revenue over a three-year period. The federal government is withholding \$7.8 million of Colorado’s FML payments from FY 2015-16 through FY 2017-18 to complete the required refund. Senate Bill 15-244 transfers money from the General Fund to the State Public School Fund, the Colorado Water Conservation Board Construction Fund, and the Local Government Mineral Impact Fund in each of the three fiscal years in order to backfill the decline in FML distributions.

**Figure 46. Federal Mineral Leasing (FML) Payments, \$ in Millions**

Fiscal Year	Bonus Payments	Non-Bonus Payments	Total FML	% Change
FY 2015-16	\$6.7	\$86.1	\$92.9	-36.0%
FY 2016-17	\$0.2	\$93.7	\$93.9	1.1%
FY 2017-18	\$2.1	\$101.0	\$103.1	9.8%
FY 2018-19	\$2.0	\$110.2	\$112.3	8.9%

FY 2015-16 figures are actual collections, and FY 2016-17 through FY 2018-19 are projections.

**Other cash funds**— Cash fund revenue to the Department of Regulatory Agencies (DORA) will increase 10.6 percent to \$76.1 million in FY 2016-17. This revenue source will grow another 2.8 percent to \$78.2 million in FY 2017-18. DORA regulates businesses and professionals in certain industries through licensing, rulemaking, enforcement, and approval of rates charged to consumers. The Department is responsible for oversight of a wide variety of professions, ranging from landscape architects and psychologists to hunting guides. Revenue from licensing fees and other services fund many of the Department’s activities.

Insurance-related cash fund revenue is obtained largely from a surcharge on workers’ compensation insurance programs. Revenue from this source will decrease 10.0 percent to \$10.3 million in FY 2016-17. Each year, the DOWC performs a comprehensive review to determine the funding needed to operate its programs. Surcharges are increasing in the last half of FY 2017-18. This is contributing to the forecast increase of insurance-related revenue in FY 2017-18, when revenue is projected to increase 53.7percent to \$15.8 million.

The category called Other Miscellaneous Cash Funds in Table 6 includes revenue from over 300 cash funds that generally collect revenue from fines, fees, and interest earnings. However, approximately 75 percent of the revenue comes from the largest 30 of these funds. These larger funds include the Employment Support Fund, Medicaid Nursing Facility Cash Fund, and the Marijuana Tax Cash Fund in FY 2015-16.

Total revenue to miscellaneous cash funds is expected to total \$656.6 million in FY 2016-17, a decrease of 10.2 percent from FY 2015-16. The FY 2016-17 projection is the same as the March forecast. Revenue to these funds is expected to increase 6.3 percent to \$698.2 million in FY 2017-18.

The reduction in miscellaneous cash fund revenue in FY 2016-17 is due to two main factors. First, revenue received by Ft. Lewis College and Western State Colorado University is assumed to not be subject to TABOR this fiscal year due to the assumption that these institutions will regain their enterprise status after being disqualified in FY 2015-16. Secondly, the shifting forward of revenue transferred from the Unclaimed Property Fund to the Adult Dental Fund from FY 2016-17 to FY 2015-16 per House Bill 16-1409 contributed to the



decrease. The resumption of this transfer in FY 2017-18 is contributing to the 6.3 percent overall increase in miscellaneous cash funds projected for next fiscal year.

**Marijuana-related revenue** — Revenue from the special taxes on the legal marijuana industry in the state authorized by Proposition AA in November 2013, along with revenue from the 2.9 percent sales tax collected on marijuana sales, are shown in Figure 47.

**Figure 47. Tax Revenue from the Marijuana Industry**

Tax Revenue from the Marijuana Industry	Actual FY 15-16	Forecast FY 16-17	Forecast FY 17-18	Forecast FY 18-19
<b>Proposition AA Taxes</b>				
Retail Marijuana 10%/15% Special Sales Tax	\$67.3	\$101.6	\$191.5	\$216.1
Retail Marijuana 15% Excise Tax	\$42.7	\$72.6	\$92.1	\$103.6
<b>Total Proposition AA Taxes</b>	<b>\$110.0</b>	<b>\$174.2</b>	<b>\$283.6</b>	<b>\$319.7</b>
<b>2.9% Sales Tax (Subject to TABOR)</b>				
Medical Marijuana 2.9% State Sales Tax	\$12.2	\$12.4	\$12.5	\$12.5
Retail Marijuana 2.9% State Sales Tax	\$19.4	\$28.7	\$0.0	\$0.0
<b>Total 2.9% Sales Taxes</b>	<b>\$31.6</b>	<b>\$41.0</b>	<b>\$12.5</b>	<b>\$12.5</b>
<b>Total Marijuana Taxes</b>	<b>\$141.6</b>	<b>\$215.2</b>	<b>\$296.1</b>	<b>\$332.2</b>

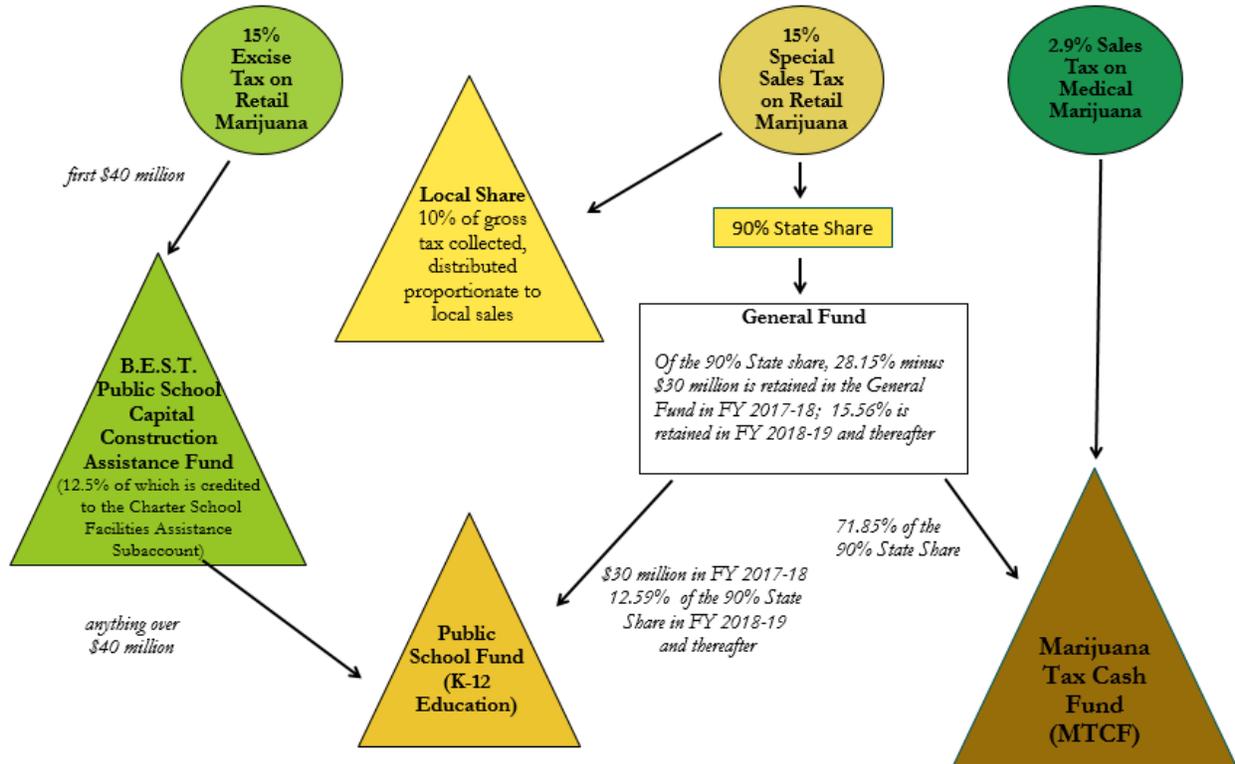
Source: Colorado Department of Revenue

SB 17-267 made changes to marijuana taxation and revenue beginning in FY 2017-18. The bill exempted retail marijuana from the 2.9 percent state sales tax, while increasing the special sales tax on retail marijuana from the scheduled 8 percent rate in FY 2017-18 to 15 percent. The exemption of retail marijuana from the 2.9 percent state sales tax will result in \$37.0 million less revenue subject to TABOR in FY 2017-18, while the increase in the special sales tax rate will result in \$89.4 million more TABOR-exempt revenue.

Revenue from the 2.9 percent sales tax on retail and medical marijuana, as well as fees related to regulation of the marijuana industry, is included in the miscellaneous cash funds category in Table 6. The table does not include the proceeds from marijuana taxes authorized by Proposition AA as they are not subject to TABOR.

Revenue from the retail marijuana sales tax in Proposition AA goes first to the General Fund — and is included under sales tax revenue in Table 3 in the Appendix — before most of the revenue is transferred to the Marijuana Tax Cash Fund, public school finance, and local governments. The remaining amount after the transfers stays in the General Fund. Proposition AA also included an excise tax of 15 percent on retail marijuana that is credited to public school cash funds, a majority of which goes to a cash fund for public school capital construction projects. Figure 48 shows the distribution of marijuana tax revenue.

Figure 48. Distribution of Marijuana Tax Revenue Starting in FY 2017-18





## Taxpayer’s Bill of Rights: Revenue Limit

**Background on TABOR** – Provisions in the Taxpayer’s Bill of Rights (TABOR) – Article X, Section 20 of the Colorado Constitution – limit the growth of a portion of State revenue to the sum of inflation and population growth. Revenue collected above the TABOR limit must be returned to taxpayers unless voters decide the State can retain the revenue.

In November 2005, voters approved Referendum C, which allowed the State to retain all revenue through FY 2009-10 during a five-year TABOR “time out.” Referendum C also set a new cap on revenue starting in FY 2010-11. Starting with FY 2010-11, the amount of revenue that the State may retain under Referendum C (line 9 of Table 7 found in the Appendix) is calculated by multiplying the revenue limit between FY 2005-06 and FY 2009-10 associated with the highest TABOR revenue year (FY 2007-08) by the allowable TABOR growth rates (line 6 of Table 7) for each subsequent year.

The passage of SB 17-267 during the 2017 legislative session reduced the Referendum C cap by \$200 million in FY 2017-18. The lower cap then grows by inflation and population growth in subsequent years. More information on SB 17-267 can be found below.

Most General Fund revenue and a portion of cash fund revenue is included in calculating the revenue cap under Referendum C. Revenue that is not subject to TABOR includes revenue exempt by Colorado voters; federal money; and revenue received by entities designated as enterprises, such as public universities and colleges. Table 7 found in the Appendix summarizes the forecasts of TABOR revenue, the TABOR revenue limit, and the revenue cap under Referendum C.

**SB 17-267 reduced the amount of revenue subject to TABOR and no TABOR refunds are projected during the forecast period** – TABOR revenue came in \$122.1 million below the cap in FY 2015-16 and is projected to be \$302.3 million under the cap in FY 2016-17. TABOR revenue is expected to be below the cap by \$582.8 million in FY 2017-18 and \$665.2 million in FY 2018-19. The March 2017 forecast before the passage of SB 17-267 had projected TABOR revenue to be above the cap by \$135.1 million in FY 2017-18 and by \$145.1 million in FY 2018-19, triggering a General Fund obligation for rebates.

**TABOR revenue is expected to be below the Referendum C cap by \$582.8 million in FY 2017-18 and \$665.2 million in FY 2018-19.**

SB 17-267 had several provisions that affect the amount of TABOR revenue under the Referendum C cap. As mentioned above, SB 17-267 reduced the Referendum C cap by \$200 million in FY 2017-18. The cap will grow by inflation and population growth from this lower base going forward.

Beginning in FY 2017-18, the Hospital Provider Fee will be replaced with the Healthcare Affordability and Sustainability Fee. This fee will be exempt from TABOR as it will be collected by a new enterprise created by SB 17-267 within the Department of Health Care Policy and Financing. This change will reduce TABOR revenue by \$865.3 million in FY 2017-18 and \$859.8 million in FY 2018-19. This reduction is partially offset by \$15.7 million in annual fee revenue that will be used by the Department of Health Care Policy and Financing for other programs that are not part of the new enterprise and will thus be subject to TABOR.

In addition, SB 17-267 exempted retail marijuana from the 2.9 percent state sales tax, which will result in \$37.0 million less revenue subject to TABOR in FY 2017-18, and \$41.8 million less in FY 2018-19. Moreover, SB 17-267 extended and expanded the income tax credit for business personal property taxes paid, which is projected



to reduce income tax collections by about \$10 million in FY 2018-19 and \$20 million in FY 2019-20. However, SB 17-267 also distributes a portion of the special sales tax on retail marijuana sales to the General Fund on an ongoing basis which offsets the revenue reduction from the business personal property tax credit.

Under current law, the conservation easement income tax credit becomes refundable during tax years following fiscal years in which a TABOR refund occurs. Because SB 17-267 results in no projected TABOR refunds during the forecast window, the credit is now projected to be nonrefundable in tax years 2018 and 2019, increasing TABOR revenue by \$2.5 million in FY 2017-18 and \$4.9 million in FY 2018-19.

Finally, SB 17-267 changed TABOR refund mechanisms. The legislation required that reimbursements paid to local governments in support of the senior homestead and disabled veterans property tax exemptions constitute a TABOR refund in years in which a refund is owed. The reimbursements become the first refund mechanism triggered when a TABOR refund is required. The six-tier sales tax refund becomes the second refund mechanism.

## Governor's Revenue Estimating Advisory Committee

The Governor's Office of State Planning and Budgeting would like to thank the following individuals that provided valuable feedback on key national and Colorado-specific economic indices included in this forecast. All of these individuals possess expertise in a number of economic and financial disciplines and were generous with their time and knowledge.

- Alison Felix – Vice President and Denver Branch Executive, Denver Branch – Federal Reserve Bank of Kansas City
- Elizabeth Garner – State Demographer, Colorado Department of Local Affairs
- Alexandra Hall – Director, Division of Labor Standards and Statistics, Colorado Department of Labor and Employment
- David Kelly – Chief Risk Officer, FirstBank
- Ronald New – Capital Markets Executive
- Jessica Ostermick – Director, Capital Markets, Industrial and Logistics, CBRE
- Paul Rochette – Senior Partner, Summit Economics
- Patricia Silverstein – President, Development Research Partners
- Richard Wobbekind – Associate Dean, Leeds School of Business; University of Colorado, Boulder



## Appendix – Reference Tables

**Table 1. History and Forecast for Key Colorado Economic Variables  
Calendar Year 2011-2019**

Line No.		Actual						June 2017 Forecast		
		2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Income</b>										
1	Personal Income (Billions) /A	\$219.9	\$234.0	\$246.6	\$266.5	\$277.7	\$288.4	\$304.3	\$321.0	\$338.0
2	Change	9.1%	6.4%	5.4%	8.1%	4.2%	3.9%	5.5%	5.5%	5.3%
3	Wage and Salary Income (Billions) /A	\$118.6	\$125.0	\$129.6	\$138.7	\$146.6	\$153.3	\$162.1	\$171.1	\$180.5
4	Change	4.2%	5.4%	3.7%	7.0%	5.7%	4.6%	5.7%	5.6%	5.5%
5	Per-Capita Income (\$/person) /A	\$42,955	\$45,089	\$46,824	\$49,823	\$50,971	\$52,059	\$54,000	\$56,053	\$58,110
6	Change	7.6%	5.0%	3.8%	6.4%	2.3%	2.1%	3.7%	3.8%	3.7%
<b>Population &amp; Employment</b>										
7	Population (Thousands)	5,118.4	5,189.9	5,267.6	5,349.6	5,448.8	5,540.5	5,635.1	5,727.3	5,817.3
8	Change	1.4%	1.4%	1.5%	1.6%	1.9%	1.7%	1.7%	1.6%	1.6%
9	Net Migration (Thousands)	36.0	38.2	46.7	49.1	69.6	61.6	64.0	62.0	60.0
10	Unemployment Rate	8.4%	7.9%	6.8%	5.0%	3.9%	3.3%	2.6%	3.0%	3.2%
11	Total Nonagricultural Employment (Thousands)	2,258.6	2,313.0	2,381.9	2,464.9	2,541.9	2,598.3	2,655.5	2,708.6	2,754.6
12	Change	1.6%	2.4%	3.0%	3.5%	3.1%	2.2%	2.2%	2.0%	1.7%
<b>Construction Variables</b>										
13	Total Housing Permits Issued (Thousands)	13.5	23.3	27.5	28.7	31.9	38.4	41.3	41.5	41.8
14	Change	16.5%	72.6%	18.1%	4.3%	11.1%	20.5%	7.6%	0.5%	0.7%
15	Nonresidential Construction Value (Millions) /B	\$3,923.2	\$3,695.3	\$3,624.0	\$4,320.5	\$4,885.8	\$5,673.3	\$5,197.1	\$5,051.6	\$5,112.2
16	Change	24.7%	-5.8%	-1.9%	19.2%	13.1%	16.1%	-8.4%	-2.8%	1.2%
<b>Prices &amp; Sales Variables</b>										
17	Retail Trade (Billions) /C	\$75.9	\$80.2	\$84.1	\$90.5	\$95.0	\$99.1	\$104.2	\$109.4	\$114.4
18	Change	7.7%	5.7%	4.8%	7.6%	4.9%	4.3%	5.1%	5.0%	4.6%
19	Denver-Boulder-Greeley Consumer Price Index (1982-84=100)	220.3	224.6	230.8	237.2	240.0	246.6	253.9	260.5	266.7
20	Change	3.7%	1.9%	2.8%	2.8%	1.2%	2.8%	2.9%	2.6%	2.4%

- /A Personal Income as reported by the federal Bureau of Economic Analysis includes: wage and salary disbursements, supplements to wages and salaries, proprietors' income with inventory and capital consumption adjustments, rental income of persons with capital consumption adjustments, personal dividend income, personal interest income, and personal current transfer receipts, less contributions from government social insurance.
- /B Nonresidential Construction Value is reported by Dodge Analytics (McGraw-Hill Construction) and includes new construction, additions, and major remodeling projects predominately at commercial and manufacturing facilities, educational institutions, medical and government buildings. Nonresidential does not include non-building projects (such as streets, highways, bridges and utilities).
- /C Retail Trade includes motor vehicles and automobile parts, furniture and home furnishings, electronics and appliances, building materials, sales at food and beverage stores, health and personal care, sales at convenience stores and service stations, clothing, sporting goods/books/music, and general merchandise found at warehouse stores and internet purchases. In addition, the above dollar amounts include sales from food and drink vendors (bars and restaurants). E-commerce retail trade and other sales by a retailer that does not have a state sales tax account are not included in these figures. 2016 data is not final and represents OSPB's estimates.

**Table 2. History and Forecast for Key National Economic Variables  
Calendar Year 2011 – 2019**

Line No.		Actual						June 2017 Forecast		
		2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Inflation-Adjusted &amp; Current Dollar Income Accounts</b>										
1	Inflation-Adjusted Gross Domestic Product (Billions) /A	\$15,020.6	\$15,354.6	\$15,612.2	\$15,982.3	\$16,397.2	\$16,662.1	\$17,022.3	\$17,413.8	\$17,779.3
2	Change	1.6%	2.2%	1.7%	2.4%	2.6%	1.6%	2.2%	2.3%	2.1%
3	Personal Income (Billions) /B	\$13,254.5	\$13,915.1	\$14,073.7	\$14,809.7	\$15,458.5	\$16,011.6	\$16,700.1	\$17,451.6	\$18,219.3
4	Change	6.2%	5.0%	1.1%	5.2%	4.4%	3.6%	4.3%	4.5%	4.4%
5	Per-Capita Income (\$/person)	\$42,528	\$44,316	\$44,508	\$46,489	\$48,173	\$49,552	\$51,298	\$53,215	\$55,171
6	Change	5.4%	4.2%	0.4%	4.5%	3.6%	2.9%	3.5%	3.7%	3.7%
7	Wage and Salary Income (Billions) /B	\$6,633	\$6,930	\$7,116.7	\$7,476.3	\$7,854.8	\$8,189.2	\$8,590.5	\$9,052.8	\$9,511.2
8	Change	4.0%	4.5%	2.7%	5.1%	5.1%	4.3%	4.9%	5.4%	5.1%
<b>Population &amp; Employment</b>										
9	Population (Millions)	311.7	314.0	316.2	318.6	320.9	323.1	325.6	327.9	330.2
10	Change	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
11	Unemployment Rate	8.9%	8.1%	7.4%	6.2%	5.3%	4.9%	4.5%	4.4%	4.3%
12	Total Nonagricultural Employment (Millions)	131.9	134.2	136.4	139.0	141.8	144.3	146.4	148.0	149.2
13	Change	1.2%	1.7%	1.6%	1.9%	2.1%	1.7%	1.5%	1.1%	0.8%
<b>Price Variables</b>										
14	Consumer Price Index (1982-84=100)	224.9	229.6	233.0	236.7	237.0	240.0	246.0	251.7	257.2
15	Change	3.2%	2.1%	1.5%	1.6%	0.1%	1.3%	2.5%	2.3%	2.2%
16	Producer Price Index - All Commodities (1982=100)	201.0	202.2	203.4	205.3	190.4	185.4	192.4	197.6	203.2
17	Change	8.8%	0.6%	0.6%	0.9%	-7.3%	-2.6%	3.8%	2.7%	2.8%
<b>Other Key Indicators</b>										
18	Corporate Profits (Billions)	\$1,816.6	\$1,998.2	\$2,032.9	\$2,152.1	\$2,088.1	\$2,079.2	\$2,178.1	\$2,287.0	\$2,392.2
19	Change	4.0%	10.0%	1.7%	5.9%	-3.0%	-0.4%	4.8%	5.0%	4.6%
20	Housing Permits (Millions)	0.624	0.830	0.991	1.052	1.183	1.207	1.340	1.357	1.364
21	Change	3.2%	32.9%	19.4%	6.2%	12.4%	2.0%	11.1%	1.3%	0.5%
22	Retail Trade (Billions)	\$4,598.3	\$4,826.4	\$5,001.8	\$5,215.7	\$5,350.5	\$5,512.3	\$5,752.2	\$5,970.5	\$6,175.1
23	Change	7.3%	5.0%	3.6%	4.3%	2.6%	3.0%	4.4%	3.8%	3.4%

/A U.S. Bureau of Economic Analysis, National Income and Product Accounts. Inflation-adjusted, in 2009 dollars.

/B Personal Income as reported by the U.S. Bureau of Economic Analysis includes: wage and salary disbursements, supplements to wages and salaries, proprietors' income with inventory and capital consumption adjustments, rental income of persons with capital consumption adjustments, personal dividend income, personal interest income, and personal current transfer receipts, less contributions from government social insurance.

**Table 3. General Fund – Revenue Estimates by Tax Category**  
(Accrual Basis, Dollar Amounts in Millions)

Line No.	Category	Actual		June 2017 Estimate by Fiscal Year					
		FY 2015-16	% Chg	FY 2016-17	% Chg	FY 2017-18	% Chg	FY 2018-19	% Chg
<b>Excise Taxes:</b>									
1	Sales	\$2,652.6	1.3%	\$2,824.5	6.5%	\$3,037.4	7.5%	\$3,190.0	5.0%
2	Use	\$241.2	-7.3%	\$257.3	6.7%	\$274.8	6.8%	\$286.8	4.4%
3	Cigarette	\$37.2	-1.8%	\$36.4	-2.2%	\$34.0	-6.6%	\$32.7	-3.7%
4	Tobacco Products	\$21.1	18.5%	\$22.5	6.9%	\$22.4	-0.5%	\$23.0	2.3%
5	Liquor	\$43.6	5.0%	\$45.0	3.3%	\$45.2	0.5%	\$46.0	1.7%
6	<b>Total Excise</b>	<b>\$2,995.7</b>	<b>0.6%</b>	<b>\$3,185.7</b>	<b>6.3%</b>	<b>\$3,413.8</b>	<b>7.2%</b>	<b>\$3,578.4</b>	<b>4.8%</b>
<b>Income Taxes:</b>									
7	Net Individual Income	\$6,526.5	2.8%	\$6,795.6	4.1%	\$7,207.3	6.1%	\$7,532.6	4.5%
8	Net Corporate Income	\$652.3	-5.8%	\$532.0	-18.5%	\$610.5	14.8%	\$651.4	6.7%
9	<b>Total Income</b>	<b>\$7,178.8</b>	<b>1.9%</b>	<b>\$7,327.6</b>	<b>2.1%</b>	<b>\$7,817.8</b>	<b>6.7%</b>	<b>\$8,184.1</b>	<b>4.7%</b>
10	<i>Less: State Education Fund Diversion</i>	<i>\$522.6</i>	<i>0.5%</i>	<i>\$535.4</i>	<i>2.5%</i>	<i>\$574.4</i>	<i>7.3%</i>	<i>\$604.6</i>	<i>5.3%</i>
11	<b>Total Income to General Fund</b>	<b>\$6,656.2</b>	<b>2.0%</b>	<b>\$6,792.2</b>	<b>2.0%</b>	<b>\$7,243.4</b>	<b>6.6%</b>	<b>\$7,579.5</b>	<b>4.6%</b>
<b>Other Revenue:</b>									
12	Insurance	\$280.3	9.2%	\$287.0	2.4%	\$301.5	5.1%	\$314.0	4.2%
13	Interest Income	\$12.4	40.3%	\$13.5	8.3%	\$15.9	18.3%	\$17.8	12.0%
14	Pari-Mutuel	\$0.6	0.5%	\$0.6	-3.0%	\$0.6	-2.0%	\$0.6	-2.0%
15	Court Receipts	\$3.5	34.5%	\$2.9	-15.2%	\$2.8	-3.4%	\$2.7	-3.5%
16	Other Income	\$22.6	-33.7%	\$30.3	34.1%	\$20.9	-30.9%	\$21.4	2.6%
17	<b>Total Other</b>	<b>\$319.4</b>	<b>5.5%</b>	<b>\$334.3</b>	<b>4.6%</b>	<b>\$341.8</b>	<b>2.2%</b>	<b>\$356.6</b>	<b>4.3%</b>
18	<b>GROSS GENERAL FUND</b>	<b>\$9,971.4</b>	<b>1.7%</b>	<b>\$10,312.1</b>	<b>3.4%</b>	<b>\$10,999.0</b>	<b>6.7%</b>	<b>\$11,514.6</b>	<b>4.7%</b>

Table 4. General Fund Overview /A  
(Dollar Amounts in Millions)

Line No.		Actual FY 2015-16	June 2017 Estimate by Fiscal Year		
			FY 2016-17	FY 2017-18	FY 2018-19
<b>Revenue</b>					
1	Beginning Reserve	\$689.6	\$512.7	\$441.6	\$390.0
2	Gross General Fund Revenue	\$9,971.4	\$10,312.1	\$10,999.0	\$11,514.6
3	<i>Transfers to the General Fund</i>	\$24.1	\$45.0	\$89.2	\$18.5
4	<b>TOTAL GENERAL FUND AVAILABLE</b>	<b>\$10,685.1</b>	<b>\$10,869.8</b>	<b>\$11,529.8</b>	<b>\$11,923.1</b>
<b>Expenditures</b>					
5	Appropriation Subject to Limit	\$9,335.6	\$9,784.5	\$10,438.1	\$10,661.0
6	<i>Dollar Change (from prior year)</i>	\$466.6	\$448.9	\$653.6	\$222.9
7	<i>Percent Change (from prior year)</i>	5.3%	4.8%	6.7%	2.1%
8	Spending Outside Limit	\$895.1	\$643.7	\$701.7	\$572.5
9	<i>TABOR Refund under Art. X, Section 20, (7) (d)</i>	\$0.0	\$0.0	\$0.0	\$0.0
10	<i>Set Aside for Potential TABOR Refund under Art. X, Section 20, (3) (c)</i>	-\$58.0	\$0.0	\$0.0	\$0.0
11	<i>Rebates and Expenditures</i>	\$281.3	\$282.5	\$293.4	\$313.7
12	<i>Transfers for Capital Construction</i>	\$271.1	\$84.5	\$109.2	\$60.0
13	<i>Transfers to Highway Users Tax Fund</i>	\$199.2	\$79.0	\$79.0	\$0.0
14	<i>Transfers to State Education Fund under SB 13-234</i>	\$25.3	\$25.3	\$25.3	\$25.0
15	<i>Transfers to Other Funds</i>	\$176.2	\$172.4	\$194.8	\$173.7
16	<i>Other Expenditures Exempt from General Fund Appropriations Limit</i>	\$0.0	\$0.0	\$0.0	\$0.0
17	<b>TOTAL GENERAL FUND OBLIGATIONS</b>	<b>\$10,230.7</b>	<b>\$10,428.2</b>	<b>\$11,139.8</b>	<b>\$11,233.5</b>
18	<i>Percent Change (from prior year)</i>	5.7%	1.9%	6.8%	0.8%
19	Reversions and Accounting Adjustments	-\$58.3	\$0.0	\$0.0	\$0.0
<b>Reserves</b>					
20	Year-End General Fund Balance	\$512.7	\$441.6	\$390.0	\$689.6
21	<i>Year-End General Fund as a % of Appropriations</i>	5.5%	4.5%	3.7%	6.5%
22	<i>General Fund Statutory Reserve</i>	\$463.9	\$584.3	\$675.4	\$689.6
23	<i>Above/Below Statutory Reserve</i>	\$48.8	-\$142.7	-\$285.4	\$0.0

/A See the section discussing the General Fund and State Education Fund Budget starting on page 45 for information on the figures in this table.

**Table 5. General Fund and State Education Fund Overview /A**  
(Dollar Amounts in Millions)

Line No.		Actual FY 2015-16	June 2017 Estimate by Fiscal Year		
			FY 2016-17	FY 2017-18	FY 2018-19
<b>Revenue</b>					
1	<b>Beginning Reserves</b>	\$1,373.6	\$815.1	\$536.2	\$548.2
2	<i>State Education Fund</i>	\$684.0	\$302.4	\$94.6	\$158.2
3	<i>General Fund</i>	\$689.6	\$512.7	\$441.6	\$390.0
4	<b>Gross State Education Fund Revenue</b>	\$554.4	\$566.4	\$605.7	\$635.8
5	<b>Gross General Fund Revenue /B</b>	\$9,995.5	\$10,357.1	\$11,088.2	\$11,533.1
6	<b>TOTAL FUNDS AVAILABLE FOR EXPENDITURE</b>	\$11,923.5	\$11,738.5	\$12,230.1	\$12,717.2
<b>Expenditures</b>					
7	General Fund Expenditures /C	\$10,230.7	\$10,428.2	\$11,139.8	\$11,233.5
8	State Education Fund Expenditures	\$944.4	\$774.1	\$542.0	\$693.3
9	<b>TOTAL OBLIGATIONS</b>	\$11,175.1	\$11,202.3	\$11,681.9	\$11,926.8
10	<i>Percent Change (from prior year)</i>	5.0%	0.2%	4.3%	2.1%
11	<i>Reversions and Accounting Adjustments</i>	-\$66.6	\$0.0	\$0.0	\$0.0
<b>Reserves</b>					
12	<b>Year-End Balance</b>	\$815.1	\$536.2	\$548.2	\$790.3
13	State Education Fund	\$302.4	\$94.6	\$158.2	\$100.8
14	General Fund	\$512.7	\$441.6	\$390.0	\$689.6
15	<i>General Fund Above/Below Statutory Reserve</i>	\$48.8	-\$142.7	-\$285.4	\$0.0

/A See the section discussing the General Fund and State Education Fund Budget starting on page 45 for information on the figures in this table.

/B This amount includes transfers to the General Fund shown in line 3 in Table 4.

/C General Fund expenditures include appropriations subject to the limit of 5.0% of Colorado personal income shown in line 5 in Table 4 as well as all spending outside the limit shown in line 8 in Table 4.

**Table 6. Cash Fund Revenue Subject to TABOR Forecast by Major Category**  
(Dollar amounts in Millions)

Category	Actual	June 2017 Estimate by Fiscal Year		
	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
<b>Transportation-Related /A</b>	<b>\$1,184.7</b>	<b>\$1,213.7</b>	<b>\$1,234.6</b>	<b>\$1,260.7</b>
Change	1.7%	2.4%	1.7%	2.1%
<b>Limited Gaming Fund /B</b>	<b>\$102.7</b>	<b>\$104.8</b>	<b>\$107.6</b>	<b>\$110.3</b>
Change	3.4%	2.0%	2.7%	2.5%
<b>Capital Construction - Interest</b>	<b>\$5.2</b>	<b>\$4.1</b>	<b>\$3.7</b>	<b>\$4.6</b>
Change	-6.6%	-21.9%	-10.0%	24.6%
<b>Regulatory Agencies</b>	<b>\$68.8</b>	<b>\$76.1</b>	<b>\$78.2</b>	<b>\$80.5</b>
Change	4.8%	10.6%	2.8%	3.0%
<b>Insurance-Related</b>	<b>\$11.4</b>	<b>\$10.3</b>	<b>\$15.8</b>	<b>\$15.4</b>
Change	-42.7%	-10.0%	53.7%	-2.2%
<b>Severance Tax /C</b>	<b>\$18.9</b>	<b>\$51.5</b>	<b>\$156.3</b>	<b>\$163.8</b>
Change	-93.3%	172.3%	203.4%	4.8%
<b>Hospital Provider Fees /D</b>	<b>\$804.0</b>	<b>\$656.8</b>	N/A	N/A
Change	52.0%	-18.3%	N/A	N/A
<b>Other Miscellaneous Cash Funds</b>	<b>\$731.3</b>	<b>\$656.6</b>	<b>\$698.2</b>	<b>\$715.1</b>
Change	19.4%	-10.2%	6.3%	2.4%
<b>TOTAL CASH FUND REVENUE</b>	<b>\$2,927.1</b>	<b>\$2,773.9</b>	<b>\$2,294.4</b>	<b>\$2,350.5</b>
Change	5.4%	-5.2%	-17.3%	2.4%

- /A Includes revenue from Senate Bill 09-108 (FASTER) which began in FY 2009-10. Roughly 40% of FASTER-related revenue is directed to two State Enterprises. Revenue to State Enterprises is exempt from TABOR and is thus not included in the figures reflected by this table.
- /B Excludes tax revenue from extended gaming as allowed by Amendment 50 to the Colorado Constitution as this revenue is exempt from TABOR. The portion of limited gaming revenue that is exempt is projected based on the formula outlined in House Bill 09-1272.
- /C Severance tax revenue for FY 2015-16 differs from the amount reported by the State Controller's office, as the figures in Table 6 do not include the diversion of income tax revenue to pay for severance tax refunds under Senate Bill 16-218.
- /D Hospital Provider Fee revenue is reduced to zero in FY 2017-18 and FY 2018-19 as the Hospital Provider Fee is replaced with the Healthcare Affordability and Sustainability Fee pursuant to SB 17-267.

**Table 7. TABOR Revenue & Referendum C Revenue Limit**  
(Dollar Amounts in Millions)

Line No.		Actual FY 2015-16	June 2017 Estimate by Fiscal Year		
			FY 2016-17	FY 2017-18	FY 2018-19
<b>TABOR Revenues:</b>					
1	General Fund /A <i>Percent Change from Prior Year</i>	\$9,897.3 1.5%	\$10,210.5 3.2%	\$10,807.5 5.8%	\$11,298.5 4.5%
2	Cash Funds /A <i>Percent Change from Prior Year</i>	\$2,927.1 5.4%	\$2,773.9 -5.2%	\$2,294.4 -17.3%	\$2,350.5 2.4%
3	<b>Total TABOR Revenues</b> <i>Percent Change from Prior Year</i>	<b>\$12,824.4</b> 2.3%	<b>\$12,984.4</b> 1.2%	<b>\$13,101.8</b> 0.9%	<b>\$13,649.0</b> 4.2%
<b>Revenue Limit Calculation:</b>					
4	Previous calendar year population growth	1.6%	1.9%	1.7%	1.7%
5	Previous calendar year inflation	2.8%	1.2%	2.8%	2.9%
6	<b>Allowable TABOR Growth Rate</b>	4.4%	3.1%	4.5%	4.6%
7	TABOR Limit /B	\$10,427.6	\$10,689.7	\$11,170.8	\$11,684.6
8	General Fund Exempt Revenue Under Ref. C /C	\$2,396.8	\$2,294.6	\$1,931.0	\$1,964.3
9	<b>Revenue Cap Under Ref. C /B, /D</b>	<b>\$12,946.5</b>	<b>\$13,286.7</b>	<b>\$13,684.6</b>	<b>\$14,314.1</b>
10	<i>Amount Above/Below Cap</i>	-\$122.1	-\$302.3	-\$582.8	-\$665.2
11	<i>Revenue to be Refunded including Adjustments from Prior Years /E</i>	\$0.0	\$0.0	\$0.0	\$0.0
12	TABOR Reserve Requirement	\$384.7	\$389.5	\$393.1	\$409.5

- /A Amounts differ from the General Fund and Cash Fund revenues reported in Table 3 and Table 6 due to accounting adjustments and because some General Fund revenue is exempt from TABOR.
- /B The TABOR limit and Referendum C cap are adjusted to account for changes in the enterprise status of various state entities.
- /C Under Referendum C, a "General Fund Exempt Account" is created in the General Fund. The account consists of money collected in excess of the TABOR limit in accordance with voter-approval of Referendum C.
- /D The revenue limit is calculated by applying the "Allowable TABOR Growth Rate" to either "Total TABOR Revenues" or the "Revenue Cap under Ref. C," whichever is smaller. Beginning in FY 2010-11, the revenue limit is based on the highest revenue total from FY 2005-06 to 2009-10 plus the "Allowable TABOR Growth Rate." FY 2007-08 was the highest revenue year during the Referendum C timeout period. SB 17-267 reduced the Referendum C cap by \$200 million in FY 2017-18. The lower cap then grows by inflation and population growth in subsequent years.
- /E These adjustments are the result of: (a) changes that were made to State accounting records for years in which TABOR refunds occurred that resulted in changes in required refunds to taxpayers, and (b) the refund to taxpayers in previous years was different than the actual amount required. Such adjustments are held by the State until a future year in which a TABOR refund occurs when they adjust the total refund amount distributed to taxpayers.

**APPENDIX C**

**STATE OF COLORADO COMPREHENSIVE ANNUAL FINANCIAL REPORT  
FOR THE FISCAL YEAR ENDED JUNE 30, 2016**

(Pagination reflects the original printed document)

## APPENDIX D

### CERTAIN STATE ECONOMIC AND DEMOGRAPHIC INFORMATION

The following information was prepared and provided by Development Research Partners, Inc. to give prospective investors general information concerning selected economic and demographic conditions existing in Colorado as of the dates indicated. See also “INTRODUCTION – State Economic and Demographic Information.” The statistics have been obtained from the referenced sources and represent the most current information available as of June 2017 from the sources indicated; however, since certain information is released with a significant time lag, the information in some cases will not be indicative of existing or future economic and demographic conditions. Further, the reported data has not been adjusted to reflect economic trends, notably inflation. Finally, other economic and demographic information concerning the State not presented herein may be available, and prospective investors may want to review such information prior to making their investment decision. *The following information is not to be relied upon as a representation or guarantee of the State or any officer or employee of or advisor to the State.* See also “APPENDIX A – THE STATE GENERAL FUND – Revenue Estimation; OSPB Revenue and Economic Forecasts” and “APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST.”

#### Overview

Colorado, the most populous state in the Rocky Mountain region, has three distinct geographic and economic areas. The eastern half of the State consists of the eastern plains, which are flat, open and largely devoted to agriculture. The Front Range lies along the eastern base of the Rocky Mountains and contains most of the State’s metropolitan areas. The western half of the State – which includes the Rocky Mountains and the Western Slope – includes many acres of national park and forest land and significant reserves of minerals, natural gas and other resources.

The State’s population and wealth are concentrated in the Front Range, principally in four major metropolitan areas: Denver/Boulder, Colorado Springs, Fort Collins/Greeley and Pueblo. Denver, the State’s capital, is the economic center of the State and the Rocky Mountain region. About 56% of the State’s population and 62% of its jobs are located in the Denver/Boulder metropolitan area, which is a hub for transportation, communication, financial activities and professional and business services. The aerospace, bioscience and energy industries are also key contributors to economic growth in the Denver/Boulder metropolitan area and the State as a whole.

The State’s economic performance depends heavily on economic performance at the national level. See also “APPENDIX A – THE STATE GENERAL FUND – OSPB Revenue and Economic Forecasts” and “APPENDIX B – OSPB JUNE 2017 REVENUE FORECAST.”

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## Population and Age Distribution

The following table provides population figures for Colorado and the United States for the past 10 years.

	Population Estimates (as of July 1)			
	Colorado		United States	
	Population (millions)	% Change	Population (millions)	% Change
2006	4.7	1.8%	298.4	1.0%
2007	4.8	1.6%	301.2	1.0%
2008	4.9	1.7%	304.1	1.0%
2009	5.0	1.5%	306.8	0.9%
2010	5.1	1.5%	309.3	0.8%
2011	5.1	1.4%	311.7	0.7%
2012	5.2	1.4%	314.0	0.7%
2013	5.3	1.5%	316.2	0.7%
2014	5.4	1.6%	318.6	0.7%
2015	5.5	1.9%	320.9	0.7%
2016	5.6	1.8%	323.1	0.7%

Note: Figures for 2006 through 2015 are estimates. The U.S. 2016 count is an estimate, and the 2016 count for Colorado is a forecast.

Sources: Colorado Division of Local Government, State Demography Office; U.S. Census Bureau, Population Estimates Program.

The following table provides the age distribution for the most recent year available for the State's population and the population nationwide.

	Age Distribution, July 1			
	Colorado, 2016		United States, 2015	
	Population (millions)	% of total	Population (millions)	% of total
Under 18	1.30	23.4%	73.65	22.9%
18 to 24	0.55	9.8%	31.22	9.7%
25 to 44	1.52	27.4%	84.73	26.4%
45 to 64	1.44	26.0%	84.07	26.2%
65+	0.75	13.4%	47.76	14.9%
Total	5.56	100.0%	321.42	100.0%
Median Age	37.1		37.8	

Note: Totals may not add due to rounding. The U.S. 2015 count is an estimate, and the Colorado 2016 count is a forecast.

Sources: Colorado Division of Local Government, State Demography Office; U.S. Census Bureau, Population Estimates Program.

## Income

The following table provides annual per capita personal income figures for Colorado, the Rocky Mountain Region, and the United States.

	Per Capita Personal Income in Current Dollars <sup>1</sup>					
	Colorado		Rocky Mountain Region <sup>2</sup>		United States	
	Income	% Change	Income	% Change	Income	% Change
2012	\$45,089		\$41,105		\$44,282	
2013	\$46,824	3.8%	\$42,154	2.6%	\$44,493	0.5%
2014	\$49,823	6.4%	\$44,433	5.4%	\$46,464	4.4%
2015	\$50,971	2.3%	\$45,691	2.8%	\$48,190	3.7%
2016	\$52,059	2.1%	\$46,635	2.1%	\$49,571	2.9%

<sup>1</sup> Per capita personal income is total personal income divided by the July 1 population estimate.

<sup>2</sup> The Rocky Mountain Region includes Colorado, Idaho, Montana, Utah, and Wyoming.

Source: U.S. Bureau of Economic Analysis

## Employment

The following table provides labor force, total employment, and unemployment statistics for the State.

### Civilian Labor Force, Total Employment, and Unemployment Rates, Not Seasonally Adjusted

	Colorado Civilian Labor Force		Colorado Total Employment		Annual Average Unemployment Rate	
	(thousands)	% Change	(thousands) <sup>1</sup>	% Change	Colorado	United States
2012	2,757.2		2,539.9		7.9%	8.1%
2013	2,775.7	0.7%	2,586.0	1.8%	6.8%	7.4%
2014	2,810.4	1.3%	2,670.0	3.2%	5.0%	6.2%
2015	2,833.5	0.8%	2,723.0	2.0%	3.9%	5.3%
2016	2,891.0	2.0%	2,795.2	2.7%	3.3%	4.9%
Year-to-date averages through March:						
2016	2,864.6		2,754.4		3.8%	5.2%
2017	2,919.9	1.9%	2,830.6	2.8%	3.1%	4.9%

<sup>1</sup> Includes the self-employed, unpaid family workers, and other groups not included in statistics that show employment by industry.

Sources: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics; Labor Force Statistics from the Current Population Survey.

The following table shows Colorado employment by industry for the past five years. Industry designations are based on the North American Industrial Classification System. Employment includes only those workers covered by unemployment insurance; most workers in the state are covered.

Industry	Average Annual Number of Employees by Industry					Most Recent Quarter		
	2012	2013	2014	2015	2016	2015Q4	2016Q4	% Change
Private Sector								
Agriculture, Forestry, Fishing, and Hunting	14,513	14,348	14,935	15,624	16,469	15,217	16,389	7.7%
Mining	30,225	30,433	33,847	30,565	23,573	27,461	23,053	-16.1%
Utilities	8,037	7,832	8,140	8,202	8,239	8,272	8,206	-0.8%
Construction	115,753	127,597	142,140	148,638	155,139	152,118	159,147	4.6%
Manufacturing	131,978	132,691	136,216	140,831	142,381	141,837	142,769	0.7%
Wholesale Trade	94,262	96,636	99,825	103,253	104,882	104,535	105,547	1.0%
Retail Trade	243,699	249,235	254,942	263,104	269,032	271,962	276,058	1.5%
Transportation and Warehousing	59,850	62,398	65,180	67,287	68,327	68,495	70,368	2.7%
Information	69,733	69,817	70,001	70,599	71,730	70,815	71,807	1.4%
Finance and Insurance	99,754	103,136	103,623	106,344	108,970	107,772	109,935	2.0%
Real Estate and Rental and Leasing	41,895	42,849	44,497	46,944	48,707	47,935	49,506	3.3%
Professional and Technical Services	178,313	188,984	196,684	204,586	210,093	207,453	212,952	2.7%
Management of Companies and Enterprises	31,761	34,591	35,406	36,488	36,833	36,747	36,524	-0.6%
Administrative and Waste Services	145,383	148,745	154,121	157,385	158,535	159,617	160,399	0.5%
Educational Services	31,494	31,997	32,965	33,847	34,992	34,922	35,581	1.9%
Health Care and Social Assistance	246,951	250,654	261,428	275,183	287,168	280,808	291,698	3.9%
Arts, Entertainment, and Recreation	46,704	47,166	48,978	50,707	52,625	48,335	49,765	3.0%
Accommodation and Food Services	232,875	242,100	251,052	261,704	270,673	261,047	268,941	3.0%
Other Services	67,988	69,554	72,443	75,157	78,231	75,796	78,657	3.8%
Unclassified	745	1,388	2,783	1,478	759	1,031	116	-88.7%
Government	374,628	383,637	388,566	396,853	405,690	402,134	411,685	2.4%
<b>Total*</b>	<b>2,266,539</b>	<b>2,335,786</b>	<b>2,417,769</b>	<b>2,494,777</b>	<b>2,553,045</b>	<b>2,524,308</b>	<b>2,579,102</b>	<b>2.2%</b>

\* Industry employment levels may not add to total due to rounding.

Source: Colorado Department of Labor and Employment, Quarterly Census of Employment and Wages.

The following table shows the largest private sector employers in Colorado based on the most current information available as of May 2017. No independent investigation has been made, and no representation is made herein as to the financial condition of the employers listed below or the likelihood that these employers will maintain their status as major employers in the state. Employment counts for these businesses may have changed since this table was compiled, and other large employers may exist in the State that are not included in the table.

**Estimated Largest Private Sector Employers in Colorado**

<b>Employer</b>	<b>Type of Business</b>	<b>Estimated Employees<sup>1</sup></b>
Wal-Mart	General Merchandise	28,000
The Kroger Co. (King Soopers/City Market)	Supermarkets	21,600
UCHealth <sup>2</sup>	Healthcare	18,000
Centura Health	Healthcare	15,800
HealthONE Corporation	Healthcare	10,800
SCL Health System	Healthcare	8,700
Lockheed Martin Corporation	Aerospace & Defense Related Systems	8,600
Comcast Corporation	Telecommunications	8,000
Home Depot	Building Materials Retailer	8,000
Kaiser Permanente	Health Maintenance Organization	7,000
Children's Hospital Colorado	Healthcare	6,600
Target Corporation	General Merchandise	6,600
Vail Resorts	Leisure & Hospitality	6,400
Safeway Inc.	Supermarkets	7,800
Wells Fargo	Banking/Financial Services	6,000
United Airlines	Airline	5,800
United Parcel Service	Delivery Services	5,000
Banner Health	Healthcare	5,000
CenturyLink	Telecommunications	4,800
JBS Swift & Company	Beef Processing/Corporate Office	4,500
DISH Network	Satellite TV & Equipment	4,300
FedEx Corp.	Transportation, E-commerce	4,300
Walgreen Company	General Merchandise	4,300
Oracle	Software & Network Computer Systems	4,200
University of Denver	Private University	4,100

<sup>1</sup> Includes both full- and part-time employees.

<sup>2</sup> Some workers are also included in the employment count for the University of Colorado System (next table).

Source: Compiled by Development Research Partners from various sources, May 2017.

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The following table shows the largest public sector employers in Colorado based on the most current information available as of May 2017.

<b>Estimated Largest Public Sector Employers in Colorado</b>	
<b>Employer</b>	<b>Estimated Employees<sup>1</sup></b>
State of Colorado	50,900
Federal Government (except USPS)	45,000
University of Colorado System <sup>2</sup>	20,200
Denver Public Schools	13,000
City & County of Denver	12,700
Jefferson County Public Schools	11,500
U.S. Postal Service	9,900
Douglas County School District RE-1	8,100
Cherry Creek School District No 5	8,000
Colorado State University	7,200
Denver Health	7,100
Aurora Public Schools	6,300
Adams 12 Five Star Schools	4,700
Boulder Valley School District RE-2	4,200
Poudre School District R-1	4,000
Colorado Springs School District 11	3,900
St. Vrain Valley School District RE-1J	3,900
City of Aurora	3,500
Academy Schools District No 20	3,400
Jefferson County	3,100
Mesa County Valley School District 51	2,800
Regional Transportation District (RTD)	2,800
El Paso County	2,600
Arapahoe County	2,600
Greeley 6 School District	2,500

<sup>1</sup> Includes both full- and part-time employees.

<sup>2</sup> Some workers are also included in the employment count for UCHealth (previous table).

Source: Compiled by Development Research Partners from various sources, May 2017.

## Retail Sales

The following table provides recent annual sales figures as reported for state sales tax purposes.

	<b>Colorado Gross and Retail Sales</b>			
	<b>Gross Sales</b>		<b>Retail Sales</b>	
	<b>Amount (billions)</b>	<b>% Change</b>	<b>Amount (billions)</b>	<b>% Change</b>
2011	\$216.16		\$155.05	
2012	\$225.15	4.2%	\$164.57	6.1%
2013	\$240.36	6.8%	\$172.78	5.0%
2014	\$257.14	7.0%	\$182.71	5.7%
2015	\$252.49	-1.8%	\$182.85	0.1%
Year-to-date totals through February:				
2015	\$32.97		\$25.94	
2016	\$31.65	-4.0%	\$24.96	-3.8%

Source: Colorado Department of Revenue.

The following table provides retail sales totals by industry for the past five years and year-to-date.

Colorado Retail Sales by Industry (millions) and Percentage Change from Prior Year

Industry	% 2011		% 2012		% 2013		% 2014		% 2015		Year-to-date totals through February		
	Value	Change	2015	2016	Change								
Agriculture/Forestry/Fishing	411.7	22.4%	406.2	-1.3%	387.0	-4.7%	440.5	13.8%	500.6	13.6%	27.7	25.5	-8.0%
Mining	3,111.7	22.9%	3,815.6	22.6%	4,611.8	20.9%	5,573.0	20.8%	3,743.4	-32.8%	709.9	348.8	-50.9%
Utilities	7,353.2	-29.1%	7,332.9	-0.3%	7,635.7	4.1%	7,929.0	3.8%	7,612.1	-4.0%	1,453.1	1,340.5	-7.8%
Construction	2,829.3	2.6%	3,396.0	20.0%	3,531.5	4.0%	4,170.5	18.1%	4,685.8	12.4%	530.4	525.2	-1.0%
Manufacturing	15,909.3	52.6%	18,192.1	14.3%	18,747.5	3.1%	19,782.9	5.5%	15,864.8	-19.8%	2,204.8	1,807.1	-18.0%
Wholesale Trade	13,084.9	5.3%	14,012.4	7.1%	15,041.3	7.3%	15,158.8	0.8%	14,427.2	-4.8%	1,725.4	1,769.3	2.5%
<b>Retail Trade</b>													
Motor Vehicle and Auto Parts	12,986.8	15.0%	14,435.4	11.2%	15,667.7	8.5%	17,449.0	11.4%	18,995.4	8.9%	2,696.1	2,739.5	1.6%
Furniture and Furnishings	2,049.0	7.8%	2,265.5	10.6%	2,461.8	8.7%	2,653.3	7.8%	2,868.8	8.1%	396.6	436.5	10.1%
Electronics and Appliances	2,224.2	5.0%	2,077.8	-6.6%	1,998.6	-3.8%	2,258.5	13.0%	2,387.6	5.7%	323.1	326.8	1.1%
Building Materials/Nurseries	4,515.0	2.9%	4,824.6	6.9%	5,298.3	9.8%	5,926.0	11.8%	6,373.2	7.5%	776.8	824.8	6.2%
Food/Beverage Stores	14,433.2	8.0%	15,298.5	6.0%	15,729.9	2.8%	15,964.5	1.5%	16,619.2	4.1%	2,878.8	2,441.1	-15.2%
Health and Personal Care	2,712.1	7.2%	2,886.9	6.4%	3,166.1	9.7%	3,730.3	17.8%	4,384.1	17.5%	576.8	665.4	15.4%
Gas Stations	5,778.1	23.1%	6,011.1	4.0%	5,869.2	-2.4%	5,702.2	-2.8%	4,815.3	-15.6%	609.0	570.6	-6.3%
Clothing and Accessories	3,337.4	7.0%	3,510.2	5.2%	3,559.2	1.4%	3,735.3	4.9%	3,810.6	2.0%	493.3	491.9	-0.3%
Sporting/Hobby/Books/Music	2,680.6	7.8%	2,674.0	-0.2%	2,767.7	3.5%	2,920.2	5.5%	3,009.1	3.0%	430.0	472.7	9.9%
General Merchandise/Warehouse	11,722.3	5.7%	12,185.7	4.0%	12,408.3	1.8%	12,850.3	3.6%	13,073.8	1.7%	1,840.2	1,859.4	1.0%
Misc Store Retailers	2,938.6	20.0%	3,147.8	7.1%	3,752.3	19.2%	4,760.9	26.9%	5,256.5	10.4%	730.3	660.8	-9.5%
Non-Store Retailers	1,550.2	-33.7%	1,456.0	-6.1%	1,584.7	8.8%	1,697.1	7.1%	1,742.1	2.7%	247.9	234.5	-5.4%
<b>Total Retail Trade</b>	<b>66,927.7</b>	<b>5.6%</b>	<b>70,773.7</b>	<b>5.7%</b>	<b>74,263.5</b>	<b>4.9%</b>	<b>79,647.7</b>	<b>7.3%</b>	<b>83,335.5</b>	<b>4.6%</b>	<b>11,999.1</b>	<b>11,724.0</b>	<b>-2.3%</b>
Transportation/Warehouse	593.1	12.1%	710.2	19.8%	828.4	16.6%	978.3	18.1%	931.3	-4.8%	103.5	119.5	15.4%
Information	6,321.8	-8.2%	6,242.2	-1.3%	5,789.3	-7.3%	5,449.8	-5.9%	5,413.0	-0.7%	806.2	758.7	-5.9%
Finance/Insurance	3,085.9	-3.8%	3,130.7	1.5%	2,493.2	-20.4%	1,689.9	-32.2%	2,668.7	57.9%	166.1	390.6	135.1%
Real Estate/Rental/Lease	3,154.3	8.2%	3,240.7	2.7%	3,561.7	9.9%	4,172.9	17.2%	4,389.0	5.2%	700.1	702.8	0.4%
Professional/Scientific/Technical	6,768.8	3.3%	6,818.2	0.7%	7,474.7	9.6%	6,966.6	-6.8%	6,929.3	-0.5%	784.0	705.7	-10.0%
Admin/Support/Waste/Remediation	1,882.7	3.3%	1,866.1	-0.9%	2,044.5	9.6%	2,070.8	1.3%	2,245.9	8.5%	234.7	247.9	5.6%
Education	487.1	1.5%	490.8	0.8%	478.1	-2.6%	481.6	0.7%	490.5	1.9%	62.6	60.8	-2.9%
Health Care/Social Assistance	6,222.6	3.7%	6,318.5	1.5%	6,827.2	8.1%	7,240.1	6.0%	6,896.1	-4.8%	1,099.5	902.8	-17.9%
Arts/Entertainment/Recreation	987.2	3.3%	1,036.6	5.0%	1,104.4	6.5%	1,169.9	5.9%	1,337.8	14.4%	184.4	206.2	11.8%
Accommodation	3,014.9	10.9%	3,199.2	6.1%	3,375.6	5.5%	3,747.8	11.0%	4,043.4	7.9%	629.9	653.3	3.7%
Food/Drinking Services	8,876.4	6.5%	9,474.1	6.7%	9,976.8	5.3%	10,858.9	8.8%	11,615.6	7.0%	1,785.0	1,902.3	6.6%
Other Services	3,763.6	5.5%	3,867.8	2.8%	4,359.0	12.7%	4,926.4	13.0%	5,441.9	10.5%	699.6	726.7	3.9%
Government	268.2	2.2%	244.5	-8.8%	252.6	3.3%	254.8	0.8%	273.4	7.3%	38.4	39.6	3.0%
<b>Total All Industries</b>	<b>155,054.2</b>	<b>8.0%</b>	<b>164,568.4</b>	<b>6.1%</b>	<b>172,784.0</b>	<b>5.0%</b>	<b>182,710.0</b>	<b>5.7%</b>	<b>182,845.3</b>	<b>0.1%</b>	<b>25,944.3</b>	<b>24,957.1</b>	<b>-3.8%</b>

Source: Colorado Department of Revenue.

## Tourism

The following table provides visitor counts for the State's national parks and major recreation areas, Denver area convention attendance figures, and visitor counts for Colorado ski areas.

Colorado Tourism Statistics										
National Parks Visits <sup>1</sup>			Conventions <sup>2</sup>						Skier Visits <sup>3</sup>	
			Conventions		Delegates		Spending			
Number	%		Number	%	Number	%	Amount	%	Number	%
(millions)	Change		Change	(thousands)	Change	(millions)	Change	(millions)	Change	
2012	5.81		98		266.1		\$530.1		11.02	
2013	5.39	-7.2%	84	-14.3%	265.7	-0.2%	\$529.3	-0.2%	11.45	3.9%
2014	6.03	11.8%	76	-9.5%	289.3	8.9%	\$576.3	8.9%	12.60	10.1%
2015	7.08	17.3%	73	-3.9%	236.8	-18.1%	\$546.6	-5.2%	12.54	-0.5%
2016	7.46	5.4%	66	-9.6%	242.7	2.5%	\$543.4	-0.6%	13.39	6.8%

<sup>1</sup> Count of recreational visitors for all of the State's National Parks Service territories, which include national parks, monuments, historic sites, and recreation areas.

<sup>2</sup> Includes only those conventions booked by VISIT DENVER and held at the Colorado Convention Center.

<sup>3</sup> Count of skier visits for the season ending in the referenced year.

Sources: National Parks Service; VISIT DENVER, The Convention and Visitor's Bureau; Colorado Ski Country USA; Vail Resorts, Inc.

## Residential Housing Starts

The following table provides a five-year history of the State's residential building permit issuance.

### New Privately Owned Housing Units Authorized in Colorado

	1 Unit	2 Units	3 & 4 Units	5+ Units	Total Building Permits	% Change
2012	12,617	304	97	10,283	23,301	72.6%
2013	15,772	408	148	11,189	27,517	18.1%
2014	17,104	532	146	10,916	28,698	4.3%
2015	20,025	334	287	11,225	31,871	11.1%
2016	21,577	556	242	16,599	38,974	22.3%

Year-to-date totals through April:

2016	6,820	48	76	3,284	10,228	
2017	7,462	112	66	5,641	13,281	
% change	9.4%	133.3%	-13.2%	71.8%	29.8%	

Source: U.S. Census Bureau.

## Residential Foreclosures

The following table provides a five-year history of foreclosure filings and sales in Colorado. The foreclosure filing is the event that begins the foreclosure process. In general, a borrower who is at least three months delinquent will receive a filing notice from the Public Trustee for the county in which the property is located. At this point, the property is in foreclosure.

Because a foreclosure filing can be cured or withdrawn before the home is sold at auction, not all filings result in foreclosure sales. Foreclosure sales at auction generally proceed between 110 and 125 days after the initial filing. Once a foreclosure sale is completed, the eviction process begins.

### Foreclosure Filings and Sales in Colorado

	Foreclosure Filings <sup>1</sup>		Foreclosure Sales at Auction	
	Count	% Change	Count	% Change
2012	28,579	-10.6%	15,903	-18.9%
2013	15,333	-46.3%	9,318	-41.4%
2014	11,235	-26.7%	6,003	-35.6%
2015	8,241	-26.6%	4,209	-29.9%
2016	7,666	-7.0%	3,128	-25.7%

<sup>1</sup> Some filings may have been subsequently cured or withdrawn and may not have resulted in sales at auction.

Source: Colorado Division of Housing.

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## APPENDIX E

### STATE PENSION SYSTEM

*The information included in this Appendix is based on information compiled and presented in the Public Employees' Retirement Association ("PERA") Comprehensive Annual Financial Report for the Plan Year ended December 31, 2016 (the "PERA 2016 CAFR"). The PERA 2016 CAFR was prepared by PERA staff employees and the firm of Cavanaugh Macdonald Consulting, LLC, PERA's independent actuary, and audited by CliftonLarsonAllen LLP, PERA's independent public accounting firm. The valuations and other assessments of PERA constitute forward looking information as described in the preliminary notices in this Official Statement because they are based on assumptions about future events. The assumptions underlying the valuations and assessments may prove to be inaccurate and may be changed by PERA and its representatives and consultants to reflect actual results and future projections as additional information becomes available. The State takes no responsibility for the accuracy, validity or completeness of such information, valuations and assessments. The PERA 2016 CAFR is not incorporated in this Official Statement by reference or otherwise, and the State makes no representations regarding the accuracy of the information in the PERA 2016 CAFR.*

The information in the State's Fiscal Year 2015-16 CAFR regarding PERA is derived from the PERA Comprehensive Annual Financial Report for the Plan Year ended December 31, 2015, while the information in this Official Statement regarding PERA is derived from the PERA 2016 CAFR. PERA implemented GASB Statement No. 67, "Financial Reporting for Pension Plans – An Amendment of GASB Statement No. 25" ("GASB 67"), beginning with the PERA Comprehensive Annual Financial Report for the Plan Year ended December 31, 2014, as discussed in "Implementation by PERA of GASB 67" below. See also "Implementation of Changes in Pension Accounting Standards Applicable to the State – GASB 68" in this appendix.

#### **General Description**

**Overview.** The State of Colorado, like most other state and local governments, provides post-employment benefits to its employees based on their work tenure and earnings history. By statute, the State created PERA, which administers cost-sharing, multiple-employer defined benefit plans to provide retirement, death and disability benefits through the State Division Trust Fund (generally for State employees) (the "State Division"), the School Division Trust Fund (for employees of school districts), the Local Government Division Trust Fund (for employees of numerous municipalities and other local governmental entities), the Judicial Division Trust Fund (for judges in the State) and the Denver Public Schools Division (for employees of DPS). The defined benefit plan for the State Division is referred to herein as the "State Division Plan."

As described in more detail under the caption "Funding of the State Division Plan" below, the State Division Plan is funded with payments made by the State and by each employee, the amounts of which are determined and established by statute. Benefits provided through the State Division Plan are paid from the State Division Trust Fund. State employees hired after 2005 may, in lieu of participating in the State Division Plan, elect to participate in a defined contribution plan (the "State Division DC Plan") which is also administered by PERA. However, the majority of State employees participate in the State Division Plan. The State has no obligation to make contributions or fund benefits in Divisions other than the State Division and Judicial Division of PERA. See Notes 1 and 8 to the financial statements in the PERA 2016 CAFR for a discussion of the membership in the State Division Plan and the State Division DC Plan, respectively. See also Management's Discussion and Analysis and Notes 18, 19 and 20 to the financial statements in the State's Fiscal Year 2015-16 CAFR appended to this Official Statement for a description of the State Division Plan and the State Division DC Plan.

Because the majority of State employees participate in the State Division Plan and not in the State Division DC Plan, and the number of judges employed by the State that participate in the Judicial Division is relatively small in comparison to the number of other State employees, the disclosure in “DEBT AND CERTAIN OTHER FINANCIAL OBLIGATIONS – Pension and Post-Employment Benefits” in the body of this Official Statement and in this Appendix relates only to the State Division Plan.

The State does not participate in the federal Old-Age, Survivors and Disability Insurance (Social Security) program.

**PERA.** PERA is a legal entity created by statute in 1931 that is separate from the State as further described in Article 51 of Title 24, C.R.S. (the “PERA Act”). Management of PERA is vested in a 16-member Board of Trustees (the “PERA Board”). PERA has fiduciary responsibility for several separate divisions, including the State Division, the School Division, the Local Government Division, the Judicial Division and the Denver Public Schools Division. The State represents the majority, but not all, of the State Division employers and employees. Each Division operates as a separate legal trust. PERA also operates two cost-sharing, multiple-employer post-employment benefit plans through the Health Care Trust Fund and the Denver Public Schools Health Care Trust Fund that provide health care premium subsidies to participating PERA benefit recipients who choose to enroll in one of PERA’s health care plans. PERA’s financial statements, which include all of its Divisions and trusts, may be obtained by writing to PERA at P.O. Box 5800, Denver, Colorado 80217-5800, by calling the PERA Infoline at 1-800-759-7372 or by visiting <http://www.copera.org>. *The reference to PERA’s website is included herein for informational purposes only, and information available on such website or in PERA’s financial statements, or any other information provided by PERA, is not incorporated in this Official Statement by reference or otherwise, nor does the State make any representations regarding the accuracy of any such information.*

### **Basic Provisions of the State Division Plan**

Members of the State Division Plan who meet minimum age and service requirements are eligible to receive a monthly retirement benefit based on their employment and earnings history with the State. Calculation of retirement benefits, and eligibility requirements, differ depending on the employee’s original hire date. In response to funding challenges, the General Assembly has enacted changes to State Division Plan benefits at various times. Some of such changes have been applied prospectively to newly hired employees. As a result, there are several tiers of employee benefits and related provisions that are based on employee hire dates and other factors. See Notes 18, 19 and 20 to the financial statements in the State’s Fiscal Year 2015-16 CAFR appended to this Official Statement, the PERA 2016 CAFR and the PERA Act for a discussion of eligibility requirements and the various tiers of benefits under the State Division Plan. See also the Statistical Section of the PERA 2016 CAFR for various statistics regarding members, retirees, survivors and benefit payments for the State Division Plan.

### **Implementation by PERA of GASB 67**

In 2012, GASB issued Statement No. 67, “Financial Reporting for Pension Plans – An Amendment of GASB Statement No. 25” (“GASB 67”), which establishes new standards for financial reporting and note disclosure by defined benefit pension plans administered through qualified trusts, and note disclosure requirements for defined contribution pension plans administered through qualified trusts. GASB 67 is effective for accounting periods beginning after June 15, 2013, and, accordingly, PERA implemented GASB 67 beginning with its Comprehensive Annual Financial Report for the Plan Year ended December 31, 2014.

The objective of GASB 67 as stated therein is to improve financial reporting by state and local governmental pension plans. The requirements of GASB 67 are intended to improve financial reporting primarily through enhanced note disclosures and schedules of required supplementary information. A related statement, GASB Statement No. 68, “Accounting and Financial Reporting for Pensions,” applies

to governmental employers and was implemented by the State in the State's Fiscal Year 2014-15 CAFR appended to this Official Statement. See "Implementation of Changes in Pension Accounting Standards Applicable to the State – GASB 68" below.

GASB 67 establishes a shift in financial disclosure requirements from a funding-based approach to an accounting-based approach. Implementation of GASB 67 requires the preparation of two actuarial valuations, one for funding purposes and one for accounting and financial disclosure purposes. The purpose of the funding valuation is to guide the PERA Board's actions necessary to ensure the long-term sustainability of PERA's trust funds. The funding valuation aids this action by allowing PERA to assess the sufficiency of the current statutory contribution rates and analyze the sufficiency of future contributions to meet current and future benefit obligations. The actuarial valuation for accounting purposes emphasizes the obligation an employer incurs to employees through the employment-exchange process. The primary purpose of the valuation for accounting purposes is to provide a consistent, standardized methodology that allows comparability of amounts and increased transparency of the pension liability across U.S. pension plans complying with this new reporting standard. To accomplish this, GASB 67 requires a different approach for determining net pension liability as compared to the previously disclosed unfunded actuarial accrued liability<sup>1</sup>, or "UAAL." Net pension liability is to be measured as the total pension liability<sup>2</sup> of the plan less the amount of the plan's fiduciary net position<sup>3</sup>.

Another major change in the new standard is the rate used to discount projected benefit payments. The new standard states the long-term expected rate of return on the investments of the plan should be applied only to available plan assets that are expected to be invested using a strategy to achieve that return. If there comes a point in the projections when plan fiduciary net position and contributions related to active and inactive employees are no longer projected to be greater than or equal to projected benefit payments related to those employees and administrative expenses (crossover point), then from that point forward the plan will be required to discount the projected benefit payments after the crossover point using a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale).

GASB 67 also enhances the standards for footnote disclosure and required supplementary information for pension plans, including, among other things, disclosing the plan's net pension liability, ratio of fiduciary net position to total pension liability and actuarial methods and assumptions.

### **Actuarial Valuations**

Many of the measures used to determine and evaluate the financial condition and funding status of the State Division Plan are based on actuarial valuations. An actuarial valuation is the determination, as of the actuarial valuation date, of the service cost, total pension liability and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by GASB. Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

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<sup>1</sup> Actuarial accrued liability ("AAL") is the excess of the present value of a pension fund's total of future benefits (payable to the plan participants) and fund administration expenses over the present value of the future normal cost of those benefits. Unfunded actuarial accrued liability is the difference between the AAL and the valuation assets of the fund.

<sup>2</sup> Total pension liability is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of plan member service in conformity with the requirements of GASB 67. For purposes of application to the requirements of GASB 67, AAL is the equivalent of total pension liability.

<sup>3</sup> Fiduciary net position equals assets plus deferred outflows of resources and less liabilities and deferred inflows of resources at the end of the plan's reporting period.

The actuarial valuations for each of PERA's defined benefit plans, including the State Division Plan, were prepared by PERA's actuaries as of December 31, 2016, based on a set of actuarial methods and assumptions that by State law are the responsibility of the PERA Board. The valuations for the State Division Plan examine the assets of the Plan compared to actuarial liabilities, compare past and future trends and determine the net pension liability of the Plan. The actuarial valuation for funding purposes applies an asset valuation method that recognizes a four-year smoothed market value of assets for purposes of determining the UAAL, while the actuarial valuation for accounting and financial reporting purposes applies the fair value of assets (determined in conformity with GASB standards) to determine the net pension liability. See the Actuarial Section of the PERA 2016 CAFR for a discussion of other actuarial methods and assumptions used in the actuarial valuations of the State Division Plan.

The PERA 2016 CAFR states that the PERA Board studies all economic and demographic actuarial assumptions at least every five years and approves changes to those assumptions. Recently, the PERA Board has reviewed the economic assumptions on a more frequent basis. The PERA Board last completed an experience study in 2016, and the next experience study is planned in 2020.

No assurance can be given that any of the assumptions underlying the actuarial valuations of the State Division Plan will reflect the actual results experienced by the Plan. Variances between the assumptions and actual results may cause an increase or decrease in the actuarial value of Plan assets, the net pension liability of the Plan and other valuation and performance measures determined on the basis of such actuarial valuations.

### **Funding of the State Division Plan**

***Statutorily Required Contributions.*** The State Division Plan is funded with payments made by the State and by each eligible employee as provided in the PERA Act. The State's contributions to the Plan are based on percentages of employee wages and are set by statute. These contribution percentages are referred to herein as the statutorily required contribution, or "SRC," of the State. The baseline SRC that is made by the State for most State employees is 10.15% of the employee's salary. The State has consistently contributed the full amount of the SRC to the State Division Plan. See Note 18 and the Required Supplementary Information to the State's Fiscal Year 2015-16 CAFR appended to this Official Statement for a summary of the SRC percentages payable, and percentage amount of the SRC paid, by the State for the last three Fiscal Years, as well as total PERA plan contributions made by the State for each of the past ten Fiscal Years.

As required by statute, State employees contribute 8.0% (except for State Troopers and Colorado Bureau of Investigation officers, who contribute 10%) of their wages to the State Division Plan, although per SB 10-001, for Fiscal Years 2010-11 and 2011-12 the employee contribution percentage was increased to 10.5% of the employee's wages. The 2.5% increase in contribution percentage by employees offset a 2.5% reduction in the State contribution for those Fiscal Years. The employee contribution rates reverted to pre-Fiscal Year 2010-11 levels effective July 1, 2012, and the State returned to paying the 10.15% SRC.

The General Assembly enacted legislation in 2004, 2006 and 2010 to gradually increase employer contributions to the State Division Plan by authorizing the Amortization Equalization Disbursement, or "AED," and the Supplemental Amortization Equalization Disbursement, or "SAED," in order to shorten the amount of time over which the unfunded liability of the Plan is amortized. Both the AED and the SAED are paid by the State as contributions to the State Division Plan as a percentage of employee wages, but the SAED payment comes from moneys that would otherwise have been used to provide market-based salary increases to employees. The AED applicable to the State Division Plan was effective as of January 1, 2006, and was initially payable at the rate of 0.5% of total covered payroll, with annual increases in the contribution rate through 2017. The AED rate applicable to the State Division Plan was 4.2% in 2015, 4.6% in 2016 and is 5.0% in 2017. The SAED applicable to the State Division Plan was effective as of January 1, 2008, and was also initially payable at the rate of 0.5% of total covered payroll, with annual increases in the contribution rate through 2017. The SAED rate applicable to the State Division Plan was 4.0% in 2015, 4.5% in 2016 and is

5.0% in 2017. The total SRC applicable to the State Division Plan currently equals to 20.15% of employee wages. See Note 18 to the State's Fiscal Year 2015-16 CAFR appended to this Official Statement and Note 4 to the financial statements in the PERA 2016 CAFR for a further discussion of the AED and SAED.

Changes to the statutorily required contributions to the State Division Plan by the State and its employees, or to other provisions of the Plan, could be made by the General Assembly through future legislative action, which changes could impact the SRC, the funding status and/or the financial condition of the Plan as described herein. The State cannot predict if or when any such legislative changes might be enacted or the impact that any such changes, if enacted, might have on the State Division Plan or the State's funding obligations with respect to the Plan.

*Because the State's annual contributions with respect to the State Division Plan are set by statute and funded in the State's annual budget, such contributions are not affected in the short term by changes in the actuarial valuation of Plan assets or the funded ratio of the Plan. Any changes in the SRC would require legislative action by the General Assembly. See also "Funding Status of the State Division Plan" below.*

While PERA has a pension funding policy as discussed in "*Change in PERA Funding Policy*" hereafter, the State does not have a formal or established policy or procedure for managing its pension liability. PERA annually provides a briefing to State officials and members of the General Assembly as to the status of the State Division Plan and occasionally may pursue legislation pertaining to changes in contribution and/or benefit provisions in furtherance of PERA's funding policy. Legislative proposals to modify the contributions, benefits, eligibility and other provisions of the State Division Plan also are introduced in the General Assembly from time to time independent of a request therefor from PERA.

The SRC is paid from the State General Fund as well as from certain federal funds and State cash funds and is typically paid from the same funding source as the employee's salary and other benefits. Although the rate of the SRC is set by statute, payment of the SRC nevertheless is subject to annual appropriation through the State budgeting process as described in "STATE FINANCIAL INFORMATION – Budget Process and Other Considerations" in the body of this Official Statement.

***Actuarially Determined Contribution.*** As a result of the shift in financial disclosure requirements under GASB 67 from a funding-based approach to an accounting-based approach, the historical disclosure and use of the annual required contribution<sup>1</sup>, or "ARC," as a funding benchmark by PERA is no longer required. Rather, this philosophical shift necessitates the development and use of a plan-specific actuarially determined contribution ("ADC") benchmark against which to gauge the adequacy of the SRC for the State Division Plan. The ADC represents the amount needed to fund benefits over time, and constitutes a target or recommended employer contribution for the reporting period determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted. An ADC deficiency arises when actual employer contributions are less than the ADC, and interest accrues on the ADC deficiency at the plan's expected long-term rate of return. See "*Historical ADC and State Contributions*" below.

***Change in PERA Funding Policy.*** In response to the new GASB 67 standards, the PERA Board adopted a revised pension funding policy in March 2015 with regard to its trust funds to update and replace the prior funding policy dated November 2007. The purpose of the revised funding policy, as stated in the PERA 2016 CAFR, is to: (i) define the overall funding benchmarks of PERA's defined benefit pension trust funds; (ii) assess the adequacy of the contribution rates which are set by the General Assembly by

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<sup>1</sup> Prior to 2014, PERA used the annual required contribution, or ARC, as a funding benchmark against which to gauge the adequacy of the SRC for the State Division Plan. The ARC is the actuarially determined amount that would be required if the State were to fund each year's normal cost (*i.e.*, the present value of the benefits that the State Division Plan projects to become payable in the future that are attributable to a valuation year's payroll) in the State Division Plan plus an annual amortization of the UAAL assuming that the UAAL will be fully funded over a maximum 30-year period. The difference between the ARC and the SRC constitutes either a contribution deficiency or excess contributions. For historical information regarding the ARC, see PERA's Comprehensive Annual Financial Report for calendar year 2013.

comparing these rates to an ADC rate; and (iii) define the annual actuarial metrics that will assist the PERA Board in assessing the sustainability of the plan. The results of these three items are intended to guide the PERA Board when considering whether to pursue or support proposed legislation pertaining to changes in plan contribution and/or benefit provisions. See “*Statutorily Required Contributions*” above.

**Historical ADC and State Contributions.** The following table sets forth for each of the years 2007-2016 (i) the ADC for the State Division Plan, (ii) the annual contribution deficiency and (iii) the actual contribution as a percentage of covered employee payroll. The State annually contributes the full amount of the SRC to the State Division Plan; however, these amounts have been less than the applicable ARC or ADC. During this period the State has not made any contributions to the State Division Plan in excess of the SRC.

The ADC rates, as a percentage of pensionable payroll, used to determine the ADC amounts in Table 1 below are calculated as of December 31 two years prior to the end of the year in which the ADC amounts are reported. The following actuarial methods and assumptions (from the December 31, 2014, actuarial valuation) were used to determine contribution rates reported in the table for the year ended December 31, 2016: (i) the actuarial cost method is based on the entry age of participants; (ii) the Plan’s UAAL is amortized as a level percent of payroll, on a closed, layered basis over a 30-year period; (iii) for valuation purposes the actuarial value of assets is based on gains and losses smoothed in over a four-year period as permitted by GASB standards; (iv) price inflation is assumed to be 2.80%; (v) real wage growth is assumed to be 1.10%; (vi) salary increases (including assumed wage inflation of 3.90%) are projected to range from 3.90% to 10.85%; (vii) the long-term investment rate of return (net of pension plan investment expense, including price inflation) is assumed to be 7.50%; and (viii) cost of living adjustments for pre-2007 hires are assumed to be 2.00% per year and cost of living adjustments for post-2006 hires are assumed to be financed by the Annual Increase Reserve described in footnote 2 to the table. Other assumptions include, without limitation, future retiree participation and contribution rates and mortality rates. For further information, see Note 3 to the required supplementary information for the Division trust funds and the Actuarial Section in the PERA 2016 CAFR.

**Table 1**  
**Employer Contributions**  
**State Division**  
(Dollar Amounts in Thousands)

<u>Calendar Year</u>	<u>ADC Rate<sup>1</sup></u>	<u>Covered Employee Payroll</u>	<u>Annual Increase Reserve Contribution<sup>2</sup></u>	<u>ADC Contribution<sup>3</sup></u>	<u>Contributions in Relation to the ADC</u>	<u>Annual Contribution Deficiency</u>	<u>Actual Contribution as a Percentage of Covered Employee Payroll</u>
2016	22.31%	\$2,710,651	\$12,838	\$617,584	\$521,804	\$ 95,780	19.25%
2015	22.35	2,641,867	11,400	601,857	484,005	117,852	18.32
2014	20.45	2,564,670	9,984	534,459	444,372	90,087	17.33
2013	20.01	2,474,965	--	495,241	393,218	102,023	15.89
2012	16.52	2,384,934	--	393,991	328,055	65,936	13.76
2011	13.63	2,393,791	--	326,274	277,122	49,152	11.58
2010	18.93	2,392,080	--	452,821	282,640	170,181	11.82
2009	17.91	2,384,137	--	426,999	293,234	133,765	12.30
2008	18.45	2,371,639	--	437,567	267,533	170,034	11.28
2007	17.23	2,236,518	--	385,352	231,909	153,443	10.37

<sup>1</sup> See the discussion preceding this table regarding the actuarial methods and assumptions used in determining the ADC rates.

<sup>2</sup> The Annual Increase Reserve, or “AIR,” was established in 2007 and is used to provide post-retirement benefit increases for members hired on or after January 1, 2007. The AIR is financed by an allocation from employer statutory contributions made on behalf of such members equal to 100% of pensionable payroll and through an allocation of purchase of service dollars. For further information see the PERA 2016 CAFR.

<sup>3</sup> The ADC contribution equals the sum of (i) the ADC rate times the covered employee payroll, plus (ii) the AIR.

Source: PERA 2016 CAFR

The Management's Discussion and Analysis in the PERA 2016 CAFR states that, using the funding policy approved by the PERA Board in March 2015 and the 2015 actuarial funding valuation based on an assumed 7.50% investment rate of return and discount rate, the 2017 ADC for the State Division Fund needed to meet the layered, 30-year closed amortization period will be 22.71%, and that using such funding policy and the 2016 actuarial funding valuation based on an assumed 7.25% investment rate of return and discount rate, the 2018 ADC for the State Division Fund needed to meet the layered, 30-year closed amortization period will be 26.30%.

For historical information regarding employer contributions based on the ARC, see PERA's Comprehensive Annual Financial Report for calendar year 2013 and Note 18B to the State's Fiscal Year 2015-16 CAFR appended to this Official Statement.

### **Funding Status of the State Division Plan**

The State Division Plan currently is significantly underfunded. As discussed in "Funding of the State Division Plan – *Statutorily Required Contributions*" above, the AED and SAED were implemented in 2006 and 2008, respectively, and other changes were made to the Plan design by SB 10-001, all in an effort to improve the funding status of the State Division Plan. In addition, investment returns on Plan assets have recently decreased following the negative effects of the global economic downturn that began in 2008. The actuarial assumptions as to the investment rate of return on Plan assets and the discount rate on actuarially accrued liabilities were lowered by the PERA Board from 8.50% to 8.00% in 2009, from 8.00% to 7.50% at the end of 2013 and from 7.50% to 7.25% as of December 31, 2017, and other economic assumptions, including the amortization period, have been changed over this period as well, to reflect actual results and new estimates about the future. For further information, see Management's Discussion and Analysis in the State's Fiscal Year 2015-16 CAFR appended to this Official Statement, as well as Management's Discussion and Analysis, Note 10 to the financial statements, Note 2 to the required supplementary information for the Division trust funds and the Actuarial Section in the PERA 2016 CAFR.

The PERA 2016 CAFR reports that at December 31, 2016, the actuarial value of assets of the State Division Plan was approximately \$14.0 billion and the AAL of the Plan was approximately \$25.7 billion, resulting in a UAAL of approximately \$11.6 billion and a funded ratio (*i.e.*, the actuarial value of Plan assets divided by the AAL) of only 54.6%. This UAAL would amortize over a 65-year period based on contribution rates as of the date of calculation (*i.e.*, contributions equal to the SRC) and future increases in the AED and SAED, as well as an investment rate of return and discount rate for actuarially accrued liabilities of 7.25%.

The actuarial value of assets of the State Division Plan is determined by using an asset valuation method of smoothing the difference between the market value of assets and the actuarial value of assets over a four-year period to prevent extreme fluctuations that may result from short-term or cyclical economic and market conditions. Accordingly, the full effect of recent fluctuations in assets of the State Division Plan as a result of economic and market conditions is not reflected in the funded ratio. Based on the market value of assets of the State Division Plan, the PERA 2016 CAFR reports that at December 31, 2016, the UAAL of the Plan was approximately \$12.1 billion and the funded ratio was 52.7%.

Table 2 below sets forth for each of the years 2007-2016 the UAAL, the funded ratio and related information for the State Division Plan based on the actuarial value of Plan assets, and Table 3 below sets forth such information based on the market value of Plan assets.

The total pension liability for the State Division Plan was determined by actuarial valuations as of December 31, 2015, and accepted actuarial procedures were applied to roll forward the total pension liability to December 31, 2016. When calculating the AAL of the State Division Plan in Tables 2 and 3 below, the following actuarial methods, assumptions and inputs, among others, were used: (i) price

inflation is assumed to be 2.40%; (ii) real wage growth is assumed to be 1.10%; (iii) salary increases (including assumed wage inflation of 3.50%) are projected to range from 3.50% to 9.17%; (iv) the long-term investment rate of return (net of pension plan investment expense, including price inflation) and discount rate are assumed to be 7.25%; and (v) cost of living adjustments for pre-2007 hires are assumed to be 2.00% per year compounded annually, and cost of living adjustments for post-2006 hires are assumed to be financed by the AIR. Other assumptions include, without limitation, future retiree participation and contribution rates and mortality rates. For further information, see Note 10 to the financial statements and the Actuarial Section in the PERA 2016 CAFR.

**Table 2**  
**Historical Funding Progress of State Division Plan**  
**Actuarial Value of Plan Assets**  
(Dollar Amounts in Thousands)

<b>Valuation Date (December 31)</b>	<b>Actuarial Value of Plan Assets<sup>1</sup></b>	<b>Actuarial Accrued Liability (AAL)</b>	<b>Unfunded Actuarial Accrued Liability (UAAL)</b>	<b>Funded Ratio</b>	<b>Employer Payroll</b>	<b>UAAL as Percentage of Employer Payroll</b>
2016	\$14,026,332	\$25,669,916	\$11,643,584	54.6%	\$2,710,651	429.5%
2015	13,882,820	24,085,671	10,202,851	57.6	2,641,867	386.2
2014	13,523,488	23,408,321	9,884,833	57.8	2,564,670	385.4
2013	13,129,460	22,843,725	9,714,265	57.5	2,474,965	392.5
2012	12,538,675	21,191,495	8,652,820	59.2	2,384,934	362.8
2011	12,010,045	20,826,543	8,816,498	57.7	2,393,791	368.3
2010	12,791,946	20,356,176	7,564,230	62.8	2,392,080	316.2
2009	13,382,736	19,977,217	6,594,481	67.0	2,384,137	276.6
2008	13,914,371	20,498,668	6,584,297	67.9	2,371,369	277.7
2007	14,220,681	19,390,296	5,169,615	73.3	2,236,518	231.1

<sup>1</sup> The actuarial value of Plan assets is based on gains and losses smoothed in over a four-year period as permitted by GASB standards.

Source: PERA 2016 CAFR

**Table 3**  
**Historical Funding Progress of State Division Plan**  
**Market Value of Plan Assets**  
(Dollar Amounts in Thousands)

<b>Valuation Date (December 31)</b>	<b>Market Value of Plan Assets<sup>1</sup></b>	<b>Actuarial Accrued Liability (AAL)</b>	<b>Unfunded Actuarial Accrued Liability (UAAL)</b>	<b>Funded Ratio</b>	<b>Employer Payroll</b>	<b>UAAL as Percentage of Employer Payroll</b>
2016	\$13,538,772	\$25,669,916	\$12,131,144	52.7%	\$2,710,651	447.5%
2015	13,391,398	24,085,671	10,694,273	55.6	2,641,867	404.8
2014	13,956,630	23,408,321	9,451,691	59.6	2,564,670	368.5
2013	13,935,754	22,843,725	8,907,971	61.0	2,474,965	359.9
2012	12,766,459	21,191,495	8,425,036	60.2	2,384,934	353.3
2011	12,001,770	20,826,543	8,824,773	57.6	2,393,791	368.7
2010	12,487,105	20,356,176	7,869,071	61.3	2,392,080	329.0
2009	11,611,758	19,977,217	8,365,459	58.1	2,384,137	350.9
2008	10,508,301	20,498,668	9,990,367	51.3	2,371,369	421.3
2007	14,852,029	19,390,296	4,538,267	76.6	2,236,518	202.9

<sup>1</sup> The market value of Plan assets is the fair value of the assets determined in conformity with GASB standards. See the Investment Section of the PERA 2016 CAFR.

Source: PERA Comprehensive Annual Financial Reports for calendar years 2006 through 2015

Since contribution rates to the State Division Plan are fixed by statute, unless changes are made to such rates or changes are made to Plan provisions to reduce benefit payments, improvements in the funding status of the State Division Plan are expected to come primarily from increases in investment returns on Plan assets or changes in the actuarial assumptions used to determine the value of Plan assets and the AAL. Changes to contribution rates or other Plan provisions, or the use of alternative Plan funding strategies, would require legislative action by the General Assembly, of which there can be no assurance.

### Fiduciary Net Position of the State Division Plan

The Statement of Fiduciary Net Position of the State Division Plan as of December 31, 2016, is included in PERA's basic financial statements set forth in the Financial Section of the PERA 2016 CAFR. The following table sets forth for each of the years 2007-2016 the changes in fiduciary net position of the State Division Plan.

**Table 4**  
**Changes in Fiduciary Net Position**  
**State Division**  
(Cash Basis; Dollar Amounts in Thousands)

	For the Year Ended December 31,									
	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<b>ADDITIONS</b>										
Employer contributions	\$ 521,804	\$ 484,005	\$ 444,372	\$ 401,658	\$ 335,073	\$ 283,222	\$ 287,624	\$ 297,240	\$ 270,353	\$ 232,997
Member contributions	223,005	217,980	211,610	202,799	227,058	258,678	223,240	194,168	191,481	179,971
Purchased service	24,528	26,946	22,446	22,241	16,358	11,277	12,496	8,830	13,315	8,259
Net investment income (loss)	947,981	210,337	780,762	1,931,658	1,511,244	232,669	1,553,142	1,742,571	(3,745,843)	1,388,265
Other	8,708	5,023	3,289	4,869	150	331	1	3	7	4
Total additions	1,726,026	944,291	1,462,479	2,563,225	2,089,883	786,177	2,076,503	2,242,812	(3,270,687)	1,809,496
<b>DEDUCTIONS</b>										
Benefit payments	1,483,828	1,417,862	1,352,293	1,295,780	1,231,922	1,174,707	1,122,435	1,071,725	999,279	925,761
Refunds	60,137	63,567	61,152	68,735	69,221	70,090	68,844	58,416	56,716	56,578
Disability insurance premiums	2,106	2,088	2,309	2,229	1,570	1,685	1,661	2,004	1,794	1,833
Administrative expenses	11,271	10,779	10,067	9,780	8,568	8,685	8,942	8,729	8,639	6,963
Other	3,040	3,406	3,171	3,593	3,911	(4,546)	(726)	(1,519)	6,613	7,592
Total deductions	1,560,382	1,497,702	1,428,992	1,380,117	1,315,192	1,250,621	1,201,156	1,139,355	1,073,041	998,727
Change in fiduciary net position	165,644	(553,411)	33,487	1,183,108	774,691	(464,444)	875,347	1,103,457	(4,343,728)	810,769
Fiduciary net position held at beginning of year	13,460,536	14,013,947	13,980,460	12,797,352	12,022,661	12,487,105	11,611,758	10,508,301	14,852,029	14,041,260
Fiduciary net position held at end of year	\$13,626,180	\$13,460,536	\$14,013,947	\$13,980,460	\$12,797,352	\$12,022,661	\$12,487,105	\$11,611,758	\$10,508,301	\$14,852,029

Source: PERA 2016 CAFR

### Net Pension Liability of the State Division Plan

As noted above, GASB 67 requires a different approach for determining net pension liability as compared to the previously disclosed UAAL, and also requires disclosing the plan's net pension liability and ratio of fiduciary net position to total pension liability. The schedule of net pension liability presents multi-year trend information about whether the fiduciary net position is increasing or decreasing over time relative to total pension liability.

The following table sets forth for the years 2013-2016 (the only years for which information is available) the net pension liability and related information regarding the State Division Plan. The required supplemental information in the PERA 2016 CAFR includes a schedule showing the sources of the changes in net pension liability for 2014-2016 (information for 2013 is not available). See also "Implementation of Changes in Pension Accounting Standards Applicable to the State – GASB 68" hereafter.

**Table 5**  
**Net Pension Liability**  
**State Division<sup>1</sup>**  
(Dollar Amounts in Thousands)

	<b>For the Year Ended December 31,</b>			
	<u><b>2016</b></u>	<u><b>2015</b></u>	<u><b>2014</b></u>	<u><b>2013</b></u>
Total pension liability <sup>2</sup>	\$31,994,311	\$23,991,569	\$23,420,461	\$22,888,431
Plan fiduciary net position	<u>13,626,180</u>	<u>13,460,536</u>	<u>14,013,947</u>	<u>13,980,460</u>
Net pension liability	<u>\$18,368,131</u>	<u>\$10,531,033</u>	<u>\$ 9,406,514</u>	<u>\$ 8,907,971</u>
Net pension liability as a percentage of total pension liability	42.59%	56.11%	59.84%	61.08%
Covered employee payroll	\$ 2,710,651	\$ 2,641,867	\$ 2,564,670	\$ 2,474,965
Net pension liability as a percentage of covered employee payroll	677.63%	398.62%	366.77%	359.92%

<sup>1</sup> Information for years prior to 2013 is not available.

<sup>2</sup> The total pension liability for the State Division was determined by actuarial valuations as of December 31, 2015, and accepted actuarial procedures were applied to roll-forward the total pension liability to December 31, 2016. The actuarial valuations as of December 31, 2016, used the key actuarial methods, assumptions or other inputs discussed in “Funding Status of the State Division Plan” above, except that the fair value of assets, rather than a four-year smoothed market value of assets, was used to determine the net pension liability.

Source: PERA 2016 CAFR

### **Investment of State Division Plan Assets**

State law authorizes the investment of PERA’s funds by the PERA Board, subject to the following limitations:

- The aggregate amount of investment trust shares, corporate stocks, corporate bonds and convertible debentures cannot exceed 65% of the book value of the fund.
- Neither common nor preferred stock of a single corporation can exceed 5% of the book value of the fund.
- The fund cannot acquire more than 12% of the outstanding stocks or bonds of a single corporation.

See Note 5 to the financial statements and the Investment Section of the PERA 2016 CAFR for additional discussion of PERA’s investment responsibilities and investment policies.

### **Implementation of Changes in Pension Accounting Standards Applicable to the State – GASB 68**

GASB Statement No. 68, “Accounting and Financial Reporting for Pensions” (“GASB 68”) is a GASB pronouncement that is related to GASB 67 and applicable to governmental entities, such as the State, that provide their employees with pension benefits. GASB 68 is effective for fiscal years beginning after June 15, 2014, and accordingly has been implemented beginning with the State’s Fiscal Year 2014-15 CAFR. GASB 68 revises and establishes new financial reporting requirements for governmental entities, and, among other things, requires cost-sharing employers participating in defined benefit plans to record their proportionate share of the unfunded pension liability. PERA reports that the State Division had a UAAL of approximately \$9.7 billion as of December 31, 2013, \$9.9 billion as of December 31, 2014, \$10.2 billion as of December 31, 2015, and \$11.6 billion as of December 31, 2016.

The State reported a liability in the State’s Fiscal Year 2015-16 CAFR of approximately \$10.3 billion, consisting of approximately \$10.1 billion for the State Division and \$0.2 billion for the Judicial Division) at June 30, 2016, for its proportionate share of the net pension liability, compared to a reported liability in the State’s Fiscal Year 2014-15 CAFR of approximately \$9.1 billion, consisting of approximately

\$9.0 billion for the State Division and \$0.1 billion for the Judicial Division) at June 30, 2015, for its proportionate share of the net pension liability. The amounts presented for each Division were determined as of the calendar year-end that occurred within the Fiscal Year. See also Note 18C to the State's Fiscal Year 2015-16 CAFR appended to this Official Statement for a description of the methodology utilized to determine these amounts.

There is a difference between the net pension liability for the State reported by PERA and the State in their respective financial statements. The difference results from PERA's inclusion of employers in the State Division and the Judicial Division which are not included in the State's financial statement reporting entity. The PERA Board has statutory authority to assign employers to the State Division and Judicial Division that are not part of the State's financial statement reporting entity as defined by GASB Statement No. 14, as amended by GASB Statements No. 39 and 61. Examples of these employers in the State Division include Pinnacle Insurance, Fire and Police Pension Association and District Attorneys. Denver County Courts is the only Judicial Division employer that is not part of the State's financial statement reporting entity. The State includes in its financial statements a percentage of the net pension liability reported by PERA in its financial statements for each Division to determine the State's proportionate share in accordance with requirements of GASB 68. Additional information concerning the State's reporting entity can found in Note 3 to the State's Fiscal Year 2015-16 CAFR appended to this Official Statement, and additional information concerning the proportionate share calculation can be found in Note 18C of the State's Fiscal Year 2015-16 CAFR.

The State's proportionate share of the net pension liability at the end of Fiscal Years 2013-14 through 2015-16 in accordance with requirements of GASB 68 is set forth in the following table.

**Table 6**  
**State's (Primary Government's) Proportionate**  
**Share of the Net Pension Liability<sup>1</sup>**  
(Amounts in Thousands)

	<u>Fiscal Year 2015-16</u>		<u>Fiscal Year 2014-15</u>		<u>Fiscal Year 2013-14</u>	
	<u>State Division</u>	<u>Judicial Division</u>	<u>State Division</u>	<u>Judicial Division</u>	<u>State Division</u>	<u>Judicial Division</u>
State's proportion of the net pension liability (asset)	95.71%	93.98%	95.85%	93.60%	95.86%	93.44%
State's proportionate Share of Net Pension liability (asset)	\$10,079,249	\$172,828	\$9,015,773	\$129,500	\$8,539,181	\$102,756
State's covered-employee payroll	\$2,717,027	\$51,896	\$2,530,865	\$50,596	\$2,476,598	\$46,957
State's proportionate share of the net pension liability (assets) as a percentage of its covered-employee payroll	370.97%	333.03%	356.23%	255.95%	344.79%	218.83%
Plan fiduciary net position as a percentage of the total pension liability	127.82%	150.82%	148.98%	201.98%	156.94%	252.48%

<sup>1</sup> The amounts presented for each Fiscal Year were determined as of the calendar year-end that occurred within the Fiscal Year and were calculated as described in Note 18C to the Financial Statements and Note RSI-2 to the Required Supplementary Information in the State's Fiscal Year 2015-16 CAFR appended to this Official Statement.

Source: State Fiscal Year 2015-16 CAFR

A ten year history of the State's contribution to PERA for the State and Judicial Divisions is also included in Note RSI-2 to the Required Supplementary Information in the State's Fiscal Year 2015-16 CAFR appended to this Official Statement. See also "Overall Financial Position and Results of Operations" in the Management's Discussion and Analysis, the introduction to Notes 1-7 and Notes 18-20 to the Financial Statements in the State's Fiscal Year 2015-16 CAFR.

### Effect of Pension Liability on the Series 2017A Notes

The Series 2017A Notes are short-term obligations maturing on June 27, 2018. Therefore, the State's current pension liability is not expected to adversely affect the State's ability to pay the Series 2017A Notes. See also the discussion of the State's pension liability in Management's Discussion and

Analysis in the State's Fiscal Year 2015-16 CAFR appended to this Official Statement, and particularly the section thereof captioned "CONDITIONS EXPECTED TO AFFECT FUTURE OPERATIONS – Pension Plan Contributions."

\* \* \*

## APPENDIX F

### DTC BOOK-ENTRY SYSTEM

The information in this Appendix concerning DTC and DTC's book-entry system has been obtained from DTC and contains statements that are believed to describe accurately DTC, the method of effecting book-entry transfers of securities distributed through DTC and certain related matters, but the State takes no responsibility for the accuracy or completeness of such statements. Beneficial Owners should confirm the following information with DTC or the DTC Participants.

*None of the State, the State Treasurer, the Deputy State Treasurer, the Chief Financial Officer of the Department of the Treasury, the State Controller or the Financial Advisor has any responsibility or obligation to any Beneficial Owner with respect to (i) the accuracy of any records maintained by DTC or any DTC Participant, (ii) the distribution by DTC or any DTC Participant of any notice that is permitted or required to be given to the Owners of the Series 2017A Notes under the Authorizing Resolution, (iii) the payment by DTC or any DTC Participant of any amounts received under the Authorizing Resolution with respect to the Series 2017A Notes, (iv) any consent given or other action taken by DTC or its nominee as the owner of Series 2017A Notes or (v) any other related matter.*

DTC will act as securities depository for the Series 2017A Notes. The Series 2017A Notes 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 Series 2017A Note certificate, in the aggregate principal amount of the Series 2017A Notes, will be issued and deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934, as amended. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has an S&P 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 <http://www.dtcc.com> and <http://www.dtc.org>. The State undertakes no responsibility for and makes no representations as to the accuracy or the completeness of the content of such material contained on such websites as described in the preceding sentence, including, but not limited to, updates of such information or links to other internet sites accessed through the aforementioned websites.

Purchases of Series 2017A Notes under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2017A Notes on DTC's records. The ownership interest of each Beneficial Owner is in turn recorded on the records of Direct and Indirect Participants. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial

Owner entered into the transaction. Transfers of ownership interests in the Series 2017A Notes are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Series 2017A Notes except in the event that use of the book-entry system for the Series 2017A Notes is discontinued.

To facilitate subsequent transfers, all Series 2017A Notes deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co. or such other name as may be requested by an authorized representative of DTC. The deposit of Series 2017A Notes 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 Series 2017A Notes; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2017A Notes 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 Series 2017A Notes may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Series 2017A Notes, such as redemptions, defaults and proposed amendments to the Authorizing Resolution. For example, Beneficial Owners of Series 2017A Notes may wish to ascertain that the nominee holding the Series 2017A Notes for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of the notices be provided directly to them.

Neither DTC nor Cede & Co. (nor such other DTC nominee) will consent or vote with respect to the Series 2017A Notes unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the issuer 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 Series 2017A Notes are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payments with respect to the Series 2017A Notes 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 State or the State Treasurer on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participants and not of DTC, the paying agent or the State, subject to any statutory or regulatory requirements as may be in effect from time to time. Payments with respect to the Series 2017A Notes to Cede & Co., or to such other nominee as may be requested by an authorized representative of DTC, is the responsibility of the State or the paying 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 Series 2017A Notes at any time by giving reasonable notice to the State. Under such circumstances, in the event that a successor securities depository is not obtained, Series 2017A Note certificates are required to be printed and delivered to the appropriate Owners of the Series 2017A Notes.

The State may at any time decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository) with respect to the Series 2017A Notes. In that event, Series 2017A Note certificates will be printed and delivered to DTC.

\* \* \*

## APPENDIX G

### FORM OF OPINION OF BOND COUNSEL

SHERMAN & HOWARD L.L.C.  
DENVER, COLORADO

Treasurer of the State of Colorado  
200 E. Colfax Avenue  
Room 140  
State Capitol Building  
Denver, Colorado 80203

State of Colorado  
General Fund Tax and Revenue Anticipation Notes  
Series 2017A

Ladies and Gentlemen:

We have acted as bond counsel to the Treasurer of the State of Colorado (the “Treasurer”) in connection with the issuance of the “State of Colorado, General Fund Tax and Revenue Anticipation Notes, Series 2017A” in the aggregate principal amount of \$600,000,000 (the “Notes”) pursuant to the resolution of the Treasurer (the “Resolution”) adopted and approved on July 11, 2017. In such capacity, we have examined the certified proceedings relating to the Notes and such other documents and such law of the State of Colorado (the “State”) and of the United States of America as we have deemed necessary to render this opinion letter. Capitalized terms not otherwise defined herein shall have the meanings ascribed to them in the Resolution.

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

Based upon such examination, it is our opinion as bond counsel that:

1. The State is duly created and validly existing as a body corporate and politic with the power to issue the Notes and perform its obligations contained therein.
2. The Notes are valid and binding special, limited obligations of the State, enforceable against the State in accordance with their terms, payable solely from the Pledged Revenues, as provided in the Notes and the Resolution.
3. Pursuant to the Funds Management Act of 1986, part 9 of article 75 of title 24, Colorado Revised Statutes, as amended, the Resolution creates a valid lien on the Note Payment Account and the Pledged Revenues deposited therein for the security of the Notes, to the extent provided in the Notes and the Resolution and subject to the rights of the owners of Additional Notes, if any. Except as described in this paragraph, we express no opinion regarding the priority of the lien on the Pledged Revenues and on the Note Payment Account created by the Resolution.
4. Interest on the Notes (a) is excluded from gross income under federal income tax laws pursuant to Section 103 of the Internal Revenue Code of 1986, as amended to the date hereof (the “Tax

Code”), (b) is excluded from alternative minimum taxable income as defined in Section 55(b)(2) of the Tax Code, except that such interest is required to be included in calculating the “adjusted current earnings adjustment” applicable to corporations for purposes of computing the alternative minimum taxable income of corporations, and (c) is excluded from Colorado taxable income and Colorado alternative minimum taxable income under Colorado income tax laws in effect as of the date hereof. The opinions expressed in this paragraph assume continuous compliance with the covenants and representations contained in the certified proceedings relating to the Notes and in certain other documents and certain other certifications furnished to us.

The opinions expressed in this opinion letter above are subject to the following:

The obligations of the State pursuant to the Notes and the Resolution are subject to the application of equitable principles, to the reasonable exercise in the future by the State of the police power inherent in the sovereignty of the State and to the exercise by the United States of America of the powers delegated to it by the Federal Constitution, including, without limitation, bankruptcy powers.

In this opinion letter issued in our capacity as bond counsel, we are opining only upon those matters set forth herein, and we are not opining upon the accuracy, adequacy or completeness of the Official Statement or any other statements made in connection with any offer or sale of the Notes or upon any other federal or state tax consequences arising from the receipt or accrual of interest on or the ownership or disposition of the Notes, except those specifically addressed herein.

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

Respectfully submitted,

\* \* \*