STATE OF COLORADO
OFFICE OF THE TREASURER
The Honorable Dave Young

COLORADO TREASURER'S 4TH ANNUAL REPORT

STATE INSTITUTIONS OF HIGHER EDUCATION
FISCAL YEAR 2019/2020

September 1, 2019

STATE OF COLORADO
DEPARTMENT OF THE TREASURY

The Honorable Dave Young
State Treasurer

Eric Rothaus
Deputy Treasurer

September 1, 2019

Colorado Capital Development Committee
Colorado Commission on Higher Education
Colorado Joint Budget Committee
Colorado Office of State Planning and Budgeting

200 East Colfax Ave.
Denver, CO 80203

Colleagues:

The Colorado Treasurer's Office submits this report to comply with Colorado Revised Statutes (C.R.S.) section 23-5-139. According to the statute, this report addresses the fiscal health of Colorado's Higher Education Institutions ("institution(s)") as it relates to outstanding debt and debt service costs. Specifically, this report will show:

1. The most recent credit rating of each institution that has issued either intercept or stand-alone bonds,
2. The debt service coverage ratio for each institution that has issued either intercept or stand-alone bonds,
3. The total amount of all intercept and stand-alone bonds issued by each institution.

Additionally, this report also serves as the communication mechanism to show which institutions qualify for pre-approval of the State of Colorado's intercept program. Colorado law directs the Treasurer's Office to calculate a pre-approval amount for qualifying institutions using the two different methods outlined in statute and then establishing the pre-approved amount at the "lesser of" the two methods. The first calculation is the difference between seventy-five percent of the most recent fiscal year's general fund appropriations for stipends and fee-for-service contracts that are re-appropriated to such governing board and the total annual debt service payments for intercept bonds of such governing board. The second method allows for "the total amount of additional revenue bonds a governing board could issue while maintaining the requirements set forth in subparagraph (II) of paragraph (b) of this subsection (1)", a reference to debt service coverage of not less than 1.5x. Pre-approvals were then calculated assuming a thirty-year amortization at a 2.56% interest rate, the "AA" rated Municipal Market Data tax-exempt index rate as of August 1, 2019 plus a 50 basis points as a "cushion" for interest rate movements over the course of the fiscal year.

This is the fourth such report the State Treasurer's Office has submitted. Our office always solicits feedback regarding the previous report and makes changes in accordance with that feedback.

It was brought to our attention the timing of this report does not align with when the higher education institutions in question submit their audited financial statements. The result of this misalignment is that this report communicates the outstanding debt profile from one year and revenue available for debt service from a different year. This generally understates debt coverage ratio for a higher education institution. To rectify this issue going forward, the legislature could consider changing the due date of this report to a time after audited financial figures are available from each higher education institution.

The information presented in this report is believed to be accurate and up to date. However, some of the rating data for a few of institutions is older than that of other institutions. New ratings are typically updated when an institution is seeking new debt. Please use caution when comparing some datasets.

Finally, this report represents much time and effort among the contributors. The Colorado Treasurer's Office would like to thank Amanda Bickel of the Joint Budget Committee Staff, Kori Donaldson of the Capitol Development Committee Staff, Steph Chichester and Nick Taylor of North Slope Capital, Lori Ann Knutson from the Attorney General's Office, for their help and guidance in preparing this report. We'd also like to thank the Chief Financial Officers, and their staff, from the higher education institutions who helped edit and refine the figures used in this report. Specifically, we would like to thank Laura Glatt, Brad Baca, Heather Heersink, Steve Schwartz, George Middlemist, Todd Saliman, Dan Wilson, Chuck Cook, Lynn Johnson, Margaret Henry, Mark Superka, Kirsten Volpi and Michelle Quinn.

Sincerely,

David L. Young
State Treasurer

Table of Contents

Executive Summary

The following institutions are measured as to whether they met the statutory requirements to participate in the intercept program. If all requirements are met, the pre-approval amount is included as well.

Institution:	Adams State University Colorado	Colorado Community College System	Colorado Mesa University	Colorado School of Mines	Colorado State University
Ratings Requirement Met	✓	✓	✓	✓	✓
Coverage Ratio Requirement Met	✓	✓	✓	✓	✓
State Funding % Requirement Met	✓	✓	✓	✓	✓
Pre-Approval Amount	$139,585,657	$613,765,204	$174,957,681	$114,081,419	$1,192,332,985

Institution:	Fort Lewis College	MSU Denver	CU	University of Northern Colorado	Western Colorado University
Ratings Requirement Met	✓	✓	✓	✓	✗
Coverage Ratio Requirement Met	✓	✓	✓	✓	✓
State Funding % Requirement Met	✓	✓	✓	✓	✓
Pre-Approval Amount	$76,971,883	$643,924,284	$3,417,085,893	$433,454,719	$10,836,158*

*Pre-approved amount if the University were to receive a rating in the "A" category.

Ratings

Section 23-5-139 of the Colorado Revised Statutes requires the Treasurer's Office to confirm that an institution participating in the intercept program carries a "credit rating in one of the three highest categories, without regard to modifiers with a category, from at least one nationally recognized statistical rating organization[.]"

There are three nationally recognized statistical rating organizations from which a credit rating can be obtained: Moody's, Standard and Poors, and Fitch. Below are the most recent ratings available for each institution. **However, not each institution has been rated recently and their financial situation may have changed since their last rating.** Please reference "Institution Profiles" for the last date an institution was rated.

The three highest categories for Moody's, S&P, and Fitch are Aaa/Aa/A, AAA/AA/A, and AAA/AA/A, respectively.

Institution	Moody's	S&P	Fitch
Adams State College	A3 (Negative)	N/A	N/A
Colorado Community College System	Aa3 (Stable)	N/A	N/A
Colorado Mesa University	A2 (Stable)	N/A	N/A
Colorado School of Mines	A1 (Stable)	A+ (Negative)	N/A
Colorado State University	Aa3 (Stable)	A+ (Stable)	N/A
Fort Lewis College	A2 (Negative)	N/A	N/A
Metropolitan State University	A1 (Stable)	A (Negative)	N/A
University of Colorado	Aa1 (Stable)	Withdrawn	AA+ (Stable)
University of Northern Colorado	A3 (Stable)	A- (Stable)	N/A
Western Colorado University	Baa1 (Stable)	Withdrawn	N/A

Institutions Meeting the Rating Requirement	Institutions Not Meeting the Rating Requirement

Debt Service Coverage Ratio and Outstanding Debt

The debt service coverage ratio is measured by "dividing the governing board's net revenue available for annual debt service over such governing board's total amount of annual debt service[.]" §23-5-139(1)(b)(II)(B), C.R.S. The statute requires a ratio of "at least one and one-half to one" to be eligible for the intercept program.

The following is the calculated outstanding debt, service coverage, and their respective ratios.

Institution	Adams State University	Colorado Community College System	Colorado Mesa University	Colorado School of Mines	Colorado State University
FY2019 Debt Service-All Outstanding Bonds	$2,418,778	$9,664,726	$12,607,232	$18,864,014	$74,248,359
FY2019 Debt Service-Intercept Bonds	$2,129,028	$2,701,186	$10,824,592	$11,270,124	$55,291,113
Debt Service Coverage Ratio ("DSCR"): FY 2018 Net Pledged Revenues	$6,975,335	$29,214,758	$26,103,376	$47,768,000	$172,105,899
DSCR-All	**2.88x**	**3.02x**	**2.07x**	**2.53x**	**2.32x**
DSCR-Inter.	**3.28x**	**10.82x**	**2.41x**	**4.24x**	**3.11x**

Institution	Fort Lewis College	Metropolitan State University	University of Colorado	University of Northern Colorado	Western Colorado University
FY2019 Debt Service-All Outstanding Bonds	$3,974,262	$11,439,432	$131,087,337	$10,232,639	$6,643,232
FY2019 Debt Service-Intercept Bonds	$2,756,894	$7,040,217	$0	$9,499,641	$6,643,232
Debt Service Coverage Ratio ("DSCR"): FY 2018 Net Pledged Revenues	$7,807,126	$32,600,012	$1,262,253,000	$42,341,621	$10,224,691
DSCR-All	**1.96x**	**2.85x**	**9.63x**	**4.14x**	**1.54x**
DSCR-Inter.	**2.83x**	**4.63x**	**N/A**	**4.46x**	**1.54x**

Institutions Meeting the Ratio Requirement	Institutions Not Meeting the Ratio Requirement
Adams State University Colorado Colorado Community College System Colorado Mesa University Colorado School of Mines Colorado State University Fort Lewis College MSU Denver CU University of Northern Colorado Western Colorado University	

Debt Service as a Percentage of State Funding

The institutions in question receive funding through various mechanisms. The state supplies funding to institutions directly through the Colorado Opportunity Fund ("COF") and fee for service. The amount of intercept debt service owed by any institution in any year cannot be more than 75% of the combined amount of the COF and fee for service. §23-5-139(1)(b)(I), C.R.S.

Below is each institution's intercept debt service amount as a percentage of state funding.

Institution	State Funding Amount	FY2019 Intercept Debt Service Amount	Percentage of Debt Service Amount to State Funding
Adams State College	$15,834,361	$2,129,028	13.45%
Colorado Community College System	$172,072,046	$2,701,186	1.57%
Colorado Mesa University	$29,474,193	$10,824,592	36.73%
Colorado School of Mines	$22,873,493	$11,270,124	49.27%
Colorado State University	$154,858,072	$55,291,113	35.70%
Fort Lewis College	$13,053,096	$2,756,894	21.12%
Metropolitan State University	$58,343,983	$7,040,217	12.07%
University of Colorado	$218,505,019	$0	0.00%
University of Northern Colorado	$42,492,726	$9,499,641	22.36%
Western Colorado University	$14,043,348	$6,643,232	47.31%

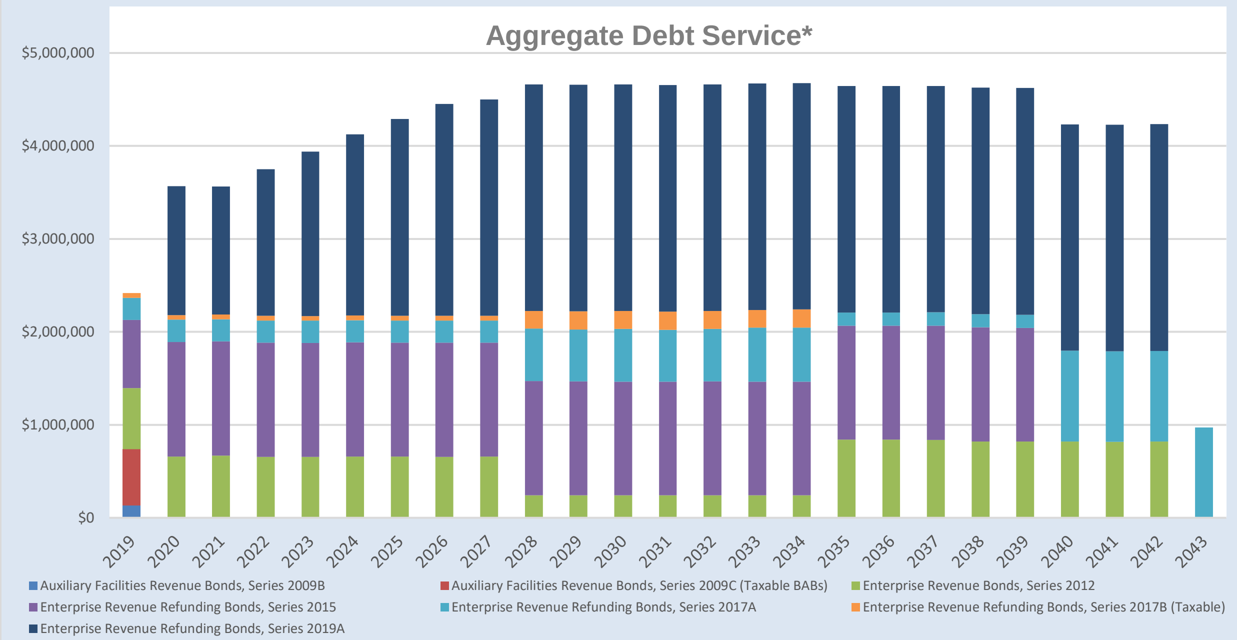
Institutions Meeting the Percentage Requirement	Institutions Not Meeting the Percentage Requirement

Institution Profiles

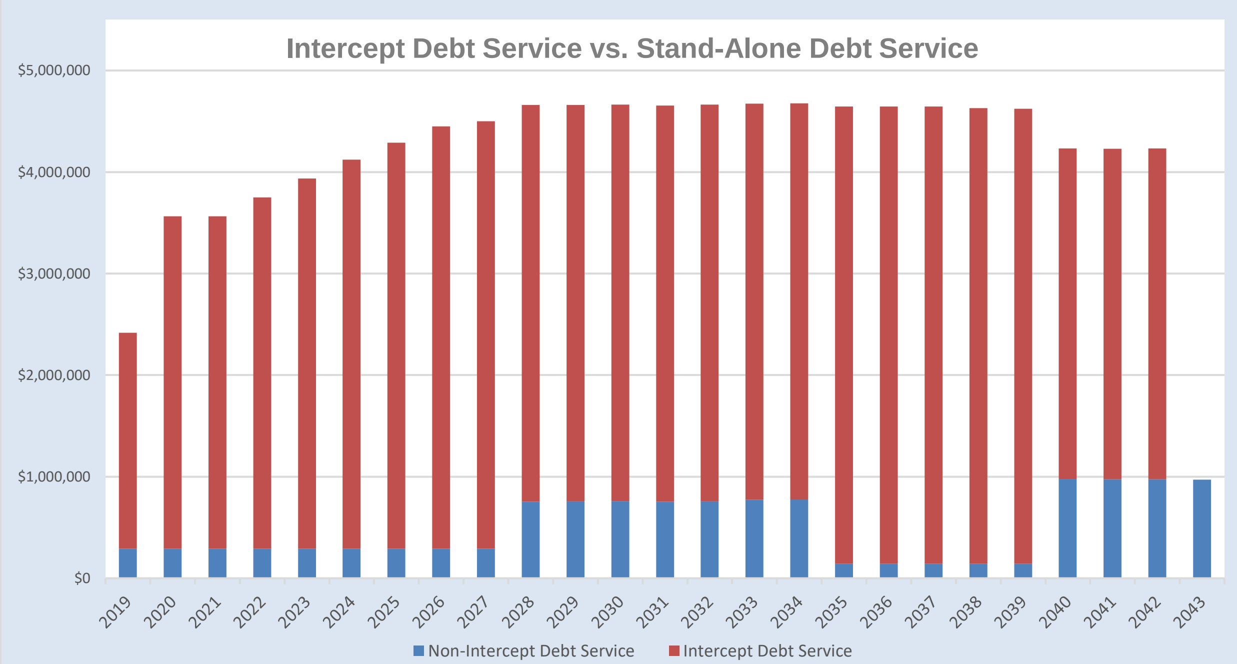
Click the logo to view the profile.

Adams State College

Location: Alamosa
Agency Ratings: A3, N/A, N/A*
Last Rated by Agency: April 2019
Pre-Approved for Intercept? Yes
Pre-Approval Amount: $139,585,657



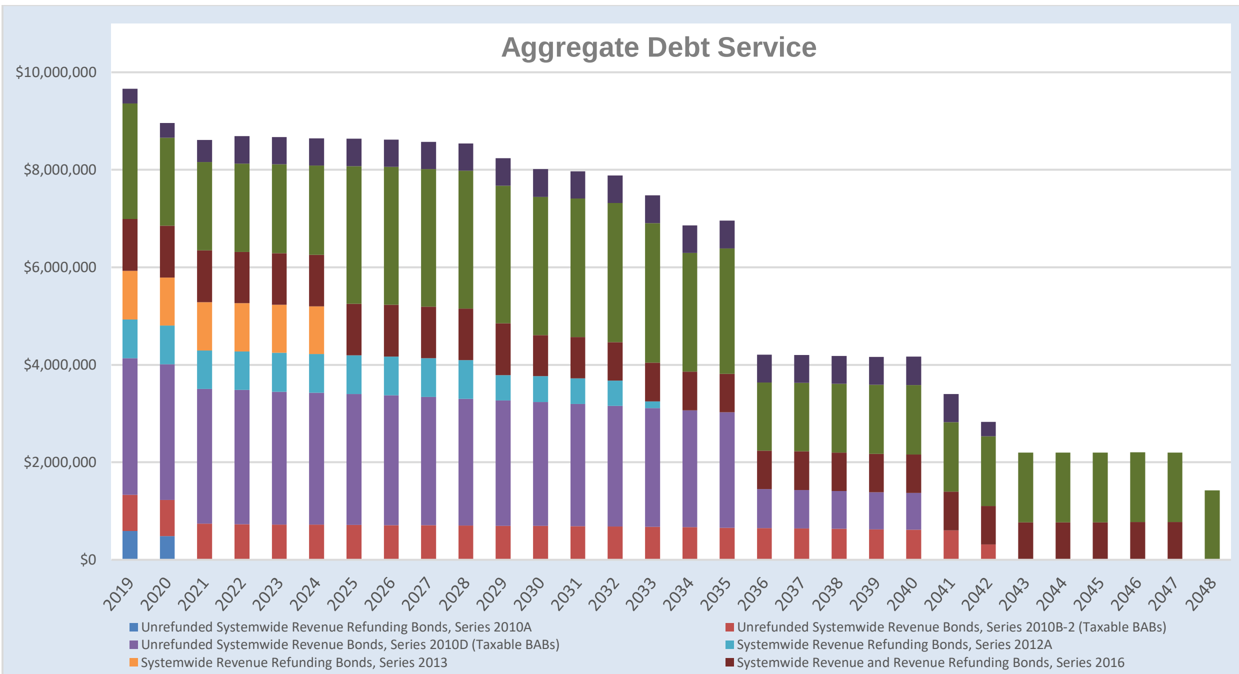
*Interest Rate Subsidy Pledged to Series 2009C Bondholders. Debt Service shown as net of BABs subsidy.

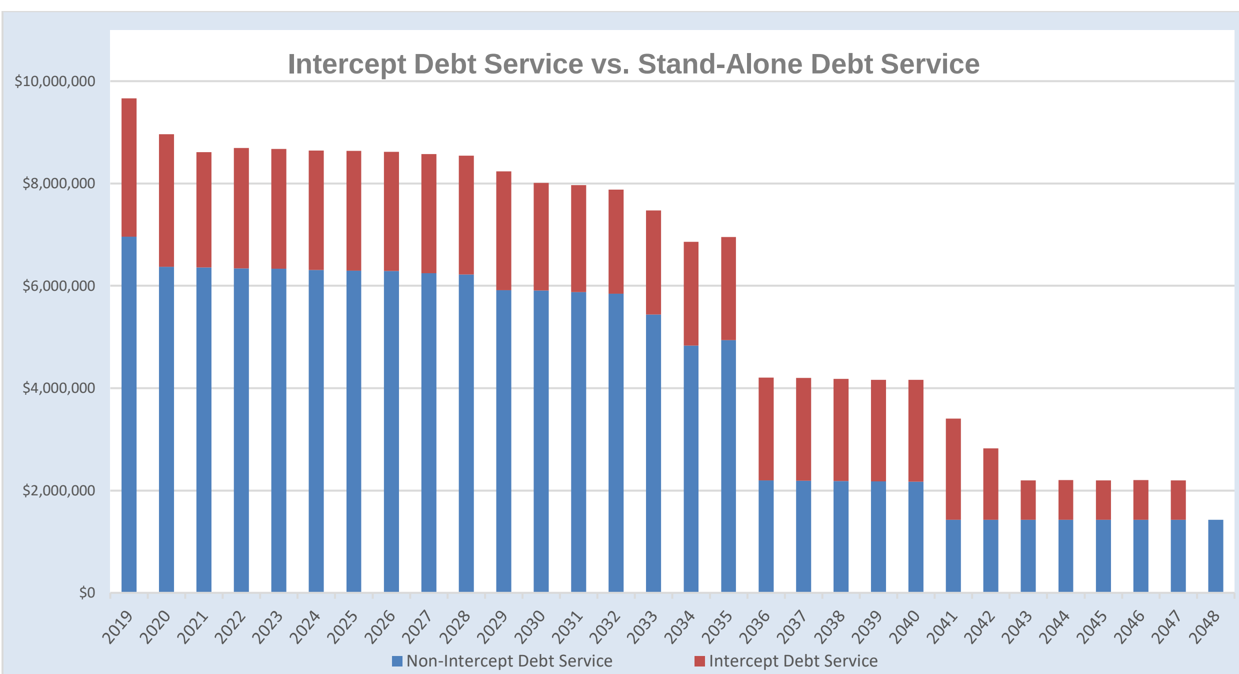


**Ratings are displayed in order of Moody's, S&P, and Fitch*

Colorado Community College System

Location: Various
Agency Ratings: Aa3, N/A, N/A
Last Rated by Agency: August 2019
Pre-Approved for Intercept? Yes
Pre-Approval Amount: $613,765,204

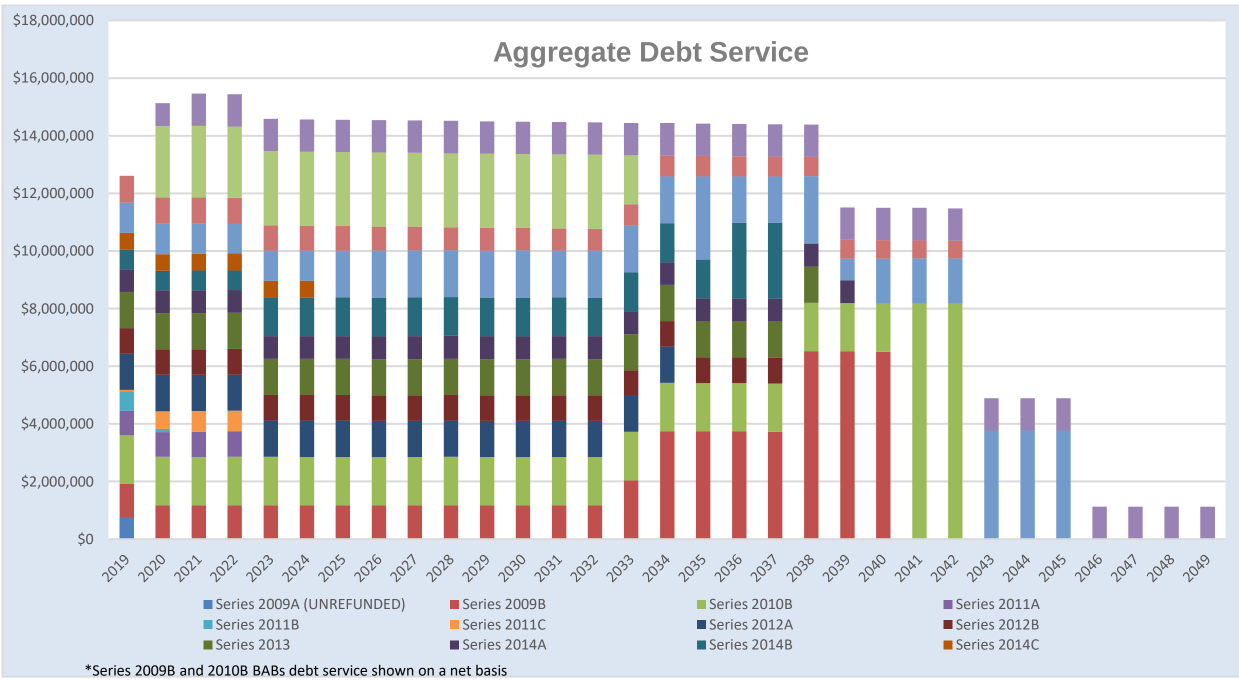


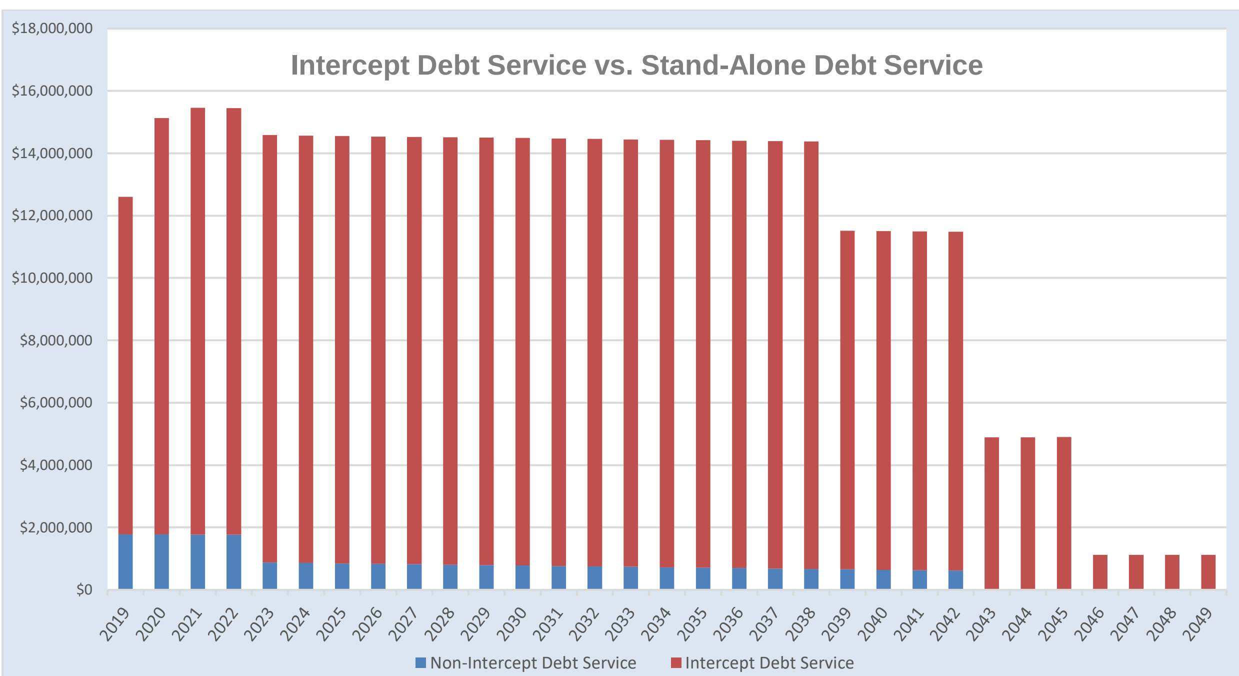


**Ratings are displayed in order of Moody's, S&P, and Fitch*

Colorado Mesa University

Location: Grand Junction
Agency Ratings: A2, N/A, N/A
Last Rated by Agency: May 2019
Pre-Approved for Intercept? Yes
Pre-Approval Amount: $174,957,681

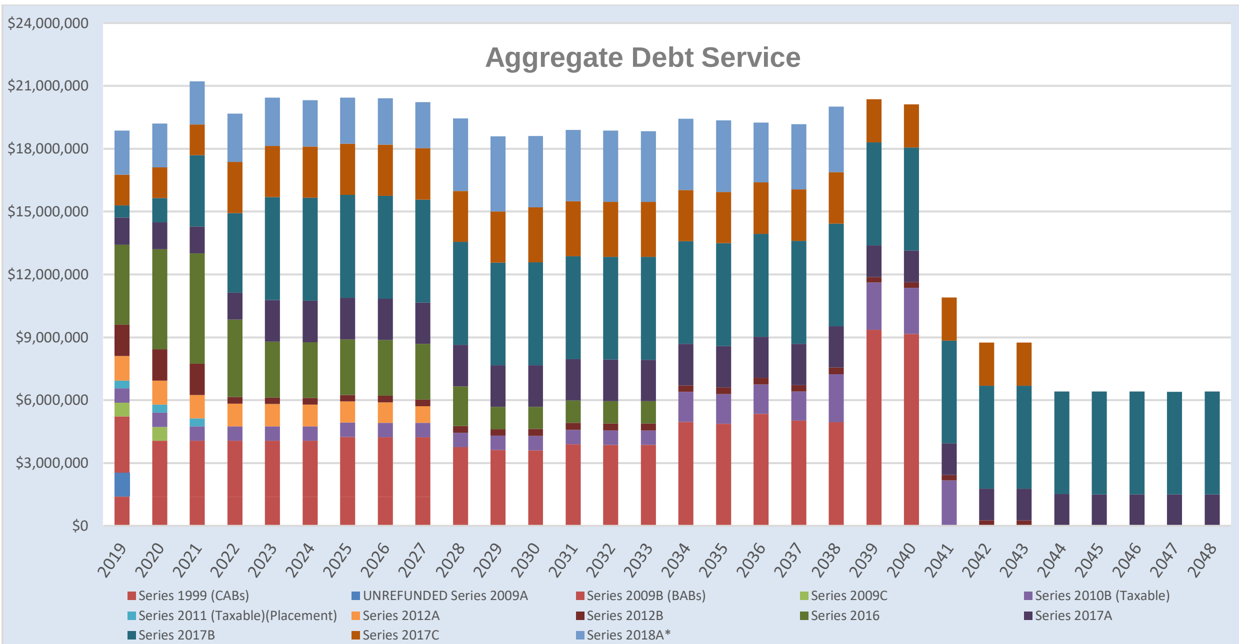




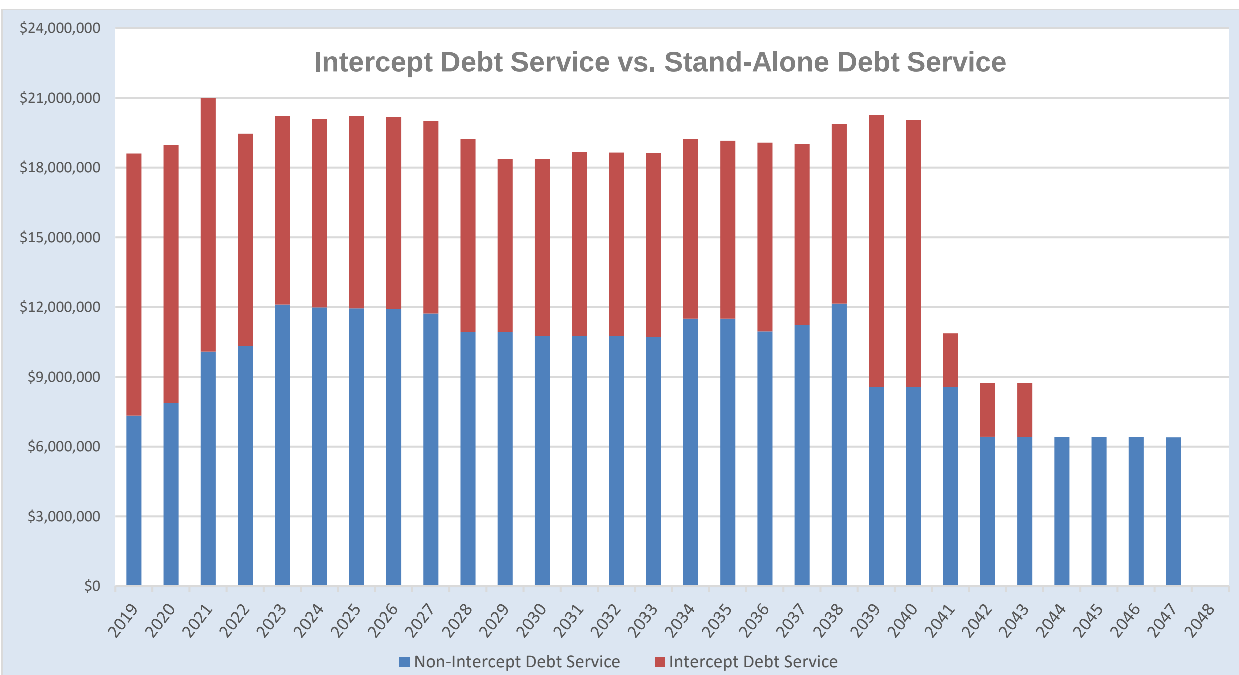
**Ratings are displayed in order of Moody's, S&P, and Fitch*

Colorado School of Mines

Location: Golden
Agency Ratings: A1, A+, N/A
Last Rated by Agency: February 2019
Pre-Approved for Intercept? Yes
Pre-Approval Amount: $114,081,419



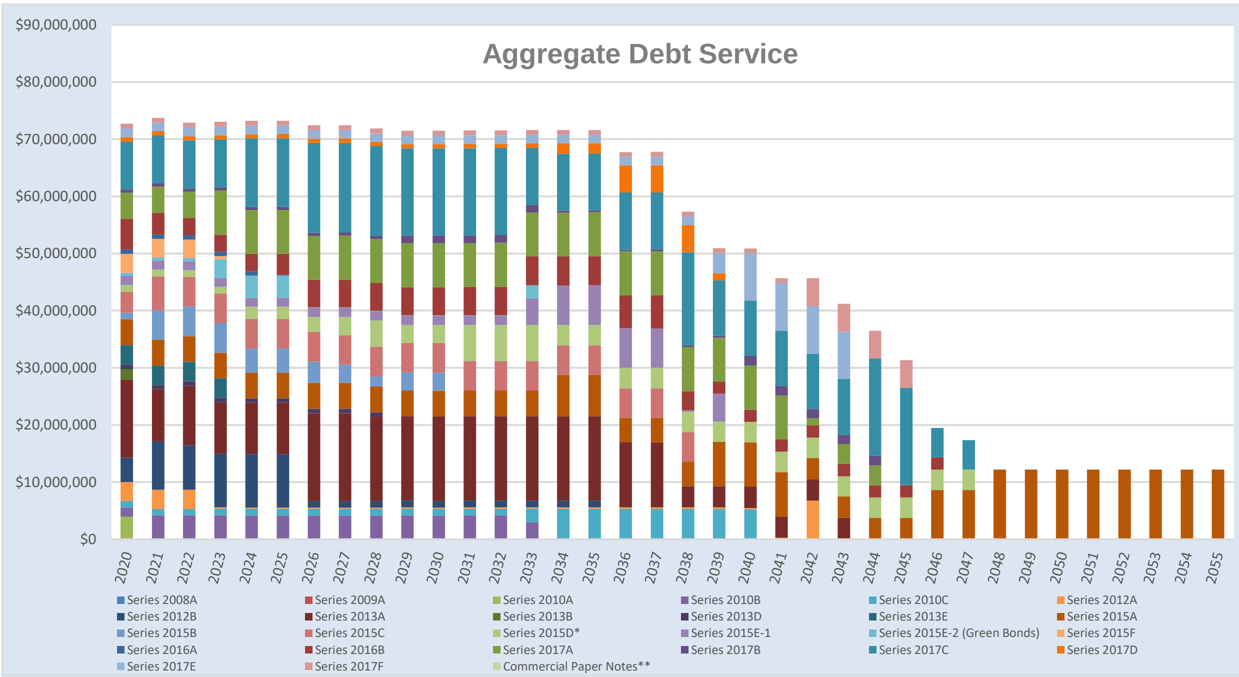
*Interest on the Series 2018A FRN is assumed at the swap rate of 3.59% plus the FRN spread of 0.50%.

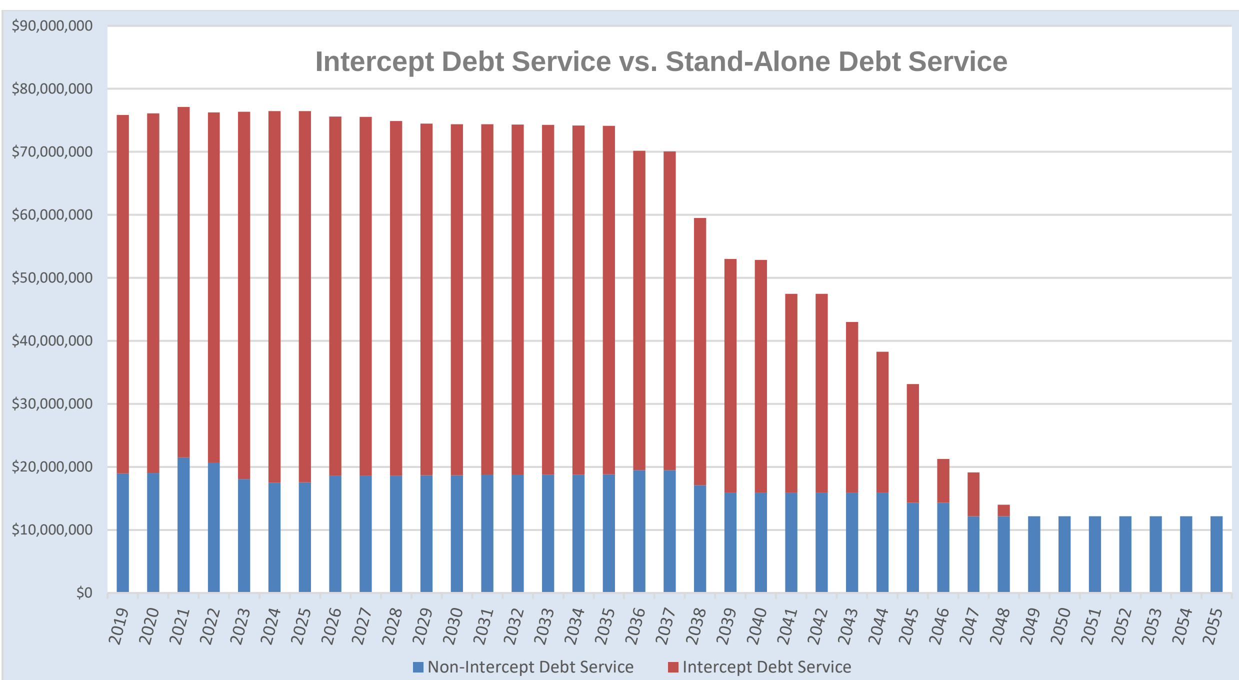


**Ratings are displayed in order of Moody's, S&P, and Fitch*

Colorado State University

Location: Fort Collins
Agency Ratings: Aa3, A+, N/A
Last Rated by Agency: September 2018
Pre-Approved for Intercept? Yes
Pre-Approval Amount: $1,192,332,985

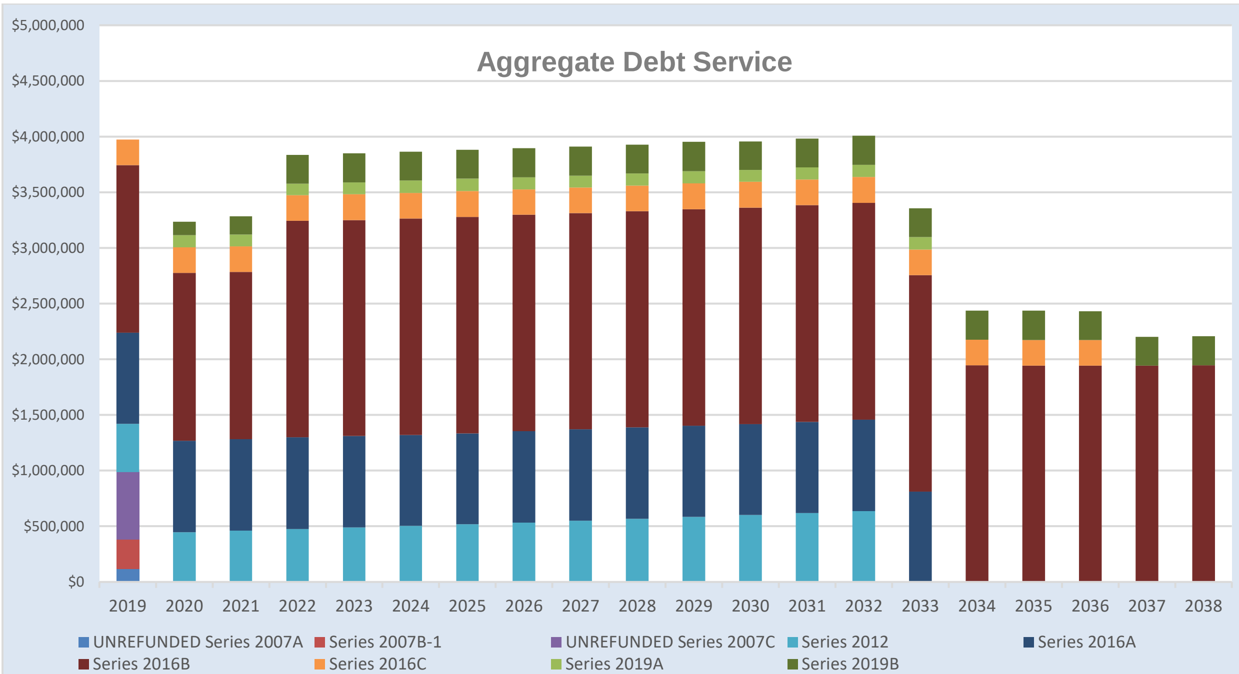


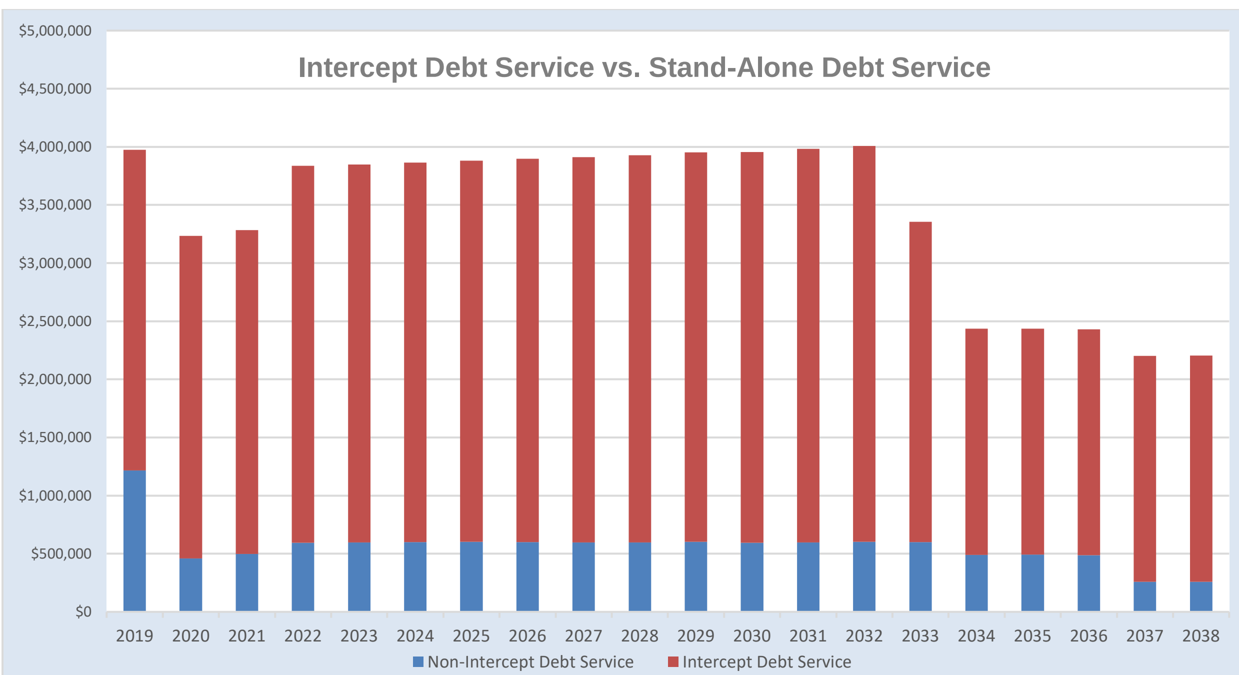


**Ratings are displayed in order of Moody's, S&P, and Fitch*

Fort Lewis College

Location: Durango
Agency Ratings: A2, N/A, N/A
Last Rated by Agency: July 2018
Pre-Approved for Intercept? Yes
Pre-Approval Amount: $76,971,883

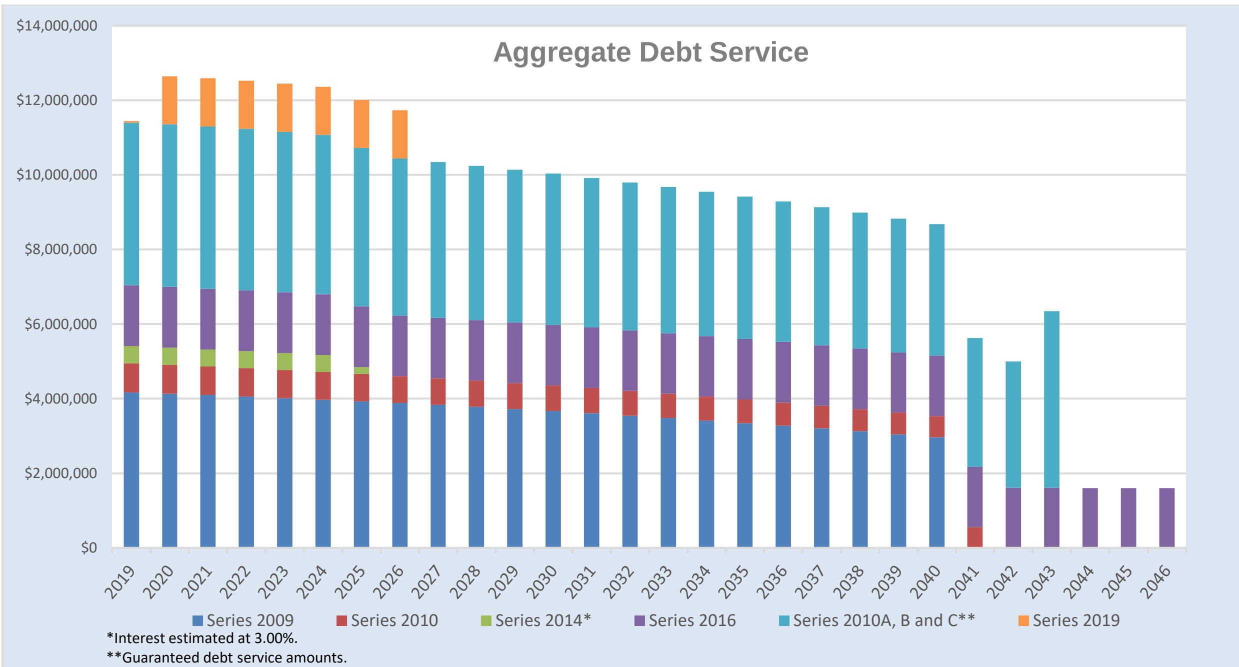


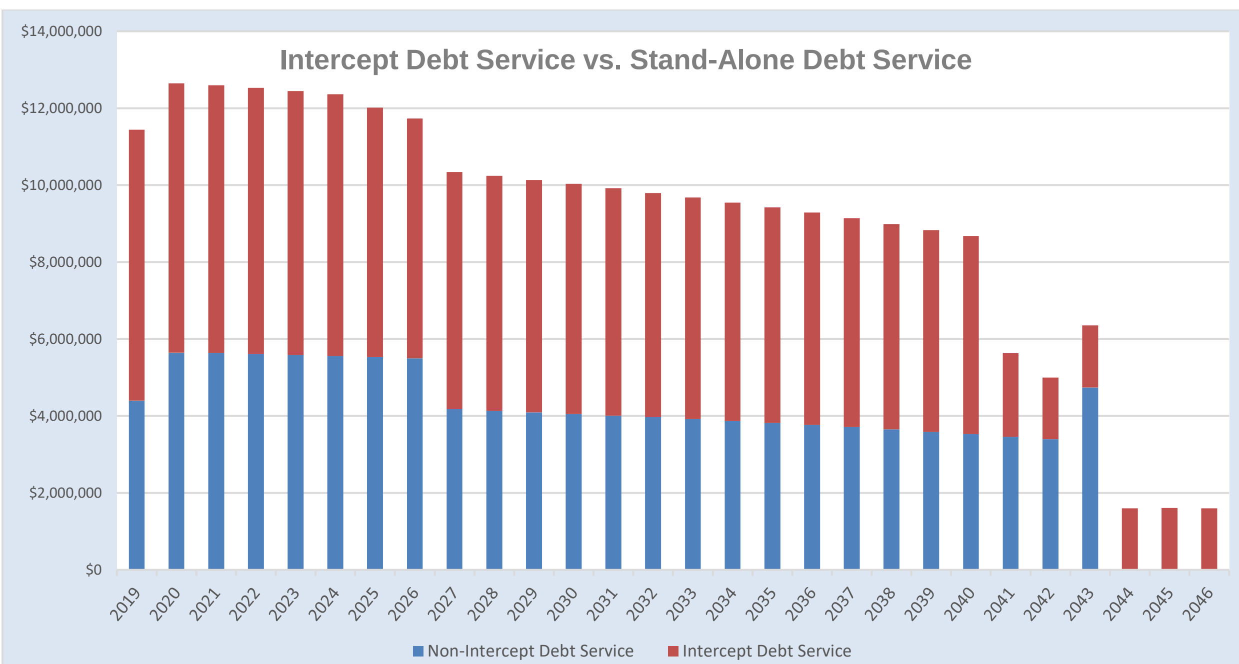


**Ratings are displayed in order of Moody's, S&P, and Fitch*

Metropolitan State University

Location:	Denver
Agency Ratings:	A1, A, N/A
Last Rated by Agency:	January 2016
Pre-Approved for Intercept?	Yes
Pre-Approval Amount:	$643,924,284

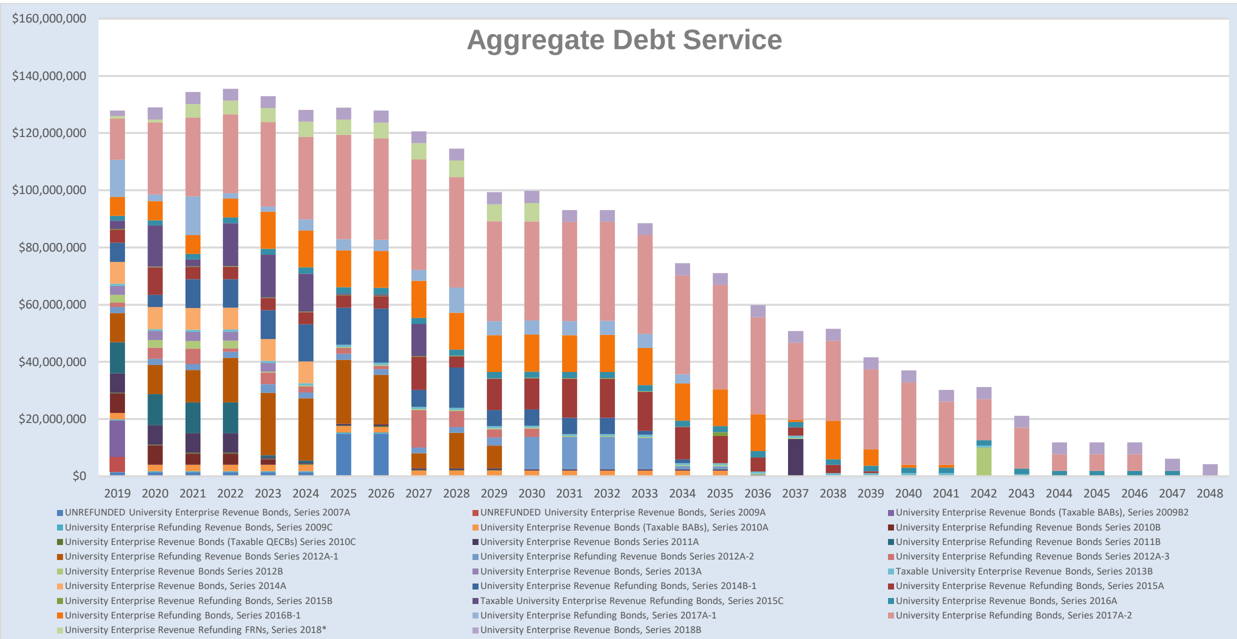




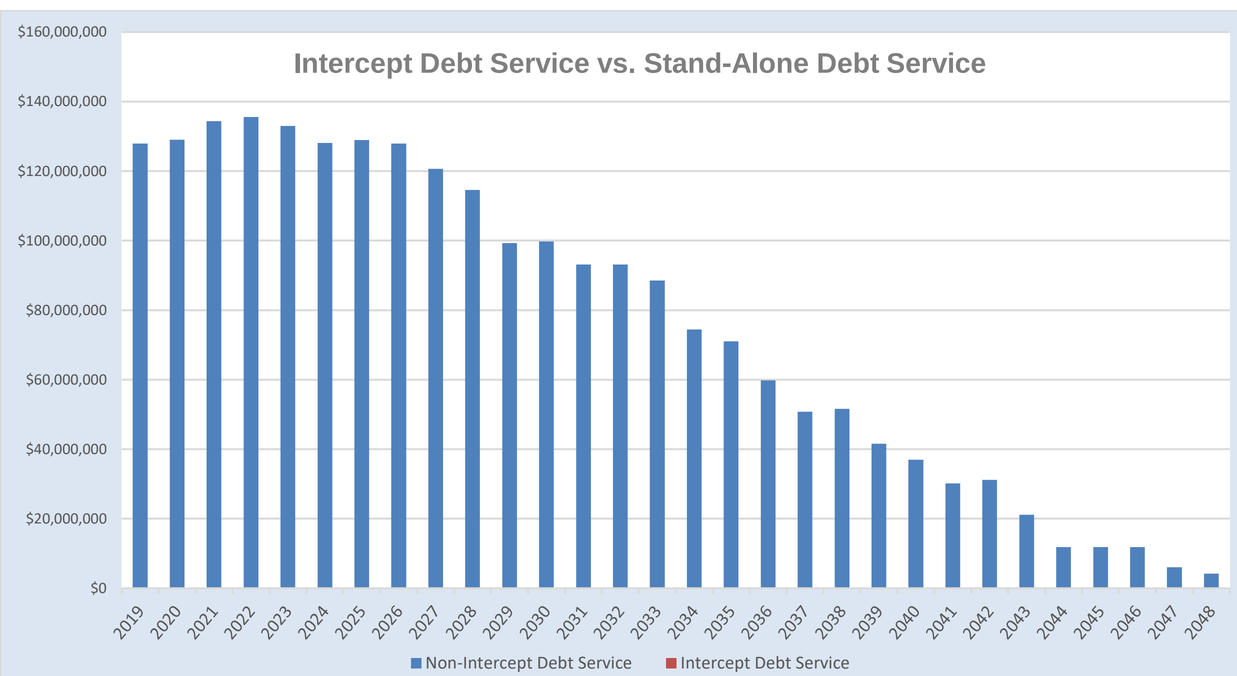
**Ratings are displayed in order of Moody's, S&P, and Fitch*

University of Colorado

Location:	Various
Agency Ratings:	Aa1, N/A, AA+
Last Rated by Agency:	July 2019
Pre-Approved for Intercept?	Yes
Pre-Approval Amount:	$3,417,085,893



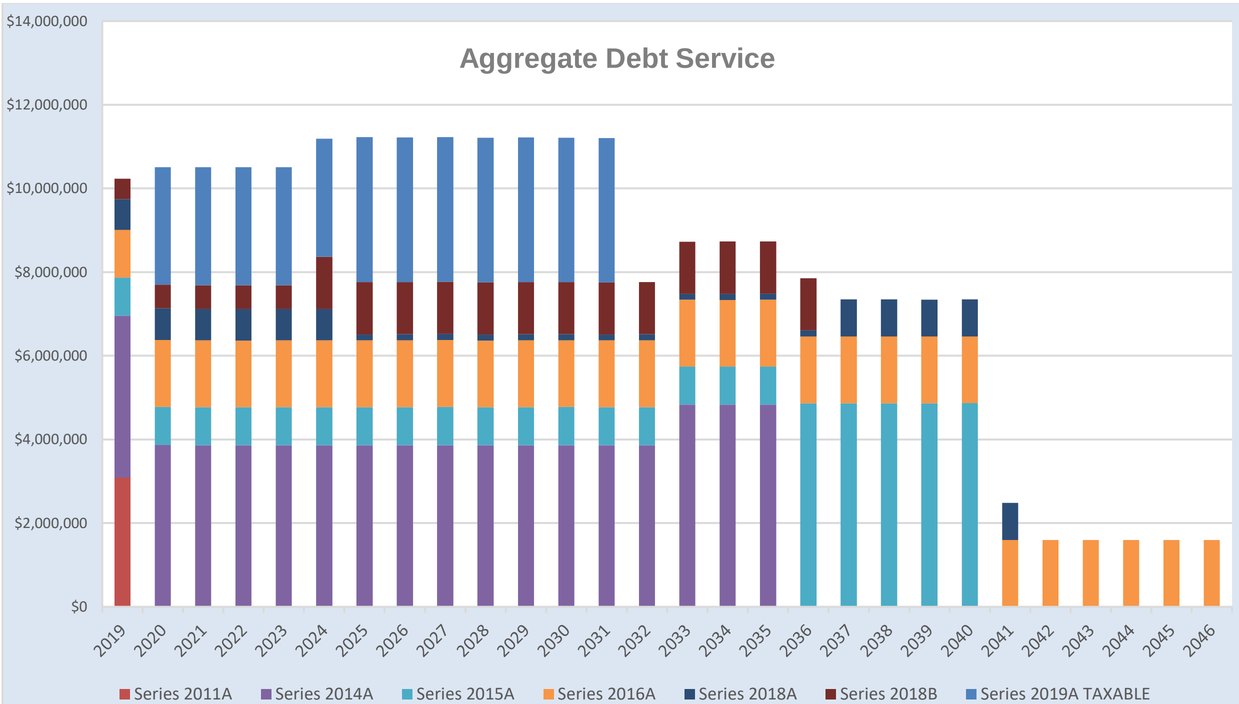
*Estimated all-in interest rate on variable rate notes at 2.25%
BABs and QECBs debt service shown net of subsidy receipts.

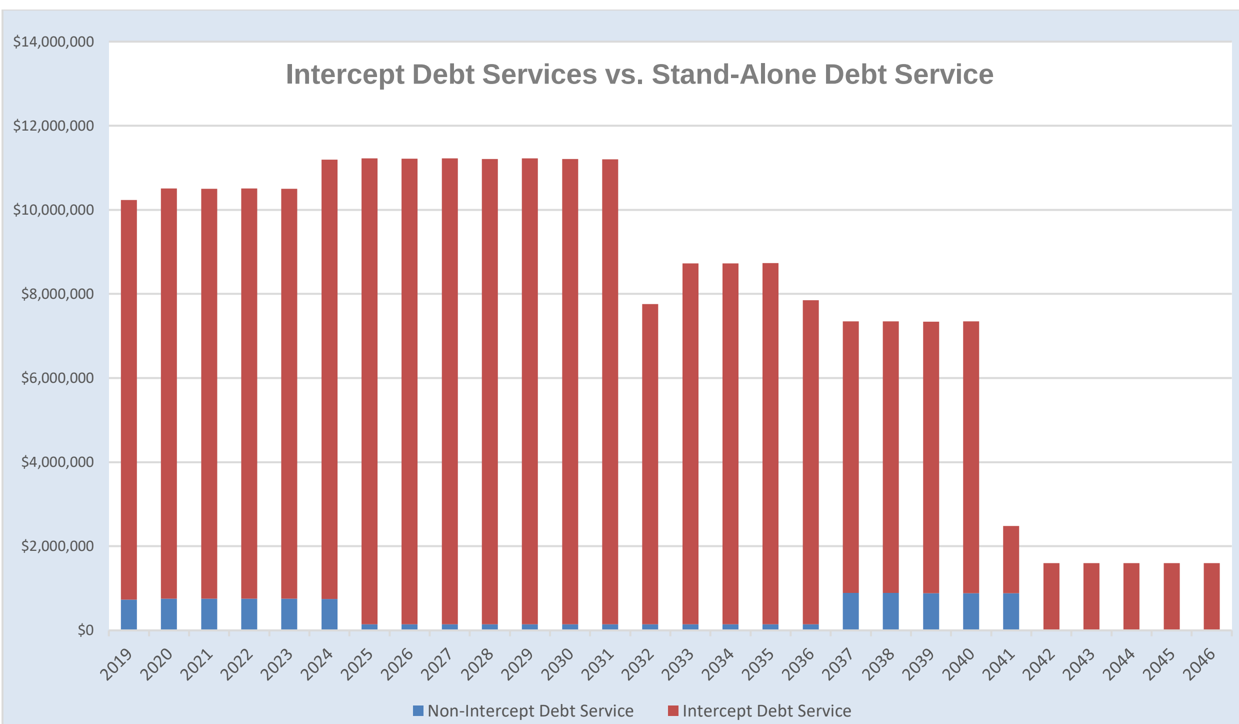


Ratings are displayed in order of Moody's, S&P, and Fitch

University of Northern Colorado

Location: Greeley
Agency Ratings: A3, A-, N/A
Last Rated by Agency: July 2019
Pre-Approved for Intercept? Yes
Pre-Approval Amount: $433,454,719

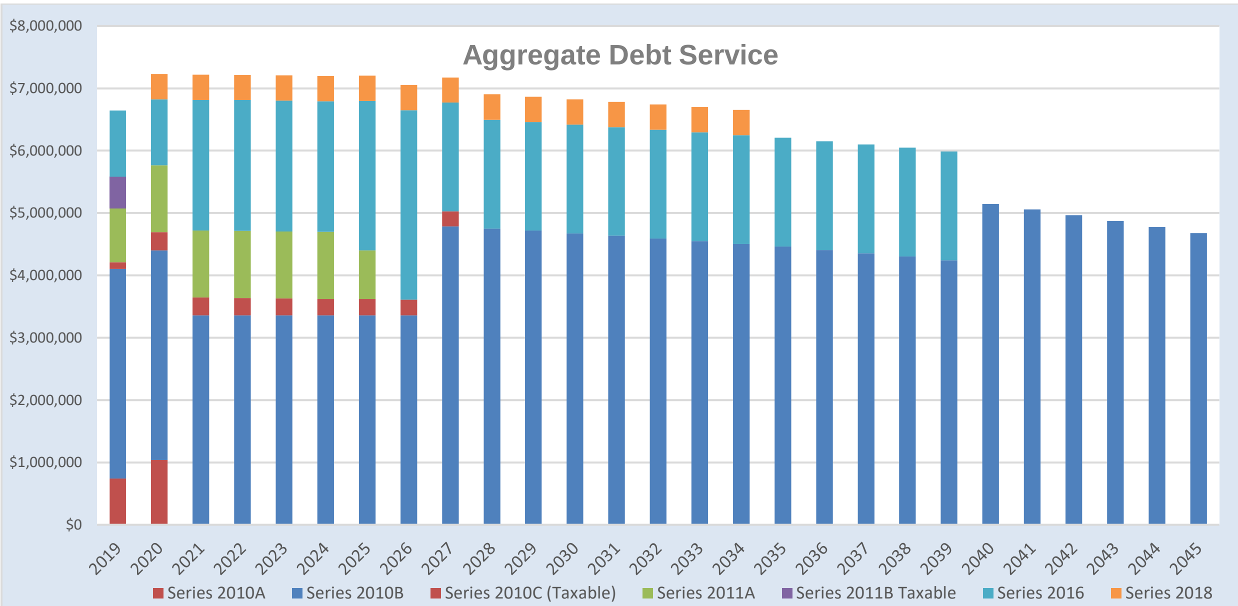




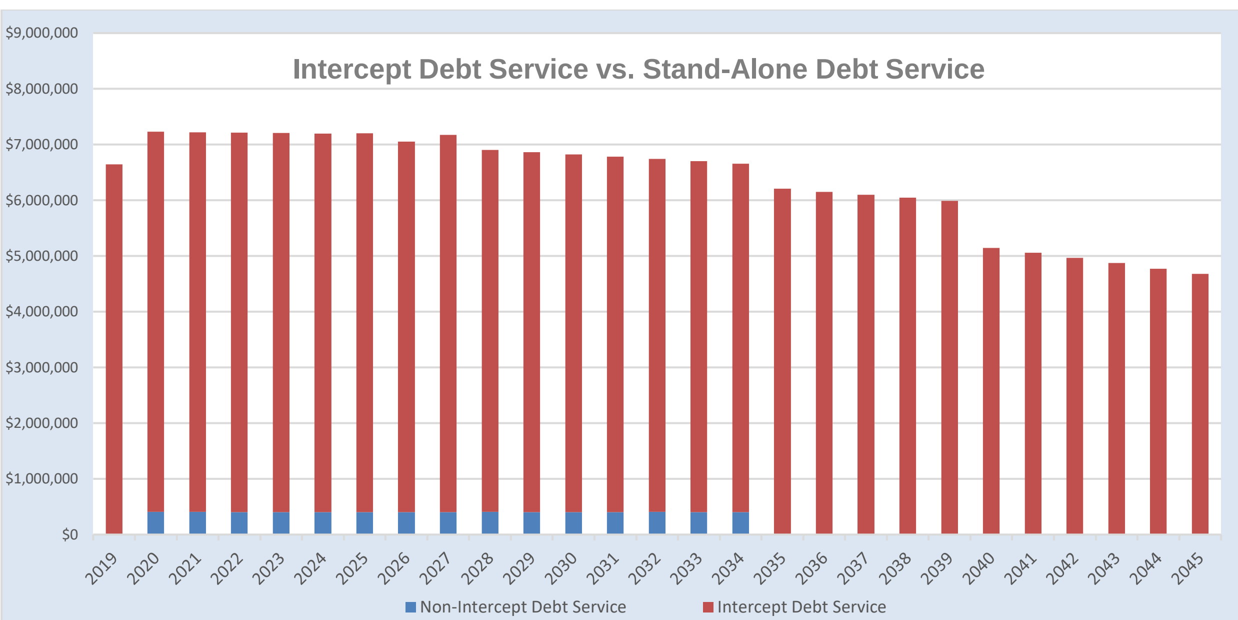
**Ratings are displayed in order of Moody's, S&P, and Fitch*

Western Colorado University

Location:	Gunnison
Agency Ratings:	Baa1, N/A, N/A
Last Rated by Agency:	March 2019
Pre-Approved for Intercept?	No
Pre-Approval Amount:	$10,836,158*



*Series 2010B BABs debt service shown on a gross basis.



*Series 2010B BABs debt service shown on a gross basis.
**Series 2010C QECBs debt service shown on a gross basis.

*Pre-approved amount if the University were to receive a rating in the "A" category.

Ratings are displayed in order of Moody's, S&P, and Fitch

Appendix: Credit Reports

MOODY'S INVESTORS SERVICE

Rating Action: Moody's assigns A3 to Adams State University, CO's Series 2019A&B, and Aa2 enhanced to 2019A; underlying outlook negative

04 Apr 2019

New York, April 04, 2019 -- Moody's Investors Service has assigned an A3 underlying and Aa2 enhanced rating to Adams State University, CO's proposed Institutional Enterprise Revenue Refunding Bonds, Series 2019A and an A3 underlying rating to the proposed Institutional Enterprise Revenue Refunding Bonds, Series 2019B bonds. The total par amount of the proposed bonds is $32 million with a final maturity in fiscal 2042. The bonds will be issued by the Board of Trustees of Adams State University. The outlook on the underlying rating is negative and the outlook on the enhanced rating is stable. Moody's maintains underlying and enhanced ratings on approximately $50 million of debt.

RATINGS RATIONALE

The A3 rating reflects the university's important role as a regional higher education provider for the State of Colorado (Aa1 stable issuer rating) and surrounding region, with a focus on Hispanic students, demonstrated by its designation as a Hispanic Serving Institution (HSI). The university's scale is comparatively small, but operating performance has remained resilient despite enrollment challenges due to management's sharp focus on expense reductions. Management expects modestly strengthened operating performance in fiscal years 2019 and 2020, driven by the impact of continued expense reductions. Although improving, the State of Colorado's funding for higher education has historically lagged peers.

Low overall wealth compared to peers will remain a credit negative, as the university has limited opportunities to meaningfully grow financial resources. Favorably, the university's available unrestricted liquidity affords a solid cushion to operating expenses, with 124 monthly days cash.

Fair strategic positioning has potential to strengthen if recent appointments, including a new president, result in a more stable leadership team and ability to sustainably execute on strategic initiatives. Further, recently enacted pension reform, despite modestly increasing future pension contributions, will be credit positive over time but the large unfunded pension liability and increased pension costs will be constraining credit factors for the foreseeable future.

The Aa2 enhanced rating and stable outlook are derived from the structure and mechanics of the Colorado Higher Education Enhancement Program, which is based on the State of Colorado's current rating and outlook.

RATING OUTLOOK

The negative outlook reflects uncertainty regarding the university's ability to continue to successfully balance operating performance due to enrollment challenges and limited state support. Net tuition revenue faces pressure from enrollment declines, a high-need student population, and recently enacted guaranteed tuition programs and tuition freezes.

The stable outlook for the enhanced rating is based on the state's current stable long-term outlook.

FACTORS THAT COULD LEAD TO AN UPGRADE

- Significant strengthening of student demand, reflected in higher enrollment and growing net tuition revenue

- Material increase in total cash and investments

- Substantially stronger operating support from the State of Colorado

- For the enhanced rating, upgrade of the State of Colorado rating

FACTORS THAT COULD LEAD TO A DOWNGRADE

- Inability to maintain operating cash flow margins at or above 12-14%

- Material enrollment declines further pressuring net tuition revenue

- Reduction in operating support from the State of Colorado

- Material increase in debt given already comparatively high leverage inclusive of unfunded pension liability

- For the enhanced rating, deterioration in credit quality of the State of Colorado rating

LEGAL SECURITY

Outstanding bonds are secured by pledged revenues, which include net revenues (gross revenue less maintenance and operation expenses) from facilities, including substantially all auxiliary facilities. The pledge also includes 10% of the university's tuition revenues as long as it maintains enterprise status. The bonds are further secured by a pledge of a portion of student fees. The university reported debt service coverage of 2.0x in fiscal 2018.

USE OF PROCEEDS

Proceeds from the Series 2019A and Series 2019B bonds will go towards refunding outstanding Series 2009B and Series 2009C bonds and pay costs of issuance.

PROFILE

Adams State University is a small regional public university located in Alamosa, Colorado, serving students of the San Luis Valley and designated as a Hispanic Serving Institution. The university was founded in 1921 as a normal school and has grown to serve a mix of undergraduate, graduate and distance learning programs. In fiscal 2018, the Adams State recorded operating revenue of $54 million and served a fall FTE enrollment of 3,018 students.

METHODOLOGY

The principal methodology used in the underlying ratings was Higher Education published in December 2017. The principal methodology used in the enhanced rating was State Aid Intercept Programs and Financings published in December 2017. Please see the Rating Methodologies page on www.moodys.com for a copy of these methodologies.

REGULATORY DISCLOSURES

For ratings issued on a program, series or category/class of debt, this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series or category/class of debt or pursuant to a program for which the ratings are derived exclusively from existing ratings in accordance with Moody's rating practices. For ratings issued on a support provider, this announcement provides certain regulatory disclosures in relation to the credit rating action on the support provider and in relation to each particular credit rating action for securities that derive their credit ratings from the support provider's credit rating. For provisional ratings, this announcement provides certain regulatory disclosures in relation to the provisional rating assigned, and in relation to a definitive rating that may be assigned subsequent to the final issuance of the debt, in each case where the transaction structure and terms have not changed prior to the assignment of the definitive rating in a manner that would have affected the rating. For further information please see the ratings tab on the issuer/entity page for the respective issuer on www.moodys.com.

Regulatory disclosures contained in this press release apply to the credit rating and, if applicable, the related rating outlook or rating review.

Please see www.moodys.com for any updates on changes to the lead rating analyst and to the Moody's legal entity that has issued the rating.

Please see the ratings tab on the issuer/entity page on www.moodys.com for additional regulatory disclosures for each credit rating.

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MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

Moody's
INVESTORS SERVICE

Rating Action: Moody's assigns Aa3 rating to Colorado Community College System, CO's Series 2019A refunding bonds; outlook is stable

22 Aug 2019

New York, August 22, 2019 -- Moody's Investors Service has assigned an Aa3 underlying rating to Colorado Community College System's (CCCS) proposed $25 million Systemwide Revenue Refunding Bonds, Series 2019A to be issued by the Colorado State Board for Community Colleges and Occupational Education. We maintain Aa3 underlying ratings on approximately $122 million of outstanding debt and Aa2 enhanced ratings on approximately $37 million of that debt. The outlook is stable.

RATINGS RATIONALE

Colorado Community College System's Aa3 rating is supported by its very large scope of operations (fiscal 2018 operating revenue totaled $643 million, as calculated by Moody's) and importance to the State of Colorado (Aa1 stable) as an education provider with large geographic reach, delivered by its 13 colleges throughout the state. Operating cash flow margins remain sound, but have softened recently due to strategic investments in programs. Fiscal 2019 and fiscal 2020 projections point towards improved operating performance, stemming from increased state funding and more modest expense increases. Unlike many other community colleges, CCCS has sizeable cash and investments, as well as solid liquid reserves, supporting fairly low direct debt financial leverage. A sizeable pension liability remains a credit challenge with total adjusted debt to operating revenue of 3.5x in fiscal 2018. Favorably, recent pension reforms are expected to bring down the liability materially. Other credit factors considered include enrollment pressures stemming from a strong economic cycle and a heavy reliance on student charges to fund operations.

RATING OUTLOOK

The stable outlook on the underlying rating reflects expectations of improved operating performance in fiscal 2019 and fiscal 2020 driven by improved state funding and more modest expense increases. It also incorporates expectations of no new debt in the near-term and no material spend down of reserves.

The stable outlook for the enhanced rating is based on the state's current stable long-term outlook.

FACTORS THAT COULD LEAD TO AN UPGRADE

- Sustained improvement in operating performance

- Improved student market position with consistent net tuition revenue growth

- Substantial increase in cash and investments relative to debt and operations

- For the enhanced rating, upgrade of the Colorado Higher Education Enhancement Program rating

FACTORS THAT COULD LEAD TO A DOWNGRADE

- Further deterioration in operating cash flows resulting in weakened debt service coverage

- Material increase in leverage or further reduction of liquidity

- For the enhanced rating, downgrade of the Colorado Higher Education Enhancement Program rating

LEGAL SECURITY

Outstanding bonds, including the proposed Series 2019A bonds, are secured by net revenues, which include gross revenues less operations and maintenance expenses. Net revenues totaled $29.2 million in fiscal 2018 and include 10% of tuition revenues, revenues derived from facilities construction fees, special fees (assessed to students with respect to any facility) and any other fee assessed to employees or other persons for use of any facility, all mandatory student and faculty services fees, federal direct payments and any other incomes, and any fees and revenues that the board may determine to include in gross revenues. Net revenues provided

1.27x maximum annual debt service coverage in fiscal 2018.

USE OF PROCEEDS

Proceeds from the Series 2019A bonds will be used to refund outstanding Series 2010D bonds and pay cost of issuance.

PROFILE

The Colorado Community College System is the largest higher education provider in the State of Colorado serving over 77,000 full-time equivalent students in fall 2018 and recording over $643 million in operating revenue for fiscal 2018, as calculated by Moody's. The system offers a full range of educational options towards its goal of educating the regional population. The system consists of 13 colleges throughout the State of Colorado.

METHODOLOGY

The principal methodology used in this rating was Community College Revenue-Backed Debt published in June 2018. Please see the Rating Methodologies page on www.moodys.com for a copy of this methodology.

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MOODY'S
INVESTORS SERVICE

Rating Action: Moody's assigns A2 underlying rating and Aa2 enhanced rating on Colorado Mesa University's Series 2019B revenue bonds; outlook is stable

15 May 2019

New York, May 15, 2019 -- Moody's Investors Service has assigned an A2 underlying and a Aa2 enhanced rating to Colorado Mesa University's (CMU) proposed $17 million Enterprise Revenue Bonds, Series 2019B to be issued through the Board of Trustees for Colorado Mesa University. We maintain the university's A2 underlying and Aa2 enhanced ratings on previously rated debt. The outlooks on the underlying and enhanced ratings are stable.

RATINGS RATIONALE

The Aa2 enhanced rating and stable outlook are derived from the structure and mechanics of the Colorado Higher Education Enhancement Program, which is based on the State of Colorado's current rating and outlook.

CMU's A2 underlying rating reflects its very good strategic positioning and importance as a provider of higher education in the western portion of the State of Colorado. The university has consistently produced very strong operating cash flow margins, averaging 22% over the past five years, with expectations of continued healthy operations. CMU went through a rapid growth phase over the past decade and invested heavily in campus facilities, averaging approximately $30 million of capital spending annually, resulting in low deferred maintenance and average age of plant. The rating also benefits from sound unrestricted liquidity. Offsetting challenges include a heavy reliance on tuition and fees to fund operations (over 80%) and limited, albeit improving, operating support from the state. The university's debt affordability is sound, but financial leverage is elevated compared to A2-rated peers. Favorably, CMU's debt amortizes more rapidly than the useful life of the improvements financed over the last decade. Additional credit considerations include an outsized pension liability, which will gradually improve over time with recent reforms, and increasing competition for students.

RATING OUTLOOK

The stable outlook for the enhanced rating is based on the state's current stable long-term outlook.

The stable outlook on the underlying rating reflects expectations of continued strong operating cash flow margins, modest net tuition revenue growth, and limited use of financial reserves for capital spending.

FACTORS THAT COULD LEAD TO AN UPGRADE

- Improvement in operating reserves with little to no additional debt leading to sustained spendable cash and investments to debt of over 0.5x

- Sustained improvement in operating funding from the Aa1-rated State of Colorado resulting in improved revenue diversity

- For the enhanced rating, upgrade of the Colorado Higher Education Enhancement Program rating

FACTORS THAT COULD LEAD TO A DOWNGRADE

- Weakening of operating performance leading to deterioration in debt service coverage or significant contraction of financial resources

- Material debt issuance resulting in sustained debt to revenue of greater than 2x

- Softening of student demand evidenced by continued decline in matriculation or significant deterioration of retention rate

- For the enhanced rating, downgrade of the Colorado Higher Education Enhancement Program rating

LEGAL SECURITY

The majority of CMU's bonds, including the expected Series 2019B bonds, are secured by the state intercept program. Colorado's higher education intercept program is categorized as an unlimited advance. Should the university fail to provide sufficient funds for debt service, the trustee is required to notify the state treasurer on the business day immediately prior to the debt service payment date. The treasurer is required to remit funds to the trustee in immediately available funds of the state. The treasurer recovers the debt service payment from the university's fee-for-service funds, as well as from unpledged tuition revenue.

CMU's bonds, including the expected Series 2019B bonds, are payable from net system revenues, which include net revenues of the auxiliary facility system (including housing, food and beverage sales and services, parking facilities, recreation center, bookstore, indirect cost recovery, Math and Science Center payments, hotel revenues) as well as mandatory student auxiliary fees. The pledge also includes 10% of the Tuition Revenues received by the university, all revenues derived from Facility Construction Fees, all earnings on all funds and accounts created under various Bond Resolutions and other fees and revenues that the Board determines. All of the university's outstanding bonds are on parity.

USE OF PROCEEDS

Proceeds from the sale of the Series 2019B bonds will be used to construct and equip a new residence hall on the university's campus and for Board designated capital projects. The new residence hall is expected to cost approximately $16 million and include between 120 - 130 bed units.

PROFILE

Colorado Mesa University is a regional, liberal arts university located in western Colorado with graduate programs in teacher education, business, nursing, and art. The university is an important education provider in western Colorado, evidenced by its unique funding support from the City of Grand Junction and Mesa County. In addition to its undergraduate and graduate programs, the university owns and operates a community college. Annual operating revenue of the university was over $126 million in fiscal 2018 and FTE students totaled 7,498 in fall 2018.

METHODOLOGY

The principal methodology used in the underlying rating was Higher Education published in December 2017. The principal methodology used in the enhanced rating was State Aid Intercept Programs and Financings published in December 2017. Please see the Rating Methodologies page on www.moodys.com for a copy of these methodologies.

REGULATORY DISCLOSURES

For ratings issued on a program, series or category/class of debt, this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series or category/class of debt or pursuant to a program for which the ratings are derived exclusively from existing ratings in accordance with Moody's rating practices. For ratings issued on a support provider, this announcement provides certain regulatory disclosures in relation to the credit rating action on the support provider and in relation to each particular credit rating action for securities that derive their credit ratings from the support provider's credit rating. For provisional ratings, this announcement provides certain regulatory disclosures in relation to the provisional rating assigned, and in relation to a definitive rating that may be assigned subsequent to the final issuance of the debt, in each case where the transaction structure and terms have not changed prior to the assignment of the definitive rating in a manner that would have affected the rating. For further information please see the ratings tab on the issuer/entity page for the respective issuer on www.moodys.com.

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MOODY'S
INVESTORS SERVICE

Rating Action: Moody's assigns A1 to Colorado School of Mines' (CO) Series 2019A&B; outlook stable

29 Aug 2019

New York, August 29, 2019 -- Moody's Investors Service has assigned an A1 underlying rating to the Colorado School of Mines (Mines) planned approximately $10 million Institutional Enterprise Revenue Refunding Bonds, Series 2019A (fixed rate, maturing in 2040) and $45 million Institutional Enterprise Revenue Refunding Bonds, Taxable Series 2019B (fixed rate, maturing in 2048). The Series 2019A and 2019B bonds will be issued by the Board of Trustees of the Colorado School of Mines. Concurrently we affirmed the A1 underlying ratings on $267 million of outstanding parity revenue bonds and the Aa2 enhanced ratings on $118 million of outstanding revenue bonds qualified for the state intercept program. The outlook on the underlying rating is stable. The outlook for the enhanced rating is stable, reflecting the programmatic rating outlook which currently mirrors the outlook of the State of Colorado.

RATINGS RATIONALE

The assignment of the A1 underlying rating reflects Mines' very good strategic positioning based on its established niche in earth sciences, energy and the environment, drawing steady increases in enrollment, net tuition revenue growth and substantial research activity. In addition, Mines' solid wealth and liquidity levels relative to rated peers, as well as historically strong donor support are favorable credit factors.

Offsetting challenges include the school's comparatively high leverage, weakening operating performance exacerbated by flat in-state undergraduate pricing for fiscal 2020, and historically limited operating and capital support from State of Colorado (Aa1 stable issuer rating) relative to peers. Mines has an elevated underfunded pension liability, though state-enacted pension reforms during fiscal 2018 will decreased the magnitude of future potential expense pressure. The school continues to execute an ambitious strategic plan with multiple yet-to-be finalized funding sources, and in the interim, expenses will continue to grow.

Mines is currently planning a fiscal 2020 new issue of up to $149 million for several new facilities, including a building to be shared with the USGS (United States Geological Survey). If executed, this will substantially increase already high debt levels. The school has some ability to absorb the planned increase in leverage based on current cash flow, although pro-forma maximum annual debt service coverage would be very thin. However, Mines expects to receive new facility use revenues under a new Cooperative Agreement with the USGS that will offset a significant portion of new debt service.

The Aa2 enhanced rating incorporates the program-level Aa2 rating of the Colorado Higher Education Enhancement Program, which is notched off of the State of Colorado's Aa1 issuer rating, as well as financing-level attributes related to sufficiency of the financing structure.

RATING OUTLOOK

The stable outlook on the A1 underlying rating reflects our expectations that Mines will successfully manage the funding support risks of the multiple existing and planned fiscal 2020 projects, including strengthening cash flow to support the planned increase in leverage.

The stable outlook for the enhanced rating reflects the outlook for the programmatic level rating which currently mirrors the outlook for the State of Colorado.

FACTORS THAT COULD LEAD TO AN UPGRADE

Underlying rating

-Substantial improvement in flexible financial resources combined with a material reduction in financial leverage

-Further strengthening of brand, demonstrated by increased student demand and revenue growth

Enhanced rating

-Upgrade in the State of Colorado rating

FACTORS THAT COULD LEAD TO A DOWNGRADE

Underlying rating

-Inability to strengthen operating cash flow to improve coverage of maximum annual debt service

-Any increase in leverage beyond the planned 2020 borrowing absent offsetting revenue, cash flow, or reserve growth

-Reduction in liquidity given significantly constrained financial flexibility due to degree of leverage

Enhanced rating

-Deterioration in credit quality of the State of Colorado rating or observation that the program does not function as contemplated

LEGAL SECURITY

The planned series 2019A and 2019B bonds, together with parity outstanding revenue bonds, are secured by net revenues calculated as the prior bond net pledged revenues less debt service, plus certain academic facility fees, indirect cost recoveries related to research contracts and grants received by the school and performed within the school's facilities, federal interest subsidies, and certain gifts, as well as 10% of net tuition revenue. The fiscal 2018 net pledged revenues of $47.8 million covered outstanding debt service, inclusive of prior obligations (Series 1999 bonds) debt service, by 2.56x.

The Series 1999 auxiliary facility bonds (prior bonds) have a superior lien on net pledged revenues of certain facilities and student fees (student center and recreation center). Net pledged revenues for the prior bonds totaled $15.9 million in fiscal 2018, providing 17.4x coverage.

The Series 2012A institutional enterprise revenue bonds (not rated) are subordinate obligations.

USE OF PROCEEDS

Proceeds of the Series 2019A and 2019B bonds will be used to refund all or portions of the Series 2010B, 2012B, 2016, 2017A and 2017B bonds per market conditions and pay costs of issuance.

PROFILE

The Colorado School of Mines, located west of Denver in Golden, was originally established in 1874. Mines offers undergraduate and graduate degrees, including doctoral, and has been dedicated to education in mineral engineering and earth sciences. In fiscal year 2018, Mines recorded $269 million in operating revenue and in fall 2018 served a full-time equivalent enrollment (FTE) of 5,961 students.

METHODOLOGY

The principal methodology used in the underlying ratings was Higher Education published in May 2019. The principal methodology used in the enhanced ratings was State Aid Intercept Programs and Financings published in December 2017. Please see the Rating Methodologies page on www.moodys.com for a copy of these methodologies.

REGULATORY DISCLOSURES

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MOODY'S
INVESTORS SERVICE

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Colorado School of Mines Board of Trustees; Auxiliary - System; Public Coll/Univ - Unlimited Student Fees; School State Program

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Table Of Contents

Colorado School of Mines Board of Trustees; Auxiliary - System; Public Coll/Univ - Unlimited Student Fees; School State Program

Credit Profile		
Colorado Sch of Mines Brd of Trustees aux fac ent rev bnds series 1999		
Unenhanced Rating	A+(SPUR)/Negative	Outlook Revised
Enterprise rfdg & Improv rev bnds ser 2009A		
Underlying Rating for Credit Program	A+/Negative	Outlook Revised
Long Term Rating	AA/Stable	Affirmed
Enterprise rfdg & Improv rev bnds ser 2009B-C-D		
Underlying Rating for Credit Program	A+/Negative	Outlook Revised
Long Term Rating	AA/Stable	Affirmed

Rationale

S&P Global Ratings has revised its outlook to negative from stable and affirmed its 'A+' rating on the Colorado School of Mines Board of Trustees'institutional enterprise revenue bonds outstanding .

While Mines' enterprise profile remains very strong, the outlook revision reflects the uncertainty the school's anticipated debt issuance for a facility that will support a collaboration between Mines and the U.S. Geological Survey (USGS), which would dilute financial resources compared to debt and elevate the university's debt burden. Management reports a potential material par amount of debt, but the level of involvement and debt service support from the government, and the project's potential impact on full accrual operations, is not yet entirely clear. While Mines and USGS have entered an agreement outlining the initiative, the financial specifics surrounding the actual facility payment that the university will receive are not final.

We assess Mines' enterprise profile as very strong, with low industry risk, excellent selectivity, steady growth in full-time enrollment, and sound governance and management. We assess the school's financial profile as strong, with solid financial management policies and financial performance, but with a moderate debt burden and average available resources relative to debt, as well as contingent liabilities related to pension obligations. Mines has also consistently received stable operating support from the state of Colorado and robust research funding from federal grants. Combined, we believe these credit factors lead to an indicative and final stand-alone credit profile of 'a+' and an 'A+' long-term rating.

Factors supporting the rating include our view of Mines':

- Rising enrollment, excellent student quality, and solid academic demand niche in engineering and science;
- Healthy historical financial performance and stable state operating support, although operating margins have

weakened compared with historical margins, and audited fiscal 2018 operating results are slightly weaker than those of previous years;

- Excellent financial resources to operating expenses relative to those of other public institutions;
- Good revenue diversity and flexibility; and
- Good management team that is forward-looking and maintains robust financial policies and practices.

Offsetting credit factors include our view of Mines' moderate debt burden relative to the medians in the rating category, as well as continued capital needs and debt issuance. Total debt is approximately $286 million and maximum annual debt service of about $20 million represents about 6.3% of operations, which we view as above-average but manageable.

Management reports that, during our outlook period, the university plans to issue debt for the Subsurface Frontiers Initiative (a Mines strategic initiative that officials expect the collaboration between Mines and USGS will greatly enhance). Management reports it expects USGS will occupy approximately two-thirds of a new building with dedicated and shared research space, and will pay a significant amount of the debt service in lease payments. We will review any documentation once final. Pro forma the university's expected (maximum) new debt issuance, which could be up to $188 million, during the outlook period, total debt could equal up to $450 million and maximum annual debt service burden could increase to a very high 9.5% of total expenses. While management reports that the U.S government would be responsible for lease payments equal to a portion of the new debt service, we are not aware of the specifics. In our opinion, this material debt issuance could pressure balance-sheet ratios, debt burden, and operations.

A senior lien on the net revenues of the auxiliary facility enterprise system, including a broad mix of revenue from various auxiliary facilities and unlimited student fees, secures approximately $10 million in prior obligations (series 1999). The prior obligation lien is closed. The school's other enterprise revenue bonds (series 2009B, 2009C, 2010B, 2011, 2012B, 2017A, 2017B, 2017C, and 2018A parity obligations) are secured by a subordinate lien on these net revenues. The bonds also benefit from a pledge of additional revenues, including a pledge of 10% of student tuition revenue and indirect cost recoveries that were not available to the prior obligations. We do not differentiate between the rating on the new issues and the prior obligations because of the closed prior lien and what we consider the small amount of debt outstanding, as well as the additional security pledged to the parity obligations. Both security pledges are, in our opinion, equivalent to a broad unlimited student fee.

Mines is in Golden, Colo., and has 13 academic departments at the graduate and undergraduate level, with a focus on engineering and science, primarily related to the earth, energy, and the environment. The single campus encompasses 474 acres and the university has been active in the previous decade, renewing and building capital infrastructure, using funding sources, including bonds, fundraising, student fees, and grants.

Outlook

The negative outlook reflects the uncertainty surrounding the expected debt issuance and the level of government support for debt service. In our opinion, Mines' financial resources compared with debt will diminish upon issuance of up to $188 million in additional debt during the outlook period, and its maximum annual debt service burden will increase materially. Operating margins have come in from a few years ago, and further pressured operations combined with a significantly weaker balance sheet could lead to a lower rating. S&P Global Ratings expects that the university will maintain its strong demand and enrollment profile, and continue to produce positive cash operating results.

During the two-year outlook, we would expect clarity around the expected financing and level of government support. A downgrade could follow with a significant decrease in financial resources to debt coupled with very limited expected government support, and financial operations that continue to deteriorate from fiscal 2018 levels.

During the outlook period, we could revise the outlook to stable if debt issuance is less than expected, government support toward debt service prove to be material, or the balance sheet were to expand commensurate with debt issuance. We would also view improvement in operations in fiscal 2019 and expected fiscal 2020 positively.

Enterprise Profile

Market position and demand

In our view, the university is geographically diverse; 46% of its total full-time equivalent (FTE) students come from outside Colorado, just within the state's thresholds for proportion of nonresident-to-resident students. Therefore, the national GDP per capita anchors our assessment of Mines' economic fundamentals.

FTE enrollment rose steadily in previous years to 5,653 in fall 2015, and to 5,961 in fall 2018; the majority are undergraduate students (80%).

Management reports that enrollment in petroleum engineering fell in recent years because of declining oil prices and softening demand in the commodities and energy markets--although freshmen enrolled in this program increased notably in fall 2018. Officials report increased demand for degrees in computer science, and biochemical and mechanical engineering, since recent freshmen classes have grown. While the acceptance rate ticked up in fall 2015-2018, selectivity remains good and student quality is exceptional. The retention rate of 92% is very good and six-year graduation rate of almost 81% is well above category medians.

In 2016, the university completed a capital campaign, Transforming Lives. It raised well over its $350 million goal, with $452.5 million in total commitments. Among the gifts was $27 million from CoorsTek and the Coors family, along with $14.6 million from the state to help fund the CoorsTek Center for Applied Science and Engineering, a multipurpose academic and research building on campus. The Colorado School of Mines Foundation raised $25.9 million in fiscal 2017 and $28.7 million in fiscal 2018, and reports a goal of $33 million for fiscal 2019. (For more information on the foundation, see the analysis published Sept. 25, 2018, on RatingsDirect.)

Management and governance

The board of trustees has nine members. The state governor, with the consent of the state senate, appoints seven voting members who serve staggered four-year terms. Nonvoting members include one elected student representative and one elected academic faculty member. There have been no major shifts in the board aside from regular member rotations.

The current president, Dr. Paul C. Johnson, took office in July 2015 after the retirement of the former president. The current interim provost is Dr. Tom Boyd. Mines' next provost will be Dr. Richard Holz, who is currently the Dean of the Klingler College of Arts and Sciences at Marquette University and will join Mines June 1, 2019.

In 2018, Dr. Johnson launched the university's next strategic plan "Mines @150". This plan sets forth the imperatives for Mines as it approaches its 150th anniversary in 2024. The goal is to remain a specialized engineering and science and research university, with an emphasis on producing distinctive graduates, creating transformative and enduring value, and being a pioneer at the frontiers of science and engineering. The strategic plan outlines the university's imperatives to success: being a top of mind and first-choice institution, expanding offerings and diversifying delivery, increasing the scale and impact of research, strengthening affinity to Mines, and embodying innovation and entrepreneurship. The university is working on quantifiable and achievable demand metrics for graduation rates, retention, and student selectivity and quality. Mines continues to generate significant research dollars, particularly from private industry, which represents about 25% of total grants. Although the budget does not incorporate a line item for depreciation, management includes expenditures for capital renewal as well as an operating reserve that has contributed to a positive record of full-accrual operating surpluses.

Financial Profile

Financial management policies

Our analysis of financial policies includes a review of the organization's financial reporting and disclosure, investment allocation and liquidity, debt management guidelines, and long-term planning, as well as a comparison of these policies with those of similar providers. The school meets standard annual disclosure requirements and provides regular financial reports to the board's finance committee on an accrual basis. The management team is forward-looking and maintains a five-year long-term budgeting model, which we consider a credit strength. A formal debt policy includes targeted median balance-sheet and capital ratios that provide guidelines for debt issuance, although not limits. The foundation manages investments, and it has its own investment policy. The financial policies assessment reflects our opinion that Mines has relatively good and proactive management practices and policies.

Financial performance

Historically, Mines has posted positive full-accrual financial operations, when adjusted for support provided by endowment spending by the foundation. However, in fiscal 2017 and fiscal 2018, operations weakened to deficit full-accrual operations. In fiscal 2017, based on audited results, the adjusted operating margin weakened to negative 1.0%, given increased hiring costs and depreciation expenses. In fiscal 2018, adjusted operations were slightly weaker, at a negative 2.3% margin. Management reports that given the increase in enrollment in fall 2018, fiscal 2019 operations should improve from fiscal 2018.

Management does not budget for estimated depreciation expense, which has averaged almost $16.0 million annually in the previous three years, but includes about $3.5 million annually for capital renewal and builds an operating reserve into the budget. Given the strong cash operating results and budgeting practices, we expect operations to remain close to break-even in the near term after depreciation expense, which could continue to stress operating margins on a generally accepted accounting principles basis.

Mines' revenue base is relatively diverse, coming from several primary sources, including state funding, student-generated revenue, federal research grants, private grants, and auxiliary operations. Mines receives money from the state in two ways: from fee-for-service contracts with the state department of higher education, and tuition stipends through the Colorado Opportunity Fund to qualified undergraduate students. The state legislature sets the amount of the stipend to each student for tuition at any public, nonvocational Colorado institution and some private colleges in the state. For fiscal 2019, Mines will receive $6.7 million in stipend money through the fund. The fee-for-service contract specifies that the university will provide specialized engineering and graduate services to the state; fee-for-service contract revenue will account for $16.2 million in fiscal 2019, slightly higher than in the previous two fiscal years.

In fiscal 2018, Mines' total research revenue was solid at about $60 million. Historically, the university has received about 25% of research funding from private industry, with the majority of the balance coming from federal grants.

Mines was designated an institutional enterprise under Colorado law in 2004. This permits the school to pledge up to 10% of tuition revenue for enterprise and improvement revenue bonds. Its overall relationship with the state is good, according to management, and the school has secured "exemplary status" (designated by the state legislature and written into the Colorado statutes), which means, among other things, that it has some tuition-raising flexibility. Mines increased resident tuition by 3% in fiscal 2019 to $16.6 million and nonresident tuition by about 3% to $36.3 million. Including room and board and other fees and charges of about $15 million, total costs rise to levels we consider high for a state institution but competitive those of with peer colleges and universities. Despite the higher costs, tuition discounting has remained low, although it has risen slightly during the past few years.

Available resources

Available resources for fiscal 2018, as measured by adjusted unrestricted net assets (UNA), remain consistent for the rating category, in our view. Adjusted UNAs totaled $132.1 million in fiscal 2018, or an exceptional 41.7% of operating expense, but only a fair 46% of total debt, in our opinion. Adjustments to UNA include $31.2 million from the foundation's UNA, about $465 million for Governmental Accounting Standards Board (GASB) 68 adjustments, and about $12 million for GASB 75 adjustments. In our view, the financial resource ratio to operations remains very strong, but the ratio to debt has weakened, and could continue to weaken with new debt issuance.

Mines Foundation holds the bulk of the school's endowment. In our view, the endowment asset allocation is somewhat concentrated in equity, but comparable with that of peers, with 70% equities--about 18.8% in private equity and nontraditional assets, about 9.1% fixed income, and 1.3% money market. The authorized annual spending draw from the endowment is 4.25% of the rolling three-year average market value, which we consider sustainable. The endowment's net investment return for fiscal 2017 was 18.2%, and 7.9% for fiscal 2018. Management closely tracks liquidity, liquidity needs, and capital calls and distributions, and we consider this a credit strength. As of June 30, 2018, the long-term investment pool asset market value, which largely constitutes the endowment, totaled $309.7 million, of which about 36% was available in less than six days; 50% in less than a month; and 80% in a year. We consider this fairly liquid. The investment pool assets are invested with 30 investment managers in various diversified asset classes. The foundation's investment consulting firm recommends investment management firms and meets with the foundation investment committee quarterly.

Debt and contingent liabilities

We believe Mines has contingent liability risk exposure associated with pension obligations due to the low 42% funded ratio of the state division trust. The university's required annual contribution totaled $14.8 million in fiscal 2018, or a manageable 5% of operations. However, given the potential for growth in required contributions, officials reported that, in January 2017, Mines implemented a defined contribution retirement plan for all newly hired academic and administrative faculty.

In June 2018, CSM entered an agreement with a private developer (Confluence Co.) to build student housing on a parcel of land adjacent to campus. The university bought the land for approximately $3 million, and will lease it to Confluence, who will own the building and lease it to Mines under a 30-year lease agreement. Ownership reverts to the university at the end of the lease. Mines will operate and maintain the building. Occupancy is anticipated for August 2020.

The university has one floating-to-fixed rate swap contract outstanding with Morgan Stanley Capital Services Inc. associated with the series 2018A floating rate note. The mark-to-market on the swap as of June 30, 2018, was negative $6.8 million. Interest on the bonds accrues at an index interest rate extending through February 2023.

Colorado School of Mines Board of Trustees -- Enterprise And Financial Statistics

	--Fiscal year ended June 30--					--Medians for 'A' rated public colleges and universities--
	2019	**2018**	**2017**	**2016**	**2015**	**2017**
Enrollment and demand						
Headcount	6,268	6,117	5,876	5,924	5,794	MNR
Full-time equivalent (FTE)	5,961	5,818	5,824	5,809	5,529	11,963
% FTE change	2.5	(0.0)	0.3	5.1	N.A.	MNR
Freshman acceptance rate (%)	49.2	55.7	45.6	37.7	36.5	73.4
Freshman matriculation rate (%)	19.3	19.2	18.1	22.7	22.2	MNR
Undergraduates as a % of total enrollment (%)	78.3	77.8	77.7	76.5	75.6	83.7
Freshman retention (%)	92.0	93.0	92.0	94.0	94.0	76.1
Graduation rates (six years) (%)	80.5	78.5	76.8	76.5	75.9	MNR
Income statement						
Adjusted operating revenue ($000s)	N.A.	309,817	290,937	283,227	268,225	MNR
Adjusted operating expense ($000s)	N.A.	317,041	293,826	275,476	257,999	MNR
Net adjusted operating income ($000s)	N.A.	(7,924)	(2,889)	7,751	10,226	MNR
Net adjusted operating margin (%)	N.A.	(2.28)	(0.98)	2.81	3.96	(0.86)
Estimated operating gain/loss before depreciation ($000s)	N.A.	12,523	15,693	25,922	27,004	MNR
Change in unrestricted net assets (UNA; $000s)	N.A.	(123,933)	(101,181)	(13,353)	(244,316)	MNR
State operating appropriations ($000s)	N.A.	21,486	20,699	20,547	18,669	MNR

Colorado School of Mines Board of Trustees -- Enterprise And Financial Statistics (cont.)

	--Fiscal year ended June 30--					--Medians for 'A' rated public colleges and universities--
	2019	**2018**	**2017**	**2016**	**2015**	**2017**
State appropriations to revenue (%)	N.A.	7.1	7.1	7.3	7.0	22.3
Student dependence (%)	N.A.	63.0	61.4	59.9	60.4	54.4
Research dependence (%)	N.A.	19.5	19.3	21.2	20.9	MNR
Endowment and investment income dependence (%)	N.A.	1.2	3.5	3.1	3.1	0.7
Debt						
Outstanding debt ($000s)	N.A.	286,170	193,543	200,799	194,032	177,725
Current debt service burden (%)	N.A.	6.18	5.33	4.38	6.06	MNR
Current MADS burden (%)	N.A.	6.34	5.81	6.20	N.A.	4.45
Financial resource ratios						
Endowment market value ($000s)	N.A.	258,135	246,148	212,303	234,190	94,176
Related foundation market value ($000s)	N.A.	322,559	312,813	283,644	307,770	120,665
Cash and investments ($000s)	N.A.	264,026	165,675	174,207	180,083	MNR
UNA ($000s)	N.A.	(377,795)	(253,862)	(152,681)	(139,328)	MNR
Adjusted UNA ($000s)	N.A.	132,140	134,942	127,548	128,571	MNR
Cash and investments to operations (%)	N.A.	83.3	56.4	63.2	69.8	43.2
Cash and investments to debt (%)	N.A.	92.3	85.6	86.8	92.8	96.1
Adjusted UNA to operations (%)	N.A.	41.7	45.9	46.3	49.8	30.7
Adjusted UNA plus debt service reserve to debt (%)	N.A.	46.2	69.7	63.5	66.3	66.7
Average age of plant (years)	N.A.	12.2	12.1	11.5	11.5	14.2

N.A.--Not available. MNR--Median not reported. MADS--Maximum annual debt service. UNA--Unrestricted net assets. Total adjusted operating revenue = unrestricted revenue less realized and unrealized gains/losses and financial aid. Total adjusted operating expense = unrestricted expense plus financial aid expense. Net operating margin = 100*(net adjusted operating income/adjusted operating expense). Student dependence = 100*(gross tuition revenue + auxiliary revenue) / adjusted operating revenue. Current debt service burden = 100*(current debt service expense/adjusted operating expenses). Current MADS burden = 100*(maximum annual debt service expense/adjusted operating expenses). Cash and investments = cash + short-term and long-term investments. Average age of plant = accumulated depreciation/depreciation and amortization expense. Adjusted UNA = UNA + UNA foundation + GASB 68 adjustments (NPL +/- deferred inflows and outflows) + GASB 75 adjustments.

Ratings Detail (As Of February 20, 2019)

Colorado Sch of Mines Brd of Trustees institutional enterprise rev bnds		
Long Term Rating	A+/Negative	Outlook Revised
Colorado Sch of Mines Brd of Trustees institutional enterprise rev rfdg bnds		
Long Term Rating	AA/Stable	Affirmed
Underlying Rating for Credit Program	A+/Negative	Outlook Revised
Colorado Sch of Mines Brd of Trustees inst enterprise rev bnds ser 2017B dtd 11/16/2017 due 12/01/2047		
Long Term Rating	A+/Negative	Outlook Revised
series 2008A		
Long Term Rating	A+/Negative	Outlook Revised

Ratings Detail (As Of February 20, 2019) (cont.)

Series 2012B		
Underlying Rating for Credit Program	A+/Negative	Outlook Revised
Long Term Rating	AA/Stable	Affirmed

Many issues are enhanced by bond insurance.

Moody's
INVESTORS SERVICE

Rating Action: Moody's assigns Aa3 underlying and Aa2 enhanced ratings to Colorado State University System's (CO) Series 2018A; outlook stable

28 Sep 2018

New York, September 28, 2018 -- Moody's Investors Service has assigned an Aa3 underlying and Aa2 enhanced rating to Colorado State University System's (CO) planned $30.625 million of fixed rate Taxable System Enterprise Revenue Bonds, Series 2018A (maturing 2048) to be issued by the Board of Governors of the Colorado State University System. We maintain underlying Aa3 ratings on approximately $1.0 billion of outstanding parity system enterprise revenue bonds, enhanced Aa2 ratings on approximately $758 million of bonds qualified by the state intercept program, and a P-1 rating on a Commercial Paper (CP) program authorized at $50 million based on the system's internal liquidity. The outlooks on the underlying and enhanced ratings are stable.

RATINGS RATIONALE

The Aa3 rating reflects the system's role as the land grant institution for the State of Colorado (Aa1 stable issuer rating), with a sizeable $1.4 billion scope of operations and significant research enterprise. Excellent strategic positioning and growing national brand is reflected in its steady student demand, strong growth of net tuition revenue, and robust donor support. Strong fiscal stewardship and strategic oversight is also demonstrated by the successful execution of a sizeable capital campaign and substantial campus investments. Offsetting challenges include high debt relative to financial reserves and operations, historically limited state operating and capital support, and an elevated underfunded pension liability.

The system's fall 2018 headcount enrollment is up 2% over fall 2017, with growth at the Colorado State University (CSU)-Fort Collins campus and Global Campus, and softening at CSU-Pueblo. Preliminary fiscal 2018 operating performance is comparable to 2017. Fiscal 2018 operating revenue growth of an estimated 10% is due to across-the-board improvements in student charges, grants and contracts and state support. The fiscal 2019 approved state budget provides a combined 11% increase in support for the College Opportunity Fund (COF) and Fee-for-Service (FFS) revenues. Liquidity is projected to be at least comparable to fiscal 2017 for the June 30, 2018 fiscal year-end.

The Aa2 enhanced rating and stable outlook are derived from the structure and mechanics of the Colorado Higher Education Enhancement Program, which are based on Colorado's current rating and outlook.

RATING OUTLOOK

The stable outlook on the system's Aa3 underlying rating reflects our expectation of continued stable student demand, ongoing operational adjustments and strategic prioritizations to maintain balanced operating performance and solid debt service coverage. The stable outlook further reflects the expectation it will successfully manage the elevated debt service requirements beginning in fiscal 2018.

The stable outlook for the enhanced rating is based on the state's current stable long-term outlook.

FACTORS THAT COULD LEAD TO AN UPGRADE

- Underlying rating: Sizeable improvement in spendable cash and investments relative to debt, sustained strong cash flow margins, and limited debt increases

- Enhanced rating: Upgrade in the State of Colorado issuer rating

FACTORS THAT COULD LEAD TO A DOWNGRADE

- Underlying rating: Sustained deterioration of cash flow margins and debt service coverage, erosion of liquidity, and significant increase in leverage beyond what is currently planned

- Enhanced rating: Deterioration in credit quality of the State of Colorado issuer rating

LEGAL SECURITY

The system's enterprise revenue bonds and parity rated CP program are secured by a pledge of revenues at both CSU and CSU-Pueblo (Global Campus revenues are not pledged). These include: net revenues of certain auxiliary enterprise facilities (housing, dining, parking, and certain student recreational facilities), certain mandatory student fees collected at both campuses, indirect cost recoveries (overhead received for research grants and contracts), as well as 10% of net tuition revenue. In addition, the federal subsidies expected to be received in connection with the Series 2010B and 2010C bonds are pledged to the payment of the revenue bonds. The revenue pledge is net of operating and maintenance expenses of auxiliary facilities.

The fiscal 2018 net pledged revenue was $172 million, which is a limited 12% of the system's operating revenues. Maximum annual debt service coverage of the $77 million payment due in 2021 is 2.2x. Pledged revenue coverage is narrower compared to debt of rated peers due to the limited 10% pledge of tuition monies.

Certain of the system's bonds, including the planned Series 2018A bonds, are further secured by the state intercept. Colorado's higher education intercept program is categorized as an unlimited advance. Should the system fail to provide sufficient funds for debt service, the trustee is required to notify the state treasurer on the business day immediately prior to the debt service payment date. The treasurer is required to remit funds to the trustee in immediately available funds of the state. The treasurer recovers the debt service payment from the system's fee-for-service funds, as well as from unpledged tuition revenue. Please see our report dated October 22, 2008 for more detail on this program rating.

The intercept program currently covers the Series 2009A, 2010A 2010B, 2010C, 2012A, 2012B, 2013A, 2013B, 2013E, 2015C, 2015E, 2017A, 2017C and 2017E bonds.

USE OF PROCEEDS

Proceeds of the Series 2018A bonds are expected to be used for identified capital projects at the Fort Collins campus and Foothills research campus, and to pay costs of issuance.

PROFILE

The Colorado State University System includes the CSUS system administration, which oversees three component institutions: the state's land grant institution, Colorado State University in Fort Collins; Colorado State University-Pueblo; and Colorado State University-Global Campus, a fully online public university. CSU also manages extension offices in 60 of the 64 counties in Colorado. In fiscal 2018, the system's preliminary operating revenue totaled $1.4 billion and in fall 2018 enrolled roughly 56,000 students.

METHODOLOGY

The principal methodology used in the underlying rating was Higher Education published in December 2017. The principal methodology used in the enhanced rating was State Aid Intercept Programs and Financings published in December 2017. Please see the Rating Methodologies page on www.moodys.com for a copy of these methodologies.

REGULATORY DISCLOSURES

For ratings issued on a program, series or category/class of debt, this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series or category/class of debt or pursuant to a program for which the ratings are derived exclusively from existing ratings in accordance with Moody's rating practices. For ratings issued on a support provider, this announcement provides certain regulatory disclosures in relation to the credit rating action on the support provider and in relation to each particular credit rating action for securities that derive their credit ratings from the support provider's credit rating. For provisional ratings, this announcement provides certain regulatory disclosures in relation to the provisional rating assigned, and in relation to a definitive rating that may be assigned subsequent to the final issuance of the debt, in each case where the transaction structure and terms have not changed prior to the assignment of the definitive rating in a manner that would have affected the rating. For further information please see the ratings tab on the issuer/entity page for the respective issuer on www.moodys.com.

Regulatory disclosures contained in this press release apply to the credit rating and, if applicable, the related rating outlook or rating review.

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MOODY'S INVESTORS SERVICE

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Table Of Contents

Colorado State University System Board of Governors; Public Coll/Univ - Unlimited Student Fees; School State Program

Credit Profile		
US$103.035 mil Enterprise rfdg bnds ser 2017A dtd 10/03/2017 due 03/01/2044		
Long Term Rating	AA-/Stable	New
Underlying Rating for Credit Program	A+/Stable	New
US$11.0 mil Enterprise rfdg bnds ser 2017B dtd 10/03/2017 due 03/01/2044		
Long Term Rating	A+/Stable	New

Rationale

S&P Global Ratings assigned its 'A+' long-term rating to the Colorado State University System Board of Governors' (CSU or the system) series 2017A and series 2017B system enterprise revenue refunding bonds. At the same time, S&P Global Ratings affirmed its 'A+' long-term rating and underlying rating on CSU's existing system enterprise revenue bonds. The outlook is stable.

Some of the university's bonds also hold a long-term rating reflective of CSU's participation in the Colorado Higher Education State Aid Intercept Program, and the series 2017A bonds do qualify for the state intercept program.

We have assessed the system's enterprise profile as very strong, reflecting steady enrollment growth and solid demand metrics as well as the system's solid research presence. We assessed the system's financial profile as strong, reflecting improving financial operations on a full-accrual basis, offset by an above-average debt burden, and low financial resource ratios to debt for the rating. When we combine the enterprise profile and financial profile, they generate an indicative credit rating of 'a+' and a long-term bond rating of 'A+'.

The 'A+' long-term rating reflects our view of the system's:

- Significant program and degree offerings on its three campuses and its status as the land grant institution in Colorado;
- Broad pledge of net revenue, including tuition, fees, research, indirect cost recovery, and a subordinate pledge of auxiliary revenue;
- Increasing enrollment, with a combined 55,569 total headcount as of fall 2016 and expectations for continued growth in fall 2017;
- Adequate financial resources to operating expenses, with adjusted unrestricted net assets (UNA) covering 29% of expenses; and
- Historically variable financial operations on a full-accrual basis, although the system achieved improved, positive results in fiscal 2016, which are expected to continue in fiscal 2017.

Partly offsetting the above strengths, in our view, are the system's:

- Significant increase in debt during the past few years with an above-average, but manageable, pro forma maximum

annual debt service (MADS) burden of 6% of fiscal 2016 operating expenses;
- Low financial resources relative to debt for the rating with adjusted UNA equal to 30% of pro forma debt, and
- Relatively small, but increasing, endowment for the rating.

The series 2017A and 2017B bond proceeds will be used to advance refund a portion of CSU's outstanding series 2012A bonds as well as a portion of CSU's series 2013C bonds. Pro forma for this refunding transaction, as well as for an expected $50 million in new debt issuance and approximately $50 million in principal repayments during our outlook period, total debt is approximately $1.17 billion, including some capital leases. The pro forma debt burden is what we consider above average but manageable, at 6.1% of operating expenses against MADS. Net revenue from CSU's Fort Collins and CSU-Pueblo campuses--which includes a variety of student fees, indirect cost recovery, and 10% of tuition--secures the system enterprise revenue bonds. This makes the underlying security the equivalent of an unlimited student fee pledge in our opinion. CSU-Global revenue is not pledged.

Outlook

The stable outlook reflects our expectation that CSU will maintain its robust demand and enrollment profile and continue to produce at least break-even results on a full-accrual basis. We also expect CSU to maintain or improve its financial resource ratios.

Upside scenario

We could take a positive rating action if the system continues to improve financial operations while demonstrating growth in financial resource ratios and maintaining its enrollment profile.

Downside scenario

We could lower the rating during our two-year outlook period if the system issues significant new debt without a commensurate buildup in resources, or if financial operations weaken significantly.

Enterprise Profile

Industry outlook

Industry risk addresses the higher education sector's overall cyclicality and competitive risk and growth by applying various stress scenarios and evaluating barriers to entry, levels and trends of profitability, substitution risk, and growth trends observed in the industry. We believe the higher education sector represents a low credit risk when compared to other industries and sectors.

Economic Outlook

About 72% of total CSU students are from the state of Colorado. As such, our assessment of CSU's economic fundamentals is anchored by the state GDP per capita.

Management and governance

A board of nine governor-appointed and six nonvoting members governs the system. Members serve four-year terms. President Tony Frank, who has been the president of CSU since 2008, was appointed as CSU System Chancellor in June 2015. We view senior staff as stable, with normal turnover of deans and senior staff members. In our opinion, the university follows conservative governance and financial management practices.

Market position and demand

The system comprises two campus universities at opposite ends of the state: one in Fort Collins with a full-time equivalent enrollment (FTE) in fall 2016 of 25,117, and the other in Pueblo with an undergraduate FTE in fall 2016 of 3,458. The system opened a third, virtual campus in 2008 called CSU-Global; the FTE in fall 2016 was 8,913. The CSU system is the second-largest out of 10 public four-year institutions in the state. Founded in 1870, the university is the state's land-grant institution and has greater than 7,000 acres of land. It is a comprehensive university and is particularly known for its veterinary medicine and infectious diseases programs. Systemwide, about 74% of students are state residents, and approximately 74% are undergraduates. At Fort Collins, only 69% of students are state residents.

Enrollment increased during the past few years across the three campuses but particularly at its main campus in Fort Collins and CSU-Global. Fort Collins' demand profile is consistent with that of peer institutions, with a system acceptance rate of 78% for freshmen and a matriculation rate of 29.2% for fall 2016, which we believe demonstrate some self-selectivity among applicants and a strong academic niche. The Fort Collins campus experienced a 2% increase in FTE enrollment in fall 2015, followed by a 3% increase in fall 2016. The system projects continued 3% to 4% annual growth at the Fort Collins campus, and preliminary figures indicate that both freshmen and total enrollment will increase in fall 2017. CSU-Global also continues to increase, with the total fall 2016 FTE at 8,913 (undergraduate and graduate), almost double that of three years ago (4,960). Management expects continued growth at CSU-Global.

In fall 2016, the Pueblo campus had a total FTE of about 3,458, which was flat compared with fall 2015's FTE of 3,486. The freshmen class was larger at 1,261 versus 1,205 in fall 2015. Management projects a slight decrease in enrollment at Pueblo for fall 2017.

Fundraising for CSU-Fort Collins and CSU-Pueblo is done by their respective foundations. For the campaign ended in 2012, the system exceeded its $500 million goal--six months ahead of schedule--raising a total of $537.3 million. Fundraising and overall donors have increased during the past few years. The system is currently in the midst of a $1 billion campaign, called "State Your Purpose", which has raised over $700 million to date, and is expected to conclude in June 2020. In fiscal 2017, the university received the largest gift in its history of $53.3 million for the engineering college for scholarships, faculty and research, from Walter Scott, Jr. of Omaha, Neb., a former chairman of Colorado-based Level 3 Communications. The engineering college will be renamed the Walter Scott, Jr. College of Engineering.

Financial Profile

Financial management policies

The college has formal policies for endowment, investments, and debt. It operates according to a five-year strategic plan, and has a formal reserve liquidity policy. The college meets standard annual disclosure requirements. The financial policies assessment is neutral, reflecting our opinion that while there may be some areas of risk, the organization's overall financial policies are not likely to negatively affect its future ability to pay debt service. Our analysis of financial policies includes a review of the organization's financial reporting and disclosure, investment allocation and liquidity, debt profile, contingent liabilities, and legal structure and a comparison of these policies to comparable providers.

Financial operations

As with many other parts of the country, Colorado has experienced budgetary stress, which strained the state's financial support for higher education for a number of years. However, state funding has improved in recent years. In fiscal 2016 and 2017, CSU received $134.7 million and $134.5 million, respectively in state funding. Management expects a slight increase of almost $5 million, to $139.3 million in state funding for fiscal 2018.

The system has a history of mixed full-accrual operating performance, although cash operations have always been what we consider very positive. After three consecutive years of deficit margins on an adjusted full-accrual basis (0.9% in fiscal 2013, 1.3% in fiscal 2014, and 2.2% in fiscal 2015), the system generated a surplus on a full-accrual basis of $7 million (0.5%) in fiscal 2016. Before depreciation of $95 million in fiscal 2016, cash operations were very positive. We view the improvement in operations in fiscal 2016 positively, and management expects fiscal 2017 results to be similar, given the 3% increase in enrollment in fall 2016.

Available resources

Fiscal 2016's adjusted unadjusted net assets (UNA) of $342.3 million (including the $33 million for the foundation and an adjustment for Governmental Accounting Standards Board Statement No. 68 pension liabilities) covered 28.6% of operations, which we consider adequate for the rating, and 30% of total pro forma debt, which we consider low for the rating. Cash and investments are stronger at $796.2 million, which cover operating expenses by 67% and pro forma debt by 70%.

CSU's estimated endowment market value--held by the foundations--was about $350 million as of June 30, 2017. The university's reliance on annual support from the endowment for operations is minimal, with the endowment contributing less than 2% of CSU's operating budget. The university's annual spending policy is 4.5% of the average balance, which we view as standard.

Debt and contingent liabilities

A pledge of net revenues from CSU's Fort Collins and Pueblo campuses--which include a variety of student fees, indirect cost recovery, and 10% of tuition--secure the system enterprise revenue bonds. This makes the underlying security the equivalent of an unlimited student fee pledge in our opinion. CSU will use a pledge of net revenues from student fees for a student recreation center, Lory student operations, Lory student center facilities construction and renovations, Hartshorn health service, athletics facilities, general bonded indebtedness at CSU-Pueblo, and the student facility fee. CSU-Global revenues are not pledged.

The system holds pension liabilities on its balance sheet which pertain to the university's participation in the State Division Trust Fund, a defined-benefit pension fund administered by the Public Employees' Retirement Assn. for the state of Colorado. The university sponsors the optional defined-contribution plan for retirement. The university makes contributions to these plans through a fringe benefit rate approved by the Cost Allocation Services division of the U.S. Dept. of Health and Human Services. The state of Colorado has a weak pension funded ratio (less than 60%), in our opinion, and a history of funding less than the annual actuarially determined pension contribution under a statutory funding formula.

Colorado State University System Board of Governors						
	--Fiscal year ended June 30--					Medians
	2017	**2016**	**2015**	**2014**	**2013**	**Public Colleges & Universities 'A' 2016**
Enrollment and demand						
Headcount	33,198	32,236	31,725	31,514	30,647	MNR
Full-time equivalent	25,117	24,333	23,843	23,882	23,721	11,962
Freshman acceptance rate (%)	77.9	80.8	80.5	77.3	74.6	74.4
Freshman matriculation rate (%)	29.2	31.6	32.5	31.9	34.0	MNR
Undergraduates as a % of total enrollment (%)	71.6	71.4	70.9	71.6	73.1	84.5
Freshman retention (%)	86.1	86.6	86.0	86.0	86.6	77.0
Income statement						
Adjusted operating revenue ($000s)	N.A.	1,324,157	1,228,311	1,141,419	1,067,591	MNR
Adjusted operating expense ($000s)	N.A.	1,288,918	1,230,875	1,156,253	1,077,108	MNR
Net adjusted operating income ($000s)	N.A.	35,239	(2,564)	(14,834)	(9,517)	MNR
Net adjusted operating margin (%)	N.A.	2.73	(0.21)	(1.28)	(0.88)	(0.72)
Estimated operating gain/loss before depreciation ($000s)	N.A.	130,197	86,974	62,814	63,373	MNR
Change in unrestricted net assets (UNA; $000s)	N.A.	46,328	(480,242)	(12,074)	(20,219)	MNR
State operating appropriations ($000s)	N.A.	134,660	121,978	109,847	105,194	MNR
State appropriations to revenue (%)	N.A.	10.2	9.9	9.6	9.9	22.6
Student dependence (%)	N.A.	59.5	59.3	57.9	57.2	53.2
Research dependence (%)	N.A.	22.0	22.3	23.7	25.2	MNR
Endowment and investment income dependence (%)	N.A.	0.5	0.3	0.5	-0.3	0.4
Debt						
Outstanding debt ($000s)	N.A.	1,117,414	982,394	753,489	602,821	164,127
Total pro forma debt ($000s) *	N.A.	1,117,839	N.A.	N.A.	N.A.	MNR
Pro forma MADS *	N.A.	74,727	N.A.	N.A.	N.A.	MNR
Current debt service burden (%)	N.A.	5.41	4.69	4.31	3.95	MNR
Current MADS burden (%)	N.A.	5.76	6.03	4.88	N.A.	4.40
Pro forma MADS burden (%)	N.A.	5.80	N.A.	N.A.	N.A.	MNR
Financial resource ratios						
Endowment market value ($000s)	N.A.	326,767	297,137	297,295	N.A.	81,992
Related foundation market value ($000s)	N.A.	456,591	408,777	385,681	339,269	111,376
Cash and investments ($000s)	N.A.	796,198	771,496	564,796	523,109	MNR
UNA ($000s)	N.A.	(264,165)	(310,493)	169,749	181,823	MNR
Adjusted UNA ($000s)*	N.A.	337,790	277,661	255,189	259,782	MNR

Colorado State University System Board of Governors (cont.)

	--Fiscal year ended June 30--					Medians
	2017	2016	2015	2014	2013	Public Colleges & Universities 'A' 2016
Cash and investments to operations (%)	N.A.	61.8	62.7	48.8	48.6	45.2
Cash and investments to debt (%)	N.A.	71.3	78.5	75.0	86.8	96.3
Cash and investments to pro forma debt (%)	N.A.	71.2	N.A.	N.A.	N.A.	MNR
Adjusted UNA to operations (%)	N.A.	26.2	22.6	22.1	24.1	26.8
Adjusted UNA plus debt service reserve to debt (%)	N.A.	30.2	28.3	33.9	43.1	52.0
Adjusted UNA plus debt service reserve to pro forma debt (%)	N.A.	30.2	N.A.	N.A.	N.A.	MNR
Average age of plant (years)	N.A.	10.0	9.7	10.1	9.8	14.0
OPEB liability to total liabilities (%)	N.A.	1.4	2.1	2.7	3.2	MNR

Enrollment is presented for CSU-Fort Collins, while financial information is systemwide. N.A.--Not available. MNR--Median not reported. MADS--Maximum annual debt service. Net operating margin = 100(net adjusted operating income/adjusted operating expense). Student dependence = 100*(gross tuition revenue + auxiliary revenue) / adjusted operating revenue. Current debt service burden = 100*(current debt service expense/adjusted operating expenses). Current MADS burden = 100*(maximum annual debt service expense/adjusted operating expenses). Cash and investments = cash + short-term & long-term investments. Adjusted UNA = Unrestricted net assets + unrestricted net assets of the foundation + GASB 68 adjustment. Average age of plant = accumulated depreciation/depreciation & amortization expense. Pro forma debt = Total debt including the series 2017A and 2017B refundings, plus planned $50M issuance, net of approximately $50 million in planned principal repayments during the two year outlook.

Ratings Detail (As Of September 6, 2017)

Colorado State University System Board of Governors sys enterprise		
Long Term Rating	AA-/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Underlying Rating for Credit Program	A+/Stable	Affirmed
Colorado St Univ Sys Brd of Governors sys enterprise rev and rev rfdg bnds		
Long Term Rating	AA-/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Underlying Rating for Credit Program	A+/Stable	Affirmed
Colorado St Univ Sys Brd of Governors sys enterprise rev bnds		
Long Term Rating	AA-/Stable	Affirmed
Underlying Rating for Credit Program	A+/Stable	Affirmed
Colorado St Univ Sys Brd of Governors sys enterprise rev rfdg bnds		
Long Term Rating	AA-/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Underlying Rating for Credit Program	A+/Stable	Affirmed
Colorado St Univ Sys Brd of Governors sys enterprise rev rfdg bnds		
Long Term Rating	AA-/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Underlying Rating for Credit Program	A+/Stable	Affirmed
Colorado St Univ Sys Brd of Governors PCU_USF		
Long Term Rating	AA-/Stable	Affirmed

Ratings Detail (As Of September 6, 2017) (cont.)		
Unenhanced Rating	NR(SPUR)	
Underlying Rating for Credit Program	A+/Stable	Affirmed
Colorado St Univ Sys Brd of Governors PCU_USF		
Long Term Rating	AA-/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Underlying Rating for Credit Program	A+/Stable	Affirmed
Colorado St Univ Sys Brd of Governors PCU_USF		
Long Term Rating	A+/Stable	Affirmed
Colorado St Univ Sys Brd of Governors PCU_USF		
Long Term Rating	A+/Stable	Affirmed
Colorado St Univ Sys Brd of Governors PCU_USF (AGM)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Colorado St Univ Sys Brd of Governors SCHSTPR		
Long Term Rating	AA-/Stable	Affirmed
Underlying Rating for Credit Program	A+/Stable	Affirmed
Colorado St Univ Sys Brd of Governors sys enterprise		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed

Many issues are enhanced by bond insurance.

MOODY'S
INVESTORS SERVICE

CREDIT OPINION
13 July 2018

Rate this Research

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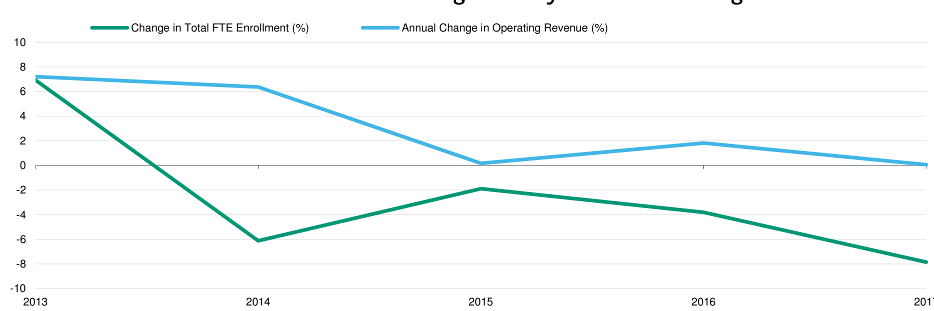
Fort Lewis College, CO

Update following revision of outlook to negative

Summary

Fort Lewis College's (A2 negative) very good credit quality is supported by its unique role in the State of Colorado (Aa1, stable) and region as the state's public liberal arts college with prominent provision of higher education to Native American students. The latter mission contributes to the college's credit strength as the state not only subsidizes the full cost of tuition for Native American students but also has provided strong capital support to the college. As a result, Fort Lewis has very low leverage, affording it some operating flexibility. The college's relatively healthy unrestricted liquidity, with over 175 monthly days cash on hand, is a favorable credit element as the college confronts continued significant enrollment declines. These declines will reduce revenue in the near term and stymy potential future growth. Despite management's commitment to contain expenses, the college's small operating base limits future large-scale expense reduction efforts without harming core programs. While the college has historically generated consistent sound operating performance, the college's projections for fiscal 2018 and fiscal 2019 indicate a material weakening of operating cash flow. Although improving, the State of Colorado's funding for higher education has historically lagged peers, requiring the college to rely heavily on tuition revenue from a shrinking population of enrolled students to fund operations. Recently, the college appointed a new president whom is reengaging traditionally targeted student groups and is bringing in a new "data-driven" approach to recruitment and program offerings in an effort to curb enrollment losses.

Exhibit 1
Enrollment losses have and will continue to significantly weaken revenue growth



Source: Moody's Investors Service

Credit strengths

» Good liquidity, providing 177 days cash on hand, offers a cushion to the college in times of stressed operations

» Low leverage in comparison to peers, with debt to cash flow of 5.5x

» Full tuition paid by the State of Colorado (Aa1 stable) for all Native American students (24% of revenue in fiscal 2017)

» Colorado intercept program benefits bondholders

Credit challenges

» Small public college experiencing student enrollment declines

» Historical inconsistency of state funding requires sufficient liquidity to cushion against unexpected reduction in state support

» Building expense pressures and low revenue growth weakening operating performance

» Small operating base limits future budget flexibility

Rating outlook

The negative outlook indicates prospects for credit deterioration if the college generates cash flow margins weaker than we currently expect, in the 5-6% range, for fiscal 2018 and 2019, or is unable to stabilize enrollment with reasonable prospects for material improvement in financial performance in fiscal 2020.

Factors that could lead to an upgrade

» Significant strengthening of student demand, reflected in growing enrollment and improved pricing power

» Material increase in total cash and investments

» Materially stronger operating support from the State of Colorado

» For the enhanced rating, upgrade of the State of Colorado rating

Factors that could lead to a downgrade

» Inability to stabilize enrollment with or improve operating performance from projected weak cash flows

» Material use of available reserves or increased debt, increasing leverage

» Reduction in support for the Native American tuition waiver or of weakening operating support from the State of Colorado

» For the enhanced rating, deterioration in credit quality of the State of Colorado rating

Key indicators

Exhibit 2

FORT LEWIS COLLEGE, CO

	2013	2014	2015	2016	2017	Median: A Rated Public Universities
Total FTE Enrollment	3,797	3,565	3,498	3,365	3,101	10,184
Operating Revenue ($000)	66,516	70,757	70,873	72,160	72,205	212,722
Annual Change in Operating Revenue (%)	7.2	6.4	0.2	1.8	0.1	1.9
Total Cash & Investments ($000)	49,055	51,852	50,619	56,666	52,704	178,994
Total Debt ($000)	56,957	55,117	52,288	51,267	51,724	139,579
Spendable Cash & Investments to Total Debt (x)	0.7	0.8	0.8	0.9	0.8	0.8
Spendable Cash & Investments to Operating Expenses (x)	0.6	0.6	0.6	0.6	0.5	0.6
Monthly Days Cash on Hand (x)	193	193	182	212	177	140
Operating Cash Flow Margin (%)	16.5	16.0	12.2	13.5	13.1	10.3
Total Debt to Cash Flow (x)	5.2	4.9	6.1	5.3	5.5	6.6
Annual Debt Service Coverage (x)	2.7	2.7	2.0	2.9	2.4	1.9

Source: Moody's Investors Services

Profile

Fort Lewis College is a public four-year liberal arts college in Colorado, located in the southwest Colorado City of Durango. The college continues to honor its historic commitment to Native Americans by offering full-tuition waivers to all qualified Native Americans who meet admission requirements. A member of the Council of Public Liberal Arts Colleges (COPLAC), Fort Lewis College had fiscal 2017 operating revenues of $72 million and enrolled 3,101 FTE students in fall 2017.

Detailed credit considerations

Market profile: important provider of education to Native American students facing significant enrollment challenges

Fort Lewis College's good strategic position will continue to be supported by its distinct market niche as one of only two colleges in the United States offering full-tuition waivers to Native American students. Overall, Native American students comprise about a third of enrolled students. The college waives tuition for all Native American students upfront and receives reimbursement from the State of Colorado in the subsequent fiscal year. The college was reimbursed $17.4 million in fiscal 2017, up moderately from the $16.2 million reported in fiscal 2016.

A fiercely competitive environment for the growing number of high school seniors in the state, coupled with retention struggles, have led to significant enrollment declines over the past five years. The number of FTEs in fall 2017 totaled 3,101, down 8% from fall 2016 and down 18% from fall 2013. Over the past five years, new matriculants have declined 20% and transfers have declined nearly 30%. Retention weakened dramatically in 2017, down to 59% from the 66% percent reported in 2016. Despite efforts to increase enrollment and retention, including the hiring of an enrollment consultant in 2015 and additional programs on-campus to promote retention, college officials anticipate an additional significant overall enrollment decline of nearly 10% in fall 2018.

In addition to the Native American reimbursement program, the college receives state operating support in the form of College Opportunity Fund (COF) stipend and contracted Fee for Service (FFS). In fiscal 2017, the college received $11.5 million from these sources, down slightly from fiscal 2016. As this funding is based primarily on enrollment, we anticipate stagnant to slightly declining revenue from these sources over the coming years. Favorably, the state provides solid capital support to the college, limiting the college's need to borrow for future capital projects.

Operating performance: material operating weakness expected as operating revenue declines

Due to continued enrollment challenges impacting revenue growth, we expect the college's operations to be weaker in fiscal 2018 and fiscal 2019. The college's fiscal 2017 operating cash flow margin of 13.1% is solid for the A2 rating category, well-above the median of 10.2%. The college implemented expense cuts this year and announced budget cuts into fiscal 2019, demonstrating management's commitment to minimizing operating performance declines. Additional material expense cuts beyond fiscal 2019 will prove challenging, as the college's operating base is small and material additional cuts could lead to further weakening of the college's competitiveness.

Operating revenue in fiscal 2018 will decline due to net tuition revenue losses stemming from enrollment declines. This decline follows a trend of weak revenue growth since the end of fiscal 2014. Since that fiscal year, revenue has grown only 0.7%, well below the A2-rated university median growth during that period of 1.9%. Management is budgeting for a slight downtick in revenue in fiscal 2019, due to an additional year of enrollment losses, offset partially by increased one-time state operating support and a tuition increase of 5% starting in fall 2018 (in-state and out-of-state).

College officials have made expense growth containment a priority over the recent period of revenue weakness to maintain operating performance. Since the end of fiscal 2014, non-pension related expenses have increased by approximately 1%. The college cut $1.7 million of budgeted non-pension expenses in fiscal 2018 and a further $4.2 million reduction in fiscal 2019, which will keep expenses relatively flat over the next two years. Management reports that no academic programs have ended due to these budget cuts. Management's ability to continue adjusting expenses without harming competitiveness will be challenging due to the college's small operating base.

Wealth and liquidity: low overall wealth, but solid available liquidity

Total cash and investments will remain modest for the A2-rating category as the college will struggle to build reserves with limited fundraising and thin operating surpluses. Total cash and investments totaled $53 million at the end of fiscal 2017 and have increased just 7% since the end of fiscal 2013, primarily due to the college's capital investments. In fiscal 2017, the college used internal reserves to fund numerous project on campus, including renovations to student housing. Due to management's successful cost containment strategies, spendable cash and investments to operating expenses remain adequate for the rating category at 0.51x.

Liquidity

The college's liquidity will remain stable and solid for its size of operations and rating category. As of June 30, 2017, the college had $31 million in monthly liquidity, representing 177 monthly days cash on hand, above peers (fiscal 2017 A2 median for public universities was 160 days).

Leverage: low leverage affords the college flexibility in a competitive operating environment

The college's leverage remains a key credit positive as the college continues managing through a competitive operating environment. Total debt to cash flow of 5.5x is strong for the A2 rating category (median of 7.3x in fiscal 2017). Spendable cash and investments to total debt is also healthy at 0.80x. The college has no additional debt plans over the next three years.

Debt structure

All of the college’s debt is fixed rate and amortizes through 2038.

Legal security

The college’s outstanding bonds are payable from a net revenue pledge of the college. This net revenue pledge includes the gross revenues of all of the college’s facilities, student fees, all revenues accruing to the college from overhead charges on research project, subtracted by operating and maintenance expenses. The pledge also includes 10% of the tuition revenues received by the college, as long as it maintains enterprise status (the college had enterprise status in fiscal 2017), and other income that the board determines to include in gross pledged revenues. The fiscal 2017 pledged net revenue provided annual debt service coverage of 1.86x.

Outstanding Series 2016 and Series 2016B bonds are covered by the State of Colorado’s higher education intercept program that is categorized as an unlimited advance. Should the college fail to provide sufficient funds for debt service, the trustee is required to notify the state treasurer on the business day prior to the debt service payment date. The treasurer is required to remit funds to the trustee immediately from available state funds. The treasurer recovers the debt service payment from the college’s fee-for-service funds, as well as from unpledged tuition revenue.

Debt-Related derivatives

The college does not have any debt-related derivatives.

Pension and OPEB

Fort Lewis College's pension liabilities are moderate, unlike many other Colorado universities, due to a lower number of participants in the state's pension fund. Recently enacted pension reforms will lower accrued liabilities and improve pension funding trajectories, a credit positive for the college. Reforms, which begin in fiscal 2019, include a 0.25% increase in employer contributions, increased employee contributions, and modifications to retiree benefits. These reforms will modestly increase the college's pension contributions going forward.

The college participates in the State Division Trust Fund (SDTF), a cost-sharing multiple-employer defined benefit pension fund administered by Public Employees' Retirement Association of Colorado ("PERA"). Substantially all full-time classified employees of the system are covered by PERA. Employer and employee obligations to contribute to PERA are established under Colorado state law.

Moody's three-year average adjusted net pension liability for the college is $67 million. Total adjusted debt is 1.6x operating revenue in fiscal 2017, below the A2-rated university median of 2.1x.

Management and governance: cautious budgeting and planning are key to maintaining operating performance

The college's cautious budgeting and planning are key to maintaining operating performance in a competitive environment. The college's management incorporates contingencies into its annual budget. This practice will help to mitigate any unexpected revenue deficiencies. The college also creates multi-year internal budget forecasts, demonstrating thoughtful budgeting practices.

The college recently appointed a new president that plans to usher in a new "data-driven" approach to college recruitment and program offerings. Additionally, the new president plans to reengage potential students from traditionally served backgrounds, including Native Americans and first generation students. The success of the new president's plans will be critical to the college's future success.

REPORT NUMBER 1127622

CLIENT SERVICES

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Asia Pacific	852-3551-3077
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EMEA	44-20-7772-5454

MOODY'S INVESTORS SERVICE

MOODY'S
INVESTORS SERVICE

Rating Action: Moody's assigns Metropolitan State University's A1 underlying, Aa2 enh. to Ser. 2016; outlook stable

06 Jan 2016

New York, January 06, 2016 -- Issue: Institutional Enterprise Revenue Bonds (Aerospace and Engineering Sciences Building Project) Series 2016; Underlying Rating: A1; Enhanced Rating: Aa2; Sale Amount: $26,395,000; Expected Sale Date: 01-19-2016; Rating Description: Revenue: Public University Broad Pledge

Summary Rating Rationale

Moody's Investors Service has assigned A1 underlying and Aa2 enhanced ratings to Metropolitan State University of Denver, CO's (MSU Denver) Institutional Enterprise Revenue Bonds (IERBs) Series 2016.

We have also affirmed the A1 underlying ratings on parity and related debt, and the Aa2 enhanced ratings on the Series 2009 and 2010 bonds. The A1 underlying rating reflects MSU Denver's location in economically vibrant downtown Denver (Aaa stable), as one of three complementary institutions on the Auraria Higher Education Center (AHEC, A1 stable) and the third largest university in Colorado (issuer rating Aa1 stable). Favorably, MSU Denver has growing net tuition per student and improved state funding, with consistently positive operating performance. Challenges include relatively high leverage that is rising further with the current issue, historically weak state funding and gift support, and declining enrollment. The rating also reflects exposure to the volatile hospitality industry as the university guarantees the debt service for its HLC@Metro component unit's 150-bed hotel.

The Aa2 enhanced rating and stable outlook are derived from the structure and mechanics of the Enhancement Program (the Colorado State Intercept Act), which is based on the State of Colorado's current rating and outlook.

Rating Outlook

The stable outlook on the A1 underlying rating reflects our expectation of continued positive operating cash flow to meet good debt service coverage, stable hotel operations, and limited use of reserves. It also incorporates recent additions to state funding, management's current plans to stabilize enrollment trends, and no additional debt plans.

The stable outlook for the enhanced rating is based on the state's current stable long-term outlook.

Factors that Could Lead to an Upgrade

Underlying rating:

Sustained improvement in cash flow leading to liquidity growth and improved leverage

Successful execution of enrollment strategy resulting in stabilized enrollment and revenue diversity

Continued successful occupancy rates at the HLC hotel, with self-sustaining cash flow

Enhanced rating:

Upgrade in the State of Colorado rating

Factors that Could Lead to a Downgrade

Underlying rating:

Material ongoing declines in enrollment, pressuring operating performance

Weaker than expected operating performance at the HLC hotel requiring a draw on the university's guarantee

Enhanced rating:

Deterioration in credit quality of the State of Colorado rating

Legal Security

The planned Series 2016 bonds are secured by pledged revenues and are on parity with the Series 2009, 2010 and 2014 institutional enterprise revenue bonds, as well as the Metropolitan State College of Denver Roadrunner Recovery and Reinvestment Act Finance Authority Series 2010A&B (HLC@Metro Project). Pledged revenues include: net revenues calculated as 10% of tuition revenues, net revenues derived from a student facilities construction fee, indirect cost recoveries, mandatory fees for student and faculty services, continuing education services, the federal interest subsidy on qualifying bonds, and all designated unrestricted net income of the university.

The FY 2015 pledged revenues of $27 million cover pro forma parity debt service, including the amount guaranteed on the HLC@Metro bonds, of $7.4 million by 3.6 times. There are no debt service reserve fund requirements on MSU Denver's enterprise revenue bonds, but there is 1.0 times rate covenant.

The HLC@Metro Series 2010A&B bonds, issued through a MSU Denver component unit, are payable from net hotel revenues, and federal direct payments received as a qualified Build America Bond. These bonds also have the absolute and unconditional guarantee of payment for gross debt service on parity with MSU's Series 2009 and 2010 enterprise revenue bonds. The bonds also have the pledge of certain reserve funds including a liquidity fund (25% of the maximum annual debt service on the outstanding bonds) and reserve fund (initially established as $600,000, and with the current reserve balance of $3.5 million).

Certain of MSU Denver's enterprise revenue bonds (Series 2009, 2010, 2014 and planned 2016) also benefit from the presence of the Colorado Higher Education Revenue Bond Intercept Program rating, which is categorized as an unlimited advance. If the university fails to provide sufficient funds, the paying agent is required to notify the state treasurer on the business day immediately prior to the debt service payment date. The treasurer is then required to remit funds to the paying agent, in immediately available funds of the state, the amount necessary to make the debt service payment. Please see our report dated October 22, 2008 for more detail on this program rating.

Use of Proceeds

The proceeds from the sale of the Series 2016 Bonds will be used to finance the construction and equipping of the Aerospace and Engineering Sciences Building, make other capital improvements to the campus, and pay costs of issuance.

Obligor Profile

Metropolitan State University is the third largest four-year public higher education institution in Colorado, located in downtown Denver at the Auraria Higher Education Center (AHEC). AHEC was established as an agency of Colorado to provide land, plant and facilities to house three institutions: MSU Denver, the University of Colorado Denver and the Community College of Denver. MSU Denver had FY 2015 operating revenues of $182 million and served a fall 2015 FTE of 14,834.

Methodology

The principal methodology used in this rating was Global Higher Education published in November 2015. The principal methodology used in the enhanced rating was State Aid Intercept Programs and Financings: Pre and Post Default in July 2013. Please see the Credit Policy page on www.moodys.com for a copy of these methodologies.

Regulatory Disclosures

For ratings issued on a program, series or category/class of debt, this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series or category/class of debt or pursuant to a program for which the ratings are derived exclusively from existing ratings in accordance with Moody's rating practices. For ratings issued on a support provider, this announcement provides certain regulatory disclosures in relation to the rating action on the support provider and in relation to each particular rating action for securities that derive their credit ratings from the support provider's credit rating. For provisional ratings, this announcement provides certain regulatory disclosures in relation to the provisional rating assigned, and in relation to a definitive rating that may be assigned subsequent to the final issuance of the debt, in each case where the transaction structure and terms have not changed prior to the assignment of the definitive rating in a manner that would have affected the rating. For further information please see the ratings tab on the issuer/entity page for the respective issuer on www.moodys.com.

Regulatory disclosures contained in this press release apply to the credit rating and, if applicable, the related rating outlook or rating review.

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Metropolitan State University Board of Trustees, Colorado; Public Coll/Univ - Unlimited Student Fees; School State Program

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Table Of Contents

Metropolitan State University Board of Trustees, Colorado; Public Coll/Univ - Unlimited Student Fees; School State Program

Credit Profile		
Metro State College Brd of Trustees (Denver) Institutional Enterprise rev bnds ser 2009A		
Underlying Rating for Credit Program	A/Negative	Affirmed
Unenhanced Rating	NR(SPUR)	
Metropolitan State University of Denver Roadrunner Recovery and Reinvestment Act Finance Authority, Colorado		
HLC @ Metro, Inc., Colorado		
HLC @ Metro series 2010 A, B, C revenue bonds		
Unenhanced Rating	A(SPUR)/Negative	Affirmed

Many issues are enhanced by bond insurance.

Rationale

S&P Global Ratings Services affirmed its 'A' underlying rating for credit program and underlying rating (SPUR) on Metropolitan State University Board of Trustees, Colo.'s direct and guaranteed revenue debt, issued for Metropolitan State University of Denver (MSU Denver). In addition, S&P Global Ratings affirmed its:

- 'AA' program rating and 'A' underlying rating for credit program on Metropolitan State College Board of Trustee's institutional enterprise revenue debt, issued for MSU Denver. The underlying rating for credit program reflects our view of the university's pledge of fees, net auxiliary revenue, indirect cost recoveries, and pledge of 10% tuition revenue. The program rating reflects MSU Denver's participation in the Colorado Higher Education State Aid Intercept program.
- 'A' SPUR on Metropolitan State College of Denver Roadrunner Recovery & Reinvestment Act Finance Authority , Colo.'s revenue debt, issued for HLC @ Metro Inc. HLC is an instrumentality of the state of Colorado, whose financials are presented as a discrete component unit of MSU Denver. The rating reflects our opinion of the guarantee, which is on parity with existing debt, of MSU Denver.

The outlook on all ratings is negative.

The negative outlook reflects our view that MSU Denver's enrollment declines in each of the past four years could continue, operating margins will be weaker compared to historical levels (although still positive results on a full-accrual basis) and financial resources will continue to remain weak for the rating category. The rating remains supported by MSU Denver's surplus operating performance, sufficient demand profile and stable state funding environment, though softer state support is expected for fiscal 2017.

We assessed Metro's enterprise profile as strong characterized by its sufficient demand profile, that is somewhat offset by recent enrollment declines, experienced management team, and niche as an urban university in Denver. We assessed Metro's financial profile as strong, with a history of positive operations and a stable state funding environment, though it is limited by the university's weak resources relative to its total debt load. Combined, we believe these credit factors lead to an indicative standalone credit profile of 'a' and a final rating of 'A'.

The 'A' rating reflects our opinion of the university's:

- Consistently positive operations on a full-accrual basis;
- Key niche in the state's higher education hierarchy--it serves the urban metropolitan Denver area--with historical state support; and
- Stable and experienced management.

We believe these credit strengths are somewhat offset by, what we consider, the university's:

- Below-average financial resource ratios with adjusted unrestricted net assets of $59.5 million, equal to 25.5% of adjusted operations and 39.2% of pro forma debt (as of fiscal 2015 expenditures);
- Total guaranteed and direct debt of $151.9 million, which is partially mitigated by a manageable 4.9% maximum annual debt service (MADS) burden; and
- Very small endowment and limited fundraising history.

MSU Denver, founded in 1963, is now on the Auraria campus, created by state statute in 1974, which occupies 140 acres in downtown Denver. The Auraria campus is home to the Community College of Denver and University of Colorado at Denver. About half of the 44,000 students at Auraria are MSU Denver students. MSU Denver is one of 10 public state four-year colleges in Colorado. MSU Denver, through its three schools (letters, arts, and sciences; business; and professional studies), offers 58 majors. Niche programs include accounting, hospitality, teacher education, and social work. The university changed its name to Metropolitan State University of Denver in July 2012 from Metropolitan State College of Denver. Management believes the name change resulted in a differentiation between MSU Denver and local community colleges. In fall 2015, total student enrollment was 20,574, or 14,835 full-time-equivalent (FTE) students, 97.7% of which were undergraduates.

Outlook

The negative outlook reflects our view that MSU Denver's enrollment declines in each of the past four years could continue, operating margins will likely be weaker compared to historical levels (although still positive results on a full-accrual basis), and financial resources will remain weak for the rating category. The rating remains supported by MSU Denver's surplus operating performance, adequate demand, and stable state funding environment.

Downside scenario

We could consider a negative rating action if operating margins were to weaken significantly, enrollment continues to decline, or if financial resource ratios were to decline to levels we consider more commensurate with 'A-' rated institutions.

Upside scenario

We could return the outlook to stable over the next year if enrollment stabilizes, operating margins remain steady, and financial resources remain consistent with the current rating category.

Enterprise Profile

Industry risk

Industry risk addresses the higher education sector's overall cyclicality and competitive risk and growth by applying various stress scenarios and evaluating barriers to entry, levels and trends of profitability, substitution risk, and growth trends observed in the industry. We believe the higher education sector represents a low credit risk when compared with other industries and sectors.

Economic fundamentals

In our view, the university has limited geographic diversity. About 95.8% of students are from Colorado. As such, our assessment of Metro's economic fundamentals is anchored by the Colorado gross domestic product per capita.

Market position and demand

MSU Denver's headcount has decreased during the past four years. Management attributes the decrease to a statewide trend and a robust local economy, which leads to cyclical enrollment at urban universities such as MSU Denver. FTE enrollment decreased 4.1% to 14,835 in fall 2015, after a 3.3% decline in fall 2014. To stem its declining enrollment, MSU Denver implemented a new program in fall 2012 to recruit and enroll undocumented students, the first program of its type in Colorado. In addition, the university is growing its advising and financial aid staff and services to improve retention and graduation rates. Based on management projections, we expect fall 2016 enrollment to remain flat when compared to fall 2015 enrollment as a result of the university's recruiting and retention efforts.

The demand profile has shifted within the past several years with approximately 60% of new students entering as transfer students. While freshman applications decreased by approximately 2.9% in fall 2015, they remain comparable to historical levels. For fall 2016, management projects an increase of approximately 1,100 freshman applications and freshman headcount to increase by about 240. According to management, interest in science, technology, engineering, and mathematics (STEM) undergraduate programs has increased.

Freshman selectivity has strengthened over the past few years with 53% of first-year applicants admitted in fall 2015 compared to 71% selectivity in fall 2012. Management explains that even though its marketing efforts have resulted in improvement with converting admits to enrollees, they are not able to accept some applicants because of incomplete applications. This shift is reflected in selectivity as well as the freshman matriculation rate, which strengthened to 57% in fall 2015 compared to 48% in fall 2012, which we view as good for the rating category. While the university continues to focus on recruiting freshmen students, management reports that 60% of new students enter as transfers. The university received 4,161 transfer applications in fall 2015, which represents an 8% decline from fiscal 2015, but is relatively comparable to historical levels. It admitted about 79% of these students, and 31% of those admitted enrolled. We view MSU Denver's mix of freshman and transfer students as unique and believe it provides for good student diversity.

More than 90% of students are from the seven-county metropolitan Denver area, and 96% of students are from Colorado. The freshman-to-sophomore retention rate strengthened to 70% in fall 2015 from 63% in fall 2014, and the six-year graduation rate has improved to 25.0% from 20.6% in 2010, which is consistent with management's efforts. The retention rate target remains 75% and management looks to improve its graduation efficiency to 1 degree per 4 students; it currently is at 1 degree to 4.4 students. While MSU Denver has seen improvement with student success measures, we expect that both will continue to improve.

The student population is fairly low income, with about 32% eligible for Pell Grants each year. With assistance from the federal government, officials have implemented new programs for better collections to reduce the default rate. The three-year cohort default rate was 10.1% based on fiscal 2012 calculations, as reported by the U.S. Department of Education. This compares well with the 11.8% national average and is comfortably below the 30% cohort default rate that could trigger the university's loss of its Pell Grant eligibility.

The university has not been an active fundraiser historically, but it embarked on campaigns for the HLC (Hotel Learning Center) project (and athletic facilities. For fiscal 2015, the related foundation raised nearly $3 million to support the university and HLC project. It also recently raised $1.6 million toward new athletic facilities. Alumni participation was approximately 2.3% in fiscal 2015, up from 1.3% in 2014, which we view as modest. We expect fundraising will improve as management reports that it continues to develop its alumni base and reports a goal of 12% alumni participation.

Management and governance

A nine-member board of trustees governs the university. Members are appointed by the governor, and management reports the board is stable with just rotational changes recently. We also understand that the board is currently working on a succession plan. The board has three standing committees that govern various administrative areas of the university. The foundation has a separate board, which includes one representative from the university's board of trustees. Management reports the foundation board has renewed its focus on fundraising.

MSU Denver has had the same president since 2005. Though the university hired a new associate vice president of enrollment management in December 2015, the senior management team is stable, which we believe lends stability to the overall credit profile. We believe the management team has carefully managed expenses and sustained a solid bottom line through the Great Recession despite significant cuts in state funding. We view this performance as a credit strength.

MSU Denver operates under the guidance of a strategic plan, whose goals include accessibility, diversity and academic excellence. Its current strategic plan runs through 2017, but was refreshed in 2015. We believe the university is achieving its strategic goals as it has completed a number of capital projects, became a university, implemented graduate degree programs, and was involved with legislation to change the state formula on funding; all since 2012.

Financial Profile

In line with our Dec. 15, 2015 publication "Incorporating GASB 68: Evaluating Pension Obligations under Standard & Poor's Higher Education and Charter School Criteria," we have made certain adjustments starting in audit year-end 2015 to adjust out the impact of GASB 68, "Accounting and Financial Reporting for Pensions—an amendment of GASB Statement No. 27" to enhance analytical clarity regarding the economic substance of the funding of liabilities, expenses and deferred inflows and outflows of resources associated with pension plan obligations and a change in accounting principle. We believe these adjustments enhance analytical clarity from a credit perspective and result in

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more comparable financial metrics as long as states continue to be able and willing to fund these pension liabilities.

Financial management policies

The college has formal policies for endowment and investment management. It operates according to a five-year strategic plan that is reviewed annually and refreshed every three years. The financial policies assessment reflects our opinion that, while there may be some areas of risk, the university's overall financial policies are not likely to negatively affect its future ability to pay debt service. Our analysis of financial policies includes a review of the university's financial reporting and disclosure, investment allocation and liquidity, debt profile, contingent liabilities, and legal structure and a comparison of these policies to comparable providers.

Financial performance

State support in Colorado is a combination of tuition reimbursement, or college opportunity funds (COF), and fee-for-service payments. Each Colorado student receives a COF stipend to use at any public, non-vocational institution and some private colleges in the state; the Colorado Legislature sets the amount of the stipend each year. The state funding environment has improved since 2013 in contrast to flat or decreasing state support during fiscal years 2009-2012. State support (including college opportunity funds or COF) and fee-for service payments) totaled $43.7 million in fiscal 2015, up from $39.2 million in 2014. State support improved within the past two years due to increases in fee-for-service payments. MSU Denver received $11.4 million in fee-for-service payments in fiscal 2015, up from $10.2 million in fiscal 2014. Fiscal 2016 fee-for-service payments increased significantly to $19 million, which we understand is somewhat related to a change in the funding structure of fee-for-service. COF stipends were $32.3 million and $29.1 million in fiscal years 2015 and 2014, respectively. While state funding has improved during the past several years, management expects softer support in the near term and is expecting a modest decrease for fiscal 2017 compared to the prior year.

Historically, MSU Denver has had positive operations; operating margins, however, have weakened compared to historical levels. In our analysis of MSU Denver's adjusted operating performance, we have factored out the effects of the GASB 68 expense accrual. After adjusting for this, the university posted a $5.9 million net adjusted operating surplus (full-accrual) or a margin of 2.5%, which is improved from a $2.2 million full-accrual surplus in fiscal 2014. Despite declines in enrollment, the surplus was supported by increases in tuition and state funding. Based on unaudited financials for fiscal 2016, the university is projecting negative operating results; however, if the GASB 68 expense accrual were adjusted out, management projects operations would be again positive. The university received $2 million in capital support in fiscal 2015 and nearly $12 million in fiscal 2016, which overall results in an increase in net position. We expect operating performance to remain positive during the next two fiscal years despite projections for softer state support due to tuition increases, and careful expense management.

Net tuition revenue, the university's main revenue source, increased over the past five fiscal years, providing a solid base for the university. Increases in tuition as well as increases in state support have helped boost revenue. MSU Denver's operating revenue remains moderately diverse, in our opinion, with tuition and fees, excluding the COF stipend, accounting for 53% of adjusted operating revenue (if COF stipend were included would be 66.4%) followed by the COF stipend accounting for 13.5%, grants and contracts accounting for 10.4%, and state fee-for-service payments accounting for 4.25%. The board sets the tuition, which was, what we consider, a very competitive $6,420, including fees, for the 2015-2016 academic year, a 5.8% increase from the previous academic year. In-state tuition rates have almost doubled within the past six years, but they remain below other state universities. Management notes that some community colleges are close in cost to MSU Denver. We believe that the university has a good degree of flexibility with its tuition rates and expect increases over the near term.

Available resources

We consider MSU Denver's available resource ratios below average for the rating category given the high total direct and guaranteed debt load. We adjusted the university's unrestricted net assets (UNA) by crediting $147.3 million (net pension liability, deferred inflows and deferred outflows) and $2.357 million (UNA for the foundation). With these changes, adjusted UNA equaled $59.5 million which represents an increase of 9.5% from fiscal 2015. Adjusted UNA represent 25.6% of adjusted operating expenses and 39.2% of pro forma debt at June 30, 2015, which we view as below average for the rating category. The pro forma debt factors in $27.45 million of debt that the university issued in fiscal 2016, but wasn't reflected on 2015's audited statements. Cash and investments were, in our opinion, below average at $69 million, which equaled 30% of fiscal 2015 adjusted operating expenses and 45.5% of pro forma debt.

MSU Denver has a small foundation with $15.4 million of net assets at June 30, 2015, approximately $2.4 million of which was unrestricted. The foundation's investments of approximately $7.4 million (as of July 31, 2016) are primarily in fixed income and equities.

Debt and contingent liabilities

MSU Denver has been significantly investing in its physical plant recently. The university had $70.3 million in debt, including $6.8 million in lease obligations, on its balance sheet at June 30, 2015. Management used most of the debt to construct a multipurpose student center, or a student success building, that opened in March 2012.

The university completed its athletics complex in March 2015. Although the university did not complete the complex on time, it was completed within budget and funded mostly with internal funds. In June 2014, MSU issued the $4 million series 2014 bonds through a bond purchase agreement with UMB Bank N.A. to complete the complex. We do not rate the series 2014 bonds; we, however, understand the bonds function like a line of credit. As of fiscal year-end 2015, the full $4 million had been drawn. In addition, we have reviewed the bond documents, issued under MSU's master bond resolution. According to bond documents, an event of default does not result in an acceleration of the debt. Therefore, we believe this bank debt does not increase MSU's event-driven liquidity risk.

The university is currently constructing a new aerospace and engineering science (AES) building to house aerospace science and aviation, industrial design, and engineering programs. According to management, the AES building should cost approximately $60 million, about $20 million of which the state will finance. In fiscal 2016, MSU issued $27.45 million of series 2016 bonds (which we do not rate) to finance the AES building and we understand the remaining portion will likely be financed through gifts and internal funds.

The university has pledged to guarantee approximately $54.2 million of debt for HLC @ Metro, Inc. The guarantee of debt is on parity with the university's current debt. HLC debt was issued to construct a hotel learning center and a hotel, which was completed in August 2012. Management reports revenue from the project is better than projected to date. Debt service is paid from revenue of the hotel and fundraising proceeds; revenue, however, is based on the university's guarantee of the debt. As of fiscal 2015, direct and guaranteed debt of the university was $124.5 million. Our analysis includes this as well as the $27.45 million of bonds that were issued in 2016 (as pro forma) for total debt of approximately $152 million.

Pledged revenue secures the current debt and the guarantee of debt. Pledged revenue includes, what we consider, a broad mix of revenue streams, such as 10% of tuition revenue, net auxiliary revenue, investment earnings, indirect cost recoveries, a facilities construction fee, other mandatory fees, net continuing-education revenue, and interest income earned on these fees. Pledged revenue was approximately $26.8 million for fiscal year 2015 with MADS of about $11.4 million for direct and guaranteed debt, which is a manageable 5% of fiscal operating expenses. We note that if the HLC debt were excluded, MADS would be approximately $7.06 million or approximately 3% of fiscal 2015 operating expenses.

Metropolitan State University of Denver, Colo.

	--Fiscal year ended June 30--					--Medians--
Enrollment and demand	**2016**	**2015**	**2014**	**2013**	**2012**	**Public Colleges & Universities Rated 'A' In 2015**
Headcount	20,574	21,657	22,775	23,326	23,828	MNR
Full-time equivalent	14,835	15,469	15,998	16,122	16,362	11,127
Freshman acceptance rate (%)	53.30	65.20	66.80	71.20	70.40	74.60
Freshman matriculation rate (%)	56.90	47.60	48.40	48.00	47.90	MNR
Undergraduates as a % of total enrollment (%)	97.70	97.80	98.00	98.50	99.00	85.40
Freshman retention (%)	70.00	62.50	65.80	65.30	65.40	74.80
Graduation rates (five years) (%)	18.10	15.20	17.30	18.00	14.20	MNR
Income statement						
Adjusted operating revenue ($000s)	N.A.	238,987	226,990	220,744	211,197	MNR
Adjusted operating expense ($000s)	N.A.	233,109	224,808	215,920	202,964	MNR
Net adjusted operating income ($000s)*	N.A.	5,878	2,182	4,824	8,233	MNR
Net adjusted operating margin (%)	N.A.	2.52	0.97	2.23	4.06	(0.49)
Estimated operating gain/loss before depreciation ($000s)	N.A.	12,240	7,452	9,579	11,842	MNR
Change in unrestricted net assets (UNA; $000s)	N.A.	(142,129)	(4,054)	1,403	8,969	MNR
State funding ($000s)	N.A.	43,681	39,230	37,469	36,961	MNR
State funding to revenue (%)	N.A.	18.28	17.28	16.97	17.50	22.70
Student dependence (%)	N.A.	67.60	68.50	67.30	52.20	51.60
Healthcare operations dependence (%)	N.A.	N.A.	N.A.	N.A.	N.A.	MNR
Research dependence (%)	N.A.	10.40	8.90	8.70	8.70	MNR
Endowment and investment income dependence (%)	N.A.	0.30	0.50	N.A.	0.40	0.30
Debt		**HLC and bonds and capital leases**				
Outstanding debt ($000s)	N.A.	124,483	122,947	124,807	126,659	155,104
Proposed debt ($000s)	N.A.	27,450	N.A.	N.A.	N.A.	MNR

Metropolitan State University of Denver, Colo. (cont.)						
Total pro forma debt ($000s)	N.A.	151,896	N.A.	N.A.	N.A.	MNR
Pro forma MADS	N.A.	11,346	N.A.	N.A.	N.A.	MNR
Current debt service burden (%)	N.A.	2.40	2.56	2.68	2.37	MNR
Current MADS burden (%)	N.A.	N.A.	N.A.	N.A.	N.A.	4.52
Pro forma MADS burden (%)	N.A.	4.87	N.A.	N.A.	N.A.	MNR
Financial resource ratios						
Endowment market value ($000s)	N.A.	7,109	6,525	5,214	N.A.	85,533
Related foundation market value ($000s)	N.A.	15,390	15,322	11,607	11,484	182,492
Cash and investments ($000s)	N.A.	69,157	78,081	81,033	84,153	MNR
UNA ($000s)	N.A.	(90,156)	51,973	56,027	54,624	MNR
Adjusted UNA ($000s)	N.A.	59,475	54,298	57,830	56,415	MNR
Cash and investments to operations (%)	N.A.	29.70	34.70	37.50	41.50	43.50
Cash and investments to debt (%)	N.A.	55.60	63.50	64.90	66.40	93.50
Cash and investments to pro forma debt (%)	N.A.	45.50	N.A.	N.A.	N.A.	MNR
Adjusted UNA to operations (%)	N.A.	25.50	24.20	26.80	27.80	22.20
Adjusted UNA plus debt service reserve to debt (%)	N.A.	47.80	44.20	46.30	44.50	44.10
Adjusted UNA plus debt service reserve to pro forma debt (%)	N.A.	39.20	N.A.	N.A.	N.A.	MNR
Average age of plant (years)	N.A.	4.80	4.70	4.40	4.80	13.90
OPEB liability to total liabilities (%)	N.A.	N.A.	0.00	0.00	N.A.	MNR

N.A.--not available. MNR--median not reported. MADS--maximum annual debt service. *Net operating margin = 100*(net adjusted operating income/adjusted operating expense)- Includes GASB 68 adjustment. Student dependence = 100*(gross tuition revenue + auxiliary revenue) / adjusted operating revenue. Current debt service burden = 100*(current debt service expense/adjusted operating expenses). Current MADS burden = 100*(maximum annual debt service expense/adjusted operating expenses). Cash and investments = cash + short-term & long-term investments. Adjusted UNA = Unrestricted net assets + unrestrticted net assets of the foundation. Average age of plant = accumulated depreciation/depreciation & amortization expense.

FitchRatings

Fitch Rates University of Colorado's Series 2019A-2 Revenue Bonds 'AA+'

Fitch Ratings-Chicago-16 August 2019: Fitch Ratings has assigned a 'AA+' rating to approximately $100 million of series 2019A-2 taxable fixed rate enterprise refunding revenue bonds to be issued by the Regents of the University of Colorado (CU).

CU's Issuer Default Rating (IDR) is 'AA+'. The short-term rating on CU's commercial paper (CP) program is 'F1+'.

The Rating Outlook is Stable.

Proceeds from the series 2019A-2 taxable revenue bonds will be used to refund portions of various series of bonds (including series 2012A-3, series 2012B, series 2013B, series 2014B-1, series 2015A, series 2015B, and series 2016A revenue bonds), and pay the costs of issuance. The bonds are expected to price Aug. 21, 2019.

SECURITY

Revenue bonds are secured by University of Colorado enterprise revenues, consisting primarily of auxiliary net revenues, indirect cost recovery revenues, student fees, 100% of tuition revenues, and other self-funded and research related services. Pledged revenues exclude state appropriations.

KEY RATING DRIVERS

Revenue Defensibility: 'aa'; Comprehensive Flagship Research University with Expanding Reach

Revenue defensibility is consistent with a 'aa' assessment. CU is a comprehensive flagship research university with broad statewide and expanding national draw. Retention rates are sound and average SAT/ACT scores are well above average, although acceptance and matriculation rates are comparatively modest. Fitch views CU's enrollment demand to be somewhat inelastic to tuition rates, and state support has grown in recent years. The endowment spend rate is quite manageable and should support liquidity growth.

Operating Risk: 'a'; Track-Record of Adequate Adjusted Cash Flow Margins

CU's operating risk profile is consistent with an 'a' assessment. The university has a track-record of sufficient adjusted cash flow margins, which Fitch expects CU to sustain if not improve over time. Additionally, capital spending needs are manageable and only somewhat elevated in the near term.

Financial Profile: 'aa'; Very Strong Capital-Related Ratios through the Cycle

CU's financial profile is very strong. Capital-related ratios should improve, including through the cycle in the stress case of Fitch's FAST scenario analysis. In 2018, the state approved significant PERA pension reforms, which will provide meaningful long-term reductions to net pension liabilities to CU over time. CU's liquidity should grow and capital-related ratios should improve in the future, and liquidity does not pose an asymmetric risk.

Asymmetric Additional Risk Considerations

There are no asymmetric risk factors associated with CU's rating.

RATING SENSITIVITIES

MAINTENANCE OF SOUND OPERATIONS AND STRONG BALANCE SHEET: Fitch expects the University of Colorado to maintain sound adjusted cash flow margins and balance sheet strength in support of its 'AA+' IDR.

CREDIT PROFILE

CU is a comprehensive flagship graduate research university and the largest institution of higher education in Colorado. CU offers a full array of undergraduate, graduate, and professional programs on four campuses: the flagship location in Boulder, Colorado Springs, Denver, and the Anschutz Medical Campus in Aurora. The Anschutz campus is also home to the University of Colorado Hospital (UCHealth; AA). UCHealth is a separate legal entity, but maintains very tight alignment with CU's School of Medicine and is CU's primary teaching hospital.

CU has realized steady and significant student enrollment growth in recent years. For example, total system-wide FTE undergraduate enrollment increased nearly 3% in fall 2018 over the prior year, and is up approximately 16% since fall 2013. Student demand has yielded favorable net tuition growth, which has increased roughly 5% over the last five years, rising to nearly $1.1 billion by fiscal 2018.

Relevant Rating Committee Date: July 1, 2019

For more detailed assessment of CU's 'AA+' IDR rating, please see Rating Action Commentary dated July 2, 2019.

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In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

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Additional information is available on www.fitchratings.com
Applicable Criteria
Fitch Internal Liquidity Worksheet (pub. 15 Feb 2019)
Public Sector, Revenue-Supported Entities Rating Criteria (pub. 28 May 2019)
Short-Term Ratings Criteria (pub. 02 May 2019)
U.S. Public Finance College and University Rating Criteria (pub. 03 Jun 2019)

Additional Disclosures
Solicitation Status
Endorsement Policy

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INVESTORS SERVICE

CREDIT OPINION
2 July 2019

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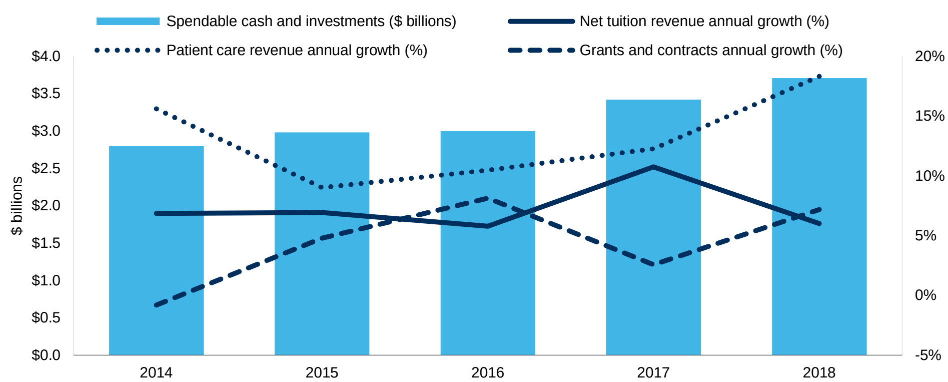
University of Colorado, CO

Update to credit analysis

Summary

University of Colorado's (CU, Aa1 stable) strong credit profile reflects its role as the State of Colorado (Aa1 stable, issuer rating) flagship institution, with excellent strategic positioning, a significant research enterprise and important role in the provision of medical education for Colorado. The four campus locations, in Boulder, Denver, Aurora and Colorado Springs - along Colorado's Front Range - bolster student draw. The rating is further supported by CU's substantial $4.2 billion very diverse scope of operations, consistent positive operating performance, and robust gift activity. Continued prudent financial stewardship underpins strong growth in cash and investments and manageable leverage. Tempering the rating is very limited state support for operations and capital, ongoing capital investment across its multiple campuses, and exposure to potentially volatile healthcare operations through its affiliation with the University of Colorado Hospital Authority (UCHA, Aa3 stable). CU also has a high underfunded pension liability, though state-enacted pension reforms during fiscal 2018 have decreased the magnitude of future potential expense pressure.

Exhibit 1
Substantial growth in cash and investments resulting from robust gift activity, as well as strong growth in major revenue streams - tuition, patient care and grants and contracts



Source: Moody's Investors Service

Credit strengths

» Large, diverse scope of operations ($4.2 billion in fiscal 2018) as Colorado's flagship, multi-campus university, and academic medical center

» Significant and growing total cash and investments of $4.3 billion and 247 monthly days cash on hand

» Strong brand recognition demonstrated by robust 33% growth in net tuition revenue over the fiscal 2014-18 period

» Sizeable and growing $700 million multi-disciplinary research activity

» Manageable leverage; spendable cash and investments cover debt by 2.2x, and ongoing capital spending averaging 1.9x annually

Credit challenges

» Weak state funding for operations, 3.4% of fiscal 2018 Moody's adjusted operating revenues, and capital support

» Volatile healthcare exposure through a component unit physician practice plan that contributes 23% of operating revenues

» Relatively high expense growth requires attention to stronger revenue growth

» Large pension liability

Rating outlook

The stable outlook reflects our expectations that CU will continue to record steady student demand and growth in student charges, strong research activity and flexibility to adjust to federal funding challenges, and substantial gift support.

Factors that could lead to an upgrade

» Material growth in financial cushion to debt and operations, with sustained elevated improvement in cash flow margins

» Further enhancement in philanthropic support

Factors that could lead to a downgrade

» Sustained weakening of financial reserves, liquidity and leverage

» Material deterioration in enrollment or research leading to weaker operations

Key indicators

Exhibit 2
University of Colorado, CO

	2014	2015	2016	2017	2018	Median: Aa Rated Public Universities
Total Fall FTE Enrollment	49,398	50,766	51,749	53,997	55,684	29,353
Operating Revenue ($000)	3,069,437	3,314,945	3,592,799	3,877,367	4,215,331	1,186,906
Annual Change in Operating Revenue (%)	6.7	8.0	8.4	7.9	8.7	3.2
Total Cash & Investments ($000)	3,257,934	3,491,243	3,519,401	3,990,991	4,322,200	1,363,489
Total Debt ($000)	1,900,207	1,778,164	1,754,977	1,548,830	1,679,075	643,972
Spendable Cash & Investments to Total Debt (x)	1.5	1.7	1.7	2.2	2.2	1.5
Spendable Cash & Investments to Operating Expenses (x)	1.0	1.0	0.9	0.9	0.9	0.7
Monthly Days Cash on Hand (x)	222	224	220	225	247	169
Operating Cash Flow Margin (%)	11.5	12.3	11.7	11.0	11.4	11.2
Total Debt to Cash Flow (x)	5.4	4.3	4.2	3.6	3.5	4.7
Annual Debt Service Coverage (x)	3.7	4.3	3.5	3.1	3.4	2.9

Source: Moody's Investors Service

Profile

The University of Colorado is the flagship public higher education institution for the state of Colorado with multiple campuses. The main campus is located in Boulder, with additional campuses in Downtown Denver, Aurora (Anschutz Medical campus) and Colorado Springs. CU is a member of the Association of American Universities. In fiscal 2018, CU recorded $4.2 billion in operating revenue, and in fall 2018 enrolled 55,684 full-time equivalent (FTE) students.

Detailed credit considerations

Market position: solid brand, comprehensive programming and sizable research activity

Student demand will remain sound across CU's four campuses due to the diversity of missions, academic programs and strong research activity. Enrollment across the institution totaled 55,684 FTE for fall 2018, up 13% over fall 2014, inclusive of 19% graduate and postgraduate students. Enrollment at the flagship Boulder campus comprises over half of the university's 67,002 headcount, while the Colorado Springs (UCCS) campus is 19% of headcount. The remaining 29% is enrolled at the Anschutz Medical Center campus in Aurora (7%) or the UC Denver campus (22%) at the Auraria Higher Education Center.

CU's net tuition per student will remain high relative to peers, though guaranteed tuition pricing programs at the Boulder campus and planned flat resident undergraduate pricing are likely to moderate growth in the near term. Pricing varies across campuses, but the fiscal 2018 aggregate net tuition per student of $21,136 is well above the Aa1-median ($13,987). Higher net tuition per student stems from material non-resident enrollment (nearly half of the Boulder flagship campus fall 2018 first time students were from out of state), very limited state support, and a large mix of higher tuition graduate programs. CU Boulder implemented a guaranteed tuition pricing program for resident undergraduates beginning in fiscal 2017, augmenting its existing non-resident guaranteed tuition program. To date, roughly 56% of the overall system's students participate in this program.

Medical research and education are an important aspect of CU's role as the leading public Academic Medical Center in the state. The university maintains a strong working relationship with the Anschutz Medical Campus in Aurora, that is co-located with the University of Colorado Hospital Authority (UCHA, a legally separate organization with separately secured debt, Aa3 stable). UCHA, which recorded $4.3 billion in fiscal 2018 Moody's adjusted operating revenue, is the primary teaching hospital for the CU School of Medicine, with the University of Colorado Hospital and Children's Hospital Colorado at the Anschutz campus. The university benefits in multiple ways from its relationship with UCHA, primarily through CU Medicine (formerly University Physicians, Inc. or UPI) practice plan and clinical research activity. CU Medicine includes roughly 2,600 physicians, with fiscal 2018 results showing $1.0 billion in operating revenue.

Robust research funding is an important component of CU's credit profile, with nearly equal focus on both health and natural sciences related activity. The scope of the university's research is considerable, with fiscal 2018 $700 million direct research expenditures and a reported $1.05 billion in sponsored research awards in fiscal 2018. Roughly 63% of awards stem from federal sponsors, of which funding has grown a solid 11.5% over the last five years.

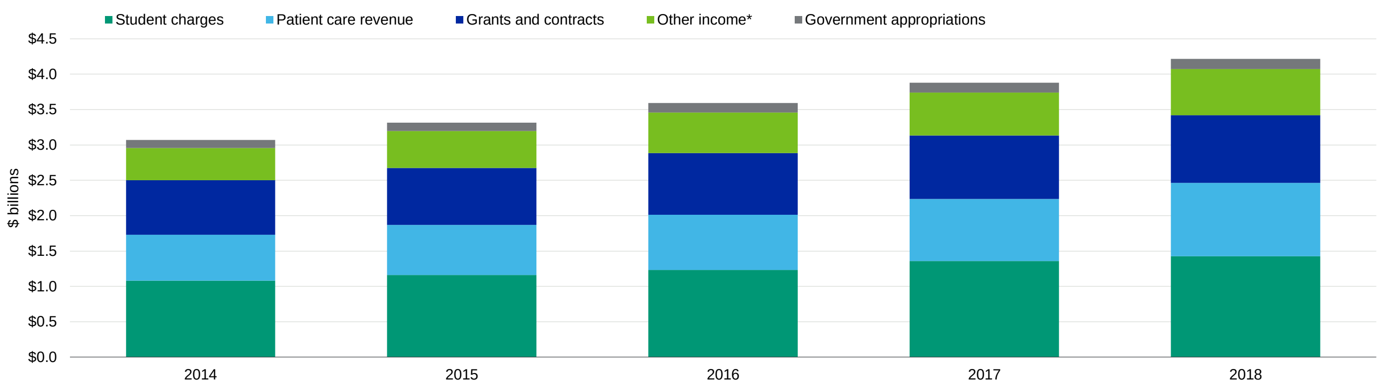
Operating performance: growth in all major revenue streams, with expected slowing in net tuition revenue

CU's good fiscal discipline, combined with solid student demand, improved research funding, and favorable operations of its physician practice plan unit will support the university's continued positive operating performance. Cash flow margins of roughly 11%-12% will continue to provide very good debt service coverage of nearly 3x annually.

The university's multiple major revenue streams are performing well, and are expected to remain sound in the near term. CU's revenue diversity provides stability for variations in any one income stream, as well as mitigating the very low state operating support. Net tuition revenue has grown a robust 33% over the fiscal 2014-18 period, though with guaranteed tuition pricing and planned limited tuition and fee increases, growth may begin to slow. Revenues derived from the physicians practice plan (CU Medicine) have risen a significant 60% in five years. Improvements in CU Medicine metrics are due largely to rising clinical volumes, strong oversight of reimbursement rates, and rate increases.

Exhibit 3

Revenue diversity and strong growth in individual revenue streams mitigate uncommonly low state operating support
Moody's adjusted operating revenue for fiscal 2014-18



*Other income includes: aales and services of departments, contributions for operations, Moody's adjusted investment income, and other revenue.
Source: Moody's Investors Service

State support for operations is uncommonly low (3.4%) and we expect funding to remain a minimal portion of operations. Favorably, state support did increase 27% over the fiscal 2014-18 period, with budgeted increases of roughly 12% increases for fiscal 2019 and 2020. State funding includes both the College Opportunity Fund (COF), a stipend granted to undergraduate students that we include in net tuition revenue, and the annual fee for service (FFS) contracts, which cover graduate students and other designated programs.

Wealth and liquidity: sound fiscal oversight; philanthropic success and retained earning bolster reserves

The university's total and relative wealth levels continue to be key strengths that add stability to its overall profile. Total cash and investments rose a very strong 33% over the fiscal 2014-18 period, reaching $4.3 billion at June 30, 2018, driven by fundraising success, favorable capital markets, and strong financial stewardship. Spendable cash and investments of $3.7 billion is up a similarly strong 32% in the fiscal 2014-18 period, far outpacing growth of similarly rated peers. Spendable cash and investments covered expenses a solid 0.9x, though slightly below the Aa1-rated median of 1.0x.

Robust philanthropic support will continue for CU, as the university embarks on its $4 billion "Essential CU" comprehensive capital campaign that will support academic, research and public service priorities across the four-campus CU system. To date $2 billion has been raised in gifts and pledges. The campaign is expected to conclude in spring 2023.

The university's overall cash and investments are separated into short term and long term pools to maximize liquidity and investment oversight strategies. The short term pool managed by the university totaled $2.6 billion at fiscal-end 2018, and was comprised largely of more liquid securities. The long term investment pool (LTIP) for CU assets was $1.67 billion at June 30, 2018 and stood at $1.42 billion as of April 30, 2019. The fiscal 2018 return was a strong 10.1% relative to similar endowment size peers, and through April 2019 was 4.6%. The foundation and university portfolios are managed internally with oversight provided by respective investment advisory committees and external assistance from third party advisors as needed.

Liquidity

CU's liquidity is excellent. The nearly $2.6 billion in monthly liquidity translates to 247 monthly days cash on hand, providing a good cushion to operations, particularly given the sound operating cash flow, conservative debt structure and predictable debt service, and modest other calls on liquidity. The fiscal 2018 Aa1-rated median was 203 monthly days.

CU has a commercial paper (CP) and extendible commercial paper (ECP) program. Maturing commercial paper is supported by its own liquidity. CU's self-liquidity assets and strong treasury management support the highest short term ratings on the new programs. At April 30, 2019 the university had $432 million of discounted daily liquidity, largely money market funds and US Treasuries. The internal daily liquidity provides a strong 4.5x coverage of its commercial paper excluding the largest money market investment with one sponsor. The calculation is based on the limitation of $75 million of commercial paper that can mature in a 5 day period that is included in its Issuing and Paying Agency Agreement, not on the maximum $200 million authorized by the university's board.

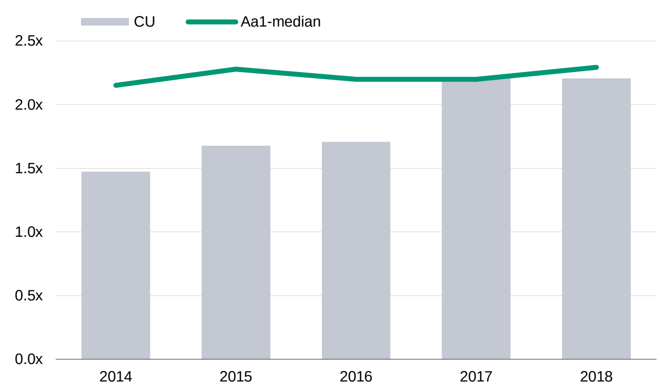
Leverage: manageable leverage including planned large fiscal 2020 issuance

Future capital plans are manageable given regular debt amortization, favorable operating performance, growth in cash and investments, and philanthropic success. The university's sizeable financial reserves and revenue provide very good support to debt. Fiscal 2018 spendable cash and investments covered pro forma debt by a solid 2.2x, nearly on par with the Aa1-median of 2.3x.

Exhibit 4

Despite increased debt, CU's leverage remains consistent with Aa1-rated peers

Spendable cash and investments to debt (x)

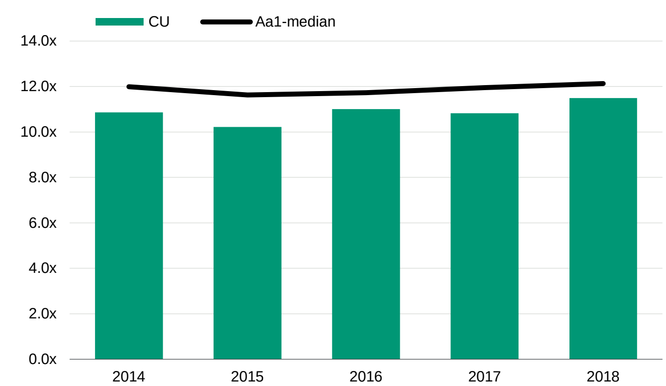


Source: Moody's Investors Service

Exhibit 5

Continued investment in facilities across the system has kept age of plant below Aa1-rated peers

Age of plant (years, x)



Source: Moody's Investors Serivce

CU's capital budget includes the use of the planned CP/ECP program over the next three years, with interim transactions to refinance with longer term debt. In addition, CU is planning a roughly $300 million new issue in fall 2019 (fiscal 2020) to refund approximately $150 million of commercial paper, to fund approximately $110 million for new projects at the Anschutz and Denver campuses, and to refund the approximately $50 million Series 2018A bonds. Given its strong wealth, size and scope of revenue, stable operating cash flow performance and ongoing principal amortization, we expect CU will prudently absorb and manage the sizable new issue.

Debt structure

The university's conservative long-term debt structure of fixed rate, regularly amortizing debt provides predictability in annual debt service payments and preserves future debt capacity as principal is reduced each year. The Series 2017A-2 bonds included crossover refunding components: $138 million were retired June 1, 2019, and $26 million will be refunded June 1, 2020, because of the long tenure before the refunding occurs, we include these bonds as additional pro forma debt.

The combined CP and ECP authorization is $200 million, with a maximum of $75 million that can mature within a 5-day period established within the Issuing and Paying Agent Agreement. Currently, CU has approximately $135.5 million in outstanding CP, and expects to take out a sizable portion of the CP in its planned fall 2019 revenue bond financing.

A blended component unit, CU Medicine (formerly UPI) has $7.5 million of debt in a fixed rate direct bank placement with US Bank, N.A.

Legal security

CU's revenue debt and CP/ECP notes are secured by a pledge of net revenue (gross revenue less maintenance and operation expenses) of certain auxiliary enterprise facilities, including income derived from housing, dining, parking, rent of research facilities, and particular student fees. The parity obligations are also secured by a pledge of 100% of tuition revenue, revenue from indirect cost recovery, and mandatory facilities construction fees. There are no debt service reserve funds.

Fiscal year 2018 pledged net revenue totaled $1.26 billion, representing approximately 30% of the university's 2018 operating revenue (Moody's calculated) of $4.2 billion. Pro forma maximum annual debt service coverage by pledged revenue is projected at 9.5x inclusive of 100% of tuition revenue.

Debt-related derivatives

None.

Pensions and OPEB

The university has substantial additional debt-like obligations that add long-term credit risk through its participation in state pension and retirement health plans. However, given the university's good cash flow and healthy reserves, including some recent state pension reform actions, the pension liability is manageable at the Aa1-rating level.

Moody's three-year (fiscal 2016-18) average adjusted net pension liability (ANPL) is $2.6 billion. Added to pro forma direct debt of nearly $1.7 billion, total adjusted debt is 1.0x operating revenue, relative to the Aa1-median of 0.9x.

Certain of the university's employees (100% of classified and approximately 30% of faculty and non-classified) participate in Colorado's Public Employees' Retirement Association (PERA) defined benefit cost-sharing, multiple-employer plan administered by the state. PERA also administers a voluntary tax-deferred retirement plan. The university fully funded its required contributions to all plans in fiscal 2018.

CU participates in two OPEB plans: a university sponsored single-employer plan and PERA's Health Care Trust Fund (HCTF). CU's share of the net OPEB liability was reported at $799 million for fiscal 2018.

Management and governance: system leadership transition in fiscal 2020; to date, focused and successful implementation of strategic growth

Excellent strategic positioning, underscored by steady leadership, has enabled the university system to achieve strategic targets, despite recent years of economic uncertainty and the constraints of operating under the state's TABOR limitations. Key achievements include growing financial reserves, continued economic development, and operational stability among the four campuses.

A new president for the comprehensive system will begin on July 1, 2019, transitioning from his prior role as president at University of North Dakota. His predecessor led the system since 2008.

REPORT NUMBER 1183231

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CLIENT SERVICES

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University of Northern Colorado, CO

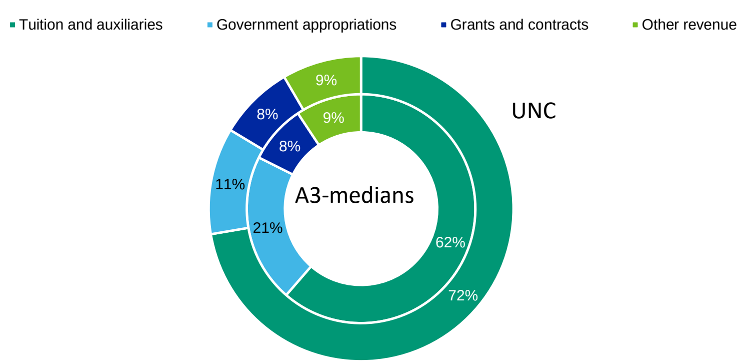
Update to credit analysis

Summary

University of Northern Colorado's (UNC, A3 stable) good strategic positioning reflects its role as a mid-sized regional public university operating within a fiercely competitive student market, with relatively moderate direct debt leverage and no additional debt plans in the next several years. UNC is in the midst of a transition in strategic plans, winding down a multi-year, sizable investment in recruitment and programming enhancements, and is now planning for enrollment and net tuition right-sizing under the leadership of a new president. While UNC did experience some success from its recent strategic plan, with enrollment stability and favorable net tuition growth, significant expense growth constrained cash flow benefits. Both operations and financial cushion deteriorated, with substantial multi-year use of cash reserves and cash flow, coupled with rising financial aid needs and limited gift support.

Weak operations are expected through fiscal 2020, though a campus-wide focus on expense efficiencies should limit larger deficits. Additional rating pressure stems from historically limited operating and capital support from State of Colorado (Aa1 stable issuer rating), as well as the elevated exposure to the state's underfunded pension liability. Recent improved state funding and state-enacted pension reforms during fiscal 2018 have decreased the magnitude of future potential expense pressure.

Exhibit 1
UNC's low state support and high reliance on tuition and auxiliaries revenue highlights vulnerability to enrollment fluctuations and financial aid needs
Fiscal 2018 - UNC versus A3-medians



Source: Moody's Investors Service

Credit strengths

» Mid-sized regional public university, capturing a portion of the sizeable northern Colorado Front Range area

» Manageable balance sheet leverage and no additional debt plans

» Recent stabilization in enrollment while maintaining annual growth in net tuition revenue

» Bondholders benefit from Colorado intercept program for majority of bonds

Credit challenges

» Declining liquidity due to substantial multi-year strategic investment, expected to continue through at least fiscal 2020

» Lagging cash flow margins and weaker debt service coverage, of 7.3% and 1.6x, respectively, in fiscal 2018

» Historically limited state operating and capital support heightens need for tuition growth and donor activity

» Large unfunded pension liability, with limited control over associated expenses

Rating outlook

The stable outlook reflects our expectations of operating cash flow margins between 6-8%, debt service coverage above 1.0x, and limited use of liquidity through fiscal 2020. It also incorporates our expectation UNC will achieve balanced operations in fiscal 2021, with a return to measured growth in financial reserves.

Factors that could lead to an upgrade

» Sustained move to markedly stronger operation performance

» Material growth in unrestricted liquidity

Factors that could lead to a downgrade

» Failure to maintain debt service coverage above 1.0x

» Continued use of reserves further deteriorating liquidity position

Key indicators

Exhibit 2
University of Northern Colorado

	2014	2015	2016	2017	2018	Median: A Rated Public Universities
Total Fall FTE Enrollment	10,612	10,634	11,126	11,337	11,179	10,083
Operating Revenue ($000)	189,321	192,172	199,305	205,356	213,453	226,004
Annual Change in Operating Revenue (%)	0.9	1.5	3.7	3.0	3.9	1.2
Total Cash & Investments ($000)	181,434	174,079	161,467	170,311	169,711	197,458
Total Debt ($000)	142,475	137,125	139,825	157,465	152,551	147,430
Spendable Cash & Investments to Total Debt (x)	0.7	0.7	0.6	0.5	0.5	1.0
Spendable Cash & Investments to Operating Expenses (x)	0.5	0.4	0.4	0.4	0.4	0.6
Monthly Days Cash on Hand (x)	134	117	90	98	72	154
Operating Cash Flow Margin (%)	7.3	3.9	9.0	6.3	7.3	10.7
Total Debt to Cash Flow (x)	10.3	18.2	7.8	12.3	9.7	6.5
Annual Debt Service Coverage (x)	1.3	0.7	1.6	1.1	1.6	2.0

Source: Moody's Investors Service

Profile

The University of Northern Colorado is a four-year university located in Greeley, Colorado, which is located one hour north of the Denver Metropolitan Area. UNC offers undergraduate and graduate programs among its five colleges. In fiscal 2018, the university recorded operating revenues of $213 million and in fall 2018 enrolled 11,179 full-time equivalent (FTE) students.

Detailed credit considerations

Market position: continued realignment of strategic enrollment plan under new leadership

UNC's moderately large size, program diversity, and location northeast of the vibrant Denver Metropolitan area is favorably positioned for enrollment stability. Drawing roughly 80% of its students from Colorado, UNC further benefits from Colorado's favorable demographics for growing high school graduates and its recent recruitment focus within its regional service area. The fall 2018 FTE enrollment was 11,179, with a roughly 80%-20% mix of undergraduate and graduate students. UNC's origin was a teacher's college, but has developed over time with program offerings reaching beyond education into health sciences, humanities, business, and performance and visual arts.

The university is embarking upon a more realistic enrollment strategy following its unsuccessful goal to grow headcount to over 15,000 students. Senior leadership transition, in addition to missed financial targets, led to a realignment of enrollment strategy to move toward meeting student outcomes (i.e. retention and graduation rates) through a “Four Priorities” initiative. This change provides stronger prospects for sustainable success, given very competitive market conditions. Initial strategies include engagement of a student recruitment consultant and a fiscal 2019 cooperative agreement with nearby Aims Community College to enhance student pathway options.

Operating performance: budget structural imbalance through at least fiscal 2020

UNC's fiscal performance will remain weak through at least fiscal 2020, due to its continued commitment to strategic enrollment investments, limited tuition increases, and rising financial aid. Favorably, annual investments are waning, with fiscal 2019 neutral and fiscal 2020 projected use of $5.4 million, though $4.3 million is expected to be used for final costs of the Campus Commons renovation.

Successful focused campus-wide expense cutting initiatives have been critical to offset sizable budget imbalances in fiscal 2018 and 2019, and will continue through 2020. The fiscal 2018 operating cash flow margin of 7.3% is projected to improve slightly for fiscal 2019. Debt service coverage improved to 1.6x in 2018 from 1.1x in fiscal 2017.

UNC's operations are highly sensitive to enrollment, with 72% of operating revenue (Moody's adjusted) derived from student charges. Favorably, the university has translated its stabilizing enrollment into net tuition revenue growth. From fiscal 2014-18, net tuition revenue rose 12% translating to operating revenue growth in excess of 3% for fiscal years 2016-18. Forecasted 2019 financial data shows a roughly 2.5% increase in net tuition revenue for fiscal 2019. Fiscal 2020 net tuition revenue is budgeted to decrease roughly 1.9% from fiscal 2019 reflecting the newly implemented strategic change toward enrolling students who are more capable of long-term academic success.

Improved state funding over the last five years has added some operating stability, with total operating funding from the state rising 26% from fiscal years 2014-19, though it remains a low 11.3% of revenue. In contrast, the revenue share of government appropriations for the A3-median is 20.5%. State funding includes both the College Opportunity Fund (COF), a stipend granted to undergraduate students Moody's includes in net tuition revenue, and the annual fee for service (FFS) contracts, that cover graduate students and other designated programs. Combined COF and FFS fiscal 2018 funding of $39.6 million accounted for 19% of revenues. Favorably, UNC is planning for a 10.8% increase in combined fiscal 2020 funding, to just over $47 million.

Wealth and liquidity: reserve use and weakened liquidity expected to wane beyond fiscal 2020

UNC has limited prospects to increase financial reserves in the near term. Total cash and investments of $169.7 million at fiscal end 2018 were down 6% from fiscal 2014. Growth of wealth will continue to lag peers, with modest fundraising and narrow operations unable to keep pace with UNC's strategic use of reserves for academic and capital investments. Spendable cash and investments of $80.2 million decreased a sizeable 19% in the fiscal 2014-18 period, cushioning expenses by 0.4x, on par with the A3-median of 0.4x.

Improved philanthropic support would be credit positive, assisting in the implementation of UNC's strategic plan and in rebuilding financial flexibility. Gifts to the UNC Foundation averaged roughly $8 million annually through fiscal 2018. The development office recently completed a capital campaign, reaching $54.3 million, which exceeded its original $45 million goal.

The UNC Foundation provides important program, capital and scholarship aid to the university. The foundation endowment was $105 million as of June 30, 2019, recording a 3.54% return for the 12-month period. Total foundation support in fiscal 2018 was $11.8 million and is budgeted at $9.9 million in fiscal 2020.

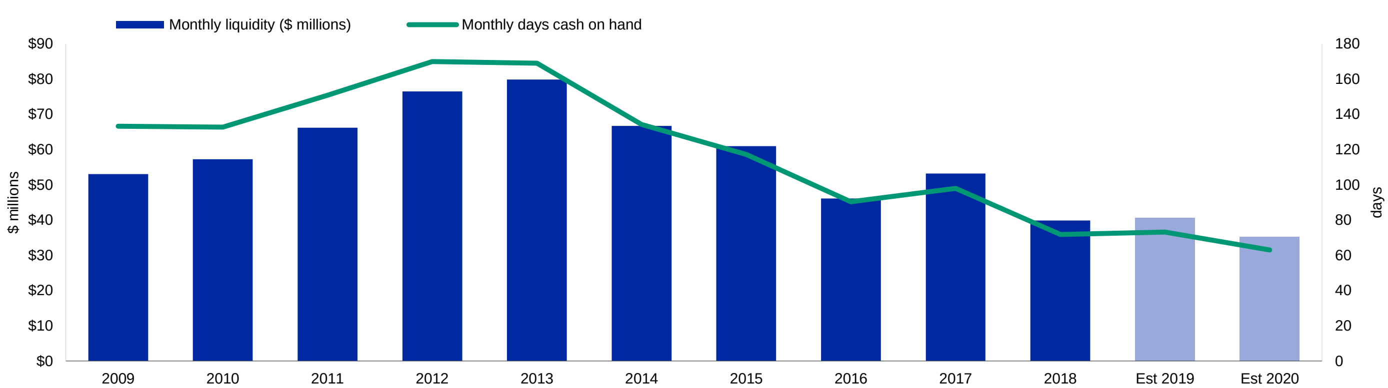
Liquidity

The university's almost $40 million investment in its Fiscal Sustainability Plan, in addition to recent period weak operations, has resulted in a continued liquidity decline, surpassing the original plan targets. The fiscal 2018 monthly liquidity of $40 million translates to a weak 72 monthly days cash on hand, down from a fiscal 2013 high of 169 days. Management is forecasting flat liquidity in fiscal 2019, followed by a decline to $35 million in fiscal 2020. Thereafter, the university is planning to eliminate its structural deficits by fiscal 2021.

Exhibit 3

Sustained liquidity declines will stabilize in fiscal 2021 following significant use of reserves since 2014

UNC 10-year history of liquid reserves versus monthly days cash on hand



Source: Moody's Investors Service

Limited calls on liquidity from investment commitments and the university's recent refinancings to all fixed rate debt somewhat mitigate the low liquidity. An inability to develop a plan to restore flexible reserves beginning in fiscal 2021 will add pressure to the university's rating or outlook.

Leverage: manageable all fixed rate direct debt and no additional debt plans

UNC's leverage is manageable relative to revenue and cash flow, though weaker relative to cash and investments due to the substantial multi-year use of reserves. Debt to revenue of 0.7x and debt to cash flow of 9.7x compare to the A3-medians of 0.6x and 8.7x, respectively. Spendable cash and investments to debt at 0.5x for fiscal 2018 is significantly weaker than the A3-median of 0.9x. Favorably, the university has no current plans for additional debt.

The university's high 17 year age of plant will be reduced with a new construction project and ongoing deferred maintenance investments. The new student services center, Campus Commons, which will house multiple campus units and music performance venues, opened in spring 2019. The $74 million building cost was funded through proceeds of the Series 2016A bonds, state support of $38 million, and gift support. Final improvements will require use of approximately $4 million of cash reserves, which will be recorded in fiscal 2020. The current nearly 17 year age of plant will be reduced by the opening of Campus Commons.

Debt structure

UNC's debt is all fixed rate and amortizing, allowing for predictable budgeting.

Legal security

All of UNC's debt (Series 2011A, 2014A, 2015A, 2016A, 2018A and 2018B, collectively, the parity bonds) is secured by a pledge that includes net revenues of certain auxiliary enterprise facilities (housing, dining, and certain student recreational facilities), certain mandatory student fees, 10% of net tuition revenue, as well as indirect cost recoveries (overhead received for research grants and contracts) and extended studies revenue. The fiscal 2018 net pledged revenue was $42.3 million, which is a limited 20% of the university's Moody's adjusted operating revenues of $213 million.

The Series 2019A bonds are secured by the state intercept program. The intercept program currently covers the Series 2011A, 2014A, 2015A, 2016A and 2018B bonds. Colorado's higher education intercept program is categorized as an unlimited advance. Should the university fail to provide sufficient funds for debt service, the trustee is required to notify the state treasurer on the business day immediately prior to the debt service payment date. The treasurer is required to remit funds to the trustee in immediately available funds of the state. The treasurer recovers the debt service payment from the university's fee-for-service funds, as well as from unpledged tuition revenue.

Debt-related derivatives

None.

Pensions and OPEB

UNC has substantial exposure to the state's underfunded pension liability, though state-enacted pension reforms during fiscal 2018 have decreased the magnitude of future potential expense pressure. The university participates in the State Division Trust Fund (SDTF) cost-sharing multiple employer defined benefit plan administered by the Public Employees' Retirement Association (PERA).

The Moody's three-year average adjusted net pension liability (ANPL) for the university was $287 million for fiscal 2018. Combined with outstanding debt, this additional debt-like obligation represents a moderately high 2.1x of operating revenues, which is weaker than the Moody's median for all public universities of 1.2x.

Other post-retirement employment benefits are provided to eligible employees primarily through the PERA Health Care Program. UNC's share of the net OPEB liability was reported at $5.6 million for fiscal 2018.

Management and governance: strengthened prospects under new leadership team for long-term fiscal and enrollment stability

UNC's good strategic positioning reflects its size and regional importance, combined with the risks and market challenges associated with its major strategic plan that has relied on significant use of cash reserves and cash flow to invest in academic programming, faculty and capital needs to grow and stabilize its enrollment.

Transitioning leadership, with a new president as of July 2018 and a new provost as of April 2019, are favorably positioning the university toward financial stability, which given the new strategies and vision for strengthened student academic outcomes have sound prospects for success, though likely to occur over a multi-year time frame. As the university executes on this plan and develops a new campus-wide strategic plan, continued diligence for careful budgeting and a plan to revitalize cash reserves will be essential for fiscal stability.

REPORT NUMBER 1185427

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Northern Colorado University Board Of Trustees
University Of Northern Colorado; Public Coll/Univ - Unlimited Student Fees; School State Program

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Table Of Contents

Northern Colorado University Board Of Trustees University Of Northern Colorado; Public Coll/Univ - Unlimited Student Fees; School State Program

Credit Profile		
Northern Colorado Univ Brd of Trustees, Colorado		
University of Northern Colorado, Colorado		
Northern Colorado Univ Brd of Trustees (University of Northern Colorado) institutional ent rev rfdg bnds (University of Northern Colorado)		
Long Term Rating	AA-/Negative	Affirmed
Underlying Rating for Credit Program	A-/Stable	Downgraded
Northern Colorado Univ Brd of Trustees (University of Northern Colorado) auxil facs rev bnds ser 2008A (FSA)		
Unenhanced Rating	A-(SPUR)/Stable	Downgraded
Series 2011A		
Underlying Rating for Credit Program	A-/Stable	Downgraded
Long Term Rating	AA-/Negative	Affirmed
Univ of Northern Colorado ser 2007A		
Long Term Rating	A-/Stable	Downgraded

Many issues are enhanced by bond insurance.

Rationale

S&P Global Ratings lowered its long-term rating and underlying rating on the Board of Trustees for the University of Northern Colorado's debt outstanding, issued for the University of Northern Colorado (UNC), to 'A-' from 'A'. The outlook is stable.

The downgrade reflects our view of the university's weakening financial profile with a history of substantial full-accrual operating deficits that are expected to continue, and declining available resources as a result of its multiyear plan to spend down reserves to invest in long-term sustainability.

We assessed UNC's enterprise profile as strong, characterized by enrollment that has increased in each of the last two fiscal years and solid student retention. We assessed UNC's financial profile as adequate with good financial management policies on monitoring strategic goals and a modest debt burden, offset by declining available resources and consistent operational deficits on a full-accrual basis. We believe these combined credit factors lead to an indicative stand-alone credit profile of 'bbb+'. As our criteria indicate, the final rating can be within one notch of the indicative credit level given peer comparisons. In our opinion, the 'A-' rating better reflects UNC's recent ability to grow enrollment and available resource ratios that are more consistent with similarly rated peer institutions.

The rating reflects our assessment of UNC's:

- Full-time equivalent (FTE) enrollment increases in each of the last two years after several years of decline, and a comprehensive plan in place to continue modestly increasing enrollment;
- Experienced senior management team; and
- Manageable maximum annual debt service (MADS) burden of 4.7%.

Partly offsetting the above strengths, in our view, are UNC's:

- Recent track record of full-accrual operating deficits as the university executes its long-term sustainability plan, with expectations for continued operating deficits over the near-term;
- Declining, but still adequate, available resources for the category that could sustain further pressure as the university continues to implement its strategic initiatives; and
- Weak fundraising history relative to peers, with alumni participation rates averaging 3.9% over the past three years, although management reports that the university is focused on the size of the gift as opposed to the number of donors.

The 'AA-' long-term rating on some of UNC's previously issued bonds is based solely on the university's participation in the Colorado Higher Education State Aid Intercept Program. For more information on the state intercept program, see our report published May 31, 2011, on RatingsDirect.

The series 2008 bonds are secured by a senior lien on the net revenues of the auxiliary facility enterprise system, including a broad mix of revenue from various auxiliary facilities and 10% of student tuition revenue, making the security, in our opinion, the equivalent of an unlimited student fee pledge. In January 2010, the board adopted a master resolution that closed off the senior lien of the prior obligations and enabled it to authorize or enact fees (such as facilities construction fees) at any time to be included in gross revenue to cover all debt service.

The series 2011A, 2011B, and 2014A bonds were issued on a subordinate basis to prior obligations. These bonds are secured by a subordinate lien on net revenues of the auxiliary facilities system, which includes a broad mix of revenues from various auxiliary facilities, and a subordinated lien on up to 10% of tuition revenue. In addition, these bonds benefit from a pledge of additional revenues, including indirect cost recoveries and net extended studies revenues, which were not available to the prior obligations. Given the magnitude of the additional revenues, and the fact that the senior lien was closed to additional debt issuance in 2010, we rate these bonds on par with the prior obligations. The senior bonds receive a priority of payment and have a debt service reserve, in the form of a surety bond, whereas the series 2011 bonds, 2014A bonds, 2015, and 2016A bonds have no debt service reserve. In addition to the series 2008, 2011A, and 2014A fixed-rate bonds, which we rate, the university maintains privately placed series 2011B variable-rate bonds, and 2015 and 2016A institutional enterprise revenue bonds.

UNC is located in Greeley, approximately one hour north of Denver, and is one of three comprehensive state universities in Colorado, along with the University of Colorado and Colorado State University. The university offers graduate and undergraduate degree programs in six colleges. Management reports the university is known for its undergraduate education and business programs, consistent with its history as a normal (teaching) school.

Outlook

The stable outlook reflects our view that UNC's operating margins will continue to be negative and that financial resources will remain stable during the outlook period. The rating continues to reflect our view of the university's manageable debt burden, growing enrollment, and stabilizing demand profile.

Downside scenario

We could consider further negative rating actions in the next two years if UNC's available resources or operating margins continue to deteriorate beyond current levels to levels more commensurate with a lower rating or if enrollment returns to a decline.

Upside scenario

We do not anticipate taking a positive rating action in the next two years given the university's continued expectation for full-accrual operating deficits, however we would positively view an increase in available resources to levels that are commensurate with a higher rating, operating performance approaching break-even on a full-accrual basis, and if the university continues to see stable to growing enrollment.

Enterprise Profile

Industry risk

Industry risk addresses our view of the higher education sector's overall cyclicality and competitive risk and growth through application of various stress scenarios and evaluation of barriers to entry, levels and trends of profitability, substitution risk, and growth trends observed in the industry. We believe the higher education sector represents a low credit risk when compared with other industries and sectors.

Economic fundamentals

In our view, UNC is mostly regional with about 79% of students from Colorado. As such, the Colorado GDP per capita anchors our assessment of UNC's economic fundamentals.

Market position and demand

Enrollment at UNC has increased in each of the last two fiscal years with 11,337 full-time equivalent (FTE) students in fall 2017, which was a modest increase from fall 2014 levels of 11,126 FTEs. Before fall 2014, enrollment was volatile, with FTE enrollment as high as 10,983 students in fall 2013. Management expected enrollment to stabilize by fall 2015 and achieved this goal despite increasing tuition by 5.8% during that academic year. Enrollment growth remains a priority for UNC: Much of management's strategic plan relates to increasing enrollment growth and investing in programs and infrastructure to attract more students. Management attributes much of the university's enrollment growth to its growth in graduate students and for fall 2018 management expects undergraduate enrollment to remain stable with modest growth in its graduate and adult learning population.

Management reports that applications for fall 2017 increased by 9.2% to 7,454 after a 4.2% decline in fall of 2016. We believe UNC has some demand flexibility, with average selectivity but good retention for a regional public university. UNC maintained three-year averages of approximately 90% and 70% for selectivity and retention, respectively.

Student quality is near the national average with UNC reporting SAT scores of 1110 for fall 2017. The graduation rate has remained relatively static over the past few years, with six-year graduation rates of 47.7%; graduation rates are comparable with those of peer institutions. In our view, the enrollment and demand profile is average. According to management, UNC's competitors include Metropolitan State University, University of Colorado at Colorado Springs, University of Colorado at Boulder, Colorado State University, and the Colorado Mesa University.

The university went public with its first fundraising campaign in March 2017 with a goal of $45 million. The progress to the goal to date is $43 million. We consider UNC to have historically limited fundraising capability with a recent lack of history fundraising and alumni participation rates that were a weak 2.4% in fiscal 2017, although the comprehensive campaign is experiencing success and annual contributions in the past four years trend better than those of the prior four years.

Management and governance

Management is long tenured and conservative, in our view, with a master plan in place. The responsibility for overall management and determination of university policy and standards is vested with the board of trustees. The president of the university is appointed by the board and is responsible to the board for governance and management of the university. Kay Norton became the 12th president of UNC in July 2002; she had been with the university since 1995 and recently announced that she will retire in June 2018. The university is in the final stages of a presidential search and expects an appointment to be made in the near term. Upon the new president's arrival, the university will also name a new provost. In 2010, Michelle Quinn was appointed chief financial officer; she has been with the university since 1999. We view other senior management positions as relatively stable. The university has a well-developed strategic framework that outlines nine core plans that it will accomplish during the next five years. Each core plan has supporting plans in place that articulate steps that need to be taken. Management also operates under a master plan, which is anchored to its academic portfolio and enrollment plan.

Financial Profile

Financial management policies

The university has formal policies for endowment, investments, and debt. It operates according to a five-year strategic plan. Although it lacks a formal reserve and liquidity policy, it reviews reserves and liquidity at every quarterly meeting. UNC meets standard annual disclosure requirements. The financial policies assessment reflects our opinion that despite areas of risk, the organization's overall financial policies are not likely to hamper its ability to pay debt service. Our analysis of financial policies includes a review of the organization's financial reporting and disclosure, investment allocation and liquidity, debt profile, contingent liabilities, and legal structure and a comparison of these policies with those of comparable providers.

Financial performance

UNC has experienced operating deficits since fiscal 2013 with margins for fiscal 2015, fiscal 2016, and fiscal 2017 at negative 5.6%, negative 3.6%, and negative 5.1%, respectively. Management attributes these deficits primarily to historical declines in enrollment while it experienced a need to reinvest in strategic priorities in support of long-term sustainability. Management expects to end fiscal 2018 with another operating deficit on a full-accrual basis. While on an accrual basis UNC maintains consistently negative operating margins, on a cash basis the school has achieved positive operating results for the past several fiscal years. The university is focused on gradually increasing its revenue through growth in net tuition through its enrollment strategy, and is also evaluating ways to minimize expenses over the near term.

UNC depends on student-generated fees with tuition, fees, and auxiliary revenue generating 71.2% of fiscal 2017 adjusted revenue. The college plans to increase tuition over the next few years as it continues to increase enrollment.

Available resources

Available resources for fiscal 2017 remain somewhat depressed after having weakened considerably over the past couple of years but remain consistent with the rating category, in our view. Available resources (as measured by unrestricted net assets) totaled $43.5 million based on fiscal 2017 results, down from $52.3 million in fiscal 2015 as a result of the university's commitment to increase spending on programs and infrastructure to support long-term sustainability. Available resources as of fiscal year-end 2017 were equal to 17% of adjusted operating expenses and 28.1% of debt. Total cash and investments at the university were stronger, and equaled $82.9 million as of the end of fiscal 2017.

UNC has a foundation with $113.4 million of total net assets as of June 30, 2017, although this amount is almost entirely restricted. Asset allocation as reported in the foundation's audited 2017 financial report is about 43.2% equities, 17.7% fixed income, 28.8% alternative investments, 2.3% student managed funds, and 6.8% held in long-term trusts by others. The annual spending rate of the endowment funds is computed at 4% for funds with a market value greater than the value of the initial gift and 1% for funds with a market value less than the value of the initial gift for the fiscal year; the payout is transferred to temporarily restricted funds and is available for spending by the university; we view this spending rate as fairly typical.

Debt and contingent liabilities

UNC had $157.5 million in debt as of fiscal year-end 2017, equivalent to modest MADS burden of 4.7% based on fiscal 2017 audited numbers. The university maintains a fixed rate on its series 2008, 2011A, 2014A, 2015A, and 2016A bonds, and a variable rate on its 2011B privately placed bonds. Management reports the university does not have any new debt plans during our outlook period.

In 2011, the university completed a direct placement. The board of trustees issued the series 2011B bonds, on parity with the series 2011A bonds (and later on parity with the 2014A bonds), which we do not rate. We believe the terms of the series 2011B bonds and related continuing covenant agreements add contractual risk for the university through reimbursement provisions that can require immediate repayment to the bank upon violation of various terms and covenants. Although we view the possibility of immediate debt acceleration as remote because of the university's underlying credit quality, we have evaluated UNC's liquidity to meet an acceleration of this loan should it occur. In our view, the university has sufficient liquidity to cover this debt should doing so become necessary. Total direct purchase debt was about $18 million as of fiscal year-end 2017 and the university maintained close to $83.0 million in cash and cash equivalents at that time, providing ample liquidity to call the bonds should doing so become needed. Although the direct placement debt represents a small portion of overall debt, we will continue to monitor the university's liquidity.

The system holds pension liabilities on its balance sheet that pertain to the university's participation in the State

Division Trust Fund, a defined-benefit pension fund administered by the Public Employees' Retirement Assn. for the State of Colorado. The university sponsors the optional retirement plan-the defined contribution plan for retirement. The university makes contributions for these plans through a fringe benefit rate approved by the Cost Allocation Services division of the U.S. Department of Health and Human Services. The State of Colorado has a weak pension funded ratio (56%), in our opinion, and a history of funding less than the annual actuarially determined pension contribution under a statutory funding formula. We will continue to monitor the university's pension obligations and its ability to fund this liability given the plan's weak funding level. In our view, the rating could be pressured if the pension funding level deteriorates.

University Of Northern Colorado Enterprise And Financial Statistics

	--Fiscal year ended June 30--					Medians for 'A' rated public colleges And universities
	2018	**2017**	**2016**	**2015**	**2014**	**2016**
Enrollment and demand						
Headcount	13,399	13,087	12,216	12,050	12,084	MNR
Full-time equivalent	11,337	11,126	9,796	9,791	10,983	11,962
Freshman acceptance rate (%)	89.3	90.6	89.6	90.1	88.1	74.4
Freshman matriculation rate (%)	32.3	35.5	32.2	35.5	36.6	MNR
Undergraduates as a % of total enrollment (%)	75.3	76.5	77.2	78.6	82.4	84.5
Freshman retention (%)	71.5	70.7	71.5	69.3	66.2	77.0
Graduation rates (six years) (%)	47.7	48.4	47.6	46.4	N.A.	MNR
Income statement						
Adjusted operating revenue ($000s)	N.A.	243,329	231,019	222,522	215,767	MNR
Adjusted operating expense ($000s)	N.A.	256,344	239,638	235,601	227,428	MNR
Net adjusted operating income ($000s)	N.A.	(13,015)	(8,619)	(13,079)	(11,661)	MNR
Net adjusted operating margin (%)	N.A.	(5.08)	(3.60)	(5.55)	(5.13)	(0.72)
Estimated operating gain/loss before depreciation ($000s)	N.A.	4,382	8,836	3,990	4,931	MNR
Change in unrestricted net assets (UNA; $000s)	N.A.	(37,613)	(9,931)	(132,600)	1,566	MNR
State appropriations to revenue (%)	N.A.	N.A.	N.A.	N.A.	N.A.	22.6
Student dependence (%)	N.A.	71.2	69.9	69.9	71.5	53.2
Research dependence (%)	N.A.	9.2	9.1	9.8	8.5	MNR
Endowment and investment income dependence (%)	N.A.	0.2	0.2	0.3	0.4	0.4
Debt						
Outstanding debt ($000s)	N.A.	157,465	139,825	137,125	142,475	164,127
Total pro forma debt ($000s)	N.A.	157,465	N.A.	N.A.	N.A.	MNR
Current debt service burden (%)	N.A.	4.65	4.83	4.69	4.85	MNR
Current MADS burden (%)	N.A.	4.66	4.51	4.59	4.50	4.40
Financial resource ratios						
Endowment market value ($000s)	N.A.	82,782	76,855	81,492	82,448	81,992
Related foundation market value ($000s)	N.A.	120,665	113,393	119,914	116,344	111,376

University Of Northern Colorado Enterprise And Financial Statistics (cont.)

	--Fiscal year ended June 30--					Medians for 'A' rated public colleges And universities
	2018	2017	2016	2015	2014	2016
Cash and investments ($000s)	N.A.	82,892	56,324	62,332	70,865	MNR
UNA ($000s)	N.A.	(128,793)	(91,180)	(81,249)	51,351	MNR
Adjusted UNA ($000s)	N.A.	43,505	42,657	52,335	65,906	MNR
Cash and investments to operations (%)	N.A.	32.3	23.5	26.5	31.2	45.2
Cash and investments to debt (%)	N.A.	52.6	40.3	45.5	49.7	96.3
Cash and investments to pro forma debt (%)	N.A.	52.6	N.A.	N.A.	N.A.	MNR
Adjusted UNA to operations (%)	N.A.	17.0	17.8	22.2	29.0	26.8
Adjusted UNA plus debt service reserve to debt (%)	N.A.	28.1	31.0	38.7	46.8	52.0
Adjusted UNA plus debt service reserve to pro forma debt (%)	N.A.	28.1	N.A.	N.A.	N.A.	MNR
Average age of plant (years)	N.A.	16.7	15.9	15.3	14.8	14.0

MOODY'S
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CREDIT OPINION
1 March 2019

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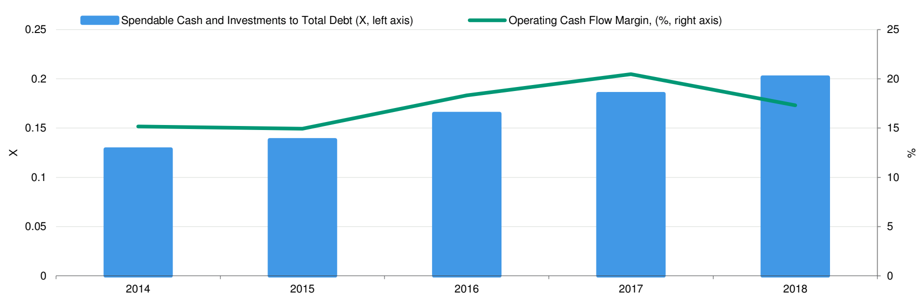
Western State Colorado University, CO

Update to credit analysis

Summary

Western State Colorado University's (Baa1 stable, "Western") credit quality incorporates its relatively small scope of operations as a regional public university in the central Rocky Mountain region. The university relies heavily on tuition and fees to fund operations, at over 70% of total revenue, exposing it to potential enrollment volatility in a very competitive environment for students. Favorably, enrollment and net tuition per student have grown in recent years. However, Western's leverage and capital spending relative to expenses are high, due to historically limited operating and capital support from the State of Colorado (Aa1 stable). Operating performance is consistently solid, partially mitigating Western's high debt to revenue and weak spendable cash to debt coverage. Liquidity coverage of expenses is solid compared to peers, providing some financial flexibility. Additional credit considerations include a large unfunded pension liability that will continue despite recent pension reform.

Exhibit 1
Solid operating performance and growing spendable resources partially mitigate high leverage



Source: Moody's Investors Service

Credit strengths

» Consistently solid cash flow margins are sufficient to support high relative debt and provide adequate debt service coverage

» Continued net tuition per student growth evidences positives of strategic infrastructure and program investments

» Sound liquidity provides 132 monthly days coverage of expenses

Credit challenges

» Small scope of operations, at $54 million in fiscal 2018, provide limited expense flexibility

- Very high total adjusted debt to revenue, at 2.5x, and weak debt affordability of 0.2x spendable cash to debt provides little cushion in case of weakened performance
- Highly reliant on tuition and fees to fund operations, at over 70%, due to historically weak operating support from the State of Colorado
- Historically weak fundraising has limited the overall wealth of the university
- The university's proportionate share of the state's pension liability is significant and will continue despite recent reforms

Rating outlook

The stable outlook reflects expectations of operating cash flow margins above 15% and moderate growth in flexible reserves. The stable outlook further reflects no additional debt issuance without commensurate growth in financial reserves. The stable outlook for the university's bonds that are enhanced by a state intercept program is based on the state's current stable long-term outlook.

Factors that could lead to an upgrade

- Improvement of leverage through either financial resource growth or material pay down of debt
- Sustained improvement in operating cash flow leading to stronger debt service coverage and reserve growth
- For the enhanced rating, upgrade of the Colorado Higher Education Enhancement Program rating

Factors that could lead to a downgrade

- Increase in debt, further deteriorating the university's leverage
- Sustained decrease in cash flow and resulting debt service coverage of less than 1x
- Reduction in liquidity potentially limiting expense flexibility
- For the enhanced rating, downgrade of Colorado Higher Education Enhancement Program rating

Key indicators

Exhibit 2
WESTERN STATE COLORADO UNIVERSITY

	2014	2015	2016	2017	2018	Median: Baa Rated Public Universities
Total FTE Enrollment	2,254	2,326	2,482	2,395	2,448	2,732
Operating Revenue ($000)	41,463	44,451	49,217	53,029	54,312	55,104
Annual Change in Operating Revenue (%)	11.2	7.2	10.7	7.7	2.4	-0.4
Total Cash & Investments ($000)	29,434	30,388	33,369	35,325	38,433	46,223
Total Debt ($000)	94,185	92,977	91,951	90,854	89,243	63,325
Spendable Cash & Investments to Total Debt (x)	0.1	0.1	0.2	0.2	0.2	0.5
Spendable Cash & Investments to Operating Expenses (x)	0.3	0.3	0.3	0.3	0.3	0.4
Monthly Days Cash on Hand (x)	120	127	141	143	132	96
Operating Cash Flow Margin (%)	15.2	14.9	18.3	20.5	17.3	8.4
Total Debt to Cash Flow (x)	15.0	14.0	10.2	8.4	9.5	8.4
Annual Debt Service Coverage (x)	1.3	1.1	1.5	1.7	1.5	1.7

Source: Moody's Investors Service

Profile

Western State Colorado University is a four-year public university, with a limited number of graduate programs, located in Gunnison, Colorado within Colorado's central Rocky Mountains. Among its academic offerings, Western's Professional Land and Resource Management (PLRM) program is one of only eight accredited programs in the US. In fiscal 2018, the university recorded operating revenues of $54 million and served 2,488 full-time equivalent (FTE) students.

Detailed credit considerations

Market profile: investment in facilities and programs continue to attract students, but small operating base presents challenges

Western's recent sizeable investment in campus facilities and academic programs will continue to support the university's good strategic position and growth in enrollment. Over the past five years, the university has spent over $43 million on capital related projects. The university invested heavily in its facilities to attract students, as it is challenged by its somewhat remote location and significant competition from larger and more comprehensive public universities in Colorado. Located 200 miles southwest of Denver, Western State is the only college serving the central Rocky Mountain region. The university continues investing in programs, including at the graduate level, that build on its high altitude location and areas of programmatic strength to distinguish itself from competitors.

The university's enrollment is small but continues to trend positive, up 2.2% in fall 2018, to 2,448 FTE students from 2,395 FTE students. Since fall 2014, FTE enrollment is up 8.7%, favorable to most peers that are witnessing enrollment declines. Additionally, the university continues to grow net tuition per student, further indicating strengthening student demand despite operating in a very challenging environment for students. Reported net tuition per student in fall 2018 was $11,385, up 5.1% compared to the prior year. Over the past five years, average annual net tuition per student has grown a solid 7.1%. The university anticipates continued enrollment and net tuition per student growth.

Western's limited operating base of $54 million presents some expense flexibility challenges and debt is high for the university's size. The university's total debt to revenue in fiscal 2018 was 1.6x, significantly higher than the Baa-rated university median of 0.7x.

Operating Performance: consistent operating cash flow driven by continued operating revenue gains

The university's consistent ability to attain positive operating cash flow and meet debt service is key to the university's current credit quality. Operating cash flow margins are expected to improve in 2019 from an already strong 17.3% in fiscal 2018. Strong cash flow is essential to meet the college's high debt service burden, which has improved in recent years to 1.5x (Moody's adjusted).

Revenue increased modestly in fiscal 2018, as calculated by Moody's, by 2.4%, continuing an upward trend. Western's management is budgeting for solid revenue growth in fiscal 2019 and fiscal 2020, driven by growing net tuition, FTE growth, and increased state operating support. The university received a significant increase in state support in fiscal 2019, up 18.8%, due to changes in the state's funding formula and a $500,000 one-time appropriation. The current Governor's budget request for fiscal 2020 would provide an additional 4.4% increase. (This includes both the College Opportunity Fund, a stipend granted to undergraduate students, which is included in net tuition revenue, and the annual fee-for-service contracts, which cover graduate students and other designated programs.)

Western is budgeting for moderate expense growth in fiscal 2019, due to strategic investments in the university and wage pressures. Management is estimating that these increases will be absorbed by expected revenue growth from additional state support and higher net tuition revenue.

Wealth and liquidity: modest financial reserves with potential to grow; good liquidity relative to peers

Western's modest financial reserves have the potential to grow materially due to a recently secured large gift and a planned fundraising campaign. At the end of fiscal 2018, Western reported total cash and investments of $38 million, modest compared to peers. Despite modest wealth, the university's spendable cash and investments cover operating expenses an adequate 0.3x. Favorably, Western received an $80 million gift for the construction and running of its new Rady School of Computer Science and Engineering. Of that amount, an estimated $40 to $50 million will go towards the construction of a new building, with the remaining proceeds going to the university to provide future operating support for the school. Additionally, Western is planning to launch a new capital campaign in the near-term to leverage the $80 million gift.

LIQUIDITY

The university's liquidity will remain solid for the rating category, as the university bolsters its fundraising efforts and retains surpluses. As of June 30, 2018, the college had $18 million in monthly liquidity, representing 132 monthly days cash on hand, stronger than the Baa-median of 96 days.

Leverage: thin financial resource coverage of debt due to high capital investment; potential future fundraising could positively impact leverage

Western is highly leveraged, following multiple years of campus infrastructure investment, but leverage could improve with an enhanced focus on fundraising and outstanding proceeds from a large gift. Spendable cash and investments covered debt a thin 0.2x, below the Baa rated median of 0.5x. Despite solid operating performance, debt to cash flow coverage of 9.5x is weak compared to the Baa-rated median of 8.4x. Expectations of enhanced fundraising, receipt of the remaining proceeds of an $80 million gift after the construction of a new computer science building, and continued strong operations could significantly improve the leverage of the university and potentially put upward pressure on the rating.

DEBT STRUCTURE

All of Western's debt is fixed rate and regularly amortizing.

Debt-related Derivatives

None

PENSIONS AND OPEB

The university has a large exposure to the State Division Trust Fund (SDTF) cost-sharing multiple employer defined benefit plan administered by the Public Employees’ Retirement Association (PERA). The Moody’s three-year adjusted net pension liability (ANPL) for the university was $45 million in fiscal 2018. Combined with outstanding debt, this additional debt-like obligation represents a high 2.5x debt to operating revenue. Recently enacted pension reforms will lower accrued liabilities and improve pension funding trajectories, a credit positive for the university. Reforms, which began in fiscal 2019, include a 0.25% increase in employer contributions, increased employee contributions, and modifications to retiree benefits. These reforms will modestly increase the college's pension contributions going forward. Western also offers eligible employees the option of enrolling into a defined contribution plan instead of the defined benefit plan. In fiscal 2018, the combined defined benefit and pension plans expenses totaled $9 million, a high 14.7% of expenses.

In addition to the defined benefit and contribution plans, Western offers post-retirement health benefit plans to eligible faculty and staff. In fiscal 2018, expenses related to this program were a very modest $20,035. Health care for retirees is provided through PERA's HealthCare Program or through the Colorado Higher Education Insurance Benefits Alliance (CHEIBA) Trust, a cost-sharing multiple-employer insurance pool that covers health insurance from retirement until Medicare eligibility.

Management and governance: management is successfully growing enrollment, producing solid operating performance, and developing strategic partnerships

Western's management team is solid, evidenced by their ability to produce positive enrollment trends and sound operating performance while balancing a need to spend on capital. Management continues to work with state officials to improve the university's state funding, which has historically been weak. Solid operating support growth in fiscal 2019 and budgeted growth in fiscal 2020 indicates success in this endeavor, but future material growth will be challenging. Though fundraising has been a historical weakness for the university, the recent $80 million gift has brought a renewed sense of focus on expanding fundraising, which could produce meaningful increases to the university's modest wealth.

The university recently entered into a partnership agreement with University of Colorado (Aa1, stable "CU") for programs in its new Rady School of Computer Science and Engineering. Students in the program will complete their first two years as Western students and last two years as CU students while remaining on Western's campus. Students will receive their degree from the University of Colorado. Management expects this program to bolster enrollment and lead to potential additional partnership opportunities with CU.

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