MOODY'S INVESTORS SERVICE

CREDIT OPINION

11 November 2019



Contacts

Jared Brewster +1.212.553.4453 AVP-Analyst jared.brewster@moodys.com Susan I Fitzgerald +1.212.553.6832

Associate Managing Director susan.fitzgerald@moodys.com

 Christopher Collins
 +1.212.553.7124

 AVP-Analyst

 christopher.collins2@moodys.com

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Case Western Reserve University, OH

Update to credit analysis

Summary

<u>Case Western Reserve University's</u> (A1 positive, "CWRU") very good credit quality reflects its significant wealth and large and diverse scope of operations, supported by strong philanthropy and a sizable research enterprise. The scale and diversity of revenues provides protection against weakness in a single revenue stream. Nationally renowned health and science programs continue to drive strong student demand at both the undergraduate and graduate levels, reflected in continued growth in net tuition revenue. Further, strong relationships with the <u>Cleveland Clinic Health System Oblig. Group</u> (Aa2 stable, "Cleveland Clinic") and <u>University Hospitals Health System Inc.</u> (A2 positive, "UH") boosts the university's strategic and market position. Offsetting considerations include more constrained liquidity because of higher proportion of permanently restricted assets, moderate operating performance, and a competitive operating environment for students and research awards.

Exhibit 1 CWRU's total cash and investments and operating revenue far exceed the A median





Credit strengths

- » Considerable wealth of nearly \$1.85 billion in total cash and investments in fiscal 2019
- » Strong donor support, averaging \$88 million in gift revenue from fiscal 2017 through fiscal 2019
- » Sizable and diverse scope of operations with a large research profile and total operating revenue of \$926 million
- » Strengthening strategic position with enhanced partnerships, especially with the Cleveland Clinic

Credit challenges

- » Highly competitive student market and significant competition for federal research funding, which are the university's two key revenue streams
- » A large portion of CWRU's wealth permanently restricted, somewhat limiting financial flexibility
- » Improved, but still thin operating performance compared with peers

Rating outlook

The positive outlook reflects the potential for enhanced credit quality should the university's strategic position be further bolstered by the university's recently launched Health Education Campus, strengthening the university's market position and research profile. Further, the positive outlook reflects expectations of continued growth in wealth and scope of operations, driven primarily by strong fundraising and higher net tuition revenue.

Factors that could lead to an upgrade

- » Continued successful operation of the recently launched Health Education Campus
- » Sustainable operating cash flow margins in the low-to-mid double digits
- » Further evidence of strengthened student demand through net tuition revenue growth

Factors that could lead to a downgrade

- » Material decline in available liquid reserves weakening leverage and coverage of expenses
- » Multi-year weakening of operating performance reducing debt service coverage below 1.5x
- » Deterioration of strategic partnerships with the Cleveland Clinic and University Hospitals

Key indicators

Exhibit 2

CASE WESTERN RESERVE UNIVERSITY, OF				
	CASE WES	TERN RESE	RVE UNIV	ERSITY. OH

	2015	2016	2017	2018	2019	Pro forma	Median: A Rated Private Universities
Total FTE Enrollment	10,586	10,820	10,917	11,073	11,072	11,072	4,989
Operating Revenue (\$000)	805,129	836,428	878,052	881,439	925,830	925,830	220,945
Annual Change in Operating Revenue (%)	2.5	3.9	5.0	0.4	5.0	5.0	2.8
Total Cash & Investments (\$000)	1,683,882	1,595,496	1,726,918	1,808,068	1,847,534	1,847,534	410,424
Total Debt (\$000)	564,856	560,603	506,918	496,973	483,765	526,555	152,534
Spendable Cash & Investments to Total Debt (x)	1.8	1.7	2.0	2.2	2.2	2.0	2.1
Spendable Cash & Investments to Operating Expenses (x)	1.3	1.1	1.2	1.3	1.2	1.2	1.4
Monthly Days Cash on Hand (x)	180	177	176	184	186	186	383
Operating Cash Flow Margin (%)	11.8	12.2	11.8	9.8	11.6	11.6	14.0
Total Debt to Cash Flow (x)	6.0	5.5	4.9	5.7	4.5	4.9	5.3
Annual Debt Service Coverage (x)	2.9	2.8	3.0	2.3	3.0	3.0	2.8

Pro forma column includes fiscal 2019 results and pro forma debt and estimated fiscal 2020 debt service. Source: Moody's Investors Service

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Profile

Case Western Reserve University is the largest comprehensive private research university in Ohio, with sizeable operations of over \$925 million and enrollment of over 11,000 FTE students. The university is located in University Circle, a 550-acre concentration of more than 50 educational, medical, cultural, religious, and social service institutions at the eastern edge of Cleveland.

Detailed credit considerations

Market profile: comprehensive research university with strong partnerships and sizable operations

CWRU's excellent strategic position will continue to be anchored by its strong strategic partnerships and prominent graduate reputation, bolstering its research and academic profile nationally. Favorable student demand at both the undergraduate and graduate levels continues, driven by the university's strong reputation in the sciences, technology, engineering, and math (STEM). Since fall 2010, total enrollment is up an impressive 24% to 11,072 full-time equivalent (FTE) student in fall 2019. This growth occurred while many other institutions, particularly in the Midwest, suffered significant declines. Enrollment will likely remain stable, as CWRU has met its undergraduate class size goal. However, its prominent graduate and professional degree programs will remain a solid growth market, particularly given continued high demand for STEM programs.

CWRU bolsters its educational programs and research by collaborating with nearby medical institutions, the Cleveland Clinic and University Hospitals. The relationship with Cleveland Clinic will continue strengthening, as the two agreed on constructing a jointly owned Health Education Campus that opened successfully in summer 2019. The campus includes two buildings that house multiple health science education programs. Both organizations are fundraising jointly for the project, which is estimated at \$515 million, with over \$275 million raised by both to date.

CWRU has a sizable scope of operations and maintains a large research profile with significant federally sponsored research. The university reported total operating revenue of over \$925 million and grants and contracts of \$343 million in fiscal 2019. Overall, revenue comes from a variety of sources, with the largest component, tuition, fees and auxiliaries, representing 42% of total revenue.

Operating performance: surplus operations will continue, but operating cash flow margins will continue lagging peers

CWRU's steady operating performance will continue, but remain slightly below peers. Operating performance improved in fiscal 2019, with an operating cash flow margin of 11.6%, up from 9.8%. Management is budgeting for slightly thinner performance in fiscal 2020, but will continue producing surplus operations. Management's ability to produce continued double-digit operating cash flow margins is a significant credit consideration.

Revenue growth in fiscal 2019 was solid at 5%, materially improved from fiscal 2019 revenue growth of 0.4%. Growth was driven primarily by higher net tuition revenue, up 4%, and increased gifts. Management is budgeting for continued revenue growth in fiscal 2020, driven by increased net tuition revenue, investment income, and the incorporating operations of the Health Education Campus.

Expense growth in fiscal 2019 was a 2.7%, up slightly from fiscal 2018. Management has favorably kept expense growth fairly modest over recent history, with five-year average expense growth of 3.1%. Expense growth will increase in fiscal 2020, primarily due to the incorporation of operations of the Health Education Campus.

Wealth and liquidity: substantial wealth driven by strong fundraising success, although relatively modest unrestricted resources for its size

The university's considerable wealth is a key credit strength with further growth likely over the coming years from excellent fundraising. Total cash and investments in fiscal 2019 total nearly \$1.9 billion, well above similarly rated peers Three-year average gift revenue (fiscal 2017 through fiscal 2019) is an impressive \$88 million. A recently completed capital campaign was extremely successful, raising over \$1.8 billion, compared to an initial goal of \$1.0 billion. The campaign focused on four areas for fundraising: programmatic support; capital support; faculty support; and student financial aid.

Despite its significant wealth, spendable cash to expenses is weak compared with peers, since a large portion of CWRU's wealth is restricted and research costs elevate overall expenses. Fiscal 2019 spendable cash and investments covered operating expenses 1.2x, below peers of similar credit quality.

To manage the university's large investment portfolio, CWRU has an in-house investment office staffed with five people. The university does not use a consultant to select its managers and the board's investment committee remains active in overseeing the function. At the end of fiscal 2019, the university reported a 6% investment gain, comparable with returns at other similarly-sized endowments.

Liquidity

CWRU's liquidity will remain relatively thin compared to peers, as the university's high proportion of restricted assets and allocation to alternative investments (including hedge funds and private equity) will continue to place limitations on liquidity growth. In fiscal 2019, the university reported available monthly liquidity of \$429 million, translating to 186 days of cash on hand, a slight improvement from the prior fiscal year.

Supplementing internal liquidity are two unsecured external bank lines with two counterparties totaling \$100 million. At the end of fiscal 2019, the university had drawn \$37 million, up from \$36 million at the end of fiscal 2018.

Leverage: affordable and manageable debt burden

Financial leverage will remain manageable despite newly proposed debt as the university continues to amortize outstanding debt and build financial reserves. CWRU has proposed two series of bonds with proceeds going towards partial refunding of Series 2015A bonds, renovating a dining hall, and rehabilitating a performing arts center. Fiscal 2019 spendable cash and investments cover pro forma debt a still solid 2x. Coverage will improve given the university's amortization schedule and fundraising prowess, with \$16 million in principal payments due in fiscal 2020. Improved cash flow materially strengthened debt affordability despite newly proposed debt, with pro forma total debt to cash flow of 4.9x compared with 5.7x in fiscal 2018.

Debt structure

Over recent years, university management has made a concerted effort to revise its debt structure, moving out of privately placed bonds completely earlier in fiscal 2019. Most of the university's debt is fixed rate and amortizing. CWRU does have some bullet payments and one series of bonds in floating rate mode. (Series 2019A bonds are in floating rate mode, though interest rate risk is mitigated by floating receipts on CWRU's outstanding interest rate swaps, resulting in a synthetic fixed rate.) Management does anticipate refinancing bullet payments before maturity. Proposed series 2019B bonds are fixed rate and regularly amortizing. Proposed 2019C bonds are multimodal long-term rate put bonds with a mandatory tender date on December 1, 2026.

Debt-related derivatives

CWRU currently has four floating-to-fixed interest rate swap agreements with a total notional amount of \$71.5 million. At its current rating level, the university posts collateral if the liability to CWRU exceeds \$20 million. As of June 30, 2019 the liability was \$14 million, well below the collateral posting threshold, but up slightly from the fiscal 2018 liability of \$11 million

Pensions and OPEB

The university contributes to both a defined benefit plan (DP) and defined contribution plan (DC). The DB plan stopped being offered to employees hired after July 1, 2015. Total expenses for both plans in fiscal 2019 totaled \$37 million, a manageable 4% of overall expenses. Overall, the liabilities associated with the DB plan surpass assets held for the plan by \$104 million, up from \$90 million in fiscal 2018.

Favorably, the university does not have other post-employment benefits (OPEB) expenses.

Environmental, social, and governance considerations

Like most of the higher education sector, environmental considerations have limited impact on the credit profile of CWRU at this time.

CWRU's ability to attract students from outside of the <u>State of Ohio</u> (Aa1 stable) and Midwest region mitigates social risk from regional population growth challenges. Students from the State of Ohio makeup approximately 24% of enrolled undergraduate students, down from 28% in fiscal 2015. The university has also maintained relatively flat international enrollment, better than many peers.

CWRU's strong management team has led the university through a period of strengthening reputation and strategic positioning, consistent operating performance, and enhancement of important partnerships. Through successful marketing of its nationally known graduate STEM programs, the CWRU has increased its undergraduate reputation markedly. Though operating performance lags peers, management has consistently achieved fairly steady performance, driven by sound budgeting practices. Additionally, the university's

financial team has made a concerted effort to lower debt structure and liquidity risks through strategic refinancings, lowering overall credit risk.

The university has strengthened its partnership with the Cleveland Clinic through its joint ownership of the Health Education Campus that opened earlier this year. CWRU's ability to manage the campus and its relationship with the Clinic are important to the university's credit current outlook.

Rating methodology and scorecard factors

The Higher Education Methodology includes a scorecard that summarizes the factors that are generally most important to higher education credit profiles. Because the scorecard is a summary and may not include every consideration in the credit analysis for a specific issuer, a scorecard-indicated outcome may or may not match an assigned rating. We assess strategic positioning on a qualitative basis, as described in the methodology.

Exhibit 3

Case Western Reserve University

Rating Fa	ctors	Value	Score
Factor 1:	Market Profile (30%)		
	Scope of Operations (Operating Revenue) (\$000)	925,830	Aa2
	Reputation and Pricing Power (Annual Change in Operating Revenue) (%)	5.0	A1
	Strategic Positioning	Aa	Aa
Factor 2:	Operating Performance (25%)		
	Operating Results (Operating Cash Flow Margin) (%)	11.6	A2
	Revenue Diversity (Maximum Single Contribution) (%)	42.0	Aa2
Factor 3:	Wealth & Liquidity (25%)		
	Total Wealth (Total Cash & Investments) (\$000)	1,847,534	Aa2
	Operating Reserve (Spendable Cash & Investments to Operating Expenses) (x)	1.2	A3
	Liquidity (Monthly Days Cash on Hand)	186	Baa1
Factor 4:	Leverage (20%)		
	Financial Leverage (Spendable Cash & Investments to Total Debt) (x)	2.0	A1
	Debt Affordability (Total Debt to Cash Flow) (x)	4.9	Aa2
	Scorecard-Indicated Outcome		Aa3
	Assigned Rating		A1

Data is based on most recent fiscal year available. Debt may include pro forma data for new debt issued or proposed to be issued after the close of the fiscal year

For non-US issuers, nominal figures are in US dollars consistent with the Higher Education Methodology.

Data includes proposed new bonds and fiscal 2019 operating results.

Source: Moody's Investors Service

© 2019 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved. CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS AND MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

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.

REPORT NUMBER 1201439

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

MOODY'S INVESTORS SERVICE