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CREDIT OPINION
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University of Missouri System, MO

Update to credit analysis

Summary

The University of Missouri System's (MU; Aa1 stable) credit quality incorporates its regionally important role as a large provider of public higher education and healthcare. Strong financial management along with good revenue diversity and substantial economies of scale will contribute to the maintenance of favorable operating results and excellent debt affordability. Significant financial resources will continue to support solid coverage of both adjusted debt and operating revenue. Despite the regional demographic challenges, demand for both MU's educational and healthcare services will remain sound. Brand and strategic positioning will continue to be aided by the large and growing research enterprise. Through detailed capital planning and good government financial support, the system will maintain manageable leverage even as it continues to invest in academic, healthcare and research infrastructure.

Credit strengths

» Regionally important provider of public higher education and healthcare services with a very large $4.5 billion of total operating revenue

» Substantial total cash and investments at $5.7 billion providing for solid coverage of operating expenses and adjusted debt at a respective 1.4x and 1.2x

» Strong financial management contributing to consistently favorable operating performance, with EBIDA margins averaging 14% over the last five years

» Excellent debt affordability and relatively modest direct leverage, with debt to EBIDA at 2.8x and debt to operating revenue at 0.4x

Credit challenges

» Material exposure to social risks that impact both the educational and healthcare business lines

» High 42% reliance on patient care revenue, providing for elevated exposure to the evolving risks of the healthcare sector

» Significant pension exposure, with a three-year average adjusted net pension liability at $3.1 billion

Rating outlook

The stable outlook reflects Moody's expectations of continued surplus operations, steady revenue growth, and manageable financial leverage.

Factors that could lead to an upgrade

- Significant strengthening in coverage of total cash and investments to both adjusted debt and operating expenses
- Improvement in brand and strategic positioning, reflected strengthening student demand, research, and philanthropy to more closely align with Aaa-rated peers

Factors that could lead to a downgrade

- Material downturn in demand leading to an erosion in operating performance and a move to below 10% EBIDA margins on a sustained basis
- Significant weakening in financial leverage or a deterioration in liquidity profile
- For the VMIG 1 rating, materially weaker coverage of demand debt from discounted daily self-liquidity assets

Key indicators

Exhibit 1
UNIVERSITY OF MISSOURI SYSTEM, MO

	2019	2020	2021	2022	2023	Median: Aa Rated Public Universities
Total FTE Enrollment	52,609	51,967	51,907	51,625	51,767	30,783
Operating Revenue ($000)	3,695,457	3,657,434	4,027,337	4,160,291	4,528,716	1,505,466
Annual Change in Operating Revenue (%)	4.8	-1.0	10.1	3.3	8.9	8.8
Total Cash & Investments ($000)	4,607,768	4,678,141	5,918,473	5,753,581	5,748,814	1,947,594
Total Adjusted Debt ($000)	4,598,613	5,323,040	5,636,339	5,475,187	4,902,627	1,862,165
Total Cash & Investments to Total Adjusted Debt (x)	1.0	0.9	1.1	1.1	1.2	1.0
Total Cash & Investments to Operating Expenses (x)	1.3	1.3	1.7	1.5	1.4	1.3
Monthly Days Cash on Hand (x)	224	224	251	173	160	191
EBIDA Margin (%)	12.4	10.8	18.8	14.3	14.2	14.4
Total Debt to EBIDA (x)	3.6	4.5	2.3	3.0	2.8	3.4
Annual Debt Service Coverage (x)	4.5	3.9	7.0	7.4	7.1	4.1

Source: Moody's Investors Service

Profile

The University of Missouri System is a large provider of public higher education and healthcare services with total operating revenue of $4.5 billion. The educational enterprise consists of four campuses - Columbia, Kansas City, Rolla and St. Louis - serving a combined 52,000 full-time equivalent students. The Columbia campus is the flagship institution and a public land-grant research university that accounts for about 42% of total enrollment. The system also owns and operates a large healthcare enterprise (MU Health Care) that provides a broad spectrum of healthcare services through its network of hospitals, clinics, and physician practice plan. MU Health Care primarily serves a twenty-five county service area in central Missouri. MU is also home to the most powerful university research reactor in the United States, which is used to produce radioisotopes for detecting and treating cancers.

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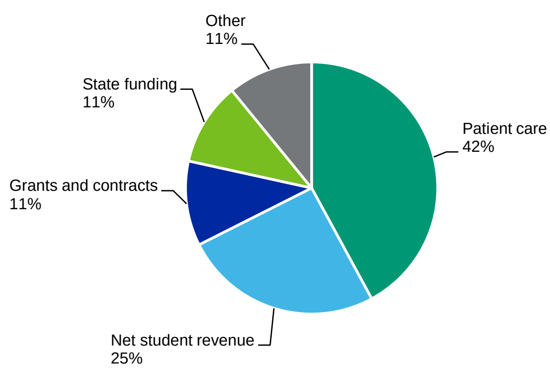
Detailed credit considerations

Market profile

The system's regionally important role as a large provider of public higher education and healthcare services will continue to support considerable brand strength. Total enrollment of 51,767 full-time equivalent students has remained relatively flat over the last five years despite elevated student market risks. Good enrollment diversity provides some insulation from the various competitive challenges and market risks. About 24% of students are from outside of Missouri and 21% are seeking graduate or professional degrees. Measured gains in retention and first year enrollment along with the newly enacted differentiated pricing model provide upside for net student revenue in fiscal 2024 and beyond. Bolstered by good outcomes under Missouri's performance based funding model, state appropriations will increase by 7% in fiscal 2024.

Patient care revenue, which grew by a substantial 26% since fiscal 2019 to $1.9 billion in fiscal 2023, will remain a key driver of consolidated revenue growth. Strong demand for the broad spectrum of clinical services along with the continued execution of various growth strategies provide for good revenue growth prospects. These factors help mitigate the risks associated with the highly competitive environment, aging demographics, and shifting reimbursement landscape. Recent and ongoing infrastructure investments - such as the NextGen Precision Health Building - strengthen the clinical enterprise and boost research capacity. Total research expenses nearly doubled over the last five years to $384 million in fiscal 2023.

Exhibit 2
Good revenue diversity helps support operating stability

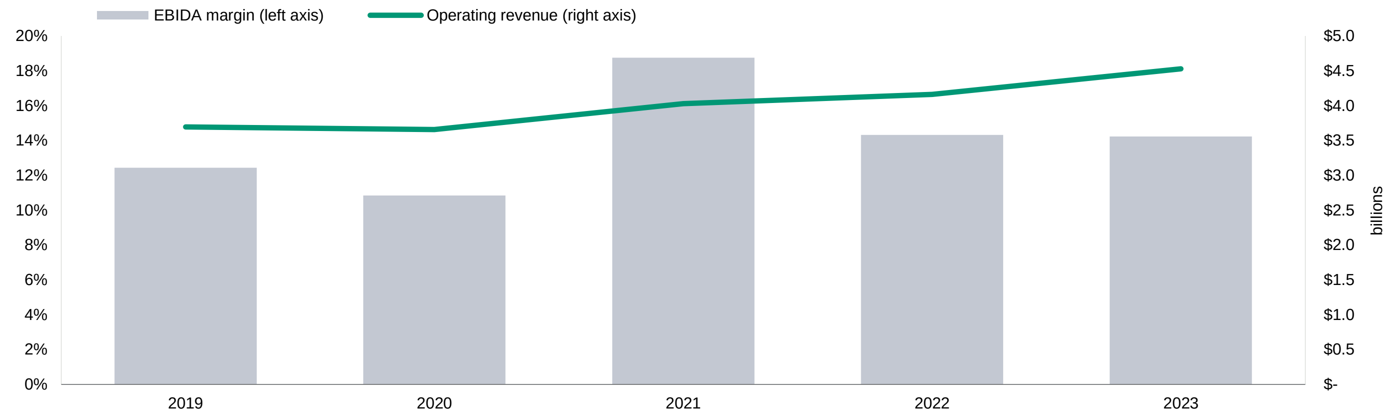


Source: Moody's Investors Service

Operating performance

Strong financial management will contribute to the maintenance of favorable operating results. The system generated an EBIDA margin of 14% in fiscal 2023, which was in line with its trailing five-year average. With this performance, debt service coverage stood at a robust 7.1x. Excellent revenue diversity and significant economies of scale continue to support stability of the operating model. Total operating revenue topped $4.5 billion in fiscal 2023, representing a 28% increase from fiscal 2018. With good growth prospects within core revenue sources in fiscal 2024, the system is poised for another year of surplus operations and strong excess cash flow generation.

Exhibit 3
Substantial economies of scale contribute to consistently favorable operating results

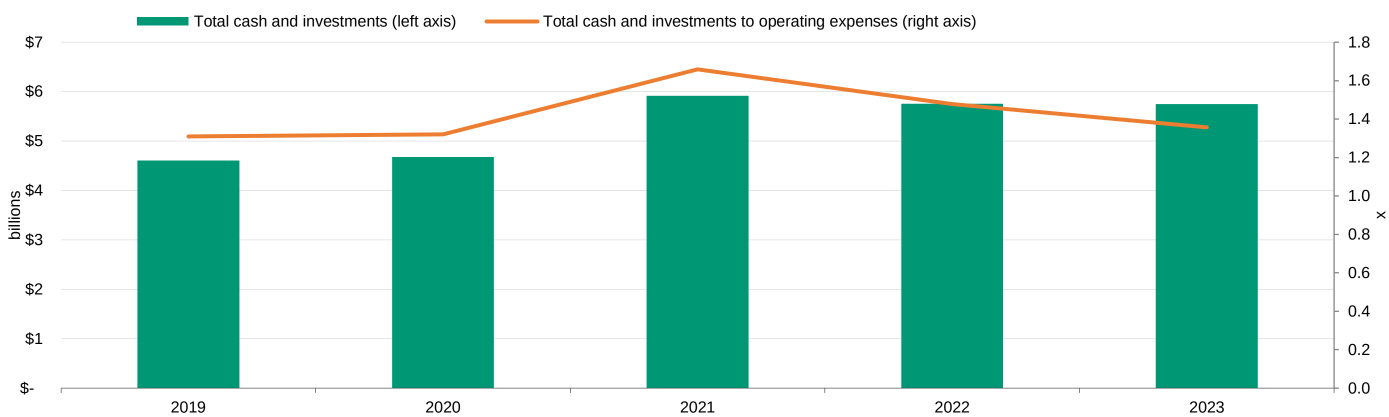


Source: Moody's Investors Service

Financial resources and liquidity

Significant financial reserves and liquidity will continue to support a strong capital reserve. Total cash and investments grew by a sizable 34% over the last five years to $5.7 billion in fiscal 2023. The cushion of total cash and investments to operating expenses was a solid 1.4x, while unrestricted monthly liquidity of $1.7 billion provided an ample 160 days cash on hand. Future financial reserve growth prospects will remain supported by a mix of investment returns, philanthropy, and retained cash flow. Careful investment stewardship by the internal office of investments increases prospects for sustaining favorable returns. At June 30, 2023, the five- and ten-year returns of the long-term endowment were a strong 7.38% and 7.73%. The investment office is also responsible for managing both the operating pool and retirement assets associated with the single-employer defined benefit pension plan. In the most recent reporting period, discounted daily self-liquidity assets provided strong coverage of the modest amount of demand debt at over 16x.

Exhibit 4
Substantial financial resources provide for a strong operating reserve



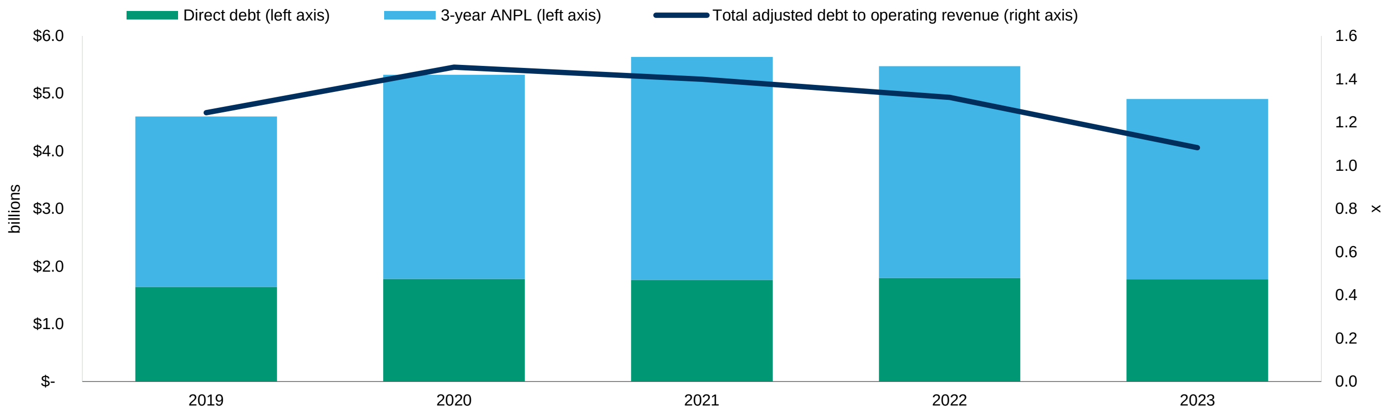
Source: Moody's Investors Service

Leverage and coverage

A detailed capital planning framework will contribute to the maintenance of manageable financial leverage. Total cash and investments covered adjusted debt by a solid 1.2x in fiscal 2023, while total adjusted debt to operating revenue was 1.1x. Strong debt affordability is reflected in debt to EBIDA at just 2.8x. Unfunded pension liabilities are the main driver of adjusted leverage, with revenue bonds and leases accounting for just 36% of total adjusted debt. The mainly fixed-rate, regularly amortizing debt structure provides for minimal credit risk and supports additional debt capacity. The system's five-year capital plan includes total spending of about $2.1 billion. The majority of these capital needs will be financed with internal resources, gifts, and government support. Consistent capital spending above depreciation supports a healthy age of plant at just under 14 years.

Exhibit 5

Adjusted leverage is manageable and primarily driven by pension exposure



ANPL represents the adjusted net pension liability, as calculated by Moody's

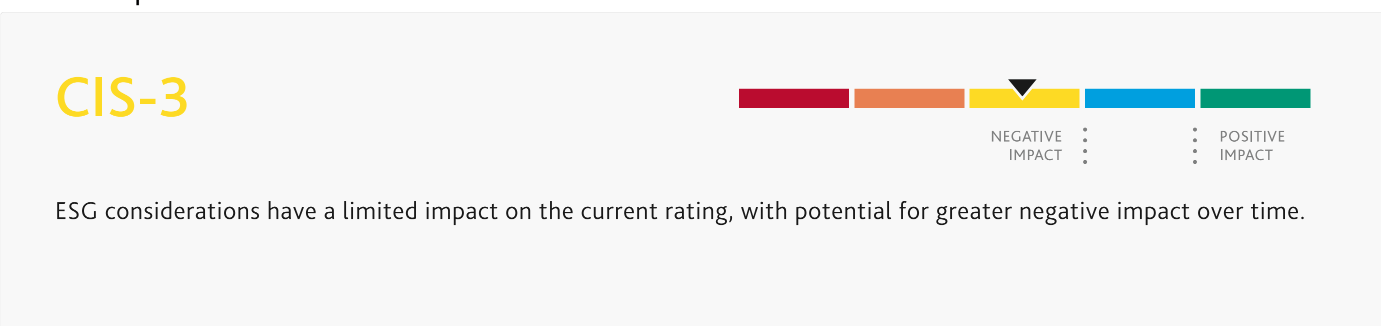
Source: Moody's Investors Service

ESG considerations

University of Missouri System, MO's ESG credit impact score is CIS-3

Exhibit 6

ESG credit impact score

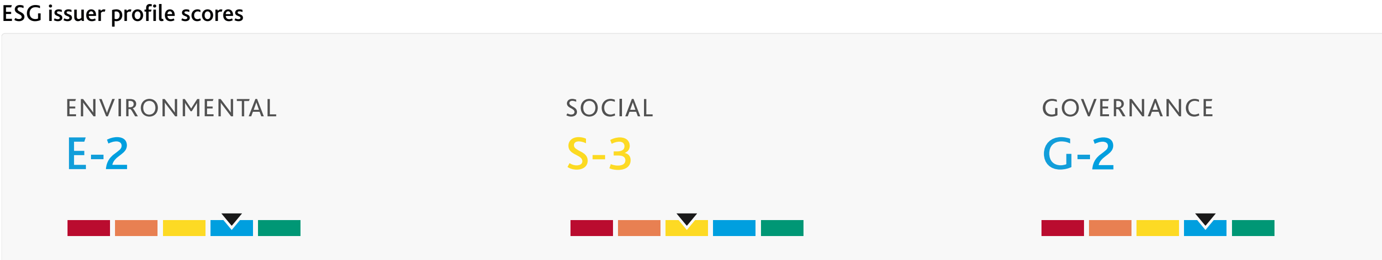


Source: Moody's Investors Service

University of Missouri System's **CIS-3** is mainly driven by its exposure to social risks. Its substantial wealth and strong institutional management help mitigate these ESG risks.

Exhibit 7

ESG issuer profile scores



Source: Moody's Investors Service

Environmental

The **E-2** incorporates the moderate environmental risk exposure associated with its multiple locations throughout Missouri. Heat stress is among the most prevalent environmental risks within the state. With this risk profile, the likelihood of potential operational disruption or material budget impact is low. Each campus maintains its own sustainability strategies that align with broader strategic objectives. The flagship Columbia campus has many facilities built to LEED standards and has achieved material reductions in greenhouse gas emissions since the enactment of its Climate Action Plan.

Social

MU's **S-3** is primarily driven by its exposure to demographic and human capital risks. Through its mission, the system maintains an important social role as a large provider of higher education, research, and healthcare. Aging demographics and projected declines in high school graduates introduce social risk to both the educational and clinical enterprises. The elevated human capital risks encompass the system's exposure to collective bargaining, faculty tenure, and the need to attract and retain specialized faculty and staff. The highly competitive landscape for nursing and clinical staff also provide for human capital risk. Good state financial support, a large and growing sponsored research enterprise, and the system's essentiality factor into its positive customer relations framework.

Governance

MU's **G-2** incorporates its active fiscal oversight and conservative budgeting practices, which contribute to good predictability in financial results across the consolidated enterprise. A demonstrated record of favorable operating performance and ample liquidity reflect management credibility. Sound financial strategy, reflected by detailed strategic and capital planning practices, mitigate the risks of operating a large, complex organization consisting of academic, healthcare, and research enterprises. Like most public universities, the board selection process introduces political and board structure risks, with all of the voting members appointed by the state's governor. Favorably, individual board members have diverse backgrounds and areas of expertise as well as a track record of effective advocacy on behalf of the university to advance its institutional priorities.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Rating methodology and scorecard factors

The principal methodology used in this rating was Higher Education Methodology published in August 2021. 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 brand and strategic positioning, financial policy and strategy, and operating environment on a qualitative basis.

Exhibit 8

University of Missouri System, MO

Scorecard Factors and Sub-factors		Value	Score
Factor 1:	**Scale (15%)**		
	Adjusted Operating Revenue (USD Million)	4,529	Aaa
Factor 2:	**Market Profile (20%)**		
	Brand and Strategic Positioning	Aa	Aa
	Operating Environment	Aa	Aa
Factor 3:	**Operating Performance (10%)**		
	EBIDA Margin	14%	A
Factor 4:	**Financial Resources and Liquidity (25%)**		
	Total Cash and Investments (USD Million)	5,749	Aaa
	Total Cash and Investments to Operating Expenses	1.4	Aaa
Factor 5:	**Leverage and coverage (20%)**		
	Total Cash and Investments to Total Adjusted Debt	1.2	Aa
	Annual Debt Service Coverage	7.1	Aaa
Factor 6:	**Financial Policy and Strategy (10%)**		
	Financial Policy and Strategy	Aa	Aa
	Scorecard-Indicated Outcome		Aa1
	Assigned Rating		Aa1

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.

Source: Moody's Investors Service

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