MOODY'S
INVESTORS SERVICE

CREDIT OPINION
29 June 2017

Update

Rate this Research

Contacts

Eva Bogaty 415-274-1765
VP-Sr Credit Officer
eva.bogaty@moodys.com

Susan I Fitzgerald 212-553-6832
Associate Managing Director
susan.fitzgerald@moodys.com

University of Missouri System, MO

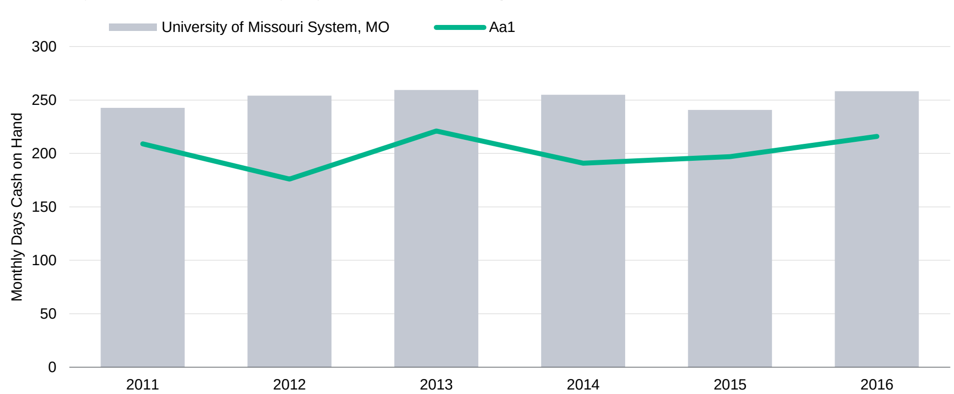
Update - Moody's revises University of Missouri's outlook to negative; affirms Aa1 & P-1

Summary Rating Rationale

Moody's Investors Service has affirmed the University of Missouri System's Aa1, Aa1/VMIG 1, and P-1 ratings on approximately $1.6 billion of rated debt. We have revised the rating outlook to negative from stable.

The negative outlook reflects expected thinner operating performance for FY 2017 through FY 2019 as the system takes steps to adjust to enrollment declines and reduced state funding. While the system has identified material cost reductions, some alternative revenue growth prospects, and internal reallocations, management's ability to successfully execute on plans and meet financial targets is yet to be proven. The Aa1 rating reflects the system's role as an essential provider of education and health care services for the State of Missouri (Aaa stable) across multiple campuses. The system's scope of operations, $3.2 billion of revenue, and absolute wealth, $3.6 billion of total cash and investments, provide it with material flexibility to cope with multi-year budgetary challenges. The health system continues to perform well and fundraising remains sound. Total debt levels are manageable and future borrowing plans are moderate. Offsetting considerations include expectations of weaker operating performance over the next two to three years, enrollment declines at system's largest campus in Columbia, and a large and growing Adjusted Net Pension Liability which materially increases adjusted leverage. The system's ample internal liquidity supports the highest short term ratings on its variable rate demand bonds and commercial paper.

Exhibit 1
Excellent liquidity allows some cushion and flexibility to adjust to market challenges
University of Missouri's monthly days cash on hand compared to Aa1 median



Source: Moody's Investors Service

Credit Strengths

- Large system with $3.2 billion revenue and over 57,700 students diversified across four campuses
- Strong overall wealth levels and healthy liquidity provide flexibility to respond to near term market challenges, nearly 260 days cash on hand
- Health system performance remains sound, critically important as patient care revenue comprises nearly a third of overall revenue
- Good fundraising, reflected in 3-year average gift revenue of over $125 million, provides funds for strategic investments.
- New management team has clearly identified multi-pronged plan to adjust to enrollment and state funding challenges

Credit Challenges

- Weakened student demand at Columbia campus driven by relatively weak demographics in core market combined with high profile negative events over last several years
- State funding will be cut for FY 2018, adding operating pressures
- Research profile remains below peer levels
- Growing pension liabilities, $2.4 billion in FY 2016, materially increase total adjusted debt
- Significant turnover in senior management team across the system will take time to jell, a challenge given diversity and scale of initiatives underway

Rating Outlook

The negative outlook reflects potential credit pressure should identified initiatives to reduce expenses and grow revenues fail to result in sustained at least break-even operating performance.

Factors that Could Lead to an Upgrade

- Material strengthening of student demand and research profile
- Further growth in total and spendable wealth levels
- Sustained stronger operating performance

Factors that Could Lead to a Downgrade

- Inability to effectuate identified strategic initiatives
- Sustained weakening of operating performance, either at the academic or health enterprise
- Reduction in liquidity, a key stabilizing element

Key Indicators

Exhibit 2
University of Missouri System

	2012	2013	2014	2015	2016
Total FTE Enrollment	57,805	58,162	59,565	59,815	57,784
Operating Revenue ($000)	2,744,979	2,872,501	2,929,976	3,080,500	3,205,382
Annual Change in Operating Revenue (%)	3.3	4.6	2.0	5.1	4.1
Total Cash & Investments ($000)	2,891,487	3,004,245	3,298,302	3,412,243	3,587,266
Total Debt ($000)	1,379,207	1,382,705	1,530,547	1,629,399	1,639,242
Spendable Cash & Investments to Total Debt (x)	1.5	1.6	1.5	1.5	1.6
Spendable Cash & Investments to Operating Expenses (x)	0.8	0.8	0.8	0.8	0.9
Monthly Days Cash on Hand (x)	254	259	255	241	258
Operating Cash Flow Margin (%)	12.0	14.2	12.2	13.7	14.6
Total Debt to Cash Flow (x)	4.2	3.4	4.3	3.9	3.5
Annual Debt Service Coverage (x)	4.1	5.1	4.0	3.2	5.0

Source: Moody's Investors Service

Detailed Rating Considerations

Market profile: Multi-campus flagship and land grant university system confronting near term enrollment challenges

The system has considerable market strength as a large multi-campus public university system serving as both the flagship and land grant mission for the State of Missouri (Aaa stable).

Enrollment is favorably diversified across four campuses, each with unique missions and profiles. In recent years, total full-time enrollment has been in the 58,000-60,000 student range, but it will decline over the next several years due primarily to enrollment challenges at the Columbia campus. The Columbia campus accounts for approximately 44% of total system headcount enrollment. Favorable performance at other campuses, with recent enrollment growth at Kansas City and Missouri S&T, will provide some offset.

The entering class at the Columbia campus will have fallen materially each year since 2014, with the fall 2017 class expected to be approximately 40% lower than the peak year of 2014. These smaller classes will pose a multi-year financial challenge for the Columbia campus in particular. The University of Missouri-Columbia's competitive challenges are highlighted in a declining yield on admitted freshmen, to just 31% projected for fall 2017 compared to 48% a decade ago. The campus has established a strategic enrollment management committee which has developed a short term plan through 2019 focused on improvement in a number of areas. Given a highly competitive landscape and weak demographics in the midwest, the university's ability to stem enrollment declines is uncertain.

However, the university's health care enterprise continues to expand and perform well, serving a critical role in its seven county primary care service area and secondary 18-county service area. Patient care revenues topped $1 billion in FY 2016, a nearly 25% increase over five years, reflecting both organic growth as well as additional affiliations. The health system's strengthening market position is reflected in heightened market share to 27% in fiscal 2016, compared to 20% in fiscal 2012, as reported by the system across the 25 county service area. In its home Boone County (Aa1), MU Health Care reports an over 55% market share.

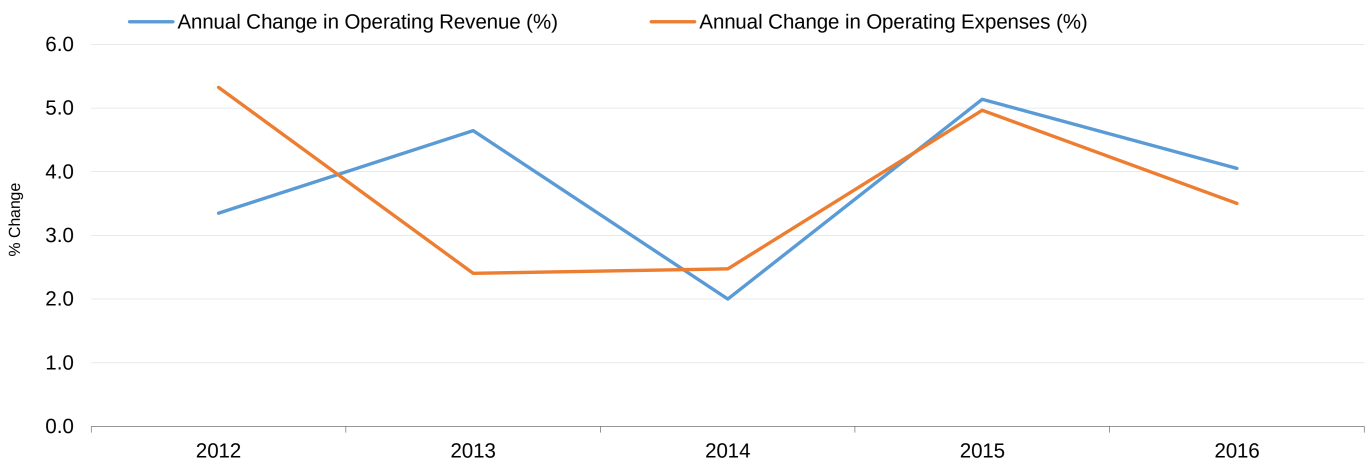
The system's research profile is not as strong as some peer public universities, with research expenses of $194 million in FY 2016. Management reports expectations of 2.7% growth in research expenditures for the current FY 2017. However, as the federal research funding environment becomes ever more competitive, significant growth over the next several years is unlikely.

Operating performance: Enrollment declines and state funding cuts will likely result in thinner performance

With expected declines in net tuition revenue and state funding expected for FY 2017 and 2018, the system's operating performance will likely soften. However, we expect the system to sustain fiscal balance given a variety of material expense reductions underway, combined with the continued strong current performance of the health system. The system's three-year average operating margin of over 5% from FY 2014-2016 highlights historically strong financial management and provides some margin for weakening while still sustaining good debt service coverage. The system's three- year average debt service coverage was nearly four times in fiscal 2016.

Exhibit 3

Continued strong expense containment will be important in low revenue growth environment



Source: Moody's Investors Service

For fiscal 2018, the system identified the need to either cut or internally reallocate approximately $100 million of expenses across the academic campuses and the system, which appears manageable in the context of an over $3.2 billion revenue base ($2 billion excluding patient care as MU Health Care is not subject to these measures). Each campus has individually identified specific areas for reductions and reallocations.

Revenue diversity continues to be a credit strength for the system, especially given pressure on net tuition revenue and state funding. Approximately 35% of the system's revenues are derived from student charges, 32% from patient care, and 15% from state funding.

Wealth and liquidity: Very strong financial reserves and liquidity are a stabilizing element

The university's total and relative wealth levels are key credit strengths that add stability to its overall profile, even as it confronts various near term challenges. Total cash and investments approached $3.6 billion at the end of fiscal 2016 and are expected to grow further in fiscal 2017 based on favorable year to date investment returns. Spendable cash and investments covered 86% of operating expenses in fiscal 2016, in line with Aa1 metrics.

Fundraising will continue to provide funds for investment in campus priorities and facilities, even in a more constrained revenue environment. Each campus individually conducts its own fundraising efforts.

LIQUIDITY

The system's liquidity is excellent, with $1.9 billion of monthly liquidity, or 258 monthly days cash on hand at FY 2016. This is also in line with Aa1 metrics. Liquidity has been and is expected to remain steady. The system has fairly limited calls on liquidity, assuming it is able to sustain balanced operating performance. The system has $93 million of weekly VRDBs outstanding, and a $375 million authorized commercial paper program, with $177 million outstanding as of April 30th. The system's operating cash flow is expected to remain sufficient to not only to cover annual debt service but also annual capital expenditures, which have averaged in the $300 million range annually.

Leverage: Manageable debt, albeit with a large and growing pension liability

Leverage is easily manageable, even with some expected softening of operating performance. Debt to revenue is approximately 0.5 times, with debt service consuming a modest 3% of operating expenses. The system has modest future capital plans, with just over $80 million of debt funded projects currently approved by the board for housing, classroom, and research facilities. They system will continue to use its commercial paper program as an interim financing vehicle for the projects.

DEBT STRUCTURE

The system's predominantly fixed rate amortizing debt profile carries relatively low risk compared to similarly rated peers.

DEBT-RELATED DERIVATIVES

The system's strong financial reserves and liquidity mitigate the modest level of swap exposure within its debt profile. The system has three debt related interest rate swap agreements with two counterparties for a combined notional amount of $186 million. As of the end of fiscal 2016, these swaps carried a negative mark to market of $55 million.

PENSIONS AND OPEB

The system's pensions and retiree health benefits are sizeable, adding materially to its total adjusted debt. Moody's adjusted net pension liability (ANPL), which uses a significantly lower assumed rate of investment return than the system's own, totaled $2.4 billion in FY 2016 compared to bonds and notes outstanding of $1.6 billion. While pension expense remains modest, we expect both the ANPL and the university's annual contributions to grow, a credit challenge in a constrained revenue growth environment. The system actively manages its pension and post-retirement benefit exposure and has in the past taken steps to limit growth. We expect that it will continue to examine ways to mitigate exposure.

Management and governance: Significant system-wide management transition underway

The system has had material turnover in its senior leadership team both at the system and at individual campuses over the last two years. New management appears realistic about the system's multipronged challenges and has articulated a clear plan to cut expenses, while at the same time internally reallocating funds to provide opportunities for investment in areas identified as strategically important. Management has also identified some potential areas for revenue growth, although these will likely take time to come to fruition. The commitment to fiscal and strategic sustainability is well articulated at both the system and the component unit level. However, actual implementation of plans, even as the new team works together to continue to develop a cohesive vision, may be challenging given the complexity of the system and various constituent interests.

Legal Security

The System Facilities Revenue Bonds are secured by a first lien on System Revenues, which includes gross income from auxiliary activities as well as from the Health System, and various mandatory student fees, including a portion of Tuition and Fees equal to maximum annual debt service on System Facilities Revenue Bonds.

Use of Proceeds

Not applicable.

Obligor Profile

The University of Missouri System is a four-campus public university system, including the state's flagship and land grant university, and a health system. The four campuses include Columbia (which enrolls approximately 45% of headcount enrollment and conducts the largest amount of research activity), Kansas City, St. Louis, and the Missouri Science and Technology campus (formerly Rolla). The system also operates a statewide cooperative extension program located in each county in the state.

Methodology

The principal methodology used in this rating was Global Higher Education published in November 2015. The additional methodology used in the variable rate demand bonds and commercial paper debt was Rating Methodology for Municipal Bonds and Commercial Paper Supported by a Borrower's Self-Liquidity published in January 2012. Please see the Rating Methodologies page on www.moodys.com for a copy of these methodologies.

REPORT NUMBER 1079728

MOODY'S
INVESTORS SERVICE