

CREDIT OPINION

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New Issue

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Contacts

Mary Kay Cooney 212-553-7815
AVP-Analyst
 marykay.cooney@moody.com

Edith Behr 212-553-0566
*VP-Sr Credit Officer/
 Manager*
 edith.behr@moody.com

Meredith Moore 212-553-4850
Analyst
 meredith.moore@moody.com

University of Louisville, KY

New Issue - Moody's Downgrades University of Louisville (KY), Assigns A1, Enhanced Aa3 to Ser. 2016D,E&F; Outlook Stable

Summary Rating Rationale

Moody's Investors Service has assigned A1 underlying and Aa3 enhanced ratings to the University of Louisville's (UofL) planned fixed rate General Receipts Bonds, including \$46.9 million of 2016 Series D (maturing 2036), \$5.5 million of Taxable 2016 Series E (maturing 2023), and \$29.9 million of Refunding 2016 Series F (maturing 2028). At the same time we have downgraded to A1 from Aa3 the underlying ratings on \$210 million of outstanding revenue bonds and affirmed the Aa3 enhanced ratings on \$120 million of outstanding revenue bonds. The outlook on the underlying rating is stable at the lower rating level. The outlook on the enhanced rating is also stable.

The downgrade to A1 reflects the university's weakening operating, wealth and liquidity measures, providing more limited financial flexibility concurrent with material governance and management transitions. Narrowing margins and declining cash and investments are the result of flat top line tuition revenue growth and reductions in state operating support. Ongoing legal challenges and leadership changes add distraction and reputational risk to UofL's forward operations.

The A1 underlying rating incorporates the university's large scope of operations, good brand recognition as a comprehensive, urban university that participates in NCAA Division I sports, growing research profile, and improving profitability of healthcare operations. The rating is constrained by a decentralized management structure that limits the university's ability to improve its narrow operating performance and reductions in operating support from the [Commonwealth of Kentucky](#) (Aa2 stable issuer rating). Rising age of plant indicates future needs for capital reinvestment.

The Aa3 enhanced rating and stable outlook, are derived from the state commitment, program history, and program structure related to the [Kentucky Public University Intercept Program](#), (Aa3 stable) as well as sufficiency of interceptable revenues and transaction structure related to UofL's bonds.

Credit Strengths

- » Good brand recognition and large, nearly \$1 billion scope of operations providing potential for economies of scale
- » Strong affiliation with KentuckyOne Health (sponsor, [Catholic Health Initiatives](#), A3 negative) supports revenue growth and contributes to academic and research profile

- » Important provider of academic programs, research, and healthcare in the state, serving nearly 18,600 full-time equivalent (FTE) students
- » Absence of defined benefit pension exposure
- » General receipt bondholders benefit from the Kentucky intercept enhancement program

Credit Challenges

- » Ongoing transitions in governance and leadership distract from strategic priorities and create reputational risks
- » Narrow operating cash flow margins (6% in fiscal 2015) and weak liquidity (62 days) offer limited protection from unexpected fiscal volatility
- » Decentralized management structure significantly constrains ability to increase organization-wide efficiencies and improve financial controls
- » Rising reliance on healthcare for 27% of revenues exposes operating performance to regulatory and reimbursement changes
- » State appropriation declines as the Commonwealth of Kentucky grapples with economic and pension funding challenges
- » Increasing average age of plant (14.6 years in fiscal 2015) reflects longer term need for capital reinvestment

Rating Outlook

The stable outlook reflects expectations that the university will address governance and leadership transitions for long term stability, adopt cohesive strategic and fiscal multi-year planning leading to operating improvement. The stable outlook at the lower level also incorporates potential progress on capital improvements over the next few years to meet enrollment, research and healthcare needs.

Factors that Could Lead to an Upgrade

- » Underlying rating: Strengthened and sustained cash flow resulting in sizeable growth in flexible reserves and liquidity; Consistently improved growth in net tuition revenue; Stability and balance in governance and leadership
- » Enhanced rating: Upgrade of the intercept program

Factors that Could Lead to a Downgrade

- » Underlying rating: Protracted timing to transition new leadership and board leading to fiscal instability, including insufficient cash flow to cover annual debt service; erosion of liquidity; substantial new debt absent rising reserves
- » Enhanced rating: Deterioration in credit quality of the intercept program; Significantly less debt service coverage by interceptable funds

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.moody's.com for the most updated credit rating action information and rating history.

Key Indicators

Exhibit 1

UNIVERSITY OF LOUISVILLE, KY						
	2011	2012	2013	2014	2015	Draft 2016 Pro Forma
Total FTE Enrollment	18,418	18,452	18,699	18,762	18,586	18,816
Operating Revenue (\$000)	787,651	771,967	775,394	839,721	933,309	985,614
Annual Change in Operating Revenue (%)	4.9	-2.0	0.4	8.3	11.1	5.6
Total Cash & Investments (\$000)	996,562	972,027	972,259	967,402	940,404	829,780
Total Debt (\$000)	374,058	389,429	391,711	397,080	375,498	359,988
Spendable Cash & Investments to Total Debt (x)	1.6	1.5	1.4	1.4	1.3	1.1
Spendable Cash & Investments to Operating Expenses (x)	0.8	0.7	0.7	0.6	0.5	0.4
Monthly Days Cash on Hand (x)	71	99	86	57	62	62*
Operating Cash Flow Margin (%)	10.0	6.2	1.5	6.9	6.3	5.8
Total Debt to Cash Flow (x)	4.7	8.1	33.1	6.8	6.4	6.3
Annual Debt Service Coverage (x)	2.2	1.4	0.3	1.6	1.8	1.8

Note: Fiscal 2016 data reflects draft 2016 university fiscal data and fiscal 2016 University of Louisville Foundation data; FTE data reflects fall semester enrollment

*Based on fiscal 2015 data

Source: Moody's Investors Service

Recent Developments

The university's governance and leadership will continue to be in transition until the remaining five members of the Board of Trustees are appointed by Kentucky's governor, a new president of the university is determined, and the multiple other leadership positions currently occupied by acting or interim positions are filled. The Board of Trustees has been reinstated after a Kentucky circuit court judge ruled that the governor acted improperly when, on June 17, 2016, he expanded the board and replaced existing members. The governor could still appeal this decision to the state supreme court.

The prior UofL president resigned on July 28, 2016, with the former acting provost now serving as interim president. An assistant provost has filled the role of acting provost. The university continues to operate with interim associate CFO positions over the university and healthcare lines of business, though the Senior Vice President for Finance and Administration, Chief Financial Officer, and Chief Operating Officer has remained in his position throughout the transition. We note that ongoing governance and leadership transitions are likely to add business distractions and interruptions, with the potential to adversely impact financial operations in the near term.

The university's budget for the fiscal year ending June 30, 2017 was approved in August 2016. The board concurrently approved a 5% tuition increase for fiscal 2017 and no increase for fiscal 2018.

Detailed Rating Considerations

Market Profile: Comprehensive Urban University with Stable, Mostly In-State Enrollment; Growing Research

University of Louisville's urban location, comprehensive academic programs, and strong regional brand, owing in part to participation in Division I sports, contribute to stable enrollment. Located in Kentucky's largest metropolitan area, UofL maintains a steady full-time equivalent enrollment of 18,600 largely in-state students despite relatively weak regional demographics. The university has a comparatively small out-of-state population, only 17%, and has significantly lagged peers in targeting a more geographically diverse student body.

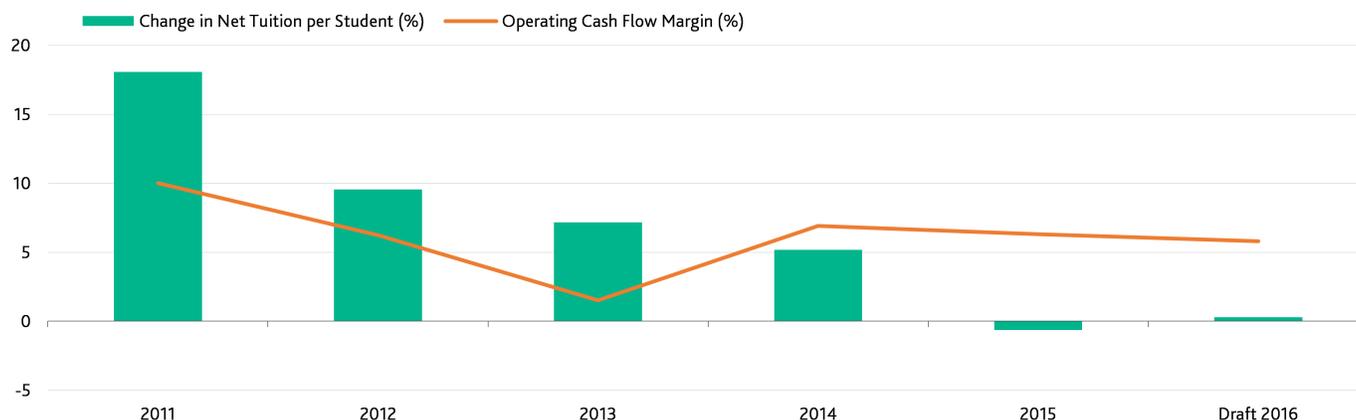
The university's growing research profile contributes to its brand recognition with an estimated \$172 million in research expenditures in fiscal year (FY) 2016, up 50% from FY 2014. Research activity is bolstered by \$65 million of funding from the affiliated foundation and affiliation agreement with KentuckyOne (KOH). Federal government sources accounted for roughly 40% of draft 2016 research expenditures. Diversity of funding, with only about one-third from federal agencies helps cushion the university from federal funding pressures. It also results in the university bearing a greater burden of the cost of research than peers.

Operating Performance: Narrow Operating Margins Exacerbated by Stagnant Top Line Revenue Growth and State Cuts

The university will continue to post single digit operating cash flow margins for the near term. Narrowing margins are due to stagnation of top line tuition revenue growth, which occurred in FY 2015 and is expected to continue in FY 2016 based on draft 2016 data. Rising financial aid is offsetting tuition increases, including the 5% increase for FY 2017, and with a board approved hold on tuition increases for FY 2018, top line revenue will remain flat. The FY 2015 operating cash flow margin of 6.4% was below the 11% median margin for comprehensive universities. UofL's decentralized management structure has made it difficult to increase organization-wide efficiencies and improve financial controls.

Exhibit 2

Stagnant Top Line Net Tuition Revenue Growth Pressures Operating Cash Flow Margins



Source: Moody's Investors Service

Clinical services and practice plan revenue, which comprises over one-quarter of UofL's revenues, is a driving factor for the university's continued revenue growth. These healthcare related revenues are derived from services provided through affiliation agreements by the University of Louisville Physicians at clinics and hospitals in the Louisville area. The majority of revenues are Medicaid based, with growth reflecting the state's Medicaid expansion, driven by the Affordable Care Act (ACA). However, uncertainty surrounds how Kentucky and UofL will phase in the expanded Medicaid fund match, which is expected to begin in 2018.

UofL's clinical operations have contracts with multiple hospitals, but the largest contract is with KentuckyOne Health. KOH manages five hospitals in Kentucky, including the state owned University of Louisville Medical Center (UMC), and is affiliated with Catholic Health Initiatives (CHI). Signed in November 2012, the KOH-UMC agreement provides \$225 million for academic support during fiscal years 2016 through 2018, \$87 million for capital investments, and an additional \$37.5 million of unrestricted funds. Currently the ULP and KOH are in discussions regarding KOH's ability to make good on its funding agreements. Though the discussions are confidential, KOH management indicated that talks are moving in a promising direction.

The university will continue to experience state appropriation cuts given the commonwealth's budget challenges and large unfunded pension liability. Operating appropriations, which were a meaningful 15% of fiscal 2015 operating revenues, were cut by 5% for fiscal 2017, with the same appropriation level expected for FY 2018.

Wealth and Liquidity: Decreasing Wealth and Limited Liquidity; Strong Fundraising is Favorable

Declining cash and investments for the combined UofL and its support organization, the [University of Louisville Foundation](#) (ULF), over the last six years (including fiscal 2016) underpin the weakening credit profile. Use of cash for strategic investment, debt amortization, relatively weak investment returns, and narrow operating performance have caused the university to significantly lag peers relative to growth in wealth levels. Ongoing capital and operating investments, along with higher than average one-time note payments (\$10 million for FY 2018), will further limit substantial improvements in wealth.

Spendable cash and investments of \$502 million for FY 2015 were down 17% from FY 2011, and are projected to be significantly lower for fiscal 2016. Changes in ULF unrestricted net assets result in a sizeable decline in projected spendable cash and investments. Combined

with the university's draft 2016 results, 2016 spendable cash and investments are estimated at \$378 million. The change in foundation reporting reflects heightened fiscal oversight and conservative accounting of net assets released from restrictions.

Favorably, management reports that philanthropic support remains strong despite the recent high profile governance and leadership transitions. Fundraising is essential to the university's credit profile, with its brand an important draw for ongoing support. Reported gifts in FY 2016 of \$242 million rival the strong \$237 million reported in fiscal 2015. The last campaign for \$1 billion was successfully completed in FY 2014.

The ULF total endowment amounted to \$767 million at fiscal end 2016. Roughly 75% are pooled investments that are managed by the foundation with assistance of an external advisor, which closed fiscal end 6/30/2016 at \$566 million, recording a -2.3% fiscal year return. Asset allocation remains stable and diverse, in line with peers, with the largest allocations to domestic equities, global equities and marketable alternatives.

LIQUIDITY

Liquidity is thin, with only \$150 million of monthly liquidity or 62 days cash, well below the 156-day median for comprehensive universities, limiting UofL's ability to address unforeseen costs or revenue reductions. Draft 2016 figures indicate similarly low liquidity. Further draws on liquidity to balance budgetary shortfalls would adversely affect the university's credit profile.

Leverage: Manageable Leverage at the Current Rating; Foundation Partnership Has Been Integral to Campus Investment

The debt of the university and its affiliated foundations, including the new money component of the Series 2016 bonds, is manageable at the current rating level. The fiscal 2015 and draft 2016 pro forma debt to operating revenues of 0.4 times for both years are on par with the 0.5 times median for comprehensive public universities.

Debt formerly held at the ULF, is being reallocated to several newly set up, dedicated foundations. Roughly one-third of UofL's reported debt at fiscal end 2015 is now held at various foundations. During FY 2015 and 2016, a separate real estate foundation (ULREF) was set up to acquire, maintain, improve and manage property for the benefit of UofL. During FY 2016 and into FY 2017, multiple properties that were once part of the ULF have been transferred to the ULREF. Such properties include the Tax Increment Financing (TIF) districts with annual revenue generated through incremental taxes that are directed to UofL operations (roughly \$6 million annually). Though the revenue streams will be derived from these newly formed foundations, they will continue to be directed to support UofL.

The university is benefitting from recent state capital support of \$80 million for the construction of a new academic building. The project was legislatively approved for the FY 2016-18 biennium. Construction of this new building (on the Belknap campus) is currently underway. A new academic building on the medical campus was internally funded. Although UofL has no committed project plans currently, management reports that housing and planned growth needs are driving the formation of a comprehensive master capital plan.

DEBT STRUCTURE

UofL's pro-forma debt (including the recently issued Series 2016AB&C and planned Series 2016DE&F bonds) of roughly \$240 million is largely fixed rate, amortizing debt, generally over 20 years. An additional nearly \$35 million in capital leases and notes payable amortize over shorter terms, including a \$10 million principal payment during fiscal 2018.

The university, through its Athletic Association, has a \$12 million variable rate term note, with interest rates based on LIBOR. Debt held or guaranteed by the foundation totaled \$124 million at FYE 2015. With the planned Series 2016D and 2016E issuance, the foundation expects to release approximately \$47 million of guaranteed bonds (Series 2008A&B Mortgage Revenue Bonds issued through the Louisville/Jefferson County Metro Government).

DEBT-RELATED DERIVATIVES

The university has one swap agreement with PNC Bank N.A. associated with the \$13.4 million Athletic Association term loan. The swap covers the notional amount of the bonds, amortizes in conjunction with the loan, and expires in June 2022. Financial covenants of the taxable loan include: a negative pledge of unrestricted investments; maintenance of at least \$10 million in unrestricted investments; and covenants to be tested semi-annually. UofL reports full compliance with covenants to date. There are no collateral posting requirements. The fair market value of the swap liability as of June 30, 2016 was \$434,000.

PENSIONS AND OPEB

The university has relatively modest contingent liabilities compared to peers. UofL does not participate in a defined benefit pension plan, but does have an OPEB liability. The OPEB plan is funded on a pay-as-you-go basis. The plan had an accrued liability of \$89 million as of FY 2015.

Governance and Management: Need for Cohesive Long-Term Leadership and Oversight

UofL has faced several high level disruptions in governance and leadership, particularly in the last five months. Despite this, the organization has been able to effectively meet its educational, research and healthcare missions evidenced by steady results in those areas. Going forward, good strategic positioning reflects the need for heightened attention to multi-year fiscal and capital planning to preclude further fiscal weakness, and concerted efforts for implementation of board policies and procedures that safeguard essential stewardship of the organization. Successful outcomes of accounting reviews of the university and its support partner, ULF, will reduce managerial disruptions and allow UofL to advance with priorities to bring long-term fiscal and strategic order.

Legal Security

The General Receipts Bonds are secured by a pledge of substantially all unrestricted revenue, including student tuition and fees, state appropriations, local and private grants and contracts, auxiliary enterprise revenues, indirect cost recoveries from research activity, sales and services of educational activities, investment income, and certain other revenue streams. FY 2016 pledged revenues of \$506 million provided nearly 30 times coverage of the maximum annual debt service of \$17 million.

The university's general receipts bonds benefit from the presence of a state intercept program. If the university fails to make debt service payments 10 days in advance of the debt service payment date, the Secretary of the Finance and Administration Cabinet of the Commonwealth is obligated to use any funds that have been appropriated to the university but not yet expended to make debt service payments.

UofL's General Receipts debt service payments are due twice a year (September and March). We are reasonably assured that sufficient nondistributed, legislatively adopted state appropriations will be available for intercept. Debt service coverage is calculated by dividing interceptable state aid available to pay the remaining periodic debt service payments. For University of Louisville, this calculation results in a strong pro forma peak debt service coverage of over 5 times.

Use of Proceeds

Proceeds of the Series 2016D and 2016E will be used to finance expansion of the university's Papa John Cardinal Stadium; and pay costs of issuance. Proceeds of the Series 2016F bonds are expected to be used to refund the Louisville/Jefferson County Metro Government Mortgage Revenue Bonds, Series 2008A and 2008B, which were originally used for Papa John Stadium improvements and were guaranteed by the UofL Foundation; and to pay costs of issuance.

Obligor Profile

The University of Louisville is a comprehensive public research university, inclusive of medical and law schools, with three campus locations throughout metropolitan Louisville, Kentucky. In FY 2015, operating revenue totaled \$933 million and for fall 2016 the university enrolled 18,816 full-time equivalent students.

Methodology

The principal methodology used in the underlying 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 published in July 2013. Please see the Rating Methodologies page on www.moody.com for a copy of these methodologies.

Ratings

Exhibit 3

University of Louisville, KY

Issue	Rating
General Receipts Refunding Bonds, 2016 Series F	A1
Rating Type	Underlying LT

Sale Amount	\$28,985,000
Expected Sale Date	12/06/2016
Rating Description	Revenue: Public University Broad Pledge
General Receipts Refunding Bonds, 2016 Series F	Aa3
Rating Type	Enhanced LT
Sale Amount	\$28,985,000
Expected Sale Date	12/06/2016
Rating Description	Revenue: Public University Broad Pledge
Taxable General Receipts Bonds, 2016 Series E	A1
Rating Type	Underlying LT
Sale Amount	\$5,515,000
Expected Sale Date	12/06/2016
Rating Description	Revenue: Public University Broad Pledge
Taxable General Receipts Bonds, 2016 Series E	Aa3
Rating Type	Enhanced LT
Sale Amount	\$5,515,000
Expected Sale Date	12/06/2016
Rating Description	Revenue: Public University Broad Pledge
General Receipts Bonds, 2016 Series D	A1
Rating Type	Underlying LT
Sale Amount	\$46,885,000
Expected Sale Date	12/06/2016
Rating Description	Revenue: Public University Broad Pledge
General Receipts Bonds, 2016 Series D	Aa3
Rating Type	Enhanced LT
Sale Amount	\$46,885,000
Expected Sale Date	12/06/2016
Rating Description	Revenue: Public University Broad Pledge

Source: Moody's Investors Service

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