University of Kentucky, KY

Update – Moody's confirms University of Kentucky's Aa2; outlook stable

Summary Rating Rationale
Moody's Investors Service has confirmed the University of Kentucky's (UK) Aa2 rating on approximately $910 million of rated general receipts bonds. At the same time, Moody's has confirmed the Aa3 on a combined $3.1 million of Agency Fund Revenue Refunding Bonds, Project No. 102, Series A and Taxable Series B. The outlook is stable. This concludes the review for downgrade initiated July 21, 2017.

The Aa2 rating reflects UK's large scope of operations as the flagship university for the Commonwealth of Kentucky (Aa3 stable) with healthy enrollment and net tuition revenue growth, combined with improved student geographic diversification and rising reserves. Favorably, the rating also incorporates solid operating cash flow, from both the university and its highly integrated academic medical center. Leverage is modest relative to peers, with no exposure to direct benefit pension plans. The university will, however, likely be subject to decreased operating support from the commonwealth as Kentucky addresses its own budgetary challenges and significant pension underfunding.

The Agency Fund Projects 102A and 102B bonds are rated one notch below that of the university's general receipts pledge as the debt service is paid through a lease between the State Property and Buildings Commission (SPBC) of the Commonwealth of the Kentucky and UK. Lease payments are budgeted by UK and subject to biennial commonwealth approval of the university's budget.

Exhibit 1
Patient care is largest share of University of Kentucky's operating revenue
Percentage of Moody's adjusted fiscal 2016 operating revenues

* Other Sources include investment income, other, and tax revenue.
Source: Moody's Investors Service
Credit Strengths

» Good student demand for Kentucky's flagship, research-intensive university, with fall 2016 enrollment of nearly 30,000 full-time equivalent (FTE) students

» Consistently good operating cash flow (fiscal 2016, 12% margin), driven by sound fiscal management, growing net tuition revenue and profitable, highly integrated healthcare system

» Robust increase in spendable cash and investments to $1.8 billion as of fiscal 2016, due to strong fundraising and favorable operating performance

» Excellent liquidity, with $1.3 billion of monthly liquidity, and limited expected calls on liquidity

» Manageable leverage position, with debt to cash flow of 2.8 times and no direct exposure to defined benefit pension plans

Credit Challenges

» Flat to decreasing support from Kentucky, as the state grapples with its own budgetary challenges and large unfunded pension obligations

» Heavy reliance on health care for more than half of operating revenue (54%); high 31% Medicaid payor mix exposes operating performance to regulatory and reimbursement changes

» Ongoing capital needs ($231 million new debt expected in calendar year 2018) with debt issuance constrained by commonwealth approval, contributing to use of public-private partnerships

Rating Outlook

The stable outlook reflects the university's capacity to adjust to prospective additional state funding cuts given its favorable operating cash flow, good student demand and some pricing flexibility, and good reserves.

Factors that Could Lead to an Upgrade

» Further improvement in financial reserves relative to debt and operations

» Significant strengthening of UK's brand and geographic reach

Factors that Could Lead to a Downgrade

» Sustained deterioration of operating performance either at the university or UK HealthCare, particularly if resulting in liquidity reduction

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## Key Indicators

### Exhibit 2

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<tbody>
<tr>
<td>Total Fall Semester FTE Enrollment</td>
<td>27,545</td>
<td>28,112</td>
<td>28,815</td>
<td>29,426</td>
<td>29,441</td>
<td>28,405</td>
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<tr>
<td>Operating Revenue ($000)</td>
<td>2,407,459</td>
<td>2,439,620</td>
<td>2,564,849</td>
<td>2,898,178</td>
<td>3,071,463</td>
<td>1,104,854</td>
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<tr>
<td>Annual Change in Operating Revenue (%)</td>
<td>4.9</td>
<td>1.3</td>
<td>5.1</td>
<td>13.0</td>
<td>6.0</td>
<td>4.4</td>
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<tr>
<td>Total Cash &amp; Investments ($000)</td>
<td>1,423,226</td>
<td>1,665,656</td>
<td>1,939,731</td>
<td>2,218,385</td>
<td>2,426,973</td>
<td>1,201,140</td>
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<tr>
<td>Total Debt ($000)</td>
<td>679,422</td>
<td>647,790</td>
<td>830,579</td>
<td>930,444</td>
<td>1,043,655</td>
<td>597,459</td>
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<td>Spendable Cash &amp; Investments to Total Debt (x)</td>
<td>1.3</td>
<td>1.7</td>
<td>1.6</td>
<td>1.8</td>
<td>1.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Spendable Cash &amp; Investments to Operating Expenses (x)</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.7</td>
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<tr>
<td>Monthly Days Cash on Hand (x)</td>
<td>106</td>
<td>134</td>
<td>149</td>
<td>177</td>
<td>175</td>
<td>162</td>
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<tr>
<td>Operating Cash Flow Margin (%)</td>
<td>8.9</td>
<td>11.1</td>
<td>11.6</td>
<td>15.7</td>
<td>12.0</td>
<td>12.0</td>
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<tr>
<td>Total Debt to Cash Flow (x)</td>
<td>3.2</td>
<td>2.4</td>
<td>2.8</td>
<td>2.0</td>
<td>2.8</td>
<td>4.4</td>
</tr>
<tr>
<td>Annual Debt Service Coverage (x)</td>
<td>2.4</td>
<td>3.2</td>
<td>3.7</td>
<td>5.9</td>
<td>4.7</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Source: Moody’s Investors Service

## Recent Developments

The state implemented 4.5% state funding reductions for the fiscal 2017-2018 biennium. Beginning in fiscal 2018, the state also implemented performance funding, adding another element of budgetary uncertainty to Kentucky’s public universities. The determination of allocations to individual universities is based on a number of performance metrics, including student success and course completion. Of the commonwealth’s total fiscal 2018 higher education appropriations of $887 million, 5% or $43 million is designated for the performance funding pool for the state’s eight public universities, excluding Kentucky State University. Performance based funding allocations for fiscal 2018 ranged from 4.2% to 5.3%. UK’s allocation of 5.0% demonstrates the university’s alignment with the funding target outcomes.

## Detailed Rating Considerations

### Market Profile: Growing brand recognition bolsters enrollment growth

The university’s position as the Commonwealth of Kentucky’s flagship and land-grant university, with an academic medical center, support long-term student demand. Improved out of state enrollment (38% of fall 2016 freshman compared to 30% in fall 2013) highlight the university’s growing brand recognition, and favorably mitigate weak regional demographics and commonwealth limitations on in-state undergraduate tuition increases. Total fall 2016 FTE enrollment of 29,441 was up 7% over fall 2012. Preliminary figures for fall 2017 are on par with fall 2016.

Healthcare education, including a college of medicine and clinical research, are key components of UK’s academic profile and are enhanced by UK HealthCare (UKH). UKH operates two hospitals in Lexington (Chandler, including the Kentucky Children’s Hospital, and Good Samaritan) which have a combined 901 licensed beds and a network of outpatient sites and clinics. Mitigating UK’s healthcare exposure is UKH’s leading market share.

UK HealthCare continues to demonstrate strong growth. Total admissions and observations in fiscal 2016 of 46,151 were up 16% over fiscal 2012. Outpatient visits across the health system have also grown materially; outpatient visits of 501,943 are up 40% over fiscal 2012. Fiscal 2016 reported hospital occupancy was 82.5%. A rising case mix index (2.0 in fiscal 2016 and 2.1 in fiscal 2017, up from 1.78 in fiscal 2012 for Chandler Hospital) demonstrates UKH’s progress in its goal to become an essential tertiary and quaternary provider in Kentucky.

UK has a moderate research enterprise for a university of its size, particularly with such a large healthcare component. In fiscal 2016, research expenses totaled $256 million or 9% of operating expenses. Research funding is relatively diverse compared to peers, due to
its established schools for medicine, engineering, and agriculture. Research funding will continue to remain pressured as the university competes for a nearly stagnant pool of federal funding. Favorably, construction is underway for a new $265 million research building for which the state has funded $132.5 million of the Phase I cost of $165 million. The balance will be funded with institutional sources (federal, private and agency funds). The additional space is important to establish new research activity.

Operating Performance: Stable margins for both university and UKH operations; vulnerabilities to healthcare and state cuts
UK’s prudent budgeting practices, combined with solid healthcare operations and sound student demand, will support continued cash flow margins above 10% per year. UK’s consistently good operating performance will enable it to absorb additional potential state cuts within the next two years. The university has a considerable 54% revenue reliance on patient care revenue (Exhibit 1). Given favorable operating performance of the healthcare enterprise, this is currently credit additive, although the university is highly vulnerable to any negative changes in the healthcare environment.

Revenue increases are driven by robust growth in net tuition revenue, 29% over fiscal year 2012-16 period, and patient care revenue, 46% over the same time frame. Operating cash flow margins averaging 11-12% annually, inclusive of preliminary fiscal 2017 results, provide strong debt service coverage of over 3 times.

UKH continues to strategically partner with rural Kentucky hospitals, adding specialty physicians to bolster its position as a leading healthcare provider in the state. Operating performance in fiscal 2016 (11% operating cash flow margin) was more in line with years prior to fiscal 2015 (fiscal 2015 of 19%, fiscal 2012-14 average of 11%), due to higher acuity revenue growth, offset by rising costs associated with physician recruitment, nursing shortages and pharmaceuticals. Bottom line favorable operating performance is attributable to solid patient volume growth, higher acuity cases, and lower bad debt charity care. Increased Medicaid reliance (31% of gross revenue) reflects a shift from charity care and bad debt related to the 2014 expansion of the Kentucky Medicaid program under the Affordable Care Act (ACA).

Operating appropriations from the commonwealth comprised a modest, but important, 10% of UK’s $3.1 billion of operating revenue. UK continues to experience ongoing cuts to its biennial appropriations since 2009. There is no expectation for a rebound over the next several years as the commonwealth attempts to balance its budget and grapple with a large unfunded pension liability. UK’s appropriations in fiscal 2018 of $267 million are down 4.5% from fiscal 2016 and down a total 10% since fiscal 2012.

Wealth and Liquidity: Retained operating cash flow and strong fundraising bolster reserves
UK’s total cash and investments will continue to rise due to retained operating cash flow and ongoing philanthropic success. Total cash and investments of $2.4 billion at fiscal 2016 are up 70% over fiscal 2012 and provide flexibility for investment in strategic priorities going forward. Spendable cash and investments of $1.8 billion for fiscal 2016 were 0.6 times expenses, nearly on par with the Aa2 median of 0.7 times.

Over time, we expect UK’s reserves to grow as the system prepares for a comprehensive capital campaign. For fiscal 2016, UK reported gift revenue of $169 million (excluding receipt of external trusts), up from $131 million in fiscal 2012. The university indicates it raised over $175 million of gifts in fiscal 2017, per Council for Advancement and Support of Education standards.

The university’s $1.4 billion endowment pool at June 30, 2017 recorded a preliminary return of 10.2% for the fiscal year. The UK Board of Trustees Investment Committee, treasurer, and a chief investment officer oversee the endowment, with an external investment consultant.

LIQUIDITY
Given limited calls on liquidity from its all fixed rate debt structure, relatively low investment leverage, and healthy operations, UK has an excellent liquidity position. Monthly liquidity of $1.3 billion at fiscal year-end 2016 translates to 175 monthly days cash on hand. The preliminary fiscal 2017 liquidity is on par with 2016. Improvement in UKH’s days cash on hand to 203 days in fiscal 2016 from 95 days in fiscal 2012, bolsters overall liquidity.

Leverage: Moderate leverage due to rising reserves and use of capital funding partnerships; no exposure to defined benefit pensions
The university’s leverage will remain manageable as future debt plans moderate following multiple years of sizeable capital investments. Though debt has increased 54% over the last four years, from $679 million in 2012 to $1 billion in 2016, concurrent
strong increases in cash and investments have offset this rising debt burden. Debt to operating revenue of 0.3 times and spendable cash and investments to debt of 1.8 times remain stronger than the Aa2 medians of 0.6 times and 1.1 times, respectively.

Exhibit 3
Growing spendable cash and investments mitigates rising debt
UK spendable cash and investment to debt stronger than Aa2 median

Source: Moody’s Investors Service

UK has some modernization needs on the core of its campus and will rely on recent state authorized debt financings to cover construction costs. UK has also been authorized by the state for up to a total of $240 million in new debt. Authorizations have been received for: a $30 million bridge financing for construction of the UK College of Law (the state has provided $35 million of the $65 million law school building cost); $60 million for modernization and deferred maintenance of core campus facilities; and $150 million for renovation and upgrade of healthcare facilities. Issuances are expected during calendar 2018 allowing for manageable leverage and debt burden support. At this time, UK anticipates issuing $231 million of the $240 million authorization.

UK continues to expand its partnerships for housing and dining services with private entities. The university has had a partnership with a housing developer, Education Reality Trust (EdR), to replace and expand its campus student housing since 2012. EdR is currently building housing at a third campus location. Total beds to date of 5,733 beds are 80% of UK’s overall housing stock, and will rise to 86% of overall beds (6,850 beds) with the 771-bed University Flats and 346-bed Lewis Hall coming on line in fall 2017. The university receives annual ground rent payments from the developer and the projects revert to the university at the end of 75 years, assuming renewals at years 50 and 65.

The university’s partnership with Aramark for dining services and facility investments ($250 million total) is under a 15-year contract, with annual dining commissions paid to UK. Aramark built a comprehensive new dining facility, with additional classroom space and a state of the art emergency operations center, that opened in fiscal 2016.

If the EdR housing project cost, $449 million inclusive of current project underway, were included in the university’s leverage profile, debt to revenues would rise to 0.5 times, compared with the current 0.3 times and Aa2-median of 0.6 times.

While the university has limited its direct financial responsibility for the housing projects, the strategic importance of the housing/dining facilities and reputational risk create strong incentives for involvement should the projects not perform as expected. Currently, the housing projects are performing well, with 99% occupancy as of fall 2016 and is estimated at 95% for fall 2017, and helping to enhance UK’s brand.

DEBT STRUCTURE
UK’s conservative debt structure of all amortizing debt provides predictability in annual debt service payments and creates debt capacity as principal is reduced each year.

DEBT-RELATED DERIVATIVES
None
PENSIONS AND OPEB
The university has relatively modest contingent liabilities compared to peers as it does not participate in a defined benefit pension plan and has modest expenses associated with retirement healthcare benefits. For fiscal 2016, UK contributed $23.7 million for post-employment benefits, which was less than 1% of operating expenses.

Governance and Management: Excellent strategic positioning reflects cohesive university and healthcare activity
UK’s excellent strategic positioning reflects management’s demonstrated ability to implement a significant campus and healthcare transformation, bolstering brand, recognition and reputation, as well as incorporating fiscal discipline to manage through moderate state appropriation cuts in the near term. Management of both standalone university and healthcare operations work synchronously to position UK for ongoing growth in research partnerships and philanthropic support. Though healthcare issues in Kentucky and nationally will continue to remain a challenge, UKH’s strategy to provide tertiary and quaternary care in the state, with strong affiliations in its service area, underlies its competitive strengths.

Legal Security
UK’s general receipts bonds are secured by student tuition and fees, housing and dining revenues, hospital revenues (excluding professional clinical fees), state operating appropriations, non-restricted gifts and non-governmental grants and contracts, investment income indirect cost recoveries from research activity, and Department of Intercollegiate Athletics revenues. Fiscal 2016 pledged revenues of $2.3 billion cover maximum annual debt service of $111 million over 20 times.

The university’s 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. Moody’s does not rate any of the university’s debt under the intercept program.

Obligor Profile
The University of Kentucky is the flagship and land-grant public higher education institution for the Commonwealth of Kentucky, and includes UK HealthCare and the associated academic medical center and clinics. The university and the UK HealthCare hospitals are located in Lexington. In fiscal 2016, the university recorded operating revenue of $3.1 billion and enrolled a fall 2016 FTE of 29,441 students.

Methodology
The principal methodology used in this rating was Global Higher Education published in November 2015. The additional methodology used in rating the agency fund bonds was Lease, Appropriation, Moral Obligation and Comparable Debt of US State and Local Governments published in July 2016. Please see the Rating Methodologies page on www.moodys.com for a copy of these methodologies.
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