Vanderbilt University, TN
Update - Moody’s revises Vanderbilt's outlook to positive; Aa2 and P-1 affirmed

Summary Rating Rationale
Moody's Investor's Service has affirmed the Aa2 rating on Vanderbilt University's bonds along with the P-1 rating on its commercial paper program. The Aa2 rating reflects Vanderbilt's excellent student market and research strengths, considerable wealth and prospects for ongoing donor support. These credit strengths are counterbalanced by currently high exposure to patient care revenue and limited flexible reserves relative to expenses. The P-1 rating on the commercial paper program reflects the university's long-term rating, strong liquidity and able treasury management under its self liquidity program.

Credit Strengths
» Strong student demand for comprehensive academic offerings
» Considerable wealth with over $5 billion of total cash and investments
» Solid prospects for ongoing donor support
» Academic reputation aided by large research enterprise
Credit Challenges
» Comparatively moderate flexible reserves, at the current rating level, relative to $4 billion expense base
» Significant exposure to more volatile healthcare enterprise at 68% of total revenue in FY 2015
» Competition from reputational peers includes those with much higher wealth per student

Rating Outlook
The positive outlook is predicated on expectations that the academic medical center reconfiguration will conclude by June 30, 2016. While details of the reconfiguration are still being developed our outlook assumes that the reorganization will yield substantial, although not complete, risk transfer of the patient care enterprise and materially reduce Vanderbilt University’s debt.

Factors that Could Lead to an Upgrade
» Substantial risk transfer of healthcare enterprise combined with meaningful reduction in financial leverage
» Sustained improvement in operating performance resulting in increased flexible reserves

Factors that Could Lead to a Downgrade
» Decline in credit health of patient care enterprise even if not under the university’s full control
» Reduction in operating cash flow performance or flexible reserves
» Slowed growth of wealth relative to peers

Key Indicators

Exhibit 2
VANDERBILT UNIVERSITY, TN

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Revenue ($000)</td>
<td>3,671,870</td>
<td>3,734,533</td>
<td>3,704,338</td>
<td>3,917,740</td>
<td>4,152,458</td>
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<tr>
<td>Annual Change in Operating Revenue (%)</td>
<td>6.5</td>
<td>1.7</td>
<td>-0.8</td>
<td>5.8</td>
<td>6.0</td>
</tr>
<tr>
<td>Operating Cash Flow Margin (%)</td>
<td>12.2</td>
<td>12.5</td>
<td>10.8</td>
<td>10.3</td>
<td>11.0</td>
</tr>
<tr>
<td>Total Cash &amp; Investments ($000)</td>
<td>4,993,245</td>
<td>4,985,819</td>
<td>5,173,781</td>
<td>5,574,993</td>
<td>5,868,323</td>
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<tr>
<td>Spendable Cash &amp; Investments to Operating Expenses [x]</td>
<td>1.2</td>
<td>1.1</td>
<td>1.1</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Monthly Days Cash on Hand [x]</td>
<td>203</td>
<td>211</td>
<td>201</td>
<td>220</td>
<td>218</td>
</tr>
<tr>
<td>Spendable Cash &amp; Investments to Total Debt [x]</td>
<td>2.8</td>
<td>2.9</td>
<td>3.1</td>
<td>3.5</td>
<td>3.9</td>
</tr>
<tr>
<td>Total Debt to Cash Flow [x]</td>
<td>3.3</td>
<td>2.9</td>
<td>3.3</td>
<td>3.2</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Source: Moody’s Investors Service

Recent Developments
Vanderbilt University continues to move forward on the legal and financial restructuring of its $3 billion patient care enterprise. The board’s intent was made public in November 2014 following a strategic review. More recently on 14 December 2015, the university filed a request with the Tennessee attorney general to establish the medical center as a legally separate, not-for-profit organization. Vanderbilt aims to close on the transaction by June 30, 2016.
Based on our understanding of the intended framework the university’s patient care risk transfer will be substantial but not complete. The two organizations will remain closely affiliated with many financial exchanges, the university will continue to own the land and the hospital will still carry the Vanderbilt University Medical Center (VUMC) name. The university’s medical school will continue to receive transfers from the hospital to support its priorities including biomedical research. Management indicates that the primary motivation driving the reconfiguration is a belief that VUMC will be better positioned to navigate changes in the health care sector if it is not directly under the control of the university.

**Detailed Rating Consideration**

**Market Profile: Comprehensive research university with strong demand**
Vanderbilt’s diverse academic programs and solid reputation will continue to translate into very strong student demand. Net tuition per student has shown low but ongoing growth, reaching $22,413 in fiscal 2015. Vanderbilt increasingly competes with other top private universities across the U.S. Those top competitors typically have more than twice the wealth per student than Vanderbilt, allowing them greater ability to fund merit and need based student aid.

The university’s sizeable research enterprise remains stable, with significant exposure to federal funding due to biomedical research conducted through the medical school. Grant and contract revenue totaled $560 million in fiscal 2015. Similar to other research universities, Vanderbilt faces the challenge of an increasingly competitive federal research funding environment and likely increased reliance on private funding and internal support.

**Operating Performance: Healthy operating performance with likely reduction in patient care exposure**
The proposed reorganization of VUMC will favorably alter the university’s operating performance and revenue diversity. In fiscal 2015, 68% of the university’s $4 billion of operating revenue came from patient care. Based on our preliminary analysis of pro forma university operations, the largest revenue source would become tuition and auxiliaries at 33% of pro forma revenue.

The university’s operating health, however, will remain tethered to the fiscal health of the separate VUMC. The likely affiliation agreement between the university and the new not-for-profit will include various flow of funds and exchanges.

The reconfigured university will have more favorable operating cash flow performance. In fiscal 2015 Vanderbilt’s operating cash flow margin was a solid 11%. Because the vast majority of the university’s endowment is not associated with VUMC, Vanderbilt’s practice of spending less than 5% of trailing average of endowment value will translate into stronger operating performance under Moody’s approach. Investment income as a portion of overall revenue will move from 6% to close to 25%.

Prospects for solid operating performance over time are also bolstered by management’s close attention to overhead costs. Concerted efforts to rein in the costs of support functions and enhance administrative efficiency should continue to support both solid operating performance and programmatic investments.

**Wealth and Liquidity: Ongoing growth supported by philanthropy; limited wealth relative to reputational peers**
Vanderbilt is well poised to continue to increase its wealth through donor support, prudent investment management and retained surplusses. Total cash and investments were $5.9 billion at fiscal year end 2015, underpinning the Aa2 rating and providing a substantial buffer. Favorably, over $4 billion of the university’s cash and investments are spendable.

With engaged alumni and a solid track record of donor support, the university will continue to fund incremental program investments made possible through philanthropy. Total gift revenue was $105 million in fiscal 2015, lower than some competitors but still supportive of the Aa2 rating.

Vanderbilt has continued to invest in its facilities and plans to open a new Engineering and Science building the summer of 2016. While there are no near term debt plans the university will likely restructure some of its bullet maturities in the coming years and may finance student housing and other improvements through long-term debt over the next few years.

Vanderbilt’s well diversified endowment had a 3.7% return in fiscal 2015. Despite a 39% allocation to private capital, liquidity remains adequate with 33% of the $4.4 billion pool available within one quarter. Unfunded commitments as of June 30, 2015 were approximately 10% of the total pool.
LIQUIDITY
With a variety of potential liquidity demands from university operations, self-liquidity debt, swap collateral posting and private capital commitments, Vanderbilt continues to carefully monitor and increase its liquid funds. While monthly liquidity is substantial at $2.2 billion, when compared to the university large expense base it translates to a more limited 218 monthly days cash on hand. Assuming the healthcare reorganization moves ahead, monthly days cash will more than triple as expenses decline materially.

As of September 30, 2015, Vanderbilt had $757 million of discounted daily liquidity, providing strong coverage of $264 million of outstanding commercial paper backed by the university’s self-liquidity program. In addition to its own internal liquidity, Vanderbilt has two working capital lines of credit in place for a combined $400 million of external liquidity.

Leverage: Ongoing Debt Reduction To Continue
Vanderbilt continues to reduce its financial leverage with total debt moving to $1.2 billion as of June 30, 2015. There are no plans for additional debt. When the VUMC reorganization occurs, a substantial portion of the university’s debt will be retired as it was predominantly used to finance clinical assets.

DEBT STRUCTURE
Since 2010 the university has continued to reduce debt structure related risks. Variable rate debt comprised 27% of total debt at fiscal year end 2015. The university’s $250 million taxable liquidity notes mature in 2019. That reduction when combined with other scheduled maturities should grant ongoing debt capacity for future facility investments.

DEBT-RELATED DERIVATIVES
In 2008 Vanderbilt had a peak notional swap exposure of $1.3 billion. The derivate exposure added credit risk and prompted material collateral posting. The exposure has been significantly reduced though the exercise of termination options, with $391 million of remaining fixed-payer swaps. Collateral posting requirements remain with as much as $140 million posted during fiscal 2015. The related derivative risks are partially mitigated by management’s close attention to liquidity management and modeling of exposure to potential changes in LIBOR.

PENSIONS AND OPEB
Vanderbilt's eligible employees participate in a defined contribution plan. The university’s manageable contributions were $64 million in fiscal 2015.

Governance and Management: Leadership stability and strategic planning enhance profile
Vanderbilt University’s governance and management should continue to enhance its credit strength. The strategic planning involved in the decision to proceed with the reorganization of the medical center is emblematic of a broader approach to positioning the university for long-term strength. A recently completed strategic planning process reaffirmed the university’s commitment to offer both a highly residential undergraduate education as well as remaining a leading research university.

Key management positions have remained stable. While the proposed reorganized medical center not-for-profit will have a separate board, some key members of Vanderbilt University’s leadership will also have roles on the new corporations boards. The assessment of the ties and the working relationship of the two organizations will help inform our assessment of the degree of risk transfer under the reorganization.

Legal Security
Debt repayment is a general unsecured obligation of the university.

Use of Proceeds
Not applicable

Obligor Profile
Vanderbilt University is a private research university located in Nashville, Tennessee. Total full-time equivalent (FTE) enrollment for the university’s comprehensive array of undergraduate, graduate, and professional programs stood at 12,060 in fall 2015. Undergraduate students comprised approximately 57% of the University’s total FTE enrollment. Vanderbilt currently owns and operates extensive health care facilities as part of its mission.
Methodology
The principal methodology used in this rating was Global Higher Education published in November 2015. The additional methodology used in the short term rating was Rating Methodology for Municipal Bonds and Commercial Paper Supported by a Borrower’s Self-Liquidity published in January 2012. Please see the Credit Policy page on www.moodys.com for a copy of these methodologies.