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CREDIT OPINION
25 April 2017

Update

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Vanderbilt University Medical Center, TN

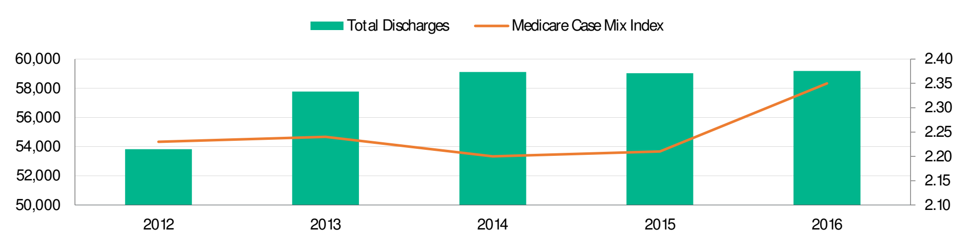
Update: Moody's Affirms A3 on Vanderbilt University Medical Center (TN); Outlook Stable

Summary Rating Rationale

Moody's Investors Service affirms the A3 rating assigned to Vanderbilt University Medical Center's (TN) outstanding bonds of approximately $926 million, the tax-exempt portion of which is issued through the Health and Educational Facilities Board of The Metropolitan Government of Nashville and Davidson County. The outlook is stable.

The A3 rating reflects Vanderbilt University Medical Center's (VUMC) favorable, albeit modest, operating performance following the April 30, 2016 legal separation from Vanderbilt University. Operating cash flow is ahead of projections through mid-FY 2017 with expectations of similar results through the end of the fiscal year. Volume growth and rising acuity contributed to the stronger performance, reflecting VUMC's strong brand equity as the quaternary academic medical center for Vanderbilt University's School of Medicine and the extensive Vanderbilt Health Affiliated Network. Some moderation in performance is anticipated for FY 2018, however, due to the comprehensive IT installation scheduled in November 2018. Liquidity levels are unfavorable to A3 medians providing minimal financial cushion, although a line of credit is expected to remain in place. Management remains highly focused on improving liquidity over the next three to four years.

Exhibit 1
Strong Volume Growth Translates into Rising Acuity



Source: Moody's Investors Service

Credit Strengths

» Large integrated, quaternary academic medical center and the largest comprehensive research, teaching and health system in Tennessee with $3.7 billion in operating revenue forecasted in FY 2017

- » Maintenance of integrated relationship with Vanderbilt University (Aa2) including overlapping minority board membership and senior leadership roles at the School of Medicine
- » Large network of 65 affiliated hospitals in five states contributing to strong volume growth
- » Favorable, albeit modest, operating cash flow through the first half of FY 2017 with expectations of margin maintenance through the balance of the fiscal year
- » Multi-year managed care contracts in place and state's 1115 waiver extends through 2021; anticipated reduction in supplemental funding ($5 million in FY 2018) absorbable

Credit Challenges

- » Upcoming IT installation that represents risk to operations, financial performance and liquidity
- » Weak liquidity metrics with cash on hand and cash-to-debt of 75 days and 56%, respectively, as of December 31, 2016; line of credit is currently being renewed
- » While planning was extensive for the legal separation from Vanderbilt University, risks still remain given infancy as a separate legal entity
- » Competitive local market with the presence of large not-for-profit and for-profit systems in this high growth service area

Rating Outlook

The stable outlook reflects expectations that financial performance will continue at its modest levels for the foreseeable future, with an anticipated margin decline in FY 2018 due to the upcoming IT installation. The outlook also assumes that management will carefully manage its cash position and reach its liquidity targets.

Factors that Could Lead to an Upgrade

- » Material improvement in financial performance, liquidity and debt coverage measures

Factors that Could Lead to a Downgrade

- » Departure from anticipated results or long-term reduction in liquidity
- » Unfavorable IT installation that impairs performance or liquidity
- » Disruption in operations from construction projects
- » Material or sustained increase in financial leverage that tempers cash flow and liquidity generation

Key Indicators

Exhibit 2
Vanderbilt University Medical Center, TN

	Q1 2017	Q2 2017	2017 Budget
Operating Revenue ($'000)	937,196	1,885,778	3,771,311
Operating Cash Flow Margin (%)	7.9	7.7	7.6
Days Cash on Hand	77	75	76
Unrestricted Cash and Investments to Total Debt (%)	57.0	56.5	57.6
Total Debt to Cash Flow (x)	3.9	3.9	3.9

Based on unaudited statements for September 30, 2016 (Q1) and December 31, 2016 (Q2); FY 2017 budget based on 6 month actual and management's 6 month projected performance ending June 30, 2017
Source: Moody's Investors Service

Detailed Rating Considerations

Market Position: Quaternary clinical reputation; extensive affiliated hospital network

On April 30, 2016, Vanderbilt University Medical Center (VUMC) legally separated from Vanderbilt University (the University), creating its own, separately incorporated entity. VUMC is comprised of three wholly-owned hospitals and various other healthcare missions and subsidiaries, including clinical research and post graduate training, the faculty practice plan and other healthcare services housed within Vanderbilt Health Services, LLC. The extensive, five state Vanderbilt Health Affiliated Network (VHAN) has increased to 61 hospitals from 54 in 2016. This network remains an active referral source into VUMC, which is nationally and regionally recognized for its tertiary and quaternary services (Medicare Case Mix Index of 2.35 in FY 2016 compared to the national median of 1.68). Volumes are solid in all categories of inpatient and outpatient care and occupancy is very high at 84.6% (adult hospital) and 83% (children's hospital).

The local and regional market is competitive with all providers seeking to capture Nashville's strong population and economic growth. Management-provided data shows increasing market share trends with 18.8% in the primary and secondary service through 2014, up from 16.5% market share in 2010. More recent data suggests flattening market share given the high occupancy levels. VUMC faces local competition from Ascension Health Alliance (Aa2) and HCA, Inc. (B1) in metro-Nashville with these systems reporting 14.4% and 10.1% market share in 2014, respectively. The system also faces regional competition from University of Kentucky, University of Tennessee Health Science Center and University of Alabama-Birmingham. Strict CON regulation is present in Tennessee.

Operating Performance, Balance Sheet and Capital Plans: Performance ahead of plan although some contraction expected in FY 2018

Financial performance since the separation indicates that VUMC is executing on its financial and operational goals as a new entity. Though the first half of FY 2017, VUMC reported an operating cash flow margin of 7.7% with expectations of 7.6% for full FY 2017, ahead of projections of 6.1% provided at the time of the Series 2016 financing. However, a reduction to 6.3% is anticipated for FY 2018 due to the upcoming IT installation and associated impact on operating expenses. Management reports that all financial and reporting systems showed no disruption with the separation from the University, owing, in part, to extensive testing well in advance of the separation date. The various academic, master services, trademark licensing and other agreements with the University are functioning as planned with funding reflected in operating performance. The level of planning for the separation bodes well for the upcoming IT installation and the ongoing campus construction projects.

Capital spending will be high compared to medians due to the additional beds that were part of the expansion plan post separation and the IT conversion. Capital spending for FY 2017 is estimated at $191 million which translates into 1.0x capital spending ratio. The IT conversion is scheduled for November 2, 2017 with total cost of $214 million. The IT conversion includes both EMR and revenue cycle installations. Management estimates the average age of plant at 9.5 years in FY 2017, favorable to the national median of 11.0 years.

LIQUIDITY

Liquidity levels, as measured against daily operating expenses and absolute debt levels, are unfavorable to A3 medians, and in part reflect the legal separation from the university. Days cash as of December 31, 2016 was 75.5 days while cash to debt was 56.5%, compared to A3 medians of 187 and 139%, respectively. If current working capital needs are as estimated, FY 2017 days cash should come out slightly ahead at 76 days compared to the forecasts provided to Moody's which showed 73 days. VUMC is presently renewing its line of credit ($100 million) which is viewed favorably as the system prepares for its IT installation. Management remains keenly focused on reaching 100 days cash on hand by FY 2020.

Fundraising remains strong with $45 million raised in FY 2017 and $48 million in the pipeline for FY 2018. Fundraising is separately managed from the university; the children's hospital serves as a key anchor in VUMC's fundraising strategies.

Debt Structure and Legal Covenants

VUMC has $1.1 billion in bonded public and private debt outstanding, as well as a $99 million subordinated promissory note to the university and a small $14.9 million borrowing per a product financing agreement. Debt to revenue is on par at 34% by FYE 2017 with the US median at 34.5%. Debt to cash flow of 3.9 times is above the A3 median of 2.8 times.

MTI and bank covenants include: 1) long-term debt service coverage of 1.1 times requires consultant call in if falls below and 1.0 times or below is event of default; and 2) minimum cash on hand of 45 days requires consultant call in if falls below and is an event of default if below 35 days. Both are measured annually. Headroom to covenants is adequate.

DEBT STRUCTURE

Conservative debt structure with 71% fixed rate (including the subordinated note to VU) and the balance variable rate. The Series 2016B bonds ($300 million) are taxable and structured with a 10-year bullet in 2027 and will need to be managed. The Series 2016C bonds ($50 million) are R-FLOAT securities. Liquidity risks are present in the R-FLOATs if not remarketed. Bondholders have the option to tender the bonds weekly, but there is no liquidity support for tendered bonds. Should remarketing proceeds be insufficient to support the tendered bonds, the bondholders will be required to hold the bonds, but will receive the maximum interest rate of 12-15%. If after 180 days the bonds have still not been remarketed, VUMC will be required to redeem the bonds; the redemption in full occurs on the first January 1 or July 1 that is at least 24 months after the R-FLOATs Term-Out Event occurs. The Series 2016D ($100 million) are floating rate notes with an initial five year tenor in 2022. When using Moody's approach of a 4 times multiplier of current rental expenses of $43.5 million per the FY 2016 balance sheet audit, operating leases translate into a debt equivalent of $174 million and further weaken VUMC's cash to total adjusted debt metric.

DEBT-RELATED DERIVATIVES

VUMC has two floating-to-fixed payor swaps ($75 million each). The counterparty for the swaps is US Bank. The swaps are short-dated and expire in 2021 and 2023; the agreements includes no collateral posting requirements.

PENSIONS AND OPEB

VUMC maintains a defined contribution pension plan limiting pressure on the balance sheet.

Management and Governance

On April 30, 2016, VUMC legally separated from Vanderbilt University. VUMC is an incorporated Tennessee not-for-profit corporation with no prior activities, assets or liabilities. The Series 2016 bonds effected the purchase of the clinical assets and operations that were transferred to VUMC. VUMC is comprised of medical center clinical operations, faculty practice group, graduate medical education programs and research based in clinical departments. Vanderbilt’s School of Medicine remains with the university. Several transitional service agreements and other recurring payments between VUMC and the university continue.

VUMC’s board of directors is made up of 11 members including VU’s Chancellor and three other VU board members. VUMC’s CEO is also the Dean of the University's School of Medicine and has been in these roles since 2009. The system CFO has extensive experience with academic medicine and large IT installations.

Legal Security

The bonds are a joint and several obligation of the members of the obligated group and secured by a pledge of gross receivable of the obligated members and a leasehold. VUMC is on the only member of the obligated group. The additional debt test in the MTI is 1.10 times MADS coverage and initially 75% debt-to-capitalization, falling to 73% in FY 2018 and 70% in FY 2020 and after.

Use of Proceeds

Not applicable.

Obligor Profile

VUMC is a newly incorporated Tennessee not-for-profit corporation with no prior activities, assets or liabilities. VUMC owns and operates three hospitals located on the main campus of Vanderbilt University: Vanderbilt University Adult Hospital, Monroe Carell Junior Children's Hospital and Vanderbilt Psychiatric Hospital, and partially owns Vanderbilt Stallworth Rehanbilitation Hospital (a joint venture). VUMC also includes Vanderbilt Health Services, Vanderbilt Medical Group, the Medical Center's clinical operations, post-graduate clinical training programs and clinical department research activities.

Methodology

The principal methodology used in this rating was Not-For-Profit Healthcare Rating Methodology published in November 2015. Please see the Rating Methodologies page on www.moodys.com for a copy of this methodology.

REPORT NUMBER 1067339

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