Rush University Med. Ctr. Oblig. Group, IL
Update to credit analysis

Summary
Rush University Medical Center (A1), which is part of a three-hospital system (Rush), will continue to benefit from its solid market position as a sizeable academic medical center (AMC) and integrated medical school. Rush’s AMC’s market position will also be supported by the system’s two community hospitals and ambulatory settings throughout the Chicago area as well as its focus on key clinical areas including orthopedics. The system’s newly streamlined governance structure will aid growth, as evidenced by recently improved volume trends. Rush will continue to enjoy solid operating cash flow margins, good unrestricted days cash and moderate leverage. Ongoing challenges will include an intensely competitive market with multiple prominent AMCs and significantly larger systems nearby, a challenging payor environment, and future capital plans that will add leverage in the coming year.

Credit strengths
» Solid inpatient market positions will be maintained by its AMC and two community hospitals, supported by ambulatory sites throughout the Chicago area
» Integration of health sciences programs and streamlined governance structure will help support ongoing operating efficiencies and growth
» Solid operating cash flow margins in the 9%-10% range, will be sustained
» Good balance sheet measures will be maintained, while significant restricted cash will further bolster balance sheet
Credit challenges

» Chicago area market will continue to be highly competitive and dynamic, with several other competing AMCs and significantly larger health systems as well as the presence of a major commercial payor

» Extensive multi-year capital plans are manageable, but will likely require some additional debt in the coming year

» Above average exposure to Medicaid, which provides greater uncertainty in light of the state’s budgetary challenges

Rating outlook

The stable outlook reflects our expectations that Rush will continue to produce solid operating performance sufficient to maintain good balance sheet measures even as it funds capital and strategic investment needs with cash and some additional debt.

Factors that could lead to an upgrade

» Sustained improvement in cash in to debt and days cash measures

» Improved volume trends and market share

» Sustained improvement in absolute operating cash flow levels as well as margins

» Ongoing maintenance of good positioning with payors amid competitive market place

Factors that could lead to a downgrade

» Deterioration of operating margins that represents a new normalized level of performance

» Increase in debt that results in materially weaker balance sheet measures over prolonged period

» Loss of market share or rate pressures associated with a challenging payor environment

Key indicators

Exhibit 2

Rush University Medical Center Obligated Group

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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</thead>
<tbody>
<tr>
<td>Operating Revenue ($'000)</td>
<td>1,962,543</td>
<td>2,081,608</td>
<td>2,159,894</td>
<td>2,262,483</td>
<td>2,406,160</td>
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<tr>
<td>3 Year Operating Revenue CAGR (%)</td>
<td>5.6</td>
<td>6.2</td>
<td>5.9</td>
<td>4.9</td>
<td>4.9</td>
</tr>
<tr>
<td>Operating Cash Flow Margin (%)</td>
<td>12.1</td>
<td>11.9</td>
<td>10.1</td>
<td>9.5</td>
<td>9.1</td>
</tr>
<tr>
<td>PM: Medicare (%)</td>
<td>34.6</td>
<td>36.8</td>
<td>38.1</td>
<td>38.7</td>
<td>39.3</td>
</tr>
<tr>
<td>PM: Medicaid (%)</td>
<td>16.9</td>
<td>20.3</td>
<td>19.9</td>
<td>19.7</td>
<td>19.4</td>
</tr>
<tr>
<td>Days Cash on Hand</td>
<td>210</td>
<td>224</td>
<td>216</td>
<td>205</td>
<td>214</td>
</tr>
<tr>
<td>Unrestricted Cash and Investments to Total Debt (%)</td>
<td>157.2</td>
<td>187.4</td>
<td>188.5</td>
<td>186.5</td>
<td>201.2</td>
</tr>
<tr>
<td>Total Debt to Cash Flow (x)</td>
<td>2.1</td>
<td>2.0</td>
<td>2.2</td>
<td>2.3</td>
<td>2.3</td>
</tr>
</tbody>
</table>

Based on financial statements for Rush System for Health, fiscal year ending June 30; investment returns normalized at 6% prior to fiscal 2015 and 5% in fiscal 2015 and beyond

Source: Moody’s Investors Service

Profile

Rush University Medical Center (RUMC) is part of a three-hospital system in an eight-county area surrounding and including the city of Chicago. The system is comprised of 684-bed RUMC, an academic medical center in the city of Chicago with a health sciences...
university that has more than 2,500 students; 210-bed Rush Copley Medical Center (RCMC) in Aurora, IL; and 127-bed Rush Oak Park Hospital (ROPH) in Oak Park, IL, as well as the various subsidiaries and joint ventures of these entities.

**Detailed credit considerations**

**Market position: AMC with solid position within very competitive market**

Rush will continue to operate in an intensely competitive and highly fractured market, as the Chicago area includes four other academic medical centers (AMCs) as well as larger health systems that will continue to implement strategies to gain inpatient and outpatient market share and prepare for new payment methodologies. That said, we expect Rush’s individual facilities to retain solid market positions aided by its standing as an integrated academic health system; this includes RUMC and its health sciences university (comprised of its medical school, nursing school and other programs), both engaged in significant levels of clinical research. RUMC offers a broad array of tertiary and quaternary services and is clinically renowned in a number specialties, including orthopedics, neurosciences and cancer care. RCMC and ROPH will also face local competition, but will likely retain leading positions in their respective service areas. RCMC’s service area, which is around Aurora, will benefit from a growing Kendall County. ROPH’s service area, in Oak Park, is just west of downtown Chicago.

Across its eight-county market, we expect the system to at least maintain inpatient market share of about 4.9%. As a system, Rush’s inpatient share lags behind significantly larger systems such as Advocate Aurora, AMITA Health, and Northwestern Memorial Health System based on recent management reported data.

Management expects that Rush will continue to see improved volume trends as it has during the recent six month period ended December 31, 2018. This will follow several years of declining admissions and flattish surgery volume. Growth will be aided by ongoing clinical integration opportunities at RCMC, physician recruitment, as well as several newer outpatient centers. The system will also be well-poised to expand services through partnerships and potential new affiliations, benefiting from its recently simplified governance structure (see management and governance below).

Exposure to government payors will remain relatively high, with about 59% of fiscal 2018 gross revenues derived from Medicaid (~20%) and Medicare (~39%). Medicaid will provide ongoing risk given potential state budgetary issues as well as ongoing expansion of Medicaid managed care plans. The presence of a leading commercial payor in Chicago provides some uncertainty. However, we expect Rush to successfully manage through a changing and challenging payor environment with proactive and strategic management initiatives.

**Operating performance, balance sheet and capital plans: solid operating performance but extensive capital plan will add debt**

Rush will continue to maintain solid operating cash flow margins (in the 9%-10% range) over the coming year, although margins have trended down from highs of around 12% over the past several years. Operating cash flow margins for the six month interim period for fiscal 2019 are a bit below the same period last year despite good volume growth. However, management expects absolute levels of operating cash flow, which have been stable over the past several years, to improve in fiscal 2019. Revenue growth will likely remain solid, in the 5% range, as it has in recent years even during periods of softer inpatient volume trends.

Rush will continue to manage expense growth (stemming from labor pressures from a broadly competitive market and rising drug costs) with improved labor productivity and operational efficiencies. This is highlighted by recent implementation of an early retirement program (ERP), which management believes will ultimately result in labor expense savings. Fiscal 2019 reported financials will include some one-time expenses associated with this ERP (including about $12.6 million in severance costs and about $25 million in non-cash pension settlement expenses).

Rush’s capital spending plans for the next several years are substantial, but will be generally manageable given its historically moderate leverage. Major capital plans include the construction of a new 11 story, 530,000 square foot facility on its main campus to consolidate ambulatory and clinical services for neurosciences and cancer care. This project, which will break ground in the spring of 2019, will be funded with a combination of cash flow, some cash reserves, philanthropy and $200 million of new debt.
LIQUIDITY
Rush will maintain good liquidity levels, with days cash of about 214 days at fiscal year end 2018. Elevated capital spending over the next several years will constrain Rush’s ability to grow its unrestricted cash. The system’s balance sheet, however, will benefit from the presence of restricted cash, which was about $598 million at fiscal year end 2018.

Rush’s investment allocation will be average, with about 45% allocated to fixed income or cash and the remainder in equities (33.9%), hedge funds (4.2%), private equity (5.2%) or other investments.

Debt structure and debt covenants
Rush’s leverage position will be manageable, but metrics would likely moderate following the contemplated issuance of $200 million of additional debt in the coming year. Including this new debt, cash to debt would fall from about 201% to about 140% on a pro-forma basis absent any increase in cash levels. Pro-forma for the new debt, debt to cash flow would rise to about 3.3 times from 2.3 times at year end 2018, absent any improvement in operating cash flow.

DEBT STRUCTURE
Rush’s debt structure will remain relatively straightforward, limiting debt structure risk. At June 30, 2018, approximately 81% of total debt was fixed rate debt or capital leases, and the remaining 19% was in variable rate direct bank placements.

Rush will have ample covenant cushion over the coming year. If historical debt service coverage falls below 1.1 times, it would require a consultant call in. Issuance of additional debt would require: (1) minimum pro-forma debt service coverage of 1.10 times; or (2) minimum historical debt service coverage of 1.1 times.

DEBT-RELATED DERIVATIVES
Rush will continue to have moderate exposure to swaps, with two floating-to-fixed interest rate swaps, one with Morgan Stanley Capital Services and one with Citibank; the combined notional amount was about $79 million as of June 30, 2018. At fiscal year end 2018, the swaps represented a combined $11.6 million liability to Rush. At the A1 rating level, Rush would be required to post collateral if the combined market value exceeded negative $25 million or one swap agreement exceeded negative $12.5 million; no collateral posting was required as of fiscal year end 2018.

PENSIONS AND OPEB
Rush’s unfunded pension liability, which at fiscal year end 2018 was about $18.3 million, will add a modest level of indirect debt; for the same period, Rush’s post-retirement health plan liability was about $6.5 million. Combined with about $133 million in lease adjusted debt, cash to total adjusted debt (including capitalized operating leases and pension liability) was good at 167% at fiscal year end 2018 but would fall to about 115%, pro-forma for the planned debt offering.

Legal security
All bonds are secured by a gross revenue pledge of the Rush Obligated Group, which includes RUMC, RCMC, and ROPH.

Management and governance: streamlined board will aid integration
Rush will continue to benefit from its streamlined single parent governance structure, which includes a smaller and more focused parent board that was finalized in 2017. This more nimble approach to developing and monitoring strategic initiatives, partnerships and financial planning will enable Rush to create further efficiencies by aligning and allocating resources across multiple different entities. The parent board has thirteen members from both RUMC (10) and RCMC (3), but has provisions to expand to up to 21 members. Management believes that with this structure, Rush will be well-positioned for any further expansion by creating a system structure which other organizations can join.

Management will continue to focus on cost efficiencies and long-range financial planning, which will help Rush achieve solid margins.
MOODY’S INVESTORS SERVICE

5 March 2019

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