

CREDIT OPINION

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Update

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Contacts

Daniel Steingart, CFA 949-429-5355
 VP-Senior Analyst
 daniel.steingart@moody's.com

Lisa Goldstein 212-553-4431
 Associate Managing
 Director
 lisa.goldstein@moody's.com

Charlotte-Mecklenburg Hospital Authority, NC

Update - Moody's affirms Charlotte-Mecklenburg Hospital Authority's (NC) Aa3, VMIG 1 and P-1; Outlook stable

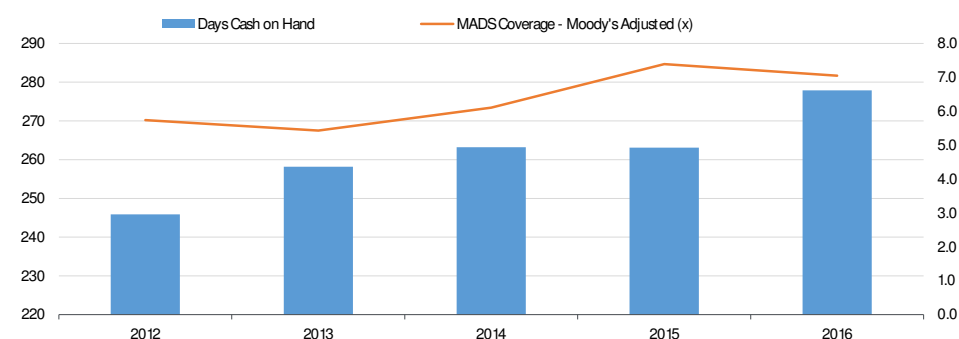
Summary Rating Rationale

Moody's Investors Service affirms the Aa3 long term ratings and VMIG 1 and P-1 short term ratings assigned to Charlotte-Mecklenburg Hospital Authority's (d/b/a Carolinas HealthCare System) bonds. The rating outlook remains stable. The rating action applies to approximately \$1.8 billion of rated debt.

Affirmation of the Aa3 rating is attributable to several factors including CHS' large size and scope of operations with multiple hospitals ranging from community hospitals to an academic medical center, the organization's long track-record of good and stable financial performance, strong balance sheet metrics, and capital spending plans that can be financed through cash flow. Notable challenges include geographic concentration and a large unfunded pension liability.

The P-1 commercial paper rating is based on CHS' Aa3 long-term rating and the adequacy of CHS' internal liquidity and treasury management to meet commercial paper maturities. The VMIG 1 short term rating is based on the short term rating of the bank providing liquidity for tenders of applicable debt.

Exhibit 1

Debt Service Coverage Strong While Liquidity Growing


Source: Moody's Investors Service

Credit Strengths

- » Large size of system with revenue diversity among several sizeable hospitals, including a children's hospital and academic medical center
- » Charlotte metro area population continues to grow, contributing to good organic patient volume and revenue growth
- » Regular capital spending can be supported through cash flow while continuing to add unrestricted liquidity to the balance sheet
- » CHS has a built out IT system and has achieved the highest connectivity designation (HIMSS 7)
- » Strong liquidity ratios and active treasury oversight of the self-liquidity and investment programs

Credit Challenges

- » Despite its presence in many markets throughout the Carolinas, CHS is concentrated in Charlotte metro area, limiting cash flow diversity by geography; Charlotte is also home to a large and active competitor
- » North Carolina does not currently have plans to expand Medicaid eligibility, which would likely benefit CHS given its high bad debt and charity care load; the state's transition to Medicaid managed care and CHS's participation with ten other health systems in a newly formed provider sponsored insurance company creates some financial risk
- » Lawsuit questioning the legality of certain contracting provisions creates distraction, although no immediate financial liability
- » Large unfunded pension liability, although the plan was frozen in 2014 for new hires and for all existing employees in 2018

Rating Outlook

The stable outlook reflects our expectation that CHS will continue to generate financial results at current levels allowing it to fund IT and other necessary strategic investments while maintaining stable leverage metrics.

Factors that Could Lead to an Upgrade

- » Maintenance of cash flow margins at higher levels
- » Growth in absolute and relative liquidity metrics

Factors that Could Lead to a Downgrade

- » Prolonged period of lower cash flow margins
- » Significant increase in debt, or capital spending plans that require significant use of debt or balance sheet reserves

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 2

CHARLOTTE-MECKLENBURG HOSPITAL AUTHORITY, NC					
	2012	2013	2014	2015	2016
Operating Revenue (\$'000)	4,156,187	4,589,014	4,928,711	5,462,485	5,657,401
3 Year Operating Revenue CAGR (%)	10.2	10.9	10.3	9.5	7.2
Operating Cash Flow Margin (%)	10.4	9.6	10.6	12.3	10.7
PM: Medicare (%)	34.7	37.0	37.7	38.0	38.1
PM: Medicaid (%)	16.1	16.3	16.2	16.8	16.9
Days Cash on Hand	246	258	263	263	278
Unrestricted Cash and Investments to Total Debt (%)	147.5	158.2	172.2	185.8	213.8
Total Debt to Cash Flow (x)	3.0	3.0	2.6	2.2	2.3

Based on audits for fiscal year ended December 31

Investment returns normalized at 6% prior to 2015 and 5% in 2015 and beyond

Source: Moody's Investors Service

Recent Developments

Recent developments are incorporated in the Detailed Rating Considerations section.

Detailed Rating Considerations

Market Position: Stable Position in the Competitive Charlotte Metro Market

CHS maintains a very strong market position in its primary market in the Charlotte metro area and throughout the region. Market share in the Charlotte region is approximately 50% with the primary competitor, Novant Health (A1 positive) picking up most of the balance; market share is largely stable between CHS and Novant, although there are modest year to year fluctuations.

CHS offers a full range of services in the Charlotte metro area, including a children's hospital and cancer institute with over 25 locations, and has a large number of employed physicians and network access points throughout the region. The organization also has a number of academic level programs and has recruited a number of well-known physicians over the last several years. CHS does not subsidize a medical school or sponsor the same amount of research as a traditional academic medical center, and therefore does not have the associated expenses, but its prominence in certain specialties is a credit strength as it attracts physicians and patients to the system.

CHS installed a new CEO a little over a year ago. The new CEO has updated certain elements of the organization's governance, vision, and goals, although the organization's overall strategic positioning has not materially changed. CHS continues to maintain long term goals of growth, both organically as the Charlotte and other markets grow, and through partnerships with other organizations throughout the service area. Other key goals include increasing the affordability of care for patients, better management of at risk populations and success under at risk, or population health type contracts, enhancing community health, and continued use of evidence based protocols, and engaging regional employers in managing the health of their employees.

In 2019, North Carolina plans to transition to a Medicaid managed care program. CHS and the ten other major not-for-profit hospitals in North Carolina have partnered with Presbyterian Health Services, NM (Aa3 stable) to create an insurance company to contract with the state and take risk on some of the Medicaid patients. This will introduce some financial risk, although we note that Presbyterian has a long and successful track-record in insurance which may help smooth the transition to the new model.

Operating Performance, Balance Sheet and Capital Plans: Long Track-Record of Stable Margins and Growing Cash Flow

CHS has a long track-record of stable and good operating performance. The operating cash flow margin has averaged 10.7% over the last five years with relatively small variation from year to year.

CHS has benefited from its concentration in Charlotte, which has experienced generally favorable economic trends over the last several years. Population in the Charlotte metro area, where CHS' operations are concentrated, continues to grow, contributing to patient

volume growth. In 2016, unique patient visits grew 3.4% and combined admissions and observation stays grew 2.1% while surgeries were up 1.6%.

Capital spending plans are manageable and can be funded through the organization's cash flow. CHS is currently performing a major review of capital spending priorities which is expected to be completed over the next several months. However, the organization targets capital spending of 9% - 10% of revenue and we do not expect significant deviation from this target over the next three to five years.

LIQUIDITY

CHS' liquidity is good and has increased in recent years. Days cash on hand has exhibited a long, upward trend reaching almost 280 days in 2016. Investments are diversified among managers with an asset allocation that is typical of large systems with some exposure to hedge funds, private equity and other less liquid investments.

Debt Structure and Legal Covenants

CHS has achieved a long term deleveraging through revenue growth, reducing debt to revenue to 34.6% at FYE 2016 from 42.7% in FY 2011.

DEBT STRUCTURE

CHS made several changes to its debt structure over the past year, generally increasing exposure to direct placements and reducing exposure to debt with tender features.

Debt structure is 39% variable before swaps and the balance is natural fixed rate. Interest rate swaps synthetically fix the variable rate exposure. Direct placement exposure has increased over the last year to approximately 25% of debt (up from 13% at our last review) with three different banks. CHS has liquidity facilities with two different banks supporting tender features on its variable rate debt. The organization actively manages and staggers renewal dates and recently extended most renewal dates with the next extended to November 2020.

CHS implemented a commercial paper program for the first time in 2015. The program is authorized for \$200 million with maturities limited to \$50 million over a five day period. Balances outstanding have fluctuated with as much as \$165 million outstanding over the last twelve months; there was \$30 million outstanding at FYE 2016 and at June 30, 2017.

As of June 30, 2017, the system had \$217 million in discounted daily liquidity, providing good coverage of 7.2x of the \$30 million outstanding and 4.3x of the \$50 million in commercial paper that can mature in any five day period; after excluding the largest money market fund, coverage of the \$50 million is still adequate at 1.5x. The system's daily assets are comprised of two money market funds, which is fairly concentrated compared to other self-liquidity programs, although each fund provides sufficient coverage on its own.

DEBT-RELATED DERIVATIVES

CHS has fourteen fixed payer swaps under six swap agreements with a total notional amount of approximately \$700 million at 12/31/16 under which CHS makes fixed rate payments and receives floating rate payments based on SIFMA and LIBOR. At 12/31/16, CHS's swap portfolio had a mark-to-market liability of \$225 million. Collateral posting thresholds vary from \$25 million - \$50 million and are measured against each swap agreement, not the entire portfolio. No collateral posting is required unless CHS's rating is A2/A or lower, and a portion of the swaps have a further condition, only requiring collateral posting if the insurer's rating also falls below Baa1/BBB+. CHS is not required to post any swap collateral at this time and has not had to since the swap agreements were put in place.

PENSIONS AND OPEB

CHS maintains a defined benefit pension plan which is frozen to all employees hired after 1/1/14 and will be frozen to all employees effective 1/1/18. Using GASB accounting, the plan was approximately 65% funded. If the plan were accounted for using FASB standards and a lower discount rate, the unfunded liability would be much higher. Actuarially determined contributions have ranged from \$79 million to \$92 million over the last three years and CHS has consistently contributed 100% of the required annual pension cost to the plan. In addition to its annual contributions, CHS plans to make additional contributions to the plan of \$42 million through 2018.

Management and Governance

A new CEO began in 2016; under his direction, Carolinas updated certain elements of the organization's governance, vision, and goals. The long serving CFO recently announced his retirement and a national search is underway for his replacement.

Legal Security

The bonds are secured by a revenue pledge from the members of the Obligated Group, which is comprised essentially of the "Primary Enterprise" (primarily the four acute care hospitals located in Mecklenburg County, CHS-NorthEast, located in Cabarrus County, CHS Lincoln, located in Lincoln County, CHS Union, located in Union County, CHS Stanly, located in Stanly County, CHS Cleveland and CHS Kings Mountain, both located in Cleveland County) and one of CHS's discretely presented "Component Units", The Carolinas HealthCare Foundation (CHF). CHS Stanly joined the Obligated Group in January 2015.

Throughout this report, all references to CHS and financial performance are based on the primary enterprise which includes directly owned acute care hospitals and management contract revenue, and the assets of the CHF. "Component unit" hospitals are excluded as their assets are controlled by the individual hospitals and do not roll up to the primary enterprise (applicable to 2012 - 2013 only).

Use of Proceeds

Not applicable.

Obligor Profile

CHS is headquartered in Charlotte, NC and owns or manages several dozen hospitals throughout the Carolinas and Georgia. System hospitals include small community hospitals, large tertiary facilities, a children's hospital and a cancer hospital. The system also employs over 1,500 physicians.

Methodology

The principal methodology used in this rating was Not-For-Profit Healthcare Rating Methodology published in November 2015. An additional methodology used in the variable rate debt was Variable Rate Instruments Supported by Conditional Liquidity Facilities published in March 2017. An additional methodology used in the commercial paper rating was Rating Methodology for Municipal Bonds and Commercial Paper Supported by a Borrower's Self-Liquidity published in January 2012. Please see the Rating Methodologies page on www.moody's.com for a copy of these methodologies.

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