Advocate Aurora Health, Inc., Illinois and Wisconsin

New Issue Report

Ratings

Long-Term Issuer Default Rating	AA

New Issues

$730,000,000 Advocate Aurora Health Taxable Series 2018 Fixed Rate Revenue Bonds	AA
$100,000,000 Wisconsin Health & Educational Facilities Authority T (Advocate Aurora Health Credit Group) Series 2018A Tax-Exempt Fixed Rate Revenue Bonds (Tax-Exempt)	AA
$200,000,000 Wisconsin Health & Educational Facilities Authority (Advocate Aurora Health Credit Group) Series 2018B Mandatory Tender Revenue Bonds	AA
$200,000,000 Wisconsin Health & Educational Facilities Authority (Advocate Aurora Health Credit Group) Series 2018C Floating Rate Notes	AA

Outstanding Debt

Details on Page 3

Rating Outlook

Stable

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New Issue Details

Sale Date: Aug. 7, 2018.

Series: Series 2018 Taxable Fixed Rate Revenue Bonds, Series 2018A Tax-Exempt Fixed Rate Revenue Bonds, Series 2018B Mandatory Tender Bonds and Series 2018C Floating Rate Notes.

Purpose: Refinance Aurora Health Care's (Aurora) outstanding debt.

Security: Revenue bonds.

Analytical Conclusion: The long-term 'AA' rating on Advocate Aurora Health (AAH, or the system) is driven by the system's very strong financial profile assessment, leading market position over a broad and diversified service area covering the population centers of two states (albeit with competition in many key markets) and expectations for maintenance of strong operating profile.

The Stable Rating Outlook reflects Fitch Ratings' expectation that AAH will sustain strong capital-related ratios through the cycle in the rating case of Fitch's FAST scenario analysis, consistent with the combination of midrange revenue defensibility and strong operating risk profile.

Key Rating Drivers

Revenue Defensibility: 'bbb'; Largest Health System in Two States

AAH's revenue defensibility is midrange. The system has a broad market reach operating in multiple markets across Illinois and Wisconsin and is the largest health system in both states.

Operating Risk: 'aa'; Expectation of Strong Operating Margins with Manageable Capital Plans

AAH's operating risk profile is strong. The combined system has a track record of generating double-digit operating EBITDA margins. Capital spending plans are only elevated, particularly after 2018.

Financial Profile: 'aa'; Strong Capital-Related Ratios

AAH's financial profile is strong. Continued profitability and strong operating EBITDA margins should lead to maintenance of favorably negative net adjusted debt-to-adjusted EBITDA and strong cash-to-adjusted debt.

Asymmetric Additional Risk Considerations

There are no asymmetric risk factors identified with AAH's rating.

Rating Sensitivities

Expectation of Strong Margins and Capital-Related Ratios: Fitch expects that the combined AAH system will maintain strong operating margins, as Advocate Health Care (Advocate) and Aurora Health Care did separately for years. Combined, AAH's operating EBITDA margin averaged 11.9% over the past five years. Fitch expects AAH to sustain an operating EBITDA margin of 10% or better in Fitch's FAST base case. Even under the stressed rating case, Fitch expects AAH to maintain and improve its capital-related ratios through the cycle. Materially improved capital-related ratios and liquidity could result in a rating upgrade. Conversely,

Rating History (IDR)

Rating	Action	Outlook/ Watch	Date
AA	Assigned	Stable	7/27/18

unexpected integration issues leading to sustained weakening of operating margins could pressure the rating downward.

Credit Profile

AAH is the result of the April 2018 merger between Advocate (IL) and Aurora (WI). The system includes 25 hospitals, approximately 3,500 employed physicians and operates roughly 500 outpatient locations and 100 retail clinics in contiguous markets stretching from Bloomington/Normal in central Illinois in the south, through Chicago and Milwaukee, to Green Bay in the north. AAH is the largest healthcare provider in both Illinois and Wisconsin. AAH is utilizing a co-CEO management model. Combined, AAH recorded $11.5 billion in revenue in 2017, excluding investment income from operating revenue.

Revenue Defensibility

AAH's payor mix is midrange. Combined Medicaid and self-pay accounted for 18% of 2017 combined gross revenues and Fitch expects the system will sustain payor mix well in line with midrange characteristics (under 25%). Medicare represented 41% of 2017 gross revenues. Illinois expanded Medicaid under the Affordable Care Act (ACA). While Wisconsin did not expand Medicaid under the ACA guidelines, the state did expand eligibility in prior years.

AAH's market position is midrange. The system operates 25 hospitals and more than 500 outpatient locations covering multiple markets between central Illinois and north Wisconsin. AAH is the market share leader in both states. Despite the leading position, the system operates in many competitive service areas, notably Chicago (where AAH is the market share leader in a crowded market) and Milwaukee, the population hubs of the combined service area. AAH's largest competitor is Ascension Health Alliance (rated 'AA+'/Stable by Fitch), which also operates multiple facilities in both the Milwaukee and Chicago markets. AAH also has one of the largest and most sophisticated physician integration models in the industry with broad population health management capabilities, including employing approximately 3,500 physicians.

Like most large multi-market health systems, AAH operates in varying service area profiles. The system's service area characteristics are generally stable supporting a midrange assessment. Much of suburban Chicago (e.g. Lake County), suburban Milwaukee and other markets such as Brown County, WI (Green Bay) demonstrate generally favorable characteristics such as median household income levels in line with or better than the national average and low poverty rates.

Operating Risk

AAH's operating cost flexibility is strong. Combining Advocate's and Aurora's financial statements over the past five years, the combined system's operating EBITDA margin averaged 11.9% (including 10.1% in fiscal 2017). Looking forward, Fitch expects that the system's operating EBITDA margin may be somewhat compressed in fiscal 2018 as the system merges functions. Nevertheless, we assume in the base case of Fitch's FAST that AAH will sustain an operating EBITDA margin in the 10% range or better in the coming years. Through the first three months of fiscal 2018, AAH recorded an operating EBITDA margin of 9.3%, in line with budget for the period of 9.5%.

Fitch expects AAH's capital expenditure requirements to be only elevated in the coming years. The system has approximately $1 billion of capital spending plans in 2018, which includes installing the Epic electronic medical record (EMR) system at Advocate (Aurora has had Epic EMR for years). After 2018, Fitch expects AAH's capital plans to be manageable with a focus

Related Research

Fitch Rates Advocate Aurora Health's (IL, WI) Series 2018 Revenue Bonds 'AA'; Outlook Stable (July 2018)

Related Criteria

U.S. Public Finance Short-Term Debt Rating Criteria (November 2017)

U.S. Not-For-Profit Hospitals and Health Systems Rating Criteria (January 2018)

Rating Criteria for Public-Sector, Revenue-Supported Debt (February 2018)

Outstanding Debt

Illinois Finance Authority (Advocate Health Care Network) Revenue Bonds[a]	AA/F1+
Illinois Finance Authority (Advocate Health Care Network) Revenue Refunding Bonds	AA
Illinois Health Facilities Authority (Advocate Health Care Network) Revenue Bonds	AA
Wisconsin Health & Educational Facilities Authority (Aurora Health Care, Inc.) Revenue Bonds[b]	AA
Wisconsin Health & Educational Facilities Authority (Aurora Health Care, Inc.) Term Rate Revenue Bonds[b]	AA

[a]Short-term rating based on self-liquidity.
[b]Upgraded from 'A+' on July 27, 2018.

on continued ambulatory development. Fitch believes the system's capital plans are flexible and management would have the ability to downsize/defer projects if needed. AAH does not currently have new money debt plans.

Financial Profile

AAH has approximately $3.1 billion of pro forma debt outstanding. Unrestricted cash and investments measured just over $7.9 billion for the combined system at year-end 2017 (Dec. 31 audit year-end for both Advocate and Aurora).

AAH's debt equivalents are manageable, measuring roughly $705 million at year-end 2017. Combined, AAH has three defined benefit pension plans, two of which are frozen. The three plans combined were only $67 million underfunded at year-end 2017 relative to a projected benefit obligation of just over $2.6 billion, translating to a funded status of 97%. Because the pension plan is more than 80% funded, Fitch does not include the underfunded status in calculating adjusted debt. Operating lease expenses totaled $141 million in fiscal 2017, translating to a debt equivalent of $705 million (based on 5.0x lease expense).

Consequently, AAH's pro forma adjusted debt (direct debt plus underfunded defined benefit pension plan below 80% funded plus operating leases) measures $3.8 billion. Net-adjusted debt (adjusted debt minus unrestricted cash and investments) is negative at $4.2 billion, and Fitch expects to remain favorably negative, including through the cycle in the rating case over the next five years.

Per Fitch's FAST scenario analysis, AAH's capital-related ratios should be consistent with the broad 'AA' rating category, including in the stressed rating case. Based on combined fiscal 2017 results, AAH's pro forma net adjusted debt-to-adjusted EBITDA measures nearly negative 3.0x and cash-to-adjusted debt is over 200%. In the rating case, which assumes a modest recession in year one followed by a recovery and then stability, net adjusted debt-to-adjusted EBITDA remains below negative 2.0x through the cycle and cash-to-adjusted debt does not fall below 170% and measures over 200% by year three.

The 'F1+' short-term rating is based on AAH maintaining a long-term rating of at least 'AA–' and is consistent with Fitch's "U.S. Public Finance Short-Term Debt Rating Criteria." AAH maintains sufficient internal liquid resources (composed of cash, investments and dedicated bank credit facilities) and has implemented written procedures to fund any un-remarketed put on the $113 million of maximum potential pro forma debt supported by self-liquidity. AAH's self-liquidity supported demand debt is comprised of $70 million of Windows (due seven months after a put) and $43 million of series 2008A-3 mandatory tender bonds (with a tender on May 1, 2019). The series 2008C-3B tender bonds are excluded as they will be paid off on July 30, 2018.

Based on Fitch's rating criteria related to U.S. public finance short-term debt, AAH had "eligible" cash, U.S. Treasuries, municipal bonds and corporate bonds in excess of the 125% threshold of its maximum self-liquidity funding exposure for assignment of the 'F1+' rating. Using Fitch's criteria, pro forma coverage of self-liquidity debt measures a robust 16.0x.

Asymmetric Additional Risk Considerations

There are no asymmetric risk factors associated with AAH's rating.

The senior management team is deep and is comprised of members of both the legacy Advocate and Aurora systems. The combined system currently is utilizing a co-CEO model. AAH's chief medical officer is expected to retire later in 2018. The system does not have any additional near-term senior management retirements planned.

AAH will have approximately $3.1 billion of debt outstanding. The series 2018 issuance will refinance all of the existing Aurora debt outstanding. The new AAH MTI will be designed largely to mirror the existing Advocate debt. Approximately 64% of pro forma debt will be fixed rate (tax-exempt and taxable) and 36% variable rate (tax-exempt and taxable). Variable-rate debt will be comprised of mandatory tender bonds, floating-rate notes, Windows and variable-rate demand obligation (VRDO) bonds. The VRDO bonds are supported by three standby bond purchase agreements (SBPA) that will expire in August 2019, August 2020 and August 2021, respectively. Pro forma maximum annual debt service (MADS) is $191 million. Based on 2017 combined results, pro forma MADS coverage is 7.1x and does not pose an asymmetric risk. The MTI includes a minimum historical debt service coverage covenant of 1.10x.

AAH has fixed payor swaps with Wells Fargo Bank and PNC Bank. The notional amount of the swaps outstanding is roughly $325 million and they will mature in November 2038. The swaps had a net termination value of negative $74 million to AAH at Dec. 31, 2017, at which point no collateral was posted.

AAH had nearly 280 days cash on hand at Dec. 31, 2017 and liquidity does not pose an asymmetric risk.

Financial Summary

($000, Fiscal Years Ended 12/31)	2016	Pro Forma 2017[a]
Balance Sheet Data		
Unrestricted Cash & Investments	6,983,970	7,944,834
Total Assets	15,565,009	16,741,925
Total Debt (Including Current Portion)	3,235,813	3,062,430
Adjusted Debt	3,918,788	3,767,630
Net Adjusted Debt	(3,097,027)	(4,177,204)
Unrestricted Net Assets	8,506,032	9,838,880
Income & Cash Flow Data		
Net Patient Revenue	9,489,982	9,414,001
Other Revenue	1,170,892	2,085,699
Total Revenues	10,660,874	11,499,700
Depreciation & Amortization	476,688	515,871
Interest Expense	112,408	111,782
Total Expenses	10,075,291	10,962,452
Income from Operations	585,583	537,248
Operating EBITDA	1,174,679	1,164,901
Non-Operating Gains (Losses)	81,597	190,764
Excess (Deficiency) of Revenues over Expenses	667,180	728,012
EBITDA	1,256,276	1,355,665
Operating Lease Expense	136,595	141,040
Total Pension Expense	31,543	32,603
Adjusted EBITDA	1,424,414	1,529,308
Net Unrealized Gains (Losses)	397,899	621,346
Net Capital Expenditures	738,108	612,091
Maximum Annual Debt Service (MADS)	230,000	191,256
Liquidity Ratios		
Days Cash on Hand	265.6	277.6
Days in Accounts Receivable	54.3	56.7
Cushion Ratio (x)	30.5	41.5
MADS Coverage - EBITDA (x)	5.5	7.1
MADS Coverage - Operating EBITDA (x)	5.1	6.1
MADS / Total Revenue (%)	2.2	1.7
Profitability & Operational Ratios (%)		
Operating Margin	5.5	4.7
Operating EBITDA Margin	11.0	10.1
EBITDA Margin	11.7	11.6
Capital Related Ratios		
Cash / Debt (%)	216.8	259.4
Cash / Adjusted Debt (%)	179.0	210.9
Net Adjusted Debt / Adjusted EBITDA	(2.2)	(2.7)
Average Age of Plant (Years)	10.1	9.5
Capital Expenditures / Depreciation (%)	154.8	118.7

[a]Unaudited. EBITDA: Earnings before interest, taxes, depreciation & amortization. Note: Fitch may have reclassified certain financial statement items for analytical purposes.

Sources: Advocate Aurora Health, Inc. (WI) and Fitch Solutions.

Based on audited statements for "Aurora Health Care, Inc. and Affiliates" and "Advocate Health Care Network and Subsidiaries

Utilization Data

(Fiscal Years Ended 12/31)	2016	2017
Operated Beds	—	5,198
Acute Adult Admissions / Discharges	272,644	275,469
Acute Adult Patient Days	0	0
Observation Cases	97,312	95,329
Hospital Stays (Admissions plus Observation Cases)	369,956	370,798
Births	—	0
Inpatient Surgeries	—	0
Outpatient Surgeries	—	0
Emergency Department Visits, Net of Admissions	397,118	402,410
Outpatient/Clinic Visits	12,959,535	13,366,180
Medicare Casemix Index	—	0.00

Sources: Advocate Aurora Health, Inc. (WI) and Fitch Solutions.

Based on audited statements for "Aurora Health Care, Inc. and Affiliates" and "Advocate Health Care Network and Subsidiaries

Payor Mix

(% Gross Revenues; Fiscal Years Ended 12/31)	2016	2017
Medicare	40.0	41.0
Medicaid	16.0	15.0
Commercial & Managed Care	41.0	40.0
Self-Pay	3.0	3.0
Other	0.0	0.0
Total	100.0	99.0

Sources: Advocate Aurora Health, Inc. (WI) and Fitch Solutions.

Based on audited statements for "Aurora Health Care, Inc. and Affiliates" and "Advocate Health Care Network and Subsidiaries

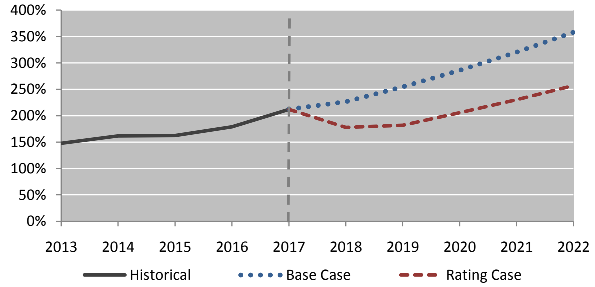
FAST - Fitch Analytical Sensitivity Tool
Portfolio & Scenario Analysis

Advocate Aurora Health, Inc. (WI)

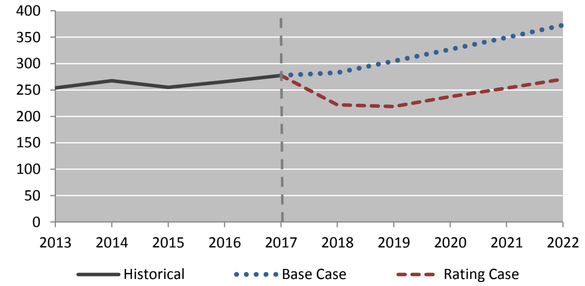
Analytical Summary

Per Fitch's FAST scenario analysis, AAH's capital-related ratios should be consistent with the broad 'AA' category, including in the stressed rating case. Based on combined fiscal 2017 results, AAH's pro forma net adjusted debt-to-adjusted EBITDA measures nearly negative 3x and cash-to-adjusted debt is over 200%. In the rating case (which assumes a modest recession in year one followed by a recovery and then stability), net adjusted debt-to-adjusted EBITDA remains below negative 2x through the cycle and cash-to-adjusted debt does not fall below 170% and measures over 200% by year three.

Cash to Adjusted Debt



Days Cash on Hand



FAST Summary	Base Case					Rating Case				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
Balance Sheet ($000)										
Unrestricted Cash & Investments	8,392,422	9,334,604	10,354,587	11,457,822	12,650,108	6,592,211	6,664,328	7,453,021	8,237,451	9,086,565
Total Debt	3,021,505	2,980,580	2,938,155	2,894,370	2,849,075	3,021,505	2,980,580	2,938,155	2,894,370	2,849,075
Adjusted Debt	3,704,480	3,663,555	3,621,130	3,577,345	3,532,050	3,704,480	3,663,555	3,621,130	3,577,345	3,532,050
Net Adjusted Debt	-4,687,942	-5,671,049	-6,733,457	-7,880,477	-9,118,058	-2,887,731	-3,000,773	-3,831,891	-4,660,106	-5,554,515
Income Statement ($000)										
Total Revenues	11,844,691	12,318,479	12,749,625	13,195,862	13,657,717	11,614,697	11,963,138	12,501,479	12,939,031	13,391,897
Total Expenses	11,374,777	11,735,193	12,140,464	12,560,112	12,994,349	11,374,777	11,678,878	12,024,342	12,439,926	12,869,957
Operating EBITDA	1,117,170	1,247,677	1,291,345	1,336,542	1,383,321	887,176	945,973	1,153,800	1,194,183	1,235,979
EBITDA	1,358,732	1,502,848	1,575,164	1,651,374	1,731,696	343,630	867,230	1,356,429	1,420,792	1,486,439
Adjusted EBITDA	1,526,870	1,670,986	1,743,302	1,819,512	1,899,834	511,768	1,035,368	1,524,567	1,588,930	1,654,577
Metrics										
Cash / Debt	278%	313%	352%	396%	444%	218%	224%	254%	285%	319%
Cash / Adjusted Debt	227%	255%	286%	320%	358%	178%	182%	206%	230%	257%
Days Cash on Hand	283	305	327	349	373	222	219	237	254	270
Operating EBITDA Margin	9.4%	10.1%	10.1%	10.1%	10.1%	7.6%	7.9%	9.2%	9.2%	9.2%
EBITDA Margin	11.2%	12.0%	12.1%	12.2%	12.4%	3.1%	7.3%	10.7%	10.8%	10.9%
Net Adj Debt / Adj EBITDA	-3.1x	-3.4x	-3.9x	-4.3x	-4.8x	-5.6x	-2.9x	-2.5x	-2.9x	-3.4x
Scenario Assumptions										
GDP Growth	2.0%	2.0%	2.0%	2.0%	2.0%	-1.5%	0.5%	2.0%	2.0%	2.0%
FAST Portfolio Sensitivity	6.1%	6.1%	6.1%	6.1%	6.1%	-13.7%	-2.4%	6.1%	6.1%	6.1%
Revenue Growth	3.0%	4.0%	3.5%	3.5%	3.5%	1.0%	3.0%	4.5%	3.5%	3.5%
Expense Growth	3.8%	3.2%	3.5%	3.5%	3.5%	3.8%	2.7%	3.0%	3.5%	3.5%
Principal Paydown ($000)	40,925	40,925	42,425	43,785	45,295	40,925	40,925	42,425	43,785	45,295
New Issuance ($000)	0	0	0	0	0	0	0	0	0	0
Capital Expenditures ($000)	1,000,000	663,131	686,341	710,363	735,225	1,000,000	563,661	617,707	710,363	735,225

Base case assumes revenue and expense growth roughly in-line with national healthcare inflation of 3.5% over five-year period. The operating EBITDA margin is modestly compressed in year one (2018) to account for integration and transition costs, and then the margin measures 10% or better in the subsequent years. Capital spending is somewhat elevated in year one as AAH deploys the Epic EMR at Advocate, and then the capital spending ratio is assumed to be 120%. No new money debt is included in the five-year period. Rating case assumes standard stress in which revenue growth is two percentage points below the base case in year one (2018), one percentage point below in year two, followed by a modest recovery and stabilization. Assume management would react to a recession with operating and capital cost reductions in year two and year three.

Key Definitions

Terms	Definition	Significance
Issuer Default Rating (IDR)	An expression of overall enterprise risk and relative vulnerability to default.	Provides an opinion of the relative ability of an entity to meet financial commitments, expressed as an ordinal measure of credit risk.
Adjusted Debt	Total long-term debt + unfunded pension liability below 80% PBO + 5.0x operating lease expense	Provides an inclusive evaluation of total long-term liabilities.
Cash to Adjusted Debt	Unrestricted cash and investments / adjusted debt	Indicates financial flexibility and cushion against decline in operating profitability.
Net Debt	Total debt - unrestricted cash and investments	Indicates the level of unrestricted liquid asset cushion available to cover debt.
Adjusted EBITDA	EBITDA + pension expense + annual operating lease expense	Provides an indication of cash flow available for the payment of debt service, adjusting for pension and operating lease obligations.
Net Adjusted Debt to Adjusted EBITDA	(Adjusted debt - unrestricted cash and investments) / adjusted EBITDA	Provides an indication of net total leverage position against available operating cash flow.
Base Case	The expected forward-looking case in the current macro-economic environment.	Provides the analytical starting point in the forward- looking analysis, and also informs the rating case.
Rating Case	The potential performance under a common set of assumptions.	Illustrates how cycles affect individual issuers differently, and informs the level of rating stability and credit resiliency.

The FAST scenario results are not a forecast. The results are intended only to illustrate performance under a given set of assumptions made by Fitch for a specific issuer that fall within the range of performance that is consistent with a stable rating. In this sense, the rating case scenario depicts a rating sensitivity and suggests the level of change in performance in stress consistent with the rating assigned. It should not be interpreted as a prediction of actual performance under stress. As an issuer can respond to a decline in portfolio value and profitability in the rating case in varied ways, actual metrics may also vary from those depicted in the scenario analysis.

The ratings above were solicited and assigned or maintained at the request of the rated entity/Issuer or a related third party. Any exceptions follow below.