

RatingsDirect®

Illinois Finance Authority Northwestern Memorial HealthCare; CP; System

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Credit Profile

Illinois Finance Authority, Illinois

Northwestern Memorial HealthCare, Illinois

Illinois Fin Auth (Northwestern Mem HlthCare) SYS

Long Term Rating

AA+/Stable

Current

Credit Highlights

- S&P Global Ratings' long-term rating on Northwestern Memorial HealthCare's (NMHC) debt outstanding is 'AA+' and its short-term rating on NMHC's commercial paper (CP) notes is 'A-1+'.
- S&P Global Ratings' dual ratings on NMHC's bonds are 'AA+/A-1+' and 'AA+/A-1'. The long-term component of the ratings reflects the credit quality of NMHC, the obligor. The short-term component of the ratings reflects the standby bond purchase agreements provided by the various banks.
- The outlook, where applicable, is stable.
- We base the 'A-1+' short-term rating on the CP on NMHC's ability to fund from its own liquidity any CP not successfully remarketed. The taxable CP program has a \$200 million limit, and as of February 2023, NMHC has issued \$77.6 million. NMHC has internally set maturity restrictions of a maximum of \$60 million during a period of five business days.

Security

The revenue bonds and CP are an unsecured general obligation of the NMHC obligated group.

Credit overview

The ratings reflect our view of NMHC's healthy market position as an important provider in the very competitive Chicagoland market, and we believe management will continue to focus on integration as well as aligning services in ambulatory facilities as a growth strategy. NMHC has a prominent position in a competitive market, with a management team that is focused on strategic growth and pioneering efforts that include telehealth and artificial intelligence. The organization also has numerous benefits realized through Northwestern University-related entities, including the Feinberg School of Medicine.

In addition, NMHC has sustained solid operational performance and exceptional balance-sheet metrics during a period of industry challenges, notably, elevated labor costs and inflation. Management has maintained financial discipline while also continuing to execute on the system's growth strategy. The team has a track record of integrating new entities into the system and improving operations within a short time. As a system, NMHC has successfully integrated new members into the organization, and it has reaped the benefits of operating more as a system than a federation of hospitals. NMHC's most recent acquisition was Palos Community Hospital in January 2021, a 425-bed hospital in Palos Heights, which is a strategic growth area for NMHC.

The 'AA+' rating reflects our view of NMHC's:

- Very healthy liquidity position that we expect will be stable, given manageable capital needs;
- Solid financial performance despite industry pressures, aided by management's continued focus on cost containment and execution as well as a favorable payer mix;
- Low debt levels and light debt burden, that along with solid cash flow, support good debt service coverage;
- Outstanding governance and management, including the numerous benefits realized through affiliations with Northwestern University-related entities, such as the Feinberg School of Medicine; and
- Very strong brand name recognition and expanding business position through its acquisition strategy.

Partially offsetting the above strengths, in our view, are NMHC's:

Increasingly competitive service area, as provider consolidation continues in the greater Chicago area;

Less regional and business diversification, along with location in a service area that has only adequate demographic trends including declining population growth and an increasing governmental payer mix; and

Industry pressures including elevated staffing and supply costs along with revenue and reimbursement pressures tied to an aging population and Medicare sequestration.

The analysis and financial figures in this report pertain to the consolidated financials.

Environmental, social, and governance

We view environmental, social, and governance risks as neutral in our credit rating analysis. However, similar to industry peers, NMHC has had to contend with elevated labor costs and inflation that will continue to weigh on operations in the outlook period. We view positively management's focus on innovation, as well as strategic growth, amid an evolving health care market. In addition, the overall financial profile remains extremely strong, and although we expect cost pressures will persist, we note management has a track record of execution.

Outlook

The stable outlook reflects our expectation that the system will maintain its healthy financial profile, as well as its prominent position in the Chicago market. We expect management will continue to execute on the strategy of ambulatory growth and maintaining stable market share, despite a highly competitive market with other academic medical centers and large health systems. Our stable outlook also reflects our view of the system's lack of any significant debt plans.

Downside scenario

Although we do not expect this to occur, if operations attenuate further for a sustained period or unrestricted reserves decline notably, we could revise the outlook to negative or lower the rating. We could also lower the rating if there is a material increase in leverage, a dilutive acquisition, or a sustained decline in NMHC's market position.

Upside scenario

We are unlikely to raise the rating within the outlook period, given S&P Global Ratings' general view of risk in the health care sector and the highly competitive environment, in addition to industry challenges and a continued weakening in the overall payer mix over time.

Credit Opinion**Enterprise Profile: Very Strong****Enterprise**

NMHC operates more than 200 diagnostic and ambulatory sites and 11 hospitals across Chicagoland, including its flagship, Northwestern Memorial Hospital (NMH). NMH is a major academic medical center and is the primary teaching hospital for Northwestern University's Feinberg School of Medicine, providing a range of services.

The system operates in favorable service areas and has created multiple hubs in the region for service delivery and coordination of clinical care.

As of Feb. 28, 2023, NMHC has a total of 2,639 licensed beds (2,578 staffed). NMHC also includes Northwestern Medicine Insurance Company LLC.

Northwestern University is a separate corporation and is not obligated to repay debt service associated with the bonds, but we believe the university's Feinberg School of Medicine is integrally linked with NMHC through a shared strategic plan.

Organic growth as well as growth through strategic acquisitions

NMHC has taken a disciplined approach to growth, having more than doubled in size over the past several years through both organic growth and strategic acquisitions. NMHC has also continued to integrate its physician practice, and this has been instrumental in the implementation of the system's strategic plan. The team's growth strategy is focused on the region and continuing to grow in contiguous markets and servicing its patients.

Before acquiring Palos, NMHC's most recent acquisition was Centegra, which provided the system with a new market segment with an attractive payer mix. Other entities that were acquired include the Lake Forest Hospital, Central DuPage Hospital, Delnor Hospital, Kishwaukee Hospital, Valley West Hospital, and Marianjoy Rehabilitation Hospital and Clinic Inc. All of these entities have added to the overall footprint and, in our opinion, the acquisitions have made strategic sense. We expect management will continue evaluating growth opportunities, and we note that the current growth strategy remains focused on the region, including building out the ambulatory-care footprint.

Utilization remains solid and has recovered since the pandemic

NMHC management reports that overall volumes are healthy and have recovered since the onset of the pandemic. Management has also noted that there is service line growth across the system, including in adult services, particularly those that are aligned with strategic growth. Also, because the NMHC-aligned physicians' patients tend to remain within the system, and NMHC can take advantage of the favorable geographic relationship of the hospitals and health

care sites in the system, it has been able to maintain its business position.

NMHC has a 16.7% market share in its primary service area (a 17-county area), which has increased slightly over the past few years. The market will remain competitive as consolidation occurs.

Management remains proactive and has a track record of execution

NMHC has a strong leadership team that produces strong operations and balance-sheet measures while investing in its facilities. To date, NMHC has had no major missteps in aligning with the facilities that it has acquired over the years, including Lake Forest Hospital, Central DuPage Hospital, Delnor Hospital, Kishwaukee Hospital, Valley West Hospital, Marianjoy, Centegra, and Palos Hospital. NMHC uses an integration team that assesses an acquired entity. The team then prepares a plan to help NMHC and the new entity integrate with little to no disruption.

NMHC remains focused on system integration, as it has grown rapidly over the years.

We note that the board is very engaged and continues to collaborate with the senior management team. There were some changes to the board composition with the affiliation of Centegra and Palos.

Table 1

Northwestern Memorial HealthCare, Illinois--enterprise statistics

	--Six months ended Feb. 28--	--Fiscal year ended Aug. 31--		
	2023	2022	2021	2020
PSA population	N.A.	9,595,444	9,628,018	9,524,699
PSA market share (%)	N.A.	16.7	16.4	13.4
Inpatient admissions	63,679	125,297	113,887	97,460
Equivalent inpatient admissions	170,712	316,411	283,806	246,576
Emergency visits	218,248	420,268	364,050	328,385
Inpatient surgeries	16,267	32,499	30,887	27,618
Outpatient surgeries	38,103	72,176	66,871	52,866
Medicare case mix index	1.9680	1.9480	1.6900	1.9135
FTE employees	31,480	30,219	29,549	26,431
Active physicians	5,441	5,499	5,498	4,866
Top 10 physicians admissions (%)	N/A	N/A	N/A	N/A
Based on net/gross revenues	Net	Net	Net	Net
Medicare (%)	30.7	30.1	28.9	28.1
Medicaid (%)	10.1	10.0	9.6	5.2
Commercial/Blues (%)	58.6	59.0	61.5	66.0

N/A--Not applicable. N.A.--Not available. Inpatient admissions exclude normal newborn, psychiatric, rehabilitation, and long-term care facility admissions.

Financial Profile: Extremely Strong

Operations remain solid although they have dipped from historical levels due to industry headwinds

In fiscal 2022, NMHC's financial performance was healthy, in our view, despite challenges from the pandemic and higher labor and supply costs. The system was able to post a healthy margin of 2.85% for fiscal 2022 and 3.4% for the

six months ended Feb. 28, 2023. The system also benefited from continued healthy volumes, in addition to cost containment, given the industry headwinds. Management has continued to focus on its efficiency plans in order to offset some slight payer mix degradation, which is exhibited by some increased reliance on supplemental payments from the state compared with several years ago. As the state transitions more Medicaid recipients to managed Medicaid, NMHC is exploring how to best manage this population as related to the payers in the market.

Although most of the support to Northwestern University is included in operating expenses on the audited statements, we also move additional grants and academic support provided in nonoperating income into operating expenses; these amounts were \$69.3 million and \$50.8 million in fiscal 2022 and 2021, respectively, and \$35 million for the interim period ended Feb. 28, 2023.

We believe that NMHC should be able to achieve its fiscal 2023 budget, based on historical performance and management's ability to adjust and respond to changes in the market and the system's operations. We expect the team will continue to make notable progress on integrating both Palos and Centegra operations into the overall system. We believe overall margins will be lower compared with historical margins, given industry headwinds and the continued gradual shift into a higher percentage of Medicare.

With strong operations and investment income, NMHC continues to post what we consider strong maximum annual debt service (MADS) coverage; for fiscal 2022, it reported MADS coverage of 10.8x and lease-adjusted MADS coverage of 7.9x.

Balance sheet remains a key credit strength with robust unrestricted reserves

As of fiscal 2022, NMHC's liquidity was solid, with 433 days' cash on hand, which is down from historical levels but is expected to rebound. In our view, the capital plans are manageable, and we understand they will be funded with operating cash flow. As of Feb. 28, 2023, NMHC's capital expenditures were \$265 million.

Overall unrestricted reserves-to-long-term debt remains very healthy, at 445% in fiscal 2022. The overall asset allocation has a high percentage of alternative investments, at 53%, but liquidity is still good, with the remainder in cash and equivalents (11%), fixed income (13%), equities (21%), and other (1%).

Debt levels remain low, but contingent liabilities are moderate

NMHC has low leverage and debt to capitalization was 15.3% for the interim period ended Feb. 28, 2023. There is about 37.2% contingent debt, due to variable-rate demand debt and private placements; however, unrestricted reserves more than cover any potential acceleration risk. The 2017 bonds were refunded with a direct placement with JPMorgan Bank in December 2022, and we have classified this as contingent given that the covenants differ from those in the master trust indenture. We have included \$77.7 million of drawn CP as long-term debt, given that this continues to be rolled and refinanced existing term debt. We view this as longer term in nature and also have included this in contingent liabilities.

NMHC's debt includes taxable CP authorized up to \$200 million. The internally set restrictions are not legally binding. In the event of a failed rollover, the assets identified in the portfolio would provide sufficient liquidity. The eligible assets include cash, fixed-income instruments, and domestic equities. NMHC has provided us with the operational procedures that, upon a failed remarketing, it would follow to liquidate assets to provide for timely payment of a CP

maturity. NMHC provides monthly self-liquidity.

NMHC historically had a fully funded pension plan and has a moderate amount of operating leases.

Table 2

Northwestern Memorial HealthCare, Illinois--financial statistics					
	--Six months ended Feb. 28--	--Fiscal year ended Aug. 31--			--Medians for 'AA+' rated health care systems--
	2023	2022	2021	2020	2021
Financial performance					
Net patient revenue (\$000s)	3,931,061	7,399,123	6,810,600	5,570,737	4,806,946
Total operating revenue (\$000s)	4,205,372	7,951,046	7,352,896	6,279,495	5,090,381
Total operating expenses (\$000s)	4,062,456	7,724,773	6,932,490	6,070,449	4,620,686
Operating income (\$000s)	142,916	226,273	420,406	209,046	414,846
Operating margin (%)	3.40	2.85	5.72	3.33	6.40
Net nonoperating income (\$000s)	111,106	489,371	397,321	142,399	507,674
Excess income (\$000s)	254,022	715,644	817,727	351,445	888,378
Excess margin (%)	5.88	8.48	10.55	5.47	13.10
Operating EBIDA margin (%)	9.25	9.00	12.02	10.09	12.60
EBIDA margin (%)	11.59	14.28	16.53	12.08	18.20
Net available for debt service (\$000s)	500,125	1,205,028	1,280,922	775,782	1,251,308
Maximum annual debt service (\$000s)	111,938	111,938	111,938	111,938	122,069
Maximum annual debt service coverage (x)	8.94	10.77	11.44	6.93	11.60
Operating lease-adjusted coverage (x)	6.61	7.91	8.65	5.16	9.00
Liquidity and financial flexibility					
Unrestricted reserves (\$000s)	8,823,060	8,649,814	9,312,844	7,030,452	8,274,533
Unrestricted days' cash on hand	419.0	433.3	521.0	450.2	525.1
Unrestricted reserves/total long-term debt (%)	445.0	434.9	461.9	401.0	466.6
Unrestricted reserves/contingent liabilities (%)	1,194.9	1,496.4	1,602.3	1,125.0	1,579.6
Average age of plant (years)	8.4	8.0	7.8	7.6	8.7
Capital expenditures/depreciation and amortization (%)	121.1	126.6	120.5	104.3	105.0
Debt and liabilities					
Total long-term debt (\$000s)	1,982,817	1,988,780	2,016,222	1,753,211	1,896,127
Long-term debt/capitalization (%)	15.3	15.9	15.2	16.9	16.4
Contingent liabilities (\$000s)	738,402	578,057	581,212	624,948	790,133
Contingent liabilities/total long-term debt (%)	37.2	29.1	28.8	35.6	30.3
Debt burden (%)	1.30	1.33	1.44	1.74	1.50
Defined-benefit plan funded status (%)	N.A.	137.11	130.85	107.35	93.70
Miscellaneous					
Medicare advance payments (\$000s)*	0	972	314,509	412,000	MNR
Short-term borrowings (\$000s)*	0	0	0	0	MNR

Table 2

Northwestern Memorial HealthCare, Illinois--financial statistics (cont.)

	--Six months ended Feb. 28--	--Fiscal year ended Aug. 31--			--Medians for 'AA+' rated health care systems--
	2023	2022	2021	2020	2021
CARES Act and other grants (\$000s)	0	51,133	93,034	53,000	MNR
Risk based capital ratio (%)	N/A	N/A	N/A	N/A	MNR
Total net special funding (\$000s)	34,703	138,043	93,675	46,923	MNR

*Excluded from unrestricted reserves, long-term debt, and contingent liabilities. N/A--Not applicable. N.A.--Not available. MNR--Median not reported.

Credit Snapshot

- **Security pledge:** The revenue bonds and CP are an unsecured general obligation of the NMHC obligated group, which consists of NMHC; NMH; NLFH; Central DuPage Hospital (CDH); Delnor-Community Hospital (Delnor); Cadence Physician Group (CPG) d/b/a Northwestern Medicine Regional Medical Group (NMRMG); Northwestern Memorial Foundation; , Northwestern Medical Faculty Foundation d/b/a Northwestern Medical Group (NMG); Kishwaukee Community Hospital; Valley West Community Hospital; Marianjoy Rehabilitation Hospital & Clinic Inc.; Northern Illinois Medical Center; Memorial Medical Center--Woodstock; and Centegra Hospital--Huntley Holdings; Palos Community Hospital, with Computershare Trust Co. N.A., as successor to Wells Fargo Bank, N.A., as master trustee.
- **Organization description:** NMHC operates hospitals in the northern, southern, and western suburbs of Chicago, as well as NMH, its downtown flagship. NMH is a major academic medical center and is the primary teaching hospital for Northwestern University's Feinberg School of Medicine, providing a range of services.
- **Swaps:** The organization has four swap agreements outstanding with a total notional amount of about \$315 million. It had no collateral posted as of August 2022 and a negative mark-to-market of \$50.6 million as of fiscal 2022.

Related Research

- Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors, March 2, 2022

This report does not constitute a rating action.

Ratings Detail (As Of June 23, 2023)

Northwestern Mem HlthCare taxable rev bnds ser 2021 dtd 08/11/2021 due 07/15/2051

Long Term Rating

AA+/Stable

Current

Illinois Finance Authority, Illinois

Northwestern Memorial HealthCare, Illinois

Ratings Detail (As Of June 23, 2023) (cont.)

Illinois Finance Authority (Northwestern Memorial HealthCare) (Direct Issue Taxable Commercial Paper)		
Short Term Rating	A-1+	Current
Illinois Finance Authority (Northwestern Mem HlthCare) var rt demand rev rfdg bnds		
Long Term Rating	AA+/A-1+/Stable	Current
Illinois Finance Authority (Northwestern Mem HlthCare) var rt demand rev rfdg bnds		
Long Term Rating	AA+/A-1/Stable	Current
Illinois Finance Authority (Northwestern Mem HlthCare) var rt demand rev rfdg bnds		
Long Term Rating	AA+/A-1+/Stable	Current
Illinois Finance Authority (Northwestern Mem HlthCare) var rt demand rev rfdg bnds (Northwestern Mem HlthCare) ser 2021E dtd 08/14/2021 due 07/15/2054		
Long Term Rating	AA+/A-1+/Stable	Current

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CREDIT OPINION

1 June 2023



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Northwestern Memorial HealthCare, IL

Update to credit analysis

Summary

Northwestern Memorial HealthCare's (NMHC) (Aa2, stable) consolidated operating model and financial discipline will allow it to effectively execute strategies, while maintaining a strong financial position despite industry pressures. The completion of large scale strategies well ahead of most peers, a deep analytic approach to management, and a well-defined culture will continue to provide the foundation for unusually consistent margins and an ability to manage operating and strategic risks. Strategies including major facility replacements, the full integration with its faculty practice plan, and single system-wide IT platforms will support growth with limited integration risk, as demonstrated during a period of rapid expansion before and during the pandemic. NMHC's strong brand and affiliation with Northwestern University's Feinberg School of Medicine will underpin further growth. Manageable capital plans will help maintain a very strong investment position. Direct and indirect leverage will remain moderate, particularly since the system has a fully funded pension plan and modest operating lease obligations. Similar to others in the industry, the most significant operating challenge will be managing workforce needs and absorbing higher permanent labor costs. In addition, there will be competition from large healthcare systems and academic medical centers in a region with projected population declines.

Credit strengths

- » Market position will continue to grow, driven by strong brand, favorable locations, large aligned physician network, and affiliation with Northwestern University's Feinberg School of Medicine
- » Centralized operating model and IT systems as well as strong financial discipline will allow efficient execution of growth strategies and drive a continuation of unusually consistent operating performance
- » Very strong cash measures will be maintained as cash flow will support manageable capital spend
- » Long track record of strong operating cash flow margins will be sustained by strong patient demand and ongoing cost management
- » Operating and balance sheet leverage will likely remain moderate; limited indirect debt with fully funded pension plan and modest operating leases

Credit challenges

- » National shortages in clinical staff and commitment to minimize service disruptions will keep labor costs higher than pre-pandemic levels
- » Competition from several large systems and academic medical centers as well as the presence of a major commercial payer raises risk
- » High allocation to alternative investments will drive comparatively low monthly liquidity

Rating outlook

The stable outlook is based on our expectation that NMHC will maintain strong operating cash flow margins by executing growth strategies and exercising financial discipline as it has in the past. The outlook also reflects our view that NMHC will maintain very favorable cash and debt metrics since capital spending will be funded with cash flow.

Factors that could lead to an upgrade

- » Further geographic diversification of cash flow
- » Significant increase in market share
- » Material and sustained improvement in operating margins, along with reduction in leverage

Factors that could lead to a downgrade

- » Sizable increase in leverage and weakening of debt metrics
- » Material and sustained decline in margins or cash measures
- » Meaningful dilution from acquisition or merger

Key indicators

Exhibit 1

Northwestern Memorial HealthCare, IL

	2018	2019	2020	2021	2022	FY20 X MAP&ICA	FY21 X MAP&ICA	FY22 X MAP&ICA
Operating Revenue (\$'000)	5,226,663	6,052,028	6,288,427	7,359,368	7,985,456	6,288,427	7,359,368	7,985,456
3 Year Operating Revenue CAGR (%)	10.4	11.6	9.2	12.1	9.7	9.2	12.1	9.7
Operating Cash Flow Margin (%)	11.3	11.1	10.2	12.1	9.4	10.2	12.1	9.4
PM: Medicare (%)	37.9	39.6	39.5	40.6	41.7	39.5	40.6	41.7
PM: Medicaid (%)	10.8	10.4	10.8	11.2	11.3	10.8	11.2	11.3
Days Cash on Hand	437	402	477	539	434	447	516	432
Unrestricted Cash and Investments to Total Debt (%)	400.4	342.1	429.2	485.3	425.4	402.7	465.0	423.2
Total Debt to Cash Flow (x)	1.6	1.7	1.7	1.4	1.7	1.7	1.4	1.7

Based on financial statements for Northwestern Memorial HealthCare & Subsidiaries, fiscal year ended August 31

Adjustments: Grants and academic support provided (representing transfers to the school of medicine) reallocated to operating expenses from nonoperating gains (losses)

Investment returns normalized at 5%

Source: Moody's Investors Service

Profile

NMHC includes eleven hospitals and more than 200 diagnostic and ambulatory sites across Chicago, Illinois, and its surrounding counties. The flagship, Northwestern Memorial Hospital (NMH), is a major academic medical center located in the Streeterville

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moodys.com> for the most updated credit rating action information and rating history.

neighborhood of Chicago and is the primary teaching hospital for Northwestern University's Feinberg School of Medicine (FSM). The combined medical staffs of these NMHC hospitals comprise more than 5,400 physicians, and over 2,000 of them are employed.

Detailed credit considerations

Market position: prominent and growing position in competitive market

NMHC will remain a prominent academic medical center and regional system in a highly competitive market. The system's revenue base of \$8.4 billion (annualized fiscal 2023) will continue to grow following an over 60% increase in five years. Based on management-provided data, the system's market share in most large service lines grew between 2020 and 2022 amid significant volume declines in the region during the pandemic. The system reports strong share across high acuity services. NMHC's merger with Palos Health in 2021 will expand its footprint in the southern Chicago region from NMHC's investments to grow key service lines in this market, such as hearts, neurology, and oncology. Following significant expansion over the last decade, NMHC will focus on further growing ambulatory capabilities. With the centralization of most business functions, NMHC will continue to benefit from the integration and coordination of clinical protocols across the system to improve patient outcomes and experience. An example of this is cardiovascular care. NMHC's Bluhm Cardiovascular Institute manages heart care across all of the system's acute care hospitals, leads physician recruitment efforts, oversees quality and directs program development.

NMHC will continue to align its strategies with Northwestern University's Feinberg School of Medicine (FSM) to further the Northwestern Medicine brand and build clinical and research capabilities. Advances in clinical capabilities will elevate the system's reputation as an academic medical center, as it did during the pandemic when NMHC performed the first double lung transplant to treat a COVID patient. An ongoing joint strategic planning process and oversight structure continues to help coordinate activities of the health system and medical school.

NMHC's market position will continue to benefit from significant growth in and tight integration with a large number of physicians. These include The Northwestern Medical Group (NMG), a multispecialty group practice that serves as the clinical faculty practice plan of FMS, the Northwestern Medicine Regional Medical Group, a multispecialty group practice, and independent physicians. NMHC has seen continued growth in both the multi-specialty and primary practice plans as well as its aligned physicians.

The Chicago market will continue to be competitive following a period of consolidation and amid overall population declines. Based on management-provided data, market share in 2022 was 16.7% for NMHC, 18.5% for Advocate Health Care (part of Advocate Aurora Health), 13.3% for NorthShore – Edward-Elmhurst, and 11.3% for Ascension. In addition, there are several AMCs located in the Chicago market, including the University of Chicago Medical Center and Rush University Medical Center. Competition for physicians will stem from other hospital systems as well as a large independent medical group owned by private investors. On a positive note, the state's strict Certificate of Need process will continue to limit the presence of for-profit hospital companies.

Operating performance, balance sheet and capital plans: strong margins and cash expected to be maintained

NMHC's centralized model and financial discipline will support a continuation of consistently strong operating cash flow margins, as demonstrated throughout the pandemic and in fiscal years 2022 and 2023 despite higher labor costs. The system's ability to continue to generate 9-10% operating cashflow margins achieved in 2022 and through six months of 2023 will be driven by good volume recovery from strong demand and cost management. Efforts around reducing length of stay will help accommodate high demand and further grow volumes, which are mostly above pre-pandemic levels. Centralized management and longstanding deep analytical capabilities will support numerous cost management strategies. Examples of this are savings from the consolidation of pharmacy and lab services and revenue cycle benefits from a single system-wide instance of an electronic medical record. Following a period of growth and integration of mergers, the system will benefit from a recent reduction of corporate services costs. The system also has a single ERP system. Multi-year contracts with the largest payers and the recent extension of the state's supplemental Medicaid program will provide stability.

Elevated labor costs will continue to constrain margins, but the system has been able to absorb significant workforce investments while reducing turnover. NMHC's commitment to providing continuous services during the pandemic and to meet ongoing demand, while avoiding workforce reductions, will necessitate some use of temporary staff but at a declining rate. Targeted salary increases and other strategies, including extensive training programs, will help retain staff.

Liquidity

NMHC will maintain strong cash metrics, with 419 days cash on hand at February 28, 2023, which exceeded FYE 2019. Consistently strong cashflow and moderated capital spending offset the variability in investment returns over the last couple of years. Liquidity will be comparatively lower than peers, with fiscal 2022 monthly liquidity at 48%, due to high asset allocation to alternative investments. However, liquidity needs are well managed and moderate relative to liquid assets.

Reflecting NMHC's approach to capital investments, capital spending will be very manageable and funded with operating cash flow. NMHC plans to continue to spend capital in excess of depreciation as it continues to invest in its facilities. Consistent and long-term investment in the system, as evidenced in a low average age of plant of 8.0 years, will provide flexibility to adjust capital spending if needed. This was highlighted by the reduction of non-essential capital spending during the pandemic.

Debt structure and legal covenants: leverage and debt structure risks will be manageable

NMHC will continue to enjoy moderately low leverage given expectations of steady operating performance and liquidity. Based on fiscal 2022 and excluding the Medicare advance and FICA deferral, cash-to-debt was very strong at 423%. On the same basis, debt-to-cash flow was favorably low at 1.7 times. Leverage metrics for six months of fiscal 2023 are in line with fiscal 2022. We do not anticipate the system will incur incremental debt or higher leverage over the next couple of years, outside of merger-related debt.

NMHC will have ample headroom to covenants given its strong financial position and the alignment of MTI and bank covenants. There is a debt service coverage covenant of 1.0 times. If coverage is under 1.0 times, no consultant is required if the breach is due to a force majeure event. An event of default would occur if coverage is under 1.0 times for two consecutive years and days cash is under 175 days at the end of the second year and the funded indebtedness ratio exceeds 65%.

Legal security

Bonds and commercial paper are unsecured general obligations of the Obligated Group, which includes virtually all of NMHC's assets and revenues. Upon issuance of the Series 2021 bonds, an Amended and Restated Master Indenture became effective. The MTI allows substitution of notes without bondholder approval if certain conditions are met and has no additional indebtedness tests.

Debt structure

Debt structure risks will be manageable given good bank diversification and strong liquidity. NMHC will have approximately 25% bank-related debt, including bonds supported by bank standby bond purchase agreements and private bank placements. The bank counterparties are diversified and expiration or put dates are staggered.

NMHC's self-liquidity obligations will be manageable because of strong liquidity and debt management. The system has \$126 million in weekly variable rate demand bonds (VRDB); there is no outstanding commercial paper (\$200 million authorized). Although not legally restricted in the Issuing and Paying Agent Agreement, NMHC intends to limit maturities to \$60 million within any five business-day period. Based on liquidity at April 30, 2023, NMHC's coverage of self-liquidity obligations was 12.2 times (7.9 times excluding the largest money market fund).

Debt-related derivatives

NMHC's debt-related derivatives will pose minimal credit risk, given typically minimal collateral posting requirements and strong liquidity. At fiscal year end 2022, NMHC had interest rate swaps with a total notional amount of \$316 million and no collateral was posted.

Pensions and OPEB

NMHC's pension plan is over funded. The system will continue to de-risk the plan, such as increasing the asset allocation to fixed income securities.

ESG considerations

Northwestern Memorial HealthCare, IL's ESG Credit Impact Score is Neutral-to-Low CIS-2

Exhibit 2

ESG Credit Impact Score

CIS-2

Neutral-to-Low



For an issuer scored CIS-2 (Neutral-to-Low), its ESG attributes are overall considered as having a neutral-to-low impact on the current rating; i.e., the overall influence of these attributes on the rating is non-material.

Source: Moody's Investors Service

Northwestern Memorial HealthCare's neutral ESG CIS reflects low exposure to environmental risks, strong financial strategy and risk management, and average social risks. The latter reflects a strong and growing brand as well as lower than average exposure to governmental payers.

Exhibit 3

ESG Issuer Profile Scores

ENVIRONMENTAL

E-2

Neutral-to-Low



SOCIAL

S-3

Moderately Negative



GOVERNANCE

G-2

Neutral-to-Low



Source: Moody's Investors Service

Environmental

NMHC does not have significant environmental risks given its locations in the city of Chicago and surrounding counties.

Social

NMHC has moderate social risks that are in line with or better than the industry. NMHC's better than average customer relations score reflects its strong brand, affiliation with Northwestern University's Feinberg School of Medicine and strong growth. Partly offsetting this is competition from large healthcare systems and academic medical centers amid market consolidation and projected population declines. Also, the customer relations score reflects typical challenges with other types of customers, such as insurance companies. There is only modest risk related to demographic and societal trends because NMHC's reliance on governmental payers, both Medicare and Medicaid, is lower than average.

Governance

NMHC's governance characteristics are in line with the sector with the exception of Financial Strategy and Risk Management scored as positive (1). NMHC's single operating model, centralized business functions, and uniform IT platforms (EMR and ERP) will allow it to efficiently achieve further clinical integration and execute growth strategies. The system has a long history of demonstrated discipline and analytic approaches to evaluating strategic alternatives and capital commitments. These capabilities have driven consistent operating and balance sheet strength, including through periods of rapid growth, integration and industry stress. Workforce development and strong succession planning will continue to provide a pipeline of leaders and ensure smooth transitions, such as during the recent appointment of a new CEO.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click [here](#) to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

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