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CREDIT OPINION

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University of Washington, WA

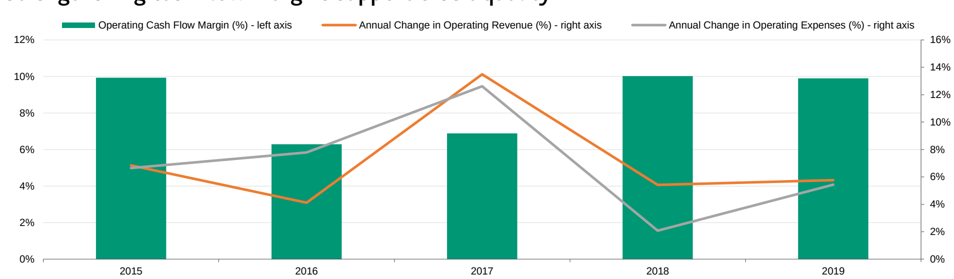
Update to credit analysis

Summary

University of Washington's (UW, Aaa negative) exceptional credit quality reflects the synergies and strengths of its large-scale research, healthcare, and educational operations that support its excellent strategic positioning. As the state's flagship university with a comprehensive array of programs, the university benefits from strong student demand. Operating performance remains exposed to healthcare operations but has strengthened over the past two fiscal years with improving cash flow margins. Overall wealth levels are considerable and growing supported by strong fundraising. UW demonstrates strong governance and management including integrated planning and very active oversight. Weak, but improving healthcare operations, moderately high leverage along with a large and growing pension liability, and comparatively modest liquidity are offsetting credit considerations.

Exhibit 1

Strengthening cash flow margins support credit quality



Source: Moody's Investors Service

Credit strengths

- » Sizeable scale with a national research profile, strong student demand and major clinical care operations contribute to significant credit strength
- » Very strong overall wealth levels, with $4.3 billion of spendable cash and investments enhance financial flexibility
- » Consistently robust fundraising, with $346 million of gift revenues for fiscal 2019, provides funds for academic and capital investment, bolstering excellent strategic position
- » Integrated planning and strong fiscal oversight enhance prospects for strengthened operations
- » Strong self-liquidity along with excellent debt and treasury management support the P-1 short-term rating

Credit challenges

- » Improved consolidated operating cash flow nevertheless remains pressured from deficits at the health care enterprise
- » Relatively modest liquidity for the rating category at 155 monthly days cash compared to the Aaa-median of 185 days
- » Moderately high leverage with a large and growing unfunded pension liability
- » Highly competitive research funding environment
- » Limited tuition pricing flexibility due to state caps on resident undergraduate tuition increases

Rating outlook

The rating outlook is negative due to uncertainty as to the sustainability of UW Medicine's improved results, particularly given the implementation of a systems installation across the Clinical Enterprise that could increase expenses or impact the ability to manage accounts receivable. Also, the merger of two of the hospitals presents additional execution risk. Weaker operations and lower liquidity could result in rating pressure.

Factors that could lead to an upgrade

- » Not applicable

Factors that could lead to a downgrade

- » Failure to continue to achieve improved operations at the health system in fiscal 2020 and beyond
- » Inability to rebuild unrestricted liquidity
- » Material debt plans beyond those outlined given already moderately high leverage
- » Significant reduction in research funding and revenue
- » For the short term rating, reduction in same day liquidity, increased calls on liquidity, or weakening of debt and treasury management

Key indicators

Exhibit 2

UNIVERSITY OF WASHINGTON, WA

	2015	2016	2017	2018	2019	Proforma	Median: Aaa Rated Public Universities
Total FTE Enrollment	55,963	56,972	58,155	59,505	59,660	59,660	59,319
Operating Revenue ($000)	4,702,687	4,896,339	5,556,845	5,857,603	6,195,024	6,195,024	4,000,610
Annual Change in Operating Revenue (%)	6.8	4.1	13.5	5.4	5.8	5.8	5.3
Total Cash & Investments ($000)	5,180,099	5,018,792	5,472,940	5,955,978	6,226,037	6,226,037	7,980,357
Total Debt ($000)	2,099,549	2,240,074	2,364,476	2,424,633	2,391,638	2,508,638	2,278,531
Spendable Cash & Investments to Total Debt (x)	1.8	1.6	1.7	1.7	1.8	1.7	2.7
Spendable Cash & Investments to Operating Expenses (x)	0.8	0.7	0.7	0.7	0.7	0.7	1.4
Monthly Days Cash on Hand (x)	196	175	150	156	155	155	181
Operating Cash Flow Margin (%)	9.9	6.3	6.9	10.0	9.9	9.9	10.5
Total Debt to Cash Flow (x)	4.5	7.3	6.2	4.1	3.9	4.1	3.8
Annual Debt Service Coverage (x)	3.4	2.2	2.5	3.3	3.6	3.6	3.2

Proforma includes $102 million in series 2020 new money borrowing.
Source: Moody's Investors Service

Profile

Founded in 1861, University of Washington is the State of Washington's flagship university with fall 2019 enrollment of 59,660 FTE students on its campuses in Seattle, Tacoma and Bothell. UW's operations are sizable with $6.2 billion of operating revenues in fiscal 2019. UW is also one of the nation's largest research universities with $1.6 billion of research awards for fiscal 2019. UW operates UW Medicine that includes the 810-bed two campus facility comprising the UWMC Montlake Campus and the UWMC Northwest Campus along with other related entities and the School of Medicine. UW Medicine's service area is broad as the only academic health system and Level 1 trauma care provider for Washington, Wyoming, Alaska, Montana and Idaho (WWAMI).

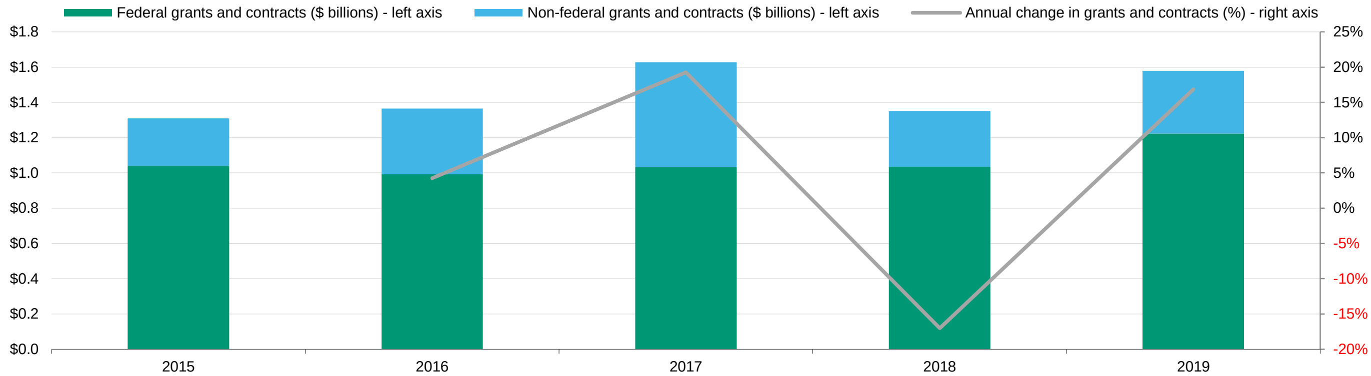
Detailed credit considerations

Market profile: leading national research profile and state's flagship public university anchor excellent strategic position; challenging health care operations

University of Washington will maintain its excellent strategic position anchored by its large, national research enterprises and strong student demand as the state's flagship university. UW has one of the nation's largest research enterprise with annual research awards averaging over $1.4 billion over the five years through fiscal 2019 and with growth of 17% in fiscal 2019 reflecting strength in both federal and non-federal grants. Given the scale, diversity, and reputation of its research program, UW should continue to succeed in an increasingly competitive research environment. The university has well-developed contingency plans to address any federal funding reduction.

Exhibit 3

Large and growing federal and non-federal grants add to university research-intensive renown



Decline in fiscal 2018 reflected a large multi-year grant award from non-federal sources in fiscal 2017
Source: University of Washington

Student demand remains favorable, based on UW's academic reputation and diversified programs, although with only moderate tuition revenue growth. Enrollment of over 59,000 FTEs is up nearly 7% since fall 2015, with modest future growth possible. The state retains tuition setting authority over resident undergraduate tuition and has limited increases to just over 2% in recent years. A credit negative in the longer term, this is partially mitigated by both non-resident undergraduate enrollment that is about one-third of total undergraduate enrollment and graduate and professional enrollment representing about one-third of total university enrollment. The university also draws student internationally that comprise around 14% of the student body.

Growing health care enterprise with weak albeit improved operations and liquidity

UW's significant health care enterprise (UW Medicine) is a key credit factor in the university's profile. An important university strategic focus, UW Medicine is experiencing market and operating challenges from utilization, competition and reimbursement models. UW Medicine is broad, with the blended units in the Clinical Enterprise including the now merged University of Washington Medical Center (UWMC) with 810 beds comprising the 529-licensed bed flagship facility, and UW Medicine/Northwest Hospital (NWH), a 281-licensed bed community hospital. Other UW Medicine entities both not in the Clinical Enterprise and UW's consolidated financial results are Harborview Medical Center, owned by King County, and Valley Medical Center, a public district hospital managed by UW Medicine under a strategic alliance and reported as a component unit outside the consolidated results.

UW Medicine's expansion occurred through multiple channels, including acquisitions, affiliations and strategic partnerships. UW Medicine's growth is occurring in a highly competitive region with reimbursement and revenue pressures impacting revenues, and labor pressures driving expense growth. These trends are consistent with the national health care sector.

The health care enterprise is substantial with $2.1 billion or 34% of fiscal 2019 consolidated revenues. This rises to 41% when including Valley Medical Center (VMC), reported as a component unit. The university's board approved in November 2017 the multi-year Project FIT (Financial Improvement and Transformation) to financially stabilize the health system.

The integration of UWMC and NWH into one hospital with one license on two campuses, was completed on January 1, 2020 with the aim of improving operating performance, particularly at Northwest Hospital. Going forward further improvements stemming from efficiencies related to the merger will be important to the university's overall financial operations. In fiscal 2019 NWH did not meet the fiscal 2019 targets and results were considerably worse than budget. Year-to-date 2020 results show Northwest continuing to produce weaker operations than budgeted. Results were mixed with the Clinical Enterprise results showing small improvements in fiscal 2019, largely due to income related to the accounting effect of net pension and post retirement income, while the UWMC showed strong improvements, even excluding accounting treatment, attributed to progress in implementing the FIT project.

In July 2018, the board approved the UW Medicine clinical transformation project. It is a multi-year project intended to improve the Clinical Enterprise's clinical systems, including installation of Epic as the electronic health record platform. The project implementation is expected by October 2020. UW Medicine has projected $180 million of total project costs funded through debt and equity contributions. The project will produce challenges to operations through higher expenses and maintaining operations while launching major technology and system changes.

Operating performance: stronger operating cash flows but still pressures from health care operations

UW's operations have strengthened over the past two years which is a credit positive. Their ability to sustain improvements will remain constrained by UW Medicine's weak performance until further progress is made with the FIT plan to reduce costs and streamline operations.

Fiscal 2019 consolidated operations of a nearly 10% operating cash flow margin were similar to the fiscal 2018 result and up from weaker results of 7% or lower in both fiscal 2016 and 2017. In fiscal 2019, improvements were in part driven by strong growth in tuition and auxiliary revenues as well as higher in-patient revenues. The latter shows evidence of some moderate improvement in health care operations. However, enterprise wide operating pressures from weak overall health care operations, rising compensation costs and higher pension costs remain a challenge.

State funding is relatively low at $379 million or only 6% of consolidated operating revenues for fiscal 2019. But it has improved in recent years rising by 49% since fiscal 2015 and is projected to rise by around 6% each year for the 2019-2021 biennial. Favorably, temporary measures to partially fund salary increases have been made permanent and the outlook for state funding is more positive with other state funding pressures less acute.

Wealth and liquidity: growing available funds supported by excellent fund raising; liquidity remains thin

The University of Washington's growing total wealth provides good financial flexibility, with $6.2 billion of total cash and investments and of which $4.3 billion is spendable. The 20% increase in total cash and investments since fiscal 2015 is largely from fundraising with investment performance.

UW has exceptional fundraising success, reaching its $5 billion goal two years early – with $5.6 billion raised as of fiscal 2019 – and extended the campaign through 2020. Gift revenue has averaged over $352 million over the past three years.

At June 30, 2019, UW's Consolidated Endowment Fund (CEF) totaled $3.6 billion, with a 5.8% investment return comparable to peers. The portfolio allocations are generally consistent with other large endowment portfolios. The university also has $1.6 billion in its Invested Funds (IF) for its operating fund investments. University of Washington Investment Management Company (UWINCO) including a CIO oversee the CEF and IF.

Liquidity

UW's liquidity is lower than peers but still sufficient relative to business risks. Unrestricted monthly liquidity of $2.4 billion equates to 155 days compared to the fiscal 2018 Aaa-rated public universities median of 185 days. This in part reflects its large research base funded by reimbursable, largely "just in time" research grants and the health system operating with thin days cash.

UW's Commercial Paper program is authorized at $250 million and is rated P-1 based on the university's self-liquidity. At December 31, 2019 UW reported $1.2 billion of discounted daily liquidity, including one Aaa-mf rated money market funds and US treasuries and agencies. The internal daily liquidity (excluding the largest money market fund) provides an extremely strong nearly 12x of the maximum $100 million of commercial paper that can mature in one business week.

Leverage: high leverage with moderate near-term future debt issuance; substantial and growing debt-like obligations

UW's heavy capital investment and debt issuance in recent years have driven somewhat high leverage that is expected to moderate over the next several years. Pro forma debt includes the Series 2020 bonds, which comprise $102 million of new money issuance. Spendable cash and investments cushion pro forma debt only 1.7x, well below the 2.7x 2018 Aaa-rated median. Proforma debt to cash flow is improved at 4.1x from over 6.2x in 2017 reflecting better operations. However, it remains slightly higher than the 2018 3.8x 2018 median for Aaa's.

The university projects about $100 million of annual new money issuance through fiscal 2023, generally on pace with scheduled principal repayment. Material issuance above the current plans could result in rating pressure.

Debt structure

With the issuance of the proposed Series 2020 bonds, planned to be at fixed rates, the bulk of UW's pro forma debt is favorably at fixed rates and amortizing. The remaining exposure to variable rate or tender risk is considered extremely manageable given the sufficient liquidity and only modest budget exposure. Debt outstanding includes $40 million of commercial paper issued under its $250 million commercial paper program to be refinanced with the 2020 bonds and the $100 million of 2019A put bonds with a three to five-year mandatory tender date. If all the bonds are not successfully remarketed, it is not considered an Event of Default. The Series 2019 bonds are then subject to delayed remarketing date under a higher, delayed remarketing rate.

Debt-related derivatives

None.

Legal security

Security of the General Revenue Bonds and the General Revenue Notes are General Revenues, including all non-appropriated and nonrestricted revenues and fund balances, with $3.6 billion of pledged general revenues and $1.3 billion of general revenue balances. There is no debt service coverage covenant, no debt service reserve fund, and no additional bonds test.

The Lease Revenue Bonds are secured by lease payments made by University of Washington solely from its General Revenues under a facilities lease between UW and the borrower for the bonds. Lease payments are not subject to appropriation or abatement. There is no debt service reserve fund for any bond series.

Pensions and OPEB

UW has substantial debt-like liabilities through pensions which represent a credit challenge. Moody's adjusted net pension liability (ANPL) at June 30, 2019 was an extremely large $3.9 billion, bringing total adjusted pro forma debt to $7.0 billion. Total adjusted proforma debt to operating revenues of 1.1x is in line with the 1.0x median for Aaa-rated public universities. However, the spendable cash and investments cushion for total adjusted debt of only 0.6x is well below the 2018 Aaa median of 1.7x.

UW offers two contributory pension plans - the Washington State Public Employees Retirement System ("PERS") plan, a defined benefit retirement plan with three levels, and the University of Washington Retirement Plan ("UWRP"), a defined contribution plan. The University of Washington Supplemental Retirement Plan, a defined benefit plan, is closed to employees who were not active participants as of February 28, 2011. UW contributes to PERS, a cost-sharing, multiple employer, defined benefit pension plan administered by the State Department of Retirement Systems ("DRS").

In addition to the pension liability, UW reported a $1.35 billion OPEB liability for fiscal 2019 following adoption of GASB 75. The plan is currently available to employees who elect to continue coverage and pay the premiums at the time of retirement. UW pays only a $150 monthly subsidy per retiree.

ESG considerations

Active central governance and management, with strong budgeting and financial oversight underpin the university's excellent governance and managements. The Board of Regents is comprised of 10 members, including one student, and includes leaders of major corporations located in the state. The board thoroughly reviews all capital projects over $15 million and planned borrowings to finance the projects, including borrowing from UW's internal lending program. These reviews include project revenue sources for debt service repayment and project staging, checkpoints and "off ramps". Capital projects are integrated into and centrally managed in UW's "One Capital Plan", its comprehensive five-year strategic plan. The board regularly reviews performance and the covenant compliance of the internal borrowers. UW provides excellent bondholder disclosure posted to both EMMA and its own website. The university has external audits done for its separate organizations.

The university demonstrates strong risk management for its major operating enterprises. It has effective measures for its large scale research platform, including coping under a federal shutdown. In the event of funding cuts, UW's operations are relatively flexible due to the largely variable expense structure, including use of leased space and lack of guaranteed salaries from non-tenured track positions.

UW's board reviews each of its campuses for programming, student profiles and potential programmatic changes, including new academic programs and facilities for student life or residences. UW Medicine exercises risk management for its operations, including regular review of services provided with performance, including physician productivity.

Governance is also enhanced by the importance of the university to the state given its role in economic development.

Social considerations are critical to the university's profile. It is exposed to potential changes in federal policies on healthcare including the Affordable Care Act as well as future levels of government funding for Medicaid and Medicare. Similarly, ongoing transformation in healthcare in the Pacific Northwest including mergers and changing markets will prove challenging to UW Medicine. While levels of federal government funding of research have proven supportive, changes to these programs remain a risk to the university.

The university has proved adept at managing its varied customer relations whether it be benefitting from strong donorship support or attracting students from outside the state and internationally. Drawing students from out of state is critical given slow growth in high school graduates predicted for the State of Washington.

Environmental considerations are not a key credit driver at this time. However, the university's three campuses are located on geological faults exposing it to potential earthquakes as well as landslides. To mitigate this risk the university builds its facilities to comply with seismic codes. Rising sea levels and increasingly severe rainfall are other potential risks. The University has implemented disaster preparedness plans.

Rating methodology and scorecard factors

The Higher Education Methodology includes a scorecard that summarizes the factors that are generally most important to higher education credit profiles. Because the scorecard is a summary and may not include every consideration in the credit analysis for a specific issuer, a scorecard-indicated outcome may or may not match an assigned rating. We assess strategic positioning on a qualitative basis, as described in the methodology.

Exhibit 4

University of Washington, WA

Rating Factors		Value	Score
Factor 1:	**Market Profile (30%)**		
	Scope of Operations (Operating Revenue) ($000)	6,195,024	Aaa
	Reputation and Pricing Power (Annual Change in Operating Revenue) (%)	5.8	A1
	Strategic Positioning	Aa	Aa
Factor 2:	**Operating Performance (25%)**		
	Operating Results (Operating Cash Flow Margin) (%)	9.9	A1
	Revenue Diversity (Maximum Single Contribution) (%)	34.5	Aaa
Factor 3:	**Wealth & Liquidity (25%)**		
	Total Wealth (Total Cash & Investments) ($000)	6,226,037	Aaa
	Operating Reserve (Spendable Cash & Investments to Operating Expenses) (x)	0.7	Aa2
	Liquidity (Monthly Days Cash on Hand)	156	Aa3
Factor 4:	**Leverage (20%)**		
	Financial Leverage (Spendable Cash & Investments to Total Debt) (x)	1.7	Aa2
	Debt Affordability (Total Debt to Cash Flow) (x)	4.3	Aa1
	Scorecard-Indicated Outcome		Aa1
	Assigned Rating		Aaa

Data is based on most recent fiscal year available. Debt may include pro forma data for new debt issued or proposed to be issued after the close of the fiscal year.

For non-US issuers, nominal figures are in US dollars consistent with the Higher Education Methodology.

Source: Moodys Investors Service

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