MOODY'S
INVESTORS SERVICE

CREDIT OPINION
8 January 2019

Rate this Research

Contacts

Diane F. Viacava +1.212.553.4734
VP-Sr Credit Officer
diane.viacava@moodys.com

Susan I Fitzgerald +1.212.553.6832
Associate Managing Director
susan.fitzgerald@moodys.com

Edison Castaneda +1.212.553.6045
Analyst
edison.castaneda@moodys.com

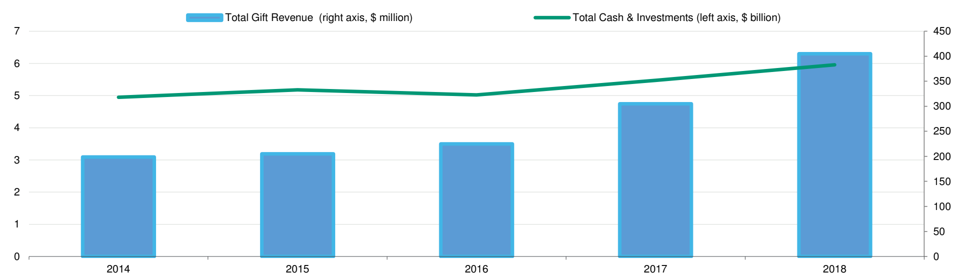
University of Washington, WA

Update to credit analysis

Summary

University of Washington's (UW, Aaa negative) exceptional credit quality is supported by the strength of its large-scale research platform and its strong student demand as the state's flagship university with a comprehensive array of programs. UW's large and diversified operations add stability to its operating model, even as its healthcare operations work through operating challenges that depress consolidated operating performance. Total cash and investment of nearly $6 billion and very strong fundraising also enhance credit strength. UW demonstrates strong governance and management including integrated planning and very active oversight. One of the nation's largest research university's UW has high reliance on federal research funding subject to federal budget actions and moderately high leverage inclusive of a large and growing pension liability.

Exhibit 1
Strong fundraising contributes to growth in wealth



Fiscal year ending June 30
Source: Moody's Investors Service

Credit strengths

» Sizeable scale with a national research profile, strong student demand and serving as a major clinical care provider for the Pacific Northwest

» Very strong overall wealth levels, with $4.2 billion of spendable cash and investments enhancing financial flexibility

» Consistently robust fundraising, with $405 million of gift revenues for fiscal 2018, 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 supports the P-1 short-term rating

Credit challenges

» Although improved in 2018, consolidated operating cash flow pressured from deficits of the health care enterprise

» Relatively modest liquidity for the rating category at 147 monthly days cash compared to the Aaa-median of 186 days

» Moderately high leverage with a large and growing unfunded pension liability

» Highly competitive and uncertain research funding environment

» Limited tuition pricing flexibility given state caps on resident undergraduate tuition increases

Rating outlook

The rating outlook is negative. The outlook reflects 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 ability to manage accounts receivable. 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

» Reversal of improved consolidated and health system operations in fiscal 2019 and beyond

» Sustained decline in unrestricted liquidity

» Material debt plans beyond those outlined given already moderately high leverage

» Significant reduction in research funding and revenue

Key indicators

Exhibit 2
UNIVERSITY OF WASHINGTON, WA

	2014	2015	2016	2017	2018	2018 Sensitivity Series 2019	Median: Aaa Rated Public Universities
Total FTE Enrollment	54,858	55,963	56,972	58,155	59,505	59,505	57,737
Operating Revenue ($000)	4,401,513	4,702,687	4,896,339	5,556,845	5,857,603	5,857,603	3,810,458
Annual Change in Operating Revenue (%)	5.0	6.8	4.1	13.5	5.4	5.4	4.0
Total Cash & Investments ($000)	4,947,757	5,180,099	5,018,792	5,472,940	5,955,978	5,955,978	7,161,669
Total Debt ($000)	2,121,731	2,120,644	2,258,842	2,364,476	2,430,505	2,475,220	2,003,980
Spendable Cash & Investments to Total Debt (x)	1.7	1.8	1.6	1.7	1.7	1.7	2.6
Spendable Cash & Investments to Operating Expenses (x)	0.9	0.8	0.7	0.7	0.7	0.7	1.4
Monthly Days Cash on Hand (x)	198	188	166	141	147	147	186
Operating Cash Flow Margin (%)	10.5	9.9	6.3	6.9	10.0	10.0	12.4
Total Debt to Cash Flow (x)	4.6	4.5	7.3	6.2	4.1	4.2	3.9
Annual Debt Service Coverage (x)	3.1	3.4	2.2	2.5	3.3	3.3	3.4

2018 Sensitivity includes Series 2019 and assumes $100M of CP issuance
Source: Moody's Investors Service

Profile

Founded in 1861, University of Washington is the State of Washington's flagship university with fall 2018 enrollment of over 59,000 FTE students on its campuses in Seattle, Tacoma and Bothell. UW's operations are sizable with over $5.8 billion of operating revenues in fiscal 2018. UW is also one of the nation's largest research universities with over $1.3 billion of research awards for fiscal 2018. UW operates UW Medicine that includes University of Washington Medical Center (UWMC), its 529-bed flagship facility, and Northwest Hospital (NWH). 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). For fiscal 2018 UW Medicine reported $2.1 billion in revenues from UWMC and NWH.

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 strong market and 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 $1.3 billion. 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.

Student demand remains solid, based on UW's academic reputation and diversified programs, although with only moderate tuition revenue growth. Enrollment of over 59,000 FTEs is up over 8% since fall 2014, with modest future growth possible. Net tuition per student increased in fiscal 2018 following a small decrease in fiscal 2017 following a 15% decrease over two years in resident undergraduate tuition required by the state and largely offset by higher state funding. Although UW approved tuition increases of over 2% in recent years, the state retains tuition setting authority over resident undergraduate tuition. 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.

Growing health care enterprise with weak 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 University of Washington Medical Center (UWMC), the 529-licensed bed flagship facility, and 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 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 is integrating UWMC and NWH into one hospital with one license on two campuses, with expected completion by January 1, 2020. 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 $2.0 billion or 34% of fiscal 2018 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. UW Medicine made some progress in fiscal 2018 although UMWC and NWH did not meet the fiscal 2018 targets. Fiscal year-to-date results are better than budgeted for most units except for NWH.

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 system platform. The project is intended to run from fiscal 2019 through fiscal 2023, with initial implementation expected by April 2020. UW projects $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: improved but still pressured operating cash flow from health care operations

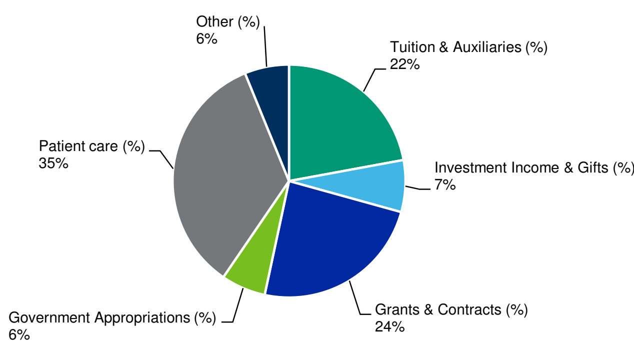
UW's operations will remain pressured from UW Medicine's weak performance until the FIT plan can result in sustained improvement. Fiscal 2018 consolidated operations improved to a 10% operating cash flow margin from 7% or lower in both fiscal 2016 and 2017. Generally UW has experienced enterprise wide operating pressures from rising compensation costs and higher pension costs.

State funding is relatively low at $362 million or only 6% of consolidated operating revenues for fiscal 2018. This is up 42% since fiscal 2015. Appropriation increases for 2016-2017 biennium offset the tuition reduction and provide for other expenses in those years. The state passed a budget for the 2017-2019 biennium with additional increases. The state passed a delayed capital budget in 2018 so the university will receive capital funding in fiscal 2019 deferred from 2018.

Exhibit 3

Diverse revenue streams support UW enterprise

Health care performance important at over a third of revenue



% of 2018 Moody's adjusted revenues by source

Source: Moody's Investors Service

Wealth and liquidity: growing available funds but thin liquidity; excellent fundraising

The University of Washington's growing total wealth provides good financial flexibility, with $6 billion of total cash and investments and $4.2 billion considered spendable. The 20% increase in total cash and investments since fiscal 2014 is due largely from fundraising with investment performance. UW has shown exceptional fundraising success, reaching its $5 billion goal two years early and intending to continue to its announced end. Fiscal 2018 gift revenues, based on audited financial results, were $405 million, up from $305 million for fiscal 2017.

At June 30, 2018, UW's Consolidated Endowment Fund (CEF) totaled over $3.4 billion and reported a 9.6% investment return comparable to peers. The portfolio allocations are generally consistent with other large endowment portfolios. The university also has $1.8 billion in its Invested Funds (IF) for its operating fund investments. University of Washington Investment Management Company (UWINCO) oversees the CEF and IF.

Liquidity

UW shows relatively modest but adequate liquidity for its Aaa rating. For fiscal 2018 it reported $2.15 billion in unrestricted liquidity, translating to 147 days, up slightly from 141 days. Although steady, it is lower than the Aaa median of 186 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 September 30, 2018 UW reported $1.0 billion of discounted daily liquidity, including two 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 9.9x of the maximum $100 million of commercial paper that can mature in one business week.

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

UW's heavy capital investment and debt issuance results in debt metrics at the lower end of the Aaa-rating category. Pro forma debt includes the Series 2019 bonds, $100 million of outstanding commercial paper, and reported outstanding debt with principal repayment. Spendable cash and investments cushion pro forma debt only 1.7x, well below the 2.6x Aaa median. Debt to cash flow is improved at 4.2x from over 6x in 2017 reflecting the improved operations. However it remains higher than the 3.9x median.

The university projects about $100 million of annual new money issuance through fiscal 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 2019 bonds, about 92% of UW's pro forma debt is fixed rate. The remaining expose the university to some variable rate or tender risk considered extremely manageable given the good liquidity and only modest budget exposure. Pro forma debt assumes $100 million of commercial paper issued under its $250 million commercial paper program.

The $100 million of Series 2019 bonds will be issued with a three to five year mandatory tender date. If all of 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.

Legal security

Security of the General Revenue Bonds and the General Revenue Notes are General Revenues, including all non-appropriated and non-restricted revenues and fund balances, with $3.2 billion of pledged general revenues and $1.1 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. General Revenues include all non-appropriated and non-restricted revenues and fund balances. Lease payments are not subject to appropriation or abatement. There is no debt service reserve fund for any bond series.

Debt-related derivatives

None

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, 2018 was an extremely large $4.1 billion, bringing total adjusted pro forma debt to $6.9 billion. Total adjusted debt to operating revenues of 1.2x is moderately above the 0.8x median for Aaa-rated public universities. However, spendable cash and investments cushion for total adjusted debt of only 0.6x is well below the Aaa median of 1.6x.

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 $1.56 billion OPEB liability for fiscal 2018 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.

Governance and management: active central governance and management, with strong budgeting and financial oversight

University of Washington's governance and management are excellent. 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 and planned borrowings to finance the projects, including borrowing from UW's internal bank. 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 reviews regularly performance and the covenant compliance of the internal borrowers.

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. For the shutdown, the university works closely with UWINCO to provide internal bridge funding to researchers if needed until funding agencies, including the NSF, return to operations.

For its academy, 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. With its broad scale and global focus both academically and with research, this includes UW's work as co-founder on the Global Innovation Exchange, an international collaboration of a number of universities. UW Medicine exercises risk management for its operations, including regular review of services provided with performance, including physician productivity.

UW provides excellent bondholder disclosure posted to both EMMA and its own website. The university has external audits done for its separate organizations.

REPORT NUMBER 1156306

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Moody's
INVESTORS SERVICE