University of Delaware

Update to credit analysis

Summary

The University of Delaware’s (UD, Aa1 stable) superior credit quality reflects its excellent strategic positioning as Delaware’s land grant and flagship university with high non-resident enrollment and rising enrollment. The university’s growing financial resources provide a strong cushion to operations and liquidity is ample. The school continues to generate favorable operating performance and cash flow generation.

Offsetting challenges include a further narrowing of cash flow margins due to new hiring and other costs related to its strategic investments. The university also relies heavily on highly sought-after students from New York, New Jersey, Pennsylvania and Maryland.

Credit strengths

» Strong market position as Delaware’s flagship and land grant university with prominent academic and research programs and strong out-of-state attendance

» Solid wealth provides sound cushion for operations with fiscal 2018 spendable cash and investments a strong 1.7x expenses

» Robust liquidity, with 472 monthly days cash on hand, and fairly predictable calls on that liquidity

» Strong, albeit narrowing operations, with a 14.6% operating cash flow margin for fiscal 2018 and 3.9x debt service coverage from all operating revenue

» Strong planning and oversight culture as well as fairly autonomous board that can control tuition and make other strategic decisions, providing financial and operational flexibility

Credit challenges

» Highly competitive higher education landscape reflected in lower yield rates on non-resident applicants, critical as over 60% of enrollment is from outside the state

» Thinning financial operations anticipated from investment in its STAR campus and new hiring

» Moderate exposure to demand debt relative to peers, supported by bank facilities and interest rate swaps

» OPEB liability of around $500 million for fiscal 2018 expected to grow
Rating outlook
The stable outlook reflects Moody's expectations of favorable student demand and growth in net tuition revenues to meet rising expenditures and preserve cash flow margins and debt service coverage.

Factors that could lead to an upgrade
» Substantial growth of financial reserves and liquidity through positive operations and fundraising over the longer-term
» Strengthening of brand demonstrated by stronger student demand with growing enrollment from a broader geographic area
» Significant easing of financial leverage from growth in cash and investments well above additional debt

Factors that could lead to a downgrade
» Sustained weaker operations from failure to increase revenue in light of growing expenses
» Cash flow margins that fall to below 12%
» Weakening of student demand resulting in constrained or declining net tuition revenues
» Material spend down of financial reserves or additional borrowing not offset with stronger cash flow margins
» For revenue bonds, weakening of overall credit or debt service coverage from legal pledge

Key indicators

Exhibit 1
UNIVERSITY OF DELAWARE

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<thead>
<tr>
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<tbody>
<tr>
<td>Total FTE Enrollment</td>
<td>21,153</td>
<td>21,325</td>
<td>21,510</td>
<td>22,181</td>
<td>22,505</td>
<td>30,085</td>
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<tr>
<td>Operating Revenue ($000)</td>
<td>918,605</td>
<td>962,329</td>
<td>975,878</td>
<td>1,004,574</td>
<td>1,036,075</td>
<td>1,136,474</td>
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<tr>
<td>Annual Change in Operating Revenue (%)</td>
<td>3.1</td>
<td>4.8</td>
<td>1.4</td>
<td>2.9</td>
<td>3.1</td>
<td>3.3</td>
</tr>
<tr>
<td>Total Cash &amp; Investments ($000)</td>
<td>1,721,727</td>
<td>1,826,736</td>
<td>1,772,345</td>
<td>1,921,390</td>
<td>2,013,135</td>
<td>1,296,900</td>
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<tr>
<td>Total Debt ($000)</td>
<td>460,761</td>
<td>526,748</td>
<td>512,061</td>
<td>496,820</td>
<td>707,287</td>
<td>663,840</td>
</tr>
<tr>
<td>Spendable Cash &amp; Investments to Total Debt (x)</td>
<td>3.1</td>
<td>2.9</td>
<td>2.8</td>
<td>3.2</td>
<td>2.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Spendable Cash &amp; Investments to Operating Expenses (x)</td>
<td>1.7</td>
<td>1.7</td>
<td>1.6</td>
<td>1.7</td>
<td>1.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Monthly Days Cash on Hand (x)</td>
<td>364</td>
<td>380</td>
<td>380</td>
<td>399</td>
<td>472</td>
<td>168</td>
</tr>
<tr>
<td>Operating Cash Flow Margin (%)</td>
<td>17.9</td>
<td>17.9</td>
<td>16.7</td>
<td>15.6</td>
<td>14.6</td>
<td>11.4</td>
</tr>
<tr>
<td>Total Debt to Cash Flow (x)</td>
<td>2.8</td>
<td>3.1</td>
<td>3.1</td>
<td>3.2</td>
<td>4.7</td>
<td>4.7</td>
</tr>
<tr>
<td>Annual Debt Service Coverage (x)</td>
<td>5.9</td>
<td>5.1</td>
<td>4.6</td>
<td>4.4</td>
<td>3.9</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Source: Moody’s Investors Service

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.
Profile
The University of Delaware, the land grant university for the state, was chartered for higher education by the state in 1833 and became a university in 1921. The main campus is in Newark, Delaware and the university draws a high 60% of students from out-of-state. UD is committed to Delawareans, accepting 85% of in-state applicants for its university and associate programs. UD offers a broad array of degrees from associates to doctorates to its over 22,000 full-time equivalent students and has operating revenues in excess of $1 billion.

Detailed credit considerations

Market profile: favorable student demand as state's flagship and high out-of-state enrollment
The strategic positioning of the University of Delaware is excellent, anchored by its role as the State of Delaware’s (Aaa) flagship and land-grant university, accepting about 85% of in-state applicants for its university and associate degree programs. Conveniently located on the northeast corridor train line between New York City and Washington, DC, UD attracts 60% of its students from out-of-state, primarily from New York, New Jersey, Pennsylvania and Maryland. In addition, international students comprise around 9.5% of the student body.

The university will continue to show strong student demand from state residents and out-of-state students with its investments in new graduate programs and in new facilities at the Science, Technology and Advanced Research facilities (STAR) campus. Total enrollment of 22,505 full-time equivalent students (FTEs) for fall 2018 is up over 1.5% from the prior year and is expected to rise by a similar rate in fall 2019. Over the medium term, UD expects undergraduate enrollment to rise slowly at about 1% annually, while it projects graduate enrollment to grow at a faster 6% pace as new programs are implemented.

The university's ambitious development plans will help attract students and high performing research faculty. Most development will take place at the university's STAR campus, a 272-acre site formerly occupied by Chrysler Newark Assembly Plant and located adjacent to UD's main campus. The university looks to develop the site under its 40-80 year development plan. The first initiatives are a privately financed 10-story building in which UD is leasing space for its health sciences programs and the Chemours Discovery Hub planned by the Chemours corporation for chemical research. In addition, UD received a $70 million grant by the Department of Commerce to set up a National Institute for Innovation in Manufacturing Biopharmaceutical (NIIMBL). UD will partner with industry, other universities, non-profits and local governments in this endeavor, and is building a new biopharmaceutical building on the site to house this activity.

Operating performance: some narrowing expected of historically strong cash flows but still solid debt service coverage
University of Delaware’s cash flow margins are expected to continue to narrow in fiscal 2019 and over the next five years to around 13-15% as expense growth outpaces that of revenue. This will reflect the university’s investment in new faculty to staff its programmatic and capital expansion and the rise in costs related to other postemployment benefits (OPEB).

For the year ending June 30, 2018, UD produced a strong three-year average operating margin of 5.8%. For fiscal 2018 it generated a 14.6% operating cash flow margin that, though good, is down from the prior three-year average of nearly 17%.

UD has a comparatively high reliance on student charges, well above many peer public universities and accounting for 58% of fiscal 2018 operating revenue. Most of this revenue is generated from students paying higher non-resident tuition. Net tuition per student is one of the highest of similarly-sized U.S. public universities at $20,877 for fiscal 2018, up 1.9% from the prior year. Student-based revenue is critical as the driver of pledged revenues for bonds issued prior to 2018.

State appropriations, although modest at 11.5% in fiscal 2018, provide a steady stream of revenue to the university to offset the cost of providing full financial need for in-state residents. Appropriations are expected to remain generally stable over the next several years. The state also provides some capital funding, normally $3-6 million annually.

Wealth and liquidity: very good financial reserves and robust liquidity provide solid cushion to operations and debt
The University of Delaware’s sizeable financial resources provide a strong cushion for debt and operations but are likely to grow slowly as cash flow is directed to planned capital spending. In fiscal 2018, UD had total cash and investments of over $2 billion. Its level of
spendable cash and investments stood at $1.7 million, compared to $1.4 billion in fiscal 2014, a rise of 17%. These reserves cover annual operations by a strong 1.7x compared to the Aa1-median for public universities of 1.0x.

Investments are well diversified, with nearly 50% in domestic and global equities, 14% in fixed income and cash, 16% in hedge funds and 21% in private investments including real estate. For fiscal 2018, UD reported a 7% investment return on its endowment, slightly lower than peers. The University has a CIO that closely manages investments with the Investment Committee. Cambridge Associates is the overall investment advisor, with Hamilton Lane and Albourne America providing investment advice for private equity and hedge fund investments, respectively.

University of Delaware has good gift revenue, with three-year average gift revenue of $47 million, although average gifts per student at $2,114 are below the $2,849 of Aa1-rated peers. In November 2017, the university launched the public phase of a $750 million capital campaign (increased from $550 million) of which over $700 million has been raised.

**LIQUIDITY**

Liquidity will continue to be robust, providing a good cushion for operating expenses, potential calls from its debt portfolio and calls from its unfunded investment commitments. The university had $1.2 billion of unrestricted monthly liquidity at fiscal year-end 2018, providing 472 monthly days cash on hand compared to the median of Aa1-rated public universities of 214 days.

Leverage: debt is manageable given strong resources and expectations of continued growth

UD’s debt burden is expected to remain moderate with minimal additional borrowing anticipated. In fiscal 2018 debt rose significantly to $707 million with the issuance of $200 million. Spendable cash and investments to debt remains favorable at 2.4x and in line with peers. Debt affordability, as measured by debt to cash flow, is good at 4.7x, but higher than peers at 3.2x in fiscal 2018.

The university is undertaking an expansion in its “Campus Framework Plan” amounting to nearly $500 million of projects over fiscal 2018-2020 funded from existing bond proceeds, operating revenues, gifts, and state funding. Projects include a $156 million biopharmaceutical building, athletic facilities, basic infrastructure for the STAR campus, and the purchase of an existing student housing project for approximately $25 million. The university will also rebuild the McKinly lab that was largely destroyed in a fire in November 2018 with bond proceeds originally issued for a 600-bed student accommodation. No additional borrowing is planned, although in fiscal 2019, the university entered into a capital lease for $35 million for the STAR tower to house its health science programs.

**Debt structure**

The University of Delaware’s debt profile, including the planned fixed rate series 2019 bonds, has moderate 17% exposure to variable rate debt, mitigated by its balance sheet reserves and liquidity. Standby bond purchase agreements (SBPAs) support the tender features of UD’s series 2004B, 2005, and 2013C bonds which expire in on April 5, 2021 (Bank of America, N.A.), May 31, 2021 (TD Bank, N.A.) and April 30, 2022 (TD Bank, N.A.) respectively. In the event of a liquidity draw, UD has sufficient funds to reimburse the bank through a two-year term-out period for TD Bank and 90 days for Bank of America.

**Legal security**

In 2018, the university introduced a new unsecured general obligation structure which applies to series 2018 bonds and the forthcoming series 2019 bonds. The University is planning to cash defease approximately $113 million in total of the 2009B and 2013A bonds and issue $113 million of its Series 2019 GO bonds to finance capital projects previously intended to be funded with operating cash.

Prior revenue bonds are secured by pledged revenues and have priority over the general obligation bonds. Pledged revenues include housing, dining, health care facilities, as well as book stores and parking, and three mandatory student fees that must be paid by all undergraduate students. There is a rate covenant of at least 1.25x debt service coverage from net pledged revenues, which was sufficiently met with 2.0x coverage in fiscal 2018. UD also covenants to maintain its project facilities in good, working order, using any of its legally available revenues for those purposes. The indenture for pledged revenue bonds has been closed and the university intends to issue bonds with a general unsecured obligation in the future.
Debt-related derivatives
The university has modest swap exposure relative to its liquidity. UD entered into or guaranteed 6 floating to fixed rate interest rate
swaps with a total notional amount of $126 million as of April 16, 2019; the total market value was a $18.9 million liability for the
university. The university is not required to post collateral at Aa1, with the threshold beginning at $50 million at Aa2.

Pensions and OPEB
UD’s post-retirement benefit costs compared to peers are slightly elevated and will rise over time. UD offers a defined contribution
plan for substantially all faculty and professional employees. Its contribution rate is 11% of annual base salary, with total contributions
of $32 million in fiscal 2018. All other employees are covered by the Delaware State Employees’ Pension Plan, which is well funded at
nearly 90%. Total pension contributions amount to around $46 million or a moderate 4.6% of expenses.

The unfunded OPEB liability has risen significantly to $500 million at fiscal 2018 from $277 million in fiscal 2014. Although the liability
will continue to rise, the impact on financial resources will remain manageable. UD offers other post-retirement benefits, primarily
health care benefits, to faculty and professional staff. Employer contributions amounted to $12.1 million or a low 1.2% of the budget.

Governance and management: state support along with greater autonomy underpins excellent strategic positioning
UD’s governance structure is a credit strength as it permits the university more autonomy than its public university counterparts over
its operations. The State Charter, which can only be amended with board approval, grants the board full management of UD’s affairs,
including setting tuition and fees, adoption of its budget and all powers regarding the investment and control of all funds. Originally
a private college, UD became a public university in 1921 and its board structure reflects its roots as a private institution. The Board
of Trustees has 32 members, four ex-officio members including UD’s president and the governor. Eight trustees are appointed by the
governor of the State of Delaware and the remaining 20 are elected by the board. All appointments are confirmed by the state Senate.

Fiscal practices are prudent and underpin strong financial performance. The board provides close oversight of the university’s strategic
investments and debt management. In recent years, the university has also prudently lowered its endowment draw to a range of
4%-5% of the average of the trailing 12 quarters of its endowment to help preserve financial resources. The university’s multi-year
operating and capital planning provide the tools to make adjustments to its expansion activities should projected enrollment and
development objectives not materialize as anticipated.