George Washington University, DC

Update to credit analysis

Summary
George Washington University's high credit quality (A1 stable) reflects its strong student market position with growing net tuition revenue and diverse academic programs as a research university. The university’s excellent strategic position incorporates continued programmatic and capital investment, which should ensure continued competitiveness. Further, the university’s scale is sizeable, with $1.3 billion in operating revenue, with considerable financial strength reflected in $2.5 billion of cash and investments. Liquidity is very good in light of limited immediate potential calls on liquidity given an all fixed rate debt structure, and balanced operating performance. Offsetting credit considerations include high financial leverage with pro forma debt to operating revenue of 1.5 times, bullet maturity debt structure and investment concentration in directly held real estate.

Credit strengths
» Sustained revenue growth prospects for comprehensive university aided by location in Washington, DC
» Favorable total wealth, with total cash and investment in excess of $2.4 billion including real estate assets
» Healthy unrestricted liquidity, with nearly $900 million of monthly liquidity translating into over 280 days cash on hand
» Improved operating performance in fiscal 2017 with ongoing focus on operating efficiencies
Credit challenges

» High debt burden relative to operating revenue and cash flow, with pro forma debt to fiscal 2017 cash flow of 10 times
» Financial resources have concentration in commercial real estate holdings near campus
» Long dated bullet maturity debt structure increase reliance on treasury management
» Limited revenue diversity with 65% reliance on student charges in fiscal 2017, albeit with good diversity within tuition revenue sources

Rating outlook
The stable outlook reflects expectations of ongoing revenue growth fueled in part by student demand combined with sound operating performance with operating cash flow margins above 10%. The outlook is also predicated on maintenance of unrestricted liquidity with monthly days cash above 200x.

Factors that could lead to an upgrade

» Substantial increase in total financial resources and revenue diversity
» Enhancement of debt affordability through sustained increase in cash flow from operations

Factors that could lead to a downgrade

» Softening of student demand or operating performance with cash flow margins below 10%
» Increase in financial leverage
» Marked reduction in unrestricted liquidity
» Material decline in market value of real estate assets

Key indicators

Exhibit 2
GEORGE WASHINGTON UNIVERSITY, DC

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2017 pro forma</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total FTE Enrollment</td>
<td>21,132</td>
<td>21,409</td>
<td>22,032</td>
<td>22,866</td>
<td>23,503</td>
<td>23,503</td>
<td>4,526</td>
</tr>
<tr>
<td>Operating Revenue - $ billion</td>
<td>1.10</td>
<td>1.13</td>
<td>1.16</td>
<td>1.18</td>
<td>1.27</td>
<td>1.27</td>
<td>0.20</td>
</tr>
<tr>
<td>Annual Change in Operating Revenue (%)</td>
<td>7.9</td>
<td>2.2</td>
<td>3.1</td>
<td>1.8</td>
<td>7.4</td>
<td>7.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Total Cash &amp; Investments - $ billion</td>
<td>2.08</td>
<td>2.02</td>
<td>2.13</td>
<td>2.21</td>
<td>2.48</td>
<td>2.48</td>
<td>0.36</td>
</tr>
<tr>
<td>Total Debt - $ billion</td>
<td>1.38</td>
<td>1.36</td>
<td>1.56</td>
<td>1.74</td>
<td>1.78</td>
<td>1.87</td>
<td>0.13</td>
</tr>
<tr>
<td>Spendable Cash &amp; Investments to Total Debt (x)</td>
<td>1.3</td>
<td>1.3</td>
<td>1.2</td>
<td>1.1</td>
<td>1.2</td>
<td>1.2</td>
<td>1.6</td>
</tr>
<tr>
<td>Spendable Cash &amp; Investments to Operating Expenses (x)</td>
<td>1.7</td>
<td>1.5</td>
<td>1.5</td>
<td>1.6</td>
<td>1.8</td>
<td>1.8</td>
<td>1.3</td>
</tr>
<tr>
<td>Monthly Days Cash on Hand (x)</td>
<td>223</td>
<td>175</td>
<td>180</td>
<td>244</td>
<td>284</td>
<td>284</td>
<td>321</td>
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<tr>
<td>Operating Cash Flow Margin (%)</td>
<td>11.2</td>
<td>6.4</td>
<td>7.6</td>
<td>9.9</td>
<td>14.7</td>
<td>14.7</td>
<td>15.3</td>
</tr>
<tr>
<td>Total Debt to Cash Flow (x)</td>
<td>11.2</td>
<td>18.7</td>
<td>17.7</td>
<td>14.8</td>
<td>9.5</td>
<td>10.0</td>
<td>4.6</td>
</tr>
<tr>
<td>Annual Debt Service Coverage (x)</td>
<td>1.9</td>
<td>1.1</td>
<td>1.2</td>
<td>1.5</td>
<td>2.2</td>
<td>2.2</td>
<td>3.0</td>
</tr>
</tbody>
</table>

2017 pro forma column shows impact of March 2018 plan of finance combined with scheduled maturities since June 30, 2017, Median column displays 2016 data for A-rated private universities.

Source: Moody’s Investors Service

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Profile
George Washington University is a large, comprehensive, urban university that continues to leverage its location in the nation's capital to draw a healthy mix of undergraduate and graduate students. Total operating revenue was $1.3 billion in fiscal 2017. Total full-time equivalent enrollment surpassed 23,000 students in fall 2017.

Detailed credit considerations
Market profile: growing comprehensive university benefits from location
George Washington University's (GWU) favorable demand for diverse programs supports its excellent strategic positioning. Its continued brand improvement and favorable location will support ongoing net tuition revenue gains. Substantial capital investments have aided the university's strengthening strategic positioning. Between fiscal 2012 and 2017, the university purchased $920 million of property, plant and equipment.

GWU continues to enjoy strong and geographically diverse student demand for its residential undergraduate degree offerings across eight colleges and schools. While demand for graduate and professional programs is generally strong including some online graduate degree programs, some programs, including law and business continue to weather enrollment declines. Over one half of enrollment is graduate.

The university aims to enhance its academic reputation through expansion of sponsored research activity, although this is difficult in a highly competitive research environment. Management projects sponsored awards will be in the $188 million range in fiscal 2018, up from $180 million in the prior year.

The university’s ability to invest in programs will continue to be aided by its growing donor support, although fundraising remains below some peers with more established philanthropic programs. Total gift revenue was $53 million in fiscal 2017 as the university concluded its $1 billion comprehensive campaign.

Operating performance: stable outlook supported by improved operating performance
A sustained commitment to enhance enrollment management and more comprehensive budgeting strategy aid the university's prospects for sound operating performance. Following four years with an operating cash flow margin below 10%, the university generated a 14.7% cash flow margin in fiscal 2017. While 2018 may be slightly softer we expect fiscal 2018 and the next several years will remain well above 10%. Preliminary guidance for fiscal 2018 shows net tuition growth in the 4% range. The expected margin compression will arise from compensation expense increases into merit increases with an estimated payroll increase of 4.8%. Various expense management initiatives will continue to aid the broader strategy to invest in new programs while also improving operating performance.

GWU remains highly reliant on student charges, with tuition and auxiliary revenue comprising 65% of operating revenue in fiscal 2017. Other components of operating revenue include grants and contracts (15%), investment income (9%) and patient care/medical education agreements (5%).

Through a number of strategic changes between 1997 and 2002, the university greatly reduced its exposure to the patient care revenue, although its School of Medicine relies on affiliations with a faculty practice plan and hospital. The university maintains a 20% stake in District Hospital Partners, L.P. which owns and operates the 371 bed GWU Hospital and provides support to the university's School of Medicine and Health Sciences. The university's partner is Universal Health Services, Inc. Under agreements with its partner the university is reimbursed for providing personnel and other services and also receives a share of the DHP profits. GWU also has an affiliation agreement with its faculty practice plan group, Medical Faculty Associates, Inc. (MFA). In fiscal 2017 the university recorded $64 million of revenue under its medical education agreements.

Wealth and liquidity: substantial wealth underpins credit strength
GWU will continue to benefit from a large pool of financial assets albeit with an uncommonly large exposure to directly held real estate assets. The university’s total cash and investments were $2.5 billion as of June 30, 2017.

The Investment Committee of the Board of Trustees is responsible for the oversight of the endowment. In December 2014 the university moved to an outsourced chief investment officer. The university's endowment had a 12.8% return in fiscal year 2017,
including the appreciation of the direct real estate investments. Because of the concentration in the direct real estate investments in the Foggy Bottom area, the university’s financial strength remains sensitive to changes in that particular market.

Liquidity
GWU has strong liquidity in light of limited potential calls on liquidity. With $1.2 billion of board designated endowment and $313 million of working capital at the end of fiscal 2017, GWU has a large base of cash and investments not subject to donor restrictions. The liquidity profile is aligned with the A rating category, with monthly liquidity of $899 million as of June 30, 2017 equating to 284 monthly days cash on hand.

Leverage: substantial financial leverage and use bullet maturities
With $1.87 billion of pro forma debt we expect leverage to remain elevated relative to operating revenue. Pro forma debt is at 1.5x fiscal 2017 operating revenue, approximately double the median for A-rated private universities. The considerable debt burden also underscores the importance of stronger cash flow from operations in maintaining credit quality. The university has no plans for additional debt at this time.

Debt structure
The university has all fixed-rate and all taxable debt. Aggressive use of bullet maturity structures, while partially mitigated through careful treasury management, tie the university’s ongoing credit health to disciplined management of reserves in advance of out year maturities. Through the current plan of finance GWU will extend the average life of its debt to over 28 years at a favorable cost of capital.

Exhibit 3
With $1.9 billion of debt in fiscal years 2044 through 2049 GWU’s credit quality is increasingly reliant on ongoing growth of reserves and effective treasury management

Debt-related derivatives
None.

Pensions and OPEB
University employees participate in a defined contribution retirement plan. Some retired employees are receive health care and life insurance benefits from the university. The benefits are funded as payments are made. The OPEB liability was a manageable $5 million in fiscal 2017.

Governance and management: strategic positioning aided by data driven decisionmaking
In August 2017 the university welcomed a new president and other key officers are also transitioning. The new administration has begun to implement new initiatives including enhancing the student experience, expanding research, restructuring medical enterprise partnerships and improving fundraising performance. These efforts will be aided by the university’s recent and ongoing investments in enrollment management forecasting and more effective budgetary controls. Although the strategic initiatives involve new risks, we
view management's clear focus on measured outcomes, financial stewardship and liquidity management as crucial mitigants to those risks.
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