University Of Massachusetts Building Authority
University Of Massachusetts System; Joint Criteria; Public Coll/Univ - Unlimited Student Fees

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<td>US$71.745 mil proj rev bnds sr (University of Massachusetts System) (Federally Tax) ser 2013-02 due 11/01/2023</td>
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<td>AA-(SPUR)/Stable</td>
<td>Affirmed</td>
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Unenhanced Rating

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<td>University of Massachusetts Bldg Auth (University of Massachusetts System) proj rev bnds</td>
<td>AA-(SPUR)/Stable</td>
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Rationale

Standard & Poor's Ratings Services has assigned its ‘AA-' long-term rating to the $198.4 million series 2013-1 tax-exempt and $71.7 million series 2013-2 taxable fixed-rate bonds maturing in 2043 issued by University of Massachusetts Building Authority for University of Massachusetts System. At the same time, Standard & Poor's affirmed its ‘AA-' long-term rating and underlying rating (SPUR) on revenue bonds previously issued by the authority and other issuers for the university system. The rating outlook is stable.

The rating reflects our assessment of the general obligation pledge of the university system, which secures the outstanding debt. In addition, the rating reflects our opinion of the support provided by the Commonwealth of Massachusetts, the system's historically solid and sustained operating performance, and its growing enrollment and demand metric trends. We also recognize the university system's strong and growing levels of research, impressive online education presence, and comprehensive educational opportunities. However, offsetting these credit strengths are the system's debt levels, which continue to pressure the balance sheet.

The rating also reflects our view of the system's:

- Leading role in Massachusetts' public higher education system;
- Growing enrollment, with a fall 2012 enrollment of 70,774 and incremental growth expected to continue, and an acceptance rate that remains solid at 64.1% compared with our medians;
- Historical surplus financial operating results and surplus operations expected on full accrual basis for fiscal 2013; and
Comprehensive academic programs including a law school and medical school, high levels of research, strong and experienced management team, and geographically and academically diverse campuses located throughout the state.

In our opinion, constraining credit factors include the system's:

- Low financial resource levels, elevated debt service levels, a small endowment, and limited fundraising; and
- Substantial remaining capital needs and additional debt plans through 2017.

Based on the fiscal 2012 audit and the series 2013 bonds issued in the par amount of $270 million, total pro forma debt will be approximately $2.55 billion, including capital leases or $42,409 per full-time equivalent (FTE) student, which we consider high for the rating category. Management has indicated there are additional capital plans so we expect debt levels to remain elevated compared with the system's peers and the rating medians during the outlook period.

While all the system's debt is on parity, we rate only a portion. In addition, we rate the commonwealth-guaranteed bonds, which amounts to approximately $130 million of the system's total debt. For more information on the the system's commonwealth-guaranteed bonds see the article published May 27, 2011, on RatingsDirect on the Global Credit Portal.

The University of Massachusetts system, established in 1863, is a coeducational, state-supported institution with campuses in Amherst, Boston, Dartmouth, Lowell, and Worcester. It also includes UMassOnline. The campuses are geographically disbursed throughout the commonwealth, with complementary missions. The Amherst campus is the system's flagship and the largest based on headcount. The Worcester campus is a graduate and professional campus housing the UMass school of Medicine, Graduate school of Biomedical Science, and the Graduate School of Nursing. The Dartmouth campus also houses the UMass School of Law. The Boston campus is currently a commuter-only campus.

**Outlook**

The stable outlook reflects our expectation that during the next two years, the system's financial operations will remain balanced, demand will remain relatively stable, enrollment will continue to grow, and financial resources will remain close to current levels while the debt burden will remain lower than the system's cap of 8%.

We could consider a higher rating during the outlook period if the system or state acts to increase system financial resource levels, lower the debt burden, and maintain solid operations, while demonstrating continued enrollment growth in line with 'AA' rating metrics. In addition, a higher rating would require increased fundraising results and the maintenance of stabilized state appropriations. While unlikely at this time, we could consider a negative outlook based on the system's large capital plans that it expects to fund with additional debt. We would base a negative outlook on a significant erosion of financial resources as well as an unmanageable debt burden, and a significant drop off in enrollment and net tuition revenues.
Enterprise Profile

Management
A board of trustees governs the system under the coordinating effort and authority of the commonwealth. The board has 22 members including three nonvoting members and 17 members appointed by the governor. The administration structure has a centralized office headed by a president and each campus has a chancellor. The system appointed a new president in 2011. During the past year, the system has rolled out a number of cost-saving initiatives including a focus on operational efficiencies and lowering the cost of education delivery. In addition, the system is working closely with the legislature and governor on a number of new education-funding initiatives and internally building the system's fundraising capacity as it focuses on a new comprehensive campaign.

The University of Massachusetts Building Authority is the statutory entity through which the University of Massachusetts system finances its debt issuance and provides project management oversight until facilities are available for occupancy. The authority is an independent entity and has an 11-member board appointed by the governor.

The system has focused heavily on maintaining adequate liquidity in cash and investments, and has controlled expenses and generated revenues that have allowed for consistent operating surpluses for the past several years. In our opinion, the system's historical operating performance and good enrollment and demand metrics are credit strengths but the system's current debt and expected debt increase is aggressive, in our opinion, and remains an offsetting rating factor.

Enrollment and demand
We consider the system's enrollment profile solid compared with its peers, historical trends, and 'AA' medians. The system has experienced incremental growth both at the undergraduate and graduate levels that is in line with prior projections and management expects the growth to continue. Undergraduate enrollment growth continues to be a strategic priority, primarily at the Boston and Lowell campuses. The system reported a fall 2012 headcount of 70,774, which is a 1.6% increase from fall 2011, and a similar trend for the fall 2012 FTE headcount of 60,337. Undergraduates represent approximately 76.2% of students, which is consistent with the past four years and 15.5% of fall 2012 undergraduates are from out-of-state; a cohort the system continues to focus on growing. Fall 2012 freshman demand metrics remained stable with applications growing 5% from last year to 58,313. The acceptance rate is 64.1% compared with a five-year average of 66%, which is in line with the medians for the rating category.

The matriculation rate for fall 2012 is 23.5%, which is similar to prior years and reflects New England's highly competitive public and private higher education market. Transfer student applications and acceptances continue to grow and matriculants have strengthened over the past five years. For fall 2012, the transfer acceptance rate was 72.7% and the matriculation rate was 60.4% or 4,824 students transferring to system institutions. The system expects to continue this positive trend. Management expects the strongest growth to occur at the Boston and Lowell campuses with additional increases at Dartmouth. UMassOnline now has 70,000 students and enrollment growth has begun to slow down. However, management indicates it is moving forward with additional strategies that it expects will increase the online enrollment cohort in future years.
Amherst is the system's largest campus, with a total headcount of 28,236 students in fall 2012. Lowell is the next largest campus, with a headcount of 16,294. The smallest campus is the medical campus at Worcester, which has slightly more than 1,160 students. The only campus that has reported decreased enrollment headcount is Dartmouth; however, on an FTE basis, the campus continues to show some growth.

Except for the medical school, which admits only Massachusetts residents, the system's admissions are open to residents and nonresidents on a competitive basis. Massachusetts residents accounted for a significant majority of both undergraduate and graduate students. We consider student quality, as measured by SAT scores, good; for fall 2012 incoming freshmen scores were in the 1056-1197 range. The retention rate (freshman-to-sophomore year), is above average at 74%-88% across the system but has declined slightly compared with prior years. The six-year graduation rate is steady and in the 38% to 70% range, which is above the national average. Management indicates its mission remains access and affordability.

**Financial Profile**

The system is targeting a 2% margin for fiscal 2013 and is currently on pace to achieve it. Fiscal 2012 operations continued a surplus operating trend with an estimated operating gain of $37 million compared with $34 million the previous year based on adjusted operating revenues of $2.69 billion and expenses of $2.65 billion. The surplus in 2012 included a transfer of $53 million to the system's endowment.

The system participates in Massachusetts' fringe benefits program, including health insurance, other postemployment benefits, and pensions. Included in the system's financial statements and state funding appropriation is an allocation to cover fringe benefit costs, which we view as a positive credit factor. In our view, the system has a strong and growing research presence with $536 million in total grants and contracts for fiscal 2012. Management expects to exceed $580 million in 2013. A primary institutional goal is to continue to increase research funding, and management expects a substantial portion of the growth to occur at the medical center in Worcester. However, given the potential pressure on federal funding for research, we expect these numbers to remain stable at best. The system's Amherst campus and medical school campus in Worcester have been the primary catalyst in the system's research funding growth and accounted for 77% of research revenue in fiscal 2012. In addition, facility and computing capacity has been added at the all campuses and the system plans future growth of its research capacity. The system has partnerships with Harvard, MIT, Northeastern, Boston University, and the private sector as part of a high performance computing center that should provide additional infrastructure to grow research capacity at the system.

UMASSOnline, the system's signature online program generated $72 million of revenue in fiscal 2012 and supported 54,461 course enrollments. While enrollments and revenues have grown in tandem, growth trends are slowing down as competition increases. Management indicates it is currently restrategizing the delivery and course structure and expects enrollment and revenue trends to increase in future years.

After several years of declining state support, state appropriations have been level the past two fiscal years. The system received $524 million in fiscal 2012 and management expects similar levels in fiscal 2013 with an additional $25 million of additional state appropriations to support collective bargaining increases for system employees.
Policy changes have allowed the system to retain tuition from out-of-state (OOS) students; however, this was offset by a corresponding reduction in state support. According to management, the offset was revenue neutral in fiscal year 2012, and the system projects to benefit from this policy change as the out-of-state cohort grows.

For fall 2012, in-state tuition and mandatory fees at the Amherst Campus totaled $13,230 and OOS charges increased to $26,645. Room and board charges at the Amherst campus were $9,937.

The system's fiscal 2012 revenue stream was diverse, in our view, with commonwealth appropriations accounting for 19.5% of total adjusted revenues, grants and contracts accounting for 19.9%, and tuition and fees for 35.6%.

Financial resources and debt
Financial resources to operations are adequate for the rating category with unrestricted net assets of $694 million equal to 25.6% of fiscal 2012 adjusted operating expenses. Cash and investments of $969 million were equal to 36.5% of adjusted operating expenses. In addition, we view the system's liquidity as solid with $256 million (as of June 30, 2012) held in same-day cash or cash equivalents and additional cash of $80 million available within one to 60 days.

According to management, total university cash balances available are $441 million with an additional $230 million available in an intermediate investment strategy (as of June 30, 2012).

Fiscal 2012 financial resources supporting the debt include adjusted unrestricted net assets of $706 million, which we consider low at 28% of pro forma debt. Adjusted unrestricted net assets include system unrestricted net assets of $679 million (including $143 million in repair and replacement reserves), foundation unrestricted net assets of $14.7 million, and $11 million in debt service reserves. In addition, the debt burden remains elevated compared with similar size and comprehensive universities and it is higher than our medians for the rating category. The pro forma maximum annual debt service in 2015 of $201.2 million (2014), not including the Build America Bonds (BABs) subsidy, is 7.6% of fiscal 2012 adjusted operating expenses ($2.59 billion).

While we believe the high debt levels and elevated maximum annual debt burden remain a challenge, the system is considering additional capital plans of approximately $1 billion over the next five years. Nevertheless, we believe the debt will still be manageable at the current rating because there are university trustee policies in place that limit debt service to 10% of available revenues and internal policies that require the system debt burden to stay lower than 8% (including the BABs subsidy). While the debt burden limit provides important policy caps, the additional debt plans will keep the system under its cap but limit it if it needs to issue unplanned debt or restructure current debt.

As of fiscal 2012, approximately 21.7% of the system's debt was variable rate, including the series 2000A (issued by the Massachusetts Development Finance Authority), 2008A, 2008-1, 2011-1, and 2011-2 bonds. The system converted the series 2000A finance authority bonds to a long-term rate, expiring March 31, 2013. The bonds are not enhanced; however, the system certifies quarterly that there are sufficient funds in unrestricted net assets to cover debt service. The system plans to roll over the bonds for a three-year long-term rate mode through March 2016. The series 2008A bonds, guaranteed by the state, are enhanced by a Bank of America N.A. standby bond purchase agreement (SBPA), expiring April 23, 2013, and the bonds have been swapped through maturity. The series 2008-1 bonds are enhanced by a Lloyds TSB Bank letter of credit for the full amount, expiring April 23, 2013, and the bonds have been swapped through maturity. An SBPA with Wells Fargo Bank for the full amount enhances the series 2011-1 bonds, expiring June 9, 2014, and the bonds have been swapped through maturity. The series 2011-2 bonds are seven-month window...
bonds, guaranteed by the state, (for more information about the series 2011-2 debt structure see previously cited the article) that are not required to have liquidity support due to their structure; however, management considers the bonds supported by self-liquidity (the self-liquidity is not rated by Standard & Poor's). While the commonwealth guarantees the series 2011-2 bonds, we view the unique bond structure as an enhanced risk compared with the majority of the system's debt portfolio, level of financial resources, and debt burden metrics.

**Fundraising and endowment**

The system's fundraising efforts, like those of other New England public universities, have continued to lag those of the nation's other prominent public and private competitors. The system is in the early planning stages of a capital campaign aimed at raising $750 million. This campaign is commencing at the system flagship campus with a public announcement scheduled for April.

The endowment, held by the foundation, has a market value of $635 million as of Dec. 31, 2012. For fiscal 2012, the system endowment return was negative 0.5% and management estimates that it was invested 22.4% in equities, 26.9% in alternative investments, 30.3% in fixed income, 12.1% international equities, and 8.3% in cash. The actual spend rate for the foundation endowment fund was 4% for fiscal 2012.

**Government-related entity assessment**

In accordance with our criteria for government-related entities (GREs), we based our view of a "moderate" likelihood of extraordinary support on our assessment of the University of Massachusetts System's "limited" link with the Commonwealth of Massachusetts (AA/Positive) given the state's limited involvement with the system's day-to-day operations, history of annual operating appropriation, but no history of extraordinary support. The university trustees govern the university and the governor appoints 17 of the 19 voting trustees. We also based our assessment on the system's "important" role in the state's economy compared with that of other states' GREs, given its role as the state's flagship institution of higher education and provider of economic development programs. Pursuant to the GRE criteria, a moderate likelihood of extraordinary support from Massachusetts does not result in an upgrade of the systems' stand-alone credit profile of 'aa-'.

### University of Massachusetts Selected Financial Statistics

<table>
<thead>
<tr>
<th>Enrollment and demand</th>
<th>2013</th>
<th>2012</th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headcount</td>
<td>70,774</td>
<td>69,670</td>
<td>68,315</td>
<td>65,923</td>
</tr>
<tr>
<td>Full-time equivalent</td>
<td>60,337</td>
<td>59,480</td>
<td>58,563</td>
<td>55,740</td>
</tr>
<tr>
<td>Freshman acceptance rate (%)</td>
<td>64.1</td>
<td>65.8</td>
<td>67.6</td>
<td>67.1</td>
</tr>
<tr>
<td>Freshman matriculation rate (%)</td>
<td>23.5</td>
<td>24.2</td>
<td>24.3</td>
<td>25.0</td>
</tr>
<tr>
<td>Undergraduates as a % of total enrollment (%)</td>
<td>76.2</td>
<td>76.1</td>
<td>76.1</td>
<td>76.5</td>
</tr>
<tr>
<td>Freshman retention (%)</td>
<td>88.0</td>
<td>89.0</td>
<td>89.0</td>
<td>87.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Graduation rates (5 years) (%)</th>
</tr>
</thead>
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<tr>
<td>Income statement</td>
</tr>
<tr>
<td>Adjusted operating revenue ($000s)</td>
</tr>
<tr>
<td>Adjusted operating expense ($000s)</td>
</tr>
</tbody>
</table>
University of Massachusetts Selected Financial Statistics (cont.)

<table>
<thead>
<tr>
<th>Change in net income before capital ($000s)</th>
<th>N.A.</th>
<th>65,360</th>
<th>116,079</th>
<th>152,818</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated operating gain/loss before depreciation ($000s)</td>
<td>N.A.</td>
<td>200,649</td>
<td>194,149</td>
<td>238,833</td>
</tr>
<tr>
<td>Change in unrestricted net assets ($000s)</td>
<td>N.A.</td>
<td>23,937</td>
<td>55,008</td>
<td>126,822</td>
</tr>
<tr>
<td>State operating appropriations ($000s)</td>
<td>N.A.</td>
<td>524,247</td>
<td>549,522</td>
<td>585,519</td>
</tr>
<tr>
<td>State appropriations to revenue (%)</td>
<td>N.A.</td>
<td>19.5</td>
<td>19.0</td>
<td>21.6</td>
</tr>
<tr>
<td>Tuition dependence (%)</td>
<td>N.A.</td>
<td>24.5</td>
<td>20.7</td>
<td>19.9</td>
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</tbody>
</table>

Debt

<table>
<thead>
<tr>
<th>Outstanding debt ($000s)</th>
<th>N.A.</th>
<th>2,252,375</th>
<th>2,328,774</th>
<th>1,737,248</th>
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</thead>
<tbody>
<tr>
<td>Current debt service burden (%)</td>
<td>N.A.</td>
<td>4.82</td>
<td>4.06</td>
<td>5.20</td>
</tr>
<tr>
<td>Current MADS burden (%)</td>
<td>N.A.</td>
<td>7.03</td>
<td>5.48</td>
<td>5.95</td>
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</tbody>
</table>

Financial resource ratios

<table>
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<tr>
<th>Endowment market value ($000s)</th>
<th>N.A.</th>
<th>554,538</th>
<th>518,334</th>
<th>449,811</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and investments ($000s)</td>
<td>N.A.</td>
<td>968,652</td>
<td>906,669</td>
<td>816,344</td>
</tr>
<tr>
<td>Unrestricted net assets (UNA) ($000s)</td>
<td>N.A.</td>
<td>679,418</td>
<td>655,481</td>
<td>600,473</td>
</tr>
<tr>
<td>Adjusted UNA ($000s)</td>
<td>N.A.</td>
<td>694,158</td>
<td>668,262</td>
<td>604,643</td>
</tr>
<tr>
<td>Cash and investments to operations (%)</td>
<td>N.A.</td>
<td>36.5</td>
<td>31.8</td>
<td>31.1</td>
</tr>
<tr>
<td>Cash and investments to debt (%)</td>
<td>N.A.</td>
<td>43.0</td>
<td>38.9</td>
<td>47.0</td>
</tr>
<tr>
<td>Unrestricted net assets to operations (%)</td>
<td>N.A.</td>
<td>25.6</td>
<td>23.0</td>
<td>22.8</td>
</tr>
<tr>
<td>Adjusted UNA plus debt service reserve to debt (%)</td>
<td>N.A.</td>
<td>31.3</td>
<td>28.7</td>
<td>34.8</td>
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<tr>
<td>Average age of plant (years)</td>
<td>N.A.</td>
<td>12.2</td>
<td>11.7</td>
<td>11.1</td>
</tr>
</tbody>
</table>

Total adjusted operating revenue = unrestricted revenue less realized and unrealized gains/losses and financial aid. Total adjusted operating expense = unrestricted expense plus financial aid expense. Net operating margin = 100 times (net adjusted operating income/adjusted operating expense). Tuition dependence = 100 times (gross tuition revenue/adjusted operating revenue). Current debt service burden = 100 times (current debt service expense/adjusted operating expenses). Current MADS burden = 100 times (maximum annual debt service expense/adjusted operating expenses). Cash and investments = cash + short-term and long-term investments. Expendable resources = unrestricted net assets + temporarily restricted net assets - (net PPE- outstanding debt). Average age of plant = accumulated depreciation/depreciation and amortization expense. N.A.—Not available.

Related Criteria And Research

- General Criteria: Rating Government-Related Entities: Methodology And Assumptions, Dec. 9, 2010

Ratings Detail (As Of March 1, 2013)

Massachusetts Development Finance Agency, Massachusetts
University of Massachusetts System, Massachusetts

**Massachusetts Hlth & Educl Facs Auth (University of Massachusetts) rev bnds 2007E**

<table>
<thead>
<tr>
<th>Long Term Rating</th>
<th>AA-/Stable</th>
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**Massachusetts Hlth & Educl Facs Auth (Univ of Massachusetts) VRDB rev bnds ser A**

<table>
<thead>
<tr>
<th>Unenhanced Rating</th>
<th>NR(SPUR)</th>
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<tr>
<td>Short Term Rating</td>
<td>NR</td>
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**Massachusetts Hlth & Ed Fac Auth (University of Massachusetts) (Worcester City Campus Corp) (wrap of insured)**
### Ratings Detail (As Of March 1, 2013) (cont.)

**(FGIC & BHAC) (SEC MKT)**

Unenhanced Rating  
AA-(SPUR)/Stable  
Affirmed

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**Massachusetts Hlth & Ed Fac Auth (Univ of Massachusetts) various rev bnds**

Unenhanced Rating  
AA-(SPUR)/Stable  
Affirmed

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**University of Massachusetts Bldg Auth, Massachusetts**

University of Massachusetts System, Massachusetts  
University of Massachusetts Bldg Auth proj rev bnds ser 2008-2  
Long Term Rating  
AA-/Stable  
Affirmed

University of Massachusetts Bldg Auth (University of Massachusetts System) ser 2004B, 2005-2  
Long Term Rating  
AA-/Stable  
Affirmed

University of Massachusetts Bldg Auth (University of Massachusetts System) (AGM)  
Unenhanced Rating  
AA-(SPUR)/Stable  
Affirmed

University of Massachusetts Bldg Auth (Univ of Massachusetts) proj rev bnds ser 2009-1  
Long Term Rating  
AA-/Stable  
Affirmed

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**University of Massachusetts Bldg Auth (University of Massachusetts)**

Unenhanced Rating  
AA-(SPUR)/Stable  
Affirmed

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**University of Massachusetts Bldg Auth (Univ of Massachusetts) (AMBAC)**

Unenhanced Rating  
AA-(SPUR)/Stable  
Affirmed

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**University of Massachusetts Bldg Auth (Univ of Mass) ser 2003-1 (AMBAC)**

Unenhanced Rating  
AA-(SPUR)/Stable  
Affirmed

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Many issues are enhanced by bond insurance.