US four-year higher education portfolio rating distribution

Rating distribution as of December 2018
Source: Moody’s Investors Service
Global macro conditions influence global higher education

**GROWTH**
- Employment prospects drive demand for education, shifting between fields of study as sectors rise/decline
- Currently steady governmental support but risks rise toward latter end of outlook period
- Increasing inflation, including rising labor and funding costs, add budgetary strain

**FINANCIAL STABILITY**
- Financial volatility could impact endowments, philanthropy
- Rising capital funding costs with increasing interest rates could shift debt funding strategies

**POLITICAL RISKS**
- Local policies impact global student flows (ex. Brexit)
- Continued focus on accountability, affordability, and outcomes
- Ongoing analysis of higher education funding model—who pays and how

**TRADE TENSIONS**
- Changes to international student demand driven in part by visa and immigration policies
- Rising protectionism will increasingly influence policymaking on foreign students
- Global shifts in competitiveness (rise of Asia)

**TECHNOLOGY AND INNOVATION**
- Gradual transformation of educational delivery and business models
- Technology and innovation support demand for research
- Cyber risks and data privacy issues will add to operational and reputational risks; also add costs

**ESG RISKS**
- Demographic shifts, such as participation rates across socio-economic groups and numbers of potential students, will drive demand
- Affordability remains in the spotlight; housing and food security are rising issues for some
- Climate change drive increased investment in preparedness & carbon transition plans

MOODY’S INVESTORS SERVICE
Enrollment countercyclical to economic performance

[Graph showing GDP growth and change in FTE for four year public and private universities from 2000 to 2016]

Source: World Bank, IPEDS
Demographics vary by state

Projected change in high school graduates through 2018-2027

Source: NCES, Moody's Investors Service
US enrollment growth projected to slow over the next decade

Source: National Center for Education Statistics
Technology shifting student preferences

More students taking online courses

Enrollment at US public, private nonprofit and private for-profit universities. Scale 2012=100.
Source: NCES
Closure rate increasing, but low

Source: Moody’s Investors Service

f indicates forecasts
Higher education outlook

2019 outlook remains negative with continued low net tuition revenue growth

<table>
<thead>
<tr>
<th>NEGATIVE</th>
<th>STABLE</th>
<th>POSITIVE</th>
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<tbody>
<tr>
<td>Drivers of the negative outlook</td>
<td>What could change outlook to stable</td>
<td>What could change outlook to positive</td>
</tr>
<tr>
<td>» Weak net tuition revenue growth curbing operating revenue growth, which is projected in the 3%-4% range (excludes patient care).</td>
<td>» A greater proportion of colleges and universities able to grow net tuition revenue at 3% or higher.</td>
<td>» Stronger pricing power leading to healthy net tuition revenue growth.</td>
</tr>
<tr>
<td>» With rising labor costs, expense growth will top revenue growth for many.</td>
<td>» Revenue growth exceeding expense growth for most universities.</td>
<td>» Continued strong investment market, bolstering endowment spending and philanthropy.</td>
</tr>
<tr>
<td>» Public universities face more difficulty than private universities.</td>
<td></td>
<td>» Operating surpluses for many universities, allowing greater capital and programmatic investment.</td>
</tr>
</tbody>
</table>

This outlook represents our forward-looking view on credit conditions over the next 12-18 months. This sectorwide outlook, however, does not imply the likelihood or direction of rating actions for individual issuers.
Growing expenses outpace constrained revenue for most universities

Source: Moody’s Investors Service
A significant share of both publics and privates have under 3% revenue growth

Fiscal 2018 change in operating revenue

Each bar represents annual revenue growth at an independent institution. Those in the shaded area reported revenue growth below 3%.
Source: Moody's Investors Service
Public universities have weaker performance than private counterparts

Fiscal 2018 operating margins for rated universities

Source: Moody's Investors Service
Net tuition revenue growth increasingly sluggish for public universities

% of public universities by annual change in net tuition revenue

"Est." indicates our estimated data based on preliminary information. "Proj." indicates our projected data.

Source: Moody’s Investors Service
Policy focus on affordability reduces some public universities' pricing power

Median annual change in net tuition per student (line) and percent of public universities by change in net tuition per student (bars)

Source: Moody's Investors Service
Research funding will likely continue to shift toward comprehensive universities, which offer more opportunity for collaboration across disciplines.

Chart includes data for public universities only. “Est.” indicates our estimated data based on preliminary information. “For.” indicates our forecasted data.

Sources: Moody’s Investors Service, National Science Foundation, National Center for Science and Engineering Statistics, Higher Education Research and Development Survey
Government support: a benefit and a vulnerability

Source: College Board, “Trends in Student Aid”
State support up for most in 2019….

Source: College of Education, Illinois State University: Grapevine Data; Moody’s Investors Service
…with considerable variability over the past five years

5 year % change in state support

Source: College of Education, Illinois State University: Grapevine Data; Moody's Investors Service
Pension burdens materially increase public university financial leverage

Source: Moody's Investors Service, based on fiscal 2018
Increasing cash and investment cushion through investment returns and gifts supports higher education sector

2018 is an estimate, 2019 is a forecast; data includes Moody's-rated public and private universities

Source: Moody's Investors Service
Over the next 12 – 18 months, credit conditions for the higher education sector will...

- Improve
- Stay the same
- Deteriorate
Demand supported by return on investment for students

Source: Bureau of Labor Statistics, Moody’s Investors Service, data as of fiscal 2018