University of Maine at Augusta

Core Financial Ratios and Composite Financial Index

FY06 to FY13
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Change in Terminology from Prior Reports

In FY13, the University of Maine System adopted Governmental Accounting Standards Board Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*. Pursuant to the provisions of Statement No. 63, all University of Maine System campuses including the University of Maine at Augusta updated their financial statements to reflect the residual measure in the statement of net position as net position, rather than net assets. For consistency with the financial statements, we have updated this ratio report to reference net position rather than net assets. This change in terminology has no impact on the calculation of each core ratio or the core financial index.

Overview

The financial health of the University of Maine at Augusta (UMA) can be evaluated through the use of industry benchmarks and ratios. The following ratios and related benchmarks are derived from *Strategic Financial Analysis for Higher Education*, Seventh Edition published by KPMG; Prager, Sealy & Co., LLC; and ATTAIN. This book is widely used in the higher education industry and includes guidance for both private and public institutions. Ratios presented for the University of Maine System (UMS) were obtained from the separately prepared “Core Financial Ratios and Composite Financial Index” report prepared for the UMS.

According to the above publication, there are four fundamental financial questions that need to be addressed. Analysis of four core ratios can help us answer these questions.

- Are resources sufficient and flexible enough to support the mission? - **Primary Reserve Ratio**
- Do operating results indicate the institution is living within available resources? - **Net Operating Revenues Ratio**
- Does asset performance and management support the strategic direction? - **Return on Net Position**
- Are financial resources, including debt, managed strategically to advance the mission? - **Viability Ratio**

When combined, these four ratios deliver a single measure of UMA’s overall financial health, hereafter referred to as the **Composite Financial Index**.
The **Primary Reserve Ratio** provides a snapshot of financial strength and flexibility by indicating how long the institution could function using its expendable net position (both unrestricted and restricted, excluding net position restricted for capital investments) without relying on additional net position generated by operations. This ratio is calculated as follows:

\[
\text{Expendable Net Position}^* \\
\text{Total Expenses}
\]

* Excluding net position restricted for capital investments

Key items that can impact the primary reserve ratio include principal payments on debt, use of unrestricted net position to fund capital construction projects, operating results (operating revenues – operating expenses + nonoperating revenues – nonoperating expenses + depreciation), endowment returns, and total operating expenses.

A ratio of .40x (provides about 5 months) or better is advisable to give institutions the flexibility to manage the enterprise.

Although still below the industry benchmark of .40x, UMA’s primary reserve ratio reached an eight-year high in FY13 at .34x.
Highlights:

**FY09:** Although the exact impact on this ratio is not readily determinable, it should be noted that on July 1, 2008, expendable net position of $1.3 million for University College (UC) was transferred from the System Office to UMA. High level analysis indicates that the impact of this transfer and the cost of operations for UC had minimal positive impact on UMA’s FY09 primary reserve ratio.

**FY10/FY11:** Expendable net position increased in FY10 and again in FY11, as operating revenues and endowment returns outpaced the increase in expenses – see discussion of the net operating revenues ratio. In each of these years, UMA utilized $1.7 million of unrestricted expendable net position for capital construction.

**FY12:** UMA increased its expendable net position by generating a positive return on operations that more than offset the negative return on endowment investments and use of $1.8 million of expendable net position to fund construction activity.

**FY13:** UMA’s primary reserve ratio increased again as positive operating and endowment returns more than offset the use of $920 thousand of expendable net position to fund construction activity.
The **Net Operating Revenues Ratio** is a measure of operating results and answers the question, “Do operating results indicate that the University is living within available resources?” Operating results either increase or decrease net position and, thereby, impact the other three core ratios: Primary Reserve, Return on Net Position, and Viability. This ratio is calculated as follows:

\[
\text{Operating Income (Loss) plus Net Non-Operating Revenues (Expenses)} / \text{Operating Revenues plus Non-Operating Revenues}
\]

The authors of *Strategic Financial Analysis for Higher Education* note the following:

> The primary reason institutions need to generate some level of surplus over long periods of time is because operations are one of the sources of liquidity and resources for reinvestment in institutional initiatives.

A target of at least 2% to 4% is a goal over an extended time period, although fluctuations from year to year are likely. A key consideration for institutions establishing a benchmark for this ratio would be the anticipated growth in total expenses.

At 4.36%, UMA’s FY13 ratio surpassed the high industry benchmark of 4%. UMA’s ratio passed the high benchmark in three of the past eight years and passed the low benchmark in seven of the past eight years.
**Highlights:**

**FY08:** In accordance with generally accepted accounting principles, noncapital state appropriations are classified in the financial statements as nonoperating revenue. Because of heavy reliance on state appropriations to fund operating costs, UMA and the other universities within the UMS report ‘operating losses’ every year in their financial statements. Consequently, a key line in their financial statements is ‘income (loss) before other changes’ which is the net of the operating loss and net nonoperating revenues (expenses). In FY08, UMA’s net operating loss exceeded its net nonoperating revenues (expenses), resulting in a loss before other changes in net position, and the low point of -1.17% shown on the previous page.

**FY09:** The FY09 ratio of 9.77% is attributable to the one-time transfer of University College’s net position of $3.3 million from System Wide Services. This transfer is part of UMA’s FY09 nonoperating revenues. Without this transfer, UMA’s FY09 ratio would have been .7%. The increase from the FY08 ratio of -1.17% to the adjusted FY09 ratio of .7% is primarily attributable to an increased allocation of the State of Maine noncapital appropriation as a result of UMA assuming operation of University College.

**FY10:** The FY10 ratio is more in keeping with the ratios for FY06 and FY07 as it is not influenced by a transfer of assets from System Wide Services as occurred in FY09.

**FY11:** UMA’s ratio doubled from FY10 to FY11 as UMA increased operating revenues 5.9% and contained the growth in operating expenses to 2.5%.

**FY12:** UMA contained the growth in expenses and thereby experienced a positive return on operations despite minimal growth in revenues. Total operating and nonoperating revenues increased only $555 thousand in FY12, despite a $1.2 million (9.8%) increase in net student fees revenue. State fiscal stabilization dollars were no longer available, noncapital State of Maine appropriation revenue decreased, and noncapital grants and contracts revenue decreased.

**FY13:** Although UMA did decrease its expenses from FY12 to FY13, the increase in the net operating revenues ratio is primarily the result of a $643 thousand increase in noncapital State of Maine appropriation and a $228 thousand increase in noncapital transfers from the System Office and other campuses. The increase in noncapital transfers was primarily attributable to a $300 thousand transfer from the System Office to mitigate the FY13 freeze on in-state tuition rates.
The **Return on Net Position Ratio** measures asset performance and management. It determines whether an institution is financially better off than in the previous year by measuring total economic return. It is based on the level and change in total net position. An improving trend in this ratio indicates that the institution is increasing its net position and likely able to set aside financial resources to strengthen its future financial flexibility. This ratio is calculated as follows:

1. **Change in Net Position**
   - **Total Beginning of the Year Net Position**

Items that may impact this ratio include those that impact the net operating revenues ratio, along with endowment returns, capital appropriations, capital grants and gifts, capital transfers, and endowment gifts.

The nominal rate of return on net position is the actual return unadjusted for inflation or other factors. The real rate of return adjusts the nominal rate for the effects of inflation using the Higher Education Price Index.

In six of the past eight years, UMA’s real rate of return surpassed that of the UMS.
Highlights:

**FY07:** The high return in this year was primarily attributable to capital gifts received for construction of the Michael Klahr Center. Endowment returns were also high.

**FY08:** Additional gifts for construction of the Michael Klahr Center and State of Maine capital appropriations enabled UMA to recognize a positive nominal rate of return on net position. These revenues offset a negative return from operations and negative endowment returns for FY08.

**FY09:** On July 1, 2008, the net position of University College was transferred from System Wide Services to UMA, resulting in the high rate of return. Without this transfer, UMA’s real rate of return would have been 3.3%.

**FY10:** If we compare the FY10 ratio with that for FY09 without the University College transfer, we see that the real rate of return increased from 3.3% in FY09 to 8.0% in FY10. This increase is primarily attributable to positive endowment returns in FY10 and a $1.1 million gift of property on Water Street in Augusta.

**FY11:** UMA’s real rate of return increased again in FY11 as the return from operations doubled (see prior discussion of the net operating revenues ratio) and endowment income not distributed for operations doubled from FY10.

**FY12:** Receipt of $1 million in endowment gifts and the previously discussed positive return on operations of $1.8 million contributed to UMA’s FY12 positive return on net position.

The change in total net position for FY12 was down from that in FY11 due to the following: $1 million decrease in operating returns, combined decrease of $1.2 million in capital appropriation revenue and capital grants and gifts revenue, $1 million decrease in endowment return, and $1 million increase in endowment gifts.

**FY13:** The previously discussed return on operations (see the net operating revenues ratio) is the primary factor in the FY13 return on net position ratio. Although endowment returns not used for operations increased $826 thousand, the increase was more than offset by a decrease in endowment gifts from FY12.

### Ratio Components

<table>
<thead>
<tr>
<th>Ratio Components</th>
<th>FY06</th>
<th>FY07</th>
<th>FY08</th>
<th>FY09</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
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<tbody>
<tr>
<td>Change in total net position</td>
<td>$1,103</td>
<td>$3,808</td>
<td>$435</td>
<td>$5,910</td>
<td>$3,172</td>
<td>$4,829</td>
<td>$2,586</td>
<td>$2,725</td>
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<tr>
<td>Total net position (beginning of year)</td>
<td>$24,387</td>
<td>$25,490</td>
<td>$29,298</td>
<td>$29,733</td>
<td>$35,643</td>
<td>$38,816</td>
<td>$43,645</td>
<td>$46,231</td>
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The **Viability Ratio** measures expendable resources that are available to cover debt obligations (e.g., capital leases, notes payable, and bonds payable) and generally is regarded as governing an institution’s ability to assume new debt. This ratio is calculated as follows:

\[
\text{Expendable Net Position}^* \div \text{Long-Term Debt}
\]

* Excluding net position restricted for capital investments

Like the primary reserve ratio, the viability ratio is impacted by such items as principal payments on debt, use of unrestricted net position to fund capital construction projects, operating results (operating revenues – operating expenses + nonoperating revenues – nonoperating expenses + depreciation) and endowment returns. Issuance of new debt would also impact the ratio.

The authors of *Strategic Financial Analysis for Higher Education* note the following:

There is no absolute threshold that will indicate whether the institution is no longer financially viable. However, the Viability Ratio, along with the Primary Reserve Ratio discussed earlier, can help define an institution’s “margin for error”. As the Viability Ratio’s value falls below 1:1, an institution’s ability to respond . . . , to adverse conditions from internal resources diminishes, as does its ability to attract capital from external sources and its flexibility to fund new objectives.

A ratio of 1.00x or greater indicates that there are sufficient resources to satisfy debt obligations.

UMA’s ratio has surpassed both the UMS ratio and the industry benchmark in each of the past eight fiscal years. UMA continues to have the second lowest level of debt within the UMS.
Highlights:

**FY09**: The spike in UMA’s ratio in FY09 is attributable to the one-time transfer of University College’s net position from System Wide Services. Without the transfer, UMA’s FY09 ratio would have been 1.48.

**FY10**: UMA’s ratio increased again in FY10 as operating revenues and endowment returns outpaced an increase in expenses, and as UMA’s debt decreased via the annual debt service payments.

**FY11**: In FY11, UMA’s ratio decreased slightly as a result of UMA borrowing $1 million for construction of the College Center/Dental Health Clinic.

**FY12/FY13**: UMA’s viability ratio continued to increase as UMA increased expendable net position through operating returns (and endowment returns in FY13) and decreased debt via the annual debt service payments.
The **Composite Financial Index (CFI)** creates one overall financial measurement of the institution’s health based on the four core ratios: primary reserve ratio, net operating revenues ratio, return on net position ratio, and viability ratio. By blending these four key measures of financial health into a single number, a more balanced view of the state of the institution’s finances is possible because a weakness in one measure may be offset by the strength of another measure.

The CFI is calculated by completing the following steps:

1. Compute the values of the four core ratios;
2. Convert the ratio values to strength factors along a common scale;
3. Multiply the strength factors by specific weighting factors; and
4. Total the resulting four numbers (ratio scores) to reach the single CFI score.

Because the CFI only measures the financial component of an institution’s well-being, it must be analyzed in context with other associated activities and plans to achieve an assessment of the overall health of the institution. A high CFI is not necessarily indicative of a successful institution, although a low CFI generally is indicative of additional challenges. When considered in the context of achievement of mission, a very high CFI with little achievement of mission may indicate a failing institution.

A score of 1.0 indicates very little financial health; 3, the low benchmark, represents a relatively stronger financial position; and 10 is the top of the scale.

In seven of the past eight years, UMA’s CFI score was above the low industry benchmark and was well above the UMS’ score. The spike in FY09 is attributable to the transfer of University College’s net position to UMA.
Performance of the CFI score can be evaluated on a scale of -4 to 10 as shown on the following page. These scores do not have absolute precision. They are indicators of ranges of financial health that can be indicators of overall institutional well-being, when combined with nonfinancial indicators. This would be consistent with the fact that there are a large number of variables that can impact an institution and influence the results of these ratios. However, the ranges do have enough precision to be indicators of the institutional financial health, and the CFI as well as its trend line, over a period of time, can be the single most important measure of the financial health for the institution.
The overlapping arrows represent the ranges of measurement that an institution may find useful in assessing itself.

<table>
<thead>
<tr>
<th>Scoring scale:</th>
<th>-4</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>1</th>
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<tr>
<td>Consider whether financial exigency is appropriate</td>
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<td>With likely large liquidity &amp; debt compliance issues, consider structured programs to conserve cash</td>
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<td>Assess debt and Department of Education compliance remediation issues</td>
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<td>Consider substantive programmatic adjustments</td>
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<td>Re-engineer the institution</td>
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<td>Direct Institutional resources to allow transformation</td>
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<td>Focus resources to compete in future state</td>
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<td>Allow experimentation with new initiatives</td>
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<td>Deploy resources to achieve a robust mission</td>
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Fiscal year CFI

2008 2.7

2013 5.6

We have overlaid the scale with UMA’s lowest CFI score (FY08) and most recent CFI score to assist in evaluating UMA’s performance.
The strength factors that were used in calculating the CFI (see page 11) can be mapped on a diamond to show the shape of an institution’s financial health compared to the industry benchmarks. This Graphic Financial Profile can assist management in determining whether a weakness in one ratio is offset by strength in another ratio.

Illustrated below are two examples of a Graphic Financial Profile (GFP): one plots actual strength factors that equal the low industry benchmark of 3 and one that plots actual strength factors that fall above and below the low benchmark:

- The center point of the graphic financial profiles is -4, the lowest possible score on the scale.
- The smaller, heavily lined diamond in the graphs represents the low industry benchmark of 3.
- The outer, lightly lined diamond represents the high industry benchmark of 10 and the highest possible score on the scale for each ratio.
- The actual values of the institution’s ratio strength factors are plotted and shaded to show how the institution’s health compares with the low (3) and high (10) industry benchmarks. In the left graph, the plotted actual values fill the smaller diamond as each of the actual values is at the low benchmark of 3. In the right graph, the smaller diamond is not filled as the actual values of two ratios fall below the low industry benchmark of 3. Also, in the right graph, part of the outer diamond is filled as values for two of the ratios surpass the low benchmark of 3.
The following graphs contain **UMA’s Graphic Financial Profiles for FY06 thru FY13**.

**FY06**: UMA’s strength factor for the primary reserve ratio was about half of the low industry benchmark of 3.0. However, because UMA had very little outstanding debt, the viability ratio surpassed the low industry benchmark.

**FY07**: Capital gifts and high endowment returns contributed to the FY07 shift in UMA’s financial strength to the left side of the graph.
**FY08:** The shaded area was much thinner as UMA experienced a minimal return on its total net position and a negative return from operations. The strength of UMA’s viability ratio continued to increase as UMA made scheduled payments on its outstanding debt.

**FY09:** The transfer of University College to UMA contributed to the higher returns in FY09. Despite the high returns, the strength factor for the primary reserve ratio was unchanged at a little less than half of the low industry benchmark.
**FY10:** The strength factor for the viability ratio reached the high industry benchmark as UMA’s actual viability ratio reached .99x.

**FY11:** The strength factor for the viability ratio dropped back below the high industry benchmark as UMA acquired additional debt. The primary reserve ratio strength factor remains below industry benchmarks while strength factors for the remaining three ratios are significantly greater than the low benchmark of 3.
**FY12:** The strength factor for the viability ratio increased to the high industry benchmark of 10 as UMA both reduced its debt and increased expendable net position. The primary reserve ratio strength factor increased from FY11 but remains below the low industry benchmark of 3. The strength factor for both the return on net position ratio and the net operating revenues ratio decreased from FY11; however, they are just under or above the low industry benchmark.

**FY13:** The ‘shape’ of UMA’s graphic financial profile is much the same as it was in FY12 with only small changes to three of the strength factors.