University of Maine at Farmington
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 Farmington 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 Farmington (UMF) 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 UMF’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:

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

* 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.

In FY13, UMF’s primary reserve ratio reached the industry benchmark for the first time in the eight years presented below.
Highlights:

**FY07:** The primary reserve ratio remained at .31x as an increase in expenses, required debt payments, and use of unrestricted net position to fund capital construction costs offset significant increases in endowment returns and other operating and nonoperating revenues.

**FY08/FY09:** Despite positive operating results in FY08 and FY09, the primary reserve ratio declined as operating costs continued to climb, endowment returns declined, and UMF invested in capital construction.

**FY10:** The primary reserve ratio rebounded as UMF increased unrestricted operating revenues and decreased unrestricted operating expenses. Positive endowment returns also contributed to the increase in expendable net position.

**FY11:** A high endowment return was the primary contributor to the FY11 ratio increase as operating results were lower than in FY10 and more unrestricted net position was used for capital construction than in FY10.

**FY12:** UMF’s primary ratio increased as UMF decreased expenses, increased its return on operations, and utilized less expendable net position on capital construction.

**FY13:** A high endowment return is the primary contributor to the increase in UMF’s primary reserve ratio. Despite a $737 thousand decrease in total expenses, the return from operations decreased $1.8 million from FY12.
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:

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

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.

UMF’s ratio hit an eight-year low in FY13 at .03% after having been just under the low industry benchmark of 4% in FY12. As shown below, the ratio for the UMS also dropped significantly from FY12 to FY13.
As shown in the following table, the percentage change in both revenues and expenses has fluctuated significantly over the past seven years, contributing to the fluctuations in the ratio:

<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>
</tr>
</thead>
<tbody>
<tr>
<td>Operating income (loss) plus net non-operating revenues (expenses)</td>
<td>$317</td>
<td>$1,961</td>
<td>$840</td>
<td>$402</td>
<td>$1,585</td>
<td>$1,089</td>
<td>$1,790</td>
<td>$11</td>
</tr>
<tr>
<td>Operating revenues plus non-operating revenues</td>
<td>$37,923</td>
<td>$40,931</td>
<td>$42,223</td>
<td>$43,457</td>
<td>$44,577</td>
<td>$45,268</td>
<td>$45,533</td>
<td>$43,017</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage Change</th>
<th>FY07</th>
<th>FY08</th>
<th>FY09</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating revenues</td>
<td>6.5%</td>
<td>2.8%</td>
<td>7.9%</td>
<td>3.1%</td>
<td>1.5%</td>
<td>2.2%</td>
<td>-7.5%</td>
</tr>
<tr>
<td>Net non-operating revenues (expenses)</td>
<td>11.6%</td>
<td>4.0%</td>
<td>-9.0%</td>
<td>1.3%</td>
<td>2.0%</td>
<td>-3.8%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>3.5%</td>
<td>6.2%</td>
<td>4.2%</td>
<td>-1.1%</td>
<td>2.8%</td>
<td>-9%</td>
<td>-1.6%</td>
</tr>
</tbody>
</table>

**Highlights:**

**FY07:** Growth in numerous revenue lines, including net student fees, noncapital grants and contracts, and noncapital State of Maine appropriation, and containment of operating cost growth contributed to the benchmark surpassing ratio in FY07.

**FY08:** Growth in total operating expenses outpaced growth in total operating and nonoperating revenues, causing UMF’s ratio to decline from FY07 to FY08.

**FY09:** Total operating revenues again grew; however, nonoperating revenues declined as the noncapital State of Maine appropriation was curtailed and as investment income dropped 99% from the FY08 amount. Growth in operating expenses outpaced revenues.

**FY10:** Increased operating returns in FY10 are primarily attributable to an increase in gross tuition and fees and a decrease in unrestricted operating expenses.

**FY11:** The 1.5% increase in revenues from the prior year was outpaced by a 2.8% increase in expenses as UMF spent more in the areas of academic support, operations and maintenance, student aid, and auxiliary.

**FY12:** UMF reduced its operating expenses in FY12 and increased its operating revenues to offset the loss of State Fiscal Stabilization monies.

**FY13:** Total expenses decreased $737 thousand; however, total operating and nonoperating revenues decreased $2.5 million. A freeze of in-state tuition rates combined with a drop in enrollment resulted in a $1.6 million decrease in net student fees revenue.
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 is likely to be able to set aside financial resources to strengthen its future financial flexibility. This ratio is calculated as follows:

\[
\text{Change in Net Position} = \frac{\text{Total Beginning of the Year Net Position}}{\text{Total Beginning of the Year Net Position}}
\]

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 (HEPI).

UMF’s real rate of return on net position has decreased for the past three years with a 3.43 percentage point decrease occurring from FY12 to FY13.
Highlights:

FY07: The decline from FY06 to FY07 is attributable to a major decrease in State of Maine capital appropriation revenue as UMF had spent the vast majority of these monies prior to FY08.

FY08/FY09: The ratio decline in these two years is attributable to:

- Operating expenses outpacing operating and nonoperating revenues as previously noted in the discussion of the net operating revenues ratio.
- Declines in the endowment returns not used for operations.

FY10: The FY10 return is attributable to the return on operations, positive endowment returns, and State of Maine capital appropriation revenue.

FY11: UMF’s nominal rate of return stayed flat in FY11 as high endowment returns and a significant increase in endowment gifts offset the decrease in operating returns (see discussion of the net operating revenues ratio). The real rate of return dropped, however, as the HEPI inflation rate went from .9% in FY10 to 2.3% in FY11.

FY12: Negative endowment returns caused the return on net position to decline in FY12 despite the increase in the net operating revenues ratio (see page 4) and an $829 thousand increase in endowment gifts. FY12 endowment gifts included a $1.3 million gift of assets from the University of Maine at Farmington Alumni Foundation upon its dissolution.

FY13: The contributors to the decline in the net operating revenues ratio (see pages 4 and 5) are the primary contributors to the decline in the return on net position ratio along with a decline in endowment gifts. Partially offsetting these declines was a $1.5 million increase in endowment returns from FY12 to FY13.
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:

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

* 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.

UMF’s viability ratio indicates that they have had sufficient resources to satisfy debt obligations each of the past eight years. For the past four years, the UMF’s ratio has surpassed the industry benchmark of 1.25x.
<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>
</tr>
</thead>
<tbody>
<tr>
<td>Expendable net position</td>
<td>$11,815</td>
<td>$12,231</td>
<td>$11,523</td>
<td>$10,345</td>
<td>$12,791</td>
<td>$15,032</td>
<td>$15,899</td>
<td>$16,996</td>
</tr>
<tr>
<td>Long-term debt</td>
<td>$11,598</td>
<td>$11,085</td>
<td>$10,551</td>
<td>$10,176</td>
<td>$9,780</td>
<td>$9,367</td>
<td>$9,075</td>
<td>$8,682</td>
</tr>
</tbody>
</table>
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.

The heavier weighting of the primary reserve and viability ratios in the calculation of the CFI is evidenced in UMF’s FY13 CFI score which only dropped .6 points despite significant declines in UMF’s return from operations and return on net position.
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.

Scoring scale:

-4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

1. Consider whether financial exigency is appropriate
2. With likely large liquidity & debt compliance issues, consider structured programs to conserve cash
3. Assess debt and Department of Education compliance remediation issues
4. Consider substantive programmatic adjustments
5. Re-engineer the institution
6. Direct Institutional resources to allow transformation
7. Focus resources to compete in future state
8. Allow experimentation with new initiatives
9. Deploy resources to achieve a robust mission

Fiscal year CFI

2013 2.9 2012 3.5

We have overlaid the scoring scale with UMF’s two most recent scores to assist in evaluating UMF’s performance.
The strength factors that were used in calculating the CFI 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 **UMF’s Graphic Financial Profiles for FY06 thru FY13**.

**FY06:** UMF’s strength was weighted to the left side of the graph as they received $4.6 million in State of Maine capital appropriation revenue which was used for capital construction. The two capitalization ratios were just under the low industry benchmark.

**FY07:** UMF’s strength shifted to the right side of the graph as operating returns surpassed the low industry benchmark. The majority of available State of Maine capital appropriation monies were spent in prior years; thus, the return on net position was not as high as in FY06.
**FY08**: Although now below the low industry benchmark, the weight of UMF’s strength in FY08 was still in the right side of the graph.

**FY09**: Although at a smaller level, UMF’s strength remained in the right side of the graph for a third year in FY09. The strength factors for UMF’s capitalization ratios had been relatively consistent during the prior three fiscal years; however, in FY09, the strength factor for the primary reserve ratio fell as UMF experienced negative endowment returns.
FY10: Positive operating and endowment returns helped to replenish the primary reserve ratio strength factor in FY10 and contributed to three of UMF’s strength factors being above the low industry benchmark.

FY11: Although UMF’s FY11 CFI score of 3.2 is the same as it was in FY06 (see page 14), the shape of the plotted strength factors is more equally balanced in FY11.
**FY12:** UMF’s strength moves to the right side of the graph as the strength factor for the net operating revenues ratio surpasses the low industry benchmark of 3.

**FY13:** UMF’s strength in FY13 is centered in its two capitalization ratios as returns for FY13 were significantly less than the prior year.