University of Southern Maine

Core Financial Ratios and Composite Financial Index
FY06 to FY09
The financial health of the University of Southern Maine (USM) 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*, Sixth Edition published by KPMG; Prager, Sealy & Co., LLC; and Bearing Point. This book is widely used in the higher education industry and the most recent edition includes guidance specifically for public institutions of higher education. Ratios presented for the University of Maine System (UMS) were obtained from the January 5, 2010 *Ratio Analysis* report prepared by KPMG.

The **Primary Reserve Ratio** provides a snapshot of financial strength and flexibility by indicating how long the institution could function using its expendable reserves (both unrestricted and restricted, excluding net assets restricted for capital investments) without relying on additional net assets generated by operations. This ratio is calculated as follows:

\[
\text{Primary Reserve Ratio} = \frac{\text{Expendable Net Assets}}{\text{Total Expenses}}
\]

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

The benchmark ratio of .40 provides about 5 months (40% of 12 months) of expenses. In FY06, when USM experienced its highest ratio in the past four years, their reserves provided only about 1 month of expenses. In FY08 the coverage slipped to less than a quarter of a month. This was primarily caused by the timing of funding being transferred from external sources to cover University Common construction
expenses. The coverage rebound in FY09 is a result of these transfers being up-to-date and management’s efforts to increase revenues and cut operating costs.

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 assets and, thereby, impact the other three core ratios: Primary Reserve, Return on Net Assets, and Viability. This ratio is calculated as follows:

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

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.
The total of USM’s operating and nonoperating revenues increased in FY07, FY08 and FY09. In the base year, FY06, expenses exceed revenue. In FY07 the increase in expenses outpaced revenues. In FY08, USM was able to contain costs and breakeven. In FY09, USM was able to generate a positive ratio for the first time in four years. This is the result of management efforts to improve controls, increase revenues, and decrease expenses.

The **Return on Net Assets 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 assets. This ratio is calculated as follows:

\[ \text{Return on Net Assets Ratio} = \frac{\text{Change in Net Assets}}{\text{Total Beginning of the Year Net Assets}} \]

![Graph of Return on Net Assets Ratio]

<table>
<thead>
<tr>
<th></th>
<th>FY06</th>
<th>FY07</th>
<th>FY08</th>
<th>FY09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benchmark</td>
<td>6.00%</td>
<td>6.00%</td>
<td>6.00%</td>
<td>6.00%</td>
</tr>
<tr>
<td>USM Nominal Rate</td>
<td>-0.20%</td>
<td>4.00%</td>
<td>3.00%</td>
<td>11.70%</td>
</tr>
<tr>
<td>USM Real Rate</td>
<td>-5.30%</td>
<td>1.20%</td>
<td>-2.00%</td>
<td>9.40%</td>
</tr>
<tr>
<td>UMS Real Rate</td>
<td>1.00%</td>
<td>4.60%</td>
<td>-3.50%</td>
<td>-0.70%</td>
</tr>
</tbody>
</table>

The nominal rate of return is adjusted for inflation (Higher Education Price Index) to arrive at the real rate. Items that may impact this ratio include those that impact the net operating revenues ratio, along with endowment returns, capital appropriations, capital gifts and grants, capital transfers, and endowment gifts.
State of Maine capital appropriation revenue and capital grants and gifts were a major factor in the nominal rate of return for each of the past four years:

- Although they were not enough to completely offset the loss from operations in FY06; they did help to hold the negative return on net assets to -0.2%.
- In FY07, these revenues along with strong endowment returns allowed USM to experience a positive return on both a nominal and real basis.
- In FY08, these revenues were enough to offset the negative endowment returns and allow USM to experience a positive nominal rate of return.
- In FY09, these revenues reached a four year high of $11.7 million, an increase of $10.8 million over the amount for FY08. Approximately $8.5 million of this increase resulted from the receipt of capital grants and gifts received for construction projects that were in progress at the end of FY08. USM was also able to increase operating revenues and decrease operating expenses in FY09.

The **Viability Ratio** measures USM’s expendable resources that are available to cover debt obligations (e.g., capital leases, notes payable, and bonds payable). This ratio is calculated as follows:

\[
\text{Viability Ratio} = \frac{\text{Expendable Net Assets}\,*}{\text{Long-Term Debt}}
\]

* Excluding net assets restricted for capital investments

<table>
<thead>
<tr>
<th></th>
<th>FY06</th>
<th>FY07</th>
<th>FY08</th>
<th>FY09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benchmark</td>
<td>1.250</td>
<td>1.250</td>
<td>1.250</td>
<td>1.250</td>
</tr>
<tr>
<td>USM Actual</td>
<td>0.200</td>
<td>0.160</td>
<td>0.040</td>
<td>0.140</td>
</tr>
<tr>
<td>UMS Actual</td>
<td>0.729</td>
<td>0.754</td>
<td>0.768</td>
<td>0.717</td>
</tr>
</tbody>
</table>
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A ratio of 1.00 or greater indicates sufficient resources to satisfy debt obligations. Like the primary reserve ratio, the viability ratio is impacted by such items as principal payments on debt, use of unrestricted net assets to fund capital construction projects, operating results (operating revenues – operating expenses + net nonoperating revenues + depreciation) and endowment returns. Issuance of new debt would also impact the ratio.

USM’s ratio has been far below the UMS ratio and the industry benchmark for the past four years. Issuance of new University Revenue bonds in FY07 and new internal loans from the System Office in FY08 contributed to the decline in the viability ratio for those two years. Repayment of $2.9 million in internal loans and the positive net operating revenues ratio in FY09 contributed to the increase in USM’s FY09 viability ratio.

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 assets ratio, and viability ratio. The CFI is calculated by:

- Determining the value of each ratio;
- Converting the value of each ratio to strength factors along a common scale;
- Strength factors are then multiplied by specific weighting factors; and
- The resulting four numbers are totaled to reach the single CFI score.

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.
A score of 1.0 indicates very little financial health; 3, the low benchmark, represents a relatively stronger financial position; and 10, the top range of the scale. In FY09 USM was able to surpass a score of 1.0 for the first time in four years. This was due to improvement in all four ratios; but, the return on net assets and the net operating revenues ratios in particular.

Each ratio’s strength factor and the total CFI score can be evaluated on the following parameters (based on a floating scale):

<table>
<thead>
<tr>
<th>Score</th>
<th>Performance Indication</th>
</tr>
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<tbody>
<tr>
<td>-1 to 1</td>
<td>Assess institutional viability to survive</td>
</tr>
<tr>
<td>0 to 3</td>
<td>Re-engineer the institution</td>
</tr>
<tr>
<td>2 to 5</td>
<td>Direct institutional resources to allow transformation</td>
</tr>
<tr>
<td>4 to 7</td>
<td>Focus resources to compete in future state</td>
</tr>
<tr>
<td>6 to 9</td>
<td>Allow experimentation with new initiatives</td>
</tr>
<tr>
<td>8 to 10</td>
<td>Deploy resources to achieve a robust mission</td>
</tr>
</tbody>
</table>

The strength factors for the four core ratios can be mapped on a diamond to show a **Graphic Financial Profile** of USM’s financial health compared to the industry benchmarks. The charts on the following pages graphically display how each of the core ratios relates to one another as part of the CFI. Two institutions could have the same CFI score, yet have very different looking charts depending on the individual ratio results.
The center point of the graphic financial profile is zero. Any value that actually falls below zero defaults to the center of the graph. The maximum value in the graph is 10; thus, any actual values greater than 10 are not plotted beyond the outer diamond. The smaller, heavily lined diamond represents the low industry benchmark of 3. The institution’s ratio values are plotted and shaded to show how the institution’s health compares with the low and high benchmarks. Unless there is an unusual circumstance, an institution would want the plotting of its ratios to at least shade the entire smaller diamond.

As shown in the charts on the following page, over the past three years, the biggest balance of USM’s strength has been in its return on net assets ratio. State of Maine capital appropriations, capital grants and gifts, and endowment returns have been large factors in the positive change in net assets experienced by USM in FY07, FY08, and FY09.
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Graphic Financial Profile - FY06
CFI Score of .2

- Primary Reserve Ratio
- Net Operating Revenues Ratio
- Return on Net Assets Ratio
- Viability Ratio

Graphic Financial Profile - FY07
CFI Score of .6

- Primary Reserve Ratio
- Net Operating Revenues Ratio
- Return on Net Assets Ratio
- Viability Ratio

Graphic Financial Profile - FY08
CFI Score of .4

- Primary Reserve Ratio
- Net Operating Revenues Ratio
- Return on Net Assets Ratio
- Viability Ratio

Graphic Financial Profile - FY09
CFI Score of 1.7

- Primary Reserve Ratio
- Net Operating Revenues Ratio
- Return on Net Assets Ratio
- Viability Ratio