University of Maine

Core Financial Ratios and Composite Financial Index
FY06 to FY09
The University of Maine uses a number of industry benchmarks and ratios to evaluate its financial health. 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** is a measurement of the University’s financial resource sufficiency and flexibility. This ratio measures the University’s expendable (fairly liquid) resources in relation to its total expenses. It provides a measure of the University’s ability to support current level of operations from expendable resources, without considering revenues generated from operations.

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 non-operating revenues + depreciation), endowment returns, and total operating expenses.

This ratio is calculated as follows:

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

A benchmark of 40% (or 5 months worth of expenditures) or better is considered advisable. The ratio of .29 indicates that the University of Maine has expendable resources to cover approximately 3.5 months of expenses. This year’s decline reflects a combination of declining resources, reduced market value, and increasing expenses.
The **Net Operating Revenues Ratio** is a measure of operating results. A positive ratio indicates the University lived within its means during the year. Generally, the larger the ratio, the stronger the institution’s financial performance as a result of the current year’s activity. This ratio is calculated as follows:

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

Industry standards recommend that this ratio of net operations to revenue fall between 2%-4% for colleges and universities. In 2009 the University returned to this goal range because of dogged efforts to bolster revenue and control expenses. Fiscal Year 2008 was affected by a serious decline in market value and loss in resources.

The **Return on Net Assets Ratio** measures asset performance and management. It determines whether an institution is financially better off than in the previous years by measuring total economic return. It is based on the level and change in total net assets. Items that may impact this ratio include those that impact the net operating revenues ratio, along with endowment returns; capital appropriations, gifts and grants, and transfers; and endowment gifts. This ratio is calculated as follows:

\[
\frac{\text{Change in Net Assets}}{\text{Total Beginning of the Year Net Assets}}
\]
Returns can vary significantly based on market conditions and inflation levels; therefore it is recommended that schools establish a real return target of 3%-4%. The nominal (unadjusted for inflation) return is displayed in the table on the previous page. A real return is calculated by taking the nominal return less an inflationary index, such as the Consumer Price Index (CPI) or Higher Education Price Index (HEPI).

As expected, the 2008 nominal and real (adjusted for inflation: Higher Education Price Index) returns were depressed by volatile market conditions and increased spending pressures associated with high energy prices and GASB requirements. The return on net assets was only slightly above zero in 2009 as...
total financial resources (net assets net of capital assets) declined 11%. This decline was led by a 25.5% decline in restricted expendable net assets caused by negative investment returns. Given the sharp decline of the endowment funds due to negative investment returns, a positive ratio at year end reflects the University’s prudent overall financial management required to hedge against a declining market.

The **Viability Ratio** measures the University’s expendable resources that are available to cover debt obligations. This calculation is a conservative measure, because the expendable net assets numerator excludes resources set aside to retire debt. 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

A ratio of 1.25 or greater indicates the University has sufficient reserves to satisfy all liabilities, including long-term debt, but this is not necessarily an objective, especially for public universities because state support is not reflected in expendable net assets. 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 non-operating revenues + depreciation) and endowment returns. Issuance of new debt would also impact the ratio.

In Fiscal Year 2008 management limited new debt issuance and in 2009 the debt burden (the denominator of this ratio) was intentionally reduced to free up resources for operations. The University’s 2009 viability ratio of 0.90 demonstrates financial discipline in light of the 11% decline in expendable net assets (the numerator in this 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 weighs the four ratios and provides a framework for evaluating their collective results.

The CFI is calculated by:

- Determining the value of each ratio;
- Converting the value of each ratio to strength factors along a common scale;
- Multiplying the strength factors by specific weighting factors; and
- Totaling the resulting four numbers 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.

![Composite Financial Index](chart)

A score of 1.0 indicates very little financial health. A strength factor score of 3.0 in each category represents a relatively strong financial position. The score for the strength factor of each ratio 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>
</thead>
<tbody>
<tr>
<td>-1-1:</td>
<td>Assess institutional viability to survive</td>
</tr>
<tr>
<td>0-3:</td>
<td>Re-engineer the institution</td>
</tr>
<tr>
<td>2-5:</td>
<td>Direct institutional resources to allow transformation</td>
</tr>
<tr>
<td>4-7:</td>
<td>Focus resources to compete in future state</td>
</tr>
<tr>
<td>6-9:</td>
<td>Allow experimentation with new initiatives</td>
</tr>
<tr>
<td>8-10:</td>
<td>Deploy resources to achieve a robust mission</td>
</tr>
</tbody>
</table>
UMaine’s four core ratios can be mapped on a diamond to show a **Graphic Financial Profile** of UMaine’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.

The visual demonstration of overall goal achievement would be a completely shaded diamond in the center of the graph above. That goal would be recorded in a CFI score of 3.8. The University’s overall CFI score of 1.9 in Fiscal Year 2009 reflects underperformance in all categories measured, but most significantly in the return on net assets, again, resulting primarily from a decline in market value.
University of Maine
Core Financial Ratios and Composite Financial Index
FY06 to FY09

Composite Financial Index
FY 2008 Score 2.2

Composite Financial Index
FY 2007 Score 2.9
UMaine’s overall CFI score in 2007 approached the strength factor score target of 3.0, as the total CFI improved from 2.4 to 2.9. This improvement indicated particularly strong performance in management of net assets and operations. The University demonstrated overall improvement of financial health in a year when it increased its debt obligations.

Fiscal Year 2007 results showed improvement when compared to the 2006 CFI score and four ratio results shown below.