University of Maine

Core Financial Ratios and Composite Financial Index

FY06 to FY14

University of Maine System
Office of Finance and Treasurer
January 2015
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adoption of New Accounting Standard</td>
<td>1</td>
</tr>
<tr>
<td>Overview</td>
<td>1</td>
</tr>
<tr>
<td>Primary Reserve Ratio</td>
<td>2</td>
</tr>
<tr>
<td>Net Operating Revenues Ratio</td>
<td>4</td>
</tr>
<tr>
<td>Return on Net Position Ratio</td>
<td>8</td>
</tr>
<tr>
<td>Viability Ratio</td>
<td>10</td>
</tr>
<tr>
<td>Composite Financial Index</td>
<td>12</td>
</tr>
<tr>
<td>Graphic Financial Profile</td>
<td></td>
</tr>
<tr>
<td>Illustrated</td>
<td>15</td>
</tr>
<tr>
<td>UM Profiles: FY13 and FY14</td>
<td>16</td>
</tr>
<tr>
<td>UM Profiles: FY06 to FY12</td>
<td>17</td>
</tr>
</tbody>
</table>
**Adoption of New Accounting Standard**

In FY14, the University of Maine System adopted Governmental Accounting Standards Board Statement No. 65, *Financial Reporting of Items Previously Reported as Assets and Liabilities* (Statement No. 65), retroactive to July 1, 2012. Pursuant to the provisions of Statement No. 65, all University of Maine System campuses including the University of Maine restated their FY13 financial statements to reflect the retroactive application of this change in accounting principle. Under Statement No. 65, all bond issuance costs are now expensed in the year incurred. Pursuant to Statement No. 65, each campus 1) wrote-off its June 30, 2012 balance for bond issuance costs against the beginning of the year net position balance and 2) expensed bond issuance costs incurred during FY13. We have not recalculated the FY13 ratios included in this report for the restatement because the impact of the restatement is immaterial and it only impacts the net investment in capital assets category of net position.

**Overview**

The University of Maine (UM) 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*, 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 UM’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:

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

* 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.

UM’s management has consistently made tough budget decisions in order to control expenses and increase the University’s financial health during economically challenging times. Such decisions have enabled UM to increase its primary reserve ratio from a value of .29x in FY09 to a value of .43x in FY12 and FY13. Such budget decisions also helped minimize the decrease in the rate from FY13 to FY14.
Expendable net position increased in **FY14** as positive operating returns before depreciation expense (depreciation expense impacts net position invested in capital assets) and positive endowment returns more than offset the impact of increased expenses and use of $7.1 million of unrestricted expendable net position for capital construction.

**Historical Highlights:**

- Negative endowment returns helped to drive down UM’s ratio in **FY08** and **FY09**.

- Management cut E&G expenses in **FY09** to address a $4.7 million decrease in noncapital State of Maine appropriation revenue. The receipt of $4 million in State Fiscal Stabilization revenues in late FY09 helped to curb the decrease in the primary reserve ratio as the stabilization dollars were applied to operating costs that otherwise would have been paid from educational and general revenues.

- State Fiscal Stabilization revenues helped to offset reduced State of Maine appropriation revenues during **FY09 thru FY11**.

- In **FY12**, UM’s primary reserve ratio reached its highest point in the seven-year period then ended, despite challenges such as a decrease in operating grants and contracts revenue to FY10 levels, the loss of State Fiscal Stabilization revenues, and negative endowment returns.

- Expendable net position increased in **FY13** as positive operating returns before depreciation expense and positive endowment returns more than offset the impact of increased expenses and use of $8 million of unrestricted net expendable net position for capital construction.
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.

In FY14, UM experienced a negative net operating revenues ratio for the second consecutive year. In each of the seven years preceding FY13, their ratio was just below or above the low industry benchmark and in FY11 it surpassed the high benchmark.
During recent years UM management had focused on strategic efforts to increase enrollments after seeing declines in FY12 and FY13. In FY14, those efforts proved successful as enrollments increased and gross student fees increased $10 million or 6% from FY13 despite a continued freeze on in-state tuition and fee rates. The increase in student fees revenue was, however, more than offset by a $4 million increase in the amount of institutional funds used for student financial aid costs and a $10.8 million increase in expenses not related to grants and contracts and not related to financial aid.

**Historical Highlights:**

- In **FY08**, UM saw its largest growth in both revenues ($21.2 million) and expenses ($23.6 million). The increase in expenses was driven by across the board compensation increases and increased energy costs.

- **FY09, FY10, and FY11** were economically challenging times in the State of Maine. UM management continued to make tough budget decisions to control expenses and increase the University’s financial health. Their success is evident in the steady increase in operating returns from FY09 through FY11.

- Economic challenges continued in **FY12**, as UM experienced its first decline in the six-year period then ended in total operating and nonoperating revenues. Grants and contracts revenue decreased 8.5%, indirect cost recovery revenue decreased 10.7%, and State Fiscal Stabilization revenue was no longer available.

- In **FY13**, UM’s return from operations decreased $12.6 million and UM experienced its first loss from operations in the eight-year period then ended. A freeze of in-state tuition and fee rates and a reduction in state appropriation revenue as a result of Outcomes Based Funding metrics were key factors in the loss from operations. A reduction in grants and contracts revenue also contributed to the loss to the extent that personnel previously paid from grants and contracts were instead paid from E&G during FY13. An increase in depreciation expense as a result of strategic investments in capital improvements during recent years along with current year investments in strategic areas such as enrollment management, student retention efforts, and major maintenance projects also negatively impacted this ratio in FY13. These strategic efforts should position UM for increased...
enrollments and ensuing revenue enhancements in the next few years. UM’s management will continue its efforts to control expenses while enhancing revenues.

- Because grants and contracts revenue is recognized only to the extent of related expenses, we can compare the fluctuations in grants and contracts revenue with the fluctuations in overall expenses (operating expenses – depreciation + interest expense + scholarship allowance) to determine whether nongrants and noncontracts expenses increased or decreased. From the table below we can see that nongrants and noncontracts expenses decreased in FY10 by $5.5 million; however, they have been on an upward trend since then, increasing by $10.9 million or 3.8% from FY12 to FY13.

<table>
<thead>
<tr>
<th></th>
<th>$ in thousands</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FY09</td>
</tr>
<tr>
<td>Grants and contracts expenses (equal to grants and contracts revenue)</td>
<td>$60,042</td>
</tr>
<tr>
<td>Nongrants and noncontracts expenses</td>
<td>$283,444</td>
</tr>
<tr>
<td>Total expenses less depreciation plus scholarship allowance</td>
<td>$343,486</td>
</tr>
</tbody>
</table>
This page intentionally left blank.
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:

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

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.

Once inflation is considered, UM’s return on net position for FY14 is negative. UM last experienced a negative real rate of return in FY09.
Although down $4.5 million from FY13, other changes in net position (e.g., State of Maine capital appropriations; capital grants and gifts; endowment returns, net of amount used for operations; etc.) enabled UM to experience a positive return on net position in FY14 despite a $7.5 million loss from operations.

**Historical Highlights:**

- UM’s return on net position has fluctuated greatly over the past eight years primarily due to a volatile investment market and varied receipt of capital grants and gifts revenue:
  
  ➢ Endowment returns net of amount used for operations were at their lowest in FY09 at a loss of $13.9 million. FY10 returns were positive, representing a $16.5 million increase over FY09. In FY11, returns climbed to $8.6 million and in FY12 they fell to a loss of $4 million. In FY13, investment markets rebounded and UM received returns of $5 million.

  ➢ Capital grants and gifts revenue went from $1.8 million in FY09 to $20 million in FY11 primarily due to the offshore wind energy research being conducted by UM. In FY12, capital grants and contracts revenue remained high; however, the revenue was received for more varied purposes than in FY11. In FY13, capital grants and gifts revenue decreased significantly as grant awards had been primarily spent in prior years. FY12 revenues had also included a special, one-time gift of $5 million.

- UM’s return on operations was also a significant factor on the FY12 and FY13 return on net position ratios as UM’s return from operations decreased $5.5 million from FY11 to FY12 and decreased $12.6 million 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:

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

* 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 1.00 or greater indicates sufficient resources to satisfy debt obligations.

UM’s viability ratio reached a nine-year high in FY14 as UM’s outstanding debt reached a nine-year low.
### Historical Highlights:

- UM’s debt peaked in FY07 with the issuance of UMS revenue bonds to fund various construction projects.

- Management intentionally reduced outstanding debt in FY09 to free up resources for operations.

- UM’s debt increased slightly in FY12 as additional UMS revenue bonds were issued to finance renovation of UM’s Memorial Gym.

- In FY13, $3.2 million of the decrease in UM’s outstanding debt balance is attributable to the UMS refinancing portions of its previously issued bonds to attain savings.
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.

UM’s CFI decreased from FY13 to FY14 as UM experienced a larger loss from operations and a significantly reduced return on net position.

<table>
<thead>
<tr>
<th></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>
<th>FY14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Benchmark</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>High Benchmark</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
</tr>
<tr>
<td>UM Actual</td>
<td>2.4</td>
<td>2.9</td>
<td>2.2</td>
<td>1.9</td>
<td>3.1</td>
<td>4.1</td>
<td>3.3</td>
<td>2.7</td>
<td>2.4</td>
</tr>
<tr>
<td>UMS Actual</td>
<td>2.0</td>
<td>2.5</td>
<td>1.5</td>
<td>1.6</td>
<td>3.3</td>
<td>3.9</td>
<td>2.9</td>
<td>2.7</td>
<td>2.9</td>
</tr>
</tbody>
</table>
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>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider whether financial exigency is appropriate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With likely large liquidity &amp; debt compliance issues, consider structured programs to conserve cash</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assess debt and Department of Education compliance remediation issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consider substantive programmatic adjustments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-engineer the institution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Institutional resources to allow transformation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus resources to compete in future state</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allow experimentation with new initiatives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deploy resources to achieve a robust mission</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fiscal year
CFI

2009 1.9  2014 2.4  2011 4.1

We have overlaid the scoring scale with UM’s lowest (FY09), highest (FY11), and most recent (FY14) CFI scores to assist in evaluating the University’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 above 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.
UM’s Graphic Financial Profiles

FY13 and FY14

The ‘shape’ of UM’s plotted strength factors shifted to the left of the graph in FY13 as UM experienced its first loss from operations in the eight-year period ended FY13. In FY14, the plotted area remains to the left as UM once again experienced a loss from operations.
UM’s Graphic Financial Profiles

FY06 to FY12

In FY06, UM’s graphic financial profile was relatively balanced with only the return on net position strength factor surpassing the industry benchmark. UM experienced an increase in all strength factors in FY07, except for that related to the viability ratio as issuance of new debt caused a decrease in viability.

[Diagram showing financial profiles for FY06 and FY07, with Actual, Low Benchmark, and High Benchmark values.]
Reduced operating returns and negative endowment returns in FY08 caused UM’s CFI to decline from the prior year. UM’s FY09 CFI score of 1.9 reflected underperformance in all categories measured, most significantly in the return on net position, again, resulting primarily from a decline in investment market values.
UM’s FY10 CFI score of 3.1 reflects improvements in every quadrant of the graph: exceeding the thresholds in areas of operations and net position management and approaching goals for resources (Primary Reserve and Viability). In FY11, all of UM’s strength factors surpassed the low industry benchmark.
Three of UM’s FY12 strength factors remain above the low industry benchmark of 3 and the strength factors for the primary reserve ratio and the viability ratio have increased from FY11.

```
Graphical Financial Profile - FY12
Strength Factors Plotted on a Scale of -4 to 10
CFI Score 3.3
```

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

- Actual
- Low Benchmark: 3
- High Benchmark: 10