University of Southern Maine
Core Financial Ratios and Composite Financial Index
FY06 to FY11
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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*, 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 Assets**
- Are financial resources, including debt, managed strategically to advance the mission? - **Viability Ratio**

When combined, these four ratios deliver a single measure of USM’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 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:

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

* Excluding net assets restricted for capital investments

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

- 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.

- Components:

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<tr>
<td>Expendable net assets</td>
<td>$14,103</td>
<td>$12,006</td>
<td>$3,244</td>
<td>$10,471</td>
<td>$22,016</td>
<td>$31,667</td>
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<tr>
<td>Expenses</td>
<td>$175,160</td>
<td>$180,159</td>
<td>$185,742</td>
<td>$182,888</td>
<td>$181,629</td>
<td>$183,875</td>
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At the lowest point (FY08) in the last six years, USM’s expendable net assets covered less than a quarter of a month of expenses. At the highest point (FY11), expendable net assets covered just two months of expenses.

The low ratio in FY08 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.

USM’s ratio doubled from FY09 to FY10 primarily because of USM’s successful efforts to increase revenues and decrease expenses related to unrestricted operations (e.g., E&G, auxiliary, and designated) and because of positive endowment returns (compared with negative returns in FY09) which caused a significant increase in restricted expendable net assets.

The ratio increased again in FY11 as management successfully continued efforts to surpass the high industry benchmark for the Net Operating Revenues Ratio (see page 4) which in turn helps increase the Primary Reserve Ratio. While trying to increase expendable net assets, management was cognizant of the need to invest in plant. During FY11, USM utilized $3.16 million of expendable net assets on capital costs to renovate and repair existing buildings. They also utilized $2.5 million of expendable net assets restricted specifically for capital investments (as previously noted, these net assets are not part of the primary reserve ratio calculation).
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:

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

- 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 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. Conversely, generating a known deficit in
the short term may well be the best strategic decision a board makes, if it is an affordable investment in its future and the deficit will clearly be eliminated through specific actions.

- Fluctuations in grants and contracts activity and in State Fiscal Stabilization funds do not directly impact this ratio as revenues are recognized to the extent of expenditures. Fluctuations in these sources of revenues may, however, impact the ratio if, for example, persons previously paid from grants are moved to E&G funding during periods of reduced grant activity. The opposite could hold true during periods of increased activity.

- Components:

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<tr>
<td>Operating income (loss) plus net non-operating revenues</td>
<td>($2,629)</td>
<td>($1,473)</td>
<td>$33</td>
<td>$2,874</td>
<td>$8,891</td>
<td>$9,043</td>
</tr>
<tr>
<td>Operating revenues plus non-operating revenues</td>
<td>$172,531</td>
<td>$178,686</td>
<td>$185,775</td>
<td>$185,762</td>
<td>$190,519</td>
<td>$192,918</td>
</tr>
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</table>

- With the exception of FY10, USM’s operating and nonoperating revenues exclusive of those related to sponsored activities (e.g., grant and contracts, recovery of indirect costs, and State Fiscal Stabilization) increased in each of the past five years.

- In FY08, USM was able to contain costs and essentially breakeven.

- In FY09, USM generated a significant positive ratio for the first time in four years. This was the result of management efforts to improve controls, increase revenues, and decrease expenses.

- Management’s tough budgeting decisions continued in FY10 and USM increased revenues and significantly decreased expenses related to unrestricted operations (e.g., E&G, auxiliary, and designated) which had a major impact on this ratio.

- USM’s ratio increased again in FY11 as USM underwent organizational changes and continued to realize the financial impact of management’s tough budgeting decisions. Contributing to the FY11 results was a $1.15 million increase in noncapital State of Maine appropriation revenue that more than offset the $885 thousand decrease in State Fiscal Stabilization Program revenue.

- In the short run, to continue to align USM’s Primary Reserve Ratio with the UMS actual and achieve the recommended benchmark, USM must seek to meet or exceed the higher 4.0% benchmark for the Net Operating Revenues Ratio.
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. An improving trend in this ratio indicates that the institution is increasing its net assets and is likely to be able to set aside financial resources to strengthen its future financial flexibility. This ratio is calculated as follows:

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

- The nominal rate of return on net assets is the actual return calculated/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.
- 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.
- Components:

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<tr>
<td>Change in total net assets</td>
<td>($220)</td>
<td>$4,396</td>
<td>$3,500</td>
<td>$13,866</td>
<td>$11,202</td>
<td>$12,458</td>
</tr>
<tr>
<td>Total net assets (beginning of year)</td>
<td>$110,910</td>
<td>$110,690</td>
<td>$115,086</td>
<td>$118,587</td>
<td>$132,453</td>
<td>$143,655</td>
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$ in thousands
• State of Maine capital appropriation revenue and capital grants and gifts were a major factor in the nominal rate of return for FY06 thru FY09:

  ➢ 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 -.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.

  ➢ In FY10, these revenues were much less of a factor as they combined for a total of only $1.1 million due to a decrease in construction activity financed with gifts and the fact that most of the available State of Maine capital appropriation revenues were spent in prior years.

• The major factor in the nominal rate for FY10 was management’s efforts to increase revenues and tough budget decisions to significantly decrease expenses related to unrestricted operations (e.g., E&G, auxiliary, and designated).

• As with the Primary Reserve Ratio, the Return on Net Assets Ratio shows the results of USM’s efforts in FY10 and FY11 to rebuild necessary reserves.

• Endowment returns which were at a six-year high in FY11, contributed to the increased return on net assets.
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:

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

* Excluding net assets restricted for capital investments

- A ratio of 1.00 or greater indicates sufficient resources to satisfy debt obligations.
- 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.

- 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.
University of Southern Maine
Core Financial Ratios and Composite Financial Index
FY06 to FY11

- Components:

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</tr>
<tr>
<td>Long-term debt</td>
<td>$70,316</td>
<td>$75,547</td>
<td>$78,322</td>
<td>$73,008</td>
<td>$67,477</td>
<td>$64,728</td>
</tr>
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</table>

- Although steadily increasing over the past three years, USM’s ratio has been far below the UMS ratio and the industry benchmark for the past six 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.

- The following items contributed to the rise in the ratio since the low point in FY08:
  - Positive net operating revenues ratios
  - Payment of scheduled debt service on debt
  - Repayment of $2.9 million in internal loans in FY09
  - Payoff of internal loans from the System Office in FY10
  - Management decisions to avoid projects that would require debt financing.
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. 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.

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.

The CFI is calculated by:

1. Determining the value of each ratio;
2. Converting the value of each ratio to strength factors along a common scale;
3. Multiplying the strength factors by specific weighting factors; and
4. Totaling the resulting four numbers to reach the single CFI score.

![Composite Financial Index Graph](image)

- 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.

- USM’s documented focus on debt reduction and the establishment of adequate reserves by stringent cost controls and revenue enhancements have contributed to the growth in their CFI score over the past three years. Such efforts are expected to continue.

Performance of the CFI score can be evaluated on a scale of -4 to 10 as shown on the following page.
The overlapping arrows represent the ranges of measurement that an institution may find useful in assessing itself.

We have overlaid the scoring scale with USM’s CFI scores for FY06, FY08, and FY11 to show the progress the University has made over the past five years.

January 2012
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 based on strength factors valued at the low industry benchmark of 3 and one with strength factors valued above and below the benchmark:

- **The center point of the graphic financial profiles is -4** as illustrated in the Seventh Edition of *Strategic Financial Analysis for Higher Education*. An actual value that falls below -4, defaults to a value of -4 and is plotted at the center of the graph.

- **The maximum value in the graph is 10**; thus, an actual value greater than 10 is not plotted beyond the outer diamond.

- **The smaller, heavily lined diamond** represents the low industry benchmark of 3.

- **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) benchmarks.
The following graphs contain USM's Graphic Financial Profiles for FY06 thru FY11.

In FY06, all of USM's scores were below 1 and two were below zero.
An inflow of State of Maine capital appropriation revenue and capital grants and gifts enabled USM’s CFI score to improve slightly in FY07; however, the strength factors for the prime reserve and viability ratios did not improve as these two revenue streams increase net assets invested in plant rather than expendable net assets.
State of Maine capital appropriation revenue and capital grants and gifts were a source of strength again in FY08, enabling USM to construct or renovate facilities, but not increase expendable net assets.

**Graphic Financial Profile - FY08**

**USM**

*Strength Factors Plotted on a Scale of -4 to 10*

**CFI Score of .4**
USM experienced positive returns from both operations and total net assets in FY09. The shape of the diamond in the below chart remained short; however, because the positive return on net assets was primarily attributable to State of Maine capital appropriation revenues and capital grants and gifts that do not impact the prime reserve and viability ratios. The positive return from operations was offset by negative returns on endowment assets; thus, the change in the prime reserve and viability scores was minimal.

Graphic Financial Profile - FY09
USM
Strength Factors Plotted on a Scale of -4 to 10
CFI Score of 1.7

Prime Reserve Ratio
Return on Net Assets Ratio
Viability Ratio
Net Operating Revenues Ratio

Actual  Low Benchmark: 3  High Benchmark: 10
The return on total net assets in FY10 year was primarily attributable to operations as the majority of available State of Maine capital appropriation and capital grants and gifts monies were expended in prior years. The strength factor for the prime reserve ratio increased only slightly as positive returns from operations and endowment assets were partially offset by management’s strategic decision to utilize expendable net assets to reduce outstanding debt and to fund capital construction projects targeted to address deferred maintenance issues and refurbish existing facilities.
In FY11, management continued to focus on returns in order to build reserves and increase viability.

Although USM’s CFI score has increased significantly over the past five years, USM’s financial health remains weak and the University remains undercapitalized.