University of Southern Maine

Core Financial Ratios and Composite Financial Index

FY06 to FY14
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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 Southern 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 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 Position**
- 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 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.

Although its ratio has increased significantly from the low of .02x in FY08, the FY14 ratio of .19x remains unchanged from FY13 and has changed very little from the .17x experienced in FY11. At the lowest point (FY08) in the last nine years, expendable net position covered one week of expenses. Although coverage subsequently increased to two months, it has remained at two months since FY11. The industry benchmark is five months.
Although the FY14 primary reserve ratio remained unchanged from the prior fiscal year, the components of the ratio changed significantly: unrestricted net position decreased $4.5 million, bringing this category to its lowest point in the past four years; restricted net position increased $2.9 million; and expenses decreased $7 million. Ever cognizant of the need to invest in its facilities, USM spent $5.9 million of unrestricted net position on various projects including the Gorham CHP upgrade project, the Gorham water tower repair project, and the International Study Center project.

Historical Highlights:

**FY08/FY09:** 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 ratio rebound in FY09 reflects these transfers being up-to-date and management’s efforts to increase revenues and cut expenses.

**FY10:** USM’s ratio doubled from FY09 to FY10 primarily because of positive endowment returns and successful efforts to increase revenues and decrease expenses related to unrestricted operations.

**FY11:** The ratio increased as USM surpassed the high industry benchmark for the Net Operating Revenues Ratio (see page 4) which in turn helps increase the Primary Reserve Ratio. During FY11, USM utilized $3.2 million of expendable net position on capital costs to renovate and repair existing buildings. Although it has no impact on the primary reserve ratio, USM also utilized $2.5 million of expendable net position restricted specifically for capital investments.

**FY12:** Unrestricted expendable net position increased $1.3 million net of $4.7 million utilized on numerous renovation projects. Although it has no impact on the primary reserve ratio, USM also utilized $3.6 million of expendable net position restricted specifically for capital investments.

**FY13:** Positive endowment returns were the greatest contributor to the increase in the primary reserve ratio. The $3.8 million decrease in expenses also contributed to the increase in the ratio; however, this contribution is somewhat artificial as it is net of a $6 million decrease in grant and contract expenses (see discussion of the net operating revenues ratio on page 5) and a $2.6 million increase in expenses for continuing activities.

<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>
<th>FY14</th>
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<tr>
<td>Unrestricted Expendable Net Position</td>
<td>$(269)</td>
<td>$(5,033)</td>
<td>$(5,281)</td>
<td>$(2,239)</td>
<td>$(8,697)</td>
<td>$(16,943)</td>
<td>$(18,202)</td>
<td>$(18,266)</td>
<td>$(13,760)</td>
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<tr>
<td>Restricted Expendable Net Position</td>
<td>$14,372</td>
<td>$17,039</td>
<td>$8,525</td>
<td>$12,710</td>
<td>$13,319</td>
<td>$14,724</td>
<td>$14,108</td>
<td>$15,740</td>
<td>$18,593</td>
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<tr>
<td>Total Expendable Net Position</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>
<td>$32,310</td>
<td>$34,006</td>
<td>$32,353</td>
</tr>
<tr>
<td>Total 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>
<td>$181,740</td>
<td>$178,356</td>
<td>$171,332</td>
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January 2015
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:

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

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.

Although attainment of a positive operating return has been particularly challenging in recent years and was unsuccessful in FY14, USM’s management is ever conscious of the need for positive returns in order to increase expendable net position and align USM’s primary reserve ratio with that of the UMS and the industry benchmark. In just three years, USM has gone from a positive ratio of 4.69% that surpassed the high industry benchmark to a negative ratio of -0.37%. FY14 is the first time USM has experienced a negative ratio since FY07.
In FY14, USM experienced a loss for the first time since FY07 as cuts in operating expenses were not enough to offset declines from the prior fiscal year in several revenue categories: $4 million decrease in tuition and fees revenues, $1.4 million decrease in other auxiliary enterprise revenues, and a $648 thousand decrease in recovery of indirect costs revenue. Noncapital grant revenues also decreased by $3.3 million, but were directly offset with a decline in related expenses.

**Historical Highlights:**

**FY08:** USM was able to contain costs and essentially breakeven.

**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.

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

**FY11:** 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.

**FY12:** Total operating and nonoperating revenues decreased $7.4 million from FY11 as USM experienced significant decreases in residence and dining fees, operating grants, and educational sales and services and the elimination of State Fiscal Stabilization Program revenue. A $2.1 million decrease in operating expenses partially offset the loss of revenues.

**FY13:** Total operating and nonoperating revenues decreased $6 million from FY12. A decrease in grant funding from the State of Maine Department of Health and Human Services and a related decrease in indirect cost recovery were primary factors for this decrease in revenues. A $3.4 million decrease in operating expenses partially offset the loss of revenues.
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:

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

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.

USM’s real rate of return on net position has been trending downward during the past five years and in FY14 USM experienced its first negative rate since FY08.
Positive endowment returns not used for operations enabled USM to experience a positive nominal return on net position in FY14 despite a loss from operations. However, once inflation is considered, USM experienced a negative return on net position.

**Historical Highlights:**

- The major factor in the nominal rate for **FY10** was management’s efforts to increase revenues and its tough budget decisions to significantly decrease expenses related to unrestricted operations.

- USM’s highest endowment returns for the years presented were in **FY11**, contributing to the increased return on net position for that year.

- In **FY12** and **FY13**, the return on net position ratio decreased from the prior fiscal year. A decreasing return on operations was the major factor in each year’s decrease.

- State of Maine capital appropriations revenue and capital grants and gifts revenues were major factors in the nominal rate of return for several of the years presented. These revenues:
  - Partially offset the loss from operations in **FY06**, helping to hold the negative nominal return on net position to -.2%.
  - Along with strong endowment returns in **FY07**, allowed USM to experience a positive return on both a nominal and real basis.
  - Were enough to offset the negative endowment returns in **FY08** and allow USM to experience a positive nominal rate of return.
  - Totaled $14.8 million in **FY09**, an increase of $10.4 million from FY08. Approximately $8.5 million of this increase related to capital grants and gifts received for construction projects in progress at the end of FY08. USM also increased operating revenues and decreased operating expenses in FY09.
  - Totaled $3.5 million in **FY12**, offsetting negative endowment returns and helping to nearly double the return on net position that USM would have had just from operations.
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 + non-operating revenues – non-operating 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.

Although at its highest point in the nine years presented, USM’s FY14 rate of .58x is less than half the industry benchmark.
As noted in the discussion of the primary reserve ratio, the above decrease in expendable net position from FY13 to FY14, is net of a $4.5 million decrease in unrestricted net position and a $2.9 million increase in restricted expendable net position. The reduction in debt for FY14 is due to payment of the annual debt service.

**Historical Highlights:**

- 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 increase 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 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.

USM’s focus on debt reduction and establishment of adequate reserves by stringent cost controls and revenue enhancements contributed to the growth in its CFI score from FY08 to FY11. During the past three fiscal years, its CFI score has declined as the university has experienced significant decreases in its return on operations.

![Composite Financial Index Chart](chart.png)
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.

We have overlaid the scoring scale with USM’s CFI scores for FY06 (lowest), FY11 (highest), and FY14 (current) to show the progress the University has made since FY06 and the impact of revenue challenges experienced during recent fiscal years.
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:

- **Example of a GFP Based on Strength Factors Valued at the Low Benchmark**
  - Scale of -4 to 10

- **Example of a GFP Based on Strength Factors at Varying Values**
  - Scale of -4 to 10

- 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.
USM’s Graphic Financial Profiles
FY13 and FY14

Returns on operations and on net position decreased from the prior fiscal year, but were positive in FY13, contributing to the increase in USM’s capitalization ratios. In FY14, USM’s viability ratio increased slightly as USM experienced a loss from operations and a small return on net position.
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 position invested in plant rather than expendable net position.

**Graphic Financial Profile - FY06**
Strength Factors Plotted on a Scale of -4 to 10
CFI Score of .1

**Graphic Financial Profile - FY07**
Strength Factors Plotted on a Scale of -4 to 10
CFI Score of .6
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 position. USM experienced positive returns from both operations and total net position in FY09. The shape of the diamond in the below chart remained short; however, because the positive return on net position 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.
In **FY10**, the return on total net position 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 primary reserve ratio increased only slightly from FY09 as positive returns from operations and endowment assets were partially offset by management’s strategic decision to utilize expendable net position 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 not as strong as they had been in the prior couple of fiscal years, the FY12 positive returns on operations and on net position helped to slightly increase USM’s capitalization.