University of Maine at Fort Kent

Core Financial Ratios and Composite Financial Index

FY06 to FY11
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The financial health of the University of Maine at Fort Kent (UMFK) 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 UMFK’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:

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

* 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:

<table>
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<th>FY07</th>
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<tbody>
<tr>
<td>Expendable net assets</td>
<td>$787</td>
<td>$1,218</td>
<td>$1,086</td>
<td>$329</td>
<td>$382</td>
<td>$329</td>
</tr>
<tr>
<td>Expenses</td>
<td>$12,551</td>
<td>$13,545</td>
<td>$14,480</td>
<td>$14,435</td>
<td>$14,004</td>
<td>$14,652</td>
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At the highest point (FY07) in the past six years, UMFK’s reserves provided about 1 month of expenses. In FY09 and FY11, the coverage slipped to less than a quarter of a month.

The high ratio in FY07 is attributable to a 53% increase in expendable net assets that resulted from a combination of things, including positive operating results, high endowment returns, and a large capital transfer from the System Office to partially fund interest paid on UMFK’s bonds payable.

The ratio fell in FY08 as operating expenses increased 6.8% and operating results and endowment returns were negative.

In FY09, the primary reserve ratio reached the lowest point in the past six years as endowment returns were negative and operations generated a loss almost twice as large as the FY08 loss.

The ratio improved slightly in FY10 as UMFK reduced operating expenses and slightly increased total operating and nonoperating revenues.

In FY11, the primary reserve ratio fell to the same low point experienced in FY09 as UMFK experienced a greater loss from operations in FY11 than it did in FY10.
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 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.
Components:

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<tr>
<td>Operating income (loss) plus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>net non-operating revenues</td>
<td>($754)</td>
<td>($182)</td>
<td>($439)</td>
<td>($847)</td>
<td>($355)</td>
<td>($570)</td>
</tr>
<tr>
<td>Operating revenues plus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>non-operating revenues</td>
<td>$11,797</td>
<td>$13,362</td>
<td>$14,042</td>
<td>$13,588</td>
<td>$13,647</td>
<td>$14,082</td>
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UMFK’s ratio has been negative for the past six years with the lowest ratios being experienced in FY06 and FY09.

The ratio improved significantly in FY07 as operating revenues increased 14.5% and nonoperating revenues increased 12.5% compared with an 8.3% increase in operating expenses.

Revenues increased again in FY08 but at a much lower percentage than FY07. The increase did not, however, keep pace with the increase in expenses.

In FY09, operating revenues fell 5.5% and nonoperating revenues only increased 1.5%. Without the State Fiscal Stabilization Program revenue, FY09 nonoperating revenues would have decreased 3% from the FY08 level.

Although still negative, the FY10 ratio improved significantly over that for FY09 as UMFK reduced operating expenses by $433 thousand. Revenues increased slightly.

Revenues increased in FY11; however, they were outpaced by an increase in operating expenses. Where appropriate, management spent down restricted net asset balances to pay operating costs that otherwise would have been paid from educational and general funds. Although total expendable net assets decreased, the decision to utilize restricted net assets allowed UMFK to reduce the deficit in its unrestricted net assets.
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:

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

- 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 ($ in thousands)</td>
<td>($623)</td>
<td>$268</td>
<td>($462)</td>
<td>($892)</td>
<td>$972</td>
<td>$69</td>
</tr>
<tr>
<td>Total net assets (beginning of year)</td>
<td>$11,849</td>
<td>$11,226</td>
<td>$11,494</td>
<td>$11,032</td>
<td>$10,141</td>
<td>$11,112</td>
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UMFK’s real rate of return was negative for five of the past six fiscal years.

The positive nominal rate of return in FY07 is attributable to high market returns on the endowment and a large capital transfer from the System Office.

In FY08 and FY09, the net operating revenues ratio fell significantly as previously discussed, endowment returns were negative, and there were no significant capital transfers from the System Office.

The positive return for FY10 is primarily attributable to $1.2 million of State of Maine capital appropriation revenue from the 2007 bond referendum. Although the return from operations was negative, reduced operating expenses also contributed to the level of the FY10 return on net assets.

UMFK’s return on net assets fell in FY11 as UMFK incurred a loss from operations and as available State of Maine capital appropriation revenue decreased significantly from the FY10 amount.
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. UMFK basically has had no viability over the past six years with ratios close to zero.

- 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.

- Components:

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<td>$329</td>
<td>$382</td>
<td>$329</td>
</tr>
<tr>
<td>Long-term debt</td>
<td>$7,621</td>
<td>$7,374</td>
<td>$7,297</td>
<td>$7,354</td>
<td>$7,230</td>
<td>$6,991</td>
</tr>
</tbody>
</table>

- As previously discussed, expendable net assets increased 53% in FY07 because of positive operating results once depreciation is added back, high endowment returns, and a large capital transfer from the System Office.

- The viability ratio decreased in FY08 and FY09 as negative operating results and negative endowment returns caused expendable net assets to decrease at a faster rate than debt was reduced.

- Another contributing factor to the FY09 decline was the acquisition of an internal loan to acquire the Cyr House property.

- Expendable net assets increased in FY10 because of positive operating results once depreciation is added back, and high endowment returns.

- The decrease in debt in FY11 due to scheduled payments was enough to offset the decrease in expendable net assets and keep the viability ratio flat at .05.
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.

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.

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 UMFK’s FY09, FY10, and FY11 scores to assist in evaluating UMFK’s performance. UMFK’s CFI has been up and down over the past six years with the lowest point being in FY09 and the highest point being in FY10.
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 UMFK’s Graphic Financial Profiles for FY06 thru FY11. From these profiles we can see that UMFK has been and remains financially weak. Returns on operations have been consistently negative; thus, UMFK remains undercapitalized and has little flexibility to make organizational changes, address deferred maintenance, etc.

In FY06, UMFK’s negative operating return defaulted to the lowest score on the scale.

![Graphic Financial Profile - FY06 UMFK](image)

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

CFI Score of -0.7

- Actual
- Low Benchmark: 3
- High Benchmark: 10
UMFK remained financially weak in FY07 despite a positive return on net assets that helped provide a small increase in reserves.
In FY08, UMFK’s negative return from operations again defaulted to the lowest score on the scale.
In FY09, UMFK’s financial profile is difficult to see graphically, as the return on net assets and the return on operations default to the center of the graph and the capitalization strength factors are at a four year low.

**Graphic Financial Profile - FY09**

**UMFK**

Strength Factors Plotted on a Scale of -4 to 10

CFI Score of -1.1

- Actual
- Low Benchmark: 3
- High Benchmark: 10
As previously noted in this report, State of Maine capital appropriation revenues enabled UMFK to experience a positive return on net assets in FY10. These capital appropriation revenues had no impact, however, on the strength factor for the primary reserve ratio as capital appropriations are used to fund capital construction and thereby increase net assets invested in plant.

Graphic Financial Profile - FY10
UMFK
Strength Factors Plotted on a Scale of -4 to 10
CFI Score of .7

Primary Reserve Ratio

Return on Net Assets Ratio

Viability Ratio

Net Operating Revenues Ratio

Actual Low Benchmark: 3 High Benchmark: 10
In FY11, UMFK’s financial profile remains in the left portion of the diamond; however, the plotted area has shrunk. In four of the last six years, UMFK’s negative operating return has defaulted to the lowest score of -4 on the scale.