Introduction to the CFI

September 20, 2013
Overview of the Composite Financial Index (“CFI”)

• The CFI was created in the mid-1990s, initially for private universities, to provide a single, holistic financial metric to monitor financial health

• In 2005, the CFI methodology was slightly modified for public universities

• The CFI score is based on a blended, weighted value of four core ratios
  ➢ The weighting and scoring system is based on analysis of a wide range of institutions
  ➢ The methodology was retested after the 2008 financial crisis and recession and no adjustments were required

• The CFI is most useful for evaluating institution specific trends (e.g. five-year historical performance plus five-year forecast) in meeting financial and strategic goals
• The CFI, as a single metric, provides a useful summary assessment of financial health in that weaknesses in certain areas can be offset by strength in others
  
  ➢ Deeper understanding of financial health and the development of tactics for improvement require observation of at least the four component ratios as well
  
  ➢ Although it can also be used for peer comparisons to monitor relative performance, such peer comparisons are generally less meaningful without detailed information regarding adjustments and component units that are consistent for all institutions

• **Important Caveat:** CFI only measures the financial component of institutional health and must be viewed in the overall context of an institution’s activities

  (e.g. *two institutions with the same CFI score may not have equal overall health if one is investing in its mission while the other is not*)
# Component Ratios of the CFI

<table>
<thead>
<tr>
<th>Component Ratios</th>
<th>Calculation</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Primary Reserve Ratio** (income statement leverage) | Expendable Resources to Operations (inclusive of component units) | • Are resources sufficient and flexible enough to support the mission?  
• Measures the ability to fund operations with expendable financial reserves |
| **Viability Ratio** (balance sheet leverage) | Expendable Resources to Debt (inclusive of component units) | • Are debt resources managed strategically to advance the mission?  
• Measures the ability to pay off long-term debt with expendable financial reserves |
| **Return on Net Assets Ratio** (financial resource growth) | Change in Net Assets to Total Assets (inclusive of component units) | • Does asset performance and management support the strategic direction?  
• Measures the ability of net asset growth to support strategic initiatives |
| **Net Operating Revenues Ratio** (operating performance) | Surplus/Deficit to Operating Revenue (inclusive of component units) | • Does operating results indicate that the institution is living within available resources?  
• Measures the impact of operations on the three other core ratios |
1. Calculate the value of the four ratios

2. Convert the ratios to strength factors along a common scale with strength factors ranging from -4 (weakest financial health) to 10 (strongest financial health)
   - Scale is calibrated so that a strength factor of 3 represents the threshold for financial health for each respective ratio.
   - As stated in the overview, the ratios associated with each score were determined when the CFI was created.
   - Ratio levels for strength factors above and below 3 are distributed in equal increments
     
     \( \text{e.g. ratio value for the strength factor of 10} = 10 \times \text{the ratio value for the strength factor of 1} \)

3. Multiply the strength factor for each ratio by its respective weighting factors, as determined when the CFI was created

4. Sum the four numbers to create the single CFI Score
Conversion of Core Ratios to Strength Factors

- Each core ratio is converted to a strength factor based on the scale below.
- Threshold values (score = 3) are based on assumptions for minimum financial health that were determined by the creators of the CFI.

  - Example: the CFI assumes that an institution should have expendable resources to cover at least 145 days of operations – a 40% Primary Reserve Ratio – to be considered financially healthy.
  - Example: the CFI assumes that the institution should have expendable resources equal to 125% of long-term debt – a 125% Viability Ratio – to be considered financially healthy.

### Scoring Scale

<table>
<thead>
<tr>
<th></th>
<th>1 Weak</th>
<th>3 Threshold</th>
<th>10 Strongest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Reserve Ratio</td>
<td>13.3%</td>
<td>40%</td>
<td>133%</td>
</tr>
<tr>
<td>Viability Ratio</td>
<td>41.7%</td>
<td>125%</td>
<td>417%</td>
</tr>
<tr>
<td>Return on Net Assets Ratio</td>
<td>2%</td>
<td>6%</td>
<td>20%</td>
</tr>
<tr>
<td>Net Operating Revenues Ratio</td>
<td>1.3%</td>
<td>4%</td>
<td>13%</td>
</tr>
</tbody>
</table>
Strength Factors (continued)

• To determine the strength factor for each core ratio divide the institution’s actual ratio by the value associated with a score of 1

• Example calculation:
  - Viability Ratio = 50%
  - Ratio Value Associated with a Score of 1 = 41.7%
  - Strength Factor = 50/41.7 or 1.20

• Regardless of the calculated strength factor, the minimum score is -4 and the maximum is 10
  - Setting a min/max is intended to prevent any one score from unduly masking a weakness or strength in another score
Weighting the Strength Factors

- Each strength factor is converted to a weighted factor based on the percentages below
  - Weightings are skewed toward retained wealth rather than current operations
  - Assumes retained wealth and the strategic use of debt are stronger indicators of long-term institutional financial health than measures based on a single year’s performance
  - As a result, short-term investments or controlled deficits for strategic purposes, for example, will not overly impact the CFI score

<table>
<thead>
<tr>
<th>Ratio / Strength Factor</th>
<th>Institution with Long-Term Debt</th>
<th>Institution with No or Minimal Long-Term Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Reserve Ratio</td>
<td>35%</td>
<td>55%</td>
</tr>
<tr>
<td>Viability Ratio</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>Return on Net Assets Ratio</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>Net Operating Revenues Ratio</td>
<td>10%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Weightings are lower because these ratios reflect shorter-term performance. Weightings are higher because these ratios reflect a long-term trend.
Weightings (continued)

• To determine the weighted score for each ratio multiply the strength factor by the applicable weighting %

• Example calculation:
  ➢ Strength Factor for Viability Ratio = 1.20
  ➢ Applicable Weighting % = 35%
  ➢ Weighted Factor = 0.42

• Total CFI Score = Sum of All Four Weighted Factors
Sample CFI Calculation

<table>
<thead>
<tr>
<th>Ratio</th>
<th>Ratio Value</th>
<th>Strength Factor</th>
<th>Weighting Factor</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Reserve</td>
<td>67.5%</td>
<td>5.1 (67.5/13.3)</td>
<td>× 35%</td>
<td>1.8</td>
</tr>
<tr>
<td>Viability</td>
<td>76.6%</td>
<td>1.8 (76.6/41.7)</td>
<td>× 35%</td>
<td>0.6</td>
</tr>
<tr>
<td>Return on Net Assets</td>
<td>2.9%</td>
<td>1.5 (2.9/2.0)</td>
<td>× 20%</td>
<td>0.3</td>
</tr>
<tr>
<td>Net Operating Revenues</td>
<td>1.2%</td>
<td>0.9 (1.2/1.3)</td>
<td>× 10%</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>CFI</strong></td>
<td><strong>2.8</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What CFI Means?

-1  0  1  2  3  4  5  6  7  8  9  10

**Weaker Financial Position**

- Assess institutional viability to survive
- Reengineer the institution
- Direct institutional resources to allow transformation

**Relatively Stronger Financial Position**

- Focus resources to compete in future state

**Strongest Financial Position**

- Allow experimentation with new initiatives
- Deploy resources to achieve a robust mission
Use of the CFI as a Management Tool

• While the reporting of historical CFI scores summarizes the impact of past actions and external conditions, the power of the CFI from a management perspective lies in its ability to summarize the impact of future multi-year strategic actions on the balance sheet, income statement and cash flow statement (also can be considered an “affordability index” of the strategic plan)

• **Multi-year forecasting is essential** since the CFI is a financial health metric that is weighted toward long-term trends rather than year-to-year changes

• To maximize the usefulness of the CFI, each campus should incorporate the metric in all strategic and financial planning by:
  
  ➢ Developing a detailed financial model that ties the underlying drivers of performance to the four core ratios that make up the CFI
  
  ➢ Monitoring and reporting the CFI at least annually and prior to any major change to a key driver of performance (e.g. incurrence of debt, major change in enrollment strategy, etc.)
A strategic forecasting model that can generate *pro forma* CFI scores enables management to test the sensitivity of changes in underlying drivers of performance on financial health. These drivers may include:

- Changes to the capital plan for major projects, including the issuance of debt
- Approach to deferred maintenance and plant renewal
- Alternative enrollment and program scenarios
- Alternative tuition pricing and institutional aid scenarios
- Alternative operating initiatives, including new sources of revenue
- Proposed cost reduction scenarios
- Impact of potential fundraising initiatives
- Assessment of joint ventures, affiliations, asset sales and other third party opportunities
- Other major campus restructuring opportunities
Conclusion - Achieving Best Practices in Managing Financial Health

• Establish **clear metrics** to track and monitor over time that provide a balanced perspective on financial health, such as the CFI score

• **Implement policies and procedures**, such as a Debt Policy (if applicable), that incorporates the CFI score and any other key metrics

• **Understand the implications of prospective changes** in operations, capital structure and strategic direction by modeling the underlying drivers of performance

• **Empower the leadership and staff** at the individual campuses to have the tools and authority to make decisions that drive improved financial health

• **Focus on long-term** financial health not just year-to-year changes