NACUBO Advisory 19-05

Composite Financial Index Ratios Post FASB ASU 2016-14

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For decades, the gold standard for assessing the financial health of colleges and universities has been the Composite Financial Index (CFI). The CFI is used by many throughout higher education, but most prominently by institutions and their trustees, rating agencies, analysts, lenders, and accreditors. Additionally, beginning in 2021, the Integrated Postsecondary Education Data System's (IPEDS) Finance Survey will require that institutions calculate and report the numerators and denominators of the four key ratios that comprise the CFI: primary reserve ratio, viability ratio, net operating revenue ratio, and return on net assets ratio.

As of the fiscal 2019 reporting year, all private not-for-profit (NFP) institutions that follow standards of the Financial Accounting Standards Board (FASB) have implemented its Accounting Standards Update (ASU) 2016-14, *Not-for-Profit Entities (Topic 958): Presentation of Financial Statements of Not-for-Profit Entities.* The ASU introduced presentation changes and additional disclosures, and it reduced the number of net asset categories from three to two:

1. *Net assets without donor restrictions* – a relabeling of the "unrestricted" category.
2. *Net assets with donor restrictions* – a combination of temporarily and permanently restricted net assets.

These changes result in a loss of information that is critical to calculating the primary reserve and viability ratios. Consequently, NACUBO Advisory 18-02 encourages institutions to display or disclose the perpetual portion of *net assets with donor restrictions* (analogous to permanently restricted net assets) and to add "net investment in plant" as a component of *net assets without donor restrictions*. These important net asset details are needed to calculate the core financial ratios that comprise the CFI.

The CFI was developed close to three decades ago by the authors of *Strategic Financial Analysis for Higher Education* (KPMG, Prager, Sealy & Co, and Attain). The ratios and considerations for calculating the ratios have evolved over the years since their fund accounting and reporting genesis. In fact, Strategic Financial Analysis has had seven editions and a 2016 update to the 2010 seventh edition.

Because FASB ASU 2016-14 is a financial statement presentation update that introduces new terminology and flexibility in financial reporting for NFPs, NACUBO has asked the authors to provide a brief update to calculate the four key ratios. This will serve as the most authoritative translation from prior financial reporting terminology to new ASU 2016-14 terminology until a new edition of *Strategic Financial Analysis* is published.

This advisory provides critical information for all NFP institutions that use and rely on the CFI for assessment and communication regarding key elements of financial health. The second through fourth pages contain vital information from the authors of *Strategic Financial Analysis for Higher Education* and Figures 1 – 3 on pages 5 – 7 contain a cross-walk, example, and formulas.

Monograph on Computing Ratios and the Composite Financial Index Using the Reporting Model Under ASU 2016-14, Presentation of Financial Statements of Not-for-Profit Entities

By
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Introduction

Accounting Standards Update (ASU) 2016-14 requires several changes to the way not-for-profit (NFP) organizations, including private colleges and universities, present financial information in their financial statements. The most significant change affecting the computation of the ratios that comprise the Composite Financial Index© (CFI) relates to reducing the equity section from three classifications to two by combining temporarily restricted and permanently restricted net assets into net assets with donor restrictions. The purpose of this monograph is to explain how this change and others can be accommodated to accurately compute the ratios and the CFI.

Discussion

Financial Statement Display

The conversation must begin with an acknowledgment that the changes are solely in the format and presentation of reporting financial information. The ASU does not change accounting principles. The economics and the financial oversight responsibilities of the NFP remain the same.

The change in reporting does, however, require a crosswalk from the prior model to the new reporting model to ensure that key elements required for ratio computations are properly identified and included. The most significant change in this regard relates to the computation of expendable net assets, which are needed to calculate both the primary reserve ratio and viability ratio. These two ratios comprise 70 percent of the CFI score.

High-Level Review of Early Adopters

Figures 1, 2, and 3 were developed assuming financial statements have been prepared in accordance with Generally Accepted Accounting Principles. Our review of the audited financial statements of 35 private colleges and universities that were early adopters of the ASU in 2017 or 2018 assisted in the development of the crosswalk in Figure 1.

While there was substantial compliance with the ASU, we found several areas lacking in the financial statement disclosures. In several instances, the nature and purpose of donor restrictions and the purpose restrictions associated with the release of donor restricted net assets were missing. These continue to be required disclosures and are in line with the ASU's emphasis on the importance of explaining a reporting entity's stewardship responsibilities over restricted resources.

With the adoption of the ASU's new reporting model, some institutions have omitted the amount of endowment funds to be held in perpetuity. However, under the broad rubric of disclosure of material matters, we believe this disclosure provides critical information about the availability of funds, especially related to how the governing board has determined its responsibilities under the Uniform Prudent Management of Institutional Funds Act. As NACUBO Advisory 18-02 notes, it is also acceptable to denote the perpetual portion of restricted net assets on the face of the Statement of Net Position.

Systems and Processes

From our discussions with many private colleges and universities, they believe that this ASU is merely a change in external financial reporting requirements and did not and will not require changes to their accounting systems or accounting processes. In essence, many institutions merely combined their previously reported temporarily and permanently restricted net assets into one caption for their audited financial statements. Accordingly, the underlying information on the nature and purpose of their donor restricted net assets is still readily available. We believe that disclosing the nature and purpose of these restrictions provides additional information on resource availability and flexibility, or lack thereof.

Ensuring Accuracy of the Computations of Financial Health

The ratios and CFI referenced above have been developed over the past 30 years and have widespread use across higher education. The most current publication related to this model is *Strategic Financial Analysis for Higher Education, 7th Edition (2010).* Due to observed inaccuracies in CFI ratio calculations, we published an *Update to the 7th Edition (2016),* which provides templates demonstrating the accurate calculations using this model. The Update to the 7th Edition forms the basis for our subsequent analysis, crosswalk (Figure 1) and example (Figure 2). (Both of these publications are available through NACUBO)

Net investment in plant

Over the years, the errors we have found in ratio calculations have mostly related to the computation of net investment in plant and include:

- Omitting bond funds on deposit with trustees from plant assets.
- Excluding asset retirement obligations from the computation.
- Including debt unrelated to property, plant, and equipment (PP&E) in the computation.

Net investment in plant is comprised of net PP&E (including bond funds on deposit with trustees) less plant (PP&E) related debt (including plant related liabilities, such as those for leases or asset retirement obligations). A less-than-accurate portrayal of net investment in plant affects the computed amount of expendable net assets.

Debt

We further see the use of incorrect amounts related to debt for calculating the viability ratio. The amount of debt used to calculate the viability ratio should be its par value and should only include debt for project purposes.

Said another way, while debt associated with net investment in plant includes all plant related liabilities, such as asset retirement obligations, the viability ratio only includes plant related debt that must be repaid, consequently, asset related obligations are excluded. Figure 2 (page 6) provides an example of the calculation and excludes asset retirement obligations. Figure 3 (page 7) describes the complete formula and notes that in addition to excluding asset retirement obligations, premiums, discounts, and bond issuance costs are excluded because such amounts do not impact the repayment of plant related debt.

Conclusion

The calculation of the CFI and the ratios, using ASU 2016-14 reporting guidance, is relatively straight forward, as long as important disclosures are included in the notes to the financial statements. A conceptual crosswalk is provided in Figure 1 (page 5) with an illustrative example in Figure 2 (page 6) from the 2016 edition of *Strategic Financial Analysis for Higher Education*, using the updated terminology. Finally, ratio formulas with updated terminology can be found in Figure 3 (page 7).

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FIGURE 1

Crosswalk: Net asset categories to Expendable, Non-Expendable and Net Investment in Plant

Net Assets without Donor Restrictions	**Expendable**	**Non-Expendable**	**Plant**
Net Investment in Plant[1]			X
Designated by the Board	X		
Unexpended Endowment Appreciation	X		
Undesignated	X		
Net Assets with Donor Restrictions	**Expendable**	**Non-Expendable**	**Plant**
that can be released (used)			
Unexpended Endowment Appreciation			
For Plant Purposes			X
For Operating Purposes	X		
Operating funds			
Plant			X
Research	X		
Scholarships	X		
Instruction	X		
Departmentally restricted (Academic Chairs)	X		
General Activities	X		
Donor Restricted Net Assets that are perpetual in nature (Permanently Restricted Net Assets)			
True Endowment Funds (Original Contributed Value)		X	
Annuity Funds for Endowment		X	
Loan Funds		X	

[1] The net investment in plant amount will not come directly from the financial statements but can be computed from the information in the statements. We refer the reader to Figure 2 and the *Update to the 7th Edition* for templates that assist in calculating this amount.

FIGURE 2

Example 1 – Base Case Scenario – Source: 2016 Update to *Strategic Financial Analysis for Higher Education* with updated terminology (blue font)

A private institution has the following assets, liabilities and net assets:

- Property, plant and equipment net of accumulated depreciation - $120,000,000
- Book value of outstanding debt - $110,000,000
  - Plant-related debt - $100,000,000
  - Outstanding credit line for operations - $10,000,000
- Asset retirement obligations - $5,000,000
- Capital lease obligation - $3,000,000
- Net assets without donor restrictions - $20,000,000
- Net assets with donor restrictions - $130,000,000
  - **Net assets with donor restrictions – to be held in perpetuity** - $60,000,000
  - **Net assets with donor restrictions – restricted as to time or purpose** – $70,000,000, including $6,000,000 for plant-related purposes

Calculations:

EXPENDABLE NET ASSETS	
Net assets without donor restrictions	$ 20,000,000
Net assets with donor restrictions – restricted as to time or purpose	70,000,000
Less: Net investment in plant (from below)	(12,000,000)
Less: Net assets with donor restrictions for plant-related purposes	(6,000,000)
Total Expendable Net Assets	$ 72,000,000
CALCULATION OF NET INVESTMENT IN PLANT	
Property, plant and equipment, net of accumulated depreciation	$ 120,000,000
Less: Debt and liabilities related to plant assets (from below)	(108,000,000)
Total Net Investment in Plant	$ 12,000,000
CALCULATION OF DEBT AND LIABILITIES RELATED TO PLANT ASSETS	
Total debt	$ 110,000,000
Obligations under capital leases	3,000,000
Asset retirement obligations	5,000,000
Less: Debt unrelated to plant assets (credit lines, debt for operations, etc.)	(10,000,000)
Total debt and liabilities related to plant assets	$ 108,000,000
CALCULATION OF DEBT FOR VIABILITY RATIO *	
Total debt and liabilities related to plant assets	$ 108,000,000
Less: Asset retirement obligations	5,000,000
Total debt outstanding	$ 103,000,000
***Viability ratio looks at all debt that must be repaid**	

FIGURE 3

Formulas: Four Key Ratios Comprising the Composite Financial Index

Ratio	**Formula post FASB ASU 2016-14** **(new terms are in blue)**
Primary Reserve Ratio	
Numerator: Expendable net assets **	+ **Net assets without donor restrictions** **+ Net assets with donor restrictions: Restricted for time or purpose** **-** purpose restricted gifts for plant (includes pledges and endowment appreciation restricted for plant) - Net property, plant and equipment + Total plant related debt
Denominator: Total expenses	+ **Total operating expenses** **+ Non-service net periodic related expenses for defined benefit and other post-retirement plans (if applicable: these are non-operating expenses as a result of ASU 2017-07)**
Viability Ratio	
Numerator: Expendable net assets	Same numerator calculated for the primary reserve ratio (above)
Denominator: Total plant related debt at par (includes the current and non-current portion of plant related debt that must be repaid; i.e. premiums, discounts, issuance costs, and asset retirement obligations are not included)	+ Total plant related debt at par
Return on Net Assets Ratio	
Numerator: Change in net assets	+ Change in net assets
Denominator: Total net assets (beginning of year)	+ Beginning balance: Total net assets
Net Operating Revenues Ratio	
Numerator: Excess (deficiency) of operating income over operating expenses	+ **Total operating revenue** **(without donor restrictions)** - **Total operating expenses**
Denominator: Total operating revenue	+ **Total operating revenue** **(without donor restrictions)**

** Note: Alternatively, institutions can choose to calculate expendable net assets as follows: Add net assets without donor restrictions and net assets with donor restrictions and subtract the perpetual amount of net assets with donor restrictions. The remainder of the formula remains the same: minus purpose restricted gifts for plant minus net PP&E plus total plant related debt.