Financial Statement Analysis for Non-Profits

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This lecture covers financial statement analysis for non-profit organizations. It covers some of the the key ratios we typically use to evaluate non-profits' liquidity, solvency, and profitability. It also outlines the drawbacks and caveats around financial statement analysis, and some of the management and policy analysis strategies implied by financial statement analysis.

Introduction

Robert Bobb is a legendary public servant. Among his many contributions, he's most famous as a "restructuring specialist" for struggling public sector organizations. He served for many years as the chief administrative officer in the City of Oakland, CA under then-mayor Jerry Brown. While there he helped set the stage for much of Oakland's more recent progress. More recently he's worked as a consultant in other organizations with severe financial problems, including the Detroit Public Schools, the City of Harrisburg, PA, and the City of East Point, GA, among many others. He's known for his ability to enter a challenging situation, quickly diagnose problems, and take decisive action to start to address those problems.

For more on Mr. Bobb's time in Oakland, see Rob Gurwitt's classic piece in *Governing* "Mayor Brown and Mr. Bobb" (2000) - available at: `http://www.governing.com/topics/politics/Mayor-Brown--Mr-Bobb.html`

Mr. Bobb's clients tend to face the same issues: distrust between citizens and elected officials, corruption, mismanagement, toxic organizational cultures, and so on. These are massive problems that take years to solve, if they can be solved at all. So as a "turnaround artist," what's his first step when he meets with a new client? He asks for the basic financial statements. From those statements, he can see how to position the organization to address its most pressing challenges. If its financial position is weak, Bobb says, it will never have the resources or stability needed to bring about larger, structural changes. If the organization can't make payroll (as is sadly often the case in distressed organizations) it will never have the trust of its employees. If it can't give its employees the basic tools to do their jobs, then other constituents won't trust it either. That's why, in Mr. Bobb's view, the first step in every major turnaround, however massive, is to understand the organization's financial position.

Mr. Bobb's experience is an extreme example of a crucial, broader point: for public organizations, financial health is everything. As a public sector manager or analyst, you must be able to quickly and accurately assess an organization's financial position from its publicly-available financial information. This technique is known as *financial statement analysis.*

Financial Statement Analysis for Non-Profits

Recall the three basic components of a public organization's financial position:

1. Liquidity - Does the organization have liquid resources - especially cash - to cover its near-term liabilities? Can it convert its less liquid assets to cash to cover those liabilities?

2. Profitability - Do the organization's revenues cover its operating expenses?

3. Solvency - Can the organization generate enough resources to cover its near-term and long-term liabilities?

As mentioned in the previous lecture, we can learn a lot about an organization's liquidity from its balance sheet. The balance sheet spells out the structure of its assets and liabilities. Are most of its assets liquid, like cash and marketable securities, or does it have assets that are more difficult to covert to cash, like receivables and inventory?

The balance sheet also tells us a lot about solvency, namely if the organization has a lot of long-term liabilities like debt, pensions, etc. Long-term liabilities mean the organization will have to divert some of its resources to meet those liabilities, and that can mean less resources to invest in the mission. To be clear, there are times when an organization can and should take on long-term liabilities in pursuit of its mission. Sometimes it makes good sense to borrow money to build a new building that can can serve more clients. Pensions and retiree health care benefits can be a wonderful employee retention tool, even though they result in a new long-term liability. And so on. These are all solvency concerns.

Some say there are two types of non-profits: "Those that have debt, and those that don't." This is a powerful sentiment. It suggests that once a non-profit has taken on debt, none of its other stakeholders matter. If that organization encounters significant financial stress and cannot repay its creditor(s), then those creditors have a legal claim to its assets. In that circumstance, that organization's board, clients, funders, and others will have little recourse, and the mission will suffer.

To learn about profitability we typically look to the income statement. Recall that if an organization's revenues exceed its expenses, then its net assets will grow. The income statement makes clear which revenues are growing and which expenses are growing, and how those trends align to produce changes in net assets. On the income statement we can also see depreciation, bad debt expenses, and other expenses that reduce net assets but don't necessarily impact cash. These are all profitability concerns.

The purpose of accounting is to help organizations make better financial decisions. *Financial statement analysis* is the process of analyzing an organization's financial statements to produce new information to inform those better decisions. Each day public organizations make dozens of crucial decisions: Should we expand a program? Should we lease or buy a new building? Should we move

cash into longer-term investments? Should we take a new grant from a local government?

All of these decisions must be informed by financial statement analysis. An organization should not expand if its existing programs are not profitable. It should buy a new building only if it knows how its current rent and other expenses contribute or detract from its profitability. It should move cash into less liquid investments only if it knows how much liquidity it needs to cover its basic operating expenses? And so on. To answer these questions with precision, we need good metrics that illustrate an organization's liquidity, profitability, and solvency.

In fact, in the for-profit world, financial statement analysis is sometimes called "The raw data for investing."

For those metrics we turn to *financial ratios* (sometimes called *financial statement ratios*). Financial ratios are calculations derived from the financial statements. Each ratio illustrates one dimension of an organization's overall financial health.

Non-profit financial analysts employ dozens of different financial ratios. The table below lists eleven of the most common. Each is designed to speak to liquidity, profitability, or solvency. The two columns on the right are benchmark levels for each ratio. "Rule of Thumb" is the level that suggests the organization is in a strong financial position. The final column is the level that would suggest a concern for that ratio.

These rules of thumb are derived from the rich academic literature and industry analysis of financially healthy non-profits. To be clear, there is no legal or GAAP-based definition of "financially healthy," or "strong financial position." Each foundation, donor, etc. defines these metrics differently. They'll also vary across different types of non-profits and different size organizations. The rules listed in this table are some of the common figures cited by across many different types of analysts across the non-profit sector.

This table also includes two measures - shaded in blue at the bottom - of "effectiveness." In addition to financial health, financial statements can illuminate how efficiently a non-profit raises money and how much of its resources it devotes to its core mission. These effectiveness measures are related to, but separate from financial position.

The liquidity ratios speak to the composition of an organization's assets, and how quickly those assets can be deployed to cover the organization's day-to-day expenses. The numerator in these ratios is a measure of liquid assets. The denominator in these ratios is either:

- Current liabilities. This indicates spending needs that will likely come due throughout the fiscal year. OR
- A measure of average daily spending on operations. To get this number we take total expenses and remove expenses like depreciation and bad debt expenses that do not require an outflow of liquid resources. This adjusted spending number is divided by 365 to produce a rough measure of average daily spending.

The profitability ratios are derived from changes in net assets. Recall that net assets increase when revenues exceed expenditures. This is an intuitive measure of profitability. The *operating margin* speaks to profitability in the organization's basic (i.e. unrestricted) operations. *Net Asset Growth* is a more inclusive measure of profitability across

the entire organization. Net asset growth will include changes in *temporarily restricted net assets* that are not included in the operating margin.

The solvency measures speak to where the organization gets its resources. If it depends too much on unpredictable or volatile revenues from donors, that's a potential solvency concern. The same is true of revenues from governments. Government revenues can disappear quickly if the government changes its own fiscal policies or priorities. Debt, although sometimes necessary, indicates a drain on future resources. All these factors can inhibit an organization's ability to continue to serve its mission.

The Internal Revenue Service (IRS) monitors the *contributions ratio* as part of its *public support test* for charitable organizations. According to this test, a non-profit must receive at least 10% of its support from contributions from the general public and/or from gross receipts from activities related to its tax-exempt purposes. Less than that suggests the public is not invested in that organization's mission. By contrast, non-profit analysts also emphasize the *tipping point* where a non-profit depends too much on individual donors. Different analysts define the tipping point threshold differently, but most agree that 80% of total revenues from individual contributions is dangerously high. At that point a non-profit's ability to serve its mission is far too dependent on unpredictable individual donors, and not dependent enough on corporate, foundation, and government support.

BEFORE GOING FURTHER let's consider a few key points about financial statement ratios:

- *Ratios are only part of the story*. Ratios are useful because they help us quickly and efficiently focus our attention on the most critical parts of an organization's financial position. In that sense they're are a bit like watching a thirty second highlight recap of a UW Husky Football game (or whatever other sporting event, if any, you find interesting...). If we want to know if the Huskies won, and who made some big plays, we'll watch the highlight reel. If we want to know the full story - the coaches' overall game plan, which players played well throughout the game, when a key mistake changed the course of the game, etc. - we need to watch a lot more than just the highlights. Ratios are the same way. They're fast, interesting, and important. If we want a quick overview and not much more, they're useful. If we don't have the time to dig deeper into an organization's operations, or if it's not appropriate for us to dig deeper, then they're the best tool we have. But they're never the whole story. Always keep this limitation in mind.

- *Always interpret ratios in context*. Ratios are useful because they help identify trends in an organization's financial behavior. Is its profitability improving? How has its overall liquidity changed over time? Are its revenues growing? And so on. But on their own, ratios don't tell us anything about trends. To reveal a trend, we must put a ratio in context. We need to compare it to that same ratio for that same organization over time. It's also essential to put ratios in an industry context. Sometimes a broader financial trend will affect many organizations in similar ways. A decline in corporate giving will mean lower donor revenues for many non-profits. Increases in overall health care costs will impact all organizations' income statements. Reductions in certain federal and

Financial analysts in the for-profit sector focus on financial trends within the industry sectors defined by the *North American Industry Classification System* or NAICS. These codes identify businesses by key aspects of their operations. For instance, according to recent estimates there are just over 72,000 businesses in the US within NAICS code 152101 - "Single-family home remodeling, additions, and repairs." The National Center for Charitable Statistics has developed an analog classification scheme for non-profits known as the National Taxonomy of Exempt Entities (NTEE). NTEE is not as precise or specific as the NAICS, but it is a useful way to think about sub-sectors within the non-profit sector.

Typical Non-Profit Financial Statement Ratios

Ratio	Indicates	Answers Which Question(s)?	Formula	Rule of Thumb	Needs Attention If
Current Ratio	Liquidity	Will current resources cover current liabilities?	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	> 2	< 1
Days of Liquid Net Assets	Liquidity	Are there enough liquid resources to cover typical operating expenses?	$\frac{\text{Unrestricted Net Assets}}{\text{(Total Expenses - Bad Debt Expense - Depreciation Expense)/365}}$	> 180 days	< 90 days
Quick Ratio	Liquidity	Will the most liquid assets cover current liabilities?	$\frac{\text{(Cash + Marketable Securities + Receivables)}}{\text{Current Liabilities}}$	> 1	<.25
Days of Cash on Hand	Liquidity	Is there enough cash to cover typical operating expenses?	$\frac{\text{(Cash + Marketable Securities)}}{\text{(Total Expenses - Bad Debt Expense - Depreciation Expense)/365}}$	> 90 days	< 30 days
Operating Margin	Profitability	Do typical operating revenues cover typical operating expenses?	$\frac{\text{(Current Year Unrestricted Net Assets + Previous Year Unrestricted Net Assets)}}{\text{Unrestricted Revenue and Other Support}}$	> +5%	decreasing
Net Asset Growth	Profitability	Is profitability improving?	$\frac{\text{(Current Year Total Net Assets - Previous Year Total Net Assets)}}{\text{Previous Year Total Net Assets}}$	> +5%	decreasing
Contributions Ratio	Solvency	How much does this organization depend on donors?	$\frac{\text{Contributions}}{\text{Total Revenue}}$	> 10%	> 75%
Government Revenue Ratio	Solvency	How much does this organization depend on government money?	$\frac{\text{Government Revenues}}{\text{Total Revenue}}$	< 25%	> 75%
Debt to Assets	Solvency	What percentage of assets were financed with debt?	$\frac{\text{Total Debt}}{\text{Total Assets}}$	< 1	> 2
Fundraising Efficiency	Effectiveness	What does it cost this organization to produce contributions?	$\frac{\text{Total Contributions}}{\text{Fundraising Expenses}}$	> 2	< 1
Program Expense Ratio	Effectiveness	What percentage of typical expenses are in “core" programs?	$\frac{\text{Program Expenses}}{\text{Total Expenses}}$	> 75%	< 65%

state grants will affect particular types of non-profits in similar ways. To understand these trends we need to compare an organizations' financial ratios to the ratios of organizations in similar industries. It's useful, for instance, to compare human services-focused non-profits with less than $2 million in assets to other small, human-service focused non profits in the same region with less than $2 million in assets. We should compare fee-for-service revenue-based non-profits to other fee-for-service revenue-based non-profits to other fee-for-service revenue-based non-profits. Large non-profits with a national or international mission should be compared to each other. And so on. There are clear rules about defining comparable organizations. The only rule is that without context, an analysis doesn't tell us much.

- *Financial statement analysis raises questions*. A good financial statement analysis will almost always reveal some contradictory trends. Why does this organization's profitability look strong but the current ratio is well below the rule of thumb? Why is this organization less liquid than its peers? Why does this organization not have debt, but has much more liquidity, than other similar organizations? A good financial statement analysis raises many of these types granular questions about the organization's financial assumptions, program operations, and overall effectiveness. Sometimes these follow-up questions can be answered from other publicly-available information, such as the notes to the financial statements or the annual report. Sometimes they can't. If your analysis concludes with many unanswered questions, that's doesn't mean your analysis is bad. It simply means there are limits to what we can learn from financial statements alone.

- *Ratios are retrospective*. Most non-profits release their financial statements three to six months after the close of their fiscal year. Analysis based on those statements is therefore using information on financial activity from at least 12 to 18 months ago. A lot can happen in a non-profit in 18 months. Always keep this in mind when doing financial statement analysis.

Financial Analysis and Financial Strategy

Financial statement analysis can tell us a lot about a non-profit's financial position. The question, then, is what to do about it? As mentioned, sometimes financial statement analysis implies some clear follow-up questions about an organization's financial operations and overall performance. Ideally, it also suggests some steps that management can take to improve that financial position and performance.

The table below identifies some of those potential steps. It is organized around liquidity, profitability, and solvency. Green identifies that part of the organization's financial position is strong. Red suggests a potential weakness.

For example, the top right box lists strategies appropriate for a non-profit with good liquidity and good profitability, but concerns about solvency. An organization with these characteristics has enough resources on hand and is currently able to generate enough resources to cover its expenses. What's less clear is whether it can continue that trend into the future. Perhaps it is too dependent on donor revenues or government grants. Maybe it delivers a service that no one will want in the future. Maybe it has had to borrow a lot of money to build out its service delivery capacity. Regardless of what's driving the solvency concerns, it's clear this organization has a good, profitable business. The challenge is ensuring it has enough demand for its services to support its ongoing operations.

To that end, an organization with these characteristics could consider investing in additional capital equipment or facilities that might help it expand its client or customer base. It might also expand or extend its programs to include new lines of business that will allow it to tap into new clients/customers. If long-term liabilities are part of the solvency concern it could consider restructuring or re-negotiating those liabilities.

Financial auditors occasionally call out organizations with a *going concern* opinion. A going concern opinion indicates the auditor's view that the organization may cease operations during the next fiscal period. This is rare, but it does happen when an organization has severe problems with both liquidity and solvency.

Contrast this with an organization that has concerns about liquidity, but is otherwise profitable and solvent. This is a good example of a "profitable but cash poor" organization. Here the challenge is to convert some of that profitability into a stronger base of liquid resources. To that end, an organization under these circumstances could consider some short-term borrowing to better manage its cash flow. This might weaken its solvency a bit, but that might be a necessary trade-off relative to weak liquidity. It might also make a specific ask to donors for a reserve fund or other financial contingency fund to bolster its liquidity.

Organizations with concerns about all three aspects of financial position might consider more drastic measures like a merger with another non-profit.

This is not a comprehensive list, but it does illustrate some basic management strategies that follow from non-profit financial statement analysis.

Suggested Strategies to Improve Non-Profit Financial Position

Relative to the Organization's Current Liquidity, Profitability, and Solvency

Liquidity	Profitability	Solvency +	Solvency -
+	+	1) Shift liquid resources to safe investments 2) Evaluate reserve fund policies 3) Broaden financing activities	1) Invest in capital equipment, facilities 2) Invest in revenue-generating programs/services 3) Restructure/refinance long-term liabilities
+	-	1) Shift liquid resources to safe investments 2) Evaluate cost structures 3) Capital investments to improve efficiency 4) Renegotiate prices/contracts/reimbursements	1) Invest in capital facilities/ equipment 2) Increase program enrollments/Scale Up 3) Explore Partnerships to broaden participation and increase capital investment
-	+	1) Short term borrowing to smooth cash flow 2) Target donors for a reserve fund	1) Target donors for an endowment 2) Target donors for a reserve fund
-	-	1) Sell or lease capital assets 2) Target donations for an endowment 3) Downside, partner, or outsource	1) Consider a merger or acquisition