

Financial Condition Analysis Model

GOVERNMENTAL ACTIVITIES & ENTERPRISE FUNDS			
<i>Economic resources and accrual basis of accounting</i>			
	Financial Dimension	Financial Indicator	Interpretation
Resource Flow	Interperiod equity	Total margin ratio	A ratio of one or higher indicates that a government lived within its financial means.
	Financial performance	Percent change in net assets	A positive percent change indicates that a government's financial position improved.
	Self-sufficiency	Charge to expense ratio	A ratio of one or higher indicates that the service is self-supporting.
	Financing obligation	Debt service ratio	Service flexibility decreases as more resources are committed to annual debt service.
Resource Stock	Liquidity	Quick ratio	A high ratio suggests a government is able to meet its short-term obligations.
	Solvency	Net assets ratio	A high ratio suggests a government is able to meet its long-term obligations.
	Leverage	Debt to assets ratio	A high ratio suggests a government is overly reliant on debt for financing assets.
	Capital	Capital assets condition ratio	A high ratio suggests a government is investing in its capital assets.
GENERAL FUND			
<i>Financial resources and modified accrual basis of accounting</i>			
	Financial Dimension	Financial Indicator	Interpretation
Resource Flow	Service obligation	Operations ratio	A ratio of one or higher indicates that a government lived within its annual revenues.
	Dependency	Intergovernmental ratio	A high ratio may indicate that a government is too reliant on other governments.
	Financing obligation	Debt service ratio	Service flexibility decreases as more expenditures are committed to annual debt service.
Resource Stock	Liquidity	Quick ratio	A high ratio suggests a government can meet its short-term obligations.
	Solvency	Fund balance as a percentage of expenditures	A high ratio suggests a government can meet its long-term obligations.
	Leverage	Debt as a percentage of assessed value	A high ratio suggests a government is overly reliant on debt.

Introduction

The financial condition model contains two sets of indicators: one set for analyzing financial statements that measure economic resources on the accrual basis of accounting (governmental activities, water and sewer fund, and electric fund) and another set for analyzing financial statements that measure financial resources on the modified accrual basis of accounting (general fund). The model also accounts for resource flow as provided on operating statements and for resource stock as provided on balance sheets.

The model also contains critical financial dimensions for analyzing the condition of resource flow and stock, including financial indicators to measure the respective dimensions. As a result, users of this management tool require an understanding of how each financial indicator fits within the model and how to interpret the results. The following table presents an example of how a financial indicator (quick ratio) fits within the broader context of our model:

Model	Example
Activity or Fund	General fund
Measurement focus	Financial resources
Accounting basis	Modified accrual
Financial statement	Balance sheet
Resource flow or stock	Stock
Financial dimension	Liquidity
Financial indicator	Quick ratio

Understanding how the financial indicators align with the broader model enhances one's ability to accurately interpret and communicate them. The remainder of this document introduces each financial dimension and indicator, including guidance on how to interpret the results.

Governmental Activities and Enterprise Funds

Financial statements prepared for governmental activities and enterprise funds measure economic resources on the accrual basis of accounting. We have selected four (4) resource flow dimensions and four (4) resource stock dimensions for analyzing the financial condition of these activities and funds.

Resource flow

The financial dimension of **interperiod equity** addresses whether or not a government lived within its financial means during the fiscal year. The **total margin ratio** is used to analyze this dimension, where total resource inflow is divided by total resource outflow. The total margin ratio has a natural benchmark of 1.0 or higher, where actual resource inflow exceeded actual resource outflow. Local governments also may want to compare this ratio with their benchmark peers. When this indicator falls below 1.0 for a given fiscal year, it does not necessarily mean that there is a financial problem. It does require additional research to determine why it occurred

and to ensure that it is not systematic, which would deteriorate the financial position of the organization over time.

The financial dimension of **financial performance** provides the magnitude of how a government's financial position improved or deteriorated as a result of resource flow. The **percent change in net assets** is used to analyze this dimension, where change in net assets is divided by net assets, beginning. The percent change in net assets also has a natural benchmark, where the change should be positive rather than negative. Peer comparison provides additional context for interpretation. A positive change indicates that the government's financial position improved. One question that arises with this indicator is "how does it differ from the total margin ratio?" The total margin ratio analyzes total "resource" inflow against total "resource" outflow. The percent change in net assets provides the magnitude of how the beginning "resource" level changed as a result of resource flow during the fiscal year.

The financial dimension of **self-sufficiency** addresses the extent to which charges for services covered total expenses. The **charge to expense ratio** is used to analyze this dimension, where charges for services are divided by total expenses. However, the interpretation of this ratio for governmental activities is very different from enterprise funds. The benchmark for governmental activities is a policy decision or comparison against benchmark peers because governmental activities are not designed to be self-sufficient. They are funded primarily by general taxation. This indicator does provide critical feedback on the balance between user fees and general taxation, which expands on how the statement of activities was designed to present flow data. The charge to expense ratio for enterprise funds has a natural benchmark, where user fees should cover 100 percent of annual operations unless policy dictates otherwise.

The financial dimension of **financing obligation** provides feedback on service flexibility with the amount of expenses committed to annual debt service. The **debt service ratio** is used to analyze this dimension, where debt service (principal and interest) is divided by total expenses plus principal. The benchmark is a policy decision or comparison against benchmark peers. However, as this indicator increases, service flexibility decreases because more resources are being committed to a required financial obligation. In other words, state law requires that local governments appropriate sufficient resources to service their annual debt obligations first, with the residual resources available for non-debt service expenditures.

Resource stock

The financial dimension of **liquidity** is a local government's ability to address short-term obligations. The **quick ratio** is used to analyze this dimension, where cash & investments are divided by current liabilities. The industry standard for this ratio is often cited at 2.0 or higher. An organization with a quick ratio of 2.0 would have \$2 dollars in cash for every \$1 dollar in current liability. Local governments are encouraged to use peer comparisons to analyze this dimension because quick ratios in local government are often much higher than the industry standard.

The financial dimension of **solvency** is a local government's ability to address long-term obligations. The **net assets ratio** is used to analyze this dimension, where unrestricted net assets are divided by total liabilities. The benchmark is a policy decision or comparison against

How to Interpret Results

benchmark peers. The probability of meeting long-term obligations increases as the ratio increases.

The financial dimension of **leverage** is the extent to which total assets are financed with long-term debt. The **debt to assets ratio** is used to analyze this dimension, where long-term debt is divided by total assets. The benchmark is a policy decision or comparison against benchmark peers. A high ratio suggests that a local government may be overly reliant on long-term debt for financing assets. Local governments are encouraged to maintain a balance between debt financing and pay-as-you-go financing for two reasons. First, it provides flexibility for issuing additional debt when needed. Second, it helps manage the financing obligation dimension of resource flow as measured by the debt service ratio.

The financial dimension of **capital** is the condition of capital assets as defined as remaining useful life. The **capital assets condition ratio** is used to analyze this dimension, where accumulated depreciation is divided by capital assets being depreciated then subtracted from one. If the formula did not subtract from one, the interpretation would be the percentage of assets depreciated rather than percentage of assets with remaining useful life. The benchmark is a comparison against benchmark peers. A high ratio suggests that a local government is systematically investing in its capital assets.

General Fund

Financial statements prepared for the general fund measure financial resources on the modified accrual basis of accounting. We have selected three (3) resource flow dimensions and three (3) resource stock dimensions for analyzing the financial condition of this fund.

Resource flow

The financial dimension of **service obligation** addresses whether or not a government's annual revenues were sufficient to pay for annual operations. The **operations ratio** is used to analyze this dimension, where total revenues are divided by total expenditures. The operations ratio has a natural benchmark of 1.0 or higher, where actual revenues exceeded actual expenditures. Local governments also may want to compare this ratio with their benchmark peers. The reason for subtracting proceeds from capital leases and installment purchases is because they inflate expenditures in the fiscal year of debt issuance. The purpose of this ratio is to determine whether or not actual revenues were sufficient to pay for ongoing services and to amortize existing debt.

The financial dimension of **dependency** provides the extent to which a local government is reliant on other governments for resources. The **intergovernmental ratio** is used to analyze this dimension, where intergovernmental revenue is divided by total revenue. The benchmark is a policy decision or comparison against benchmark peers. On the one hand, external resources may allow local governments to avoid tax rate increases. On the other, a high ratio may indicate that a local government is overly reliant on external resources, increasing risk as external providers may alter funding streams.

The financial dimension of **financing obligation** provides feedback on service flexibility with the amount of expenditures committed to annual debt service. The **debt service ratio** is used to

analyze this dimension, where debt service (principal and interest) is divided by total expenditures. There are several benchmarks associated with this ratio. One professional organization uses a benchmark of not exceeding 10 percent, while bond rating agencies have cited a benchmark of not exceeding 20 percent. The benchmark also can be an internal policy decision, which is strongly recommended, or a comparison against benchmark peers.

Resource stock

The financial dimension of **liquidity** is a local government's ability to address short-term obligations. The **quick ratio** is used to analyze this dimension, where cash and investments are divided by current liabilities. The industry standard for this ratio is often cited at 2.0 or higher. An organization with a quick ratio of 2.0 would have \$2 dollars in cash for every \$1 dollar in current liability. Local governments are encouraged to use peer comparisons to analyze this dimension because quick ratios in local government are often much higher than the industry standard.

The financial dimension of **solvency** is a local government's ability to address long-term obligations. **Fund balance as a percentage of expenditures** is used to analyze this dimension, where available fund balance as defined by state statute is divided by total expenditures plus transfers out less the amount of any current fiscal year capital lease or installment purchase financing. There are several benchmarks associated with this ratio. The Local Government Commission strongly recommends a minimum of 8 percent; however, it sends out letters of concern based on a unit's performance against its population group mean. The benchmark also can be an internal policy decision, which is strongly recommended, or a comparison against benchmark peers. The probability of meeting long-term obligations increases as the ratio increases.

The financial dimension of **leverage** is the extent to which a local government relies on tax-supported debt. The ratio of **debt as a percentage of assessed value** is used to analyze this dimension, where the sum of outstanding GO debt, authorized and unissued GO debt, and installment purchase debt is divided by the assessed property valuation as reported to the NCDOR (calculation excludes debt associated with enterprise funds). This calculation approximates the requirements of state law, where net debt of the unit cannot exceed 8 percent of assessed value. However, the benchmark should be an internal policy decision or a comparison against benchmark peers because issuing tax-supported debt approaching the 8 percent threshold is unrealistic for most local governments. In other words, a more practical threshold would be in the 1 to 2 percent range.

Conclusion

The user of this management tool should remember that any approach to analyzing the financial condition of a local government contains a degree of subjectivity. Therefore, users should be careful from drawing conclusions from one indicator, understanding that financial condition analysis requires analyzing, evaluation, and communicating multiple financial dimensions and indicators.