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**FINANCIAL INSTITUTIONS
REFORM AND EXPANSION PROJECT**

Debt Market / Infrastructure Component

**PERFORMANCE MEASUREMENT
BASICS FOR US MUNICIPAL GOVERNMENTS**

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Performance Measurement Basics For US Municipal Governments

Introduction

When we go to a doctor, he or she measures our heart rate and other key indicators such as iron levels and white blood cell count. He or she listens to the chest and examines the eyes and ears. The doctor “measures” our general health by gathering data, which is then compared to established medical standards that have been developed through years of medical data collection. By comparing our critical data to established standards for people of similar age, sex, weight, etc., the doctor is able to measure our general health.

The general fiscal health of US municipalities is monitored in very much the same way. Financial managers use tools, called ratios, to measure the financial condition of their municipality. They then compare these actual ratio figures to standards that have been established as indicators of fiscal health for their own as well as other municipalities of similar size and in similar conditions. Over time, this process enables them to recognize trends in the financial condition of their municipality.

Characteristics of Financial Condition

Generally speaking, there exist some clear, common sense indicators of financial condition. Indicators of declining fiscal health for a municipality include:

- ◆ declining revenue
- ◆ declining cash balances
- ◆ continuous need to borrow and increase debt burden
- ◆ increasing unfunded liabilities
- ◆ declining infrastructure reliability and inability to finance improvements and expansions
- ◆ constant pressure to meet emergencies
- ◆ increased accounts receivables due to unpaid tax billing and service billings
- ◆ lack of funds to meet increasing demand for services (i.e. roads, water, sewer)

Monitoring Financial Trends

Financial ratios are the tools which financial managers use to monitor financial trends. When aware of developing trends, managers are able to take proactive steps to address potential problems. This is true for both a business or a municipality. A municipality, however, requires a very distinct set of ratios to monitor its fiscal health than does a business. This is due to several factors. For example:

1. Unlike a business, a municipality provides **essential** services. These services and the infrastructure that supports them, such as roads, traffic services, street lights, water, and sewer, **must** be made available to the citizenry.
2. A municipality has a natural monopoly
3. A municipality provides services in order to meet the needs of its citizens and to improve their quality of life. It does not provide these services in order to generate a profit.
4. A municipality, unlike a business, has a perpetual life.
5. A municipality will often receive grants from other levels of government, state or central. A business generally does not receive this type of governmental support.
6. It is difficult for a municipality to measure the public's satisfaction with its services. A business' success at meeting the demands and needs of the public is apparent in its sales and profit figures.

Due to these special characteristics, the financial performance measurements used by municipalities are different from those used in business. Some of the same ratios and standards used in business can, however, be applied to municipalities. Precaution and special attention should be used when applying these standards. If the initial ratio analysis results in dramatic indications of financial difficulty, a non-financial factor analysis would be done to determine the extent, nature and cause of the results.

Example Ratios Used to Monitor Trends for US Municipalities

US municipalities have used these types of measurement tools for some time. Following are some examples of ratios that are commonly used in the monitoring process. The table of ratio calculations and discussion shown below is an analysis of the financial condition of Winnetka, Illinois. The financial statements and budgets for Winnetka are attached for easy reference as you read through the table. It should be noted that these measurements are tracked over a period of time and compared to other municipal measurements. This comparison process makes financial analysis more meaningful since it permits the identification of trends.

No.	Measurement	Ratio Formula	Ratio Calculation
1	<i>Per Capita Property Tax:</i> This indicates the level of property tax burden.	$\frac{\text{Property Tax Revenue}}{\text{Population}}$	$\frac{\$7,402,769}{12171} = \608
2	<i>Per Capita Net Operating Revenue:</i> This indicates the total revenue burden borne by the taxpayers and ratepayers	$\frac{\text{Net Operating Revenue}}{\text{Population}}$	$\frac{\$12,477,925}{12171} = \$1,025$
3	<i>Intergovernmental Revenue Ratio:</i> If intergovernmental revenue is increasing faster than gross revenue, it is an indication that the municipality is not able to raise its own revenue fast enough. It also means that the municipality is too dependent on outside sources of revenue and if these revenues were to be unexpectedly cut, the municipality could suffer greatly.	$\frac{\text{Intergovernmental Revenue}}{\text{Gross Operating Revenue}}$	$\frac{\$1,769,924}{\$13,400,425} = 0.13$ (Or 13%) <i>Note:</i> Gross Operating Revenue = Total Revenue + Operating Transfers In (\$12,477,925+ \$922,500)
4	<i>One-Time Operating Revenue Ratio:</i> This ratio is designed to identify any unusual one-time sources of revenue that would not occur yearly. Examples include a large amount of revenue received in the form of a donation or from the sale of municipal land.	$\frac{\text{One-Time Operating Revenue}}{\text{Net Operating Revenues}}$	N/A (No significant one-time occurrence this year)
5	<i>Uncollected Property Tax Ratio:</i> This ratio indicates the inefficiency of the municipality's property tax collection operation.	$\frac{\text{Uncollected Property Tax}}{\text{Net Property Tax Levy}}$	<i>Note:</i> Numbers not available for this analysis, but for the Winnetka this ratio has remained less than 1% for several years.
6	<i>Revenue Deficiency Ratio:</i> This ratio gives an indication of the magnitude and trend of the municipality's deficit spending. It should be noted that in the US many municipalities and states have mandated balance budgets. Therefore this measure is not relevant in many cases.	$\frac{\text{Revenue Shortfall}}{\text{Net Operating Revenue}}$	<i>Note:</i> Winnetka does not have a revenue shortfall in the given year.

No.	Measurement	Ratio Formula	Ratio Calculation
7	Per Capita Expenditure: This measures the average cost of operations the municipality incurs per citizen. An increasing trend would indicate either increasing expenditures on average or declining population.	$\frac{\text{Net Operating Expenditures}}{\text{Population}}$	$\frac{\$12,125,067}{12171} = \996 <p><i>Note:</i> For trend analysis over succeeding years, the constant value of the currency should be used (inflation adjusted currency)</p>
8	<i>Per Capita Employees Per 1000 Population:</i> This ratio is a measure of employee productivity and effectiveness. It is especially meaningful when compared to other municipalities and tracked over time.	$\frac{\text{Number of Employees}}{\text{Population} / 1000}$	$\frac{170}{12171/1000} = 14$
9	<i>Operating Deficit Ratio:</i> This ratio compares the General Fund Operating Deficit (if a deficit exists) to Net Operating Revenue. An increase in this ratio reflects municipal inability to cover operating expenditures.	$\frac{\text{General Fund Operating Deficit}}{\text{Net Operating Revenue}}$	N/A <i>Note:</i> Again, Winnetka does not have a deficit
10	<i>Operating Surplus Ratio:</i> The opposite of the above ratio, this ratio compares the General Fund Operating Surplus to Net Operating Revenue. Here a increasing ratio indicates improved financial health and solvency.	$\frac{\text{General Fund Operating Surplus}}{\text{Net Operating Revenue}}$	$\frac{\$1,275,358}{\$13,400,425} = 0.10$ <p><i>Note:</i> A ratio of 10% like this is considered very healthy</p>
11	<i>Current Ratio or Liquidity Ratio:</i> This ratio compares the municipality's short-term assets to short-term liabilities and gives an indication of its ability to meet short-term obligations. A ratio of at least 1.0 is considered necessary as this shows that the municipality has enough cash or cash equivalent available to cover its current liabilities.	$\frac{\text{Cash} + \text{Short-Term Investments}}{\text{Current Liabilities}}$	$\frac{\$3,881,286}{\$688,986} = 5.6$ <p><i>Note:</i> This is a very strong liquidity position. Winnetka can cover its current obligations 5.6 times with its cash and cash equivalent balances.</p>

No.	Measurement	Ratio Formula	Ratio Calculation
12	<p><i>Long-Term Debt Ratio:</i> This ratio compares the Long-Term Debt of a municipality to its Total Assessed Valuation (the value of all the municipality's equipment and property).</p>	$\frac{\text{Long-Term Debt}}{\text{Total Assessed Valuation}}$	$\frac{\$4,170,000}{\$483,012,635} = 0.0086$ (Or 0.86%) <p><i>Note:</i> This ratio is very low and considered very good. For developing and growing municipalities this ratio can be as high as 5.0%, and still be considered a good indication. This is because the investment in development will lead to increased real estate values, which, in turn, leads to a rise in property tax revenue.</p>
13	<p><i>Debt Service Ratio:</i> This ratio is a measure of the municipality's ability to meet its debt service obligations. It compares Debt Service to Gross Operating Revenues.</p>	$\frac{\text{Debt Service}}{\text{Gross Operating Revenue}}$	$\frac{\$218,650}{\$13,619,075} = 0.0161$ (Or 1.61%) <p><i>Note:</i> Ratios as high as 10% are considered acceptable. Winnetka's ratio of 1.61% is quite low and suggests that the municipality has a low debt level. In developing municipalities, the Debt Service Ratio will often exceed this 10% benchmark.</p>

No.	Measurement	Ratio Formula	Ratio Calculation
14	Unfunded Pension Liability Ratio: This ratio compares the Unfunded Pension Liability Obligation of a municipality to its Total Assessed Valuation.	$\frac{\text{Unfunded Pension Liability Obligation}}{\text{Total Assessed Valuation}}$	$\frac{\$13,351,490}{\$483,012,635} = 0.0276$ (Or 2.76%) <i>Note: A ratio of 5.0% or less is considered acceptable.</i>
15	<i>Maintenance Ratio Effort:</i> This ratio indicates the level of resources that the municipality dedicates to the maintenance and upkeep of its fixed assets..	$\frac{\text{Repairs and Maintenance Expenses on Fixed Assets}}{\text{Fixed Assets}}$	N/A
16	<i>Capital Outlay Ratio:</i> This ratio suggests how well the municipality is maintaining its capital assets as well as meets its financing needs from its operating funds.	$\frac{\text{Capital Outlay From Operating Revenue}}{\text{Gross Operating Expenditures}}$	N/A

Conclusion

The measurements or ratios above provide the information that a municipality requires to determine its relative financial health. This type of analysis is effective because it tracks these ratios over time and compares them to other municipalities, enabling financial managers to monitor trends. It should be noted that the financial managers of a municipality often create their own financial measures and their own benchmark figures for common ratios.

If ratios indicate sound fiscal condition, this signals to the financial managers that they should continue on their current course. If the ratio analysis indicates that the financial condition of the municipality is not satisfactory, this suggests the need for and guides a course of corrective actions. The ongoing analysis of these ratios allows financial managers to identify problems before they have reached crisis proportions and thereby avert major financial disasters. It is in the interest of the municipality's citizens, employees, elected officials, and other institutions including the local business community, to avoid these types of fiscal problems. It is therefore the financial manager's responsibility to monitor, through ratio analysis, the fiscal condition of his or her municipality in order to gather the information necessary to make sound decisions which edify the municipality's financial position.

Village of Winnetka, Illinois

General Fund

Balance Sheet
March 31, 1995

ASSETS	
Cash and Investments	\$ 3,881,286
Receivables	
Property Taxes	4,324,541
Accounts - Billed	2,525
Accounts - Unbilled	3,571
Accounts - Other	52,254
Accrued Interest	42,584
Due from Other Governments	163,269
Inventory	8,463
	<hr/>
<i>Total Assets</i>	\$ 8,478,493
LIABILITIES AND FUND BALANCE	
Liabilities	
Accounts Payable	\$ 290,385
Accrued Payroll Taxes	18,708
Deposits Payable	136,440
Deferred Property Taxes	4,324,541
Interfund Notes Payable	243,546
Total Liabilities	<hr/> \$ 5,013,530
Fund Balance	
Reserved for Inventory	\$ 8,463
Unreserved	3,456,500
Total Fund Balance	<hr/> \$ 3,464,963
<i>Total Liabilities and Fund Balance</i>	<hr/> \$ 8,478,493

Village of Winnetka, Illinois

General Fund

Statement of Revenues, Expenditures,
and Changes in Fund Balance - Budget and Actual (Budgetary Basis)
For The Year Ended March 31, 1995

	Budget	Actual
Revenues		
Taxes	\$ 7,246,650	\$ 7,402,769
Licences and Permits	346,850	450,049
Intergovernmental	1,710,000	1,769,924
Charges for Services	601,000	607,314
Fines	176,200	138,163
Interest	75,000	150,157
Miscellaneous	1,948,700	1,959,549
Total Revenues	<u>12,104,400</u>	<u>12,477,925</u>
Expenditures		
General Government		
Public Affairs	367,500	354,598
General Administration	1,363,600	1,274,783
Health Department	21,000	21,305
Departmental Services		8,366
Public Safety		
Police Department	3,443,750	3,062,865
Fire Department	2,021,000	1,971,540
Public Works		
Public Works Department	5,587,000	5,212,960
Debt Service		
Principal Retirement	135,000	135,000
Interest and Fiscal Charges	88,050	83,650
Total Expenditures	<u>13,026,900</u>	<u>12,125,067</u>
Excess (Deficiency) of Revenues over Expenditures	(922,500)	352,858
Other Financing Sources		
Operating Transfers In	<u>922,500</u>	<u>922,500</u>
Excess of Revenues and Other Financing Sources over Expenditures	<u>\$</u>	1,275,358
Fund Balance April 1		7,299,146
Less Prior Year Surplus		<u>(785,000)</u>
March 31		<u>\$ 7,789,504</u>