GUIDE TO INDICATORS OF FINANCIAL CONDITION

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Source of Indicators

The primary source of the indicators presented is the International City/County Management Association's (ICMA) handbook, Evaluating Financial Condition. Variations of the ICMA indicators constructed by Brown for his ten-point test are also presented. Asterisks identify 13 indicators based on information in the Comprehensive Annual Financial Report, as per Hay and Wilson's textbook, Governmental and Non-Profit Accounting. Additional indicators suggested by credit rating firms, Fitch IBCA and Standard & Poor's, are also presented where appropriate.

Source of Data

Fiscal Database indicates the information necessary to construct the indicator is, in the case of counties, or likely will be, in the case of cities, extracted from budgets and in a usable format in the database. Budgets suggests the information needed to construct the indicator is in the budgets we have on file but is not represented (or likely to be represented) in a usable format in the county (city) database. The remaining sources I have identified are my best guess as to where the information necessary to construct the indicator is located.

Difficulty to Construct

Easy -- Already have information needed to calculate the indicator in a usable format

Moderate - Information needed to calculate the indicator is readily available but some work will be necessary to do so

Moderately Difficult - Information needed to calculate the indicator is likely available but will require considerable judgment and work on our part to do so

Difficult - Will need additional information from the government to calculate this indicator

Very Difficult - Am unsure information to calculate this indicator is available

Other Components of Financial Condition

The ICMA and credit ratings firms indicate that financial ratios and the types of indicators presented on the following pages cannot provide a full understanding of a government's financial condition. Rather, a variety of other factors, including external economic conditions, management practices, intergovernmental constraints, and the political culture, must also be taken into consideration. Though these factors will, no doubt, be incorporated into our assessments of financial condition, they are not represented in the following pages, as there are no quantitative indicators to measure them.

1) Revenues Per Capita

    a) ICMA $= \dfrac{\text{Net Operating Revenues (constant dollars)}}{\text{Population}}$

    where Net Operating Revenues = Gross Operating Revenues (revenues in the general, special revenue, and debt service funds) – Revenues Legally Restricted to Capital Improvements or Other Special Purposes

    Interpretation: Assuming the cost of services is directly related to population size, a decline in per capita revenues over time suggests the government may be unable to maintain existing service levels unless it finds new revenue sources or ways to save money.

    Source of Data: Budgets, Census Bureau

    Difficulty to Construct: Moderately Difficult

    Related Notes: The use of net operating revenues focuses attention on those revenues actually available for general operations.

    b) Brown's Ten-Point Test* $= \dfrac{\text{Total Revenues}}{\text{Population}}$

    where Total Revenues = total revenues in the general fund + total revenues in special revenue funds + total revenues in debt service funds + total revenues in capital projects funds

    Interpretation: Indicates demand for resources and the entity's ability and willingness to provide resources. Over time shows how revenues are changing relative to population changes. A high ratio, and increasing trend, in relation to expenditures per capita, is generally desirable. A high ratio suggests the government has adequate annual resources but may imply that the government has reached the limits of its revenue generating capacity, reducing its flexibility for obtaining additional revenues. Similarly, a low ratio, is generally undesirable but may suggest the government has greater capacity to acquire additional revenue.

    Source of Data: Fiscal Database, Census Bureau

    Difficulty to Construct: Easy

2) Restricted Revenues

        ICMA $=$ $\dfrac{\text{Restricted Operating Revenues}}{\text{Net Operating Revenues}}$

        where Restricted Operating Revenues represents the total net operating revenues that are restricted to specific purposes in accordance with a law, grant, contractual agreement, or other externally imposed restriction

        Interpretation: An increasing amount of restricted operating revenues as a percentage of net operating revenues over time reduces a government's ability to respond to changing conditions and citizens' needs and demands. It may also indicate an overdependence on external revenues.

        Source of Data: Budgets (will need assistance from government to accurately identify restricted revenues)

        Difficulty to Construct: Difficult

3) Intergovernmental Revenues

        a) ICMA $=$ $\dfrac{\text{Intergovernmental Operating Revenues}}{\text{Gross Operating Revenues}}$

        where Intergovernmental Operating Revenues represents grants and other aid from state, federal, and other governments – may also include state taxes shared with local governments depending on how much control the local government has over the revenue

        Interpretation: Generally, an increasing amount of intergovernmental operating revenues as a percentage of gross operating revenues is viewed unfavorably, as it may indicate an overdependence on these revenue sources. The key is to determine the government's vulnerability to reductions of such revenues.

        Source of Data: Budgets

        Difficulty to Construct: Moderately Difficult

        Related Notes: Fitch IBCA indicates that: The degree to which operations depend on transfers in from uncertain sources, such as government grants, is an important consideration when analyzing government financial performance. These include revenues distributed to local governments by states – including state-shared revenues where the state is the levy and collection authority for a particular revenue source but funds are distributed to local governments on a formula basis. These revenues are double-edged swords – they increase a unit's revenues but are less under their control.

b) Brown's Ten-Point Test* = $\dfrac{\text{General Fund Revenues from Own Sources}}{\text{General Fund Revenues}}$

where General Fund Revenues from Own Sources = Total General Fund Revenues – Intergovernmental Revenues in the General Fund

Interpretation: Indicates the extent of fiscal self-reliance; a high ratio is viewed as a positive characteristic, as it suggests the government is not reliant on external government organizations.

Source of Data: Budgets

Difficulty to Construct: Moderately Difficult

Related Notes: Hay and Wilson (*) actually use Own Source Revenues / Total Revenues rather than focusing entirely on the general fund as Brown does.

4) Fund Transfers

Brown's Ten-Point Test = $\dfrac{\text{Operating Transfers into General Fund}}{\text{General Fund Sources}}$

where General Fund Sources = General Fund Revenues + Operating Transfers into General Fund

Interpretation: A low ratio suggests the government does not have to rely on operating transfers to finance general government operations. Standard & Poor's suggests that: When a fund is supported by interfund transfers, a deterioration in those transfers over time may be a sign of fiscal stress (Note: Suggests a broader look at transfers than Brown's ratio. See Related Notes for more information.)

Source of Data: Budgets

Difficulty to Construct: Moderate

Related Notes: Brown developed this ratio to measure a government's reliance on fund transfers to fund general government operations. Standard & Poor's considers the effect of any revenue transfers among other governmental and capital funds during their review of financial performance.

5) Elastic Tax Revenues

$$ICMA = \frac{\text{Elastic Operating Revenues}}{\text{Net Operating Revenues}}$$

where Elastic Operating Revenues represent revenues from taxes that have a taxable base which are expected to reflect general economic changes in the short term (i.e. sales and income taxes and property taxes if reassessments are made frequently)

Interpretation: As the economic base expands or inflation increases, elastic revenues rise in roughly proportional amounts while inelastic revenues are relatively unresponsive. Therefore, it is generally undesirable for elastic operating revenues to decline as a percentage of net operating revenues over time. This is not true, of course, during times of deflation but this has seldom occurred in recent years.

Source of Data: Budgets

Difficulty to Construct: Moderately Difficult

6) One-Time Revenues

$$ICMA = \frac{\text{One-Time Operating Revenues}}{\text{Net Operating Revenues}}$$

where One-Time Operating Revenues represent revenues from sources that are not repeated in subsequent years or whose legal authority limits them to only a few years (loans, grants, prior year's surpluses, funds appropriated from beginning balances, etc.)

Interpretation: Increasing use of one-time operating revenues as a percentage of net operating revenues is generally viewed unfavorably. Continual use of one-time revenues to balance the annual budget can indicate that the revenue base is not strong enough to support current service levels and may mean that the government will have to make significant cutbacks if such revenues cease to be available.

Source of Data: Budgets

Difficulty to Construct: Moderately Difficult to Difficult (depending on the government)

7) Property Tax Revenues

ICMA = Property Tax Revenues (constant dollars)

Interpretation: Property taxes are an important revenue source for most local governments. Thus, it is generally undesirable for property tax revenues to decline in real terms over time. A decline over time may indicate declining property values, unwilling

or deliberate default by property owners, and/or inefficient appraisal. Note that reducing reliance on property taxes may be desirable if it is part of an effort to diversify revenues.

Source of Data: Fiscal Database

Difficulty to Construct: Easy

Related Notes: Fitch IBCA indicates that: Property taxes tend to be the most predictable and stable revenue source though they are not typically as responsive to inflationary growth. Diversifying revenues can reduce the burden on the property tax base and, while more volatile, the less predictable sales and excise taxes and payroll taxes often are able to access broader and deeper economic wealth.

8) Uncollected Property Taxes

$$ICMA \ = \ \frac{\text{Uncollected Property Taxes}}{\text{Net Property Tax Levy}}$$

where Net Property Tax Levy = Total or Gross Property Tax Levy – Exoneration, Abatement, and/or Other Reductions in Taxes Levied

Interpretation: An increasing amount of uncollected property taxes as a percentage of the net property tax levy over time suggests an overall decline in the government's economic health and decreased liquidity for the government in question. Fitch IBCA indicates that: A precipitous decline in the current tax collection rate can reflect either a problem with a major taxpayer or a weakness in the economy. Also, a chronically weak current tax collection rate could indicate inattentive financial management or poor collection procedures, though it may relate to the timing of how close tax payments become delinquent in relation to when the fiscal year ends. A consistently high total tax collection rate offsets the timing concern.

Benchmark: Ratings firms assume that a government normally will be unable to collect from 2-3% of its property taxes. Uncollected taxes of more than 5-8% or an increase in the rate of delinquency for two consecutive years are viewed as negative factors. Fitch IBCA considers a current tax collection rate in the low 90% range chronically weak.

Source of Data: Tax Collection Records

Difficulty to Construct: Difficult

9) User Charge Coverage

$$ICMA = \frac{\text{Revenues from User Charges}}{\text{Expenditures for Related Services}}$$

where Expenditures for Related Services represents the full costs of providing services for which a fee or user charge is intended to finance all or part of the related costs

Interpretation: As user charge coverage declines, the burden on other revenues to support the service increases. Therefore, decreasing revenues from user charges as a percentage of total expenditures for related services is typically viewed unfavorably.

Source of Data: Budgets (in most cases)

Difficulty to Construct: Moderately Difficult to Difficult (depending on the government)

10) Revenue Shortfalls

$$ICMA = \frac{\text{Revenue Shortfalls}}{\text{Net Operating Revenues}}$$

where Revenue Shortfalls = Budgeted Net Operating Revenues – Actual Net Operating Revenues

Interpretation: Increasing differences between estimated and actual revenues over time are viewed unfavorably as they may indicate a declining economy, inefficient collection procedures, and/or inaccurate estimating techniques.

Source of Data: Budgets

Difficulty to Construct: Moderately Difficult

11) Composition/Stability of Revenues

Standard & Poor's reviews the composition of the government's revenue stream and the stability of major revenue sources (property, sales, and income taxes; user charges; intergovernmental aid; and investment income) for a 3 to 5 year period

Interpretation: Diverse revenue sources are preferable as they can help to strengthen financial performance. Balanced revenue composition gives an issuer flexibility to meet all its financial obligations but doesn't necessarily protect against general economic decline.

Source of data: Fiscal Database

Difficulty to Construct: Easy (based on categories in the database)

12) Property tax burden

Standard & Poor's = overlapping property tax as a percent of market value

Benchmark: Low = 1% of market value, Moderate = 1.5-2% of market value, Moderately High = 2-2.5% of market value, Very High = >2.5% of market value.

Source of data: Unknown (Note: assessed valuation is a possible substitute for market value though might impact benchmarks.)

Difficulty to Construct: Very Difficult

13) Miscellaneous

Fitch IBCA also examines limitations on tax and revenue raising. Where the tax is limited, consideration is given to how much margin remains, as well as how the entity as historically operated within the limit. Even where legal tax-raising capacity exists, the current anti-tax environment has generally made tax raising politically difficult. Significant attention is given to competitive tax levels and the government's general taxpayer climate. Alternate revenue sources are also reviewed, as is the government's willingness to consider other revenue enhancements.

1) Expenditures Per Capita

     a) ICMA = $\dfrac{\text{Net Operating Expenditures (constant dollars)}}{\text{Population}}$

     where Net Operating Expenditures = expenditures in the general, special revenue, and debt service funds less capital project expenditures that are charged against one of these funds

     Interpretation: Increases in real net operating expenditures per capita may indicate that the cost of providing services is outstripping the community's ability to pay. If an increase can't be explained by the addition of new services, it may also indicate that the government is spending more real dollars to support the same level of service.

     Source of Data: Budgets, Census Bureau

     Difficulty to Construct: Moderately Difficult

     b) Hay & Wilson Text* = $\dfrac{\text{Total Expenditures}}{\text{Population}}$

     Interpretation: Indicates the cost of providing services per capita. Over time it reflects changes in expenditures relative to changes in population. A high ratio may indicate inefficiency or that cost of services may eventually exceed residents' ability to pay for services.

     Source of Data: Fiscal Database, Census Bureau

     Difficulty to Construct: Easy

2) Employees Per Capita

     ICMA = $\dfrac{\text{Number of Government Employees}}{\text{Population}}$

     where Number of Government Employees represents either a count of employees or full-time equivalents (FTE)

     Interpretation: Increasing employees per capita may indicate that expenditures are rising faster than revenues (as personnel costs are often a major portion of government expenditures), the government is becoming more labor intensive, and/or personnel productivity is declining. Note that an increase could also indicate the government is offering more services.

Source of Data: Government Records, Census Bureau

Difficulty to Construct: Difficult

3) Fixed Costs

$$ICMA = \frac{\text{Fixed Costs}}{\text{Net Operating Expenditures}}$$

where Fixed Costs represent those costs over which the government has little control in the short run because it is fixed by contractual agreement or mandated by state or federal law (e.g. debt service, pension payments, lease-purchase payments, etc.)

Interpretation: Increasing fixed costs as a percentage of net operating expenditures is viewed unfavorably as higher levels of fixed costs indicate that the government has less flexibility to respond to economic change.

Source of Data: Budgets (will need assistance from government to accurately identify fixed costs)

Difficulty to Construct: Difficult

4) Fringe Benefits

$$ICMA = \frac{\text{Fringe Benefit Expenditures}}{\text{Salaries and Wages}}$$

where Fringe Benefits include costs for contributions to FICA, pension, life insurance, health insurance, etc. and current contributions to self-insurance funds and Salaries and Wages represents compensation paid directly to employees

Interpretation: Increasing fringe benefit expenditures as a percentage of salaries and wages over time may indicate a strain on government finances. Funding and recording fringe benefits is complex making it easy for these costs to escalate unnoticed.

Source of Data: Budgets (in some cases) and/or Payroll Records

Difficulty to Construct: Moderately Difficult to Difficult (depending on the government)

5) Operating Expenditures

Brown's Ten-Point Test* $= \dfrac{\text{Operating Expenditures}}{\text{Total Expenditures}}$

where Operating Expenditures = expenditures in the general, special revenue, and debt service funds and Total Expenditures = operating expenditures + expenditures in capital projects funds

Interpretation: May indicate inadequate financial capacity to maintain infrastructure. Capital expenditures are often one of the first discretionary expenditures cut when fiscal stress occurs. A low ratio suggests infrastructure is being maintained adequately (i.e. capital expenditures is a large part of total expenditures). Deferred capital expenditures create a need for increased capital expenditures in the future.

Alternate Interpretation: Operating expenditures are used for the day-to-day provision of governmental services. The ratio of operating expenditures to total expenditures is a measure of the efficiency with which a government provides services to its residents. A lower value is considered favorable as a government is expected to spend less of its total expenditures providing services if they are provided efficiently. Note: a government could be spending less because it's providing a lower level and/or quality of services or because of large capital expenditures (see interpretation above).

Source of Data: Budgets, Fiscal Database

Difficulty to construct: Moderately Difficult

6) Composition/Stability of Expenditures

Standard & Poor's reviews the composition and stability of expenditures in the context of revenue patterns. Large expenditure items are identified and examined to determine if continued expenditure growth could endanger existing services or require additional taxing efforts. They indicate, however, that extraordinary or nonrecurring spending is discounted when considering long-term financial performance.

Source of Data: Fiscal Database

Difficulty to Construct: Easy

OPERATING POSITION

1) Operating Deficits

    a) ICMA = $\dfrac{\text{General Fund Operating Deficits}}{\text{Net Operating Revenues}}$

where General Fund Operating Deficit represents the amount by which current revenues exceed current expenditures (surpluses can be considered negative deficits)

Interpretation: Increasing general fund operating deficits as a percentage of net operating revenues over time is viewed unfavorably. Though an operating deficit in any one year may not be a cause for concern (as reserves from prior years can be used to cover the difference, etc.), frequent and increasing deficits can indicate that current revenues are not supporting current expenditures.

Benchmark: Ratings firms consider a current year operating deficit a minor warning signal. Two consecutive years of deficits, a current deficit greater than that in the previous year, a deficit in two or more of the last five years, or an abnormally large deficit (i.e. greater than 5-10%) in a single year are more serious and typically viewed negatively.

Source of Data: Budgets

Difficulty to Construct: Moderately Difficult

    b) Brown's Ten-Point Test* = $\dfrac{\text{Total Revenues}}{\text{Total Expenditures}}$

Interpretation: Indicates the relationship of inflow from revenues to outflow for expenditures. A high ratio suggests the government experienced a positive "interperiod equity" (i.e. revenues covered expenditures by a greater margin) and is viewed as a positive factor.

Source of Data: Fiscal Database

Difficulty to Construct: Easy

    c) Brown's Ten-Point Test (Alternate Measure) = $\dfrac{\text{General Fund Revenues}}{\text{General Fund Expenditures}}$

where the equation using general fund values should be used for years with extraordinary debt-financed capital outlays

Interpretation: Same as above.

Source of Data: Budgets

Difficulty to Construct: Moderate

2) Enterprise Losses

ICMA = Enterprise Profits or Losses (constant dollars)

where each enterprise should be analyzed separately

Interpretation: Recurring enterprise losses suggest that user charges aren't covering costs of providing the service. Poor operating position makes it relatively more expensive for an enterprise to finance capital improvement projects (i.e. results in higher interest rates).

Source of Data: Budgets

Difficulty to Construct: Moderately Difficult

3) Fund Balances

a) ICMA* = $\dfrac{\text{Unreserved Fund Balances}}{\text{Net Operating Revenues}}$

Interpretation: Indicates the availability of "financial reserves" to meet unforeseen contingencies and for appropriation for future operations. A decline in unreserved fund balances as a percentage of operating revenues over time suggests the government is less able to withstand financial emergencies and more likely to need to borrow funds for capital purchases. Note that this may not be the case if the government planned to draw down fund balances or made a large capital purchase out of balances.

Benchmark: A ratio below 5 percent is generally regarded by the debt rating agencies as a red flag indicating probable fiscal stress. Fitch IBCA indicates that, as a cushion against potential revenue and expenditure volatility, an unreserved fund balance equal to 5% of expenditures and transfers or current revenues and transfers is regarded as a sound level. Issuers that can consistently maintain unreserved fund balances of 10% or more, however, are viewed more favorably. They do note that this level may vary depending on the locality's tax collection calendar.

Source of Data: Fiscal Database, Budgets

Difficulty to Construct: Moderately Difficult

Related Notes: In determining appropriate fund balance levels, Standard &Poor's considers: the volatility and patterns of the tax revenue stream, the predictability of

government spending, the availability of unencumbered reserves or contingency funds, and the ability of public officials to sustain a strong financial position.

b) Brown's Ten-Point Test $= \dfrac{\text{General Fund Unreserved Fund Balance}}{\text{General Fund Revenues}}$

Interpretation: A high ratio suggests the presence of resources that can be used to overcome a temporary revenue shortfall.

Related Notes: Standard & Poor's uses unreserved general fund balances as a percent of operating revenues. Fifteen percent or more with no cash borrowing over the fiscal year is considered strong, 5-15% adequate, and 0-5% low. They caution that this is only a general guideline – what is considered high or low depends on peak cash-flow needs during the year as well as whether the fiscal year ends in a historically cash poor or cash rich month.

c) $\dfrac{\text{Unreserved Fund Balance}}{\text{Total Expenditures}}$

Interpretation:

Source of Data: Fiscal Database

Difficulty to Construct: Easy

4) Liquidity

a) ICMA* $= \dfrac{\text{Cash \& Short-Term Investments}}{\text{Current Liabilities}}$

Interpretation: Indicates liquidity or the "cash position." A decreasing amount of cash and short-term investments as a percentage of current liabilities is undesirable as it suggests the government is less able to pay its short-term obligations. May indicate the government has overextended itself in the long run

Benchmark: Ratings firms consider a ratio of less than one to one a negative factor, but this assessment would be mitigated by a trend of three or more years that shows the ratio will exceed one to one in the coming year. A less than one to one ratio for more than three years is a decidedly negative factor.

Source of Data: Balance Sheet and/or Other Financial Statements

Difficulty to Construct: Difficult

b) Brown's Ten-Point Test = $\dfrac{\text{General Fund Cash \& Investments}}{\text{General Fund Revenues}}$

Interpretation: A high ratio suggests sufficient cash to pay short-term obligations.

Source of Data: Financial Statements, Budgets

Difficulty to Construct: Difficult

1) Current Liabilities

    a) ICMA* = $\dfrac{\text{Current Liabilities}}{\text{Net Operating Revenues}}$

Interpretation: Indicates the government's ability to meet its current liabilities. Increasing current liabilities at the end of the year as a percentage of net operating revenues is viewed negatively as it suggests liquidity problems and/or deficit spending.

Benchmark: Credit ratings firms view both short-term debt outstanding at the end of the year exceeding 5% of operating revenues and a two-year trend of increasing short-term debt outstanding at the end of the year negatively.

Source of Data: Financial Statements, Budgets

Difficulty to Construct: Difficult

    b) Brown's Ten-Point Test: $\dfrac{\text{General Fund Liabilities}}{\text{General Fund Revenues}}$

Interpretation: A low ratio suggests short-term obligations can be easily serviced by the normal flow of annual revenues.

Source of Data: Financial Statements, Budgets

Difficulty to Construct: Difficult

2) Long-Term Debt

    a) ICMA* = $\dfrac{\text{Net Direct Bonded Long-Term Debt}}{\text{Assessed Valuation}}$

where Net Direct Bonded Long-Term Debt = Direct Bonded Debt – Self-Supporting Bonded Debt (debt the government has pledged to repay from a source separate from its general tax revenues)

Interpretation: Indicates the government's ability to repay its net general long-term debt. Increasing net direct bonded long-term debt as a percentage of assessed valuation is undesirable, as it suggests that debt is exceeding the government's ability to pay. Fitch IBCA indicates that sustained growth in debt (i.e. well beyond tax base growth) may ultimately overburden a tax base and reduce economic viability by straining budget and tax resources and reducing flexibility. Similarly, Standard & Poor's reports that accelerated debt issuance can overburden a municipality, force the reduction of necessary services, and consequently lead to lower credit ratings. A government near its debt limit

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has less flexibility to meet future capital needs, but, more importantly, may be unable to borrow money in the event of an emergency.

Debt reduction, on the other hand, generates tax and economic capacity to the extent that infrastructure necessary for economic growth isn't underfunded. Standard & Poor's also indicate that a low debt profile may not be a positive credit factor, since it may indicate underinvestment in capital facilities. Neglecting critical capital needs may impede economic growth and endanger future tax revenue generation. Although some capital projects are discretionary and can be deferred in difficult economic periods, the failure to maintain existing facilities can create a backlog of projects.

Benchmark: Warning signals include – (1) overall net debt (net direct bonded debt plus overlapping bonded debt) exceeding 10% of assessed valuation (2) an increase of 20% over the previous year in overall net debt as a percentage of market valuation (3) overall net debt as a percentage of market valuation increasing 50% over the figure for 4 years earlier (4) overall net debt per capita exceeding 15% of per capita personal income (5) net direct debt exceeding 90% of the amount authorized by state law. It is important to recognize that these values may not be valid benchmarks for states with extremely low assessment ratios. Standard & Poor's considers a debt (not including pension funding debt) to market value ratio (or debt to income) of $<= 3\%$ to represent a low debt burden; 3-6% a moderate debt burden; and $>= 6\%$ a high debt burden. Similarly, Fitch IBCA identifies the average range of total debt as a percentage of market value (or personal income) as 2-5%. They suggest that below 2% is low and above 6% the ratio trends toward high with 10% a level above which affordability questions are raised. They indicate, however, that at both extremes, distinctions are made depending on where the community is in its life cycle.

Source of Data: Budgets (in some cases), Fiscal Database

Difficulty to Construct: Moderately Difficult to Difficult (depending on the government)

Related Notes: In general, Fitch IBCA places more focus on direct debt ratios since these costs are totally under control of the issuer and can be managed by the unit's elected and appointed officials. Tax-supported debt includes all obligations of an entity paid from tax sources. Self-support credit is given for tax-supported debt if debt service has been paid from an enterprise-type operation that levies user charges (e.g. water, sewer, electric, natural gas, airport, solid waste). Such debt is generally deducted in the calculation of net tax-supported debt if the user charge-supported system has been paying all its expenditures (including debt service) from non-tax sources for three years or more. The value of adjusting tax-supported debt in this fashion is to provide valid debt load comparisons between places that provide some services as a municipal function and those places that have the same services provided by the private sector. Standard & Poor's suggests measuring the debt burden against a community's ability to pay. Three indicators of ability to pay are: tax base, income of the community, and total budget resources.

b) Brown's Ten-Point Test* = $\dfrac{\text{Direct Long-Term Debt}}{\text{Population}}$

where Direct Debt is all general obligation tax-supported <u>bonded</u> debt in the general long-term debt account group to be repaid from property tax revenues

Interpretation: A low ratio suggests the government has the ability to repay its long-term debt. If long-term debt is increasing as population stabilizes or declines, debt levels may be reaching or exceeding the government's ability to pay (assuming that the ability to generate revenue and repay debt is directly related to population size). A high ratio is not inherently bad, however, and must be considered in the local context. Governments can and should wisely use debt. A government can have a ratio of zero, for example, but lag in the provision of important services and infrastructure replacement.

Benchmark: A debt burden greater than $1,200 per capita or level of debt exceeding 90% of the amount authorized by law is considered a warning signal. Standard & Poor's indicates that <u>overall</u> debt per capita of $1,000 or less is considered low; $1,000-$2,500 moderate; and greater than $2,500 high.

Source of Data: Budgets (in some cases), Census Bureau

Difficulty to Construct: Moderately Difficult to Difficult (depending on the government)

Related Notes: While not identical to the above measure, ICMA suggests it may be useful to monitor debt on a per capita basis, particularly for communities that do not rely heavily on property taxes and cannot easily compute a substitute revenue base for comparison.

c) Brown's Ten-Point Test (Alternate Measure) = $\dfrac{\text{Total General Long-Term Debt}}{\text{Population}}$

where Total General Long-Term Debt represents total liabilities in the general long-term debt account group

Source of Data: Financial Statements, Census Bureau

Difficulty to Construct: Difficult

Related Notes: Brown suggests using this ratio for governments with significant long-term debt that is not bonded.

3) Debt Service

   a) ICMA* = $\dfrac{\text{Net Direct Debt Service}}{\text{Net Operating Revenues}}$

   where Net Direct Debt Service is the amount of principal and interest a government must pay each year on net direct bonded long-term debt plus the interest it must pay on direct short-term debt

   Interpretation: Indicates the extent of the government's fixed costs for paying principal and interest on its direct tax-supported debt. Increasing net direct debt service as a percentage of net operating revenues reduces a government's expenditure flexibility and may suggest excessive debt and/or fiscal strain.

   Benchmark: Debt service on net direct debt exceeding 20% of operating revenues is considered a warning signal. A ratio of 10% or less is considered acceptable

   Source of Data: Budgets (in some cases)

   Difficulty to Construct: Moderately Difficult to Difficult (depending on the government)

   b) Brown's Ten-Point Test = $\dfrac{\text{Debt Service}}{\text{Total Revenues}}$

   where Debt Service = total expenditures in the debt service fund (Note: should include all principal and interest payments in funds other than the debt service fund.)

   Interpretation: A low ratio suggests the government is able to pay its debt service requirements when due. If government is paying a high percentage of total revenues in debt service, they may be forced to reduce other services.

   Benchmark: Fitch IBCA suggests that debt service above 10% of expenditures or revenues for cities and counties constitutes a level at which budgetary competition is a significant consideration. Standard & Poor's indicates that debt service as a percent of expenditures of <= 5%, represents a low carrying charge; 10% a moderate carrying charge; and >= 15% a high carrying charge. Further, they suggest that a debt burden is generally considered high when debt service payments represent 15-20% of combined operating and debt service fund expenditures.

   Source of Data: Fiscal Database

   Difficulty to Construct: Moderate

   Related Notes: Fitch IBCA indicates that the ratio of tax-supported debt service to overall expenditures for normal government operations (traditional tax-supported expenditures) is key in their debt analysis. General and debt service funds are usually

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used to construct the ratio though tax supported special revenue funds may be included in some cases. Similarly, Standard & Poor's utilizes the ratio of debt service in the general and debt service funds to their combined expenditures (not including pension funding debt) in their financial analysis of municipalities. See benchmarks above.

4) Overlapping Debt

ICMA = <u>Long-Term Overlapping Bonded Debt</u>
Assessed Valuation

where Overlapping Debt is the net direct bonded debt of another jurisdiction that is issued against a tax base within part of all of the boundaries of the community

Interpretation: While direct debt ratios indicate the burden on the entity of its own capital costs, overall ratios best measure the debt that must be serviced by the community's tax base, and are a partial indicator of the total local tax burden that is levied by all the overlapping governments serving the taxpayer. This indicator measures the ability of the community's tax base to repay the debt obligations issued by all of its governmental and quasi-governmental jurisdictions. Though the probability that the government would have to repay overlapping debt is slim, increasing overlapping debt as a percentage of assessed valuation is undesirable.

Source of Data: Unknown, Fiscal Database

Difficulty to Construct: Very Difficult

Related Notes: Fitch IBCA indicates that though measuring overlapping debt is important, default experience shows that mismanagement of an issuer's direct debt has more negative consequences and potential for default than the higher debt that results from issuance by overlapping governments. <u>Overall debt per capita</u> is an indicator of the total local tax burden that residents and businesses must bear to repay debt by all overlapping governments. It does not, however, account for variations in the residential and commercial composition, mix of the tax base, and who pays the debt, or measure ability to pay. Thus, <u>overall debt as a percentage of market value</u> of the property tax base is a better indicator of the local debt burden.

5) Amortization of Debt

Rate that existing debt is amortized

Interpretation: Prudent use of debt dictates that the debt's term matches the useful economic life of the financed facilities. A faster maturity schedule may be desired to avoid increased interest costs, however, it can place undue strain on the operating budget.

Benchmark: Fitch IBCA considers a schedule that retires 25% of principal in 5 years and 50% in 10 years an adequate rate of amortization (Standard & Poor's concurs.) though a more rapid amortization schedule of 35% or more in 5 years and 65% or more in 10 years may be viewed favorably and contribute to a higher rating. Further, tax-backed debt retirement that falls below 40% in 10 years is considered a weak fiscal practice.

Source of Data: Financial Statements

Difficulty to Construct: Difficult

Related Notes: See Depreciation Expense under Capital Plant.

6) Short-Term Debt

Interpretation: Fitch IBCA suggests that growth of short-term debt exceeding annual spending growth may be an early sign of future fiscal stress.

Source of Data: Financial Statements, Budgets

Difficulty to Construct: Difficult

UNFUNDED LIABILITY

1) Unfunded Pension Liability

   ICMA* = $\dfrac{\text{Unfunded Pension Liability}}{\text{Assessed Valuation}}$

   where the value used for Unfunded Pension Liability depends on the government's pension accounting system

   Interpretation: Growth in unfunded pension liability places an increased burden on the tax base (i.e. reduces the government's ability to pay) and is undesirable. This assumes, of course, that the ability to pay is directly related to assessed valuation (i.e. that property taxes are the primary source of revenue for the payment of vested benefits). Fitch IBCA indicates that an inadequately funded plan (as well as a pay-as-you-go plan) can result in substantial budgetary pressures in the long-term. Similarly, Standard & Poor's suggests that a failure to contain the growth of unfunded pension liabilities endangers the government's ability to meet its long-term debt obligations.

   Source of Data: Pension Plan and/or Payroll Records (?), Fiscal Database

   Difficulty to Construct: Difficult to Very Difficult (depending on the government)

   Related Notes: When compared with (Net Tax-Supported Long-Term Debt / Net Assessed Valuation), this ratio indicates the level of unfunded liabilities relative to net tax-supported bonded debt. Also, Standard & Poor's indicates that the management of pension fund and other long-term financial obligations is having an increasingly meaningful impact on financial performance and position.

2) Pension Assets

   ICMA* = $\dfrac{\text{Pension Plan Assets}}{\text{Annual Pension Benefits Paid}}$

   Interpretation: Indicates the amount of accumulated cash and investments relative to annual benefits paid. A decline in the ratio of plan assets to benefits is undesirable and may indicate serious problems in the management or design of the pension plan.

   Benchmark: Fitch indicates that annual pension contributions paid into the fund should be at least equal to or greater than benefits paid out, such that the plan funding level is maintained or improved.

   Source of Data: Pension Plan Records

   Difficulty to Construct: Difficult

Related Notes: An alternate ratio to consider is the annual amount of pension receipts as a percentage of annual benefits paid. This ratio focuses more specifically on the pension plan's ability to meet its current cash requirements.

3) Accumulated Employee Leave

$$\text{ICMA} = \frac{\text{Total Days of Unused Vacation \& Sick Leave}}{\text{Number of Government Employees}}$$

where Total Days of Unused Vacation & Sick Leave should include all such days for the employees included in the denominator (FTEs can be used in the denominator rather than a simple head count)

Interpretation: An increasing number of unused vacation and sick leave days per government employee is undesirable. Unused vacation and sick leave can become a significant cost to governments if employees are paid for their accumulated leave. Thus, this liability should be closely watched to ensure that vacation and sick leave policies do not contribute to an excessive increase in unfunded liability.

Source of Data: Payroll Records

Difficulty to Construct: Difficult

Related Notes: Other useful ratios would be unfunded "other postemployment benefits" or unfunded accrued vacation and sick leave divided by net assessed valuation. Standard & Poor's considers it a strength if a government establishes a reserve fund to cover some of all of the costs of long-term contingent liabilities such as accrued sick and vacation leave.

<u>CAPITAL PLANT</u>

1) Maintenance Effort

ICMA = <u>Expenditures for Repair and Maintenance of General Fixed Assets (constant $)</u>
Quantity of Assets

where the measure used for Quantity of Assets depends on the asset being considered (i.e. roads in miles, parks in acres, etc.)

Interpretation: In general, maintenance expenditures should remain relatively stable, in constant dollars, relative to the amount and nature of the assets. A declining ratio between maintenance expenditures and size of asset stock may be a sign that the government's assets are deteriorating. If the trend continues, deterioration will push up future maintenance costs.

Source of Data: Budgets (in some cases), Varied (KDOT for roads)

Difficulty to Construct: Moderate to Difficult (depending on the asset being considered and the government)

2) Capital Outlay

ICMA = <u>Capital Outlay from Operating Funds</u>
Net Operating Expenditures

where Capital Outlay is a term that normally refers to equipment that will last longer than one year and has an initial cost above a significant minimum amount and does <u>not</u> include capital budget expenditures for construction of infrastructure (e.g. streets or buildings)

Interpretation: A three or more year decline in capital outlay from operating funds as a percentage of net operating expenditures is considered undesirable. While a decline in the short-term may suggest that the government's needs are temporarily satisfied, a decline for more than three years may indicate that capital outlay needs are being deferred.

Source of Data: Budgets (in some cases)

Difficulty to Construct: Moderate to Difficult (depending on the government)

3) Depreciation Expense

   ICMA = Depreciation Expense
              Cost of Depreciable Fixed Assets

   where measures in both the numerator and denominator include only depreciable assets in the government's enterprise and internal service funds

   Interpretation: Generally, this ratio will remain steady as older assets that are fully depreciated are removed from service and replaced with newer assets. Decreasing depreciation expense as a percentage of total depreciable fixed assets for enterprise funds and internal service funds is viewed unfavorably, as it suggests that assets on hand are being used beyond their estimated useful life (resulting in inefficiencies and higher costs).

   Source of Data: Financial Statements (?)

   Difficulty to Construct: Difficult

   Related Notes: See also Amortization of Debt under Debt.

COMMUNITY NEEDS & RESOURCES

1) Population

    Interpretation: A rapid change in population size suggests the need for further investigation. A sudden increase in population can create immediate pressures for new capital outlay and higher levels of service. A decline in population seldom permits government to reduce expenditures in proportion to the population loss. In addition, the interrelationship of population and other economic and demographic factors tends to give population decline a cumulative negative effect on revenues (i.e. the greater the decline, the more adverse the effects on employment, income, housing, and business activity).

    Source of Data: Census Bureau

    Difficulty to Construct: Easy

    Related Notes: Standard & Poor's suggest looking at growth and shifts in population over several decades.

2) Median Age

    Interpretation: The relationship between median age and other economic and demographic factors is not completely clear. Evidence does indicate, however, that an aging population and an increase in the number of senior citizens can hurt both the revenue and expenditure profiles of a local government. Revenues may be affected by the fixed nature of senior citizens' incomes, which often don't keep pace with inflation, and their more frequent exemption from property taxes and user charges of various types. Expenditures may increase, as senior citizens often require specialized programs, especially in the areas of health, welfare, and transportation. Note that an increase in the number of children might also affect government expenditures, particularly in areas such as education, parks and recreation, and juvenile justice.

    Source of Data: Census Bureau

    Difficulty to Construct: Moderate

3) Personal Income Per Capita

    Personal Income (constant $)
             Population

    Interpretation: Personal income per capita is one measure of a community's ability to pay taxes. The higher the per capita income, the more taxes the community is expected to be able to generate. Standard and Poor's suggests that a wealthy and <u>diverse</u> economic base can generally afford higher debt burdens or recover from financial problems more easily through a modest tax hike than a poor economic base that might have more limited

and less forgiving government options. In addition, per capita income levels affect consumer purchasing power, which impacts the local retail sector and, thus, the rest of the economy. A decline in the level or growth rate of personal income per capita is undesirable.

Benchmark: Fitch IBCA indicates that for a predominantly residential community's tax base to constitute the basis of an above-average general obligation bond rating, per capita income levels are generally at or above average. A strong and diverse commercial component in the tax base (40% or higher), however, can bolster an otherwise average residential income base, supporting an above-average rating. Standard & Poor's considers median household or per capita income levels of <=75% the national average very low; 85% low; 100% average; 120% high; and >=140% very high.

Source of Data: REIS, Census Bureau

Difficulty to Construct: Easy

Related Notes: It is important to recognize, however, that per capita income levels do not provide information about the local income distribution. Two communities with the same per capita income may have very different patterns of income distribution. One may have a small number of extremely high-income households and a large number of low-income households, while the other may be composed almost entirely of middle-income households. These distributions may result in very different service demands. Fitch IBCA points out that there is no strong evidence that governments with lower income levels have higher levels of default. Lower incomes could, in part, reflect lower costs of living in these locations. Measurements of ability to pay, such as median household and per capita incomes, however, remain important credit factors. Standard & Poor's concurs, indicating that high wealth and income characteristics are viewed very favorably and often contribute to superior debt repayment capabilities. ICMA notes that credit rating firms often compare growth in per capita incomes to growth in government expenditures to determine whether growth in income is keeping pace with that in expenditures. If not, a government's tax burden is increasing which may contribute to a future inability to meet financial obligations.

4) Poverty Households or Public Assistance Recipients

Poverty Households or Public Assistance Recipients
Households in Thousands

Interpretation: An increasing proportion of poverty households or public assistance recipients may signal a future increase in the level and unit cost of some services because low-income households are anticipated to have relatively higher needs.

Source of Data: Census Bureau

Difficulty to Construct: Moderate

5) Property Value

$$\frac{\text{Change in Property Value (constant \$)}}{\text{Property Value in Prior Year (constant \$)}}$$

where market value is the preferred measure, but assessed valuation may be substituted.

Interpretation: Changes in property value are important because most local governments depend on the property tax for a substantial portion of their revenues. Declining growth or a drop in the market value of residential, commercial, or industrial property in constant dollars is undesirable. Declining property values are often a symptom, rather than a cause, of other underlying problems.

Benchmark: Standard & Poor's suggests that market value per capita of $20,000 is low; $40,000 moderate; and $60,000 high. Note, however, that these values may vary greatly by state depending on assessment practices, homeowners' exemptions, the cost of living, etc.

Source of Data: KDOR for market value (?), Fiscal Database for assessed valuation

Difficulty to Construct: Easy to Moderate (depending on whether use market or assessed valuation)

Related Notes: Standard & Poor's advises analyzing assessed valuation trends over a five- to ten-year period.

6) Residential Development

$$\frac{\text{Market Value of New Residential Development}}{\text{Market Value of Total New Development}}$$

where Market value is used as residential property is generally assessed at different rates than other types of property. Assessed valuation may be used, however, if residential and nonresidential properties are assessed uniformly and comparable rates of appreciation are used.

Interpretation: Increasing market value of residential development as a percentage of market value of total development is generally undesirable as the net cost of serving residential development is often higher than that of servicing commercial or industrial development. Note that this may not always be the case depending on the type of residential development and its location. An increase in this indicator may provide advance warning of potential increases in service demands or revenues, particularly in rapidly growing communities

Source of Data: Unknown

Difficulty to Construct: Very Difficult

7) Vacancy Rates

Interpretation: Increasing vacancy rates in residential, commercial, or industrial buildings often reflects a sluggish or declining economy. A surge in development may temporarily boost vacancy rates but a long-term increase in vacancy rates suggests overbuilding.

Source of Data: Census Bureau

Difficulty to Construct: Moderate

8) Employment Base

Local Unemployment Rate and/or Number of Jobs in the Community

Interpretation: An increasing rate of local unemployment or a decline in the number of jobs within the community is undesirable. Changes in the unemployment rate are related to changes in personal income and are thus a measure of the community's ability to support its business sector. A change in the number of jobs available in the community is a measure of business activity. A decline in the employment base can be an early sign that overall economic activity is declining and that government revenues may be declining as well.

Source of Data: KDHR

Difficulty to Construct: Moderate

Related Notes: Standard & Poor's indicates that is important to consider the performance of unemployment rates and labor force growth through a recession to gauge the cyclicality of the underlying employment base. The match between jobs and the skill level of the labor force is also of some concern. Other factors considered are: the industry mix and employment by sector (to identify diversification trends or structural changes in the economy over time), concentration in major employers or industries, employer commitment to the community, and regional patterns of employment and growth (to see how the community fits into the regional economy). Fitch IBCA also reviews the depth and breadth of the employment and tax bases as part of their rating process.

9) Business Activity

Retail Sales, Number of Business Units, Gross Business Receipts, Building Permit Activity, Number of Acres Devoted to Business, and Market or Assessed Value of Business Property are all potential measures of business activity (in constant $ where appropriate)

Interpretation: A declining level of business activity has an undesirable impact on government financial condition. First, it directly affects the yields of revenues that are a product of business activity, such as the sales tax. Second, it indirectly influences economic and demographic factors such as personal income, property value, and the employment base.

Source of Data: Varied (KDOR, County Business Patterns, Census Bureau)

Difficulty to Construct: Easy to Very Difficult (depending on the measure)

10) Property Taxpayer Concentration

Interpretation: Fitch suggests that undue concentration by either an employer or industry sector may be a cause for concern, though this concern may be partially offset by diversity in the sector.

Benchmark: Fitch IBCA suggests that property taxpayer concentration of more than 5% for any one taxpayer or 30% for the top 10 taxpayers may require closer scrutiny. Standard & Poor's considers an economy with 15% or less of its assessed valuation in the top 10 taxpayers diverse; 25% moderately concentrated; and 40% or more concentrated.

Source of Data: Tax Collection Records (?)

Difficulty to Construct: Difficult

Related Notes: Standard & Poor's reviews the composition of the tax base to identify proportionate contributions from residential, commercial, and industrial tax revenue sources.

11) Miscellaneous

Fitch IBCA indicates that although growth is usually considered to be a positive factor, demonstrated stability in the typical demographic factors can also be a positive, particularly for smaller communities that do not have a wide range of service demands and spending pressures. Standard & Poor's identifies the economic base (which incorporates demographics, the tax base, and the employment base) as the most critical element in determining an issuer's rating.