Part I

Fiscal Health and Sustainability Concepts and Measures

Chapter 2

Assessing the Financial Condition of Local Governments

What Is Financial Condition and How Is It Measured?

by Benoy Jacob and Rebecca Hendrick

Introduction

Clearly assessing the financial condition of local governments is fundamental for the effective administration of the American federal system. Federal and state governments are interested in assessing local financial condition for purposes of distributing grants and aid as well as monitoring local fiscal distress. Similarly, local governments monitor many aspects of their own fiscal health as part of their financial management and fiscal policymaking activities. A host of factors affect local government finances, and no single metric is able to fully account for the various components of financial condition. Thus, scholars and practitioners employ a variety of measures, each offering partial insights into a locality's fiscal state of affairs.[1] Additionally, financial condition is sensitive to the particular features of the locality under consideration. Thus, it is not clear that a partial measure used to describe the financial condition of one city can be effectively employed in another city, particularly when the context differs (e.g., a small rural city being compared to a central city or comparing two similar cities in different states). Such partial measures, however, may not be a bad thing. Given the heterogeneity of local government, one size cannot, and should not, fit all. Nevertheless, the wide range and uses of financial condition measurements makes it difficult for the scholar and practitioner to determine how best to approach the problem of assessing financial condition. That is, it is difficult to answer the simple question of: *What is a government's financial condition and how do you assess it?*

In its simplest terms, a local government's financial condition represents its ability to meet financial and service obligations. Unfortunately, this concise definition leads to a host of additional questions. First, at what level must obligations be met? Is a local government in better financial condition if it can meet its obligations at a higher level, or is there a threshold at which its fiscal condition is considered sound? Second, over what period of time should the obligations be met? Should good financial condition be a function of meeting long-run obligations only, near-term obligations, or both?

Third, does financial condition depend on meeting all obligations or only the primary ones? And fourth, to what extent is financial condition in a current time period dependent on financial condition in a prior time period.

For instance, is a government that is in good financial condition, in that it can meet its financial and service obligations in the immediate term but is experiencing a decline in ability to meet future obligations better or worse off than a government in poor but improving condition? In other words, is financial condition a static or dynamic concept? In listing these questions, our goal is not to be comprehensive but rather to emphasize that the simple question of financial condition is unlikely to yield to a simple answer. Thus, to understand the broader issue of: "what is financial condition?" one needs a conceptual framework that addresses these issues. Such is the task undertaken in this chapter.

Rather than present the reader with one "correct" definition and method of measuring local financial condition, this chapter provides a comprehensive overview of the concept and discusses how financial condition develops over time. It also identifies different dimensions and properties of component indicators that are used in constructing composite measures of financial condition and explains how these indicators can be measured. The moral of the story is that there is no one best way to measure or assess financial condition, and no single composite measure exists that recognizes all its features.

The chapter proceeds by describing financial condition as the result of a process characterized by the strategic choices of local officials with respect to goals regarding different forms of solvency. The targets of these strategic choices are the factors that shape the local/internal fiscal structure of the locality. However, the choices themselves are shaped by the limitations, advantages, and other features of localities' fiscal environment over which local officials have less control, and are often motivated by changes to that environment. This framework helps specify the concept of financial condition more completely and helps the reader organize, apply, and interpret the many component measures of financial condition used in the profession.

The Concept of Financial Condition

The fiscal pressures that central cities faced in the late 1970s and early 1980s spawned numerous efforts across disciplines and organizations to assess local government fiscal health and financial performance and, in some cases, develop indices of these conditions. The varied uses and foci of these types of measures indicate the difficulty of defining financial condition in a way that fully recognizes its diversity. Financial condition must be conceptualized in a manner that acknowledges its multiple time frames and the complexity of government fiscal action, which suggests that financial condition is not static. Along this vein, one of the more useful specifications of financial condition is put forward by Groves, Valente, and Nollenberger (2003) who propose four different types of solvency—long-run, service level, budgetary, and cash. Defined in this manner, solvency distinguishes among different stages of fiscal condition and levels of financial and service obligations.

The solvencies also take into account different characteristics of government's internal fiscal structure and external fiscal and political environment (Groves et al., 2003). Although these solvencies are related in the sense that a government with poor solvency in one area is likely to have poor solvency in other areas and vice versa, this is not always the case. First, *long-run solvency* refers to the long-run balance between government revenues and spending needs and implies that government has the ability to adapt to uncertain future fiscal conditions, some of which may be severe shocks. Second, *service-level solvency* refers to the ability of government to provide adequate services to meet the health, safety, and welfare needs of its citizens given its revenue resources. Third, *budgetary solvency* is defined as the ability to balance the budget or generate enough resources to cover expenditures in the current fiscal year. Finally, *cash solvency* is the government's ability to generate enough cash over 30 or 60 days to pay its bills.

Although recognizing different solvencies is a key step in conceptualizing financial condition, this framework is not sufficient. By itself, it says little about which structural or environmental factors should be examined in different time periods. In our conceptualization of financial condition, "time" is a critical variable. Time, particularly with respect to financial conditions, means different things to different people. Accountants think about time in terms of cash or accrual reporting. Social scientists, more generally, think about it in terms of proximate versus remote causes. Our approach is somewhat different. We conceptualize time in terms of the way events within the same "system" (or dimension of financial condition) affect each other more directly and rapidly than events across system. Further defining solvencies and identifying relevant factors to examine in the context of these different time frames will offer more clarity.

Financial condition applied to long-run and service-level solvency is a function of both current and future fiscal obligations and resources. Because current financial and service obligations often stretch into the future (e.g., debt and pension obligations), assessments of current financial condition also must recognize current and likely future fiscal states. However, the future is unknown, making assessing long-run and service-level solvency imprecise. That is, conditions that affect a government's ability to meet its obligations, which include features of its fiscal structure (e.g., tax rate, types of revenues collected, debt levels) and environment (e.g., costs, service needs, political demands), can change dramatically over time. Thus, our assessment of financial condition in either time frame can be, at best, only a good estimate.

From examining fiscal trends, we know that current states (fiscal structure and environment) are the best predictor of future fiscal states, but current states become less useful predictors in more volatile environments. We also know that many aspects of a government's current financial condition are a direct function of past states and that change in fiscal structure and environment is often incremental (Wildavsky and Caiden, 2000). Ultimately a government's current financial condition is the result of many decisions made by public officials over time regarding its fiscal structure. These decisions also are made in the context of state *institutions* and other internal and external conditions

that constrain choices, provide opportunities, and establish fiscal goals that are particular to the government.

The next section presents a model of financial condition that is process based. This model focuses on the strategic decision making of public actors who must navigate changing fiscal and political environments.

The Financial Condition Process

Figure 2.1 presents a dynamic model of financial condition that is presented by Hendrick (2011, p. 25). The model demonstrates that financial condition is a process shaped by the external fiscal environment as well as local decisions or choices. It suggests that: (1) there is a relationship between current choices and future opportunities (and vice versa), (2) there are factors that are less controllable by local decision makers (e.g., the environment), and (3) the relationship between the environment and the decision maker is mediated by risk and slack. At the core of the model are the strategic choices public officials make with respect to current needs. These choices are made either in response to changes in the environment or in the hope of changing the external environment. This in turn, has an effect on the opportunities and constraints that the agency will face in the future. Thus, when making current strategic choices, decision makers must be cognizant of future implications.

The center box of our model represents the local government and identifies various features of its internal fiscal structure that directly affect financial condition. Financial
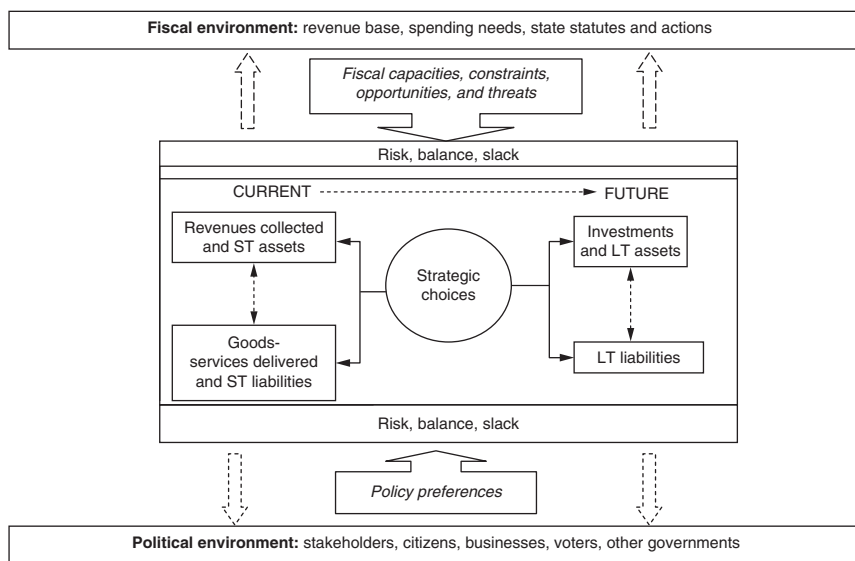

Figure 2.1 The Financial Condition Process

From *Managing the fiscal metropolis: the financial policies, practices, and health of suburban municipalities* by Rebecca Hendrick.

condition and fiscal structure are a function of two types of choices public officials make over time:

1. The types and levels of:
   a. **Current** revenues to collect (and other short-term assets), and
   b. **Current** services/goods to deliver (and other short-term liabilities).
2. The types and levels of:
   a. **Future** or long-term assets to invest in (e.g., capital infrastructure and investments in the form of cash or economic development. Their fiscal value is in the potential payoffs or increase in revenue streams that result from investments and leverage of current assets) and
   b. **Future** liabilities to incur (e.g., current spending claims made on future revenue streams including repayment of debt, pension payouts, deferred equipment maintenance, and capital improvements).

The dotted lines between current revenues and spending and future assets and liabilities signify that the two components of each pair are interdependent. Due to balanced budget requirements that legally constrain the spending habits of cities, local governments cannot spend more than they collect in revenues, although certain features of their fiscal structure, as discussed later, provide some short-term flexibility in this matter. Similarly, short-term assets, those required to fund government during the fiscal year, must be matched with short-term liabilities. Thus, choices concerning current revenues and spending are often made in conjunction with each other, and the outcomes are highly correlated. Choices regarding future assets and liabilities are also interdependent, albeit less so than current revenues and liabilities. Although fiscal choices about future liabilities often take investments and long-term assets into account, many times they do not. Additionally, the uncertainty of future states makes the correlation between long-term investment and liability choices less than the correlation between short-term revenues and expenditures.

The heavy dotted line between current and future states show that strategic choices about current states can have an effect on future states independent of the conscious decisions officials make about future states. For instance, the decision to lower sales taxes can, over time, create an imbalance of revenues to spending that was unintended, especially if spending is not reduced or other revenues increased. On the other hand, officials often make conscious choices to increase or reduce future liabilities by issuing more debt or refinancing existing debt at a more favorable interest rate.

The strategic choices, at the core of the model, are made in a context of the fiscal and political environments. Both environments affect a government's financial condition and structure via the opportunities they present and the constraints they impose, but are less "controllable" by officials than the targets of strategic choices. That is, although some environments are more constraining or demanding than others, governments have a broad range of choices they can make about current and future assets and liabilities.

The local fiscal environment includes state statutes that directly determine many features of their fiscal structure and financial management practices, such as which local taxes can be levied, the size of the fund balance, the level of pension fund contributions, the amount of state and federal aid or shared revenues received, and even types and levels of service to provide. These statutes constrain the actions of local governments and, therefore, affect their financial condition. Local governments in states that withdraw state aid because of their own fiscal problems will have to adjust spending and revenues in a similar fashion. In this case, governments with a wealthy revenue environment and many revenue opportunities will be better able to cope with fiscal shocks or to take advantage of fiscal opportunities.

The political environment, which includes voters, citizens, businesses, taxpayers, and other governments and financial stakeholders, defines the policy and fiscal preferences within which local government officials operate. For example, although voters generally dislike property taxes, they may still pressure officials to spend more on public services, which often lead public officials to defer maintenance, increase liabilities, or raise fees and other taxes to balance their budget during difficult financial periods. As indicated by the thick dotted arrows between fiscal/political environment and the center box in Figure 2.1, public officials have less control over the external environment (e.g., property values, crime rates, and economic growth) than their internal fiscal structure (e.g., property tax rate, police spending, and debt levels). Two examples will help clarify the relationship between the internal and external dimensions.

First, the government of a municipality with high crime has higher spending obligations and is likely to spend more for police services than a government of a low-crime municipality. However, the level of actual spending on police services is constrained by their revenue capabilities (i.e., fiscal capacity) and the level at which they choose to meet this obligation (i.e., policy preference). Given the same revenue potential, some governments may spend more than they need for police service, and others may spend less. Likewise, the government of a municipality with high property values requires proportionally less of that revenue base and a lower tax rate to fund the same level of services as a government of a municipality with low property values.

Second, although most features of the environment do not change rapidly, some can change dramatically in a short period and have a more immediate and direct effect on fiscal choices. For example, a municipality experiencing a natural disaster, such as a flood, will be forced to drastically increase its spending for policy and public services. This change will undoubtedly constrain future fiscal choices and fiscal structure. Similarly, an income-tax dependent municipality facing a severe recession that lays off many of its citizens must quickly adjust its spending downward or other revenues upward to compensate.

Adaptation of fiscal structure to the environment.
Over time, fiscal and political environments change, thereby altering a government's external constraints and opportunities. Such changes require that a city adjust its fiscal structure accordingly (i.e., revise or rethink their strategic choices). Thus, understanding the government's exposure to change and subsequent ability to adapt are important for

evaluating its financial condition (i.e., determining whether the measure of financial condition reflects fiscal health or fiscal stress). This section discusses three features of the relationship between government fiscal structure and environment that are useful for assessing the different types of solvency. These features are *risk, slack,* and *balance.* Later sections discuss how to measure these features.

Fiscal *risk* refers to a government's exposure or vulnerability to detrimental future fiscal shocks and changes in the environment. All things being equal, a government that faces more risk is less able to adapt to environmental changes and, therefore, is in worse financial condition than a government facing less risk. For example, a government that relies heavily on sales taxes, which are highly elastic, is more vulnerable to declines in the economy than one that relies heavily on property taxes, which are more stable and less affected by the economy.[2] Thus, a significant downturn in retail sales may reduce sales taxes dramatically in the "sales tax reliant" locality, which worsens its financial condition, but will have little effect on the public officials in the "property tax reliant" locality. On the other hand, the "sales tax reliant" locality is likely to accumulate surplus revenues during good economic periods by comparison to the second in which property values and taxes increase more slowly.

The second concept—fiscal *slack*—refers to the pool of resources available to a government in excess of what is necessary to produce a minimum level of services. Fiscal slack can be surplus monetary resources, such as the fund balance or rainy day fund, or nonmonetary resources such as excess employees. Fiscal slack can also be uncollected revenue from that portion of the revenue base available to the government through higher taxation. On the expenditure side, fiscal slack can be discretionary spending such as capital maintenance and travel that can be easily reduced during difficult financial periods (Hendrick, 2004). In general, larger governments tend to have more slack in nonmonetary areas than smaller ones due to their greater number of activities and opportunities to generate surplus resources, and governments with a wealthier revenue base have more slack than governments with poorer revenue base (higher revenue reserves). However, smaller governments tend to maintain higher cash resources (*fund balances*).

Slack is also an important counterweight to risk because, all other things being equal, governments with more slack have greater flexibility and capacity to absorb environmental changes—either positive or negative—and, therefore, less overall risk. The sales tax dependent government in the previous example could significantly reduce its risk by keeping excess sales taxes collected during good fiscal periods in a surplus fund to compensate for sales tax shortages during bad fiscal downturns. Governments with slack also have greater capacity to take advantage of opportunities to improve their financial condition, such as grants or economic development proposals that are expected to reduce expenditures or increase revenues in the future.

The third concept—*balance*—reflects the extent to which a government has adapted its *current* fiscal structure to the demands, pressures, opportunities, constraints, and likely *future* changes in the environment (Clark and Ferguson, 1983). Financial condition, according to this perspective, depends on the appropriateness or fit of the fiscal structure

to the environment and other features of the government's fiscal structure. This concept emphasizes that financial condition cannot be assessed independently of the context. In other words, financial condition and solvency are contingent upon other environmental and structural factors.

For example, we can examine whether revenues collected are balanced with or appropriate for the government's revenue base, whether actual spending is balanced with current and future obligations, and whether slack is balanced with risk. The fiscal structure of a government that relies heavily on property taxes but has significant retail sales and the opportunity to levy a sales tax is not balanced with its revenue environment, especially if voters are highly opposed to raising property taxes. Although the government may perceive it has lower financial risk because property taxes are more stable than sales taxes, it may be unable to raise enough property taxes to cover current or future spending needs. In this case, spending is not balanced with obligations, and the government should consider collecting more sales taxes to generate additional revenue. The government also should increase its surplus funds to mitigate the increased financial risk associated with being more dependent on sales taxes, which then brings its slack into balance with its risk.

The Components of Financial Condition

Table 2.1 presents a two-dimensional scheme for organizing the components and measures of financial condition that is also presented by Hendrick (2011, p. 32). Each of these components is an important factor that needs to be measured as part of any evaluation of financial condition. The vertical dimension reflects capacities, constraints, or net financial

TABLE 2.1 Classification of Financial Condition Measures and Areas of Measurement

Revenues, Assets, and Other Resources (capacities)		
Economic & Revenue Base (& Elasticity)	Dependence on Intergovernmental Revenues	Revenues Collected & Outstanding
State Economy	Tax Rates, Fees, & Charges	Accounts Receivable
Revenue Capacity	Budgeted Revenues (& Diversification)	Fund Balance
Residents & Businesses (Growth)	Revenue Reserves	Cash & ST Investments
Physical Assets & LT Investments	Surplus Resources	Revenues Collected & Outstanding
Recurring Intergovernmental Revenues		Accounts Receivable

(continued)

TABLE 2.1   Classification of Financial Condition Measures and Areas of Measurement (cont.)

Expenditures and Liabilities (constraints)

Spending Needs & Demands, Costs	Budgeted Expenditures (& Fixity)	Accounts Payable (terms, fixity)
Residents & Businesses (Growth)	Spending Priorities	Short-Term Debt
State & Federal Mandates		
Long-Term Debt		
Unfunded Pension Liabilities		
Deferred Maintenance		

Net Financial Condition: Balance and Solvency

Long-Term Solvency	Service Level Solvency	Cash Solvency, Budgetary Solvency
Spending Needs Relative to Revenue Wealth	Revenue Burden	Operating Position
Long-Term Liabilities / Long-Term Wealth	Spending Relative to Needs	Liquidity
	Slack Relative to Risk	Expenditures Relative to Revenues
		ST Slack Relative to ST Risk

ATTRIBUTES
Over Time/Future ◄─────────────────────► Current
Less Controllable ◄─────────────────────► More Controllable
External /Environment ◄─────────────────────► Internal/Fiscal Structure
Stable ◄─────────────────────► Volatile

From *Managing the fiscal metropolis: the financial policies, practices, and health of suburban municipalities* by Rebecca Hendrick.

condition (moving from top to bottom). Capacities include government revenue, credits, assets, and other resources. Constraints include expenditures, debits and liabilities, and net financial condition that focuses on balance measures that correspond to the different types of solvency. The horizontal dimension (moving from right to left), classifies the components according to the attributes or properties at the bottom of the table.

Although the measures are presented in three groups, the attributes range along a continuum. Measures on the left-hand side of the table represent aspects of financial condition that are less controllable, more stable, more long term or future focused, and

they tend to be part of the government's environment. Measures on the right-hand side of the table represent aspects that are more controllable, more volatile, more short term or focused on current events, and they are part of the government entity itself. We must also note that the fiscal features listed in each cell of the table are not exhaustive and represent, in most cases, general types of indicators or areas of measurement rather than specific measures. The next three subsections of this chapter describe some of the measures or areas of measurement within each row category in more detail.

Revenues, Assets, and Other Resources

From an accounting perspective, an *asset* is anything the government owns that can produce an economic benefit. From a more general economic perspective, an asset is simply any form of wealth. Thus, it encompasses external resources that the government has access to or which give it the capacity to meet obligations and improve financial condition. Assets can be short-term investments and cash balances that are used to manage cash flow during the fiscal year, slack resources that help manage budgetary risk, long-term physical assets such as buildings, and excess revenue capacity. Because revenues are a government's most important asset, we review these first.

Local governments have two basic types of revenue—intergovernmental and own-source. *Intergovernmental revenues* are funds received from the state or federal governments for specific functions (grants) or for general financial assistance (aid). *Own-source revenues* are generated from resources within the local government's jurisdiction, although other governments can collect them and distribute them to the owner government at regular intervals. Local own-source revenues include property taxes, user fees, and other charges and, in some states, may include other taxes such as sales and income. Local governments meet most of their service and financial obligations with own-source revenue, but much of their revenue is intergovernmental in the form of general assistance from state government based on a share of state taxes.

To understand the role of own-source revenues in financial condition, it is useful to consider its different features relevant to long-term and service-level solvency. Berne and Schramm's Revenue-Economy Relationships Model (1986, p. 99) is very useful in this regard.

According to **Figure 2.2**, the local *economic base* is the total amount of economic resources within a jurisdiction, regardless of whether a government has access to them. It is a function of the fiscal environment's *economic performance* and *economic structure*. Economic performance represents the jurisdiction's level of economic activity and is measured by one or more indicators such as percentage unemployment, resident income, and poverty level. *Economic structure* is the composition of economic activity in the jurisdiction such as land use (residential, commercial, industrial), type of jobs and commerce, transportation facilities, and the regional or state economy.

The *revenue base* refers to that portion of the economic base that the jurisdiction has access to through specific revenue-raising mechanisms according to state statute and
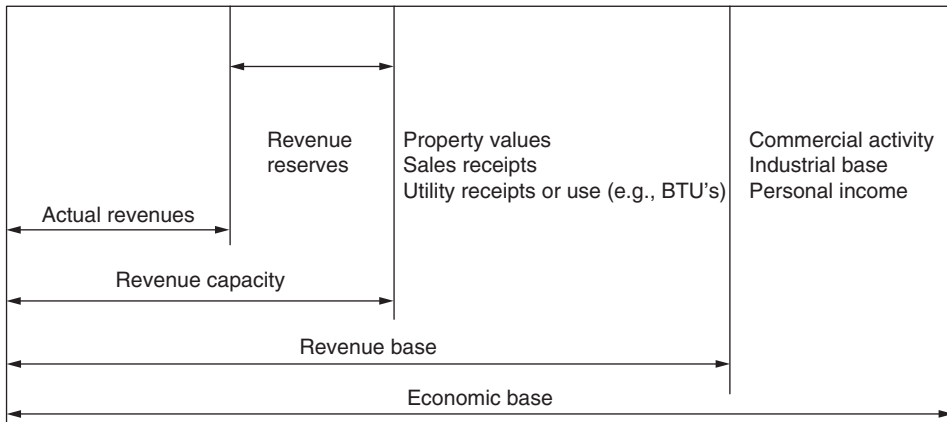
Figure 2.2 Revenue Economy Relationships

Modified from Berne, R., and Schramm, R. (1986). Pp. 99, Figure 4-1. *The financial analysis of governments*. New Jersey: Prentice-Hall.

other legal and institutional constraints. For example, if a local government has access to sales taxes, then sales receipts are one part of its revenue base. The more sales receipts generated by businesses within its jurisdiction, the wealthier its sales tax base. For governments that cannot levy a sales tax, sales receipts are simply part of its economic base. Most local governments have access to property values (property tax), and some have access to sales receipts, resident and nonresident income (payroll tax), and other sectors of the economy (e.g., utility usage and development). Income per capita is also considered to be a good measure of total revenue base wealth in governments with few revenues generated from businesses or nonresidents (Berne and Schramm, 1986). The value of the revenue base also is greatly affected by population growth and economic development, which, over time, may increase property values and the revenue generated from fees (e.g., building permits).

Revenue capacity reflects that portion of the revenue base the government can actually tax, which also is established in most cases by state statute. For instance, all state governments grant local governments access to property values, but many state governments limit the maximum property tax rates local governments can levy, which establishes local governments' revenue capacity on the property tax revenue base. A local government's revenue-raising capacity is thus the maximum level of revenue it could raise from the taxes and fees that comprise this portion of the revenue base.

Actual revenue is the amount of revenues the government chooses to collect via its tax rates, fee rates, and charges. *Revenue reserves* are excess or slack revenue capacity that the government has access to but has not used (reserves = capacity – actual). If a locality tapped its revenue base to the full potential, actual revenues would equal revenue capacity and revenue reserves would equal zero. Both actual revenues and revenue reserves are not

really features of government environment because, to a great degree, elected officials who determine tax rates, fees, and specific charges for services control them. As discussed previously, governments with more revenue reserves have greater capacity to meet their fiscal and service obligations during fiscal shocks and downward fiscal trends. They also have more capacity for investments that take advantage of economic development opportunities to improve service-level solvency in the long run.

Because a significant portion of most local governments' total revenue is from state government, it is an important factor in their financial condition. State revenue in the form of grants tends to be one-time or nonrecurring revenues that have specific obligations attached to them, and recurring state aid is usually distributed by formula (e.g., based on population or need) and has few obligations. Thus, the state economy, which determines the pool of state revenue available to distribute to local government, is an important factor in local financial condition.

The problem with this arrangement for local governments is that they do not control how much state revenue is distributed to them, and history tells us that intergovernmental state and federal funds are not guaranteed. They can, and have been, withdrawn almost at will. However, to some extent, local governments do control the degree to which they rely on state-shared revenue (grants and recurring aid) to meet service and financial obligations. Local governments that rely more on intergovernmental revenue have a more uncertain and precarious future and, therefore, face more risk than those relying on intergovernmental revenues to a lesser degree.[3]

In general, reliance on intergovernmental revenue is a function of both state statutes that limit local government autonomy over the own-source revenues it can collect and the wealth of its revenue base. Governments with low fiscal autonomy or a poor revenue base will depend more on intergovernmental revenue out of necessity. However, some governments with high autonomy and adequate revenue bases may choose to rely on intergovernmental revenue to satisfy taxpayer's demands for low taxes or to increase expenditures beyond what they would be otherwise.

Governments also can rely to a greater or lesser extent on different sources of own-source revenue. Governments that rely equally on many revenue sources have a diversified revenue structure. The elasticity or volatility of the different revenues will determine whether or not a diversified revenue structure is better than relying on one or two revenue sources. The concept of *revenue elasticity* indicates the responsiveness of a particular revenue base or revenue source to changes in the overall economic base, national economy, or personal income; the more elastic a revenue base, the more variability in the revenues collected given the same tax rate. In most cases, income taxes have the highest elasticity and property taxes have the lowest. The elasticity of sales taxes also is relatively high (Mikesell, 2011, 350).
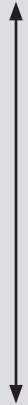
Governments that rely on elastic revenue sources face more financial risk from fiscal downturns but may take in more revenue than they need during good economic periods due to the greater wealth of these revenue bases. However, reliance on elastic revenue

sources still presents uncertainty and a lack of stability that makes maintaining financial condition more difficult. Generally speaking, governments with more diversified revenue are likely to be in better financial shape than governments that rely more heavily on one revenue source. Additionally, governments that rely on property taxes may be better off than those relying on sales taxes or even a diversified set of elastic revenues unless the latter has balanced its risk with adequate slack (e.g., surplus resources or revenue reserves).

On the right-hand side of Table 2.1 in the capacities row, assets consist primarily of cash, short-term investments, and surplus resources (fund balances). These assets are features of the government's fiscal structure over which they have a lot of control and which may change often during the fiscal year. **Table 2.2** (Berne and Schramm, 1986, p. 316) presents a more detailed view of the time frames associated with the revenue-based financial condition measures in Table 2.2. Specifically, Table 2.2 distinguishes the short-term sources of cash and revenue from the long-term sources of cash revenue, both of which are assets.

On the balance sheet, fund balances (and retained earnings) are the residual equity or net assets in each account. More generally, residual equity is the difference between all assets and liabilities. Fund balances, however, are more specific and represent the accumulation of monetary surpluses (revenues minus expenditures) and are easily accessible

TABLE 2.2   Sources and Uses of Cash and Revenue in Governments

Time Horizon	Sources of Cash and Revenues	Uses of Cash and Revenues
Short Term	Draw down cash balances	Build up cash balances
	Convert short-term assets into cash (e.g., sell securities, speed up collections, reduce inventories)	Convert cash into other short-term assets (e.g., buy securities, build up inventories)
	Incur short-term liabilities to gain cash (e.g., borrow short term, slow down payments of accounts payable)	Use cash to lower short-term liabilities (e.g., retire short term debt, speed up payment of accounts payable)
	Increase operating revenues or decrease operating expenditures	Increase operating expenditures or decrease operating revenues
	Increase long-term borrowing or cut back capital expenditures	Increase capital expenditures or repay long-term borrowing
Long Term	Secure new revenue sources or raise fees and taxes	Expend funds on new projects and programs or increase funding for existing projects and programs

Reproduced from Berne, R., and Schramm, R. (1986). Pp. 316, Figure 8-1. *The financial analysis of governments*. New Jersey: Prentice-Hall.

to meet obligations during the fiscal year.[4] Governments also have more than one fund balance, which offers opportunities to borrow across accounts (called *interfund transfers*). Other types of short-term assets and resources that affect cash and budgetary solvency are the ability to speed up revenue collections (e.g., accounts receivable), short-term investments, and saleable physical assets.

Another consideration in assessing financial condition on the "current end" of the continuum is the extent to which revenues and fund balances within different accounts are reserved for specific purposes according to state or local statute. For instance, state governments may require that the gasoline taxes they share with local governments be reserved for road maintenance and construction, or local governments themselves may earmark particular revenues for specific purposes. It is especially common for governments to manage the risk of elastic revenues by earmarking these revenues for nonrecurring expenditures (e.g., capital spending). Therefore, although fund balance, as a percentage of total expenditures or revenues, is a good general measure of short-term financial condition, percentage *unreserved fund balance* might be more appropriate. Another useful measure is the ratio of restricted operating revenues to total operating revenues, which indicates the government's level of flexibility in meeting short-term liabilities.

Expenditures and liabilities. As reflected by the second row in Table 2.1, a liability is anything that is owed by the government to another party, and, hence, represents a constraint on governments' fiscal activities. More specifically, a liability is the sacrifice of current or future economic benefits that the government must make to satisfy current and past obligations. Liabilities on the left-hand side of the table represent fiscal obligations covering an extended period of time, such as the obligation to deliver services in the long-run and meet future obligations including pensions, repayment of debt, and capital replacement. Similar to the left-hand side of the assets row, most of these liabilities represent environmental conditions over which government has less control and which tend to remain stable over time.

Spending *needs* are determined by features of the environment that dictate the level of expenditures the government requires to adequately provide for the health, safety, and welfare of its residents and visitors. For instance, crime levels affect spending needs for police services. The age of infrastructure influences spending for fire services, public works, building inspection, and capital spending. The income level of residents, their job rate, and the threat of health problems (e.g., mosquito-borne diseases) shapes spending for health and welfare services. Population growth and economic development also greatly increase government spending needs, especially for the construction of infrastructure, and create obligations for more services in the future.

Another source of spending needs is the costs of personnel, materials, supplies, equipment, and other items used in service delivery, especially labor and transportation costs. Costs are also a significant factor in capital outlays for construction and land acquisition. Other spending needs may be dictated by federal or state mandates that specify the types or levels of services local governments must provide. Spending mandates exist in a variety

of areas, but are especially prevalent for pensions, health care, and water and sewerage services. To some extent, the institutional environment, including overlapping governments, also determines a government's spending needs. Many types of local governments exist in one area such as counties, townships, municipalities and special districts. Which services local governments distribute depends on state statute and how the roles of local governments have evolved over time. Spending *demands*, in contrast, reflect the spending priorities of its residents, clients, and other stakeholders who influence government expenditures through the political process.

Long-term borrowing, underfunded pension obligations, and deferred infrastructure maintenance and replacement also create long-term or future obligations for most governments. Although current decisions to create these obligations are controllable, their effect on future fiscal states is not. In this case, governments faced with obligations to repay past debt or make up for past underfunding of pensions and infrastructure repair cannot control the pressures this places on current spending. In contrast, the level of expenditures governments make to meet current service obligations is more controllable.

Not all cities facing similar spending needs are going to fund current service obligations at the same level due to variations in spending demands, which are filtered through the political process and transformed into expenditure priorities.[5] To some extent, expenditure priorities can be observed from the percentage of total expenditures budgeted for different services, programs, or areas of expenditure, once a government's service needs and other fixed liabilities are taken into account. Spending for services is also affected by how fixed current expenditure obligations are relative to each other. Personnel expenditures and repayment of debt, for instance, are relatively fixed by comparison to maintenance and equipment expenditures that can be deferred more readily. The level of fixed liabilities relative to other liabilities represent the ease with which portions of governments current expenditures can be altered in the near term to react to fiscal shocks and take advantage of fiscal opportunities. Thus, *expenditure fixity* is a form of slack (i.e., the less fixity, the more slack).

Liabilities on the right-hand side of Table 2.1 represent obligations that must be met within a time frame that is shorter than the fiscal year, such as accounts payable or short-term debt, to deliver the services and meet the obligations specified in the budget. As with expenditure categories, accounts payable also have different levels of fixity. For instance, some bills or amounts owed during the fiscal year must be paid immediately or regularly (e.g., wages); other payments can be delayed to improve cash flow in the short run.

Net financial condition. The last row in Table 2.1 represents measures that can be used to reflect whether a government's fiscal structure is balanced with its environment or other conditions relevant to the different types of solvency.[6] On the left-hand side of the table, long-term solvency could be assessed by measures that examine aggregate spending needs relative to total revenue wealth. For instance, measures such as the age of infrastructure and crime per capita could be used as indicators of overall spending needs. These measures then could be compared to total assessed value or income in a municipality to

determine a government's long-term solvency. Alternatively, one could develop composite measures of spending needs and wealth that combine individual indicators such as those just listed (Aaronson, 1984; Hendrick, 2004; Ladd and Yinger, 1989). Looking at future obligations, one can compare long-term liabilities (e.g., debt), to long-term relevant assets (e.g., value of infrastructure minus depreciation) to determine the long-term solvency of physical assets. More generally, one might even attempt to forecast future service needs and revenue wealth based upon demographic trends.

With respect to service-level solvency, *revenue burden*—the ratio of actual revenues to revenue base or revenue capacity—is one of the most important measures of financial condition. Revenue or tax burden for individual revenue bases is the same thing as the tax or charge rate. Total revenue burden would be the sum of all tax rates or the sum of all revenues relative to the sum of all revenue capacities. This measure is presented in the center of this row because its numerator, actual revenues, is relatively controllable and a feature of the government's fiscal structure, but its denominator, revenue base, is part of the less controllable environment. On the spending side, comparing actual spending to spending needs would indicate the extent to which the government's service obligations are being met.

One might also use measures of slack relative to risk to assess service-level solvency. For instance, surplus funds, such as rainy day funds and fund balances, could be compared to dependence on elastic or uncertain revenue sources (e.g., percent of total revenue that are intergovernmental). Theoretically, slack could be measured with a composite indicator that incorporates different sources of slack including the fund balance, capital spending, and discretionary spending (Hendrick, 2006). A similar composite indicator could be constructed for risk, but it would have to recognize uncertainty about future events, which is entirely overlooked by most assessments of government financial condition.

Cash and budgetary solvency are assessed primarily by examining features of the government's fiscal structure that affect its ability to balance its budget and pay bills during the fiscal year. Also called the operating position, measures of short-term solvency include liquidity, fund balances, operating deficits or surpluses, short-term borrowing, fixity of accounts payable, and dependability of accounts receivable. Liquidity is the ratio or balance of cash and current assets to current liabilities. Operating deficits and surpluses measure whether revenues are balanced with expenditures, however, they are more meaningful if they are considered in conjunction with the fund balance.

For instance, some governments may run deficits to reduce fund balances that are too high for their environment or relative to other features of their fiscal structure. In this case, operating deficits do not mean that revenues are out of balance with expenditures but that the fund balance is out of balance with other conditions. We have emphasized in other places that fund balances must be compared to other features of the government's fiscal structure and environment to assess short-term and even mid-term financial condition. Similarly, high levels of liquidity may not be necessary in governments with stable revenue streams and fixed expenditures.

One final consideration in assessing financial condition is that all the measures represented in Table 2.1 can be examined over time, and, to some extent, these trends can be used to predict future fiscal states. However, as discussed previously, incorporating dynamic states into an assessment of financial condition is not straightforward. Are current fiscal states more relevant to financial condition than the degree of change in past fiscal states? Similarly, how important is long-term fiscal solvency relative to budgetary and cash solvency? Are local governments with long-term solvency likely to remain that way regardless of fiscal shocks and poor cash or budgetary solvency? To what extent does poor cash or budgetary solvency threaten a government's service-level solvency? How should we integrate the time dimension (past, current, and future) and the different types of solvency into our assessment of local financial condition? How should our choice of measures and methods of integration change for different applications or purposes of assessing financial condition? Unfortunately, the profession does not have clear answers to these questions. However, the distinct nature of the features and attributes of financial condition measures and their contingent relationships make a case for assessing financial condition within each area of solvency separately rather than trying to measure across the continuums and collapsing them into one single composite measure. This includes the time dimension and indicators of change.

A related unanswered question is how do we know whether fiscal features associated with the different solvencies are balanced or appropriate for other features associated with that solvency or other types of solvency? For instance, how do we know whether revenue burden is appropriate to spending needs and demands? Likewise, how do we determine whether fund balances or liquidity match other features of the government's fiscal structure or environment? Here too, further study will help establish objective standards regarding what types of fiscal structures are successful in what types of environments. Ultimately, we still have to make a judgment about what constitutes success and good fiscal performance. Four approaches to making such judgments are described in the next section.

Strategic Decision Making

Thus far, we have focused our discussion of financial condition on the issue of balance—the extent to which a government has adapted its current fiscal structure to the demands, pressures, opportunities, constraints, and likely future changes in the environment. Implicit in this discussion is the strategic decision-making of public officials. This section describes the underlying logic of some of these strategic decision processes. In doing so, it links the ideas of solvency, balance, risk, and slack with the components/measures that compose financial condition.

Long-run solvency, as defined previously, emphasizes long-run balance between available revenues and spending needs. The revenue base and capacity, which is the pool of resources from which revenues are generated, is part of the government's environment. The value and size of the pool are affected by general economic conditions and institutional

constraints, such as state statutes, that limit its access to this base. Most factors that generate spending needs in a locality and the value and size of the revenue pool are fairly stable over time and so are critical to long-term solvency. A government whose revenue base/capacity is balanced with its spending needs will have more long-run solvency than one whose spending needs are higher than what the revenue base/capacity can support. A local government has less direct control over these features than the revenues it actually collects or the money it spends to deliver services, but financial decisions also affect long-term solvency. If a government has maximized its collection of available revenue from the revenue base, then it has no revenue reserves or slack to accommodate increases in spending needs or opportunities (e.g., matching grants) that require additional funds. In this case, its long-run solvency is lower because its risk to future changes in the fiscal environment is higher, and its investment potential is lower.

Long-run solvency also encompasses future assets and liabilities and unknown future states of the environment and fiscal structure. According to Figure 2.1, a government that is balanced in the long run has an appropriate level of future liabilities given its likely future resources. Long-run solvency is harder to determine than other aspects of financial condition given the uncertainties of future states, but if a government has had low resources historically due to a poor revenue base and high spending needs, chances are its future environment will be similar. Unless there is evidence of positive future changes, such as an influx of development that raises property values, this government should limit future liabilities to better insure a good financial condition in the future and improve long-run solvency.

Compared to long-run solvency, service-level solvency focuses on the extent to which governments are balancing near-term spending obligations, actual spending, available revenues, and revenues collected. Although a government with poor long-term solvency is less likely to provide adequate services and, therefore, have poor service-level solvency (and vice versa), the two concepts are different. For instance, a government with good long-term solvency may not tax or spend enough due to political constraints to adequately meet the health and safety needs of its citizens. Alternatively, a government with a poor or constrained revenue base can improve its service-level solvency by spending only what it needs to deliver a basic level of services, reducing liabilities, and increasing surplus internal resources to handle emergencies. One might describe this government as having adapted its fiscal structure to its environment as evidenced by the balance between revenues collected and revenue base, expenditures and spending needs, and structural features such as surplus resources.

A wealthy government's fiscal structure also may be poorly adapted to its environment by spending more than it needs, not collecting enough revenue to cover spending, and then trying to make up the shortfall with risky high-paying investments and increases in future liabilities (e.g., reduced pension funding). Such poor service-level solvency is, in many cases due to political pressure. Although its revenue base and spending needs indicate good long-term solvency, its service-level imbalances due to fiscal choices over time

will have made it quite vulnerable to events in the near term. One significant fiscal shock, such as a recession, large number of retirements or lawsuits, could dramatically reduce funding for basic services and the level and quality of services it provides for an extended period of time.

Strictly speaking, budgetary solvency is the level of balance between revenues, expenditures and surpluses at the end or the beginning of the fiscal year. Normally, governments project at the beginning of the fiscal year that revenues will equal expenditures at the end of the fiscal year. But if economic (or political) conditions worsen unexpectedly or if officials' estimates of revenues and expenditures are simply inaccurate, then the budget will not be balanced at the end of the fiscal year unless there is enough slack in the fiscal structure to lower spending or enough slack in the fiscal environment to raise revenues. In most cases, raising tax rates during the fiscal year (if state statutes or political pressure allow for this) will not generate enough revenues to solve mid-year fiscal problems due to the cycles of collection. Thus, governments rely primarily on slack in their fiscal structure to reduce risk and achieve budgetary solvency. However, governments with more stable revenues and better service-level solvency face less risk and, therefore, will need less slack to be solvent and balanced at this level.

At the most immediate level, problems with cash solvency and cash flow emanate from two sources—(1) fiscal shocks that unexpectedly speed up or add payments, or slow down or diminish revenues; and (2) not functioning with enough slack to cover expected timing differences between revenues coming in and payments going out. Generally, governments with poor service-level and budgetary solvency tend to have poor cash solvency; they operate with less slack and a narrower margin of error. That said, wealthy governments and those with good budgetary solvency can also have cash flow problems if risks and cash trends are not recognized and planned for. As with the other solvency levels, good cash solvency means having an appropriate fiscal structure and maintaining a balance between short-term assets and short-term liabilities.

Recognizing that financial condition is dynamic suggests two additional factors that should be taken into account. These factors, which are not easily reflected in a two-dimensional diagram such as Figure 2.1, are uncertainty about future fiscal states and the role of past fiscal trends. We have already discussed how current decisions impact future financial condition when, for instance, officials are able to push spending obligations forward in time. This strategy does not eliminate government obligations making them a factor in its current financial condition and a feature of its fiscal structure. But future obligations are different from current fiscal states because of the uncertainty surrounding their impact. Thus, uncertainty is an important consideration in financial condition.

The second factor deals with the problem of incorporating changes in past fiscal states relative to current fiscal states in measures of financial condition. Obviously, a government undergoing declines in any level of solvency or deterioration of conditions that affect solvency will be worse off than one experiencing stability or improvements. It is much more difficult, however, to assess the financial condition of a government that

has a wealthy yet declining revenue base compared to one with a poor but stable revenue base. Which government has lower long-term or service-level solvency? The answer is not intuitive and demonstrates that financial condition is not just an objective state to be measured, but is also a qualitative judgment.[7]

This discussion of financial condition and its time frames, levels, and characteristics reveals a complex phenomenon that is not easy to measure. However, several themes have emerged that will guide the next sections that focus on judging and measuring financial condition. First, properties of the environment, fiscal structure, and levels of solvency are related. Financial condition in the longer-term (e.g., long-term and service-level solvency) tends to be a function of future events and features of the system that are less controllable and more external or environmental. By comparison, financial condition in the shorter term (e.g., budgetary and cash solvency) is more a function of immediate events and relatively controllable features of the system that are part of the government's internal fiscal structure. For instance, a government's financial condition in the long run will depend greatly on the wealth of its revenue base, which is part of its environment and not likely to change or be affected by officials' fiscal choices in the immediate future. In contrast, officials have much greater control over how to manage cash flow through manipulation of the government's fiscal structure.

The caveat to these relationships is that features affecting government financial condition in the longer term provide the context for altering or maintaining financial condition in the shorter term. Ultimately, governments with a poor long-term solvency will have more difficulty maintaining good financial condition in the short run due to external and uncontrollable characteristics that have established its fiscal structure over time. In other words, a government with poor long-term and service-level solvency is more likely to have poor budgetary and cash solvency. It is also more likely to have higher future liabilities, greater risk, less slack, and a fiscal structure that is more unbalanced and inappropriate for its environment. Similarly, a government with good long-term and service-level solvency is more likely to have good budgetary, cash solvency, and so on. However, these outcomes are not certain.

A government with a poor revenue base and sound financial decisions may find it difficult, but not impossible, to maintain budgetary and cash solvency. Alternatively, a government with a strong revenue base may have low short-term solvency due to unsound fiscal practices. Over time, sound fiscal practices and productive choices could, conceivably, improve the poor government's service-level solvency, and unsound fiscal practices could threaten the wealthy government's service-level solvency. These examples suggest that interpreting financial condition requires understanding not only fiscal issues at a particular point in time, but also how it relates to the past and anticipated future. Such considerations require the analyst to interpret financial condition in normative terms in order to designate fiscal health and fiscal stress.

The second theme from this section is that features relevant to different time frames and levels of financial condition often vary and affect overall financial condition in convoluted ways that make the effects of some factors conditional on the effect of others.

For instance, the level of surplus resources that is appropriate and necessary to maintain budgetary solvency depends on risks inherent in the fiscal structure (e.g., high dependence on sales tax), the volatility of the environment (where sales receipts come from), and opportunities for obtaining additional revenues. The complexity and contingent nature of the relationships between these features, thus, makes it difficult to construct a single comprehensive indicator of fiscal health or financial condition that spans all areas of solvency. Rather, it suggests that key dimensions of financial condition be identified, measured separately, and assessed in relation to one another to produce a complete and more accurate picture of fiscal conditions. The next section presents a brief description of different popular methods for measuring financial condition.

Strategies for Measuring Financial Condition

While scholars and practitioners have developed a host of measures of financial condition, the underlying logic of these measures is much less varied. In this section, we describe and assess four broad approaches that have been used to evaluate and interpret financial condition. In particular, we consider the use of: trend analysis, group norms, benchmarking, and multiple indices.

The first approach is to simply consider the trends of different fiscal indicators. One example of this approach is the Financial Trend Monitoring System (FTMS) developed by the International City/County Managers Association (Groves et al., 2003). It is a comprehensive measurement system for assessing the four areas of solvency (described in the previous section) using 36 different financial indicators in 11 different categories. The strength of this particular system is that it examines the indicators over time (at least five years) to identify financial trends affecting the different areas of financial condition before they become a significant problem and threaten the government's solvency. The weakness of this system is that it requires a great deal of data to measure all the indicators. Thus, while it is a very useful, proactive tool for local officials to determine sources of fiscal imbalances within their own governments, it is not very useful for assessing financial condition across many governments.

More generally, describing the trends of a particular government's (or agency's) finances is a useful first step. A trend analysis, such as the FTMS, offers the analyst an opportunity to describe "what is going on." However, this approach offers few insights with respect to "where one should be." For example, a government that is in a poor state of affairs but where trends are improving would look the same as another government with improving trends but in better financial shape. The FTMS does not evaluate the *initial* financial condition of either government so both would be assessed as headed in the same 'positive' direction, even though the first municipality is in poorer fiscal health. To avoid this problem many analysts employ group comparisons or some form of benchmarking.

The group comparison approach measures a small number of fiscal factors and then considers these measured against some group norm. For example, Terry Clark and Lorna Ferguson (1983), directly incorporate the concept of balance into their analyses of financial

condition. They define financial condition, or fiscal stress, as the extent to which a government (a complex system) has adapted its fiscal structure (fiscal policy outputs) with the risks, demands, and pressures of the environment (private sector) to reduce the incidence of short-run budgetary and fiscal deficits (pp. 44–45). Using ratios and two indices, their approach assesses *city wealth* and *functional performance* for each city relative to the others in "the group." More precisely, the City Wealth Index combines measures of different components of the revenue base (environment) with measures of dependence on revenues from each base component (fiscal structure). The Functional Performance Index assesses total expenditures for each municipality that are considered to be "normal" for its reference group. In this case, the reference group may be all governments in a state or region, and normal can be defined as the median or mean of that group.

Another oft-used group comparison is the Representative Tax System (RTS) and Representative Revenue System (RRS) (ACIR, 1962). Similar to Clark and Ferguson, the RTS and RRS assess a government's fiscal position by comparing its features to a group norm rather than an absolute standard of fiscal health. Specifically, the RRS and RTS use the normal (median or average) tax and revenue rates of an area to determine the amount of total revenue a government in that area could obtain if it taxed at these "normal," baseline rates. Although the RTS focuses on taxes, its method has been adapted to other revenues and expenditures (Kincaid, 1989) and expanded upon by others in the academy and policy arenas (Ladd and Yinger, 1989).

Both systems provide a detailed picture of the revenue side of service-level solvency, and they can be easily adapted to measure the expenditure side. However, neither the RRS nor the RTS recognize the time dimension of fiscal condition that was discussed previously. Specifically, changes in features relevant to long-term and service-level solvency mean something very different than the relative long-term and service-level solvency of a municipality at one time period. A more general critique of the group comparison approach is based on whether or not the group mean is a reasonable barometer for evaluating financial condition? What if the entire region is fiscally distressed? In such a situation, one's finances could look very good, relative to the group mean, but still be poor in absolute terms.

This last issue has been picked up in recent efforts to assess financial condition against an "industry benchmark" (Sohl et al., 2009). There have not been many attempts to assess financial condition against an industry benchmark; however, in a recent piece, Sohl et al. (2009) provide some guidance as to how to undertake such an approach. They argue that to properly assess financial condition (without falling into the problem of a poor comparison group) is to consider some measure of financial condition and then benchmarking the municipality's position over time against an industrywide standard. They suggest a two-phased approach. The first phase combines both trend analysis and group comparisons to provide some important insights into the overall fiscal environment in which the city is operating. The second phase considers the particular city under investigation against some industry standard (the authors suggest using the Government Finance

Officers Association's [GFOA's] recommended standards). The primary weakness with this approach is that an 'industry standard' does not really exist. Thus, the choice of a benchmark is somewhat arbitrary.

Like the group norm and benchmarking approach to measuring financial condition, the final approach—the use of multiple indices—is an explicit effort to incorporate some normative component into the assessment. These approaches allow the analyst to develop specific scores on different dimensions of fiscal condition. As a result, these analytical approaches are useful tools for practitioners looking for simple assessments that can be easily interpreted by citizens and politicians.

For example, the Brown 10-point test—developed in conjunction with the GFOA—provides a means for smaller municipalities to quickly and easily assess their overall financial condition. The test instructs governments to compare their government's scores on ten ratios to those calculated for all cities in their population range that received GFOA's Certificate of Achievement for Excellence in Financial Reporting at a particular date (Brown, 1993). The test consists of four steps: (1) calculate ten ratios that assess balance in fiscal structure and environment using data from the annual financial report, (2) compare each ratio to those reported for similar sized cities in the Brown article and assign a score based on the quartile in which the ratio is located, (3) sum the scores for all ratios, (4) assess the summary grade according to the following scheme:

Scores of 10 or more   Among the *best*
Scores from 5 to 9   *Better* than most
Scores from 1 to 4   About *average*
Scores from –4 to 0   *Worse* than most
Scores of –5 or less   Among the *worst*

The key to constructing this comprehensive measure of financial condition is comparing the ratios calculated for an individual government to those calculated, grouped by quartiles and population, and reported by Brown and GFOA.[8] This method provides a comparative perspective on the fiscal features in the government that is not provided by the FTMS. However, the quartiles reported by Brown apply only to larger (e.g., populations > 50,000) municipalities and may not be appropriate for very small municipalities (e.g., populations < 5,000).

Another scoring system was developed by Kloha, Weissert, and Kleine (2005). They developed their scoring system in response to particular failures they identified with the existing systems, especially as the 10-point system. In particular, they sought to eliminate the excessive number of variables used in many measures while incorporating more relevant ones, such as socio-economic characteristics, take into account differing demands, and moving away from relative group comparisons. This last characteristic is important. In the 10-point system, someone in the group will always be in the bottom quartile and someone will always be in the top quartile. The 10-point system developed by Kloha, Weissert, and Kleine, however, offers a more "absolute" measure.

Their approach involves four steps. First, a specific variable is created to measure an important component of local public finance, for example, real taxable value growth. Second, a standard is set for each variable to distinguish better or worse performance. Third, if the local government scored "good" on the variable it received 0 points. Finally, the points are summed for each municipality. The more points a locality received the worse it was doing. The result of this approach is the following "early warning system":

0–4 points	Fiscally Healthy
5 points	Fiscal Watch
6–7 points	Fiscal Warning
8–10 points	Fiscal Emergency

Similar scoring systems have been developed by specific agencies to evaluate their own fiscal health (see, e.g., Illinois State Board of Education). The problem with these measures has to do with the difficulty of combining component indictors across financial condition measurement dimensions and solvency areas in a linear way. First, this method obscures the contextual meaning of indicators in each dimension. We have shown through examples that how one indicator, such as fund balance level, is interpreted often depends on another indicator, such as dependence on elastic revenues. Second, combining fiscal indicators from different dimensions using equal weights, as do the two 10-points systems, assumes that all components contribute equally to overall financial condition, which may not be appropriate. For instance, high revenue and debt burden may contribute more to overall financial condition than budgetary surpluses and deficits and, therefore, should not be weighted more in the combined measure.

Given the host of scoring systems available to analysts to measure financial condition, the decision of which one to use should focus on which system incorporates the variables most relevant to their needs. Analysts also can choose different approaches based on trends, group norms, benchmarks or indices, and within those approaches one can choose different methods. Their choices should be based on a deep understanding of the particular city or region to be studied. Thus, the notion of financial analysis being based on an objective quantification of financial condition conducted at arms length should be avoided. Regardless of the approach and method chosen, the analyst should also employ some qualitative data collection. This could be done *before* the analysis to guide one with respect to the best approach and method, as well as *after* the study to help in the final interpretation of the results.

As we portrayed at the outset of the chapter, the moral of the story, is that there is no single best strategy for assessing financial condition. Rather, analysts and scholars, need to understand the different dimensions of financial condition, how they relate to each other and determine their meaning based on an honest assessment of current and future fiscal risks. This assessment could take the form of a comparison to a group norm or to some industry benchmark. The analyst, however, needs to acknowledge that the different strategies have both strengths and weaknesses and understanding these is critical to an accurate assessment of local financial condition.

Conclusion

This chapter has sought to answer the question: *what is a government's financial condition and how do you assess it?* To that end, we have argued that financial condition is less a state of being as much as a dynamic and fluid process. Accordingly, we present financial condition as a multi-dimensional phenomenon that is shaped by external factors (i.e., fiscal structure and political) and subsequent internal policy choices. Further, we have argued that it is particularly useful to consider financial condition in terms of four different forms of solvency: long run, service level, budgetary, and cash. This approach allows one to consider the dimensions of revenue (e.g., economic base, intergovernmental revenues, and accounts receivable) and expenditure (e.g., debt and accounts payable) both as individual components and as composite parts that come together in the current and future time periods. However, a key lesson in this chapter is that any consideration of future "states" will be imprecise at best as longer-term dimensions tend to be less controllable (though often stable) and generally external to the municipal agency. Consequently, all descriptions of financial condition should take account of the *uncertainty* of the future state. More precisely, measures of financial conditions should evaluate the features that are in place to address an uncertain future, namely, *risk* and *slack*.

It has been shown in this chapter that fiscal slack can take various forms, such as a rainy day fund or extensive expenditures that can be cut in times of need and the amount of slack within a system is related to the amount of fiscal risk a municipality has undertaken or is willing to undertake. Our model, then, also implies that a sound fiscal environment will be characterized by a *balance* among slack, risk, and fiscal structure.

The presentation of these strategies demonstrates that no single measure is likely to provide a complete picture of financial condition. Both policy analysts and academics should be cautioned that a more appropriate approach would be to employ multiple measures across various dimensions and time frames for revenue, expenditures, and net financial condition before coming to any conclusion. For the practitioner, questions remain as these recommendations may not be satisfying. Which measure is best? Under what circumstances should I employ one measure over the other? If I employ several measures, how do I know which measure provides the most accurate information? What is an appropriate balance among slack, risk, and fiscal structure?

Unfortunately, these questions do not have answers, but we offer some practical direction with respect to the appropriate use of the measures themselves, as well as the concepts of slack and risk. First, we have demonstrated that analysts should not rely on any single measure of financial condition, but we also suggest that one use caution in selecting the measures to be employed. Simply put, no measure is perfect and they cannot be selected arbitrarily. Rather, analysts should be cognizant of the limitations and data requirements of each measure as well as the audience for which the analysis is being prepared. For example, one might want to employ the FTMS because it is comprehensive and recognizes conditions over time, however its data requirements (and subsequent time requirements) might make this approach impractical. Further, public officials may or may

not be as interested in the financial trends of their particular municipality as much as they are in understanding how their jurisdiction compares with others that have similar characteristics. Although the analyst may prefer the power of the FTMS, he or she would be better served by using the Clark and Ferguson measure or the RTS. In short, analysts will do well to err on the side of pragmatism when determining which measure of financial condition to employ.

Second, we have argued in this chapter that financial condition is a complex phenomenon that is shaped by the political and fiscal environment, which varies drastically from one jurisdiction to the next. In this case, the balance between risk and slack is inherently contingent on the locality in which the analysis is being conducted. Thus, there is no absolute threshold number that one can point to and say: "that is a perfect amount of slack" or "here is the perfect balance." In the absence of such numbers, we suggest that analysts move beyond a purely technical approach to these concepts and consider how they might change given different political landscapes. Such an approach would require analysts to interpret both risk and slack within the local context. To that end, an analysis of financial condition should engage elected officials in an active dialogue to make clear the degree to which they and their constituents are more or less risk averse. The idea is to balance technical analysis with a broader understanding of the unique fiscal features of a particular jurisdiction.

The lesson to be gained from this chapter is simply that financial condition is not easy to grasp. It is multidimensional, often context specific, and its causal factors often operate in nonlinear ways. However, a sound approach to understanding financial condition is to embrace this complexity as opposed to trying to simplify it into a few core components. To this end, the model and measures described should provide the reader with the tools to confidently assess and interpret the financial condition of municipal agencies.

Endnotes

1. For example, economists working in this area developed composite measures of financial condition that focused primarily on environmental factors, such as poverty and property values, that determine spending needs and available revenue (Ladd and Yinger 1989; Bahl 1984; ACIR 1971, 1979, 1988). See Burchell et al. 1981; Aaronson 1984; and Ross and Greenfield 1980 for comprehensive summaries and critiques of the many composite measures developed during this period. Other composite measures or systems are intended to be used internally by local officials for financial management and developing fiscal policy (Aaronson and King 1978; Groves et al, 2003; Brown 1993; Honadle and Lloyd-Jones 1998). External agents, such as investors and lenders, also use these types of measures for assessing bond purchases and determining interest rates (Moody's Investor Services, 2000; Standard & Poor's, 2002).
2. Elasticity is an economic concept that refers to rate of change and is described in greater detail in the section entitled Net Financial Condition.
3. Chapman (1988) refers to this type of risk as local fiscal immunity autonomy.
4. Mathematically, fund balances are assets minus liabilities.
5. A well articulated example of this is developed in Stonecash and McAfee (1981).
6. Also notice the extent to which ratios play a role in measuring the state of balance.

7. Indices developed and analyses of financial condition performed by the U.S. Advisory Commission on Intergovernmental Relations, the U.S. Department of Treasury, and The Urban Institute incorporate past changes in fiscal features using different methods. Also, the ICMA Financial Trend Monitoring System (Groves et al., 2003) uses five-year trends to assess financial condition.
8. The study does not indicate if the figures reported in the quartiles are corrected for inflation, which is necessary to compare ratios calculated in other years to those in the report.

Glossary

Asset: From an accounting perspective, an asset is anything that the government owns that can produce an economic benefit. From a more general economic perspective, an asset is simply any form of wealth. Cities have long-term assets such as capital infrastructure, as well as short-term assets such as current revenues.

Balance: reflects the extent to which a government has adapted its *current* fiscal structure to the demands, pressures, opportunities, constraints, and likely *future* changes in the environment (Clark and Ferguson, 1983).

Budgetary Solvency: the ability to balance the budget or generate enough resources to cover expenditures in the current fiscal year.

Cash Solvency: the government's ability to generate enough cash over 30 or 60 days to pay its bills. Also called the operating position.

Economic Base: is the total amount of economic resources within a jurisdiction, regardless of whether a government to access them. It is a function of the fiscal environment's *economic performance* and *economic structure.*

Economic Performance: represents the jurisdiction's level of economic activity and is measured by one or more indicators such as percentage unemployment, resident income, and poverty level.

Economic Structure: is the composition of economic activity in the jurisdiction such as land use (residential, commercial, industrial), type of jobs and commerce, transportation facilities, and the regional or state economy.

Elasticity: *See* Revenue Elasticity.

Expenditure fixity: the degree to which expenditures can be altered or deferred. Personnel expenditures and repayment of debt, for instance, are relatively fixed by comparison to maintenance and equipment expenditures that can be deferred more readily. The level of fixed liabilities relative to other liabilities represent the ease with which portions of governments current expenditures can be altered in the near term to react to fiscal shocks and take advantage of fiscal opportunities.

Fund Balance: On the balance sheet, fund balances (and retained earnings) are the residual equity or net assets in each account. More generally, residual equity is the difference between all assets and liabilities. Fund balances, however, are more specific and

represent the accumulation of monetary surpluses (revenues minus expenditures) and are easily accessible to meet obligations during the fiscal year. Governments also have more than one fund balance, which offers opportunities to borrow across accounts (called *interfund transfers*). *See also* Unreserved Fund Balance.

Institutions (or environment): refer to the rules, both formal and informal, that constrain decision making. (In this chapter, we focus on the fiscal and political institutions that constrain the strategic fiscal decisions of local governments.)

Intergovernmental Revenue: funds received from the state or federal governments for specific functions (grants) or for general financial assistance (aid).

Liability: anything that is owed by the government to another party, and, hence, represents a constraint on governments' fiscal activities. More specifically, a liability is the sacrifice of current or future economic benefits that the government must make to satisfy current and past obligations.

Long-run Solvency: refers to the long-run balance between government revenues and spending needs and implies that government has the ability to adapt to uncertain future fiscal conditions, some of which may be severe shocks.

Own-source Revenue: are generated from resources within the local government's jurisdiction, although they can be collected by other governments and distributed to the owner government at regular intervals. Local own-source revenues include property taxes, user fees, and other charges and, in some states, may include other taxes such as sales and income.

Revenue Actual: is the amount of revenues the government chooses to collect via its tax rates, fee rates, and charges.

Revenue Base: that portion of the economic base that the jurisdiction has access to through specific revenue-raising mechanisms according to state statute and other legal and institutional constraints.

Revenue Capacity: reflects that portion of the revenue base the government can actually tax, which also is established in most cases by state statute.

Revenue Elasticity: indicates the responsiveness of a particular revenue base or revenue source to changes in the overall economic base, national economy, or personal income; the more elastic a revenue base, the more variability in the revenues collected given the same tax rate. In most cases, income taxes have the highest elasticity and property taxes have the lowest. The elasticity of sales taxes also is relatively high.

Revenue Reserves: are excess or slack revenue capacity that the government has access to but has not used (reserves = capacity – actual). If a locality tapped its revenue base to the full potential, actual revenues would equal revenue capacity and revenue reserves would equal zero.

Risk (fiscal): a government's exposure or vulnerability to detrimental future fiscal shocks and faster changes in the environment.

Slack (fiscal): the pool of resources available to a government in excess of what is necessary to produce a minimum level of services. Fiscal slack can be surplus monetary resources such as the fund balance or rainy day fund or nonmonetary resources such as excess employees. Fiscal slack can also be uncollected revenue from that portion of the revenue base that is available to the government through higher taxation. On the expenditure side, fiscal slack can be discretionary spending such as capital maintenance and travel that can be easily reduced during times difficult financial periods.

Service-level Solvency: the ability of government to provide adequate services to meet the health, safety, and welfare needs of its citizens given its revenue resources.

Unreserved Fund Balance: Fund balances within different accounts are reserved for specific purposes according to state or local statute. Therefore, although fund balance, as a percentage of total expenditures or revenues, is a good general measure of short-term financial condition, percentage unreserved fund balance might be more appropriate.

Discussion Questions

1. Think about the state and local governments in which you work. What are particularly important aspects of their financial condition?

2. Using Figure 2.1, identify important aspects of your governments' fiscal and political environments.

3. Using Figure 2.2, identify the components of your governments' economic bases, revenue bases, and revenue capacities.

4. What do you think are particularly important criteria or methodologies for assessing your governments' financial condition? For instance, is it more important to measure changes in components of financial condition or compare components of financial condition to other governments?

5. What types of criteria or methods are most likely to be valued and used by officials at the local level, policymakers at the state level, students studying financial management and public finance at the state and local level, scholars, and citizens?

Recommended Resources

Carr, J. (1984). Crisis and constraint in municipal finance: Local fiscal prospects in a period of uncertainty. New Brunswick, NJ: Center for Urban Policy Research.

City/County Managers Association at www.icma.org North Carolina

Department of State Treasurer (Municipal Fiscal Analysis Dashboard) at http://www.nctreasurer.com/dsthome/StateAndLocalGov/lgcreport

Government Finance Officers Association at www.gfoa.org International

Ladd, H. F., and Yinger, J. M. (1989). America's ailing cities: Fiscal health and the design of urban policy. Baltimore: Johns Hopkins University Press.

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