

MOODY'S INVESTORS SERVICE

CT vs National GSR Medians (Cities)



Analyst Adjusted Data

	CONNECTICUT CITIES - GLOBAL SCALE RATING MEDIANS*									
	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3
Total Entities Rated	133	18	16	25	15	2	2	1	0	0
Total Entities Per Rating										
Financial Statistics & Ratios										
Total GF Revenues (\$000)	\$128,218	\$99,487	\$51,583	\$40,451	\$23,570	\$372,774	\$139,120	\$152,935		
GF Balance as % of Revenues	11.9	13	13.5	11.4	7.9	3.4	0.6	-6.9		
Unreserved GF Balance as % of Rev	10.7	12.1	11	9.2	7.6	2.8	-3.2	-9.8		
Unrsvd, Undesig. GFB as % of Rev	9.7	10.2	10.8	7.5	7	2.8	-3.2	-9.8		
Available GFB as % of Revenue	11.7	12.9	13	11.4	7.9	2.9	0.6	-9.5		
Tax Base Statistics & Ratios										
Total Full Value (\$000)	\$6,463,975	\$4,111,137	\$2,004,084	\$1,366,220	\$926,076	\$5,288,296	\$4,342,177	\$4,200,968		
Full Value Per Capita (\$)	\$240,340	\$163,381	148,601	\$113,915	\$94,293	\$51,696	\$97,271	\$75,725		
Average Annual Increase in FV (%)	-1.6	-1.3	-0.8	-0.3	-0.8	-5.6	-1	-2.5		
Top Ten TaxPayers as % of Total	4.2	8.4	6.9	6.4	7.7	11	6.2	2.8		
Debt Statistics & Ratios										
Direct Net Debt as % of Full Value	1.2	1.3	1.1	1.1	1.4	7.2	2.1	3.9		
Direct Net Debt Per Capita (\$)	\$2,562	\$2,049	\$1,612	\$993	\$1,729	\$3,741	\$1,998	\$2,981		
Debt Burden (Overall Net Debt as % FV)	1.3	1.3	1.1	1.1	1.4	7.3	1.9	8.9		
Overall Net Debt Per Capita (\$)	\$3,285	\$2,364	\$1,805	\$1,549	\$1,096	\$4,151	\$2,004	\$7,800		
Debt Service as % of OE	8.1	6.6	5.2	5.3	5.3	12.1	8.2	11.6		
Payout, 10 Yrs (All Tax-Supported Debt)	84.7	75.8	76.4	80.1	79.3	77.1	77	91.8		
Demographic Statistics										
Population 2010 Census	24,075	27,793	15,052	12,435	9,405	101,493	45,109	55,564		
PCI as % of U.S. (2000 Census)	233	144	137	115	97	81	112	98		
MFI as % of U.S. (2000 Census)	221	146	144	129	120	77	122	103		
Population Change 2000-2010 (%)	2.7	4.4	5.2	5.4	6.5	3.7	5.4	6.1		
Median Home Value (2000 Census)	\$322,800	\$185,700	\$174,250	\$140,000	\$128,200	\$103,050	\$133,400	\$118,600		
Poverty Rate (%) (2000 Census)	2.5	3.6	3.3	4.2	5.5	20.4	6.5	8.8		

*Note: The following tax-backed debt was used to determine sample size: Issuer LT rating, LT SR GO, LT SR GOAT, LT SR GOREV

9/26/2013

	NATIONAL CITIES - GLOBAL SCALE RATING MEDIANS*									
	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3
Total Entities Rated	3101	280	916	635	691	224	68	61	19	12
Total Entities Per Rating										
Financial Statistics & Ratios										
Total GF Revenues (\$000)	\$47,341	\$36,489	\$22,762	\$14,315	\$7,705	\$5,238	\$7,258	\$6,771	\$9,319	\$24,508
GF Balance as % of Rev	35.6	33.9	32.9	31.8	33.3	24.6	14.8	16.6	4.7	7.3
Unreserved GF Balance as % of Rev	29.4	25.9	24.5	20.9	21.1	17.2	10.6	10.7	4	5
Unrsvd, Undesig. GFB as % of Rev	18	19.5	19.9	20.9	21.1	17.2	10.6	10.7	4	5
Available GFB as % of Rev	33.2	28.8	29.5	29.4	29	20.1	13.1	15.4	4.7	-3.6
Tax Base Statistics & Ratios										
Total Full Value (\$000)	\$6,453,256	\$4,425,768	\$2,576,883	\$1,360,075	\$657,966	\$428,955	\$504,083	\$440,859	\$860,172	\$1,305,280
Full Value Per Capita (\$)	\$183,333	134,264	\$108,401	\$90,193	\$66,866	\$52,958	\$55,305	\$45,397	\$56,791	\$66,098
Average Annual Increase in FV (%)	0.8	0.9	1.4	1.6	1.5	0.6	0.6	1.6	1.6	1.6
Top Ten TaxPayers as % of Total	7.2	6.8	8	8.7	10.7	12	12.9	11.4	8.9	8.8
Debt Statistics & Ratios										
Direct Net Debt as % of Full Value	0.7	0.8	0.8	0.9	1.1	1.6	2.3	2.2	2.6	2.6
Direct Net Debt Per Capita (\$)	\$1,280	\$1,231	\$999	\$870	\$806	\$975	\$1,148	\$1,129	\$1,111	\$1,677
Debt Burden (Overall Net Debt as % FV)	2.1	2.5	2.4	2.6	3	4	4.7	4.3	4.1	5.3
Overall Net Debt Per Capita (\$)	\$3,862	\$3,282	\$2,693	\$2,417	\$2,152	\$2,155	\$2,542	\$2,401	\$2,130	\$2,980
Debt Service as % of OE	10	9.3	8.7	8.1	8.8	9.1	11.3	8.8	7.7	10.1
Payout, 10 Yrs (All Tax-Supported Debt)	78	75.4	76.7	77.3	81.4	78.7	71.8	71.3	65.8	68
Demographic Statistics										
Population 2010 Census	37,080	32,971	22,841	15,427	8,958	7,660	9,084	9,464	15,273	18,017
PCI as % of U.S. (2000 Census)	183	146	119	103	91	82	81	80	70	84
MFI as % of U.S. (2000 Census)	184	155	129	113	100	87	86	80	75	94
Population Change 2000-2010 (%)	3.9	5.7	7.2	4.1	4.1	1	2.4	3.7	0.1	1.2
Median Home Value (2000 Census)	\$243,200	\$191,050	\$155,400	\$125,850	\$102,800	\$85,000	\$87,600	\$76,300	\$99,000	\$92,450
Poverty Rate (%) (2000 Census)	3.5	3.9	5	6.7	8.1	11.7	11.6	14.5	17	15.3

DATE	DESCRIPTION	AMOUNT	CHECK NO.	BANK
1/15/20
1/22/20
1/29/20
2/5/20
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DATE	DESCRIPTION	AMOUNT	CHECK NO.	BANK
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12/24/20
12/31/20

WELLS FARGO BANK, N.A.
 ACCOUNT NO. 123456789
 CHECK NO. 1001
 DATE 12/31/20

MOODY'S
INVESTORS SERVICE

RATING METHODOLOGY US Local Government General Obligation Debt

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This methodology explains how Moody's evaluates the credit quality of US local government General Obligation (GO) debt. This document is intended to provide general guidance that helps local governments, investors, and other interested market participants understand how key quantitative and qualitative risk factors are likely to affect rating outcomes for local governments that issue GO bonds. This document does not include an exhaustive treatment of all factors that are reflected in our ratings but should enable the reader to understand the qualitative considerations, financial information, and ratios that are usually most important for ratings in this sector.

This rating methodology replaces the Rating Methodology for General Obligation Bonds Issued by US Local Governments published in April 2013. While reflecting many of the same core principles that we have used in assigning ratings to this sector for many years, this updated methodology introduces a scorecard that quantifies several factors that we previously evaluated in qualitative ways. A modest number of ratings are expected to change as a result of the publication of this methodology.

The purpose of the scorecard is to provide a reference tool that market participants can use to approximate most credit profiles within the local government sector. The scorecard provides summarized guidance for the factors that we generally consider most important in assigning ratings to these issuers. However, the scorecard is a summary that does not include every rating consideration. The weights the scorecard shows for each factor represent an approximation of their importance for rating decisions. In addition, the scorecard was built based on historical results while our ratings are based on our forward-looking expectations. As a result, we would not expect the scorecard-indicated rating to match the actual rating in every case.

The refinements to our analytical approach were outlined in a Request for Comment which we published in August 2013. We received market commentary which we have sought to address where appropriate.

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Introduction

The methodology covers debt backed by the GO pledge of a local government¹ to pay its debt service. The unlimited tax GO pledge most often provided by US local governments is a contractual “full-faith-and-credit pledge,” including, either explicitly or implicitly, the local government’s obligation to levy an unlimited ad valorem (based on the value of property) property tax to pay debt service. In some instances, a local government’s GO bonds are secured solely by an unlimited ad valorem tax without the broader “full faith and credit pledge.” In other situations, the GO pledge is subject to limits on tax rate or amount of pledge.

Despite its fundamental strength, the GO pledge has practical and legal limits. From a practical perspective, there is an economic limit on the level of taxation that a municipality’s tax base can bear. From a legal perspective, the local government’s mandate to provide essential public services and pay retiree pensions may also have strong claims on a government’s revenue and taxing power, depending on the particular state’s laws. While a default on GO debt can occur with or without a Chapter 9 bankruptcy filing, bankruptcy laws may further circumscribe the power of the GO pledge (see “General Obligation Bonds in Bankruptcy” later in this report).

While property taxes are typically the security underpinning the GO pledge, we do not restrict our analysis to the capacity of a property tax levy to cover debt service. The unconditional and open-ended nature of the GO pledge typically means a local government legally commits all its revenue-producing powers to meet debt service. Even in instances where the legal commitment is not that broad, our evaluation of credit quality includes more than just an evaluation of the local government’s legally pledged resources. Rather, our analysis seeks to measure a local government’s overall means and wherewithal to meet financial obligations from all of the resources at its disposal.

This methodology identifies and describes the various measures of our broad rating factors: economy/tax base, finances, management, and debt/pensions. Additionally, we describe the reasons we rate most local governments’ General Obligation debt higher than many other governmental and corporate borrowers, and the types of developments that can cause a local government rating to fall outside of the normal rating distribution.

The Scorecard

The local government scorecard (see Exhibit 1 and Appendix A) is a tool providing a composite score of a local government’s credit profile based on the weighted factors we consider most important, universal and measurable, as well as possible notching factors dependent on individual credit strengths and weaknesses. The scorecard is designed to enhance the transparency of our approach by identifying critical factors as a starting point for analysis, along with additional considerations that may affect the final rating assignment.

The scorecard is not a calculator. Its purpose is not to determine the final rating, but rather to provide a standard platform from which to begin viewing and comparing local government credits. It therefore acts as a starting point for a more thorough and individualistic analysis.

¹ Other types of local government bonds such as pool financings, government-owned utility revenue bonds, lease financings, and special tax bonds are covered under different methodologies. See [Moody’s Index of Rating Methodologies](#). Some of these security types, such as lease financings, are often notched off or otherwise related to the GO rating.

The scorecard-indicated rating will not match the actual rating in every case, for a number of reasons including the following:

- » Our methodology considers forward-looking elements that may not be captured in historical data
- » The scorecard is a summary that does not include every rating consideration
- » In some circumstances, the importance of one factor may escalate and transcend its prescribed weight in this methodology

EXHIBIT 1

Scorecard Factors and Weights

Local Governments

Broad Rating Factors	Factor Weighting	Rating Subfactors	Subfactor Weighting
Economy/Tax Base	30%	Tax Base Size (full value)	10%
		Full Value Per Capita	10%
		Wealth (median family income)	10%
Finances	30%	Fund Balance (% of revenues)	10%
		Fund Balance Trend (5-year change)	5%
		Cash Balance (% of revenues)	10%
		Cash Balance Trend (5-year change)	5%
Management	20%	Institutional Framework	10%
		Operating History	10%
Debt/Pensions	20%	Debt to Full Value	5%
		Debt to Revenue	5%
		Moody's-adjusted Net Pension Liability (3-year average) to Full Value	5%
		Moody's-adjusted Net Pension Liability (3-year average) to Revenue	5%

Our scorecard metrics were intentionally limited to major rating drivers that are common to most issuers. Outside of these drivers, we may adjust the grid score for a variety of “below-the-line” adjustments, which are more idiosyncratic factors that are likely not to apply to all issuers, but that can impact credit strength. The scorecard score is the result of the “above-the-line” score based quantitatively on the above-the-line ratings factors, combined with any “below-the-line” notching adjustments. The scorecard score is a guideline for discussion, but does not determine the final rating. The rating is determined by a committee, which considers, but is not bound by, the scorecard score.

What is a local government?

A local government is a subdivision of a state, most commonly a city², county, or school district. The provisions establishing local governments are typically enumerated in each state's constitution. Most states have local government laws governing the authorities and responsibilities of the political subdivisions within each state.

Local governments provide public services such as police and fire protection, courts, property records, public works maintenance, and water and sewer services. Cities or counties can also be responsible for

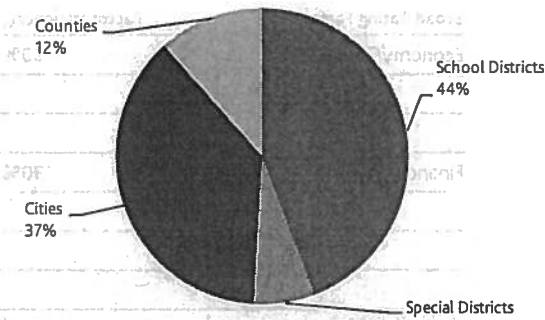
² We use the term “city” interchangeably with terms such as Town, Township, Village, and Borough.

public education, but this varies by states, and in most cases is provided by a separate school district dedicated to that sole function. Local governments fund these services with an array of revenues including property taxes, sales taxes, income taxes, state and federal aid, departmental income such as fines and fees, or direct charges for service.

States or subdivisions frequently create additional local governments such as authorities or special districts. These could include separate government-owned water, sewer, sanitation, or electric utilities, or public library, park, community college, or community development districts.

EXHIBIT 2

Moody's Rated Local Governments by Sector



Source: Moody's

What is a GO bond?

An unlimited tax GO (GOULT) bond is typically a security backed by the full-faith-and-credit pledge and total taxing power of the local government. The GOULT pledge means the local government promises to do everything it can to meet debt service. The specific definition of the pledge is laid out in state laws governing local government debt issuance; the precise legal characteristics of a GO bond can vary by state and sector (school district, county, etc.) depending on the structure of the local government and other technical issues.

Most often, the GO security offers the local government's full faith and credit pledge, including the levying of ad valorem taxes without limit as to rate or amount, for the timely payment of debt service (an unlimited tax, or GOULT pledge).

An illustration of the variety in the meaning of "General Obligation" arises in California, where a local government "General Obligation" bond is not secured by the full faith and credit of the local government, but solely by an unlimited ad valorem tax. We rate California local government GO bonds under this methodology, and even though they do not benefit from the broader pledge that secures GO bonds in many other states³, this is not necessarily a weakness.

In some instances, GO bonds are secured by a limited rather than unlimited property tax pledge. The limits may be on the specific debt service levy or tax rate, or on the taxing jurisdiction's overall

³ The primary rationale for this inclusion is threefold: First, our GO ratings reflect a comprehensive evaluation of a municipality's overall credit quality, which includes more than just an evaluation of pledged, legal security. Most significantly, we believe a California local government's overall financial profile and general management wherewithal can provide meaningful additional indicators of GO bond default probability. Second, the stronger a local government's overall, general credit quality, the less likely the local government will ever seek bankruptcy court protection. Third, our GO methodology is sufficiently flexible to recognize the unique strengths and weaknesses of each state's particular version of GO bonds, including California's, with "below-the-line" adjustments. Such adjustments are discussed later in this report.

property tax levy or total tax rate. We use our GO methodology for evaluating such limited tax General Obligation (GOLT) bonds in the same manner as unlimited tax GO bonds, but we may notch downward from the GOULT rating (whether an implied or public rating) to reflect the narrower, limited security provided by the GOLT pledge.

Moody's assesses the relative strength of unlimited versus limited tax securities on a case-by-case basis, considering, among other things, the legal provisions that protect bondholders' potential claims on tax revenue in the event of a default. We also consider the degree to which a currently levied, limited property tax rate is below the legally allowed maximum rate, and the amount of any additional available or pledged revenues beyond property taxes to pay debt service.

Some types of revenue bonds or other structures can receive a GO rating based on either a "double-barrel" pledge (meaning the GO as well as a second security are both explicitly pledged) or a municipality's legal guarantee to cover a separate entity's debt, provided we determine the legal enforceability of the guarantee and the structural mechanics assure the issue is sufficiently insulated from the risk of payment default by the underlying obligor.⁴

Note that state-level GO bonds do not typically involve ad valorem taxes and are rated under our separate state methodology⁵.

General Obligation Bonds in Bankruptcy

The enforceability of the GO pledge can change once a municipality enters a Chapter 9 bankruptcy. Treatment of GO bonds can vary by state, with some states designating GO debt service as a protected payment stream, others prohibiting bankruptcy altogether, and some leaving the question of how GO bonds should fare in a bankruptcy unanswered.

When a local government petitions for Chapter 9 bankruptcy protection, the debtor is subject to an "automatic stay" that halts all outflows, freezes all creditor recovery actions against the debtor, and prevents the borrower from liquidating assets to pay claims.

Bankruptcy courts have generally interpreted "special revenues" as exempt from the automatic stay, and therefore of stronger credit strength than other debts in a bankruptcy situation. Unless otherwise specified by state law or a jurisdiction's bankruptcy court, we believe GO bonds would generally not be treated as special revenues. In addition, certain states provide a statutory lien for GO bonds that makes it likely that courts would treat them as secured debt. In other states it is unclear whether GO claims could be considered unsecured and therefore enjoy less protection than secured debt.

Many Chapter 9 bankruptcy provisions remain untested, so it is difficult to make generalizations about how GO bonds will fare in bankruptcy. We expect the treatment of GO bonds in bankruptcy to evolve as precedents are set. It is also important to note that default and bankruptcy are separate events. A default can occur without a jurisdiction ever entering Chapter 9 proceedings, and conversely, a local government can enter bankruptcy without defaulting on its GO debt.

For more information, please refer to our Special Comment, [Key Credit Considerations for Municipal Governments in Bankruptcy](#).

⁴ See "Rating Transactions Based on the Credit Substitution Approach" (March 2013)

⁵ See [US States Rating Methodology](#) (April 2013)

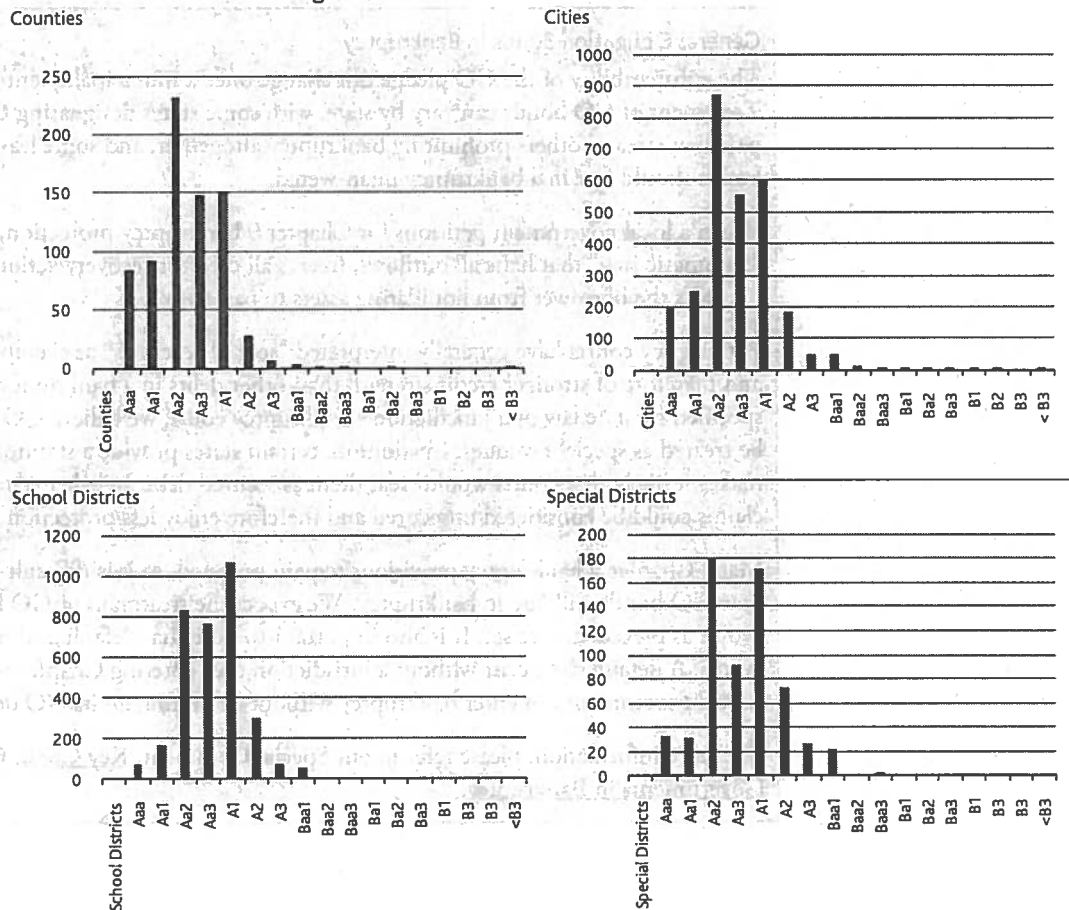
Fundamental Strengths of the Local Government Sector

US local governments are generally highly-rated compared to other types of government entities and corporations. As of this report publication date, only about 35 local government GO bonds are rated below investment-grade, out of a rated universe of approximately 8,000.

The high average rating assigned to local government general obligation bonds reflects credit strengths which typically include the strong institutional framework, predictability of property tax revenues, characteristic use of amortizing debt structures and the strengths resulting from municipal governments' perpetual status, and is consistent with historical and expected rating performance. Default experience for General Obligation bonds is exceedingly limited. We believe the occurrence of defaults will remain rare and the great majority of local governments will continue to warrant investment grade ratings.

This performance record and a number of fundamental strengths anchor the majority of ratings in the A and Aa range.

**EXHIBIT 3
Local Government GO Rating Distribution**



Source: Moody's

The potency of ad valorem taxing power

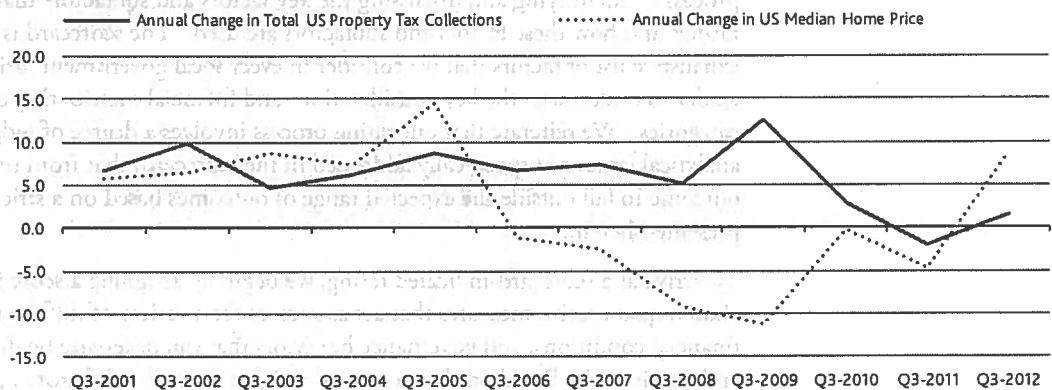
The pledge to levy ad valorem property taxes to repay bondholders has proven its durability over many decades.

Ad valorem taxes -- the bedrock of US local government finance -- are by nature predictable. Property taxes are historically more stable through economic cycles than sales taxes, income taxes, or other local government revenues.

Even during depressed real estate cycles such as the US housing downturn over the last several years, property taxes have remained generally stable. One reason for this is that a local government first determines the amount that it wants to raise (the levy) and then sets the tax rate (millage) on the taxable properties in its jurisdiction. If taxable property values decline, municipalities usually have the legal ability to increase the millage to achieve an unchanged or increased levy. Further, changes in the market value of taxable properties usually translate to the assessed value on municipalities' tax rolls on a lag, and to the property tax bills on a further lag, helping to smooth economic cycles (see Exhibit 4). Though some local governments were hit with double-digit declines in tax base in the years following 2008, the ability to adjust millage, in combination with the time-lag buffer, enabled most to adjust and re-balance operations.

EXHIBIT 4

Property Tax Receipts Lag Valuations



Source: Census Bureau, National Association of Realtors, Moody's Analytics

Amortizing debt structures

Most local government debt service structures are level or declining. Local governments typically pay down some principal with each year of debt service. Spikes in debt principal are rare.

This type of debt structure mitigates or eliminates several risks prevalent in other sectors, including rollover risk, balloon repayment risk and interest rate risk (if the coupon is fixed, which is the typical municipal structure). Local governments generally pay debt service according to a predictable schedule and, unlike many sovereign and corporate bond borrowers, generally do not rely on market access (i.e., new borrowing) to meet debt service payments.

Several of the local government sector's largest General Obligation defaults arose because of municipalities that exposed themselves to unstable debt structures (Jefferson County, AL) or carried an unmanageable debt burden because of a guarantee issued on another entity's debt (City of Harrisburg, PA).

Stable institutional framework

The local government General Obligation pledge has proven extremely strong in part because local governments' legal, institutional, and practical environment is stable and protective.

- » Most local governments are perpetual entities and monopoly providers of essential, legally mandated services such as police and fire protection, jails, and education.
- » Local governments in nearly all states operate under balanced budget requirements. Strictly speaking it is illegal for most entities to operate with imbalanced budgets.
- » Most entities are required to submit to annual audits, and budgets are subject to public scrutiny.
- » Many states limit local government debt burdens.
- » Many states operate fiscal oversight programs that monitor local government behavior and in some cases take over financially struggling entities. School districts in particular are typically closely linked to their states through oversight and operational mandates.

The local government sector's elemental strengths lead to high ratings on average.

Discussion of Key Scorecard Factors

A primary purpose of the methodology and scorecard is to enhance the transparency of our rating process by identifying and discussing the key factors and subfactors that explain our local government ratings and how these factors and subfactors are used. The scorecard is not intended to be an exhaustive list of factors that we consider in every local government rating, but should enable the reader to understand the key considerations and financial metrics that correspond to particular rating categories. We reiterate that our rating process involves a degree of judgment, or consideration of analytical issues not specifically addressed in the scorecard, that from time to time will cause a rating outcome to fall outside the expected range of outcomes based on a strict application of the factors presented herein.

To arrive at a scorecard-indicated rating, we begin by assigning a score for each subfactor. We've chosen quantitative measures that act as proxies for a variety of different tax base characteristics, financial conditions, and governance behaviors that can otherwise be difficult to measure objectively and consistently. Based on the scores and weights for each subfactor, a preliminary score is produced that translates to a given rating level.

We may then move the score up or down a certain number of rating notches based on additional "below-the-line" factors that we believe impact a particular local government's credit quality in ways not captured by the statistical portion of the scorecard. This is where analytical judgment comes into play. We may also choose to make adjustments to the historical subfactor inputs to reflect our forward-looking views of how these statistics may change.

The scorecard score, combined with below-the-line notching, then provides an adjusted score. This adjusted score is not necessarily the final rating. Because some local governments' credit profiles are idiosyncratic, one factor, regardless of its scorecard weight, can overwhelm other factors, and other considerations may prompt us to consider ratings that differ from the scorecard-indicated rating.

Below we discuss each factor and subfactor, as well as the below-the-line adjustments and other considerations we analyze within each category of the methodology. From time to time, we may amplify or further clarify the various subfactor considerations and below-the-line adjustments within this methodology.

Factor 1: Economy/Tax Base (30%)

	Aaa	Aa	A	Baa	Ba	B & Below	Weight
Tax Base Size: Full Value	> \$128	\$128 ≥ n > \$1.48	\$1.48 ≥ n > \$240M	\$240M ≥ n > \$120M	\$120M ≥ n > \$60M	≤ \$60M	10%
Full Value Per Capita	> \$150,000	\$150,000 ≥ n > \$65,000	\$65,000 ≥ n > \$35,000	\$35,000 ≥ n > \$20,000	\$20,000 ≥ n > \$10,000	≤ \$10,000	10%
Socioeconomic Indices: MFI	> 150% of US median	150% to 90% of US median	90% to 75% of US median	75% to 50% of US median	50% to 40% of US median	≤ 40% of US median	10%

Why It Matters

The ultimate basis for repaying debt is the strength and resilience of the local economy. The size, diversity, and strength of a local government's tax base and economy drive its ability to generate financial resources. The taxable properties within a tax base generate the property tax levy. The retail sales activity dictates sales tax receipts. The income earners living or working in the jurisdiction shape income tax receipts. The size, composition, and value of the tax base, the magnitude of its economic activity, and the income levels of its residents are therefore all crucial indicators of the entity's capacity to generate revenues.

Also crucial in this area of our analysis is the type of tax base and economy (residential bedroom community or an industrial, retail, or services center). Based on the type of local economy, Moody's will focus its questions and comparisons to include topics like commuting patterns, office or retail vacancy rates, or residential building permit activity, among other things.

While economic factors are important in our analysis, as demonstrated by the factor's 30% weight, the depth and breadth of a tax base is not the sole determinant of a credit rating. We have seen some local governments either unwilling or unable to convert the strength of their local economies into revenues. Tax caps, anti-tax sentiment, the natural lag between economic activity and its conversion into government revenues, and a variety of other factors have the potential to place obstacles between municipal governments and the wealth generated by their local economies. For these reasons, we consider other factors as well. Our scorecard inputs into Finances and Management capture the strengths of those governments that are able to translate economic weight into credit strength, while not assuming all do.

Subfactor 1.a: Tax Base Size (10%)

Input: Full value, i.e. the market value of taxable property accessible to the municipality. Often calculated as a multiple of assessed value, or the book value of properties on the tax rolls. Methods for calculating vary by state.

The tax base represents the well from which a local government draws its revenues. A larger tax base (measured by full value, or the total taxable value of property) in general offers a local government a broader, more flexible, and more diverse pool from which it can draw revenues. Smaller tax bases are more susceptible to shocks such as natural disasters or the closure of a major employer that destroy a great portion of taxable property values. Larger tax bases are better able to absorb these kinds of shocks. Smaller tax bases also tend to be less diverse and more dependent on a small number of properties.

Because an ad valorem pledge often underpins the GO security, the tax base is in a sense the ultimate repayment source for GO bondholders.

Subfactor 1.b: Full Value Per Capita (10%)

Input: Full value divided by population

Full value per capita scales the taxable property available to generate resources to a per resident metric. The per resident property wealth of the tax base depicts the availability of tax-generating resources relative to the users of the services those resources fund.

We believe looking at the magnitude of taxable property in tandem with taxable property per capita gives a clearer picture of tax base strength than looking at the magnitude of taxable property alone. Some entities, such as the City of Detroit, MI, have large tax bases on an absolute basis but low full value per capita, illustrating the difficulties in funding services for the city's population using the resources of the base. Alternatively, the City of Industry, CA has a very high full value per capita despite moderate income levels, due to a substantial commercial presence that is a robust component of the tax base.

Subfactor 1.c: Median Family Income (10%)

Input: Median family income as a percentage of the US median (source: American Community Survey⁶)

An important measure of the strength and resilience of a tax base is the income level of its residents. A community with higher wealth levels may have relative flexibility to increase property tax rates in order to meet financial needs. A wealthier community has greater spending power to sustain sales tax revenue and provide the demand necessary to support growth in the commercial and service sectors.

We emphasize median family income over per capita income because per capita income is more easily skewed by low-income populations that are not necessarily reflective of the strength of the tax base, such as the student residents at a university or inmates at a prison. To illustrate, the per capita income of the City of Charlottesville, VA was equal to 90% of the US median as of 2010, a figure we believe understates the city's wealth because of the presence of the 21,000-student University of Virginia. Both median family income and full value per capita portray a stronger tax base than the PCI indicates for Charlottesville.

Median family income also recognizes the economies of scale achieved when people share a household.

Below-the-line adjustments

Institutional presence (positive): Some types of properties such as universities or military bases can offer stability and tax base strength. Because these properties are often tax-exempt, they may not be captured in full value or full value per capita; in fact, they often depress full value per capita. We may notch a score up if tax base measures fail to capture the anchoring influence of an institution. Institutional presence is exhibited when the local government is the state capital or a long-term, stable entity such as a university or military base that contributes 10% or more of a local government's population.

Regional economic center (positive): Economic and employment centers may generate revenues from daytime visitors such as employees or shoppers. Traditional tax base measures don't necessarily reflect the characteristics of these revenue-generating people if they are not permanent residents. We may notch a score up if a local government has a substantially greater daytime population than nighttime or weekend population.

⁶ The American Community Survey has replaced the Census as surveyor of incomes in the US.

Economic concentration (negative): Local governments that generate a significant portion of their revenues from a single taxpayer or industry are particularly vulnerable to a loss of those revenues, especially if that industry is weak or volatile. Sizable economic concentrations could cause us to notch a score down.

Outsized unemployment or poverty levels (negative): This factor is designed to adjust the final score if a local government's socioeconomic characteristics are unusually weak in ways not already reflected in the scorecard. High unemployment or poverty levels may strain a local government's ability to tap its tax base for new revenues, or in extreme cases sustain existing tax collections. High levels may also pose additional demands for services.

Other considerations not on the scorecard that may lead to scorecard adjustments

A number of other factors do not appear on the scorecard or as a below-the-line adjustment, but are considered in our ratings and are frequent topics of discussion in our analysis.

» Per capita income (source: American Community Survey)

» Composition of workforce/employment opportunities

» Proportion of tax base that is vacant or exempt from taxes

» Median home value (source: American Community Survey)

» Trend of real estate values

» Population trends

» Property tax appeals outstanding

» Unusually significant tax base declines or growth

Factor 2: Finances (30%)

	Aaa	Aa	A	Baa	Ba	B & Below	Weight
Fund Balance as % of Revenues	> 30%	30% ≥ n > 15%	15% ≥ n > 5%	5% ≥ n > 0%	0% ≥ n > -2.5%	≤ -2.5%	10%
	> 25% for School Districts	25% ≥ n > 10% for SD	10% ≥ n > 2.5% for SD	2.5% ≥ n > 0% for SD	0% ≥ n > -2.5% for SD	≤ -2.5% for SD	
5-Year Dollar Change in Fund Balance as % of Revenues	> 25%	25% ≥ n > 10%	10% ≥ n > 0%	0% ≥ n > -10%	-10% ≥ n > -18%	≤ -18%	5%
Cash Balance as % of Revenues	> 25%	25% ≥ n > 10%	10% ≥ n > 5%	5% ≥ n > 0%	0% ≥ n > -2.5%	≤ -2.5%	10%
	> 10% for School Districts	10% ≥ n > 5% for SD	5% ≥ n > 2.5% for SD	2.5% ≥ n > 0% for SD	0% ≥ n > -2.5% for SD	≤ -2.5% for SD	
5-Year Dollar Change in Cash Balance as % of Revenues	> 25%	25% ≥ n > 10%	10% ≥ n > 0%	0% ≥ n > -10%	-10% ≥ n > -18%	≤ -18%	5%

Why It Matters

A local government's fiscal position determines its cushion against the unexpected, its ability to meet existing financial obligations, and its flexibility to adjust to new ones. Financial structure reflects how well a local government's ability to extract predictable revenues adequate for its operational needs are matched to its economic base.

The Finances category comprises two major components:

- » cash reserves and other liquid resources
- » the financial trend, which reflects on the quality of financial operations, the local government's ability to adjust to changing circumstances, and the potential for future stability or instability

Moody's financial analysis includes a review of historical financial performance as an indication of a local government's ability to weather budgetary pressures stemming from economic downturns or other factors. Our analysis focuses on multiyear financial trends, rather than performance in any given year, to indicate financial health over the medium term. Financial flexibility is a key area of analysis, as it provides insight into a local government's ability to maintain or augment its financial position going forward, ensuring a sufficient buffer to address any unexpected contingencies.

Moody's assessment of management includes a comparison of budget versus actual performance trends, focusing on the accuracy of both revenue and expenditure forecasts. Revenue forecasting is a key consideration, as overly optimistic revenue budgeting can lead to shortfalls within a fiscal year. The strongest financial managers work with information that is updated on a regular basis. For instance, property tax revenue projections will be more reliable if they are based on historic trends and also include reasonable assumptions about the future of the local real estate market, the direction of national interest rates, and the local government's likely tax collection rate. Similarly, strong sales tax revenue projections incorporate recent actual trends and indicators of likely future purchasing demand – such as population trend numbers, expected unemployment rates and the impact of current and expected nearby retail competition. The strongest management teams have a solid track record of meeting projections in key budget line items over several years.

Finally, school districts, as noted earlier, are local governments dedicated to a single purpose, often operating under extensive state supervision and with correspondingly limited revenue-raising abilities derived from a mix of property taxes and state aid—also state-controlled. School districts tend to have more predictable revenue composition and cost structures than most other types of local governments. Moody's has accordingly developed two separate sets of financial scores, discussed below, to reflect the often less flexible but more stable financial position particular to school districts.

Subfactor 2.a: Fund Balance (10%)

Input: Available fund balance (Operating funds assets minus operating funds liabilities, adjusted for other resources or obligations that are available for operating purposes) as a percentage of operating revenues

Fund balance describes the net financial resources available to an entity in the short term. The input for this factor isn't simply General Fund balance; we include all reserves that our analysis finds is available for operating purposes. The specific funds that will be included will vary by credit, although almost all will include at least the General Fund unassigned plus assigned fund balance.

The fund balance communicates valuable information about both the past and the future. The existing balance depicts the cumulative effects of the local government's financial history. It also identifies the liquid resources available to fund unforeseen contingencies as well as likely future liabilities.

The strength of a given level of fund balance varies depending on the particular local government and its respective operating environment. Larger balances may be warranted if budgeted revenues are economically sensitive and therefore not easily forecasted, or to offset risk associated with tax base concentration, unsettled labor contracts, atypical natural disaster risk, and pending litigation. Alternately, municipalities with substantial revenue-raising flexibility may carry smaller balances without detracting from their credit strength; this weakness is offset by their ability to generate additional resources when necessary.

We include both restricted and unrestricted fund balance unless there is reason to believe the restricted portions are not usable for operating purposes. For groups of local governments that do not follow Generally Accepted Accounting Principles accounting standards, we adjust the fund balance to improve comparability. For example, with New Jersey credits, we include in fund balance receivables that under state statutory accounting are stripped out of fund balance, but would be considered part of fund balance under GAAP accounting.

Our scorecard allows for school districts to carry lower fund balances than cities and counties at the same rating level. This is consistent both with existing medians and with our belief that school districts by nature need less fund balance to operate consistently. School districts generally have a more predictable funding composition and more transparent schedule of cash outflows than cities or counties. Cities and counties often provide social services whose costs can spike unexpectedly, and are also typically more reliant on less-predictable revenue sources such as sales taxes, fines, and fees.

Subfactor 2.b: 5-Year Dollar Change in Fund Balance as % of Revenues (5%)

Input: Available fund balance in the most recent year minus available fund balance five years earlier, as a percentage of operating revenues in the most recent year

The strength of local government financial operations encompasses many elements, some of which interact: whether (and how much of) reserves are appropriated into the budget, how conservative the budget projections are, and how management reacts midcourse to variances from the original assumptions.

The most important aspect of financial operations is the local government's ability to achieve structural balance: long-term revenues matching long-term spending. The focus here is on whether financial reserves are increasing in step with budgetary growth.

We measure results as the dollar change in fund balance over the past five years, expressed as a percentage of the most recent year's revenues. We believe that a five-year window is generally representative of a full economic cycle.

For issuers that have maintained a stable fund balance throughout the five-year period, the metric is likely to come out at the "A" level, in the 0% to 10% range. If rating committee feels that the "A" score does not adequately reflect the credit strength of the issuer's five-year fund balance history, the committee can add a half-notch or full notch up in "Other analyst adjustment to Finance factor."

Another adjustment to the scorecard may be made if the change in fund balance was due to planned capital spending. Local governments frequently build capital reserves to pay for projects instead of, or in addition to, borrowing. In this case, the analyst may adjust the calculation to reflect ongoing operating reserves, rather than capital reserves that are likely to be spent on long-term projects.

Subfactor 2.c: Cash Balance (10%)

Input: *Operating funds net cash (cash minus cash-flow notes) as a percentage of operating revenues*

Fund balance is an accounting measure subject to the modified accrual accounting prescribed by the Governmental Accounting Standards Board. While fund balance and cash are usually correlated, accruals can often lead to divergence between the two. A large receivable for delinquent taxes, for instance, can lead to an ostensibly high fund balance position and a weaker cash position; yet in this case, the fund balance position is less indicative of credit quality than the cash position.

Cash (net of notes payable within one year) represents the paramount liquid resource without regard to accruals.

For the same reasons we believe school districts can carry less fund balance than cities and counties at the same rating level, we believe school districts can carry less cash too.

We believe evaluating cash and fund balance in tandem is more informative than evaluating either in isolation. Our approach mutes some of the effects of modified accrual accounting while still recognizing the non-cash resources that are nonetheless likely accessible in the near-term.

Subfactor 2.d: 5-Year Dollar Change in Cash Balance as % of Revenues (5%)

Input: *Operating funds net cash in the most recent year minus Operating funds net cash five years earlier, as a percentage of operating revenues in the most recent year*

This factor seeks to reflect changes to a local government's cash position distinct from its fund balance. Accrual accounting can sometimes depict a story that obscures some details of financial operations. The trend in the local government's cash balance gives us additional information about financial operations that may be veiled by accrual-driven changes in fund balance.

Below-the-line adjustments

Outsized enterprise or contingent liability risk (negative): We may notch a score down by one or several notches if a local government operates, has guaranteed the debt of, or is otherwise exposed to an enterprise or operation that poses outsize risk relative to the local government's own operations. This risk could reflect a General Obligation guarantee of an independent entity's debt (such as the City of Harrisburg, PA's guarantee of an incinerator authority's debt) or the local government's operation of an enterprise, even if currently self-supporting. The adjustment strives to reflect the potential impact of an enterprise's debt, debt structure, or legal issues that could limit the flexibility of the general government in the event it had to cover the enterprise's debt or operations.

Unusually volatile revenue structure (negative): Volatile or unpredictable revenue sources can present challenges to budgetary balance and stable fund balance and cash reserves. We may notch a score down if volatile, unpredictable, or economically sensitive revenue sources comprise 50% or more of operating funds revenues, or if any major revenue sources has changed by 10% or more in any one year of the past five.

Other considerations not on the scorecard that may lead to scorecard adjustments

- » Questionable balance sheet items that may distort fund balance
- » Large portion of fund balance that is restricted or unusable
- » Labor contracts that materially affect credit strength

- » Limited revenue raising ability: restrictive property tax cap, constraints on capturing tax base growth, or other levy-raising limitation
- » Limited ability to cut or control expenditures: limitation constrains budgetary flexibility to a degree not already captured in the scorecard
- » Heavy fixed costs, including contractually fixed costs such as pension payments

Factor 3: Management (20%)

	Aaa	Aa	A	Baa	Ba	B & Below	Weight
Institutional Framework	Very strong legal ability to match resources with spending	Strong legal ability to match resources with spending	Moderate legal ability to match resources with spending	Limited legal ability to match resources with spending	Poor legal ability to match resources with spending	Very poor or no legal ability to match resources with spending	10%
Operating History: 5-Year Average of Operating Revenues / Operating Expenditures	> 1.05x	1.05x ≥ n > 1.02x	1.02x ≥ n > 0.98x	0.98x ≥ n > 0.95x	0.95x ≥ n > 0.92x	≤ 0.92x	10%

Why It Matters

Both the legal structure of a local government and the practical environment in which it operates influence the government's ability to maintain a balanced budget, fund services, and continue tapping resources from the local economy. The legal and practical framework surrounding a local government shapes its ability and flexibility to meet its responsibilities.

The laws of each state establish a framework for its political subdivisions that determines what revenues they are empowered to raise and how much flexibility they have in increasing them, as well as what services they are required to provide and how much flexibility they have in cutting them.

Subfactor 3.a: Institutional Framework (10%)

Input: An input of Aaa through B and below determined for each sector/state combination annually

This score measures the municipality's legal ability to match revenues with expenditures based on its institutional apparatus: the constitutionally and legislatively conferred powers and responsibilities of the local government entity.

We determine one score for every state and sector combination. [See link here for the scores.](#) For example, all school districts in Ohio will have the same institutional framework score. Each year, we determine the institutional framework score to apply to all local governments in that state and sector based on the state/sector's legal edifice and any potential changes to it.

The following rubric acts as a launching point for these discussions:

Operating Revenue Flexibility		Revenue Raising Ability			Major expenditures tend to be highly stable and predictable	Major expenditures tend to be moderately stable and predictable	Major expenditures tend to be somewhat unstable and unpredictable
		Strong ability to raise revenues	Moderate ability to raise revenues	Weak ability to raise revenues			
Revenue Predictability	Major revenue sources tend to be highly stable and predictable	Aaa	Aa	A	Expenditure Predictability		
	Major revenue sources tend to be moderately stable and predictable	Aa	A	Baa			
	Major revenue sources tend to be somewhat unstable and unpredictable	A	Baa	Ba or B and Below			
		Strong ability to reduce expenditures	Moderate ability to reduce expenditures	Weak ability to reduce expenditures	Operating Expenditure Flexibility		
		Expenditure Reduction Ability					

The interplay between legally dictated resources and responsibilities contributes to the stability of a local government's credit profile and its capacity to match revenues to expenditures over time. A local government with a stable institutional framework is less likely to face an abrupt change in its obligations without the corresponding ability to meet those obligations.

Factors that drive the institutional framework score:

- » Tax caps⁷
- » Organized labor
- » Difficulty of increasing revenues (i.e., subject to public approval)
- » Predictability of costs (such as charter school tuition)
- » State-imposed limitations on fund balance or reserves

We know that applying a single institutional framework score to all local governments in a state and sector will inevitably lead to exceptions. For instance, a struggling school district in a state that may ordinarily provide a weak institutional framework could gain a stronger framework if placed under state supervision or receivership. We will appropriately score these exceptions through adjustments below the line.

⁷ Tax caps matter even if they don't limit increases in property taxes to pay for debt service. A limitation on revenue raising can restrict financial flexibility and make it difficult to grow reserves, hampering credit even for an unlimited tax General Obligation pledge.

Subfactor 3.b: Operating History (10%)

Input: *The average of operating revenues divided by operating expenditures in each of the past five years*

While institutional framework communicates the context of a municipality's legal ability to match revenues and spending, the operating history communicates the local government's demonstrated willingness to utilize that ability.

This factor measures the five-year average of the ratio of operating revenues to operating expenditures. A ratio of greater than 1.0 indicates a budget surplus on average, a ratio of 1.0 indicates balanced operations, and a ratio of less than 1.0 indicates a sustained deficit.

A local government's success in navigating the legal, political and practical environment in which it operates depends on a multitude of factors, including management's mastery in understanding its resources and managing its responsibilities, public and executive support for its plans, and its willingness to use the tools at its disposal.

We do not believe a single playbook prescribes how best to manage a budget. Rather, we assess management's success in planning and adjusting under a mosaic analysis based foremost on results: does the evidence show a trend of operating surpluses, operating deficits, or are the results mixed?

When evaluating a credit, we seek to understand the probable impact of fund balance policies, multi-year financial or capital planning, liquidity management, accuracy of budget forecasts, and willingness to make midyear adjustments. Reliance on non-recurring, or "one-shot" revenues, such as proceeds from the sale of assets, windfall delinquent tax collections, or the use of fund balance as a revenue source, leaves the municipality vulnerable should these one-time revenues fail to materialize in the future. Ultimately, we believe actual results are the best indicator of the effectiveness of all these factors. The five-year operating history shows whether the local government's financial position is strengthening or weakening, and whether management has been effective at planning for the future and adjusting when things haven't gone as planned.

Below-the-line adjustments

State oversight or support (positive or negative): Control boards, receivership, emergency management, or other forms of state oversight can alter a municipality's institutional framework and differentiate its resources and responsibilities from others in its state and sector. Oversight structures can make it easier or more difficult to issue debt, raise taxes, or restructure labor contracts. We may notch up, or in some cases down, when state intervention changes a local government's legal and practical landscape.

Unusually strong or weak budget management and planning (positive or negative): We recognize that a five-year operating history will not always tell the whole story of a local government's willingness to achieve balanced operations. We may notch a score up or down if we believe a local government's financial planning and budget management are unusually strong or weak, in ways not reflected in the recent financial trend or existing cash reserves and fund balance.

Factor 4: Debt/Pensions (20%)

	Aaa	Aa	A	Baa	Ba	B & Below	Weight
Net Direct Debt / Full Value	< 0.75%	0.75% ≤ n < 1.75%	1.75% ≤ n < 4%	4% ≤ n < 10%	10% ≤ n < 15%	> 15%	5%
Net Direct Debt / Operating Revenues	< 0.33x	0.33x ≤ n < 0.67x	0.67x ≤ n < 3x	3x ≤ n < 5x	5x ≤ n < 7x	> 7x	5%
3-Year Average of Moody's Adjusted Net Pension Liability / Full Value	< 0.9%	0.9% ≤ n < 2.1%	2.1% ≤ n < 4.8%	4.8% ≤ n < 12%	12% ≤ n < 18%	> 18%	5%
3-Year Average of Moody's Adjusted Net Pension Liability / Operating Revenues	< 0.4x	0.4x ≤ n < 0.8x	0.8x ≤ n < 3.6x	3.6x ≤ n < 6x	6x ≤ n < 8.4x	> 8.4x	5%

Why It Matters

Debt and pensions represent important components of the long-term financial obligations facing a local government.

Debt and pension burdens are measures of the financial leverage of a community. Ultimately, the more leveraged a tax base is, the more difficult it is to service existing debt and to afford additional debt, and the greater the likelihood that tax base or financial deterioration will result in difficulties funding fixed debt service expenditures.

Our treatment of debt seeks to scale the magnitude of a local government's debt obligations relative to: 1) its resources (using tax base as the proxy), and 2) its operations (using operating revenues as a proxy).

We see pension liabilities as characteristically similar, though not identical, to debt. Because of disparities in the way local governments measure and report pension liabilities, we use an internal standardization process to calculate the adjusted liability⁸.

Our methodology and scorecard are more restrictive with respect to debt burdens compared to pension burdens. This reflects the fact that measures of accrued pension liability are estimates that depend on numerous actuarial assumptions and are affected by external market factors that can be volatile from year to year. In addition, it may be possible for governments to amend or renegotiate pension plan provisions in a manner that reduces accrued liabilities. In contrast, debt principal obligations are fixed in nature.

Subfactor 4.a: Debt to Full Value (5%)

Input: Gross debt minus self-supporting debt, as a percentage of full value

Our first gauge of a local government's debt burden evaluates net direct debt relative to full value. This metric tells us how onerous future debt service payments could be to the tax base. We use full value as a proxy for the capacity of a local government to generate additional revenues to pay debt service.

To arrive at net direct debt, we calculate the local government's gross debt burden including all GO bonds, notes, loans, capital leases, and any third-party debt backed by the local government's GO

⁸ See [Adjustments to US State and Local Government Reported Pension Data](#). (April 2013)

guarantee. This calculation may include lease, other appropriation-backed debt, and special tax debt as well if our analysis concludes these securities represent future claims on operating resources. We then subtract debt for essential service utilities (such as water and sewer systems) that is self-supporting from user fees, based on a coverage calculation⁹. We do not subtract debt whose principal and interest is paid by taxes, even if those costs are external to the General Fund. The self-supporting calculation is designed to strip out debt that won't be supported by taxes or the General Fund because it is paid for with user fees such as water, sewer, or electric charges. We do not deduct GO debt for non-essential enterprises such as golf courses, even if it is self-supporting (see Appendix D).

Subfactor 4.b: Debt to Revenues (5%)

Input: Gross debt minus self-supporting debt, as a percentage of operating revenues

Next, we evaluate net direct debt relative to operating revenues. This metric expresses the potential budgetary impact of future debt service. A high debt burden relative to operating revenues implies a possibility that debt will consume a greater portion of the local government's budget in future years.

We believe evaluating net direct debt relative to both full value and operating revenues is superior to evaluating either one alone because in tandem they express the obligations' potential pressure on the budget as well as on the revenue-generating resources the local government utilizes to fund the budget.

Subfactor 4.c: 3-year Average of Moody's-Adjusted Net Pension Liability to Full Value (5%)

Input: The average of Moody's-adjusted Net Pension Liability (as calculated in Appendix B) in each of the past three years, as a percentage of full value

We seek to measure the magnitude of a local government's pension obligations (as adjusted by Moody's) relative to its tax base. Similar to the debt burden evaluation, we use the tax base as a proxy for future revenue-generating capacity to amortize accrued pension obligations for which trust assets are not currently set aside.

We use a three-year average of the net pension obligation to smooth the volatility inherent in a metric that changes with market interest rates and the value of pension plan assets.

Subfactor 4.d: 3-year Average of Moody's-Adjusted Net Pension Liability to Operating Revenues (5%)

Input: The average of Moody's-adjusted Net Pension Liability (as calculated in Appendix B) in each of the past three years, as a percentage of operating revenues

This metric seeks to measure pension obligations relative to the size of the local government's budget.

The metric attempts to reflect the prospect that amortization of accrued net pension obligations could sap revenues out of future-year budgets and lead to funding shortfalls. Because pension contributions are for many governments a significant fixed-cost share of what is already typically the largest component of general government operations – salaries and benefits – they directly affect annual budgets and the ability to sustain essential services.

Overall, the pension scores are used as a starting point for an analysis of the pension position and its impact on operations. The analysis considers the funded status, future contributions, and overall

⁹ Debt is considered self-supporting if operating revenues minus operating expenditures (excluding depreciation) have been sufficient to cover principal and interest for the previous three years. If essential-service debt fails this test (for instance, if it fails in one of the past three years), it will not be considered self-supporting and will be added to the debt burden.

liability in the context of the local government's long-term resources. The analysis is not driven solely by the ANPL number.

Also considered as part of this overall category are other post employment benefits (OPEB), which are primarily healthcare liabilities for retired workers. Municipalities typically do not fund their future healthcare liabilities, choosing instead to meet these payments on a pay-as-you-go basis. We do not add present-value measures of unfunded OPEB to the scorecard, as these obligations have proven in many jurisdictions to be subject to greater discretionary control by management. However, when OPEB obligations appear to be particularly large relative to budget and tax base and management has not demonstrated a willingness to address related costs, we will factor this into our rating analysis through a below-the-line adjustment.

Costs of Funding Retirement Benefits

To provide sufficient funds to meet pension benefit payments when they are due, governments and their actuaries identify annual contributions sufficient to meet a pension plan's accrued obligations over a reasonable time period. The annual amount – known as the actuarially required contribution or ARC – consists of the present value of the future benefits accrued by employees during the current year (referred to as “normal” or “service” cost), plus the amortization of unfunded benefit liabilities accrued in past years.

This ARC was initially adopted by GASB as the standard for creating a sound annual pension contribution amount. Although there has not been uniformity across governments in the calculation of pension valuations and ARCs because of leeway provided by GASB rules, we have considered consistent adherence to a prudent actuarially determined pension funding plan as an indicator of sound budget management practices. Conversely, failure to follow such a plan is an indicator of structural budget imbalance and cost deferral that we view as credit negative. Employers contributing less than an actuarially determined contribution run the risk of experiencing rapid cost increases as unfunded liabilities grow and benefit payments become due. Although GASB has dispensed with providing funding guidance in its new pension accounting standards to be implemented in 2014 and 2015, and therefore ARC as such will disappear, the concept and credit implications of adhering to sound pension funding practices remain unchanged.

While treated similarly to pensions in accounting standards, the costs of retiree health benefits have been approached differently by governments. Most governments meet the current expenses of the plans on a pay-as-you go basis. Since we do not view these liabilities as having the same contractual or constitutional protections as pension liabilities, we expect that governments will have some flexibility over time to manage these expenses. We view pre-funding of OPEB liabilities as moderately credit positive.

Below-the-line adjustments

Unusually weak or strong security features (negative or positive): General Obligation bonds sometimes have structural features that are fundamentally stronger than a local government simply paying debt service out of its operating revenues. For example, some structures employ a lock box, where funds from tax collections are transferred directly from a third-party tax collector to the trustee for the bonds and never flow into the issuer's own accounts. Conversely, if the courts were to interpret a state's GOULT security as weaker than the typical pledge, or if pensions were granted superior status to debt, we could notch down. Overall, this notching factor is designed to adjust the score when the security features enhance or weaken the factors on the scorecard.

Unusual risk posed by debt structure (negative): The structure of a local government's debt profile can pose additional risks not captured by the debt burden. A large amount of short-term notes without sufficient offsetting liquidity can expose the local government to market access risks. A large amount of variable-rate debt or swaps can expose a municipality to a variety of risks, including termination risk, counterparty risk, and interest rate risk. Non-amortizing debt structures with bullet maturities are unusual for General Obligation bonds, and may also result in downward notching.

History of missed debt service payments (negative): A historical default may reflect an elevated risk of failure to meet financial obligations going forward. Defaults frequently reflect poorly on management and the local government's willingness and/or ability to meet financial obligations. We include in this category not only defaults on other General Obligation bonds or guarantees with GO backing, but on non-parity obligations such as a lease revenue bond. The magnitude of notching, if any, depends on the timeframe for the cure if any, changes instituted since the default, and the reason for default or missed payment.¹⁰

Other considerations not on the scorecard that may lead to scorecard adjustments

- » Very high or low debt service relative to budget
- » Very high or low overall debt burden (including overlapping debt)
- » Heavy capital needs implying future debt increases
- » Unusually slow or rapid amortization of debt principal (gauged by the percentage of principal repaid within 10 years)
- » Other post-employment benefits (OPEB), the most significant of which is retiree healthcare liabilities, when they have the potential to significantly constrain operational flexibility

Determining the Scorecard-Indicated Rating

To determine the scorecard-indicated rating, each of the assigned scores for the subfactors is converted into a numerical value based on the following scale:

Rating Category	Aaa	Aa	A	Baa	Ba	B and below
	1	2	3	4	5	6

Each subfactor's value is multiplied by its assigned weight and then summed to produce a weighted average score. This score is then mapped to the ranges specified in the table below, and a corresponding alpha-numeric rating is determined based on where the total score falls within the ranges. This produces the grid-indicated rating. This grid-indicated rating is then adjusted up or down, in minimum half-notch increments, for applied notching considerations. A half-notch adjustment up or down may not necessarily result in a change to the final score, depending on the raw grid-indicated score. The outcome of this weighted average approach is one input into our credit analysis of local government General Obligation bonds.

We use both historical and projected financial results in the rating process. Moody's ratings are forward-looking and incorporate our expectations for future financial and operating performance. Accordingly, we may make adjustments to the quantitative factors based on anticipated near-term

¹⁰ See [Moody's Approach for Assessing the Rating Impact of Debt Payments That Are Missed for Operational or Technical Reasons](#) (April 2013)

results. In some cases, confidential information that we cannot publish may inform our expectations for future performance. In other cases, we estimate future results based upon past performance, industry trends, near-term borrowing plans, and other factors. Historical results help us understand patterns and trends for a local government's performance as well as for peer comparison.

Indicated Rating	Overall Weighted Score
Aaa	0.5 to 1.5
Aa1	1.5 to 1.83
Aa2	1.83 to 2.17
Aa3	2.17 to 2.5
A1	2.5 to 2.83
A2	2.83 to 3.17
A3	3.17 to 3.5
Baa1	3.5 to 3.83
Baa2	3.83 to 4.17
Baa3	4.17 to 4.5
Ba1	4.5 to 4.83
Ba2	4.83 to 5.17
Ba3	5.17 to 5.5
B1	5.5 to 5.83
B2	5.83 to 6.17
B3 and below	6.17 to 6.5

Assumptions, Limitations and Rating Considerations Not Covered in the Scorecard

This methodology and scorecard describe generally how we formulate ratings for counties, cities, school districts, and special districts in the US. The methodology and scorecard reflect current rating practices, and capture the factors we believe are most relevant to local governments' long-term credit quality, but it is not an exhaustive discussion of all factors that Moody's analysts consider in every US local government rating.

The rating methodology scorecard incorporates a trade-off between simplicity that enhances transparency and greater complexity that would enable the scorecard to map more closely to actual ratings. The scorecard's four rating factors and 12 subfactors do not constitute an exhaustive treatment of all of the considerations that are important to local government ratings.

In choosing metrics for the methodology scorecard, we have excluded certain factors that are important to ratings but may be either subjective or based on predictions about future events, although such considerations may be important in individual rating determinations. Accordingly, ranking the factors by rating category in a grid would in some cases suggest too much precision and stability in the relative ranking of particular local governments. The expectation that a local government's budgetary process may reach stalemate in the upcoming budgetary cycle is an example of a factor that has not been included in the scorecard but may factor into a rating.

Ratings may also reflect circumstances in which the actual weighting of a particular factor or subfactor is significantly different from the weighting suggested by the scorecard. For example, a local government's multi-year spending trend, severe illiquidity, or persistent retirement system underfunding may pressure the financial stability of the local government so significantly that we feel the scorecard-assigned weighting of one particular factor or subfactor is insufficient. This variation in weighting as a rating consideration can also apply to factors not represented in the scorecard.

Our ratings incorporate expectations for future performance, while much of the information used in the scorecard is historical. In some cases, our expectations for future performance may differ from past performance, and may affect the rating.

How the US Government Bond Rating Can Affect a Local Government Rating

Outside the United States, subsovereign ratings are generally capped at the level of the sovereign, with few exceptions. Given their degree of independence from the credit condition of the US government, the large majority of local governments could be rated higher than the sovereign if the US government were to be downgraded by one notch. Certain local governments, however, have greater exposure to potential federal cuts or are highly dependent on federal employment, procurement, or transfer payments. Therefore their ratings are capped at the sovereign rating¹¹.

Moody's analysis to determine whether a municipal rating is linked to the US government's rating focuses on specific metrics such as federal procurement activity, federal employment and healthcare employment as indicators of economic sensitivity. Medicaid expenditures for states and public hospital expenditures for local governments as indicators of direct exposure to federal spending are also considered, along with the presence of short-term or puttable debt as an indicator of exposure to capital markets disruptions.

¹¹ See Moody's, "[How Sovereign Credit Quality May Affect Other Ratings](#)", published February 2012.

Appendix A: US Local Government General Obligation Scorecard

	Very Strong					Moderate					Weak					Poor					Very Poor					Weight
	Aaa	Aa		A		Baa		Ba		B & Below		Aaa		Aa		A		Baa		Ba		B & Below				
Economy/Tax Base (30%)																										
Tax Base Size: Full Value	> \$12B	\$12B ≥ n > \$1.4B		\$1.4B ≥ n > \$240M		\$240M ≥ n > \$120M		\$120M ≥ n > \$60M		≤ \$60M														10%		
Full Value Per Capita	> \$150,000	\$150,000 ≥ n > \$65,000		\$65,000 ≥ n > \$35,000		\$35,000 ≥ n > \$20,000		\$20,000 ≥ n > \$10,000		≤ \$10,000														10%		
Socioeconomic Indices: MFI	> 150% of US median	150% to 90% of US median		90% to 75% of US median		75% to 50% of US median		50% to 40% of US median		≤ 40% of US median														10%		
Finances (30%)																										
Fund Balance as % of Revenues	> 30% > 25% for School Districts	30% ≥ n > 15% 25% ≥ n > 10% for SD		15% ≥ n > 5% 10% ≥ n > 2.5% for SD		5% ≥ n > 0% 2.5% ≥ n > 0% for SD		0% ≥ n > -2.5% 0% ≥ n > -2.5% for SD		≤ -2.5% ≤ -2.5% for SD														10%		
5-Year Dollar Change in Fund Balance as % of Revenues	> 25%	25% ≥ n > 10%		10% ≥ n > 0%		0% ≥ n > -10%		-10% ≥ n > -18%		≤ -18%														5%		
Cash Balance as % of Revenues	> 25% > 10% for School Districts	25% ≥ n > 10% 10% ≥ n > 5% for SD		10% ≥ n > 5% 5% ≥ n > 2.5% for SD		5% ≥ n > 0% 2.5% ≥ n > 0% for SD		0% ≥ n > -2.5% 0% ≥ n > -2.5% for SD		≤ -2.5% ≤ -2.5% for SD														10%		
5-Year Dollar Change in Cash Balance as % of Revenues	> 25%	25% ≥ n > 10%		10% ≥ n > 0%		0% ≥ n > -10%		-10% ≥ n > -18%		≤ -18%														5%		
Management (20%)																										
Institutional Framework	Very strong legal ability to match resources with spending	Strong legal ability to match resources with spending		Moderate legal ability to match resources with spending		Limited legal ability to match resources with spending		Poor legal ability to match resources with spending		Very poor or no legal ability to match resources with spending														10%		
Operating History: 5-Year Average of Operating Revenues / Operating Expenditures	> 1.05x	1.05x ≥ n > 1.02x		1.02x ≥ n > 0.98x		0.98x ≥ n > 0.95x		0.95x ≥ n > 0.92x		≤ 0.92x														10%		

	Very Strong	Strong	Moderate	Weak	Poor	Very Poor	Weight
	Aaa	Aa	A	Baa	Ba	B & Below	
Debt/Pensions (20%)							
Net Direct Debt / Full Value	< 0.75%	0.75% ≤ n < 1.75%	1.75% ≤ n < 4%	4% ≤ n < 10%	10% ≤ n < 15%	> 15%	5%
Net Direct Debt / Operating Revenues	< 0.33x	0.33x ≤ n < 0.67x	0.67x ≤ n < 3x	3x ≤ n < 5x	5x ≤ n < 7x	> 7x	5%
3-Year Average of Moody's Adjusted Net Pension Liability / Full Value	< 0.9%	0.9% ≤ n < 2.1%	2.1% ≤ n < 4.8%	4.8% ≤ n < 12%	12% ≤ n < 18%	> 18%	5%
3-Year Average of Moody's Adjusted Net Pension Liability / Operating Revenues	< 0.4x	0.4x ≤ n < 0.8x	0.8x ≤ n < 3.6x	3.6x ≤ n < 6x	6x ≤ n < 8.4x	> 8.4x	5%

Scorecard: US Local Government General Obligation Bonds

Adjustments/Notching Factors	
Description	Direction
Economy/Tax Base	
Institutional presence	up
Regional economic center	up
Economic concentration	down
Outsized unemployment or poverty levels	down
Other analyst adjustment to Economy/Tax Base factor (specify)	up/down
Finances	
Outsized contingent liability risk	down
Unusually volatile revenue structure	down
Other analyst adjustment to Finances factor (specify)	up/down
Management	
State oversight or support	up/down
Unusually strong or weak budgetary management and planning	up/down
Other analyst adjustment to Management factor (specify)	up/down
Debt/Pensions	
Unusually strong or weak security features	up/down
Unusual risk posed by debt/pension structure	down
History of missed debt service payments	down
Other analyst adjustment to Debt/Pensions factor (specify)	up/down
Other	
Credit event/trend not yet reflected in existing data sets	up/down

Appendix B: Moody's Pension Adjustments

The steps we take to adjust reported pension liabilities are:

- » **Allocating cost-sharing plan liabilities.** We allocate to state and rated local governments their proportionate shares of cost-sharing plan (CSP) liabilities based on the share of total plan contributions represented by each participating government's reported contribution. In cases where there is a known actuarially required contribution (ARC) that is greater than the actual contribution, the entity's proportional share will be calculated using the employer ARC relative to the plan ARC.

As governments begin to report their specific shares of CSP liabilities, as expected in the next few years under new GASB standards, we will use these disclosed liabilities rather than the calculated proportional share approach, provided the disclosed liability in each case appears to be reasonable based on our understanding of the government's relationship with the CSP.

- » **Discounting accrued liabilities using a market discount rate.** We use Citibank's Pension Liability Index ("Index") and a common duration of 13 years to adjust each plan's reported actuarial accrued liabilities (AAL). The Index is composed of high credit quality (Aa rated or higher) taxable bonds and is duration-weighted by Citibank for purposes of creating a discount rate for a typical pension plan in the private sector. The reported AAL is projected forward for 13 years at the plan's reported discount rate and then discounted to the present using the Index's value as of the valuation date. This calculation results in an increase in AAL of between 13% and 14% for each one percentage point difference between the Index and the plan's reported discount rate.

As governments and CSPs begin to report plan-specific duration estimates, as expected in the next few years under new GASB standards, we will use these disclosed estimates rather than the 13-year common assumption in the calculation of adjusted accrued liabilities.

Determining the value of plan assets. We value plan assets at the reported market or fair value as of the valuation date.

Note: Market asset values at present are not commonly disclosed for many local government pension plans, but are expected to become available as new GASB reporting standards are implemented in the next few years. Until this data is more consistently available, we will continue to use reported actuarial values of plan assets, but will deduct any reported asset amounts related to deferred contributions receivable.

- » **Calculating adjusted net pension liability.** The difference between the adjusted liabilities and the market or fair value of assets is the adjusted net pension liability. This is the number that Moody's will use to calculate the pension liability ratio incorporated in the local government GO scorecard, as per our rating methodology. Further, our calculation of the adjusted net pension liability for a general government attempts to exclude the portion that is attributable to self-supporting enterprises, if information supporting that conclusion is available.
- » **Amortizing adjusted net pension liability.** The adjusted net pension liability is amortized over a 20-year period on a level dollar basis, using the interest rate provided by the Index. This measure will be considered by rating committees along with other supplementary information about a government's pension obligations.

US Public Finance

Applying Moody's Adjustments to a Government's Pension Liability

Indicative Calculation Example

	(\$000)
Reported AAL	\$50,000,000
Asset Market or Fair Value	\$40,000,000
Assumed investment rate of return	8.00%
Valuation date	6/30/2010
Citibank Pension Liability Index at valuation date	5.47%
Government A contributions to plan / Total employer contributions to plan (i.e. Government A's proportional share)	17.0%
AAL projected forward 13 years at 8.00%	\$135,981,186
Discounted at 5.47%	\$68,045,989
Adjusted net pension liability (ANPL)	\$28,045,989
Government A's 17%share of ANPL	\$4,767,818
Government A's amortization of ANPL	\$397,975

Appendix C: Criteria for Sufficient Information to Assign or Maintain Ratings

If, in our opinion, sufficient information to effectively assess creditworthiness is not available and is unlikely to soon become available, we will decline to assign ratings, or we will withdraw outstanding ratings for a rated entity. If we do not have audited financial statements within 12 months after the end of the fiscal year and do not have sufficient, reliable information to support a credit analysis, we will withdraw the rating. To support ratings on entities with material pension liabilities, we expect regular updates to pension valuations or equivalent measures.

In the US public finance sector, pension valuations commonly lag a government's financial reporting date by six to 12 months. We would view valuation information that lags by more than 24 months to be non-timely and as possible grounds for rating withdrawal.

Appendix D: Framework for Measuring Enterprise or Contingent Liability Risk

Contingent liabilities represent a key credit risk for the small subset of local governments that provide debt guarantees or other financial support for non-essential enterprises and projects. Through the economic downturn and recovery there has been an increase in the number of failing non-essential or otherwise risky enterprises, which have the potential to weigh on local governments that have provided guarantees for these enterprises. Therefore, we may make a downward adjustment to the Finances category score for “Outsized Enterprise or Contingent Liability Risk.”

As discussed under subfactor 4.a, Debt to Full Value, our calculation of an issuer's debt includes all third-party debt guaranteed by that issuer. Our calculation of debt subtracts out guaranteed (or direct) debt for essential enterprises that are covering debt service from their own operations. However, we do not subtract guaranteed debt for non-essential enterprises, even if a history of self-support exists.

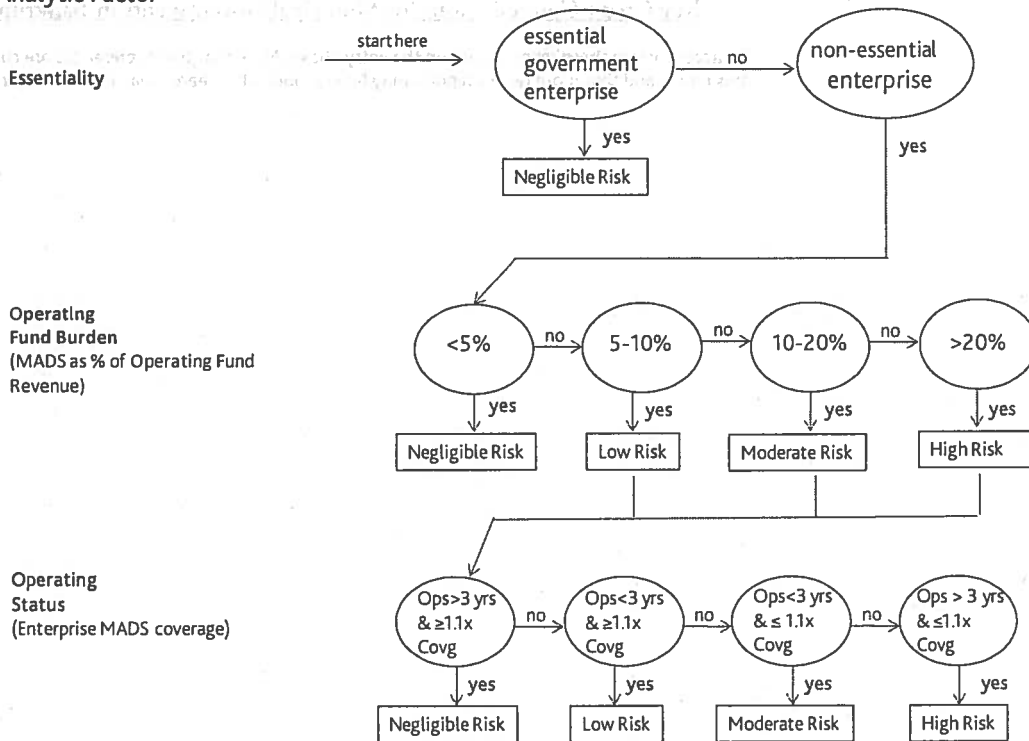
In addition, enterprise or contingent liabilities can pressure an issuer's finances, when the enterprise fails to perform as expected and the issuer must pay its debt service. We consider a below-the-line adjustment to the Finances score in the scorecard after analysis of additional factors that determine the magnitude of contingent liability risk. These factors include:

- » Effect of non-essentiality of the guaranteed enterprise or project on likelihood or willingness of local government to honor obligation.
 - Generally, we consider water, sewer, stormwater, electric and gas enterprises to be “essential government enterprises” because they tend to be necessary to the health and welfare of the community and are therefore likely to garner strong public support; as businesses, they enjoy a relatively inelastic demand. They also often enjoy a monopoly within the service area, insulating them from competition from the private sector. We will not typically make additional adjustments to the scores of issuers who have guaranteed debt for such enterprises. Less or non-essential enterprises, such as sports arenas, recreation facilities or economic development projects that are directly exposed to market forces, may have limited support and at higher risk of unwillingness by the obligor to honor the liability.
- » Local government's financial ability to cover debt service
 - In order to account for the potential full effect of a contingent liability to the local government's operations, we look at the maximum annual debt service (MADS) of the guaranteed debt of the enterprise relative to total operating fund revenues. In general, we consider MADS that falls below 5% of operating fund revenues to present little or minimal risk to a local government's operations. Once MADS goes above 20% of revenues, we believe the risk is high.
- » Likelihood of the enterprise's need for financial support from the local government
 - Once we have established the risk to the local government's operations of the full contingent liability, we explore the likelihood that an enterprise or project's net revenues will fall short of full debt service. The history of the enterprise's operations and track record of MADS coverage provide key data to assist in determining the risk the local government will need to

subsidize the debt service. We consider the enterprise to pose little or no risk if it has at least a 3-year operating history that demonstrates 1.1 times coverage of MADS from net revenues. The magnitude of the risk increases with a shorter history of adequate coverage and even more so if there is a history of coverage falling below 1.1 times.

The flow chart below illustrates the analysis that we undertake to determine the magnitude of contingent liability risk to determine whether, and by how much, to adjust the scorecard based on contingent liability risk. There may be additional considerations we include in our analysis as well. If the enterprise's liquidity is constrained, for example, it may need additional external support from the local government when revenues cannot cover expenditures.

Analytic Factor



Source: Moody's

Moody's Related Research

The ratings assigned in this sector are primarily determined by this rating methodology. Certain broad methodological considerations (described in one or more cross-sector methodologies) may also be relevant to the determination of specific ratings in this sector. Potentially related cross-sector rating methodologies can be found [here](#).

For data summarizing the historical robustness and predictive power of credit ratings assigned using this credit rating methodology, see [link](#).

Special Comments:

- » [US Municipal Bond Defaults and Recoveries, 1970-2012, May 2013 \(151936\)](#)
- » [Key Credit Considerations for Municipal Governments in Bankruptcy, January 2012 \(136814\)](#)

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

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Related Criteria

Related Research

U.S. Local Governments General Obligation Ratings: Methodology And Assumptions

1. Standard & Poor's Ratings Services is updating its methodology and assumptions for assigning issuer credit ratings (ICRs) and issue credit ratings based on general obligation (GO) pledges of local governments in the United States. This update follows our request for comment (RFC), "Request For Comment: U.S. Local Governments: Methodology And Assumptions," published on March 6, 2012. This update provides additional transparency and comparability to help market participants better understand our approach to assigning local government ratings, to enhance the forward-looking nature of these ratings, and to enable better comparisons between U.S. local government ratings, local government ratings in other countries, and all other ratings. The "Principles of Credit Ratings", published on Feb. 16, 2011, form the basis of this criteria.
2. For the ratings in scope, this criteria supersedes the following articles:
 - GO Debt, Oct. 12, 2006
 - Key General Obligation Ratio Credit Ranges – Analysis Vs. Reality, April 2, 2008
 - Does Bigger Always Mean Better? Sizing Up The Impact Of Size On Municipal Ratings, April 22, 2008
 - Location, Location, Location: What Does It Mean For My Community's Rating? April 22, 2008
3. All capitalized terms are defined in the glossary, section X, paragraphs 90-97.

I. SCOPE OF THE CRITERIA

4. The criteria apply to all U.S. local government issuer credit ratings and issue ratings on GO bonds issued by municipal governments that are not special purpose districts. Examples of local government entities in the scope include cities, counties, towns, villages, townships, and boroughs, called municipalities in the criteria. Examples of special purpose districts excluded from the scope include school districts, library districts, park districts, and forest preserve districts, among others. The criteria also do not apply to U.S. states or territories but do apply to the District of Columbia.

II. SUMMARY OF CRITERIA UPDATE

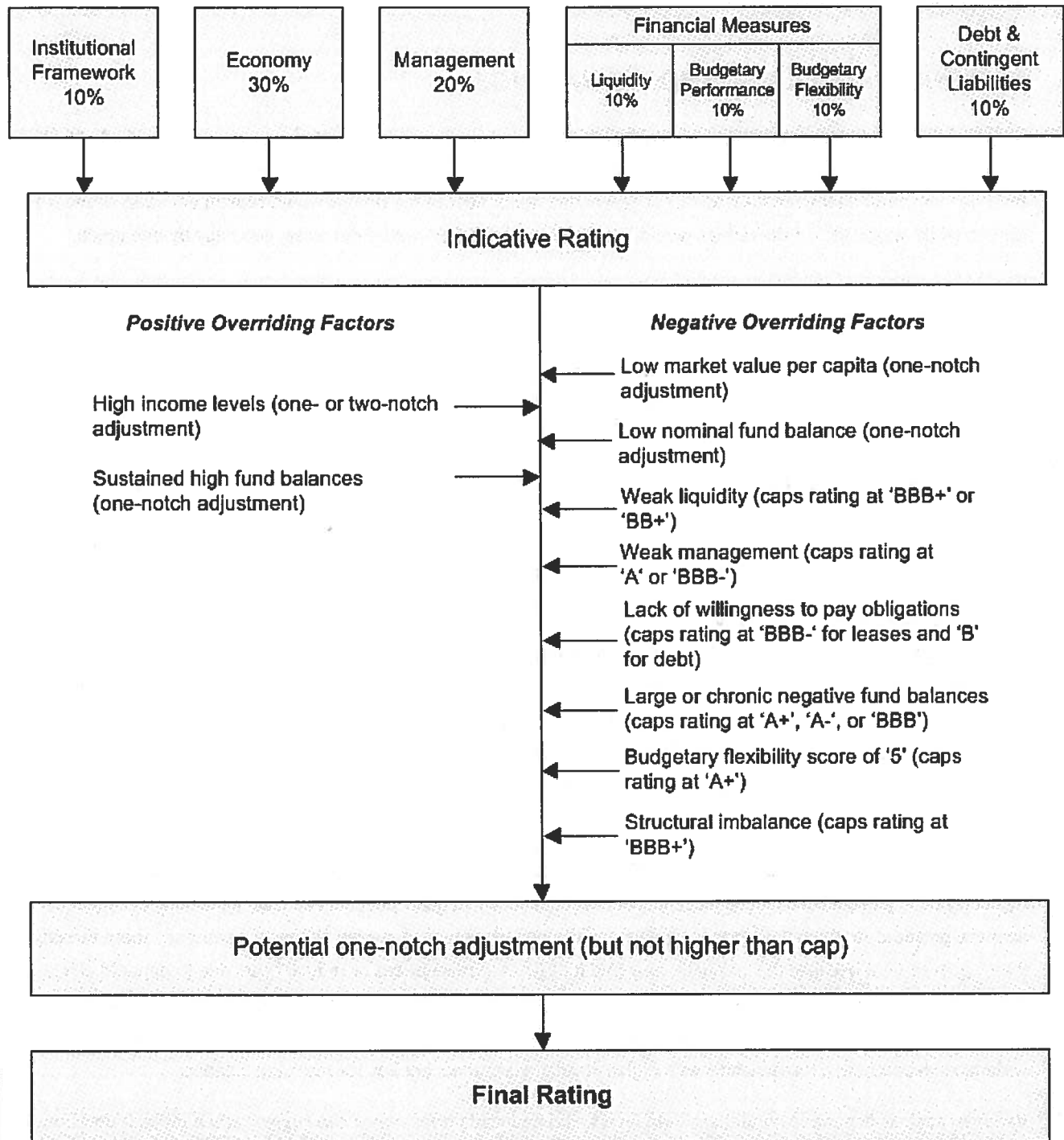
5. The criteria use the same major elements as our criteria for rating local and regional governments outside the U.S. (see "Methodology For Rating International Local And Regional Governments", published Sept. 20, 2010). Specifically, the criteria assign ratings based on the assessment and scoring of seven key factors:
 - Institutional framework;
 - Economy;
 - Management;
 - Budgetary flexibility;
 - Budgetary performance;

- Liquidity; and
- Debt and contingent liabilities.

Although the criteria assess the same factors, the measures used to assess these factors are detailed in a manner consistent with the characteristics and reporting conventions of U.S. public finance obligors.

6. The initial indicative rating results from a weighted average of the factors detailed above. The economy score receives a 30% weight, and the management score receives 20%. The financial-related scores, liquidity, budgetary performance and budget flexibility, each account for 10% of the total score. The institutional framework score also receives a 10% weight, as does the debt and contingent liabilities score. Certain score levels result in ratings different from those suggested by the weighted average. Chart 1 outlines a summary of the analytical framework for assigning a local government's GO rating.

Chart 1
Analytical Framework For Local GO Ratings



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III. SUMMARY OF CHANGES FROM THE REQUEST FOR COMMENT

See Appendix III in Section IX.

IV. IMPACT ON OUTSTANDING RATINGS

7. Standard & Poor's maintains issuer credit ratings or ratings on GO debt (or debt equivalent to or based on the GO rating) for more than 4,000 governments included in the scope of the criteria. Assuming that governments maintain their current credit characteristics, testing suggests that about 60% of the ratings would remain unchanged under the criteria while about 30% of the ratings would increase and about 10% would decrease, generally by one notch.

V. EFFECTIVE DATE AND TRANSITION

8. The criteria described in this article are effective immediately and apply to all new and outstanding ratings within scope. We intend to complete our review of issuers affected within the next 12 months.

VI. METHODOLOGY

A. Local Government Rating Calibrations

1. Local Governments Globally

9. Local governments exist to provide services to the population. Services may be mandated by a higher-level government, but often the levels and choice of services to be provided are at the local government's discretion. Governments may rely on locally levied and collected taxes or user charges, or on taxes, grants, or aid distributed from higher levels of government to fund services. Local governments often have little direct control over funds distributed from higher levels of government, and higher-level governments may place restrictions on local taxing levels--if local taxes may be levied at all.
10. A local government's ability and willingness to make fiscal adjustments and its legal and political relationships with higher levels of government can be more important to its ability to meet debt service than its economic trends or financial position. An overall economic decline can threaten the ongoing paying ability of a company more directly than a government because the company may find it difficult to raise prices or reduce costs due to demand elasticity. Although unpopular, governments with sufficient autonomy may raise taxes or cut services without seeing mass outmigration from the jurisdiction relative to the demand volume reduction faced by a company. For governments without such autonomy, relationships with higher-level governments are key for restoring balance.
11. Variables such as economic conditions, debt levels, and financial performance can suggest when difficult decisions to restore fiscal balance might become necessary, but do little to suggest whether prudent decisions will be made. Different government responses can therefore produce different default outcomes for periods with the same level of

stress. Accordingly, predictions of precise default amounts and probabilities become more suspect. This complicates the calibration of criteria to economically-based stress scenarios but does not prohibit it. The long-term and repeating trend of higher local-government defaults following periods of significant economic stress is well-established and dates back to ancient Greece.

2. The Specific Case Of U.S. Local Governments

12. From a global perspective, U.S. local governments have a fairly high degree of autonomy. Virtually all U.S. local governments levy some sort of tax and levy various other fines, fees, and charges. U.S. census data show that own-source revenues account for 63% of local general government revenues. However, this total includes school districts which typically receive a large amount of state funding. For municipalities and counties specifically, data for credits rated by Standard & Poor's suggest this percentage is 79%. Direct funding from the federal government represents only about 4% of total local government revenues, much of which represents funds designated for capital spending.
13. Due to the federalist structure of the U.S. government, individual states, rather than the U.S. government, make most of the laws regarding what taxes local governments may raise, how much debt they can issue, and other matters of local government finance. A local government rating is not automatically constrained by the U.S. sovereign rating or its respective state rating. The economic and fiscal relationships, dependencies, and/or interdependencies between levels of governments will determine the credit linkages along with our framework to rate entities above a sovereign rating (see "Methodology And Assumptions: Request For Comment: Ratings Above The Sovereign—Corporate And Government Ratings" published April 12, 2013).
14. Although states do have significant power over their local governments, their use of this power pales in comparison to the use of such powers by sovereign or regional governments in other countries. Although states have at times tinkered with the mix of local government revenues and imposed various limits or regulations around the use of debt and taxes, the basic tenets of U.S. local government finance have remained largely in place since colonial times. Neither American independence, the American civil war, nor severe economic downturns, such as those witnessed in the late 1830s, late 1870s, and early 1930s, have changed the basic premise of local governments relying largely on own-source revenues to fund different service levels of their own choosing. Some studies suggest to us that this self-reliance drives the low debt levels and fiscal stability observed in U.S. local governments and similar jurisdictions (see Jonathan Rodden in Related Research).
15. Property taxes remain a cornerstone of U.S. local government finance and often provide stability to finances. This stability results from laws in many states that delink tax base growth from overall market volatility. In addition, the lag between market cycles and their effect on revenues allows public officials to adjust rates to offset market effects. The recent downturn illustrates this. Property tax revenues actually grew in 2009, while income tax revenues declined 17% and sales taxes declined 7.5%. Owing to the aforementioned lag, analysis done by the Pew Charitable Trusts using U.S. Census data shows that property tax revenue did decline in 2010, but only by 1.05%. Although conditions vary, data from local governments rated by Standard & Poor's show no decline in property tax revenues for the average government in fiscal 2010. For more information, see Lutz, Molloy, and Shan in Related Research.

3. The Strength Of The General Obligation Pledge And State Level Incentives For Debt Payment

16. A general obligation pledge usually obligates a local government to use all legally available funds to pay debt service and--if such current funds are not sufficient--to take actions necessary to increase those funds. This includes an obligation to levy additional property taxes specifically for debt service, although state tax caps may limit this pledge. A limited tax pledge may affect the rating (see "Standard & Poor's Refines Its Limited-Tax GO Debt Criteria", published Jan. 10, 2002).
17. In addition, some states have laws that empower state governments to take over local governments when their financial position deteriorates significantly or to direct state-appropriated monies for debt repayment. Even temporary relief from debt payments may elude local governments if GO debt enjoys the additional benefits of dedicated taxes or other "special revenues". About one-half of states' statutes either fail to provide specific authorization for municipalities to file for bankruptcy, as currently required for a bankruptcy filing under the U.S. Bankruptcy Code, or prohibit such a filing. Of the remaining 28 whose statutes authorize bankruptcy, 15 states only authorize municipal bankruptcy subject to approval or other conditions, and many states have used this approval power to intervene before a bankruptcy can occur.
18. While the nature of the GO pledge may best explain the miniscule net losses experienced on municipal debt during the Great Depression (net losses amounted to 0.4% of debt outstanding), in our view the limitations associated with Chapter 9 bankruptcy, and states' use of their additional oversight powers also contribute to the sector's extraordinarily low default rate by reducing political risk. Faced with the potential for longer-term costs of reduced market access and reputational damage for state and local officials, nonpayment of debt, in our view, makes little sense for most governments experiencing fiscal stress.

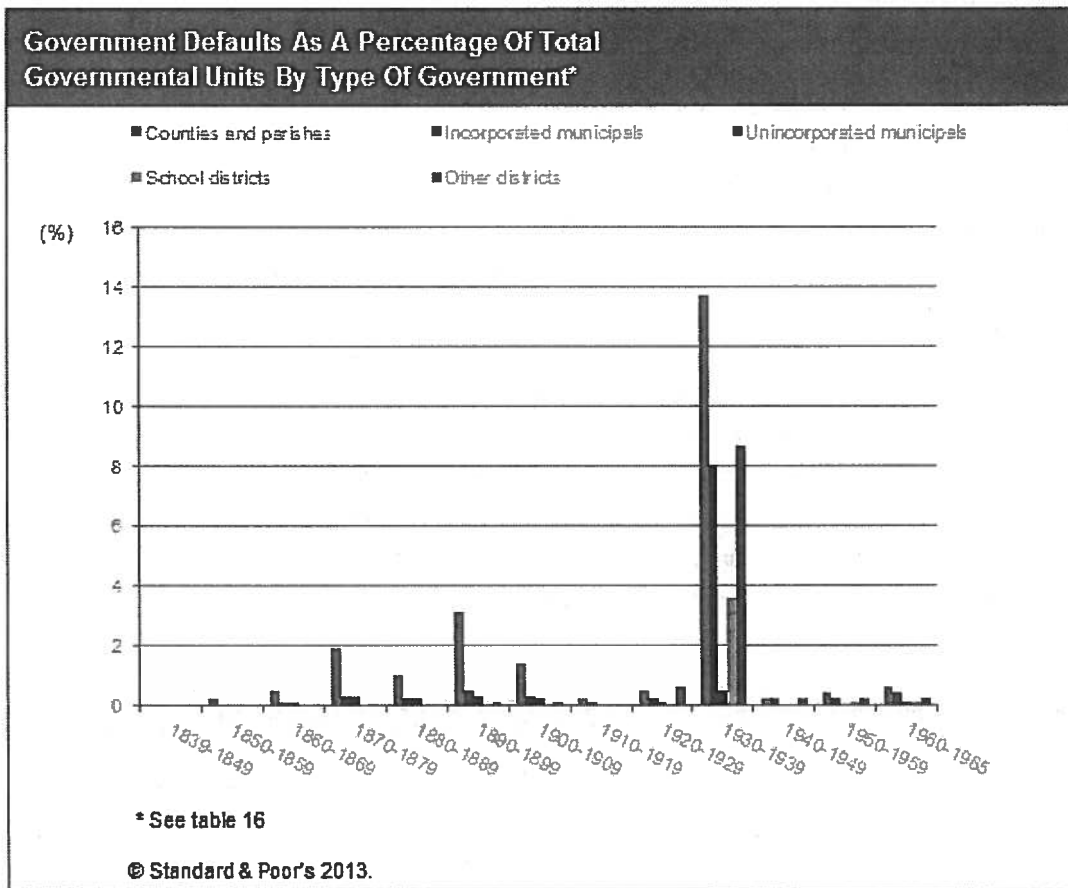
4. U.S. Local Government Payment Performance

19. Some proponents of current local government stability criticize references to local government defaults in periods such as the Great Depression or earlier. They cite changes such as lower government debt levels, improved revenue diversification, stronger state oversight, and fundamental changes to the economic and banking sectors as reasons why such previous default performance is less relevant. While the criteria recognize and incorporate many of these changes, such statements, in our view, overlook important reasons to consider past payment performance. First, given the experience of the recent recession and current economic challenges, the idea that the municipal performance seen only since World War II will continue regardless of future conditions is itself suspect. Rather than blind speculation, past performance provides observable data with which to compare and contrast different scenarios. Second, the period since World War II generally does not provide sufficient stressful periods with which to calibrate general obligation criteria (see "Understanding Standard & Poor's Rating Definitions", published June 3, 2009). Although the recent recession may demonstrate that municipal credits in general are investment grade, it provides little insight as to whether the current criteria appropriately differentiate 'A', 'AA', and 'AAA' credits as suggested by the article above. That evaluation requires more stressful periods.
20. Several studies provide what we consider to be good summaries of past municipal credit performance. The work most often quoted is George Hempel's "The Postwar Quality of State and Local Debt", published by the National Bureau of Economic Research (NBER) in 1971. The criteria also take Hempel's 1964 University of Michigan dissertation, "The Postwar Quality of Municipal Bonds", on which the NBER publication is based as a resource because it provides a bit

more detail. A major source for Hempel's work that focuses specifically on local government debt is Albert M. Hillhouse's "Municipal Bonds: A Century of Experience". Both works provide summaries and discussion, but do not present the underlying data. Hillhouse's "Defaulted Municipal Bonds (1830-1930)", lists every recorded default over the 100-year period referenced. When considering relationships between state and local governments, William A. Scott's "Repudiation of State Indebtedness" provides details on the actions of states under stress.

- Hillhouse and Hempel come to similar conclusions on municipal defaults. On the one hand, local government defaults occur across all types of governments (see Appendix I in Section VII), in both good and bad economic times. On the other hand, the number of local government defaults becomes worrisome only during very stressful periods, and even then a majority of governments continue to pay their debts (see chart 2 and Appendix I). Both agree that the ultimate repayment record for local governments when they default is very strong.

Chart 2



- The criteria consider the overall strong payment performance even after adjusting for differences in economic stress. The criteria are calibrated to provide rating results consistent with the extraordinarily historically low levels of local government defaults.

23. We do not expect a change in the historically extraordinarily low default rates in this sector. When there is a rapid deterioration, we do expect to continue to see multiple-notch downgrades. Please see "The Time Dimension Of Standard & Poor's Credit Ratings", published Sept. 22, 2010, for a description of potential ratings migration.

B. Framework For Determining A U.S. Local Government Rating

24. The criteria assess seven factors:

- Institutional framework (see paragraphs 36-40);
- Economy (see paragraphs 41-47);
- Management (see paragraphs 48-58);
- Budgetary flexibility (see paragraphs 59-64);
- Budgetary performance (see paragraphs 65-68);
- Liquidity (see paragraphs 69-77); and
- Debt and contingent liabilities (see paragraphs 78-84).

Scores for each factor range from '1' (the strongest) to '5' (the weakest). The economy score receives a 30% weight and management receives 20%. These scores receive the highest weight because of management's ability to tap the local economic base for additional revenues if it chooses to do so in a timely manner. The financial scores combined receive 30%, with liquidity, budgetary performance, and budgetary flexibility each accounting for one third of the 30%. The institutional framework score and debt and contingent liabilities score each receive 10% (see chart 1). Table 1 shows the indicative rating outcomes that result from the weighted average of these scores. Absent the overriding factors detailed in table 2, the final rating assigned to the GO issue or the ICR will be within one notch of the indicative rating shown in table 1, with one-notch differentials determined based on trends and comparisons with similarly rated peers. When the overriding factors detailed in table 2 notch the rating (rather than cap the rating), the one-notch differentials of the prior sentence can still be applied. Importantly, certain data are adjusted to facilitate comparability and consistency. Please refer to paragraphs 94 to 102 for a list of defined terms and related adjustments. In addition, please refer to the article, "Standard & Poor's U.S. Public Finance Local GO Criteria: How We Adjust Data For Analytic Consistency", published Sept. 12, 2013, for a more extensive summary of data adjustments.

Table 1

Indicative Rating Outcomes Resulting From The Weighted Average Of Seven Factors	
Factor Score Weighted Average	Indicative Rating
1.00 – 1.64	AAA
1.65 – 1.94	AA+
1.95 – 2.34	AA
2.35 – 2.84	AA-
2.85 – 3.24	A+
3.25 – 3.64	A
3.65 – 3.94	A-
3.95 – 4.24	BBB+
4.25 – 4.54	BBB
4.55 – 4.74	BBB-

Table 1

Indicative Rating Outcomes Resulting From The Weighted Average Of Seven Factors (cont.)

4.75 – 4.94	BB
4.95 – 5.0	B

The indicative rating results from the weighted average outcomes as shown above. The final rating may differ from the indicative rating above by one notch based on trends and comparisons with peers in that range. The final rating may also differ from the indicative rating due to the presence of overriding factors described in paragraphs 25-35. For ratings below 'B-' please see "Criteria For Assigning 'CCC+', 'CCC', 'CCC-', And 'CC' Ratings" published Oct. 1, 2012, and "Standard & Poor's Ratings Definitions", published June 17, 2013.

Overriding Factors

25. The criteria employ a series of overriding factors that can result in the final rating assigned to the local government being different from the indicative rating outcome suggested by table 1. Table 2 summarizes these factors. Certain conditions result in the final rating moving a specified number of notches above or below the indicative rating. If multiple notch overrides exist, the final rating is based on the net effect of those overrides.
26. Certain other conditions result in the final rating being capped at a certain level. When such conditions exist, the final rating could be lower than the cap depending on the severity of the condition present, and the final rating could be lower than the indicative rating even if the indicative rating is lower than the ratings cap in table 2. Rating caps are absolute, meaning that the positive relative adjustments described below do not allow ratings to exceed the cap. If multiple cap overrides exist, the rating cap used is the lowest cap of all the individual overrides that apply.
27. If multiple overrides involving both caps and notches exist, the final rating will be based on the lower of the lowest rating cap or the indicative rating as adjusted by the notch overrides. For example, a local government could have an indicative rating of 'A', a negative one-notch override, and a condition that results in a capped rating of 'A+'. In such a case, the indicative rating as adjusted by the notch override would equal 'A-'. Since 'A-' is lower than the rating cap, the final rating could be at most 'A' (if the one-notch adjustment described in paragraph 24 were applied) or any lower rating given that a cap override applies. If, instead, the indicative rating were 'AA' in this example, then the indicative rating as adjusted by the notch override would be greater than the rating cap of 'A+'. Therefore, the rating outcome could be no higher than 'A+' (the one-notch adjustment cannot increase a rating above a rating cap), but could be any lower rating given that a cap override applies. We acknowledge that the assignment and removal of caps may cause an increase in ratings volatility and potentially steeper rating transitions.

Table 2

Summary Of Overriding Factors (see paragraphs 25-35)

Overriding Factor	Result
Notch Overrides	
Projected per capita EBI* > 225% of U.S. projected per capita EBI	Final rating one notch higher than that suggested by table 1
Projected per capita EBI* > 300% of U.S. projected per capita EBI	Final rating two notches higher than that suggested by table 1
Total Market Value per capita < \$30,000	Final rating one notch lower than that suggested by table 1
Available Fund Balance > 75% of general fund expenditures for the most recently reported year, the current year and next year and is expected to continue	Final rating one notch higher than that suggested by table 1

Table 2

Summary Of Overriding Factors (see paragraphs 25-35) (cont.)

Available Fund Balance < \$500,000	Final rating one notch lower than that suggested by table 1
Cap Overrides (rating capped)	
Liquidity score equals '4'	Final rating capped at 'BBB+'
Liquidity score equals '5'	Final rating capped at 'BB+'
Management score equals '4'	Final rating capped at the lower of 'A' and one notch lower than that suggested by table 1
Management score equals '5'	Final rating capped at the lower of 'BBB-' and two notches lower than that suggested by table 1
Management score equals '5' due to a lack of willingness to support unconditional debt obligations	Final GO rating on debt not in default capped at 'B'
Available Fund Balance < -10% of general fund expenditures for the most recently reported year or budget flexibility score equals '5'	Final rating capped at 'A+'
Available Fund Balance < -5% of general fund expenditures for the two most recently reported years	Final rating capped at 'A-'
Available Fund Balance < -5% of general fund expenditures for the three most recently reported years	Final rating capped at 'BBB'
Budget performance: For local governments that exhibit characteristics of structural imbalance expected to continue and the government does not have a credible plan to restore balance	Final rating capped at 'BBB+'

*EBI--Effective Buying Income (see glossary)

Factors That Notch From The Indicative Rating

a) Rating adjustments for certain economic measures

28. When variables measured as part of the overall economic score take on extreme values, adjustments from the indicative rating occur. When projected per capita Effective Buying Income (EBI) as a percentage of the U.S. projected per capita EBI exceeds 225% (50% higher than the top income threshold in table 8), the final rating is raised by one notch to account for the extreme income levels in the tax base. When projected per capita EBI exceeds 300% of the U.S. level, the final rating is raised by two notches. No similar adjustment applies to Total Market Value (TMV) per capita because high scores often result from concentrated tax bases. When TMV per capita is less than \$30,000, however, the final rating is lowered by one notch to reflect the limited tax base supporting debt.

b) Sustained large positive fund balances

29. An abnormally large sustained Available Fund Balance signifies heightened flexibility if projections suggest that it will endure. Accordingly, the maintenance of an Available General Fund Balance exceeding 75% of general fund expenditures for the most recently reported year, the current and next year, and that is projected to continue at that level raises the final rating by one notch.

c) Low nominal fund balances

30. The Available Fund Balance as a percentage of expenditures measure, used in the budgetary flexibility score, can mask vulnerability when absolute nominal levels of reserves are low. Accordingly, when the Available General Fund Balance for the most recently reported year is below \$500,000 (but above a level that causes a rating cap to occur -- see paragraph 34), the final rating is lowered by one notch to reflect this vulnerability.

Factors That Cap The Final Rating

d) Liquidity

31. Although liquidity receives limited weight in determining the indicative rating because of a local government's ability to make fiscal adjustments, its importance grows as the liquidity score weakens. A liquidity score of '4' caps the final rating on a local government at 'BBB+' regardless of other strengths. An overall liquidity score of '5' limits the final rating to no higher than 'BB+'.

e) Management

32. The decentralized and autonomous nature of U.S. local governments creates a stronger link between management and credit quality, particularly when limited or weak management exists. Accordingly, an overall management score of '4' results in a final rating at least one notch below the indicative rating outcome and limits the rating to no higher than 'A'. A score of '5' results in a final rating at least two notches below the indicative rating outcome and limits the rating to no higher than 'BBB-'.
33. When a management score of '5' results from a current lack of willingness to pay a debt, capital lease obligation, or a moral obligation pledge (see paragraph 53), the rating cap depends on the nature of the obligation. A current lack of willingness to pay an unconditional debt obligation of the government would cap the final rating on other GO debt of the government at no higher than 'B' and would likely be lower. While the ICR of a local government would fall to 'D' or 'SD' following a default on an actual debt obligation, the payment prospects for other GO debt may remain stronger (such as when the default results from insufficient funds for limited-tax GO debt and other GO debt enjoys an unlimited-tax pledge). Consistent with our criteria for appropriation-backed obligations, a failure to pay a capital lease obligation also caps the GO rating (see "Appropriation-Backed Obligations", published June 13, 2007). A current lack of willingness to pay a capital lease or other obligation subject to annual appropriation by the government, including a moral obligation pledge, would limit the GO rating to no higher than 'BBB-' even though the government was not legally obligated to make payment on the appropriation obligation without the appropriation.

f) Large or chronic negative fund balances

34. A government's Available Fund Balance forms the initial score for budgetary flexibility. Even when other forms of flexibility exist, however, a nontrivial fund balance deficit signifies heightened pressure, especially when the deficit endures. The presence of such pressure is consistent with the capped ratings suggested by table 2, even though the government may retain a significant capacity to repay debt. Accordingly, an Available Fund Balance of less than negative 10% of general fund expenditures in the most recently reported year caps the final rating at 'A+'. Ratings above 'A-' are typically for cases where we believe the Available Fund Balance will not be less than negative 5% beyond the most recently reported year. A budget flexibility score of '5' signifies limited flexibility and also caps the final rating at 'A+'. An Available Fund Balance of less than negative 5% for the two most recently reported years caps the final rating at 'A-'. Ratings above 'BBB' are typically for cases where we believe the Available Fund Balance will not be less than negative 5% beyond the most recently reported year. The existence of such Available Fund Balance for the three or more of the most recently reported years signifies to us a chronic problem and caps the final rating at 'BBB'.

g) Structural imbalance

35. The final rating is capped at 'BBB+' when the entity has structural imbalance. For this purpose structural imbalance is determined over a four-year horizon (past two years, current year, and next fiscal year). Additionally, management does not have a credible plan to adequately correct the imbalance. Characteristics of structural imbalance include:
- Significant use of one-time revenue,
 - Borrowing for ongoing operations,
 - Unplanned fund balance drawdowns,
 - Recurring unbudgeted expenditure and revenue mismatch, and
 - Significant dependence on volatile revenue.

C. The Institutional Framework Score

36. The institutional framework score assesses the legal and practical environment in which the local government operates. Accordingly, all governments of the same type within the same state receive the same score. Since state constitutions and state laws generally dictate the terms under which local governments may operate, the score reflects these state-specific elements. To enhance comparability with local governments outside the U.S., the criteria assess the same areas as detailed in paragraph 39 of our criteria, "Methodology For Rating International, Local, And Regional Governments", published Sept. 20, 2010. Specifically, these areas include predictability, revenue and expenditure balance, transparency and accountability, and system support. Scores for each area, however, use slightly different measures that are more specific and more relevant to the U.S. and range from '1' (the best) to '5' (the worst). The criteria then average each of the scores equally to determine the overall institutional framework score as detailed in table 3.

Table 3

Institutional Framework Score Outcomes	
Score Range	Institutional Framework Score
1 – 1.5	1 (very strong)
1.75 – 2.75	2 (strong)
3.0 – 3.75	3 (adequate)
4 – 4.5	4 (weak)
4.75 – 5	5 (very weak)

The institutional framework score results from the average of the scores for predictability, revenue and expenditure balance, transparency and accountability, and system support (see paragraphs 37-40). Each score receives equal weight in the average.

1. Predictability

37. Predictability assesses the extent to which a local government can forecast its revenues and expenditures on an ongoing basis. The ability and frequency of changes to municipal responsibilities or revenue raising capabilities resulting from state or statewide voter actions can complicate local government decision making. An inability to sufficiently plan and implement strategies to accommodate these changes can affect a government's fiscal position. Table 4 details the scoring for predictability.

Table 4

Assessing Predictability	
Score	Description
1 (very strong)	None of the following elements are true: voter initiative or referenda rights exist to automatically alter revenues or expenditure responsibilities; the state has significantly changed its statutes governing local government revenues or expenditure responsibilities in the past eight years (to the detriment of this type of municipality); the state has changed the disbursement pattern of state-shared revenues in the past eight years (to the detriment of this type of municipality) and these revenues are a major portion of local government revenues.
2 (strong)	One of the elements in 1 is true, but such events are not frequent from a long-term perspective. The nature of deliberation and implementation of change allow sufficient time for local government planning and adjustment.
3 (adequate)	More than one of the elements in 1 is true, or at least one of the elements is recurring. The nature of deliberation and implementation of change allow sufficient time for local government planning and adjustment.
4 (weak)	At least one of the elements in 1 is true, but the pace of change does not allow for planning and adjustment.
5 (very weak)	The system is volatile, with ongoing and ill-prepared large-scale transformations that do not allow for planning and adjustment. Legal rights and obligations between the state and local level are unclear, adding to the lack of clarity.

2. Revenue and expenditure balance

38. Revenue and expenditure balance assesses the extent to which local governments have the ability to finance the services they provide. The focus is on revenue raising capability in scores one, two and three under the presumption that most municipalities have significant control over their expenditures. Only when revenue raising capacity is limited, and there are significant unfunded or partially unfunded expenditure mandates, are scores of four or five likely. Additionally, the criteria treat state provisions that require minimum balances as enhancing flexibility, while those that limit balances diminish it. Table 5 details the scoring for this measure.

Table 5

Assessing Revenue And Expenditure Balance	
Score	Description
1 (very strong)	Local governments within the state have statutory flexibility to raise local source revenues for operating purposes without voter approval. Where limits on the ability to raise revenues exist, they are such that most governments within the state still retain significant capacity to raise revenues.
2 (strong)	Local governments within the state have some flexibility to raise local source revenues for operating purposes without voter approval. Limitations (such as property tax caps) restrict flexibility, but still allow for most local governments to raise such revenues.
3 (adequate)	Virtually no ability exists to raise local source revenues for operating purposes without voter approval. Additional flexibility may come from state revenue sharing.
4 (weak)	No ability exists to raise local source revenues even with voter approval, or there are significant unfunded or partially unfunded expenditure mandates that overwhelm the average entity's budget.
5 (very weak)	No ability exists to raise local source revenues even with voter approval, and there are significant unfunded or partially unfunded expenditure mandates that overwhelm the average entity's budget.

A statutory minimum fund balance improves the score by one point and a statutory maximum fund balance worsens the score by one point.

3. Transparency and accountability

39. Transparency and accountability assess the overall institutional framework's role in encouraging the transparency and comparability of relevant financial information. When states require annual audits, this increases the likelihood that audits will be done and that late audits will be noted. States' regulations requiring audits and strong accounting standards such as generally accepted accounting principles (GAAP) usually enhance reporting detail and consistency across municipal credits, making it easier to have a sufficient uniform method of interpretation. States that allow cash

accounting tolerate a lesser degree of completeness and consistency. Table 6 details the scoring for this measure.

Table 6

Assessing Transparency And Accountability

Score	Description
1 (very strong)	State statutes or other provisions require annual financial statements that comply with GAAP.
2 (strong)	State statutes or other provisions require audited annual financial statements, but no GAAP requirement exists. Most audits utilize accrual and/or modified accrual accounting.
3 (adequate)	State statutes or other provisions require annual financial statements, but no GAAP requirement exists. Most audits utilize cash or modified cash accounting.
4 (weak)	No requirement for annual financial statements exists or there is no requirement for an audit. Interim reports provide the only source of financial information for most local governments in some years.
5 (very weak)	No requirement for financial statements exists. Cash-basis reports provide the sole source of financial information for most local governments in most years.

4. System support

40. System support addresses the extent to which local governments receive extraordinary support from a state government when the local government is under extreme stress. Forms of extraordinary support range from state government control and oversight to emergency loans or other liquidity assistance. Table 7 details the scoring for this measure.

Table 7

Assessing System Support

Score	Description
1 (very strong)	A tested, formal mechanism for providing extraordinary support for local governments exists, which has restored fiscal stability. Such mechanisms may help with liquidity, capital market access, government management, or capital funding.
2 (strong)	Mechanisms for providing extraordinary support are less formalized, untested, or have not consistently restored fiscal stability but ongoing mechanisms to help with liquidity, capital market access, government management, or capital funding do exist.
3 (adequate)	No mechanisms for providing extraordinary support exist, but state statutes do not authorize local governments to file for bankruptcy or require further state approval.
4 (weak)	No mechanisms for providing extraordinary support exist and state statutes specifically authorize local governments to file for bankruptcy without state approval.
5 (very weak)	No mechanisms for providing extraordinary support exist, and the state has recently passed legislation that threatens the solvency of local governments without providing adjustment capabilities.

D. Economic Score

41. The economic score assesses both the health of the asset base relied upon to provide both current and future locally derived revenues as well as the likelihood of additional service demands resulting from economic deterioration. Projected per capita EBI as a percentage of the U.S. level, and TMV per capita combine to form the initial economic score due to the data availability of these statistics at the local level and their correlation with overall economic activity and local government revenues. Table 8 details the manner in which different values of these two statistics combine to form the initial economic score.

Table 8 Assessing The Economic Score (see paragraphs 41-47)					
	Total Market Value Per Capita				
Projected per capita effective buying income as a % of U.S. projected per capita EBI	>\$195,000	\$100,000 to \$195,000	\$80,000 to \$100,000	\$55,000 to \$80,000	<\$55,000
>150	1	1.5	2	2.5	3
110 to 150	1.5	2	2.5	3	3.5
85 to 110	2	2.5	3	3.5	4
70 to 85	2.5	3	3.5	4	4.5
≤70	3	3.5	4	4.5	5
A score of '1', '2', '3', '4', and '5' means very strong, strong, adequate, weak, and very weak, respectively.					
Qualitative factors with a positive impact on the initial score			Qualitative factors with a negative impact on the initial score		
Participation in a larger broad and diversified economy (see paragraphs 45-47).			Negative budget impact from demographic profile: population decrease and/or high share of dependent population (>55%) have a material negative impact on future revenue growth and expenditure needs.		
A stabilizing institutional influence with a longstanding role as a major employer, such as higher education, health care, military, or large and stable corporate presence.			High county unemployment rate (>10%).		
			If employment concentration where an individual sector (excluding education/health, government, and transportation, trade and utilities) represents more than 30% of the nonfarm work base, or tax base concentration where the top 10 taxpayers represent more than 35% of the tax base exists, the score worsens by one point (1). If the top 10 taxpayers exceed 45% of the tax base, the score worsens by two points (2.0).		
The adjustment impact of each qualitative factor counts for one point (1.0), except for employment and tax base concentration, where the score may differ by two points (2.0) as described above. The final economic score equals the initial score adjusted up or down based on the net effect of the qualitative factors. Metrics that equal a cut-off point between two initial scores will equate to the worse score. To calculate the market value per capita, the criteria use the most recent estimate available. To calculate projected per capita EBI, the criteria use the most recent local level EBI available, adjusted for per capita personal income growth expectations for the next five years. IHS Inc.(known as Global Insight) or another similar source is used for county-level data and U.S. income projections, while Nielsen (Claritas) or another similar source is used for local level data. To measure unemployment, the criteria use county-level data from the Bureau of Labor Statistics and take the annual rate for the last calendar year. For local governments located with multiple counties, county-level data is weight-averaged based on the percentage of the population of the local government in each county.					

42. The final economic score will vary from that suggested by the initial score depending on the presence of one or more conditions, as shown in the table 8.
43. Local income and TMV statistics may underestimate fundamental economic strength. For example, local TMV statistics will not accurately reflect the economic activity and stability brought by a university, nor will student income

levels reflect their additional spending power coming from parent financing or student loans. Participation in a broader metropolitan area may bring nonresident spending into a community or provide additional job opportunities for residents beyond its borders—especially when the metropolitan area is economically strong.

44. By contrast, income and TMV per capita may fail to account for additional risks. The impact on income and economic activity from job losses may not immediately show up in income levels and market prices, and such losses are more likely to occur in more cyclical and concentrated tax bases. Because they do not exhibit strong cyclicity, concentration in the education/health, government, and transportation, trade and utilities sectors are not considered for this adjustment. County-level unemployment rates are used to reflect the wider view of the local economy. Population declines may also dampen the impact on per capita measures, and high Dependent Population levels can mean additional service requirements or different levels of willingness to support tax increases.
45. We assess participation in a larger broad and diversified economy at the Metropolitan Statistical Area (MSA) level. When the MSA is deemed to be broad and diverse, a positive adjustment of one point is applied to the initial economic score. The determination is based on an evaluation of three components—employment diversity, employment growth, and the employment base. Each of the three components is scored as strong, moderate, or weak and is equally weighted. Strong and weak scores offset each other, while a moderate score remains neutral. MSAs are considered to be broad and diverse when the net score of the three components is strong, and are not considered broad and diverse when the net score is weak. If the net score is moderate, applying the broad and diverse adjustment to the initial economic score may be warranted if we determine the local government benefits significantly from participation within its respective MSA.
46. Employment diversity within an MSA is primarily assessed using a Herfindahl Index that includes the share of total employment distributed across 12 general employment sectors. For this index, we consider less than 0.15 to be strong, between 0.15 and 0.18 to be moderate, and greater than 0.18 to be weak. Employment growth is primarily measured by the percentage change in total employment within an MSA for the prior five-year period. For this measure, we consider an MSA with a rate better than the sum of all MSAs as strong; if the MSA's rate is worse but within three percentage points of the sum of all MSAs it is considered moderate, and a rate more than three percentage points worse is considered weak. The employment base measures total employment within the MSAs across all sectors. For this measure, we consider population greater than 250,000 to be strong, between 100,000 and 250,000 to be moderate, and less than 100,000 to be weak.
47. Additional considerations include employment concentration within specific sectors if: 1) the Herfindahl index is greater than 0.067, excluding the education/health, government, and transportation, trade, and utilities sectors, or 2) any volatile sector is more than double the level found in the sum of all MSAs and a large 10-year percentage decline in total employment (greater than 10%). If any of these considerations exist, they may reduce the overall score from strong to moderate or moderate to weak.

E. Management Score

48. The rigor of a government's financial management practices is an important factor in Standard & Poor's analysis of

that government's creditworthiness. Managerial decisions, policies, and practices apply directly to the government's financial position and operations, debt burden, and other key credit factors. A government's ability to implement timely and sound financial and operational decisions in response to economic and fiscal demands is a primary determinant of near-term changes in credit quality. The management score assesses the impact of management conditions on the likelihood of repayment. The score does not measure individual managerial quality, organizational efficiency, or any other performance indicator associated with management. Table 9 summarizes the scoring for the management score.

49. The Financial Management Assessment (FMA) methodology (see "Financial Management Assessment", published June 27, 2006) used in U.S. public finance forms the starting point for the management score. The FMA assesses only the policies and practices of a local government. Our criteria recognize the mere development of such practices as a principal method for preventing default as early as the 1930s evidenced in Hillhouse.

Table 9 Assessing The Management Score (see paragraphs 48-58)	
Score	Characteristics
1 (very strong)	FMA score of "Strong" and none of the factors in scores '4' or '5' are present.
2 (strong)	FMA score of "Good" and none of the factors in scores '4' or '5' are present.
3 (adequate)	FMA score of "Standard" and none of the factors in scores '4' or '5' are present.
4 (weak)	FMA score of "Vulnerable" or any of the following is present: there is a financial reporting restatement that has a material negative impact; any of the conditions in score '5' existed within the past three years; the structural imbalance override condition exists or existed within the past three years; or a very high debt, pension, and OPEB burden.
5 (very weak)	Regardless of the FMA score, any of the following is present: a management team that lacks relevant skills resulting in a weak capacity for planning, monitoring, and management; an auditor has delivered a going concern opinion; the government is exhibiting an unwillingness to support a debt or capital lease obligation; or the government is actively considering bankruptcy in the near term.
Qualitative factors with a positive impact on the initial score	Qualitative factors with a negative impact on the initial score
Consistent ability to maintain balanced operations.	Frequent management turnover inhibiting a current understanding of the government's financial position and its ability to adjust, or political gridlock, or instability that brings the same results.
Government service levels are limited.	Consistent inability to execute approved structural reforms for two consecutive years.
For each relevant qualitative factor, the score changes by one point. The final management score equals the initial score adjusted up or down based on the net effect of the qualitative adjustments. Qualitative adjustments cannot improve an initial management score of '5' or, in certain cases, a score of '4' (see paragraph 57).	

50. Regardless of the initial management score resulting from the FMA and any adjustment factors, certain conditions automatically cap the score at '4' or '5'. A capped score of '4' can occur if the financial reporting of the municipality is subject to material restatements to an extent that the uncertainty created is consistent with ratings no higher than 'A'. This does not include required accounting adjustments such as required changes by the Governmental Accounting Standards Board (GASB). Another instance when a capped score of '4' may occur is within three years after a condition that would cause or caused a management score of '5'. In such cases, the uncertainty surrounding management's ability to rebound from the condition(s) is also consistent with ratings no higher than 'A'. The same result can exist while the local government's finances are structurally imbalanced (see paragraph 35) or during the three-year period thereafter when management is rebounding from the structural imbalance condition. Finally, a capped score of '4' may result from having a debt, pension, and other postemployment benefits (OPEB) burden that is considered very high and management's lack of a credible plan to address the situation. Characteristics of a very high burden include:
- Total governmental funds debt service plus required annual pension payment plus annual OPEB payment as a percentage of total governmental funds expenditures above or expected to exceed 50%;
 - A growing recent and near-term expected trend of these fixed-cost charges; and
 - Fiscal flexibility unable to compensate for these elevated fixed-cost charges;
51. The first instance in which a municipality can receive a capped score of '5' occurs when a management team lacks the relevant skills to adequately plan, monitor, and manage the government's finances. Although rare, these conditions usually occur when the management organization concentrates nearly all management functions with one individual who then leaves. To receive a score of '5', a lack of qualified subordinates and delays in replacing the departed individual usually exist. As this period lengthens, the government's true financial position becomes less clear, and an auditor may have difficulty rendering an opinion on the government's financial statements.
52. The second instance occurs when an auditor has delivered a going concern opinion with the most recent review of the government's financial position. Other forms of qualified audit opinions do not result in a score of '5'.
53. The third instance occurs when a government shows an unwillingness to support a debt, capital lease obligation, or moral obligation pledge. A current lack of willingness to pay vendors, vendor leases, or other commercial obligations would not automatically result in a score of '5', although it could indicate increased financial pressure that could bring lower ratings through the other elements considered by the criteria. A current lack of willingness may or may not be clearly established before the actual payment date of the obligation concerned. Even before a government has formally chosen not to pay an obligation, downward rating adjustments could result from the expectation of such events.
54. The fourth instance occurs when representatives of the government take actions that indicate active consideration of bankruptcy filing in the near-term.
55. Various qualitative factors may raise or lower the final management score relative to the initial score, as shown in table 9.
56. Even when limited policies exist, the risk management poses to credit quality may still be limited. First, management may excel in consistently balancing operations despite the absence of formal policies. Second, when the government provides limited services, operational risk declines. The management score improves by one point when either of

these conditions exist. The criteria measure government operational risk by distinguishing between the following two categories:

- **Typical services:** the municipal government provides public safety, roads, basic planning and permitting, and some utility services. Governments providing significantly higher levels of complex or resource-intensive services also receive a score of 'typical'.
- **Limited services:** the municipal government maintains roads and provides only limited additional services that are mostly administrative or non-labor-intensive. It either does not provide public safety services or contracts them out to other governments. Any other services are limited and could be scaled back or discontinued if they became a burden.

57. No qualitative adjustment may raise the score if the initial score equals '5'. In some instances a score of '4' cannot be adjusted in a positive direction. No improvement in the final score occurs when a capped score of '4' is assigned because of the conditions described in paragraph 50.

58. Negative adjustments to the initial management score address circumstances or obstacles that prohibit management from planning and executing. Such conditions could include rapid management turnover or political gridlock or instability. The criteria also recognize that not all obstacles can be foreseen and use two consecutive years of failure to implement planned structural reforms as evidence that such an obstacle exists even if it has not been precisely identified.

F. Budgetary Flexibility Score

59. The budgetary flexibility score measures the degree to which the government can look to additional financial flexibility in times of stress. Table 10 details the scoring for budgetary flexibility.

Table 10
Assessing The Budgetary Flexibility Score (see paragraphs 59-64)

%	Available Fund Balance As A % Of Expenditures				
	>15	8-15	4-8	1-4	≤1
Score	1	2	3	4	5
A score of '1', '2', '3', '4', and '5' means very strong, strong, adequate, weak, and very weak, respectively.					
Qualitative factors with a positive impact on the initial score:			Qualitative factors with a negative impact on the initial score:		
If projections for the current year and the following year suggest a better initial score.			If projections for the current year and the following year suggest a worse initial score.		
Ability to avoid financial imbalances with demonstrated capacity and willingness to cut operational spending (by more than 2%), resulting from a flexible cost structure, flexible legislation, and/or widespread political support.			High levels of questionable receivables or amounts due from other funds with deficit balances.		
Existing state tax caps do not apply to the government, or the government retains substantial flexibility under the caps.			Limited capacity to cut expenditures due to infrastructure or operational needs or political resistance.		
Demonstrated ability and willingness to raise taxes when needed (and voter support is usually obtained when such approval is required).			Limited capacity to raise revenues due to consistent and ongoing political resistance which can include self-imposed restrictions through charter or local initiative processes.		
Timing of fiscal year and tax billing dates result in high cash with abnormally low fund balance levels.			Where cash accounting is used, the criteria use cash balances instead of fund balances and the score is worsened by one point.		
Maintenance of an available fund balance exceeding 30% of general fund expenditures for the most recently reported year, the current year and next year.					
For each relevant qualitative factor, the score changes by one point. The final budgetary flexibility score equals the initial score adjusted up or down based on the net effect of the qualitative factors. A metric that equals a cutoff point between two initial scores will equate to the worse score.					

60. Various qualitative factors may raise or lower the final budget flexibility score relative to the initial score, as shown in table 10.
61. The existing Available Fund Balances reflect the most obvious and measurable form of flexibility. However, we recognize that municipalities may have ongoing balances legally available for operations outside the general fund. Therefore, the Available Fund Balance in the initial score reflects all available funds legally available for operations. The initial score is the Available Fund Balance as a percentage of general fund expenditures. The measure uses data from the most recent reported year.
62. Qualitative adjustments to the budgetary flexibility score generally compensate for shortcomings in the fund balance measure or assess other forms of flexibility. GASB Interpretation No. 5 specifies how much of taxes already levied and possibly even collected must be deferred from a recognition perspective based on the timing of these elements relative

to the fiscal year. In some jurisdictions, this results in the accounting creation of low fund balances in a small number of credits that in reality have substantial resources. On the other hand, high fund balances as a percentage of expenditures may overestimate flexibility if the quality of receivables recognized is suspect. The Available Fund Balance measure will be net of any Available Fund Balance that includes questionable receivables that we do not expect to be collected, but if receivables are unable to be projected with confidence, the negative "questionable receivables" score adjustment is used instead of making an adjustment to the data (see table 10). For entities that report on a cash basis, the criteria use cash balances instead of fund balances. The score is worsened by one, however, to compensate for the lack of clarity on what funds are truly available. The maintenance of a consistently high fund balance -- exceeding twice the level associated with the top score -- that we expect to continue represents a positive adjustment that may offset a negative adjustment when both conditions exist.

63. Other forms of flexibility primarily include the ability to raise additional revenues or reduce expenditures. These tools are at least equal in power to the use of existing balances, but qualitative adjustments better suit their complexity due to the various forms they can take. With regard to tax caps, the institutional framework score incorporates the extent to which statewide tax caps exist, but the budgetary flexibility score differentiates those credits that retain flexibility despite the tax caps. The criteria separately assess local political support for increases, including cases where there are self-imposed limitations as a result of local charter initiatives or referenda.
64. The option to use fund balance in the near term can provide fiscal flexibility although fund balance drawdowns may impair future fiscal flexibility. Likewise, increasing fund balances can enhance fiscal flexibility. Our forward-looking analysis evaluates the budget performance for the current and next fiscal year. If our projections result in a score change, either up or down, the score is adjusted by one point in the relevant direction.

G. Budgetary Performance Score

65. The budgetary performance score measures the current fiscal balance of the government, both from a general fund and total governmental funds perspective. Table 11 details the scoring for this measure.

Table 11 Assessing The Budgetary Performance Score (see paragraphs 65-68)					
	Total Governmental Funds Net Result (%)				
General Fund Net Result (%)	> -1	-1 to -5	-5 to -10	-10 to -15	≤ -15
(> 5)	1	2	3	3	4
(-1 to 5)	2	3	3	4	5
(≤ -1)	3	4	4	5	5
A score of '1', '2', '3', '4' and '5' means very strong, strong, adequate, weak, and very weak, respectively.					
Qualitative factors with a positive impact on the initial score:			Qualitative factors with a negative impact on the initial score:		
Expected structural improvement: if projections for the current year and following year suggested a better initial score, the score would improve by one point. The score would improve by two points only if required adjustments to revenues or expenditures to produce the result were already approved.			Expected structural deterioration: if projections for the current year and following year suggested a worse initial score, the score would worsen by one or two points. To worsen by two points, expected performance must fall to the commensurate level within the current year.		
			Deferred payments on a cash basis: in cases where good ratios hide significant underspending due to deferred payments, the deferral produces a better score.		
			Significant historic volatility in performance because of very cyclical revenues, (e.g. oil & gas or sales taxes on luxury goods and/or dependence on volatile state transfers) or exposure to event-related risks, and the sources of volatility remain.		
For each relevant qualitative factor, the score changes by one point, except for expected structural improvement or deterioration which could result in a difference of two points relative to the initial score. The final budget performance score equals the initial score adjusted up or down based on the net effect of the qualitative factors. Metrics that equal a cut-off point between two initial scores will equate to the worse score.					

66. Various qualitative factors may raise or lower the final budget performance score relative to the initial score, as shown in table 11.
67. The budgetary performance score begins with a measure based on the most recent year reported because it is observable and verifiable. The criteria will usually smooth planned capital expenditures to arrive at a more sustainable view of ongoing performance by eliminating the spending of borrowed funds for capital expenditures. Adjustments are also made for net transfers to identify the structural result.
68. However, future credit quality is dependent on current and future performance. Accordingly, the score can be adjusted by one or at most two points if actions or events subsequent to the date of the measure suggest different results in the coming years. Examples of actions warranting such adjustments include updated current-year estimates, new budgets, or budget amendments featuring approved revenue or expenditure adjustments. The criteria also compensate for artificially positive outcomes resulting from deferred expenditures, such as underfunding required pension

contributions, with a negative adjustment of one point. A negative adjustment of one point also exists for the uncertainty associated with governments facing increased volatility in revenues with a more-than 10% year-to-year decline, such as those highly dependent on oil and gas-related revenues or sales taxes on luxury goods or subject to event-related risk. The criteria include financial reporting restatements that are not material enough to warrant a management score (see paragraph 50) of '4' but inject a degree of uncertainty to the performance score, as a one-point negative adjustment. Event-related risk can also include sudden and material negative financial performance from enterprises owned by the entity.

H. Liquidity Score

69. The liquidity score measures the availability of cash and cash equivalents to service both debt and other expenditures. Table 12 details the calculation of the initial score, as well as the manner in which other factors affect the liquidity score. The measure uses data from the most recently reported year.

Table 12 Assessing The Liquidity Score (see paragraphs 69-77)					
	Total Government Available Cash As % Of Total Governmental Funds Debt Service				
Total Government Available Cash As % Of Total Governmental Funds Expenditures	>120	100 to 120	80 to 100	40 to 80	≤40
>15	1	2	3	4	5
8 to 15	2	2	3	4	5
4 to 8	3	3	3	4	5
1 to 4	4	4	4	4	5
<1	5	5	5	5	5
A score of 1, 2, 3, 4 and 5 are very strong, strong, adequate, weak and very weak, respectively.					
Qualitative factors with a positive impact on the initial score:			Qualitative factors with a negative impact on the initial score:		
If projections for the current year (and the following year) suggest a better initial score, the score improves by one point.			If projections for the current year (and the following year) suggest a worse initial score, the score worsens by one point.		
If access to external liquidity is 'exceptional' as defined in table 13, the score improves by two points; if 'strong', the score improves by one point.			If access to external liquidity is 'uncertain' as defined in table 13, the score worsens by two points; if 'limited', the score worsens by one point.		
Very robust and stable internal cash flow generation capacity compared with peers in this category.			High refinancing risk over the next 24 months.		
			Aggressive use of investments.		
			Exposure to non-remote contingent liability risk that could come due within 12 months.		
See paragraph 77 for circumstances resulting in an automatic score of '4' or '5'. Extraordinary proceeds (such as unused short-term borrowing) that span fiscal years or that are otherwise dedicated will be adjusted out of Total Government Available Cash.					
For each relevant qualitative factor, the score changes by one point, except for access to external liquidity which could change the final score by two points and contingent liability exposure which could cap the score at '4' or '5'. The final liquidity score equals the initial score adjusted up or down based on the net effect of the qualitative factors. Metrics that equal a cut-off point between two initial scores will equate to the worse score.					

70. Various qualitative factors may raise or lower the final liquidity score relative to the initial score, as shown in table 12.

71. Because governments hold monies in various funds that may be accessed for short-term liquidity, the measure uses Total Government Available Cash held by the government and recognizes most governments' ability to engage in interfund borrowing. Undrawn amounts under committed bank lines and other facilities are included as cash, and drawn amounts are included with both debt service and total expenditures if due within the next 12 months.
72. Through adjustment factors, the criteria also recognize the role that capital markets and bank financing can play in local government liquidity, as well as the strengths and weaknesses associated with other conditions.
73. The access to external liquidity score detailed in table 13 measures a local government's access to capital market and bank financing.
74. Availability of liquidity varies and in part is a function of the current and near term financial condition. Our forward-looking analysis evaluates the cash, expenditures and debt service for the current and next fiscal year. If our projections result in a score change, either up or down, the score is adjusted one point in the relevant direction.

Table 13

Assessment Of Access To External Liquidity (see paragraph 75)

Access To External Liquidity	Typical Characteristics
Exceptional	There is well-tested access to capital markets through different capital financing programs as well as a history of tapping these markets for over 15 years through different economic cycles.
Strong	There is a record of sufficient access to capital markets, and no reason to believe access has diminished.
Satisfactory	There is no record of access to the capital markets in the last 20 years, but there is also no reason to believe that external financing could not be obtained at a price acceptable to the government.
Limited	Legal or market obstacles to the use of debt instruments for liquidity management exist; the availability of bank loans is limited.
Uncertain	Access to external liquidity is highly questionable, considering both capital market and bank sources.

75. Although local governments in general have enjoyed good market access even through the last economic downturn and credit tightening, the score assesses access relative to the specific local government rather than to the sector as a whole. Absent a market-based or issuer-specific reason to question future market access, the score will use the government's own record of market access in addition to any state-specific sources.
76. The criteria also recognize that future cash balances may be understated for credits with strong cash flow generation capabilities. Often, this results from conservative budgeting procedures that consistently produce positive budget variances.
77. By contrast, projected cash balances may be more at risk under certain conditions, including aggressive use of investments, high refinancing risk over the next 24 months, or exposure to other contingent liability risk that could come due within the next 12 months. Aggressive use of investments includes the use of derivatives for investment rather than hedging purposes, a focus on return over preservation of principal and liquidity, and the use of nontraditional instruments without an ability to articulate their risks and how they will be mitigated. High refinancing risk includes instances where the issuer could be forced to access outside financing due to a lack of internal liquidity, but the issuer will have limited warning when the need arises and has no credible plan to do so on a timely basis. Other contingent liquidity risks include payments resulting from rating triggers, legal judgments, deficits of other enterprises,

or other events that are foreseeable within our current-year estimate. When such events are likely, the coming year's cost of these obligations exceeds 25% of general fund revenues, and the government lacks a commitment to implement a credible plan to finance the obligation, the final liquidity score is capped at '5'. When such events are likely, the coming year's cost of these obligations exceeds 10% of general fund revenues, and the government lacks a commitment to implement a credible plan to finance the obligation, the final liquidity score is capped at '4'. Otherwise, the presence of such obligations worsens the liquidity score by one point. Any such element deemed certain is included as an expenditure in total cash as a percentage of total governmental funds expenditures. If the event would result in a higher debt obligation, the criteria also include the item as debt service in the total government cash as a percentage of total governmental funds debt service measure. For more information on contingent liquidity risks, see "Contingent Liquidity Risks In U.S. Public Finance Instruments: Methodology And Assumptions", published March 5, 2012.

I. Debt And Contingent Liabilities Score

78. The criteria form the initial debt and contingent liabilities score from the combination of two measures: total governmental funds debt service as a percentage of total governmental funds expenditures and net direct debt as a percentage of total governmental funds revenue. Debt service as a percentage of expenditures measures the annual fixed-cost burden that debt places on the government. Debt to revenues measures the total debt burden on the government's revenue position rather than the annual cost of the debt, which can be manipulated by amortization structures. Net direct debt is calculated as of the date of our analysis, including any debt issuance we are currently rating. Debt to expenditures is measured similarly, recognizing any near-term changes due to the government's debt structure. Table 14 details the scoring for the debt and contingent liabilities score. For more information on debt measurement, see "Debt Statement Analysis", published Aug. 22, 2006.

Table 14 Assessing The Debt And Contingent Liabilities Score (see paragraphs 78-84)					
Total Governmental Funds Debt Service As A % of Total Governmental Funds Expenditures	Net Direct Debt As % Of Total Governmental Funds Revenue				
	<30	30 to 60	60 to 120	120 to 180	≥180
< 8	1	2	3	4	5
8 to 15	2	3	4	4	5
15 to 25	3	4	5	5	5
25 to 35	4	4	5	5	5
≥35	4	5	5	5	5
A score of 1, 2, 3, 4 and 5 are very strong, strong, adequate, weak and very weak, respectively.					
Qualitative factors with a positive impact on the initial score:			Qualitative factors with a negative impact on the initial score:		
Overall net debt as a percentage of market value below 3%.			Significant medium-term debt plans produce a higher initial score when included.		
Overall rapid annual debt amortization, with more than 65% coming due in 10 years.			Exposure to interest-rate risk or instrument provisions that could increase annual payment requirements by at least 20%.		
			Overall net debt as a percentage of market value exceeding 10%.		
			Unaddressed exposure to large unfunded pension or OPEB obligations leading to accelerating payment obligations over the medium term that represent significant budget pressure (see paragraph 82). If there is a plan to address the obligations, the final score worsens by one point; otherwise the score worsens by two points.		
			Speculative contingent liabilities or those otherwise likely to be funded on an ongoing basis by the government representing more than 10% of total governmental revenue .		
For each relevant qualitative factor, the score changes by one point, except for unaddressed exposure to unfunded pension or OPEB obligations which can worsen the final score by two points. The final debt and contingent liabilities score equals the initial score adjusted up or down based on the net effect of the qualitative factors. Metrics equal a cutoff point between two initial scores will equate to the worse score.					

79. Qualitative adjustments may raise or lower the final debt and contingent liabilities score relative to the initial score, as shown in table 14. The criteria consider pending debt issuance through an upward score adjustment when including

- the planned or recently issued debt results in a worse score.
80. The criteria improve the final score by one point when above-average annual debt amortization (based on total direct debt) inflates the debt service as a percentage of expenditures score and masks the future flexibility stemming from an early deleveraging. The criteria do not apply this adjustment when the early amortization results from a near-to-medium term bullet maturity that will not be retired with funds on hand. Exposure to interest-rate risk or instrument provisions that cause amortization or interest-rate changes beyond the issuer's control increase the score by one point, reflecting additional uncertainty as to whether current debt service levels are representative of those going forward. Examples include unhedged variable-rate debt or higher interest rates resulting from failed remarketings in instruments such as auction-rate securities, variable-rate demand bonds, and certain direct purchase obligations.
81. An overall net debt to TMV level of above 10% worsens the score by one point, while a low level, below 3%, improves the score by one point. This statistic captures the burden of the local government's debt in addition to that of overlapping jurisdictions on the overall tax base. An atypical debt burden can present extra challenges or flexibility over and above that suggested by the individual government's debt burden alone.
82. The impact of pension and OPEB obligations depends on the degree to which such costs will likely escalate and whether the government has plans to address them. Relative to debt, governments have a higher level of flexibility to address these costs, both from a temporal payment perspective and from an obligation level perspective. Many governments have the flexibility to alter benefit levels, and some governments already have availed themselves of this ability. Most governments also can pay less than the annual required contribution without leaving the fund unable to meet actual payments in the current and following year. On the other hand, such delays accelerate the growth rate of future payments. When the potential for such accelerations exists and the increased payments increase budget stress, the final debt and contingent liabilities score worsens by one point when a specific and credible plan to address this burden is in place. Otherwise, the score worsens by two points relative to the initial score. Among the areas of analytic focus when assessing the pension and OPEB burden will be:
- The required annual pension payment plus annual OPEB payment as a percentage of total governmental funds expenditures. A combined carrying charge of 10% or more will be considered elevated, however, we will consider whether we expect the elevated payments to result in lower future obligations.
 - The actuarial funded ratio(s) of the pension plan(s) a local government participates in or sponsors. If the ratio(s) are less than 80%, they will receive further review especially when the carrying charge is elevated. We also consider the magnitude of the unfunded obligation in tandem with the funded ratio(s) when assessing the potential for stress.
 - The contributions actually made to all pension plans a local government participates in or sponsors. The degree to which a local government contributes less than its full required contribution(s) could be an indication of either short-term cash flow issues or a willingness of management to defer difficult decisions.
 - The OPEB costs exceed 5% of total governmental funds expenditures and the local government has limited flexibility to change or amend these benefits.
83. Finally, another adjustment considers additional future contingent liabilities not yet requiring government support. While our debt burden calculation already considers other nondirect debt requiring government support and our liquidity score considers the near-term impact of any contingent liabilities, the adjustment to the debt score results

from a likelihood of ongoing payment obligations not yet occurring that represent more than 10% of total governmental funds revenues. Once the payment obligations become reality, they are included in the debt measure. Examples of contingent liabilities include potential legal judgments, currently self-supporting government enterprise debt that is likely to require support in the near future, guaranteed debt likely to need support in the near future, and additional costs resulting from pending changes in law.

84. As discussed in paragraph 50, a very high debt, pension, and OPEB burden can lead to a management score of '4', which caps the final rating at the lower of 'A' and one notch lower than that suggested by table 1. In cases where these liabilities are not determined to be excessive, the one-notch flexibility described in paragraph 24 may be used to account for the impact that elevated levels of these liabilities can have on credit quality.

VII. APPENDIX I: Selected Historical Statistics

85. Selected historical statistics on local government defaults taken or derived from George Hempel's "The Postwar Quality of State and Local Debt" are shown in tables 15 and 16.

Table 15

Number Of Recorded Defaults From 1839-1965 By Type Of Governmental Unit						
Year	States	Counties and parishes	Incorporated municipals	Unincorporated municipals	School districts	Other districts
1839-1849	9		4			
1850-1859	2	7	4	4		
1860-1869	1	15	13	9		
1870-1879	9	57	50	46	4	2
1880-1889		30	30	31	5	1
1890-1899		94	93	50	9	12
1900-1909		43	51	33	11	11
1910-1919		7	17	5		7
1920-1929	1	15	39	10	14	107
1930-1939		417	1,434	88	1,241	1,590
1940-1949		6	31	7	5	30
1950-1959		12	31	4	23	42
1960-1965		17	70	20	41	44
Total defaults	22	720	1,867	307	1,353	1,846
Total state and local governmental units in 1963	50	3,043	17,997	17,144	34,678	18,323

Table 16

Government Defaults As A Percentage Of Total Governmental Units By Type Of Government						
Year	Counties and parishes (%)	Incorporated municipals (%)	Unincorporated municipals (%)	School districts (%)	Other districts (%)	
1839-1849	0	0	0	0	0	
1850-1859	0.2	0	0	0	0	
1860-1869	0.5	0.1	0.1	0	0	

Table 16

Government Defaults As A Percentage Of Total Governmental Units By Type Of Government (cont.)					
1870-1879	1.9	0.3	0.3	0	0
1880-1889	1	0.2	0.2	0	0
1890-1899	3.1	0.5	0.3	0	0.1
1900-1909	1.4	0.3	0.2	0	0.1
1910-1919	0.2	0.1	0	0	0
1920-1929	0.5	0.2	0.1	0	0.6
1930-1939	13.7	8	0.5	3.6	8.7
1940-1949	0.2	0.2	0	0	0.2
1950-1959	0.4	0.2	0	0.1	0.2
1960-1965	0.6	0.4	0.1	0.1	0.2

To derive the percentages, the table uses the study's total number of governments in 1963 for the total number of governments in all periods because this statistic is not available for all periods and the number of governments did not vary dramatically over these periods. The percentages above will overestimate annual default rates in many cases due to the multiyear nature of the periods.

VIII. APPENDIX II: Relationship To The State Rating

86. Local governments have a number of connections to their state governments. State governments may change the levels of funding provided to local governments. State legislatures may also change laws on local government funding, debt issuance, or even expenditure responsibilities. In smaller or more concentrated states, the nature of the economic bases may also be similar.
87. Given the historical record and ongoing localized nature of local government finance, the criteria measure the impact of additional stress by state governments through the standard scores. Were a state to alter local government funding statutes or mechanisms for its own fiscal purposes, such decisions could result in changes to the predictability, revenue and expenditure balance, and system support scores for all related local governments (see paragraphs 37-40). As the direct impact on a local government's fiscal balance becomes clear, changes to the budgetary flexibility and budgetary stress scores could occur.
88. Probably due to the historical trends of ongoing local control described in subsection A, there is limited data to show that state credit stress directly brings local government stress. Where correlation does exist, there is little evidence to suggest causation. Hempel notes that following the panic of 1837, nine states defaulted, namely Arkansas, Florida, Illinois, Indiana, Louisiana, Maryland, Michigan, Mississippi, and Pennsylvania. He cites only two municipal defaults following the panic, only one of which was in these states (Mobile, Ala. and Detroit, Mich.). The low level of municipal debt outstanding at the time, however, also likely limited defaults.
89. By the time of the depression of 1873 through 1879, local government debt had also significantly increased, in part because of prior restrictions on state debt issuance following the 1837 experience. Based on statements from Hempel and Scott, 12 states appear to have defaulted on or repudiated their debt during this period. Exact numbers of local government defaults by state during this period are elusive. Hillhouse's "Defaulted Municipal Bonds (1830-1930)" provides perhaps the best source. The author does not provide dates for the more-than 860 defaults cited, but instead provides citations for pieces that provide further information on these defaults. Using these citations as a proxy for the

period in which these defaults occurred allows for an analysis of whether credits presumably defaulting in this period were also in states that defaulted. Table 17 provides this detail.

Table 17

Reported Local Government Defaults In Defaulting And Nondefaulting States Over Various Periods (see paragraphs 19-23)

	Local defaults 1837-1843	Local defaults 1873-1880	Local defaults 1936
In states that defaulted	0	56	290
In states that did not default	2	85	2,869

Source: "Defaulted Municipal Bonds and Municipal Bonds, A Century of Experience"

90. Finally, Hillhouse's primary work, "Municipal Bonds, A Century of Experience", also lists municipal defaults by state during the Great Depression. Of the 3,159 credits in default as of January 1936, 290 were in Arkansas, the one state experiencing payment difficulties. Of this total however, 279 were school districts or other special districts. With regard to cities with populations of 10,000 or more in default, Arkansas had one out of nine such cities in default. In comparison, Ohio had 24 of 61 such cities in default, Michigan had 21 of 41, and New Jersey had 18 of 54.
91. Of course many other municipal defaults occurred between the periods referenced in table 17, and others have followed since, despite the lack of periods generating additional state payment defaults. Common reasons for these defaults include periods of overleveraging followed by a decline in local revenues, real estate or other development speculation, and fraud or mismanagement. Sometimes these defaults occurred in a regional pattern, while other times they were idiosyncratic.
92. Although no additional state defaults have occurred recently, several were significantly tested during the last recession. Despite budget gaps too large for one-item solutions, state cutbacks have posed no serious credit threat to municipal governments. The reduction of aid in some states has resulted in the need for local government adjustment, but, in our view, the size of these cutbacks in no way threatened the outright solvency of municipalities or their ability to service debt.

IX. APPENDIX III: Changes Since The Request For Comment

93. On March 6, 2012 Standard & Poor's published "Request For Comment: U.S. Local Governments: Methodology And Assumptions". Market participants who responded were generally positive about the increased transparency and clarity of the criteria. Some of them provided specific comments about certain metrics, data sources, and weighting of analytical factors (see "What's Happening With The Proposed U.S. Local Government Criteria? An Update On Feedback And Implementation", published Sept. 19, 2012). These comments and further analysis led to the following main changes between the criteria and the proposal presented in the RFC:
 - Several overriding factors have been added (see table 2). Among them are: Available Fund Balance of less than \$500,000, a budgetary flexibility score of '5', and exhibiting characteristics of structural imbalance.
 - The positive qualitative adjustment for participation in a broad and diversified economy in the economic score has been modified to reflect a more-robust analysis of MSAs to help determine if the adjustment will be made.
 - To further augment the forward-looking nature of our analysis, positive and negative qualitative adjustments have

been added to the budgetary flexibility and liquidity scores to account for situations when projections suggest better or worse scores. These adjustments had previously existed only in the budgetary performance score in the RFC.

- The liquidity score can be capped at '4' or '5' if certain levels of non-remote contingent liability risks exist to capture the significant stress these obligations can pose.
- Chiefly due to the changes listed above, the ranges for the indicative rating outcomes in table 1 were changed slightly to keep consistent our view of credit quality for the sector.
- Finally, additional characteristics were added to the description of the management score of '4' to capture situations where management is enduring or has recently endured conditions that pose credit stress.

X. GLOSSARY

94. Available Fund Balance: the sum of the Available General Fund Balance + any other fund balances of the government legally available for operations. For entities that report on a cash basis, the criteria use cash balances instead of fund balances.
95. Available General Fund Balance: the portion of the general fund balance that is legally available for operations. Based on GASB 54 designations, this generally includes assigned and unassigned balances but may include committed if committed for emergencies or other uses intended to support operations if necessary.
96. Dependent Population: the total population of an area that is younger than 15 years plus the total population of an area older than 65.
97. Effective Buying Income (EBI): personal income (wages, salaries, interest, dividends, profits, rental income, and pension income) - federal, state, and local taxes and nontax payments (such as personal contributions for social security insurance).
98. General Fund Net Result (%) (total general fund revenues - total general fund expenditures + transfers in from other funds - transfers out to other funds) divided by general fund expenditures.
99. Metropolitan Statistical Area: geographic entities delineated by the federal government that contain a core urban area of 50,000 or more population. MSAs consist of one or more counties that include the core urban area as well as any adjacent counties that are highly integrated.
100. Total Government Available Cash: total cash (cash, and cash equivalents + investments (when grouped with cash in the audit)) – proceeds of borrowings that are otherwise dedicated – other encumbered cash + liquidation of certain highly liquid securities.
101. Total Governmental Funds Net Result (%): (total governmental revenues - total governmental expenditures) divided by total governmental fund expenditures.
102. Total Market Value: the estimated market value of all real and personal property within the jurisdiction, typically determined as part of a government or other independent appraisal to determine taxable or assessed value.

XI. RELATED CRITERIA AND RESEARCH

Related Criteria

Articles complementing the criteria

- Appropriation-Backed Obligations, June 13, 2007
- Contingent Liquidity Risks In U.S. Public Finance Instruments: Methodology And Assumptions, March 5, 2012.
- Debt Statement Analysis, Aug. 22, 2006
- Financial Management Assessment, June 27, 2006
- Methodology For Rating International Local And Regional Governments, Sept. 20, 2010
- The Time Dimension Of Standard & Poor's Credit Ratings, Sept. 22, 2010
- Criteria For Assigning 'CCC+', 'CCC', 'CCC-', And 'CC' Ratings, Oct. 1, 2012

Related Research

- What's Happening With The Proposed U.S. Local Government Criteria? An Update On Feedback And Implementation, Sept. 19, 2012)
- Municipal Bankruptcy: Standard & Poor's Approach And Viewpoint, Oct. 4, 2012
- Hempel, George Henry, "The Postwar Quality of Municipal Bonds", University of Michigan doctoral dissertation, 1964
- Hempel, George Henry, "The Postwar Quality of State and Local Debt", National Bureau of Economic Research, 1971
- Hillhouse, A.M., "Defaulted Municipal Bonds (1830-1930)", Municipal Finance Officer's Association of the United States and Canada, December 1935
- Hillhouse, A.M., Municipal Bonds, "A Century of Experience", Prentice-Hall, New York, 1936
- Hoene, Christopher W. and Pagano, Michael A., "City Fiscal Conditions in 2010", National League of Cities Research Brief on America's Cities, October 2010
- Lutz, Byron, Molloy, Raven, and Shan, Hui, "The Housing Crisis and State and Local Government Tax Revenue: Five Channels", Finance and Economics Discussion Series, Divisions of Research and Statistics and Monetary Affairs, Federal Reserve Board, Washington D.C., August 2010
- Rodden, Jonathan, "The Dilemma of Fiscal Federalism: Grants and Fiscal Performance around the World", MIT Draft Working Paper, Sept. 28, 2001
- Standard & Poor's Refines Its Limited-Tax GO Debt Criteria, Jan. 10, 2002
- Understanding Standard & Poor's Rating Definitions, June 3, 2009
- Standard & Poor's U.S. Public Finance Local GO Criteria: How We Adjust Data For Analytic Consistency, Sept. 12, 2013
- Methodology And Assumptions: Request For Comment: Ratings Above The Sovereign—Corporate And Government Ratings, April 12, 2013

These criteria represent the specific application of fundamental principles that define credit risk and ratings opinions. Their use is determined by issuer- or issue-specific attributes as well as Standard & Poor's Ratings Services' assessment of the credit and, if applicable, structural risks for a given issuer or issue rating. Methodology and assumptions may change from time to time as a result of market and economic conditions, issuer- or issue-specific factors, or new

empirical evidence that would affect our credit judgment.

(And watch the related CreditMatters TV segments titled, "Standard & Poor's New Methodology For Rating U.S. Local Governments Features Institutional Framework Scoring," and "What's Behind Standard & Poor's Revised Criteria For Rating U.S. Local Governments," dated Sept. 12, 2013.)

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