ERIE COUNTY LEGISLATURE
REPUBLICAN CAUCUS

MEMORANDUM

To: Robert M. Graber, Clerk of the Erie County Legislature

From: The Minority Caucus

Re: Standard & Poor's and Moody's Pronouncements Regarding Bond Ratings

Date: June 15, 2012

Attached are documents from Standard & Poor's and Moody's regarding credit rating methodology. These items were referenced at the June 14, 2012 Finance & Management Committee meeting. They may be informative for members deliberating the issue of bond rating and who should conduct borrowing on behalf of the taxpayers of Erie County.

STANDARD &POOR'S

Global Credit Portal®
RatingsDirect®

March 6, 2012

Criteria | Governments | Request for Comment:

U.S. Local Governments: Methodology And Assumptions

Primary Credit Analysts:
Jeffrey Previdi, New York (1) 212-438-1796; jeff_previdi@standardandpoors.com
Christopher Krahe, Chicago (1) 312-233-7063; christopher_krahe@standardandpoors.com
Lisa Schroeer, Charlottesville (1) 434-220-0892; lisa_schroeer@standardandpoors.com
Horacio Aldrete-Sanchez, Dallas (1) 214-871-1426; horacio_aldrete@standardandpoors.com
Karl Jacob, Boston (1) 617 530-8134; karl_jacob@standardandpoors.com
Matthew Reining, San Francisco (1) 415-371-5044; matthew_reining@standardandpoors.com
Jane Hudson Ridley, Chicago (1) 312-233-7012; jane_ridley@standardandpoors.com

Criteria Officer, U.S. Public Finance And International Public Finance:
James Wiemken, London +44-20-7176-7073; james_wiemken@standardandpoors.com

Chief Credit Officer, Global Corporates And Governments:
Colleen Woodell, New York (1) 212-438-2118; colleen_woodell@standardandpoors.com

Secondary Contact:
Steven J Murphy, New York (1) 212-438-2066; steve_murphy@standardandpoors.com

Table Of Contents

Table Of Contents (cont.)

Criteria | Governments | Request for Comment:

U.S. Local Governments: Methodology And Assumptions

1. Standard & Poor's Ratings Services is requesting comments on its proposed changes to its rating methodology for assigning issuer credit ratings (ICRs) and issue credit ratings based on general obligation (GO) pledges of local governments in the United States. If adopted, these proposed criteria would supersede 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

2. This request for comment proposes changes that are intended to provide 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. This article is related to our criteria article "Principles of Credit Ratings", which we published on Feb. 16, 2011.

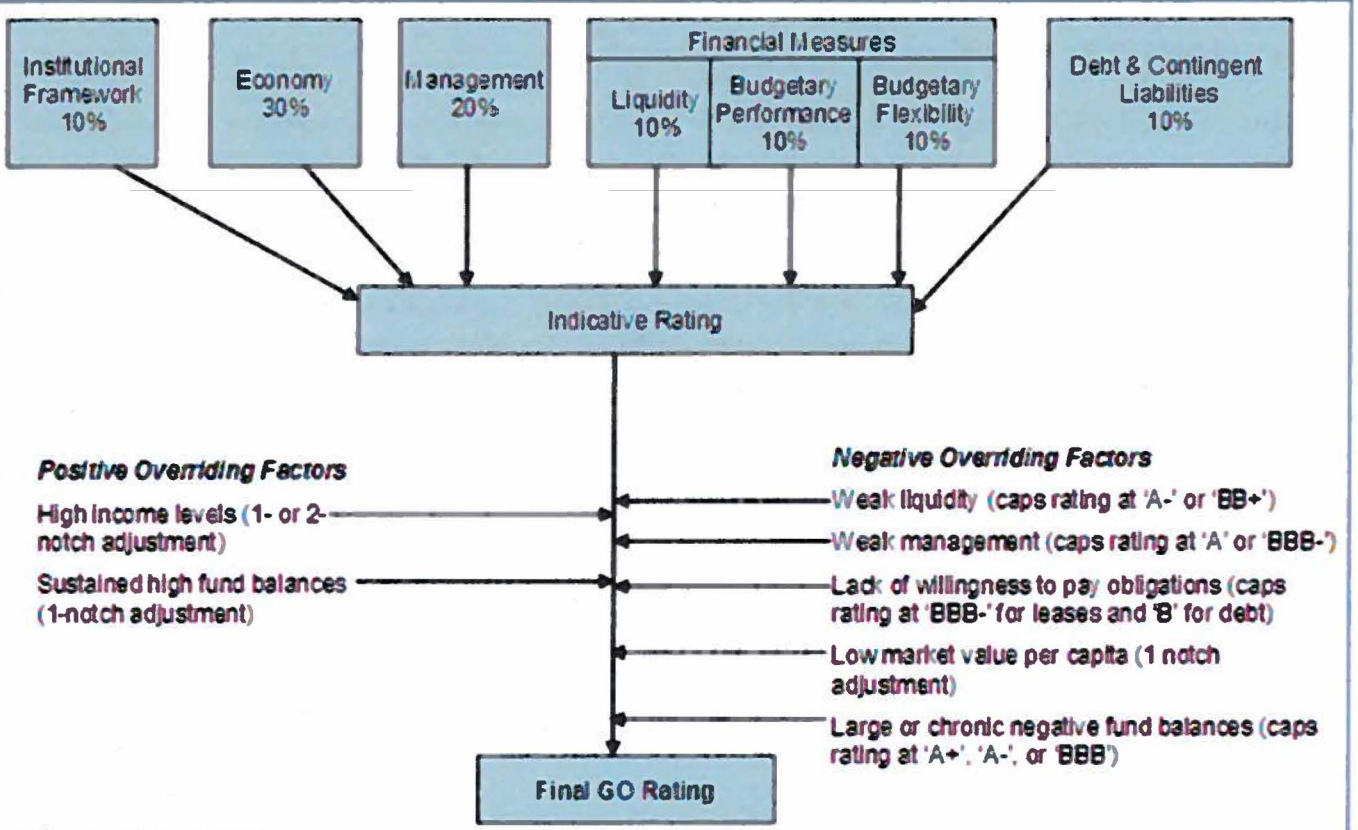
3. All terms followed by an asterisk (*) are defined in the glossary in the appendix.

I. PROPOSAL SUMMARY

4. The proposed 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 proposed criteria assign ratings based on the assessment of the government's institutional framework, economy, management, budgetary flexibility, budgetary performance, liquidity, and debt and contingent liability scores. 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.

5. The initial indicative rating typically 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 details the framework for assigning a local government's GO rating.

Chart 1
Analytical Framework For Local GO Ratings



II. SCOPE OF THE PROPOSED CRITERIA

6 The proposed criteria would 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. Examples of special purpose districts excluded from the scope include school districts, library districts, park districts, and forest preserve districts, among others. These criteria also do not apply to U.S. states.

III. 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 3,800 governments included in the scope of the proposed criteria. Assuming that governments maintain their current credit characteristics, testing suggests that about 65% of the ratings would remain unchanged under the proposed criteria, while 32% of the ratings would increase and 3% would decrease, generally by one notch. These results also assume that governments continue to make timely fiscal adjustments to maintain their current position and that the gradual trend of governments addressing their personnel benefit cost pressures

continues. The proposed criteria also provide a transparent framework to consider rating implications under various economic and other fiscal stress scenarios. For more information on possible rating implications associated with different stress scenarios, see the article, "The Impact Of Economic And Fiscal Pressures On Credit Quality: Using S&P's Proposed Criteria For Rating U.S. Local Governments To Estimate Rating Distributions", published March 6, 2012.

IV. SPECIFIC QUESTIONS FOR WHICH WE ARE SEEKING A RESPONSE

8. Standard & Poor's is seeking responses to the following questions:

- Do you agree with our approach of using the same major factors to assign ratings to local and regional governments both inside and outside the U.S.?
- Do you agree with the underlying measures used to evaluate each factor? If not, how would you change the measures, and how would this change produce criteria more consistent with our ratings definitions (see "Understanding Standard & Poor's Rating Definitions", published June 3, 2009)?
- Do you agree with the overriding factors that may cause a rating to differ from that resulting from the indicative rating?
- Are there other data sources that you believe should be considered before the criteria are implemented?
- Do you believe that the rating on the U.S. or the rating on a local government's state should cap the local government's rating?

V. RESPONSE DEADLINE

9. We encourage all market participants to submit comments on the proposed criteria by June 6, 2012. Please send your written comments to CriteriaComments@standardandpoors.com. Once the comment period is over, we will review the comments and publish the updated criteria.

VI. PROPOSED METHODOLOGY

A. Local Government Rating Calibrations

1. Local Governments Globally

10. Local governments exist to provide services to the population. Services may be mandated by a higher-level government, but often times 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 often place restrictions on local taxing levels--if local taxes may be levied at all.

11. 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.

12 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

13 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 receive a large amount of state funding. For municipalities and counties specifically, data for credits rated by Standard & Poor's suggest this percentage is 82%. Direct funding from the federal government represents only about 4% of total local government revenues, much of which represents funds designated for capital spending.

14 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.

15 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, or 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 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).

16 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, the National League of Cities estimates that property tax revenue did decline in 2010, but only by 1.8%. 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

17 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.

18. In addition, many states have laws that empower state governments to take over local governments when their financial position deteriorates to a low level or to direct state-appropriated monies for debt repayment. Moreover, many local governments cannot avoid debt payment by filing for bankruptcy, since the U.S. Bankruptcy Code requires state approval for such filings. Even temporary relief from debt payments may elude local governments if GO debt enjoys the additional benefits of dedicated taxes or other revenues. About one-half of states' statutes either fail to provide specific authorization for cities and counties to file for bankruptcy or prohibit such a filing. Of the remaining 24 whose statutes authorize bankruptcy, 12 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.

19. 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 generally low default rate by reducing political risk. If governments cannot permanently reduce their debt obligations by defaulting or declaring bankruptcy, this lowers the benefits of taking such actions. Faced with these reduced benefits of nonpayment and 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 imbalances.

4. U.S. Local Government Payment Performance

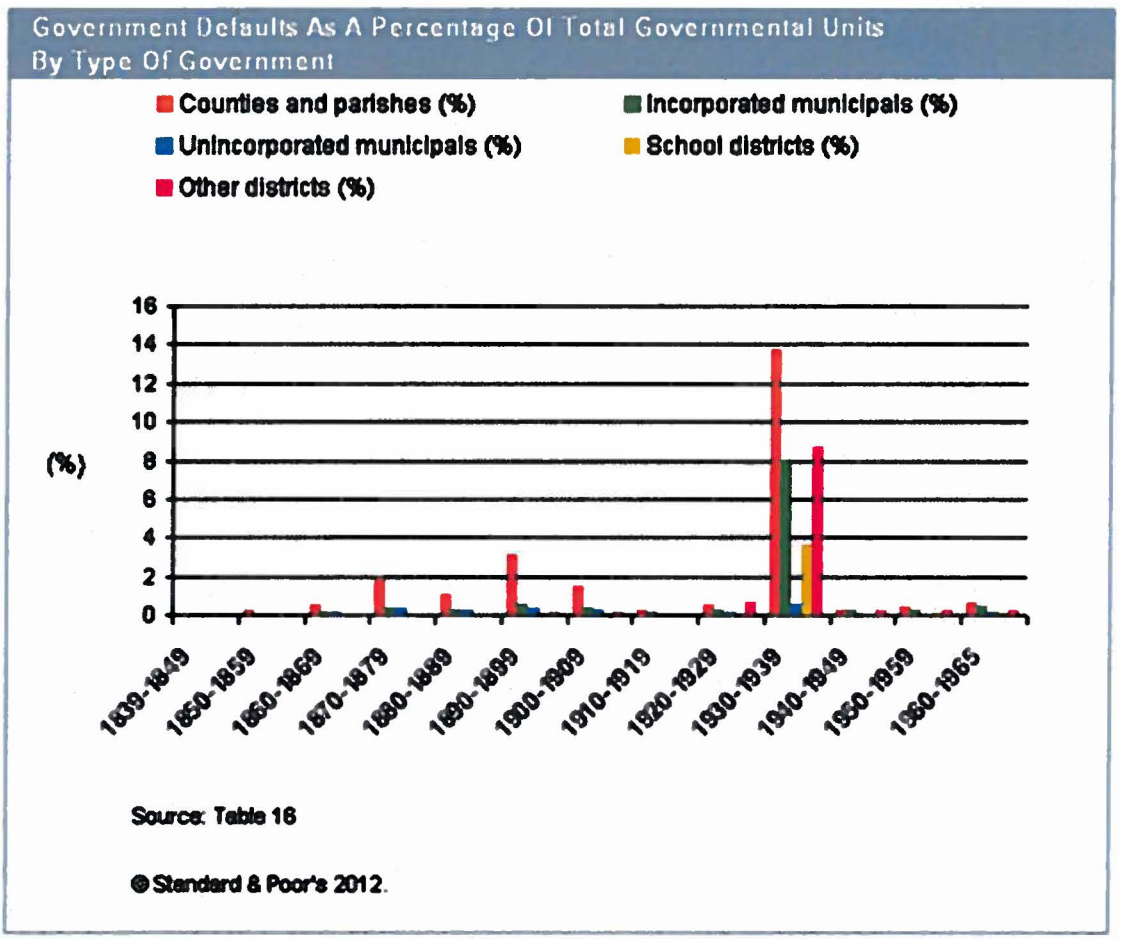
20. Some proponents of current local government stability criticize references to local government defaults in periods such as the Great Depression or earlier. They cite changes such as lower government debt levels, improved revenue diversification, stronger state oversight, and fundamental changes to the economic and banking sectors as reasons why previous default performance is less relevant today. While the proposed 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.

21. 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 proposed 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.

22. 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 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 repayment record for local governments when they default is very strong.

Chart 2



23. The proposed 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 historically low levels of local government defaults.

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

24. The proposed criteria assess seven factors, which include the government's institutional framework, economy, management, budgetary flexibility, budgetary performance, liquidity, and debt and contingent liabilities (see chart 1). 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%. Table 1 shows the indicative rating outcomes that result from the weighted average of these scores. Absent the further adjustments 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 comparisons with similarly rated peers.

Table 1

Indicative Rating Outcomes Resulting From The Weighted Average Of Seven Factors

Score Range	Indicative Rating
1 – 1.85	AAA
1.85 – 2.35	AA+
2.35 – 2.75	AA
2.75 – 3.25	AA-
3.25 – 3.65	A+
3.65 – 3.95	A
3.95 – 4.15	A-
4.15 – 4.35	BBB+
4.35 – 4.55	BBB
4.55 – 4.75	BBB-
4.75 – 4.95	BB Category
4.95 – 5.0	B Category

The indicative rating results from the weighted average outcomes as shown above. Final scores that equal a cutoff point between two ratings will equate to the lower rating. The final rating may differ from the indicative rating above by one notch based on comparisons with peers in that range. The final rating may also differ from the indicative rating due the presence of overriding factors described in paragraphs 25-31.

1. 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. Other conditions place a specific cap on the final rating. When such conditions exist, the final rating could be lower than the cap depending on the severity of the condition present. Rating caps are absolute, meaning that the positive relative adjustments described below do not allow ratings to exceed the cap.

Table 2

Summary Of Overriding Factors (see paragraphs 25-30)

Overriding Factor	Result
Liquidity score equals 4	Final rating capped at 'A-'
Liquidity score equals 5	Final rating capped at 'BB+'
Management score equals 4	Final rating capped at 'A' and cannot be higher than one notch lower than that suggested in table 1
Management score equals 5	Final rating capped at 'BBB-' and cannot be higher than 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'.
Projected per capita EBI* > 225% of U.S. level	Final rating one notch higher than that suggested by table 1

Table 2

Summary Of Overriding Factors (see paragraphs 25-30) (cont.)	
Projected per capita EBI* > 300% of U.S. level	Final rating two notches higher than that suggested by table 1
Market value per capita < $30,000	Final rating one notch lower than that suggested by table 1
General fund balance < -10% of general fund expenditures	Final rating capped at 'A+'
General fund balance < -5% of general fund expenditures for two consecutive years	Final rating capped at 'A-'
General fund balance < -5% of general fund expenditures for three consecutive years	Final rating capped at 'BBB'
General fund balance > 75% of general fund expenditures for 3 consecutive years	Final rating one notch higher than that suggested by table 1

*EBI--Effective buying income (see glossary)

a) Liquidity

26. 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 its level weakens. A liquidity score of 4 would cap the rating on a local government at 'A-' regardless of other strengths. An overall liquidity score of 5 would limit the rating to no higher than 'BB+'.

b) Management

27. 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 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 rating at least two notches below the indicative rating outcome and limits the rating to no higher than 'BBB-'.

28. When a management score of 5 results from a lack of willingness to pay a debt or capital lease obligation (see paragraph 45), the rating cap depends on the nature of the obligation. A current lack of willingness to pay on an unconditional debt obligation of the government would cap the rating on other GO debt of the government at no higher than 'B' and could 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 affects 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 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.

c) Rating adjustments for certain economic measures

29. When variables measured as part of the overall economic score take on extreme values, adjustments from the initial indicative rating occur. When projected per capita effective buying income (EBI) as a percentage of the U.S. exceeds 225% (50% higher than the top income threshold in table 8), the rating improves by one notch to account for the extreme wealth in the tax base. When projected per capita EBI exceeds 300% of the U.S. level, the rating improves by two notches. No similar adjustment applies to market value per capita because high scores often result from concentrated tax bases. When market value per capita is less than $30,000, however, the rating worsens by one notch to reflect the limited tax base supporting debt.

d) Large or chronic negative fund balances

30 A government's available fund balance forms the initial score for budget 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 a rating below the otherwise average 'AA' category for a local government, even though the government may retain a significant capacity to repay debt. Accordingly, a general fund balance deficit of more than 10% of expenditures caps the rating at 'A+'. A deficit fund balance of 5% or more for two consecutive years caps the rating at 'A-', while the existence of such a deficit for three or more years signifies a chronic problem and caps the rating at 'BBB'.

e) Sustained large positive fund balances

31 Conversely, an abnormally large sustained fund balance signifies heightened flexibility if projections suggest that it will endure. Accordingly, the maintenance of a general fund balance exceeding 75% of general fund expenditures for at least three years that is projected to continue at that level improves the rating by one notch.

C. The Institutional Framework Score

32 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 proposed criteria assess the same areas as detailed in paragraph 39 of our criteria, "Methodology for Rating International, Local, and Regional Governments" (Sept. 20, 2010). Specifically, these areas include predictability, revenue and expenditure balance, transparency and accountability, and systemic support. To assess each area, however, these criteria use slightly different measures that are more specific and more relevant to the U.S. Scores for each area 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
1.75 – 2.75	2
3.0 – 3.75	3
4 – 4.5	4
4.75 – 5	5

The institutional framework score results from the average of the scores for predictability, revenue and expenditure balance, transparency and accountability, and systemic support (see paragraphs 32-36). Each score receives equal weight in the average.

1. Predictability

33 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 state-wide 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	None of the following are true: Voter initiative rights exist to automatically alter revenue and expenditure responsibilities; The state has significantly changed its statutes governing local government revenue and expenditure responsibilities in the past eight years; The state has changed the disbursement pattern of state-shared revenues in the past eight years and these revenues are a major portion of local government revenues.
2	One of the following 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	At least one of the elements in 1 is true, and such events are recurring. The nature of deliberation and implementation of change allow sufficient time for local government planning and adjustment.
4	Same as 3, but the pace of change does not allow for planning and adjustment.
5	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

34. Revenue and expenditure balance assesses the extent to which local governments have the ability to finance the services they provide. Additionally, the criteria treat state provisions that require minimum balances as enhancing balance, 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	Local governments within the state have statutory flexibility to raise property or other taxes as well as various types of fees and fines for operating purposes without voter approval. Where limits on the ability to raise taxes exist, they are such that most governments within the state still retain significant capacity to raise tax revenues.
2	Local governments within the state have some flexibility to raise property or other tax revenues for operating purposes without voter approval. Property tax caps limit flexibility but still allow for most local governments to raise such revenues by at least 5%. A significant ability to raise fines or fees exists, or there is state revenue sharing that provides some equalization.
3	Virtually no ability exists to raise additional tax revenues for operating purposes without voter approval. Additional flexibility comes from fines and fees or state revenue sharing.
4	No ability exists to raise operating tax rates even with voter approval, or there are significant unfunded expenditure mandates that overwhelm the average entity's budget.
5	No ability to raise operating tax rates even with voter approval, and there are significant unfunded expenditure mandates that overwhelm the average entity's budget.

A statutory minimum fund balance improves the score by 1, a statutory maximum fund balance worsens the score by 1.

3. Transparency and accountability

35. Transparency and accountability assess the overall institutional framework's role in encouraging the transparency and comparability of relative financial information. States that require annual audits increase 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	State statutes or other provisions require annual financial statements that comply with GAAP.

Table 6

Assessing Transparency And Accountability (cont.)	
2	State statutes or other provisions require annual financial statements, but no GAAP requirement exists. Most audits utilize accrual and/or modified accrual accounting.
3	State statutes or other provisions require annual financial statements, but no GAAP requirement exists. Most audits utilize cash or modified cash accounting.
4	No requirement for annual financial statements exists. Interim reports provide the only source of financial information for most governments in some years.
5	No requirement for audited reports exists. Unaudited, cash-basis reports provide the sole source of financial information for most governments in most years.

4. System support

36. 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	A tested, formal mechanism for providing extraordinary support exists. Such mechanisms may help with liquidity, capital market access, government management, or capital funding.
2	Mechanisms for providing extraordinary support are less formalized or untested, but ongoing mechanisms to help with liquidity, capital market access, government management, or capital funding do exist.
3	No mechanisms for providing extraordinary support exist, but state statutes do not authorize local governments to file for bankruptcy without further state approval.
4	No mechanisms for providing extraordinary support exist and state statutes specifically authorize local governments to file for bankruptcy without further state approval.
5	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

37. 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. Per capita projected effective buying income and market value 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

	Market Value Per Capita				
Projected Per Capita Income as a % of U.S.	>$195,000	$195,000 - $100,000	$100,000 - $80,000	$80,000 -$55,000	<$55,000
>150	1	1.5	2	2.5	3
110-150	1.5	2	2.5	3	3.5
85-110	2	2.5	3	3.5	4
70-85	2.5	3	3.5	4	4.5
<70	3	3.5	4	4.5	5

Qualitative factors with a positive impact on the initial score (see paragraph38)	Qualitative factors with a negative impact on the initial score (see paragraph 39)
Participation in a larger broad and diversified economy with employment stability better than the U.S. through economic cycles.	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.
An ongoing stabilizing institutional influence existing for more than 30 years, such as a major state university, state capital, military base, or large and stable corporate presence.	High unemployment (>10%)
	If employment concentration where an individual sector with above-average volatility 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 category. If the top 10 taxpayers exceed 45% of the tax base, the score worsens by two notches.

To calculate the per capita income score, the criteria use the most recent effective buying income level available, adjusted for personal income growth expectations for the next five years. To calculate the market value per capita, the criteria use the most recent estimate available. To measure unemployment, the criteria use county-level data and take the average rate for the last calendar year. The final economic score equals the initial score adjusted up or down based on the net effect of the qualitative factors. Variable measures that equal a cut-off point between two initial scores will equate to the higher score. The adjustment impact of each qualitative factor counts for 1, except for employment and tax base concentration, where the score may differ by 2 as described above.

38 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 above.

39. Local income and market value statistics may underestimate fundamental economic strength. For example, local market value 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.

40. By contrast, income and market value per capita may fail to account for additional risks. The impact on income and economic activity from sudden 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. 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.

E. Management Score

41. 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.

Table 9

Assessing The Management Score (see paragraphs 42-49)

Rounded Score	Characteristics
1	FMA score of "Strong" and none of the factors in score 5 are present
2	FMA score of "Good" and none of the factors in score 5 are present
3	FMA score of "Standard" and none of the factors in score 5 are present
4	FMA score of "Vulnerable" and none of the factors in score 5 are present
5	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; or The government has shown an unwillingness to support a debt or capital lease obligation.
Qualitative factors with a positive impact on the initial score (see paragraphs 46-48):	**Qualitative factors with a negative impact on the initial score (see paragraph 49):**
Consistent ability to maintain structural balance.	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 on approved structural reforms for two consecutive years.

The final management score equals the initial score adjusted up or down one as dictated by the cumulative effect of the qualitative adjustments. For each relevant qualitative factor, the score changes by 1. Qualitative adjustments cannot improve an initial management score of 5.

42. The Financial Management Assessment methodology (FMA; 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. Despite its limitations, the proposed criteria use the FMA as a measure because as early as the 1930s, Hillhouse cited the mere development of such practices as a principal method for preventing default.

43. Regardless of the initial management score resulting from the FMA and any adjustment factors, certain conditions automatically result in an initial score of 5. The first instance 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.

44 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.

45. The third instance occurs when a government shows an unwillingness to support a debt or capital lease obligation. A lack of willingness to pay vendors, vendor leases, or other commercial obligations would not automatically result in a score of 5, although it could evidence increased financial pressure that could bring lower ratings through the other elements considered by the criteria. A 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.

46. Various qualitative factors may raise or lower the final management score relative to the initial score. However, no qualitative adjustment may raise the score if the initial score equals 5. Even when limited policies and practices exist, management still may pose a limited risk to credit quality. 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 when either of these conditions exists. The criteria measure government operational risk by distinguishing between the following two categories:

47. 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'.

48. Limited services: the municipal government maintains roads and provides only limited additional services that are mostly bureaucratic 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.

49. 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 uses 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

50 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 51-53)

	Available fund balance as a percentage of expenditures				
%	>15	8-15	4-8	1-4	<1
Score	1	2	3	4	5

Qualitative factors with a positive impact on the initial score:	Qualitative factors with a negative impact on the initial score:
Demonstrated capacity and willingness to cut operating 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.
Timing of fiscal year and tax billing dates result in high cash with abnormally low fund balance levels (see paragraph 52).	Where cash accounting is used, the criteria use cash balances instead of fund balances and the score is worsened by one.
Maintenance of a general fund balance exceeding 30% of general fund expenditures for three or more consecutive years.	

The final budgetary flexibility score equals the initial score adjusted up or down based on the net effect of the qualitative factors. Variable measures that equal a cutoff point between two initial scores will equate to the higher score. For each relevant qualitative factor, the score changes by one.

51. Because existing general fund balances reflect the most obvious and measurable form of flexibility, the available general fund balance as a percentage of general fund expenditures forms the initial score. The proposed criteria use the average of the most recent reported fiscal year and our estimate for the following year, which may differ from that shown in the original or amended budget. When other fund balances outside the government's general fund are available beyond the current fiscal year, they are included in the calculation.

52. Qualitative adjustments to the budgetary flexibility score generally compensate for shortcomings in the fund balance measure or assess other forms of flexibility. The Governmental Accounting Standards Board 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. 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 represents a positive adjustment that may offset a negative adjustment when both conditions exist.

53 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 state-wide 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.

G. Budgetary Performance Score

54 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 55-56)

	Total governmental funds net result* (%)				
General fund net result* (%)	> -1	Limited -1 to -5	Balanced -5 to -10	Pressured -10 to -15	Significant < -15
Limited (> 5)	1	2	3	3	4
Balanced (-1 - 5)	2	3	3	4	5
Pressured (< -1)	3	4	4	5	5

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 two years suggested a better score, the score would improve by one or two notches. The score would improve by two notches 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 two years suggested a worse score, the score would worsen by one or two notches. To worsen by two notches, 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 under spending due to deferred payments.
	Significant historic volatility in performance because of very cyclical revenues, (e.g. oil & gas or luxury sales tax and/or dependence on volatile state transfers) and/or exposure to event risk, and the sources of volatility remain.

The final budget performance score equals the initial score adjusted up or down based on the net effect of the qualitative factors. Variable measures that equal a cut-off point between two initial scores will equate to the higher score. For each relevant qualitative factor, the score changes by 1, except for expected structural improvement or deterioration which could result in a difference of two relative to the initial score.

55 The budgetary performance score begins with a measure based on the most recent year reported because it is

observable and verifiable. The criteria smooth capital expenditures to arrive at a more sustainable view of ongoing performance.

56 However, future credit quality has more to do with current and future performance. Accordingly, the score can be adjusted by one or at most two notches 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 delayed expenditures with a downward adjustment. A downward adjustment 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 luxury sales taxes.

H. Liquidity Score

57 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 an average of data from the last fiscal year as well as a current-year estimate.

Table 12
Assessing The Liquidity Score (see paragraphs 58-62)

	Total Government Cash As % Of Total Governmental Funds Debt Service				
Total Cash % Of Total Governmental Funds Expenditures	>120	120-100	100-80	80-40	<40
>15	1	2	3	4	5
8-15	2	2	3	4	5
4-8	3	3	3	4	5
1-4	4	4	4	4	5
<1	5	5	5	5	5

Qualitative factors with a positive impact on the initial score:	Qualitative factors with a negative impact on the initial score:
If access to external liquidity is 'exceptional' as defined in table 13, the score improves by two; if 'strong', the score improves by one.	If access to external liquidity is 'uncertain' as defined in table 13, the score worsens by two; if 'limited', the score worsens by one.
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 nonremote contingent liability risk that could come due within 12 months.

The final liquidity score equals the initial score adjusted up or down based on the net effect of the qualitative factors. Variable measures that equal a cutoff point between two initial scores will equate to the higher score. For each relevant qualitative factor, the score changes by one, except for access to external liquidity which could change the final score by two and contingent liability exposure which could cap the score at 5.

58 Because governments hold monies in various funds that may be accessed for short-term liquidity, the measure uses total cash and cash equivalents 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 12 months. 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.

59. The access to external liquidity score detailed in table 13 measures a local government's access to capital market and bank financing.

Table 13

Assessment Of Access To External Liquidity (see paragraph 60)

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.

60. 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.

61. 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.

62. 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 the next 12 months. 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 liquidity score equals 5. Otherwise the presence of such obligations worsens the liquidity score by one. 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 proposed 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

63 The proposed criteria form the initial debt and contingent liabilities score from the combination of two measures: total governmental funds debt service as a percentage of 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. 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 63-67)

	Net Direct Debt As % Of Total Governmental Funds Revenue				
Total Governmental Funds Debt Service As A % of Total Governmental Funds Expenditures	<30	30-60	60-120	120-160	>160
< 8	1	2	3	4	5
8-15	2	3	4	4	5
15-25	3	4	5	5	5
25-35	4	4	5	5	5
>35	4	5	5	5	5

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 score when included.
Overall rapid annual debt amortization, with more than 65% coming due in10 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 66). If there is a plan to address the obligations, the final score worsens by one; otherwise the score worsens by two notches.
	Speculative contingent liabilities or those otherwise likely to be funded on an ongoing basis by the government representing more than 10% of revenues (see paragraph 67).

The final debt and contingent liabilities score equals the initial score adjusted up or down based on the net effect of the qualitative factors. Variable measures that equal a cutoff point between two initial scores will equate to the higher score. For each relevant qualitative factor, the score changes by 1, except for unaddressed exposure to unfunded pension or OPEB obligations which can worsen the final score by two.

64 Qualitative adjustments may raise or lower the final debt and contingent liabilities score relative to the initial score. The proposed criteria consider pending debt issuance through an upward adjustment when including the planned debt results in a higher score. The proposed criteria lower the final score by one when above-average annual debt

amortization 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, 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.

65. A high overall net debt to market value level increases the score, while a low level decreases the score. 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.

66. The impact of pension and other postemployment benefit (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 when a specific and credible plan to address this burden is in place. Otherwise, the score worsens by two relative to the initial score.

67. 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 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 future, and additional costs resulting from pending changes in law.

VII. APPENDIX I: Selected Historical Statistics

68. 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

Table 15

Number Of Recorded Defaults From 1839-1965 By Type Of Governmental Unit (cont.)

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
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

69. Local governments have a number of connections to their state government. 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.

70. Given the historical record and ongoing localized nature of local government finance, the proposed 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 33-36). As the direct impact on a local government's fiscal balance became clear, changes to the budgetary flexibility and budgetary stress scores could occur.

71. 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.

72. 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 illusive. 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 37-39)

	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".

73. 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 in default, and New Jersey had 18 of 54 in default.

74. 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.

75. Although no additional state defaults have occurred recently, several were significantly tested during the last recession. Despite sizable 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 the size of these cutbacks in no way threatened the outright solvency of cities and counties or their ability to service debt.

IX. GLOSSARY

76 Dependent population: The total population of an area that is younger than 15 years plus the total population of an area older than 65.

77 Effective buying income (EBI): Personal income (wages, salaries, interest, dividends, profits, rental income, and pension income) minus federal, state, and local taxes and nontax payments (such as personal contributions for social security insurance).

78 General fund net result: Total general fund revenues minus total general fund expenditures, plus transfers in from other funds, minus transfers out to other funds.

79 Total governmental funds net result: Total governmental revenues minus total governmental expenditures.

80 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.

X. RELATED CRITERIA AND RESEARCH

Related Criteria

Articles to be superseded by the proposed criteria

- 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

Articles complementing the proposed 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

Related Research

- 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

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.

Analytic Approach

Moody's general obligation bond ratings are forward-looking assessments of an entity's relative credit strength, and reflect our analysis of four rating factors – Economic Condition and Outlook, Financial Position and Performance, Debt Profile, and Management – as measured against a combination of qualitative and quantitative criteria. Each of the four factors is evaluated individually, incorporating unique state and sector attributes; ultimately, the rating outcome reflects a weighting of these assessments according to the following weighting system:

Economic Strength	40%
Financial Strength	30%
Management and Governance	20%
Debt Profile	10%

Economic Strength carries the greatest weight in our assessment of credit quality, as the property tax base is the source of bondholder security and the economy provides the source of leverage to support municipal operations. Moody's tax base analysis incorporates absolute valuation and historic growth rates, a qualitative assessment of the stability of the local economy and the relative socio-demographic strength of the community. Given the diversity and size of the local government sector, we see great variation among local economies with regard to both size and qualitative characteristics. As peer comparisons are an important component of rating committee discussions, economic factors weigh heavily in our determination of the relative credit quality of local governments.[1]

An entity's Financial Strength carries the next greatest weight, as a strong financial position can mitigate economic vulnerabilities or, conversely, a weak financial position in an economically vibrant community may signal an inability to leverage a strong tax base. Analysis of financial position and performance includes both a retrospective financial statement analysis, as well as a forecast of future financial flexibility based on a review of the current year's budget document and year to date performance. A strong financial position is highly correlated with the strength of management.

Rating Implications of Limited Tax GO Pledges are Considered on a Case By Case Basis

Most often, the GO security offers the issuer's full faith and credit pledge to levy ad valorem taxes, without limit as to rate or amount, for the timely payment of debt service (an unlimited tax, or GOULT pledge). In some instances, however, the property tax pledge is limited (GOLT). This may occur if taxes levied for debt service are subject to an overall cap on the property tax levy. Alternatively, an issuer may be legally permitted to levy an additional property tax for specific purposes, up to a specified rate or amount, and this additional, limited taxing authority is pledged to secure debt.

A rating distinction of up to two notches below an issuer's general obligation unlimited tax rating (e.g. from A1 to A3) may be applied to reflect the narrower security offered by a GOLT pledge. Moody's assesses the relative strength of unlimited vs. limited tax securities on a case by case basis, considering among other things the legal provisions which protect bondholders' potential claims on tax revenue in the event of a default. We also consider the degree to which a currently levied, limited tax rate is below the legally allowed maximum. Occasionally municipalities issue bonds combining limited tax and unlimited tax debt authorizations; here, the limited tax rating would generally apply.

Moody's also considers additional factors which may mitigate the relative credit weakness of the narrower limited tax security, resulting in a rating assigned to a limited tax issue equivalent to that of the local government's unlimited tax bonds. Mitigating factors often include:

- A strong financial position, including ample general fund reserves and adherence to comprehensive financial policies, which can cushion cyclical declines in property tax revenue or expenditure spikes
- Steady tax base growth which provides property tax revenue necessary to keep pace with expenditure growth

[1] Moody's utilizes a different weighting approach to evaluate state GO credit quality. Our state scorecard over-weights Finance and Management factors (30% each) relative to Debt and Economy factors (20% each). Most striking in comparison to the local government weighting approach is the underweighting of economic factors in the state scorecard. This reflects the lesser degree of variation among state economies as compared with the local government sector, as state economies, by definition, are broad and generally diverse.

Management and Governance carries a relatively lower weight of 20%, but is nevertheless important as management also affects other key rating factors. To the degree that management is proactive and policies and procedures are institutionalized, a stable credit profile is more likely to be maintained. Moody's general obligation bond ratings typically do not rise and fall with economic cycles; this stability is largely a reflection of local governments' ability to manage through difficult times. In combination, Financial Strength together with Management and Governance account for 50% of our assessment, underlining our view that relative strength in these two factors can mitigate economic challenges and drive rating outcomes.

Debt Profile rarely is the primary driver of a rating outcome, as reflected in its relatively low 10% weighting; however, debt burden trends are an indicator of a population's capacity to absorb additional obligations. In the event that a local government's capital needs are great, this may foretell future financial distress. Debt may become a greater concern if a municipality's variable rate debt exposure or swap portfolio presents significant liquidity or budgetary risks.

The outcome of this weighted average approach provides one input into Moody's credit analysis. Emphasis given to each factor may vary depending on where the credit lies on the rating scale and the degree to which it is an outlier on a given factor. These considerations, as well as the interaction between factors, may cause rating committee decisions to deviate from the rating range implied by the weighted average of the factors.

FACTOR 1: ECONOMIC STRENGTH

The economic strength of a locality drives its ability to generate adequate financial resources – either through property tax levy, sales tax revenue or other revenue streams -- to meet operational and debt service needs. As such, this factor measures the intrinsic strength of the local revenue base.

Subfactor 1.a: Size and Growth Trend

Because GO bonds are secured by a property tax pledge, the size of the tax base is an important indicator of a local government's credit quality. Generally, a larger tax base offers the flexibility to generate substantial property tax revenue with only a minor increase in tax rates. Moody's analysis of economic growth incorporates a review of historical trends, including average annual increases in assessed and full valuation and building permit activity over time, to provide an indication of future economic performance. We review at least five years of historical assessed and full valuations (primarily valuation of real estate and personal property), paying close attention to growth patterns during periods of national or regional economic downturn. We also consider the kind of growth that has occurred. For example, does growth reflect appreciation of existing properties, which tends to be economically volatile, or new development? Further, if there is new development, is there existing demand or is development speculative? Additionally, Moody's will review historical building permit activity trends for residential and commercial construction to determine which sector is driving growth.

We also assess prospects for continuing development, which are projected based upon availability of land for future development, opportunities for annexation, and adequacy of infrastructure to support new development. Other factors that may affect a locality's ability to attract or retain growth potential include local taxing structure (compared with competing localities), labor costs, and availability of adequate labor supply to meet needs of local business. Moody's also considers the extent to which management is channeling assets and resources to promote future growth and development, including investment in infrastructure, management of zoning issues and other development factors. Additionally, the demand for new development is assessed, in part, by evaluating current occupancy rates and trends for all sectors of the real estate market. In reviewing more mature economies that are fully developed, Moody's will focus on efforts being undertaken to redevelop and generate the potential for new growth.

Subfactor 1.b: Type of Economy

Moody's analysis of a local economy considers its role in the larger regional economy and how this might cushion or exacerbate vulnerability to economic shocks. On the most basic level, Moody's considers the type of economy: is it an urban center, a suburb or a rural area? Is it a 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 things like commuting patterns, office or retail vacancy rates, or residential building permit activity.

Tax base diversity indicates a local economy's ability to weather fluctuations in a particular sector. With a diverse mix of industries, the impact of downturns in any particular sector may be less pointed. Risk associated with the presence of an industry vulnerable to downturn (i.e., tourism) may be partially mitigated by diversity within the economy, enabling continued growth in the face of a downturn in any one sector. Moody's will determine whether a diverse mix of industries is present to support job growth, tax base stability or growth, and a range of primary revenue streams for a locality. Moody's also considers the stability offered by institutional presences within a local economy. Economies anchored by universities or government presences, such as state capitols, often are better able to weather economic downturns as employment at these institutions tends to benefit from a greater degree of stability than other sectors.

Loss of a major taxpayer or downturn in a particular industry can be especially harmful to a local economy if it represents a major portion of the overall tax base. Apart from hurting ad valorem tax revenue, loss of a major taxpayer may lead to a spike in unemployment and adversely affect the operations of ancillary industries, in turn leading to indirect tax base declines. Moody's considers the assessed valuation of a locality's ten largest taxpayers in order to gauge concentration levels. In addition, concentration within a specific industry, especially vulnerable sectors like automotive manufacturing, will trigger a closer analysis of current operations among the top ten taxpayers. When available, a listing of the total levy generated by each of the top ten taxpayers will provide a clearer picture of the revenue impacts of any concentration. For example, a taxpayer may represent a major concentration of a locality's assessed valuation; however, due to incentives or other arrangements, a taxpayer may comprise a relatively small portion of revenues. Concentration among the top taxpayers also introduces potential risk to sales tax and income tax revenues, as closure or downsizing may affect local income levels, thereby reducing these revenues.

Subfactor 1.c: Wealth and Demographics

A variety of demographic measures offer an indication of the ability of a locality to generate revenue to meet ongoing operational and debt service needs. We look at population trends using data provided by the US Census Bureau as a reflection of overall economic health. Population declines often accompany job losses, concentrating the burden for funding government expenditures within a smaller base of residents. Conversely, we recognize that rapid population growth could tax the resources of a locality as it endeavors to meet the demands for services created by a larger population.

Moody's compares per capita and median family income trends of a community to those of the nation. A community that has higher wealth levels may have relative flexibility to increase property tax rates in order to meet financial needs. Likewise, 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. Poverty trends are also considered; these may indicate the degree to which a local government could be strained by certain expenditures, such as those related to social service programs or public safety.

Moody's also considers full value per capita as a rough proxy for wealth. Relatively high full value per capita reflects the property wealth of the population; it may also reflect a concentrated tax base or a seasonal tourism-based economy with a relatively small permanent population. Conversely, a lower full value per capita could reflect the presence of significant tax-exempt property, such as a university, that nevertheless reflects a stable source of local revenue generation.

Subfactor 1.d: Workforce Profile

Moody's analysis of workforce issues is focused on determining whether there is an adequate match between the needs of local businesses and the local labor supply, most typically based upon a review of employment data provided by the Bureau of Labor Statistics. Unemployment rates, adjusted for any seasonal fluctuation, are perhaps the most current measure of an area's economic health. Equally important are the unemployment trends over a period of time, which illustrate a municipality's demonstrated ability to withstand changes in national or regional economic fortunes and may provide an indication of future employment performance. Moody's compares local unemployment with statewide and national norms to assess an entity's relative economic vitality. Commuting patterns also enable Moody's to understand a locality's role in the regional economy and the vibrancy of the local employment market, both indicators of economic performance and influences on revenue raising potential.

FACTOR 2: FINANCIAL STRENGTH

Moody's financial analysis includes a review of historical financial performance as an indication of an issuer'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.

Subfactor 2.a: Balance Sheet/Liquidity

One financial statistic that is key to evaluating financial strength is the General Fund balance as a percent of revenues. This ratio provides a measure of the financial reserves potentially available to fund unforeseen contingencies as well as likely future liabilities. It is important to emphasize that the strength of a given level of fund balance varies depending on the particular issuer 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 and pending litigation. Alternately, municipalities with substantial revenue raising flexibility may carry smaller balances; this weakness is offset by their ability to generate additional resources when necessary. Accounting presentation varies from state to state; functions that are typically funded through the General Fund may be divided among several governmental funds, depending upon statewide norms. To provide meaningful comparisons across states, Moody's considers combined operating fund reserves as a percent of combined operating fund revenues, in addition to our analysis of the General Fund.

Although we assess fund balance in relation to sector medians, we are cognizant of statewide restrictions that may skew this comparison; for example, New York school districts are not permitted to maintain undesignated reserves in excess of 4% of the subsequent year's budget. Our analysis factors an entity's ability to maintain a healthy financial position within these statutory constraints, such as through the creation and funding of additional reserves. To the extent that significant reserves that are available to fund regular operating needs are held outside of the General or operating funds, Moody's analysts will add these funds to operating fund reserves to determine total available reserves as a percent of operating revenues.

Moody's balance sheet analysis also factors the composition of assets and liabilities; quality of receivables is reviewed to determine the likeliness of their realization. For instance, interfund receivables are analyzed to determine whether the assets to make payment are available or expected to become available in the near term. If not, we may adjust the fund balance downward, to more accurately reflect available resources. Moody's also relies on trends of receivables and payables for an indication of the evolution of a municipality's financial position. For instance, payables that increase at a significant pace may indicate future financial stress on a municipality's resources, while increased receivables may indicate delays in revenue realization or prompt questions about reliability of these receivables.

In addition to evaluating financial reserves, Moody's approach also considers the liquidity of the reserves. Solvency refers to having the assets to cover liabilities; however, funds may be solvent but may lack liquidity if non-cash assets do not convert to cash before liabilities are due. As the best defense against short term liquidity risk is cash, Moody's analyzes year-end cash (net of any proceeds of cash flow borrowing) as a percent of operating revenues. A declining net cash position may raise a red flag regarding an entity's financial health, particularly at lower rating levels; or it may suggest use of a municipality's cash for a capital project which may ultimately be reimbursed by the state or from future bond proceeds. We recognize that a mismatch between the timing of local government receipts and disbursements may necessitate issuance of cash flow notes; however, an increasing reliance on cash flow borrowing relative to budget growth is similarly an indicator of financial stress.

Moody's also reviews the financial condition of major internal service funds. In some cases, these funds may hold large reserves and represent another source of operating flexibility. On the other hand, budget pressures in the General and operating funds may be masked by artificially low charges for services provided by the internal service fund, essentially shifting an operating deficit from the General and operating funds to the internal service funds.

Subfactor 2.b: Operating Flexibility

The extent to which government financial managers can exert local control over operating performance is a significant determinant of an entity's ability to maintain a satisfactory distance from fiscal distress. Local governments face inevitable budgetary pressures which may be managed from either the revenue or expenditure side. To the extent an issuer has flexibility to control both revenues and expenditures, financial flexibility will be maximized. Importantly, in addition to considering an issuer's flexibility to increase revenues or reduce expenditures as necessary, Moody's also considers its demonstrated willingness to do so. When an issuer is unwilling to tap available flexibility, the value of that flexibility as a positive credit factor is diminished.

An entity's revenue raising flexibility may be constrained by constitutional or statutory property tax limits, such as property tax levy limits or caps on operating millage or millage increases. Moody's also considers the ability to raise various fees or tax rates without external approval as a factor in assessing revenue raising flexibility. Requirements for voter approval of budgets also limit flexibility, given the potential political resistance to tax increases. Additionally, local governments that rely on local source revenues for the majority of their operating revenues generally have greater control over their financial condition than those entities that are heavily dependent on outside sources such as state aid or other intergovernmental revenues which are prone to reduction during times of state fiscal stress.

Local control over expenditures is also reviewed. A higher proportion of fixed costs, such as debt service or mandated social service expenditures, as a percent of expenditures reduces flexibility to adjust expenditures if revenues fall below expectations. Conversely, funding of non-operating needs from recurring sources, such as financing of capital improvements on a pay-as-you-go basis, enhances flexibility; as these non-essential expenditures may be eliminated in the event of unforeseen budgetary pressures. Flexibility is also impacted to the extent an entity is bound by collective bargaining contracts, which limit control of expenditures; or to the extent it is exposed to enterprise sectors that carries significant operating risk (e.g. county nursing homes, which often require General Fund operating subsidies).

Property Tax Limitations are Considered in Context of Overall Financial Flexibility

Property tax is a primary revenue stream for many local governments and is generally considered a relatively stable and predictable source. In response to increasing local property tax burdens, compounded by periods of explosive market value growth in certain regions since the 1970s, several states began imposing property tax limitations. Since the 1978 adoption of California's constitutional amendment to limit property tax growth, commonly known as Proposition 13, a range of state limits have been enacted, either through constitutional amendment, legislation, or within a state's budgetary process. In other instances, limitations are specifically defined by local charter and are governed by a charter process at the local level that is similar to enacting constitutional amendments at the state level. These limitations can pose a range of fiscal constraints on a local government's ability to raise revenues and maintain structural balance. Statutory limitations within a state are sometimes different, depending on the taxing jurisdiction. For example, in Kansas, cities and counties have not had levy limits since 1999, whereas school districts are limited to 20 mills. Moody's assesses the impact of property tax limitations on local governments' financial flexibility and credit strength by evaluating the following factors:

Mechanics and parameters of limitation

- Limitations can be defined as maximum caps on the total rates or limitations on the annual rate of increase on property tax levies. Limitations can be some combination of the two, as is the case with California's Proposition 13, which caps property taxes at 1% of assessed valuation and also limits annual growth to the lesser of 2% or CPI, with exceptions for sales or improvements to existing property.
- The scope of the limitation is also critical; certain expenditures may be excluded from the limit, reducing the impact of the limit and improving the issuer's ability to maintain financial flexibility.
- Limitations can also be more discretely defined, with specific rate limits for different purposes. For example, Iowa cities have limitations for certain levies, but no limits for other purposes. The general operating levy is limited to $8.10 per $100 of taxable valuation, a special capital projects levy is limited to $.675 while special revenue levies for police and fire are unlimited.
- Limitations may be ongoing and continuing, as enacted by state constitution or legislation. In some states, such as Wisconsin and Minnesota, the limits are imposed during the state's budget process and may or may not be imposed from one biennial budget to the next. For municipalities in states that periodically impose levy limits, they are sometimes able to stabilize finances in non-limited years, giving them the ability to prepare financially for years where revenue growth will be more restricted.

Access to additional taxing or revenue capacity

- Some local governments are able to maintain their levies below state limitations, leaving an unused margin that is fully accessible when needed. For example, a municipality may levy only 5 mills under a 10 mill cap that they could utilize for excess capacity. Similarly, municipalities operating under a growth limitation are sometimes allowed to accumulate any unused portion of the property tax limit from one year to the next, building a margin. Any voluntarily untapped margin that is accessible in future years grants the local government additional revenue raising flexibility when needed.

- Additionally, some limits allow for the local government to exceed or reduce the limitation, often by referendum vote or vote by the governing body, such as the city council, school board, or town meeting.
- Different local governments may have more or less control over raising additional revenues, such as special taxes, fees, and surcharges that could provide alternate revenue raising flexibility.
- Moody's will also consider the political will to use this margin, acknowledging that a significant available margin does not enhance flexibility if political pressures prevent its use. For local governments that have the option to implement overrides or leverage unused margins under existing limitations, a demonstrated willingness by management and the governing body to approve these local actions is key. While there may be political difficulties to enacting such property tax increases, Moody's views the ability to raise sufficient revenues to maintain structural balance in light of a demonstrated willingness.

State and local fiscal oversight

- Some states monitor and enforce local governments' compliance with tax limitations and overall maintenance of fiscal healthy. Generally, strong oversight at the state or local level is viewed as a positive factor, limiting the likelihood of a local government developing serious financial stress under a property tax limit. Municipalities without periodic oversight or strong local policies could experience unmonitored financial decline that would be further stressed by the inability to rapidly increase property tax revenues under existing limitations.

Expenditure flexibility

- A local government's control over expenditures is also critical in light of the scope of the revenue limitations we are considering.
- An issuer with a higher proportion of fixed costs, such as debt service or mandated social service expenditures, reduces flexibility to adjust expenditures if revenues fall below expectations. Expenditure flexibility is also limited to the extent an entity is bound by collective bargaining contracts.
- Conversely, a larger proportion of more discretionary items, such as the financing of pay-go capital or the existence of enhanced services and other non-essential expenditures that can be reduced or eliminated, provides a degree of flexibility in the event of unforeseen budgetary pressures.

Subfactor 2.c: Budgetary Operations

Moody's evaluates a local government's operating trend to see that financial reserves increase in step with budgetary growth. Additionally, we analyze operating performance to assess structural balance, i.e. the ability to fund recurring expenditures from recurring revenues. 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 issuer vulnerable should these one-time revenues fail to materialize in the future.

Additionally, revenue structures dependent on economically sensitive revenue sources, such as sales tax or real estate transfer taxes, are dependent on broader economic forces beyond the issuer's control, and pose a risk to budgetary operations. In contrast, property taxes tend to be less volatile, as lags built assessment practices often delay the impact of economic fluctuation. When volatile revenues fund a significant portion of operating costs, Moody's analysts try to gauge how much of the risk is mitigated by management's approach to budgeting for such revenue, what revenue alternatives exist, and what reserve policy is in place to counter

any fluctuations. Trends in revenues are also examined, specifically if major sources of revenues shift from more predictable revenue sources to more vulnerable ones, thereby increasing risk.

FACTOR 3: MANAGEMENT AND GOVERNANCE

General obligation credit ratings do not generally move up in boom times and fall in recessions. One of the main factors behind this stability is the proven ability of governmental managers to implement strategies that maintain credit strength over the long-term. A strong governmental management team prepares well for economic downturns, maintains strong controls during boom times, and manages well during all phases of an economic cycle. Strong management can also mitigate challenges that are outside of the municipality's control, such as economic vulnerability or the existence of statutory revenue caps.

Subfactor 3.a: Financial Planning and Budgeting

Moody's assessment of management and governance includes a comparison of budget versus actual performance trends, focusing on the accuracy of both revenue and expenditure forecasts. Revenue forecasting is a key concern, 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 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 most line items over several years.

Moody's analysts also assess the government's track record of expenditure controls and conservative but reasonable expenditure projections. In Moody's view, the strongest management teams are able to discuss the levels of flexibility within each expenditure line item as well as discuss the details about the assumptions behind their budgeting. We bring to these expectations a sensitivity to political realities and to the sometimes difficult balancing act that government officials must perform between providing services and controlling costs. Strong expenditure controls lessen the likelihood of fiscal distress, within a fiscal year and beyond. Further, in times of economic weakening, revenues such as sales tax and income tax are likely to stagnate or even decline, and property tax collection rates may fall. The demonstrated ability and willingness to make mid-year budget adjustments in the face of revenue weakness are often key to keeping a budget balanced and avoiding reliance on non-recurring sources such as asset sales or draws from reserves. These "one-shot" approaches weaken management's options in the following fiscal year, when continued expenditure growth could cause further fiscal distress.

Adoption of fund balance policies, and adherence to these policies, increases the likelihood that sufficient levels of fund balance will be maintained, regardless of economic cycles or administrative turn-over. The fiscal policies of a well-managed municipality typically incorporate a plan related to reserves that establishes target and minimum fund balance levels, and specifies when they can be used. Policies that set fund balance levels based on the degree of fiscal vulnerability faced by a particular municipality (including such things as the cyclicality of its revenue streams, the volatility of expenditure items and the likelihood of natural disasters) are generally more effective than those that do not. Moody's places relatively more reliance on investment and fund balance policies when they are in writing and have been adopted by the government in some formalized manner, such as through a resolution. A written policy, while not necessarily legally binding, indicates to Moody's that government officials have discussed the policy in full and reached consensus, and that the policy is likely to remain in place with a change in management.

Because the results of one fiscal year impact the next, Moody's sees value in the development of multi-year fiscal plans. Long-term fiscal plans generally encompass periods from three to five years, although some span as long as 10 years. These plans can provide useful information about a municipality's finances such as the level of revenue growth necessary to fund particular spending levels, or the impact that a slowdown in revenues or materially higher spending levels could have on fiscal stability. The best fiscal plans incorporate long-term capital planning, including the identification of future debt service costs and additional operational

costs associated with any new capital construction. Such integrated plans illustrate how a municipality intends to pay for projected service level increases and inflationary budget growth.

By plugging in various economic assumptions, government officials can use these plans to envision their budgetary needs over the near- to medium-term. Officials can "stress test" certain revenue streams – for instance, possibly learning that level state aid funding could be offset by expected property tax revenue growth, allowing for normal expenditure growth even during a state's fiscal crisis. Well constructed plans also identify areas of potential financial flexibility – for example, capital spending that could be reduced or fees that could be increased. In short, multi-year fiscal plans perform two important functions: one, they compel the issuer to develop quantitative contingency plans for various "what if" scenarios; and, two, they provide a road map that shows where the government's management team intends to go over the next several years.

Subfactor 3.b: Debt Management and Capital Planning

Formalized debt planning and debt policies provide bondholders with reassurances that debt burdens and operational debt costs will be kept at manageable levels while ongoing capital needs continue to be met. Debt policies typically specify both target debt burden levels and maximum allowable debt burden levels; the community's borrowing needs over the next five to ten years are then projected against these targets. Also, if an entity plans to issue a portion of their debt as variable rate obligations, or enter into interest rate swaps, it is important for the debt policy to incorporate management's reasons for utilizing these structures, and strategies for minimizing associated risks.

Regularly updated, multi-year capital improvement plans are useful tools in prioritizing and planning for future capital needs, and identifying financing sources for each of the upcoming capital projects. The strongest governmental management teams then incorporate their capital improvement plans into their debt projections and multi-year operating projections – identifying how both debt levels and operating capital expenditures will impact the balance sheet and financial operations. Some management teams adopt policies for their pay-as-you-go financing of capital work, such as earmarking certain revenues (e.g. impact fees) to be diverted annually into pay-go capital spending. Policies may also specify target levels for debt service as a percentage of overall expenditures.

Moody's also evaluates management's ability to cushion against risk related to variable rate debt and derivatives, particularly in light of recent and ongoing volatility in the variable rate debt markets. Here, we consider the frequency of monitoring variable rate debt and swap portfolios, demonstrated response to market changes, budgeting for interest rate volatility, and maintenance of sufficient liquidity in the event of bank bond term-outs or swap terminations.

Subfactor 3.c: Management of Economy / Tax Base

We recognize that, generally, economic performance is the most difficult of the four rating factors for management to control. Nevertheless, monitoring economic performance is an important practice, as economic indicators can cue management to adjust financial or debt policies in order to offset the impacts of an economic downturn or challenge. Strong managers also understand how historical economic trends can be used as a predictor for future economic performance, and can incorporate this analysis into economic forecasts and ultimately, into policy decisions. The successful pursuit by management of effective economic development or redevelopment is generally seen as a positive rating factor, while incentives that lead to uncertain revenues or services that are in excess of development benefits can negatively impact ratings.

Subfactor 3.d: Governing Structure

The statutory and regulatory environments in which local governments operate can vary significantly by state and by sector. Moody's analysis includes a comparison of peers within a given state, to evaluate management's ability to maximize flexibility relative to others facing the same constraints. However, as statutory limitations may materially impact relative credit quality on an absolute basis, we also conduct nationwide comparisons to assess relative credit quality. For example, imposition of a statewide 4% property tax cap in New Jersey has contributed to widespread utilization of fund balance to support operations across the state. We recognize this trend, and consider management's ability to operate within this new limitation. To maintain the consistency of our ratings, however, we also compare these municipalities to credits in other states that may not face similar caps. Absent other mitigating factors, we would expect local government credit quality to be depressed somewhat in state's that place disproportionate limitations on financial flexibility.

Additionally, we recognize that local governments, by definition, are influenced by political considerations. Often, in allocating and managing limited resources to meet growing demands for services, financial managers face political pressure to make decisions that adversely impact credit quality. For example, elected officials may oppose revenue enhancements, such as property tax levy increases, or may promise services which the municipality is not in a position to fund. In the best case, government financial managers have the autonomy to make financial policy decisions and are insulated from political considerations. On the other hand, elected officials can provide an effective check on financial policy decisions – ideally, the relationship between management and elected officials is a constructive one. In extreme cases of local government fiscal distress, an external oversight board may be appointed. Moody's views this oversight to be a positive step toward halting what may otherwise be a credit in "free fall," as the oversight board is further removed from local political concerns, freeing it to make what may be unpopular decisions to restore financial stability.

Existence of Oversight Boards May Enhance Credit Quality

Moody's considers the existence of state oversight of local government operations to be a positive rating factor. In some instances, agencies such as the Local Government Commission in North Carolina, or the Local Finance Board in New Jersey, play a supervisory role, establishing accountability, controls and consistency with regards to local government operations statewide. While these agencies do not provide direct credit enhancement, Moody's believes that they ensure consistent standards of financial integrity. Thus, although this type of oversight does not directly factor into our local government ratings, it may indirectly support credit quality by encouraging and/or requiring conservative fiscal management practices.

Alternately, in some states, mechanisms exist to impose state oversight or control boards to oversee the operations of local governments experiencing fiscal distress. Examples include the Buffalo (NY) Fiscal Stability Authority (BFSA) and the Pennsylvania Intergovernmental Cooperation Authority (PICA) which oversees the City of Philadelphia. Once established, these boards may exert varying degrees of control over a municipality's financial operations, including review and approval of budgets, contracts and debt issuances, or requirements for the development of multi-year financial recovery plans. Establishment of a control board may bring immediate fiscal relief in the form of additional state aid to the municipality or authorization for the issuance of deficit funding bonds. Oversight boards may also issue debt ultimately repaid by the local government's revenues, but structured to insulate the repayment stream from municipal financial distress; the enhanced bond security may enable a local government that might otherwise have fallen below investment grade to continue to access the capital markets. Moody's believes that the existence of such an oversight board does not raise credit quality; but, assuming a constructive relationship exists between the board and the municipality, it, may create a rating floor (generally investment grade) below which the local government's rating is unlikely to fall.

Subfactor 3.e: Disclosure

Full and timely disclosure of financial matters is a basic tenet of a well-functioning capital market system. The strongest management teams have audited or reviewed financial reports prepared annually, generally within six to nine months of the close of the fiscal year. Financial statements that are attested to by an outside firm are viewed as being more reliable than preliminary documents prepared by members of the government's finance department. While Moody's rates the debt of certain issuers that do not publish annual audits (usually, small communities), we generally consider those issuers to have weaker financial reporting practices and, therefore, weaker disclosure practices. The Governmental Accounting Standards Bureau (GASB) creates the accounting principles by which governmental accountants prepare their audited financial statements, and compliance with these standards increases transparency and comparability among issuers (assuming the use of these accounting principles are the norm for the state, with New Jersey's statutory accounting standard as one of several notable exceptions).

Moody's also considers the timeliness of annual budget adoption. Timely budget adoption allows for effective allocation of resources and ensures that government commitments are funded. The budget process allows stakeholders with competing demands on resources to prioritize needs. Management skills are tested when these stakeholders must be brought together, sometimes in a politically charged environment. Inability to adopt a budget in a timely manner may reflect management's failure to achieve consensus concerning a community's goals and priorities. Besides allowing for the uninterrupted provision of government services, to the extent the budget is adopted prior to the start of the fiscal year, the budget provides a basis for tracking financial performance. (Again, New Jersey is a notable exception, where passage of budgets after the start of the fiscal year is the norm and reflects local governments' ability to adopt continuing budgets and mail estimated tax bills, allowing for provision of services and finalization of prior year actual performance to inform the budget process.)

Below Investment Grade Credits Face Range of Challenges

While local government credit quality is generally strong given the broad nature of the general obligation pledge, a number of credits, typically those that are economically distressed or lacking in sound fiscal management, fall below investment grade (i.e., rated below Baa3). This group currently represents only about 0.1% of the 8,200 general obligation ratings maintained by Moody's in the local government sector.

Non-investment grade local government credits tend to display a unique array of credit risks, including significant erosion in the economic base, an extremely weakened financial position, and a limited willingness or ability to resolve these challenges. A trend of structurally imbalanced operations can result in deficit fund balance positions and a growing reliance on cash flow borrowing to provide operating liquidity. Certain of today's stressed credits have failed to benefit from the nation's recent economic expansionary period, leaving them with minimal financial flexibility to weather the current economic recession. Further, many of these credits remain dependent on discretionary allotments of state aid that may decline given weakening state economies.

Moody's places significant emphasis on the adoption and implementation of a reasonable plan to alleviate fiscal distress when evaluating below investment grade credits. These plans often incorporate non-recurring sources to augment reserves, including infusions of extraordinary state aid, deficit reduction bond proceeds or proceeds from the sale of municipal assets. Reviews of below investment grade ratings generally focus on the likelihood of a return to structural balance through recurring revenue enhancement and/or expenditure reductions as well as an established track record of renewed stability, reflecting willingness and ability to maintain any improvements.

FACTOR 4: DEBT PROFILE

Moody's analyzes how much debt the economic base is supporting, the flexibility to absorb additional borrowing needs, expected future borrowing needs and the resulting pro-forma impacts. Additionally, Moody's examines the impact of debt on financial flexibility, and management's ability to conservatively structure debt repayment.

Subfactor 4.a: Debt Burden

The debt burden measures the financial leverage of a community by calculating the amount of debt outstanding (or the accreted value, in the case of Capital Appreciation Bonds) compared to the entity's full valuation. 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 pressures to fund fixed debt service expenditures. Moody's assesses both the direct debt burden, which is that debt supported by a municipality's own revenue stream; and indirect debt burden, which includes debt incurred by overlapping or underlying entities, such as a school district and a city in the case of a county. The overall debt burden represents the total debt shouldered by the property tax base. As the areas of responsibility of different levels of government vary by state (e.g. in some states, counties issue debt on behalf of school districts, whereas in other states school districts have borrowing authority), analysis of overall debt burdens allows for more meaningful comparisons across states. There could be extreme instances when significant borrowing by one entity could have adverse credit implications for an overlapping entity.

Frequently, in calculating an issuer's debt burden, Moody's definition of "debt" differs from states' definitions of debt, with respect to statutory debt limitations. Specifically, state statute may exclude from its calculation general obligation debt that has any source of supporting revenue, even a dedicated property tax. For example, in certain states, bonds issued for open space preservation and supported by an open space property tax will be excluded from the calculation of an entity's statutory debt limits. However, Moody's would continue to carry this debt on the debt statement, as it is ultimately supported by the property tax base. Further, Moody's analysts include capital leases, lease revenue debt and other fixed obligations in our debt burden calculation. Bond Anticipation Notes are also included, as these will ultimately be converted to long term debt. On the other hand, long term operational liabilities, such as accrued vacation days, are not captured by Moody's on the debt statement.

Analysts may deduct general obligation tax debt that is supported by enterprise revenues such as water and sewer charges from our debt burden calculation. As a general guideline, if an essential enterprise system with supporting revenue streams has been self-supporting for the three preceding years, we will exclude the debt. For this reason, general obligation water and sewer supported debt is frequently deducted from our debt burden analysis. However, recently enacted rate adjustments or reliance on one-time revenues (ie: connection fees) may provide for analytical differences to this approach. Unlike certain enterprise revenues, with rare exceptions, Moody's does not back-out tax increment or special assessment supported debt. While we internally analyze the mitigating impact of these revenue streams on the general levy, we believe that these concentrated revenue streams from benefited properties are more similar to property tax supported obligations putting a burden on property values.

Generally, sales tax-secured debt is included in the debt burden if: (1) it is issued to fund capital needs related to services typically provided by the government (e.g. park improvements), (2) sales tax revenues in excess of debt service obligations revert to the general operating funds and are available to fund operating needs, or (3) the debt is ultimately secured by a general obligation pledge, although it is expected to be serviced from sales tax receipts. In these cases, Moody's analyzes debt with and without the sales tax component to better understand the debt burden's source impact. Although included in the debt burden calculation, the availability of sales tax revenues to offset debt service can mitigate the rating impact of an above-average debt burden.

Moody's will exclude sales tax revenue bonds when (1) the bonds are issued to fund needs not related to typical general government functions (e.g. stadium or mass transit capital improvements) and (2) the sales tax revenues are segregated and available only to fund debt service or capital expenditures related to these functions.

General Obligation Bonds Issued by U.S. Local Governments

Some states provide assistance to local governments, particularly school districts, for the payment of general obligation debt service. Although, in many cases, these programs have a long track record, the state payments are often subject to annual appropriation. Therefore, Moody's does not generally deduct the portion of general obligation debt expected to be paid with state aid. But, in these situations, analysts will calculate an "adjusted" debt level reflecting expected statement payments and Moody's will consider both the gross and the adjusted debt levels in assigning the rating.

Sample Debt Statement ($000) by FY	2008
FY End Date	**6/30/2008**
Source of Debt Data	**Audited**
General obligation, unlimited tax bonds	14,705
GOULT/Water & Sewer	8,694
General obligation, limited tax bonds	
Unconditional general fund obligations	
Sales tax and other special tax bonds	2,500
State loans	16,267
Lease rental bonds/COPs	
Capital leases	1,182
Assessment debt with government commitment	
Other guaranteed debt	
BANs, capital notes, CP	6,700
Other direct tax supported debt	
Gross direct debt	**50,048**
Less: Self-supporting GO debt	-8,694
Less: Self-supporting GOLT debt	
Less: Self-supporting lease debt	
Less: Other self-supporting debt	-16,267
Net direct debt	**25,087**
Overlapping debt	21,853
Overall net debt	**46,939**
Adjustments	
Adjusted overall net debt	
Net Direct Debt as % of Full Value	**1.4**
Debt Burden (Overall Net Debt as % of Full Value)	**2.2**

Subfactor 4.b: Debt Structure and Composition

The structure of principal amortization is one indication of an entity's willingness and ability to repay debt. Generally, a conservative principal amortization schedule matches the useful life of the financed project. For example, structuring thirty year bonds for technology upgrades would be inconsistent with the expected useful life of the project. In such a scenario, repaying a liability for an asset that no longer exists could challenge the willingness of an entity to make debt payments; this is particularly relevant for appropriation-backed debt. Further, back end-loaded debt structures make it more difficult for borrowers to layer additional debt in the future. A level principal amortization schedule is common (e.g. 50% principal repayment within ten years for twenty year bonds); however, the amortization rate is also driven by matching the useful life of the projects. We also note that, while the structure of an individual series of debt may look irregular as a stand-alone repayment, it may be fine when considered in conjunction with the total amortization schedule of all community debt.

Moody's will also analyze the composition of the debt profile to assess a municipality's exposure to the interest rate and liquidity risks inherent in variable rate debt. The amount of variable rate debt that can be assumed by an issuer without jeopardizing its long-term rating will largely depend on its general credit strength and the following liquidity characteristics:

- Tightness of budgeted revenues and expenses;
- Predictability and seasonality of operating cash reserves during the year;
- Availability of financial resources not budgeted for operating needs; and
- Matching of interest rate-sensitive assets with variable rate exposure.

Moody's will test sufficiency of an issuer's liquidity under various term-out, swap termination, and interest rate scenarios.

Subfactor 4.c: Debt Management and Financial Impact/Flexibility

The structure of debt, the level of debt and future borrowing needs can all impact the financial operations of a community. Debt service payments represent a required expense. As such, there is limited line-item flexibility available should financial operations become stressed. This is particularly true for limited tax general obligation debt or appropriation leases, in which debt service expenditures effectively compete with operating expenditures. Debt service as a percent of operating expenditures can vary, and frequently ranges from 5 - 15%. However, for communities experiencing rapid growth or pursuing aggressive principal amortization, this range can increase significantly. Moody's will consider the availability of dedicated revenue streams (e.g. special sales tax dedicated for debt service) as a mitigating factor when assessing the impact of debt service on a municipality's financial operations.

Subfactor 4.d: Other long term commitments and liabilities

Moody's analysis of a municipality's debt profile includes an assessment of the degree to which other non-debt long term commitments, such as pension obligations and other post-employment benefits (OPEB), primarily retiree health benefits, impact the entity's long term flexibility. Moody's views both OPEB and pension obligations as having debt-like characteristics, however, they tend to allow some flexibility to alter the terms of the obligation, such as benefit eligibility requirements. Moody's therefore considers the impact of these obligations in our overall credit assessment of an issuer. Additionally, should a municipality choose to provide funding for these long term liabilities through the issuance of pension obligation bonds or OPEB bonds, those bonds would be included in our debt burden calculations.

Moody's will analyze pension and OPEB funding levels to assess the future impact on an entity's financial operations. We recognize that funding levels naturally will rise and fall as actual experience diverges from actuarial assumptions, as benefits change, or as investment returns fluctuate. In the case of an unfunded pension liability, Moody's will examine the reason that it has arisen and the entity's ability and willingness to address it over a reasonable period of time. When assessing the credit impact of an unfunded OPEB liability, Moody's analysts will also consider assumptions regarding medical costs, as well as issuers' flexibility under relevant statutes or contracts to modify their post-employment health benefit offerings. In either case, a trend of declining funding levels and/or failure to make recommended annual payments would be viewed as negative credit factors.

Pension Obligations Expected to Place Near Term Pressure on Ratings

A broad deterioration in funding levels for public sector pensions is adding to fiscal pressure on some state and local governments and could contribute to negative rating actions for select issuers in the next several years. This reduction in funding levels is largely driven by significant investment losses in pension plans in the range of 20-30% throughout 2008, and early 2009-losses which for some issuers came on top of longer- term demographic pressures. Lastly, the problem for some issuers will be exacerbated by decisions by select governments to defer pension contributions during periods of budgetary stress.

Greater credit stress will be felt by both the government issuers that entered this cycle with marginal funding levels as well as those that face inflexible regulatory or legal pension funding requirements. Despite the recent strong performance of the equity markets since March 2009, asset losses from earlier periods continue to weigh on plan asset valuations. Historically, stock market volatility poses pro-cyclical economic risks. Funding pressure could partially ease if there is continued rapid rise in equity market values and rising rates lead to actuarial reduction in accrued liabilities through application of a higher discount rate.

In evaluating the strength or weakness of a rated issuer's retirement system we begin with a review of the funded ratio to assess the extent to which a government has set aside resources to meet its pension obligations. Our focus is on four key factors: the level of benefits, investment results, reporting assumptions, and the constitutional and legal requirements such as those covering funding levels and funding mandates.

Additionally, we examine the impact of management decisions on the viability of pension programs and the resulting credit implications. These management decisions may include reductions in plan contributions to meet a current budget, whether to under-fund a pension plan, and making a contribution that is less than a municipality's annual pension cost. Other "red flags" that may warn of potential fiscal distress are the changing of actuarial firms or committing limited municipal resources to new pension funding that is deferred until some future date.

WHAT CAN MAKE A RATING MOVE UP OR DOWN

Local government ratings generally remain outstanding for the life of the bonds. Moody's regularly reviews outstanding ratings through a ratings surveillance process. This process includes a review of annual financial disclosure documents, and may also include a phone call with management to discuss relevant trends, particularly if the credit profile appears to have changed since the last rating review.

Through regular monitoring, we evaluate changes that are absolute in nature (e.g. has the tax base size increased or decreased substantially? Are there material changes in financial reserves or liquidity?) as well as changes in relation to peers across the state and nation (e.g. do changes in unemployment rates mirror regional trends, or is the credit an outlier with regard to this economic indicator?) Modest changes in an entity's credit profile over short periods of time are not likely to result in rating movement; our focus instead is on more significant, multi-year trends. While economic factors carry the greatest weight in Moody's rating assignments, we have seen that over time, financial changes are most likely to drive rating movements. This reflects the fact that, generally speaking, economic changes tend to occur gradually; and that even in times of economic stress, managers have historically been able to take action in an effort to maintain stable credit quality.

Outlooks and Watchlist Provide Information Regarding Direction of Likely Rating Movement

In order to provide information regarding the short term and medium term direction of a particular rating, we employee outlooks and watchlist designations– to inform investors, issuers, and intermediaries of potential rating action.

A Moody's rating outlook is an opinion regarding the likely direction of an issuer's rating over the medium term. Where assigned, rating outlooks fall into the following four categories: Positive (POS), Negative (NEG), Stable (STA), and Developing (DEV – contingent upon an event). In the few instances were an issuer has multiple ratings with outlooks of differing directions, an "(m)" modifier (indicating multiple, differing outlooks) will be displayed, and Moody's written research will describe any differences and provide the rationale for these differences. A RUR (Rating(s) Under Review) designation indicates that the issuer has one or more ratings under review for possible change, and thus overrides the outlook designation. When an outlook has not been assigned to an eligible entity, NOO (No Outlook) may be displayed. Outlooks are employed for large or high profile issuers only; the vast majority of local government credits have no outlook assigned

Moody's uses the Watchlist to indicate that a rating is under review for possible change in the short term. A rating can be placed on review for possible upgrade (UPG), on review for possible downgrade (DNG) or more rarely with direction uncertain (UNC). A credit is removed from the Watchlist when the rating is upgraded, downgraded or confirmed.

Appendix A: General Obligation Rating Factors

Moody's methodology for rating U.S. local government general obligation bonds incorporates analysis of the following rating factors and subfactors:

1. Economic Strength (40%)
    a. Size and Growth Trend
        i. Tax base size
        ii. Historic growth trend
        iii. Future growth potential
    b. Type of Economy
        i. Industry concentration
        ii. Stability
        iii. Taxpayer concentration
    c. Socioeconomic and Demographic Profile
        i. Population trend
        ii. Poverty level
        iii. Full value per capita
        iv. Income
    d. Workforce Profile
        i. Unemployment rate
2. Financial Strength (30%)
    a. Balance Sheet/Liquidity
        i. General Fund balance as a % of General Fund revenues
        ii. Liquidity trend
    b. Operating Flexibility
        i. Revenue raising flexibility
        ii. Local control over expenditures
    c. Budgetary operations
        i. Trend of structurally balanced operations
        ii. Exposure to volatile revenue streams
        iii. Property tax collection rates
        iv. Exposure to state aid reductions

3. Management and Governance (20%)

a. Financial planning and budgeting

i. Trend of budget-to-actual performance

ii. Existence of and adherence to policies and procedures

iii. Multi-year budgeting practices

b. Debt Management and Capital Planning

i. Multi-year capital planning practices

ii. Management of risk related to variable rate debt and derivatives

iii. Existence of and adherence to debt policies

c. Economic Forecasting and Monitoring

i. Monitoring of economic performance

d. Governance Structure

i. Constructive relationship with elected officials

e. Disclosure

i. Timely disclosure of key documents

4. Debt Profile (10%)

a. Debt Burden

i. Net direct debt as % of full value

ii. Overall net debt as % of full value

b. Debt Structure and Composition

i. Amortization rate (10 years)

ii. Liquidity and budgetary risk related to variable rate debt or derivatives

c. Debt Management and Impact on Financial Flexibility

i. Debt service as % of total operating expenditures

d. Other Long Term Commitments and Liabilities

i. Pension funding ratio

Appendix B: Moody's Rating Definitions

WHAT IS A MOODY'S CREDIT RATING?

Moody's ratings are intended to provide capital market participants with a framework for comparing the credit quality of debt securities. A credit rating compresses an enormous amount of diverse information into a single symbol. Bonds with the same credit rating, therefore, may be comparable with respect to overall credit quality but may differ with respect to specific credit quality characteristics.

Aaa
Issuers or issues rated Aaa demonstrate the strongest creditworthiness relative to other US municipal or tax-exempt issuers or issues.

Aa
Issuers or issues rated Aa demonstrate very strong creditworthiness relative to other US municipal or tax-exempt issuers or issues.

A
Issuers or issues rated A present above-average creditworthiness relative to other US municipal or tax-exempt issuers or issues.

Baa
Issuers or issues rated Baa represent average creditworthiness relative to other US municipal or tax- exempt issuers or issues.

Ba
Issuers or issues rated Ba demonstrate below-average creditworthiness relative to other US municipal or tax-exempt issuers or issues.

B
Issuers or issues rated B demonstrate weak creditworthiness relative to other US municipal or tax- exempt issuers or issues.

Caa
Issuers or issues rated Caa demonstrate very weak creditworthiness relative to other US municipal or tax-exempt issuers or issues.

Ca
Issuers or issues rated Ca demonstrate extremely weak creditworthiness relative to other US municipal or tax-exempt issuers or issues.

C
Issuers or issues rated C demonstrate the weakest creditworthiness relative to other US municipal or tax-exempt issuers or issues.

Note: Moody's appends numerical modifiers 1, 2, and 3 to each generic rating category from Aa through Caa. The modifier 1 indicates that the issuer or obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category.

Appendix C: Moody's Local Government Financial Ratio Definitions

This appendix provides definitions of terms and ratios used in local government credit analysis.

Actual/Estimated Population, Annual Value

For a census year, this is the population within the boundaries of the local government as reported by the US Census. For other years, these are actual or estimated population figures reported by the local government itself or other sources.

Average Annual Increase in Full Value (%)

The compound average annual increase in Total Full Value over the preceding five-year period. Thus, the Average Annual Increase in Full Value reported for 2002 is the average annual increase over the period 1997 to 2002. In cases where five years of data are not available, this statistic is calculated for the preceding four-year period. In some states, where assessed values or equalization rates are reset on a two-year cycle, average annual increase may be calculated for the preceding six-year period.

Debt Burden (Overall Net Debt as % Full Value)

Overall Net Debt Outstanding divided by the fiscal year or most recent Total Full Value for the local government. Overall Net Debt Outstanding is equal to Direct Net Debt plus Overlapping Debt. Direct Net Debt is the local government's gross debt less sinking fund accumulations, short-term operating debt, and bonds and other debt deemed by Moody's analysts to be fully self-supporting from enterprise revenues. Direct Net Debt typically includes the non-self supporting portion of the local government's general obligation bonds, sales and special tax bonds, general fund lease obligations, bond anticipation notes, and capital leases. Overlapping Debt is the net debt of all overlapping and underlying units of local government that share the local government's property tax base, apportioned in accordance with property valuation.

Debt Service as % of Operating Expenditures

Debt service expenditures for all Operating Funds and debt service funds combined divided by Operating Expenditures.

Direct Net Debt Outstanding ($000)

The local government’s gross debt less sinking fund accumulations, short-term operating debt, and bonds and other debt deemed by Moody’s analysts to be fully self-supporting from enterprise revenues. Direct Net Debt typically include the non-self supporting portion of the local governments general obligation bonds, sales and special tax bonds, general fund lease obligations, bond anticipation notes, and capital leases.

Direct Net Debt as % of Full Value

Direct Net Debt Outstanding divided by the fiscal year or most recent Total Full Value for the local government.

Full Value per Capita ($)

Total Full Value divided by the fiscal year or most recent population for the local government.

General Fund Balance as % of Revenues

Total general fund balance as reported in the local governments financial statements divided by Total General Fund Revenues.

General Obligation Bonds Issued by U.S. Local Governments

General Obligation / Issuer Rating

In most states, the rating assigned by Moody's to the local governments General Obligation Unlimited Tax Bonds or, in the absence of GOULT debt, the Issuer (Implied General Obligation) rating assigned by Moody's. In some states, such as Texas and Nevada, where certain types of local government can only issue General Obligation Limited Tax Bonds, the rating shown is for the issuers GOLT debt.

Median Family Income

Median family income for residents within the boundaries of the local government as reported by the US Census.

Median Family Income as % of State

Median Family Income for the local government divided by Median Family Income for the state in which the local government is located.

Median Family Income as % of U.S.

Median Family Income for the local government divided by Median Family Income for the United States.

Operating Expenditures

Total expenditures for all Operating Funds and debt service funds combined including net transfers out and other uses as reported in the local government's financial statements. In some cases, Operating Expenditures may exclude certain items such as deposits of bond proceeds to refunding escrows which have been included in expenditures or other uses in the financial statements but which have been deemed by Moody's analysts to be non-recurring in nature. Note that when Operating Funds and debt service funds are combined to determine Operating Expenditures, transfers in are netted against transfers out.

Operating Funds Balance as % of Revenues

Total fund balance of all Operating Funds combined as reported in the local governments financial statements divided by Total Operating Funds Revenues.

Operating Funds

Operating Funds consist of the general fund as well as certain Special Revenue Funds that Moody's analysts have determined account for core governmental operations or operations that, in the case of similar local governments, would be accounted for in the general fund. Operating Funds include debt service funds for the calculation of the ratio

Debt Service as a % of Operating Expenditures.

Operating Funds generally do not include debt service funds for calculation of Operating Funds Balance, Operating Funds Balance as % of Revenues and similar ratios.

Overall Net Debt Outstanding ($000)

Direct Net Debt plus the net debt of all overlapping and underlying units of local government that share the local government's property tax base, apportioned in accordance with property valuation.

Payout, 10 Years

The percentage of current principal outstanding scheduled to be retired in the next 10 years.

Per Capita Income

Per capita family income for residents within the boundaries of the local government reported by the US Census.

Per Capita Income as % of State

Per Capita Income for the local government divided by Per Capita Income for the state in which the local government is located.

Per Capita Income as % of U.S.

Per Capita Income for the local government divided by Per Capita Income for the Unites States.

Population Change 1990-2000 (%)

The increase or decrease in population, expressed as a percent, within the boundaries of the local government from the 1990 Census to the 2000 Census.

Poverty Rate (%) (2000 Census)

Percentage of persons within the boundaries of the local government with incomes below the poverty level, as reported by the US Census.

Top Ten Tax Payers as % of Total, Most Recent Value

Total assessed value of the ten largest property taxpayers for the local government, divided by the total assessed value of the local government, for the most recent year for which largest taxpayer data are available. In some cases, largest taxpayer data are reported using levy figures rather than assessed value figures. In those cases this statistic is the total levy for the ten largest taxpayers as a percent of the total levy for all taxpayers of the local government.

Total Full Value ($000)

Estimated full market value of all taxable property within the boundaries of the local government as reported by local or state sources. Users of these data should be aware of significant variation in the methods and quality of property assessment from state to state and even among the municipal governments within a state. Definitions of taxable property also vary across the country, as does the dependability of equalization ratios used to convert assessed value to full value.

Total General Fund Revenues ($000)

Total revenues including transfers in and other sources for the general fund as reported in the local government's financial statements. In some cases, General Fund Revenues may exclude certain items such as bond proceeds which have been included in revenues or other sources in the financial statements but which have been deemed by Moody's analysts to be non-recurring in nature.

Total Operating Funds Revenues ($000)

Total revenues for all Operating Funds combined including net transfers in and other sources as reported in the local government's financial statements. In some cases, Operating Fund Revenues may exclude certain items such as bond proceeds which have been included in revenues or other sources in the financial statements but which have been deemed by Moody's analysts to be non-recurring in nature. Note that when Operating Funds are combined to determine Operating Funds Revenues, transfers in are netted against transfers out; as a result the value for Operating Funds Revenues may occasionally be less than the value General Fund Revenues.

Unreserved General Fund Balance as % of Revenues

Unreserved general fund balance as reported in the local governments financial statements divided by Total General Fund Revenues. In some cases, Unreserved General Fund Balance reported by Moody's may include certain amounts shown as reserves in the financial statements that Moody's analysts have deemed would be available to meet operating contingencies.

Unreserved Operating Funds Balance as % of Revenues

Unreserved fund balance of all Operating Funds combined as reported in the local governments financial statements divided by Total Operating Funds Revenues. In some cases, Unreserved Operating Funds Balance reported by Moody's may include certain amounts shown as reserves in the financial statements that Moody's analysts have deemed would be available to meet operating contingencies.

Unreserved, Undesignated General Fund Balance as % of Revenues

Unreserved, undesignated general fund balance as reported in the local governments financial statements divided by Total General Fund Revenues. In some cases, Unreserved, Undesignated General Fund Balance reported by Moody's may include certain amounts shown as reserves or designations in the financial statements that Moody's analysts have deemed would be available to meet operating contingencies.

Unreserved, Undesignated Operating Funds Balance as % of Revenues

Unreserved, undesignated fund balance of all Operating Funds combined as reported in the local governments financial statements divided by Total Operating Funds Revenues. In some cases, Unreserved, Undesignated Operating Funds Balance reported by Moody's may include certain amounts shown as reserves or designations in the financial statements that Moody's analysts have deemed would be available to meet operating contingencies.

General Obligation Bonds Issued by U.S. Local Governments

Report Number: 119982

Author	Senior Production Associate
Lisa Cole	Wendy Kroeker
	Judy Yuen

Moody's Investors Service