



# Moody's & Standard and Poor's Revised Methodology for Local Government General Obligation Debt

Prepared for City of Franklin, TN  
*Debt Management Policy Considerations*  
September 10, 2015



**The PFM Group**  
Public Financial Management, Inc.  
PFM Asset Management LLC  
PFM Advisors

# Introduction – Current Debt Affordability Benchmarks

---

The City has a detailed Debt Management Policy that was adopted by the Board of Mayor and Alderman in June 2009. Below outlines the current Debt Affordability within the City's policy:

- Total Budget Resources (*similar to SP Debt & Contingent Liability Score*)
  - Debt Service as a Percent of Operating Expenditures:
    - Total GO Debt: < 12%
    - Less Self-Supporting Debt: < 8%
  
- Wealth & Income of Community (*similar to Moody's and S&P Economy Score*)
  - Direct Debt Per Capita: < \$2,000
  - Per Capita Debt/Per Capita Income: < 3.00%
  
- Property Tax Base (*similar to Moody's Debt & Contingent Liability Score*)
  - Direct Debt as a percentage of Market Value: 0.4% - 0.8%
  - Debt Burden (Overall Net Debt as a percentage of Market Value): 3% - 6%

---

**Moody's Revised Methodology,  
January 16, 2014**

# Moody's: Scorecard & Qualitative Considerations

- Scorecard contains numerous metrics which capture, according to Moody's, the most critical aspects of an entity's credit profile.
- In addition to the scorecard, Moody's has incorporated numerous "below-the-line" adjustments to be considered within each overarching rating category.
- These additional circumstantial factors that may override the scorecard indication are primarily qualitative factors.
- Furthermore, Moody's has identified an extensive list of other considerations that can impact the metric-based scorecard rating where applicable.
- Moody's has clearly stated that the final rating may differ from the scorecard indicated rating based on additional qualitative factors.

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

# Moody's: Economy/Tax Base Score

Scorecard Category	Weight
Economy/Tax Base	30%
Finances	30%
Management	20%
Debt/Pensions	20%

- The ability to generate revenue is substantially driven by its surrounding economy, and the local wealth from which an entity's taxing power can draw from.
- The breadth and depth of property, sales, and income tax sources are all driven by the economic profile of an issuer.
- The type of economy may also be considered in this evaluation, as differences arise in the taxing power within industrial, retail, and service centers.

Subfactor	Weights
Tax Base Size (full value)	10%
Full Value Per Capita	10%
Wealth (median family income)	10%

## Below the Line Adjustments:

- **Institutional presence (positive)** – Institutions that strengthen the tax base, but are not captured in the full value per capita, such as universities or military bases.
- **Regional economic center (positive)** – Revenues being generated from non-permanent residents, which is not captured in the previously stated metrics.
- **Economic concentration (negative)** – Economies that lack economic diversity are subject to greater revenue volatility.
- **Outsized unemployment or poverty levels (negative)** – High unemployment or poverty levels, represents difficulty in raising revenues, maintaining revenue sources, and the potential of increased demand for services.

# Moody's: Finances Score

Scorecard Category	Weight
Economy/Tax Base	30%
Finances	30%
Management	20%
Debt/Pensions	20%

- An issuer's financial position is indicative of their ability to adapt to unexpected circumstances, meet existing obligations, and is a measure of overall flexibility. Metrics are associated with liquidity and financial trends
- Finances Score also includes an evaluation of management, measuring the accuracy of budgetary projections, use of historical trends and realistic economic indicators in these projections, and the frequency of updates.

Subfactor	Weights
Fund Balance (% of revenues)	10%
Fund Balance Trend (5-year change)	5%
Cash Balance (% of revenues)	10%
Cash Balance Trend (5-year change)	5%

## Below the Line Adjustments:

- **Outsized enterprise of contingent liability risk (negative)** – Outsized exposure to another entity's debt or financial standing which may present a liability not reflected in the other metrics.
- **Unusually volatile revenue structure (negative)** – If volatile, unpredictable, or economically sensitive revenue sources make up more than half of operating funds revenue, or if any single revenue source has changed by more than 10% in any one year over the past five, Moody's may notch this score downward.

# Moody's: Management Score

Scorecard Category	Weight
Economy/Tax Base	30%
Finances	30%
Management	20%
Debt/Pensions	20%

- The legal framework that an issuer operates under dictates the ability it has to access its revenue base, create budgetary stability, and maintain flexibility in meeting ongoing obligations.
- State level laws determine what revenue sources are available to an issuer, and what services they are required to provide.
- The institutional framework score represents the most qualitative section of the scorecard.
- All issuers within the same state and sector receive the same score in this category. This scoring will be updated annually, and is available from Moody's.

Subfactor	Weights
Institutional Framework	10%
Operating History	10%

## Below the Line Adjustments:

- **State oversight or support (positive or negative)** – State oversight structures can vary the ease with which a government can issue debt, raise taxes, or restructure labor contracts and will have an impact on the state's institutional framework score.
- **Unusually strong or weak budget management and planning (positive or negative)** – Moody's will adjust for circumstances when management has exhibited an unusually strong ability, or significant lack thereof, to achieve and plan toward balanced operations

# Moody's: Debt/Pensions Score

Scorecard Category	Weight
Economy/Tax Base	30%
Finances	30%
Management	20%
Debt/Pensions	20%

- High levels of leverage can lead to difficulties in meeting existing obligations and leave little room for additional borrowing.
- Debt burden is determined by reviewing these obligations relative to tax base and operating revenue.
- Pension liabilities are viewed within a similar context, *but using Moody's recently instituted adjusted net pension liability calculation.*

Subfactor	Weights
Debt to Full Value	5%
Debt to Revenue	5%
Moody's ANPL (3-year average) to Full Value	5%
Moody's ANPL (3-year average) to Revenue	5%

## Below the Line Adjustments:

- **Unusually strong or weak security features (positive or negative)** – Particularly strong (i.e. lock box setup where revenues never flow to an issuer's own accounts) or particularly weak (i.e. pension obligations treated superior to debt) security provisions will be taken into consideration.
- **Unusual risk posed by debt structure (negative)** – High short-term debt with minimal liquidity, significant variable rate debt or swap exposure, and debt concentrated in bullet maturities.
- **History of missed debt service payments (negative)** – Missed debt payments and past defaults, including lease revenue bonds, will be factored into the score based on the timeframe for a cure to the default, changes instituted as a result, and the reason for the original missed payment.



# Moody's: Final Scorecard Calculation

- The final scores for each metric are assigned a numerical value, and averaged according to their individual weighting.
- The final value produces an indicated rating based on the schedule provided below.

Rating Category	Aaa	Aa	A	Baa	Ba	B & Below
Numerical Score	1	2	3	4	5	6

Indicated Rating	Overall Weighted Score
Aaa	0.5 to 1.5
Aa1	1.5 to 1.83
Aa2	1.83 to 2.17
Aa3	2.17 to 2.5
A1	2.50 to 2.83
A2	2.83 to 3.17
A3	3.17 to 3.5
Baa1	3.50 to 3.83

Indicated Rating	Overall Weighted Score
Baa2	3.83 to 4.17
Baa3	4.17 to 4.50
Ba1	4.50 to 4.83
Ba2	4.83 to 5.17
Ba3	5.17 to 5.50
B1	5.50 to 5.83
B2	5.83 to 6.17
B3	6.17 to 6.50

---

# **Standard & Poor's Revised Methodology, September 24, 2013**

# S&P: Scorecard

---

- S&P scores seven different areas on a scale of 1 to 5 (1 = strongest; 5 = weakest), which will formulate a weighted average resulting in the indicative rating.

Category	Weight
Institutional Framework	10%
Economy	30%
Management	20%
Liquidity	10%
Budgetary Performance	10%
Budgetary Flexibility	10%
Debt & Contingent Liabilities	10%

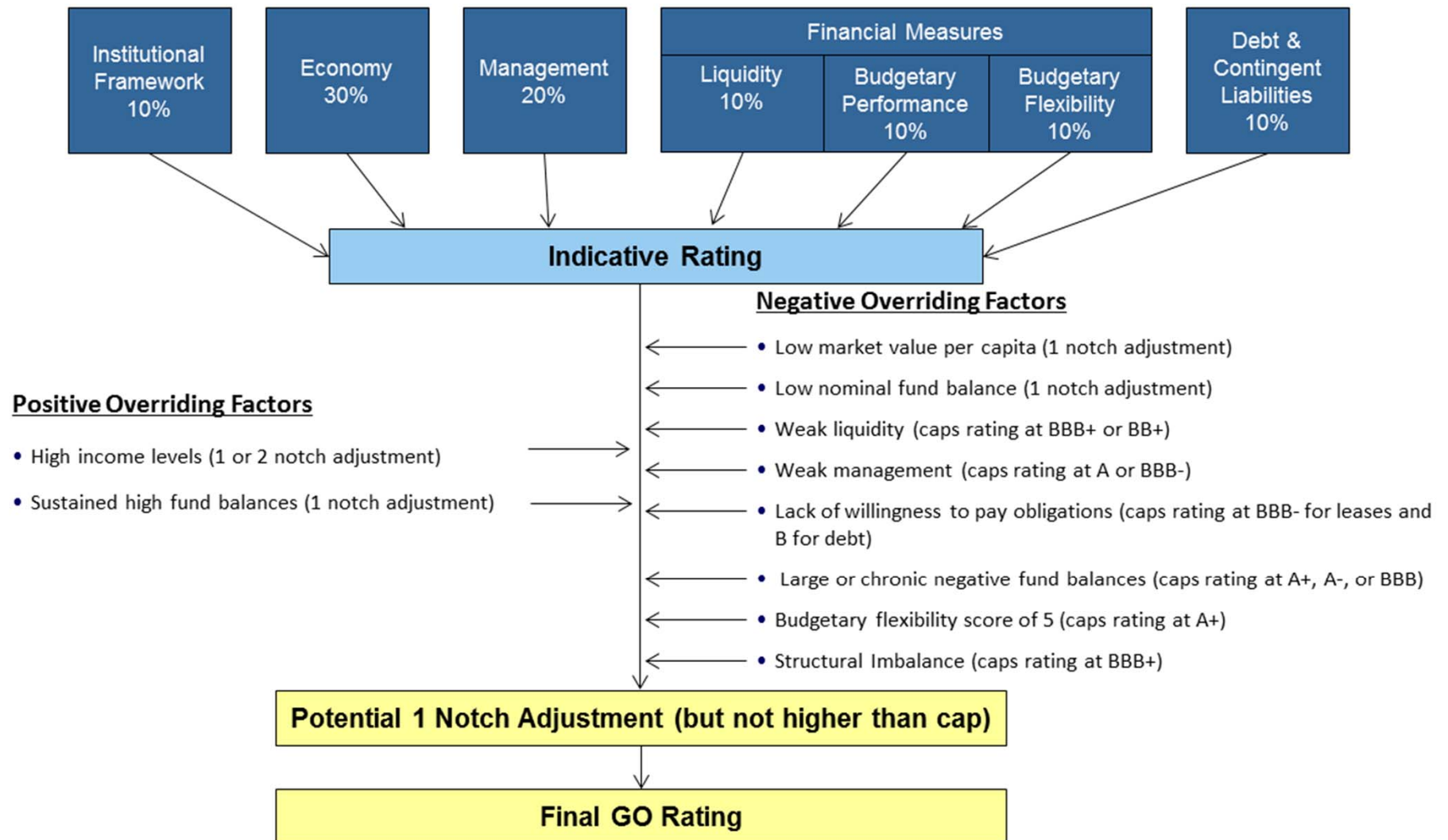
- Each individual category contains numerous qualitative factors that can impact the score positively or negatively.

# S&P: Overriding Factors

- The resulting indicative rating across all categories may be revised upward or downward, or capped, based on several overriding factors.

Overriding Factor	Category	Indicative Rating Adjustment
Projected per capita EBI > 225% of U.S. projected per capita EBI	Rating adjustments for certain economic measures	One Notch Increase
Projected per capita EBI > 300% of U.S. projected per capita EBI	Rating adjustments for certain economic measures	Two Notch Increase
Market value per capita < \$30,000	Rating adjustments for certain economic measures	One Notch Decrease
Available Fund Balance > 75% of general fund expenditures for the most recently reported year, the current year and next year and is expected to continue	Sustained large positive fund balances	One Notch Increase
Available Fund Balance < \$500,000	Low nominal fund balances	One Notch Decrease
Liquidity score of 4	Liquidity	Rating capped at BBB+
Liquidity score of 5	Liquidity	Rating capped at BB+
Management score of 4	Management	Rating capped at A One Notch Decrease
Management score of 5	Management	Rating capped at BBB- Two Notch Decrease
Management score of 5 due to a lack of willingness to support unconditional debt obligations	Management	Debt Not in Default Capped at B
Available fund balance < -10% of general fund expenditures for the most recently reported year or budget flexibility score of 5	Large or chronic negative fund balances	Rating Capped at A+
Available fund balance < -5% of general fund expenditures for the two most recently reported years	Large or chronic negative fund balances	Rating Capped at A-
Available fund balance < -5% of general fund expenditures for the three most recently reported years	Large or chronic negative fund balances	Rating Capped at BBB
Local government exhibited characteristics of structural imbalance expected to continue without a credible plan to restore balance	Structural Imbalance	Rating Capped at BBB+

# S&P: Analytical Framework



Source: S&P's U.S. Local Governments General Obligations Ratings: Methodology and Assumptions, September, 2013.

# S&P: Institutional Framework (10%)

---

- The institutional framework score analyzes the legal and practical environment in which a municipality operates.
- This score is the same for municipalities of the same type within a state, and S&P has produced a full listing of these scores for each state.
- The final score for this category is an average of four individually assessed areas:
  - **Predictability** – The extent to which a local government can forecast revenues and expenditures. Unexpected or recurring changes to these expectations, such as from voter actions, can impact this score.
  - **Revenue and Expenditure Balance** – The ability of a government to raise revenues, and control the services it provides.
  - **Transparency and Accountability** – The likelihood that adherence to comparable and relevant financial statements will be enforced.
  - **System Support** – The extent to which municipalities will receive state support under extreme circumstances.

# S&P: Economic Score & Qualitative Factors (30%)

- Assesses both the health of the asset base relied upon to provide both current and future locally derived revenues as well as the likelihood of additional service demands resulting from economic deterioration.

Projected per capita EBI as % of US	Total Market Value per Capita				
	>\$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 category score:
  - Participation in a larger broad and diversified economy
  - A stabilizing institutional influence with a longstanding role as a major employer, such as higher education, health care, military, or large and stable corporate presence
- Qualitative factors with a **negative** impact on the category score:
  - Negative budget impact from demographic profile
  - High unemployment rate (>10%)
  - Employment concentration where certain individual sectors represent more than 30% of the nonfarm work base
  - Tax base concentration where the top 10 taxpayers represent more than 35% of the tax base

# S&P: Management Score & Qualitative Factors (20%)

- The financial management assessment analyzes the impact of management conditions on the likelihood of repayment.
- The ability to react quickly and effectively to economic and fiscal demands is a key credit consideration for S&P.

Score	Characteristics
1	FMA score of "Strong" and none of the factors in scores 4 or 5 are present
2	FMA score of "Good" and none of the factors in scores 4 or 5 are present
3	FMA score of "Standard" and none of the factors in scores 4 or 5 are present
4	FMA score of "Vulnerable" or any of the following are present: <ul style="list-style-type: none"> <li>• There is a financial reporting statement that has a material negative impact</li> <li>• Any of the conditions in score 5 existed in the past 3 years</li> <li>• The structural imbalance override condition exists or has existed within the past 3 years</li> <li>• Very high debt, pension, or OPEB burden</li> </ul>
5	Regardless of FMA score, any of the following is present: <ul style="list-style-type: none"> <li>• A Management team that lacks relevant skills resulting in a weak capacity for planning, monitoring, and management</li> <li>• An auditor has delivered a going concern opinion</li> <li>• The government has shown an unwillingness to support a debt or capital lease obligation</li> <li>• The government is actively considering bankruptcy in the near term</li> </ul>

- Qualitative factors with a **positive** impact on the category score:
  - Consistent ability to maintain balanced operations
  - Government service levels are limited
- Qualitative factors with a **negative** impact on the category score:
  - 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
  - Consistent inability to execute approved structural reforms for two consecutive years



# S&P: Budgetary Flexibility Score & Qualitative Factors (10%)

- Measures the degree to which the government can create additional financial flexibility in times of stress.
- The ability of a government to raise additional revenue or reduce expenditures, outside of the measures captured by the institutional framework score, are covered by this factor.

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

- Qualitative factors with a **positive** impact on the category score:
  - If projections for the current year and the following year suggest a better initial score
  - Ability to avoid financial imbalances with demonstrated capacity and willingness to cut operations spending (more than 2%), resulting from a flexible cost structure, flexible legislation, and/or widespread political support
  - Existing state tax caps do not apply to or significantly impact the government
  - Demonstrated ability and willingness to raise taxes when needed
  - Timing of fiscal year and tax billing dates result in high cash with abnormally low fund balance levels
  - Maintenance of an available fund balance exceeding 30% of general fund expenditures for the most recently reported year, the current year, and next year
- Qualitative factors with a **negative** impact on the category score:
  - If projections for the current year and the following year suggest a worse initial score
  - High levels of questionable receivables or amounts due from other funds with deficit balances
  - Limited capacity to cut expenditures due to infrastructure of operational needs or political resistance
  - Limited capacity to raise revenues due to consistent ongoing political resistance which can include self-imposed restrictions through charter or local initiative processes
  - Where cash accounting is used, the criteria use cash balances instead of fund balances

# S&P: Budgetary Performance Score & Qualitative Factors (10%)

- The budgetary performance score measures the current fiscal balance of the government.
- The initial score reviews current balances, both from a general fund and total governmental funds perspective, with adjustments made for net transfers or capital expenditure smoothing.

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

- Qualitative factors with a **positive** impact on the category score:
  - Expected structural improvement: if projections for the current year and following year suggest a better initial score
- Qualitative factors with a **negative** impact on the category score:
  - Expected structural deterioration: If projections for the current year and following year suggest a worse initial score
  - Deferred payments on a cash basis: cases where good ratios hide significant under-spending due to deferred payments
  - Significant historic volatility in performance because of very cyclical revenues or exposure to event-related risks, and the sources of volatility remain

# S&P: Liquidity Score & Qualitative Factors (10%)

- The initial score measures the availability of cash and cash equivalents to service both debt and other expenditures.
- Cash balances determine the ability to engage in inter-fund borrowing.

	Total Governmental Cash as % of Total Governmental Funds Debt Service				
Total Cash as a % 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 category score:
  - Projections for the current year (and following year) suggest a better initial score
  - Access to external liquidity is viewed by S&P to be a credit positive
  - Very robust and stable internal cash flow general capacity compared with peers in this category
- Qualitative factors with a **negative** impact on the category score:
  - If projections for the current year (and following year) suggest a worse initial score
  - Access to external liquidity is viewed by S&P to be uncertain or limited
  - High refinancing risk over the next two years
  - Aggressive use of investments
  - Exposure to non-remote contingent liability risk that could come due within one year

# S&P: Debt & Contingent Liability Score & Qualitative Factors (10%)

- Debt service, relative to expenditure levels, determines the burden debt places on the government.
- Debt service, relative to revenues, determines the ability and ease of a government to meet these obligations.
- S&P calculates net direct debt as of the date of the rating analysis, including any potential issuances they are currently rating.

Total Governmental Funds DS as % of Total Governmental Funds Expenditures	Net Direct Debt as % of Total Governmental Funds Revenue				
	<30	30-60	60-120	120-180	>180
<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 category score:
  - Overall net debt as a percentage of market value below 3%
  - Overall rapid annual debt amortization, with more than 65% coming due in 10 years
- Qualitative factors with a **negative** impact on the category score:
  - Significant medium-term debt plans produce a high initial score when included
  - 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\*
  - Speculative contingent liabilities or those otherwise likely to be funded on an ongoing basis by the government representing more than 10% of total governmental revenue

\* On September 2, 2015 S&P Released a report: Incorporating GASB 67 And 68: Evaluating Pension/OPEB Obligations Under Standard & Poor's U.S. Local Government GO Criteria. While we expect their criteria will likely be unchanged, we will monitor any changes from S&P.

# Plan of Action with SP/Moody's Criteria

---

- Consider the framework/scorecard information available from the City's rating agencies to revise and improve the City's Debt Management Policy.
- Process would include the following:
  - Complete quantitative analysis on the City's existing credit to determine the scores of S&P and Moody's.
  - Complete stress test on how additional debt could impact the City's scores.
  - Suggest revisions and updates to the City's Debt Management Policy to incorporate the rating agencies metrics and the results of the previous tasks.