Moody's
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Moody's GO Bond Methodology and Key Rating Drivers for WI Local Governments

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Agenda

Moody’s Rating Process

Moody’s General Obligation (GO) Methodology

Key Drivers of Rating Changes

Moody’s Rating Process: New Sales

- Step 1: Assignment of the lead analyst upon notification of the sale.
- Step 2: Selection of a methodology based on the security of the debt. Examples of commonly-used methodologies for US local governments include GO; municipal utility revenue; special tax; and lease, appropriation, moral obligation and comparable debt.
- Step 3: Analysis of sale-related documents; legal information; tax base data; census information; audited financial data; debt and pension information; operating budgets; and capital improvement plans.
- Step 4: Discussions between the Moody’s analyst(s) and the issuer.
- Step 5: Moody’s rating committee determines the rating outcome.
- Step 6: The lead analyst communicates the rating outcome to the issuer and, after the issuer’s review of the draft report, publishes the rating and the credit opinion report.

Moody's Rating Process: Surveillance

- Once assigned, we monitor ratings continually. Many governments do not issue debt regularly, so we review their ratings outside of the sales calendar to ensure that they remain appropriately positioned.
  - Surveillance reviews are initiated when: updated financials are available, macro-level developments unfold, or credit-related events occur.
- The surveillance process involves multiple screens. Most ratings are deemed appropriate through the various filtering steps but some proceed to a rating committee for possible rating change.
- Ratings can be withdrawn due to a lack of sufficient information

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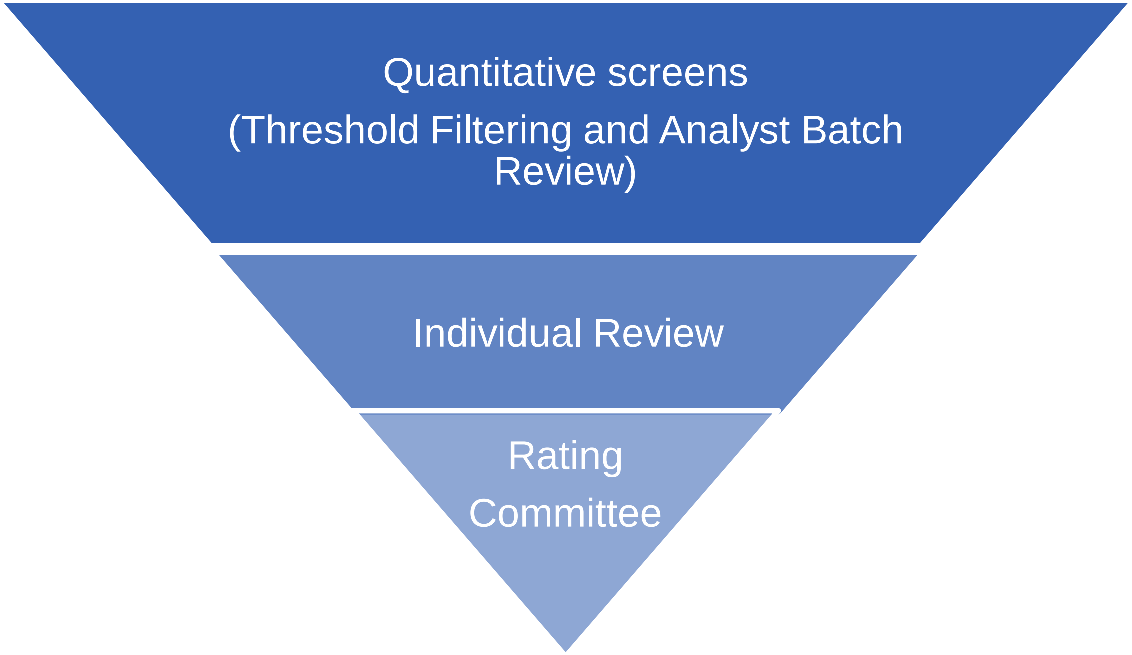

Moody's GO Methodology

Moody's GO Methodology

Scope of the GO Methodology:

- Applies to U.S. local governments issuing debt secured by a general obligation pledge
- Includes cities, counties, school districts, some community colleges and special districts

Goals of the GO methodology and scorecard factors:

- Enhance the transparency of our rating process
- Quantify factors that Moody's previously evaluated in qualitative ways
- Formally incorporate historical trend analysis
- Capture the key considerations that correspond to particular rating categories

Use of Methodology Scorecards

Purpose and Use of Methodology Scorecards:

- Enhance the transparency of our rating process
- Capture the key considerations that correspond to particular rating categories
- Not an exhaustive list of factors that we consider in every rating assignment
- Scorecards are mostly quantitative, but include some qualitative metrics
- May adjust up or down from scorecard-indicated outcome based on additional factors
- Scorecard acts as a starting point for a more thorough and individualistic analysis
- Final rating is determined by a Rating Committee after consideration of all relevant facts

Applying the Analytical Factors

- Analysts score each subfactor in the grid
- The weighted average of the analyst-assigned scores will determine a raw score that maps to Moody's rating scale → the grid-indicated outcome
- Analyst and Rating Committee will determine any additional factors beyond the enumerated scorecard values→ the adjusted scorecard outcome
- The final public rating may differ from the adjusted scorecard outcome
- Scorecards generally puts us in the right "zip code"

GO Methodology Factors

Factor 1: Economy and Tax Base (30%)

- Full Value (10%) measures market value of taxable property.
- Full Value Per Capita (10%) measures resources per resident.
- Median Family Income (10%) measures socioeconomic characteristics of the base.
- Other Considerations: Institutional presence; regional economic center; economic concentration; unemployment levels; poverty levels; other.

	Very Strong	*Strong*	*Moderate*	*Weak*	*Poor*	*Very Poor*
	Aaa	**Aa**	**A**	**Baa**	**Ba**	**B & Below**
ECONOMY AND TAX BASE (30%)						
Tax Base Size: Full Value (in 000s)	> $12B	$12B ≥ n > $1.4B	$1.4B ≥ n > $240M	$240M ≥ n > $120M	$120M ≥ n > $60M	≤ $60M
Full Value Per Capita	> $150,000	$150,000 ≥ n > $65,000	$65,000 ≥ n > $35,000	$35,000 ≥ n > $20,000	$20,000 ≥ n > $10,000	≤ $10,000
Socioeconomic Indices: MFI	> 150% of US median	150% to 90% of US median	90% to 75% of US median	75% to 50% of US median	50% to 40% of US median	≤ 40% of US median

GO Methodology Factors

Factor 2: Finances (30%)

- Fund Balance (15%) measures financial resources, relative to operating revenue, both at a point in time and over time.
- Cash Balance (15%) measures liquidity, relative to operating revenue, both at a point in time and over time.
- Other Considerations: Revenue structure; contingent liabilities; other.

	Very Strong	*Strong*	*Moderate*	*Weak*	*Poor*	*Very Poor*
	Aaa	**Aa**	**A**	**Baa**	**Ba**	**B & Below**
FINANCES (30%)						
Fund Balance as % of Revenues	> 30.0% > 25.0% for School Districts	30.0% ≥ n > 15.0% 25.0% ≥ n > 10.0% for SD	15.0% ≥ n > 5.0% 10.0% ≥ n > 2.5% for SD	5.0% ≥ n > 0.0% 2.5% ≥ n > 0.0% for SD	0.0% ≥ n > -2.5% 0.0% ≥ n > -2.5% for SD	≤ -2.5% ≤ -2.5% for SD
5-Year Dollar Change in Fund Balance as % of Revenues	> 25.0%	25.0% ≥ n > 10.0%	10.0% ≥ n > 0.0%	0.0% ≥ n > -10.0%	-10.0% ≥ n > -18.0%	≤ -18.0%
Cash Balance as % of Revenues	> 25.0% > 10.0% for School Districts	25.0% ≥ n > 10.0% 10.0% ≥ n > 5.0% for SD	10.0% ≥ n > 5.0% 5.0% ≥ n > 2.5% for SD	5.0% ≥ n > 0.0% 2.5% ≥ n > 0.0% for SD	0.0% ≥ n > -2.5% 0.0% ≥ n > -2.5% for SD	≤ -2.5% ≤ -2.5% for SD
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GO Methodology Factors

Factor 3: Management and Governance (20%)

- Institutional Framework (10%) measures the sector's legal ability to match revenues and expenditures.
- Operating History (10%) compares revenues and expenditures over time.
- Other Considerations: State oversight or support; unusually strong or weak management or planning; other.

	Very Strong	*Strong*	*Moderate*	*Weak*	*Poor*	*Very Poor*
	Aaa	**Aa**	**A**	**Baa**	**Ba**	**B & Below**
MANAGEMENT AND GOVERNANCE (20%)						
Institutional Framework	Very strong legal ability to match resources with spending	Strong legal ability to match resources with spending	Moderate legal ability to match resources with spending	Limited legal ability to match resources with spending	Poor legal ability to match resources with spending	Very poor or no legal ability to match resources with spending
Operating History: 5-Year Avg of Op Rev / Op Expend	> 1.05x	1.05x ≥ n > 1.02x	1.02x ≥ n > 0.98x	0.98x ≥ n > 0.95x	0.95x ≥ n > 0.92x	≤ 0.92x

WI Institutional framework scores

- Framework scores include an evaluation of governments' legal ability to adjust revenue and expenditures, as well as the predictability of revenues and expenses

Counties	**A**
Cities, Towns, Villages	**A**
School Districts	**A**
Community Colleges (CCD)	**Aa**

GO Methodology Factors

Factor 4: Debt and Pensions (20%)

- Debt (10%) measures long-term debt outstanding relative to tax base value and operating revenue.
- Pensions (10%) measures Moody's Adjusted Net Pension Liability (ANPL) relative to tax base value and operating revenue.
- Other Considerations: Unusual security features; unusual risk posed by debt and pension structure; fixed cost burden; overlapping debt and pension levels; history of missed debt service payments; other.

	Very Strong	*Strong*	*Moderate*	*Weak*	*Poor*	*Very Poor*
	Aaa	**Aa**	**A**	**Baa**	**Ba**	**B & Below**
DEBT AND PENSIONS (20%)						
Net Direct Debt / Full Value	< 0.75%	0.75% ≤ n < 1.75%	1.75% ≤ n < 4.00%	4.00% ≤ n < 10.00%	10.00% ≤ n < 15.00%	> 15.00%
Net Direct Debt / Operating Revenues	< 0.33x	0.33x ≤ n < 0.67x	0.67x ≤ n < 3.00x	3.00x ≤ n < 5.00x	5.00x ≤ n < 7.00x	> 7.00x
3-Year Average ANPL/ Full Value	< 0.90%	0.90% ≤ n < 2.10%	2.10% ≤ n < 4.80%	4.80% ≤ n < 12.00%	12.00% ≤ n < 18.00%	> 18.00%
3-Year Average ANPL/ Op Revenues	< 0.40x	0.40x ≤ n < 0.80x	0.80x ≤ n < 3.60x	3.60x ≤ n < 6.00x	6.00x ≤ n < 8.40x	> 8.40x

Supplementary Debt Information

- Alternate revenue debt
  - Most commonly a general obligation issuance that is also secured by an alternate revenue stream
    - Tax increment, sales tax, user fees, etc.
- Self-supporting debt:
  - In some instances, certain debt may be considered self-supporting and would be backed out of the entity’s direct debt burden
      - Essential service utilities (water and sewer systems)
      - Sum sufficient coverage each of the last three years

Pensions: New pension accounting improves transparency, has limited credit impact

- Moody's discounts the promised benefit payments using current market interest rate and treats pension benefits as bond-like obligations
- GASB net pension liability (NPL) now appears on government-wide balance sheets
  - Including participating governments' shares of cost-sharing plan (CSP) liabilities.
  - We already included CSP shares in Moody's ANPL
- GASB reporting still uses the assumed investment return as the primary discount rate
  - Some low-funded plans required to use a blended discount rate.
  - We continue to adjust reported liabilities using the Citigroup Pension Liability Index.
- New required disclosure of service cost is a big improvement
  - Represents the benefit accrual for work performed in the current year.
  - Allows comparison of the actual contribution to service cost plus interest on the NPL.
  - In other words, is there any actual NPL amortization built-in to contributions?

Key Drivers of Rating Changes

Downgrades

- Multi-year trends of material tax base depreciation coupled with being at or near tax rate maximums
- Trend of operating deficits resulting in declining reserves
- Elevated pensions liabilities, pension contribution shortfalls
- High dependence on state aid and absence of long-term financial plans

Upgrades

- Growing reserves despite sector pressures
- Moderate to low tax base depreciation
- Manageable direct and overlapping debt burdens
- Strong management teams with plans in place to mitigate exposure to the state

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