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# What is a Moody's Credit Rating?

# Agenda

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2. **What is the Rating Process?**
3. **What Does the Moody's Rating Scale Mean?**
4. **The Importance of Pensions**
5. **Rating Revision Trends**

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# What is a Moody's Credit Rating?

# What is a Moody's Credit Rating?

## Moody's ratings are not:

- » Ratings are not recommendations to purchase, sell, or hold particular securities
- » Ratings are not predictors of non-credit-related market price movements
- » Ratings are not audits, and do not guarantee the authenticity of information from issuers
- » Ratings are not public policy report cards, although politicians may use them as such
- » Ratings are not fixed; they may change over time
- » Rating analysts are not municipal advisors, investment bankers, nor consultants

# What is a Moody's Credit Rating: Methodology-Driven

## » Moody's ratings are:

- » Probabilistic opinions about future creditworthiness
  - » Performance judged by cohorts of ratings, not any one in isolation
- » Determined by committees and not by individual analysts
  - » 3-10+ members depending on complexity
  - » Diverse perspectives and expertise; geography and sector
  - » Majority vote
- » Based on published methodologies applied in a consistent manner
  - » Methodologies reviewed and refreshed as needed
  - » Scorecard tool is starting point for analysis; usually gets us in the right neighborhood
- » Based on verified, reliable information

# 2

## What is the Rating Process?

# 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 rating
- Analyst and Rating Committee will determine any notching factors → the adjusted scorecard rating
- The scorecard rating is a starting point → The final public rating may differ from the adjusted scorecard rating

# Rating Process: Objective, Independent

- » Analysts must be free of conflict of interest and must attest for each rating:
  - » that they have responsibility for this credit rating action based on their participation in the committee;
  - » that their participation and any other person's participation in the credit rating action was not influenced by other Moody's business activities;
  - » that the credit rating action was based solely on the merits of what is being rated; and
  - » that the credit rating action was an independent evaluation of the credit risk.
- » Strict separation of analytical and commercial staff
- » Related ratings are generally reviewed together, but committee votes on each rating independently



# 3

## What Does the Moody's Rating Scale Mean?

# Formal Rating Definitions – A Spectrum of Credit Risk

- Aaa: judged to be of the highest quality, subject to the lowest level of credit risk.
- Aa: judged to be of high quality and subject to very low credit risk.
- A: judged to be upper-medium grade and subject to low credit risk.
- Baa: judged to be medium-grade and subject to moderate credit risk and as such *may possess certain speculative characteristics*.
- Ba: judged to be speculative and subject to substantial credit risk.
- B: considered speculative and subject to high credit risk.
- Caa: judged to be speculative of poor standing and subject to very high credit risk.
- Ca: highly speculative and likely in, or very near, default, with some prospect of recovery of principal and interest.
- C: the lowest rated and typically in default, with little prospect for recovery of principal or interest.

# Parsing the B-Range Ratings

Baa-B encompasses a continuum between investment grade and default;  
Baa-Ba dividing line isn't a cliff between likely payment and likely default.

Baa: medium-grade, subject to moderate credit risk; may possess certain speculative characteristics.

Ba: speculative and subject to substantial credit risk.

B: speculative and subject to high credit risk.

Historical Corporate Default Experience

Rating	Year 1	Year 2	Year 3	Year 4	Year 5
A	.06%	.20%	.43%	.67%	.95%
Baa	.17%	.50%	.89%	1.36%	1.85%
Ba	1.11%	3.06%	5.36%	7.81%	10.03%
B	3.89%	9.23%	14.66%	19.43%	23.79%
Caa-C	15.78%	26.82%	35.56%	42.55%	48.56%

# A Credit Is a Candidate for Ba When:

The Ba message to investors is “default unlikely but be aware of these risks”

Default is not likely *but risks are present* that must be acknowledged

- » Substantial negative fund balance created by trend of deficits
  - Fund balance analysis should ‘look through’ deficit financing or deferral of pension funding
- » Poor liquidity that is market-access dependent
- » Weak or declining revenue/tax base that limits ability to grow revenues
  - Revenue structure that worsens revenue situation (e.g., Wayne County)
- » Rising or unsustainable trends for fixed and essential-function costs
- » State support has become necessary in various forms
  - Active managerial oversight, if not outright takeover of key functions
  - *Liquidity via loans or special borrowing programs*
  - Direct infusions of additional aid
- » Inability to withstand additional shocks

# A Credit Is a Candidate for B When:

Message of the B category: “default risk is material even if loss may be minimal”

- » Default risk still under 50% but danger is mounting
  - Liquidity is extremely tenuous
  - Feasible solutions are not materializing; corrective options are dwindling
  - Market access is questionable or very weak
  - State support may be wavering
  - Approaching service level insolvency
  - High vulnerability to shocks; little remaining resilience
  
- » A credit may remain in the B category *even if default is very likely or has occurred*, to the extent that loss upon default is reasonably expected to be minimal (i.e., recovery of 95% or greater).

# 4

## Importance of Pensions within Local Government Methodology

# Multi-faceted effort by Moody's to incorporate growing pension risk into credit analysis

- » Pension task force, dedicated specialists, ongoing analyst training
- » Robust data collection for state and rated local government pension plans, including cost-sharing plans
- » Standardized balance sheet adjustments
- » Greater weight assigned to pension risk than in pre-2013 state and local government rating methodologies (10% in each)
- » Improved measures of strength/weakness of reported annual contributions
- » Increased research and publication emphasis

*We identified pension liabilities as a growing and systemic area of risk for the US public sector after the 2008 financial crisis and ensuing recession*

# Pensions a driving factor in Chicago downgrades

- » Years of contribution shortfalls, relative to actuarial standards, have driven sharp growth in city's unfunded liabilities
- » State supreme court view of pension protection heightens reform risk
- » City's attempt to smooth public safety contribution spike further defers costs, increases risk of plan insolvency
- » Single tax base heavily leveraged by overlapping debt and liabilities of city, school district and county

City	Rating	Overall Debt and ANPL	Overall Debt and ANPL Per Capita	Overall Debt and ANPL per Tax Base Valuation
Chicago	Ba1/NEG	\$71 billion	\$26,264	38%
Detroit (pre-Ch. 9 adjustment)	B2/POS	\$10 billion	\$13,971	62%
New York City	Aa2/STA	\$153 billion	\$18,229	18%
Philadelphia (reflects 2014 re-assessment)	A2/STA	\$17 billion	\$11,010	17%

Sources: Moody's Investors Service, issuer and pension plan CAFRs



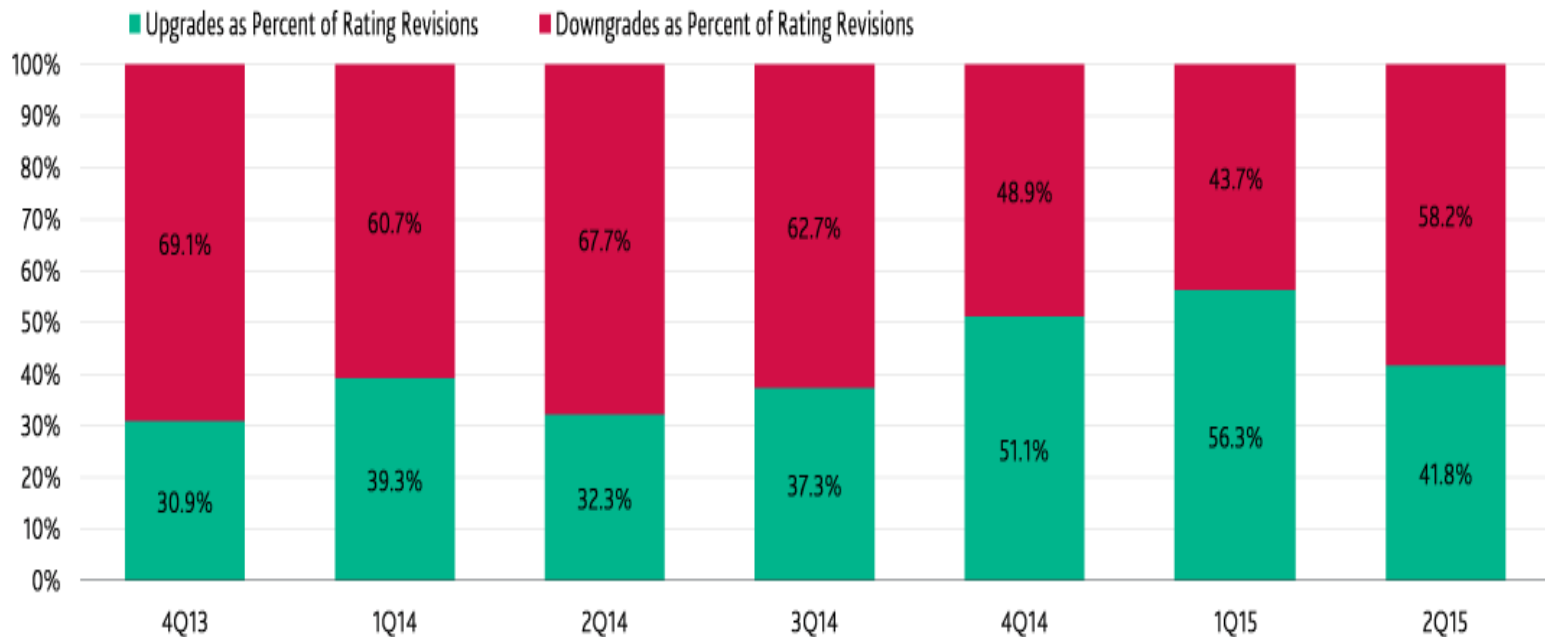
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## Rating Revision Trends

# Downgrades increasing as a % of total rating changes

## Rating revisions impacted 2% of all Moody's rated public finance obligors

Downgrades were 58% of Rating Revisions in Q2



Source: Moody's Investors Service

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