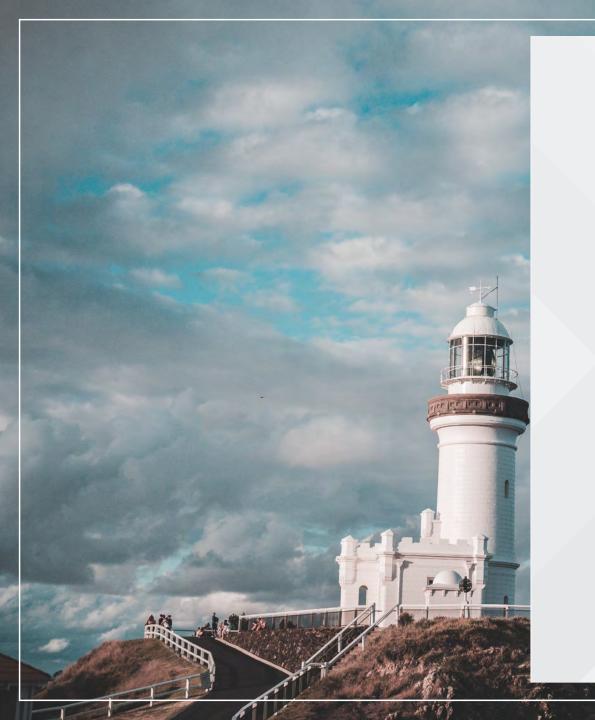
FitchRatings

Maryland Spring GFOA 2023 Rating Agency Update: Fitch Ratings

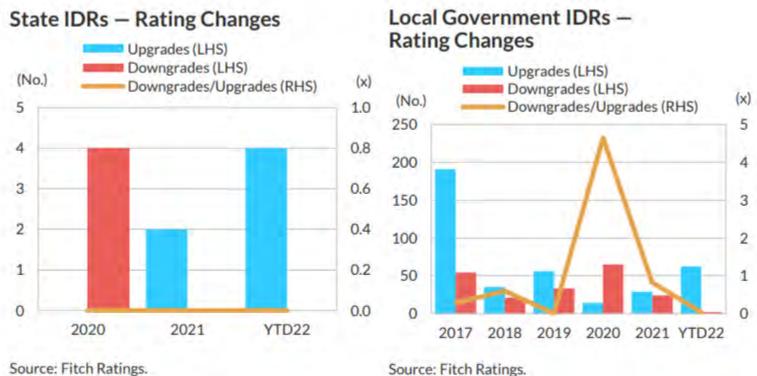
Evette Caze, Director, U.S. Local Governments – Tax Supported



1

Local
Government
Sector Outlook

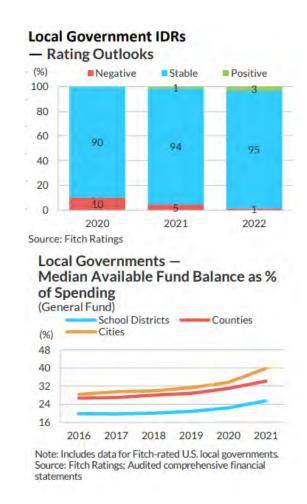
Fitch Ratings- More Upgrades than Downgrades in 2022



Source: Fitch Ratings.

Majority of Ratings in 2022 on Stable Outlook

- In 2022, 95% of Local Government ratings had a Stable Outlook
- The stability in 2022 reflects the fundamental strengths of state and local governments, including broad and diverse revenue bases, control over revenues and spending, moderate long-term liabilities and sound financial cushions
- Local Government Medians indicate healthy available general fund balances as a % of spending



Fitch's 2023 US State & Local Government Outlook

Ample Fiscal Capacity Offsets Weakening Economy

Core Credit Drivers: States and Local Governments

	R	Revenues			Expenditures			Financial Profile		
Subsectors	Personal Income/ Affordability	Real- Estate Values	Demand/ Volumes		Labor Availability	Non-Labor Operating Costs	Input			Financial Reserves & Liquidity
States and Local Governments	Į.	7	N.A.	>	`	\leftrightarrow	7	7	>	\leftrightarrow

Note: N.A. not a material driver of credit quality in sector; ↑ improving - high relevance; ≯ improving - moderate relevance; ↔ neutral; ↘ deteriorating - moderate relevance; ↓ deteriorating - high relevance.

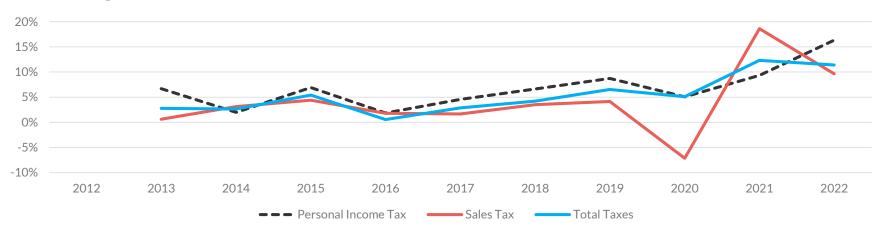
Source: Fitch Ratings.

Things to Watch

- Likely budgetary pressures from revenue growth slowdown
- Expenditure pressures, particularly from wage pressures and inflation
- Housing market: deceleration/decline in prices

Slower Growth Expected for Income Tax Revenues



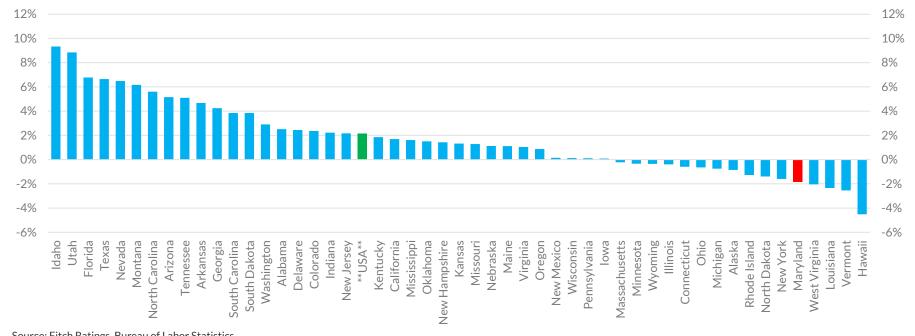


- Personal income tax revenue grew by substantially between 2020 and 2022
- Fitch Ratings expects a slowdown in economic growth in 2023
- The Fed's aggressive tightening cycle will increasingly weigh on job growth in 2023

Maryland's Employment Trends

Maryland's employment trends were more affected, and recovered more slowly than many other states.

U.S. States: Nonfarm Payroll - Feb 2023 % Change Since Feb 2020



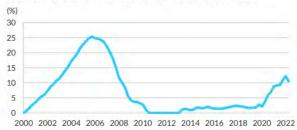
Source: Fitch Ratings, Bureau of Labor Statistics.

Housing Prices

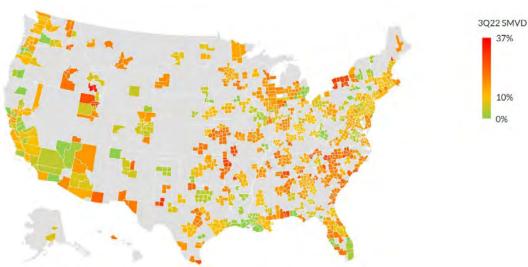
- Among the top 50 most populated MSAs,
 Baltimore –Columbia-Towson, is estimated to be just 5-9% overvalued
- The slowing of the residential housing market could affect taxable assessed valuations

Fourth-Quarter 2022

National Home Prices Currently 10.5% Overvalued



Fitch's Overvaluation Estimate (3Q22)



What to Watch

- Lingering Effects of Inflation
- Impact of Spend Down of Federal Funds on Budgets
- Cost of Capital & Labor
- Increasing Pension Costs
- Educational Funding Pressures



Credit Considerations

- Fitch believes the outlook for US state and local governments currently have sound financial cushion for all but a few issuers, relative to a challenging credit environment in the near-term
- Fundamental credit strengths for Maryland local governments include solid control over revenues and spending, moderate to low long-term liability burdens
- Local budget policy choices to counteract a slowing economic environment
- Spending needs driven by labor and infrastructure; tight labor markets may pressure compensation demands and infrastructure needs will drive pace of spending
- Pension Fund losses due to weakening in pension valuations from shifts in asset values.



Thank you

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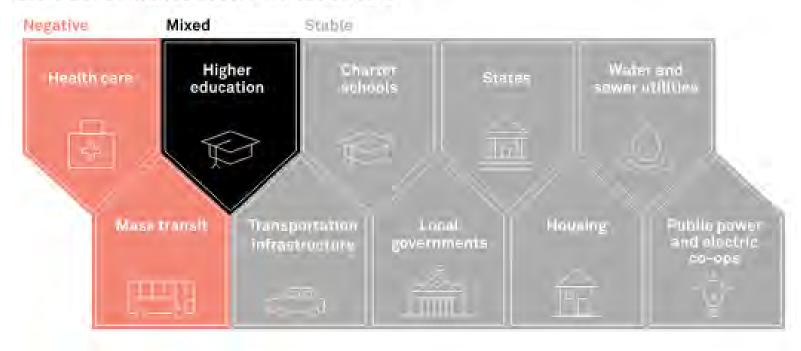
Maryland GFOA Spring Conference: Maryland Local Government Credit Conditions

Kaiti Vartholomaios Associate Director US Public Finance Local Governments - East



Big Picture - U.S. Public Finance Sector Outlook for 2023

U.S. Public Finance Sector Views For 2023



- Health Care and Mass Transit outlooks remain negative.
- While Higher Education's outlook was revised to mixed on January 18, 2023.
- In our opinion, credit conditions have weakened, but remain stable for a majority of sectors.

Mixed=some negative, some positive. Source: S&P Global Ratings.

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For more, see "2023 Credit Outlook For U.S. Public Finance: Credit Headwinds Accelerate" published on January 31, 2023, on Ratings Direct



Drilling down - Sector Outlook For Local Governments

What We're Watching -- U.S. Local Governments

Federal stimulus

ARPA and other federal stimulus can help maintain credit quality and provide liquidity for many LGs

Looming recession

Federal aid helps with downside cushion, but a deteriorating economy could still disrupt stability

Inflation implications

Higher costs affect labor, materials, borrowing, etc., and could have long-term implications



Housing market

Slower housing market should cool prices, but an extended slowdown could affect tax base



State credit health

State credit strength lessens the chance for cuts to locals and supports economic stability



Wildcards

- · RTO/downtown core
- · Unemployment
- Infrastructure needs

For more, see "Outlook For U,S, Local Governments: Reserves And Agile Management Will Provide Stability in A Recession" published on January 10, 2023, on Ratings Direct

All About Maryland – Key Factors

Credit Fundamentals

- Strong economic characteristics, with above- average wealth and income indicators, supported by the broad and diverse Washington-Arlington-Alexandria and Baltimore-Columbia-Towson MSAs
- A quick economic recovery particularly in the state's higher-wage industries, resulting in lower unemployment figures relative to national levels
- Strong financial performance and budgetary flexibility bolstered by good growth in property and income tax revenues
- Financial Management Assessments (FMAs) we typically consider good or strong, indicating the use of formalized financial policies and practices by most management teams
- Since January 2022, two LG credits within the state were placed on CreditWatch Negative, one of which was returned to stable, and one of which remains on CW Negative due to lack of timely information
- Otherwise Maryland LG credit ratings remained unchanged since 1/1/2022 demonstrating resiliency and strength in the portfolio.

42% of the portfolio is AAA, while 94% is AA- or higher.

12Munis

Organization



Aberdeen	AA+	Stable		
Annapolis	AA+	Stable		
Baltimore Mayor & City Council	AA	Stable		
Bowie	AAA	Stable		
Cheverly Twn	AA±	Stable		
Cumberland Mayor & City Council	A	Stable		
Frederick City	AA+	Stable		
Hagerstown	AA	Stable		
Mayor and City Council of Ocean City	AA+	Stable		
Mayor and Council of Rockville	AAA	Stable		
Salisbury	AA	Stable		
Westernport Twn	A+	Stable		
Organization	Rating	Outlook		
Allegany Cnty	AA-	Stable		
Anne Arundel Cnty	AAA	Stable		
Baltimore Cnty	AAA	Stable		
Calvert Crity	AAA	Stable		
Caroline Cnty	AA-	Stable		
Carroll Cnty	AAA	Stable		
Cecil Cnty	AA+	Stable		
Charles Cnty	AAA	Stable		
Dorchester Cnty	AA-	Watch Neg		
Frederick Cnty	AAA	Stable		
Harford Cnty	AAA	Stable		
Howard Cnty	AAA	Stable		
Montgomery Cnty AAA		Stable		
Prince George's Cnty	AAA	Stable		
Queen Annes Cnty	AAA	Stable		
St Marys Cnty	AA+	Stable		
Washington Cnty	AA+	Stable		
Wicomico Cnty	AA+	Stable		
Worcester Crity AA+		Stable		

Rating

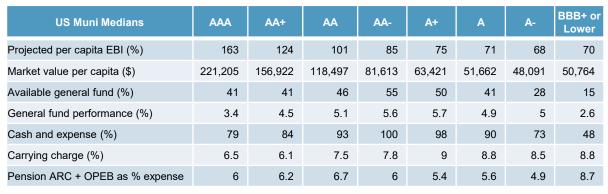
Outlook

For more information see "U.S Local Governments Credit Brief: Maryland Counties and Municipalities" published April 10, 2023 on RatingsDirect. All Ratings are as of 30 March 2023.

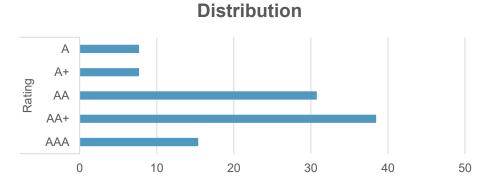


MD Municipalities – Medians & Ratings Distribution

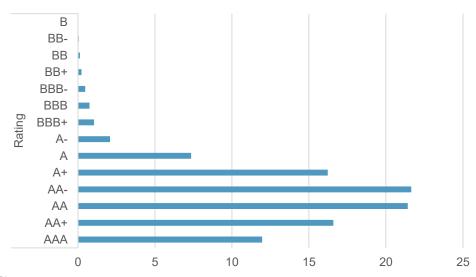
MD Muni Medians	AAA	AA+	AA	A+	A-
Projected per capita EBI (%)	149	115	65	54	67
Market value per capita (\$)	178,283	136,217	75,844	32,461	53,858
Available general fund (%)	50	52	33	379	40
General fund performance (%)	4	10.3	1.6	15.1	9
Cash and expense (%)	109	76	53	259	21
Carrying charge (%)	4.6	5.6	4.3	2.8	11.6
Pension ARC + OPEB as % expense	4.2	9.5	10.3	2.3	7.2



Maryland Municipalities: Rating



US Municipalities: Rating Distribution

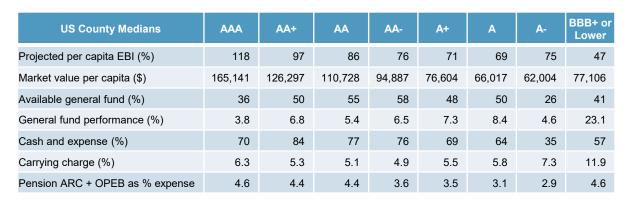


For more information see "U.S Local Governments Credit Brief: Maryland Counties and Municipalities" published April 10, 2023 on RatingsDirect

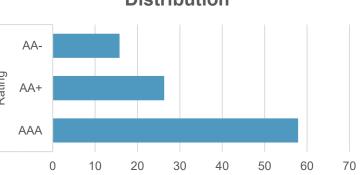


MD Counties – Medians & Ratings Distribution

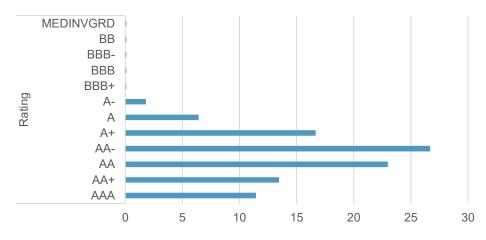
MD County Medians	AAA	AA+	AA-
Projected per capita EBI (%)	119	90	83
Market value per capita (\$)	137,323	102,456	79.368
Available general fund (%)	21	35	30
General fund performance (%)	3.2	7.9	4.6
Cash and expense (%)	38	39	49
Carrying charge (%)	6.7	6	6.3
Pension ARC + OPEB as % expense	4.1	3.7	2.6



Maryland Counties: Rating Distribution AA-Rating



US Counties: Rating Distribution

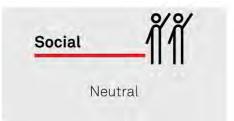


For more information see "U.S Local Governments Credit Brief: Maryland Counties and Municipalities" published April 10, 2023 on RatingsDirect



Emerging Risks in MD – ESG and Cybersecurity







- We believe the state faces a number of environmental risks, including polluted stormwater runoff in Chesapeake Bay, the nation's largest estuary; sealevel rise, particularly for Maryland's eastern and southern LGs; flooding; and extreme hurricane events intensified by warming Atlantic Ocean waters.
- According to Office for Coastal Management, 72% of Maryland residents live in coastal areas including 3,190 miles of shoreline

- We view social capital risk as neutral overall
- The state maintains aboveaverage income and wealth levels and moderate population growth averaging nearly 9% each decade since 1990.
- According to state projections, population growth is expected to continue in the long term, but at a slower rate, averaging an estimated 4%-5% each decade through 2040.

- We view governance factors as strong and as an opportunity
- Maryland LGs have considerable revenue-raising ability and can increase tax rates without voter approval.
- The state as well as its LGs in Maryland maintain a strong S&P Global Ratings' institutional framework score, indicating the legal and practical environment in which the state and LGs operate is strong.
- The vast majority of Maryland LGs maintain either a good or strong FMA, indicating governments maintain formalized and well-embedded financial practices and policies, in addition to strong internal controls.

Cyber Trends and Credit Risks

- S&P Global Ratings continues to see an increasing number of attacks on U.S. public finance entities, to where cyber is now a daily part of risk management and operations for most issuers.
- Cyber risk has moved beyond a specialized aspect to a near-ubiquitous priority that is integral to riskmanagement frameworks, but adoption of baseline cyber-security standards and frameworks still varies across public finance entities.
- Evolving credit risks include the changing nature of threats, rising cyber-insurance costs, third-party vendor exposure, and regulatory uncertainty. We think issuers will need to adapt to maintain credit quality.
- USPF issuers that exhibit inadequate cyber-risk management and oversight that is ineffective in mitigating risk is incorporated into our credit rating analysis, and it could result in a negative rating action.

For more information see "U.S Local Governments Credit Brief: Maryland Counties and Municipalities" published April 10, 2023, "ESG Brief: Cyber Risk Management In U.S. Public Finance" published June 28, 2021, and As Threats Rise, U.S. Public Finance Entities Take On Mounting Challenges To Secure The Digital Front Line published October 25, 2022, on Ratings Direct.



Conclusion

Strong credit conditions and resiliency during the pandemic bodes well for the stability of local government ratings in the short- to medium-term

Nevertheless, there are headwinds in the near term:

- Economic slowdown or recession?
- Inflationary pressures on expenditure; impact on costs and liabilities
- Environmental / social / governance (ESG) issues



- · Demographic trends and the coinciding effect on capital and infrastructure needs
- · Potential contraction in real estate values following years of strong growth could slow increases in property tax revenues
- Continued increases in county education funding related to the Kirwan Commission · Unemployment rates and income trends, particularly in areas with tourism
 - dependent economies
 - · Pension funding and potential for rising costs to support plans

Portfolio-

· Maryland residents face a number of environmental risks, including physical Specific Factors risks from rising sea levels along the Atlantic Ocean and Chesapeake Bay, offset in part by the state's active management of the Chesapeake watershed and runoff, enacted fees to provide funding for state and local resilience projects, and adopted legislation with the goal of reducing greenhouse gas emissions

For more information see "U.S Local Governments Credit Brief: Maryland Counties and Municipalities" published April 10, 2023 on RatingsDirect

Any Questions?



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Moody's Update

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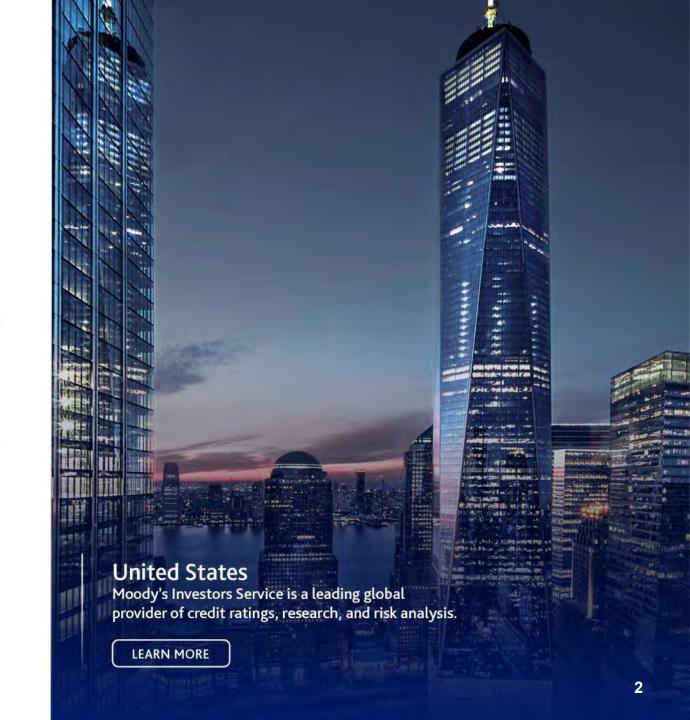
Credibility

Over 100 years of experience delivering forward-looking, independent, stable and transparent opinions



Engagement

Meaningful interactions across multiple channels between our analysts and market participants



Agenda

- 1. Overview of Cities and Counties Methodology
- 2. Issuer rating
- 3. Instrument rating
- 4. Overview of Maryland Ratings
- 5. Questions





Overview of Cities and Counties Methodology

Moody's Update

US Cities and Counties methodology development



Develop methodology proposal



Publish Request for Comment



Receive market feedback



Consider comments



Publish final methodology (November 2)

Key Changes and Benefits



Cities and counties are assigned an issuer rating that reflects their fundamental credit quality, absent the benefit of any specific legal security or additional structural enhancements



Debt instrument ratings are assigned in relation to the issuer rating



Financial performance and leverage metrics incorporate all of the issuer's governmental and business-type activities



Reduced number of notching factors



Heightens the focus on credit drivers specific to cities and counties rather than a particular security pledge



Enhances the consistency of our analysis through a holistic approach which includes all functions of the issuer



Brings greater transparency to the rating process by providing more systematic clarity to credit considerations



Follows the sector-based approach established by the US K-12 Public School Districts and US States and Territories methodologies



Common drivers of potential rating changes



- Tax base size has not proven to be a predictor of credit strength or weakness.
- Some instrument ratings were placed on review for potential change even though the issuer rating was not.

MOODY'S INVESTORS SERVICE



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Issuer Rating

Moody's Update

Issuer and instrument ratings



Issuer Rating

Fundamental credit quality

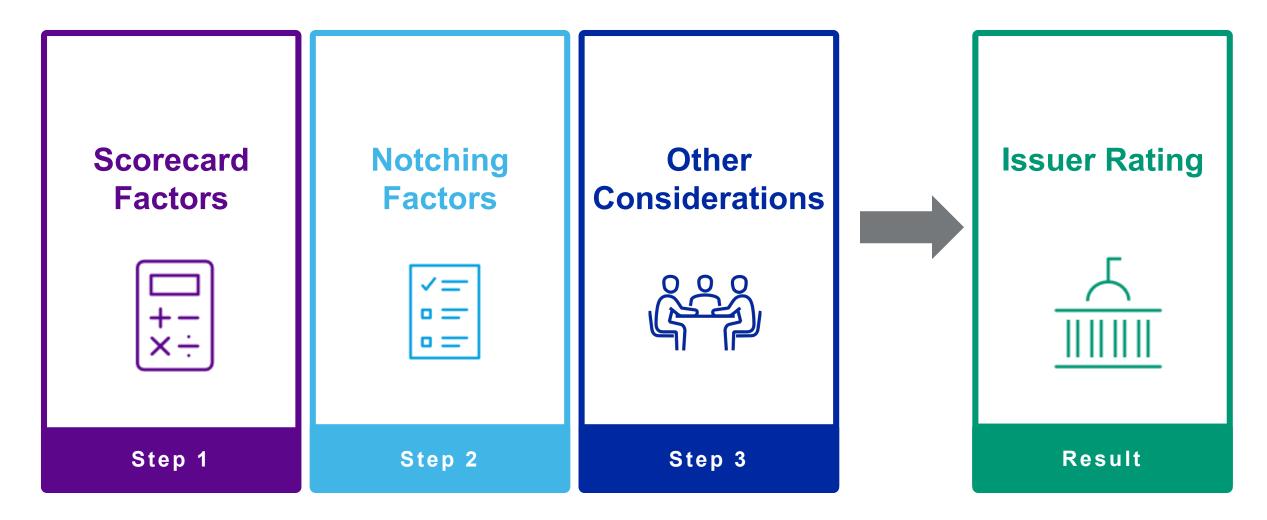
Instrument Considerations

Evaluation of debt instrument characteristics

Instrument Rating

Placed in relation to the issuer rating

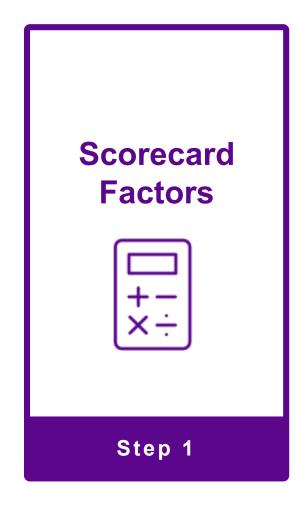
Arriving at the issuer rating



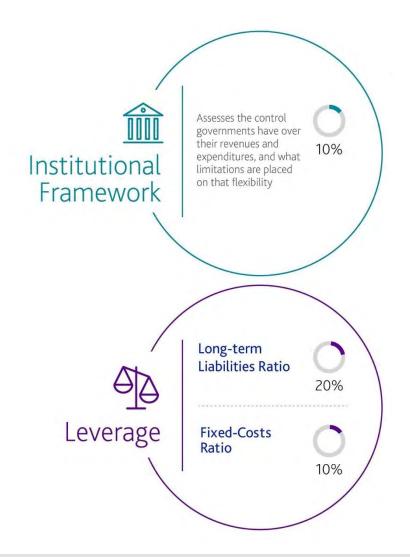
MOODY'S INVESTORS SERVICE Moody's Update, April 2023

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Arriving at the issuer rating – Step 1



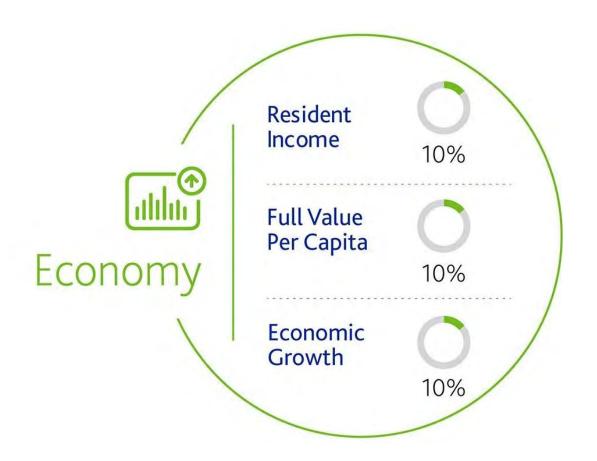




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MOODY'S INVESTORS SERVICE Moody's Update, April 2023

Scorecard Factor 1: Economy

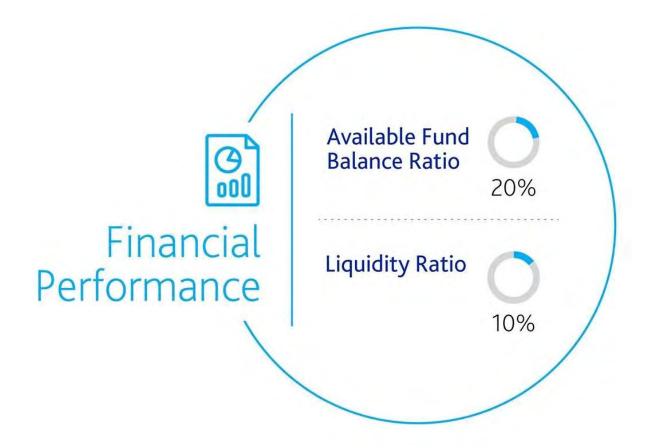


Sub-factor	Sub-factor calculation
Resident Income (10%)	MHI adjusted for RPP / US MHI
Full Value Per Capita (10%)	Full valuation of tax base / population
Economic Growth (10%)	Difference between 5- year CAGR in real GDP and 5-year CAGR in real US GDP

12

MOODY'S INVESTORS SERVICE Moody's Update, April 2023

Scorecard Factor 2: Financial Performance



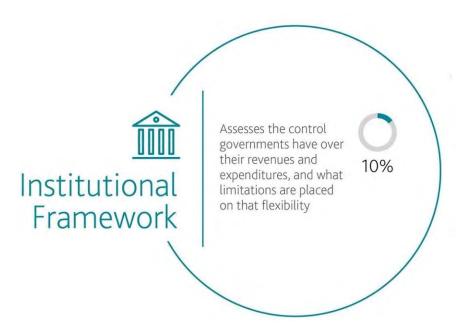
Sub-factor	Sub-factor calculation
Available Fund Balance Ratio (20%)	(Available fund balance + net current assets) / revenue
Liquidity Ratio (10%)	Unrestricted cash / revenue

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Treatment of funds in scorecard ratios

	_	ose District GO (formerly nment GO) Methodology	City and County Methodology	
	Reflected in scorecard ratios	Not reflected in scorecard ratios; only considered outside scorecard ratios	Reflected in scorecard ratios	Not reflected in scorecard ratios; only considered outside scorecard ratios
Governmental Funds	Typically the general fund, debt service fund, and other operating funds	Typically all other governmental funds, including capital project funds and non-major special revenue funds	All	None
Enterprise Funds	None	All	All	None
Discretely-Presented Component Units	None	All	None	All

Scorecard Factor 3: Institutional Framework



Aaa	Aa	A	Baa	. Ba	В
The majority of	The majority of				
revenue is not	revenue is subject	revenue is subject	revenue is subject	revenue is subject	
subject to	to externally	to externally	to externally	to externally	to externally
externally	imposed caps but	imposed caps but	imposed caps and	imposed caps and	imposed caps and
imposed caps and		the governing	the governing	the governing	the governing
the governing		body can increase	body can increase	body cannot	body cannot
body can increase	revenue	revenue	revenue only	increase revenue	increase revenue.
revenue	meaningfully	moderately	minimally	without the	
meaningfully	without the	without the	without the	approval of	Or:
without	approval of	approval of	approval of	voters or other	
limitation or	voters or other	voters or other	voters or other	governments.	The ability to
without approval	governments.	governments.	governments.		meaningfully
of voters or other				Or:	reduce
governments.	Or:	Or:	Or:		expenditures is
				The ability to	extremely
And:	The ability to	The ability to	The ability to	meaningfully	constrained by
	meaningfully	meaningfully	meaningfully	reduce	externally
The ability to	reduce	reduce	reduce	expenditures is	imposed
meaningfully	expenditures is	expenditures is	expenditures is	very heavily	mandates or
reduce	mildly	moderately	heavily	constrained by	restrictions.
expenditures is	constrained by	constrained by	constrained by	externally	
not constrained	externally	externally	externally	imposed	
by externally	imposed	imposed	imposed	mandates or	
imposed	mandates or	mandates or	mandates or	restrictions.	
mandates or	restrictions.	restrictions.	restrictions.		
restrictions.					

Scorecard Factor 4: Leverage



Sub-factor	Sub-factor calculation
Long-term Liabilities Ratio (20%)	(Debt + ANPL + adjusted net OPEB + other long- term liabilities) / revenue
Fixed Costs Ratio (10%)	Adjusted fixed costs / revenue

Arriving at the issuer rating – Step 2



- 1. Additional strength in local resources
- 2. Limited scale of operations
- 3. Financial disclosures
- 4. Potential cost shift to or from the state
- 5. Potential for significant change in leverage

Arriving at the issuer rating – Step 3



Examples of qualitative other considerations (not an exhaustive list):

- » Fund-specific financial considerations
- » Competitive enterprise risk in governmental or business-type activities
- » Likelihood of receiving extraordinary or ongoing support
- » Strengths or weaknesses related to economic concentration
- » Unusual risk or benefit posed by long-term liabilities



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Instrument Rating

Moody's Update

Issuer and instrument ratings



Issuer Rating

Fundamental credit quality

Instrument Considerations

Evaluation of debt instrument characteristics

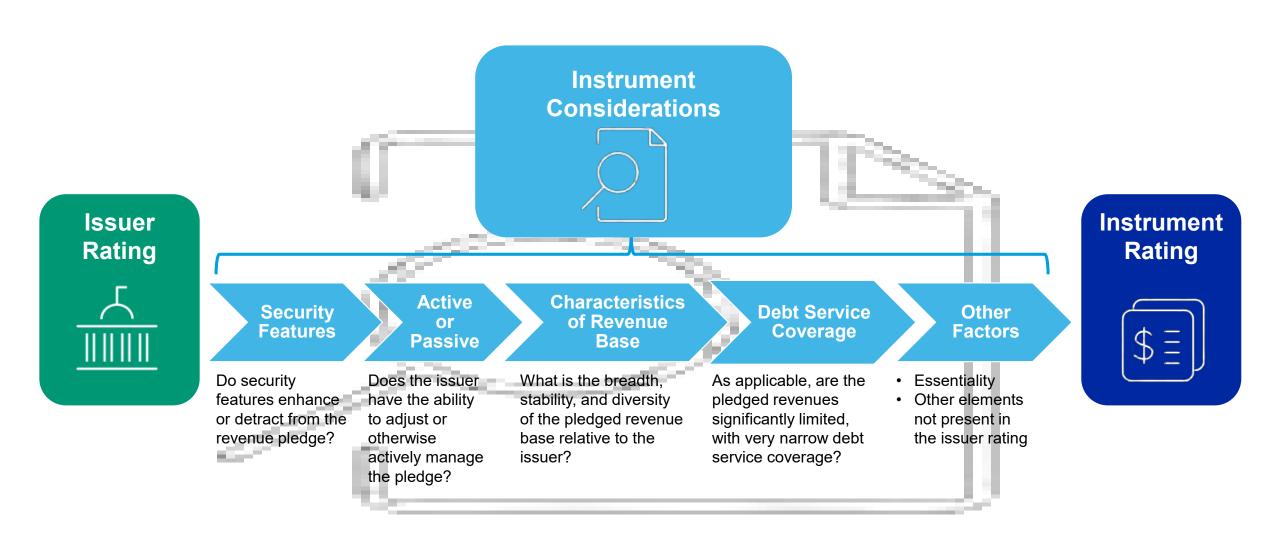
Instrument Rating

Placed in relation to the issuer rating

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Arriving at the instrument rating



MOODY'S INVESTORS SERVICE Moody's Update, April 2023

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Instrument rating examples



Key instrument considerations: Unlimited tax, full faith and credit pledge

Key instrument considerations:Debt with appropriation or abatement contingency for essential purpose



Unlimited tax rating would be equivalent to the issuer rating



Appropriation or abatement rating would be at least one notch below the issuer rating



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Overview of Maryland Ratings

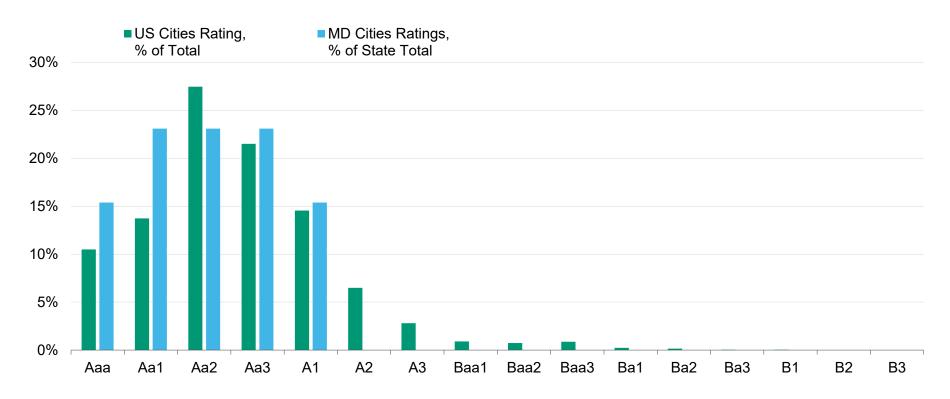
Moody's Update

Credit strengths of MD municipalities

- » Cities and counties are heavily dependent on stable property tax revenues
- » Strong governance controls characteristic of most municipalities
- » Growing economies are supported by an educated work force, relatively low cost of living and continued diversification
 - » Government-related industry, rather than government-dependent industry supports many counties

MD cities are highly rated

- » 13 total city ratings in the state
- » Aa2 median rating for MD cities



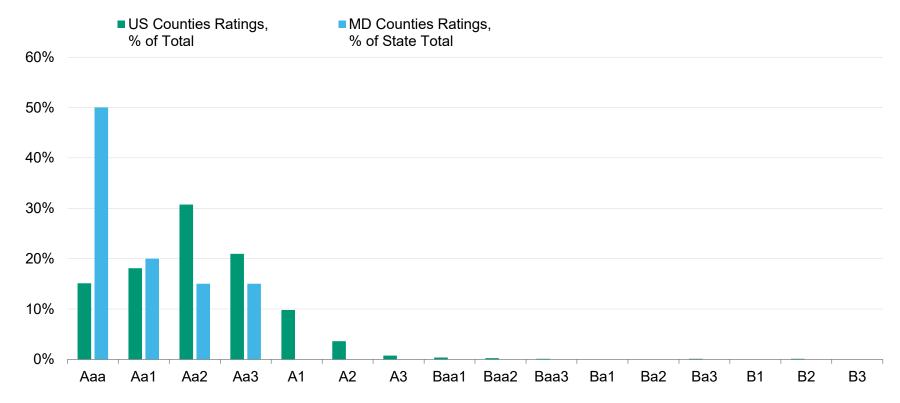
25

Source: Moody's Investors Service

MOODY'S INVESTORS SERVICE Moody's Update, April 2023

MD counties are highly rated

- » 20 total county ratings in the state
- » Aaa median rating for MD counties



Source: Moody's Investors Service

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Questions & Answers

Moody's Update



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