

ISSUER COMMENT

12 July 2021

RATING

General Obligation (or GO Related) 1

Aa2 No Outlook

Contacts

Francisco Gonzalez +1.214.979.6863
Associate Lead Analyst
francisco.gonzalez@moodys.com

Orlie Prince +1.212.553.7738

VP-Sr Credit Officer/Manager orlie.prince@moodys.com

CLIENT SERVICES

 Americas
 1-212-553-1653

 Asia Pacific
 852-3551-3077

 Japan
 81-3-5408-4100

 EMEA
 44-20-7772-5454

Madison County, MS

Annual Comment on Madison County

Issuer Profile

Madison County is located in west central Mississippi, immediately northeast of Jackson. The county seat of Canton is approximately 20 miles northeast of downtown Jackson. The county has a population of 104,562 and a moderate population density of 146 people per square mile. The county's median family income is \$90,177 (1st quartile) and the May 2021 unemployment rate was 4.7% (2nd quartile) ². The largest industry sectors that drive the local economy are retail trade, manufacturing, and administrative/waste management services.

Credit Overview

Madison County's credit position is very strong, and its Aa2 rating is aligned with the median rating of Aa2 for US counties. The notable credit factors include a robust financial position, an extensive tax base and a strong wealth and income profile. It also reflects a manageable debt burden and a somewhat elevated pension liability.

Finances: The financial position of the county is very healthy and is relatively favorable with respect to the assigned rating of Aa2. The cash balance as a percent of operating revenues (62.6%) is notably above the US median, and saw an increase between 2015 and 2019. Moreover, the fund balance as a percent of operating revenues (59.2%) is much stronger than the US median.

Economy and Tax Base: The economy and tax base of Madison County are very healthy and are a modest credit strength in comparison to the assigned rating of Aa2. The total full value (\$11.8 billion) is slightly above the US median, and rose significantly from 2015 to 2019. In addition, the full value per capita (\$112,387) is stronger than other Moody's-rated counties nationwide while the median family income equals a healthy 116.7% of the US level. Madison County benefits from its proximity to Jackson, the state capital, located in Hinds County, which is adjacent on Madison's southern border.

Debt and Pensions: The debt burden of the county is light and is slightly favorable relative to its Aa2 rating. The net direct debt to full value (0.7%) is consistent with the US median. Yet, the pension liability of Madison County is somewhat inflated and is quite unfavorable in comparison to the assigned rating of Aa2. The Moody's-adjusted net pension liability to operating revenues (1.9x) is unfavorably above the US median. The contribution rate for the pension plan is established by the State of Mississippi Legislature and is below "treadwater", the contribution required to maintain NPL at current levels assuming all other plan assumptions are met. As a result, the county's pension liabilities will continue to grow in future years absent reform at the state level. Significant growth of pension liabilities could present negative pressure on the county's rating.

Management and Governance: Mississippi counties have an institutional framework score ³ of "Aaa", which is very strong. Mississippi counties have a strong degree of revenue raising flexibility given the sector's major revenue source of property taxes is limited by annual operational levy cap of 10% plus new construction. Unpredictable revenue fluctuations tend to be minor, or under 5% annually. Across the sector, fixed and mandated costs are generally less than 25% of expenditures. Fixed costs are driven mainly by debt service and pension costs. Unpredictable expenditure fluctuations tend to be moderate, between 5%-10% annually.

EXHIBIT 1 **Key Indicators** 4 5 **Madison County**

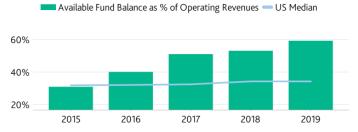
	2015	2016	2017	2018	2019	US Median	Credit Trend
Economy / Tax Base							
Total Full Value	\$10,012M	\$10,245M	\$10,402M	\$10,862M	\$11,751M	\$8,266M	Improved
Full Value Per Capita	\$99,927	\$100,649	\$101,772	\$104,952	\$112,387	\$88,050	Improved
Median Family Income (% of US Median)	119%	119%	119%	118%	117%	93%	Stable
Finances							
Available Fund Balance as % of Operating Revenues	31.0%	40.1%	51.0%	53.1%	59.2%	34.3%	Improved
Net Cash Balance as % of Operating Revenues	40.7%	54.7%	64.3%	61.5%	62.6%	39.5%	Improved
Debt / Pensions							
Net Direct Debt / Full Value	1.0%	0.9%	0.9%	0.8%	0.7%	0.5%	Stable
Net Direct Debt / Operating Revenues	1.95x	1.96x	1.80x	1.71x	1.49x	0.56x	Stable
Moody's-adjusted Net Pension Liability (3-yr average) to Full Value	0.8%	0.9%	1.0%	1.0%	0.9%	1.2%	Stable
Moody's-adjusted Net Pension Liability (3-yr average) to Operating Revenues	1.52x	1.93x	1.96x	2.05x	1.94x	1.39x	Stable
	2015	2016	2017	2018	2019	US Median	_
Debt and Financial Data							_
Population	100,202	101,791	102,212	103,498	104,562	N/A	
Available Fund Balance (\$000s)	\$16,317	\$19,084	\$26,319	\$27,199	\$33,355	\$26,112	
Net Cash Balance (\$000s)	\$21,383	\$26,009	\$33,160	\$31,511	\$35,265	\$30,464	
Operating Revenues (\$000s)	\$52,587	\$47,558	\$51,569	\$51,223	\$56,297	\$72,972	_
Net Direct Debt (\$000s)	\$102,283	\$93,198	\$92,589	\$87,563	\$83,792	\$40,647	_
Moody's Adjusted Net Pension Liability (3-yr average) (\$000s)	\$80,043	\$91,831	\$101,147	\$105,209	\$109,096	\$97,433	_

Source: Moody's Investors Service

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

EXHIBIT 2

Available fund balance as a percent of operating revenues increased from 2015 to 2019



Source: Issuer financial statements; Moody's Investors Service

EXHIBIT 3
Full value of the property tax base increased from 2015 to 2019



Source: Issuer financial statements; Government data sources; Offering statements; Moody's Investors Service

EXHIBIT 4

Moody's-adjusted net pension liability and debt to operating revenue remained stable from 2015 to 2019



■ Debt ■ Pensions

Source: Issuer financial statements; Government data sources; Offering statements; Moody's Investors Service

Endnotes

- 1 The rating referenced in this report is the issuer's General Obligation (GO) rating or its highest public rating that is GO-related. A GO bond is generally backed by the full faith and credit pledge and total taxing power of the issuer. GO-related securities include general obligation limited tax, annual appropriation, lease revenue, non-ad valorem, and moral obligation debt. The referenced ratings reflect the government's underlying credit quality without regard to state guarantees, enhancement programs or bond insurance.
- 2 The demographic data presented, including population, population density, per capita personal income and unemployment rate are derived from the most recently available US government databases. Population, population density and per capita personal income come from the American Community Survey while the unemployment rate comes from the Bureau of Labor Statistics.
 - The largest industry sectors are derived from the Bureau of Economic Analysis. Moody's allocated the per capita personal income data and unemployment data for all counties in the US census into quartiles. The quartiles are ordered from strongest-to-weakest from a credit perspective: the highest per capita personal income quartile is first quartile, and the lowest unemployment rate is first quartile.
- 3 The institutional framework score assesses a municipality's legal ability to match revenues with expenditures based on its constitutionally and legislatively conferred powers and responsibilities. See <u>US Local Government General Obligation Debt (July 2020)</u> methodology report for more details.
- 4 For definitions of the metrics in the Key Indicators Table, <u>US Local Government General Obligation Methodology and Scorecard User Guide (July 2014)</u>. Metrics represented as N/A indicate the data were not available at the time of publication.
- 5 The medians come from our most recently published local government medians report, <u>Medians Tax base expansion bolsters revenue</u>, <u>but pensions remain a hurdle (May 2020)</u> which is available on Moodys.com. The medians presented here are based on the key metrics outlined in Moody's GO methodology and the associated scorecard.

© 2021 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ON NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING. OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing its Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$5,000,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance —

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY550,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

REPORT NUMBER 1276649

Director and Shareholder Affiliation Policy.

CLIENT SERVICES

 Americas
 1-212-553-1653

 Asia Pacific
 852-3551-3077

 Japan
 81-3-5408-4100

 EMEA
 44-20-7772-5454

