

CREDIT OPINION

31 October 2019



Contacts

Adebola Kushimo +1.214.979.6847
 VP-Senior Analyst
 adebola.kushimo@moody's.com

Alexandra J. +1.415.274.1754
 Cimmiyotti
 VP-Sr Credit Officer
 alexandra.cimmiyotti@moody's.com

CLIENT SERVICES

Americas 1-212-553-1653
 Asia Pacific 852-3551-3077
 Japan 81-3-5408-4100
 EMEA 44-20-7772-5454

City of Broken Arrow, OK

Update to credit analysis

Summary

The [City of Broken Arrow, OK's](#) (Aa3), credit profile is anchored by a large and growing tax base and an improved reserve and cash position. The recent improvement is a key consideration because of the city's high exposure to economically sensitive sales tax revenue, the largest revenue source. Positively, the city's financial position will remain stable within the next two to three years supported by economic expansion that continues to grow revenue and expenditure controls that will keep operating costs manageable. Resident wealth and incomes are favorable and the city's debt profile is manageable. However, the city's unfunded pension liabilities are rising because of inadequate funding of cost sharing state plans and could be a source of credit pressure in the future.

Credit strengths

- » Large tax base benefiting from proximity to Tulsa
- » Favorable resident wealth and incomes
- » Improved liquidity

Credit challenges

- » Reliance on economically sensitive revenue
- » Reserve levels still remain weaker than similarly rated peers
- » Slightly elevated but manageable debt profile with exposure to variable rate debt
- » Rising unfunded pension liability because of inadequate funding of state plans

Rating outlook

Moody's does not usually assign outlooks to local government credits with this amount of debt outstanding.

Factors that could lead to an upgrade

- » Strengthened financial position
- » Sizeable tax base growth

Factors that could lead to a downgrade

- » Reduced liquidity

- » Weakened financial performance
- » Softening economic performance leading to tax base loss

Key indicators

Exhibit 1

Broken Arrow (City of) OK	2014	2015	2016	2017	2018
Economy/Tax Base					
Total Full Value (\$000)	\$6,875,106	\$7,061,421	\$7,329,988	\$7,663,014	\$8,067,850
Population	101,917	103,437	104,869	106,264	109,171
Full Value Per Capita	\$67,458	\$68,268	\$69,897	\$72,113	\$73,901
Median Family Income (% of US Median)	116.5%	115.0%	114.4%	112.7%	112.7%
Finances					
Operating Revenue (\$000)	\$62,481	\$69,320	\$73,709	\$70,726	\$73,712
Fund Balance (\$000)	\$16,609	\$18,115	\$15,206	\$19,467	\$22,642
Cash Balance (\$000)	\$10,768	\$12,848	\$7,490	\$9,066	\$16,883
Fund Balance as a % of Revenues	26.6%	26.1%	20.6%	27.5%	30.7%
Cash Balance as a % of Revenues	17.2%	18.5%	10.2%	12.8%	22.9%
Debt/Pensions					
Net Direct Debt (\$000)	\$108,788	\$113,668	\$117,198	\$125,228	\$133,713
3-Year Average of Moody's ANPL (\$000)	\$71,443	\$78,815	\$90,892	\$118,396	\$136,421
Net Direct Debt / Full Value (%)	1.6%	1.6%	1.6%	1.6%	1.7%
Net Direct Debt / Operating Revenues (x)	1.7x	1.6x	1.6x	1.8x	1.8x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	1.0%	1.1%	1.2%	1.5%	1.7%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	1.1x	1.1x	1.2x	1.7x	1.9x

Fund and cash balance information includes the general and debt service funds

Source: City of Broken Arrow, OK Audited Financial Statements, Government data sources

Profile

The City of Broken Arrow is a bedroom community adjacent to the [City of Tulsa](#) (Aa1 stable), located 14 miles southeast of downtown, with an estimated population of 109,000.

Detailed credit considerations

Economy and tax base: growing tax base with favorable resident incomes

The city's tax base will likely continue to grow at a moderate rate over the medium term because of ongoing development and its proximity to the City of Tulsa. Located in southeastern Tulsa County, with a portion in Wagoner County, the City of Broken Arrow is a bedroom community to Tulsa. Fueled by strong population growth and housing demand, taxable values within the city continue to grow. In fiscal 2020, assessed values grew by 3.9% to reach \$965.4 million based on full value of \$8.9 billion. On average, net assessed values (AV) grew 4.7% annually over the past five years through fiscal 2020. The city's tax base is diverse, with the Top 10 taxpayers accounting for only 6.8% of fiscal 2019 AV.

Currently, the city is experiencing sustained residential development with several active subdivisions. A mixed use \$19 million development is underway in downtown with an expected completion date in early 2020 while the business park with over 90 acres is slated for ground breaking next week. City officials report high interest for the park. The city is also slated to experience a ground breaking of a specialty hospital that will bring over 150 jobs to the area. These projects continue to support the city's assessed value growth projection of between 3% to 4% over the next few years.

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.

The city's stable tax base is further supported by favorable resident incomes with a median family income equal to 112.7% of the national median, per the 2017 American Community Survey. This compares favorably to the 2017 median home value which equaled 83.2% of the nation, highlighting relatively affordability in the area. Because of access to employment opportunities in nearby Tulsa, the city's August 2019 unemployment rate of 3% was lower than both the state's and the nation's. The current estimated population is 109,171.

Financial operations and reserves: improved liquidity

The recent improvement in the city's financial performance will likely continue over the next two to three years supported by increasing revenue, and limited general fund needs, allowing the operating fund performance to remain in line with peers.

General fund operations continue to be marked by steady performance with surpluses in the past four years. In fiscal 2018 (June 30 year end), the general fund reported an almost \$2 million surplus allowing the available fund balance to reach \$13 million, an adequate 17.7% of general fund revenue. Including the debt service fund, the available operating fund balance totaled \$22.6 million, 30.7% of operating revenue, also at fiscal year end.

Unaudited results for fiscal 2019 reflect an almost \$2 million general fund surplus largely because of higher than anticipated revenue performance from sales and use taxes. However, city officials expect to transfer \$1.8 million, the restricted portion of the fund balance in 2018, to the economic development fund because since those monies can only be used for that purpose. At the end of the year, the general fund will be relatively flat compared to fiscal 2018 results.

The adopted fiscal 2020 budget was balanced. Year to date, city officials report strong revenue performance particularly from use taxes, benefiting from recent legislation that allows for online third party retailer taxation. Expenditures are currently under budgeted expectations but city officials expect total appropriations will be in line with the budget by the end of the year allowing for modest surplus operations. The city's financial plan for fiscal 2021 reflects stable operations with a modest surplus projected for the year.

LIQUIDITY

The general fund's liquidity improved significantly to \$7.3 million in fiscal 2018 (10% of general fund revenue), from \$610,000 (fewer than 1% of general fund revenue) in the prior year following a restatement and some cash repaid to the general fund from the city's utility system, Broken Arrow Municipal Authority (BAMA). This improvement is positive considering that liquidity had been at less than 3% of general fund revenue in the past five years because of multiple years of general fund loans provided to BAMA to fund capital needs which are ultimately reimbursed by the state (Oklahoma Water Resource Board, OWRB).

The city had historically received BAMA related reimbursements from the OWRB on a delayed schedule. However, in fiscal 2018, the city was able to catch up with reimbursement requests and expects no further timing delays. Therefore, the general fund is not likely to loan funds to BAMA for capital needs. In addition, city officials report that almost all BAMA reimbursements have been received and has also raised BAMA rates to increase the fund's liquidity. In line with its rate study, the BAMA has experienced rate increases in the past four years including a recent increase in October 2019; 5.5% for water, 7% for sewer and 9% for stormwater consistent with prior years. City officials report a final rate increase is expected in October 2020 concluding the recommendation from the prior rate study. The city is currently undergoing another rate study and the results expected in spring 2020 will guide rate practices for the next five years.

Debt and pensions: slightly elevated debt, exposure to state's cost sharing plan

The city's debt burden will remain slightly elevated but manageable over the next three to five years because of planned debt issuances and principal amortization that is slower than that of similarly rated peers. At 2% of fiscal 2020 full value, the city's direct debt burden is slightly higher than the national median for the rating category; the overall debt burden when including debt from overlapping entities is 2.7%.

About \$174.5 million from the August 2018 election and \$525 thousand from the 2014 election will remain authorized but unissued following this sale. City officials expect annual debt issuance until final maturity in 2027.

DEBT STRUCTURE

The city's debt consists of \$131.7 million fixed-rate general obligation bonds, with a final maturity in fiscal 2038. The current debt service schedule calls for 62.7% of principal retired within 10 years.

DEBT-RELATED DERIVATIVES

The city has a total of \$18.4 million in variable rate debt outstanding (not rated by Moody's), accounting for approximately 14% of the total debt profile related to economic development. The city issued variable rate notes in May 2004 for a Bass Pro facility. This note is secured by lease payments to the city and a maximum amount of \$2.8 million in annual sales tax revenue (subject to annual appropriation). The obligation has annually been fulfilled with a combination of lease payments and sales tax revenue. As of September 2019, \$9.5 million remains outstanding.

The note is also hedged with a swap with [Bank of America N.A.](#) (Aa2 stable) as the counterparty. The swap agreement requires the city to pay a fixed rate of 7.3% to the bank in exchange for 6-month Libor plus 1%. There is no remarketing risk associated with the note, as Bank of America, must hold the note until final maturity in November 2025. At the end of fiscal 2019, the mark to market value of the swap was negative \$1.2 million.

In November 2010, the city issued a variable rate note with the Bank of Oklahoma for inducements for Flight Safety International. The agreement requires the city to pay the bank 6-month Libor plus 2%. The 2010 note is secured by a 1/8th of 1% sales tax and is subject to annual appropriation by city council. In March 2019, a fixed rate taxable note was issued to refund the variable rate bonds. The bonds are now only secured by tax increment financing revenues with no sales tax pledge.

PENSIONS AND OPEB

Pensions and other post employment benefits (OPEB) present a moderate but growing liability to the city and will remain a source of structural imbalance in the future, absent any changes.

Broken Arrow participates in three pension systems: Oklahoma Municipal Retirement Fund (OKMRF), Oklahoma Firefighters' Pension and Retirement Fund (OKFPRF) and the Oklahoma Police Pension and Retirement Fund (OKPPRF). OKMRF is a multiple employer, defined contribution public employee retirement system managed by a nine-member board of trustees on behalf of the city. The city's adjusted net pension liability (ANPL), based on a 3.87% discount rate, was \$156.9 million in fiscal 2018. In comparison, the city reported a GASB net pension liability of \$53.7 million, based on a 7.5% discount rate.

The city's ANPL has grown moderately over the past five years and is a driver in its moderate but growing balance sheet leverage. The Firefighters and Police pension plans are cost-sharing, multiple-employer defined benefit retirement plans sponsored by the state. The city makes annual contributions to the system at a rate established by state law, although the statutory rate will likely increase in the future to address the system's rising unfunded liabilities.

The city faces higher future costs because its contributions are not amortizing its liabilities. In fiscal 2018 city pension contributions amounted to 4.4% of revenue, but to "tread water" on its reported unfunded pension liabilities, the city would have had to dedicate 9.4% of its revenue to pensions. This 5% "tread water gap" signals the magnitude to which the city is deferring its pension costs to future years under reported assumptions.

The city's adjusted net OPEB liability (adjusted NOL), based on a 4.14% discount rate, was \$1.2 million in fiscal 2018. At 2% of revenue, the city's adjusted NOL is only a small source of balance sheet leverage. The city funds OPEB on a pay as you go basis.

Inclusive of debt service, OPEB contributions and our tread water indicator for pensions, the city's fixed costs amounted to 28.2% of revenue in fiscal 2018, compared to 26.8% in 2015. The modest increase is attributable to growth in pension and OPEB costs. However, the city's pension tread water indicator is understated relative to many other governments because it is based on a 7.5% reported discount rate, well above the discount rate currently used by most US public pension systems.

Management and governance: moderate institutional framework score

The city operates under a Council-Manager form of government. The legislative and policy-making body consists of a five-member City Council, elected by wards with staggered terms for a period of four years. The Mayor is elected within the Council membership. The City Manager is responsible for the day-to-day operations of City government.

Oklahoma Cities have an Institutional Framework score of "A," which is moderate. Sales taxes, the sector's major revenue source are subject to a cap which can be overridden with voter approval only. The cap, which varies by city, limits revenue-raising ability. Unpredictable revenue fluctuations tend to be moderate, or between 5-10% annually. Across the sector, fixed and mandated costs are

generally greater than 25% of expenditures and are primarily debt service expenditures. Unpredictable expenditure fluctuations tend to be minor, under 5% annually.

Rating methodology and scorecard factors

The US Local Government General Obligation Debt methodology includes a scorecard, a tool providing a composite score of a local government's credit profile based on the weighted factors we consider most important, universal and measurable, as well as possible notching factors dependent on individual credit strengths and weaknesses. Its purpose is not to determine the final rating, but rather to provide a standard platform from which to analyze and compare local government credits.

Exhibit 2

Broken Arrow (City of) OK

Rating Factors	Measure	Score
Economy/Tax Base (30%) ^[1]		
Tax Base Size: Full Value (in 000s)	\$8,889,096	Aa
Full Value Per Capita	\$83,651	Aa
Median Family Income (% of US Median)	112.7%	Aa
Finances (30%)		
Fund Balance as a % of Revenues	30.7%	Aaa
5-Year Dollar Change in Fund Balance as % of Revenues	8.8%	A
Cash Balance as a % of Revenues	22.9%	Aa
5-Year Dollar Change in Cash Balance as % of Revenues	8.9%	A
Notching Factors: ^[2]		
Unusually volatile revenue structure		Down
Management (20%)		
Institutional Framework	A	A
Operating History: 5-Year Average of Operating Revenues / Operating Expenditures (x)	1.0x	A
Debt and Pensions (20%)		
Net Direct Debt / Full Value (%)	2.0%	A
Net Direct Debt / Operating Revenues (x)	2.4x	A
3-Year Average of Moody's Adjusted Net Pension Liability / Full Value (%)	1.5%	Aa
3-Year Average of Moody's Adjusted Net Pension Liability / Operating Revenues (x)	1.9x	A
Scorecard-Indicated Outcome		Aa3
Assigned Rating		Aa3

[1] Measures are based on data from the most recent year

[2] Notching Factors are specifically defined in the US Local Government General Obligation Debt methodology dated December 16, 2016

[3] Standardized adjustments are outlined in the GO Methodology Scorecard Inputs Updated for 2019 publication

Source: US Census Bureau, City of Broken Arrow, OK audited financial statements, Preliminary offering documents

© 2019 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 INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. 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 MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S 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. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S 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 AND MOODY'S 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 OR MOODY'S 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.

CREDIT RATINGS AND MOODY'S 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 the Moody's 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 OR 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 rating, agreed to pay to Moody's Investors Service, Inc. for ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

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 61 003 399 657 AFSL 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 rating, agreed to pay to MJKK or MSFJ (as applicable) for ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

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

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454