

CREDIT OPINION

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Detroit (City of) MI

Update to credit analysis following revision of outlook to positive

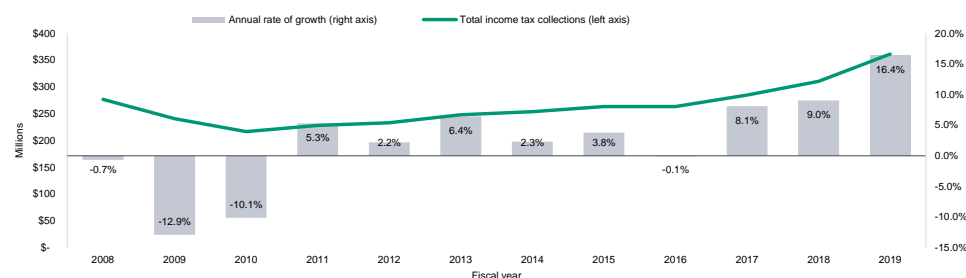
Summary

[Detroit's](#) (Ba3 positive) recovery is real, but so too are serious lingering economic challenges. An influx of affluent residents and a return of employers downtown has led to a surge in income taxes (exhibit 1), an important revenue source for the city. However, citywide income levels remain very weak and poverty remains high compared to other large cities. To expand economic development more widely, officials are targeting neighborhood investments and incorporating economic development incentive requirements in local hiring by firms.

The city's conservative budgeting practices, growing revenues and reduced fixed costs achieved through bankruptcy have led to a rapid rise in financial reserves. Continuation of positive revenue trends and maintenance of ample reserves will be critical in improving the city's capacity to absorb a scheduled spike in pension contributions in fiscal 2024 and to finance needed capital investments.

Exhibit 1

Detroit's income tax receipts are surging Detroit income tax collections



2019 includes some one-time payments, organic growth was approximately 5%

Source: City of Detroit Comprehensive Annual Financial Report, Moody's Investors Service

On February 25, we affirmed the city's Ba3 rating and revised the outlook to positive from stable.

Credit strengths

- » Improved job base is fueling rising income tax receipts, a key revenue source
- » Robust operating performance has resulted in the accumulation of very healthy reserves while also enhancing the capacity of the city to provide services and prepare for rising fixed costs

- » Very strong financial planning practices include annual revenue setting conference, long-range financial planning and conservative budgetary assumptions

Credit challenges

- » Budgetary risk stemming from a pending spike in pension contributions, exposure to pension asset return fluctuations and volatile revenue structure
- » Detroit's socioeconomic profile is among the weakest of large US cities with an economy and labor market that is relatively concentrated in auto manufacturing
- » [Detroit Public Schools Community District](#) faces substantial challenges in the provision of educational services and in maintaining its facilities that could weigh on taxpayers and hinder sustained economic revitalization

Rating outlook

The revision of the outlook to positive reflects the improving though still tenuous capacity of the city's budget to finance service improvements, capital investments and accommodate a large spike in pension contributions. The rating could move upward if the city continues to make progress towards being fully prepared for a large increase in costs four years from now. The outlook also considers a favorable trend in job growth and its impact on the city's tax base and tax collections.

Factors that could lead to an upgrade

- » Strengthening of pension funding contribution practices sufficient to halt the growth in unfunded liabilities, or demonstrated capacity to make such payments
- » Revenue, tax base and employment growth that demonstrates capacity of the tax base to support service and capital needs of both the city and school district
- » Moderation of the city's pension and debt liabilities relative to both revenues and the tax base

Factors that could lead to a downgrade (or revision of outlook)

- » Inability to sustain progress towards meeting future increases in pension contributions
- » Material growth in leverage, fixed costs or capital needs, or draws on operating reserves that leave inadequate fund balances to mitigate current and future challenges
- » Negative changes in the city's economic profile, such as significant job losses or a higher rate of depopulation, that weaken the prospects of sustained revenue growth

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.moody's.com for the most updated credit rating action information and rating history.

Key indicators

Exhibit 2

Detroit (City of) MI	2015	2016	2017	2018	2019
Economy/Tax Base					
Total Full Value (\$000)	\$15,624,162	\$15,187,024	\$13,903,690	\$13,742,420	\$14,662,928
Population	690,074	679,305	679,865	677,155	672,662
Full Value Per Capita	\$22,641	\$22,357	\$20,451	\$20,294	\$21,798
Median Family Income (% of US Median)	47.0%	46.6%	47.3%	47.3%	47.3%
Finances					
Operating Revenue (\$000)	\$1,376,374	\$1,350,252	\$1,332,096	\$1,358,966	\$1,473,059
Fund Balance (\$000)	\$449,827	\$555,791	\$590,743	\$647,295	\$703,636
Cash Balance (\$000)	\$640,617	\$745,739	\$846,369	\$909,393	\$961,988
Fund Balance as a % of Revenues	32.7%	41.2%	44.3%	47.6%	47.8%
Cash Balance as a % of Revenues	46.5%	55.2%	63.5%	66.9%	65.3%
Debt/Pensions					
Net Direct Debt (\$000)	\$2,030,751	\$1,923,569	\$1,833,414	\$1,707,018	\$1,828,161
3-Year Average of Moody's ANPL (\$000)	\$4,084,353	\$3,833,369	\$3,901,422	\$3,516,302	\$3,697,896
Net Direct Debt / Full Value (%)	13.0%	12.7%	13.2%	12.4%	12.5%
Net Direct Debt / Operating Revenues (x)	1.5x	1.4x	1.4x	1.3x	1.2x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	26.1%	25.2%	28.1%	25.6%	25.2%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	3.0x	2.8x	2.9x	2.6x	2.5x

The table presents data as of the noted fiscal year.

Source: Moody's Municipal Financial Ratio Analysis

Profile

With a current estimated population (based on the American Community Survey) of just under 680,000 Detroit is the 23rd largest city in the US and the largest city in Michigan (Aa1 stable). The city emerged from bankruptcy in 2014.

Detailed credit considerations

Economy and tax base: job trajectory is positive despite 2019 slowdown; tax base wealth and resident income remain very weak

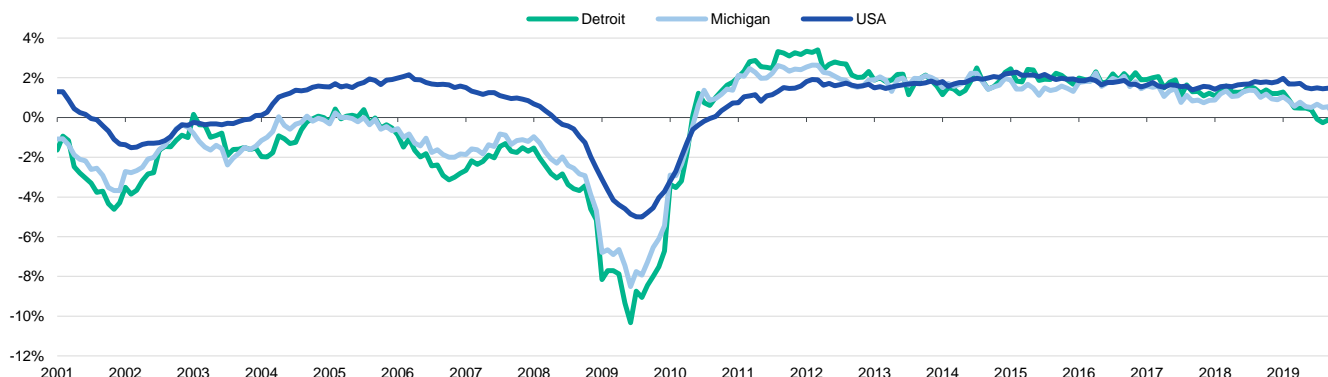
The city's fortunes remain heavily tied to the auto industry. Significant investments by three major automakers are underway in the city and they will boost employment over the next two to three years absent a broader statewide recession. Substantial development in the city's urban core continues, but the socioeconomic profile of the city as a whole remains weak. The city is in the midst of a concentrated effort to expand development beyond downtown and to improve job prospects for its middle and lower income populations.

The employment trajectory of Detroit is fundamentally improved. Even before the 2007-09 recession, both Detroit and the State of Michigan continued to lose jobs while the rest of the nation expanded (exhibit 3). The story has been different during the current economic expansion, with Detroit and Michigan initially growing jobs at faster paces than the nation. The city experienced dips in employment starting in July 2019 with an onslaught of negative hits to auto employment including a reduction to [General Motors Company](#) (GM, Baa3 stable) white-collar work force, a wind-down of production at the Detroit-Hamtramck assembly plant and, most significantly, an over months-long strike by GM workers that also reduced employment at ancillary suppliers. Job growth is likely to resume within the city because GM, [Ford Motor Company](#) (Ba1 stable) and [Fiat Chrysler](#) (FCA, Ba1 positive) have all announced significant investments that are expected to create well over 10,000 jobs in aggregate (exhibit 4).

Exhibit 3

Detroit job creation fundamentally improved though momentum slowed in 2019

Year-over-year growth, total nonfarm employment (seasonally adjusted), Detroit-Warren-Dearborn



Source: US Bureau of Labor Statistic

Exhibit 4

Large development projects will create significant number of jobs within the city

Auto industry projects under development

Company	Expected jobs	Details
Ford	5,000	Redevelopment of Michigan Central station into tech campus.
Fiat Chrysler	5,000	Investments at two sites for electric, autonomous and SUV production.
General Motors	2,200	Conversion of Detroit-Hamtramack plant for all-electric vehicle production.
Waymo	400	Google's self driving car unit plans lease of factory in Detroit

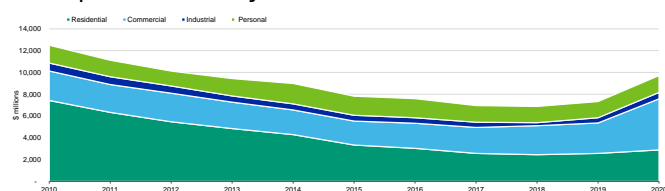
Source: City and company press releases, news reports

Detroit property valuations surged in 2019 due almost solely to a reappraisal of commercial properties (exhibit 5). Commercial properties were the last segment of a an effort to reappraise all properties within the city. Residential valuations have not yet begun to materially recover from severe losses experienced during the last economic downturn. Preliminary estimates indicate that residential valuations will receive a significant boost and commercial values will continue to grow. While valuations soared in 2019, strict state-imposed tax caps reduce the benefit for the city with assessed values (known as taxable values in Michigan) only growing modestly (exhibit 6). Detroit property tax wealth is very weak with a full value per capita that is two-thirds smaller than the median for US cities.

Exhibit 5

Valuations surged in 2019 led by commercial reappraisal....

State equalized valuation by class



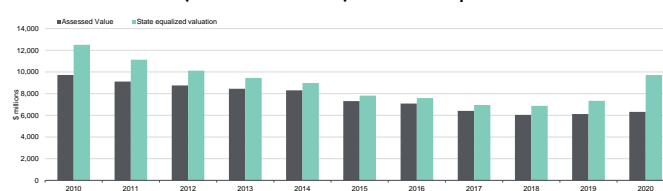
State equalized valuation is equal to half the true market value (full value)

Sources: Official statements, City of Detroit, Wayne County

Exhibit 6

...but taxable valuation growth is constrained by tax caps

Assessed valuation (taxable valuation) and state equalized value



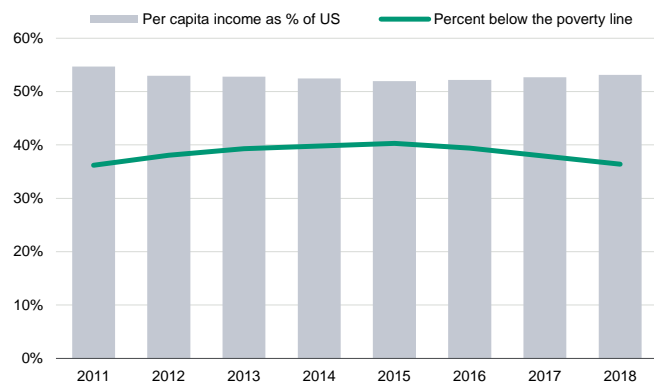
Source: Official statements, City of Detroit, Wayne County

An influx of more affluent residents and large-scale developments have transformed the city's downtown and job base. Despite this, Detroit's per capita income has not materially changed relative to the nation (exhibit 7) and remains one of the lowest among large US cities. The poverty rate has moderated slightly, but remains one of the worst in the nation. Detroit's population continues to decline, but at a much slower pace than previous decades. Officials recognize the need to spread investment to other parts of the city and undertake a number of initiatives to address socioeconomic challenges. The city's strategic neighborhood fund is targeting investments

in several neighborhoods. The initiative is being financed through city capital dollars and substantial philanthropic support. The Fiat Chrysler investment includes a community benefit agreement (CBA) that gives Detroiters priority to jobs at the new facilities after internal Fiat Chrysler relocations based on union contract rules.

Exhibit 7

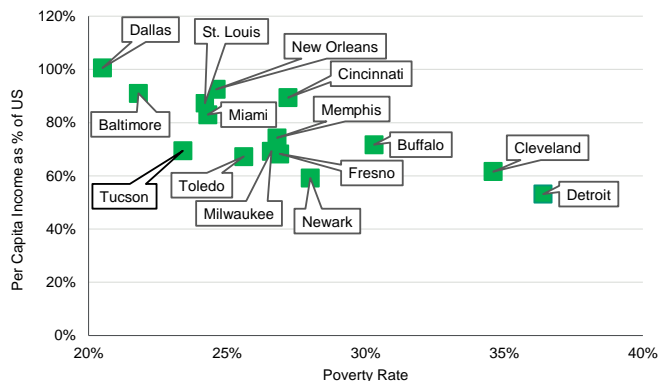
Per capita income is not improving and poverty rate remains high Detroit's per capita income and poverty rate



Source: American Community Survey 5 year estimates

Exhibit 8

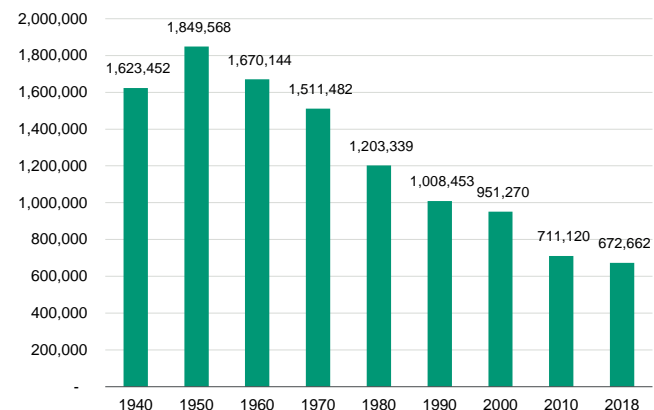
Detroit has weak socioeconomics compared with peers Per capita income as percent of US and poverty rate



Source: American Community Survey 5 year estimates

Exhibit 9

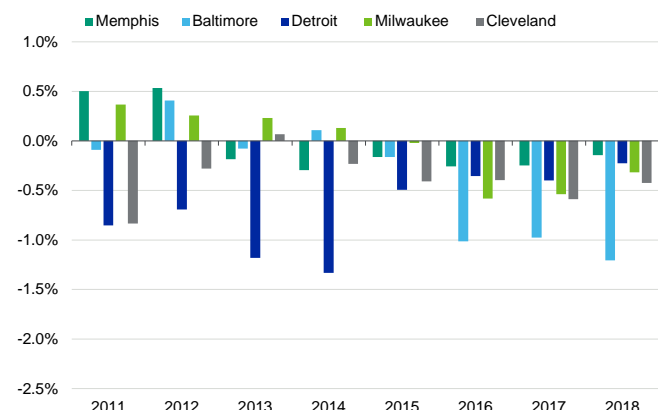
Detroit's population decline has continued this decade Detroit's total population



Source: US Census Bureau, American Community Survey

Exhibit 10

But the pace of decline has slowed to be in line with peers Percent population change



Source: American Community Survey 5 year estimates

Financial operations and reserves: an expanding revenue base

The city's ample financial reserves are a key mitigant to risk stemming from the city's revenue structure. Detroit is exposed to significant revenue volatility, weak practical revenue raising ability given low property tax wealth, and limited legal revenue flexibility because of strict tax caps. The city's trend of growing reserves is hitting a plateau as fixed costs grow and capital investments are made. Still, we expect reserves to remain healthy given a sophisticated and conservative budgeting process.

The city amassed very large reserves in recent years because of fixed cost reductions implemented as it emerged from bankruptcy in 2014. The city has also seen robust revenue growth, especially in income taxes receipts. The city now has over \$700 million, or nearly 50% of revenue in available fund balance,¹ the majority of which is held in the general fund. The city has assigned approximately

\$238 million in available fund balance for future expenditures including capital investments, risk management and blight remediation. Balances in special funds are also likely to decline.

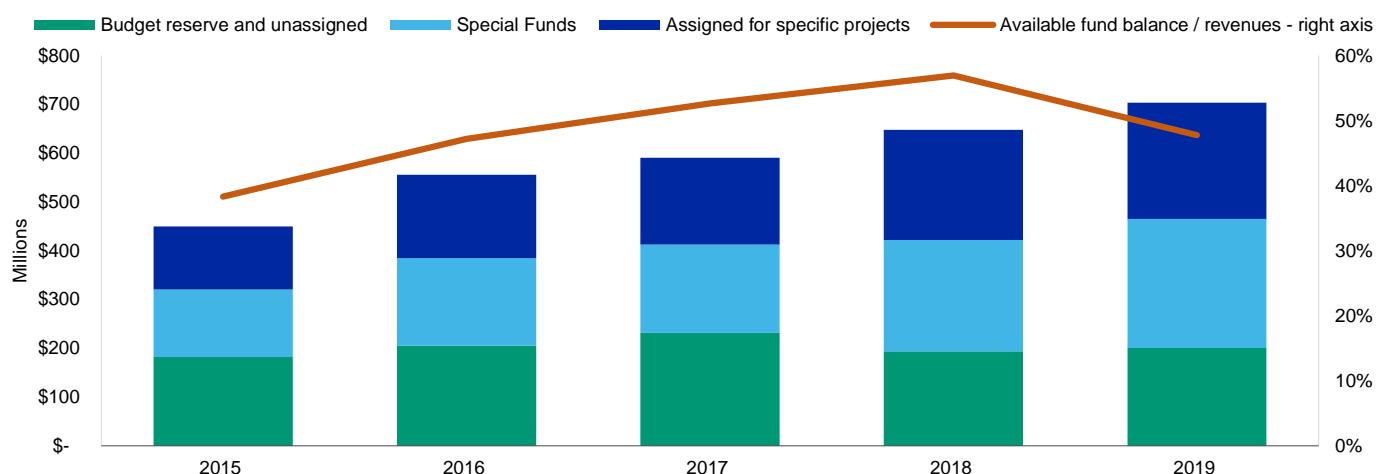
For fiscal 2020, the city budgeted spending \$130 million of assigned general fund reserves. However, given positive variances and budgeted deposits to the rainy day fund, the total decline in general fund balance will likely be at most \$30 million. The city reports underlying growth in income taxes due to job and wage gains, but total collections may decline relative to 2019 because the prior year included some one-time receipts.

The city projects that recurring expenses will begin to exceed recurring revenue in fiscal 2026. However, we recognize that long-range forecasts typically produce budget gaps and we expect the city can close these gaps with moderate budgetary adjustments. A larger budgetary challenge would be lower than expected pension asset returns as detailed below.

Exhibit 11

Detroit's reserves are soaring

Available operating fund balance by fund and use



Source: City of Detroit Comprehensive Annual Financial Report, Moody's Investors Service

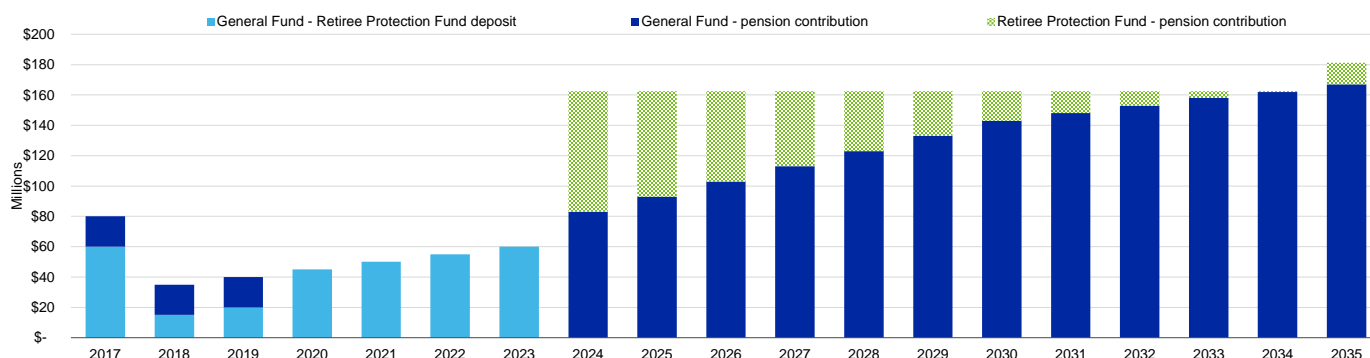
Detroit has done considerable planning to prepare for a substantial spike in pension contributions that must be incorporated into its operating budget beginning in fiscal 2024. Not included in our measure of available reserves is \$130 million as of fiscal 2019 that the city accumulated in its Retiree Protection Fund (RPF), an irrevocable trust from which the city will fund a portion of future pension contributions to effectively smooth the growth in payments made directly from its operating budget. The balance in the RPF has grown to \$175 million in this fiscal year.

Detroit's bankruptcy plan of adjustment (POA) required a modest \$20 million contribution from the general fund to its pension plans through 2019 and no contributions from fiscal 2020 through fiscal 2023. In addition to its \$20 million pension contribution, the city deposited \$20 million to the RPF in fiscal 2019. Detroit plans to amass at least \$335 million by the time actuarial pension funding resumes. Though contributions will be subject to plan performance between now and fiscal 2024, the city hopes the trust will enable contributions from its operating budget to increase by a steady \$5 to \$10 million per year starting in fiscal 2024 instead of spiking in one year.

Lower than expected returns on pension fund assets or investment return volatility could result in the RPF being depleted several years sooner than estimated. The impact would be a new spike in contributions that could raise Detroit's annual pension contribution requirements by tens of millions of dollars annually.

Exhibit 12

Detroit has established an irrevocable pension trust to prepare for a large contribution spike General fund contributions, deposits to RPF and draws from RPF



Source: City of Detroit

LIQUIDITY

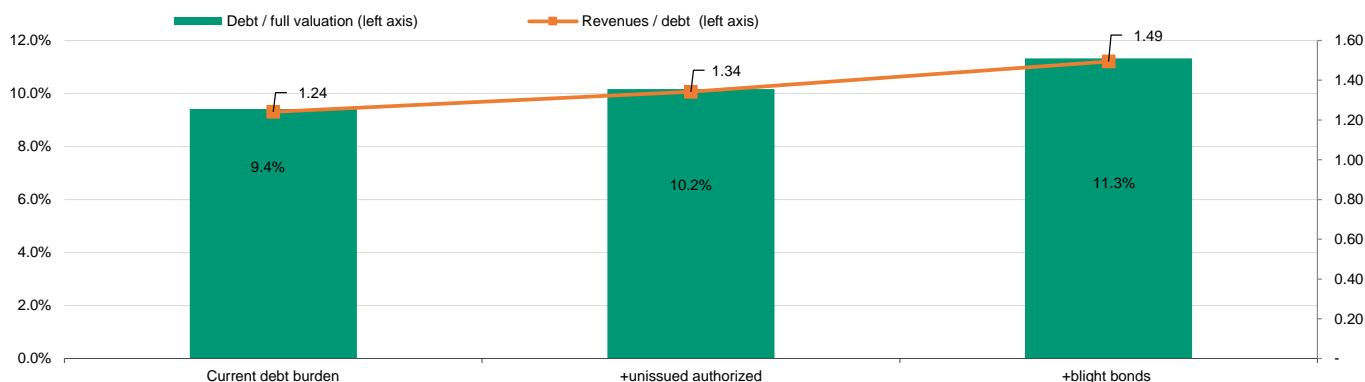
The city has ample liquidity with nearly a billion dollars in its operating funds at the close of fiscal 2019, equivalent to a very healthy 65% of revenues.

Debt and pensions: high leverage; weak pension contributions outlined under POA

Detroit's long-term liabilities from debt and pensions remain very high compared with its tax base despite deleveraging in bankruptcy. Compared with operations, the obligations appear substantially less severe, but the burden is still above sector medians. The city's bonded debt burden will likely grow moderately in coming years (exhibit 13). The city is slowly tapping its unused voter authorized general obligation unlimited tax (GOULT) bonding authority that currently stands at \$148 million. The city plans to use \$80 million of the authorization this spring. The mayor has also proposed seeking voter authorization of an additional \$225 million of debt to finance a complete elimination of residential blighted properties, which would be supplemented with general fund contributions.

Exhibit 13

Detroit's debt burden will moderately rise Debt burden compared to full value and revenues



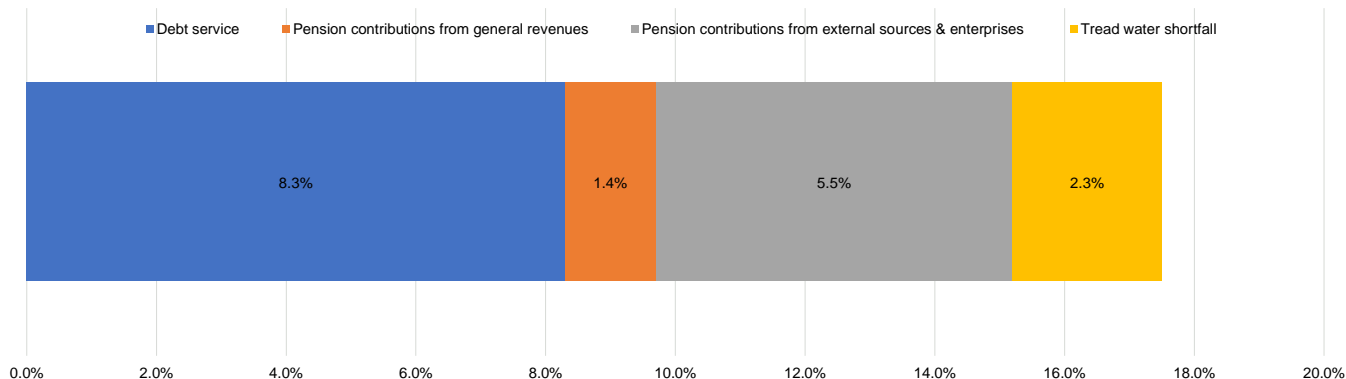
Unissued but authorized debt includes all current authorization, but there are no immediate plans to issue all of the debt.

Source: City of Detroit Comprehensive Annual Financial Report, Moody's Investors Service

Until actuarial based payments are resumed in 2024, contributions to the city's legacy plans are being made primarily from the [Great Lakes Water Authority](#) (GLWA, revenue rated A2 stable), the Foundation for Detroit's Future and other external sources. Total contributions were short of the amount needed to prevent unfunded liabilities from growing under plan assumptions by \$34 million (2.3% of revenues), a contribution benchmark we call "treading water." Total fixed costs at the "tread water" level, would have consumed 17% of operating revenue. If pension assets perform as assumed and the city has modest revenue growth, we estimate the city's fixed costs will consume between 10% and 20% of revenue net of RFP draws when payments resume in fiscal 2024.

Exhibit 14

Pension contributions were made primarily from external sources and did not tread water
Detroit's fixed costs



Detroit also made a contribution to the RPF equal to 1.4% of revenues

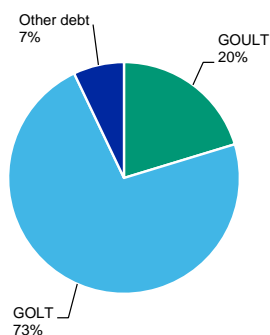
Source: City of Detroit Consolidated Annual Financial Report, Moody's Investors Service

DEBT STRUCTURE

All of the city's GO debt is secured by its full faith and credit pledge. The majority is payable from its general obligation limited tax pledge (GOLT) with approximately \$400 million secured by an unlimited tax pledge (exhibit 15). The majority of total leverage is comprised of pension debt. The city's debt service payments are largely level.

Exhibit 15

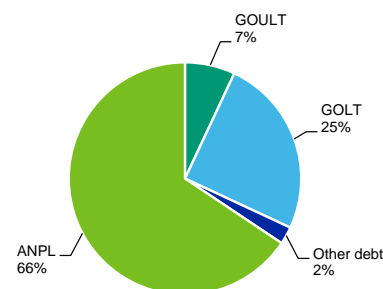
General obligation debt comprises majority of bonded debt...
Composition of governmental bonded debt



Source: Moody's Investors Service

Exhibit 16

...but pensions comprise two-thirds of the city's overall leverage
Composition of total governmental leverage



ANPL is Moody's adjusted net pension liability, our measure of unfunded pension liabilities that uses a market based interest rate.

Source: Moody's Investors Service

A significant portion of Detroit's outstanding GO debt is also secured by distributable state aid (DSA; enhanced rating of Aa2 stable on liens one through four and Aa3 stable on lien five). These bonds benefit from a strong legal framework that allows the city to issue debt through the Michigan Finance Authority (MFA). Detroit has entered into an intercept agreement that obligates the state treasurer to directly deposit all authorized DSA payments to a third-party trustee to satisfy debt service requirements.

Total state aid provides ample coverage of debt service across all five liens of DSA bonds. Payments are comprised of a mix of constitutional payments and statutory payments. The more reliable constitutional payments provide ample coverage alone for liens one through three, some coverage of fourth lien bonds and no coverage of fifth lien bonds. The fourth and fifth liens require the support of statutory payments to fully cover debt service. While statutory payments can and have been reduced, there is ample coverage to absorb moderate cuts, and we do not expect state payments to be completely eliminated.

The city's \$124.5 million Michigan Transportation Fund Bonds, Series 2017 are secured by the city's Michigan Transportation Fund distributions. The bonds are structured to be drawn on predetermined dates and the city has accessed \$85 million thus far. The bonds were issued by the MFA and sold as a private placement to [JP Morgan Chase Bank, N.A.](#) (senior unsecured rated Aa2 stable). Under an event default the city would have to pay a stepped interest rate, but default is defined only as nonpayment with no rating based triggers.

DEBT-RELATED DERIVATIVES

The city is not currently a party to any debt related derivative agreements.

PENSIONS AND OPEB

While unfunded pension liabilities are likely to grow through 2024 based on the relatively weak contribution practices outlined in the POA, the longer-term trajectory is positive given closure of the legacy pension plans, reduced benefit payments achieved in bankruptcy and plans for aggressive amortization. Actuarial reports indicate that liabilities will begin to be paid down steadily beginning in 2024 if the city contributes according to a 30-year level principal method. Under an alternate scenario of 30-year level dollar, liabilities would still peak in 2024, but be paid down slower.

In July 2014, benefit accruals were halted in the city's legacy pension plans, and all eligible employees began participating in one of two new hybrid pension plans. Benefits on the legacy pension plans were reduced in bankruptcy: cost-of-living adjustments (COLAs) were eliminated for members of the city's General Retirement System (GRS) in addition to a 4.5% reduction in base benefits, while members of the Police and Fire Retirement System received a 55% reduction to their COLAs.

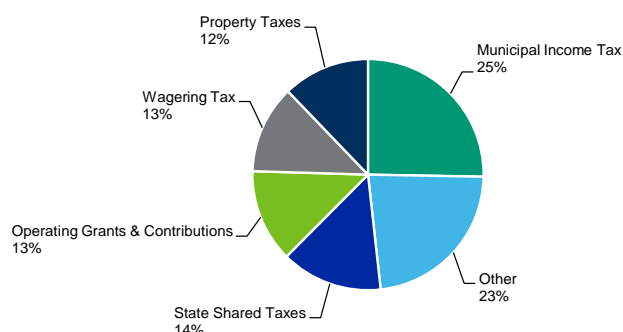
Despite the benefit adjustments, Detroit's unfunded pension liabilities remain sizable. The city's reported net pension liability totaled \$1.5 billion at the close of fiscal 2019. Moody's adjusted net pension liability (ANPL), which uses a high-grade corporate bond index as a discount rate to value accrued liabilities, totaled \$3.7 billion, equal to an extremely elevated 19% of full value. The burden is much more moderate compared with the budget at 2.5x revenue.

Detroit's other post-employment benefit (OPEB) health care obligations were largely eliminated in bankruptcy. The remaining defined benefit obligations consist of death benefit plans. As the close of fiscal 2019, the plan assets slightly exceeded liabilities on a reported basis, and there was an immaterial \$3.3 million liability on a Moody's adjusted basis.

Management and governance: strong financial practices help mitigate city's revenue volatility

Detroit has a diverse stream of revenues (Exhibit 15), but they are subject to volatility. In many states, cities have the ability to roll up property tax rates during times of valuation decline. However, Michigan's system of tax caps can result in both declining receipts during time of significant valuation decline and slow recovery when values increase. This restriction is incorporated in the 'A' institutional framework score we assign Michigan cities including Detroit. State distributed revenues were also subject to unusually severe cuts during the previous economic downturn. The city's other top revenues source, income taxes, has inherent economic sensitivity. The city's wagering taxes has posted lesser, but still material fluctuations.

Exhibit 17

Detroit has diverse mix of revenues**Operating fund revenues**

Source: City of Detroit Comprehensive Annual Financial Report, Moody's Investors Service

Most notably, the city holds a revenue estimating conference twice each year during which it establishes the revenue available to appropriate in the upcoming fiscal year. The city also uses the conference estimate as the foundation for its annually adopted four-year operating forecast. The voting principals of the conference are the city's Chief Financial Officer, the State Treasurer or designee and a third member that must be affiliated with another public entity. Even if revenue is outpacing assumptions, the city cannot appropriate revenues in excess of consensus figures. Such a robust revenue setting process is unusual for local governments, and is more commonly found in state governments. The city also develops a four-year forecast as part of the budget, which officials use to prepare for projected gaps well in advance of when they are at risk of materializing.

ESG considerations

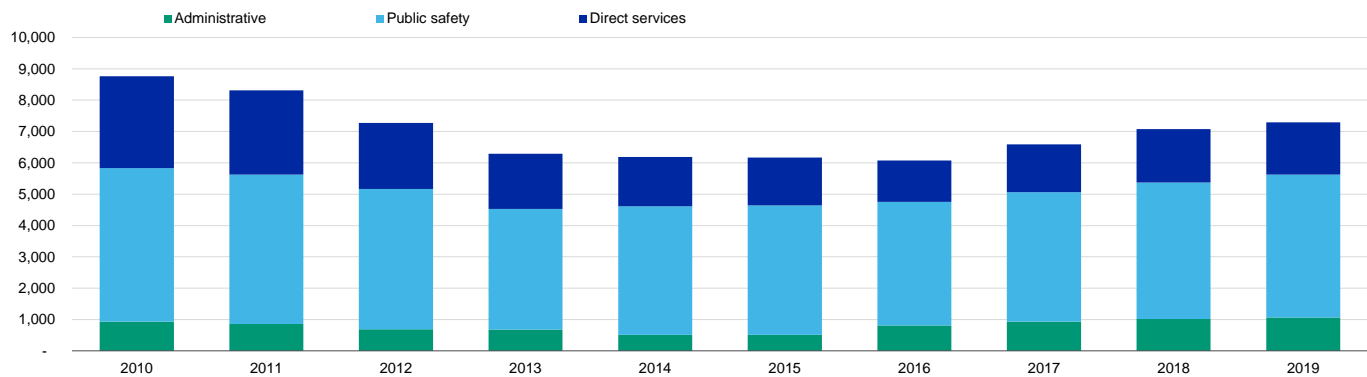
Environmental considerations are not a material driver of Detroit's credit profile. According to data of Moody's affiliate, Four Twenty Seven, Detroit is located in an area at medium risk for heat stress. The firm measures heat stress as the relative change in both the frequency and severity of hot days, as well as average temperature. The biggest impact for most Midwest issuers of heat exposure will be to agriculture based economies. Agriculture is an immaterial part Detroit's economy. Detroit is located adjacent to the Detroit river, which connects Lake St. Clair (an inland lake) with Lake Erie (one of the Great Lakes). The Great Lakes are experiencing increased volatility in lake levels related to heavy rains. While the city has had flooding events they have been constrained and the associated costs have been minor. Officials report that in 2019, the city spent \$700,000 in response to flooding events. The city has engaged an engineering firm to implement a flood mitigation strategy that has a current cost estimate of \$2.5 million.

Governance is a material consideration. The city has been subject to Financial Review Commission (FRC) oversight since its emergence from bankruptcy. The FRC members includes five appointed members and six ex officio members, which are the State Treasurer (who serves as chairperson), the State Budget Director (who serves as the designee of the Director of the Michigan Department of Technology, Management and Budget), the Mayor and City Council President of the City of Detroit, and the Superintendent and School Board Chairperson of the Detroit Public Schools Community District. Michigan Public Act 181 of 2014 requires 13 years of oversight, but allows for scaled back oversight when the city meets certain benchmarks. The board was responsible for monitoring the city's compliance with the bankruptcy plan of adjustment (POA) and provided general oversight of financial operations. In May 2018, the board voted to waive it's oversight based on strong actual and projected financial results. The FRC continues to meet annually to renew the waiver of oversight.

Social issues are a material consideration. Population decline and a weak socioeconomic profile are detailed in the economy and tax base section above. We have also considered positive labor market trends and efforts to expand employment opportunities more broadly. In addition, we have considered the city's improved ability to provide basic public services to a low income population. The city has been able to restore a number of positions to its workforce (exhibit 16) under its POA, most notably in public safety. A variety of indicators point to considerable improvements in city services including more expeditious response times to emergency calls.

Exhibit 18

Detroit has restored positions to enhance services
Governmental full time equivalent positions by function



Source: Comprehensive Annual Financial Report, Moody's Investors Service

Detroit Public Schools Community District has no operational or governance ties to the city. Still we view it as material from an economic and social perspective. The overlapping debt and capital needs emanating from the district are significant. Furthermore, the district's own challenges in the provision of educational services could be a drag on the city's ability to grow its tax base.

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 19

Rating Factors	Measure	Score
Economy/Tax Base (30%) ^[1]		
Tax Base Size: Full Value (in 000s)	\$19,428,548	Aaa
Full Value Per Capita	\$28,577	Baa
Median Family Income (% of US Median)	47.3%	Ba
Notching Factors: ^[2]		
Economic Concentration		Down
Outsized Unemployment or Poverty Levels		Down
Finances (30%)		
Fund Balance as a % of Revenues	47.8%	Aaa
5-Year Dollar Change in Fund Balance as % of Revenues	43.6%	Aaa
Cash Balance as a % of Revenues	65.3%	Aaa
5-Year Dollar Change in Cash Balance as % of Revenues	30.3%	Aaa
Notching Factors: ^[2]		
Other Analyst Adjustment to Finances Factor: Reserves will likely decline from current levels.		Down
Management (20%)		
Institutional Framework	A	A
Operating History: 5-Year Average of Operating Revenues / Operating Expenditures (x)	1.0x	A
Notching Factors: ^[2]		
Unusually Strong or Weak Budgetary Management and Planning		Up
Other Analyst Adjustment to Management Factor: High dependence on revenues that are subject to volatility including unusually high fluctuations in property and state shared receipts.		Down
Debt and Pensions (20%)		
Net Direct Debt / Full Value (%)	12.0%	Ba
Net Direct Debt / Operating Revenues (x)	1.6x	A
3-Year Average of Moody's Adjusted Net Pension Liability / Full Value (%)	19.8%	B & Below
3-Year Average of Moody's Adjusted Net Pension Liability / Operating Revenues (x)	2.6x	A
Notching Factors: ^[2]		
Unusual Risk Posed by Debt Structure: Pension defunding under POA and pending spike in pension contributions.		Down
Other Analyst Adjustment to Debt and Pensions Factor: High overlapping debt burden and substantial outstanding capital needs of schools.		Down
	Scorecard-Indicated Outcome	Ba3
	Assigned Rating	Ba3

Source: US Census Bureau, Moody's Investors Service

[1] Economy measures are based on data from the most recent year available.

[2] Notching Factors are specifically defined in the US Local Government General Obligation Debt methodology.

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

Endnotes

¹ We have considered the following as operating funds: General fund, special revenue fund, debt service fund and solid waste management fund.

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